JAMIE WHITEHOUSE, AICP
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(302) 855-7878 T
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Sussex County
DELAWARE
sussexcountyde.gov

PLEASE NOTE

This paperless packet is published on the County's website for convenience purposes, and only includes information received up to the close of business on the day before a public hearing. Documents received after this, or documents submitted during the public hearing are not uploaded to the Paperless Packet. The legal record is the paper record maintained in the Offices of the Planning & Zoning Department.

ROBERT C. WHEATLEY, CHAIRMAN
KIM HOEY STEVENSON, VICE CHAIRMAN
R. KELLER HOPKINS
J. BRUCE MEARS
HOLLY WINGATE

2 THE CIRCLE I PO BOX 417
GEORGETOWN, DE 19947
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Sussex County
Planning & Zoning Commission

REVISED AGENDA

August 25, 2022

5:00 P.M.

Call to Order

Approval of Agenda

Approval of Minutes – July 28, 2022

Other Business

(2020-13) Terrapin Island (F.K.A Salt Cedars) KS
Final Subdivision Plan

2021-11 Lightship Cove KH
Final Subdivision Plan

(S-22-24) 4 Seasons Park (F.K.A. Country Lawn Care & Maintenance, LLC) KH
Preliminary Site Plan

S-22-15 Price Automotive KS
Preliminary Site Plan

Lauden Investments KS
Preliminary Site Plan

Hickory Ridge Church HW
Preliminary Site Plan

(2004-17) The Villages at Red Mill Pond South KS
Request to Amend Conditions of Approval

Lands of Timothy & Jessica Tice BM
Minor Subdivision off of a 20-ft Easement

Lands of RDL Properties, LLC BM
Minor Subdivision off of a 20-ft Easement

EQUAL HOUSING OPPORTUNITY

Old Business

2022-11 Hunters Creek BM

A cluster subdivision to divide 28.78 acres +/- into 95 single family lots to be located on a certain parcel of land lying and being in Baltimore Hundred, Sussex County. The property is lying on the north side of Omar Road (S.C.R. 54), approximately 0.33 mile west of the intersection of Powell Farm Road (S.C.R. 365). Tax Parcels: 134-11.00-102.00 & 103.00. Zoning: MR (Medium Density Residential District).

C/U 2311 Phillip Jackson KS

An Ordinance to grant a Conditional Use of land in an AR-1 Agricultural Residential District for a tree service business to be located on a certain parcel of land lying and being in Lewes & Rehoboth Hundred, Sussex County, containing 3.83 acres, more or less. The property is lying on the northwest side of Robinsonville Road (S.C.R. 277), approximately 960 feet south of Cedar Grove Road (S.C.R. 283). 911 Address: 18968 Robinsonville Road, Lewes. Tax Parcel: 334-11.00-6.00.

C/U 2312 G. Fedale KH

An Ordinance to grant a Conditional Use of land in an AR-1 Agricultural Residential District for an office and showroom to be located on a certain parcel of land lying and being in Dagsboro Hundred, Sussex County, containing 0.65 acres, more or less. The property is lying on the north side of DuPont Blvd. (Rt. 113), approximately 730 feet northwest of Speedway Road (S.C.R. 325). 911 Address: 24207 & 24217 DuPont Boulevard, Georgetown. Tax Parcel: 133-2.00-38.00.

C/U 2313 John Ford KS

An Ordinance to grant a Conditional Use of land in an AR-1 Agricultural Residential District for a realty office to be located on a certain parcel of land lying and being in Lewes & Rehoboth Hundred, Sussex County, containing 0.57 acres, more or less. The property is lying on the southeast side of Savannah Road (Rt. 9) approximately 0.16 mile northeast of Wescoats Road (Rt. 12). 911 Address: 1528 Savannah Road, Lewes. Tax Parcel: 335-12.06-49.00.

C/Z 1973 Osprey Point Preserve, LLC BM

An Ordinance to amend the Comprehensive Zoning Map of Sussex County from a MR-RPC Medium Density Residential District – Residential Planned Community to a MR-RPC Medium Density Residential District – Residential Planned Community to amend Change of Zone No. 1759 (Ordinance No. 2475) to include a 1.85-acre marina & restaurant amenity area for a certain parcel of land lying and being in Lewes and Rehoboth Hundred, Sussex County, containing 126.8795 acres, more or less. The property is lying on the southwest side of Old Landing Road (S.C.R. 274), within the Osprey Point Residential Planned Community, on the north end of Ethan Allen Drive, approximately 0.12 mile west of Old Landing Road (S.C.R. 274). 911 Address: N/A. Tax Parcels: 334-18.00-83.00, 83.17, 83.20, 83.21 & 1073.00 through 1289.00.

FOR DISCUSSION ONLY

Public Hearings

~~**2022-06 Amelie Sloan Trust**~~ KS

~~A standard subdivision to divide 4.57 acres +/- into four (4) single-family lots, to be located on a certain parcel of land lying and being in Indian River Hundred, Sussex County. The property is lying on the north side of Cedar Lane and Pinewater Drive and on the southeast side of Blackberry Lane with access off of Sloans Lane, approximately 0.44 mile east of Multiflora Drive. Tax Parcels: 234-17.12-99.01, 99.02, 99.03 & 99.04. Zoning: AR-1 (Agricultural Residential District).~~

2021-31 Glenwood now known as Black Oak KS

A Cluster subdivision to divide 77.24 acres +/- into one hundred and thirty-one (131) single-family lots to be located on a certain parcel of land lying and being in Lewes & Rehoboth Hundred, Sussex County. The property is lying on the northwest side of New Road (S.C.R. 266), approximately 0.61 mile northeast of the intersection of Nassau Road (S.C.R. 266B) and New Road (S.C.R. 266). Tax Parcel: 335-7.00-6.00. Zoning: AR-1 (Agricultural Residential District).

C/U 2316 Southern Delaware Medical Center, LLC KS

An Ordinance to grant a Conditional Use of land in an AR-1 Agricultural Residential District for medical office buildings to be located on a certain parcel of land lying and being in Lewes and Rehoboth Hundred Sussex County, containing 2.29 acres, more or less. The property is lying on the southeast side of Shady Road (S.C.R. 276), approximately 0.14-miles northeast of the intersection of Shady Road and Plantations Road (Rt. 1D). 911 Address: 17611, 17623 & 17637 Shady Road, Lewes. Tax Parcel: 334-6.00-511.02, 511.06 & 513.00.

C/U 2356 Sun Massey's Landing RV, LLC KS

An Ordinance to grant a Conditional Use of land in an AR-1 Agricultural Residential District for an amendment of Condition No. 9 in Ordinance No. 2378 (Conditional Use No. 1963) to amend the requirement that no campers or RVs shall be stored on the campground during the period that the campground is closed to be located on a certain parcel of land lying and being in Indian River Hundred, Sussex County, containing 54.33 acres, more or less. The property is lying on the north side and south side of Long Neck Road, within the Massey's Landing RV Park. 911 Address: 20628 Long Beach Drive, 20636 Long Beach Drive, 32464 Sailfish Ln, and 22814 Conch Road, Millsboro. Tax Parcel: 234-25.00-31.02 & 31.05.

C/Z 1963 ES Motors, Inc. BM

An Ordinance to amend the Comprehensive Zoning Map of Sussex County from an AR-1 Agricultural Residential District to a C-2 Medium Commercial District for a certain parcel of land lying and being in Dagsboro Hundred, Sussex County, containing 9.54 acres, more or less. The property is lying on the south side of Vines Creek Road (Rt. 26), approximately 0.5 miles east of Armory Road (Rt. 382). 911 Address: 30028 and 30032 Vines Creek Rd. Tax Parcel: 233-11.00-172.00.

AN ORDINANCE TO AMEND THE TEXT AND MAPS OF CHAPTER 13 (MOBILITY ELEMENT) OF THE COMPREHENSIVE PLAN IN ADDITION TO AMENDMENTS TO THE EXISTING AND FUTURE LAND USE MAPS OF

THE COMPREHENSIVE PLAN IN RELATION TO TAX PARCEL NO. 235-16.00-50.02, 235-22.00-441.00, AND 235-22.00-442.00. The property is lying on the west side of Coastal Highway (Route 1), west of the intersection of Coastal Highway and Eagles Crest Road (S.C.R. 264). 911Address: 29763 Eagles Crest Road, Milton.

In accordance with 29 Del. C. §10004(e)(2), this Agenda was posted on August 18, 2022 at 12:00 p.m., and at least seven (7) days in advance of the meeting.

This Agenda is subject to change to include the addition or deletion of items, including Executive Sessions, which arise at the time of the Meeting.

Agenda items listed may be considered out of sequence.

This agenda was revised on 8.24.2022 at 8:45 a.m to strike the text of Subdivision 2022-06 Amelie Sloan Trust. Staff are to request that this be removed from the Commission's meeting agenda for the August 25, 2022, Planning & Zoning Commission meeting and re-noticed for a new Public Hearing at a future Planning & Zoning Commission meeting date.

-MEETING DETAILS-

The meeting will be streamed live at: https://sussexcountyde.gov/council-chamber-broadcast

The County provides a dial-in telephone number for the public to comment during the appropriate time of the meeting. Note, the on-line stream experiences a 30-second delay. Any person who dials in by telephone should listen to the teleconference audio to avoid the on-line stream delay.

To join the meeting via telephone, please dial:

Conference Number: 1 302-394-5036

Conference Code: 570176

Members of the public joining the meeting on the telephone will be provided an opportunity to make comments for those items listed under Public Hearings on this agenda.

The Planning & Zoning Commission meeting materials, including the "packet", are electronically accessible on the County's website at: **https://sussexcountyde.gov/**

If any member of the public would like to submit comments electronically, these may be sent to pandz@sussexcountyde.gov. All comments are encouraged to be submitted by 4:00 P.M on Wednesday, August 24, 2022.

# # # #

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Sussex County
DELAWARE
sussexcountyde.gov

Memorandum

To: Sussex County Planning Commission Members
From: Jamie Whitehouse, AICP, Director, Department of Planning & Zoning; Jenny Norwood, Planning and Zoning Manager; Lauren DeVore, AICP, Planner III; Michael Lowrey, Planner III; Chase Phillips, Planner II; Christin Scott, Planner II; Elliott Young, Planner I & Jesse Lindenberg, Planner I
CC: Vince Robertson, Assistant County Attorney
Date: August 16, 2022
RE: Other Business for the August 25, 2022, Planning Commission Meeting

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This memo provides background for the Planning Commission to consider as a part of the Other Business to be reviewed during the August 25, 2022, Meeting of the Planning & Zoning Commission.

Terrapin Island (F.K.A. Salt Cedars) (2020-13) KS
Final Subdivision Plan
This is a Final Subdivision Plan for a Coastal Area Cluster Subdivision to subdivide 32.13 acres +/- into 42 single-family lots with private roads, open space, amenities to include community pocket parks, ephemeral ponds, walking trails and other related improvements. The parcel is located on the east side of Camp Arrowhead Road (S.C.R. 279) approximately 1.1 mile south of Angola Road (S.C.R. 277). The Planning and Zoning Commission approved the Preliminary Subdivision Plan at their meeting of Thursday, July 8th, 2021. The Final Subdivision Plan complies with the Sussex County Zoning and Subdivision Codes and all Conditions of Approval. Tax Parcel: 234-18.00-31.00. Zoning: AR-1 (Agricultural Residential Zoning District). Staff are in receipt of all agency approvals.

Lightship Cove (2021-11) KH
Final Subdivision Plan
This is a Final Subdivision Plan for a Cluster Subdivision to divide 51.97 acres +/- into 97 single family lots. Included in the plan are private roads, open space, sidewalks, and other site improvements. The parcel is located on the southwest side of Fisher Road (S.C.R. 202), approximately 1.55 miles east of Lewes Georgetown Highway (Route 9). The Planning and Zoning Commission approved the Preliminary Subdivision Plan at their meeting of December 9th, 2021. The Final Subdivision Plan complies with the Sussex County Zoning and Subdivision Codes as well as all Conditions of Approval. Tax Parcel: 334-10.00-69.00. Zoning: AR-1 (Agricultural Residential District). Staff are in receipt of all agency approvals.

(S-22-24) 4 Seasons Park (F.K.A. Country Lawn Care & Maintenance, LLC) KH
Preliminary Site Plan
This is a Preliminary Site Plan for the 4 Seasons Park (F.K.A. Country Lawn Care and Maintenance LLC) for the construction of a commercial self-storage facility and landscaping business. The Preliminary Site Plan includes twelve "mini storage" structures of varying sizes, a 9,900 square foot covered parking spaces area for the storage of boats and recreational vehicles, a 6,000 square foot building for use as an office and storage, parking, and other ancillary improvements. The Plan includes three phases with the landscaping business improvements as Phase 1 at the rear of the site, the self-storage facility improvements as Phase 2 in the central area, and Phase 3 as a placeholder for future

improvements at front of the parcel. The parcel consists of 11.66 +/- acres and is located on the north side of Lewes Georgetown Highway (Route 9) approximately 0.4 miles west of Gravel Hill Road (Route 30). Tax Parcel: 135-11.00-32.00. Zoning: C-1 (General Commercial Zoning District) and C-2 (Medium Commercial Zoning District). Staff are awaiting agency approvals. If the Commission desire to act favorably on this plan, final approvals are requested to be made by staff upon the receipt of all agency approvals. Any proposed development as part of proposed Phase 3 will be brought back to the Commission as part of a Revised Site Plan for approval.

(S-22-15) Price Automotive, LLC KS

Preliminary Site Plan

This is a Preliminary Site Plan for the construction of a 22,315 square foot automobile sales and service center. Included in the plan are 83 parking spaces, areas dedicated for inventory parking, utility and access easements, and other site improvements. This site is located within the Henlopen Transportation Improvement District and will be subject to an agreement with the Department of Transportation. The site is located within a Wellhead Protection Review Area and will be subject to review by the County Engineer prior to final approval. This Preliminary Site Plan complies with the Sussex County Zoning Code. Tax Parcel: 334-12.00-127.08 Zoning: Commercial Residential (CR-1). Staff are awaiting agency approvals and recommend that this plan return to the Commission for final approval.

Lauden Investments KS

Preliminary Site Plan

This is a Preliminary Site Plan for Lauden Investments, LLC (CU 2264) for the adaptive reuse of two existing one-story structures on two adjacent parcels. The plan proposes the reuse of the two existing one-story office buildings, containing 1,600 square feet and 1,540 square feet respectively, as professional medical offices. The proposed use was approved as a Conditional Use (CU 2264) by the Sussex County Council on November 16th, 2021, via Ordinance No. 2813. The Preliminary Plan includes improvements primarily related to the design and configuration of the parking and internal circulation on the site. The parcels are located on the southeastern side of Savannah Road (Route 9B/ S.C.R. 443A) approximately 0.77-mile northeast of Wescoats Road (Route 12) and share an entrance. This Preliminary Site Plan complies with the Sussex County Zoning Code. Tax Parcels: 335-8.18-15.00, 335-8.18-16.00. Zoning: AR-1 (Agricultural Residential Zoning District). Staff are awaiting agency approvals. If the Commission desire to act favorably on this plan, final approvals are requested to be made by staff upon the receipt of all agency approvals.

Hickory Ridge Church HW

Preliminary Site Plan

This is a Preliminary Site Plan for the construction of a foyer, a covered porch, and parking for an existing church. The parcel is 4.94 acres +/- and is located on the east side of the Sussex Highway (Rt. 13). The applicant is requesting parking partially located in the front setback due to site elevation constraints. This Preliminary Site Plan complies with the Sussex County Zoning Code. Zoning: AR-1 (Agricultural Residential District). Tax Parcel: 530-10.00-45.01. Staff are awaiting agency approvals. If the Commission desire to act favorably on this plan, final approvals are requested to be made by staff upon the receipt of all agency approvals.

(2004-17) The Villages at Red Mill Ponds South KS

Request to Amend Conditions of Approval

The Planning and Zoning Department has received a request to amend Conditions of Approval of the Revised Final Subdivision Plan for The Villages at Red Mill Ponds South (2004-17) as approved by the Planning & Zoning Commission at their meeting of Thursday, January 24th, 2019. On June 10th, 2022, staff received a formal request to amend Condition 11 of the Plan's approval. The Applicant requests that Condition 11, requiring *"All amenities and recreational facilities shall be constructed and open for use by the residents of the development within 2 years of the issuance of the first building permit"* be amended. This AR-1 Residential Planned Community contains one-hundred and seventy-seven (177) single-family lots on 82.10 acres +/- and is located on the northeast side of Lewes Georgetown Highway (Rt. 9). Tax Parcel: 334-5.00-170.00. Zoning: AR-1 (Agricultural Residential District). Staff note that this request was previously heard and tabled at the August 11th, 2022, meeting to allow for the receipt of further information by staff. Staff have received the requested information and included supporting documents in the paperless packet. Staff note that:

- Our system indicates that one-hundred and ten (110) building permits have been applied for within The Villages at Red Mill Pond South. Of these 110 permits, sixty-eight (68) have been issued Certificates of Occupancy (COs).
- There are one-hundred and seventy-seven (177) lots in the subdivision.
- Per the original Conditions of Approval - *"All amenities and recreational facilities shall be constructed and open for use by the residents of the development within 2 years of the issuance of the first building permit."* The first building permit for the subdivision was issued on January 17th, 2020, requiring the amenities to be completed by January 17th, 2022.
- There has been one previous request to extend the amenities competition date. The Commission approved this request at the June 23rd, 2022, meeting. The Commission granted a one (1) year time extension, requiring the amenities to be completed by January 17th, 2023.
- The applicant has provided:
    - a construction schedule for the amenities,
    - a letter from the developer indicating that one-hundred and thirty (130) of the one-hundred and seventy-seven (177) lots are still under the developer's control,
    - a letter of support from the HOA,
    - and a letter of support for the design changes to the amenity plan. This letter includes sixty-six (66) signatures on behalf of eighty-three (83) lot owners.

Lands of Timothy & Jessica Tice BM

Minor Subdivision off of a 20-ft easement

This is a Minor Subdivision Plan for the creation of one (1) additional lot and residual lands off of a 20' wide ingress/egress access easement. Proposed Lot 1 consists of approximately 0.0.76 +/- acres and the residual lands will consist of approximately 1.16 +/- acres. The property is located on the east side of Charley's Run, a private road south of Fred Hudson Road (S.C.R. 360). The Minor Subdivision Plan complies with the Sussex County Zoning and Subdivision Codes. Tax Parcel: 134-13.00-86.00. Zoning: MR (Medium Residential District). If the Commission desire to act favorably on this plan, final approvals are requested to be made by staff upon the receipt of all agency approvals.

Lands of RDL Properties, LLC BM

Minor Subdivision off of a 20-ft easement

This is a Minor Subdivision Plan for the creation of two (2) additional lots and residual lands off of a 20' wide ingress/egress access easement. Proposed Lot 1 consists of approximately 0.58 +/- acres;

Proposed Lot 2 consists of approximately 0.39 +/- acres; the residual lands will consist of approximately 0.90 +/- acres. The property is located on the east side of Charley's Run, a private road south of Fred Hudson Road (S.C.R. 360). The Minor Subdivision Plan complies with the Sussex County Zoning and Subdivision Codes. Tax Parcel: 134-13.00-87.00. Zoning: MR (Medium Residential District). If the Commission desire to act favorably on this plan, final approvals are requested to be made by staff upon the receipt of all agency approvals.

STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

NICOLE MAJESKI
SECRETARY

May 26, 2022

Mr. Jamie Whitehouse, Director
Sussex County Planning & Zoning Commission
Sussex County Administration Building
P.O. Box 417
Georgetown, Delaware 19947

SUBJECT: Letter of No Objection to Recordation
Terrapin Island Subdivision
Tax Parcel # 234-18.00-31.00
Camp Arrowhead Road (SCR 279)
Indian River Hundred, Sussex County

Dear Mr. Whitehouse:

The Department of Transportation has reviewed the Site Plan, dated August 7, 2020 (last revised May 19, 2022), for the above referenced site, and has no objection to its recordation as shown on the enclosed drawings. This "No Objection to Recordation" approval shall be valid for a period of **five (5) years**. If the Site Plan is not recorded prior to the expiration of the "No Objection to Recordation", then the plan must be updated to meet current requirements and resubmitted for review and approval.

This letter does not authorize the commencement of entrance construction. Entrance plans shall be developed in accordance with DelDOT's Development Coordination Manual and submitted to the Development Coordination Section for review and approval.

This "No Objection to Recordation" letter is not a DelDOT endorsement of the project discussed above. Rather, it is a recitation of the transportation improvements, which the applicant may be required to make as a pre-condition to recordation steps and deed restrictions as required by the respective county/municipality in which the project is located. If transportation investments are necessary, they are based on an analysis of the proposed project, its location, and its estimated impact on traffic movements and densities. The required improvements conform to DelDOT's published rules, regulations and standards. Ultimate responsibility for the approval of any project rests with the local government in which the land use decisions are authorized. There

may be other reasons (environmental, historic, neighborhood composition, etc.) which compel that jurisdiction to modify or reject this proposed plan even though DelDOT has established that these enumerated transportation improvements are acceptable.

If I can be of any further assistance, please call me at (302) 760-2266.

Very truly yours,

Wendy L. Polasko, P.E.
Subdivision Engineer
Development Coordination

cc: John Stamato, Ribera Development, LLC
Alan Decktor, Pennoni Associates, Inc.
Sussex County Planning & Zoning
Jessica L. Watson, Sussex Conservation District
Matt Schlitter, South District Public Works Engineer
James Argo, South District Project Reviewer
Richard Larkin, South District Subdivision Manager
Jennifer Pinkerton, Chief Materials & Research Engineer
Linda Osiecki, Pedestrian Coordinator
John Fiori, Bicycle Coordinator
Mark Galipo, Traffic Development Coordination Engineer
Tim Phillips, Maintenance Support Manager
Dan Thompson, Safety Officer North District
Jared Kauffman, DTC Planner
James Kelley, JMT
R. Stephen McCabe, Sussex County Review Coordinator
Brian Yates, Sussex County Reviewer

STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

NICOLE MAJESKI
SECRETARY

May 26, 2022

Mr. Alan Decktor
Pennoni Associates, Inc.
18072 Davidson Drive
Milton, Delaware 19968

SUBJECT: Entrance Plan Approval Letter
Terrapin Island Subdivision
Tax Parcel #234-18.00-31.00
Camp Arrowhead Road (SCR 279)
Indian River Hundred, Sussex County

Dear Mr. Decktor:

The Department of Transportation has reviewed the Commercial Entrance Plans dated August 27, 2020 (last revised May 19, 2022) for the referenced project and determined that they are in general conformance with the Department's current regulations, specifications and standard details. By signing and sealing the plan set, the developer's engineer is responsible for accuracy of content. Any errors, omissions or required field changes will be the responsibility of the developer. This plan approval shall be valid a period of **three (3) years**. If an entrance permit has not been obtained within three years, then the plans must be updated to meet current requirements and resubmitted for review and approval.

This letter does not authorize the commencement of entrance construction. The following items will be required prior to the permit being issued. A pre-construction meeting may be required as determined by the South District Public Works office.

1. A copy of the recorded Site Plan which is consistent with the DelDOT "No Objection to Recordation" stamped plan and all appropriate signatures, seals, plot book and page number.
2. Three (3) copies of the approved entrance plans.
3. Completed permit application.
4. Executed agreements (i.e. construction, signal, letter).
5. An itemized construction cost estimate.
6. A 150% security based upon an approved itemized construction cost estimate and W-9 form (if providing escrow).

7. A letter of source of materials, work schedule, list of subcontractors, emergency telephone numbers and names of contact persons.

Please contact the South District Public Works office (302) 853-1340 concerning any questions you may have relative to the aforementioned required items.

Sincerely,

Wendy L. Polasko, P.E.
Subdivision Engineer
Development Coordination

cc: John Stamato, Ribera Development, LLC
Jamie Whitehouse, Sussex County Planning & Zoning Commission
Sussex County Planning & Zoning
Jessica L. Watson, Sussex Conservation District
Matt Schlitter, South District Public Works Engineer
James Argo, South District Project Reviewer
Richard Larkin, South District Subdivision Manager
Jerry Nagyiski, Safety Officer Supervisor
Jennifer Pinkerton, Chief Materials & Research Engineer
Linda Osiecki, Pedestrian Coordinator
John Fiori, Bicycle Coordinator
Mark Galipo, Traffic Development Coordination Engineer
Tim Phillips, Maintenance Support Manager
Dan Thompson, Safety Officer North District
Jared Kauffman, DTC Planner
James Kelley, JMT
R. Stephen McCabe, Sussex County Review Coordinator
Brian Yates, Sussex County Reviewer

OFFICE OF THE STATE FIRE MARSHAL
Technical Services

22705 Park Avenue
Georgetown, DE 19947

SFMO PERMIT – SHALL BE POSTED ON JOBSITE UNTIL FINAL INSPECTION

Plan Review Number: 2021-04-208296-MJS-02
Status: Approved as Submitted

Tax Parcel Number: 234-18.00-31.00
Date: 05/24/2022

Project

Terrapin Island Subdivision

Ribera Development LLC Property

Camp Arrowhead Road
Lewes DE 19958

Scope of Project

Number of Stories:
Square Footage:
Construction Class:
Fire District: 86 - Rehoboth Beach Vol Fire Co

Occupant Load Inside:
Occupancy Code: 9601

Applicant

Alan Decktor
18072 Davidson Drive
Milton, DE 19968

This office has reviewed the plans and specifications of the above described project for compliance with the Delaware State Fire Prevention Regulations, in effect as of the date of this review.

A Review Status of "Approved as Submitted" or "Not Approved as Submitted" must comply with the provisions of the attached Plan Review Comments.

Any Conditional Approval does not relieve the Applicant, Owner, Engineer, Contractor, nor their representatives from their responsibility to comply with the plan review comments and the applicable provisions of the Delaware State Fire Prevention Regulations in the construction, installation and/or completion of the project as reviewed by this Agency.

A final inspection is required.

This Plan Review Project was prepared by:

John Colpo
Fire Protection Specialist

FIRE PROTECTION PLAN REVIEW COMMENTS

Plan Review Number: 2021-04-208296-MJS-02 **Tax Parcel Number:** 234-18.00-31.00
Status: Approved as Submitted **Date:** 05/24/2022

PROJECT COMMENTS

1002 A This project has been reviewed under the provisions of the Delaware State Fire Prevention Regulations (DSFPR) ADOPTED September 1, 2021. The Delaware State Fire Prevention Regulations are available on our website at www.statefiremarshal.delaware.gov. These plans were not reviewed for compliance with the Americans with Disabilities Act (ADA). These plans were not reviewed for compliance with any Local, Municipal, nor County Building Codes.

1040 A This site meets Water Flow Table 2, therefore the following water for fire protection requirements apply: Main Sizes: 6" minimum. Minimum Capacity: 1,000 gpm @ 20 psi residual for 1 hour duration. Hydrant Spacing: 800' on center.

1180 A This report reflects site review only. It is the responsibility of the applicant and owner to forward copies of this review to any other agency as required by those agencies.

1132 A Fire hydrants shall be color coded in accordance with the DSFPR, Reg 703, Chap 3. This includes both color coding the bonnet and 2" reflective tape around the barrel under the top flange.

1232 A All threads provided for fire department connections, to sprinkler systems, standpipes, yard hydrants or any other fire hose connections shall be uniform to those used by the fire department in whose district they are located.DSFPR Reg 703, Chap 1

1233 A The fire department that responds to this location is using 5" storz fittings on the steamer.

1332 A The distance between a fire hydrant and the fire lane shall not be greater than seven feet (DSFPR Part V, Chapter 5, Section 5 10.4).

1432 A The steamer connection of all fire hydrants shall be so positioned so as to be

facing the street or fire lane. (DSFPR Regulation 705, Chapter 5, Section 10). The center of all hose outlet(s) on fire hydrants shall be not less than 18 inches above finalgrade (NFPA 24)

1501 A If there are any questions about the above referenced comments please feel free to contact the Fire Protection Specialist who reviewed this project. Please have the plan review number available when calling about a specific project. When changes orrevisions to the plans occur, plans are required to be submitted, reviewed, and approved.

MAPPING & ADDRESSING

MEGAN NEHRBAS
MANAGER OF GEOGRAPHIC
INFORMATION SYSTEMS (GIS)
(302) 855-1176 T
(302) 853-5889 F

Sussex County
DELAWARE
sussexcountyde.gov

February 23, 2021

Pennoni
Attn: Katherine E. Davidson & Alan M Decktor

RE: Terrapin Island

I have received proposed street name(s) for the proposed subdivision, **Terrapin Island**, located in Lewes . In reviewing the proposed street name(s) the following have been **approved**:

Torope Ln	**Brackish Dr**	**Malaclemys Dr**

Use only **approved** road names that you have written confirmation for or you will be required to rerecord. Each street name is to be used only once.

Upon final approval of **Terrapin Island** please forward a copy of the recorded site plan to my attention. Our office would appreciate a digital copy if at all possible, for the purpose of addressing. Should you have any questions, please contact the **Sussex County Addressing Department** at 302-855-1176.

Sincerely,

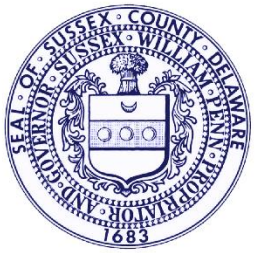
Terri L Dukes

Terri L. Dukes
Addressing Technician II

CC: Christin Headley
Planning & Zoning

MAPPING & ADDRESSING

MEGAN NEHRBAS
MANAGER OF GEOGRAPHIC
INFORMATION SYSTEMS (GIS)
(302) 855-1176 T
(302) 853-5889 F



Sussex County
DELAWARE
sussexcountyde.gov

October 21, 2020

Pennoni
Attn: **Katherine E. Davidson**

RE: **Proposed Subdivision Name(s)**

I have reviewed the name(s) submitted for your proposed subdivision which is located in **Lewes** (234-18.00-31.00). In reviewing the proposed name(s) the following has been **approved** for this subdivision:

Terrapin Island

Should you have any questions please contact the **Sussex County Addressing Department at 302-853-5888 or 302-855-1176.**

Sincerely,

Terri L Dukes

Terri L. Dukes
Addressing Technician II

CC: Christin Headley
Planning & Zoning

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, PHILADELPHIA DISTRICT
100 PENN SQUARE EAST
PHILADELPHIA PENNSYLVANIA 19107-3390

October 15, 2021

Regulatory Branch

SUBJECT: CENAP-OP-R-2021-388-23 (NWP14 Verification)
Project Name: Terrapin Island SX
Latitude/Longitude: 38.665994° N /-75.141575° W (NAD 83)

Edward M. Launay
Environmental Resources, Incorporated
38173 DuPont Boulevard
Post Office Box 169
Selbyville, Delaware 19975

Dear Mr. Launay:

This letter is written regarding a proposal by Ribera Development LLC to discharge fill material into waters of the United States to construct two minor road crossings at the proposed Terrapin Island residential community located at Tax Map Parcel 2-34-18.00-31.00, Sussex County, Delaware. Based upon our review of the information you provided, we have determined that the proposed work is authorized by Department of the Army Nationwide Permit 14 (NWP14) pursuant to Section 404 of the Clean Water Act (33 USC 1344).

This verification of authorization under NWP14, described in the Federal Register at 82 FR 1860, is based on your agreement to comply with the NWP general conditions, the NWP regional conditions, and the project-specific special conditions listed below in this letter. Copies of the NWP descriptions, NWP general conditions, and NWP regional conditions for Delaware may be found at:

2017 NWP Descriptions

https://www.nap.usace.army.mil/Portals/39/docs/regulatory/nwp/2017-NWP-Descriptions.pdf?ver=2020-05-12-205253-183

2017 NWP General Conditions

https://www.nap.usace.army.mil/Portals/39/docs/regulatory/publicnotices/2017%20Nationwide%20Permit%20General%20Conditions.pdf

2017 Delaware Regional Conditions

https://www.nap.usace.army.mil/Portals/39/docs/regulatory/publicnotices/2017_DE_Reg%20Cond_Final.pdf

Nationwide permits verified by the Corps of Engineers require determinations from the state government that the activities are consistent with the state's coastal zone management (CZM) program if the activity is located within the state's coastal zone. The entire State of Delaware has been designated as a Coastal Zone Management Area. Federal permits also require the state's certification of compliance with Section 401 of the Clean Water Act through the receipt of a 401 Water Quality Certificate (WQC) if the activity involves a Section 404 discharge. A general WQC has been issued for this permit. A general CZM consistency concurrence has been issued for this permit. Therefore, no further action is needed as part of the federal review of your project, provided you comply with all of the terms and conditions of this NWP.

This verification of NWP authorization is valid until the Nationwide Permits expire on March 18, 2022, unless the NWP authorization is modified, suspended, or revoked prior to this date. In the event that the NWP authorization is modified during that time period, this expiration date will remain valid, provided the activity complies with any subsequent modification of the NWP authorization.

Activities which have commenced (i.e. are under construction) or are under contract to commence in reliance upon an NWP will remain authorized provided the activity is completed within twelve months of the date of an NWP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 330.4(e) and 33 CFR 330.5 (c) or (d). Activities completed under the authorization of an NWP which was in effect at the time the activity was completed continue to be authorized by that NWP.

This verification of NWP authorization is valid until the Nationwide Permits expire on March 18, 2022, unless the NWP authorization is modified, suspended, or revoked prior to this date. In the event that the NWP authorization is modified during that time period, this expiration date will remain valid, provided the activity complies with any subsequent modification of the NWP authorization.

Activities which have commenced (i.e. are under construction) or are under contract to commence in reliance upon an NWP will remain authorized provided the activity is completed within twelve months of the date of an NWP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 330.4(e) and 33 CFR 330.5 (c) or (d). Activities completed under the authorization of an NWP which was in effect at the time the activity was completed continue to be authorized by that NWP.

PROJECT SPECIFIC SPECIAL CONDITIONS:

1. All work performed in association with the above noted project shall be conducted in accordance with the project plans prepared by Pennoni Associates, Inc., dated August

27, 2021, and titled: *Terrapin Island Subdivision, Tax Map 234-18.00-31.00, Sussex County, Delaware 19958, Ribera Development, LLC, 8684 Veterans Highway, Suite 203, Millersville, MD 21108*, nineteen sheets.

2. Construction activities shall not result in the disturbance or alteration of greater than 0.22 acre of waters of the United States.

3. Any deviation in construction methodology or project design from that shown on the above noted drawings must be approved by this office, in writing, prior to performance of the work. All modifications to the above noted project plans shall be approved, in writing, by this office. No work shall be performed prior to written approval of this office.

4. This office shall be notified at least 10 days prior to the commencement of authorized work by completing and signing the attached Notification/ Certification of Work Commencement Form (Enclosure 1). This office shall also be notified within 10 days of the completion of the authorized work by completing and signing the attached Notification/Certification of Work Completion/Compliance Form (Enclosure 2). Notifications required by this condition may be in writing by mail, fax, or electronic notification via email. Oral notifications are not acceptable. Similar notification is required each time maintenance work is to be done under the terms of this Corps of Engineers permit.

5. To compensate for the discharge of fill material into 0.22 acre of non-tidal wetlands at the Terrapin Island project site, the permittee shall preserve and permanently protect 14.76 acres of important wetland and upland habitat lands at the project site. The protected habitat shall be established in accordance with the text of a compensatory mitigation narrative prepared by Edward M. Launay, Professional Wetland Scientist No. 875, Environmental Resources, Inc., dated June 21, 2021, and titled: *Terrapin Island Residential Community, Proposed Compensatory Mitigation*. Furthermore, the protected habitat work shall be conducted in accordance with graphic plans prepared by Pennoni Associates, Inc., dated August 27, 2021, and titled: *Terrapin Island Subdivision, Tax Map 234-18.00-31.00, Sussex County, Delaware 19958, Ribera Development, LLC, 8684 Veterans Highway, Suite 203, Millersville, MD 21108*, nineteen sheets.

6. Prior to commencement of the authorized work, and in accordance with the above referenced narrative and plans, the permittee shall create a *Conservation Area* at the Terrapin Island residential community in order to permanently protect 14.76 acres of natural habitat lands located at Sussex County Tax Map Parcel 234-18.00-31.00, Sussex County, Delaware. The protected conservation area shall include mature forested wetlands and uplands, emergent wetlands, and tidal marshlands.

7. The *Conservation Area* shall be permanently protected by the execution and recordation of a *Declaration of Restrictions* in and amongst the land records of Sussex County, Delaware. The declaration shall conform in form and substance to the text of the draft *Declaration of Restrictions* submitted to the Corps of Engineers and prepared

by Environmental Resources, Inc., 38173 DuPont Boulevard, Selbyville, Delaware 19975. A copy of the executed and recorded *Declaration of Restrictions* shall be forwarded to the Corps of Engineers at 1203 College Park Drive, Suite 103, Dover, Delaware 19904, or submitted by email attachment to john.g.brundage@usace.army.mil., or to michael.d.yost @usace.army.mil.

Any comments, positive or otherwise, on the procedures, timeliness, fairness, etc., may be submitted to PhiladelphiaDistrictRegulatory@usace.army.mil. If you have questions, please contact John Brundage at (302) 736-9764, by email at john.g.brundage@usace.army.mil, or by writing to the above address.

Sincerely,

John G Brundage

John G. Brundage
Senior Staff Biologist
Regulatory Branch

Enclosures

Copies Furnished:
DDNREC
DDNREC-CZM

DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

Office of Engineering
Phone: (302) 741-8640
Fax: (302) 741-8631

July 7, 2022

TIDEWATER UTILITIES, INC.

APPROVAL TO CONSTRUCT
Angola District
Terrapin Island Subdivision Connection
PWS #DE0000248
Approval #22W126

Mr. John Stamato
Ribera Development, LLC
8684 Veterans Highway, Suite 203
Millersville, MD 21108

Dear Mr. Stamato:

As provided by Section 2.11 of the *State of Delaware Regulations Governing Public Drinking Water Systems*, you are granted approval to connect Terrapin Island Subdivision to the existing main in accordance with the plans submitted by Pennoni Associates, Inc. The plans consist of:

1. Transmittal letter dated July 5, 2022.
2. One copy of the plans entitled "Terrapin Island Subdivision Construction Plan Set" dated August 27, 2020, and revised April 20, 2022.

These plans, as noted, are made a part of this approval. This approval is granted subject to the enclosed list of conditions.

It is the owner's responsibility to ensure as-built drawings are maintained throughout all phases of construction. Prior to receiving an Approval to Operate, the Office of Engineering requires one set of as-built drawings, including profile markups.

The Office of Engineering recommends detectable tracer tape that is three inches wide and blue in color to be installed directly above all water mains larger than two inches in diameter.

Should you have any questions regarding this matter, please feel free to contact Bill Milliken at (302) 741-8646.

Plans reviewed by:

William J. Milliken, Jr.
Engineer III
Office of Engineering

Sincerely,

Doug Lodge, P.E.
Supervisor of Engineering
Office of Engineering

cc: Public Service Commission
Alan M. Decktor, P.E., Pennoni Associates, Inc.
Alexis Virdin-Gede, Tidewater Utilities, Inc.
Ashley Kunder, Office of Drinking Water

1. The approval is void if construction has not started by July 7, 2023.

2. The project shall be constructed in accordance with the approved plans and all required conditions listed in this Approval to Construct. If any changes are necessary, revised plans shall be submitted and a supplemental approval issued prior to the start of construction. As-built plans including profile mark-ups must be submitted to the Office of Engineering after construction has been completed.

3. Representatives of the Division of Public Health may inspect this project at any time during the construction.

4. This approval does not cover the structural stability of any units or parts of this project.

5. The water system shall be operated in conformance with the *State of Delaware Regulations Governing Public Drinking Water Systems.*

6. All potable water lines and appurtenances shall be disinfected using one of the methods in the American Water Works Association Standard C651, current edition.

7. Water mains crossing sanitary and storm sewers should be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer, and the water main should be above the sewer. At crossings, one full length of water pipe should be located so both joints will be as far from the sewer as possible. Special structural support for the water and sewer pipes may be required. In cases where it is not practical to maintain an 18-inch separation, the Division may allow deviation on a case-by-case basis if supported by data from the design engineer.

8. Water mains should be laid 10 feet horizontally from any existing or proposed sanitary or storm sewers. The distance should be measured edge to edge. In cases where it is not practical to maintain a 10-foot separation, the Division may allow deviation on a case-by-case basis if supported by data from the design engineer.

9. All chemicals, materials, mechanical devices, and coatings in contact with potable water shall comply with National Sanitation Foundation/American National Standards Institute Standards (NSF/ANSI) 60 and 61 and shall be inert, nontoxic, and shall not import any taste, odor, or color to the water.

10. Sufficient valves should be provided so that inconvenience and sanitary hazards will be minimized during repairs. Valves should be located at not more than 500-foot intervals in commercial districts and at not more than one block or 800-foot intervals in other districts.

11. There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharge or drawn into the system.

12. Fire hydrant drains shall not be connected to or located within 10 feet of sanitary sewers, storm sewers, or storm drains.

13. Prior to usage of water from this new well, water plant, storage plant, or distribution system, approval for the water quality must be obtained from the Division of Public Health.

14. The water system should be capable of providing at least 25 psi at ground level at all times throughout the distribution system.

15. All plastic pipe utilized in this drinking water system shall be approved for potable water use (NSF-pw). If any piping is joined with solder or flux, the solder and flux shall be lead free (less than or equal to 0.2 percent lead).

16. All water lines should be buried to a depth of at least 3 feet.

17. A Certificate of Public Conveniences and Necessity should be acquired from the Public Service Commission, (302) 739-4247.

18. This approval is for the distribution system only. Plans and specifications for all well plumbing, pumps, storage (including any interior coatings), and treatment must be submitted to and approved by this office prior to their installation.

19. The approval is subject to immediate revocation upon violation of any of the preceding conditions.

20. All other local (county/city/town) approvals or permits needed must be obtained prior to beginning construction.

21. Upon completion of construction and before the system is placed into operation, a "Notice of Completion" must be submitted to the Office of Engineering. Before placing the system into operation, the following must be adhered to:
    a. Submit a set of as-built plans with profile markups to the Office of Engineering.
    b. Obtain an Approval to Operate from the Office of Engineering.

June 07, 2022

Mr. John Stamato
Ribera Development, LLC
8684 Veterans Highway
Millersville, MD 21108
johnstamato@riberadev.com

RE: Terrapin Island

Dear Mr. Stamato:

A Sediment and Stormwater Management Plan has been reviewed for compliance with the Sediment and Stormwater Regulations and is approved with conditions (see attached). Enclosed herein please find a copy of the approved application form and approved plan sets. Please retain a copy for your use, and provide the contractor with a copy to be retained onsite at all times. Failure to keep an approved plan onsite is a violation of the approved plan.

Approval of a Sediment and Stormwater Plan does not grant or imply a right to discharge stormwater runoff. The owner/developer is responsible for acquiring any and all agreements, easements, etc., necessary to comply with State drainage and other applicable laws.

This plan approval pertains to compliance with the Delaware Sediment and Stormwater Regulations. Please understand that the approval of this plan does not relieve you from complying with any and all federal, state, county, or municipal laws and regulations.

As of January 1, 2014, the Sussex Conservation District began collecting financial guarantees to ensure the construction of stormwater management practices is accomplished in accordance with the approved sediment and stormwater plan. Please refer to the SCD Policy on Bonds located on our website at Sussexconservation.org. If you have any questions concerning the aforementioned, please do not hesitate to call 302 856-7219.

Sincerely,

Jessica Watson

Jessica Watson
Program Manager

CONDITIONS OF APPROVAL

NOTIFICATION

1. This approved plan will remain valid for 5 years from the date of this approval. If construction does not begin within five years, the approved plan will be considered to have expired and must be resubmitted to the District for a new review. In addition, if work is not completed within the five-year timeframe, the District must be contacted and a request for an extension submitted. Depending on regulation changes, a new plan may need to be submitted to ensure that all stormwater management facilities are constructed to the most recent standards.

2. Submittal of the Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activities together with this approval of the detailed Sediment and Stormwater Plan provide this project with Federal permit coverage to be authorized to discharge stormwater associated with construction activities. It is the owner's responsibility to ensure that permit coverage remains valid throughout construction by submitting the NOI fee annually as requested. The developer is responsible for weekly self-inspection reporting to be retained onsite.

3. Notify the Sussex Conservation District Sediment and Stormwater Management Section of your intent to begin construction in writing five (5) days prior to commencing. Failure to do so constitutes a violation of the approved plan.

CHANGES

1. This project is to be undertaken in accordance with the plans submitted and as approved. If changes are necessary at any time during the completion of the project, submit revised plans, prior to further construction, to the Sussex Conservation District Sediment and Stormwater Program for review and approval of the revision.

2. Should ownership change during the construction period, a revised plan must be submitted for approval showing the new owner's signature on the owner's certification. In addition, a Transfer of Authorization form must be submitted to DNREC to transfer Federal permit coverage to the new owner.

CONSTRUCTION AND CLOSEOUT

1. A pre-construction meeting must take place before any land disturbing activity begins. The meeting may take place on site and be attended by the owner, contractor, design consultant, Certified Construction Reviewer, and Sussex Conservation District Sediment and Stormwater Program Construction Reviewer. The owner or the owner's designee shall contact the Sussex Conservation Construction Reviewer to schedule the pre-construction meeting.

2. Keep available onsite, during all phases of construction, a copy of the approved Sediment and Stormwater Management Plan.

3. Keep available onsite, during all phases of constriction, copies of the Developers weekly self-inspection reports and/or the CCR Reports.

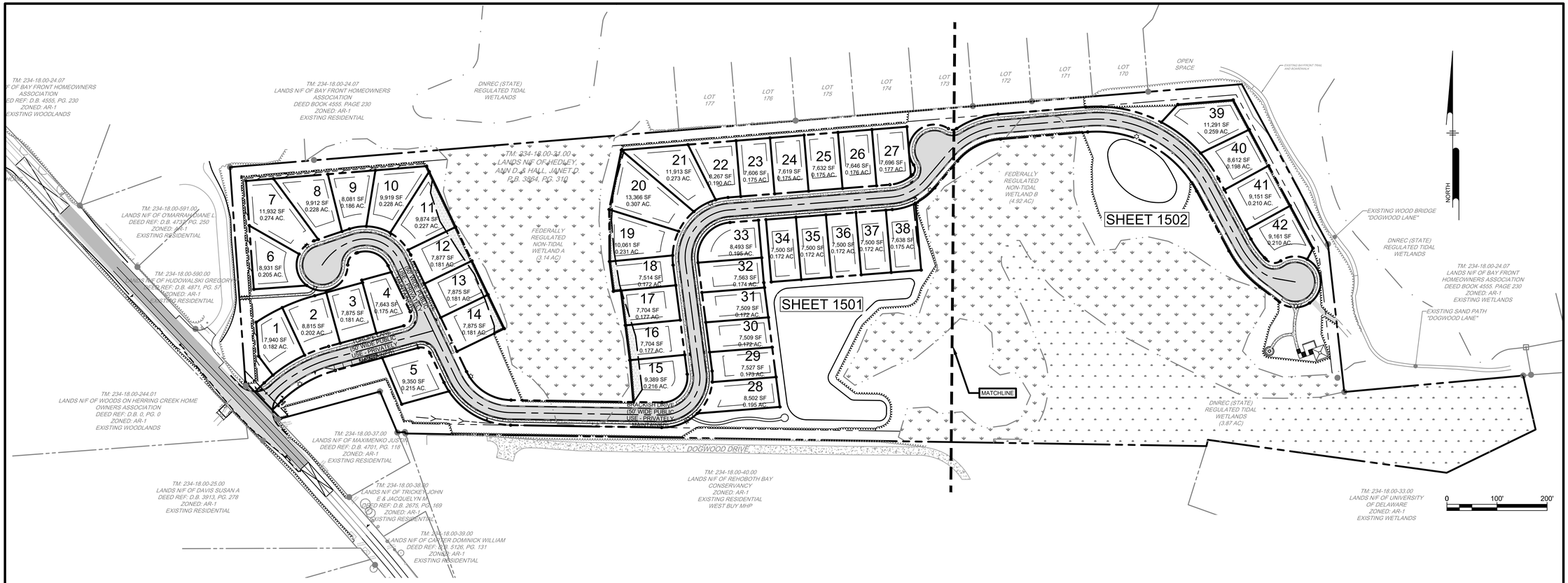
4. Any sediment transported off-site to roads or road rights-of-way including ditches shall be removed. Any damage to ditches shall be repaired and stabilized to original condition.

5. Grading shall not impair surface drainage, create an erosion hazard, or create a source of sediment to any

adjacent watercourse or property owner.

6. Failure to implement the permanent stormwater management practices as mentioned herein constitutes a violation of the conditions of this plan approval; it may result in the suspension or revocation of building permits or grading permits issued by the local jurisdiction, and it may result in legal action by the DNREC to bring the site into compliance with the approved Sediment and Stormwater Management Plan and the Delaware Sediment and Stormwater Regulations.

7. The permanent stormwater management facility or facilities must be constructed and accepted by the Sussex Conservation District Sediment and Stormwater Program prior to final closeout of the project site. Post-construction verification documentation of the stormwater management facility or facilities must be completed as soon as construction of the facility or facilities is complete so that any necessary modifications may be made during the construction period.



LEGEND

EXISTING		PROPOSED
—— D —— D ——	STORMPIPE, INLET, MANHOLE & FLARED END	D
	STORM IDENTIFICATION LABELS	DI 1 · FE 1 · MH 1
— — — 20 — — —	CONTOUR	20
+ 21.00	SPOT GRADE	20.00
	FULL DEPTH PAVEMENT	

GRADING NOTES:

1. BEDDING REQUIREMENTS SPECIFIED HEREIN ARE TO BE CONSIDERED AS MINIMUMS FOR RELATIVELY DRY, STABLE EARTH CONDITIONS. ADDITIONAL BEDDING SHALL BE REQUIRED FOR ROCK TRENCHES AND WET AREAS. CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO PROVIDE SUCH ADDITIONAL BEDDING AS MAY BE REQUIRED TO PROPERLY CONISTRUCT THE WORK.
2. COMPACTION OF THE BACKFILL OF ALL TRENCHES SHALL BE COMPACTED TO THE DENSITY OF 95% OF THEORETICAL MAXIMUM DRY DENSITY (ASTM D698). BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS, OR OTHER FOREIGN DEBRIS AND SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES IN COMPACTED FILL THICKNESS. CORRECTION OF ANY TRENCH SETTLEMENT WITHIN A YEAR FROM THE DATE OF APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. MATERIAL THAT CANNOT BE COMPACTED AS REQUIRED SHALL BE BROUGHT TO THE ATTENTION OF THE GEOTECHNICAL ENGINEER, OVER EXCAVATED, AND THEN REPLACED WITH SUITABLE FILL REFER TO THE EARTHWORK SPECIFICATIONS FOR ALLOWABLE SOIL.
3. THE CONTRACTOR WILL INSURE THAT POSITIVE AND ADEQUATE DRAINAGE IS MAINTAINED AT ALL TIMES WITHIN THE PROJECT LIMITS. THIS MAY INCLUDE, BUT NOT BE LIMITED TO, REPLACEMENT OR RECONSTRUCTION OF EXISTING DRAINAGE STRUCTURES THAT HAVE BEEN DAMAGED OR REMOVED OR REGRADING AS REQUIRED BY THE ENGINEER, EXCEPT FOR THOSE DRAINAGE ITEMS SHOWN AT SPECIFIC LOCATIONS AND HAVING SPECIFIC PAY ITEMS IN THE DETAILED ESTIMATE. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COSTS INCURRED TO COMPLY WITH THIS REQUIREMENT.
4. THE CONTRACTOR SHALL PROVIDE ANY AND ALL EXCAVATION AND MATERIAL SAMPLES NECESSARY TO CONDUCT REQUIRED SOIL TESTS. ALL ARRANGEMENTS AND SCHEDULING FOR THE TESTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
5. SOILS TESTING AND ON-SITE INSPECTION SHALL BE PERFORMED BY AN INDEPENDENT GEOTECHNICAL ENGINEER OR SOIL SCIENTIST. THE SOILS ENGINEER SHALL PROVIDE COPIES OF TEST REPORTS TO THE CONTRACTOR, THE OWNER AND THE OWNER'S REPRESENTATIVE AND SHALL PROMPTLY NOTIFY THE OWNER, HIS REPRESENTATIVE AND THE CONTRACTOR, SHOULD WORK PERFORMED BY THE CONTRACTOR FAIL TO MEET THESE SPECIFICATIONS.
6. CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES AROUND THE WORK AREA AND SHALL PROVIDE PROTECTION AGAINST WATER DAMAGE AND SOIL EROSION.
7. VERTICAL ELEVATIONS ARE BASED ON NAVD 88.
8. ALL SLOPES MAXIMUM 3:1 UNLESS OTHERWISE NOTED.
9. CONTRACTOR IS RESPONSIBLE FOR REMOVING AND DISPOSING EXCESS DIRT FROM THE SITE.
10. ALL HDPE PIPE SHALL MEET OR EXCEED THAT AASHTO M330 PIPE SPECIFICATIONS
11. CONTRACTOR IS RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE TOWARDS OUTLET AT ALL TIMES DURING CONSTRUCTION. PONDING OF WATER, EXCLUDING STORMWATER MANAGEMENT PONDS, AND LACK OF POSITIVE DRAINAGE WITHIN THE PROPERTY DURING GRADING, FILLED OR EXCAVATED, NO MATTER OF THE DESIGN OR THE STAKEOUT, IS FORBIDDEN WITHOUT THE PERMISSION OF THE DESIGN ENGINEER OR THEIR AUTHORIZED REPRESENTATIVE. CONTRACTOR IS RESPONSIBLE TO DISCUSS ALL GRADING AND DRAINAGE CONCERNS WITH THE DESIGN ENGINEER, PRIOR AND DURING APPLICATION TO ENSURE THAT POSITIVE DRAINAGE TOWARDS OUTLETS ARE ADDRESSED APPROPRIATELY AND SAFELY. DESIGN ENGINEER WILL BE HELD HARMLESS FROM CONCERNS ARISING FROM THE LACK OF POSITIVE DRAINAGE IF NOT NOTIFIED PRIOR TO ITS APPLICATION.
12. MAXIMUM SIDEWALK CROSS SLOPE IS 2% AND MINIMUM SIDEWALK CROSS SLOPE IS 1% WITHIN THE PUBLIC RIGHT OF WAY
13. A DETAILED GRADING PLAN SHALL BE SUBMITTED TO THE COUNTY ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO ANY BUILDING PERMITS BEING ISSUED.
14. ALL CASTINGS MUST BE AMERICAN MADE.

PROPOSED STORMWATER UTILITY NOTES:

1. ALL WORK SHALL COMPLY WITH APPLICABLE STATE, FEDERAL AND LOCAL CODES. ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER.
2. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER OF ANY DISCREPANCIES OR ERRORS THEY DISCOVER IN THE PLAN.
3. DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER OR HIS REPRESENTATIVE OR THE ENGINEER MAY BE CAUSE FOR THE WORK TO BE REJECTED.
4. THIS PROJECT IS SUBJECT TO INSPECTION AND APPROVAL BY REPRESENTATIVES OF THE SUSSEX COUNTY CONSERVATION DISTRICT AND SUSSEX COUNTY ENGINEERING DEPARTMENT.
5. UTILITIES ENTER THE PREMISES FROM PUBLIC STREETS OR RIGHTS OF WAY.
6. HDPE PIPE SHALL COMPLY WITH AASHTO M252, M294, MP7 AND ASTM D3350. PIPE SHALL BE INSTALLED PER ASTM D2232, ADD AS RECOMMENDED BY THE MANUFACTURER. ALL HDPE SHALL HAVE SOIL TIGHT CONNECTIONS. ALL HDPE PIPES SHALL MEET OR EXCEED THE AASHTO M-330 PIPE SPECIFICATION.
7. ALL HDPE PIPE SHALL MEET OR EXCEED THAT AASHTO M330 PIPE SPECIFICATIONS

PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

TERRAPIN ISLAND SUBDIVISION

TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY

GRADING AND PLAN KEY SHEET

RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

NO.	DATE	REVISIONS	BY
2	2022-03-07	REVISED PER SCED COMMENTS	LFS
1	2021-12-20	REVISED PER SCED COMMENTS	LFS

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	RIBER20000
DATE	2020-08-27
DRAWING SCALE	1"=100'
DRAWN BY	LFS
APPROVED BY	AMD

CS1500

SHEET 4 OF 27

U:\Accounts\RIBER\RIBER20000 - Hall Property-Major Subdivision\DESIGN_SHEETS\CS1500.dwg PLOTTED: 7/11/2022 4:54 PM, BY: Logan Strickland PLOTSTYLE: Pennoni MCS.stb PROJECT STATUS: —

STORM SEWER PIPE TABLE

ID	FROM STRUCTURE	INV IN	TO STRUCTURE	INV OUT	DESCRIPTION	LENGTH (ft)	SLOPE
SD-1	I-1	8.99	FE-5	8.17	15 in HDPE	164'	0.50%
SD-8	YD-3	3.68	YD-2	2.77	15 in HDPE	182'	0.50%
SD-9	I-26	5.14	I-25	4.25	30 x 19 in HERCP CL III	296'	0.30%
SD-10	I-10	5.45	I-9	5.33	24 in HDPE	24'	0.50%
SD-11	I-16	5.87	I-29	5.67	18 in HDPE	65'	0.30%
SD-12	I-12	6.26	I-16	5.87	18 in HDPE	130'	0.30%
SD-13	I-13	6.38	I-12	6.26	15 in HDPE	24'	0.50%
SD-14	I-15	6.46	I-11	6.00	15 in HDPE	152'	0.30%
SD-15	I-14	6.58	I-15	6.46	15 in HDPE	24'	0.50%
SD-16	I-25	4.10	I-19	3.95	24 in HDPE	49'	0.30%
SD-17	I-9	5.33	I-26	5.14	30 x 19 in HERCP CL III	64'	0.30%
SD-18	YD-1	3.74	FE-1	2.75	24 in HDPE	199'	0.50%
SD-19	I-18	3.83	YD-1	3.74	24 in HDPE	17'	0.50%
SD-20	I-20	2.67	MH-3	2.01	18 in HDPE	219'	0.30%
SD-21	MH-2	2.91	I-20	2.67	15 in HDPE	79'	0.30%
SD-22	MH-1	2.94	FE-2	2.75	15 in HDPE	37'	0.50%
SD-23	I-29	5.67	I-10	5.45	24 in HDPE	75'	0.30%
SD-27	I-19	3.95	I-18	3.83	24 in HDPE	24'	0.50%
SD-28	I-11	6.00	I-16	5.87	15 in HDPE	42'	0.30%
SD-29	FE-6	2.89	YD-2	2.77	15 in HDPE	16'	0.77%

STORM SEWER PIPE TABLE

ID	FROM STRUCTURE	INV IN	TO STRUCTURE	INV OUT	DESCRIPTION	LENGTH (ft)	SLOPE
SD-30	I-21	3.68	MH-1	2.94	15 in HDPE	148'	0.50%
SD-31	I-22	3.80	I-21	3.68	15 in HDPE	24'	0.50%
SD-32	I-17	2.79	I-20	2.67	15 in HDPE	24'	0.50%
SD-36	YD-2	2.77	FE-7	2.55	15 in HDPE	42'	0.50%
SD-39	I-27	3.33	MH-2	2.91	15 in HDPE	142'	0.30%
SD-40	I-28	3.45	I-27	3.33	15 in HDPE	24'	0.50%

STORM SEWER STRUCTURE TABLE

ID	RIM/GRATE ELEVATION	INV IN (FROM)	INV OUT (TO)	TYPE	TOP UNIT	GRATE
FE-1		2.75 (24" HDPE @ 0.50%) YD-1		18 IN FES		
FE-2		2.75 (15" HDPE @ 0.50%) MH-1		15 IN FES		
FE-5		8.17 (15" HDPE @ 0.50%) I-1		15 IN FES		
FE-6			2.89 (15" HDPE) YD-2	15 IN FES		
FE-7		2.55 (15" HDPE @ 0.50%) YD-2		15 IN FES		
I-1			8.99 (15" HDPE) FE-5	34" X 24"	TYPE "B"	TYPE 1
I-9	9.21	5.33 (24" HDPE @ 0.50%) I-10	5.33 (30" HEHDPE) I-26	48" X 30"	TYPE "D"	TYPE 1
I-10	9.21	5.45 (24" HDPE @ 0.30%) I-29	5.45 (24" HDPE) I-9	48" X 30"	TYPE "D"	TYPE 1
I-11	9.90	6.00 (15" HDPE @ 0.30%) I-15	6.00 (15" HDPE) I-16	48" X 30"	TYPE "D"	TYPE 1
I-12	10.19	6.26 (15" HDPE @ 0.50%) I-13	6.26 (18" HDPE) I-16	34" X 24"	TYPE "D"	TYPE 1
I-13	10.19		6.38 (15" HDPE) I-12	34" X 18"	TYPE "D"	TYPE 1
I-14	11.39		6.58 (15" HDPE) I-15	34" X 18"	TYPE "D"	TYPE 1
I-15	11.39	6.46 (15" HDPE @ 0.50%) I-14	6.46 (15" HDPE) I-11	34" X 24"	TYPE "D"	TYPE 1
I-16	9.62	5.87 (15" HDPE @ 0.30%) I-11 5.87 (18" HDPE @ 0.30%) I-12	5.87 (18" HDPE) I-29	48" X 30"	TYPE "D"	TYPE 1
I-17	5.96	2.79 (15" HDPE @ 0.74%) FE-3	2.79 (15" HDPE) I-20	34" X 18"	TYPE "D"	TYPE 1
I-18	7.61	3.83 (24" HDPE @ 0.50%) I-19	3.83 (24" HDPE) YD-1	34" X 18"	TYPE "D"	TYPE 1
I-19	7.61	3.95 (24" HDPE @ 0.30%) I-25	3.95 (24" HDPE) I-18	48" X 48"	TYPE "D"	TYPE 1
I-20	5.96	2.67 (15" HDPE @ 0.30%) MH-2 2.67 (15" HDPE @ 0.50%) I-17	2.67 (18" HDPE) MH-3	34" X 24"	TYPE "D"	TYPE 1
I-21	6.68	3.68 (15" HDPE @ 0.50%) I-22	3.68 (15" HDPE) MH-1	34" X 18"	TYPE "D"	TYPE 1
I-22	6.68		3.80 (15" HDPE) I-21	34" X 18"	TYPE "D"	TYPE 1
I-25	7.84	4.25 (30" HEHDPE @ 0.30%) I-26	4.10 (24" HDPE) I-19	48" X 48"	TYPE "D"	TYPE 1
I-26	9.00	5.14 (30" HEHDPE @ 0.30%) I-9	5.14 (30" HEHDPE) I-25	48" X 48"	TYPE "D"	TYPE 1

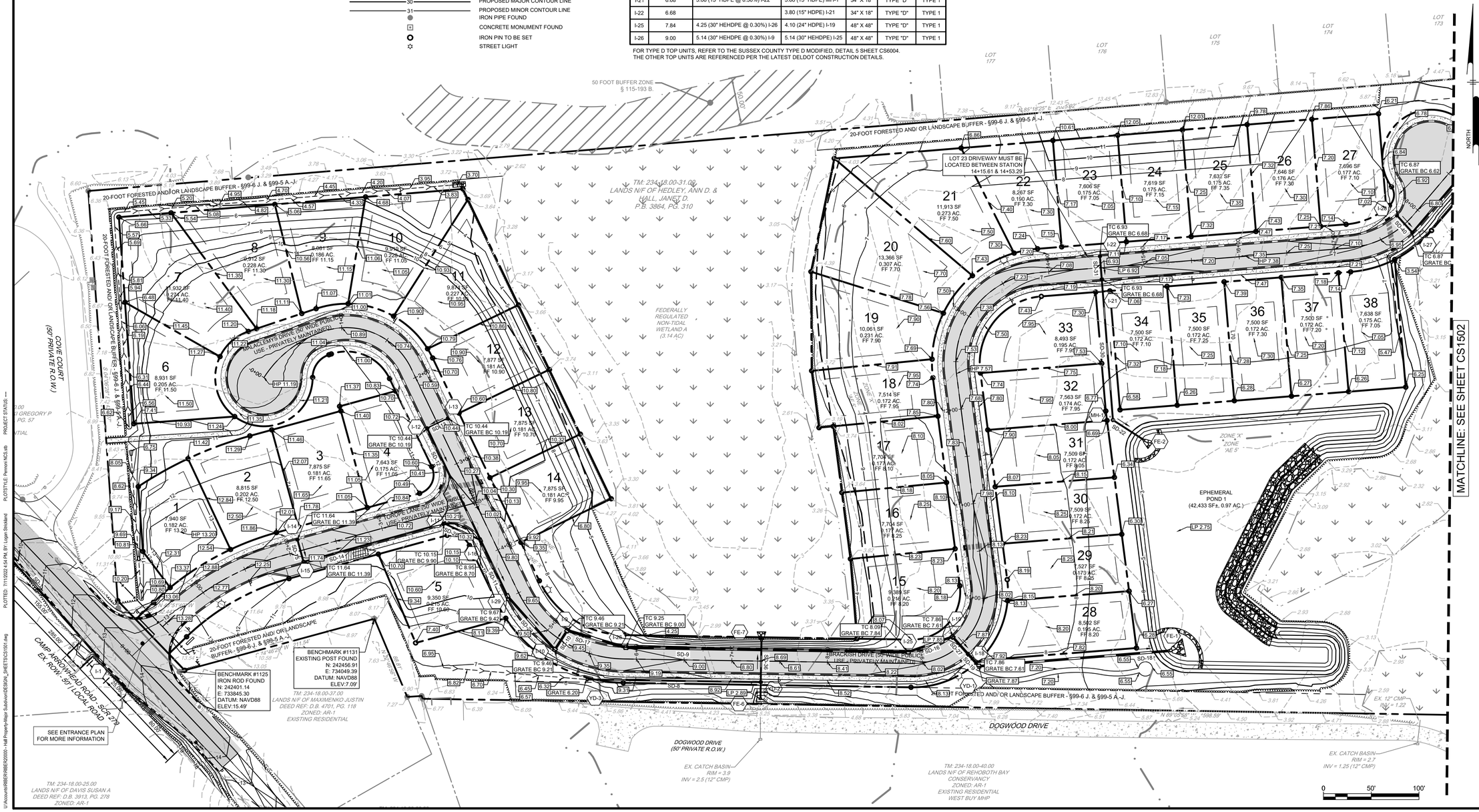
FOR TYPE D TOP UNITS, REFER TO THE SUSSEX COUNTY TYPE D MODIFIED, DETAIL 5 SHEET CS6004.
THE OTHER TOP UNITS ARE REFERENCED PER THE LATEST DELDOT CONSTRUCTION DETAILS.

STORM SEWER STRUCTURE TABLE

ID	RIM/GRATE ELEVATION	INV IN (FROM)	INV OUT (TO)	TYPE	TOP UNIT	GRATE
I-27	6.62	3.33 (15" HDPE @ 0.50%) I-28	3.33 (15" HDPE) MH-2	34" X 24"	TYPE "D"	TYPE 1
I-28	6.62		3.45 (15" HDPE) I-27	34" X 24"	TYPE "D"	TYPE 1
I-29	9.42	5.67 (18" HDPE @ 0.30%) I-16	5.67 (24" HDPE) I-10	48" X 30"	TYPE "D"	TYPE 1
MH-1	6.64	2.94 (15" HDPE @ 0.50%) I-21	2.94 (15" HDPE) FE-2	48" MH	Standard	Standard
MH-2	6.44	2.91 (15" HDPE @ 0.30%) I-27	2.91 (15" HDPE) I-20	48" MH	Standard	Standard
MH-3	5.48	2.01 (18" HDPE @ 0.30%) I-20	2.01 (18" HDPE) I-23	48" MH	Standard	Standard
YD-1	7.87	3.74 (24" HDPE @ 0.50%) I-18	3.74 (24" HDPE) FE-1	48" X 48"	TYPE "A"	TYPE 3
YD-2	7.95	2.77 (15" HDPE @ 0.50%) YD-3 2.77 (15" HDPE @ 0.77%) FE-6	2.77 (15" HDPE) FE-7	34" X 24"	TYPE "A"	TYPE 3
YD-3	6.20		3.68 (15" HDPE) YD-2	34" X 18"	TYPE "A"	TYPE 3

LEGEND

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF TREELINE/WOODS
- 37 — EXISTING CONTOUR LINE
- PROPOSED PROPERTY LINE
- PROPOSED STORM PIPES
- PROPOSED CURB
- 30 — PROPOSED MAJOR CONTOUR LINE
- 31 — PROPOSED MINOR CONTOUR LINE
- IRON PIPE FOUND
- CONCRETE MONUMENT FOUND
- IRON PIN TO BE SET
- STREET LIGHT



PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

TERRAPIN ISLAND SUBDIVISION

TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY

GRADING AND DRAINAGE PLAN

RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

NO.	DATE	REVISIONS	BY
2	2022-05-07	REVISED PER SCED COMMENTS	LFS
1	2021-12-20	REVISED PER SCED COMMENTS	LFS

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	RIBER20000
DATE	2020-08-27
DRAWING SCALE	1"=50'
DRAWN BY	LFS
APPROVED BY	AMD

CS1501

SHEET 5 OF 27

U:\Accounts\RIBER\RIBER20000 - Hall Property\Major Subdivision\DESIGN_SHEETS\CS1501.dwg PLOTTED: 7/11/2022 4:54 PM, BY: Logan Strickland PLOTSTYLE: Pennoni MCS.ctb PROJECT STATUS: —

STORM SEWER PIPE TABLE

ID	FROM STRUCTURE	INV IN	TO STRUCTURE	INV OUT	DESCRIPTION	LENGTH (ft)	SLOPE
SD-20	I-20	2.67	MH-3	2.01	18 in HDPE	219'	0.30%
SD-21	MH-2	2.91	I-20	2.67	15 in HDPE	79'	0.30%
SD-25	I-23	1.78	FE-4	1.50	18 in HDPE	39'	0.70%
SD-26	I-24	1.90	I-23	1.78	15 in HDPE	24'	0.50%
SD-32	I-17	2.79	I-20	2.67	15 in HDPE	24'	0.50%
SD-33	FE-3	2.90	I-17	2.79	15 in HDPE	15'	0.74%
SD-38	MH-3	2.01	I-23	1.78	18 in HDPE	77'	0.30%
SD-39	I-27	3.33	MH-2	2.91	15 in HDPE	142'	0.30%

STORM SEWER STRUCTURE TABLE

ID	RIM/GRATE ELEVATION	INV IN (FROM)	INV OUT (TO)	TYPE	TOP UNIT	GRATE
FE-3			2.90 (15" HDPE) I-17	15 IN FES		
FE-4		1.50 (18" HDPE @ 0.70%) I-23		18 IN FES		
I-17	5.96	2.79 (15" HDPE @ 0.74%) FE-3	2.79 (15" HDPE) I-20	34" X 18"	TYPE "D"	TYPE 1
I-20	5.96	2.67 (15" HDPE @ 0.30%) MH-2 2.67 (15" HDPE @ 0.50%) I-17	2.67 (18" HDPE) MH-3	34" X 24"	TYPE "D"	TYPE 1
I-23	5.07	1.78 (15" HDPE @ 0.50%) I-24 1.78 (18" HDPE @ 0.30%) MH-3	1.78 (18" HDPE) FE-4	34" X 24"	TYPE "D"	TYPE 1
I-24	5.07		1.90 (15" HDPE) I-23	34" X 24"	TYPE "D"	TYPE 1
MH-2	6.44	2.91 (15" HDPE @ 0.30%) I-27	2.91 (15" HDPE) I-20	48" MH	Standard	Standard
MH-3	5.48	2.01 (18" HDPE @ 0.30%) I-20	2.01 (18" HDPE) I-23	48" MH	Standard	Standard

FOR TYPE D TOP UNITS, REFER TO THE SUSSEX COUNTY TYPE D MODIFIED, DETAIL 5 SHEET CS6004.
THE OTHER TOP UNITS ARE REFERENCED PER THE LATEST DELDOT CONSTRUCTION DETAILS.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF TREELINE/WOODS
- 31 EXISTING CONTOUR LINE
- PROPOSED PROPERTY LINE
- PROPOSED STORM PIPES
- PROPOSED CURB
- 30 PROPOSED MAJOR CONTOUR LINE
- 31 PROPOSED MINOR CONTOUR LINE
- IRON PIPE FOUND
- CONCRETE MONUMENT FOUND
- IRON PIN TO BE SET
- STREET LIGHT

PENNONI ASSOCIATES INC.
1807/2 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

TERRAPIN ISLAND SUBDIVISION

TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY

GRADING AND DRAINAGE PLAN

RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

NO.	DATE	REVISIONS	BY
2	2022-03-07	REVISED PER SCED COMMENTS	LFS
1	2021-12-20	REVISED PER SCED COMMENTS	LFS

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	RIBER20000
DATE	2020-08-27
DRAWING SCALE	1"=50'
DRAWN BY	LFS
APPROVED BY	AMD

CS1502

SHEET 6 OF 27

U:\Accounts\RIBER\RIBER20000 - Hall Property-Major Subdivision\DESIGN_SHEETS\CS1502.dwg PLOTTED: 7/11/2022 4:55 PM, BY: Logan Strickland PLOTSTYLE: Pennoni MCS.stb PROJECT STATUS —

TERRAPIN ISLAND SUBDIVISION
RECORD PLAN SET

(2020-13)

TAX MAP: 234-18.00-31.00

INDIAN RIVER HUNDRED

SUSSEX COUNTY

PREPARED FOR:

DEVELOPER

RIBERA DEVELOPMENT, LLC.

8684 VETERANS HIGHWAY, SUITE 203

MILLERSVILLE, MD 21108

(443) 871-0486

SITE DATA TABLE:

1.	TAX MAP NUMBER:	234-18.00-31.00
2.	DEVELOPER/EQUITABLE OWNER:	RIBERA DEVELOPMENT, LLC. 8684 VETERAN'S HIGHWAY, SUITE 203 MILLERSVILLE, MD 21108
3.	SITE ADDRESS:	117' SOUTH OF COVE COURT AND CAMP ARROWHEAD ROAD INTERSECTION LEWES DE, 19958
4.	HUNDRED/ COUNTY:	INDIAN RIVER HUNDRED / SUSSEX COUNTY
5.	CURRENT ZONING:	AR-1 (AGRICULTURAL RESIDENTIAL DISTRICT)
6.	PRESENT USE:	FORESTED
7.	PROPOSED USE (115-20):	DETACHED SINGLE FAMILY DWELLINGS ON INDIVIDUAL LOTS
8.	REQUIRED SETBACKS (B.R.L.):	AR-1 CLUSTER DEVELOPMENT (115-25 B-2)
	DEPTH OF FRONT YARD (FEET) DEPTH OF CORNER SIDE YARD WIDTH OF SIDE YARD (FEET) DEPTH OF REAR YARD (FEET)	25' 15' 10' 10
9.	REQUIRED LOT AREAS:	AR-1 CLUSTER DEVELOPMENT (115-25 B-2)
	MINIMUM LOT WIDTH MINIMUM LOT DEPTH MAXIMUM LOT AREA MINIMUM LOT AREA AVERAGE LOT AREA	60' 100' 13,365 S.F. 7,500 S.F. 8,394 S.F.
10.	DWELLING UNIT CALCULATIONS:	
	TOTAL AREA: TIDAL WETLAND AREA: GROSS AREA: MIN. LOT AREA/UNIT: PERMITTED DENSITY (115-25 B3): PROPOSED DENSITY:	32.13 AC. 3.87 AC. 28.26 AC. AR-1 ZONING MINIMUM AREA: 7,500 S.F. AR-1 ZONING MAXIMUM DENSITY: 2 UNITS / ACRE (56 UNITS) 42 SINGLE FAMILY DETACHED UNITS: 1.49± UNITS / ACRE
11.	WATER SUPPLIER:	PUBLIC - TIDEWATER UTILITIES
	SECTION 89: SOURCE WATER PROTECTION	A. SUBJECT PROPERTY IS WITHIN AN AREA OF "POOR" GROUND WATER RECHARGE. B. SUBJECT PROPERTY IS NOT LOCATED IN A WELLHEAD PROTECTION AREA.
12.	SANITARY SEWER PROVIDER:	PUBLIC - SUSSEX COUNTY
13.	STREETS:	PRIVATE (99-18 D & E.)
14.	POSTED SPEED LIMIT (CAMP ARROWHEAD ROAD):	40 MPH
15.	STATE INVESTMENT AREA (2020):	LEVEL 4
16.	MAXIMUM BUILDING HEIGHT (115-25 D.):	42 FEET
17.	SITE AREA AND ACREAGE:	GROSS ACREAGE: 28.26 ± AC (EXCLUDES TIDAL WETLANDS) LOT AREA: 8.29 ± AC DELDOT R.O.W. DEDICATION (CAMP ARROWHEAD ROAD): 0.01 ± AC DELDOT PERMANENT EASEMENT: 0.04 ± AC PRIVATE SUBDIVISION STREETS ROW : 3.88 ± AC IMPERVIOUS - ROAD: 2.28 ± AC IMPERVIOUS - SIDEWALK: 0.54 ± AC GRASS 1.06 ± AC OPEN SPACE: 16.04 ± AC (EXCLUDES TIDAL WETLANDS) TOTAL : 28.26 ± AC
18.	FORESTED AREA: TOTAL AREA: IMPACTED: REMAINING:	23.08 ± AC. 15.72 ± AC 7.36 ± AC
19.	OPEN SPACE AREA BREAKDOWN:	20' LANDSCAPE BUFFER: 1.83 ± AC PASSIVE & ACTIVE RECREATION SPACE : 4.91 ± AC STORMWATER MANAGEMENT: 1.24 ± AC WETLAND AREA (TIDAL): 3.87 ± AC WETLAND AREA (NON-TIDAL): 8.06 ± AC TOTAL OPEN SPACE AREA: 19.91 ± AC (62%)
20.	OVERALL CONSERVATION EASEMENT AREA:	14.76 ACRES (REFER TO V0203 FOR DETAILS)
21.	LONGITUDE AND LATITUDE	SITE BENCHMARK STATE PLANE COORDINATES: LONGITUDE: W 75°08'40.65" LATITUDE: N 38°39'55.05"
22.	PROPOSED DISCHARGE LOCATION: WATERSHED:	PROPOSED STORMWATER PONDS TO EXISTING WETLANDS REHOBOTH BAY WATERSHED
23.	PROPOSED TOTAL LIMIT OF DISTURBANCE PER DISCHARGE LOCATION:	ON SITE TIDAL WETLANDS: 16.32 AC.± ROADWAY CONVEYANCE DISCHARGE NORTH END: 0.23 AC.± ROADWAY CONVEYANCE DISCHARGE SOUTH END: 0.02 AC.± TOTAL: 16.57 AC.±
24.	FLOOD ZONE:	THIS PROPERTY IS LOCATED ON THE FEMA FLOOD INSURANCE RATE MAP NUMBER 10005C0342K, MAP REVISED MARCH 16, 2015. AREA DESIGNATED PARTLY AS FLOOD ZONE "X" (UNSHADED) & PARTLY AS ZONE "AE" (EL. 5 FT AND EL. 7 FT)
25.	WETLAND AREA (TIDAL): WETLAND AREA (NON-TIDAL): TIDAL WETLAND AREA IMPACTED: NON-TIDAL WETLAND AREA IMPACTED:	3.87 ± AC. 8.06 ± AC. 0.00± AC. 0.218 ± AC. (PERMITTED THROUGH ARMY CORPS)
26.	DATUM:	HORIZONTAL: NAD83 VERTICAL: NAVD88 STATE PLANE.
27.	LOCAL GOVERNMENT RESPONSIBLE FOR LAND USE APPROVAL:	SUSSEX COUNTY
28.	TRANSPORTATION IMPROVEMENT DISTRICT:	HENLOPEN, PARTICIPATION NOT REQUIRED

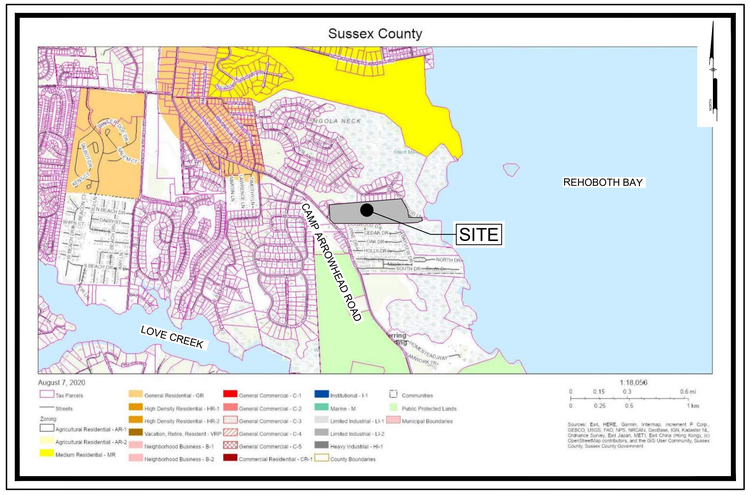
AsA, Br, KsA, AND TP SOILS ASSUMED TO BE HYDROLOGIC SOIL GROUP D IN THE PRE/POST STORMWATER ANALYSIS

SOILS

TYPE	DESCRIPTION	HYDROLOGIC SOIL
AsA	ASKECKSY LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D
Br	BROADKILL MUCKY PEAT, VERY FREQUENTLY FLOODED, TIDAL	B/D
KsA	KLEJ LOAMY SAND, 0 TO 2 PERCENT SLOPES	A/D
RuB	RUNCLINT LOAMY SAND, 2 TO 5 PERCENT SLOPES	A
TP	TRANSQUAKING AND MISPILLION SOILS, VERY FREQUENTLY FLOODED, TIDAL	A/D

BASED ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM 10005C342K EFFECTIVE DATE MARCH 16, 2015, ARE DESIGNATED PARTLY AS FLOOD ZONE 'X', (UNSHADED), WHICH IS AN AREA DETERMINED TO LIE OUTSIDE THE 500 YEAR FLOODPLAIN AND PARTLY AS ZONE "AE" (EL. 5 FT AND EL. 7 FT).

LIMIT OF DISTURBANCE: 16.57 AC.



LOCATION MAP

SCALE:1"=2000'

SOILS MAP

Scale: 1" = 2000'

FEMA FLOOD MAP

Scale: 1" = 2000'

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		CURB
		EDGE OF PAVEMENT
		PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		PROPERTY LINE/ RIGHT OF WAY
		BUILDING RESTRICTION LINE
		PROPERTY, CORNER FOUND
		PROPERTY, ADJOINING LINED
		SITE, MAIL BOX
		SITE, TRAFFIC SIGN
		SOIL BOUNDARY
WoC		SOIL LABEL
		STORM SEWER, INLET
		STORM SEWER,HEADWALL
D	D	STORM SEWER, MANHOLE
D	D	STORM SEWER, UNDERGROUND
101	101	MINOR CONTOUR
100	100	MAJOR CONTOUR
X 100.5	35.00	SPOT ELEVATION
		TREE LINE
W	W	WATER, UNDERGROUND
	WV	WATER VALVE
	WM	WATER MAIN
		CLEAN OUT
S	S	SANITARY SEWER, UNDERGROUND
FM	FM	SANITARY SEWER, FORCED MAIN
	S	SANITARY SEWER, MANHOLE
UE	E	POWER-UNDERGROUND ELECTRIC
		POWER, UTILITY POLE
		BOUNDARY OF FEDERALLY REGULATED WETLANDS (USACOE)
		BOUNDARY OF DNREC (STATE) REGULATED TIDAL WETLAND
		LANDSCAPE BUFFER
		ROADWAY CENTERLINE
		FEDERALLY REGULATED NON-TIDAL WETLANDS (USACOE)

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

PARCEL#	RW, PE OR TCE	OWNER
234-18.00-244.01	TCE	HERRING CREEK HOME OWNERS ASSOCIATION

THE TRANSPORTATION IMPROVEMENTS ASSOCIATED WITH THIS DEVELOPMENT NECESSITATE THE ACQUISITION OF RIGHT-OF-WAY. PERMANENT EASEMENTS AND/OR TEMPORARY EASEMENTS HEREINAFTER "PROPERTY INTERESTS" BEYOND AND EXCLUSIVE OF THE ENTRANCE FACILITY. THE DEVELOPER IS RESPONSIBLE TO ACQUIRE THE PROPERTY INTERESTS TO COMPLETE THE WORK AS SHOWN ON THESE PLANS. PRIOR TO ISSUANCE OF A PERMIT FOR ENTRANCE CONSTRUCTION, A NOTICE TO PROCEED, OR A TEMPORARY ENTRANCE PERMIT, PROOF OF THE ACQUISITION OF THE NECESSARY PROPERTY INTERESTS MUST BE SUBMITTED TO THE APPROPRIATE DELDOT PUBLIC WORKS OFFICE.
*THE TEMPORARY CONSTRUCTION EASEMENT AGREEMENT IS RECORDED UNDER DEED BOOK 5700, PG 3. IN THE OFFICE OF THE SUSSEX COUNTY RECORDER OF DEEDS.

Sheet List Table

Sheet Number	Drawing #	Sheet Title
1	RP0001	COVER SHEET
2	RP0002	KEY SHEET, NOTES AND DETAILS
3	RP1001	RECORD SUBDIVISION PLAN
4	RP1002	RECORD SUBDIVISION PLAN
5	RP1003	EASEMENT PLAN
6	V0202	WETLAND DELINEATION PLAN
7	V0203	WETLAND IMPACT PLAN

ZONING DATA TABLE - SUSSEX COUNTY

AR-1 - AGRICULTURAL RESIDENTIAL DISTRICT CLUSTER DEVELOPMENT

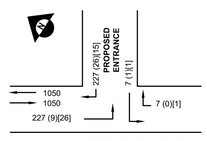
	REQUIREMENT		PROPOSED	
MIN. LOT SIZE	7,500	S.F.	7,500	S.F.
MIN. LOT WIDTH	60	FT.	60	FT.
MIN. LOT DEPTH	100	FT.	100	FT.
MIN. FRONT YARD	25	FT.	25	FT.
MIN. CORNER FRONT YARD	15	FT.	15	FT.
MIN. SIDE YARD	10	FT.	10	FT.
MIN. REAR YARD	10	FT.	10	FT.
MAX. HEIGHT	42	FT.	42	FT.

EASEMENTS: ALL SUBDIVISION LOTS SHALL HAVE FIVE-FOOT-WIDE EASEMENTS ALONG ALL LOT LINES FOR A TOTAL EASEMENT WIDTH OF AT LEAST 10 FEET ALONG A LOT LINE COMMON TO TWO LOTS. EASEMENTS OF GREATER WIDTH MAY BE REQUIRED ALONG LOT LINES OR ACROSS LOTS, WHERE NECESSARY. EASEMENTS ALONG PERIMETER BOUNDARIES OF THE SUBDIVISION SHALL BE NO LESS THAN 10 FEET IN WIDTH ON THE INTERIOR SIDE OF THE BOUNDARY.

CALL BEFORE YOU DIG
Call Miss Utility of Delmarva
800-282-8555
Ticket Number(s):

TRAFFIC GENERATION - CAMP ARROWHEAD ROAD (SC 279) - OVERALL (42 LOTS)

(FULL MOVEMENT)



ROAD TRAFFIC DATA:

FUNCTIONAL CLASSIFICATION - SC00279 (CAMP ARROWHEAD RD.) - LOCAL (RURAL)
POSTED SPEED LIMIT - 40 MPH
AADT = 2,100 TRIPS (FROM DELDOT COORDINATION)
DIRECTIONAL DISTRIBUTION [1]
10 YEAR PROJECTED AADT= 1.16 x 2,100 TRIPS = 2,436 TRIPS
10 YEAR PROJECTED AADT + SITE ADT = 2,904 TRIPS
TRAFFIC PATTERN GROUP = 4 (FROM 2019 DELDOT TRAFFIC SUMMARY)
PEAK HOUR - 12.09% x 2,904 TRIPS = 351 TRIPS
TRUCK VOLUME - 8.09 x 2,904 TRIPS = 235 TRIPS

SITE TRAFFIC DATA:

SOURCE: ITE TRIP GENERATION MANUAL 10TH EDITION[2]

EXISTING LAND USE:
WOODED VACANT LAND = 0 TRIPS

PROPOSED LAND USE:
42 UNITS - SINGLE FAMILY DETACHED UNITS (ITE 210)
42 UNITS: Ln(T)=0.92Ln(X)+2.71 = 468 TRIPS (WEEKDAY) (234 IN / 234 OUT)

PEAK HOUR OF ADJACENT STREET TRAFFIC (ITE 210):
AM: T = 0.71(X)+4.80 = 35 TRIPS (WEEKDAY) [25% / 75%] (9 / 26)
PM: Ln(T) = 0.96Ln(X)+0.20 = 44 TRIPS (WEEKDAY) [63% / 37%] (28 / 16)

PROPOSED DIRECTIONAL DISTRIBUTION:
3% TO AND FROM THE SOUTH (14 TRIPS) (0)[1] ENTER & (1)[1] EXIT
97% TO AND FROM THE NORTH (454 TRIPS) (9)[26] ENTER & (26)[15] EXIT
TOTAL ADT = 468 TRIPS
SITE TRUCK TRAFFIC = 23 TRIPS (5%)

TRAFFIC GENERATION DIAGRAM

ADT PEAK HOUR (A.M.), ADT PEAK HOUR [P.M.]

[1] DIRECTIONAL DISTRIBUTION PROVIDED BY DELDOT
[2] DIRECTIONAL DISTRIBUTION PROVIDED BY ITE MANUAL

DESIGN VEHICLE = WB-40 & SU-30

ALL WORK MUST BE COMPLETED AND ACCEPTED BY DELDOT PRIOR TO THE ISSUANCE OF THE FIRST BUILDING PERMIT.

OWNERS
JANET D. HALL & ANN D. HEDLEY

DEVELOPER
RIBERA DEVELOPMENT, LLC.
8684 VETERAN'S HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

ENGINEER/ PLANNER
PENNONI ASSOCIATES INC.
18072 DAVIDSON DRIVE
MILTON, DE 19968
(302) 684-8030

SURVEYOR
PENNONI ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANT
ENVIRONMENTAL RESOURCES INC.
38173 DUPONT BOULEVARD
PO BOX 169, SELBYVILLE, DE 19975
(302) 436-9637

SCHOOL DISTRICT
CAPE HENLOPEN

FIRE DISTRICT
REHOBOTH STATION (86)

POSTAL DISTRICT
REHOBOTH BEACH (19971)

WATER UTILITY
TIDEWATER

SEWER UTILITY
SUSSEX COUNTY WATER

ENGINEER CERTIFICATION:
IT IS HEREBY CERTIFIED THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION, AND TO MY BEST KNOWLEDGE COMPLIES WITH APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES. THE DESIGN REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

SIGNATURE DATE
ALAN DECKTOR, PE (DE PE#17771)
PENNONI ASSOCIATES, INC
18072 DAVIDSON DRIVE
MILTON, DE 19968
OFFICE (302) 684-8030 - FAX (302) 684-8054
ADECKTOR@PENNONI.COM

SUSSEX CONSERVATION DISTRICT

NAME DATE

WETLAND STATEMENT

I, EDWARD M. LAUNAY ,PWS, STATE THAT THE BOUNDARIES OF WATERS OF THE UNITED STATES INCLUDING WETLANDS SUBJECT TO THE CORPS OF ENGINEERS REGULATORY PROGRAM DELINEATED UPON THIS PLAN HAVE BEEN DETERMINED USING MY PROFESSIONAL JUDGMENT IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL AND ITS SUPPLEMENTAL GUIDANCE INCLUDING THE ATLANTIC AND GULF COAST REGIONAL SUPPLEMENT (VERSION 2.0) AND THE 2020 NAVIGABLE WATERS PROTECTION RULE. THIS DELINEATION HAS NOT BEEN CONDUCTED FOR USDA PROGRAM OR AGRICULTURAL PURPOSES.

THE BOUNDARIES OF STATE REGULATED WETLANDS ON THIS PROPERTY WERE DETERMINED IN ACCORDANCE WITH DNREC WETLAND MAP NO. DNR-034

EDWARD M. LAUNAY, SENIOR PWS No. 875 Date
SOCIETY OF WETLANDS SCIENTISTS
CORPS OF ENGINEERS, CERTIFIED WETLAND
DELINEATOR WDCP93MD0510036B

EQUITABLE OWNER CERTIFICATION:
I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AS SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, THAT I ACKNOWLEDGE THE SAME TO BE MY ACT, AND DESIRE THE PLAN TO BE RECORDED AS SHOWN IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

RIBERA DEVELOPMENT, LLC. DATE
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108
(443) 871-0486

APPROVED BY

CHAIRMAN OR SECRETARY OF PLANNING & ZONING COMMISSION DATE

PRESIDENT OF SUSSEX COUNTY COUNCIL DATE

REFERENCE #: 2020-13

PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

TERRAPIN ISLAND SUBDIVISION (2020-13)
CAMP ARROWHEAD ROAD (SCR 279)
TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY
COVER SHEET
RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

NO.	DATE	REVISIONS	BY
9	2022-05-19	REVISED PER DELDOT COMMENTS	LFS
5	2022-02-18	REVISED PER DELDOT COMMENTS	LFS
4	2021-11-09	REVISED PER DELDOT COMMENTS	LFS
3	2021-08-03	REVISED PER PLANNING AND ZONING COMMENTS	LFS
2	2021-07-13	REVISED PER CONDITIONS OF APPROVAL	LFS
1	2021-02-24	REVISED PER PLANNING & ZONING COMMENTS	TPM

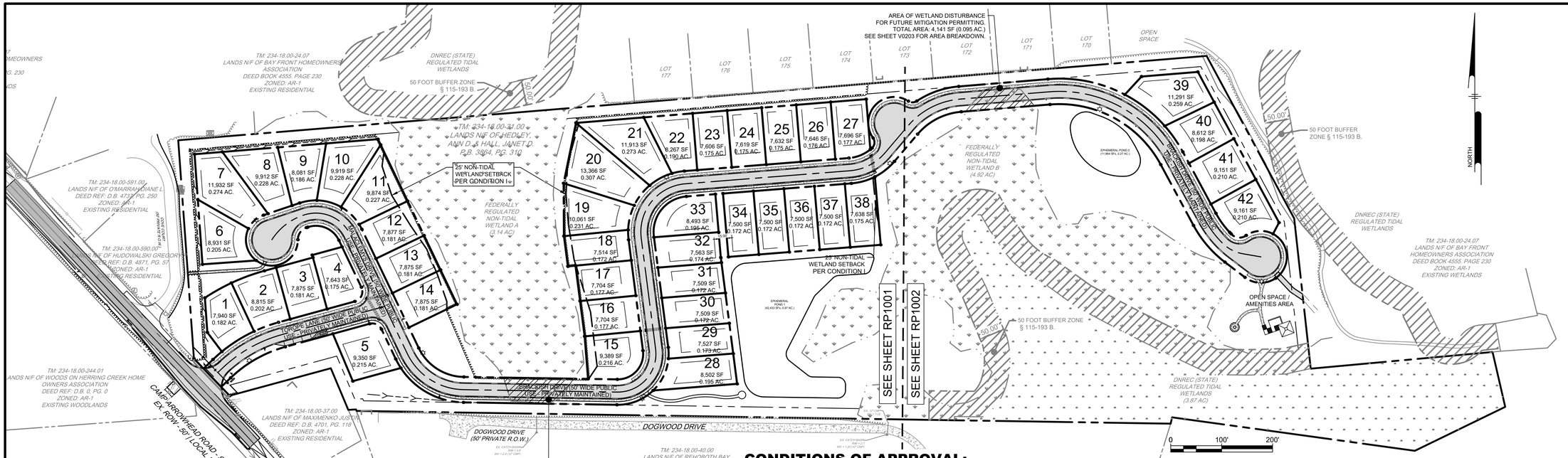
ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	RIBER20000
DATE	2020-08-07
DRAWING SCALE	AS SHOWN
DRAWN BY	MP/TPM
APPROVED BY	AMD

RP0001

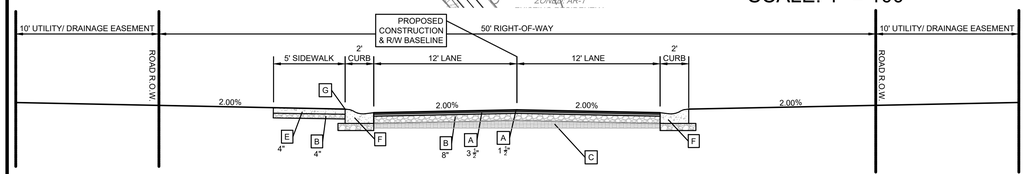
SHEET 1 OF 7

U:\Accounts\RIBER\RIBER20000 - Hall Property-Major Subdivision\DESIGN_SHEETS\RP0001.dwg PLOTTED: 7/11/2022 3:49 PM BY: Logan Strickland PLOTSTYLE: Pennoni NCS.stb PROJECT STATUS: —

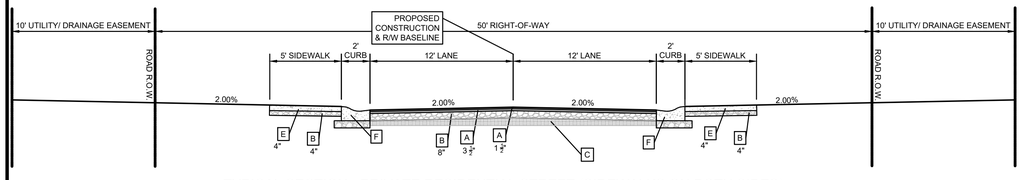


KEY SHEET

SCALE: 1" = 100'

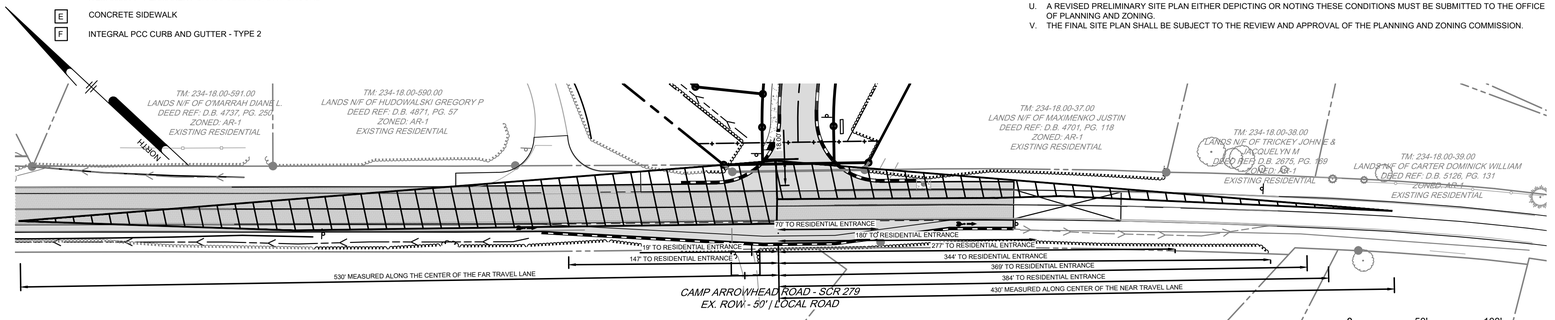


TYPICAL SECTION - PRIVATE RESIDENTIAL STREET (SIDEWALK ON ONE SIDE)
NOT TO SCALE



TYPICAL SECTION - PRIVATE RESIDENTIAL STREET (SIDEWALKS ON BOTH SIDES)
NOT TO SCALE

- A — ITEM 401005 - SUPERPAVE TYPE C, PG 64-22
- B — ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- C — PROOF ROLLED AND COMPACTED SUBGRADE TO 95% OF ASTM D1557
- D — ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- E — CONCRETE SIDEWALK
- F — INTEGRAL PCC CURB AND GUTTER - TYPE 2



SIGHT DISTANCE TRIANGLE PLAN

SCALE: 1" = 50'

CONDITIONS OF APPROVAL:

PRELIMINARY APPROVAL WAS GRANTED BY SUSSEX COUNTY PLANNING COMMISSION AT THEIR MEETING ON JULY 8, 2021 SUBJECT TO THE FOLLOWING CONDITIONS:

A. THERE SHALL BE NO MORE THAN 42 LOTS WITHIN THE SUBDIVISION.
B. THE FINAL SITE PLAN SHALL CONFIRM THAT AT LEAST 57% OF THE SITE REMAINS AS OPEN SPACE.
C. THE DEVELOPER SHALL ESTABLISH A HOMEOWNER'S ASSOCIATION RESPONSIBLE FOR THE MAINTENANCE OF STREETS, ROADS, BUFFERS ,STORMWATER MANAGEMENT FACILITIES AND OTHER COMMON AREAS.
D. THE STORMWATER MANAGEMENT SYSTEM SHALL MEET OR EXCEED THE REQUIREMENTS OF THE STATE AND COUNTY. THE FINAL SITE PLAN SHALL CONTAIN THE APPROVAL OF THE SUSSEX CONSERVATION DISTRICT FOR THE DESIGN AND LOCATION OF ALL STORMWATER MANAGEMENT AREAS AND EROSION AND SEDIMENTATION CONTROL FACILITIES.
E. THERE SHALL BE A VEGETATED OR FORESTED BUFFER THAT IS AT LEAST 20 FEET WIDE INSTALLED ALONG THE PERIMETER OF THIS SUBDIVISION, EXCEPT WETLAND AREAS. THIS BUFFER SHALL UTILIZE EXISTING FOREST OR SIMILAR VEGETATION IF IT EXISTS IN THE BUFFER AREA. WHERE TREES CURRENTLY EXIST IN THE BUFFER AREA, STUMP REMOVAL OR CONSTRUCTION ACTIVITIES THAT DISTURB THE EXISTING GRADE OF THE AREA WITHIN THE BUFFER SHALL BE PROHIBITED. ALL SILT FENCING SHALL BE LOCATED ALONG THE INTERIOR LIMIT OF THE BUFFER AREA (THE EDGE OF THE BUFFER NEAREST THE INTERIOR DEVELOPMENT) AND THE FINAL SITE PLAN SHALL IDENTIFY THE "LIMIT OF DISTURBANCE" TO PREVENT DISTURBANCE OF THE BUFFER AREA. IN ADDITION, THERE SHALL BE A 10-FOOT-WIDE AREA ASIDE BETWEEN THE PERIMETER BUFFER AND ANY LOT TO BE UTILIZED FOR STORMWATER CONVEYANCE.
F. COMMON AREA LAND OF ADJACENT BAY FRONT AT REHOBOTH WRAPS AROUND THIS SITE, INCLUDING BAY FRONT AT REHOBOTH'S DIRECT ACCESS TO REHOBOTH BAY. THE FINAL SITE PLAN FOR THIS SUBDIVISION SHALL PROVIDE A VEHICLE CONNECTION FROM ITS EASTERN CUL-DE-SAC TO THE PROPERTY LINE OF BAY FRONT AT REHOBOTH'S BEACH AREA FOR THAT HOA'S VEHICULAR USE FOR BEACH AREA MAINTENANCE, SAND REPLENISHMENT AND EMERGENCY VEHICLE ACCESSIBILITY.
G. AS PROFFERED BY THE APPLICANT, THERE SHALL BE A SIDEWALK CONNECTION TO THE PROPERTY LINE OF THE ISOLATED SECTION OF BAY FRONT AT REHOBOTH CONTAINING COVE COURT AND LOTS 178, 179, AND 180.
H. THERE SHALL BE A BUFFER THAT IS AT LEAST 50 FEET WIDE FROM THE MEAN HIGH-WATER LINE OF ALL TIDAL WATERS, TIDAL TRIBUTARY STREAMS, TIDAL WETLANDS, PERENNIAL RIVERS AND NONTIDAL STREAMS. THERE SHALL BE MINIMUM DISTURBANCE OF TREES AND OTHER VEGETATION WITHIN THESE BUFFER AREAS. REQUIRED SILT FENCING SHALL BE INSTALLED UPLAND OF THESE BUFFER AREAS (USING THE EDGE OF THE BUFFER NEAREST THE INTERIOR DEVELOPMENT) TO AVOID DISTURBANCE. CONSTRUCTION ACTIVITIES WITHIN THE BUFFER AREA SHALL BE MINIMUM. ANY DISTURBANCE IN THE BUFFER AREA SHALL BE INDICATED ON THE FINAL SITE PLAN AND THE "LIMITS OF DISTURBANCE" SHALL BE INDICATED ON THE FINAL SITE PLAN.
I. IN ADDITION TO THE BUFFER REQUIRED IN CONDITION H ABOVE, THERE SHALL BE A 25-FOOT BUILDING SETBACK FROM ALL NON-TIDAL WETLANDS.
J. THE DEVELOPMENT SHALL COMPLY WITH ALL DELDOT ENTRANCE AND ROADWAY IMPROVEMENT REQUIRMENTS.
K. AS PROFFERED BY THE APPLICANT, SIDEWALKS SHALL BE INSTALLED ON AT LEAST ONE SIDE OF ALL INTERNAL STREETS. A SYSTEM OF FULLY SHEILDED AND DOWNWARD-SCREENED STREETLIGHTING SHALL ALSO BE PROVIDED.
L. THE SUBDIVISION SHALL BE SERVED BY A CENTRAL SEWER SYSTEM.
M. THE SUBDIVISION SHALL BE SERVED BY A PUBLICLY REGULATED CENTRAL WATER SYSTEM PROVIDING DRINKING WATER AND FIRE PROTECTION.
N. STREET DESIGN SHALL MEET OR EXCEED SUSSEX COUNTY STANDARDS. THE DESIGN OF THE BRACKISH DRIVE CUL-DE-SAC, INCLUDING THE LOCATION OF THE TURN-OUT/TURNAROUND AREAS, SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE SUSSEX COUNTY ENGINEERING DEPARTMENT AND THE OFFICE OF THE STATE FIRE MARSHALL.
O. ROAD NAMING AND ADDRESSING SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE SUSSEX COUNTY MAPPING AND ADDRESSING DEPARTMENT.
P. CONSTRUCTION, SITE WORK AND DELIVERIES SHALL ONLY OCCUR ON THE SITE BETWEEN THE HOURS OF 8:00 A.M. THROUGH 5:00 P.M. MONDAY THROUGH FRIDAY, AND 8:00 A.M. THROUGH 2:00 P.M. ON SATURDAYS. NO SUNDAY HOURS ARE PERMITTED. A 24-INCH BY 36-INCH "NOTICE" SIGN CONFIRMING THESE HOURS IN ENGLISH AND SPANISH SHALL BE PROMINENTLY DISPLAYED AT THE SITE ENTRANCE DURING CONSTRUCTION.
Q. THE APPLICANT SHALL COORDINATE WITH THE LOCAL SCHOOL DISTRICT REGARDING THE LOCATION OF A SCHOOL BUS STOP WITHIN THE SUBDIVISION. IF REQUIRED BY THE SCHOOL DISTRICT, THE LOCATION OF THE BUS STOP AREA SHALL BE SHOWN ON THE FINAL SITE PLAN.
R. AS PROFFERED BY THE APPLICANT, THE FINAL SITE PLAN AND RECORDED DECLARATION OF RESTRICTIONS FOR THE SUBDIVISION SHALL PROHIBIT THE APPLICATION OF FERTILIZERS OR SIMILAR SOIL ADDITIVES ON THE PROPERTY BY THE OWNERS OF THE INDIVIDUAL LOTS WITHIN THE SUBDIVISION. ALL FERTILIZER APPLICATIONS, SHALL BE MANAGED AND APPLIED BY THE HOA AND ITS CONTRACTORS TO INDUSTRY STANDARDS USING BEST MANAGEMENT SYSTEM, WETLANDS, AND THE INLAND BAYS.
S. THE FINAL SITE PLAN SHALL INCLUDE A LANDSCAPE PLAN DEPICTING ALL LANDSCAPING TO BE PROVIDED THE PRESERVATION OF ALL BUFFER AREAS AND THE FORESTED AREAS THAT WILL BE PRESERVED. THE LANDSCAPE PLAN SHALL ALSO IDENTIFY ALL "LIMITS OF DISTURBANCE" WITHIN THE SITE.
T. THE FINAL SITE PLAN SHALL INCLUDE A GRADING PLAN FOR THE SITE. NO BUILDING PERMIT SHALL BE ISSUED FOR INDIVIDUAL LOTS UNTIL AN INDIVIDUAL LOT GRADING PLAN HAS BEEN SUPPLIED TO AND APPROVED BY SUSSEX COUNTY. NO CERTIFICATE OF OCCUPANCY SHALL BE ISSUED UNTIL A GRADING CERTIFICATE IS SUBMITTED TO THE BUILDING CODE DEPARTMENT DEMONSTRATING GENERAL CONFORMITY WITH THE INDIVIDUAL SITE GRADING.
U. A REVISED PRELIMINARY SITE PLAN EITHER DEPICTING OR NOTING THESE CONDITIONS MUST BE SUBMITTED TO THE OFFICE OF PLANNING AND ZONING.
V. THE FINAL SITE PLAN SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE PLANNING AND ZONING COMMISSION.

DELDOT RECORD/SITE PLAN NOTES (REVISED 3/21/2019):

1. ALL ENTRANCES SHALL CONFORM TO THE DELAWARE DEPARTMENT OF TRANSPORTATION'S (DELDOT'S) CURRENT DEVELOPMENT COORDINATION MANUAL AND SHALL BE SUBJECT TO ITS APPROVAL.
2. NO LANDSCAPING SHALL BE ALLOWED WITHIN THE RIGHT-OF-WAY UNLESS THE PLANS ARE COMPLIANT WITH SECTION 3.7 OF THE DEVELOPMENT COORDINATION MANUAL.
3. SHRUBBERY, PLANTINGS, SIGNS AND/OR OTHER VISUAL BARRIERS THAT COULD OBSTRUCT THE SIGHT DISTANCE OF A DRIVER PREPARING TO ENTER THE ROADWAY ARE PROHIBITED WITHIN THE DEFINED DEPARTURE SIGHT TRIANGLE AREA ESTABLISHED ON THIS PLAN. IF THE ESTABLISHED DEPARTURE SIGHT TRIANGLE AREA IS OUTSIDE THE RIGHT-OF-WAY OR PROJECTS ONTO AN ADJACENT PROPERTY OWNER'S LAND, A SIGHT EASEMENT SHOULD BE ESTABLISHED AND RECORDED WITH ALL AFFECTED PROPERTY OWNERS TO MAINTAIN THE REQUIRED SIGHT DISTANCE.
4. UPON COMPLETION OF THE CONSTRUCTION OF THE SIDEWALK OR SHARED-USE PATH ACROSS THIS PROJECT'S FRONTAGE AND PHYSICAL CONNECTION TO ADJACENT EXISTING FACILITIES, THE DEVELOPER, THE PROPERTY OWNERS OR BOTH ASSOCIATED WITH THIS PROJECT, SHALL BE RESPONSIBLE TO REMOVE ANY EXISTING ROAD TIE-IN CONNECTIONS LOCATED ALONG ADJACENT PROPERTIES, AND RESTORE THE AREA TO GRASS. SUCH ACTIONS SHALL BE COMPLETED AT DELDOT'S DISCRETION, AND IN CONFORMANCE WITH DELDOT'S DEVELOPMENT COORDINATION MANUAL.
5. PRIVATE STREETS CONSTRUCTED WITHIN THIS SUBDIVISION SHALL BE MAINTAINED BY THE DEVELOPER, THE PROPERTY OWNERS WITHIN THIS SUBDIVISION OR BOTH (TITLE 17 §131). DELDOT ASSUMES NO RESPONSIBILITIES FOR THE FUTURE MAINTENANCE OF THESE STREETS.
6. THE SIDEWALK SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, THE PROPERTY OWNERS OR BOTH WITHIN THIS SUBDIVISION. THE STATE OF DELAWARE ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE FOR THE SIDEWALK.
7. ALL LOTS SHALL HAVE ACCESS FROM THE INTERNAL SUBDIVISION STREET.
8. DRIVEWAYS WILL NOT BE PERMITTED TO BE PLACED AT CATCH BASIN LOCATIONS.
9. TO MINIMIZE RUTTING AND EROSION OF THE ROADSIDE DUE TO ON-STREET PARKING, DRIVEWAY AND BUILDING LAYOUTS MUST BE CONFIGURED TO ALLOW FOR VEHICLES TO BE STORED IN THE DRIVEWAY BEYOND THE RIGHT-OF-WAY, WITHOUT INTERFERING WITH SIDEWALK ACCESS AND CLARENCE.
10. THE DEVELOPER SHALL BE REQUIRED TO FURNISH AND PLACE RIGHT-OF-WAY MONUMENTS IN ACCORDANCE WITH DELDOT'S DEVELOPMENT COORDINATION MANUAL.
11. THE DEVELOPER SHALL BE REQUIRED TO FURNISH AND PLACE RIGHT-OF-WAY MARKERS TO PROVIDE A PERMANENT REFERENCE FOR RE-ESTABLISHING THE RIGHT-OF-WAY AND PROPERTY CORNERS ON LOCAL AND HIGHER ORDER FRONTAGE ROADS. RIGHT-OF-WAY MARKERS SHALL BE SET AND/OR PLACED ALONG THE FRONTAGE ROAD RIGHT-OF-WAY AT PROPERTY CORNERS AND AT EACH CHANGE IN RIGHT-OF-WAY ALIGNMENT IN ACCORDANCE WITH SECTION 3.2.4.2 OF THE DEVELOPMENT COORDINATION MANUAL.

GENERAL NOTES:

1. ALL PROPOSED ROADS SHOWN ARE PRIVATE AND ARE TO BE MAINTAINED BY THE DEVELOPER UNTIL SUCH TIME AS A HOMEOWNERS ASSOCIATION CAN PROVIDE FOR SAID MAINTENANCE. THE STATE AND COUNTY ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF THESE STREETS.
2. STORMWATER SHALL BE HANDLED THROUGH THE DESIGN OF WET POND THAT WILL BE LOCATED ON SITE. THE MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES CONSTRUCTED WITHIN THIS SITE SHALL BE THE RESPONSIBILITY OF THE DEVELOPER UNTIL SUCH TIME AS A HOMEOWNER ASSOCIATION CAN PROVIDE FOR SAID MAINTENANCE.
3. BASED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) 10005C0342K, REVISED MARCH 16, 2015. AREA DESIGNATED PARTLY AS FLOOD ZONE 'X', UNSHADED, & PARTLY AS ZONE "AE" (EL. 5 FT AND EL. 7 FT).
4. 5.26± AC. TIDAL AND 6.35± AC. NON-TIDAL WETLANDS EXIST ON THIS SITE. THE WETLANDS WILL BE RECERTIFIED DURING THE ENGINEERING STAGES OF THE PROJECT.
5. ALL SUBDIVISION LOTS SHALL HAVE FIVE-FOOT-WIDE PUBLIC UTILITY EASEMENTS ALONG LOT LINES FOR A TOTAL EASEMENT WIDTH OF AT LEAST TEN (10) FEET ALONG A LOT LINE COMMON TO TWO LOTS. EASEMENTS ALONG PERIMETER BOUNDARIES OF THE SUBDIVISION SHALL BE TEN (10) FEET IN WIDTH ON THE INTERIOR SIDE OF THE BOUNDARY. NO BUILDING, STRUCTURE OR OTHER PERMANENT OBSTRUCTION SHALL BE PLACED ON ANY EASEMENT.
6. THE SUSSEX CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, OR MODIFY ANY EROSION AND SEDIMENT CONTROL MEASURES AS THEY DEEM NECESSARY.
7. ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, BUT NOT IN PAVEMENT, SHALL BE TOPSOILED (6" MINIMUM), FERTILIZED AND SEEDED.
8. THE PROPOSED ENTRANCES/EXITS ARE PROPOSED ONLY, AND ARE SUBJECT TO REVIEW AND APPROVAL BY THE DELAWARE DEPARTMENT OF TRANSPORTATION BEFORE A CONSTRUCTION PERMIT IS ISSUED.
9. A 72 HOUR (MINIMUM) NOTICE SHALL BE GIVEN TO THE DISTRICT PERMIT SUPERVISOR PRIOR TO STARTING ENTRANCE CONSTRUCTION.
10. MISS UTILITY SHALL BE NOTIFIED THREE (3) DAYS PRIOR TO EXCAVATION.
11. ALL SIGNING FOR MAINTENANCE OF TRAFFIC IS THE CONTRACTORS RESPONSIBILITY, AND SHALL FOLLOW THE GUIDELINES SHOWN IN LATEST EDITION OF DE MUTCD.
12. DESIGN, FABRICATION, AND INSTALLATION OF ALL PERMANENT SIGNING SHALL BE AS OUTLINED IN THE LATEST VERSION OF THE DE MUTCD.
13. NO BUILDING PERMIT SHALL BE ISSUED UNTIL EITHER ALL REQUIRED IMPROVEMENTS HAVE BEEN INSTALLED, CONSTRUCTED, OR PLACED FOR THE LOT FOR WHICH THE PERMIT WILL BE ISSUED IN A MANNER ACCEPTABLE BY THE COUNTY AND STATE, OR UNTIL THE DEVELOPER FILES A PERFORMANCE BOND OR OTHER GUARANTEE WITH THE COUNTY FOR ANY UNCOMPLETED PUBLIC OR PRIVATE STREET OR OTHER REQUIRED IMPROVEMENT.
14. ALL PROPOSED FOREST BUFFERS ARE TO BE MAINTAINED BY THE DEVELOPER UNTIL SUCH TIME AS A HOMEOWNERS ASSOCIATION CAN PROVIDE FOR SAID MAINTENANCE.
15. ALL UNITS TO HAVE ACCESS FROM INTERNAL SUBDIVISION STREETS AND THAT NO DIRECT ACCESS FROM SCR #279 WILL BE PERMITTED.
16. ALL FIRE LANES, FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS.
17. ALL SINGLE FAMILY DWELLINGS TO BE WOOD FRAME CONSTRUCTION WITH A MAXIMUM BUILDING HEIGHT OF THREE STORIES, NOT TO EXCEED 42' AND WILL NOT BE SPRINKLERED.
18. COMMON AREA: AN AREA OWNED AND USED IN COMMON BY RESIDENTS OF THE SUBDIVISION FOR RECREATION, LANDSCAPING AN STORM WATER MANAGEMENT.
19. EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. COMPLETENESS OR CORRECTNESS THEREOF IS NOT GUARANTEED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT THE UTILITY COMPANIES INVOLVED IN ORDER TO SECURE THE MOST ACCURATE INFORMATION AVAILABLE AS TO UTILITY LOCATION AND ELEVATION. NO CONSTRUCTION AROUND OR ADJACENT TO UTILITIES SHALL BEGIN WITHOUT NOTIFYING THEIR OWNERS AT LEAST 48 HOURS IN ADVANCE. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE AND ANY DAMAGE DONE TO THEM DUE TO HIS/HER NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTORS EXPENSE. TO LOCATE EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MISS UTILITY OF DELMARVA.
20. NO EASEMENTS WERE VERIFIED PER THIS PLAT.
21. THE PROPOSED SIGN IS NOT APPROVED AS PART OF THIS SITE PLAN. A SEPARATE SUSSEX COUNTY PERMIT IS REQUIRED.
22. DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL WORK MUST BE PERFORMED IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
23. ALL OPEN SPACE AREAS ON SITE ARE INTENDED FOR LANDSCAPE, RECREATION AND STORMWATER MANAGEMENT PRACTICES AND ARE THE RESPONSIBILITY OF THE DEVELOPER UNTIL A HOMEOWNER'S ASSOCIATION CAN ASSUME OWNERSHIP AND RESPONSIBILITY FOR THE OPEN SPACE.
24. THIS PROJECT IS NOT LOCATED WITHIN A WELLHEAD PROTECTION AREA PER CHAPTER 89 "SOURCE WATER PROTECTION" OF SUSSEX COUNTY CODE (89-6).
25. THE STREET LIGHTS ARE SHOWN GRAPHICALLY, THE DEVELOPER WILL COORDINATE WITH THE ELECTRIC COMPANY TO INSTALL THE STREET LIGHTS. THE TYPICAL LIGHT APPLICATION USED IS THE COLONIAL LIGHT, 18' IN HEIGHT.
26. ALL SECURITY LIGHTING (IF NECESSARY) SHALL BE DOWNWARD SCREENED SO THAT IT DOES NOT SHINE ON NEIGHBORING PROPERTIES OR ROADWAYS.
27. BUILDING LIGHTING TO BE PROVIDED WITH BUILDING PLANS. ADEQUATE LIGHTING SHALL BE PROVIDED IF THE BUILDING IS USED AT NIGHT.
28. A BOUNDARY AND TOPOGRAPHIC SURVEY OF THE PROPERTY AND CAMP ARROWHEAD ROAD WAS COMPLETED BY PENNONI ASSOCIATES, INC. DURING JULY 2020 AND DUE TO A DELDOT ROADWAY OVERLAY MAINTENANCE PROJECT, PENNONI ASSOCIATES PERFORMED ANOTHER SURVEY OF CAMP ARROWHEAD ROAD IN JUNE 2021 TO PORTRAY THE CURRENT CONDITIONS.

PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

TERRAPIN ISLAND SUBDIVISION (2020-13)
CAMP ARROWHEAD ROAD (SCR 279)
TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY
KEY SHEET, NOTES AND DETAILS

RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

NO.	DATE	REVISIONS	BY
6	2022-05-19	REVISED PER DELDOT COMMENTS	LFS
5	2022-02-18	REVISED PER DELDOT COMMENTS	LFS
4	2021-11-09	REVISED PER DELDOT COMMENTS	LFS
3	2021-08-03	REVISED PER PLANNING AND ZONING COMMENTS	LFS
2	2021-07-13	REVISED PER CONDITIONS OF APPROVAL	LFS
1	2021-02-24	REVISED PER PLANNING & ZONING COMMENTS	TPM

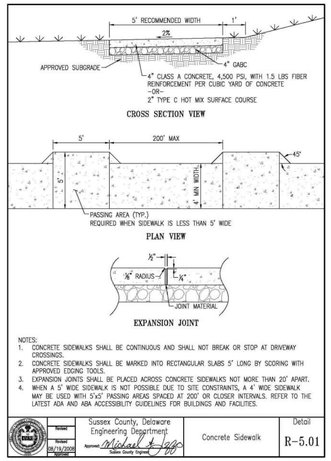
ALL DRAWINGS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM

PROJECT	RIBER20000
DATE	2020-08-07
DRAWING SCALE	AS SHOWN
DRAWN BY	MP/TPM
APPROVED BY	AMD

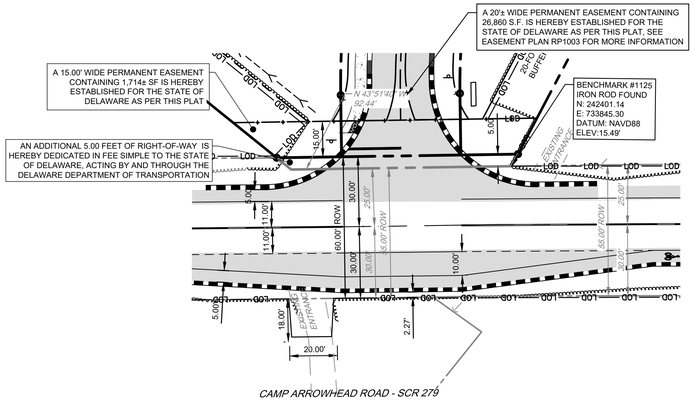
RP0002

SHEET 2 OF 7

U:\Accounts\RIBER\RIBER20000 - Hall Property-Major Subdivision\2SKSKN_SHEETS\RP0002.dwg PLOTTED: 7/11/2022 3:48 PM, By: Logan Strickland PLOTSTYLE: Pennoni-NCS.ctb PROJECT STATUS: —



NOTE: THE SIDEWALK THICKNESS SHALL BE INCREASED TO 6" CONCRETE / 6" STONE BASE AT ALL PROPOSED DRIVEWAYS AND TRANSITION AREAS



DETAIL- ENTRANCE BLOW UP (1 / RP1001)
SCALE: 1" = 30'

SITE INFORMATION:

SITE ADDRESS:
TERRAPIN ISLAND SUBDIVISION
TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE - 19958

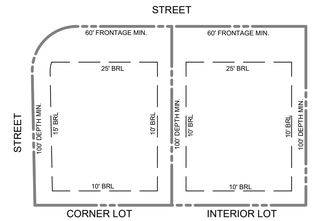
EQUITABLE OWNER/DEVELOPER:
RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108
(443) 871-0486

ENGINEER, PLANNER & SURVEYOR CONSULTANTS:
PENNONI ASSOCIATES INC.
18072 DAVIDSON DRIVE
MILTON, DELAWARE 19968
(302) 684-8030

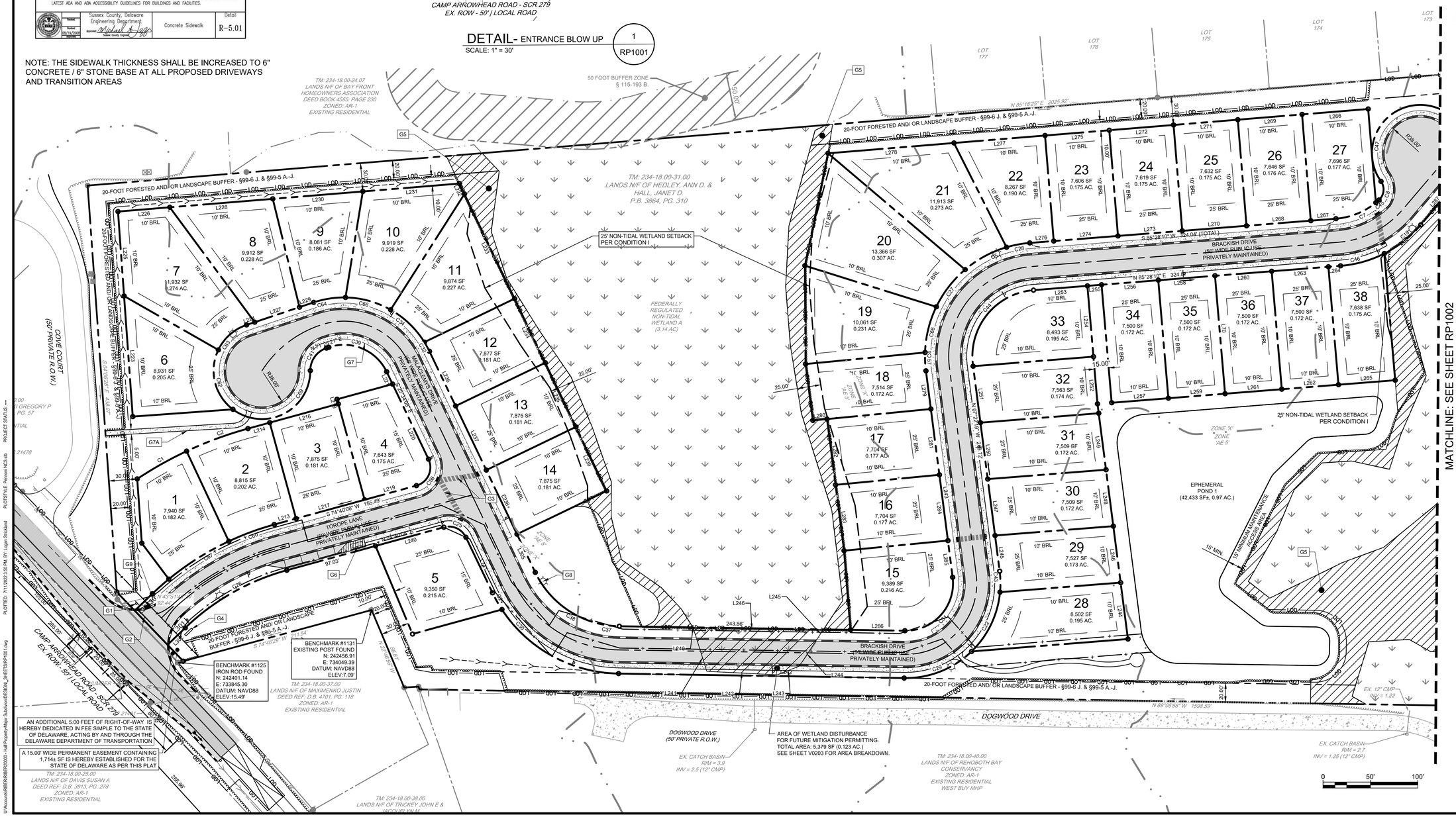
ENVIRONMENTAL CONSULTANTS:
ENVIRONMENTAL RESOURCES, INC.
38173 DUPONT BOULEVARD
PO BOX 169, SELBYVILLE, DE - 19975
(302) 436-9637

KEYED NOTES:

G1	CO-POST STOP SIGN (R1-1) 36"X36" AND STREET SIGN.
G2	16" WIDE STOP BAR
G3	PROPOSED CROSS WALK
G4	DEVELOPMENT SIGN, TYP.
G5	CONSERVATION EASEMENT, FOR EASEMENT TABLES SEE SHEET V0203.
G6	GROUP CLUSTER MAILBOX
G7	PROPOSED CONCRETE SIDEWALK
G7A	PROPOSED SIDEWALK CONNECTION PER CONDITION G
G8	PROPOSED STREET LIGHT, TYP.
G9	END OF SIDEWALK TO BE USED AS SCHOOL BUS STOP



LOT SETBACK DETAIL
NOT TO SCALE



U:\Accounts\RIBER\RIBER20000 - Hall Property\Major Subdivision\DESIGN_SHEET\RP1001.dwg PLOTTED: 7/11/2022 3:50 PM BY: Logan Strickland PLOTSTYLE: Pennoni NCS.ctb PROJECT STATUS: —

Pennoni
PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

TERRAPIN ISLAND SUBDIVISION (2020-13)
CAMP ARROWHEAD ROAD (SCR 279)
TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY
RECORD SUBDIVISION PLAN

RIBERA DEVELOPMENT, LLC.
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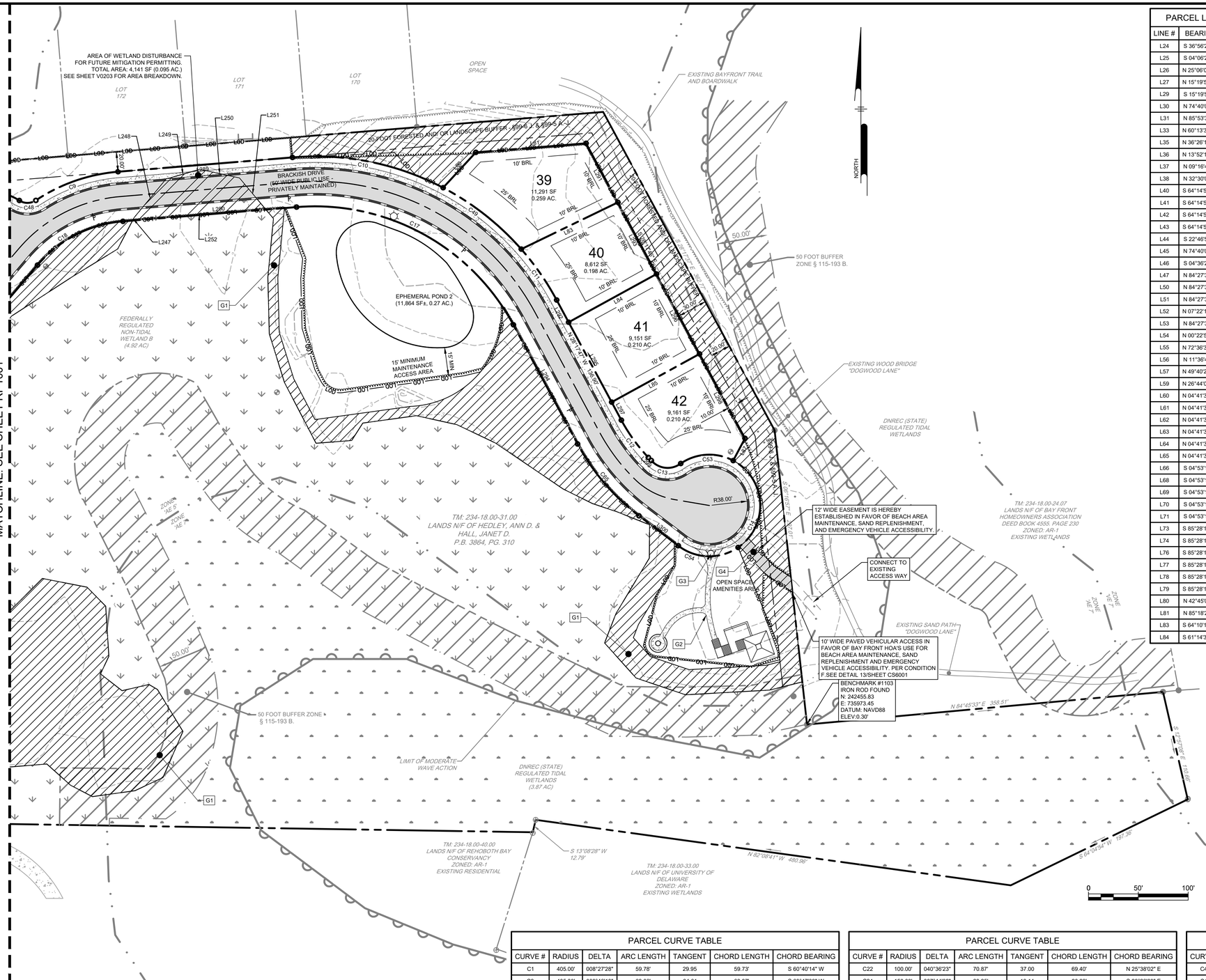
RP1001



KEYED NOTES:

- G1 CONSERVATION EASEMENT, FOR EASEMENT TABLES SEE SHEET V0203.
- G2 PROPOSED CONCRETE SIDEWALK
- G3 PROPOSED STREETLIGHT, TYP.
- G4 PROPOSED ROADWAY CONNECTION PER CONDITION F

PARCEL LINE TABLE		
LINE #	BEARING	DISTANCE
L24	S 36°56'28" E	47.40'
L25	S 04°06'28" E	68.05'
L26	N 25°06'02" W	105.00'
L27	N 15°19'52" W	105.00'
L29	S 15°19'52" E	110.00'
L30	N 74°40'08" E	60.72'
L31	N 85°53'32" E	105.95'
L33	N 60°13'34" W	114.55'
L35	N 36°26'18" W	150.76'
L36	N 13°52'10" W	117.74'
L37	N 09°16'49" E	113.36'
L38	N 32°30'08" E	144.91'
L40	S 64°14'53" W	105.61'
L41	S 64°14'53" W	105.00'
L42	S 64°14'53" W	105.00'
L43	S 64°14'53" W	104.99'
L44	S 22°46'55" E	100.85'
L45	N 74°40'08" E	97.80'
L46	S 04°36'28" E	83.85'
L47	N 84°27'31" E	110.06'
L50	N 84°27'31" E	110.06'
L51	N 84°27'31" E	125.06'
L52	N 07°22'19" W	60.03'
L53	N 84°27'31" E	126.64'
L54	N 00°22'52" W	103.84'
L55	N 72°36'34" W	145.26'
L56	N 11°36'47" E	121.08'
L57	N 49°40'26" W	189.69'
L59	N 26°44'05" W	123.22'
L60	N 04°41'35" W	111.76'
L61	N 04°41'34" W	111.95'
L62	N 04°41'33" W	112.14'
L63	N 04°41'32" W	112.34'
L64	N 04°41'35" W	112.53'
L65	N 04°41'35" W	99.21'
L66	S 04°53'13" E	134.20'
L68	S 04°53'13" E	125.00'
L69	S 04°53'13" E	125.00'
L70	S 04°53'13" E	125.00'
L71	S 04°53'13" E	125.00'
L73	S 85°28'18" W	127.32'
L74	S 85°28'10" W	125.15'
L76	S 85°28'10" W	125.15'
L77	S 85°28'10" W	125.15'
L78	S 85°28'10" W	127.60'
L79	S 85°28'10" W	165.45'
L80	N 42°45'04" E	48.28'
L81	N 85°18'25" E	110.99'
L83	S 64°10'15" W	107.69'
L84	S 61°14'31" W	100.52'

PARCEL LINE TABLE		
LINE #	BEARING	DISTANCE
L85	S 61°14'31" W	100.53'
L87	S 27°56'16" W	25.24'
L91	S 04°53'10" E	125.00'
L213	N 74°40'08" E	23.85'
L214	N 74°40'08" E	23.85'
L216	N 74°40'08" E	75.00'
L217	N 74°40'08" E	75.00'
L218	N 15°19'52" W	5.00'
L219	N 74°40'08" E	56.65'
L220	S 25°34'08" E	87.84'
L221	S 25°34'08" E	14.44'
L223	S 04°06'28" E	127.58'
L224	N 71°25'21" E	9.05'
L225	N 04°06'28" W	89.38'
L226	N 85°18'25" E	54.82'
L227	N 71°25'21" E	49.89'
L228	N 85°18'25" E	108.97'
L229	N 71°25'21" E	15.79'
L230	N 85°18'25" E	95.32'
L231	N 85°18'25" E	102.29'
L232	S 25°34'03" E	12.22'
L233	S 25°34'04" E	122.51'
L234	S 25°33'54" E	75.00'
L235	S 25°34'08" E	75.00'
L236	S 25°34'08" E	64.01'
L237	S 25°34'08" E	75.00'
L238	N 25°34'31" W	75.00'
L239	S 25°34'08" E	75.00'
L240	S 74°40'08" W	74.71'
L241	S 25°34'08" E	64.97'
L242	S 89°05'58" E	301.30'
L243	S 07°22'19" E	219.72'
L244	N 07°22'19" W	60.07'
L245	S 07°22'19" E	37.96'
L246	N 07°22'19" W	60.07'
L247	S 07°22'19" E	60.07'
L248	N 07°22'19" W	60.07'
L249	N 07°22'19" W	60.07'
L250	S 07°22'19" E	60.07'
L251	S 07°22'19" E	60.07'
L252	N 05°18'05" W	60.00'
L253	N 85°28'10" E	57.02'
L254	N 04°53'13" W	75.01'
L255	N 85°28'10" E	15.00'
L256	S 85°22'49" W	60.00'
L257	N 85°28'10" E	60.00'
L258	S 85°28'10" W	60.00'
L259	N 85°28'10" E	60.00'
L260	S 85°28'10" W	60.00'
L261	N 85°28'10" E	60.00'

PARCEL LINE TABLE		
LINE #	BEARING	DISTANCE
L262	N 85°28'10" E	60.00'
L263	S 85°33'30" W	60.00'
L264	S 85°28'10" W	12.85'
L265	N 85°22'49" E	60.00'
L266	N 85°18'25" E	70.00'
L267	N 85°28'10" E	26.70'
L268	N 85°28'10" E	68.00'
L269	N 85°18'25" E	68.00'
L270	N 85°28'10" E	68.00'
L271	N 85°18'25" E	68.00'
L272	N 85°18'25" E	68.00'
L273	N 85°28'10" E	68.00'
L274	N 85°28'10" E	68.00'
L275	N 85°18'25" E	68.00'
L276	N 85°28'10" E	25.34'
L277	N 85°18'25" E	96.41'
L278	N 85°18'25" E	133.29'
L279	N 07°22'19" W	40.62'
L280	S 84°27'31" W	15.01'
L281	N 07°22'19" W	70.04'
L282	N 07°22'19" W	70.04'
L283	N 07°22'19" W	70.04'
L284	N 07°22'19" W	70.04'
L285	N 07°22'19" W	39.02'
L286	N 89°05'58" W	57.45'
L287	N 40°23'17" E	70.29'
L289	S 85°18'25" W	176.83'
L290	N 85°18'25" E	174.70'
L291	S 28°17'36" E	67.29'
L292	N 28°17'46" W	25.32'
L293	N 28°17'36" W	81.67'
L294	S 28°17'46" E	135.81'
L295	N 28°17'48" W	91.03'
L296	N 28°18'02" W	91.03'
L297	S 28°17'47" E	20.55'
L298	N 28°17'46" W	96.21'
L299	N 44°08'10" W	4.33'
L300	S 52°43'59" E	49.92'
L301	N 46°08'20" E	25.84'
L302	N 46°08'20" E	25.84'
L303	S 46°08'20" W	25.84'
L304	S 46°08'20" W	25.84'

PARCEL CURVE TABLE						
CURVE #	RADIUS	DELTA	ARC LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING
C1	405.00'	008°27'28"	59.78'	29.95	59.73'	S 60°40'14" W
C2	405.00'	009°46'10"	69.06'	34.61	68.97'	S 69°47'03" W
C4	120.00'	009°17'01"	19.44'	9.74	19.42'	S 02°43'49" E
C5	120.00'	023°52'24"	50.00'	25.37	49.64'	S 61°35'41" W
C7	76.00'	034°41'46"	46.02'	23.74	45.32'	S 68°07'17" W
C8	15.00'	082°29'12"	21.60'	13.15	19.78'	S 06°15'09" W
C9	174.00'	029°04'02"	88.27'	45.11	87.33'	S 70°46'24" W
C10	274.00'	032°23'57"	154.94'	79.60	152.88'	N 78°29'36" W
C11	274.00'	013°02'04"	62.33'	31.30	62.20'	N 34°48'48" W
C12	175.00'	015°08'30"	46.25'	23.26	46.11'	N 35°52'01" W
C13	21.75'	085°55'23"	32.62'	20.26	29.65'	N 84°09'03" W
C14	51.00'	117°42'59"	104.78'	84.41	87.30'	N 03°12'30" W
C17	226.00'	066°23'49"	261.90'	147.88	247.49'	S 61°29'40" E
C18	126.00'	044°55'08"	98.78'	52.09	96.27'	N 62°50'51" E
C19	124.00'	022°45'32"	49.26'	24.96	48.93'	N 51°46'04" E

PARCEL CURVE TABLE						
CURVE #	RADIUS	DELTA	ARC LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING
C22	100.00'	040°36'23"	70.87'	37.00	69.40'	N 25°38'02" E
C24	150.00'	007°44'02"	20.25'	10.14	20.23'	S 29°26'09" E
C25	20.00'	079°45'44"	27.84'	16.71	25.65'	S 65°27'00" E
C26	250.00'	028°31'49"	124.49'	63.56	123.21'	N 60°24'13" E
C27	120.00'	023°52'24"	50.00'	25.37	49.64'	S 37°43'17" W
C28	120.00'	011°56'17"	25.00'	12.55	24.96'	S 79°30'01" W
C30	150.00'	055°47'48"	146.08'	79.42	140.37'	S 61°12'04" E
C31	50.00'	098°16'21"	85.76'	57.80	75.63'	S 41°45'51" W
C32	100.00'	006°18'40"	11.01'	5.51	11.01'	N 28°43'28" W
C34	100.00'	028°34'52"	49.88'	25.47	49.37'	N 46°10'15" W
C39	50.00'	083°00'30"	72.44'	44.24	66.27'	S 67°04'23" E
C41	25.00'	071°35'29"	31.24'	18.03	29.24'	N 35°37'37" E
C43	100.00'	012°42'10"	22.17'	11.13	22.13'	N 01°01'14" W
C44	70.00'	092°50'29"	113.43'	73.56	101.42'	N 39°02'55" E
C46	124.00'	022°19'20"	48.31'	24.47	48.00'	N 74°18'30" E

PARCEL CURVE TABLE						
CURVE #	RADIUS	DELTA	ARC LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING
C47	51.00'	158°41'16"	141.25'	271.05	100.24'	S 43°41'56" W
C49	274.00'	020°57'47"	100.25'	50.69	99.69'	N 51°48'44" W
C53	51.00'	062°15'26"	55.42'	30.80	52.73'	S 86°48'14" W
C54	51.00'	071°36'40"	63.75'	36.79	59.68'	S 88°32'22" E
C57	120.00'	009°17'01"	19.44'	9.74	19.42'	S 02°43'49" E
C58	20.00'	100°14'16"	34.99'	23.94	30.70'	S 24°33'00" W
C60	300.00'	009°46'10"	51.15'	25.64	51.09'	S 69°47'03" W
C62	51.00'	078°38'29"	70.00'	41.77	64.63'	S 13°46'17" E
C63	51.00'	045°52'23"	40.83'	21.58	39.75'	S 48°29'09" W
C64	100.00'	019°32'02"	34.09'	17.21	33.93'	S 81°11'23" W
C65	224.00'	024°26'13"	95.54'	48.51	94.81'	S 40°30'53" E
C66	100.00'	028°34'56"	49.89'	25.47	49.37'	N 74°45'09" W
C67	300.00'	014°19'26"	75.00'	37.70	74.80'	S 57°44'15" W

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Milton, DE 19968
T 302.684.8030 F 302.684.8054

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RP1002

SHEET 4 OF 7

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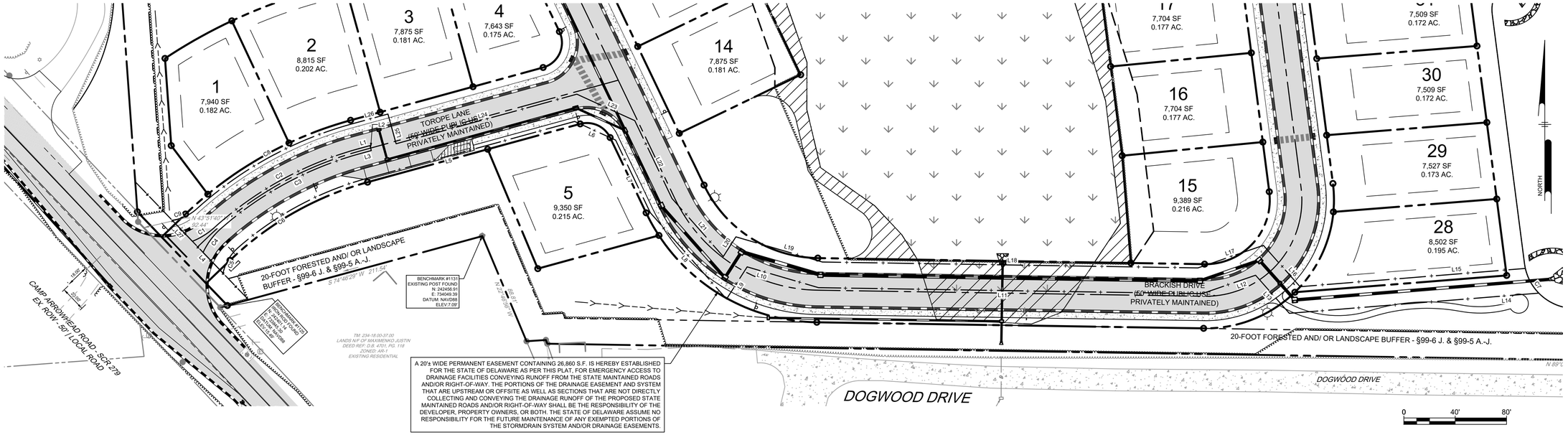


EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L1	N 74°40'08" E	9.38'
L2	S 15°19'52" E	4.00'
L3	S 74°40'08" W	9.38'
L4	S 43°51'40" E	22.43'
L5	N 74°40'08" E	168.12'
L6	S 65°27'00" E	35.06'
L7	S 25°34'08" E	62.73'
L8	S 41°27'06" E	89.62'
L9	N 32°39'57" E	29.77'
L10	S 73°45'44" E	57.86'
L11	S 89°05'58" E	298.76'
L12	N 71°00'48" E	44.14'
L13	S 41°33'49" E	39.65'
L14	N 85°22'19" E	194.95'
L15	S 85°22'19" W	176.08'
L16	N 41°33'49" W	43.01'
L17	S 71°00'48" W	53.98'
L18	N 89°05'58" W	292.56'
L19	N 73°45'44" W	70.12'
L20	S 32°39'57" W	18.23'
L21	N 41°27'06" W	60.35'
L22	N 25°34'08" W	67.20'
L23	N 65°27'00" W	49.57'
L24	S 74°40'08" W	146.00'
L25	N 15°19'52" W	24.00'
L26	S 74°40'08" W	29.38'
L27	S 43°51'40" E	22.68'

EASEMENT CURVE TABLE					
CURVE #	RADIUS	DELTA	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	56.40'	020°06'23"	19.79'	19.69'	N 58°10'30" E
C2	277.00'	026°47'21"	129.51'	128.34'	N 61°16'28" E
C3	273.00'	026°02'54"	124.11'	123.05'	S 61°38'41" W
C4	56.32'	023°32'07"	23.14'	22.97'	S 36°42'47" W
C5	36.32'	036°24'07"	23.08'	22.69'	N 30°14'40" E
C6	253.00'	026°02'32"	114.99'	114.01'	N 61°38'52" E
C7	40.00'	031°45'00"	22.17'	21.88'	N 28°34'17" W
C8	297.00'	026°46'48"	138.82'	137.56'	S 61°16'44" W
C9	36.40'	033°35'54"	21.34'	21.04'	S 64°58'44" W

PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

TERRAPIN ISLAND SUBDIVISION (2020-13)
CAMP ARROWHEAD ROAD (SCR 279)

TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY

EASEMENT PLAN

RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

NO.	DATE	REVISIONS	BY
3	2022-05-19	REVISED PER DELDOT COMMENTS	LFS
2	2022-02-18	REVISED PER DELDOT COMMENTS	LFS
1	2021-11-09	REVISED PER DELDOT COMMENTS	LFS

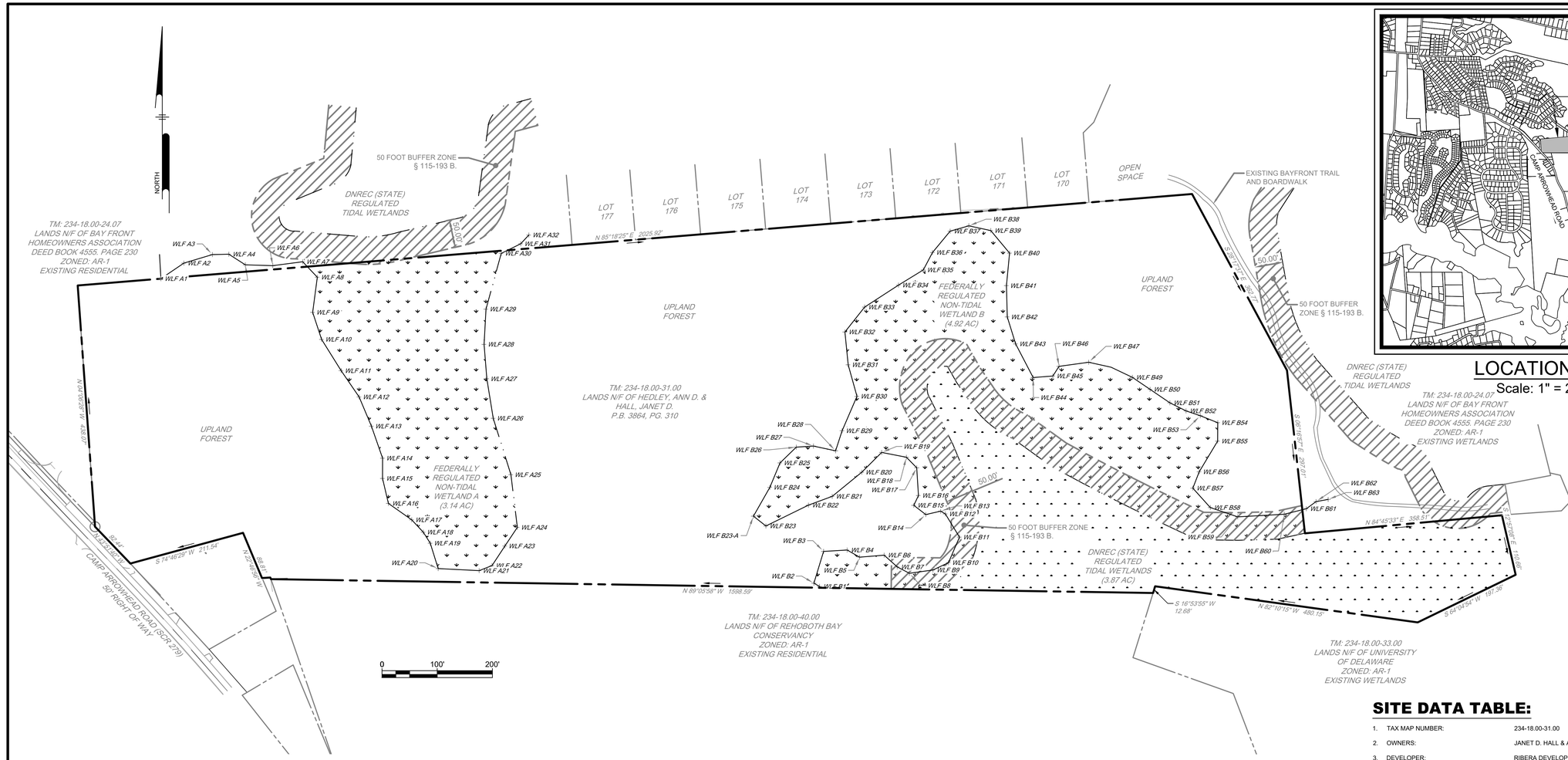
ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

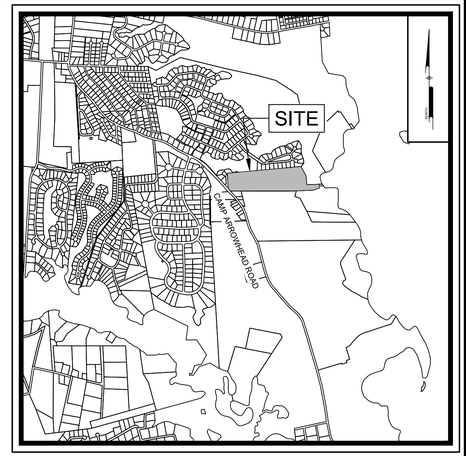
PROJECT	RIBER20000
DATE	2021-06-01
DRAWING SCALE	1"=40'
DRAWN BY	LFS
APPROVED BY	AMD

RP1003

SHEET 5 OF 7

U:\Accounts\RIBER\RIBER20000 - Hall Property+Major Subdivision\DESIGN\L_SHEETS\RP1003.dwg PLOTTED: 1/11/2022 1:50 PM, BY: Logan Strickland PLOTSTYLE: Pennoni NCS.stb PROJECT STATUS: —





LOCATION MAP
Scale: 1" = 2000'

Point Table: Wetland A			
Point #	NORTHING	EASTING	Elevation
WLF A1	242917.11	733900.59	2.73
WLF A2	242945.27	733942.22	2.61
WLF A3	242960.74	733993.94	2.67
WLF A4	242961.46	734023.70	2.25
WLF A5	242942.22	734053.60	2.48
WLF A6	242940.65	734103.32	3.19
WLF A7	242947.76	734157.50	2.87
WLF A8	242919.77	734184.03	2.62
WLF A9	242856.15	734175.62	3.28
WLF A10	242807.15	734191.79	3.17
WLF A11	242750.43	734227.19	3.39
WLF A12	242702.90	734259.73	3.11
WLF A13	242649.84	734282.11	3.35
WLF A14	242592.01	734302.28	3.30
WLF A15	242555.23	734302.15	4.02
WLF A16	242509.95	734312.86	3.66
WLF A17	242480.34	734355.00	3.72
WLF A18	242457.92	734376.01	3.45
WLF A19	242437.90	734388.69	2.98
WLF A20	242391.95	734403.01	3.22
WLF A21	242388.25	734477.24	2.97
WLF A22	242397.39	734500.56	3.05
WLF A23	242432.87	734523.91	3.31
WLF A24	242486.60	734546.41	3.35
WLF A25	242561.95	734534.86	3.26
WLF A26	242664.22	734502.79	2.61
WLF A27	242735.76	734491.15	3.21
WLF A28	242798.13	734486.19	3.17
WLF A29	242861.95	734489.64	3.05
WLF A30	242962.94	734517.22	3.35
WLF A31	242980.33	734552.57	3.83
WLF A32	242996.22	734567.27	3.65

Point Table: Wetland B			
Point #	NORTHING	EASTING	Elevation
WLF B1	242359.76	735093.95	2.68
WLF B2	242365.51	735083.72	2.59
WLF B3	242423.09	735101.34	2.95
WLF B4	242425.60	735144.00	2.80
WLF B5	242412.64	735166.65	2.82
WLF B6	242416.23	735211.05	2.74
WLF B7	242394.95	735234.80	2.64
WLF B8	242383.48	735256.76	2.80
WLF B9	242389.43	735299.47	2.61
WLF B10	242402.69	735327.53	3.12
WLF B11	242448.93	735347.53	2.52
WLF B12	242490.96	735322.00	2.25
WLF B13	242496.01	735313.44	3.03
WLF B14	242489.78	735286.51	2.92
WLF B15	242506.60	735264.86	2.79
WLF B16	242524.33	735273.24	2.67
WLF B17	242574.57	735270.06	2.28
WLF B18	242593.63	735251.37	2.80
WLF B19	242602.38	735206.57	2.86
WLF B20	242566.52	735170.58	2.82
WLF B21	242522.82	735117.00	3.02
WLF B22	242506.88	735073.91	3.57
WLF B23	242469.18	734996.84	2.65
WLF B23-A	242486.88	734974.22	3.06
WLF B24	242539.13	735004.03	2.88
WLF B25	242583.37	735022.44	3.09
WLF B26	242611.94	735051.88	2.92
WLF B27	242613.93	735083.00	2.86
WLF B28	242605.29	735123.08	2.32
WLF B29	242641.60	735134.94	2.86
WLF B30	242704.04	735161.86	2.63
WLF B31	242761.15	735145.93	3.15
WLF B32	242820.53	735140.02	3.21
WLF B33	242865.63	735175.62	2.73

Point Table: Wetland B			
Point #	NORTHING	EASTING	Elevation
WLF B34	242905.43	735237.09	2.97
WLF B35	242933.00	735282.10	2.51
WLF B36	242964.55	735298.62	2.33
WLF B37	243003.19	735330.61	2.45
WLF B38	243012.85	735364.49	2.68
WLF B39	243004.25	735404.24	2.35
WLF B40	242963.45	735438.32	2.44
WLF B41	242904.49	735432.69	2.82
WLF B42	242847.90	735434.16	2.37
WLF B43	242799.00	735449.35	2.37
WLF B44	242738.07	735481.03	2.36
WLF B45	242740.80	735516.78	2.41
WLF B46	242758.31	735527.93	2.42
WLF B47	242765.73	735581.65	2.96
WLF B49	242738.37	735660.80	2.89
WLF B50	242716.59	735692.92	2.92
WLF B51	242692.18	735728.80	2.75
WLF B52	242677.64	735758.08	2.61
WLF B53	242668.87	735783.90	3.00
WLF B54	242656.20	735815.56	2.56
WLF B55	242622.86	735815.33	2.64
WLF B56	242567.24	735781.87	3.39
WLF B58	242502.48	735802.03	2.77
WLF B59	242485.66	735851.68	2.34
WLF B60	242490.39	735936.01	2.16
WLF B61	242500.43	735976.05	2.79
WLF B62	242513.30	735993.66	2.73
WLF B63	242517.23	736015.58	2.52

LEGEND

BOUNDARY OF FEDERALLY REGULATED WETLANDS (USACOE)

BOUNDARY OF DNREC (STATE) REGULATED TIDAL WETLAND

PROPERTY LINE

ADJACENT PROP/ROW LINE

AREA OF FEDERALLY REGULATED WETLANDS (USACOE)

AREA OF DNREC (STATE) REGULATED TIDAL WETLAND

BUFFER FROM STATE REGULATED WETLAND (50' FEET)

SITE INFORMATION:

SITE ADDRESS:
TERRAPIN ISLAND SUBDIVISION
TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED
INDIAN RIVER HUNDRED SUSSEX COUNTY

DEVELOPER:
RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108
(443) 871-0486

ENGINEER, PLANNER & SURVEYOR CONSULTANTS:
PENNONI ASSOCIATES INC.
18072 DAVIDSON DRIVE
MILTON, DELAWARE 19968
(302) 684-8030

ENVIRONMENTAL CONSULTANTS:
ENVIRONMENTAL RESOURCES, INC.
38173 DUPONT BOULEVARD
PO BOX 169, SELBYVILLE, DE - 19975
(302) 436-9637

SITE DATA TABLE:

1. TAX MAP NUMBER: 234-18.00-31.00
2. OWNERS: JANET D. HALL & ANN D. HEDLEY
3. DEVELOPER: RIBERA DEVELOPMENT, LLC.
   8684 VETERANS HIGHWAY, SUITE 203
   MILLERSVILLE, MD 21108
4. HUNDRED/COUNTY: INDIAN RIVER HUNDRED / SUSSEX COUNTY
5. FLOOD ZONE: THIS PROPERTY IS LOCATED ON THE FEMA FLOOD INSURANCE RATE MAP NUMBER 10005C0342K, MAP REVISED MARCH 16, 2015.
6. TOPOGRAPHY: HORIZONTAL: NAD83
   VERTICAL: NAVD88 STATE PLANE DATUM

EXISTING CONDITION NOTES:

1. ELEVATIONS ARE BASED ON NAVD 88, AND DE STATE PLANE COORDINATE SYSTEM NAD 83 HORIZONTAL DATUM.
2. UNLESS SPECIFICALLY STATED OR SHOWN HEREON TO THE CONTRARY, THIS SURVEY IS MADE SUBJECT TO AND DOES NOT LOCATE OR DELINEATE:
   - 2.1. RIGHTS OR INTEREST OF THE UNITED STATES OF AMERICA OR STATE OF DELAWARE OVER LANDS NOW OR FORMERLY FLOWED BY TIDEWATER, BUT NO LONGER VISIBLE OR PHYSICALLY EVIDENT, OR LANDS CONTAINING ANY ANIMAL, MARINE OR BOTANICAL SPECIES REGULATED BY OR UNDER THE JURISDICTION OR ANY FEDERAL, STATE, OR LOCAL AGENCY.
   - 2.2. BUILDING SETBACK LINES, ZONING REGULATIONS OR LINES ESTABLISHED BY ANY FEDERAL, STATE OR LOCAL AGENCY WHICH MAY AFFECT THE BUILDING OR DEVELOPMENT POTENTIAL OF THE SUBJECT PROPERTY.
   - 2.3. ANY SUBSURFACE OR SUBTERRANEAN CONDITION, EASEMENTS OR RIGHTS, INCLUDING, BUT NOT LIMITED TO MINERAL OR MINING RIGHTS, OR THE LOCATION OF OR RIGHTS TO ANY SUBSURFACE STRUCTURES, CONTAINERS OR FACILITIES OR ANY OTHER NATURAL OR MAN-MADE SUBSURFACE CONDITION WHICH MAY OR MAY NOT AFFECT THE USE OR DEVELOPMENT POTENTIAL OF THE SUBJECT PROPERTY.
3. THIS SITE IS ZONED AR-1 (AGRICULTURAL RESIDENTIAL).
4. TIDAL AND NON TIDAL WETLANDS FOUND IN THE CENTER AND EASTERN PART OF THE PROPERTY WAS DELINEATED BY EDWARD LAUNAY OF ENVIRONMENTAL RESOURCES, INC IN JUNE 2020.
5. STORMWATER IS HANDLED BY OVERLAND FLOW INTO WETLANDS.

REFERENCE:
1. EXISTING CONDITIONS SURVEY PERFORMED BY PENNONI ASSOCIATES INC. IN JULY OF 2020.

FLOOD ZONE INFORMATION:
1. BASED UPON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) NUMBER 10005C0342K, EFFECTIVE DATE MARCH 16, 2015, THE PROPERTY IS LOCATED IN AN AREA PARTLY DESIGNATED AS FLOOD ZONE "X" (UNSHADED) & PARTLY AS ZONE "AE" (EL. 5 FT AND EL 7 FT).

ACREAGE TABLE	
UPLAND FOREST	20.20 AC.
FEDERALLY REGULATED NON-TIDAL WETLANDS	8.06 AC.
DNREC (STATE) REGULATED TIDAL WETLANDS	3.87 AC.
TOTAL SITE AREA	32.13 AC.

WETLAND STATEMENT

I, EDWARD M. LAUNAY, PWS, STATE THAT THE BOUNDARIES OF WATERS OF THE UNITED STATES INCLUDING WETLANDS SUBJECT TO THE CORPS OF ENGINEERS REGULATORY PROGRAM DELINEATED UPON THIS PLAN HAVE BEEN DETERMINED USING MY PROFESSIONAL JUDGMENT IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL AND IT'S SUPPLEMENTAL GUIDANCE INCLUDING THE ATLANTIC AND GULF COAST REGIONAL SUPPLEMENT (VERSION 2.0) AND THE 2020 NAVIGABLE WATERS PROTECTION RULE. THIS DELINEATION HAS NOT BEEN CONDUCTED FOR USDA PROGRAM OR AGRICULTURAL PURPOSES.

THE BOUNDARIES OF STATE REGULATED WETLANDS ON THIS PROPERTY WERE DETERMINED IN ACCORDANCE WITH DNREC WETLAND MAP NO. DNR-034

EDWARD M. LAUNAY, SENIOR PWS No. 875 Date
SOCIETY OF WETLANDS SCIENTISTS
CORPS OF ENGINEERS, CERTIFIED WETLAND DELINEATOR WDCP93MD0510036B

PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

TERRAPIN ISLAND SUBDIVISION (2020-13)
CAMP ARROWHEAD ROAD (SCR 279)

TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY

BOUNDARY OF WATERS OF THE UNITED STATES INCLUDING WETLANDS SUBJECT TO THE U.S. ARMY CORPS OF ENGINEERS REGULATORY PROGRAM

RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

NO.	DATE	REVISIONS	BY
5	2022-05-19	REVISED PER DELDOT COMMENTS	LFS
4	2022-02-18	REVISED PER DELDOT COMMENTS	LFS
3	2021-11-09	REVISED PER DELDOT COMMENTS	LFS
2	2021-08-03	REVISED PER PLANNING AND ZONING COMMENTS	LFS
1	2021-02-24	REVISED PER PLANNING & ZONING COMMENTS	TPM

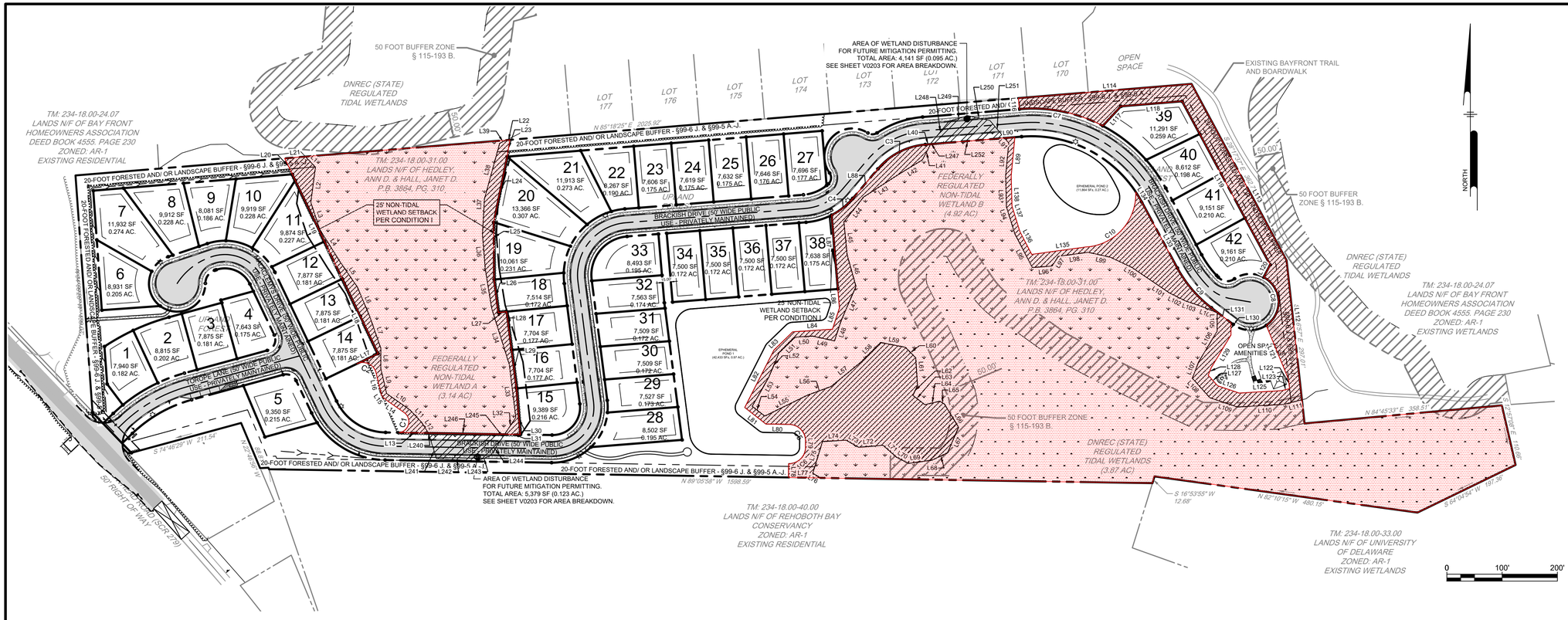
ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	RIBER20000
DATE	2020-07-27
DRAWING SCALE	1"=100'
DRAWN BY	MP/TPM
APPROVED BY	AMD

V0202

SHEET 6 OF 7

U:\Account\RIBER\RIBER20000 - Hall Property-Major Subdivision\DESIGN_SHEETS\V0202.dwg PLOTTED: 7/11/2022 3:51 PM, BY: Logan Strickland PLOTSTYLE: Pennoni NCS.ctb PROJECT STATUS: —



WETLAND "A" IMPACT AREA		
PAVEMENT	3,823 SF	0.088 AC.
GRASS (ROAD ROW)	1,556 SF	0.035 AC.
TOTAL	5,379 SF	0.123 AC.

WETLAND "A" IMPACT AREA

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L240	S 35°07'06" E	0.54'
L241	S 17°18'53" E	48.13'
L242	S 87°08'47" E	74.31'
L243	N 68°35'42" E	25.06'
L244	N 33°21'22" E	42.47'
L245	N 33°21'22" E	42.47'
L246	N 89°05'54" W	137.76'

LEGEND

BOUNDARY OF FEDERALLY REGULATED WETLANDS (USACOE)
BOUNDARY OF DNREC (STATE) REGULATED TIDAL WETLAND
PROPERTY LINE
ADJACENT PROP/ROW LINE
AREA OF FEDERALLY REGULATED WETLANDS (USACOE)
AREA OF DNREC (STATE) REGULATED TIDAL WETLAND
BUFFER FROM STATE REGULATED WETLAND (50 FEET)
WETLAND CONSERVATION EASEMENT AREA OUTSIDE OF EXISTING TIDAL AND NONTIDAL AREA (2.83 AC.)
OVERALL CONSERVATION EASEMENT AREA INCLUDING EXISTING TIDAL AND NONTIDAL AREA (14.76 AC)

WETLAND "B" IMPACT AREA		
PAVEMENT	2,746 SF	0.063 AC.
GRASS (ROAD ROW)	1395 SF	0.032 AC.
TOTAL	4,141 SF	0.095 AC.

WETLAND "B" IMPACT AREA

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L247	N 27°38'17" E	3.43'
L248	N 39°37'31" E	50.16'
L249	N 74°04'33" E	35.23'
L250	S 77°47'19" E	40.67'
L251	S 39°51'48" E	41.38'
L252	S 85°18'25" W	134.18'

WETLAND CONSERVATION EASEMENT TABLES

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L1	S 43°27'28" E	26.35'
L2	S 07°31'39" W	64.17'
L3	S 18°15'36" E	51.60'
L4	S 31°58'11" E	66.86'
L5	S 34°23'40" E	57.60'
L6	S 22°52'17" E	57.58'
L7	S 19°13'33" E	61.25'
L8	S 00°12'06" W	36.78'
L9	S 13°18'28" E	46.52'
L10	S 54°54'11" E	51.51'
L11	S 43°08'11" E	30.72'
L12	S 32°17'07" E	23.16'
L13	N 89°05'58" W	53.43'
L14	N 54°54'11" W	45.55'
L15	N 34°06'20" W	7.10'
L16	N 13°18'28" W	40.34'
L17	N 64°14'53" E	42.96'
L18	N 25°34'08" W	150.00'
L19	N 25°34'00" W	209.73'
L20	N 25°34'00" W	32.11'

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L21	N 85°18'25" E	37.79'
L22	S 85°18'25" W	6.83'
L23	N 09°03'01" E	30.88'
L24	N 11°36'47" E	121.08'
L25	N 00°22'52" W	103.84'
L26	N 07°22'19" W	60.03'
L27	S 84°27'31" W	15.01'
L28	N 07°22'19" W	70.04'
L29	N 07°22'19" W	70.04'
L30	N 04°36'28" W	83.85'
L31	S 89°05'58" E	28.41'
L32	S 33°42'01" W	36.56'
L33	S 06°54'19" E	96.05'
L34	S 17°24'38" E	107.17'
L35	S 09°14'40" E	72.49'
L36	S 04°32'34" E	62.57'
L37	S 03°05'34" W	63.91'
L38	S 15°16'35" W	104.69'
L39	S 63°48'22" W	13.03'
L40	S 85°18'25" W	9.72'

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L41	N 27°38'17" E	32.19'
L42	N 58°30'40" E	52.78'
L43	N 57°04'50" E	73.23'
L44	N 38°16'57" E	57.46'
L45	N 05°41'01" W	59.67'
L46	N 15°34'53" W	59.29'
L47	N 23°19'26" E	67.99'
L48	N 18°04'59" E	38.20'
L49	S 77°50'30" E	41.00'
L50	N 86°20'49" E	31.18'
L51	N 45°51'36" E	41.02'
L52	N 22°35'52" E	47.92'
L53	N 29°42'09" E	60.16'
L54	N 51°57'41" W	28.72'
L55	S 63°56'00" W	85.80'
L56	S 69°42'04" W	45.94'
L57	S 50°47'59" W	69.14'
L58	S 45°06'12" W	50.80'
L59	N 78°57'11" W	45.65'
L60	N 44°24'59" W	26.69'

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L61	N 03°37'56" W	50.34'
L62	N 25°18'13" E	19.62'
L63	N 52°08'49" W	27.41'
L64	S 76°58'03" W	27.65'
L65	N 59°27'43" W	9.94'
L66	N 31°16'29" W	49.18'
L67	N 23°23'27" E	50.38'
L68	N 64°42'09" E	31.04'
L69	N 82°04'25" E	43.12'
L70	S 62°24'54" E	24.77'
L71	S 48°08'27" E	31.89'
L72	N 85°22'30" E	44.55'
L73	S 60°13'02" E	26.10'
L74	N 86°37'29" E	42.73'
L75	N 17°01'08" E	47.83'
L76	N 60°38'55" W	17.02'
L77	S 89°05'58" E	58.78'
L78	S 00°53'57" W	25.00'
L79	S 00°00'00" E	11.02'
L80	S 89°05'58" E	42.09'

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L61	N 03°37'56" W	50.34'
L62	N 25°18'13" E	19.62'
L63	N 52°08'49" W	27.41'
L64	S 76°58'03" W	27.65'
L65	N 59°27'43" W	9.94'
L66	N 31°16'29" W	49.18'
L67	N 23°23'27" E	50.38'
L68	N 64°42'09" E	31.04'
L69	N 82°04'25" E	43.12'
L70	S 62°24'54" E	24.77'
L71	S 48°08'27" E	31.89'
L72	N 85°22'30" E	44.55'
L73	S 60°13'02" E	26.10'
L74	N 86°37'29" E	42.73'
L75	N 17°01'08" E	47.83'
L76	N 60°38'55" W	17.02'
L77	S 89°05'58" E	58.78'
L78	S 00°53'57" W	25.00'
L79	S 00°00'00" E	11.02'
L80	S 89°05'58" E	42.09'

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L81	S 51°57'41" E	48.60'
L82	S 26°55'30" W	116.64'
L83	S 45°51'36" W	47.35'
L84	S 86°20'49" W	71.99'
L85	S 18°04'59" W	40.47'
L86	S 04°42'12" E	34.62'
L87	S 04°53'13" E	134.20'
L88	S 40°23'17" W	70.29'
L89	S 05°27'09" W	70.19'
L90	N 85°18'25" E	18.67'
L91	N 39°51'48" W	11.78'
L92	N 05°27'09" E	59.23'
L93	N 01°29'31" W	56.61'
L94	N 17°15'24" W	51.21'
L95	N 27°28'09" W	68.67'
L96	S 85°37'41" W	35.86'
L97	S 32°28'17" W	20.75'
L98	S 82°08'22" W	54.24'
L99	N 77°30'09" W	41.63'
L100	N 55°52'13" W	38.81'

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L81	S 51°57'41" E	48.60'
L82	S 26°55'30" W	116.64'
L83	S 45°51'36" W	47.35'
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L93	N 01°29'31" W	56.61'
L94	N 17°15'24" W	51.21'
L95	N 27°28'09" W	68.67'
L96	S 85°37'41" W	35.86'
L97	S 32°28'17" W	20.75'
L98	S 82°08'22" W	54.24'
L99	N 77°30'09" W	41.63'
L100	N 55°52'13" W	38.81'

EASEMENT LINE TABLE		
LINE #	BEARING	DISTANCE
L122	N 06°16'57" W	16.91'
L123	N 75°54'51" E	14.60'
L125	N 86°47'14" E	77.24'
L126	S 71°17'06" E	41.04'
L127	S 41°56'34" E	25.40'
L128	S 21°09'12" W	14.22'
L129	S 31°02'04" W	69.59'
L130	S 00°23'53" W	22.38'
L131	S 52°43'59" E	44.63'
L133	S 28°17'46" E	135.81'
L134	S 30°58'56" E	21.18'
L135	N 82°08'22" E	54.16'
L136	S 27°28'09" E	46.24'
L137	S 17°15'24" E	48.94'
L138	S 01°29'31" E	54.61'

EASEMENT CURVE TABLE						
CURVE #	RADIUS	DELTA	ARC LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING
C1	20.11'	138°25'15"	48.58'	52.97'	37.60'	N 14°31'33" E
C2	25.00'	102°26'39"	44.70'	31.12	38.98'	N 64°31'47" W
C3	126.00'	044°55'08"	98.78'	52.09	96.27'	S 62°50'51" W
C4	124.00'	022°45'32"	49.26'	24.96	48.93'	S 51°46'04" W
C5	30.00'	036°07'06"	18.91'	9.78	18.60'	S 18°03'33" E
C6	30.00'	090°54'09"	47.60'	30.48	42.76'	S 45°27'01" W
C7	274.04'	032°40'05"	156.25'	80.31	154.14'	N 78°37'44" W
C8	51.00'	117°42'55"	104.78'	84.41	87.30'	N 03°12'30" W
C9	224.00'	019°38'55"	76.82'	38.79	76.44'	S 38°07'13" E
C10	96.07'	090°17'40"	151.40'	96.57	136.22'	N 42°43'26" E

PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

TERRAPIN ISLAND SUBDIVISION (2020-13)
CAMP ARROWHEAD ROAD (SCR 279)
TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY
WETLAND IMPACT PLAN

RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

BY	REVISIONS	DATE	NO.
LFS	REVISED PER DELDOT COMMENTS	2022-05-19	6
LFS	REVISED PER DELDOT COMMENTS	2022-02-18	5
LFS	REVISED PER DELDOT COMMENTS	2021-11-09	4
LFS	REVISED PER PLANNING AND ZONING COMMENTS	2021-08-03	3
LFS	REVISED PER CONDITIONS OF APPROVAL	2021-07-13	2
TPM	REVISED PER PLANNING & ZONING COMMENTS	2021-02-24	1

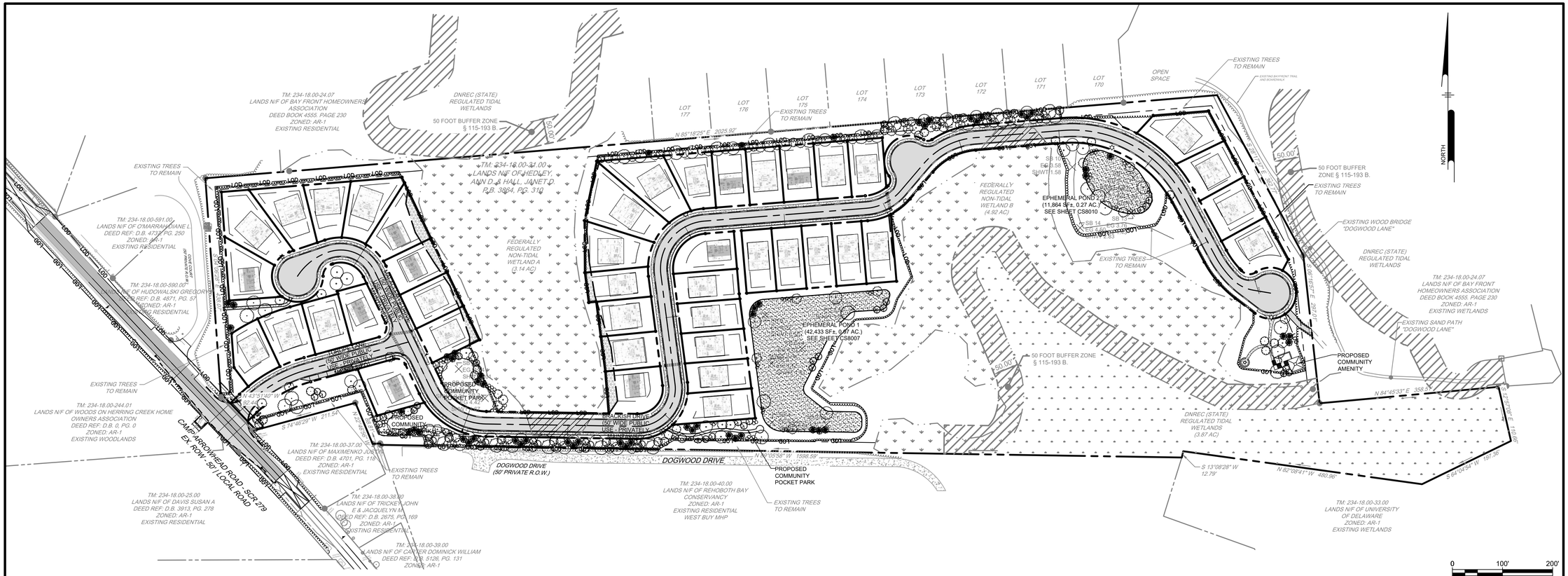
ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	RIBER20000
DATE	2020-07-27
DRAWING SCALE	1"=100'
DRAWN BY	MP/TPM
APPROVED BY	AMD

V0203

SHEET 7 OF 7

U:\Accounts\RIBER\RIBER20000 - Hall Property-Major Subdivision\DESIGN_SHEETS\V0203.dwg PLOTTED: 7/11/2022 3:52 PM, BY: Logan Strickland PLOTSTYLE: Pennoni MCS.stb PROJECT STATUS: —



LEGEND

PROPOSED	DESCRIPTION
	LARGE DECIDUOUS SHADE TREE (QP)
	LARGE DECIDUOUS SHADE TREE (AR)
	MEDIUM/LARGE DECIDUOUS TREE (CC)
	MEDIUM DECIDUOUS TREE (CF)
	MEDIUM/LARGE CONIFEROUS TREE (JV)
	MEDIUM/LARGE CONIFEROUS TREE (IO)
	MEDIUM/LARGE SHRUB (VD AND IV)

PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	SPACING
TREES						
QP	34	QUERCUS PALUSTRIS	PIN OAK	1.5" CAL	B&B	AS SHOWN
AR	29	ACER RUBRUM	RED MAPLE	1.5" CAL	B&B	AS SHOWN
CF	48	CORNUS FLORIDA	FLOWERING DOGWOOD	1.5" CAL	B&B	AS SHOWN
CC	54	CERIS CANADENSIS	EASTERN REDBUD	1.5" CAL	B&B	AS SHOWN
JV	46	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	5' HGT	B&B	AS SHOWN
IO	40	ILEX OPACA	AMERICAN HOLLY	5' HGT	B&B	AS SHOWN
IV	36	ILEX VERTICILLATA	WINTERBERRY	3' HGT	B&B	AS SHOWN
VD	36	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3' HGT	B&B	AS SHOWN

*NOTE - USE PLANT SYMBOLS RESPECTIVELY TO IDENTIFY LOCATION OF PLANTS ON PLAN
- EXISTING VEGETATION TO BE UTILIZED AS MUCH AS POSSIBLE

LANDSCAPE CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE REGULATIONS AND LAWS OF THE STATE OF DELAWARE.

ERIC W. WAHL, (DE# S1-0000409) DATE
PENNONI ASSOCIATES INC.
18072 DAVIDSON DRIVE MILTON, DE 19968

PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

TERRAPIN ISLAND SUBDIVISION

TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY

LANDSCAPE PLAN

RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

NO.	DATE	REVISIONS	BY
2	2022-03-07	REVISED PER SCED COMMENTS	LFS
1	2021-12-20	REVISED PER SCED COMMENTS	LFS

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	RIBER20000
DATE	2022-03-11
DRAWING SCALE	1"=100'
DRAWN BY	LFS
APPROVED BY	AMD

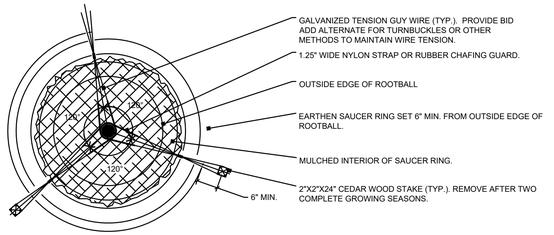
CS2001

SHEET 9 OF 27

PLOTTED: 7/11/2022 4:56 PM, BY: Logan Strickland PLOTSTYLE: Pennoni MCS.stb PROJECT STATUS: —
U:\Accounts\RIBER\RIBER20000 - Hall Property-Mayor Sullivan\DESIGN_SHEETS\CS2001.dwg

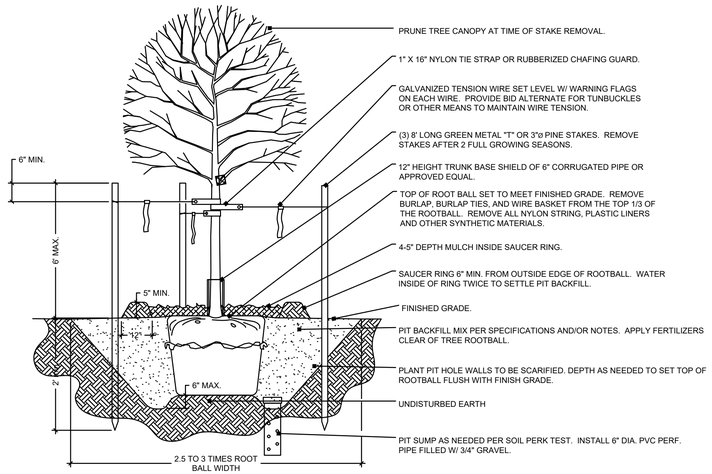
LANDSCAPE NOTES:

1. ALL PLANTS TO BE TRUE TO SPECIES, IN A RIGOROUS STATE OF GROWTH, MEET WITH THE LATEST STANDARDS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, AND BE FREE OF INSECTS, PESTS AND DISEASES. NO MATERIAL SUBSTITUTIONS ARE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT
2. CONTRACTOR SHALL OBTAIN A DIGITAL FILE FROM LANDSCAPE ARCHITECT AS NEEDED TO PROPERLY STAKE OUT PROPOSED TREE LOCATIONS
3. REFER TO PROJECT SPECIFICATIONS FOR ALL REQUIREMENTS AND SUBMITTALS NOT COVERED IN THESE NOTES, DETAILS, AND DRAWINGS.
4. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE PLANS, NOTES, AND SPECIFICATIONS.
5. MULCH:
   - 5.1. NATIVE SHREDDED HARDWOOD MIXED WITH NATIVE LEAF LITTER. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL.
   - 5.2. APPLY 1-2" DEPTH OF FINELY SHREDDED MULCH OVER GROUNDCOVER AND PERENNIAL BEDS.
   - 5.3. APPLY 2-3" DEPTH MULCH OVER SHRUB BEDS AND INSIDE SHRUB SAUCER RINGS.
   - 5.4. APPLY 4-5" DEPTH MULCH INSIDE TREE SAUCER RINGS.
6. FINE GRADING:
   FINE GRADE ALL GROUNDCOVER AND SHRUB BED PRIOR TO PLANTING. HAND GRADE ALL PROPOSED LAWN AREAS PRIOR TO HYDRO SEEDING OR LAYING SOD. REMOVE ALL ROCKS, CLUMPS, AND FOREIGN DEBRIS GREATER THAN 2" DIAMETER.
7. TOPSOIL:
   CONTRACTOR SHALL OBTAIN SOILS TESTS FROM THE DELAWARE DEPARTMENT OF AGRICULTURE EXTENSION OFFICE (OR EQUAL) AND FURNISH A COPY OF SAID REPORT TO LANDSCAPE ARCHITECT. PRE COUNTY REQUIREMENTS. 6" MINIMUM TOPSOIL SHALL BE PROVIDED THROUGHOUT THE SITE. PROVIDE 12" DEPTH TOP SOIL FOR ALL GROUNDCOVER PERENNIAL AND SEASONAL PLANTING BEDS. PROVIDE 18" DEPTH TOP SOIL FOR ALL TREE AND SHRUB BEDS.
8. PLANT PITS AND BACKFILL:
   - 8.1. ALL TREE PITS TO BE A MINIMUM OF 2.5 TIMES THE WIDTH OF THE ROOT BALL AND SHRUB PITS TO BE A MINIMUM OF 2 TIMES THE WIDTH OF THE CONTAINER OR ROOT BALL
   - 8.2. CONTRACTOR SHALL PERFORM A 24 HOUR PERK TEST ON TREE PITS. WATER SHOULD DRAIN FREELY FROM THE HOLE WITHIN A 24 HOUR PERIOD.
   - 8.3. SET TREE AND PIT DEPTH SUCH THAT THE TRUNK COLLAR OR WET LINE MATCHES THAT OF THE PROPOSED FINISH GRADE. IN POOR DRAINING SOILS CONDITIONS, SET TOPS OF ROOT BALLS APPROXIMATELY 2" ABOVE PROPOSED FINISH GRADE.
   - 8.4. FOR BALLED AND BURLAPPED TREES, REMOVE THE TOP 1/3 OF THE ROOT BALL CAGE PRIOR TO BACKFILL. REMOVE ALL TWINE AND TIES FROM THE TRUNK OF THE TREE.
   - 8.5. STANDARD PIT BACKFILL SHALL CONSIST OF 1/3 NATIVE SOIL, 1/3 COMPOST, AND 1/3 SPHAGNUM PEAT MOSS MIXED LIBERALLY TOGETHER. FOR POORLY DRAINING NATIVE SOIL CONDITIONS, PIT BACKFILL SHALL CONSIST OF 1/3 NATIVE SOIL, 1/3 COMPOST, AND 1/3 SAND MIXED LIBERALLY. ADJUST STANDARD FILL MATERIAL MIX WHERE STRUCTURAL SOILS ARE REQUIRED.
   - 8.6. AROUND EACH TREE SHAPE A 5-6" TALL SOIL SAUCER RING WITH THE INSIDE RING DIAMETER 12" WIDER THAN THE ROOT BALL. AROUND EACH SHRUB, SHAPE A 3-4" TALL SOIL SAUCER RING WITH AN INSIDE DIAMETER OF 8" WIDER THAN THE ROOT BALL.
   - 8.7. SETTLE TREE AND SHRUB PIT BACKFILL BY WATERING THE INTERIOR OF SAUCER RING TWICE BEFORE MULCHING.
9. TREE STAKING AND GUYING
   ALL TREES GREATER THAN 1.75" IN CALIPER OR 6' IN HEIGHT SHALL BE STAKED OR GUYED AS SHOWN IN DETAILS. LASSO TIES SHALL BE OF 1-1/4" WIDE NYLON STRAPS OR OF FLEXIBLE PLASTIC THAT WILL NOT CHAFE, SCAR OR DAMAGE TREE LIMBS. STAKE AND GUY CHORDS SHALL BE FLAGGED OR COVERED WITH APPROPRIATE MATERIALS SO THAT THEY ARE READILY VISIBLE. PROVIDE THREE (3) STAKES OR GUYS MINIMUM PER TREE, SPACED EQUALLY ABOUT THE TRUNK BASE. TWO (2) STAKES MINIMUM MAY BE USED IN NARROW, WIND-SHELTERED AREAS WHERE STANDARD STAKING OR GUYING WILL CANNOT FIT. CONTRACTOR SHALL REMOVE ALL STAKING AND GUYING MATERIALS AFTER ONE COMPLETE GROWING SEASON. ALTERNATIVE STAKING METHODS PROPOSED MUST BE SUBMITTED TO LANDSCAPE ARCHITECT FOR APPROVAL.
10. FERTILIZERS:
    FERTILIZERS FOR LAWNS, BEDS, AND TREE & SHRUB PITS SHALL BE DETERMINED THOUGH THIRD PARTY SOILS TESTING FURNISHED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT SOILS TEST RESULTS AND PROPOSED FERTILIZER PRODUCT(S) SPECIFICATIONS TO LANDSCAPE ARCHITECT FOR APPROVAL.
11. LANDSCAPE DRAINAGE:
    THE LANDSCAPE PLAN HAS BEEN PREPARED WITH EXISTING AND PROPOSED GRADIENT DATA PER THE CIVIL ENGINEER. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN EXISTING CONDITIONS OR PROPOSED GRADING THAT WOULD COMPROMISE THE PROPER INSTALLATION AND POSITIVE DRAINAGE OF PROPOSED LANDSCAPE PLANTINGS AND/OR SITE ELEMENTS.
12. SEEDED AREAS:
    THE LIMIT OF SEEDING SHALL EXTEND TO ALL NON SODDED AREAS DISTURBED BY CONSTRUCTION. CONTRACTOR SHALL SUBMIT APPROPRIATE NATIVE GRASS SEED MIX(ES) SPECIFICATIONS TO LANDSCAPE ARCHITECT FOR APPROVAL. AREA SEEDING SHALL BE AT A RATE OF APPROXIMATELY 1 LBS PER 2000 SF OR PER SEED MIX RECOMMENDATIONS TO ACHIEVE THE DESIRABLE PLS APPLICATION RATE. ALL SEED AREA SHALL APPLIED WITH HYDROMULCH OR WITH OTHER TACKIFYING METHODS TO ENSURE SOIL STABILITY THROUGH TO GERMINATION AND ESTABLISHMENT OF THE SEEDED AREA.
13. MAINTENANCE PERIOD AND GUARANTEE:
    CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS THROUGH ONE COMPLETE GROWING SEASON AFTER INITIAL PLANTING. NURSERY PLANT SELECTION MAY BE COORDINATED WITH LANDSCAPE ARCHITECT, BUT SHALL NOT EXEMPT CONTRACTOR FROM MAINTENANCE PERIOD RESPONSIBILITIES AND GUARANTEES. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT 2 WEEKS IN ADVANCE TO SCHEDULE AN APPOINTMENT FOR FIELD SELECTION OF PLANT MATERIALS.
14. QUALIFICATIONS, INSPECTIONS, AND APPROVALS:
    A STATEMENT OF QUALIFICATION SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT AND OWNER AT BID SUBMISSION. BONDING: AT OWNER'S DISCRETION, BONDING MAY BE REQUIRED BY THE CONTRACTOR, OR PROOF OF BONDABLE STATUS. REFER TO SPECIFICATIONS FOR LANDSCAPE INSPECTIONS SCHEDULE AND MATERIALS TESTING NOT COVERED IN THESE NOTES. RESULTS FROM ALL REQUIRED MATERIALS TESTING TO BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL. A NOTICE OF FINAL ACCEPTANCE SHALL BE ISSUED TO CONTRACTOR BY THE LANDSCAPE ARCHITECT UPON LANDSCAPE ARCHITECT AND OWNER APPROVAL OF ALL REQUIRED TESTING, MOCK-UPS AND SAMPLES, AND THE SATISFACTORY COMPLETION OF ALL LANDSCAPE CONSTRUCTION PUNCH-LIST ITEMS AND SUBMISSION OF WRITTEN GUARANTEES. A NOTICE OF CONDITIONAL ACCEPTANCE MAY BE ISSUED IN LIEU OF A FINAL ACCEPTANCE NOTICE BY LANDSCAPE ARCHITECT AT THE OWNER'S DISCRETION AND UNDER THE OWNER'S TERMS.
15. PER SUSSEX COUNTY ZONING ORDINANCE NO. 1984 SECTION 99-5 - FORESTED AND/OR LANDSCAPE BUFFER STRIP
    A. A MINIMUM TOTAL OF 15 TREES PER EVERY 100' OF STRIP
       70% DECIDUOUS SPECIES
       30% EVERGREEN SPECIES
16. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN "AMERICAN STANDARDS FOR NURSERY STOCK".
17. CONTRACTOR SHALL BE REQUIRED TO GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR AFTER INSTALLATION IS COMPLETE AND FINAL ACCEPTANCE OF PHASE I SITE WORK HAS BEEN GIVEN. AT THE END OF ONE YEAR ALL PLANT MATERIAL WHICH IS DEAD OR DYING SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AS ORIGINALLY SPECIFIED.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND MAY MAKE MINOR ADJUSTMENTS IN SPACING AND/OR LOCATION OF PLANT MATERIALS. CONTRACTOR TO VERIFY "AS BUILT" LOCATION OF ALL UTILITIES.
19. NO SUBSTITUTIONS SHALL BE MADE WITHOUT APPROVAL OF THE OWNER.
20. ALL AREAS NOT STABILIZED IN PAVING OR PLANT MATERIALS SHOULD BE SEEDED AND MULCHED. (SEE EROSION & SEDIMENT CONTROL PLAN.)
21. EVERGREEN TREES SHALL HAVE A FULL, WELL-BRANCHED, CONICAL FORM TYPICAL OF THE SPECIES.
22. ALL DECIDUOUS SHADE TREES SHALL BRANCH A MINIMUM OF 12'-0" ABOVE GROUND LEVEL. TREES SHALL BE PLANTED AND STAKED IN ACCORDANCE WITH THE STAKING DETAIL SHOWN.
23. THE FULL EXTENT OF ALL PLANTING BEDS SHALL RECEIVE 4" OF TOPSOIL AND 3" 0F BARK MULCH PER SPECIFICATIONS.
24. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THIS DRAWING AND AS SPECIFIED.
25. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING.
26. THE CONTRACTOR IS EXPECTED TO MAINTAIN PLANTINGS, INCLUDING WATERING ALL PLANTS ANY TIME FROM APRIL TO DECEMBER WHEN NATURAL RAINFALL IS LESS THAN ONE INCH PER WEEK.
27. THE DEVELOPER OR HOME OWNERS ASSOCIATION SHALL BEAR THE RESPONSIBILITY OF REPLACING ANY LANDSCAPING WITHIN SUSSEX COUNTY SEWER EASEMENTS THAT IS DESTROYED OR DAMAGED DUE TO SEWER SYSTEM MAINTENANCE, REPLACEMENT, OR EXTENSION.
28. ALL DECIDUOUS TREES THAT ARE PLANTED TO ESTABLISH THE BUFFER PLANTINGS SHALL HAVE A MINIMUM CALIPER OF 1.5 INCHES AND A MINIMUM HEIGHT OF SIX FEET ABOVE GROUND WHEN PLANTED IN ORDER TO INSURE THAT THE TREES WILL BE CAPABLE OF OBTAINING A MINIMUM HEIGHT OF 10 FEET ABOVE GROUND WITHIN FIVE YEARS OF BEING PLANTED.
29. ALL EVERGREEN TREES THAT ARE PLANTED TO ESTABLISH THE BUFFER PLANTINGS SHALL HAVE A MINIMUM HEIGHT OF FIVE FEET ABOVE GROUND WHEN PLANTED IN ORDER TO INSURE THAT THEY ARE REASONABLY CAPABLE OF ATTAINING A MINIMUM HEIGHT OF 10 FEET ABOVE GROUND WITHIN FIVE YEARS OF BEING PLANTED.
30. THE BUFFER AREA SHALL HAVE A FINAL GRADE THAT CONTAINS A MINIMUM OF FOUR INCHES OF TOPSOIL AND A SUITABLE GRASS MIX PLANTED AS SACRIFICIAL COVER BETWEEN THE BUFFER TREES FOR SOIL STABILIZATION UNTIL THE NEWLY PLANTED TREES BECOME LARGER. THE PLAN MAY SUBSTITUTE WOOD CHIPS FOR PLANTED GRASS BETWEEN THE BUFFER TREES IN RESPECT TO BOTH NEWLY PLANTED AND EXISTING TREES, AS DETERMINED BY THE LANDSCAPE ARCHITECT.
31. THE FORESTED AND/OR LANDSCAPE BUFFER SHALL BE INSTALLED WITHIN 18 MONTHS FROM THE DATE SITE WORK IS AUTHORIZED TO COMMENCE, AS DOCUMENTED BY A NOTICE TO PROCEED LETTER FROM THE COMMISSION.
32. THE LAND DEVELOPER SHALL BE HELD RESPONSIBLE FOR THE HEALTH AND SURVIVAL OF THE TREES, INCLUDING REGULAR NECESSARY WATERING FOR A MINIMUM OF TWO YEARS OR UNTIL SUCH LATER DATE AS THE MAINTENANCE RESPONSIBILITIES ARE TRANSFERRED TO A HOMEOWNERS' ASSOCIATION; PROVIDED, HOWEVER, THAT THE DEVELOPER SHALL REPLACE ANY TREES THAT DIE DURING THE MINIMUM TWO-YEAR DEVELOPER MAINTENANCE PRIOR TO TRANSFERRING MAINTENANCE RESPONSIBILITIES TO A HOMEOWNERS' ASSOCIATION.
33. THE PERPETUAL MAINTENANCE OF THE BUFFER PLANTINGS BY A HOMEOWNERS' ASSOCIATION SHALL BE ASSURED THROUGH THE RESTRICTIVE COVENANTS AND/OR HOMEOWNERS' ASSOCIATION DOCUMENTS WHICH ARE OBLIGATORY UPON THE PURCHASERS THROUGH ASSESSMENTS BY THE HOMEOWNERS' ASSOCIATION.



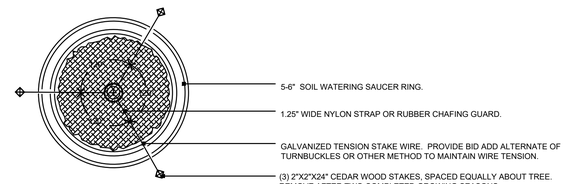
PLAN

NOTE: SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN TREES AND UTILITY FACILITIES SO AS TO NOT HINDER USE OR ACCESS TO SAID FACILITIES. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITES PRIOR TO DIGGING.

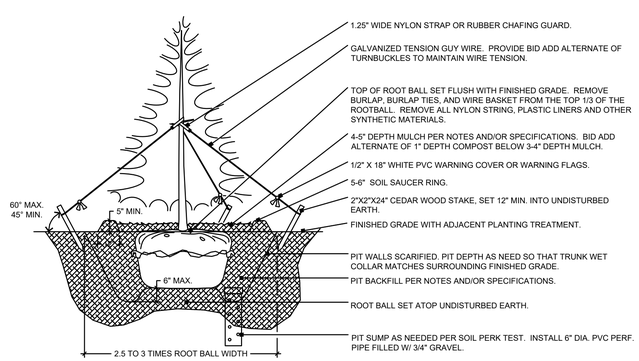


SECTION

A CANOPY TREE PLANTING AND GUYING
N.T.S.



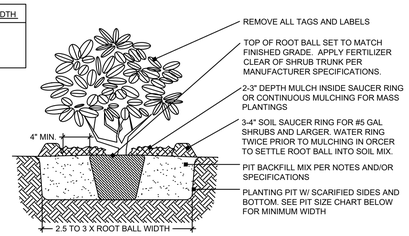
PLAN



SECTION

B EVERGREEN TREE PLANTING AND STAKING
N.T.S.

SHRUB SIZE	MIN. PIT WIDTH
#1 GALLON	18"
#3 GALLON	30"
#5 GALLON	42"



C SHRUB PLANTING
N.T.S.

LANDSCAPE CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE REGULATIONS AND LAWS OF THE STATE OF DELAWARE.

ERIC W. WAHL, (DE# S1-0000409) DATE
PENNONI ASSOCIATES INC.
18072 DAVIDSON DRIVE MILTON, DE 19968

PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

TERRAPIN ISLAND SUBDIVISION

LANDSCAPE PLAN NOTES & DETAILS

TAX MAP: 234-18.00-31.00
INDIAN RIVER HUNDRED SUSSEX COUNTY

RIBERA DEVELOPMENT, LLC.
8684 VETERANS HIGHWAY, SUITE 203
MILLERSVILLE, MD 21108

NO.	DATE	REVISIONS	BY
2	2022-03-07	REVISED PER SCED COMMENTS	LFS
1	2021-12-20	REVISED PER SCED COMMENTS	LFS

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	RIBER20000
DATE	2020-08-27
DRAWING SCALE	AS SHOWN
DRAWN BY	LFS
APPROVED BY	AMD

CS2002

SHEET 10 OF 27

U:\Accounts\RIBER\RIBER20000 - Hall Property-Major Subdivision\DESIGN_SHEETS\CS2002.dwg PLOTTED: 7/11/2022 4:57 PM, BY: Logan Strickland PLOTSTYLE: Pennoni MCS.stb PROJECT STATUS: —

OFFICE OF THE STATE FIRE MARSHAL
Technical Services

22705 Park Avenue
Georgetown, DE 19947

Plan Review Number: 2022-04-209590-MJS-01
Status: Approved as Submitted

Tax Parcel Number: 334-10.00-69.00
Date: 02/07/2022

Project

Lightship Cove
, Unit #: 98 Lots
McHugh Property

28784 Fisher Road
Milton DE 19968

Scope of Project

Number of Stories:
Square Footage:
Construction Class:
Fire District: 82 - Lewes Fire Dept Inc

Occupant Load Inside:
Occupancy Code: 9601

Applicant

Jim Eriksen
303 North Bedford Street
Georgetown, DE 19947

This office has reviewed the plans and specifications of the above described project for compliance with the Delaware State Fire Prevention Regulations, in effect as of the date of this review.

A Review Status of "Approved as Submitted" or "Not Approved as Submitted" must comply with the provisions of the attached Plan Review Comments.

Any Conditional Approval does not relieve the Applicant, Owner, Engineer, Contractor, nor their representatives from their responsibility to comply with the plan review comments and the applicable provisions of the Delaware State Fire Prevention Regulations in the construction, installation and/or completion of the project as reviewed by this Agency.

A final inspection is required.

This Plan Review Project was prepared by:

Dennett Pridgeon

RECEIVED

JUL 22 2022

SUSSEX COUNTY
PLANNING & ZONING

FIRE PROTECTION PLAN REVIEW COMMENTS

Plan Review Number: 2022-04-209590-MJS-01 **Tax Parcel Number:** 334-10.00-69.00

Status: Approved as Submitted **Date:** 02/07/2022

PROJECT COMMENTS

1002 A	**This project has been reviewed under the provisions of the Delaware State Fire Prevention Regulations (DSFPR) ADOPTED September 1, 2021. The Delaware State Fire Prevention Regulations are available on our website at www.statefiremarshal.delaware.gov. These plans were not reviewed for compliance with the Americans with Disabilities Act (ADA). These plans were not reviewed for compliance with any Local, Municipal, nor County Building Codes.**
2710 A	**The following items will be field verified by this Agency at the time of final inspection:**
1195 A	**Separate plan submittal is required for all flammable gas installations (regardless of tank size) proposed for this project.**
1030 A	**This site meets Water Flow Table 2, therefore the following water for fire protection requirements apply: Main Sizes: 6" minimum. Minimum Capacity: 500 gpm @ 20 psi residual for 1 hour duration. Hydrant Spacing: 800' on center.**
SINGLE FAMILY DWELLINGS	
1040 A	**This site meets Water Flow Table 2, therefore the following water for fire protection requirements apply: Main Sizes: 6" minimum. Minimum Capacity: 1,000 gpm @ 20 psi residual for 1 hour duration. Hydrant Spacing: 800' on center.**
OTHER STRUCTURES	
1233 A	**The fire department that responds to this location is using 5" storz fittings on the steamer.**
1408 A	**All premises where emergency personnel may be called upon to provide emergency services, which are not readily accessible from streets, shall be provided with suitable gates, access roads, and fire lanes so that all buildings on thepremises are accessible to emergency apparatus. (DSFPR Regulation 705, Chapter 5, Section 2).**

1170 A	The minimum paved radius of a cul-de-sac is 38 feet unobstructed as shown in Figure 5-1. (DSFPR Regulation 705, Chapter 5, Section 2.3.2).
1093 A	In the case of one and two-family dwellings emergency service access shall be provided in such a manner so that emergency apparatus will be able to locate within 100 feet from the street to the primary entrance. Where alleys are provided, pumpers shallbe able to access all portions of the alley without strict restrictions for entrance radii. (DSFPR Regulation 705, Chapter 5, Sections 2.2 and 2.2.1).
1106	The access road into the subdivision from the main thoroughfare is to be constructed so fire department apparatus may negotiate it. If a "center island" is placed at an entrance, it shall be arranged in such a manner that it will not adversely affect quick and unimpeded travel of fire apparatus into the subdivision.
1420 A	All fire hydrants shall be marked and identified in accordance with DSFPR Regulation 705, Chapter 6, Section 2.0.
1119 A	All proposed fire hydrants and water mains shall be installed in accordance with the most current edition of the Delaware State Fire Prevention Regulations (DSFPR, Part II, Chapters 6 & 7).
1132 A	Fire hydrants shall be color coded in accordance with the DSFPR, Part III, Section 3 4. This includes both color coding the bonnet and 2" reflective tape around the barrel under the top flange.
1232 A	All threads provided for fire department connections, to sprinkler systems, standpipes, yard hydrants or any other fire hose connections shall be uniform to those used by the fire department in whose district they are located. DSFPR Part III,Section 1.1.5.1.
1432 A	The steamer connection of all fire hydrants shall be so positioned so as to be facing the street or fire lane. (DSFPR Regulation 705, Chapter 5, Section 10). The center of all hose outlet(s) on fire hydrants shall be not less than 18 inches above finalgrade (NFPA 24, Section 7.3.3).
1180 A	This report reflects site review only. It is the responsibility of the applicant and owner to forward copies of this review to any other agency as required by those agencies.

1190 A Separate plan submittal is required for the building(s) proposed for this project.

SUBMITTAL REQUIRED FOR ANY OTHER BUILDINGS OTHER THAN SINGLE FAMILY DWELLINGS

9999

CENTRAL WATER FOR FIRE PROTECTION SHALL BE PROVIDED AND IN SERVICE AT THE COMPLETION OF CONSTRUCTION OF THE 50TH LOT, AND PRIOR TO CONSTRUCTION STARTING ON THE 51ST LOT.

March 22, 2022

Mr. Tim Green
Schell Brothers, LLC
20184 Phillips Street
Rehoboth Beach, Delaware 19971

RE: Lightship Cove Subdivision Ability to Serve and Water Plan Approval Letter

With reference to your request concerning Water Service ("Service") for Lightship Cove Subdivision Project on Fisher Road in Lewes-Rehoboth Hundred, Sussex County, Delaware, with tax parcel number 334-10.00-69.00 (the "Property"), please be advised as follows:

Subject to the following conditions, Artesian Water Company, Inc. ("Artesian") is willing and able to provide Service to the Property that meets all applicable State of Delaware, Delaware Department of Natural Resources and Environmental Control, and Sussex County standards. Artesian has the water Certificate of Public Convenience and Necessity ("CPCN") from the Delaware Public Service Commission.

Based on current conditions and subject to the development entity and Artesian entering a Water Service Agreement ("Agreement") that addresses the financial terms of the provision of Service for the Property, in accordance with Artesian's tariff as approved by the Delaware Public Service Commission, Artesian is willing and able to provide the required Service for this Property.

Furthermore, we have reviewed and approved the Water Plans prepared by Solutions IPEM dated September 22, 2021 last revised February 2, 2022.

This letter shall expire if Agreements are not executed within one year of the date of this letter.

If you have any questions, please do not hesitate to contact us.

Yours very truly,

Katherine E. Garrison

Katherine E. Garrison
Senior Planning Designer

Cape Henlopen School District

Richard Crisci
Transportation Supervisor
Richard.Crisci@cape.k12.de.us

DISTRICT OFFICE
1270 KINGS HIGHWAY
LEWES, DE 19958
302-644-7900

July 11, 2022

To Whom It May Concern:

This letter is in response to a request that Cape Henlopen School District provide a bus stop for the proposed Lightship Cove subdivision off of Fisher Rd. The district will create a bus stop at the entrance to the development: Hermitage Way and Fisher Rd.

The district does not require a school bus shelter but does request the developer/builder consider a sidewalk and area for vehicles to park that will not impede the flow of traffic into and out of the development while students wait for the bus.

Please feel free to contact me if there are any further questions or concerns.

Cordially,

Richard Crisci
Transportation Supervisor

The Cape Henlopen School District is an equal opportunity employer and does not discriminate on the basis of race, color, creed, religion, gender (including pregnancy, childbirth and related medical conditions), national origin, citizenship or ancestry, age, disability, marital status, veteran status, genetic information, sexual orientation, or gender identity, against victims of domestic violence, sexual offenses, or stalking, or upon any other categories protected by federal, state, or local law. (El Distrito Escolar Cape Henlopen ofrece oportunidades iguales de empleo y sin discriminación de raza, color, credo, religión, género (incluyendo embarazo, parto y sus condiciones médicas), nacionalidad, ciudadanía o ascendencia, edad, discapacidad, estado civil, servicio military(veterano), información genética, orientación sexual, o identidad de género, en contra de víctimas de violencia doméstica, ofensas sexuales, acecho, o bajo cualquier otra categoría protegida por la ley local, estatal, y federal.) Edward I. Waples, Employee/Student Compliance Officer: OCR/Title IX/504 Office of Human Resources; LouAnn Hudson, Student 504 Compliance Officer, 1270 Kings Highway, Lewes, DE 19958.

STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

NICOLE MAJESKI
SECRETARY

July 28, 2022

Mr. Jamie Whitehouse, Director
Sussex County Planning & Zoning Commission
Sussex County Administration Building
P.O. Box 417
Georgetown, Delaware 19947

SUBJECT: **Letter of No Objection to Recordation**
Lightship Cove
Tax Parcel # 334-10.00-69.00
Fisher Road (SCR 262)
Indian River Hundred, Sussex County

Dear Mr. Whitehouse:

The Department of Transportation has reviewed the Site Plan, dated August 20, 2021 (last revised July 13, 2022), for the above referenced site, and has no objection to its recordation as shown on the enclosed drawings. This "No Objection to Recordation" approval shall be valid for a period of **five (5) years**. If the Site Plan is not recorded prior to the expiration of the "No Objection to Recordation", then the plan must be updated to meet current requirements and resubmitted for review and approval.

This letter does not authorize the commencement of entrance construction. Entrance plans shall be developed in accordance with DelDOT's Development Coordination Manual and submitted to the Development Coordination Section for review and approval.

This "No Objection to Recordation" letter is not a DelDOT endorsement of the project discussed above. Rather, it is a recitation of the transportation improvements, which the applicant may be required to make as a pre-condition to recordation steps and deed restrictions as required by the respective county/municipality in which the project is located. If transportation investments are necessary, they are based on an analysis of the proposed project, its location, and its estimated impact on traffic movements and densities. The required improvements conform to DelDOT's published rules, regulations and standards. Ultimate responsibility for the approval of any project rests with the local government in which the land use decisions are authorized. There

may be other reasons (environmental, historic, neighborhood composition, etc.) which compel that jurisdiction to modify or reject this proposed plan even though DelDOT has established that these enumerated transportation improvements are acceptable.

If I can be of any further assistance, please call me at (302) 760-2266.

Very truly yours,

Wendy L. Polasko

Wendy L. Polasko, P.E.
Subdivision Engineer
Development Coordination

cc: Timothy Green, Schell Brothers
Jason Palkewicz, Solutions IPEM
Sussex County Planning & Zoning
Jessica L. Watson, Sussex Conservation District
Matt Schlitter, South District Public Works Engineer
James Argo, South District Project Reviewer
Richard Larkin, South District Subdivision Manager
Jennifer Pinkerton, Chief Materials & Research Engineer
Linda Osiecki, Pedestrian Coordinator
John Fiori, Bicycle Coordinator
Mark Galipo, Traffic Development Coordination Engineer
Tim Phillips, Maintenance Support Manager
Dan Thompson, Safety Officer North District
Jared Kauffman, DTC Planner
James Kelley, JMT
Brian Yates, Sussex County Reviewer

DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

Office of Engineering
Phone: (302) 741-8640
Fax: (302) 741-8631

January 21, 2022

ARTESIAN WATER COMPANY, INC.

APPROVAL TO CONSTRUCT
Artesian Northern Sussex Regional
Lightship Cove Connection
PWS #DE0020003
Approval #22W09

Mr. Tim Green
Schell Brothers, LLC
20184 Phillips Street
Rehoboth Beach, DE 19971

RECEIVED
JUL 22 2022
SUSSEX COUNTY
PLANNING & ZONING

Dear Mr. Green:

As provided by Section 2.11 of the *State of Delaware Regulations Governing Public Drinking Water Systems*, you are granted approval to connect Lightship Cove to the future main extension in accordance with the plans submitted by Solutions IPEM. The plans consist of:

1. Transmittal letter dated January 12, 2022.
2. Three copies of the plans entitled "Lightship Cove" dated September 22, 2021 and revised November 18, 2021.

These plans, as noted, are made a part of this approval. This approval is granted subject to the enclosed list of conditions.

It is the owner's responsibility to ensure as-built drawings are maintained throughout all phases of construction. Prior to receiving an Approval to Operate, the Office of Engineering requires one set of as-built drawings, including profile markups where sanitary sewer crosses proposed water mains.

The Office of Engineering recommends detectable tracer tape that is three inches wide and blue in color to be installed directly above all water mains larger than two inches in diameter.

A temporary blow-off may be required at the dead end of Waterline A station 33+98.82 on sheet 39.

Two copies of the plans will be sent back with a copy of this Approval to Solutions, IPEM that are signed and dated by the Office of Engineering.

If you have any questions regarding this matter, please feel free to contact Bill Milliken at (302) 741-8646.

Plans reviewed by:

William J. Milliken, Jr.
Engineer III
Office of Engineering

Sincerely,

Doug Lodge, P.E.
Supervisor of Engineering
Office of Engineering

cc: Public Service Commission
Edwin Tucci, Solutions IPEM
Virginia Eisenbrey, Artesian Water Company, Inc.
Ashley Kunder, Office of Drinking Water

1. The approval is void if construction has not started by January 21, 2023.

2. The project shall be constructed in accordance with the approved plans and all required conditions listed in this Approval to Construct. If any changes are necessary, revised plans shall be submitted and a supplemental approval issued prior to the start of construction. As-built plans including profile mark-ups must be submitted to the Office of Engineering after construction has been completed.

3. Representatives of the Division of Public Health may inspect this project at any time during the construction.

4. This approval does not cover the structural stability of any units or parts of this project.

5. The water system shall be operated in conformance with the *State of Delaware Regulations Governing Public Drinking Water Systems.*

6. All potable water lines and appurtenances shall be disinfected using one of the methods in the American Water Works Association Standard C651, current edition.

7. Water mains crossing sanitary and storm sewers should be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer, and the water main should be above the sewer. At crossings, one full length of water pipe should be located so both joints will be as far from the sewer as possible. Special structural support for the water and sewer pipes may be required. In cases where it is not practical to maintain an 18-inch separation, the Division may allow deviation on a case-by-case basis if supported by data from the design engineer.

8. Water mains should be laid 10 feet horizontally from any existing or proposed sanitary or storm sewers. The distance should be measured edge to edge. In cases where it is not practical to maintain a 10-foot separation, the Division may allow deviation on a case-by-case basis if supported by data from the design engineer.

9. All chemicals, materials, mechanical devices, and coatings in contact with potable water shall comply with National Sanitation Foundation/American National Standards Institute Standards (NSF/ANSI) 60 and 61 and shall be inert, nontoxic, and shall not import any taste, odor, or color to the water.

10. Sufficient valves should be provided so that inconvenience and sanitary hazards will be minimized during repairs. Valves should be located at not more than 500-foot intervals in commercial districts and at not more than one block or 800-foot intervals in other districts.

11. There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the system.

12. Fire hydrant drains shall not be connected to or located within 10 feet of sanitary sewers, storm sewers, or storm drains.

13. Prior to usage of water from this new well, water plant, storage plant, or distribution system, approval for the water quality must be obtained from the Division of Public Health.

14. The water system should be capable of providing at least 25 psi at ground level at all times throughout the distribution system.

15. All plastic pipe utilized in this drinking water system shall be approved for potable water use (NSF-pw). If any piping is joined with solder or flux, the solder and flux shall be lead free (less than or equal to 0.2 percent lead).

16. All water lines should be buried to a depth of at least 3 feet.

17. This approval is for the distribution system only. Plans and specifications for all well plumbing, pumps, storage (including any interior coatings), and treatment must be submitted to and approved by this office prior to their installation.

18. The approval is subject to immediate revocation upon violation of any of the preceding conditions.

19. All other local (county/city/town) approvals or permits needed must be obtained prior to beginning construction.

20. Upon completion of construction and before the system is placed into operation, a "Notice of Completion" must be submitted to the Office of Engineering. Before placing the system into operation, the following must be adhered to:
    a. Submit a set of as-built plans with profile markups to the Office of Engineering.
    b. Obtain an Approval to Operate from the Office of Engineering.

DELAWARE DEPARTMENT OF
NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

89 Kings Highway
Dover, DE 19901
(302) 739-9000
dnrec.delaware.gov

May 4,2022

Mr. Tim Green
Schell Brothers
20184 Phillips Street
Rehoboth Beach, DE 19971

Ref: Lightship Cove
State Wastewater Construction Permit No. WPCC 3033/22

Dear Mr. Green:

Please find enclosed a copy of the construction permit that was issued for the referenced project.

We expect the permitted construction to be completed within the permit term. If the construction cannot be completed by the permit expiration date, a one-time, no-cost two-year permit extension is available, as long as the request is received in writing prior to the expiration date and as long as the scope of the project has not changed significantly, as determined by the Department.

Per Part II.A.2.a of the enclosed permit, notify the Department of any changes to the construction authorized therein. Per Part II.B.1, submit a set of "as-built" plans of the constructed wastewater facilities within ninety (90) days of construction completion. The as-built plans must be signed and sealed by a Professional Engineer licensed in Delaware.

If you have any questions, please contact me at (302) 739-9941 or via email at davison.mwale@delaware.gov.

Sincerely,

Dr. Davison Mwale, (PhD)
Environmental Finance

Enclosures
Email: Mr. Jim Ericksen, P.E, Solutions IPEM
Ms. Katherine E. Garrison, Artesian Wastewater Management, Inc.

ENGINEERING DEPARTMENT

JOHN J. ASHMAN
SR. MANAGER OF UTILITY PLANNING
& DESIGN REVIEW

(302) 855-7370 T
(302) 854-5391 F
jashman@sussexcountyde.gov

Sussex County

DELAWARE
sussexcountyde.gov

HANS M. MEDLARZ, P.E.
COUNTY ENGINEER

May 2, 2022

RECEIVED

JUL 22 2022

SUSSEX COUNTY
PLANNING & ZONING

Mr. Jim Eriksen, P.E.
Solutions, IPEM
303 N. Bedford Street
Georgetown, DE 19947

REF: **LIGHTHSHIP COVE (FKA FISHER ROAD)**
SUBDIVISION NO. 2021-11
SUSSEX COUNTY TAX MAP NUMBER
334-10.00-PARCEL 69.00 - CLASS-3
AGREEMENT NO. 1166

Dear Mr. Ericksen:

The above referenced project was approved on April 29, 2022, and two (2) sets of the approved plan is enclosed. This approval is valid for three (3) years, unless prior to expiration of that three (3) year period, a time extension is requested and approved by the Department. Plans granted an extension beyond the three (3) period will be required to meet updated standards and specifications.

Also, it is your responsibility to secure approvals and/or permits that may be required by other regulatory agencies.

Please contact Mrs. Susan Isaacs of the Department's Division of Utility Engineering to initiate pre-construction procedures for private roads.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

SUSSEX COUNTY ENGINEERING DEPARTMENT

Jordan T. Dickerson
Public Works Technician IV

cc: Field File, w/enclosure

Sussex conservation district

March 31, 2022

Mr. Tim Green
Schell Brothers, LLC
20184 Phillips Street
Rehoboth Beach, DE 19971
tgreen@schellbothers.com

RE: Lightship Cove

Dear Mr. Green:

A Sediment and Stormwater Management Plan has been reviewed for compliance with the Sediment and Stormwater Regulations and is approved with conditions (see attached). Enclosed herein please find a copy of the approved application form and approved plan sets. Please retain a copy for your use, and provide the contractor with a copy to be retained onsite at all times. Failure to keep an approved plan onsite is a violation of the approved plan.

Approval of a Sediment and Stormwater Plan does not grant or imply a right to discharge stormwater runoff. The owner/developer is responsible for acquiring any and all agreements, easements, etc., necessary to comply with State drainage and other applicable laws.

This plan approval pertains to compliance with the Delaware Sediment and Stormwater Regulations. Please understand that the approval of this plan does not relieve you from complying with any and all federal, state, county, or municipal laws and regulations.

As of January 1, 2014, the Sussex Conservation District began collecting financial guarantees to ensure the construction of stormwater management practices is accomplished in accordance with the approved sediment and stormwater plan. Please refer to the SCD Policy on Bonds located on our website at Sussexconservation.org. If you have any questions concerning the aforementioned, please do not hesitate to call 302 856-7219.

Sincerely,

Jessica Watson

Jessica Watson
Program Manager

CONDITIONS OF APPROVAL

NOTIFICATION

1. This approved plan will remain valid for 5 years from the date of this approval. If construction does not begin within five years, the approved plan will be considered to have expired and must be resubmitted to the District for a new review. In addition, if work is not completed within the five-year timeframe, the District must be contacted and a request for an extension submitted. Depending on regulation changes, a new plan may need to be submitted to ensure that all stormwater management facilities are constructed to the most recent standards.

2. Submittal of the Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activities together with this approval of the detailed Sediment and Stormwater Plan provide this project with Federal permit coverage to be authorized to discharge stormwater associated with construction activities. It is the owner's responsibility to ensure that permit coverage remains valid throughout construction by submitting the NOI fee annually as requested. The developer is responsible for weekly self-inspection reporting to be retained onsite.

3. Notify the Sussex Conservation District Sediment and Stormwater Management Section of your intent to begin construction in writing five (5) days prior to commencing. Failure to do so constitutes a violation of the approved plan.

CHANGES

1. This project is to be undertaken in accordance with the plans submitted and as approved. If changes are necessary at any time during the completion of the project, submit revised plans, prior to further construction, to the Sussex Conservation District Sediment and Stormwater Program for review and approval of the revision.

2. Should ownership change during the construction period, a revised plan must be submitted for approval showing the new owner's signature on the owner's certification. In addition, a Transfer of Authorization form must be submitted to DNREC to transfer Federal permit coverage to the new owner.

CONSTRUCTION AND CLOSEOUT

1. A pre-construction meeting must take place before any land disturbing activity begins. The meeting may take place on site and be attended by the owner, contractor, design consultant, Certified Construction Reviewer, and Sussex Conservation District Sediment and Stormwater Program Construction Reviewer. The owner or the owner's designee shall contact the Sussex Conservation Construction Reviewer to schedule the pre-construction meeting.

2. Keep available onsite, during all phases of construction, a copy of the approved Sediment and Stormwater Management Plan.

3. Keep available onsite, during all phases of constriction, copies of the Developers weekly self-inspection reports and/or the CCR Reports.

4. Any sediment transported off-site to roads or road rights-of-way including ditches shall be removed. Any damage to ditches shall be repaired and stabilized to original condition.

5. Grading shall not impair surface drainage, create an erosion hazard, or create a source of sediment to any adjacent watercourse or property owner.

6. Failure to implement the permanent stormwater management practices as mentioned herein constitutes a violation of the conditions of this plan approval; it may result in the suspension or revocation of building permits or grading permits issued by the local jurisdiction, and it may result in legal action by the DNREC to bring the site into compliance with the approved Sediment and Stormwater Management Plan and the Delaware Sediment and Stormwater Regulations.

7. The permanent stormwater management facility or facilities must be constructed and accepted by the Sussex Conservation District Sediment and Stormwater Program prior to final closeout of the project site. Post-construction verification documentation of the stormwater management facility or facilities must be completed as soon as construction of the facility or facilities is complete so that any necessary modifications may be made during the construction period.

ARTESIAN RESOURCES

OVER 100 YEARS OF SUPERIOR SERVICE

Artesian Water Company ▲ Artesian Wastewater Management ▲ Artesian Utility Development ▲ Artesian Water Pennsylvania
▲ Artesian Water Maryland ▲ Artesian Wastewater Maryland

March 24, 2022

Mr. Tim Green
Schell Brothers, LLC
20184 Phillips Street
Rehoboth Beach, Delaware 19971

RE: Lightship Cove Subdivision Wastewater Ability to Serve and Plan Approval Letter

With reference to your request concerning Wastewater Service ("Service") for Lightship Cove Subdivision Project on Fisher Road in Lewes-Rehoboth Hundred, Sussex County, Delaware, with tax parcel number 334-10.00-69.00 (the "Property"), please be advised as follows:

The proposed project consisting of approximately 97 single family homes is within Artesian Wastewater Management's service territory. A Certificate of Public Convenience and Necessity (CPCN) for wastewater has been granted to Artesian by the Delaware Public Service Commission for this property. The developer and Artesian Wastewater Management, Inc. shall enter into a Wastewater Service Agreement that addresses the financial terms of the provision of wastewater service in accordance with Artesian's tariff as approved by the Delaware Public Service Commission.

Based on current conditions and projections of growth within the Company's service area, Artesian is willing and able to provide the required wastewater service to this project. An anticipated construction schedule is required in order for Artesian to assess the impact of service requests upon its ability to meet projected wastewater demands.

Furthermore, we have reviewed and approved the Sanitary Sewer and Pump Station Plans prepared by Solutions IPEM dated September 22, 2021 last revised February 16, 2022.

This letter shall expire if Agreements are not executed within one year of the date of this letter.

If you have any questions, please do not hesitate to contact us.

Yours very truly,

Katherine E. Garrison

Katherine E. Garrison
Senior Planning Designer

RECEIVED

JUL 22 2022

SUSSEX COUNTY
PLANNING & ZONING

664 Churchmans Road, Newark, Delaware 19702, P.O. Box 15004 Wilmington, Delaware 19850 Phone: (302) 453-6900 Fax: (302) 453-6957
14701 Coastal Highway, Milton, Delaware 19968 Phone: (302) 645-7299 Fax: (302) 645-8233
email: artesian@artesianwater.com Website: artesianwater.com

RECORD PLAT
FOR
LIGHTSHIP COVE

(FKA - FISHER)
LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DELAWARE

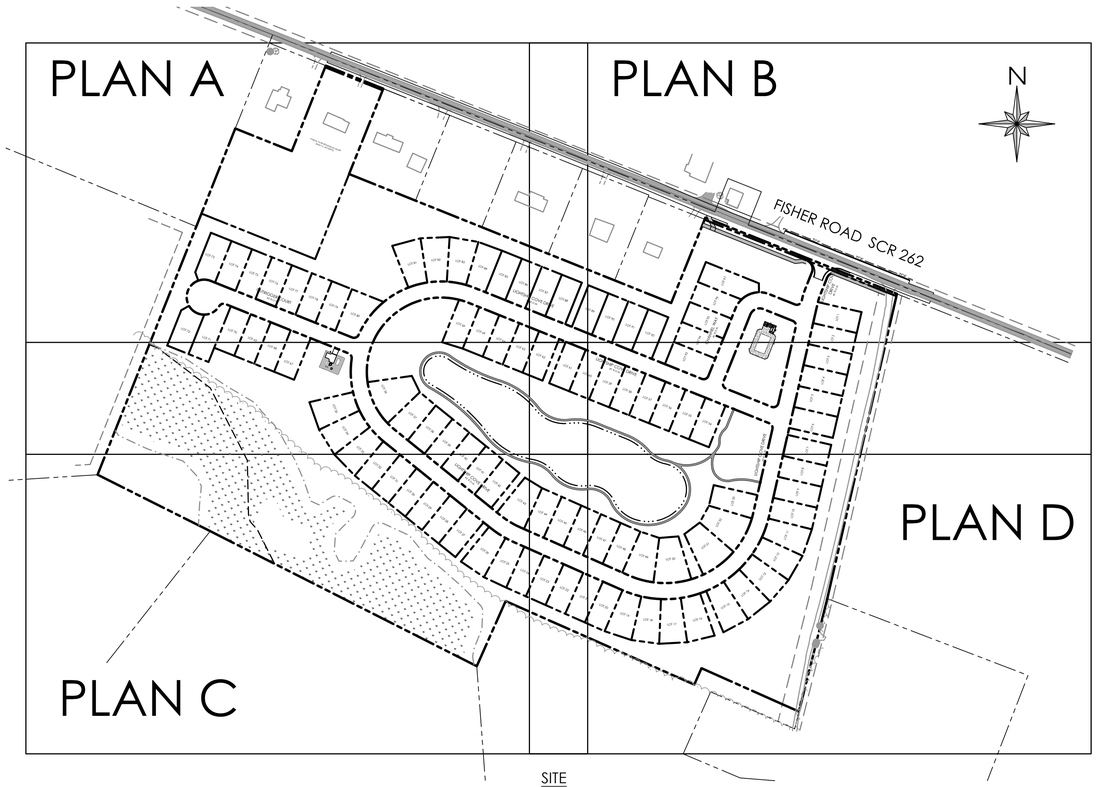
LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
SETBACK LINE	N/A	
R.O.W. LINE		
ROAD CENTERLINE		
EDGE OF CONCRETE	N/A	
EDGE OF PAVEMENT		
CURB	N/A	
DELDOT PAVEMENT HATCH		
GRAVEL HATCH		N/A
SIDEWALK	N/A	
SIDEWALK HATCH	N/A	
TRAIL	N/A	
EDGE OF POND	N/A	
EDGE OF WETLAND		N/A
WETLAND		N/A
FLOODPLAIN		N/A
TREE LINE		N/A
SIDEWALK	N/A	LOD

DELDOT PHASING NOTES:

1. PHASE 1 IMPROVEMENTS SHALL INCLUDE BUT NOT BE LIMITED TO THE CONSTRUCTION OF A HAMMERHEAD ENTRANCE AND THE ASSOCIATED SIGNAGE, STRIPING, AND ROADSIDE DRAINAGE AS DEPICTED ON PLAN SHEET 15 OF THE DELDOT APPROVED ENTRANCE CONSTRUCTION PLANS. PRIOR TO THE ISSUANCE OF THE 1ST BUILDING PERMIT, PHASE 1 IMPROVEMENTS SHALL BE CONSTRUCTED BY THE DEVELOPER AND BE SUBSTANTIALLY COMPLETED, AS DEFINED BY THE DEPARTMENT'S STANDARD SPECIFICATIONS. PRIOR TO THE ISSUANCE OF THE 5TH BUILDING PERMIT, PHASE 1 IMPROVEMENTS SHALL BE ACCEPTED BY THE DEPARTMENT.

2. PHASE 2 IMPROVEMENTS SHALL INCLUDE BUT NOT BE LIMITED TO THE REMAINING FRONTAGE AND ROADWAY IMPROVEMENTS AS DEPICTED ON THE DELDOT APPROVED ENTRANCE CONSTRUCTION PLANS. PHASE 2 IMPROVEMENTS SHALL BE CONSTRUCTED BY THE DEVELOPER AND ACCEPTED BY THE DEPARTMENT PRIOR TO THE ISSUANCE OF 24 BUILDING PERMIT.



SITE
1" = 200'

VICINITY MAP
SCALE: 1" = 2,000'

SITE DATA:

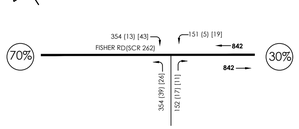
OWNER: EMILY C. MCHUGH
28784 FISHER ROAD
MILTON, DE 19968

DEVELOPER: SCHELL BROTHERS, LLC
20184 PHILLIPS STREET
REHOBOTH BEACH, DE 19971
MR. TIM GREEN

ENGINEER/ LAND PLANNER: SOLUTIONS IPEM, LLC
303 NORTH BEDFORD STREET
GEORGETOWN, DE 19947
PHONE: 302.297.9215
CONTACT: JASON PALKEWICZ, PE

- TM 334-10.00-69.00
  EXISTING SITE AREA = 51.9708 AC.±
  AREA TO REMAINED BY THE SELLER = 3.0318 AC.±
  AREA TO BE DEVELOPED = 48.9390 AC.±
- EXISTING ZONING:
  AR-1
- PROPOSED USE: AR-1 CLUSTER
  SINGLE FAMILY LOTS = 97 LOTS
  DENSITY = 97 UNITS / 48.9390 = 1.98 UNITS/ACRE
  PERMITTED DENSITY = 2.0 UNIT/ACRE
  MIN. LOT AREA = 7,500 S.F.
  MIN. LOT WIDTH = 60'
  MIN. LOT DEPTH = 100'
  MAXIMUM BUILDING HEIGHT: 42'
- PROPOSED SETBACKS
  FRONT YARD = 25' (15' ON CORNER)
  SIDE YARD = 10'
  REAR YARD = 10'
- BOUNDARY AND TOPOGRAPHY AS SHOWN HEREON ARE AS PROVIDED BY SOLUTIONS IPEM LLC
- DATUM: DELWARE STATE PLANE (NAD 83)
- FLOOD ZONE:
  PROPERTY IS LOCATED IN ZONE A (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD) AND ZONE X (AREAS DETERMINED TO OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN). PER FIRM MAP NUMBER 10005C0326J & 10005C0330J, MAP REVISED JULY 19, 2019
- WATER SUPPLY:
  ARTESIAN WATER COMPANY, INC.
- SANITARY SEWER:
  ARTESIAN WASTEWATER MANAGEMENT, INC.
- SOIL CLASSIFICATIONS
  AsA: ASSECKSY LOAMY SAND, 0 TO 2 PERCENT SLOPES
  DnA: DOWNER LOAMY SAND, 0 TO 2 PERCENT SLOPES
  DnB: DOWNER LOAMY SAND, 2 TO 5 PERCENT SLOPES
  Lo: LONGMARSH AND INDIANTOWN SOILS, FREQUENTLY FLOODED
- SITE IS LOCATED IN THE FAIR AND GOOD RECHARGE AREAS.
- SITE IS NOT LOCATED IN THE WELL HEAD PROTECTION AREA.
- ACCORDING TO 2020 STATE STRATEGIES FOR SPENDING MAP, THE SITE IS LOCATED WITHIN INVESTMENT LEVEL 4.
- THE SITE IS LOCATED IN A LOW DENSITY AREA PER THE FUTURE LAND USE MAP PER SUSSEX COUNTY'S 2019 COMPREHENSIVE PLAN.
- ALL AMENITIES SHALL BE SUBJECT TO A SEPARATE AMENITIES PLAN

TRIP GENERATION - FISHER ROAD (S262)
(FULL MOVEMENT)



TRAFFIC GENERATION DIAGRAM
ADT (A.M. PEAK HOUR) (P.M. PEAK HOUR)

ROAD TRAFFIC DATA: FISHER ROAD:

FUNCTIONAL CLASSIFICATION - S262 - LOCAL
POSTED SPEED LIMIT - 50MPH
AADT = 1,684 TRIPS (FROM 2019 DelDOT TRAFFIC SUMMARY)
10 YEAR PROJECTED AADT = 1,16 x 1,684 = 1,953 TRIPS
10 YEAR PROJECTED AADT + SITE ADT = 1,953 +1,011 = 2,964 TRIPS
TRAFFIC PATTERN GROUP - 7 (FROM 2019 DelDOT TRAFFIC SUMMARY)
DESIGN HOURLY VOLUME = 17.82% x 2,964 TRIPS = 528 TRIPS

SITE TRIPS GENERATED:

SOURCE: ITE TRIP GENERATION 10th EDITION
97 SINGLE FAMILY DETACHED UNITS (210)
ONE ENTRANCES - FULL MOVEMENT
DESIGN VEHICLE: SU-30, WB-40
97 SINGLE FAMILY DETACHED UNITS = 1,011 ADT
DIRECTIONAL DISTRIBUTION:
30% TO AND FROM THE EAST = 303 ADT (22 AM PK) [30 PM PK]
70% TO AND FROM THE WEST = 708 ADT (52 AM PK) [69 PM PK]
5% TRUCKS & BUSES x 151= 14 (LEFT TURN IN)

NOTES:

1. ALL ON-SITE STREETS (INCLUDING PAVEMENT, CURBING AND SIDEWALK) ARE PRIVATE AND SHALL BE MAINTAINED BY THE OWNER UNTIL DEDICATION TO THE HOMEOWNERS ASSOCIATION. THE PERPETUAL MAINTENANCE OF THE STREETS SHALL BE BY THE RESPECTIVE ORGANIZATION.

2. STORMWATER MANAGEMENT AND STORM DRAINAGE SHALL BE IN ACCORDANCE WITH THE SUSSEX COUNTY CONSERVATION DISTRICT AND SUSSEX COUNTY ENGINEERING REQUIREMENTS. THE SITE IS TO BE TREATED BY MULTIPLE WET PONDS. MAINTENANCE OF THE ON-SITE STORMWATER MANAGEMENT FACILITIES AND STORM DRAINAGE SYSTEM SHALL BE BY THE OWNER UNTIL DEDICATION TO THE HOMEOWNERS ASSOCIATION. THE PERPETUAL MAINTENANCE OF THE ABOVE PROACTIVE SHALL BE BY THE RESPECTIVE ORGANIZATION.

3. ALL OPEN SPACE, INCLUDING BUFFERS, FOREST STRIPS AND AMENITIES SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.

4. FOR ANY NEW DEVELOPMENT LOCATED IN WHOLE OR IN PART WITH 50 FEET OF THE BOUNDARY OF LAND USED PRIMARILY FOR AGRICULTURAL PURPOSES, NO IMPROVEMENT REQUIRING AN OCCUPANCY APPROVAL FOR A RESIDENTIAL TYPE USE SHALL BE CONSTRUCTED WITHIN 50 FEET OF THE BOUNDARY OF THE LANDS USED PRIMARILY FOR AGRICULTURAL PURPOSES.

5. POTABLE WATER, SANITARY SEWER, STORM DRAINAGE, STREET PAVEMENT SHALL BE CONSTRUCTED BY DEVELOPER. PHASING OF IMPROVEMENTS SHALL BE PER COUNTY AND CONSERVATION DISTRICT REQUIREMENTS.

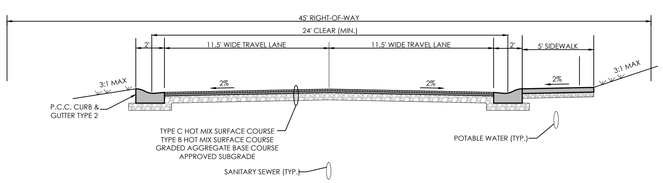
6. THIS PROPERTY IS LOCATED IN THE VICINITY OF LAND USED PRIMARILY FOR AGRICULTURAL PURPOSED ON WHICH NORMAL AGRICULTURAL PURPOSED AND ACTIVITIES HAVE BEE AFFORDED THE HIGHEST PRIORITY USE STATUS. IT CAN BE ANTICIPATED THAT SUCH USES NOW OR IN THE FUTURE INVOLVE NOISE, DUST, MANURE AND OTHER ODORS, THE USE OF AGRICULTURAL CHEMICALS AND NIGHTTIME FARM OPERATIONS. THE USE AND ENJOYMENT OF THIS PROPERTY IS EXPRESSLY CONDITIONED ON ACCEPTANCE OF ANY ANNOYANCE OR INCONVENIENCE WHICH MAY RESULT FROM NORMAL AGRICULTURAL USES AND ACTIVITIES.

7. THE PROPERTY IS NOT LOCATED WITHIN ANY TRANSPORTATION IMPROVEMENT DISTRICTS.

8. ALL SUBDIVISION LOTS SHALL HAVE FIVE FOOT WIDE EASEMENTS ALONG ALL LOT LINES FOR A TOTAL EASEMENT WIDTH OF 10 FEET ALONG A LOT LINE COMMON TO TWO LOTS. EASEMENTS ALONG PERIMETER (RIGHT-OF-WAY AND OPEN SPACE) SHALL BE 10 FEET IN WIDTH.

9. THE PHILADELPHIA DISTRICT CORPS OF ARMY ENGINEERS HAVE JURISDICTION OVER ALL THE NON-TIDAL WETLANDS

10. AN ENTRANCE COMMUNITY SIGN WILL BE PROVIDED. ANY SIGNAGE WILL REQUIRE A SEPARATE PERMIT.



NOTES:
1. PROVIDE 4" OF TOPSOIL COVERED WITH SEED AND MULCH ON PROPOSED GRASS AREAS.
2. SUBBASE AND SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D1557, MODIFIED PROCTOR METHOD.

TYPICAL SUBDIVISION STREET SECTION
NOT TO SCALE

SHEET INDEX

1	COVER SHEET
2	NOTES
3	RECORD PLAT A
4	RECORD PLAT B
5	RECORD PLAT C
6	RECORD PLAT D
7	RECORD DELDOT EASEMENT
8	DELDOT SIGHT DISTANCE TRIANGLES & EASEMENTS
9	LANDSCAPE NOTES AND DETAILS

AREAS:

GROSS ACREAGE = 51.67 AC.±
AREA TO RETAINED BY THE SELLER = 3.0318 AC.±
AREA TO BE DEVELOPED = 48.9390 AC.±

LOT AREA = 17.561 AC.±
R.O.W. AREA = 4.679 AC.±
DELDOT R.O.W. AREA = 0.106 AC.±
OPEN SPACE AREA = 26.593 AC.±
26.593 / 48.939 = 54.3%
OPEN SPACE A = 19.019AC.±
OPEN SPACE B = 6.748 AC.±
AMENITY SPACE = 0.826 AC.±

EXISTING WOODLANDS = 8.19 AC.±
WOODLANDS TO REMAIN = 8.09 AC.±
98.8% of EXISTING WOODLANDS TO REMAIN
WOODLANDS TO BE REMOVED = 0.10AC.±

EXISTING NON-TIDAL WETLANDS = 4.86 AC.±

SUSSEX CONSERVATION DISTRICT APPROVAL:

APPROVED BY:

SECRETARY OF PLANNING COMMISSION DATE

PRESIDENT OF COUNTY COUNCIL DATE

WETLAND STATEMENT

I, Edward M. Launay, PWS, STATES THAT THE BOUNDARIES OF WATERS OF THE UNITED STATES INCLUDING WETLANDS SUBJECT TO THE CORPS OF ENGINEERS REGULATORY PROGRAM DELINEATED UPON THIS PLAN HAVE BEEN DETERMINED USING MY PROFESSIONAL JUDGMENT IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, ATLANTIC GULF COAST REGIONAL SUPPLEMENT, REGULATIONS AND SUPPLEMENTAL GUIDANCE (33 CFR 328.3(a)(8),Waters of the U.S. Definition/CECW-OR, 10-7-1991, Questions and Answers on the 1987 COE Manual/CECW-OR, 9-26-1990, RGL 90-7/CECW-OR, 3-6-1992, Clarification and Interpretation of the 1987 Manual). THIS DELINEATION HAS NOT BEEN CONDUCTED FOR USDA PROGRAM OR AGRICULTURAL PURPOSES.

EDWARD M. LAUNAY, PWS No. 875 DATE
SOCIETY OF WETLANDS SCIENTISTS
CORPS OF ENGINEERS,
CERTIFIED WETLAND DELINEATOR WDCP93MD0510036B)

DEVELOPER'S CERTIFICATION

I HEREBY CERTIFY THAT THE PLANS SHOWN HEREON WERE MADE AT MY DIRECTION AND I ACKNOWLEDGE THE SAME TO BE MY ACT, AND DESIRE THE PLAN TO BE RECORDED AS SHOWN IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. I FURTHERMORE UNDERSTAND AND ACKNOWLEDGE THAT IT IS THE RIGHT OF THE SUSSEX CONSERVATION DISTRICT AND/OR ITS DELEGATED INSPECTION AGENCIES TO CONDUCT ON-SITE INSPECTIONS.

NAME: TIM GREEN DATE

OWNER'S CERTIFICATION

I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN. THAT THE PLAN WAS MADE AT MY DIRECTION AND I ACKNOWLEDGE THE SAME TO BE MY ACT, AND DESIRE THE PLAN TO BE RECORDED AS SHOWN IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. I FURTHERMORE UNDERSTAND AND ACKNOWLEDGE THAT IT IS THE RIGHT OF THE SUSSEX CONSERVATION DISTRICT AND/OR ITS DELEGATED INSPECTION AGENCIES TO CONDUCT ON-SITE INSPECTIONS.

NAME: EMILY C. MCHUGH DATE

SURVEYOR'S CERTIFICATION

THIS PLAT AND SURVEY WERE PERFORMED, UNDER MY SUPERVISION, TO THE LOCAL STANDARD OF CARE, AND SUBSTANTIALLY MEET THE "MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING" AS PROMULGATED BY THE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS FOR A SUBURBAN CLASS SURVEY.

SOLUTIONS INTEGRATED PLANNING, ENGINEERING & MANAGEMENT, LLC
by STEVEN W. FULLER, AGENT

STEVEN W. FULLER, PROFESSIONAL LAND SURVEYOR DELAWARE NO. 823 — DATE 5/4/2022

solutions
303 North Bedford Street
Georgetown, DE 19947
T. 302.297.9215

3003 Merritt Mill Road
Salisbury, MD 21804
T. 410.572.8833

www.solutionsipem.com

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STEVEN W. FULLER REGISTERED No. 823 PROFESSIONAL LAND SURVEYOR
5/4/2022
7/22/22

NO.	DATE	REVISIONS DESCRIPTION
1	5/18/22	REVISIONS PER AGENCY REVIEW COMMENTS DATED 5/13/22
2	7/13/22	REVISIONS PER AGENCY REVIEW COMMENTS DATED 5/19/22

COVER SHEET
for
LIGHTSHIP COVE
SUBDIVISION # 2021-11
LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DELAWARE
SCR 262

Date: 8/20/21
Job Number: 20049
Scale: AS SHOWN
Drawn By: HHB
Designed By: HHB
Approved By: JP

Sheet No.: 1

File Name: Cover.dwg

PLANNING & ZONING COMMISSION
ROBERT C. WHEATLEY, CHAIRMAN
KIM HOEY STEVENSON, VICE-CHAIRMAN
R. KELLER HOPKINS
J. BRUCE MEARS
HOLLY J. WINGATE

Sussex County
DELAWARE
sussexcountyde.gov
302-855-7878 T
302-854-5079 F
JAMIE WHITEHOUSE, AICP, MRTPI
DIRECTOR

December 17, 2021

Mr. Jason Palkewicz, P.E.
Solutions IPEM, LLC
303 North Bedford Street
Georgetown, DE 19947

By email to: jpalkewicz@solutionsipem.com

Re: Notice of Decision letter for the Preliminary Subdivision Plan for Lightship Cove (2021-11) (F.K.A. Fisher Road) for the creation of cluster subdivision to consist of 97 single family lots to be located on the south side of Fisher Road (S.C.R. 262)
Tax Parcel: 334-10.00-69.00

Dear Mr. Palkewicz,

At their meeting of **Thursday, December 9, 2021,** the Planning & Zoning Commission **approved** the **Preliminary Subdivision Plan** for **Lightship Cove (2021-11) (F.K.A. Fisher Road)** for the creation of a cluster subdivision to consist of ninety-seven (97) single family lots to be located on the south side of Fisher Road (S.C.R. 262). The parcel is zoned Agricultural Residential (AR-1) Zoning District. The parcel also lies within the Low Density Area per Sussex County's 2019 Comprehensive Plan Update.

The Preliminary Subdivision Plan is valid for three (3) years from the date of Planning Commission decision. A Final Subdivision Plan shall be approved within three (3) years of the date of approval of the Preliminary Plan, or the action of the Planning Commission shall be deemed canceled. Unless an extension is granted, approval shall be rendered null and void if substantial construction is not commenced within five (5) years of the date of recordation of the final plat.

As part of their motion, the Planning Commission acted to approve the development subject to the following conditions (which shall be clearly annotated on the Revised Preliminary and Final Subdivision Plans):

A. There shall be no more than 97 lots within the subdivision.
B. The Final Site Plan shall confirm that at least 54% of the site remains as open space and that 7.5 acres of existing woodlands are preserved as "Non-Disturbance Areas."
C. The developer shall establish a homeowner's association responsible for the maintenance of streets, roads, buffers, stormwater management facilities and other common areas.
D. The stormwater management system shall meet or exceed the requirements of the State and County. The Final Site Plan shall contain the approval of the Sussex Conservation District for the design and location of all stormwater management areas and erosion and sedimentation control facilities.
E. There shall be a vegetated or forested buffer that is at least 30 feet wide installed along the perimeter of this subdivision. This buffer shall utilize existing forest or similar

COUNTY ADMINISTRATIVE OFFICES
2 THE CIRCLE | PO BOX 417
GEORGETOWN, DELAWARE 19947

vegetation if it exists in the buffer area. Where trees currently exist in the buffer area, stump removal or construction activities that disturb the existing grade of an area within the buffer shall be prohibited. All silt fencing shall be located along the interior limit of the buffer area (the edge of the buffer nearest the interior development) and the Final Site Plan shall identify the "Limit of Disturbance" to prevent disturbance of the buffer area.
F. There shall be a buffer that is at least 50 feet wide from all tidal waters, tidal tributary streams, tidal wetlands, perennial rivers and nontidal streams including Bundick's Branch. There shall also be a buffer that is at least 25 feet wide from all federal wetlands. There shall be minimum disturbance of trees and other vegetation within these buffer areas. Required silt fencing shall be installed upland of these buffer areas (using the edge of the buffer nearest the interior development) to avoid disturbance. Construction activities within the buffer area shall be minimum. Any disturbance in the buffer area shall be indicated on the Final Site Plan and the "Limits of Disturbance" shall be indicated on the Final Site Plan.
G. The development shall comply with all DelDOT entrance and roadway improvement requirements.
H. As proffered by the Applicant, sidewalks shall be installed on at least one side of all internal streets with a connection to the DelDOT multi-modal path. A system of fully shielded and downward-screened streetlighting shall also be provided.
I. Amenities including a pool and poolhouse shall be constructed and open to use by residents of this development on or before the issuance of the 60th residential building permit. The Final Site Plan shall contain details as to the size and location of these amenities.
J. There shall be a pathway installed around the central pond using crushed stones or similar materials. The location and type of materials used to construct this path shall be shown on the Final Site Plan.
K. The subdivision shall be served by a publicly regulated central water system providing drinking water and fire protection.
L. Street design shall meet or exceed Sussex County standards.
M. Road naming and addressing shall be subject to the review and approval of the Sussex County Mapping and Addressing Department.
N. Construction, site work and deliveries shall only occur on the site between the hours of 8:00AM through 5:00PM, Monday through Friday, and 8:00AM through 2:00PM on Saturdays. No Sunday hours are permitted. A 24-inch by 36-inch "NOTICE" sign confirming these hours in English and Spanish shall be prominently displayed at the site entrance during construction.
O. The Applicant shall coordinate with the local school district regarding the location of a school bus stop within the subdivision. If required by the school district, the location of the bus stop area shall be shown on the Final Site Plan.
P. The Final Site Plan and Recorded Restrictive Covenants shall state that agricultural activities exist nearby, and they shall include the Agricultural Use Protection Notice and a similar notice advising nearby property owners of hunting activity occurring nearby.
Q. The Final Site Plan shall include a Landscape Plan depicting all landscaping to be provided or preserved in all of the buffer areas. The Landscape Plan shall also clearly show all forested areas that will be preserved. The Landscape Plan shall also identify all "Limits of Disturbance" within the site.

R. The Final Site Plan shall include a Grading Plan for the site. No building permit shall be issued for individual lots until an individual lot grading plan had been supplied to and approved by Sussex County. No certificate of occupancy shall be issued until a grading certificate is submitted to the Building Code Department demonstrating general conformity with the individual site grading plan.
S. A revised Preliminary Site Plan either depicting or noting these conditions must be submitted to the Office of Planning and Zoning.
T. The Final Site Plan shall be subject to the review and approval of the Planning and Zoning Commission.

The Final Subdivision Plan must comply with the County's Subdivision Code, including submission of agency approval letters to the Planning and Zoning Office. The agency approvals required for Final Subdivision Plan approval include but are not limited to: the Sussex Conservation District, Office of the State Fire Marshal, Sussex County Engineering Department, Sussex County Mapping and Addressing Department, Office of Drinking Water (Public Health), the Delaware Department of Transportation (DelDOT) and the local school district with regard to any proposed bus stop provisions. The Department will also request copies of any HOA documents or restrictive covenants prior to final approvals being provided.

Once all agency approvals have been obtained, please submit a minimum of **one (1) full-size (24 "x 36")** and **one (1) electronic PDF copy** of a Final Subdivision Plan to the Planning and Zoning Office for consideration on the next available agenda for Planning Commission. It is recommended that **two (2) copies** of a check print are first submitted to staff for review.

Please note that a $10.00 per lot fee will be required to be paid prior to the approval of any Final Subdivision Plan. For 97 lots, the fee is $970.00.

Please feel free to contact me during business hours with any question from 8:30 AM – 4:30 PM, Monday through Friday, at 302-855-7878.

Sincerely,

Ms. Lauren DeVore,
Planner III

CC: Andy Wright, Chief Code Official – Building Code
John Ashman, Director of Utility Planning & Design – Engineering – Utility Planning
Susan Isaacs, Engineering Project Coordinator – Engineering – Public Works
Ms. Mackenzie Peet, Esquire – Baird, Mandalas, Brockstedt
Lightship Cove (2021-11) (F.K.A. Fisher Road) Subdivision File

DELDOT GENERAL NOTES: (REV. 03/21/2019)

1. ALL ENTRANCES SHALL CONFORM TO THE DELAWARE DEPARTMENT OF TRANSPORTATION'S (DELDOT'S) CURRENT DEVELOPMENT COORDINATION MANUAL AND SHALL BE SUBJECT TO ITS APPROVAL.
2. NO LANDSCAPING SHALL BE ALLOWED WITHIN THE RIGHT-OF-WAY UNLESS THE PLANS ARE COMPLIANT WITH SECTION 3.7 OF THE DEVELOPMENT COORDINATION MANUAL.
3. SHRUBBERY, PLANTINGS, SIGNS AND/OR OTHER VISUAL BARRIERS THAT COULD OBSTRUCT THE SIGHT DISTANCE OF A DRIVER PREPARING TO ENTER THE ROADWAY ARE PROHIBITED WITHIN THE DEFINED DEPARTURE SIGHT TRIANGLE AREA ESTABLISHED ON THIS PLAN. IF THE ESTABLISHED DEPARTURE SIGHT TRIANGLE AREA IS OUTSIDE THE RIGHT-OF-WAY OR PROJECTS ONTO AN ADJACENT PROPERTY OWNER'S LAND, A SIGHT EASEMENT SHOULD BE ESTABLISHED AND RECORDED WITH ALL AFFECTED PROPERTY OWNERS TO MAINTAIN THE REQUIRED SIGHT DISTANCE.
4. UPON COMPLETION OF THE CONSTRUCTION OF THE SIDEWALK OR SHARED-USE PATH ACROSS THIS PROJECT'S FRONTAGE AND PHYSICAL CONNECTION TO ADJACENT EXISTING FACILITIES, THE DEVELOPER, THE PROPERTY OWNERS OR BOTH ASSOCIATED WITH THIS PROJECT, SHALL BE RESPONSIBLE TO REMOVE ANY EXISTING ROAD TIE-IN CONNECTIONS LOCATED ALONG ADJACENT PROPERTIES, AND RESTORE THE AREA TO GRASS. SUCH ACTIONS SHALL BE COMPLETED AT DELDOT'S DISCRETION, AND IN CONFORMANCE WITH DELDOT'S DEVELOPMENT COORDINATION MANUAL.
5. PRIVATE STREETS CONSTRUCTED WITHIN THIS SUBDIVISION SHALL BE MAINTAINED BY THE DEVELOPER, THE PROPERTY OWNERS WITHIN THIS SUBDIVISION OR BOTH (TITLE 17 §131). DELDOT ASSUMES NO RESPONSIBILITIES FOR THE FUTURE MAINTENANCE OF THESE STREETS.
6. THE SIDEWALK AND SHARED-USE PATH SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, THE PROPERTY OWNERS OR BOTH WITHIN THIS SUBDIVISION. THE STATE OF DELAWARE ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF THE SIDEWALK AND/OR SHARED-USE PATH.
7. ALL LOTS SHALL HAVE ACCESS FROM THE INTERNAL SUBDIVISION STREET.
8. DRIVEWAYS WILL NOT BE PERMITTED TO BE PLACED AT CATCH BASIN LOCATIONS.
9. TO MINIMIZE RUTTING AND EROSION OF THE ROADSIDE DUE TO ON-STREET PARKING, DRIVEWAY AND BUILDING LAYOUTS MUST BE CONFIGURED TO ALLOW FOR VEHICLES TO BE STORED IN THE DRIVEWAY BEYOND THE RIGHT-OF-WAY, WITHOUT INTERFERING WITH SIDEWALK ACCESS AND CLEARANCE.
10. THE DEVELOPER SHALL BE REQUIRED TO FURNISH AND PLACE RIGHT-OF-WAY MONUMENTS IN ACCORDANCE WITH DELDOT'S DEVELOPMENT COORDINATION MANUAL.
11. THE DEVELOPER SHALL BE REQUIRED TO FURNISH AND PLACE RIGHT-OF-WAY MARKERS TO PROVIDE A PERMANENT REFERENCE FOR RE-ESTABLISHING THE RIGHT-OF-WAY AND PROPERTY CORNERS ON LOCAL AND HIGHER ORDER FRONTAGE ROADS. RIGHT-OF-WAY MARKERS SHALL BE SET AND/OR PLACED ALONG THE FRONTAGE ROAD RIGHT-OF-WAY AT PROPERTY CORNERS AND AT EACH CHANGE IN RIGHT-OF-WAY ALIGNMENT IN ACCORDANCE WITH SECTION 3.2.4.2 OF THE DEVELOPMENT COORDINATION MANUAL.

ROW & EASEMENT SCHEDULE

PARCEL #	RW, PE, OR TCE	PROPERTY OWNER
334-10.00-69.00	15' PERMANENT EASEMENT	EMILY C. MCHUGH
334-10.00-69.00	5' DEDICATED ROW	EMILY C. MCHUGH
334-10.00-27.00	3' TEMPORARY CONSTRUCTION EASEMENT	JOSEPH FARM HOLDINGS, LLC
334-10.00-69.00	22.5' PERMANENT EASEMENT	EMILY C. MCHUGH
334-10.00-69.00	6.5' DEDICATED ROW	EMILY C. MCHUGH
334-10.00-69.00	15' PERMANENT EASEMENT	EMILY C. MCHUGH

OFFSITE ACQUISITION NOTE:
THE TRANSPORTATION IMPROVEMENTS ASSOCIATED WITH THIS DEVELOPMENT NECESSITATE THE ACQUISITION OF RIGHT-OF-WAY, PERMANENT EASEMENTS, AND/OR TEMPORARY EASEMENTS HEREIN AFTER "PROPERTY INTERESTS" BEYOND AND EXCUSIVE OF THE ENTRANCE FACILITY. THE DEVELOPER IS RESPONSIBLE TO ACQUIRE THE PROPERTY INTERESTS TO COMPLETE THE ROAD INFRASTRUCTURE WORK AS SHOWN ON THESE PLANS. PRIOR TO ISSUANCE OF A PERMIT FOR ENTRANCE CONSTRUCTION, A NOTICE TO PROCEED, OR ISSUANCE OF A TEMPORARY CONSTRUCTION ENTRANCE PERMIT, PROOF OF THE ACQUISITION OF THE NECESSARY PROPERTY INTERESTS MUST BE SUBMITTED TO THE APPROPRIATE DELDOT PUBLIC WORKS OFFICE.

THE LOCATION AND DESIGNS FOR UTILITIES ARE SHOWN ON THESE PLANS FOR INFORMATIONAL PURPOSES ONLY. FINAL DESIGN OF THE UTILITIES AND ANY ASSOCIATED EASEMENTS SHALL BE PROVIDED ON THE UTILITY RELOCATION PLANS WHICH IS SUBJECT TO DELDOT UTILITY PERMIT REVIEW.

PLANNING & ZONING COMMISSION
ROBERT C. WHEATLEY, CHAIRMAN
KIM HOEY STEVENSON, VICE-CHAIRMAN
R. KELLER HOPKINS
J. BRUCE MEARS
HOLLY J. WINGATE

Sussex County
DELAWARE
sussexcountyde.gov
302-855-7878 T
302-854-5079 F
JAMIE WHITEHOUSE, AICP, MRTPI
DIRECTOR OF PLANNING & ZONING

June 30, 2022

Mr. Jason Palkewicz, P.E., LEED AP
Chief Executive Officer
Solutions IPEM
303 North Bedford Street
Georgetown, DE 19947

By email to: jpalkewicz@solutionsipem.com

RE: Notice of Decision Letter for Request to Amend Condition "B" of the Conditions of Approval for the Lightship Cove (F.K.A. Fisher Road) (2021-11) Preliminary Subdivision Plan for the subdivision of a 48.93 acre +/- parcel of land for the creation of ninety-seven (97) single-family lots as a cluster subdivision and is located on the south side of Fisher Road (S.C.R. 262).
Tax Parcel: 334-10.00-69.00

Dear Mr. Palkewicz,

At their meeting of **Thursday, June 23rd, 2022** the Planning & Zoning Commission **approved** the **Request to Amend Condition "B"** of the **Conditions of Approval** for the **Lightship Cove (F.K.A. Fisher Road) (2021-11) Preliminary Subdivision Plan.** This is a subdivision of a 48.93 acre +/- parcel of land for the creation of ninety-seven (97) single-family lots as a cluster subdivision to be located on the south side of Fisher Road (S.C.R. 262) approximately 0.25 miles west of Hopkins Road (S.C.R. 286). The property is zoned Agricultural Residential (AR-1) District and is located within the Low Density Area per the Future Land Use Map as provided in the 2018 Sussex County Comprehensive Plan update. The proposed project is not located within any established Transportation Improvement Districts (TIDs).

Specifically, the Applicant requested that Condition B, which states, *"The Final Site Plan shall confirm that at least 54% of the site remains as open space and that 7.5 acres of existing woodlands are preserved as 'Non-Disturbance Areas'"* **be amended to**, *"The Final Site Plan shall confirm that 54%, more or less, of the site remains as open space, with 7.7 acres, more or less, of existing woodlands, subject to final engineering."*

Please submit at least **two (2) full-sized (24" x 36") paper copies** of an updated Revised Preliminary Subdivision Plan which address the matters outlined above for review by staff. Staff will review the proposed plans for compliance with the provisions of the Sussex County Code (specifically Chapter 99, the Subdivision Ordinance) and will submit any further staff review comments as may be necessary.

COUNTY ADMINISTRATIVE OFFICES
2 THE CIRCLE | PO BOX 417
GEORGETOWN, DELAWARE 19947

Once all further review comments have been addressed and all required agency approvals have been submitted, staff will take the plans back to Commission for consideration as an item of "Other Business" for review and approval by the Sussex County Planning and Zoning Commission.

As a general reminder, the agency approvals required for this project consist of the following: the Delaware Department of Transportation (DelDOT), Sussex County Geographic Information Office (formerly known as the Sussex County Department of Mapping and Addressing), the Delaware Department of Public Health (Office of Drinking Water), Sussex County Engineering Department, Office of the State Fire Marshal, Sussex Conservation District and the local school district regarding any proposed bus stop provisions.

Please also note that copies of all draft or proposed HOA documents will be requested for the file prior to final approvals being provided for the subdivision. Additionally, a **$10.00 per lot fee** is required to be paid prior to the approval of any Final Subdivision Plan. For 97 lots, the total is **$970.00.**

Please feel free to contact me during business hours with any question from 8:30 AM – 4:30 PM, Monday through Friday, at 302-855-7878.

Sincerely,

Ms. Lauren DeVore
Planner III

CC: Ms. Mackenzie M. Peet, Esquire – Baird, Mandalas, Brockstedt, LLC.
Mr. Timothy Green, Director of Land Development – Schell Brothers
Mr. Jim Eriksen, Principal of Engineering – Solutions IPEM
Mr. Troy Dickerson, P.E., Assistant V.P. of Engineering – Delaware Electric Co-op
Mr. Andy Wright, Chief Code Official – Building Code
Mr. John Ashman, Director of Utility Planning & Design – Engineering – Utility Planning
Ms. Susan Isaacs, Engineering Project Coordinator – Engineering – Public Works
Lightship Cove (F.K.A. Fisher Road) (2021-11) File

solutions
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STEVEN W. FULLER — REGISTERED — No. 823 — PROFESSIONAL LAND SURVEYOR — 5/4/2022

7/22/22

REVISIONS

NO.	DATE	DESCRIPTION
1	5/18/22	REVISIONS PER AGENCY REVIEW COMMENTS DATED 5/13/22
2	7/13/22	REVISIONS PER AGENCY REVIEW COMMENTS DATED 5/19/22

NOTES for LIGHTSHIP COVE
SUBDIVISION # 2021-11
LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DELAWARE
SCR 262

Date:	8/20/21
Job Number:	20049
Scale:	NONE
Drawn By:	HHB
Designed By:	HHB
Approved By:	JP

Sheet No.: 2

File Name: Cover.dwg

FISHER ROAD - SCR 262

N/F
JAMES P. & E. CELINA MCHUGH
TM 334-10.00-69.02
DB: 1799/249
ZONED: AR-1
LAND USE: RESIDENTIAL

S 68°10'39" E 173.01'
S 68°13'36" E 170.00'
N 21°49'21" E 257.00'
N 21°49'21" E 281.10'
S 21°49'21" W 271.28'
S 21°49'21" W 252.00'
N 21°49'21" E 218.40'
N 47°53'51" W 144.06'
S 67°53'51" E 127.52'
N 72°27'48" W 31.92'
S 21°49'21" W 294.83'
255.85'
271.82'
N 21°49'21" E 218.40'
5.00'
5.00'
28.16'
21.92'
46.58'
29.10'
L63
L64
L65
L66
IRF
IRCF
CMS
CMF
IPF
LOD

VARIABLE WIDTH
UTILITY EASEMENT
AREA= 9662.97 S.F.±

REMAINING LANDS

N/F
JOSPEH FARM HOLDING LLC
TM 334-10.00-24.00
DB: 4247/203
ZONED: AR-1
LAND USE: AGRICULTURAL

Ex. 30' Wide Forested-agricultural Buffer
Plat Ref.: 200/50

VARIABLE WIDTH UTILITY EASEMENT
SCALE: 1"=40'

DE STATE PLANE
NAD 83

N/F
JAMES P. & E. CELINA MCHUGH
TM 334-10.00-69.02
DB: 1799/249
ZONED: AR-1
LAND USE: RESIDENTIAL

EX. WIDE DRIVEWAY PERPETUAL EASEMENT
EX. 50' R.O.W.
APPROXIMATELY 60' FROM CENTERLINE OF FISHER ROAD TO THE NORTHWEST SIDE OF THE EXISTING DRIVEWAY AND 80' FROM CENTERLINE OF FISHER ROAD TO THE SOUTHEAST SIDE OF THE EXISTING DRIVEWAY
15' WIDE EASEMENT GRANTED TO ARTESIAN WATER COMPANY, INC. BY DEED RECORDED IN BOOK 4744, PAGE 109
EX. DRIVEWAY TO REMAIN
5' DE WIDE POWER & ELEC. EASEMENT
30' DE WIDE POWER & ELEC. EASEMENT
12" WIDE PAVEMENT WIDEN
11' WIDE ACCESS LANE
11' WIDE ACCESS LANE
VARIABLE WIDTH UTILITY EASEMENT - SEE DETAIL HEREON

NOTES:
1. SEE SHEET 6 FOR CURVE AND LINE TABLES
2. SEE SHEET 2 FOR ROW AND EASEMENT SCHEDULE.

REMAINING LANDS
131,255 S.F. ±
3.013 AC. ±

N/F
LINDA L. MELSON & JASON P. EANES
TM 334-10.00-69.06
DB: 3025/128
ZONED: AR-1
LAND USE: RESIDENTIAL

VARIABLE WIDTH DRAINAGE + UTILITY EASEMENT - SEE SHEET 7

N/F
LINDA L. MELSON & JASON P. EANES
TM 334-10.00-69.07
DB: 3025/131
ZONED: AR-1
LAND USE: RESIDENTIAL

N/F
CHRISTINA MARIE SYKES
TM 334-10.00-69.08
DB: 5050/197
ZONED: AR-1
LAND USE: RESIDENTIAL

OPEN SPACE A
828,452 S.F. ±
19.019 AC. ±

199.92'
199.85'
969.41' (TOTAL)
S 68°10'02" E
S 69°44'05" E 70.13'
N 87°26'07" E 81.62'
N 80°09'07" E 81.62'
N 75°01'22" E 81.62'
N 68°10'39" W 370.82'
S 68°10'39" E 320.13'
S 68°10'39" E 342.38'
N 68°10'39" W 124.27'
S 68°10'39" E 425.81'
N 68°10'39" W 240.40'
S 68°10'02" E 905.43'
S 68°10'02" E 683.84'
N 68°10'02" W 240.40'
S 68°10'02" E 240.40'
N 21°41'09" E 118.59'
N 21°41'09" E 431.38'
S 19°41'37" E 25.00'
N 60°09'37" E 25.00'
N 21°41'09" E 105.94'
N 21°41'09" E 118.63'
N 21°49'21" E 148.00'
N 21°49'21" E 125.00'
N 21°49'21" E 126.00'
N 21°49'21" E 128.00'
N 21°49'58" E 125.00'
N 72°49'31" W 60.30'
N 81°55'46" E 125.00'
N 76°58'44" E 125.00'
N 64°33'59" E 125.00'
N 19°13'59" W 81.62'
S 25°59'27" E 90.71'
S 46°05'21" W 125.00'
S 03°38'30" W 125.00'
S 07°03'15" W 125.00'
S 21°49'58" W 125.00'
S 21°49'58" W 125.00'
S 21°49'58" W 125.00'
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N 21°49'58" E 125.00'
N 21°41'09" E 125.00'
N 21°41'00" W 125.00'
S 21°41'09" W 125.00'
S 21°41'09" W 125.00'
S 21°41'09

DE STATE PLANE
NAD 83
Ex. 25.0' WIDE DELDOT PERMANENT EASEMENT CONTRACT 27016
N/F
JOSEPH FARM HOLDINGS, LLC
TM 334-10.00-27.00
DB 4247/203
ZONED: AR-1
LAND USE: AGRICULTURAL
Ex. 30.0' DELDOT PERMANENT EASEMENT CONTRACT 27016
Ex. 50.0' R.O.W.
N/F
JOSEPH FARM HOLDINGS, LLC
TM 334-10.00-27.00
DB 4247/203
IE SYKES
-69.08
197
R-1
DENTIAL
SEE PLAN A
N/F
KIMBERLY L. SCHWARTZ
TM 334-10.00-69.09
DB: 3022/247
ZONED: AR-1
LAND USE: RESIDENTIAL
N/F
DEBORAH A. MORGAN
TM 334-10.00-69.10
DB: 3333/60
PLAT REF.: 105/222
ZONED: AR-1
LAND USE: RESIDENTIAL
IPCF 0.24'
OHP
6.50'
FISHER ROAD - SCR 262
S 68°16'51" E 577.07'
308.07'
269.00'
S 68°16'51" E
OPEN SPACE A
828,452 S.F. ±
19.019 AC. ±
AN ADDITIONAL 5.0' STRIP OF DEDICATION IS HEREBY DEDICATED AND RESERVED FOR ADDITIONAL RIGHT-OF-WAY AS REQUIRED BY DELDOT
AN ADDITIONAL 5.0' STRIP OF DEDICATION IS HEREBY DEDICATED AND RESERVED FOR ADDITIONAL RIGHT-OF-WAY AS REQUIRED BY DELDOT
30' WIDE R.O.W. FROM CENTERLINE OF FISHER ROAD
30' WIDE R.O.W. FROM CENTERLINE OF FISHER ROAD
50' WIDE R.O.W.
50' WIDE R.O.W. FROM CENTERLINE OF FISHER ROAD
40' WIDE PAVEMENT WIDTH
24' WIDE PAVEMENT WIDTH
11' WIDE SWALES EACH
VARIABLE WIDTH DRAINAGE EASEMENT (SEE SHEET)
24' WIDE MOUNTABLE CURB
N 21°51'33" E 257.24'
260.74'
N 21°51'33" E 307.49'
S 68°08'07" E 159.50'
S 68°08'07" E 131.36'
S 68°08'07" E 125.00'
S 68°08'07" E 125.00'
S 68°08'07" E 125.00'
N 01°04'29" W 25.00'
ACCESS EASEMENT, SEE DETAIL HEREON
S 68°10'02" E 77.67'
N 21°49'09" E 57.08'
S 21°49'09" W 57.08'
S 68°10'02" E 89.19'
N 68°10'02" W 137.07'
S 68°10'02" E 905.43'
S 68°10'02" E 480.80'
S 68°10'02" E 983.84'
N 68°10'02" W 240.40'
S 68°10'02" E 989.61' (TOTAL)
170.00'
199.92'
30' WIDE LANDSCAPE BUFFER
LOT 97
9178 S.F. ±
0.211 AC. ±
LOT 96
7574 S.F. ±
0.174 AC. ±
LOT 95
7513 S.F. ±
0.172 AC. ±
LOT 94
7513 S.F. ±
0.172 AC. ±
LOT 93
8329 S.F. ±
0.191 AC. ±
LOT 87
7512 S.F. ±
0.172 AC. ±
LOT 88
7512 S.F. ±
0.172 AC. ±
LOT 89
7512 S.F. ±
0.172 AC. ±
LOT 90
7512 S.F. ±
0.172 AC. ±
LOT 91
7512 S.F. ±
0.172 AC. ±
LOT 92
7512 S.F. ±
0.172 AC. ±
LOT 62
2 S.F. ±
2 AC. ±
LOT 61
7512 S.F. ±
0.172 AC. ±
LOT 60
7512 S.F. ±
0.172 AC. ±
LOT 59
7512 S.F. ±
0.172 AC. ±
LOT 58
7512 S.F. ±
0.172 AC. ±
LOT 57
7512 S.F. ±
0.172 AC. ±
LOT 56
7512 S.F. ±
0.172 AC. ±
LOT 55
7512 S.F. ±
0.172 AC. ±
LOT 54
7512 S.F. ±
0.172 AC. ±
CHANNEL WAY
PRIVATE 45' R.O.W.
AMENITY SPACE
35979 S.F. ±
0.826 AC. ±
ACCESS EASEMENT, SEE DETAIL HEREON
LIGHTSHIP COVE DRIVE
PRIVATE 45' R.O.W.
LOT 1
7513 S.F. ±
0.172 AC. ±
LOT 2
7512 S.F. ±
0.172 AC. ±
LOT 3
7512 S.F. ±
0.172 AC. ±
LOT 4
7512 S.F. ±
0.172 AC. ±
LOT 5
7512 S.F. ±
0.172 AC. ±
LOT 6
7512 S.F. ±
0.172 AC. ±
OPEN SPACE A
828,452 S.F. ±
19.019 AC. ±
N/F
HOPKINS HENLOPEN HOMESTEAD, LLC
TM 334-10.00-69.01
DB: 4229/244
ZONED: AR-1
LAND USE: AGRICULTURAL
Ex. 50' WIDE PERMANENT EASEMENT (PLAT REF.: 75/308)
Ex. 50' WIDE PERMANENT EASEMENT (PLAT REF. 75/308)
30' WIDE LANDSCAPE BUFFER
10' (TYP.)
20' WIDE DRAINAGE EASEMENT
STONE DUST
SEE PLAN D
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
C14
C15
C16
C17
C18
C19
C20
C53
C54
C55
L1
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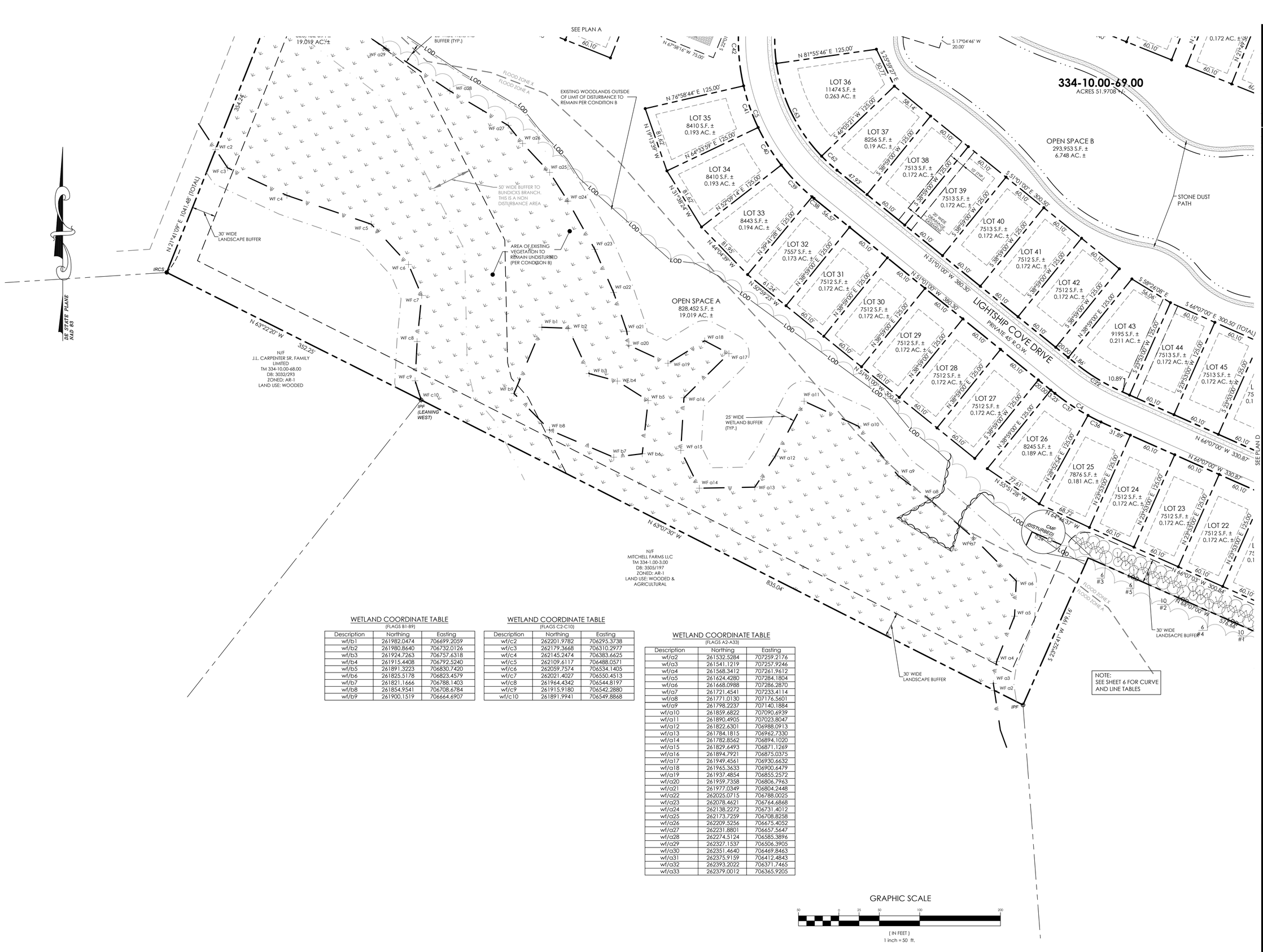
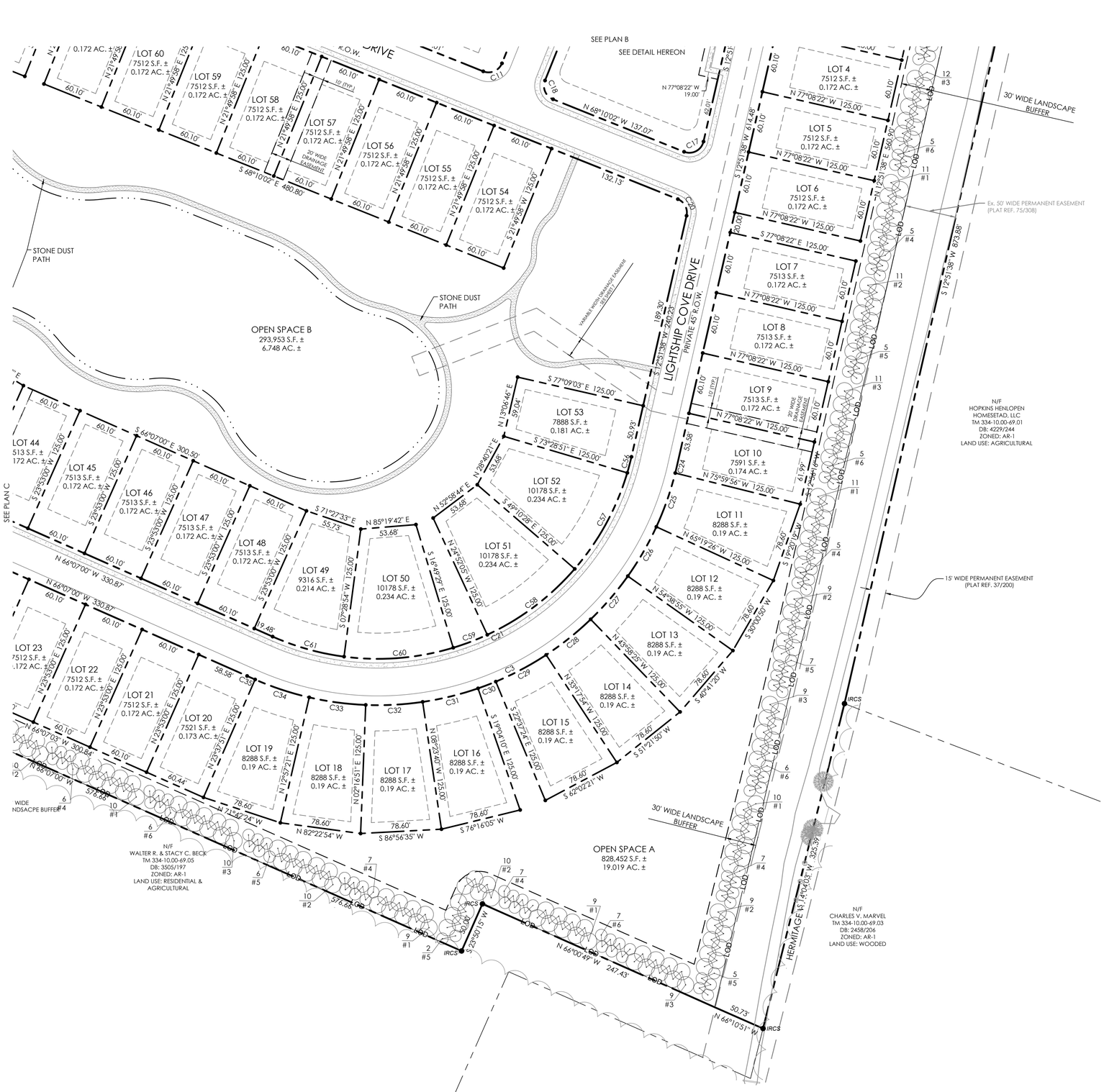

334-10.00-69.00
ACRES 51.9708 +/-
OPEN SPACE A
828,452 S.F. ± 19.019 AC. ±
OPEN SPACE B
293,953 S.F. ± 6.748 AC. ±
LIGHTSHIP COVE DRIVE
PRIVATE 45' R.O.W.
STONE DUST PATH
LOT 22 7512 S.F. ± 0.172 AC. ±
LOT 23 7512 S.F. ± 0.172 AC. ±
LOT 24 7512 S.F. ± 0.172 AC. ±
LOT 25 7876 S.F. ± 0.181 AC. ±
LOT 26 8245 S.F. ± 0.189 AC. ±
LOT 27 7512 S.F. ± 0.172 AC.
LOT 28 7512 S.F. ± 0.172 AC. ±
LOT 29 7512 S.F. ± 0.172 AC. ±
LOT 30 7512 S.F. ± 0.172 AC. ±
LOT 31 7512 S.F. ± 0.172 AC. ±
LOT 32 7557 S.F. ± 0.173 AC. ±
LOT 33 8443 S.F. ± 0.194 AC. ±
LOT 34 8410 S.F. ± 0.193 AC. ±
LOT 35 8410 S.F. ± 0.193 AC. ±
LOT 36 11474 S.F. ± 0.263 AC. ±
LOT 37 8256 S.F. ± 0.19 AC. ±
LOT 38 7513 S.F. ± 0.172 AC. ±
LOT 39 7513 S.F. ± 0.172 AC. ±
LOT 40 7513 S.F. ± 0.172 AC. ±
LOT 41 7512 S.F. ± 0.172 AC. ±
LOT 42 7512 S.F. ± 0.172 AC. ±
LOT 43 9195 S.F. ± 0.211 AC. ±
LOT 44 7513 S.F. ± 0.172 AC. ±
LOT 45 7513 S.F. ± 0.172 AC. ±
0.172 AC. ±
0.172 AC. ±
EXISTING WOODLANDS OUTSIDE OF LIMIT OF DISTURBANCE TO REMAIN PER CONDITION B
AREA OF EXISTING VEGETATION TO REMAIN UNDISTURBED (PER CONDITION B)
50' WIDE BUFFER TO BUNDICKS BRANCH. THIS IS A NON DISTURBANCE AREA
30' WIDE LANDSCAPE BUFFER
25' WIDE WETLAND BUFFER (TYP.)
FLOOD ZONE X
FLOOD ZONE A
LOD
LOD (DISTURBED)
IRCS
IPF (LEANING WEST)
CMF
N 21°41'09" E 1041.48' (TOTAL)
N 63°22'20" W 352.25'
N 63°07'30" W 835.04'
S 23°05'41" W 199.16'
N 76°58'44" E 125.00'
N 81°55'46" E 125.00'
S 17°04'46" W 20.00'
S 25°59'27" E 39.77'
S 46°05'21" W 125.00'
S 38°59'00" W 125.00'
N 38°59'00" E 125.00'
N 51°01'00" W 380.30'
S 51°01'00" E 380.30'
S 51°01'00" E 300.30'
N 30°59'23" W 51.24'
N 44°04'39" W 81.95'
N 31°58'24" W 81.62'
N 19°13'39" W 81.62'
N 64°33'59" E 125.00'
N 52°59'14" E 125.00'
N 38°41'28" E 125.00'
S 51°01'00" E 300.50'
S 38°59'00" W 125.00'
N 38°59'00" E 125.00'
S 58°26'08" E 56.06'
S 64°07'00" E 300.50' (TOTAL)
S 22°53'00" W 125.00'
S 28°53'00" W 125.00'
S 25°53'00" W 125.00'
N 66°07'00" W 330.87'
N 23°53'00" E 125.00'
N 55°51'28" W 77.61'
N 34°44'37" W 68.72'
N 84°07'03" W 300.84'
N 35°07'00" W 578.88'
N 25°53'00" E 125.00'
N 38°52'54" E 125.00'
N 38°59'00" E 125.00'
S 38°59'00" W 125.00'
S 38°59'00" W 125.00'
S 38°59'00" W



CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	25.00'	39.27'	35.36	S 66°43'09" W	90°00'00.0"
C2	127.50'	19.71'	19.69'	N 17°17'23" E	8°51'31.2"
C3	297.50'	524.55'	459.19'	S 63°22'19" W	101°01'22.0"
C4	297.50'	78.41'	78.18	S 58°34'00" E	15°06'00.6"
C5	252.50'	261.30'	249.80'	N 21°22'12" W	59°17'35.0"
C6	14.00'	18.68'	17.33'	S 29°53'7.02" E	76°27'14.3"
C7	14.00'	19.76'	18.16	S 71°23'21" W	80°52'00.5"
C8	49.00'	223.10'	74.59'	N 18°36'39" W	260°52'00.5"
C9	14.00'	21.44'	19.40'	N 63°57'36" E	87°43'30.2"
C10	252.50'	386.65'	349.96'	N 67°57'54" E	87°44'06.8"
C11	14.00'	21.98'	19.79'	N 66°50'55" E	89°58'04.5"
C12	72.50'	113.84'	102.50'	N 66°50'55" E	89°58'04.5"
C13	14.00'	24.18'	21.29'	N 62°20'48" W	98°58'19.8"
C14	172.50'	26.67'	26.64'	N 13°17'23" E	8°51'31.2"
C15	25.00'	39.27'	35.36	N 23°16'51" W	90°00'00.0"
C16	14.00'	19.80'	18.19'	N 27°39'12" W	81°01'40.2"
C17	14.00'	24.18'	21.29'	S 62°20'48" W	98°58'19.8"
C18	14.00'	22.00'	19.80'	N 23°09'05" W	90°01'55.5"
C19	27.50'	43.18'	38.88'	N 66°50'55" E	89°58'04.5"
C20	14.00'	19.80'	18.19'	S 27°39'12" E	81°01'40.2"
C21	252.50'	445.20'	389.73'	S 63°22'19" W	101°01'22.0"
C22	252.50'	66.35'	66.35'	N 58°34'00" W	15°06'00.6"
C23	207.50'	589.77'	410.36'	N 30°24'29" E	162°50'57.3"
C24	297.50'	5.92'	5.92'	N 13°25'51" E	1°08'26.3"
C25	297.50'	55.43'	55.35'	N 19°20'19" E	10°40'30.4"
C26	297.50'	55.43'	55.35'	N 30°00'50" E	10°40'30.4"
C27	297.50'	55.43'	55.35'	N 40°41'20" E	10°40'30.4"
C28	297.50'	55.43'	55.35'	N 51°21'50" E	10°40'30.4"
C29	297.50'	55.43'	55.35'	N 62°02'21" E	10°40'30.4"
C30	297.50'	18.45'	18.45'	N 69°09'13" E	3°33'13.7"
C31	297.50'	55.43'	55.35'	N 76°14'05" E	10°40'30.4"
C32	297.50'	55.43'	55.35'	N 84°56'35" E	10°40'30.4"
C33	297.50'	55.43'	55.35'	S 82°22'54" E	10°40'30.4"
C34	297.50'	55.43'	55.35'	S 71°42'24" E	10°40'30.4"
C35	297.50'	1.31'	1.31'	S 66°14'34" E	0°15'08.4"
C36	297.50'	25.95'	25.95'	S 63°57'03" E	4°59'54.2"
C37	297.50'	52.45'	52.38'	S 56°04'03" E	10°06'06.3"
C38	252.50'	3.12'	3.12'	S 50°39'46" E	0°42'28.2"
C39	252.50'	54.92'	54.81'	S 44°04'39" E	12°27'45.2"
C40	252.50'	54.70'	54.59'	S 31°38'24" E	12°24'45.1"
C41	252.50'	54.70'	54.59'	S 19°13'39" E	12°24'45.1"
C42	252.50'	93.86'	93.32'	S 02°22'20" E	21°17'51.4"
C43	49.00'	50.17'	48.00'	N 60°17'09" E	58°39'37.4"
C44	49.00'	51.78'	49.40'	S 60°06'42" E	60°32'39.3"
C45	49.00'	85.65'	75.15'	S 20°14'00" W	100°08'45.5"
C46	49.00'	35.51'	34.73'	N 88°56'08" W	41°30'58.4"
C47	252.50'	116.82'	115.78'	S 37°21'06" W	26°30'30.4"
C48	252.50'	80.25'	79.92'	S 59°42'40" W	18°12'38.5"
C49	252.50'	54.70'	54.59'	S 75°01'22" W	12°24'45.1"
C50	252.50'	54.70'	54.59'	S 87°26'07" W	12°24'45.1"
C51	252.50'	54.70'	54.59'	N 80°09'07" W	12°24'45.1"
C52	252.50'	25.47'	25.45'	N 71°03'24" W	5°46'42.5"
C53	72.50'	30.59'	30.36'	S 33°57'06" W	24°10'26.3"
C54	72.50'	54.27'	53.01'	S 67°28'55" W	42°53'11.4"
C55	72.50'	28.99'	28.79'	N 79°37'16" W	22°54'26.8"
C56	252.50'	16.12'	16.12'	S 14°41'23" W	3°39'31.4"
C57	252.50'	107.12'	106.32'	S 28°40'21" W	24°18'23.0"
C58	252.50'	107.12'	106.32'	S 52°58'44" W	24°18'23.0"
C59	252.50'	35.45'	35.42'	S 69°09'13" W	8°02'35.4"
C60	252.50'	107.12'	106.32'	S 85°19'42" W	24°18'23.0"
C61	252.50'	72.28'	72.04'	N 74°19'03" W	16°24'06.1"
C62	207.50'	25.73'	25.72'	N 47°27'49" W	7°06'20.4"
C63	207.50'	129.80'	127.69'	N 25°59'27" W	35°50'25.5"
C64	207.50'	406.15'	344.35'	N 48°00'13" E	112°08'53.0"
C65	207.50'	28.09'	28.06'	S 72°02'42" E	7°45'18.3"

LINE TABLE

LINE	BEARING	DISTANCE
L1	N 12°51'38" E	16.75'

EASEMENT LINE TABLE

LINE	BEARING	DISTANCE
EL1	S 77°08'22" E	12.94'
EL2	N 21°43'09" E	9.12'
EL3	S 21°43'09" W	7.50'
EL4	S 25°08'15" W	17.33'
EL5	S 34°17'43" E	28.87'
EL6	N 34°17'43" W	20.47'
EL7	N 87°54'35" W	13.45'
EL8	N 21°43'21" E	15.00'
EL9	S 67°53'51" E	20.00'

EASEMENT CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
EC1	147.50'	22.81'	22.78'	N 17°17'23" E	8°51'31"

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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No. 823
PROFESSIONAL LAND SURVEYOR
5/4/2022

7/22/22

REVISIONS

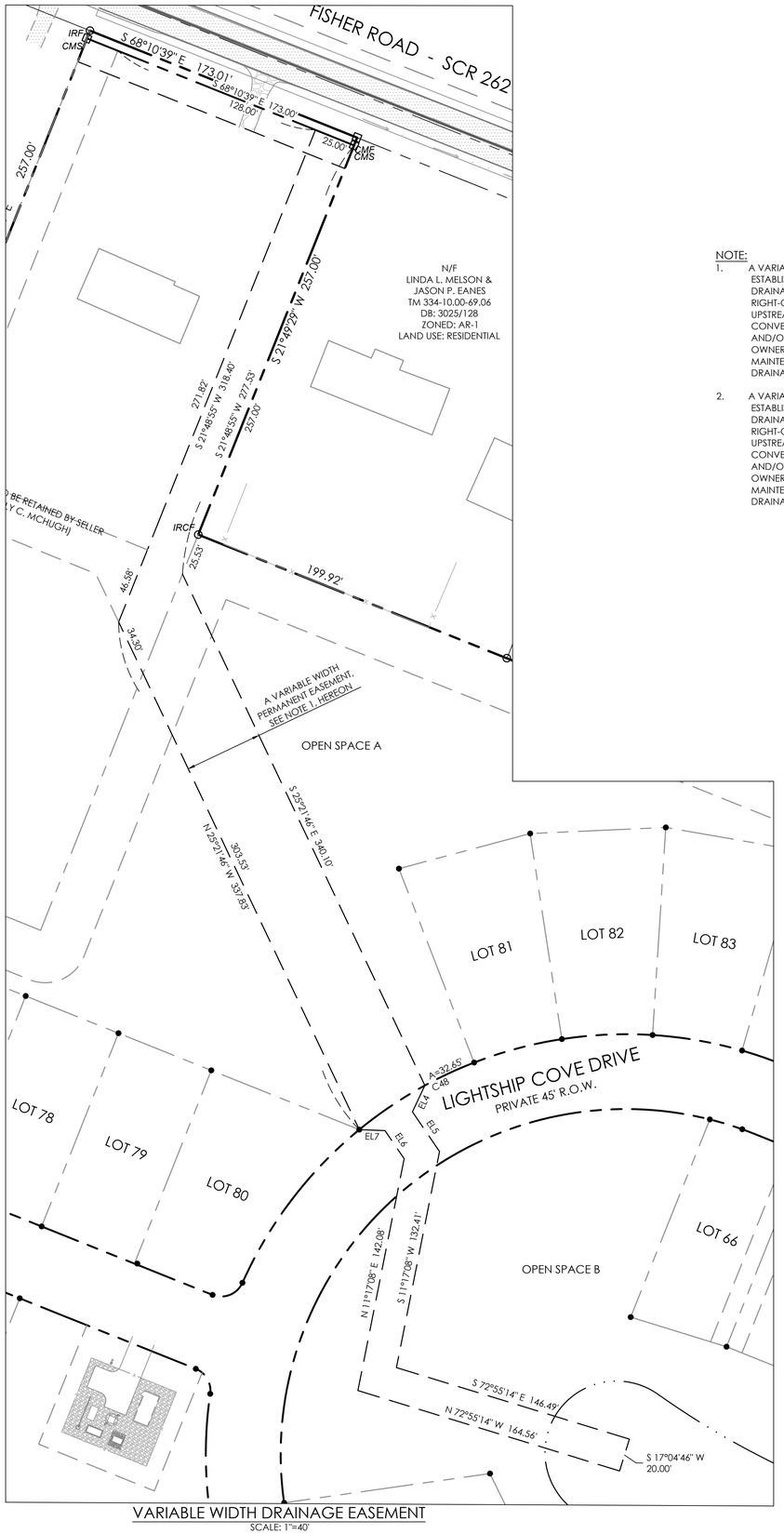
NO.	DATE	DESCRIPTION
1	5/18/22	REVISIONS PER AGENCY REVIEW COMMENTS DATED 5/13/22
2	7/13/22	REVISIONS PER AGENCY REVIEW COMMENTS DATED 5/19/22

RECORD PLAN D
for
LIGHTSHIP COVE
SUBDIVISION # 2021-11
LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DELAWARE
SCR 262

Date:	8/20/21
Job Number:	20049
Scale:	AS SHOWN
Drawn By:	MIL
Designed By:	JPR
Approved By:	JRE

Sheet No.: 6

File Name: 20049-record-plans



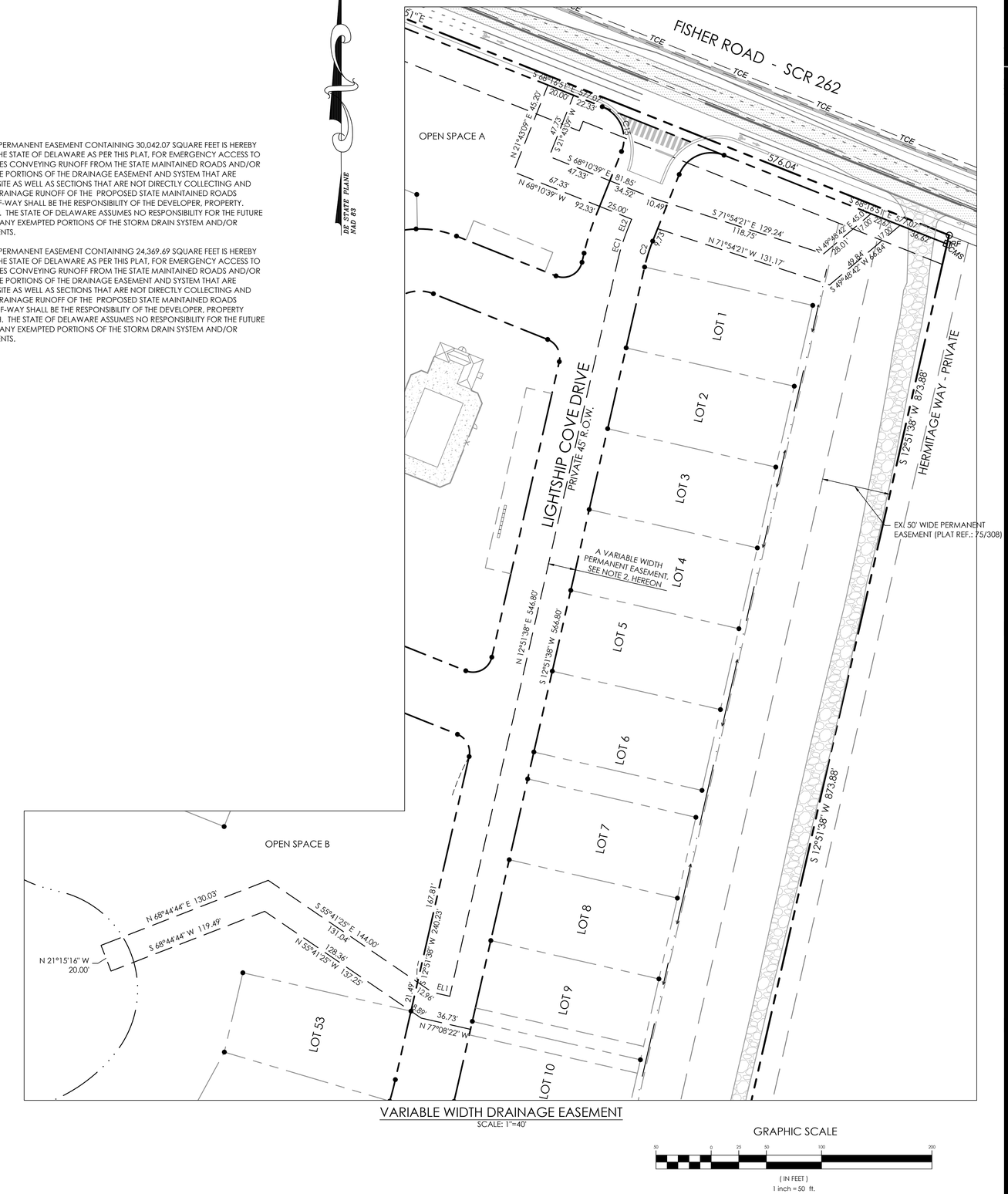
VARIABLE WIDTH DRAINAGE EASEMENT
SCALE: 1"=40'

NOTE:

1. A VARIABLE WITDH PERMANENT EASEMENT CONTAINING 30,042.07 SQUARE FEET IS HEREBY ESTABLISHED FOR THE STATE OF DELAWARE AS PER THIS PLAT, FOR EMERGENCY ACCESS TO DRAINAGE FACILITIES CONVEYING RUNOFF FROM THE STATE MAINTAINED ROADS AND/OR RIGHT-OF-WAY. THE PORTIONS OF THE DRAINAGE EASEMENT AND SYSTEM THAT ARE UPSTREAM OR OFFSITE AS WELL AS SECTIONS THAT ARE NOT DIRECTLY COLLECTING AND CONVEYING THE DRAINAGE RUNOFF OF THE PROPOSED STATE MAINTAINED ROADS AND/OR RIGHTS-OF-WAY SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, PROPERTY, OWNERS, OR BOTH. THE STATE OF DELAWARE ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF ANY EXEMPTED PORTIONS OF THE STORM DRAIN SYSTEM AND/OR DRAINAGE EASEMENTS.

2. A VARIABLE WIDTH PERMANENT EASEMENT CONTAINING 24,369.69 SQUARE FEET IS HEREBY ESTABLISHED FOR THE STATE OF DELAWARE AS PER THIS PLAT, FOR EMERGENCY ACCESS TO DRAINAGE FACILITIES CONVEYING RUNOFF FROM THE STATE MAINTAINED ROADS AND/OR RIGHT-OF-WAY. THE PORTIONS OF THE DRAINAGE EASEMENT AND SYSTEM THAT ARE UPSTREAM OR OFFSITE AS WELL AS SECTIONS THAT ARE NOT DIRECTLY COLLECTING AND CONVEYING THE DRAINAGE RUNOFF OF THE PROPOSED STATE MAINTAINED ROADS AND/OR RIGHTS-OF-WAY SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, PROPERTY OWNERS, OR BOTH. THE STATE OF DELAWARE ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF ANY EXEMPTED PORTIONS OF THE STORM DRAIN SYSTEM AND/OR DRAINAGE EASEMENTS.

DE STATE PLANE
NAD 83



VARIABLE WIDTH DRAINAGE EASEMENT
SCALE: 1"=40'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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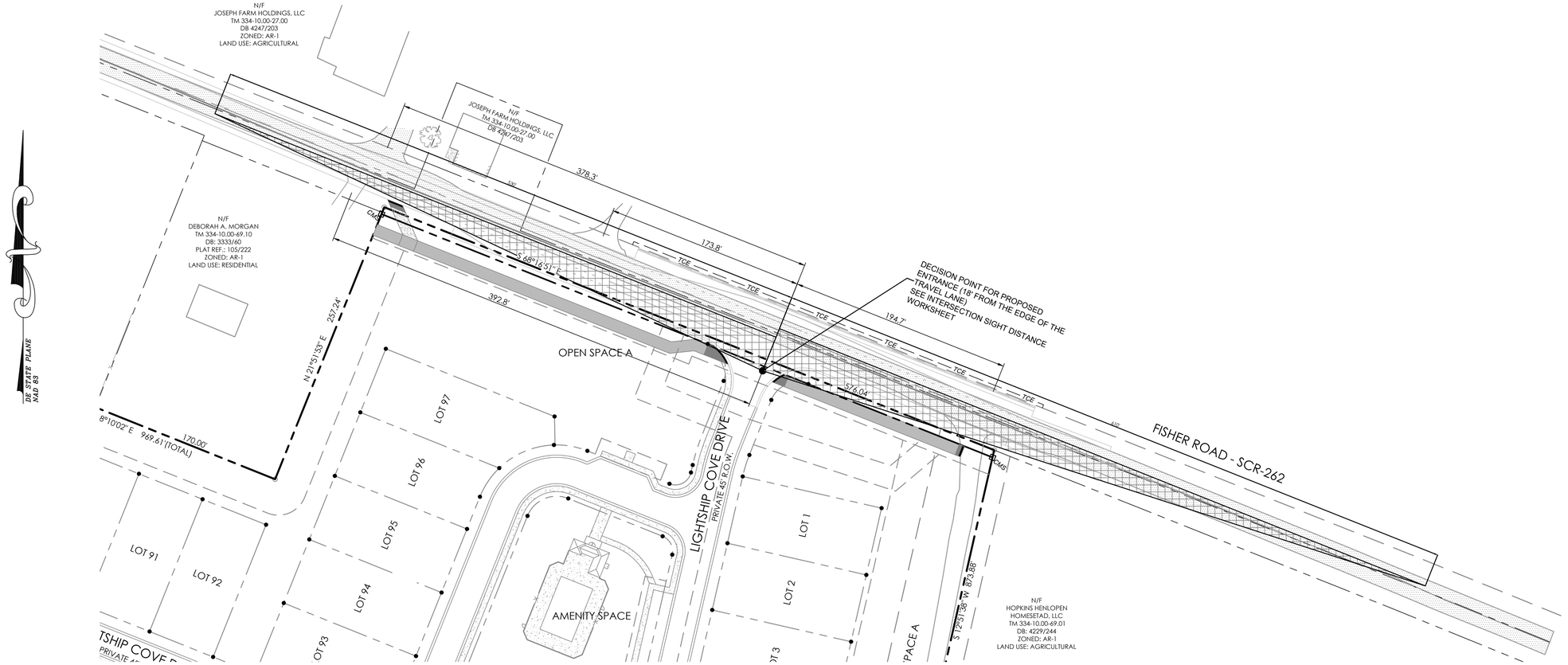
RECORD DELDOT EASEMENTS
for
LIGHTSHIP COVE
SUBDIVISION # 2021-11
LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DELAWARE
SCR 262

Date:	8/20/21
Job Number:	20049
Scale:	AS SHOWN
Drawn By:	ML
Designed By:	JPR
Approved By:	JRE

Sheet No.: 7

File Name: 20049-record-deldot



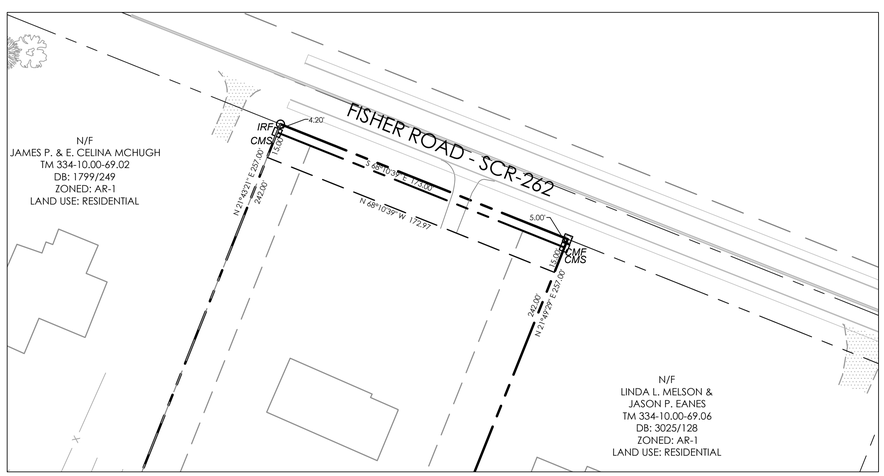
PROPOSED ENTRANCE DEPARTURE SIGHT DISTANCE TRIANGLE EXHIBIT

SCALE: 1" = 50'

GRAPHIC SCALE

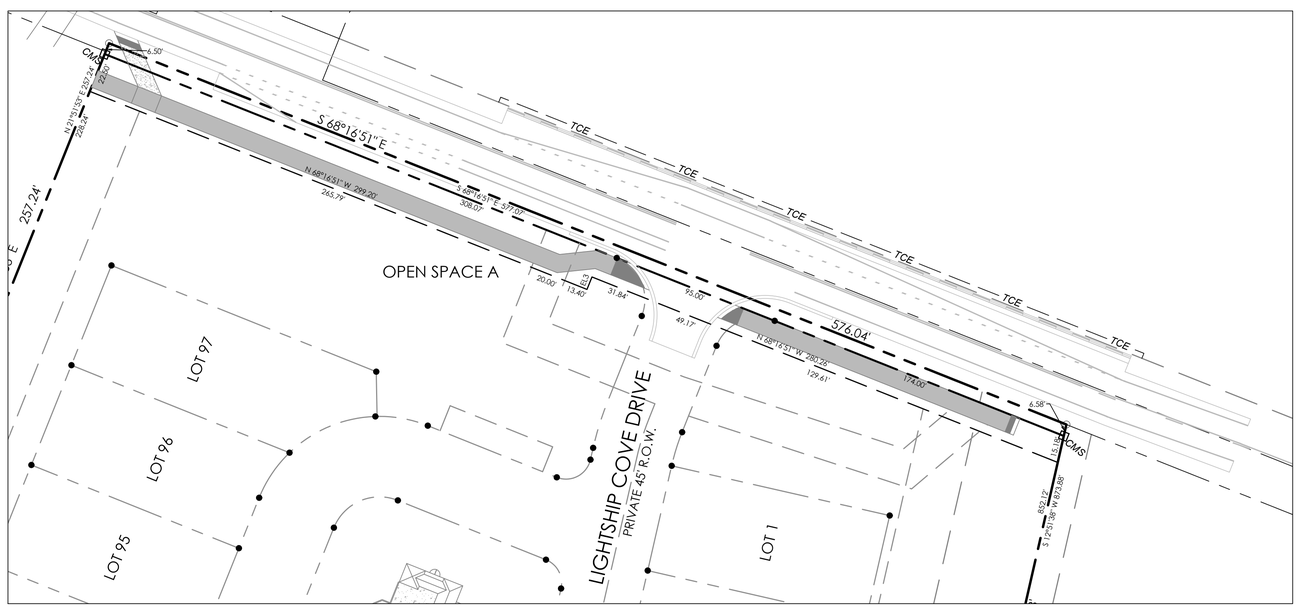
50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



15' WIDE PERMANENT DELDOT EASEMENT

SCALE: 1" = 40'



22.5' WIDE PERMANENT DELDOT EASEMENT

SCALE: 1" = 40'

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5/4/2022
7/22/22

REVISIONS

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DELDOT SIGHT DISTANCE TRIANGLES & EASEMENTS

for

LIGHTSHIP COVE

SUBDIVISION # 2021-11
LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DELAWARE
SCR 262

Date:	8/20/21
Job Number:	20049
Scale:	AS SHOWN
Drawn By:	ML
Designed By:	JPR
Approved By:	JRE

Sheet No.: 8

File Name: 20049-record-site-tri

LANDSCAPE BUFFER

NOTES:
1. THE LANDSCAPE AND/OR FOREST BUFFERS SHALL BE INSTALLED WITHIN 18 MONTHS FROM THE DATE SITE WORK IS AUTHORIZED TO COMMENCE, AS DOCUMENTED BY A NOTICE TO PROCEED LETTER FROM THE COMMISSION.

2. THE LAND DEVELOPER SHALL BE RESPONSIBLE FOR THE HEALTH AND SURVIVAL OF THE TREES, INCLUDING REGULAR NECESSARY WATERING FOR A MINIMUM OF 2 YEARS OR UNTIL SUCH LATER DATE AS THE MAINTENANCE RESPONSIBILITIES ARE TRANSFERRED TO A HOMEOWNER'S ASSOCIATION; PROVIDED, HOWEVER THAT THE DEVELOPER SHALL REPLACE AND TREES THAT DIE DURING THE MINIMUM 2 YEAR DEVELOPER MAINTENANCE PRIOR TO TRANSFERRING MAINTENANCE RESPONSIBILITIES TO A CONDOMINIUM ASSOCIATION.

3. ADDITIONAL INFORMATION AS TO HOW THE LANDSCAPE / FORESTED BUFFERS ARE TO BE MAINTAINED IN PERPETUITY, SHALL BE INCLUDED IN THE RESTRICTIVE COVENANTS AND/OR HOMEOWNER'S ASSOCIATION DOCUMENTS.

4. PURSUANT WITH SUSSEX COUNTY CODE SECTION 99-5, THE 20' WIDE LANDSCAPE BUFFER SHOWN IN THIS PLAN MUST BE PLANTED WITH A MIX OF 70% DECIDUOUS AND 30% EVERGREEN TREES, THE MAJORITY OF WHICH SHALL BE SUITABLE TREES OF COMMON LOCAL SPECIES. EVERY 100' OF BUFFER SHALL INCLUDE A MINIMUM OF 15 TREES.

5. ALL DECIDUOUS TREES THAT ARE PLANTED TO ESTABLISH THE BUFFER PLANTINGS SHALL HAVE A MINIMUM CALIPER OF 1.5 INCHES AND A MINIMUM HEIGHT OF SIX FEET ABOVE GROUND WHEN PLANTED IN ORDER TO INSURE THAT THE TREES WILL BE CAPABLE OF OBTAINING A MINIMUM HEIGHT OF 10 FEET ABOVE GROUND WITHIN FIVE YEARS OF BEING PLANTED.

6. ALL EVERGREEN TREES THAT ARE PLANTED TO ESTABLISH THE BUFFER PLANTINGS SHALL HAVE A MINIMUM HEIGHT OF FIVE FEET ABOVE GROUND WHEN PLANTED IN ORDER TO INSURE THAT THEY ARE REASONABLY CAPABLE OF ATTAINING A MINIMUM HEIGHT OF 10 FEET ABOVE GROUND WITHIN FIVE YEARS OF BEING PLANTED.

7. THE TREES SHALL BE PLANTED IN A STAGGERED NATURAL MANNER, THE PROCEDURES AND DETAILS FOR PLANTING NEW TREES SHALL BE SPECIFIED BY THE LANDSCAPE ARCHITECT ON THE PLAN SUBMITTED TO AND APPROVED BY THE COMMISSION AND SHALL INCLUDE THE REQUIREMENT THAT THE BUFFER AREA SHALL HAVE A FINAL GRADE THAT CONTAINS A MINIMUM OF FOUR INCHES OF TOPSOIL AND A SUITABLE GRASS MIX PLANTED AS SACRIFICIAL COVER BETWEEN THE BUFFER TREES FOR SOIL STABILIZATION UNTIL THE NEWLY PLANTED TREES BECOME LARGER. THE PLAN MAY SUBSTITUTE WOODCHIPS FOR PLANTED GRASS BETWEEN THE BUFFER TREES IN RESPECT TO BOTH NEWLY PLANTED AND EXISTING TREES, AS DETERMINED BY THE LANDSCAPE ARCHITECT

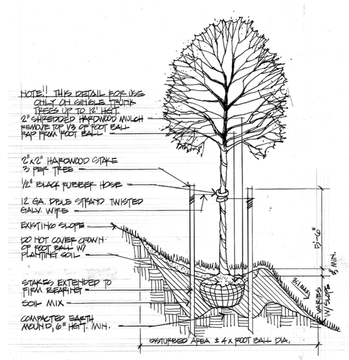
LANDSCAPE SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SPECIFICATION	TREE TYPE
161	#1	Acer rubrum	RED MAPLE	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
150	#2	Quercus phellos	WILLOW OAK	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
125	#3	Quercus rubra	RED OAK	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
72	#4	Ilex opaca	AMERICAN HOLLY	5' HGT. MIN.	EVERGREEN
64	#5	Picea abies	NORWAY SPRUCE	5' HGT. MIN.	EVERGREEN
51	#6	Pinus virginiana	VIRGINIA PINE	5' HGT. MIN.	EVERGREEN

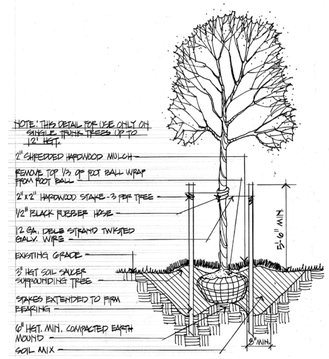
SUBSTITUTIONS:

BOTANICAL NAME	COMMON NAME	SPECIFICATION	TREE TYPE
Acer saccharum	SUGAR MAPLE	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
Chamaecyparis thyoides	ATLANTIC WHITECEDAR	5' HGT. MIN.	EVERGREEN
Crataegis viridis 'Winter King'	WINTER KING GREEN HAWTHORN	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
Liriodendron tulipifera	TULIP TREE	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
Pinus strobus	WHITE PINE	5' HGT. MIN.	EVERGREEN
Pinus taeda	LOBLOLLY PINE	5' HGT. MIN.	EVERGREEN
Quercus alba	WHITE PINE	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
Quercus coccinea	SCARLET OAK	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
Taxodium distichum	BALD CYPRESS	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
Magnolia virginiana	SWEETBAY MAGNOLIA	5' HGT. MIN.	EVERGREEN
Juniperus virginiana	EASTERN RED CEDAR	5' HGT. MIN.	EVERGREEN
Platanus acerifolia	LONDON PLANE TREE	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
Nyssa sylvatica	BLACK GUM	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS
Salix babylonica	WEEPING WILLOW	1 ½" CAL., 6' HGT. MIN.	DECIDUOUS

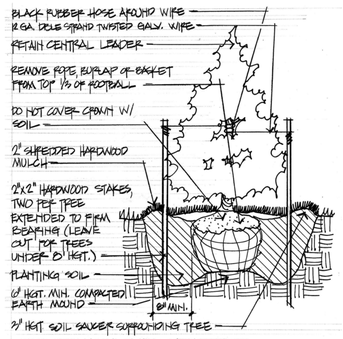
IF SUBSTITUTIONS ARE MADE, ONLY SUBSTITUTE DECIDUOUS FOR DECIDUOUS OR EVERGREEN FOR EVERGREEN TO MAINTAIN REQUIRED MIX.
DECIDIOUS TREE QUANTITY: 436 (70.0%)
EVERGREEN TREE QUANTITY: 187 (30.0%)
TOTAL TREE QUANTITY: 623



TREE PLANTING ON SLOPE DETAIL



DECIDUOUS TREE PLANTING DETAIL



EVERGREEN TREE PLANTING DETAIL

LEE ANN SCHNAPPINGER BRIDGMAN NO. S1-0000510 STATE OF DELAWARE LANDSCAPE ARCHITECT

LANDSCAPE ARCHITECT'S CERTIFICATION

I HEREBY CERTIFY THAT THESE DRAWINGS HAVE BEEN PREPARED UNDER MY SUPERVISION.

1-20-22
LEE ANN SCHNAPPINGER BRIDGMAN, RLA — DATE
BRIDGMAN LANDSCAPE ARCHITECTURE, LLC

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7/22/22

REVISIONS

NO.	DATE	DESCRIPTION
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2	7/13/22	REVISIONS PER AGENCY REVIEW COMMENTS DATED 5/19/22

LANDSCAPE NOTES AND DETAILS

for

LIGHTSHIP COVE

SUBDIVISION # 2021-11
LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DELAWARE
SCR 262

Date:	8/20/21
Job Number:	20049
Scale:	N.T.S.
Drawn By:	ML
Designed By:	JPR
Approved By:	JRE

Sheet No.: 9

File Name: 20049-record-landscape

SITE DATA TABLE:

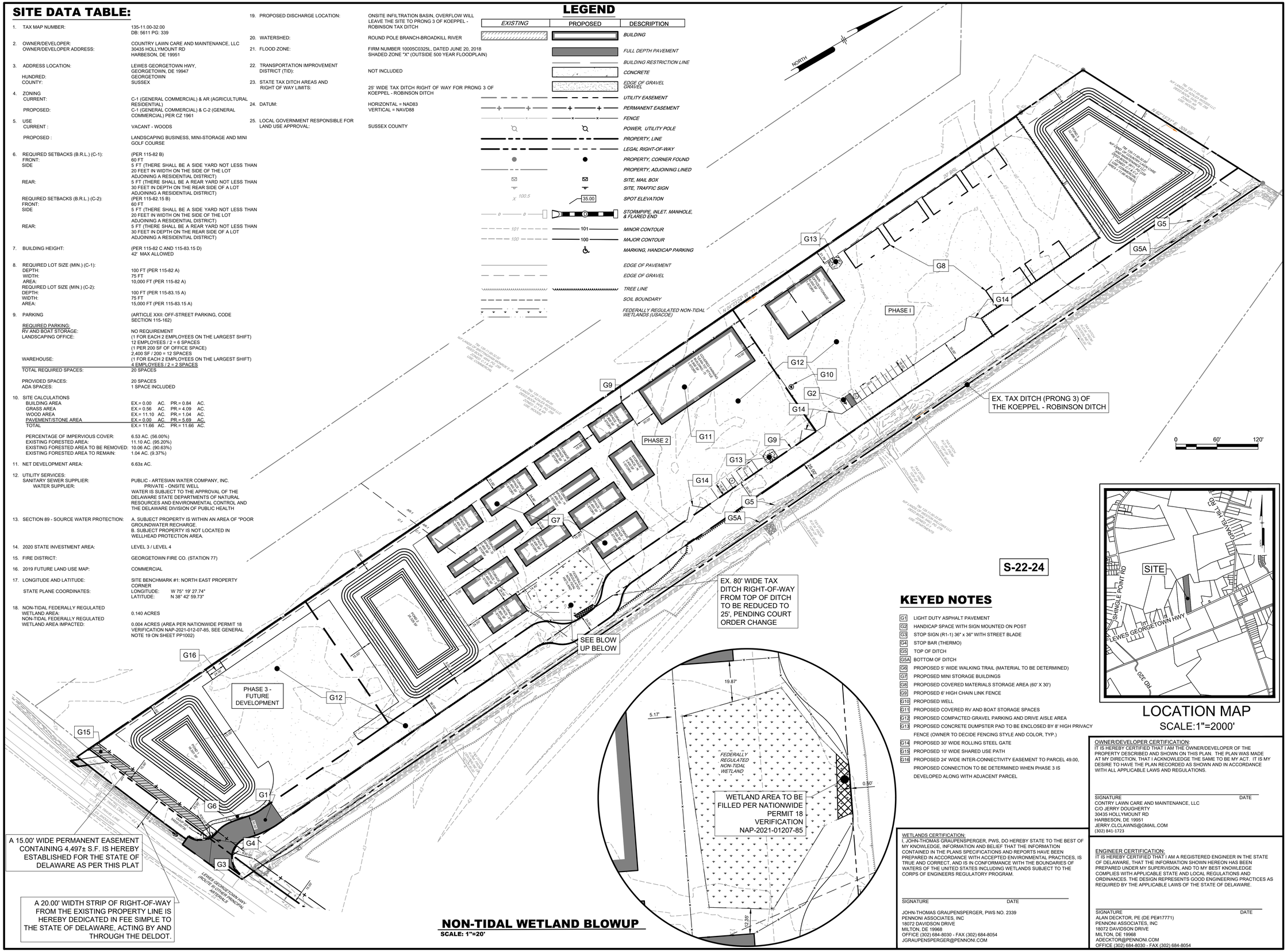
1. TAX MAP NUMBER: 135-11.00-32.00
   DB: 5611 PG: 339
2. OWNER/DEVELOPER: COUNTRY LAWN CARE AND MAINTENANCE, LLC
   OWNER/DEVELOPER ADDRESS: 30435 HOLLYMOUNT RD HARBESON, DE 19951
3. ADDRESS LOCATION: LEWES GEORGETOWN HWY, GEORGETOWN, DE 19947
   HUNDRED: GEORGETOWN
   COUNTY: SUSSEX
4. ZONING
   CURRENT: C-1 (GENERAL COMMERCIAL) & AR (AGRICULTURAL RESIDENTIAL)
   PROPOSED: C-1 (GENERAL COMMERCIAL) & C-2 (GENERAL COMMERCIAL) PER CZ 1961
5. USE
   CURRENT : VACANT - WOODS
   PROPOSED : LANDSCAPING BUSINESS, MINI-STORAGE AND MINI GOLF COURSE
6. REQUIRED SETBACKS (B.R.L.) (C-1): (PER 115-82 B)
   FRONT: 60 FT
   SIDE: 5 FT (THERE SHALL BE A SIDE YARD NOT LESS THAN 20 FEET IN WIDTH ON THE SIDE OF THE LOT ADJOINING A RESIDENTIAL DISTRICT)
   REAR: 5 FT (THERE SHALL BE A REAR YARD NOT LESS THAN 30 FEET IN DEPTH ON THE REAR SIDE OF A LOT ADJOINING A RESIDENTIAL DISTRICT)
   REQUIRED SETBACKS (B.R.L.) (C-2): (PER 115-82.15 B)
   FRONT: 60 FT
   SIDE: 5 FT (THERE SHALL BE A SIDE YARD NOT LESS THAN 20 FEET IN WIDTH ON THE SIDE OF THE LOT ADJOINING A RESIDENTIAL DISTRICT)
   REAR: 5 FT (THERE SHALL BE A REAR YARD NOT LESS THAN 30 FEET IN DEPTH ON THE REAR SIDE OF A LOT ADJOINING A RESIDENTIAL DISTRICT)
7. BUILDING HEIGHT: (PER 115-82 C AND 115-83.15 D)
   42' MAX ALLOWED
8. REQUIRED LOT SIZE (MIN.) (C-1):
   DEPTH: 100 FT (PER 115-82 A)
   WIDTH: 75 FT
   AREA: 10,000 FT (PER 115-82 A)
   REQUIRED LOT SIZE (MIN.) (C-2):
   DEPTH: 100 FT (PER 115-83.15 A)
   WIDTH: 75 FT
   AREA: 15,000 FT (PER 115-83.15 A)
9. PARKING (ARTICLE XXII: OFF-STREET PARKING, CODE SECTION 115-162)
   REQUIRED PARKING:
   RV AND BOAT STORAGE: NO REQUIREMENT
   LANDSCAPING OFFICE: (1 FOR EACH 2 EMPLOYEES ON THE LARGEST SHIFT) 12 EMPLOYEES / 2 = 6 SPACES
   (1 PER 200 SF OF OFFICE SPACE) 2,400 SF / 200 = 12 SPACES
   WAREHOUSE: (1 FOR EACH 2 EMPLOYEES ON THE LARGEST SHIFT) 4 EMPLOYEES / 2 = 2 SPACES
   TOTAL REQUIRED SPACES: 20 SPACES
   PROVIDED SPACES: 20 SPACES
   ADA SPACES: 1 SPACE INCLUDED
10. SITE CALCULATIONS

BUILDING AREA	EX.= 0.00 AC.	PR.= 0.84 AC.	
GRASS AREA	EX.= 0.56 AC.	PR.= 4.09 AC.	
WOOD AREA	EX.= 11.10 AC.	PR.= 1.04 AC.	
PAVEMENT/STONE AREA	EX.= 0.00 AC.	PR.= 5.69 AC.	
TOTAL	EX.= 11.66 AC.	PR.= 11.66 AC.	

    PERCENTAGE OF IMPERVIOUS COVER: 6.53 AC. (56.00%)
    EXISTING FORESTED AREA: 11.10 AC. (95.20%)
    EXISTING FORESTED AREA TO BE REMOVED: 10.06 AC. (90.63%)
    EXISTING FORESTED AREA TO REMAIN: 1.04 AC. (9.37%)
11. NET DEVELOPMENT AREA: 6.63± AC.
12. UTILITY SERVICES:
    SANITARY SEWER SUPPLIER: PUBLIC - ARTESIAN WATER COMPANY, INC.
    WATER SUPPLIER: PRIVATE - ONSITE WELL
    WATER IS SUBJECT TO THE APPROVAL OF THE DELAWARE STATE DEPARTMENTS OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL AND THE DELAWARE DIVISION OF PUBLIC HEALTH
13. SECTION 89 - SOURCE WATER PROTECTION: A. SUBJECT PROPERTY IS WITHIN AN AREA OF "POOR GROUNDWATER RECHARGE.
    B. SUBJECT PROPERTY IS NOT LOCATED IN WELLHEAD PROTECTION AREA.
14. 2020 STATE INVESTMENT AREA: LEVEL 3 / LEVEL 4
15. FIRE DISTRICT: GEORGETOWN FIRE CO. (STATION 77)
16. 2019 FUTURE LAND USE MAP: COMMERCIAL
17. LONGITUDE AND LATITUDE: SITE BENCHMARK #1: NORTH EAST PROPERTY CORNER
    STATE PLANE COORDINATES: LONGITUDE: W 75° 19' 27.74"
    LATITUDE: N 38° 42' 59.73"
18. NON-TIDAL FEDERALLY REGULATED WETLAND AREA: 0.140 ACRES
    NON-TIDAL FEDERALLY REGULATED WETLAND AREA IMPACTED: 0.004 ACRES (AREA PER NATIONWIDE PERMIT 18 VERIFICATION NAP-2021-012-07-85, SEE GENERAL NOTE 19 ON SHEET PP1002)
19. PROPOSED DISCHARGE LOCATION: ONSITE INFILTRATION BASIN, OVERFLOW WILL LEAVE THE SITE TO PRONG 3 OF KOEPPEL - ROBINSON TAX DITCH
20. WATERSHED: ROUND POLE BRANCH-BROADKILL RIVER
21. FLOOD ZONE: FIRM NUMBER 10005C0325L, DATED JUNE 20, 2018 SHADED ZONE "X" (OUTSIDE 500 YEAR FLOODPLAIN)
22. TRANSPORTATION IMPROVEMENT DISTRICT (TID): NOT INCLUDED
23. STATE TAX DITCH AREAS AND RIGHT OF WAY LIMITS: 25' WIDE TAX DITCH RIGHT OF WAY FOR PRONG 3 OF KOEPPEL - ROBINSON DITCH
24. DATUM: HORIZONTAL = NAD83 VERTICAL = NAVD88
25. LOCAL GOVERNMENT RESPONSIBLE FOR LAND USE APPROVAL: SUSSEX COUNTY

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		BUILDING
		FULL DEPTH PAVEMENT
		BUILDING RESTRICTION LINE
		CONCRETE
		EDGE OF GRAVEL GRAVEL
		UTILITY EASEMENT
		PERMANENT EASEMENT
		FENCE
		POWER, UTILITY POLE
		PROPERTY, LINE
		LEGAL RIGHT-OF-WAY
		PROPERTY, CORNER FOUND
		PROPERTY, ADJOINING LINED
		SITE, MAIL BOX
		SITE, TRAFFIC SIGN
100.5	35.00	SPOT ELEVATION
		STORMPIPE, INLET, MANHOLE, & FLARED END
101	101	MINOR CONTOUR
100	100	MAJOR CONTOUR
		MARKING, HANDICAP PARKING
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		TREE LINE
		SOIL BOUNDARY
		FEDERALLY REGULATED NON-TIDAL WETLANDS (USACOE)



GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH ALL APPLICABLE STATE, FEDERAL AND LOCAL CODES. ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY OWNER. THE CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY SAFEGUARDS FOR SAFETY AND PROTECTION.
2. THIS PLAN DOES NOT VERIFY THE EXISTENCE, OR NONEXISTENCE, OF EASEMENT OR RIGHT OF WAYS CROSSING THE SUBJECT PROPERTY.
3. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER OF ANY DISCREPANCIES OR ERRORS THEY DISCOVER IN THE PLAN.
4. FINAL SET OF APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS SHALL BE MAINTAINED ON THE JOB SITE AT ALL TIMES. FAILURE TO COMPLY WITH THIS PROVISION SHALL BE CONSIDERED CAUSE TO STOP THE WORK.
5. DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER OR HIS REPRESENTATIVE OR THE ENGINEER MAY BE CAUSE FOR THE WORK TO BE REJECTED.
6. ALL MATERIALS SHALL BE NEW AND SHALL BE ASBESTOS AND VERMICULITE FREE. ALL MATERIALS SHALL BE STORED SO AS TO ASSURE THE PRESERVATION OF THEIR QUALITY AND FITNESS FOR THE INTENDED WORK.
7. DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO BE PERFORMED. IT MUST BE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
8. PRIOR TO CONSTRUCTION, CONTRACTOR TO FIELD LOCATE AND RECORD ANY DAMAGE TO EXISTING PAVING, SIDEWALK, CURB OR STRUCTURES NOT TO BE REMOVED OR REPLACED, ENGINEER TO VERIFY LOCATION AND EXTENT OF DAMAGE.
9. THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF CONTRACT DRAWINGS ON WHICH HE SHALL NOTE, IN RED, THE ALIGNMENTS AND INVERTS OF ALL UNDERGROUND UTILITIES INSTALLED OR ENCOUNTERED DURING THE PROSECUTION OF THE WORK. ALL DISCREPANCIES BETWEEN THE PLAN LOCATIONS AND ELEVATIONS OF BOTH THE EXISTING AND PROPOSED UTILITIES SHALL BE SHOWN ON THE AS-BUILT DRAWINGS TO BE MAINTAINED BY THE CONTRACTOR IN THE FIELD.
10. THE CONTRACTOR SHALL OPEN ONLY THAT SECTION OF TRENCH OR ACCESS PITS WHICH CAN BE BACKFILLED AND STABILIZED AT THE END OF EACH WORKING DAY. STEEL PLATES SHALL BE USED ON ANY TRENCH OR ACCESS PITS WHICH MUST REMAIN OPEN OVERNIGHT. THIS REQUIREMENT DOES NOT APPLY TO AREAS COMPLETELY CLOSED AND SECURE FROM VEHICULAR OR PEDESTRIAN TRAFFIC.
11. DAMAGE TO EXISTING PAVING, SIDEWALK, CURB OR STRUCTURES NOT TO BE REPLACED OR REMOVED DURING CONSTRUCTION SHALL BE IMMEDIATELY REPORTED TO ENGINEER, CONTRACTOR SHALL REPAIR OR REPLACE ALL DAMAGED WORK WITHOUT CHARGE TO THE OWNER.
12. BASED UPON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) NUMBER 10005C0325L, EFFECTIVE DATE JUNE 20, 2018. THE ENTIRE PROPERTY IS LOCATED IN AN AREA DESIGNATED AS FLOOD ZONE "X" (UNSHADED), WHICH IS AN AREA THAT HAS BEEN DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN.
13. SUBJECT PROPERTY IS CURRENTLY SPLIT BETWEEN 'C-1' (GENERAL COMMERCIAL) AND PENDING REZONING TO CHANGE AR-1 (AGRICULTURAL RESIDENTIAL) LANDS TO C-2 (GENERAL COMMERCIAL).
14. THE SUBJECT SITE WILL BE CONSTRUCTED AS A SINGLE PHASE.
15. TOTAL AREA FOR SUBJECT SITE IS 11.66 ACRES.
16. THE BOUNDARY INFORMATION & TOPOGRAPHY SHOWN ON THIS PLAN WAS TAKEN FROM DOCUMENTS OF PUBLIC RECORD AND IS ALSO THE RESULT OF AN ACTUAL FIELD SURVEY BY PENNONI ASSOCIATES, INC. DATED JANUARY 2022.
17. ALL PROPOSED LIGHTING WILL BE SUPPLIED BY BUILDING WALL PACKS AND PARKING LOT LIGHTS.
18. ALL SECURITY LIGHTING (IF NECESSARY) SHALL BE DOWNWARD SCREENED SO THAT IT DOES NOT SHINE ON NEIGHBORING PROPERTIES OR ROADWAYS.
19. A SMALL POCKET OF FEDERALLY REGULATED NON -TIDAL WETLAND (0.14 AC) EXIST ON THE SITE AS SHOWN, THIS AREA WAS EVALUATED AND DELINEATED BY PENNONI ASSOCIATES IN MARCH 2022. A NATIONWIDE PERMIT 18 VERIFICATION NAP-2021-01207-85 WAS OBTAINED FROM THE US ARMY CORPS PF ENGINEERS REGULATORY BRANCH ON MARCH 24, 2022.
20. STORMWATER IS CONVEYED TO STORM PONDS AND ULTIMATELY TO PRONG 3 OF KOEPPEL - ROBINSON DITCH.
21. ALL FIRE LANES, FIRE HYDRANTS, EXITS, STANDPIPE, FIRE DEPARTMENT CONNECTIONS AND SPRINKLER CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH STATE FIRE PREVENTION REGULATIONS. BUILDING CONSTRUCTION TO BE WOOD, STEEL, AND CONCRETE, AND WILL NOT HAVE SPRINKLERS.
22. FIRE ALARM REQUIRED - THE FIRE ALARM SIGNALING SYSTEM SHALL BE AUTOMATIC, SUPERVISED OFF-SITE, AND SHALL CONSIST OF FULL COVERAGE BY SMOKE DETECTION AND ALARM NOTIFICATION. WHERE SMOKE DETECTION DEVICES WILL NOT FUNCTION BY REASON OF DEVICE LIMITATION, HEAT DETECTION SHALL BE PROVIDED IN THOSE SPECIFIC LOCATIONS FIRE ALARM SIGNALING SYSTEM PLANS AND SPECIFICATIONS SHALL BE SUBMITTED FOR REVIEW.
23. LOCK BOX REQUIRED - CONTACT LOCAL FIRE CHIEF FOR ORDERING INFORMATION AND LOCATION OF BOX ON THE BUILDING.
24. MISS UTILITY SHALL BE NOTIFIED THREE (3) DAYS PRIOR TO EXCAVATION.
25. ALL DISTURBED AREAS WITHIN THE LIMIT OF DISTURBANCE, BUT NOT IN PAVEMENT, SHALL BE TOP-SOILED (6" MINIMUM), SEEDED AND MULCHED. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION, ALL COSTS ASSOCIATED WITH RE-ESTABLISHING A SATISFACTORY STAND OF GRASS SHALL BE AT THE CONTRACTOR'S EXPENSE.
26. A 72 HOUR (MINIMUM) NOTICE SHALL BE GIVEN TO THE DISTRICT PERMIT SUPERVISOR PRIOR TO STARTING ROADWAY CONSTRUCTION.
27. THE SUSSEX CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE OR MODIFY ANY EROSION AND SEDIMENT CONTROL MEASURES AS THEY DEEM NECESSARY.
28. THE ENTRANCES / EXITS ARE PROPOSED ONLY, AND ARE SUBJECT TO REVIEW AND APPROVAL BY THE DELAWARE DEPARTMENT OF TRANSPORTATION BEFORE A CONSTRUCTION PERMIT IS ISSUED.
29. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING, TWO (2) WEEKS PRIOR TO THE START OF CONSTRUCTION:
    THE OWNER, SUSSEX CONSERVATION DISTRICT, & DELDOT
30. THE CONTRACTOR SHALL MAINTAIN PUBLIC ROADS AND STREETS IN A BROOM SWEPT CONDITION AT ALL TIMES.
31. ROUTINE PERIODIC INSPECTIONS DURING CONSTRUCTION WILL BE PROVIDED BY THE OWNER. THESE INSPECTIONS DO NOT RELIEVE THE CONTRACTOR FROM HIS OBLIGATION AND RESPONSIBILITY FOR CONSTRUCTING ALL WORK IN STRICT ACCORDANCE WITH ALL STANDARDS AND SPECIFICATIONS AND CONSTRUCTION DOCUMENTS.
32. THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL MEASURES TO PROTECT STOCKPILE AREAS AND STORAGE AREAS. ALL AREAS USED BY THE CONTRACTOR FOR STAGING OPERATIONS SHALL BE FULLY RESTORED BY THE CONTRACTOR FOR STAGING OPERATIONS SHALL BE FULLY RESTORED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT. IF THE STAGING AREA IS PAVED, IT SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF THE STAGING AREA IS UNPAVED, IT SHALL BE RE-GRADED, TOPSOILED, SEEDED AND MULCHED TO THE SATISFACTION OF THE ENGINEER. ALL COSTS ASSOCIATED WITH RESTORATION OF THE STAGING AREA SHALL BE AT THE CONTRACTOR'S EXPENSE. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION, ALL COSTS ASSOCIATED WITH RE-ESTABLISHING A SATISFACTORY STAND OF GRASS SHALL BE AT THE CONTRACTOR'S EXPENSE.
33. DELAWARE REGULATIONS PROHIBIT THE BURIAL OF CONSTRUCTION DEMOLITION DEBRIS, INCLUDING TREES AND STUMPS ON CONSTRUCTION SITES. ANY SOLID WASTE FOUND DURING THE EXCAVATION FOR STRUCTURES AND UTILITY LINES ON AND OFF SITE MUST BE REMOVED AND PROPERLY DISCARDED. ANY REMEDIAL ACTION REQUIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.
34. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO LOCATE PROPERTY LINES AND RIGHT OF WAY LINES PRIOR TO CONSTRUCTION AND AVOID CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY AND/ OR RIGHTS OF WAYS WHERE SAID CONSTRUCTION IS PROHIBITED. THE CONTRACTOR MAY CONDUCT CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY PROVIDED IF HE HAS OBTAINED PRIOR WRITTEN PERMISSION FROM THE PROPERTY OWNER AND HAS SUBMITTED A COPY OF SAID WRITTEN PERMISSION TO THE OWNER.
35. THE CONTRACTOR SHALL REMOVE AND IMMEDIATELY REPLACE, RELOCATE, RESET OR RECONSTRUCT ALL OBSTRUCTIONS IN THE WORK AREA, INCLUDING, BUT NOT LIMITED TO, MAILBOXES, SIGNS, LANDSCAPING, LIGHTING, PLANTERS, CULVERTS, DRIVEWAYS, PARKING AREAS, CURBS, GUTTERS, FENCES, OR OTHER NATURAL OR MAN-MADE OBSTRUCTIONS. TRAFFIC CONTROL REGULATORY, WARNING AND INFORMATION SIGNS SHALL REMAIN FUNCTIONAL AND VISIBLE TO THE APPROPRIATE LANES OF TRAFFIC AT ALL TIMES, WITH THEIR RELOCATION KEPT TO A MINIMUM DISTANCE.

DELDOT RECORD SITE PLANS (03/21/2019):

1. NO LANDSCAPING SHALL BE ALLOWED WITHIN RIGHT-OF-WAY UNLESS THE PLANS ARE COMPLIANT WITH SECTION 3.7 OF THE DEVELOPMENT COORDINATION MANUAL (DCM).
2. ALL ENTRANCES SHALL CONFORM TO THE DELAWARE DEPARTMENT OF TRANSPORTATION'S (DELDOT'S) CURRENT DEVELOPMENT COORDINATION MANUAL (DCM) AND SHALL BE SUBJECT TO ITS APPROVAL.
3. SHRUBBERY, PLANTINGS, SIGNS AND/OR OTHER VISUAL BARRIERS THAT COULD OBSTRUCT THE SIGHT DISTANCE OF A DRIVER PREPARING TO ENTER THE ROADWAY ARE PROHIBITED WITHIN THE DEFINED DEPARTURE SIGHT TRIANGLE AREA ESTABLISHED ON THIS PLAN. IF THE ESTABLISHED DEPARTURE SIGHT TRIANGLE AREA IS OUTSIDE THE RIGHT-OF-WAY OR PROJECTS ONTO AN ADJACENT PROPERTY OWNER'S LAND, A SIGHT EASEMENT SHOULD BE ESTABLISHED AND RECORDED WITH ALL AFFECTED PROPERTY OWNERS TO MAINTAIN THE REQUIRED SIGHT DISTANCE.
4. UPON COMPLETION OF THE CONSTRUCTION OF THE SIDEWALK OR SHARED-USE PATH ACROSS THIS PROJECT'S FRONTAGE AND PHYSICAL CONNECTION TO ADJACENT EXISTING FACILITIES, THE DEVELOPER, THE PROPERTY OWNERS OR BOTH ASSOCIATED WITH THIS PROJECT, SHALL BE RESPONSIBLE TO REMOVE ANY EXISTING ROAD TIE-IN CONNECTIONS LOCATED ALONG ADJACENT PROPERTIES, AND RESTORE THE AREA TO GRASS. SUCH ACTIONS SHALL BE COMPLETED AT DELDOT'S DISCRETION, AND IN CONFORMANCE WITH DELDOT'S DEVELOPMENT COORDINATION MANUAL.
5. THE SIDEWALK SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, THE PROPERTY OWNERS OR BOTH WITHIN THIS SUBDIVISION. THE STATE OF DELAWARE ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE FOR THE SIDEWALK.
6. PRIVATE STREETS CONSTRUCTED WITHIN THIS SUBDIVISION SHALL BE MAINTAINED BY THE DEVELOPER, THE PROPERTY OWNERS WITHIN THIS SUBDIVISION OR BOTH (TITLE 17 § 131). DELDOT ASSUMES NO RESPONSIBILITIES FOR THE FUTURE MAINTENANCE OF THESE STREETS.
7. ALL LOTS SHALL HAVE ACCESS FROM THE INTERNAL SUBDIVISION ENTRANCE.
8. DRIVEWAYS WILL NOT BE PERMITTED TO BE PLACED AT CATCH BASIN LOCATIONS.
9. TO MINIMIZE RUTTING AND EROSION OF THE ROADSIDE DUE TO ON-STREET PARKING, DRIVEWAY AND BUILDING LAYOUTS MUST BE CONFIGURED TO ALLOW FOR VEHICLES TO BE STORED IN THE DRIVEWAY BEYOND THE RIGHT-OF-WAY, WITHOUT INTERFERING WITH SIDEWALK ACCESS AND CLEARANCE.
10. THE DEVELOPER SHALL BE REQUIRED TO FURNISH AND PLACE RIGHT-OF-WAY MONUMENTS IN ACCORDANCE WITH DELDOT'S *DEVELOPMENT COORDINATION MANUAL.*
11. THE DEVELOPER SHALL BE REQUIRED TO FURNISH AND PLACE RIGHT-OF-WAY MARKERS TO PROVIDE A PERMANENT REFERENCE FOR RE-ESTABLISHING THE RIGHT-OF-WAY AND PROPERTY CORNERS ON LOCAL AND HIGHER ORDER FRONTAGE ROADS. RIGHT-OF-WAY MARKERS SHALL BE SET AND/OR PLACED ALONG THE FRONTAGE ROAD RIGHT-OF-WAY AT PROPERTY CORNERS AND AT EACH CHANGE IN RIGHT-OF-WAY ALIGNMENT IN ACCORDANCE WITH SECTION 3.2.4.2 OF THE *DEVELOPMENT COORDINATION MANUAL.*

FIRE MARSHAL NOTES:

1. SITE NAME/ADDRESS : COUNTRY LAWN CARE AND MAINTENANCE, LLC
   LEWES GEORGETOWN HWY,
   GEORGETOWN, DE 19947
   SUSSEX COUNTY, DELAWARE
2. OWNER INFORMATION :

CURRENT OWNER/DEVELOPER	TAX MAP/PARCEL #	GROSS ACREAGE
COUNTRY LAWN CARE AND MAINTENANCE, LLC C/O 30435 HOLLYMOUNT RD HARBESON, DE 19951	135-11.00-32.00	11.66± ACRES

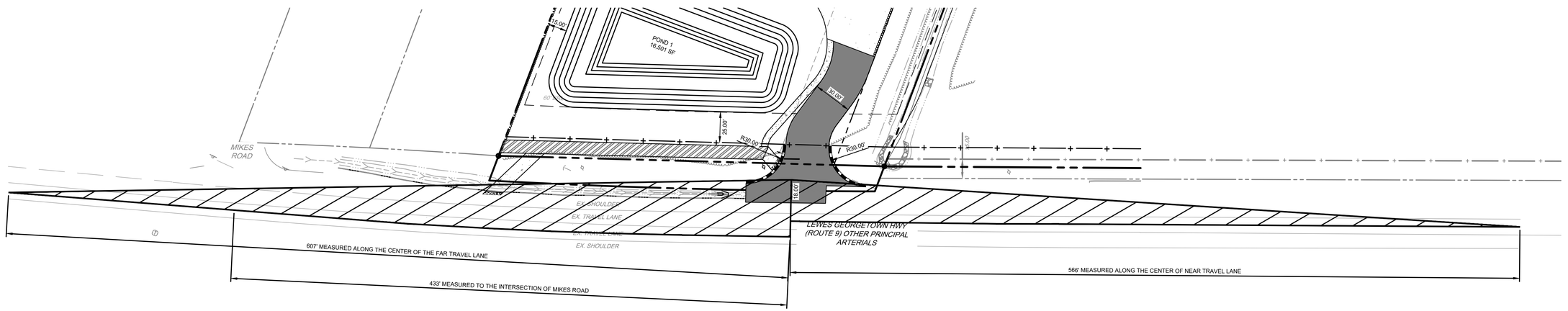
3. INTENDED USE: LANDSCAPING BUSINESS, MINI-STORAGE AND MINI GOLF COURSE
4. WATER SUPPLIER: PRIVATE - ONSITE WELL
5. MAXIMUM BUILDING HEIGHT: 42'
6. AUTOMATIC SPRINKLERS: BUILDINGS A - P : NO
7. FIRE DISTRICT: GEORGETOWN FIRE CO. (STATION 77)

NOTES:

1. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE STATE FIRE PREVENTION REGULATIONS.

BUILDING USE AND CONSTRUCTION

BUILDING	USE	CONSTRUCTION TYPE	SF FOOTPRINT	SF GFA	SPRINKLER
A	MINI GOLF PARK OFFICE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	1,400	1,400	NO
B	MINI GOLF PARK STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	1,400	1,400	NO
C	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	2,400	2,400	NO
D	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	2,400	2,400	NO
E	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	2,400	2,400	NO
F	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	1,800	1,800	NO
G	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	2,400	2,400	NO
H	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	2,400	2,400	NO
I	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	2,400	2,400	NO
J	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	2,400	2,400	NO
K	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	2,400	2,400	NO
L	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	2,400	2,400	NO
M	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	1,800	1,800	NO
N	MINI STORAGE SPACE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	2,400	2,400	NO
O	COVERED PARKING	"LEAN-TO" STYLE BUILDING	9,900	9,900	NO
P	MAIN OFFICE/STORAGE	1-STORY TYPE V (000) (NFPA/ FIRE MARSHALL)	6,000	6,000	NO



LEWES GEORGETOWN HWY SPEED LIMIT IS 50 MPH

SIGHT DISTANCE TRIANGLE

SCALE: 1" = 40'

PENNONI ASSOCIATES INC.
18072 Davidson Drive
Milton, DE 19968
T 302.684.8030 F 302.684.8054

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

4 SEASONS PARK
S-22-24
TAXMAP #: 135-11.00-32.00
LEWES GEORGETOWN HWY
GEORGETOWN, DE 19947

PRLEIMINARY PLAN NOTES AND DETAILS

COUNTRY LAWN CARE AND MAINTENANCE LLC
30435 HOLLYMOUNT RD
HARBESON, DE 19951

NO.	DATE	REVISIONS	BY

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	CLCMX21001
DATE	2022-02-25
DRAWING SCALE	AS SHOWN
DRAWN BY	RPP
APPROVED BY	AMD

PP1002

SHEET 2 OF 2

U:\Accounts\CLCMX\CLCMX21001 - Lot Feasibility\DESIGN_SHEETS\PP1002.dwg PLOTTED: 6/28/2022 10:06 AM BY: Rhythm Patel PLOTSTYLE: Pennoni NCS.stb PROJECT STATUS: —

DAVIS BOWEN & FRIEDEL, INC.

ARCHITECTS • ENGINEERS • SURVEYORS

Ring W. Lardner, P.E.
W. Zachary Crouch, P.E.
Michael E. Wheedleton, AIA, LEED GA
Jason P. Loar, P.E.
Jamie L. Sechler, P.E.

Michael R. Wigley, AIA, LEED AP

August 10, 2022

Sussex County Administrative Building
Planning and Zoning Department
2 The Circle
P.O. Box 589
Georgetown, Delaware 19947

Attn: Chase Phillips
Planner II

RE: Preliminary Site Plan for Price Automotive, LLC (S-22-15)
Tax Parcel No.: 334-12.00-127.08 and 127.09
DBF #3960A001

Dear Mr. Phillips:

On behalf of our client, Price Premium, LLC, we are pleased to submit a request for a waiver of the bulk grading plan for the proposed project. The proposed project is located off an existing road and will be built in a single phase. A detailed grading plan will be included in the construction documents.

On behalf of our client, we thank you for your review and consideration of this response. If you should have any questions or concerns, please contact me at (302) 424-1441 or via e-mail at rwl@dbfinc.com.

Sincerely,
DAVIS, BOWEN & FRIEDEL, INC.

Ring W. Lardner, P.E.
Principal

P:\Price Automotive Group\Herola\Docs\P&Z\2022-08-10 Bulk Grading Waiver Request\Waiver Request.docx

PRICE AUTOMOTIVE GROUP

PRELIMINARY TITLE SHEET

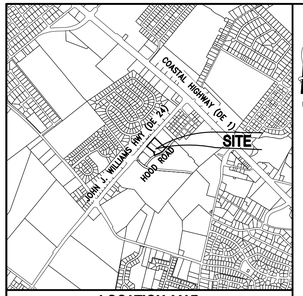
LEWES REHOBETH HUNDRED

REHOBETH, SUSSEX COUNTY, DELAWARE

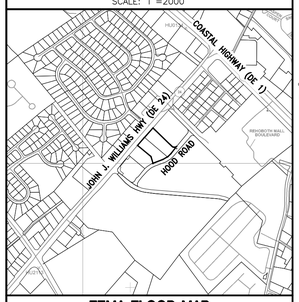
FEBRUARY 2022

DBF PROJECT # 3960A001

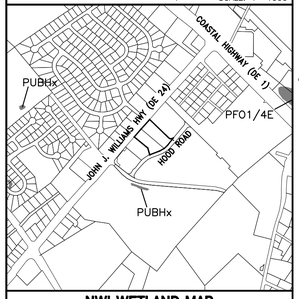
PRELIMINARY SITE PLANS



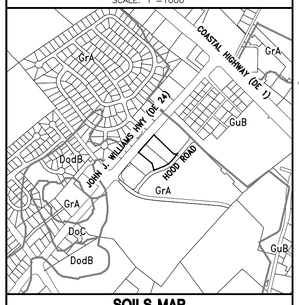
LOCATION MAP
SCALE: 1"=2000'



FEMA FLOOD MAP
PANEL:10005C0332K DATED: MARCH 16, 2015 SCALE: 1"=1000'



NWI WETLAND MAP
SCALE: 1"=1000'



SOILS MAP
SCALE: 1"=1000'

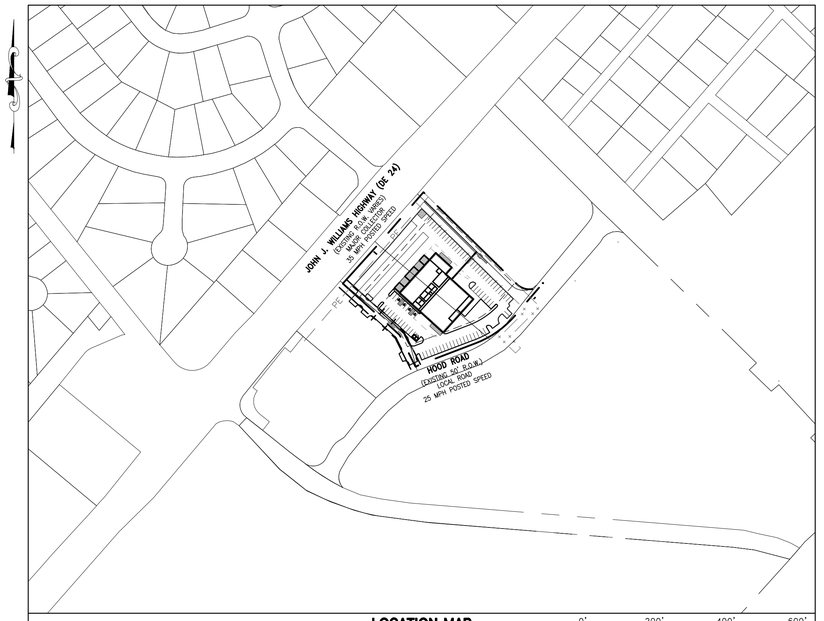
SYMB	SOIL TYPE
GrA	GREENWICH LOAM, 0 TO 2 PERCENT SLOPES

DATA COLUMN

PARCEL ID:	334-12.00-127.07 334-12.00-127.08 334-12.00-127.09
DATUM	
VERTICAL:	NAVD 88
HORIZONTAL:	NAD 83 (DE STATE PLANE)
LAND USE	
EXISTING:	VACANT/AGRICULTURE
PROPOSED:	AUTOMOTIVE SALES & SERVICE
ZONING	
EXISTING:	CR-1 (COMMERCIAL RESIDENTIAL DISTRICT)
PROPOSED:	CR-1 (COMMERCIAL RESIDENTIAL DISTRICT)
MINIMUM REQUIREMENTS	
FRONT SETBACK:	60 FT.
SIDE SETBACK:	5 FT.
REAR SETBACK:	5 FT.
BUILDING CONSTRUCTION	
MAXIMUM BUILDING HEIGHT:	42 FT.
PROPOSED BUILDING HEIGHT:	36 FT.
PROPOSED CONSTRUCTION:	WOOD/BLOCK CONSTRUCTION
PARKING:	
REQUIREMENTS:	
AUTOMOBILE SALES:	2 PER SALESMAN DURING PEAK PERIOD OF EMPLOYMENT 10 SALESMAN (20)
AUTOMOBILE SERVICE GARAGE:	1 PER 500 SQ.FT. OF FLOOR AREA +1 PER EMPLOYEE DURING PEAK PERIOD OF EMPLOYMENT (20) 11,158 SQ.FT./500 = 22.32 (23)
TOTAL REQUIRED PARKING:	63 SPACES
PROPOSED PARKING:	83 SPACES
LOADING SPACE REQUIREMENTS:	20,000-40,000 SQ.FT. = 3
PROPOSED LOADING SPACES:	2 (WAIVER TO BE REQUESTED)
AREAS	
EXISTING SITE	
PARCEL - 2	1.251 AC.
PARCEL - 3	1.290 AC.
PARCEL - 4	1.746 AC.
TOTAL EXISTING SITE	4.287 AC.
PROPOSED SITE	
PARCEL - 3	1.290 AC.
PARCEL - 4	1.746 AC.
TOTAL PROPOSED SITE	3.036 AC.
NET DEVELOPMENT AREA:	3.036 AC.
IMPERVIOUS COVERAGE:	
PAVEMENT:	1.553 AC.
CURBING:	0.031 AC.
SIDEWALKS:	0.040 AC.
CONCRETE:	0.058 AC.
BUILDING:	0.512 AC.
TOTAL:	2.194 AC. (72.27%)
UTILITIES	PUBLIC (SUSSEX COUNTY, WEST REHOBOTH SOUTH PLANNING AREA) PUBLIC (TIDEWATER UTILITIES, INC.)
FLOODPLAIN:	THIS PROPERTY IS NOT IMPACTED BY THE 100 YEAR FLOODPLAIN AS DETERMINED BY FEMA MAP 10005C0332K, DATED MARCH 16, 2015
WETLANDS:	DO NOT EXIST ON SITE
STATE STRATEGIES MAP:	LEVEL 2 (2015)
TRANSPORTATION IMPROVEMENT DISTRICT (TID):	HENLOPEN TID (UNDER DEVELOPMENT FOR THIS AREA)
POSTED SPEED LIMIT:	HOOD ROAD 25 M.P.H.

OWNER/DEVELOPER:
PRICE PREMIUM, LLC.
220 E. CLEVELAND AVENUE
NEWARK, DE 19711
(302) 538-8191

ENGINEER:
DAVIS, BOWEN & FRIEDEL, INC.
RING W. LARDNER
1 PARK AVENUE
MILFORD, DE 19963
(302) 424-1441



LOCATION MAP
SCALE: 1" = 200'
0' 200' 400' 600'

LEGEND

EXISTING	PROPOSED
BOUNDARY LINE	RIGHT-OF-WAY / BOUNDARY LINE
ADJACENT PROPERTY OWNER	EASEMENT
EASEMENT	SETBACK
CONTOUR	BUFFER
CATCH BASIN, STORM PIPE	SANITARY SEWER IDENTIFICATION, MANHOLE, PIPE, FLOW ARROW, PIPE SIZE
SANITARY SEWER MANHOLE, PIPE	WATER MAIN, TEE W/ VALVES, PIPE SIZE
WATER MAIN	FIRE HYDRANT ASSEMBLY
FIRE HYDRANT ASSEMBLY	PROPOSED TREE LINE
UTILITY POLE	WETLAND
SIGN	SIDEWALK
FENCE	PAVEMENT
BUSHES, TREES	
TREE LINE	
WETLANDS	
PAVEMENT	

OWNER/DEVELOPER'S STATEMENT

I, THE UNDERSIGNED, CERTIFY THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO BE ACT AND DESIRE THE PLAN TO BE RECORDED TO ORDINANCE.

PRICE PREMIUM, LLC. DATE
220 E. CLEVELAND AVENUE
NEWARK, DE 19711

ENGINEER'S STATEMENT

I, THE UNDERSIGNED, HEREBY STATE THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO MY BELIEF REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

RING W. LARDNER, P.E. DATE
DAVIS, BOWEN & FRIEDEL, INC.
1 PARK AVENUE
MILFORD, DELAWARE, 19963

SUSSEX CONSERVATION DISTRICT

SUSSEX COUNTY ENGINEER

NAME DATE
AGREEMENT #

SUSSEX COUNTY PLANNING & ZONING

SUSSEX COUNTY PLANNING & ZONING STAFF DATE

SUSSEX COUNTY COUNCIL PRESIDENT DATE

INDEX OF SHEETS	
PRELIMINARY TITLE SHEET	PL-01
PRELIMINARY SITE PLAN	PL-02
PRELIMINARY UTILITY PLAN	PL-03

GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING TWO WEEKS PRIOR TO THE START OF CONSTRUCTION AND SHALL APPRISE AND COORDINATE DURING ALL PHASES OF CONSTRUCTION:
   1.1 DAVIS, BOWEN & FRIEDEL, INC. 302-424-1441
   1.2 SUSSEX CONSERVATION DISTRICT 302-856-2105
   1.3 DEPARTMENT OF TRANSPORTATION, SOUTH DISTRICT PERMITS SUPERVISOR 302-853-1342
2. BOUNDARY AND TOPOGRAPHIC SURVEY WAS PERFORMED BY DAVIS, BOWEN & FRIEDEL, INC. OF MILFORD, DELAWARE.
3. CONTRACTOR SHALL PROVIDE STAKEOUT NECESSARY FOR THE INSTALLATION OF STORM DRAINS, PAVING AND ALL OTHER SITE WORK INCLUDED IN THESE PLANS. ALL STAKEOUT WORK IS TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF DELAWARE.
4. CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE EXECUTION OF THIS CONTRACT.
5. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DEVIATION FROM THESE PLANS UNLESS WRITTEN APPROVAL HAS BEEN PROVIDED BY THE ENGINEER.
6. ACCORDING TO FEMA FLOOD INVENTORY MAP #10005C0332K, DATED: MARCH 16, 2015, THE SITE IS NOT IMPACTED BY THE 100 YEAR FLOODPLAIN.
7. THE PROPOSED SITE IN NOT LOCATED WITHIN AN EXCELLENT GROUNDWATER RECHARGE AREA.
8. THE PROPOSED SITE IS LOCATED WITHIN A WELLHEAD PROTECTION AREA.
9. THE PROPOSED SITE IS LOCATED WITHIN HENLOPEN TRANSPORTATION IMPROVEMENT DISTRICT.
10. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO LOCATE PROPERTY LINES AND RIGHT OF WAY LINES PRIOR TO CONSTRUCTION AND AVOID CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY AND/OR RIGHTS OF WAYS WHERE SAID CONSTRUCTION IS PROHIBITED. THE CONTRACTOR MAY CONDUCT CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY PROVIDED IF HE HAS OBTAINED PRIOR WRITTEN PERMISSION FROM THE PROPERTY OWNER AND HAS SUBMITTED A COPY OF SAID WRITTEN PERMISSION TO THE TOWN OF MILLSBORO.
11. FINAL SET OF APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS SHALL BE MAINTAINED ON THE JOB SITE AT ALL TIMES. FAILURE TO COMPLY WITH THIS PROVISION SHALL BE CONSIDERED CAUSE TO STOP THE WORK.
12. THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF CONTRACT DRAWINGS ON WHICH HE SHALL NOTE, IN RED, THE ALIGNMENTS AND INVERTS OF ALL UNDERGROUND UTILITIES INSTALLED OR ENCOUNTERED DURING THE PROSECUTION OF THE WORK. ALL DISCREPANCIES BETWEEN THE PLAN LOCATIONS AND ELEVATIONS OF BOTH THE EXISTING AND PROPOSED UTILITIES SHALL BE SHOWN ON THE AS-BUILT DRAWINGS TO BE MAINTAINED BY THE CONTRACTOR IN THE FIELD.
13. THE CONTRACTOR SHALL USE ONLY NEW MATERIALS, PARTS, AND PRODUCTS. ALL MATERIALS SHALL BE STORED SO AS TO ASSURE THE PRESERVATION OF THEIR QUALITY AND FITNESS FOR THE INTENDED WORK.
14. ROUTINE PERIODIC INSPECTIONS DURING CONSTRUCTION WILL BE PROVIDED BY THE OWNER AND THE TOWN. THESE INSPECTIONS DO NOT RELIEVE THE CONTRACTOR FROM HIS OBLIGATION AND RESPONSIBILITY FOR CONSTRUCTING ALL WORK IN STRICT ACCORDANCE WITH ALL STANDARDS AND SPECIFICATIONS AND CONSTRUCTION DOCUMENTS.
15. THE CONTRACTOR SHALL MAINTAIN PUBLIC ROADS AND STREETS IN A BROOM SWEPT CONDITION AT ALL TIMES.
16. ALL SIGNAGE SUBJECT TO SEPARATE PERMITTING AND APPROVALS.
17. DOWNWARD SCREENED AND SHIELDED LIGHTING WILL BE PROVIDED TO THE SPECIFICATIONS AND REQUIREMENTS OF THE APPROPRIATE UTILITY PROVIDER.

Revisions:
2022-08-08 SUSSEX P&Z COMMENTS

DAVIS, BOWEN & FRIEDEL, INC. ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

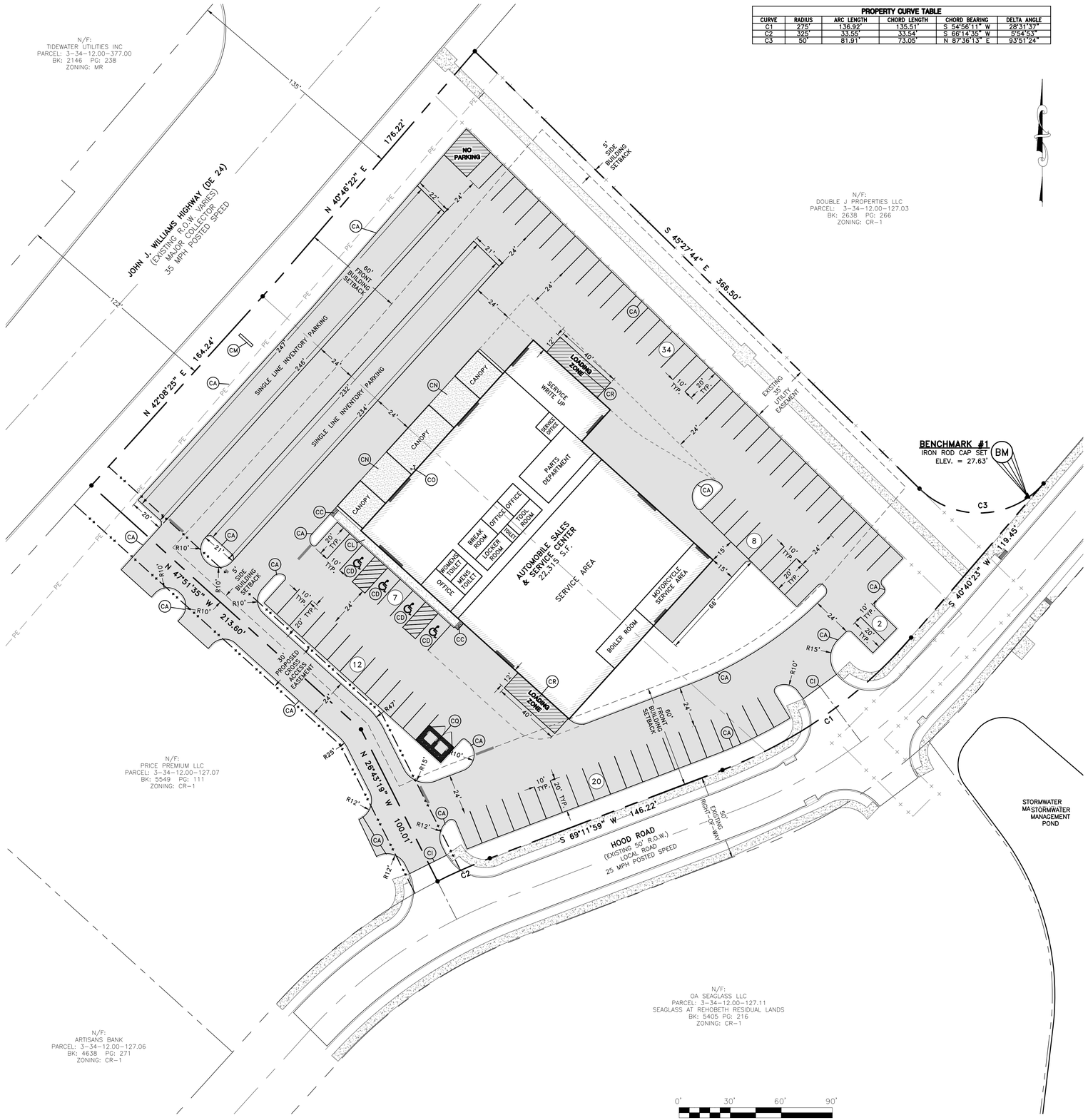
PL-01

KEY LEGEND

LABEL	DESCRIPTION
CA	PROPOSED P.C.C. CURB, TYPE 1–8
CB	PROPOSED INTEGRAL P.C.C. CURB AND GUTTER, TYPE 1–8
CC	PROPOSED A.D.A. COMPLIANT RAMP
CD	PROPOSED A.D.A. COMPLIANT PARKING SPACE
CE	DOUBLE DUMPSTER ENCLOSURE AREA
CF	PROPOSED SITE LIGHTING
CG	PROPOSED BOLLARD
CH	PROPOSED DIRECTIONAL SIGN
CI	EXISTING EDGE OF PAVEMENT (MATCH NEW PAVEMENT TO EXISTING)
CJ	TRANSITION CURB FROM INTEGRAL P.C.C. CURB AND GUTTER TYPE 1–8 TO MODIFIED P.C.C. CURB TYPE 1–6
CK	PROPOSED 6" CAST IRON ROOF DRAIN
CL	PROPOSED 5' WIDE SIDEWALK
CM	PROPOSED 10' X 20' GROUND SIGN
CN	PROPOSED CONCRETE PAVEMENT
CO	PROPOSED FIRE DEPARTMENT CONNECTION
CP	PROPOSED OFF-PREMISE ELECTRONIC MESSAGE CENTER
CQ	PROPOSED DUMPSTER PAD
CR	PROPOSED LOADING SPACE

PROPERTY CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	275'	136.92'	135.51'	S 54°56'11" W	28°31'37"
C2	325'	33.55'	33.54'	S 66°14'35" W	5°54'53"
C3	50'	81.91'	73.05'	N 87°36'13" E	93°51'24"



DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
401 MAIN STREET (302) 856-4444
EASTON, MARYLAND (410) 770-4744

PRELIMINARY SITE PLAN

PRICE AUTOMOTIVE GROUP

LEWES REHOBETH HUNDRED

REHOBETH, SUSSEX COUNTY, DELAWARE

Revisions:
2022-08-08 SUSSEX P&Z COMMENTS

Date: FEBRUARY 2022
Scale: 1" = 30'
Dwn.By: DEG
Proj.No.: 3960A001
Dwg.No.: PL-02

P:\Price Automotive Group\Herold\Design\Preliminary\3960A001 - PRELIMINARY - SITE PLAN.dwg Aug 08, 2022 - 4:55pm GRED

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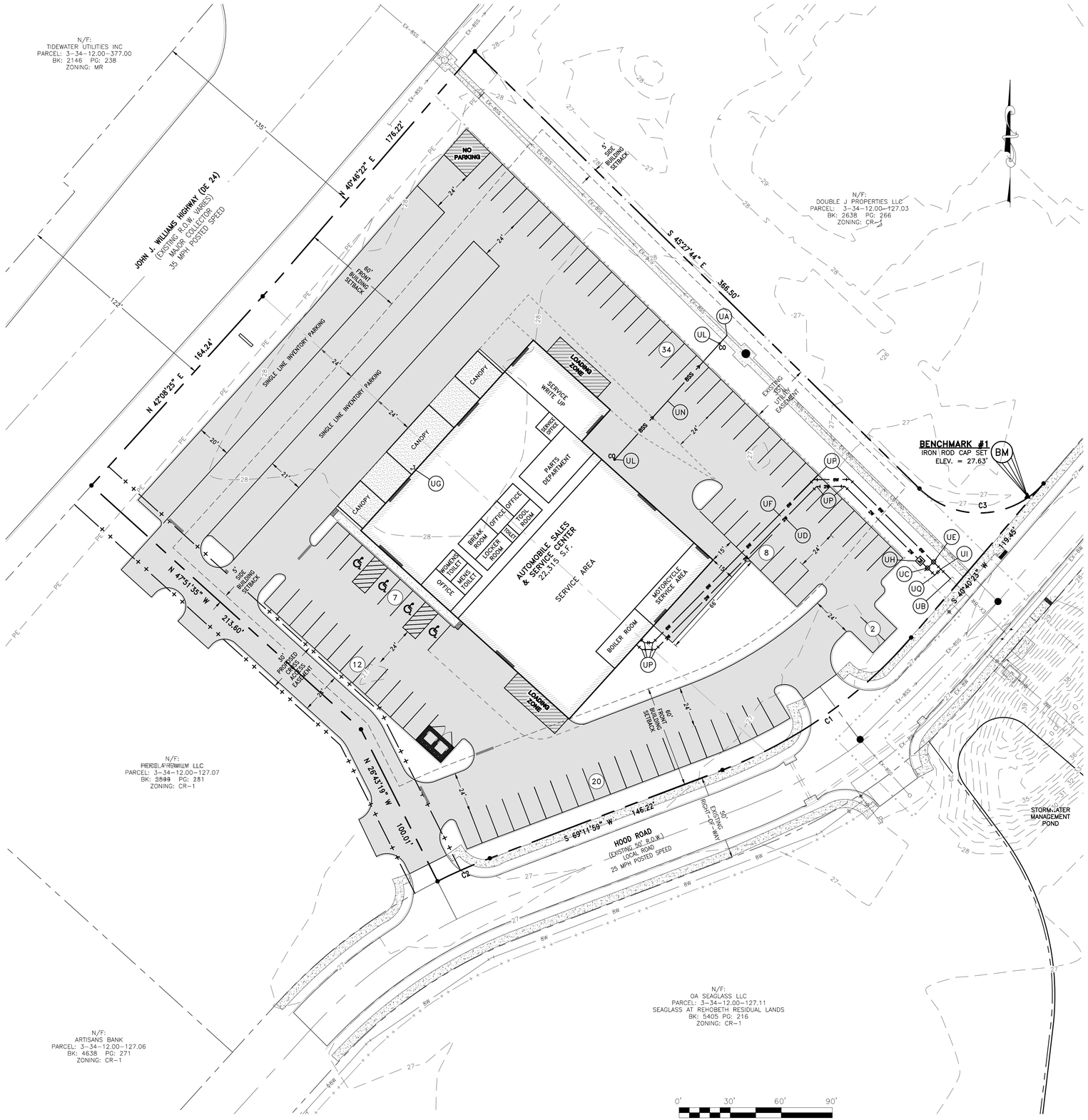
KEY LEGEND

LABEL	DESCRIPTION
UA	CONNECT TO EXISTING 8" GRAVITY SEWER MAIN
UB	CONNECT TO EXISTING WATER STUB CONNECTION
UC	2" VALVE FOR DOMESTIC WATER SERVICE LINE
UD	2" DOMESTIC WATER SERVICE LINE
UE	6" WATER VALVE, FOR FIRE PROTECTION
UF	6" WATER LINE FOR FIRE PROTECTION, DUCTILE IRON PIPE, CLASS 52
UG	FIRE DEPARTMENT CONNECTION W/ FIRE CONNECTION SIGN
UH	WATER METER PIT DOMESTIC SERVICE LINE
UI	PROPOSED 6" X 6" X 2" TEE
UJ	EXISTING FIRE HYDRANT
UK	PROPOSED FIRE HYDRANT ASSEMBLY
UL	8" SANITARY SEWER CLEANOUT
UM	PROPOSED FIRE HYDRANT ASSEMBLY
UN	8" SANITARY SEWER WYE
UO	PROPOSED 22.5° BEND
UP	PROPOSED 45° BEND
UQ	PROPOSED 90° BEND
UR	WATER/SEWER CROSSING
US	WATER/STORM CROSSING
X-#	SEWER/WATER CROSSING AND STORM/WATER CROSSING IDENTIFICATION NUMBER
H-#	PROPOSED HYDRANT IDENTIFICATION NUMBER
V-#	PROPOSED VALVE IDENTIFICATION NUMBER



UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY
- 8W — PROPOSED WATER MAIN, SIZE
- 8SS — PROPOSED SANITARY SEWER MAIN, SIZE, MANHOLE
- CO — PROPOSED SANITARY SEWER CLEANOUT
- 1.5" FM — PROPOSED FORCE MAIN
- EX 12W — EXISTING WATER MAIN
- EX 8SS — EXISTING SEWER MAIN
- EX G — EXISTING GAS MAIN
- + + — PROPOSED UTILITY EASEMENT

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
1 PARK AVENUE (302) 644-1441
EASTON, MARYLAND (410) 770-4744

PRELIMINARY UTILITY PLAN

PRICE AUTOMOTIVE GROUP

LEWES REHOBETH HUNDRED
REHOBETH, SUSSEX COUNTY, DELAWARE

Revisions:
2022-08-08 SUSSEX P&Z COMMENTS

Date: FEBRUARY 2022
Scale: 1" = 30'
Dwn.By: DEG
Proj.No.: 3960A001
Dwg.No.: PL-03

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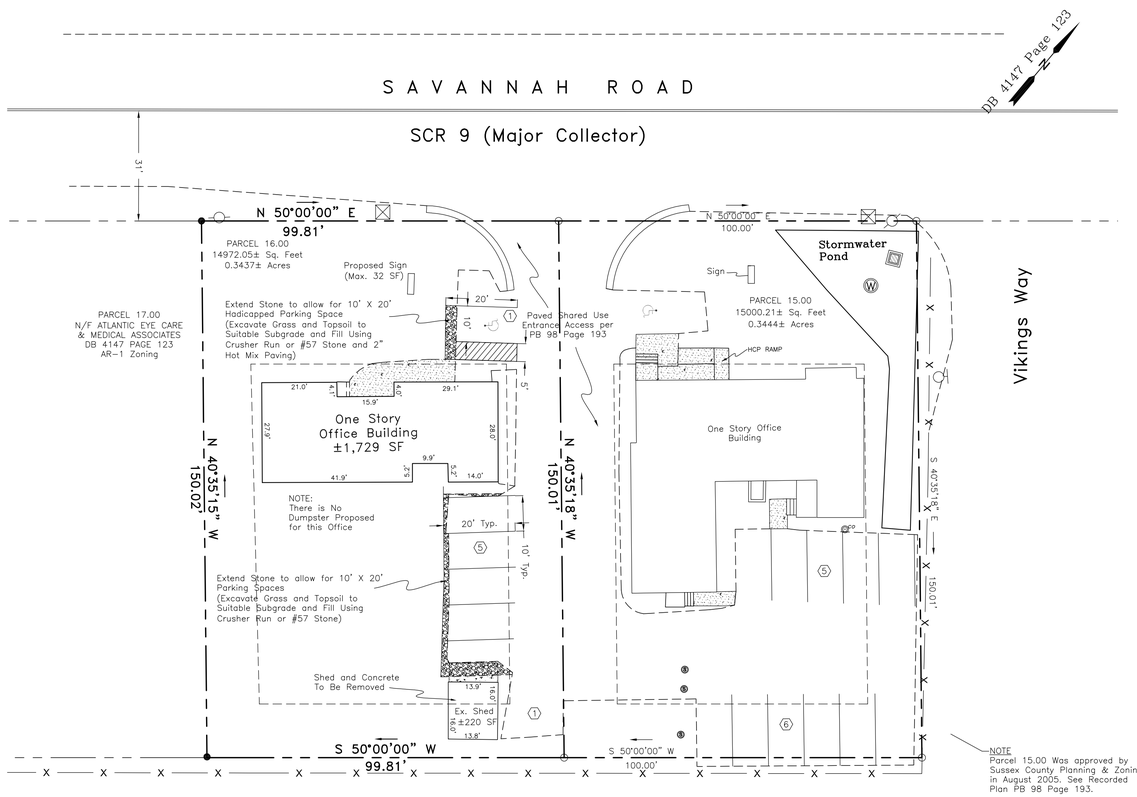


SHEET NOTES

1. THIS SURVEY IS CLASSIFIED AS A "SUBURBAN" SURVEY.
2. UNLESS THIS PLAT HAS A SEAL WITH AN ORIGINAL SIGNATURE OF ENGINEER, IN RED INK, THIS IS NOT AN AUTHORIZED COPY.
3. THE SURVEY DOES NOT VERIFY THE EXISTENCE OF OR NONEXISTENCE OF ANY EASEMENTS OR RIGHT OF WAYS.
4. THE SITE IS IN AN AREA OF "FAIR" GROUNDWATER RECHARGE.
5. THE SITE IS NOT LOCATED IN A WELLHEAD PROTECTION AREA.
6. THERE IS NO DUMPSTER PROPOSED FOR THIS PLAN.

Revision Number	Revision Date	Revision Description

IMPERVIOUS AREA CALCULATIONS

Parcel 15.00	SF	AC	
Total Site	±15,000	0.3444	
Building Area	±1,729		
Shed (To be Removed and Grass Planted)			
Exist. Conc. Walk	±209.39		
Existing Paving	347.94		
Proposed Paving	±195.21		
Total Impervious	±2,481.54	±0.057	±17%

DISTURBED AREA CALCULATIONS

Parcel 15.00	SF	AC
Total Site	±15,000	0.3444
Shed Removal	±221.6	
Proposed Paving	±195.21	
Total Disturbed	±416.81	±0.001

PARKING CALCULATION

Parcel 15.00

Parking Required
1 for each 2 employees, plus 4 per doctor or dentist,
1 for each 4 seats

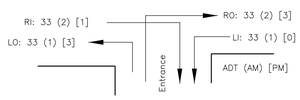
1 Doctor	4 Spaces
2 Employees	1 Space
6 Seats	2 Spaces
Total	7 Spaces

Parking Provided: 6 Spaces and 1 Handicap Space

ANTICIPATED TRAFFIC FLOW DISTRIBUTION

±1,729 SF Doctors Office
ADT Entrance Traffic (Weekday) 66 ADT
RTE 9 (Savannah Road) Annual Average Daily Traffic (2022 AADT) = 15,910
10 Year projected AADT = 17,501
(50% Entering – 50% Exiting)

Total Entrance Weekday AM Peak Hour Volume = 6
Total Entrance Weekday PM Peak Hour Volume = 7
1% Truck Traffic



Rte 9 – Savannah Road (Major Collector)
35 MPH

TRAFFIC GENERATION DIAGRAM

Per ITE Trip Generation 11th Edition
Medical Office ADT Weekday 36 Trips Per 1,000 SF
Design Vehicle Per DCM Figure 5.2.3-A: SU-30

DELDOT NOTES:

1. ALL ENTRANCES SHALL CONFORM TO DELDOT'S DEVELOPMENT COORDINATION MANUAL (DCM) AND SHALL BE SUBJECT TO ITS APPROVAL.
2. SHRUBBERY, PLANTINGS, SIGNS AND/OR OTHER VISUAL BARRIERS THAT COULD OBSTRUCT THE SIGHT DISTANCE OF A DRIVER PREPARING TO ENTER THE ROADWAY ARE PROHIBITED WITHIN THE DEFINED DEPARTURE SIGHT TRIANGLE AREA ESTABLISHED ON THIS PLAN. IF THE ESTABLISHED DEPARTURE SIGHT TRIANGLE AREA IS OUTSIDE THE RIGHT OF WAY OR PROJECTS ONTO AN ADJACENT PROPERTY OWNER'S LAND, A SIGHT EASEMENT SHOULD BE ESTABLISHED AND RECORDED WITH ALL AFFECTED PROPERTY OWNERS TO MAINTAIN THE REQUIRED SIGHT DISTANCE.

CONDITIONAL USE NOTES PER "NOTICE OF DECISION LETTER" DATED 11/18/2021:

A. The buildings shall be used for office use only. No retail sales or other commercial uses shall occur on the site.

B. Each building shall be permitted to have one lighted sign. The signs shall not exceed 32 square feet in size on each side.

C. All security lighting shall be shielded and downward and screened so that it does not shine on neighboring properties or roadways.

D. As preferred by the Applicant, the business hours shall be limited to 8:00 am until 5:00 pm, Monday through Friday, with the exception of emergency services that may be required.

E. The two existing office buildings shall share an entrance as approved by DelDOT. *

F. With the exception of handicapped parking spaces, all parking areas shall be located at the rear of the properties. The Final Site Plan shall designate all parking areas.

G. As stated by the Applicant during the public hearing, the residential appearance of the existing structures shall be maintained while in use as offices.

H. Failure to abide by any of these conditions of approval may result in the revocations of this Conditional Use.

I. The Final Site Plan shall be subject to the review and approval of the Sussex County Planning and Zoning Commission.

* The Combined Shared Access Entrance was approved by DelDOT and then by Sussex County per the Recorded Final Site Plan. See Plat Book 198 P 93.

OWNER'S CERTIFICATION

I / WE, THE UNDERSIGNED, HEREBY CERRIFY TO THE OWNERSHIP OF THE PROPERTY DESCRIBED AS SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY/OUR DIRECTION, AND THAT I/WE ACKNOWLEDGE THE SAME TO BE OUR ACT AND THAT I / WE DESIRE THE PLAN TO BE RECORDED ACCORDING TO LAW.

DR. LOURDES APONTE — DATE
LAUDAN INVESTMENTS, LLC
1302 SAVANNAH ROAD
LEWES, DE 19958
302-645-6644

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEGE COMPLIES WITH THE APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES.

JOHN B. ROACH, JR., P.E. — DATE
22184 MELSON ROAD
GEORGETOWN, DE 19947
302-856-1565

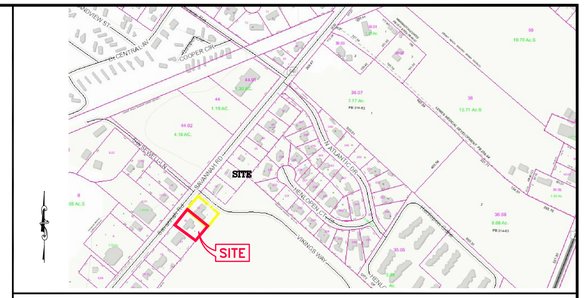
WETLANDS CERTIFICATION

I HEREBY CERTIFY THE SITE IMPROVEMENTS DEPICTED ON THIS PLAN DO NOT CONTAIN ANY FEDERAL OR STATE JURISDICTIONAL WETLANDS.

JOHN B. ROACH, JR., P.E. — DATE
22184 MELSON ROAD
GEORGETOWN, DE 19947
302-856-1565

LEGEND

- PROPERTY LINE
- EXISTING BUILDING RESTRICTION LINE
- FENCE
- EDGE OF PAVING
- IRON PIPE FOUND
- LIGHT POLE
- POWER POLE
- DELDOT CONTROLL BOX
- WELL
- SEWER CLEANOUT
- SEWER MANHOLE



LOCATION MAP

PLAN DATA:

PARCEL I.D. No	* 335-8.18 PARCEL 15.00
PLAT REFERENCE	* D.B. 3007, PAGE 183
ZONING DISTRICT	* AR-1 ZONING CLASSIFICATION) CU 2264 (Ordinance No. 2813, Dated 11/16/2021
ROADWAY CLASSIFICATION	* SCR 9 (MAJOR COLLECTOR)
PARCEL SIZE	* ±15,000 SF ±0.3444 AC
BUILDING SIZE	* ±1,729 SF
EXISTING/PROPOSED USE	* COMMERCIAL VACANT/MEDICAL OFFICE
BUILDING HEIGHT PROPOSED)	* EXIST. SINGLE STORY (NO VERTICAL ADDITIONS ARE
BUILDING SETBACKS	* Front 40' Side 15' Rear 20'
EXISTING PAVING	* ±347.94 Sf
PROPOSED PAVING	* ±195.21 SF
TOTAL PAVING	* ±543.15 SF ±0.012 AC
EXISTING CONC. WALK	* ±209.39 SF ±0.005 AC
EXIST. IMPERVIOUS AREA**	* ±2,286.33 SF ±0.052 AC
PROP. IMPERVIOUS AREA**	* ±2,481.54 ±0.057 ±17%
NET DEVELOPMENT AREA**	* ±2,481.54 ±0.057 ±17%
PARKING REQUIRED**	* 7 SPACES
PARKING PROVIDED**	* 7 SPACES
SEWAGE DISPOSAL	* PRIVATE INDIVIDUAL ON-SITE WASTEWATER DISPOSAL SYSTEMS SEWERAGE IS SUBJECT TO APPROVAL OF THE THE DELAWARE STATE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL.
WATER SUPPLY	* INDIVIDUAL ON-SITE WELLS (PRIVATE) WATER IS SUBJECT TO THE APPROVAL OF THE DELAWARE STATE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL AND THE DELAWARE DIVISION OF PUBLIC HEALTH.
FLOODPLANE	* BASED UPON FIRM MAP 1005C0194K Dated: MARCH 16, 2015 THE SITE IS LOCAATED IN AN AREA DESIGNATED AS ZONE "X" (UNSHADED) WHICH IS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOODPLAIN
OWNER	* LAUDAN INVESTMENTS, LLC 1302 SAVANNAH ROAD LEWES, DE 19958
LOT AREA RATIONALE	* PARCEL 15.00 = 0.3444 ACRES
TOTAL No. OF LOTS	* 2 (SINGLE FAMILY DWELLING UNITS)
(TID) PROXIMITY	* ±1 MILE TO HENLOPEN TID

PRIOR TO ANY CONSTRUCTION ACTIVITIES, PERMITS AND/OR APPROVALS AARE REQUIRED FROM:
a) Sussex Conservation District.....(302) 856-7219
b) Fire Marshal.....(302) 856-5298
c) DelDOT.....(302) 853-1340
d) City Of Lewes.....(302) 645-7777

** See Calculations Provided On This Sheet

PRELIMINARY SITE PLAN

FOR PROPERTY KNOWN AS:
LANDS OF "LAUDAN INVESTMENTS LLC"
ALSO KNOWN AS:
"1302 SAVANNAH ROAD, LEWES, DE"
SITUATE IN:
LEWES AND REHOBOTH HUNDRED * SUSSEX COUNTY
STATE OF DELAWARE
TAX MAP#: 335-8.15 PARCELS 15.00

JOHN B. ROACH Engineering LLC
22184 MELSON ROAD
GEORGETOWN, DELAWARE 19947
PHONE NO. 302-856-1565

Drawn By: JBR	Date: 8-1-2022
Scale: 1"=20'	Sheet P-1

SITEWORKS
ENGINEERING

August 16, 2022

Jesse Lindenberg
Sussex County Planning and Zoning
2 The Circle
Georgetown, DE 19933

RE: Hickory Ridge Church Addition
Tax Parcel 530-10.00-45.01
Greenwood, Delaware

Dear Jesse:

Per our phone conversation earlier today, please accept this letter as formal request for approval of the four handicap parking spaces currently shown partially within the site setback for the property.

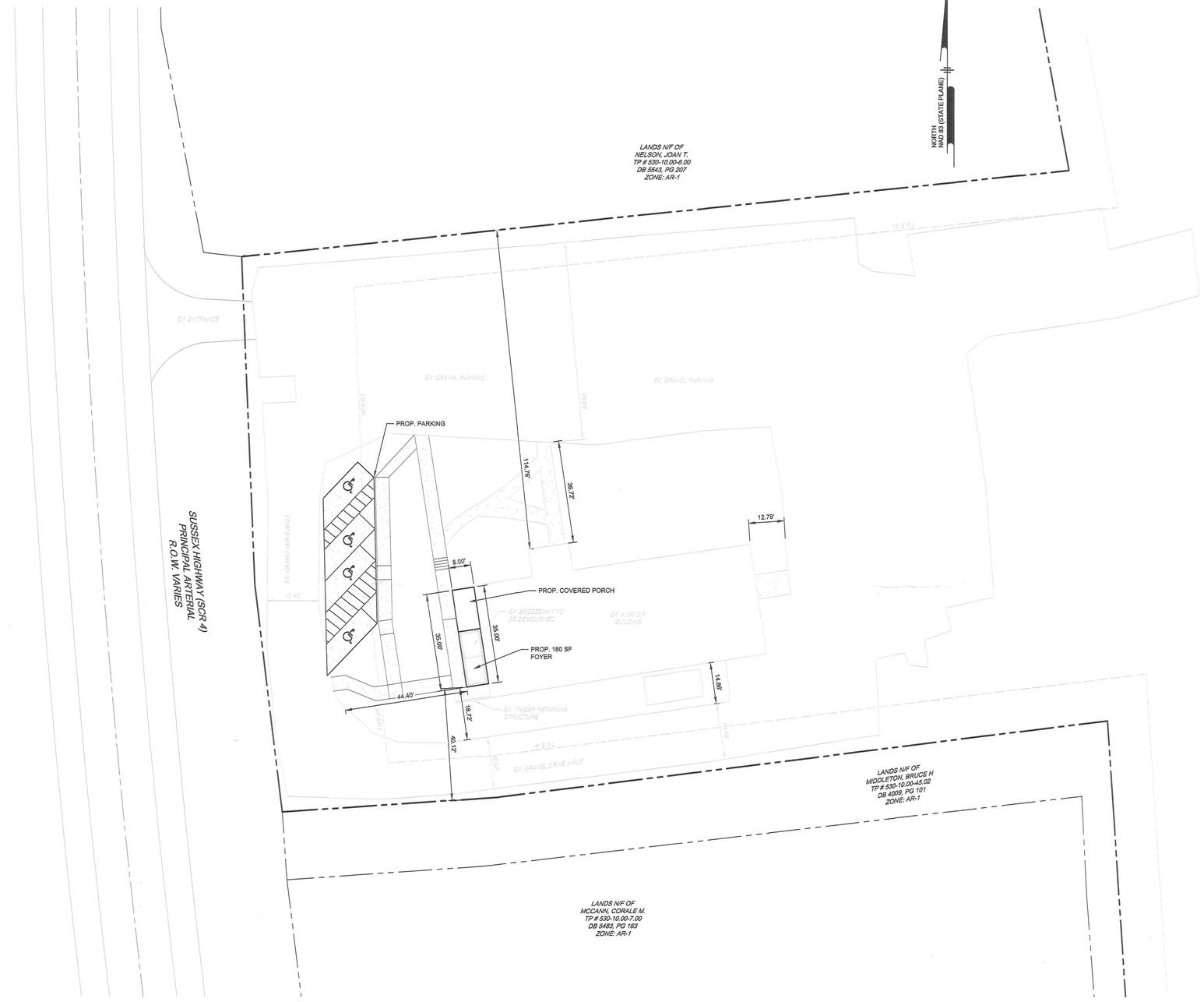
The church is proposing to add a 160 square foot foyer area to the front of their church. As part of the process, they requested to have handicap spaces added to their parking that met current ADA accessibility requirements. Unfortunately, because of the elevation difference on this site. The best location for these spaces are in front of the church. However, the elevation change on site causes the spaces to be partially in the setback.

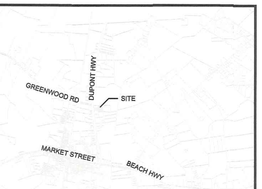
Please let me know if you have any questions. I can be reached at 302-542-0774.

Sincerely,

Edwin Tennefoss, PE | Principal
SITEWORKS ENGINEERING

Cc: Brad Kauffman, Alliance Builders
Justin Senesi, Hickory Ridge Church





SITE DATA

1.	PROJECT ADDRESS:	12237 SUSSEX HWY GREENWOOD, DE 19950
2.	TAX PARCEL NUMBER:	530-10.00-45.01
3.	OWNER'S NAME AND ADDRESS:	HICKORY RIDGE CHURCH 12237 SUSSEX HWY, PO BOX 337 GREENWOOD, DE
4.	SITE ENGINEER / APPLICANT:	SITEWORKS ENGINEERING PO BOX 2 19 COMMERCE STREET HARRINGTON, DE 19952
5.	PROPOSED USE:	CHURCH
6.	WATER SUPPLIER:	PRIVATE ON-SITE WELL
7.	MAX BUILDING HEIGHT:	42' ± TO PEAK
8.	PROPOSED BUILDING CONSTRUCTION:	TYPE V: WOOD FRAME
9.	FIRE DISTRICT:	GREENWOOD

NOTES

1. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE STATE FIRE PREVENTION REGULATIONS.
2. NO PUBLIC WATER SYSTEM OR FIRE HYDRANTS ARE IN THE VICINITY OF THE SITE. (CLOSEST HYDRANT IS APPPROX 2,600 FT SOUTH OF PROPERTY.)
3. BUILDINGS WILL NOT BE SPRINKLED

0 20' 40'

SITEWORKS ENGINEERING
PO BOX 2 | 19 COMMERCE ST. HARRINGTON, DE 19952 Phone: (302) 841-7901

FIRE PROTECTION PLAN

HICKORY RIDGE CHURCH

TAX PARCEL NO. 530-10.00-45.01
SCR 13 (S DUPONT HIGHWAY)
NORTH WEST FORK HUNDRED, SUSSEX COUNTY

ISSUE / REVISION BLOCK

8/11/22 - FIRE MARSHELL

SCALE	PROJECT #	DRAWN BY
1" = 20'	2162-HRCC	JDC

DRAWING NUMBER

1

Z:\PROJECTS\Hickory Ridge Church\2162-HRCC - Hickory Ridge Site Plan\Design\PLOTDIR\5-HRCC - Fire Protection Plan 24 X 36.dwg PLOTTED: 8/12/2022 2:38 PM, BY: Justin PLOTSTYLE: _SiteWorks-ENG.ctb

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DAVIS BOWEN & FRIEDEL, INC.

ARCHITECTS • ENGINEERS • SURVEYORS

Michael R. Wigley, AIA, LEED AP
W. Zachary Crouch, P.E.
Michael E. Wheedleton, AIA, LEED GA
Jason P. Loar, P.E.
Ring W. Lardner, P.E.
Jamie L. Sechler, P.E.

August 2, 2022

Sussex County Planning & Zoning
Sussex County Administration Building
2 The Circle
Georgetown, DE 19947

Attn: Mr. Jamie Whitehouse

RE: Red Mill Pond – Amenity
Tax Map Parcel No: 3-34-5.00-170.00
DBF #1319A015

Mr. Whitehouse,

On behalf of the Developer K. Hovnanian, we are requesting the revision of condition number eleven (11) from Conditions approved on August 15th, 2007. Currently, the condition reads, *"All amenities and recreational facilities shall be constructed and open for use by the residents of the development within 2 years of the issuance of the first building permit."* The developer met with Homeowner's in November of 2021 to discuss offering more Amenities than the previous developer. Homeowner's agreed and updated plans were designed and approved. When the request came to lengthen the requirement for Amenity completion, the developer asked for 1 year from reapproval. However, there was a mix up between the request and what was passed on from staff and the Commission granted an additional year from the original Condition. Based on material lead times K. Hovnanian is requesting this condition be amended to June 23, 2023.

If you have any questions or need additional information, please do not hesitate to contact me at (302) 424-1441 or jls@dbfinc.com

Sincerely,
Davis, Bowen & Friedel, Inc.

Jamie Sechler, P.E.
Principal

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Sussex County
Planning & Zoning Commission
2 The Circle
P.O. Box 417
Georgetown, DE 19947

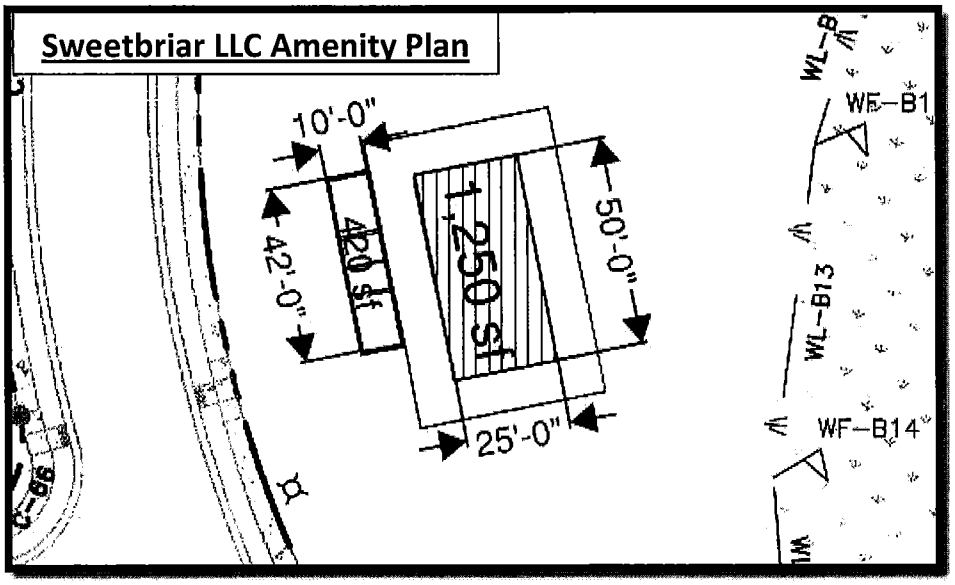
April 5, 2022

RE: The Villages at Red Mill Pond South Amenities Plan

Commissioners,

We, the undersigned homeowners in Red Mill Pond South, are in support of K. Hovnanian's submitted Clubhouse Site Plan which is a substantial improvement over the previously recorded amenity for Red Mill Pond South.

The prior planned amenity under Sweetbriar LLC included a small 420 sq ft bathroom and a 1,250 sq ft pool (pictured below):



On November 17th, 2021, K. Hovnanian attended the Annual Homeowner's Association Meeting for Red Mill Pond and presented the planned amenities for Red Mill Pond South. Additionally, a set of the plans were made available to the homeowner board members who sent a letter of approval for the enhancements dated January 25th, 2022. We feel the expanded amenities are generous. They feature an attractively designed 1,600 sq ft clubhouse which will include a kitchen, a meeting space, gym, and restrooms, a 1,500 sq ft pool, a pickleball court and a parking lot (pictured on the next page).

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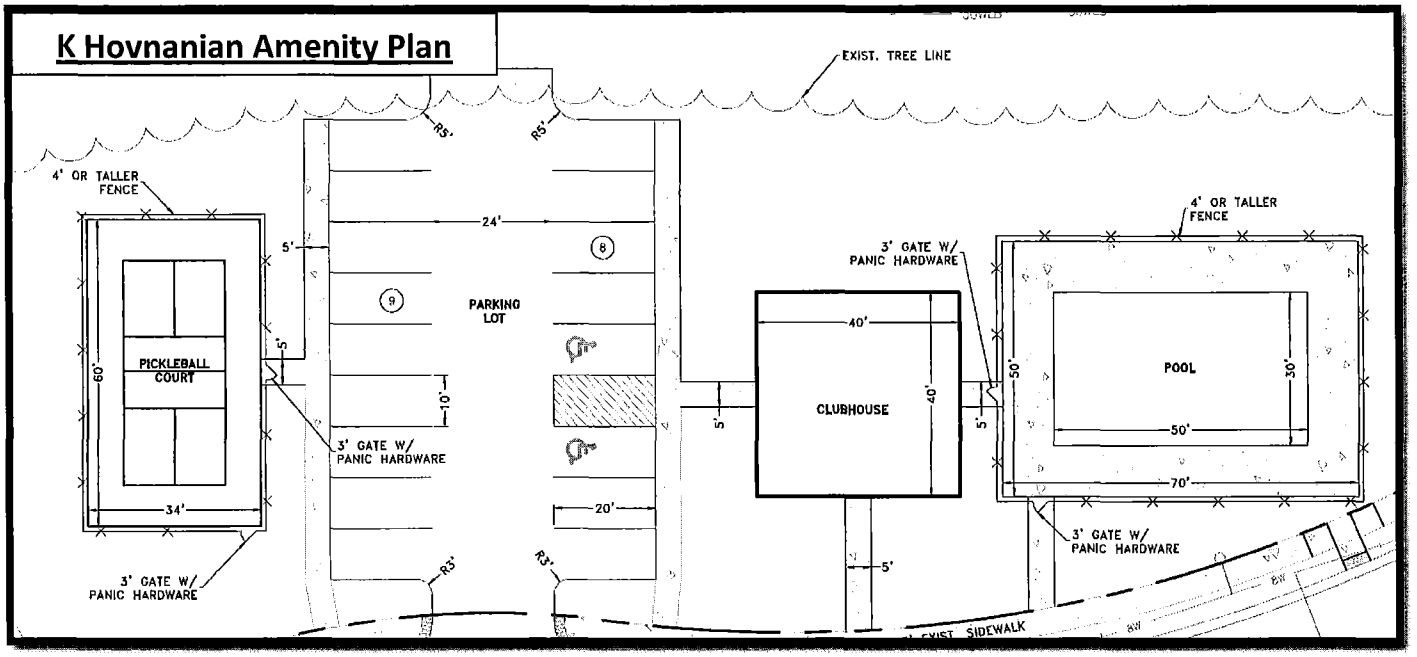
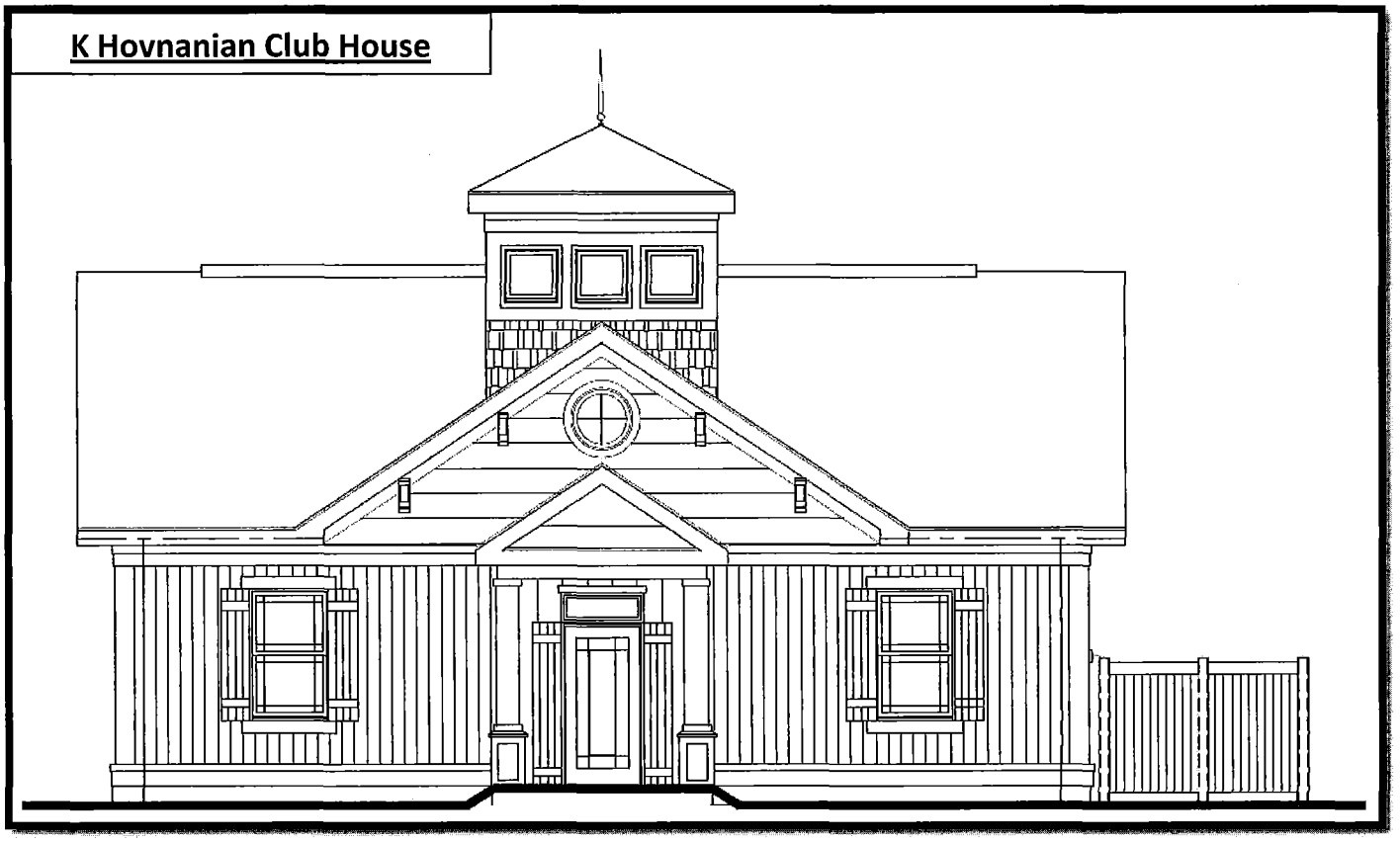
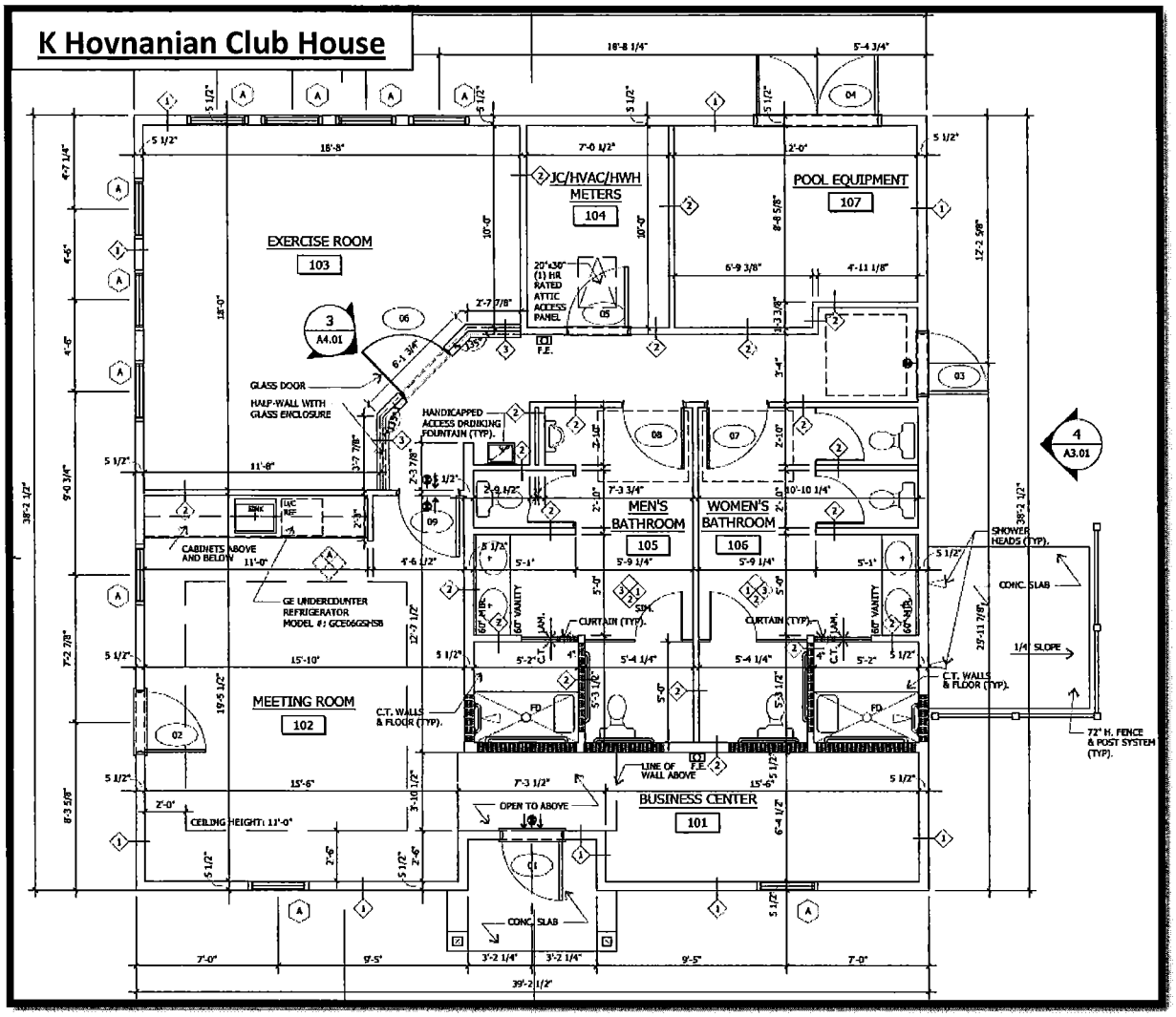
K Hovnanian Amenity Plan



K Hovnanian Club House





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Donald Cooper Sharon Vendetti-Cooper	11048 Greenview Ave	
Daniel McLean	11049 Greenview Ave Apr 9, 2022 | 7:02:44 AM EDT	DocuSigned by: 76BABAF0176D40E...
Gayle McLean	11049 Greenview Ave Apr 8, 2022 | 6:33:33 PM EDT	DocuSigned by: 29BDFE2A2424406...
Raymond Tomasky	11054 Greenview Ave	
Brian Porter	11057 Greenview Ave	
Cindy Porter	11057 Greenview Ave Apr 13, 2022 | 7:56:45 AM EDT	DocuSigned by: Cindy Porter 11C7BF03A9704E4...

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Gary Kunkel Karen Kunkel	11062 Greenview Ave Apr 8, 2022 | 2:44:13 PM EDT	DocuSigned by: GARY D KUNKEL 21C78C938CB04E8...
Glen Whims	11064 Greenview Ave Apr 9, 2022 | 3:49:19 PM EDT	DocuSigned by: Glen Whims D0923047DC314F5...
Christina Whims	11064 Greenview Ave Apr 9, 2022 | 3:50:54 PM EDT	DocuSigned by: Glen Whims 32D780610D804DD... Signed by Spouse
George Mitchell, Jr. Eileen Mitchell	11070 Greenview Ave Apr 9, 2022 | 7:14:59 AM EDT	DocuSigned by: George and Eileen Mitchell BD9D6E6BE90B42A...
Harvey Speed Kimberly Speed	11078 Greenview Ave Apr 12, 2022 | 10:46:16 AM PDT	DocuSigned by: Harvey Speed A1705234661E45A...
James Henn Mary Henn	11081 Greenview Ave	
Stuart Wright	11082 Greenview Ave	
Mary Wright	11082 Greenview Ave	
Misty Warren	11097 Greenview Ave Apr 8, 2022 | 4:32:00 PM EDT	DocuSigned by: 1D78870DD48040B...
Lourdes Griffin James Griffin	11105 Greenview Ave Apr 8, 2022 | 4:03:20 PM PDT	DocuSigned by: Lourdes and James Griffin C46023CAEA23437...
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Joseph Tilelli	24018 Havenwood Ln Apr 8, 2022 | 2:32:58 PM EDT	DocuSigned by: C7DD3F3A8F4F4F5...

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Elaina Capitolo	24019 Havenwood Ln Apr 11, 2022 | 8:13:03 AM EDT	DocuSigned by:
Kenneth Kozloff Linda Kozloff	24025 Havenwood Ln	
Bruce Salinger	24026 Havenwood Ln Apr 9, 2022 | 7:43:21 AM EDT	DocuSigned by:
Carole Salinger	24026 Havenwood Ln Apr 9, 2022 | 8:54:47 PM EDT	DocuSigned by: Carole Salinger
Carmen Perrone	24031 Havenwood Ln Apr 11, 2022 | 3:50:47 PM EDT	DocuSigned by: Carmen Perrone
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Thomas Fogle	24032 Havenwood Ln Apr 9, 2022 | 8:30:51 AM EDT	DocuSigned by: Thomas Fogle
Alyson Myers	32010 Deerwood Ln	
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Daniel Huffman Marc Russell	13063 Laurel Leaf Dr Apr 11, 2022 | 12:09:49 PM EDT	DocuSigned by:

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Jeffrey Markle Joanne Shanaman	32137 Deerwood Ln Apr 11, 2022 | 12:14:19 PM EDT	DocuSigned by: B4148B0CC6A6489...
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Simon John	32143 Deerwood Ln Apr 8, 2022 | 4:08:03 PM EDT	DocuSigned by: Simon John 48A955A310C2420...
Kelley John	32143 Deerwood Ln Apr 8, 2022 | 3:40:25 PM PDT	DocuSigned by: Kelley John 6EBEA44256AF42E...
William Miller, Jr.	32146 Deerwood Ln Apr 8, 2022 | 11:29:49 AM PDT	DocuSigned by: 85CFC7AF986442D...
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Certificate Of Completion

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Envelope Originator:
Jonathan Contant
90 Matawan Rd
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Matawan, NJ 07747
jcontant@khov.com
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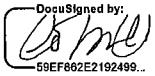
Alan Ornitz alan.ornitz@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  59EF862E2192499...	Sent: 4/8/2022 1:49:44 PM Viewed: 4/8/2022 2:11:46 PM Signed: 4/8/2022 2:12:33 PM
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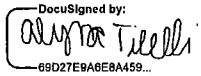
Alyssa Tilelli akuz3@hotmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  69D27E9A6E8A459...	Sent: 4/8/2022 1:49:45 PM Viewed: 4/8/2022 2:03:38 PM Signed: 4/8/2022 2:32:56 PM
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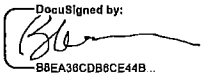
Bruce Salinger Bruce.salinger@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  B8EA38CDB6CE44B...	Sent: 4/8/2022 1:49:47 PM Viewed: 4/9/2022 7:39:45 AM Signed: 4/9/2022 7:43:21 AM
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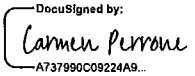
Carmen Perrone cdperrone@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  A737990C09224A9...	Sent: 4/8/2022 1:49:48 PM Viewed: 4/11/2022 3:47:31 PM Signed: 4/11/2022 3:50:47 PM
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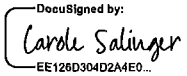
Carole Salinger cjsalinger@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  EE126D304D2A4E0...	Sent: 4/8/2022 1:49:48 PM Viewed: 4/9/2022 8:51:18 PM Signed: 4/9/2022 8:54:47 PM
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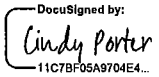
Cindy Porter PORTER3CL@GMAIL.COM Security Level: Email, Account Authentication (None)	DocuSigned by:  11C7BF05A9704E4...	Sent: 4/8/2022 1:49:36 PM Viewed: 4/13/2022 7:54:12 AM Signed: 4/13/2022 7:56:45 AM
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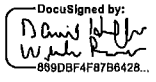
Daniel Huffman and Marc Russell huffman7659@hotmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  869DBF4F87B6428...	Sent: 4/11/2022 10:01:18 AM Viewed: 4/11/2022 12:07:45 PM Signed: 4/11/2022 12:09:49 PM
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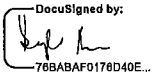
Daniel McLean Gayle.mc12@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  76BABAF0176D40E...	Sent: 4/8/2022 1:49:37 PM Viewed: 4/9/2022 6:59:32 AM Signed: 4/9/2022 7:02:44 AM
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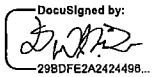
Daniel McLean dmclean53@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  29BDFE2A2424498...	Sent: 4/8/2022 1:49:38 PM Viewed: 4/8/2022 6:28:09 PM Signed: 4/8/2022 6:33:33 PM
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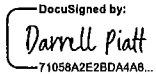
Darrell Piatt darrell@thepiatts.net Security Level: Email, Account Authentication (None)	DocuSigned by:  71058A2E2BDA4A8...	Sent: 4/8/2022 1:49:49 PM Viewed: 4/8/2022 1:58:57 PM Signed: 4/8/2022 2:02:07 PM
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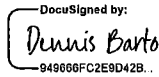
Electronic Record and Signature Disclosure: Accepted: 4/8/2022 1:58:57 PM ID: a8c01ea9-cc21-4403-ba99-c785e774a673		
Dennis Barton Dbart07@yahoo.com Security Level: Email, Account Authentication (None)	DocuSigned by:  949666FC2E9D42B...	Sent: 4/8/2022 1:49:49 PM Viewed: 4/8/2022 3:18:26 PM Signed: 4/8/2022 3:19:08 PM
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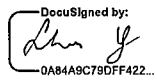
dennis casey dpcasey88@aol.com Security Level: Email, Account Authentication (None)	DocuSigned by:  0A84A9C79DFF422...	Sent: 4/8/2022 1:49:50 PM Viewed: 4/9/2022 12:15:32 PM Signed: 4/9/2022 12:29:37 PM
	Signature Adoption: Drawn on Device Signed by link sent to dpcasey88@aol.com Using IP Address: 73.134.189.192 Signed using mobile	
Electronic Record and Signature Disclosure: Accepted: 4/9/2022 12:15:32 PM ID: 2939f6a3-d4e5-471a-843b-693176d3082c		

Signer Events	Signature	Timestamp
Donald and Sharon Cooper dccooperjr@gmail.com Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via DocuSign		Sent: 4/8/2022 1:49:37 PM
Dorren Casey dorrenc@aol.com Security Level: Email, Account Authentication (None)	DocuSigned by: Dorren Casey 4ED780C1E13A437... Signature Adoption: Pre-selected Style Signed by link sent to dorrenc@aol.com Using IP Address: 73.134.189.192	Sent: 4/8/2022 1:49:50 PM Viewed: 4/9/2022 12:36:00 PM Signed: 4/9/2022 12:37:12 PM
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Elizabeth Aranza lizaranza16@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by: E4FDE77186A149B... Signature Adoption: Drawn on Device Signed by link sent to lizaranza16@gmail.com Using IP Address: 98.233.153.202	Sent: 4/8/2022 1:49:51 PM Viewed: 4/11/2022 10:48:12 AM Signed: 4/11/2022 10:49:11 AM
Electronic Record and Signature Disclosure: Accepted: 6/3/2021 4:13:37 PM ID: 66b8c458-bf7d-4894-9348-2aeb63e496e6		
Ellen Brennan ellenbrennan2501@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by: 1DFC5E2A87E044B... Signature Adoption: Drawn on Device Signed by link sent to ellenbrennan2501@gmail.com Using IP Address: 96.227.242.233 Signed using mobile	Sent: 4/8/2022 1:49:37 PM Viewed: 4/8/2022 2:07:40 PM Signed: 4/9/2022 9:00:27 AM
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GARY D KUNKEL pappydean@msn.com Security Level: Email, Account Authentication (None)	DocuSigned by: 21C78C938CB64E8... Signature Adoption: Pre-selected Style Signed by link sent to pappydean@msn.com Using IP Address: 73.129.40.214	Sent: 4/8/2022 1:49:38 PM Viewed: 4/8/2022 2:42:02 PM Signed: 4/8/2022 2:44:13 PM
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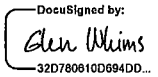
Signer Events	Signature	Timestamp
George and Eileen Mitchell gsagejr@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by: BD3D0E6BE9CB42A... Signature Adoption: Pre-selected Style Signed by link sent to gsagejr@gmail.com Using IP Address: 172.225.112.181	Sent: 4/8/2022 1:49:38 PM Viewed: 4/9/2022 7:11:32 AM Signed: 4/9/2022 7:14:59 AM
Electronic Record and Signature Disclosure: Accepted: 4/9/2022 7:11:32 AM ID: c22e7180-0dca-40b7-92eb-53362dc6797d		
Glen Whims gwhims@aol.com Security Level: Email, Account Authentication (None)	DocuSigned by:  32D780610D694DD... Signature Adoption: Pre-selected Style Signed by link sent to gwhims@aol.com Using IP Address: 71.206.56.168 Signed using mobile	Sent: 4/8/2022 1:49:36 PM Viewed: 4/8/2022 5:24:47 PM Signed: 4/9/2022 3:50:54 PM
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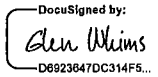
Glen Whims twhims@aol.com Security Level: Email, Account Authentication (None)	DocuSigned by:  D6923647DC314F5... Signature Adoption: Pre-selected Style Signed by link sent to twhims@aol.com Using IP Address: 71.206.56.168	Sent: 4/8/2022 1:49:39 PM Viewed: 4/9/2022 3:47:22 PM Signed: 4/9/2022 3:49:19 PM
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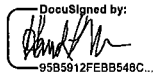
Hannah Madden Hannah.madden@yahoo.com Security Level: Email, Account Authentication (None)	DocuSigned by:  95B5912FEBB548C... Signature Adoption: Drawn on Device Signed by link sent to Hannah.madden@yahoo.com Using IP Address: 166.137.175.68 Signed using mobile	Sent: 4/8/2022 1:49:51 PM Viewed: 4/8/2022 2:25:07 PM Signed: 4/8/2022 2:25:39 PM
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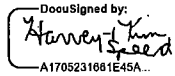
Harvey and Kimberly Speed lilkid1@comcast.net Security Level: Email, Account Authentication (None)	DocuSigned by:  A1705231661E45A... Signature Adoption: Drawn on Device Signed by link sent to lilkid1@comcast.net Using IP Address: 107.77.194.6 Signed using mobile	Sent: 4/8/2022 1:49:39 PM Viewed: 4/10/2022 1:04:28 PM Signed: 4/13/2022 1:46:16 AM
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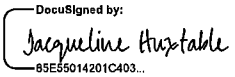
Signer Events	Signature	Timestamp
Jack Goodman jack_goodman@comcast.net Security Level: Email, Account Authentication (None)	DocuSigned by: 32EF7136A1744F3...	Sent: 4/8/2022 1:49:51 PM Viewed: 4/8/2022 2:29:02 PM Signed: 4/9/2022 12:06:04 AM
	Signature Adoption: Pre-selected Style Signed by link sent to jack_goodman@comcast.net Using IP Address: 73.195.42.238	
Electronic Record and Signature Disclosure: Accepted: 4/8/2022 2:29:02 PM ID: f7c4e172-52e9-423f-9388-ff30b5e99037		
Jacqueline Huxtable jhuxtab28@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  85E55014201C403...	Sent: 4/8/2022 1:49:52 PM Viewed: 4/8/2022 3:53:17 PM Signed: 4/8/2022 3:59:30 PM
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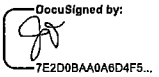
James and Mary Henn kbhenn@verizon.net Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via DocuSign		Sent: 4/8/2022 1:49:40 PM
Jamie Devine jmdtaz2007@comcast.net Security Level: Email, Account Authentication (None)	DocuSigned by:  7E2D0BAA0A6D4F5...	Sent: 4/8/2022 1:49:52 PM Viewed: 4/9/2022 6:53:50 PM Signed: 4/9/2022 6:55:21 PM
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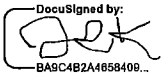
Jeffrey Killion jkillion58@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  BA9C4B2A4658409...	Sent: 4/8/2022 1:49:53 PM Viewed: 4/8/2022 2:10:25 PM Signed: 4/8/2022 2:12:46 PM
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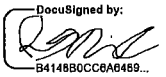
Signer Events	Signature	Timestamp
Jeffrey Markle and Joanne Shanaman jamarkle@ymail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  B4148B0CC6A6489...	Sent: 4/8/2022 1:49:53 PM Resent: 4/8/2022 1:52:25 PM Resent: 4/11/2022 10:01:17 AM Viewed: 4/11/2022 12:12:58 PM Signed: 4/11/2022 12:14:19 PM
	Signature Adoption: Drawn on Device Signed by link sent to jamarkle@ymail.com Using IP Address: 98.115.106.5 Signed using mobile	
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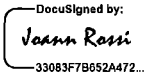
Joann Rossi rossijoann5@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  33083F7B652A472...	Sent: 4/11/2022 10:01:17 AM Viewed: 4/11/2022 10:03:11 AM Signed: 4/13/2022 7:39:05 AM
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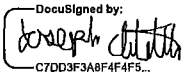
Joseph Tilelli j.tilelli@yahoo.com Security Level: Email, Account Authentication (None)	DocuSigned by:  C7DD3F3A8F4F4F5...	Sent: 4/8/2022 1:49:53 PM Viewed: 4/8/2022 2:29:36 PM Signed: 4/8/2022 2:32:58 PM
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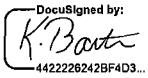
Kathleen Barton katbart57@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  4422226242BF4D3...	Sent: 4/8/2022 1:49:54 PM Viewed: 4/8/2022 3:15:07 PM Signed: 4/8/2022 3:27:40 PM
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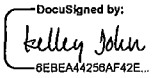
Kelley John kelleymjohn@outlook.com Security Level: Email, Account Authentication (None)	DocuSigned by:  6EBEA44256AF42E...	Sent: 4/8/2022 1:49:54 PM Viewed: 4/8/2022 6:34:42 PM Signed: 4/8/2022 6:40:25 PM
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Signer Events	Signature	Timestamp
Kelly Piatt Kelly@thepiatts.net Security Level: Email, Account Authentication (None)	DocuSigned by: Kelly Piatt D14FDB13156A4EA..	Sent: 4/8/2022 1:49:55 PM Viewed: 4/8/2022 7:18:24 PM Signed: 4/8/2022 7:19:52 PM
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Kenneth and Linda Kozloff Kkozloff@verizon.net Security Level: Email, Account Authentication (None)		Sent: 4/8/2022 1:49:55 PM Viewed: 4/9/2022 9:35:04 AM
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Lauren Groundland lauren.groundland@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by: Lauren Groundland 4E7FF1A2D36D4A8...	Sent: 4/8/2022 1:49:55 PM Viewed: 4/8/2022 3:30:08 PM Signed: 4/8/2022 3:31:44 PM
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Lori Goodman goodwoman1021@aol.com Security Level: Email, Account Authentication (None)	DocuSigned by: Lori Goodman 1C80449EBE674F1...	Sent: 4/8/2022 1:49:56 PM Viewed: 4/9/2022 12:16:20 AM Signed: 4/9/2022 12:17:00 AM
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Lourdes and James Griffin lggriffin3@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by: Lourdes and James Griffin C46023CAEA23437...	Sent: 4/8/2022 1:49:40 PM Viewed: 4/8/2022 7:01:40 PM Signed: 4/8/2022 7:03:20 PM
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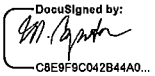
Signer Events	Signature	Timestamp
Marie Capitolo marieperaza@msn.com Security Level: Email, Account Authentication (None)	DocuSigned by:  C8E9F9C042B44A0... Signature Adoption: Drawn on Device Signed by link sent to marieperaza@msn.com Using IP Address: 174.198.12.205 Signed using mobile	Sent: 4/8/2022 1:49:50 PM Viewed: 4/11/2022 8:09:43 AM Signed: 4/11/2022 8:13:03 AM
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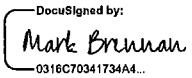
Mark Brennan markbrennan64@comcast.net Security Level: Email, Account Authentication (None)	DocuSigned by:  0316C70341734A4... Signature Adoption: Pre-selected Style Signed by link sent to markbrennan64@comcast.net Using IP Address: 96.227.242.233 Signed using mobile	Sent: 4/8/2022 1:49:41 PM Viewed: 4/9/2022 7:14:31 AM Signed: 4/9/2022 7:16:00 AM
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Mary Killion marykillion@verizon.net Security Level: Email, Account Authentication (None)		Sent: 4/8/2022 1:49:56 PM
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Mary Wright mcwrighth@gmail.com Security Level: Email, Account Authentication (None)		Sent: 4/8/2022 1:49:41 PM
Electronic Record and Signature Disclosure: Accepted: 4/2/2020 10:54:53 AM ID: 52b89c34-e375-45ae-be85-035b19fd3aae		
Matthew Fiehrer mfiehrer@yahoo.com Security Level: Email, Account Authentication (None)	DocuSigned by: FAFAB891F8A54F5... Signature Adoption: Pre-selected Style Signed by link sent to mfiehrer@yahoo.com Using IP Address: 98.233.155.221 Signed using mobile	Sent: 4/8/2022 1:49:57 PM Viewed: 4/8/2022 2:04:18 PM Signed: 4/8/2022 2:05:01 PM
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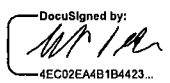
Matthew Gaughen mjg1558@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  4EC02EA4B1B4423... Signature Adoption: Drawn on Device Signed by link sent to mjg1558@gmail.com Using IP Address: 104.28.55.184 Signed using mobile	Sent: 4/8/2022 1:49:57 PM Viewed: 4/9/2022 9:33:32 AM Signed: 4/9/2022 9:35:27 AM
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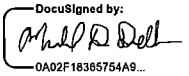
Signer Events	Signature	Timestamp
Michael DenDekker mgdendekker@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  0A02F18365754A9...	Sent: 4/8/2022 1:49:58 PM Viewed: 4/9/2022 8:35:09 AM Signed: 4/9/2022 8:36:00 AM
	Signature Adoption: Drawn on Device Signed by link sent to mgdendekker@gmail.com Using IP Address: 73.134.164.83 Signed using mobile	
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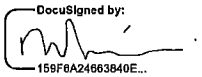
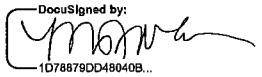
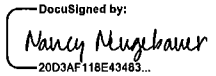
Michael Saienni bassmaster41253@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  159F6A24663840E...	Sent: 4/8/2022 1:49:58 PM Viewed: 4/8/2022 1:59:52 PM Signed: 4/8/2022 2:02:39 PM
	Signature Adoption: Drawn on Device Signed by link sent to bassmaster41253@gmail.com Using IP Address: 73.134.198.114 Signed using mobile	
Electronic Record and Signature Disclosure: Accepted: 11/16/2020 2:35:40 PM ID: a23de27b-38d0-41a2-9764-8355a3b8d371		
Michelle Marsh and Barbara Sann sannmarhrs@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by: F06F4DC4D60349F...	Sent: 4/8/2022 1:49:42 PM Viewed: 4/8/2022 2:53:31 PM Signed: 4/8/2022 2:56:08 PM
	Signature Adoption: Pre-selected Style Signed by link sent to sannmarhrs@gmail.com Using IP Address: 71.206.16.134	
Electronic Record and Signature Disclosure: Accepted: 4/8/2022 2:53:31 PM ID: bf443ec7-ffd1-47f1-bcf3-554fde405ad5		
Misty Joy Warren mistyjwarren@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by:  1D78679DD48040B...	Sent: 4/8/2022 1:49:42 PM Viewed: 4/8/2022 4:31:16 PM Signed: 4/8/2022 4:32:00 PM
	Signature Adoption: Drawn on Device Signed by link sent to mistyjwarren@gmail.com Using IP Address: 73.133.114.33 Signed using mobile	
Electronic Record and Signature Disclosure: Accepted: 7/27/2020 9:17:12 AM ID: 62d69014-16a3-47ff-9d50-c6ef2fb0e535		
Nancy Neugebauer shopmom1952@comcast.net Security Level: Email, Account Authentication (None)	DocuSigned by:  20D3AF118E43483...	Sent: 4/8/2022 1:49:59 PM Viewed: 4/9/2022 9:56:07 AM Signed: 4/9/2022 9:59:46 AM
	Signature Adoption: Pre-selected Style Signed by link sent to shopmom1952@comcast.net Using IP Address: 73.107.4.20 Signed using mobile	
Electronic Record and Signature Disclosure: Accepted: 9/1/2020 10:21:34 AM ID: cc23c1fd-44d5-470a-b6fc-4401b46fc269		

Signer Events	Signature	Timestamp
Paul and Donna Koleszar pkoleszar@comcast.net Security Level: Email, Account Authentication (None)	DocuSigned by: Paul and Donna Koleszar 17C33AE7500E499...	Sent: 4/8/2022 1:49:59 PM Viewed: 4/11/2022 10:54:10 AM Signed: 4/11/2022 10:56:26 AM
	Signature Adoption: Pre-selected Style Signed by link sent to pkoleszar@comcast.net Using IP Address: 8.44.152.176	
Electronic Record and Signature Disclosure: Accepted: 4/11/2022 10:54:10 AM ID: f97e94eb-8c48-4096-849f-0e9bc3c5b709		
Raymond Tomasky raysgreenergrass@aol.com Security Level: Email, Account Authentication (None)		Sent: 4/8/2022 1:49:42 PM
Electronic Record and Signature Disclosure: Accepted: 7/28/2020 7:37:48 PM ID: 4b3e0f0c-c871-4b5a-a67b-e9ed23c4524e		
Robert Strayer 1960rms@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by: Robert Strayer 7DEE2617AC544E1...	Sent: 4/8/2022 1:50:00 PM Viewed: 4/9/2022 9:16:11 AM Signed: 4/9/2022 9:17:28 AM
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Robin Marks marks0006@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by: Robin B Marks 7C93D419E814436...	Sent: 4/8/2022 1:50:00 PM Viewed: 4/9/2022 11:14:10 AM Signed: 4/9/2022 11:17:32 AM
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Electronic Record and Signature Disclosure: Accepted: 4/9/2022 11:14:10 AM ID: cabb5694-3732-4615-a81e-38acd280176d		
Rocco Scutaro rocco.scutaro@icloud.com Security Level: Email, Account Authentication (None)	DocuSigned by: Rocco Scutaro 6215B7EC0ACD473...	Sent: 4/11/2022 10:01:18 AM Viewed: 4/11/2022 11:35:48 AM Signed: 4/11/2022 11:36:36 AM
	Signature Adoption: Pre-selected Style Signed by link sent to rocco.scutaro@icloud.com Using IP Address: 73.133.114.173 Signed using mobile	
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Roger and Lesley Levi rogerlevi@hotmail.com Security Level: Email, Account Authentication (None)		Sent: 4/8/2022 1:49:43 PM
Electronic Record and Signature Disclosure: Accepted: 7/8/2020 9:07:06 PM ID: d29953b3-3fcf-442b-aab3-13f5b7db744f	Signed on 4/15/22	

Signer Events	Signature	Timestamp
Samuel Zingo zaman27@aol.com Security Level: Email, Account Authentication (None)	DocuSigned by: Samuel Zingo 1A8313D4638A4A0...	Sent: 4/8/2022 1:49:43 PM Viewed: 4/9/2022 6:22:33 AM Signed: 4/9/2022 6:24:16 AM
	Signature Adoption: Pre-selected Style Signed by link sent to zaman27@aol.com Using IP Address: 107.77.195.231 Signed using mobile	
Electronic Record and Signature Disclosure: Accepted: 6/3/2020 4:08:32 PM ID: 2063c176-e264-471a-9f53-1a3db3ffebc6		
Shirley Masakowski toots53@comcast.net Security Level: Email, Account Authentication (None)	DocuSigned by: Shirley Masakowski 0F8A1617BCB343F...	Sent: 4/8/2022 1:50:00 PM Viewed: 4/8/2022 2:16:32 PM Signed: 4/9/2022 7:50:10 AM
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Electronic Record and Signature Disclosure: Accepted: 9/13/2020 5:35:05 PM ID: f26ecd37-21c2-421d-8fe7-a8de533416d9		
Simon John simon-tjohn@outlook.com Security Level: Email, Account Authentication (None)	DocuSigned by: Simon John 48A955A310C2420...	Sent: 4/8/2022 1:50:01 PM Viewed: 4/8/2022 4:06:38 PM Signed: 4/8/2022 4:08:03 PM
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Stuart Wright swrighth9@gmail.com Security Level: Email, Account Authentication (None)		Sent: 4/8/2022 1:49:44 PM
Electronic Record and Signature Disclosure: Accepted: 4/2/2020 10:40:25 AM ID: 3ae5f584-357e-42b0-9ceb-f4ed78b02b55		
Thomas Fogle tfogle53@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by: Thomas Fogle DDC0080E68C9478...	Sent: 4/8/2022 1:50:01 PM Viewed: 4/9/2022 8:28:15 AM Signed: 4/9/2022 8:30:51 AM
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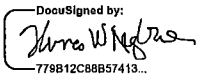
Signer Events	Signature	Timestamp
Thomas Neugebauer T5907@aol.com Security Level: Email, Account Authentication (None)	DocuSigned by:  779B12C88B57413...	Sent: 4/8/2022 1:50:02 PM Viewed: 4/9/2022 10:00:36 AM Signed: 4/9/2022 10:01:56 AM
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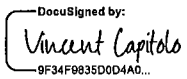
Vincent Capitolo vcapitolo@msn.com Security Level: Email, Account Authentication (None)	DocuSigned by:  9F34F9835D0D4A0...	Sent: 4/8/2022 1:50:02 PM Viewed: 4/11/2022 3:22:42 PM Signed: 4/11/2022 3:25:36 PM
	Signature Adoption: Pre-selected Style Signed by link sent to vcapitolo@msn.com Using IP Address: 63.119.143.90	
Electronic Record and Signature Disclosure: Accepted: 4/11/2022 3:22:42 PM ID: 911ff051-8c5e-4707-aa2d-5897d4b38cee		
William Davis wmddavis@gmail.com Security Level: Email, Account Authentication (None)	DocuSigned by: 5B62FB5113D84DC...	Sent: 4/8/2022 1:49:44 PM Viewed: 4/8/2022 2:06:28 PM Signed: 4/8/2022 2:07:34 PM
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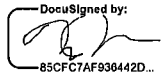
William Miller, Jr. bmiller@wilmingtonfriends.org Security Level: Email, Account Authentication (None)	DocuSigned by:  85CFC7AF936442D...	Sent: 4/8/2022 1:50:03 PM Viewed: 4/8/2022 2:23:23 PM Signed: 4/8/2022 2:29:49 PM
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In Person Signer Events	Signature	Timestamp
Editor Delivery Events	**Status**	**Timestamp**
Agent Delivery Events	**Status**	**Timestamp**
Intermediary Delivery Events	**Status**	**Timestamp**
Certified Delivery Events	**Status**	**Timestamp**
Carbon Copy Events	**Status**	**Timestamp**

Witness Events	Signature	Timestamp

Notary Events	Signature	Timestamp

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	4/8/2022 1:50:05 PM
Certified Delivered	Security Checked	4/8/2022 2:23:23 PM
Signing Complete	Security Checked	4/8/2022 2:29:49 PM

Payment Events	Status	Timestamps

Electronic Record and Signature Disclosure

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

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If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

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If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. Further, you will no longer be able to use the DocuSign system to receive required notices and consents electronically from us or to sign electronically documents from us.

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Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through the DocuSign system all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact K. Hovnanian Homes:

You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:
To contact us by email send messages to: pperillo@khov.com

To advise K. Hovnanian Homes of your new email address

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If you created a DocuSign account, you may update it with your new email address through your account preferences.

To request paper copies from K. Hovnanian Homes

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an email to pperillo@khov.com and in the body of such request you must state your email address, full name, mailing address, and telephone number. We will bill you for any fees at that time, if any.

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To inform us that you no longer wish to receive future notices and disclosures in electronic format you may:

i. decline to sign a document from within your signing session, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;

ii. send us an email to pperillo@khov.com and in the body of such request you must state your email, full name, mailing address, and telephone number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

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To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please confirm that you have read this ERSD, and (i) that you are able to print on paper or electronically save this ERSD for your future reference and access; or (ii) that you are able to email this ERSD to an email address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format as described herein, then select the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

By selecting the check-box next to 'I agree to use electronic records and signatures', you confirm that:

- You can access and read this Electronic Record and Signature Disclosure; and
- You can print on paper this Electronic Record and Signature Disclosure, or save or send this Electronic Record and Disclosure to a location where you can print it, for future reference and access; and
- Until or unless you notify K. Hovnanian Homes as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by K. Hovnanian Homes during the course of your relationship with K. Hovnanian Homes.

December 20, 2021

Sussex County Planning & Zoning
2 The Circle
P.O. Box 417
Georgetown, DE 19947

RE: The Villages at Red Mill Pond South Club House

Director Whitehouse,

Jamie Sechler, P.E., requested that we write a letter informing the County that K. Hovnanian is still the declarant, is in control of 130 of the proposed 177 lots (73%) of The Villages at Red Mill Pond South, and has communicated its intention to homeowners to build an amenity in Phase 3.

The following lots have been settled/closed/delivered:

1	9	16	26	78	85	109
2	10	17	72	79	86	110
4	11	18	73	80	87	111
5	12	22	74	81	105	112
6	13	23	75	82	106	113
7	14	24	76	83	107	
8	15	25	77	84	108	

K. Hovnanian is still in control of the following lots:

3	42	61	96	124	143	162
19	43	62	97	125	144	163
20	44	63	98	126	145	164
21	45	64	99	127	146	165
27	46	65	100	128	147	166
28	47	66	101	129	148	167
29	48	67	102	130	149	168
30	49	68	103	131	150	169
31	50	69	104	132	151	170
32	51	70	114	133	152	171
33	52	71	115	134	153	172
34	53	88	116	135	154	173
35	54	89	117	136	155	174
36	55	90	118	137	156	175
37	56	91	119	138	157	176
38	57	92	120	139	158	177
39	58	93	121	140	159	
40	59	94	122	141	160	
41	60	95	123	142	161	

The Red Mill Pond Homeowner's Association held its annual meeting on November 17th 2021 where K. Hovnanian Division President and HOA Board President, Mike Irons, discussed the planned amenities which included a 1,600 square feet clubhouse with a meeting space and small gym, 1500 square foot pool, parking lot, and a pickleball court (meeting minutes available).

If you have any further questions please do not hesitate to reach out.

Respectfully,

Jonathan Contant
Land Planning manager
K. Hovnanian Homes, Delaware

January 26, 2022

Sussex County
Planning & Zoning Commission
2 The Circle
P.O. Box 417
Georgetown, DE 19947

RECEIVED
JAN 28 2022
SUSSEX COUNTY
PLANNING & ZONING

RE: The Villages at Red Mill Pond South Amenities Plan

Commissioners,

On November 17th, 2021, K. Hovnanian attended the Annual Homeowner's Association Meeting for Red Mill Pond and presented the planned amenities for Red Mill Pond South. They recently shared the schematics with the Board. Based upon these plans, we feel the amenities are generous. They feature an attractively designed 1,600 sq ft clubhouse which will include a kitchen, a meeting space and gym, restrooms, a 1,500 sq ft pool, a pickleball court and a parking lot. We also applaud a planned connection from Red Mill Pond South to the Georgetown/Lewes Walking Trail, which our present homeowners enjoy very much.

We have waited for years for the completion of our community. As the resident board members of the Homeowners Association, we speak on behalf of the homeowners of the entire Red Mill Pond community, to include Red Mill Pond South. The above plan was well received by homeowners, included the pickleball court as a pleasant surprise and has overwhelming support for implementation as proposed.

Best regards,

Robert Nordaby
Red Mill Pond HOA
Resident Board Member

George Herrmann
Red Mill Pond HOA
Resident Board Member

Sussex County
Building Permit

P.O. Box 589
Georgetown, DE 19947
302-855-7720

Application Number
201909164
Issue Date: 01/17/2020
Expire Date: 01/16/2021

Permit Type: **DWELLING OUT OF TOWN**

Parcel ID	Address	Zone Code
334-5.00-1213.00	99999 UNKNOWN	AR-1

Owner Information	Applicant Information
Name: SWEETBRIAR LLC	Name: K HOVANIAN, HOMES OF DELAWARE LLC
Phone: 307-734-1654	Phone:

Contractor Information

Name: K HOVANIAN, HOMES OF DELAWARE LLC
CID: 620718
Phone:
License Number:
License Exp. Date:
Insurance Exp. Date:

Building Information

Proposed Use: DWELLING RESIDENTAL
Construction Type:
Estimated Cost of Construction: $ 123,127
Cannot Occupy More than _____ of Total Lot Area
Distance from any Dwelling of other Ownership: _____
Distance from any other Mobile Home or Accessory Structure: _____

Property Information

Measurements taken from Property Lines

Front Setback: 25.00 /
Side Setback: 10.00 /
Rear Setback: 10.00 /
Corner Setback: /
Maximum Building Height: 42
Location Description: VILLAGES AT RED MILL PONDSOUTH LOT 10

FLOOD ZONE

Flood Zone: XP 330J

_____ If Initialed, See Attached Flood Plan Construction Review Coastal and Flood-Prone Area Building Requirements.

Project Description: DWELLING

Scope of Work:

1ST DW 50X51 ATT GAR 21X22
PORCH 15X6, 16X12

Permit Details:

Signature of Approving Official

Signature of Owner/Contractor

I fully understand the Zoning Requirements of this permit.

Building Permit Acknowledgement:

I/we the undersigned, acknowledge I/we have read and accept the terms of this Building Permit and shall comply with the rules and restrictions related to this building activity. This permit shall expire one (1) year from the date of issue. This permit may be renewed prior to its expiration date if construction has begun and continued in a normal manner and not discontinued for reasons other than those beyond the permit-holder's control. Grading or surface-shaping of the site shall not be considered as actual construction.

I/we further acknowledge, ASSESSORS AND INSPECTORS HAVE A RIGHT TO ENTER AND ACCESS THE PREMISES TO ASSESS AND INSPECT PROPERTY. The owner or owners of these premises do hereby consent to Sussex County Officials' right to enter upon said premises during the construction of which this permit is granted, or within a reasonable time thereafter, for the purposes of assessing and inspecting said property.

THE APPROVAL OF THIS PERMIT APPLICATION PERTAINS ONLY TO COMPLIANCE WITH SUSSEX COUNTY ZONING ORDINANCES. IT IS NOT TO BE CONSTRUED AS AN APPROVAL FOR THE REQUIREMENTS OF ANY OTHER GOVERNMENTAL AGENCY, WHICH MAY PERTAIN TO THIS SITE. AND FURTHER, IT IS ACKNOWLEDGED AND UNDERSTOOD THAT THIS PERMIT MAY BE REVOKED BY SUSSEX COUNTY FOR ANY VIOLATION OF THE TERMS OF THIS PERMIT OR OF ANY COUNTY, STATE OR FEDERAL LAW APPLICABLE TO THIS PERMIT.

Permit Number	BP-124587	TOTAL FEES:	$ 684.32

EQUAL HOUSING OPPORTUNITY

Building Description

Total Bedrooms:	3	**Heat Type:**	HEAT PUMP
Full Baths:	2 **Half Baths:**	**Roofing:**	SHINGLE
Total Rooms:	7	**Exterior Walls:**	VINYL
Basement:	NO	**Foundation Type:**	POURED
Interior Walls:	DRYWALL	**Fireplace Type:**	GAS FIREPLACE
Flooring:		**Air Conditioning:**	Y

CARPET WOOD TILE VINYL

Additional Requirement/Restrictions

_____ Accessory Building 900 Square Feet or Greater
No more than four (4) vehicles permitted in structure without a Planning & Zoning Hearing.

_____ Agricultural Storage Structures
Storage only. NO LIVESTOCK PERMITTED.

_____ Campgrounds
Must conform to the location approved by the park.

_____ Farm-Use Permits
Prior to issuance of the Certificate of Occupancy, it must be confirmed that the building will be used for farm use only. Otherwise, the permit will be voided and plans must be submitted to the Building Code Department.

_____ Fences
Fence may only be 3.5' tall along the front property line and from the road back to the mandated front yard setback. Thereafter, fence may be a maximum of 7' tall. On corner lots, the fence may only be 3' tall along the corner fronts and 25' from the intersection of property lines. Fence may be installed on property line.

_____ Parcel Setbacks
All building structures and improvements shall comply with the parcel setback measurement requirements as mandated in the Sussex County Zoning Ordinance. Failure to comply with the parcel setback measurement requirements is a violation.

_____ Pools (Above-Ground)
Must have ladder up and locked at all times when not in use. Pool must be 4' high above grade. If not, a fence is required around perimeter of pool

_____ Pools (In-Ground)
A minimum 4' tall fence must be around the perimeter of the pool. A minimum 3' walkway must be between the pool and fence. Gate must be locked at all times when the pool is not in use.

_____ Pools or Guest Homes
No Cooking facilities of any kind are permitted in the structure. No separate electrical meters are permitted.

_____ Tax Ditch
Property records indicate a State regulated tax ditch appears on this property. All building activity shall comply with the rules and requirements related to State regulated tax ditches and the respective tax ditch easements.

COUNT 110

Application Reference	Project/ Activity	Location	Lot no	App Status	Application Recv'd	Location Desc	Parcel ID	Project/Activity Desc Line 1	Project/Activity Desc Line 2
201909164	DWELLING	11049 GREENVIEW		COMPLETE	08/09/2019	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1213.00	1ST DW 50X51 ATT GAR 21X22	PORCH 15X6, 16X12
202000409	DWELLING	11049 GREENVIEW	10	WITHDRAWN	01/13/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1213.00	1 ST DW 50X51, ATT GAR 21X22,	
202000412	DWELLING	11082 GREENVIEW	11	COMPLETE	01/13/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1214.00	1 ST DW 50X60, ATT GAR 20X22,	
202000411	DWELLING	11078 GREENVIEW	12	COMPLETE	01/13/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1215.00	1 1/2 ST DW 50X60, ATT GAR	
202000414	DWELLING	11070 GREENVIEW	13	COMPLETE	01/13/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1216.00	1 ST DW 52X40, ATT GAR 21X21,	SCREEM PORCH 12X12
202000417	DWELLING	11064 GREENVIEW	14	COMPLETE	01/13/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1217.00	1 ST DW 50X60, ATT GAR 21X20,	
202000405	DWELLING	11115 GREENVIEW	4	COMPLETE	01/13/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1207.00	1 ST DW 52X40, ATT GAR 22X20,	SCREEN PORCH 10X21
202000967	DWELLING	11062 GREENVIEW	15	COMPLETE	01/28/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1218.00	2 ST DW 52X40, ATT GAR 22X20,	PORCH 10X17, 10X21(ROCKFORD
202000968	DWELLING	11058 GREENVIEW	16	COMPLETE	01/28/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1219.00	1 ST DW 52X40, ATT GAR 22X20,	PORCH 10X7, 10X21
202000966	DWELLING	32057 DEERWOOD LANE	19	ACTIVE	01/28/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1222.00	2 ST DW 52X40, ATT GAR 22X20,	PORCH 10X17, 10X21
202000965	DWELLING	32065 DEERWOOD LANE	S20	COMPLETE	01/28/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1223.00	1 ST DW 50X58, ATT GAR 30X25,	PORCH 21X10, DECK 12X16
202002813	DWELLING	11048 GREENVIEW		WITHDRAWN	03/09/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1221.00	1 ST DW (AMBASSADOR)	
202003296	DWELLING	11048 GREENVIEW		ENTERED IN ERROR	03/23/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1221.00	1 ST DW(AMBASSADOR	
202003929	DWELLING	11048 GREENVIEW		COMPLETE	04/13/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1221.00	1 ST DW (AMBASSADOR)	
202003911	DWELLING	11081 GREENVIEW		COMPLETE	04/13/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1211.00	1 ST DW (ROCKFORD)	
202004438	DWELLING	11057 GREENVIEW		COMPLETE	04/27/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1212.00	1.5 ST DW (ROCKFORD)	PORCH 7X10,10X21
202004923	DWELLING	32020 DEERWOOD LANE		COMPLETE	05/11/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1204.00	(AMBASSADOR) 1ST DW 40X40	FT PORCH 20X14

202004924	DWELLING	32014 DEERWOOD LANE		COMPLETE	05/11/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1205.00	(LOREN) 1ST DW 58X40 ATT GAR	FT PORCH 13X19 SCREEN PORCH
202007675	DWELLING	24018 HAVENWOOD		COMPLETE	07/08/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1310.00	1 ST DW 52X40, ATT GAR 22X20,	PORCH 5X6, PORCH 10X21,
202007672	DWELLING	11109 GREENVIEW	5	COMPLETE	07/08/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1208.00	1 ST DW 40X40, ATT GAR 20X21,	MODEL - AMBASSADOR
202008064	DWELLING	24012 HAVENWOOD	108	COMPLETE	07/15/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1311.00	2 ST DW 52X40, ATT GAR 22X20,	MODEL - ROCKFORD LOFT
202008685	DWELLING	11054 GREENVIEW		COMPLETE	07/28/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1220.00	1 ST DW 40X40, ATT GAR 20X20,	MODEL - AMBASSADOR
202008688	DWELLING	32134 DEERWOOD LANE		COMPLETE	07/28/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1281.00	1 ST DW 58X40, ATT GAR 21X21,	MODEL - LOREN
202008691	DWELLING	32126 DEERWOOD LANE		COMPLETE	07/28/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1282.00	1 ST DW 40X40, ATT GAR 20X21,	MODEL - AMBASSADOR
202009319	DWELLING	24032 HAVENWOOD		COMPLETE	08/11/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1308.00	1.5 ST DW 50X60, ATT GAR 21X20,	MODEL - JASMINE W/ LOFT
202009358	DWELLING	24026 HAVENWOOD	106	COMPLETE	08/11/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1309.00	1 ST DW50X51, ATT GAR 21X22,	MODEL - ST MICHAELS
202009361	DWELLING	24011 HAVENWOOD	109	COMPLETE	08/11/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1312.00	1.5 ST DW 52X40, ATT GAR 22X20,	MODEL - ROCKFORD LOFT
202009321	DWELLING	32085 DEERWOOD LANE	23	COMPLETE	08/11/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1226.00	2 ST DW 52X40, ATT GAR 22X20,	MODEL - ROCKFORD LOFT
202009352	DWELLING	13039 LAUREL LEAF DRIVE		COMPLETE	08/11/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1228.00	1.5 ST DW 50X51, ATT GAR 21X22,	MODEL - ST MICHAELS
202009354	DWELLING	13045 LAUREL LEAF DRIVE		COMPLETE	08/11/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1229.00	1 ST DW 50X60, ATT GAR 20X22,	MODEL - ROCKFORD
202009323	DWELLING	11097 GREENVIEW		COMPLETE	08/11/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1210.00	2 ST DW 40X58, ATT GAR 20X19,	PORCH 21X8, PORCH 12X12,
202009355	DWELLING	32140 DEERWOOD LANE		COMPLETE	08/11/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1280.00	1 ST DW 40X40, ATT GAR 20X21,	MODEL - AMBASSADOR
202009911	DWELLING	32131 DEERWOOD LANE		COMPLETE	08/20/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1284.00	1 ST DW 40X40, ATT GAR 20X21,	MODEL - AMBASSADOR
202010919	DWELLING	32137 DEERWOOD LANE	82	COMPLETE	09/10/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1285.00	2 ST DW (EASTWOOD	PORCH 12X12
202011245	DWELLING	13031 LAUREL LEAF DRIVE		COMPLETE	09/15/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1227.00	1 ST DW 40X40, ATT GAR 20X21,	MODEL - AMBASSADOR
202011252	DWELLING	32127 DEERWOOD LANE		COMPLETE	09/15/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1283.00	1 ST DW 50X58, ATT GAR 30X25,	MODEL - EASTWOOD - F

202011332	DWELLING	24013 HAVENWOOD		COMPLETE	09/16/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1313.00	2 ST DW 52X40, ATT GAR 22X20,	MODEL - ROCKFORD LOFT
202011335	DWELLING	24019 HAVENWOOD		COMPLETE	09/16/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1314.00	1.5 ST DW 52X40, ATT GAR 22X20,	MODEL - ROCKFORD LOFT
202011336	DWELLING	24025 HAVENWOOD		COMPLETE	09/16/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1315.00	1 ST DW 50X51, ATT GAR 21X22,	MODEL - ST. MICHAELS
202011339	DWELLING	24031 HAVENWOOD		COMPLETE	09/16/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1316.00	1 ST DW 50X58, ATT GAR 30X25,	MODEL - EASTWOOD
202011326	DWELLING	32163 DEERWOOD LANE		COMPLETE	09/16/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1289.00	1 ST DW 40X58, ATT GAR 20X20,	MODEL - EASTWOOD
202011726	DWELLING	32079 DEERWOOD LANE		COMPLETE	09/23/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1225.00	1.5 ST DW 52X40, ATT GAR 22X20,	MODEL - ROCKFORD LOFT
202012025	DWELLING	32169 DEERWOOD LANE	87	COMPLETE	09/29/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1290.00	1 ST DW 40X58, ATT GAR 20X20,	MODEL - EASTWOOD
202013173	DWELLING	32143 DEERWOOD LANE		COMPLETE	10/20/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1286.00	2 ST DW 40X58, ATT GAR 30X19,	MODEL - EASTWOOD LOFT
202013171	DWELLING	32149 DEERWOOD LANE		COMPLETE	10/20/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1287.00	1.5 ST DW 52X40, ATT GAR 22X20,	MODEL - ROCKFORD LOFT
202013165	DWELLING	32157 DEERWOOD LANE		COMPLETE	10/20/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1288.00	2 ST DW 40X58, ATT GAR 30X19,	MODEL - EASTWOOD LOFT
202014033	DWELLING	32146 DEERWOOD LANE		COMPLETE	11/06/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1279.00	1 ST DW 40X58, ATT GAR 20X20,	MODEL - EASTWOOD
202015907	FAST TRACK OUT OF TOWN	32164 DEERWOOD LANE	73	COMPLETE	12/16/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1276.00	EASTWOOD-1 STY SFD 40X58; ATT	10, REAR COV 12X12
202015916	FAST TRACK OUT OF TOWN	32152 DEERWOOD LANE	75	COMPLETE	12/16/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1278.00	AMBASSADOR- 1 STY SFD 40X40;	CH 20X14, REAR COV PORCH 12X12
202016086	FAST TRACK OUT OF TOWN	32158 DEERWOOD LANE	74	COMPLETE	12/18/2020	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1277.00	EASTWOOD- 1 STY SFD 50X58; ATT	7 OVERDUE UTL BILLS
202100925	FAST TRACK OUT OF TOWN	32170 DEERWOOD LANE	72	COMPLETE	01/21/2021	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1275.00	EASTWOOD LOFT-NEW 2 STY SFD	CH 8X8
202111622	FAST TRACK OUT OF TOWN	13051 LAUREL LEAF DRIVE		COMPLETE	08/04/2021	VILLAGES AT RED MILL POND	334-5.00-1230.00	ROCKFORD- 1 STY SFD 52X40; ATT	
202111623	FAST TRACK OUT OF TOWN	13063 LAUREL LEAF DRIVE		COMPLETE	08/04/2021	VILLAGES AT RED MILL POND	334-5.00-1231.00	EASTWOOD- 1 STY SFD 40X58; ATT	SCREENED PORCH 12X12
202112160	FAST TRACK OUT OF TOWN	25034 TREEVIEW LANE		COMPLETE	08/13/2021	VILLAGES AT RED MILL POND	334-5.00-1342.00	EASTWOOD LOFT-2 STY SFD 40X58;	
202112162	FAST TRACK OUT OF TOWN	25023 TREEVIEW LANE		COMPLETE	08/13/2021	VILLAGES AT RED MILL POND	334-5.00-1347.00	ROCKFORD - 1 STY SFD 52X40, ATT	

202112163	FAST TRACK OUT OF TOWN	25035 TREEVIEW LANE		COMPLETE	08/13/2021	VILLAGES AT RED MILL POND	334-5.00-1348.00	ROCKFORD LOFT - 2 STY SFD 52X40,	10X17, SCREN PORCH 10X21
202112165	FAST TRACK OUT OF TOWN	25043 TREEVIEW LANE		COMPLETE	08/13/2021	VILLAGES AT RED MILL POND	334-5.00-1349.00	ST.MICHAELS LOFT 2 STY SFD 50X51;	H 15X6, SCREN PORCH 16X12
202112674	FAST TRACK OUT OF TOWN	25022 TREEVIEW LANE		COMPLETE	08/24/2021	VILLAGES AT RED MILL POND	334-5.00-1344.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202112673	FAST TRACK OUT OF TOWN	25006 TREEVIEW LANE		COMPLETE	08/24/2021	VILLAGES AT RED MILL POND	334-5.00-1346.00	ROCKFORD- 2 STY SFD 52X40; ATT	SCRN PORCH 10X21
202113866	FAST TRACK OUT OF TOWN	32195 DEERWOOD LANE		ACTIVE	09/20/2021	VILLAGES AT RED MILL POND	334-5.00-1294.00	ROCKFORD- 2 STY FSD 52X40; ATT	SCREENED PORCH 10X21
202113834	FAST TRACK OUT OF TOWN	32010 DEERWOOD LANE		COMPLETE	09/20/2021	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1206.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202114635	FAST TRACK OUT OF TOWN	25040 TREEVIEW LANE	138	COMPLETE	10/05/2021	VILLAGES AT RED MILL POND	334-5.00-1341.00	AMBASSADOR- 1 STY SFD 40X40;	
202114637	FAST TRACK OUT OF TOWN	25014 TREEVIEW LANE	142	COMPLETE	10/05/2021	VILLAGES AT RED MILL POND	334-5.00-1345.00	EASTWOOD- 1 STY SFD 40X58; ATT	DECK 12X14
202114633	FAST TRACK OUT OF TOWN	32182 DEERWOOD LANE	70	COMPLETE	10/05/2021	VILLAGES AT RED MILL POND	334-5.00-1273.00	EASTWOOD- 1 STY SFD 40X58; ATT	ECK 12X14
202114634	FAST TRACK OUT OF TOWN	32205 DEERWOOD LANE	92	ACTIVE	10/05/2021	VILLAGES AT RED MILL POND	334-5.00-1295.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202114829	FAST TRACK OUT OF TOWN	32235 DEERWOOD LANE	94	ACTIVE	10/08/2021	VILLAGES AT RED MILL POND	334-5.00-1297.00	ST. MICHAELS- 2 STY SFD 50X51;	X6
202116276	FAST TRACK OUT OF TOWN	25046 TREEVIEW LANE		ACTIVE	11/05/2021	VILLAGES AT RED MILL POND	334-5.00-1340.00	AMBASSDOR- 1 STY SFD 40X40;	
202116277	FAST TRACK OUT OF TOWN	25028 TREEVIEW LANE		COMPLETE	11/05/2021	VILLAGES AT RED MILL POND	334-5.00-1343.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202116273	FAST TRACK OUT OF TOWN	32057 DEERWOOD LANE	19	COMPLETE	11/05/2021	VILLAGES AT RED MILL PONDSOUTH	334-5.00-1222.00	ROCKFORD- 1 STY SFD 52X40; ATT	SCREENED REAR PORCH 10X20
202117063	FAST TRACK OUT OF TOWN	32175 DEERWOOD LANE		COMPLETE	11/22/2021	VILLAGES AT RED MILL POND	334-5.00-1291.00	EASTWOOD- 2 STY SFD 40X58; ATT	
202117064	FAST TRACK OUT OF TOWN	32183 DEERWOOD LANE		COMPLETE	11/22/2021	VILLAGES AT RED MILL POND	334-5.00-1292.00	ST. MICHAELS- 1 STY SFD 50X51;	X6, REAR DECK 14X12
202117066	FAST TRACK OUT OF TOWN	32189 DEERWOOD LANE		COMPLETE	11/22/2021	VILLAGES AT RED MILL POND	334-5.00-1293.00	EASTWOOD- 2 STY SFD 40X58; ATT	EAR SCREEN PORH 12X12
202117067	FAST TRACK OUT OF TOWN	32217 DEERWOOD LANE		ACTIVE	11/22/2021	VILLAGES AT RED MILL POND	334-5.00-1296.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202117225	FAST TRACK OUT OF TOWN	32212 DEERWOOD LANE		ACTIVE	11/29/2021	VILLAGES AT RED MILL POND	334-5.00-1268.00	EASTWOOD- 1 STY SFD 40X58; ATT	REAR SCREEN DECK 12X12

202117226	FAST TRACK OUT OF TOWN	32194 DEERWOOD LANE		ACTIVE	11/29/2021	VILLAGES AT RED MILL POND	334-5.00-1271.00	EASTWOOD- 2 STY SFD 40X58; ATT	
202117227	FAST TRACK OUT OF TOWN	32176 DEERWOOD LANE		COMPLETE	11/29/2021	VILLAGES AT RED MILL POND	334-5.00-1274.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202118255	FAST TRACK OUT OF TOWN	24040 HAVENWOOD	104	ACTIVE	12/20/2021	VILLAGES AT RED MILL POND	334-5.00-1307.00	JASMINE- 1 STY SFD 50X60; ATT	REAR SCREENED PORCH 12X12
202118256	FAST TRACK OUT OF TOWN	24037 HAVENWOOD	114	ACTIVE	12/20/2021	VILLAGES AT RED MILL POND	334-5.00-1317.00	ROCKFORD- 2 STY SFD 52X40; ATT	REAR SCREENED PORCH 10X21
202118253	FAST TRACK OUT OF TOWN	32224 DEERWOOD LANE	63	ACTIVE	12/20/2021	VILLAGES AT RED MILL POND	334-5.00-1266.00	ST.MICHAELS- 2 STY SFD 50X51;	6
202118254	FAST TRACK OUT OF TOWN	32216 DEERWOOD LANE	64	ACTIVE	12/20/2021	VILLAGES AT RED MILL POND	334-5.00-1267.00	JASMINE- 2 STY SFD 50X60; ATT	REAR SCREENED PORCH 12X12
202201389	FAST TRACK OUT OF TOWN	24046 HAVENWOOD		ACTIVE	02/01/2022	VILLAGES AT RED MILL POND	334-5.00-1306.00	EASTWOOD- 1 STY SFD 40X58; ATT	EAR DECK 12X18
202201390	FAST TRACK OUT OF TOWN	24045 HAVENWOOD		ACTIVE	02/01/2022	VILLAGES AT RED MILL POND	334-5.00-1318.00	EASTWOOD- 2 STY SFD 40X58; ATT	REAR DECK 12X12
202201387	FAST TRACK OUT OF TOWN	32234 DEERWOOD LANE		ACTIVE	02/01/2022	VILLAGES AT RED MILL POND	334-5.00-1264.00	ROCKFORD- 2 STY SFD 52X40; ATT	REAR SCREEN PORCH 10X21
202201388	FAST TRACK OUT OF TOWN	32228 DEERWOOD LANE		ACTIVE	02/01/2022	VILLAGES AT RED MILL POND	334-5.00-1265.00	EASTWOOD- 1 STY SFD 40X58; ATT	EAR SCREEN PORCH 12X12,
202202464	FAST TRACK OUT OF TOWN	24051 HAVENWOOD		ACTIVE	02/22/2022	VILLAGES AT RED MILL POND	334-5.00-1319.00	ROCKFORD- 2 STY SFD 52X40; ATT	REAR SCREEN 10X21
202202465	FAST TRACK OUT OF TOWN	24057 HAVENWOOD		ACTIVE	02/22/2022	VILLAGES AT RED MILL POND	334-5.00-1320.00	ROCKFORD- 2 STY SFD 52X40; ATT	REAR SCREEN 10X21
202202466	FAST TRACK OUT OF TOWN	24063 HAVENWOOD		ACTIVE	02/22/2022	VILLAGES AT RED MILL POND	334-5.00-1321.00	EASTWOOD- 2 STY SFD 40X58; ATT	EAR DECK 12X18
202202462	FAST TRACK OUT OF TOWN	32188 DEERWOOD LANE		ACTIVE	02/22/2022	VILLAGES AT RED MILL POND	334-5.00-1272.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202202927	FAST TRACK OUT OF TOWN	24073 HAVENWOOD		ACTIVE	03/02/2022	VILLAGES AT RED MILL POND	334-5.00-1322.00	EASTWOOD- 2 STY SFD 40X58, ATT	EAR DECK 12X14
202202928	FAST TRACK OUT OF TOWN	24079 HAVENWOOD		ACTIVE	03/02/2022	VILLAGES AT RED MILL POND	334-5.00-1323.00	EASTWOOD- 2 STY SFD 40X58; ATT	
202202923	FAST TRACK OUT OF TOWN	32248 DEERWOOD LANE		ACTIVE	03/02/2022	VILLAGES AT RED MILL POND	334-5.00-1262.00	EASTWOOD- 2 STY SFD 40X58; ATT	EAR DECK 12X12
202202924	FAST TRACK OUT OF TOWN	32240 DEERWOOD LANE		ACTIVE	03/02/2022	VILLAGES AT RED MILL POND	334-5.00-1263.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202202925	FAST TRACK OUT OF TOWN	32200 DEERWOOD LANE		ACTIVE	03/02/2022	VILLAGES AT RED MILL POND	334-5.00-1270.00	EASTWOOD- 1 STY SFD 40X58; ATT	

202203867	FAST TRACK OUT OF TOWN	24058 HAVENWOOD	101	ACTIVE	03/18/2022	VILLAGES AT RED MILL POND	334-5.00-1304.00	EASTWOOD- 2 STY SFD 40X58; ATT	
202203868	FAST TRACK OUT OF TOWN	24085 HAVENWOOD	121	ACTIVE	03/18/2022	VILLAGES AT RED MILL POND	334-5.00-1324.00	EASTWOOD- 1 STY SFD 40X58; ATT	DECK 12X18
202203866	FAST TRACK OUT OF TOWN	32206 DEERWOOD LANE	66	ACTIVE	03/18/2022	VILLAGES AT RED MILL POND	334-5.00-1269.00	EASTWOOD- 1 STY SFD 40X58; ATT	ECK 12X14
202204375	FAST TRACK OUT OF TOWN	32254 DEERWOOD LANE		ACTIVE	03/28/2022	VILLAGES AT RED MILL POND	334-5.00-1261.00	EASTWOOD- 1 STY SFD 40X58; ATT	DECK 12X18
202204674	FAST TRACK OUT OF TOWN	24052 HAVENWOOD		ACTIVE	03/31/2022	VILLAGES AT RED MILL POND	334-5.00-1305.00	EASTWOOD- 2 STY SFD 40X58; ATT	
202205618	FAST TRACK OUT OF TOWN	24091 HAVENWOOD	122	ACTIVE	04/19/2022	VILLAGES AT RED MILL POND	334-5.00-1325.00	JASMINE- 2 STY SFD 50X60; ATT	REAR SCREEN PORCH 12X12
202205619	FAST TRACK OUT OF TOWN	24097 HAVENWOOD	123	ACTIVE	04/19/2022	VILLAGES AT RED MILL POND	334-5.00-1326.00	EASTWOOD- 1 STY SFD 40X58; ATT	ECK 12X14
202205740	FAST TRACK OUT OF TOWN	32272 DEERWOOD LANE	55	ACTIVE	04/21/2022	VILLAGES AT RED MILL POND	334-5.00-1258.00	EASTWOOD- 2 STY SFD 40X58; ATT	
202205741	FAST TRACK OUT OF TOWN	32266 DEERWOOD LANE	56	ACTIVE	04/21/2022	VILLAGES AT RED MILL POND	334-5.00-1259.00	EASTWOOD- 2 STY SFD 40X58; ATT	EAR DECK 12X14
202205742	FAST TRACK OUT OF TOWN	32258 DEERWOOD LANE	57	ACTIVE	04/21/2022	VILLAGES AT RED MILL POND	334-5.00-1260.00	EASTWOOD- 2 STY SFD 40X58; ATT	EAR SCREEN PORCH 12X12
202206426	FAST TRACK OUT OF TOWN	32278 DEERWOOD LANE		ACTIVE	05/03/2022	VILLAGES AT RED MILL POND	334-5.00-1257.00	EASTWOOD- 1 STY SFD 40X58; ATT	EAR DECK 12X18
202207251	FAST TRACK OUT OF TOWN	32284 DEERWOOD LANE		ACTIVE	05/16/2022	VILLAGES AT RED MILL POND	334-5.00-1256.00	ROCKFORD- 1 STY SFD 52X40; ATT	REAR SCREEN 10X22
202207977	FAST TRACK OUT OF TOWN	24064 HAVENWOOD		ACTIVE	05/31/2022	VILLAGES AT RED MILL POND	334-5.00-1303.00	JASMINE- 1 STY SFD 50X60; ATT	REAR PORCH 12X12, REAR DECK
202207970	FAST TRACK OUT OF TOWN	32290 DEERWOOD LANE		ACTIVE	05/31/2022	VILLAGES AT RED MILL POND	334-5.00-1255.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202207973	FAST TRACK OUT OF TOWN	24096 HAVENWOOD		ACTIVE	05/31/2022	VILLAGES AT RED MILL POND	334-5.00-1298.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202207974	FAST TRACK OUT OF TOWN	24084 HAVENWOOD		ACTIVE	05/31/2022	VILLAGES AT RED MILL POND	334-5.00-1300.00	EASTWOOD- 1 STY SFD 40X58; ATT	
202207975	FAST TRACK OUT OF TOWN	24070 HAVENWOOD		ACTIVE	05/31/2022	VILLAGES AT RED MILL POND	334-5.00-1302.00	EASTWOOD- 1 STY SFD 40X58; ATT	EAR DECK 12X14

334-5.00-170.00
Spicer Creek Av
Yellow Bell Dr
Landing Grove Dr
Spring Brook
Wetlands Dr
Lark Dr
Spring Brook Av
Sweetbriar Rd
Madelyns Wa
Liverpool L
Brittany Ln
Mmos Conaway Rd
Mills Chase Dr
Pinetown
Lewes\Georgetown\Hwy
9
Lewes\Georgetown\Hwy
9
9
21 ft
County of Sussex, DE, Delaware FirstMap, VITA, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, USDA
Powered by Esri

Jesse Lindenberg

From: Jamie Sechler <jls@dbfinc.com>
Sent: Wednesday, August 10, 2022 10:55 AM
To: Jesse Lindenberg
Subject: RE: Notice of Decision Letter for Red Mill Pond

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Jesse,

Timeline for Red Mill Amenity.

Clearing, rough grading and water and sewer connections	complete
Install subbase stone for parking lot and pickleball court	work underway complete by August 12
Parking lot curb and paving	August 31
Building foundation start	September 15
Framing / roof complete	November 15
Excavate pool / pool shell	April 2023
Mechanical trades	march 1 2023
Pave pickleball court	April 2023
Finish trades /furniture clubhouse	May 2023
Complete pool /landscape	May 2023
Opening	Memorial day

Jamie L. Sechler, P.E.
Principal/Sr. Civil Engineer
Davis, Bowen & Friedel, Inc.
Office: 302-424-1441 | Fax: 302-424-0430

From: Jesse Lindenberg <jesse.lindenberg@sussexcountyde.gov>
Sent: Tuesday, August 2, 2022 11:18 AM
To: Jamie Sechler <jls@dbfinc.com>
Subject: RE: Notice of Decision Letter for Red Mill Pond

Jamie,

Thank you for the updated letter. I've added it to the file. The request is scheduled for the August 11th Planning and Zoning Commission Meeting.

Best,

Jesse Lindenberg (they/he)
Planner I
Sussex County Government
Planning & Zoning Dept.
2 The Circle, PO Box 417
Georgetown, DE 19947
P: 302-855-7878

* There is a new fee schedule for FY2023. Please contact the office with any questions. *

From: Jamie Sechler <jls@dbfinc.com>
Sent: Tuesday, August 2, 2022 11:05 AM
To: Jesse Lindenberg <jesse.lindenberg@sussexcountyde.gov>
Subject: RE: Notice of Decision Letter for Red Mill Pond

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Jesse,

Please see attached updated letter to revise the Condition for Red Mill Amenity to 1 year from approval date.

Thanks,

Jamie L. Sechler, P.E.
Principal/Sr. Civil Engineer
Davis, Bowen & Friedel, Inc.
Office: 302-424-1441 | Fax: 302-424-0430

From: Jesse Lindenberg <jesse.lindenberg@sussexcountyde.gov>
Sent: Tuesday, July 19, 2022 11:09 AM
To: Jamie Sechler <jls@dbfinc.com>
Subject: Notice of Decision Letter for Red Mill Pond

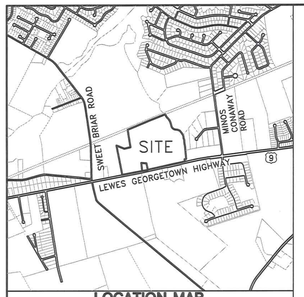
Hello,

Attached please find the Notice of Decision Letter for The Villages at Red Mill Pond South Amenity Plan.

Best,

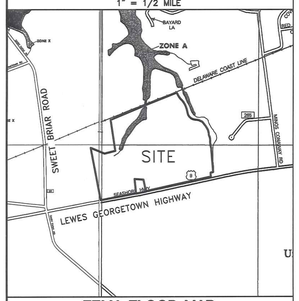
Jesse Lindenberg (they/he)
Planner I
Sussex County Government
Planning & Zoning Dept.
2 The Circle, PO Box 417
Georgetown, DE 19947
P: 302-855-7878

* There is a new fee schedule for FY2023. Please contact the office with any questions. *



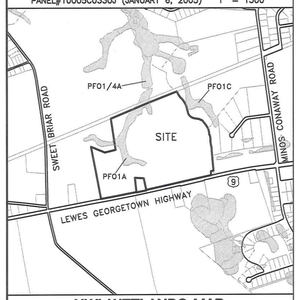
LOCATION MAP

1" = 1/2 MILE



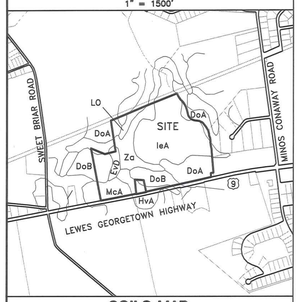
FEMA FLOOD MAP

PANEL#10005C0330J (JANUARY 6, 2005) 1" = 1500'



NWI WETLANDS MAP

1" = 1500'

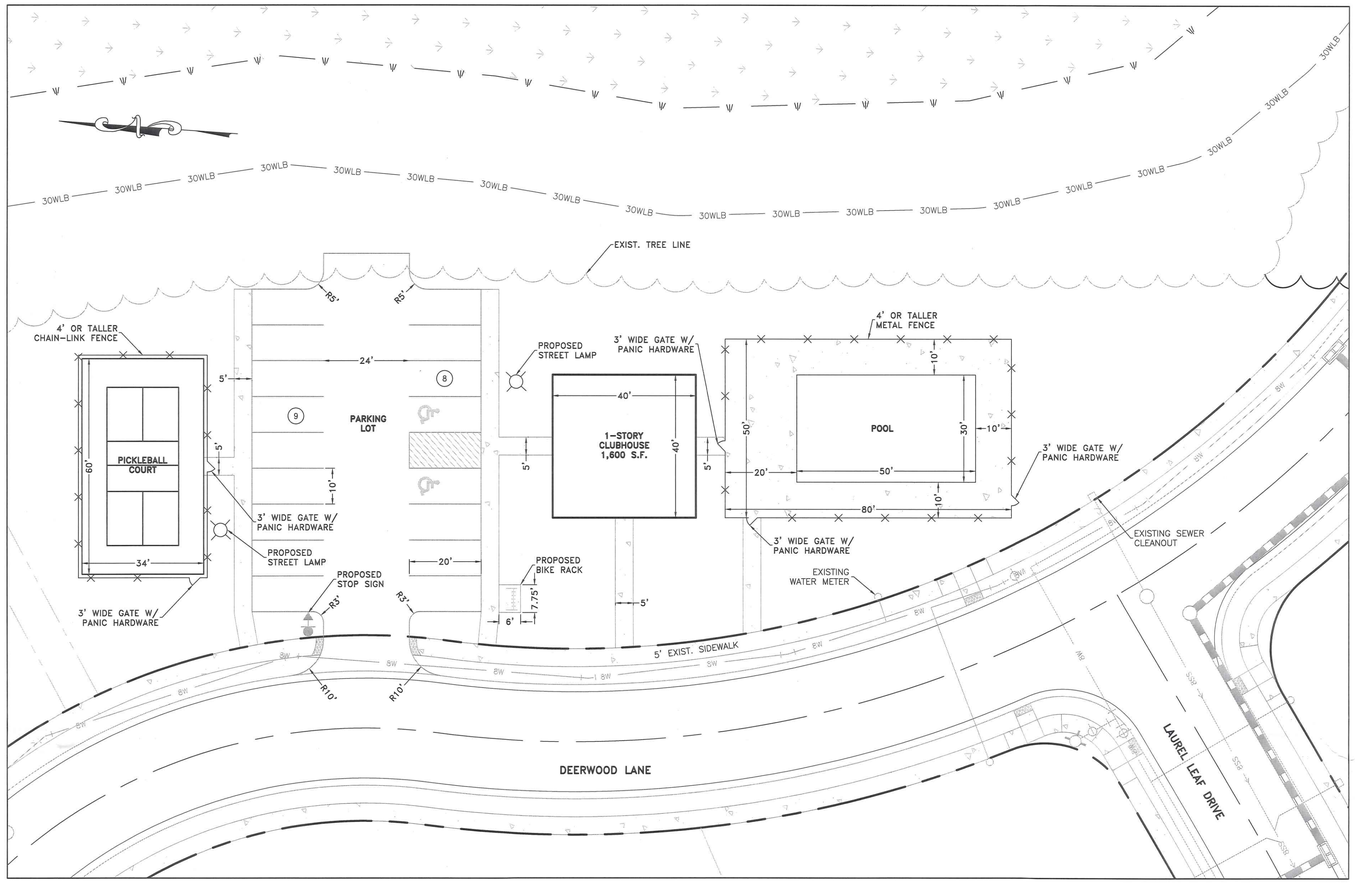


SOILS MAP

1" = 1500'

SOILS DATA

LABEL	SOIL NAME	TYPE
DoA	DOWNER	B
DoB	DOWNER	B
EvD	EVESBORO	A
HvA	HURLOCK	B/D
IeA	INGLESIDE	B
LO	LONGMARSH	D
McA	MARSHYHOPE	C
Za	ZEKIAH	D



0 20 40 60

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- RIGHT-OF-WAY / PROPERTY LINE
- BUILDING SETBACK LINE
- CATCH BASIN, STORM PIPE, STORM MANHOLE
- SANITARY SEWER MANHOLE, PIPE, FLOW ARROW (8SS)
- SANITARY SEWER LATERAL
- WATER MAIN, TEE W/ VALVES, PIPE SIZE (8W)
- WATER LATERAL (2W)
- FIRE HYDRANT ASSEMBLY
- FENCE
- PAVEMENT / FULL DEPTH
- SIDEWALK
- PROPOSED SPOT GRADES (12.00; TC 12.50 BC 12.00)
- EXISTING SPOT GRADES (12.00; TC 12.50 BC 12.00)

FIRE PROTECTION NOTES

1. ALL FIRE LANES, HYDRANTS, EXITS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS (DSFPR, 705, CHAPTER 5).
2. WATER PROVIDER: TIDEWATER UTILITIES, INC.
3. PROPOSED BUILDING CONSTRUCTION: TYPE V (000)
4. INTENDED USE: CLUB HOUSE, POOL AND POOL DECK – ASSEMBLY
5. PROPOSED BUILDING HEIGHT: < 42 FEET
6. PROPOSED BUILDING SQUARE FOOTAGE: 1,600 ± S.F.
7. SITE WILL BE SERVED BY AN UNDERGROUND CLOSED PIPE NATURAL GAS OR PROPANE SYSTEM.
8. AUTOMATIC FIRE SPRINKLERS ARE NOT PROPOSED FOR THIS STRUCTURE.

GENERAL NOTES:

1. CONTRACTOR TO INSTALL TRACER WIRE ON SERVICE LINE FOR THE POOL HOUSE.
2. THE DESIGNATED HOMEOWNERS ASSOCIATION ASSUMES RESPONSIBILITY FOR THE AMENITIES WITHIN RED MILL POND SOUTH.
3. RECREATIONAL AMENITIES TO SERVE THE RESIDENTS OF RED MILL POND SOUTH.
4. HANDICAP CURB RAMPS SHALL CONFORM TO ADA STANDARDS AND SPECIFICATIONS.
5. OUTDOOR LIGHTING SHALL BE SHIELDED AND DOWNWARD SCREENED.

DATA COLUMN

TAX MAP ID:	3-34-5.00-170.00
DATUM: VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (DE STATE PLANE)
EXISTING ZONING:	AR-1 AGRICULTURAL RESIDENTIAL DISTRICT
PROPOSED ZONING:	AR-1 AGRICULTURAL RESIDENTIAL DISTRICT
COASTAL AREA:	PROJECT LIES WITHIN THE COASTAL AREA
SOURCE WATER PROTECTION:	PROJECT IS NOT WITHIN A WELLHEAD PROTECTION AREA. PROJECT IS WITHIN THE "FAIR" GROUNDWATER RECHARGE AREA.
FLOOD HAZARD MAP:	THE SITE IS LOCATED ON THE FEMA FLOOD INSURANCE RATE MAP #10005C0330J, DATED JANUARY 6, 2005.
WETLANDS:	THIS SITE AS SHOWN HEREON CONTAINS STATE OR FEDERALLY REGULATED WETLANDS BASED ON NWI AND DNREC WETLAND MAPS.
TOTAL:	83.384 AC.
PARKING REQUIREMENTS:	304 S.F ASSEMBLY / 50 = 7 SPACES 500 S.F. INDOOR RECREATION / 150 = 4 SPACES TOTAL = 11 SPACES REQUIRED
PARKING PROVIDED:	17 SPACES
LAND USE AREAS	
SINGLE FAMILY LOTS:	36.996 ACRES
RIGHT-OF-WAY:	11.804 ACRES
OPEN SPACE:	34.416 ACRES
PUMPSTATION:	0.073 ACRES
RIGHT-OF-WAY DEDICATION:	0.095 ACRES
TOTAL SITE AREA:	83.384 ACRES
NET DEVELOPMENT AREA:	36.996 ACRES
REQUIRED OPEN SPACE:	30%
PROPOSED OPEN SPACE:	41%
LOD AREA:	0.618 AC.±
EXISTING WOODED AREA:	23.84 AC.
PROPOSED WOODED AREA:	22.21 AC. (93%)
EXISTING WETLANDS AREA:	10.54 AC.
AR-1 MINIMUM ZONING REQUIREMENTS	
FRONT YARD SETBACK:	25 FT. (CORNER LOTS ALLOW FOR ONE 25' SETBACK AND ONE 15' SETBACK)
SIDE YARD SETBACK:	10 FT.
REAR YARD SETBACK:	10 FT.
MIN. LOT AREA:	7,500 SF.
AVG. LOT AREA:	9,105 SF. (0.21 AC.)
WIDTH OF LOT:	60 FT.
MIN. LOT DEPTH:	100 FT.
VOLUNTARY NON-TIDAL WETLANDS BUFFER:	30 FT.
SANITARY SEWER:	WEST REHOBOTH EXPANSION OF THE DEWEY BEACH SANITARY SEWER DISTRICT (SUSSEX COUNTY AGREEMENT #446-9)
WATER SUPPLY:	TIDEWATER UTILITIES
PROPOSED MAXIMUM BUILDING HEIGHT:	42 FT. (3-½ STORIES)
PROPOSED BUILDING HEIGHT:	20 FT.
PROPOSED BUILDING CONSTRUCTION:	WOOD CONSTRUCTION

PROJECT IS LOCATED IN THE HENLOPEN TRANSPORTATION IMPROVEMENT DISTRICT.

ENGINEER'S STATEMENT

I, JAMIE L. SECHLER, P.E., HEREBY STATE THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO MY BEST KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

JAMIE L. SECHLER REGISTERED NO. 17036 STATE OF DELAWARE PROFESSIONAL ENGINEER

JUL 18 2022
DATE

by JAMIE L. SECHLER, P.E.
DAVIS, BOWEN & FRIEDEL, INC.
1 PARK AVE.
MILFORD, DELAWARE, 19963

OWNER/DEVELOPER STATEMENT

I, THE UNDERSIGNED, HEREBY STATE THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THE PLAN WAS MADE AT MY DIRECTION, I ACKNOWLEDGE THE SAME TO BE MY ACT AND DESIRE THE PLAN BE RECORDED ACCORDING TO LAW.

7.20.22
DATE

K. HOVNANIAN HOMES OF DELAWARE I, LLC
2499 SOUTH DUPONT HWY. SUITE G
SMYRNA, DE 1997

Final Amenities Plan
APPROVED
Per P&Z Commission
7/14/22
SUSSEX COUNTY 7/22/22
PLANNING & ZONING COMMISSION
3 pgs.

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

THE VILLAGES AT RED MILL POND-SOUTH AMENITIES
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

SITE PLAN

Revisions:

Date:	JANUARY 2022
Scale:	1"=20'
Dwn.By:	RPK
Proj.No.:	1443G001
Dwg.No.:	01

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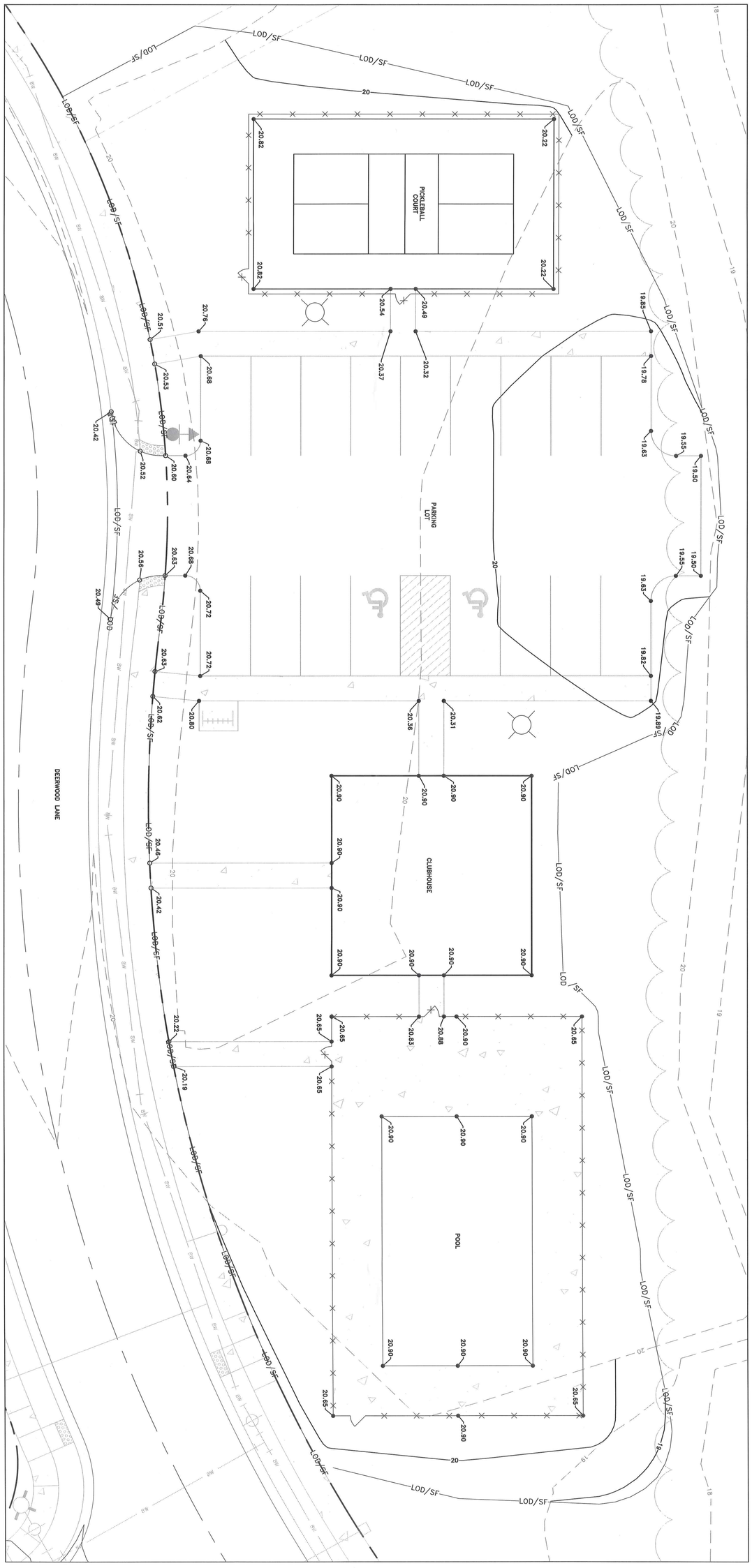
P:\Integrity Communities\1443G001 RED MILL SOUTH\DESIGN\CLUBHOUSE\1443G001-CLUBHOUSE.dwg Jul 18, 2022 - 2:32pm stud

P:\Integrity Communities\1443G001 RED MILL SOUTH\DESIGN\CLUBHOUSE\1443G001-CLUBHOUSE.dwg Apr 28 , 2022 - 10:38am KESR



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02

Dwg.No.:
Proj.No.: 1443G001
Dwn.By: RPK
Scale: 1"=10'
Date: JANUARY 202

Revisions:

THE VILLAGES AT RED MILL POND-SOUTH AMENITIES
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
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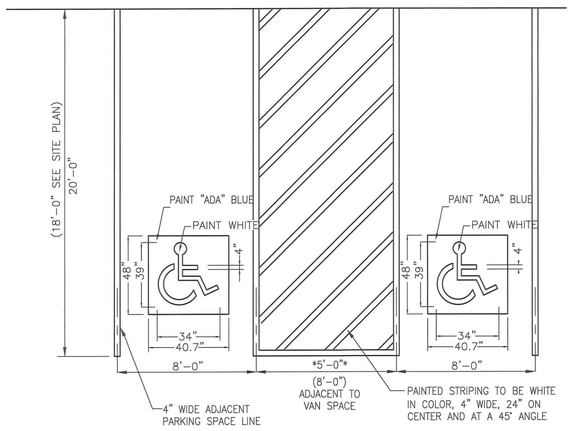
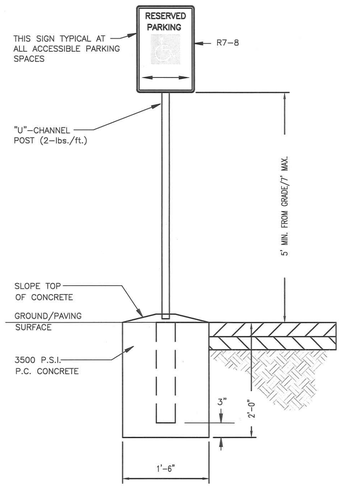
EASTON, MARYLAND (410) 770-4744

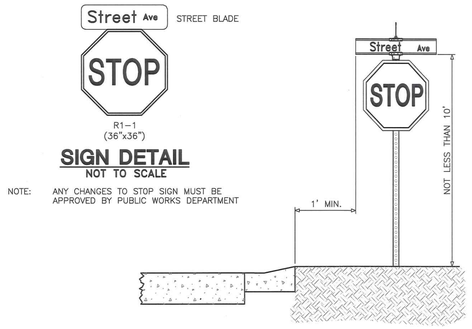
JAMIE L. SECHLER
No. 17325
STATE OF DELAWARE
PROFESSIONAL ENGINEER



HANDICAP PARKING DETAIL
NOT TO SCALE



SIGNAGE FOR HANDICAPPED PARKING SPACE
NOT TO SCALE



NOTE: ANY CHANGES TO STOP SIGN MUST BE APPROVED BY PUBLIC WORKS DEPARTMENT

SIGN DETAIL
NOT TO SCALE

TYPICAL SIGN INSTALLATION
NOT TO SCALE

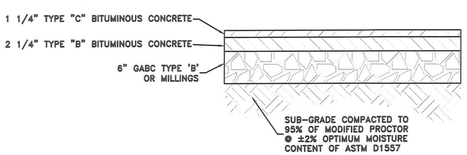
GENERAL NOTES:

1. REVIEW AND OR APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.
2. IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY DNREC OR THE DELEGATED AGENCY.
3. FOLLOWING SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED FOR ALL PERIMETER SEDIMENT CONTROLS, SOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE WITHIN 14 CALENDAR DAYS UNLESS MORE RESTRICTIVE FEDERAL REQUIREMENTS APPLY.
4. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
5. AT ANY TIME A DEWATERING OPERATION IS USED, IT SHALL BE PREVIOUSLY APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER FOR A NON-EROSIVE POINT OF DISCHARGE, AND A DEWATERING PERMIT SHALL BE APPROVED BY THE DNREC WELL PERMITTING BRANCH.
6. APPROVAL OF A SEDIMENT AND STORMWATER MANAGEMENT PLAN DOES NOT GRANT OR IMPLY A RIGHT TO DISCHARGE STORMWATER RUNOFF. THE OWNER/DEVELOPER IS RESPONSIBLE FOR ACQUIRING ANY AND ALL AGREEMENTS, EASEMENTS, ETC., NECESSARY TO COMPLY WITH STATE DRAINAGE AND OTHER APPLICABLE LAWS.
7. BEST AVAILABLE TECHNOLOGY (BAT) SHALL BE EMPLOYED TO MANAGE TURBID DISCHARGES IN ACCORDANCE WITH REQUIREMENTS OF 7. DEL C. CH 60, REGULATIONS GOVERNING THE CONTROL OF WATER POLLUTION, SECTION 9.1.02, KNOWN AS SPECIAL CONDITIONS FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES, AND DEPARTMENT POLICIES, PROCEDURES, AND GUIDANCE.
8. CONTRACTOR TO INSTALL TRACER WIRE ON SERVICE LINE FOR THE POOL HOUSE.
9. THE DESIGNATED HOMEOWNERS ASSOCIATION ASSUMES RESPONSIBILITY FOR THE AMENITIES AT MARSH ISLAND.
10. RECREATIONAL AMENITIES TO SERVE THE RESIDENTS OF RED MILL SOUTH.
11. HANDICAP CURB RAMPS SHALL CONFORM TO ADA STANDARDS AND SPECIFICATIONS.
12. CLUBHOUSE, AMENITIES AND SWIMMING POOL ARE REQUIRED TO BE PROVIDED IN ORDER TO COMPLY WITH CONDITION B OF THE 13 CONDITIONS ASSOCIATED WITH THE PRELIMINARY SITE PLAN APPROVAL FOR LANDLOCK ACRES (2005-73)(FORMER SUBDIVISION NAME) "AMENITIES, INCLUDING A CLUBHOUSE AND SWIMMING POOL SHALL BE CONSTRUCTED AND OPEN TO USE BY RESIDENTS OF THE DEVELOPMENT WITHIN 2 YEARS OF THE ISSUANCE OF THE FIRST RESIDENTIAL BUILDING PERMIT.

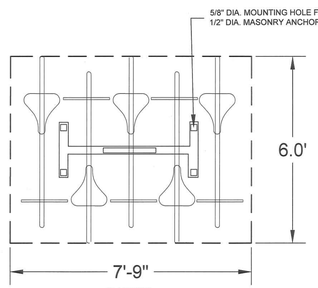
SEQUENCE OF CONSTRUCTION

NOTIFY THE SUSSEX CONSERVATION DISTRICT IN WRITING AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION. FAILURE TO DO SO CONSTITUENTS A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.

1. INSTALL ALL PRE-BULK EROSION & SEDIMENT CONTROLS. CCR SHALL REVIEW INSTALLATION OF THE INSTALLATION OF THE EROSION & SEDIMENT CONTROLS.
2. ALL PERIMETER CONTROLS ARE TO BE REVIEWED BY THE AGENCY CONSTRUCTION SITE REVIEWER AND APPROVED PRIOR TO PROCEEDING WITH FURTHER SITE DISTURBANCE OR CONSTRUCTION.
3. THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHOULD BE CHECKED DAILY AND ADJUSTED AND/OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENTATION ON THE SITE. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR REPAIR MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
4. MINIMIZE DEMOLITION, CLEARING AND GRADING OPERATIONS TO AREAS NECESSARY FOR IMMEDIATE CONSTRUCTION ACTIVITY.
5. PERFORM ANY REQUIRED DEMOLITION OF THE EXISTING SITE.
6. STRIP TOPSOIL AND PERFORM ROUGH GRADING FOR BUILDING AND AMENITY AREAS.
7. EXPORT FILL, GRADE FOR BUILDINGS. BEGIN BUILDING CONSTRUCTION.
8. FINE GRADE FOR PROPOSED AMENITY AREAS, PLACE STONE PER PAVEMENT SPECIFICATIONS AND PLANS.
9. UPON COMPLETION OF PAVING AND STABILIZATION OF ALL DISTURBED AREAS,
   A. REMOVE SEDIMENT FROM STORMDRAIN SYSTEM.
   B. STABILIZE DISTURBANCE IMMEDIATELY.
10. RESTORE ALL DISTURBED AREAS NOT TO BE COVERED BY PAVEMENT WITH PERMANENT STABILIZATION IN ACCORDANCE WITH ITEM 14 OF THE EROSION AND SEDIMENT CONTROL NOTES.
11. NOTIFY THE CCR AT LEAST THREE (3) DAYS PRIOR TO START OF THE STORMWATER SYSTEM CONSTRUCTION; STORMWATER FACILITIES MUST BE REVIEWED THROUGHOUT THEIR CONSTRUCTION.
12. EROSION AND SEDIMENT CONTROL DEVICES SHOULD BE REMOVED ONLY AFTER WORK IN AN AREA HAS BEEN COMPLETED AND STABILIZED, WITH WRITTEN APPROVAL FROM THE AGENCY CONSTRUCTION SITE REVIEWER.



PAVEMENT SECTION
NOT TO SCALE



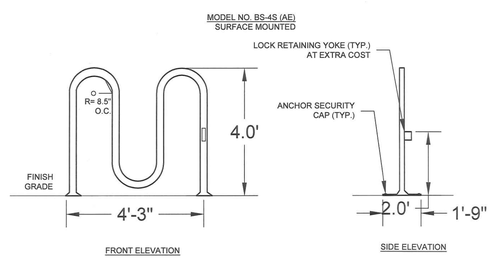
PLAN VIEW

ORDERING INFORMATION

BIKE-STANCHIONS≈ ADULT-EXPANDED (AE) VERSION, MODERATE SECURITY BIKE RACKS

MODEL NO. SURFACE-MOUNT	MODEL NO. BELOW-GRADE	LENGTH (O.C)	BIKE CAP.
BS-2S(AE)	OR BS-2B(AE)	1'-5"	3
BS-4S(AE)	OR BS-4B(AE)	4'-3"	5
BS-6S(AE)	OR BS-6B(AE)	7'-1"	7
BS-8S(AE)	OR BS-8B(AE)	9'-11"	9
BS-10S(AE)	OR BS-10B(AE)	12'-9"	11
BS-12S(AE)	OR BS-12B(AE)	15-7"	13

Bike Security Racks Co. sells bicycle racks, bike parking equipment and bicycle storage systems.
12 Sawyer Loop / Wentworth, NH 03282
To order, call (800) 545-2757 or (617) 876-1180.



FRONT ELEVATION

SIDE ELEVATION

MATERIALS

- 2" nom., Sched. 40, ASTM A500, welded seamless-steel pipe construction
- 3/8" x 3" H.R. steel flat-bar for foot assemblies
- 1/2" dia. H.R. steel round-bar for lock-retaining yokes
- 2-1/2" nom., Sched. 40, ASTM A500, welded seamless-steel pipe for below-grade sleeves

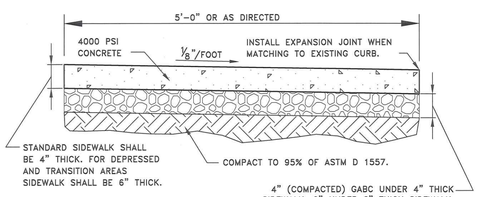
FABRICATION

- All metallurgical joints are MIG welds

FINISHES

- Black thermoplastic powder coating 8 to 10 mils thick
- Hot-dipped galvanized

BIKE RACK DETAIL
NOT TO SCALE



NOTE: PLACE EXPANSION JOINTS 20' ON CENTER AND CONTROL JOINTS 5' ON CENTER OR MATCH EXISTING PATTERN.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
OCEAN, MARYLAND (410) 723-4434

DETAILS

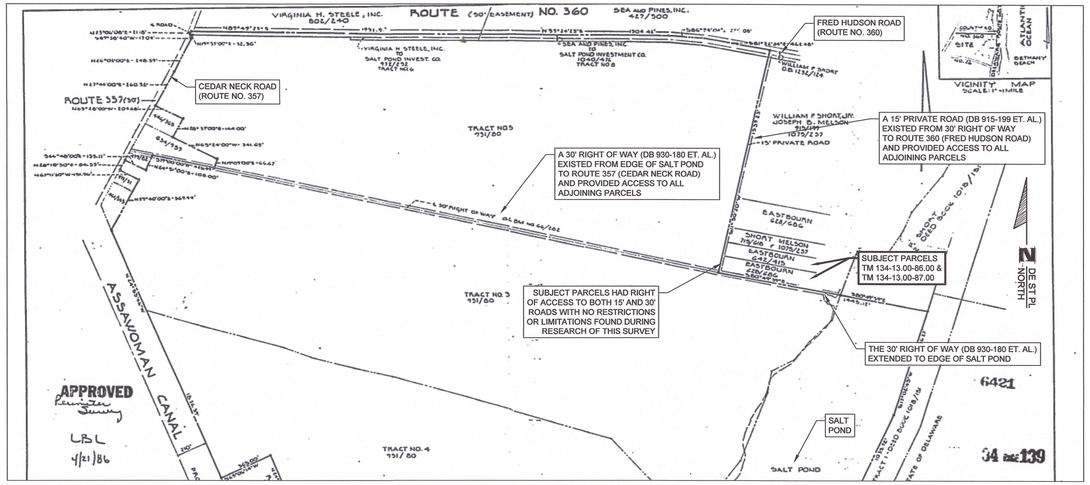
THE VILLAGES AT RED MILL POND-SOUTH AMENITIES
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JANUARY 2022
Scale:	1"=10'
Dwn.By:	RPK
Proj.No.:	1443G001
Dwg.No.:	03

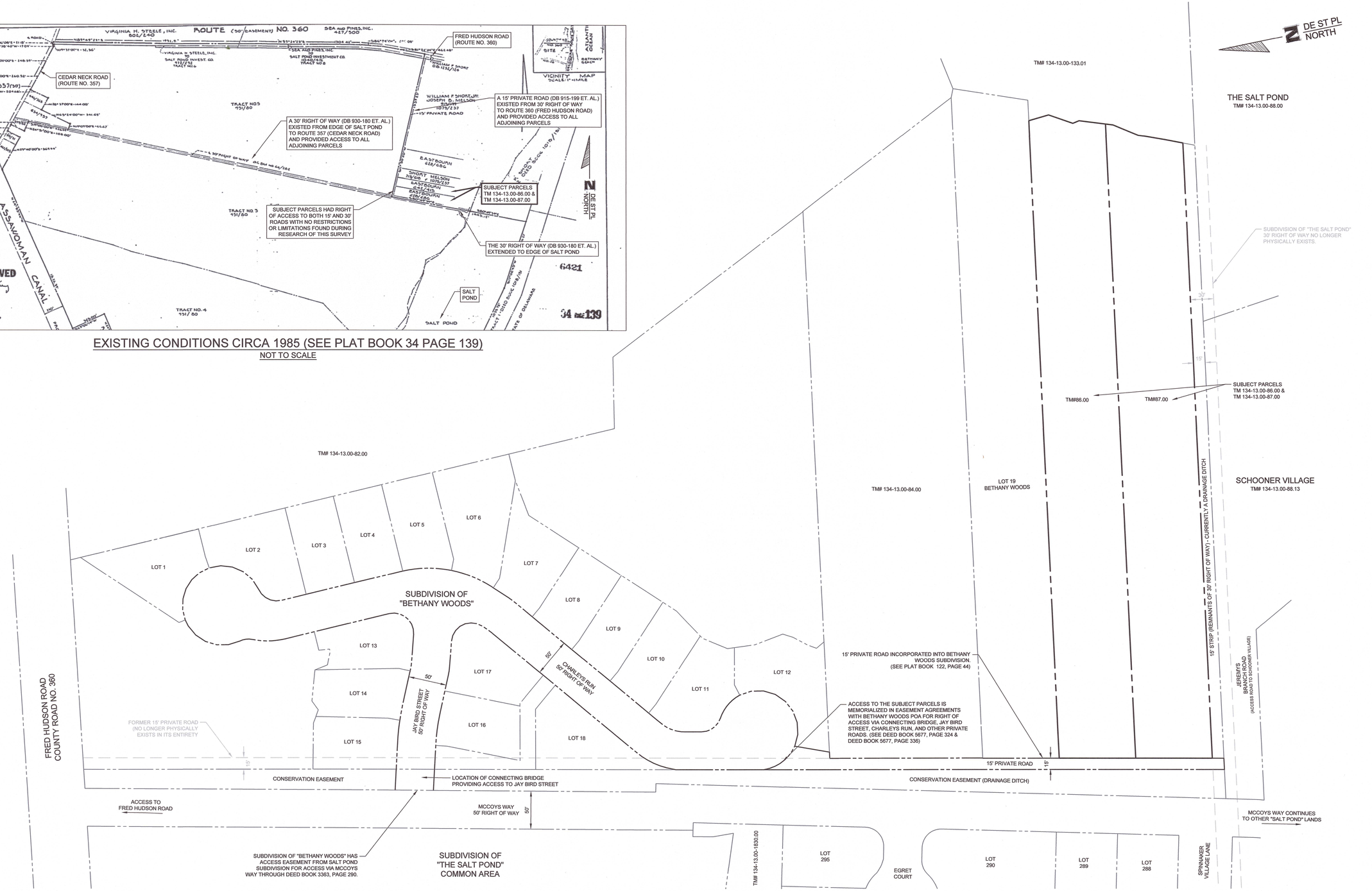
P:\Integrity Communities\1443G001 RED MILL SOUTH\DESIGN\CLUBHOUSE\1443G001-CLUBHOUSE.dwg Apr 28, 2022 - 10:38am KESR

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT ©2022



EXISTING CONDITIONS CIRCA 1985 (SEE PLAT BOOK 34 PAGE 139)

NOT TO SCALE



CURRENT CONDITIONS 2022 (WITH OVERLAY OF FORMER ACCESS ROADS)

0' 30' 60'

1" = 60'

LEGEND:

- SUBJECT BOUNDARY LINE
- ADJOINER BOUNDARY LINE
- ACCESS RIGHT-OF-WAY LINE

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW CHRONOLOGY & METHOD OF ACCESS TO PUBLIC RIGHT OF WAY FOR THE SUBJECT TAX PARCELS CONSISTING OF TM#134-13.00-86.00 & 134-13.00-87.00.

2. THIS PLAN DOES NOT CONSTITUTE A BOUNDARY SURVEY PLAN AS DEFINED IN THE DELAWARE ADMINISTRATIVE CODE UNDER TITLE 24 AND SHOULD NOT BE RELIED UPON AS SUCH.

RYAN M. PHIFER REGISTERED No. 829 DELAWARE PROFESSIONAL LAND SURVEYOR

SURVEYOR CERTIFICATION:
I, RYAN M. PHIFER, REGISTERED AS A PROFESSIONAL LAND SURVEYOR IN THE STATE OF DELAWARE, HEREBY STATE THAT THE INFORMATION SHOWN ON THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND MEETS THE STANDARDS OF PRACTICE AS ESTABLISHED BY THE STATE OF DELAWARE BOARD OF PROFESSIONAL LAND SURVEYORS. ANY CHANGES TO THE PROPERTY CONDITIONS, IMPROVEMENTS, BOUNDARY OR PROPERTY CORNERS AFTER THE DATE SHOWN HEREON SHALL NECESSITATE A NEW REVIEW AND CERTIFICATION FOR ANY OFFICIAL OR LEGAL USE.

7-28-2022

RYAN M. PHIFER, P.L.S. DE No. 829 — DATE

SCALED. ENGINEERING
Scaled Engineering Inc.
20246 Coastal Highway
Rehoboth Beach, DE 19971
Phone: (302) 227-7808

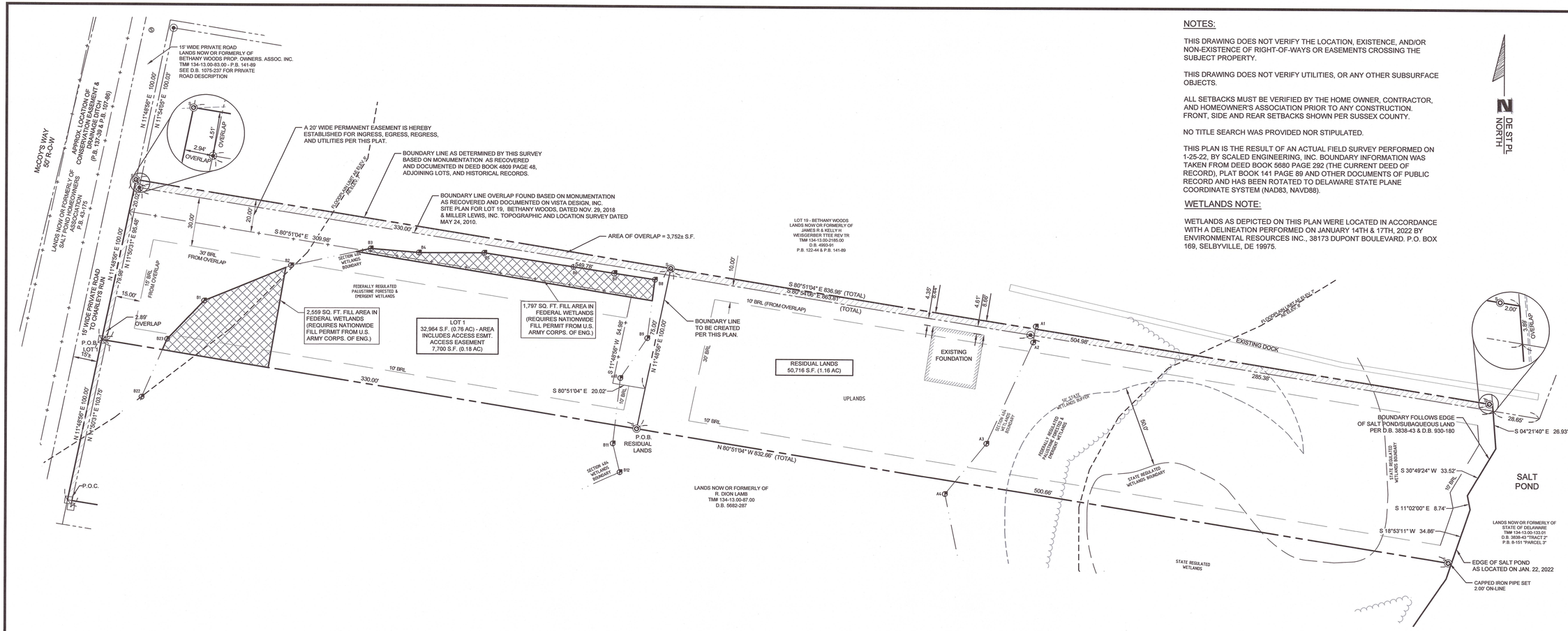
ACCESS EXHIBIT PLAN

FOR PROPERTY KNOWN AS
PARCEL NO. 1 - DEED BOOK 4809, PAGE 49
PARCEL NO. 2 - DEED BOOK 4809, PAGE 49
TAX MAP # 134-13.00-86.00 &
TAX MAP # 134-13.00-87.00
BALTIMORE HUNDRED, SUSSEX COUNTY, DELAWARE

DATE:	6-23-2022
SCALE:	AS SHOWN
DRAWN BY:	
PROJECT NO.	CRXC003

THIS DRAWING INCLUDING DESIGN AND CONSTRUCTION FEATURES ARE PROPRIETARY TO SCALED ENGINEERING INC. AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2022

PLOTTED: 7/28/2022 10:58 AM, BY: Ryan Phifer PLOTSTYLE: 2-SCALED.ctb
S:\SURVEYOR CONSTRUCTION\CRX003 - CHARLEYS RUN\DESIGN\CRX003 - ACCESS EXHIBIT PLAN.dwg



NOTES:

THIS DRAWING DOES NOT VERIFY THE LOCATION, EXISTENCE, AND/OR NON-EXISTENCE OF RIGHT-OF-WAYS OR EASEMENTS CROSSING THE SUBJECT PROPERTY.

THIS DRAWING DOES NOT VERIFY UTILITIES, OR ANY OTHER SUBSURFACE OBJECTS.

ALL SETBACKS MUST BE VERIFIED BY THE HOME OWNER, CONTRACTOR, AND HOMEOWNER'S ASSOCIATION PRIOR TO ANY CONSTRUCTION. FRONT, SIDE AND REAR SETBACKS SHOWN PER SUSSEX COUNTY.

NO TITLE SEARCH WAS PROVIDED NOR STIPULATED.

THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED ON 1-25-22, BY SCALED ENGINEERING, INC. BOUNDARY INFORMATION WAS TAKEN FROM DEED BOOK 5680 PAGE 292 (THE CURRENT DEED OF RECORD), PLAT BOOK 141 PAGE 89 AND OTHER DOCUMENTS OF PUBLIC RECORD AND HAS BEEN ROTATED TO DELAWARE STATE PLANE COORDINATE SYSTEM (NAD83, NAVD88).

WETLANDS NOTE:

WETLANDS AS DEPICTED ON THIS PLAN WERE LOCATED IN ACCORDANCE WITH A DELINEATION PERFORMED ON JANUARY 14TH & 17TH, 2022 BY ENVIRONMENTAL RESOURCES INC., 38173 DUPONT BOULEVARD. P.O. BOX 169, SELBYVILLE, DE 19975.

N
DE ST PL
NORTH

SITE DATA:

1. TAX MAP NUMBER: 134-13.00-86.00
2. ADDRESS: (NO STREET ADDRESS ON RECORD)
   PRIVATE LANE TO CHARLEY'S RUN
   BETHANY BEACH, DE 19930
3. OWNER: 134-13.00-86.00 - TIMOTHY TICE
   39628 WATERWORKS COURT, BETHANY BEACH, DE 19930
4. ZONING: EXISTING: MR (MEDIUM-DENSITY RESIDENTIAL)
   PROPOSED: MR (MEDIUM-DENSITY RESIDENTIAL)
5. USE: EXISTING: SINGLE FAMILY RESIDENTIAL
   PROPOSED: LOT 1 - SINGLE-FAMILY RESIDENTIAL
   RESIDUAL LANDS - SINGLE-FAMILY RESIDENTIAL
6. BUILDING SETBACKS (FOR PROPOSED LOTS):
   FRONT 30' (15' CORNER LOT SIDE STREET)
   SIDE 10'
   REAR 10'
7. LOT REQUIREMENTS: AREA 10,000 S.F. (0.23 ACRE)
   WIDTH 75'
   DEPTH 100'
8. TOTAL NUMBER OF LOTS: EXISTING: 1
   PROPOSED: 2 (INCLUDING THE RESIDUAL)
9. AREA: EXISTING 134-13.00-86.00: 83,680 S.F. (1.92 AC)
   PROPOSED LOT 1: 32,964 S.F. (0.76 AC) ACCESS ESMT. INCLUDED
   ACCESS EASEMENT 7,700 S.F. (0.18 AC)
   PROPOSED (RESIDUAL): 50,716 S.F. (1.16 AC)
10. AREA AFFECTED BY ADJUSTMENT: 1.92 AC
11. POSTED SPEED LIMIT: SPEED LIMIT NOT POSTED
12. SEWER PROVIDER: SUSSEX COUNTY
13. WATER PROVIDER: SUSSEX SHORES
14. THIS PROPERTY IS IMPACTED BY THE 100 YEAR FLOOD ZONE, DELINEATED BY THE NATIONAL FLOOD INSURANCE PROGRAM AS SHOWN AS ON FEMA FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 10005C0512K REVISED MARCH 16, 2015 (ZONE AE, EL 6', 7' & 8').
15. WETLANDS EXIST ON SITE PER THE U.S. FISH AND WILDLIFE NATIONAL WETLANDS INVENTORY AND DNREC STATE REGULATED WETLANDS MAP INDEX. SEE WETLANDS NOTE.
16. PROXIMITY TO DELDOT TID AREA: SITE IS ±7 MILES OUTSIDE OF THE HENLOPEN TID
17. RECHARGE AREA: FAIR

0' 15' 30'
1" = 30'

WETLAND STATEMENT

I, Edward M. Launay, PWS, STATE THAT THE BOUNDARIES OF WATERS OF THE UNITED STATES INCLUDING WETLANDS SUBJECT TO THE CORPS OF ENGINEERS REGULATORY PROGRAM DELINEATED UPON THIS PLAN HAVE BEEN DETERMINED USING MY PROFESSIONAL JUDGMENT IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, REGULATIONS AND SUPPLEMENTAL GUIDANCE (33 CFR 328.3(a)(8),Waters of the U.S. Definition/CECW-OR, 10-7-1991, Questions and Answers on the 1987 COE Manual/CECW-OR, 9-26-1990, RGL 90-7/CECW-OR, 3-6-1992, Clarification and Interpretation of the 1987 Manual). THIS DELINEATION HAS NOT BEEN CONDUCTED FOR USDA PROGRAM OR AGRICULTURAL PURPOSES.

THE BOUNDARY OF STATE REGULATED WETLANDS ON THIS SITE IS SHOWN IN ACCORANCE WITH DNREC MAP No. DNR-024

EDWARD M. LAUNAY, PWS No. 875
SOCIETY OF WETLANDS SCIENTISTS
CORPS OF ENGINEERS, CERTIFIED WETLAND
DELINEATOR WDCP93MD0510036B

5/31/2022
Date

D:\CertStmt.wpd

LEGEND:

- CONCRETE MONUMENT FOUND
- CAPPED IRON REBAR FOUND
- CAPPED IRON PIPE SET
- EXISTING SUBJECT BOUNDARY LINE
- PROPOSED BOUNDARY LINE
- ADJOINER BOUNDARY LINE
- BRL — BUILDING RESTRICTION LINE
- CORPS. OF ENGINEERS SECTION 404 WETLAND BOUNDARY/FLAG
- STATE (DNREC) REGULATED WETLAND BOUNDARY/FLAG (MAP# 024)
- 50' STATE (DNREC) REGULATED WETLAND BUFFER
- FLOODPLAIN LIMIT
- WOODLINE
- WATER METER / VALVE
- SEWER MANHOLE
- P.O.C. — POINT OF COMMENCEMENT
- P.O.B. — POINT OF BEGINNING
- EASEMENT LINE
- PROPOSED AREA TO BE FILLED

RYAN M. PHIFER
REGISTERED
No. 829
DELAWARE
PROFESSIONAL LAND SURVEYOR

OWNER CERTIFICATION:

I, THE UNDERSIGNED, HEREBY CERTIFY TO THE OWNERSHIP OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO BE MY ACT AND THAT I DESIRE THE PLAN TO BE RECORDED ACCORDING TO LAW. I CERTIFY THAT TITLE 17, SECTION 530 IS APPLICABLE TO THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN BY VIRTUE OF:

7/29/2022

TIMOTHY TICE
39628 WATERWORKS COURT
BETHANY BEACH, DE 19930

DATE

SURVEYOR CERTIFICATION:
I, RYAN M. PHIFER, REGISTERED AS A PROFESSIONAL LAND SURVEYOR IN THE STATE OF DELAWARE, HEREBY STATE THAT THE INFORMATION SHOWN ON THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND MEETS THE STANDARDS OF PRACTICE AS ESTABLISHED BY THE STATE OF DELAWARE BOARD OF PROFESSIONAL LAND SURVEYORS. ANY CHANGES TO THE PROPERTY CONDITIONS, IMPROVEMENTS, BOUNDARY OR PROPERTY CORNERS AFTER THE DATE SHOWN HEREON SHALL NECESSITATE A NEW REVIEW AND CERTIFICATION FOR ANY OFFICIAL OR LEGAL USE.

7-29-2022

RYAN M. PHIFER, P.L.S. DE No. 829 DATE

SCALED.
ENGINEERING
Scaled Engineering Inc.
20246 Coastal Highway
Rehoboth Beach, DE 19971
Phone: (302) 227-7808

MINOR SUBDIVISION PLAN

PREPARED FOR
TIMOTHY & JESSICA TICE
FOR PROPERTY KNOWN AS
PARCEL NO. 1 - DEED BOOK 4809, PAGE 49
TAX MAP # 134-13.00-86.00
BALTIMORE HUNDRED, SUSSEX COUNTY, DELAWARE

DATE:	1-26-22
SCALE:	1" = 30'
DRAWN BY:	JRE
PROJECT NO.	CRXC003

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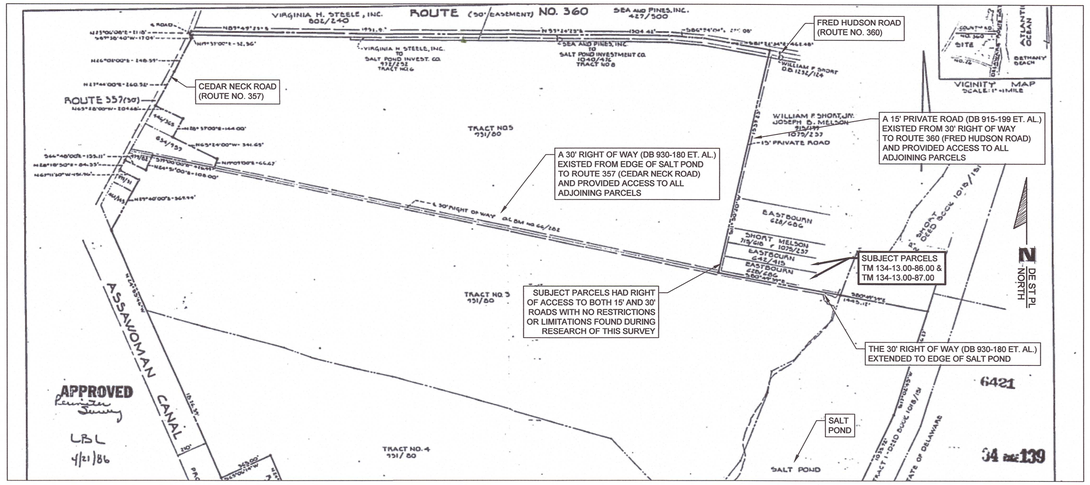
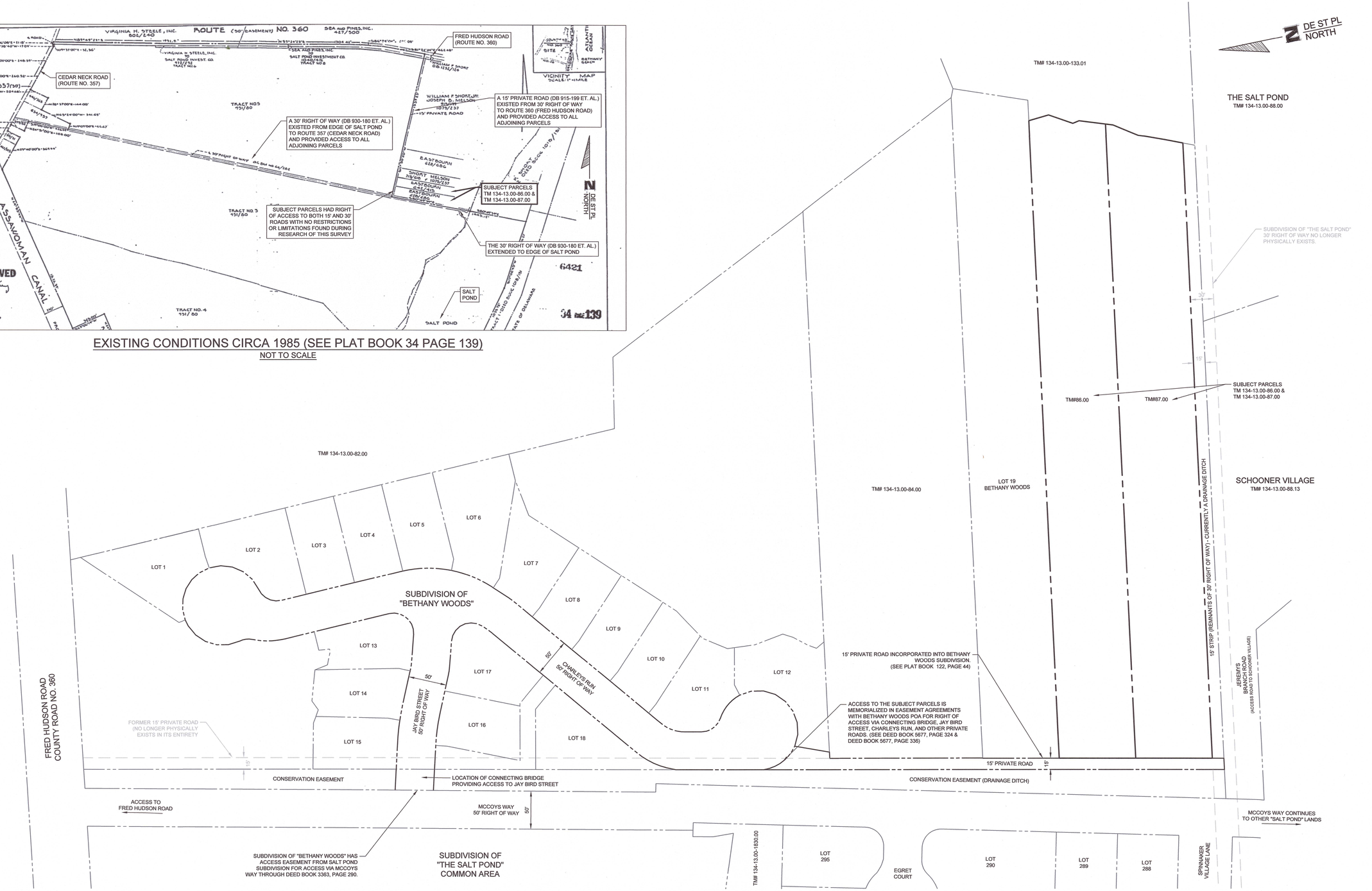
PLOTTED: 7/29/2022 11:21 AM, BY: Ryan Phifer P:\SITE\LE...S\SCALED\...\B SURVEY\ON CONSTRUCTION\CRXC003 - CHARLEYS RUN\SEISHO\CRXC003 - LOT #1 (W) OF MINOR SUBDIVISION PLAN.dwg



EXISTING CONDITIONS CIRCA 1985 (SEE PLAT BOOK 34 PAGE 139)

NOT TO SCALE



CURRENT CONDITIONS 2022 (WITH OVERLAY OF FORMER ACCESS ROADS)

0' 30' 60'

1" = 60'

LEGEND:

- SUBJECT BOUNDARY LINE
- ADJOINER BOUNDARY LINE
- ACCESS RIGHT-OF-WAY LINE

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW CHRONOLOGY & METHOD OF ACCESS TO PUBLIC RIGHT OF WAY FOR THE SUBJECT TAX PARCELS CONSISTING OF TM#134-13.00-86.00 & 134-13.00-87.00.

2. THIS PLAN DOES NOT CONSTITUTE A BOUNDARY SURVEY PLAN AS DEFINED IN THE DELAWARE ADMINISTRATIVE CODE UNDER TITLE 24 AND SHOULD NOT BE RELIED UPON AS SUCH.

RYAN M. PHIFER REGISTERED No. 829 DELAWARE PROFESSIONAL LAND SURVEYOR

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I, RYAN M. PHIFER, REGISTERED AS A PROFESSIONAL LAND SURVEYOR IN THE STATE OF DELAWARE, HEREBY STATE THAT THE INFORMATION SHOWN ON THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND MEETS THE STANDARDS OF PRACTICE AS ESTABLISHED BY THE STATE OF DELAWARE BOARD OF PROFESSIONAL LAND SURVEYORS. ANY CHANGES TO THE PROPERTY CONDITIONS, IMPROVEMENTS, BOUNDARY OR PROPERTY CORNERS AFTER THE DATE SHOWN HEREON SHALL NECESSITATE A NEW REVIEW AND CERTIFICATION FOR ANY OFFICIAL OR LEGAL USE.

7-28-2022

RYAN M. PHIFER, P.L.S. DE No. 829 — DATE

SCALED. ENGINEERING
Scaled Engineering Inc.
20246 Coastal Highway
Rehoboth Beach, DE 19971
Phone: (302) 227-7808

ACCESS EXHIBIT PLAN

FOR PROPERTY KNOWN AS
PARCEL NO. 1 - DEED BOOK 4809, PAGE 49
PARCEL NO. 2 - DEED BOOK 4809, PAGE 49
TAX MAP # 134-13.00-86.00 &
TAX MAP # 134-13.00-87.00
BALTIMORE HUNDRED, SUSSEX COUNTY, DELAWARE

DATE:	6-23-2022
SCALE:	AS SHOWN
DRAWN BY:	
PROJECT NO.	CRXC003

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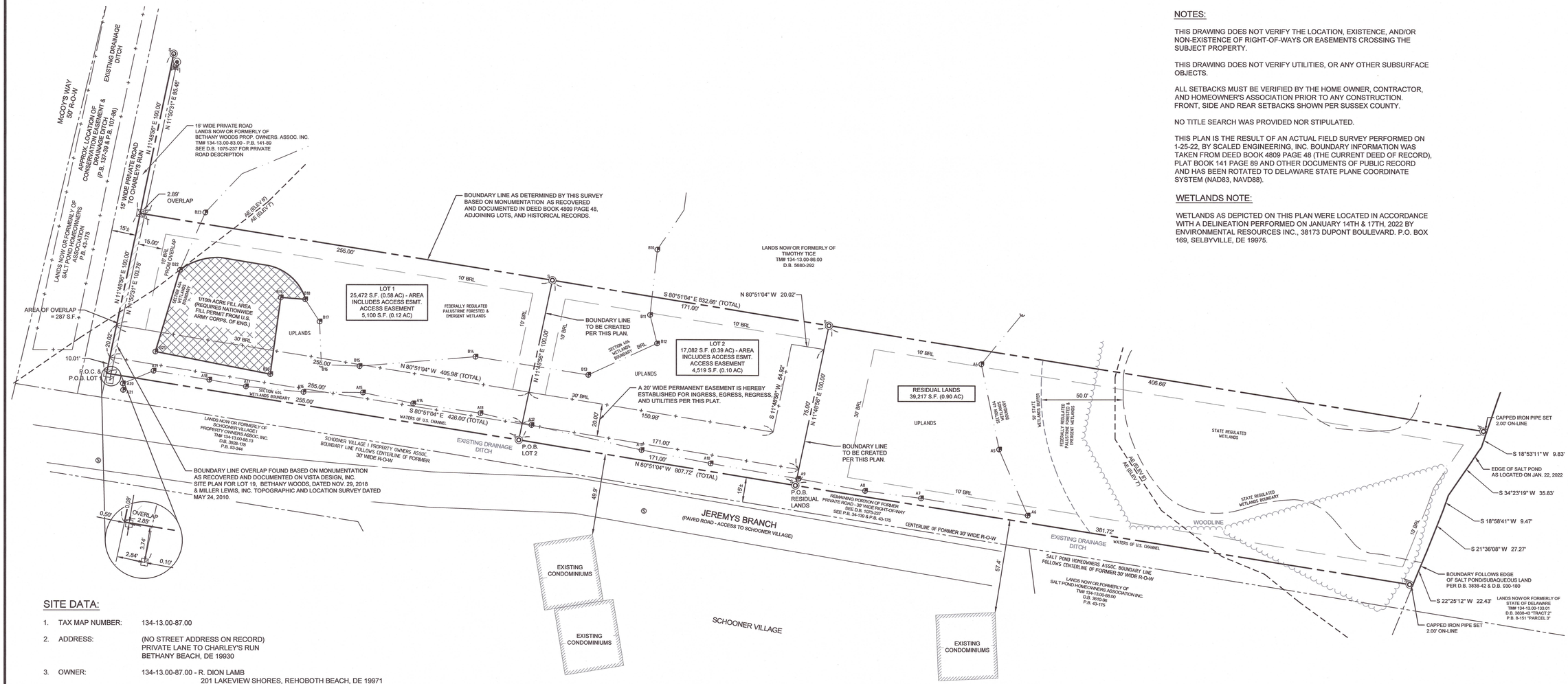
PLOTTED: 7/28/2022 10:58 AM, BY: Ryan Phifer PLOTSTYLE: 2-SCALED.ctb
S:\SURVEYOR CONSTRUCTION\CRX003 - CHARLEYS RUN\DESIGN\CRX003 - ACCESS EXHIBIT PLAN.dwg



0' 15' 30'
1" = 30'

SITE DATA:

1. TAX MAP NUMBER: 134-13.00-87.00
2. ADDRESS: (NO STREET ADDRESS ON RECORD)
   PRIVATE LANE TO CHARLEY'S RUN
   BETHANY BEACH, DE 19930
3. OWNER: 134-13.00-87.00 - R. DION LAMB
   201 LAKEVIEW SHORES, REHOBOTH BEACH, DE 19971
4. ZONING: EXISTING: MR (MEDIUM-DENSITY RESIDENTIAL)
   PROPOSED: MR (MEDIUM-DENSITY RESIDENTIAL)
5. USE: EXISTING: SINGLE FAMILY RESIDENTIAL
   PROPOSED: LOTS 1 & 2 - SINGLE-FAMILY RESIDENTIAL
   RESIDUAL LANDS - SINGLE-FAMILY RESIDENTIAL
6. BUILDING SETBACKS (FOR PROPOSED LOTS):
   FRONT 30' (15' CORNER LOT SIDE STREET)
   SIDE 10'
   REAR 10'
7. LOT REQUIREMENTS: AREA 10,000 S.F. (0.23 ACRE)
   WIDTH 75'
   DEPTH 100'
8. TOTAL NUMBER OF LOTS: EXISTING: 1
   PROPOSED: 3 (INCLUDING THE RESIDUAL)
9. AREA: EXISTING 134-13.00-87.00: 81,771 S.F. (1.88 AC)
   PROPOSED LOT 1: 25,472 S.F. (0.58 AC) ACCESS ESMT. INCLUDED
   ACCESS EASEMENT 5,100 S.F. (0.12 AC)
   PROPOSED LOT 2: 17,082 S.F. (0.39 AC) ACCESS ESMT. INCLUDED
   ACCESS EASEMENT: 4,519 S.F. (0.10 AC)
   PROPOSED (RESIDUAL): 39,217 S.F. (0.90 AC)
10. AREA AFFECTED BY ADJUSTMENT: 1.88 AC
11. POSTED SPEED LIMIT: SPEED LIMIT NOT POSTED
12. SEWER PROVIDER: SUSSEX COUNTY
13. WATER PROVIDER: SUSSEX SHORES
14. THIS PROPERTY IS IMPACTED BY THE 100 YEAR FLOOD ZONE, DELINEATED BY THE NATIONAL FLOOD INSURANCE PROGRAM AS SHOWN AS ON FEMA FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 10005C0512K REVISED MARCH 16, 2015 (ZONE AE, EL 6', 7' & 8').
15. WETLANDS EXIST ON SITE PER THE U.S. FISH AND WILDLIFE NATIONAL WETLANDS INVENTORY AND DNREC STATE REGULATED WETLANDS MAP INDEX. SEE WETLANDS NOTE.
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17. RECHARGE AREA: FAIR

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THE BOUNDARY OF STATE REGULATED WETLANDS ON THIS SITE IS SHOWN IN ACCORANCE WITH DNREC MAP No. DNR-024

EDWARD M. LAUNAY, PWS No. 875
SOCIETY OF WETLANDS SCIENTISTS
CORPS OF ENGINEERS, CERTIFIED WETLAND DELINEATOR WDCP93MD0510036B

5/31/2022
Date

D:\CertStmt.wpd

NOTES:

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THIS DRAWING DOES NOT VERIFY UTILITIES, OR ANY OTHER SUBSURFACE OBJECTS.

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NO TITLE SEARCH WAS PROVIDED NOR STIPULATED.

THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED ON 1-25-22, BY SCALED ENGINEERING, INC. BOUNDARY INFORMATION WAS TAKEN FROM DEED BOOK 4809 PAGE 48 (THE CURRENT DEED OF RECORD), PLAT BOOK 141 PAGE 89 AND OTHER DOCUMENTS OF PUBLIC RECORD AND HAS BEEN ROTATED TO DELAWARE STATE PLANE COORDINATE SYSTEM (NAD83, NAVD88).

WETLANDS NOTE:

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LEGEND:

- CONCRETE MONUMENT FOUND
- CAPPED IRON REBAR FOUND
- CAPPED IRON PIPE SET
- EXISTING SUBJECT BOUNDARY LINE
- PROPOSED BOUNDARY LINE
- ADJOINER BOUNDARY LINE
- BRL — BUILDING RESTRICTION LINE
- CORPS. OF ENGINEERS SECTION 404 WETLAND BOUNDARY/FLAG
- STATE (DNREC) REGULATED WETLAND BOUNDARY/FLAG (MAP# 024)
- 50' STATE (DNREC) REGULATED WETLANDS BUFFER
- FLOODPLAIN LIMIT
- WOODLINE
- WM WATER METER / VALVE
- SEWER MANHOLE
- P.O.C. POINT OF COMMENCEMENT
- P.O.B. POINT OF BEGINNING
- EASEMENT LINE
- PROPOSED AREA TO BE FILLED

RYAN M. PHIFER REGISTERED No. 829 DELAWARE PROFESSIONAL LAND SURVEYOR

OWNER CERTIFICATION:

I, THE UNDERSIGNED, HEREBY CERTIFY TO THE OWNERSHIP OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO BE MY ACT AND THAT I DESIRE THE PLAN TO BE RECORDED ACCORDING TO LAW.

7-28-22
DATE

R. DION LAMB
201 LAKEVIEW SHORES
REHOBOTH BEACH, DE 19971

SURVEYOR CERTIFICATION:

I, RYAN M. PHIFER, REGISTERED AS A PROFESSIONAL LAND SURVEYOR IN THE STATE OF DELAWARE, HEREBY STATE THAT THE INFORMATION SHOWN ON THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND MEETS THE STANDARDS OF PRACTICE AS ESTABLISHED BY THE STATE OF DELAWARE BOARD OF PROFESSIONAL LAND SURVEYORS. ANY CHANGES TO THE PROPERTY CONDITIONS, IMPROVEMENTS, BOUNDARY OR PROPERTY CORNERS AFTER THE DATE SHOWN HEREON SHALL NECESSITATE A NEW REVIEW AND CERTIFICATION FOR ANY OFFICIAL OR LEGAL USE.

RYAN M. PHIFER, P.L.S. DE No. 829 — 7-28-2022 — DATE

SCALED. ENGINEERING
Scaled Engineering Inc.
20246 Coastal Highway
Rehoboth Beach, DE 19971
Phone: (302) 227-7808

MINOR SUBDIVISION PLAN

PREPARED FOR
RDL PROPERTIES, LLC
FOR PROPERTY KNOWN AS
PARCEL NO. 2 - DEED BOOK 4809, PAGE 49
TAX MAP # 134-13.00-87.00
BALTIMORE HUNDRED, SUSSEX COUNTY, DELAWARE

DATE:	1-26-22
SCALE:	1" = 30'
DRAWN BY:	JRE
PROJECT NO.	CRXC003

PLOTTED: 7/28/2022 10:08 AM, BY: Ryan Phifer PLOTSTYLE: S-SCALED.ctb
S:\SURVEY\CRX_CONSTRUCTION\CRX003 - CHARLEYS RUN\RESIDENTIAL\CRX003 - LOT 87.00 MINOR SUBDIVISION PLAN.dwg

JAMIE WHITEHOUSE, AICP
DIRECTOR OF PLANNING & ZONING
(302) 855-7878 T
(302) 854-5079 F
jamie.whitehouse@sussexcountyde.gov

Sussex County
DELAWARE
sussexcountyde.gov

PLEASE NOTE

This paperless packet is published on the County's website for convenience purposes, and only includes information received up to the close of business on the day before a public hearing. Documents received after this, or documents submitted during the public hearing are not uploaded to the Paperless Packet. The legal record is the paper record maintained in the Offices of the Planning & Zoning Department.

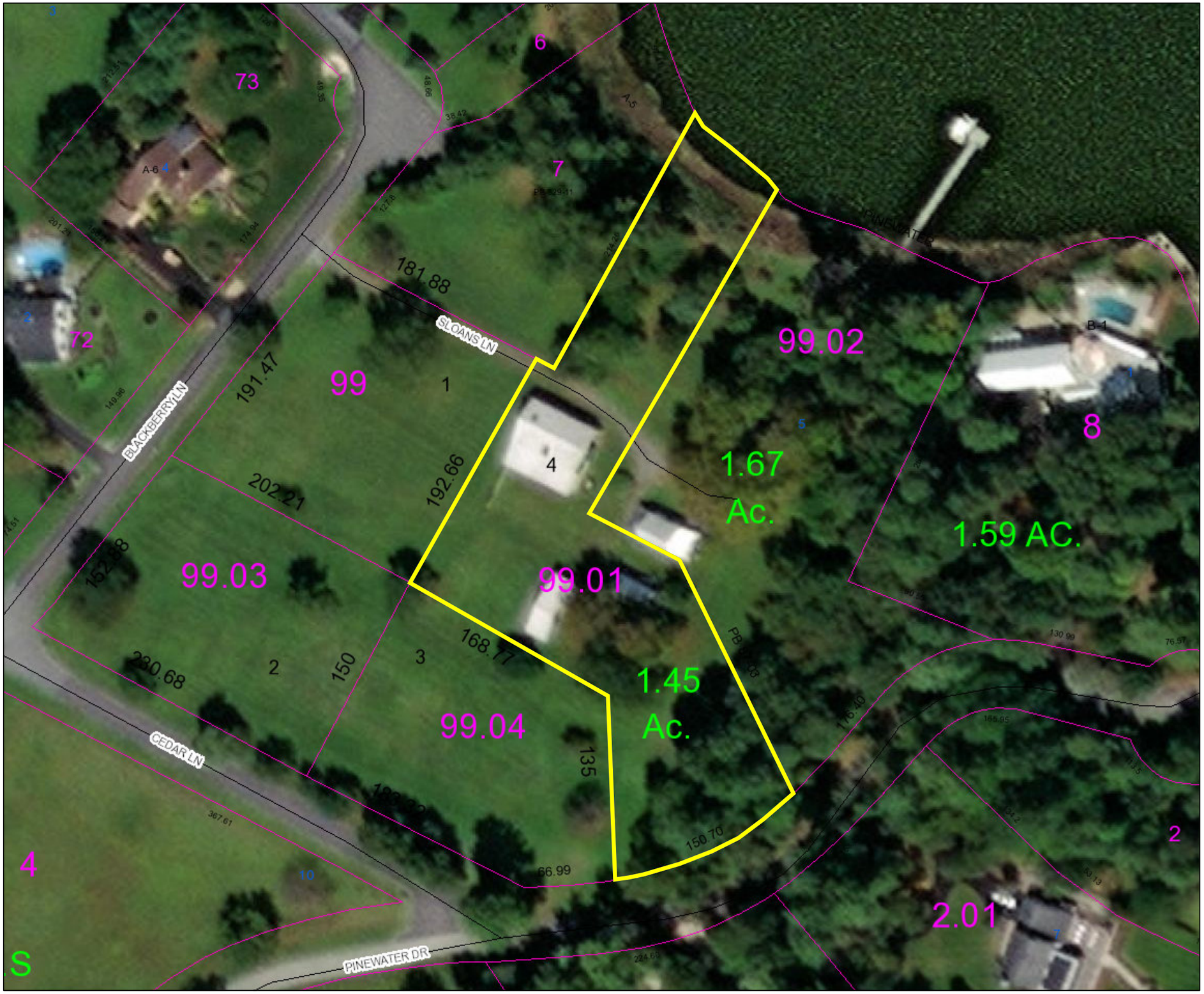
PLANNING & ZONING COMMISSION
ROBERT C. WHEATLEY, CHAIRMAN
KIM HOEY STEVENSON, VICE-CHAIRMAN
R. KELLER HOPKINS
J. BRUCE MEARS
HOLLY J. WINGATE

Sussex County
DELAWARE
sussexcountyde.gov
302-855-7878 T
JAMIE WHITEHOUSE, AICP, MRTPI
DIRECTOR

PLANNING AND ZONING AND COUNTY COUNCIL INFORMATION SHEET
Planning Commission Public Hearing Date: August 25th, 2022

Application:	2022-06 Lands of Amelie Sloan
Applicant:	Samuel Sloan, Jr. and Linda Sloan, Trustees of Amelie Sloan Trust 1099 Broadview Drive Annapolis, MD 21409
Owner:	Amelie A. Sloan Trust 5 Blackberry Lane Harbeson, DE 19951
Site Location:	The site is located on the northeast side of Cedar Lane a private street within the Pine Water Farms Subdivision.
Current Zoning:	Agricultural Residential (AR-1)
Proposed Zoning:	Agricultural Residential (AR-1)
Comprehensive Land Use Plan Reference:	Coastal Area
Councilmanic District:	District 4 – Mr. Hudson
School District:	Cape Henlopen School District
Fire District:	Indian River Fire Co.
Sewer:	Sussex County
Water:	On-site well
TID:	N/A
Site Area:	4.57 acres +/-
Tax Map ID:	234-17.12-99.01, 99.02, 99.03 & 99.04

Sussex County



PIN:	234-17.12-99.01
Owner Name	SLOAN AMELIE A TRUSTEE
Book	2697
Mailing Address	5 BLACKBERRY LN
City	HARBESON
State	DE
Description	NW/PINEWATER DR
Description 2	68'E/CEDAR LN
Description 3	LOT 4
Land Code	

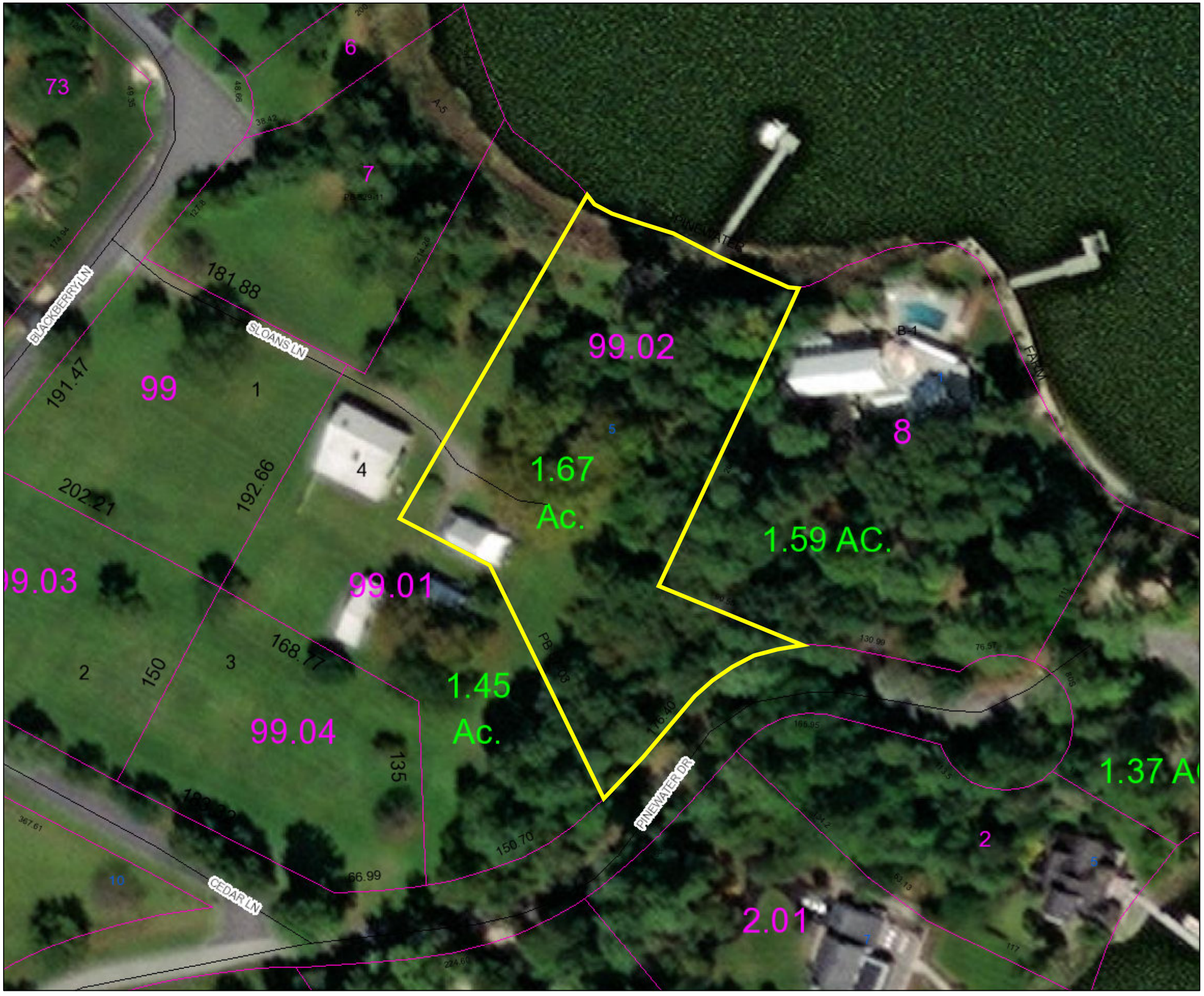
polygonLayer
Override 1
polygonLayer
Override 1
Tax Parcels
911 Address
Streets

July 7, 2022

1:1,128

0 0.0125 0.025 0.05 mi
0 0.02 0.04 0.08 km

Sussex County



PIN:	234-17.12-99.02
Owner Name	SLOAN AMELIE A TRUSTEE
Book	2697
Mailing Address	5 BLACKBERRY LN
City	HARBESON
State	DE
Description	PINEWATER FARM
Description 2	
Description 3	
Land Code	

polygonLayer

Override 1

polygonLayer

Override 1

Tax Parcels

911 Address

Streets

1:1,128

0 0.0125 0.025 0.05 mi

0 0.02 0.04 0.08 km

July 7, 2022

Sussex County

PIN:	234-17.12-99.03
Owner Name	SLOAN AMELIE A TRUSTEE
Book	2697
Mailing Address	5 BLACKBERRY LN
City	HARBESON
State	DE
Description	NE/CEDAR LN
Description 2	BLACK BERRY LN
Description 3	LOT 2
Land Code	

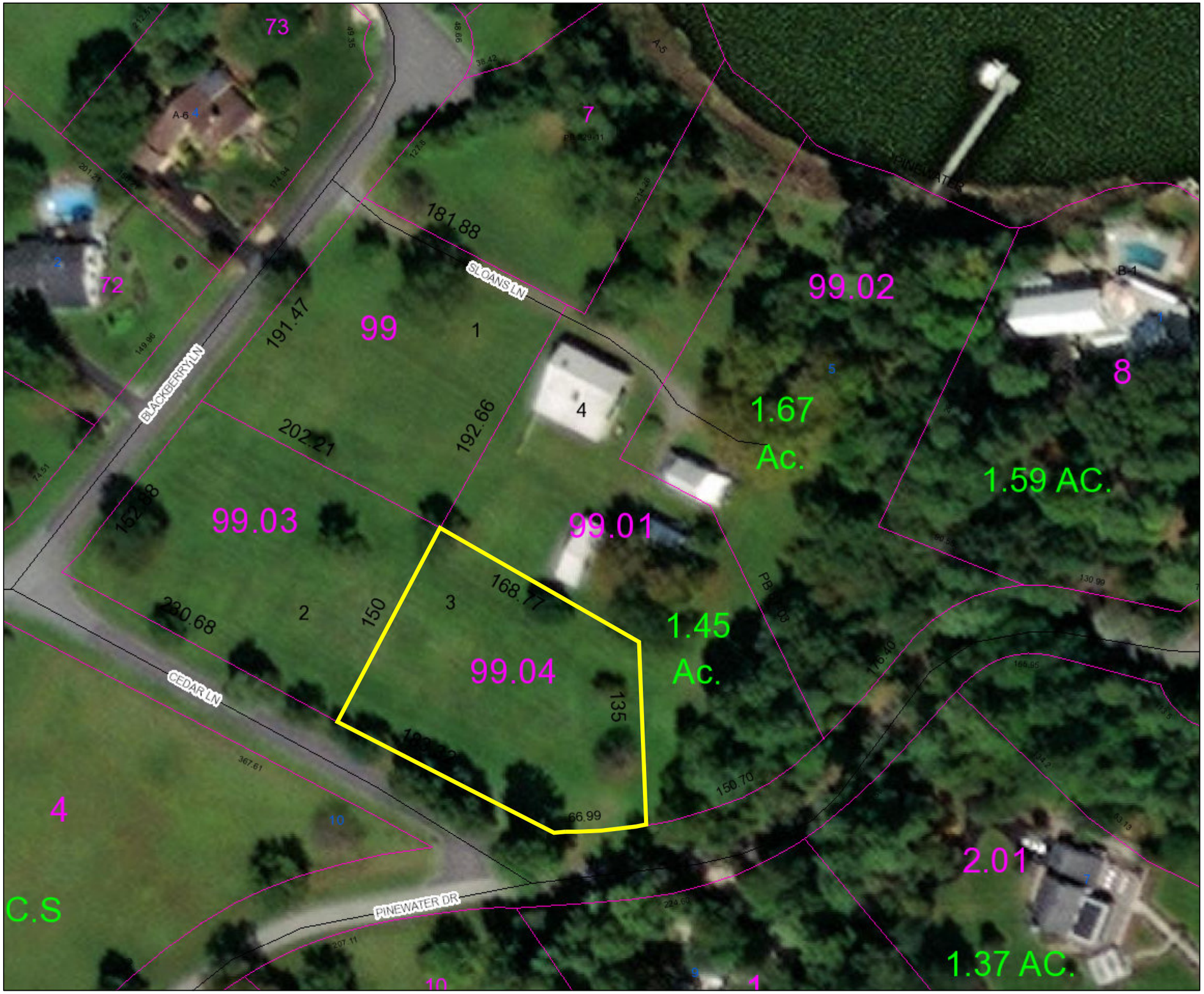
polygonLayer
Override 1
polygonLayer
Override 1
Tax Parcels
911 Address
Streets

1:1,128

0 0.0125 0.025 0.05 mi
0 0.02 0.04 0.08 km

July 7, 2022

Sussex County



PIN:	234-17.12-99.04
Owner Name	SLOAN AMELIE A TRUSTEE
Book	2697
Mailing Address	5 BLACKBERRY LN
City	HARBESON
State	DE
Description	NW/CEDAR LN
Description 2	PINEWATER DR
Description 3	LOT 3
Land Code	

polygonLayer

Override 1

polygonLayer

Override 1

Tax Parcels

911 Address

Streets

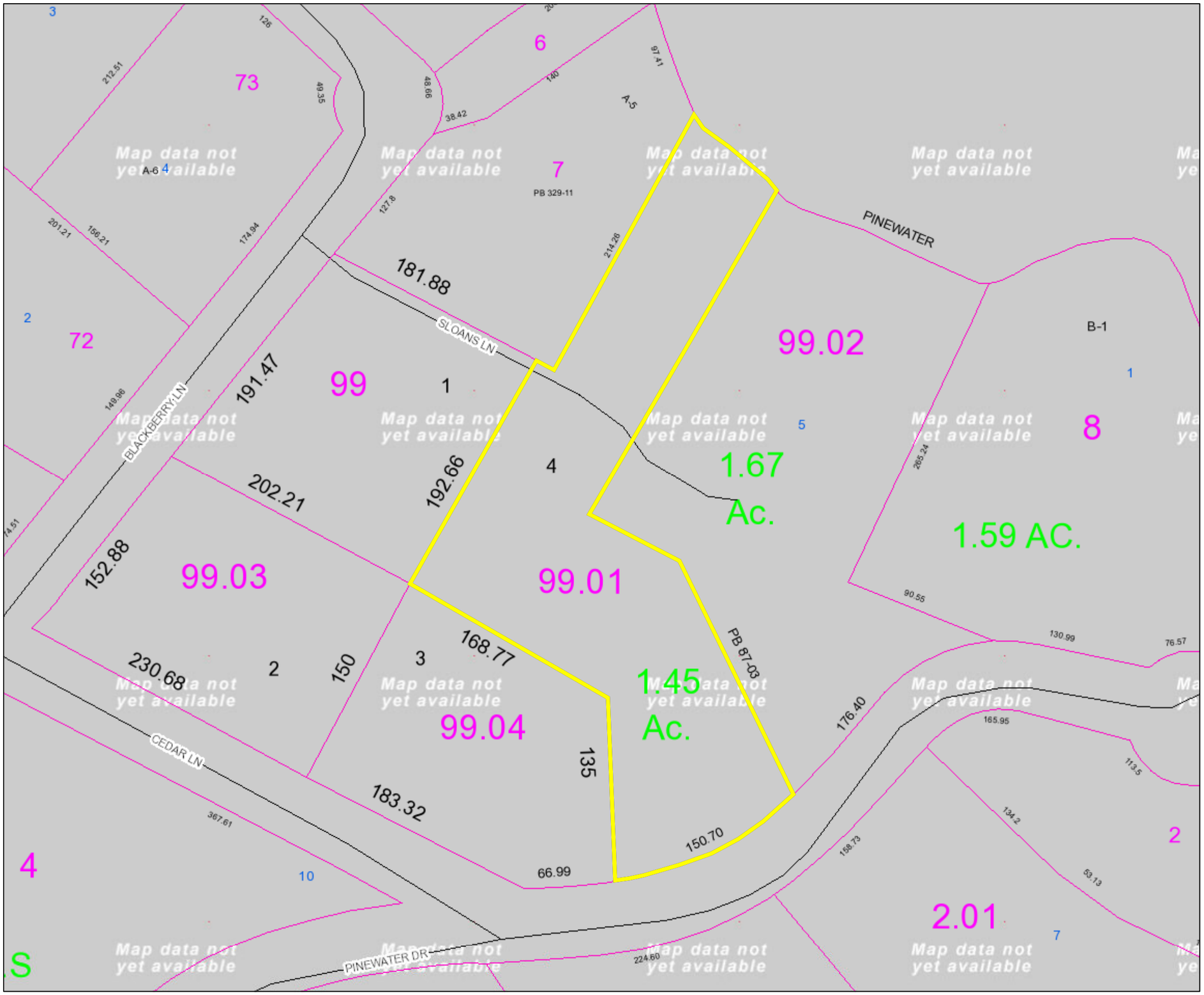
1:1,128

0 0.0125 0.025 0.05 mi

0 0.02 0.04 0.08 km

July 7, 2022

Sussex County



PIN:	234-17.12-99.01
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Book	2697
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Description	NW/PINEWATER DR
Description 2	68'E/CEDAR LN
Description 3	LOT 4
Land Code	

polygonLayer
Override 1
polygonLayer
Override 1
Tax Parcels
911 Address
Streets

1:1,128

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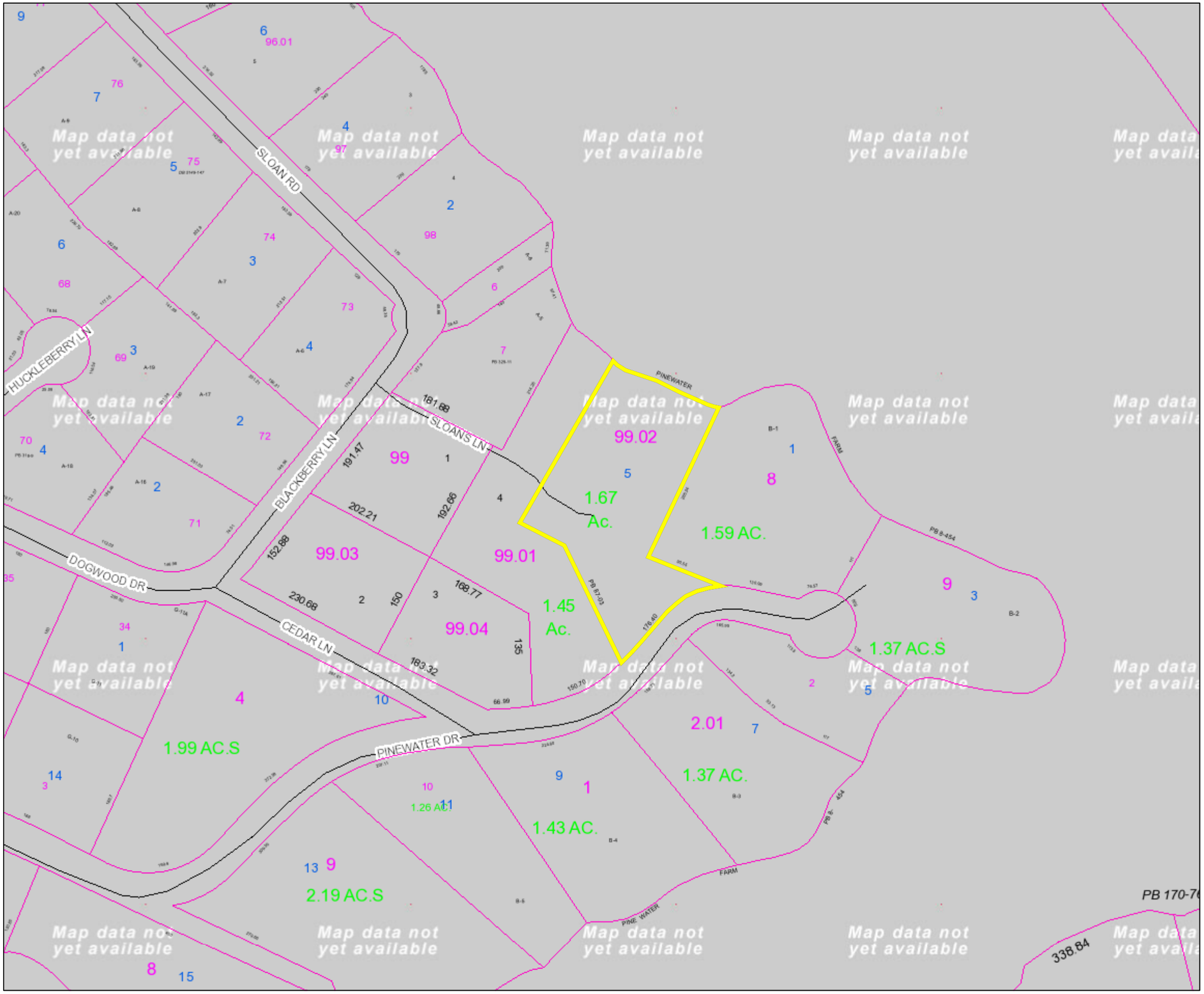
0 0.02 0.04 0.08 km

July 7, 2022

Sussex County



PIN:	234-17.12-99.02
Owner Name	SLOAN AMELIE A TRUSTEE
Book	2697
Mailing Address	5 BLACKBERRY LN
City	HARBESON
State	DE
Description	PINEWATER FARM
Description 2	
Description 3	
Land Code	

polygonLayer
Override 1

polygonLayer
Override 1
Tax Parcels
911 Address
Streets

1:2,257

0 0.0275 0.055 0.11 mi

0 0.0425 0.085 0.17 km

July 7, 2022

Sussex County

PIN:	234-17.12-99.03
Owner Name	SLOAN AMELIE A TRUSTEE
Book	2697
Mailing Address	5 BLACKBERRY LN
City	HARBESON
State	DE
Description	NE/CEDAR LN
Description 2	BLACK BERRY LN
Description 3	LOT 2
Land Code	

polygonLayer
Override 1

polygonLayer
Override 1

Tax Parcels

911 Address

Streets

1:2,257

0 0.0275 0.055 0.11 mi

0 0.0425 0.085 0.17 km

July 7, 2022

Sussex County

PIN:	234-17.12-99.04
Owner Name	SLOAN AMELIE A TRUSTEE
Book	2697
Mailing Address	5 BLACKBERRY LN
City	HARBESON
State	DE
Description	NW/CEDAR LN
Description 2	PINEWATER DR
Description 3	LOT 3
Land Code	

polygonLayer
Override 1

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Override 1
Tax Parcels
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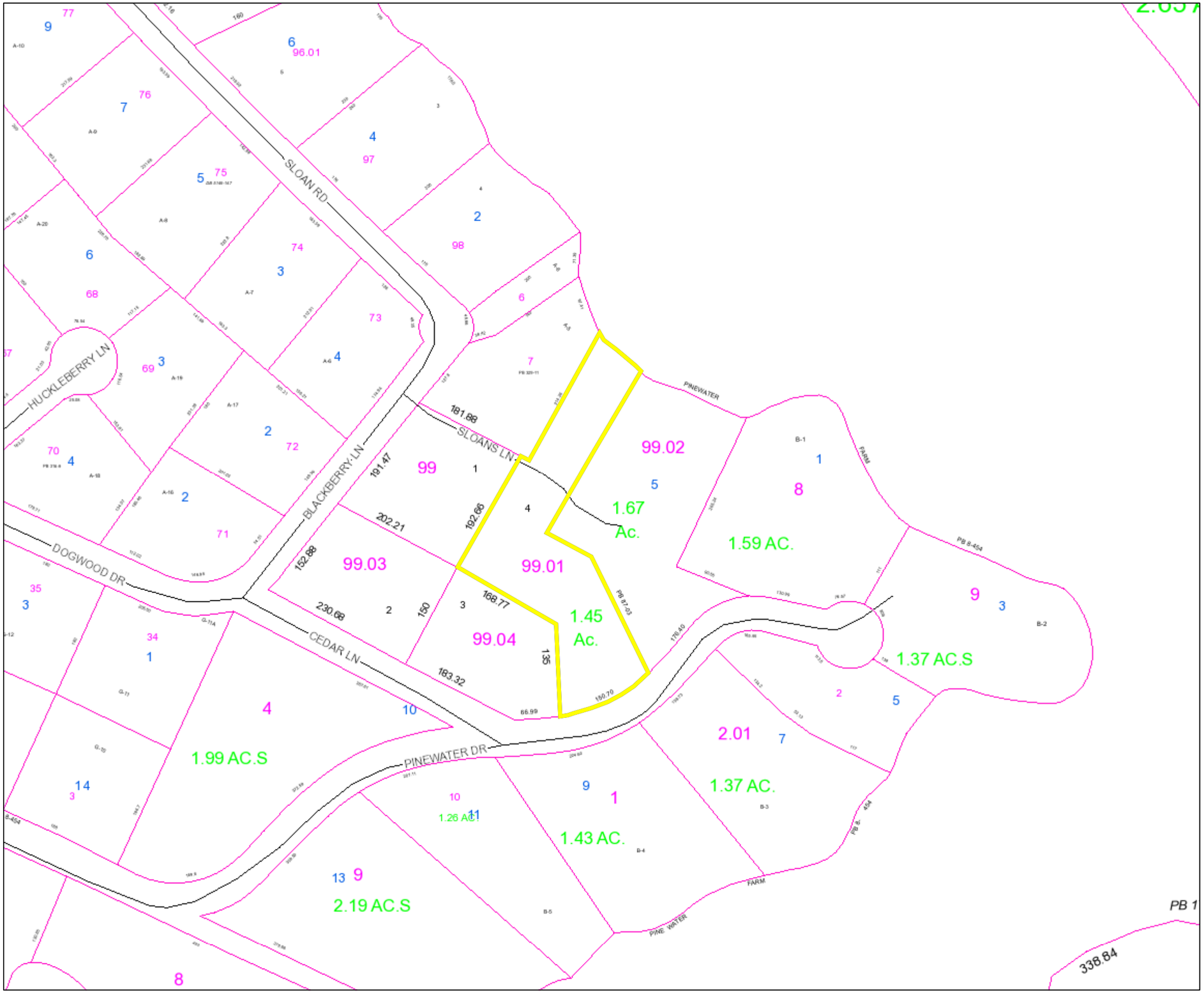
July 7, 2022

Sussex County



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Override 1

Tax Parcels

911 Address

Streets

1:2,257

0 0.0275 0.055 0.11 mi

0 0.0425 0.085 0.17 km

July 7, 2022

File #: 2022-06
Pre-App Date:

Sussex County Major Subdivision Application

20220335/
52
53
54

Sussex County, Delaware

Sussex County Planning & Zoning Department
2 The Circle (P.O. Box 417) Georgetown, DE 19947
302-855-7878 ph. 302-854-5079 fax

RECEIVED
MAR 09 2022
SUSSEX COUNTY
PLANNING & ZONING

Type of Application: (please check applicable)
Standard: ✓
Cluster:
Coastal Area: ✓

Location of Subdivision:
PINEWATER FARM, INDIAN RIVER HUNDRED, SUSSEX COUNTY, DELAWARE

Proposed Name of Subdivision:
AMELIE A SLOAN TRUST SUBDIVISION

Tax Map #: 234-17.12-99.02, 99.01, 99.03 & 99.04 Total Acreage: +/-4.57 acres

Zoning: AR1 **Density:** .66 **Minimum Lot Size:** 20,000 **Number of Lots:** 4

Open Space Acres: NONE

Water Provider: None **Sewer Provider:** SUSSEX COUNTY

Applicant Information

Applicant Name: SAMUEL M SLOAN, JR AND LINDA J SLOAN, TRUSTEES OF AMELIE A SLOAN TRUST
Applicant Address: 1099 BROADVIEW DRIVE
City: ANNAPOLIS State: MD ZipCode: 21409
Phone #: (717) 880-9681 E-mail: sandlsloan@verizon.net

Owner Information

Owner Name: AMELIE A SLOAN TRUST
Owner Address: 5 BLACKBERRY LANE
City: HARBESON State: DE Zip Code: 19951
Phone #: none E-mail: none

Agent/Attorney/Engineer Information

Agent/Attorney/Engineer Name: JEFFREY CLARK
Agent/Attorney/Engineer Address: 32895 S COASTAL HIGHWAY, SUITE 202
City: BETHANY BEACH State: DE Zip Code: 19930
Phone #: (302) 539-2366 E-mail: jeffc@landtechllc.com

Check List for Sussex County Major Subdivision Applications

The following shall be submitted with the application

___ **Completed Application**

___ **Provide ten (10) copies of the Site Plan or Survey of the property and a PDF (via e-mail)**
- Plan shall show the existing conditions, setbacks, roads, floodplain, wetlands, topography, proposed lots, landscape plan, etc. **Per Subdivision Code 99-22, 99-23 & 99-24**
- Provide compliance with Section 99-9.
- Deed or Legal description, copy of proposed deed restrictions, soil feasibility study

___ **Provide Fee $500.00**

___ **Optional - Additional information for the Commission to consider** (ex. photos, exhibit books, etc.) If provided submit seven (7) copies and they shall be submitted a minimum of ten (10) days prior to the Planning Commission meeting.

___ **Please be aware that Public Notice will be sent to property owners within 200 feet of the subject site and County staff will come out to the subject site, take photos and place a sign on the site stating the date and time of the Public Hearings for the application.**

___ **PLUS Response Letter** (if required) ☐ **Environmental Assessment & Public Facility Evaluation Report** (if within Coastal Area)

___ **51% of property owners consent if applicable**

The undersigned hereby certifies that the forms, exhibits, and statements contained in any papers or plans submitted as a part of this application are true and correct.

I also certify that I or an agent on by behalf shall attend all public hearing before the Planning and Zoning Commission and any other hearing necessary for this application and that I will answer any questions to the best of my ability to respond to the present and future needs, the health, safety, morals, convenience, order, prosperity, and general welfare of the inhabitants of Sussex County, Delaware.

Signature of Applicant/Agent/Attorney

_____ Date: 3/4/2022

JEFF CLARK

Signature of Owner

Sandra M. Sloan, M. Trustee

Sandra M. Sloan, Trustee Date: 2/14/2022

For office use only:

Date Submitted: 3/9/22 Fee: $500.00 Check #: 337

Staff accepting application: AL Application & Case #: 202203351

Location of property: _____

Date of PC Hearing: _____ Recommendation of PC Commission: _____

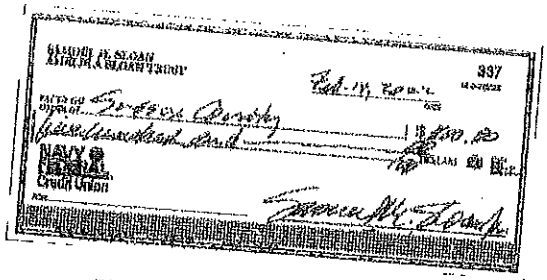
Sussex County, DE
Treasury
P.O. Box 601
Georgetown, DE 19947
Welcome

33021768-0001 Lindsey S 03/10/2022 08:51AM

PERMITS / INSPECTIONS
SUBDIVISION - FEE
2022 Item: 202203351|Z005 500.00

	500.00
Subtotal	500.00
Total	500.00
CHECK	
Check Number0337	500.00
Change due	0.00

Paid by: SAMUEL AND AMELIE SLOAN



Thank you for your payment

Sussex County, DE COPY
DUPLICATE RECEIPT

SUSSEX COUNTY ENGINEERING DEPARTMENT
UTILITY PLANNING & DESIGN REVIEW DIVISION
C/U & C/Z COMMENTS

TO: **Jamie Whitehouse**

REVIEWER: **Chris Calio**

DATE: **7/29/2022**

APPLICATION: **2022-06 Lands of Amelie Sloan**

APPLICANT: **Samuel Sloan, Jr. and Linda Sloan, Trustees of Amelie Sloan Trust**

FILE NO: **HC-1.08**

TAX MAP & PARCEL(S): **234-17.12-99.01, 99.02, 99.03 & 99.04**

LOCATION: **Lying on the northeast side of Cedar Lane, a private street, within the Pine Water Farms Subdivision.**

NO. OF UNITS: **4 single-family lots**

GROSS ACREAGE: **4.57 +/-**

SYSTEM DESIGN ASSUMPTION, MAXIMUM NO. OF UNITS/ACRE: **4**

SEWER:

(1). Is the project in a County operated and maintained sanitary sewer and/or water district?

Yes ☒ No ☐

a. If yes, see question (2).
b. If no, see question (7).

(2). Which County Tier Area is project in? **Tier 1**

(3). Is wastewater capacity available for the project? **Yes** If not, what capacity is available? **N/A**.

(4). Is a Construction Agreement required? **Yes** If yes, contact Utility Engineering at (302) 855-7717.

(5). Are there any System Connection Charge (SCC) credits for the project? **No** If yes, how many? **N/A**. Is it likely that additional SCCs will be required? **Yes** If yes, the current System Connection Charge Rate is **Unified $6,600.00** per EDU. Please contact **Blair Lutz** at **302-855-7719** for additional information on charges.

(6). Is the project capable of being annexed into a Sussex County sanitary sewer district? **N/A**

☐ Attached is a copy of the Policy for Extending District Boundaries in a Sussex County Water and/or Sanitary Sewer District.

(7). Is project adjacent to the Unified Sewer District? **N/A**

(8). Comments: **Click or tap here to enter text.**

(9). Is a Sewer System Concept Evaluation required? **Yes, Contact Utility Planning at 302-855-7370 to apply**

(10). Is a Use of Existing Infrastructure Agreement Required? **Yes**

(11). **All residential roads must meet or exceed Sussex County minimum design standards.**

UTILITY PLANNING & DESIGN REVIEW APPROVAL:

John J. Ashman
Sr. Manager of Utility Planning & Design Review

Xc: Hans M. Medlarz, P.E.
Lisa Walls
Blair Lutz

SUSSEX COUNTY ENGINEERING DEPARTMENT
UTILITY PLANNING & DESIGN REVIEW DIVISION
C/U & C/Z COMMENTS

TO: **Jamie Whitehouse**

REVIEWER: **Chris Calio**

DATE: **7/11/2022**

APPLICATION: **2022-06 Lands of Amelie Sloan**

APPLICANT: **Samuel Sloan, Jr. and Linda Sloan, Trustees of Amelie Sloan Trust**

FILE NO: **HC-1.08**

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UTILITY PLANNING & DESIGN REVIEW APPROVAL:

John J. Ashman
Sr. Manager of Utility Planning & Design Review

Xc: Hans M. Medlarz, P.E.
Lisa Walls
Blair Lutz

DE STATE PLANE NAD 83 / 2011

Fire Marshal Notes:

1. CULVERTS OVER TAX DITCHES WILL BE DESIGNED TO DELDOT STANDARDS TO SUPPORT ALL FIRE APPARATUS. (DESIGN BY OTHERS)
2. PROPOSED RESIDENTIAL BUILDING CONSTRUCTION WOOD FRAME TYPE "V" PER NFPA 220-000, STANDARD ON TYPES OF BUILDING CONSTRUCTION.
3. AUTOMATIC FIRE SPRINKLERS ARE NOT PROPOSED FOR THESE STRUCTURES.
4. ACCESS LANE TO BE PROVIDED.
5. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE STATE FIRE PREVENTION REGULATIONS

SITE DATA:

Owner's / Tax Map

AMELIE A. SLOAN TRUSTEE
5 BLACKBERRY LANE
HARBESON DE 19951

Surveyor:

VISTA DESIGN, INC.
11634 WORCESTER HIGHWAY
SHOWELL, MD 21862
PH: 410-352-3874

Site Area

LOT 1A 21,406 S.F. ± OR 0.49 ACRES ±

LOT 2 58,078 S.F. ± OR 1.33 ACRES ±

LOT 3 21,630 S.F. ± OR 0.50 ACRES ±

LOT 4 20,001 S.F. ± OR 0.46 ACRES ±

LOT 5 20,002 S.F. ± OR 0.46 ACRES ±

REMAINING LANDS OF PARCEL 99.02: 55,525 S.F.± / 1.27 ACRES

Flood Zone

THIS SITE IS LOCATED WITHIN FLOOD ZONE "X" (AREA OF DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) "X" SHADED AND ZONE "AE" 6, WITH ADVISORY CROSS SECTION ELEVATIONS AT 6.2' PER FIRM MAP #10005C0341 K EFFECTIVE DATE MARCH 16, 2015

Notes

1. THIS SURVEY HAS BEEN PREPARED WITHOUT BENEFIT OF A FORMAL TITLE REPORT. EASEMENTS, RIGHTS-OF-WAY, COVENANTS AND AND OTHER RESTRICTIONS MAY AFFECT THIS PROPERTY AND NOT BE SHOWN.
2. THIS SURVEY IS BASED ON DEEDS AND PLATS OF RECORD OF SUSSEX COUNTY DELAWARE AS SHOWN.
3. THIS SURVEY SHOWS ONLY VISIBLE ABOVE GROUND IMPROVEMENTS AND DOES NOT ADDRESS WETLANDS, CONTAMINATED WASTE OR TOXIC SOIL CONDITIONS, NOR HAVE ANY REPORTS, STUDIES OR INFORMATION REGARDING SUCH BEEN PROVIDED.
4. THIS SURVEY ONLY CERTIFIES TO THE UNDERSIGNED OWNER / OWNERS OF THE LANDS DEPICTED UPON THIS PLAT AND DOES NOT EXTEND ANY GUARANTEES, WARRANTEES OR CERTIFICATIONS TO ANY OTHER PARTIES WHATSOEVER.

Zoning Information

EXISTING ZONING:	AR-1
LAND USE:	RESIDENTIAL / AGRICULTURAL
MAX ROOF HEIGHT:	42'
WATER:	PRIVATE
SEWER:	PRIVATE

Horizontal Datum

NAD 83/2011 DELAWARE STATE PLANE GRID

Vertical Datum

NAVD 88

Class Survey

CLASS "C" SURVEY

Purpose Statement

THE PURPOSE OF THIS SURVEY IS TO REVISE AND REASSEMBLE TO CREATE 5 NEW LOTS AS SHOWN. THIS PLAT SUPERCEDES PLATS 47/120 AND PLAT 87/03.

Surveyors Certification

I HEREBY CERTIFY THAT I AM A REGISTERED LICENSED SURVEYOR, IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO MY BEST KNOWLEDGE AND BELIEF REPRESENTS GOOD SURVEYING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

SIGNATURE:_____DATE:_____

DOMINIC AGRESTA, PLS DELAWARE REGISTRATION# 757
11634 WORCESTER HIGHWAY
SHOWELL, MARYLAND
(410) 352-3478

Owners Certification

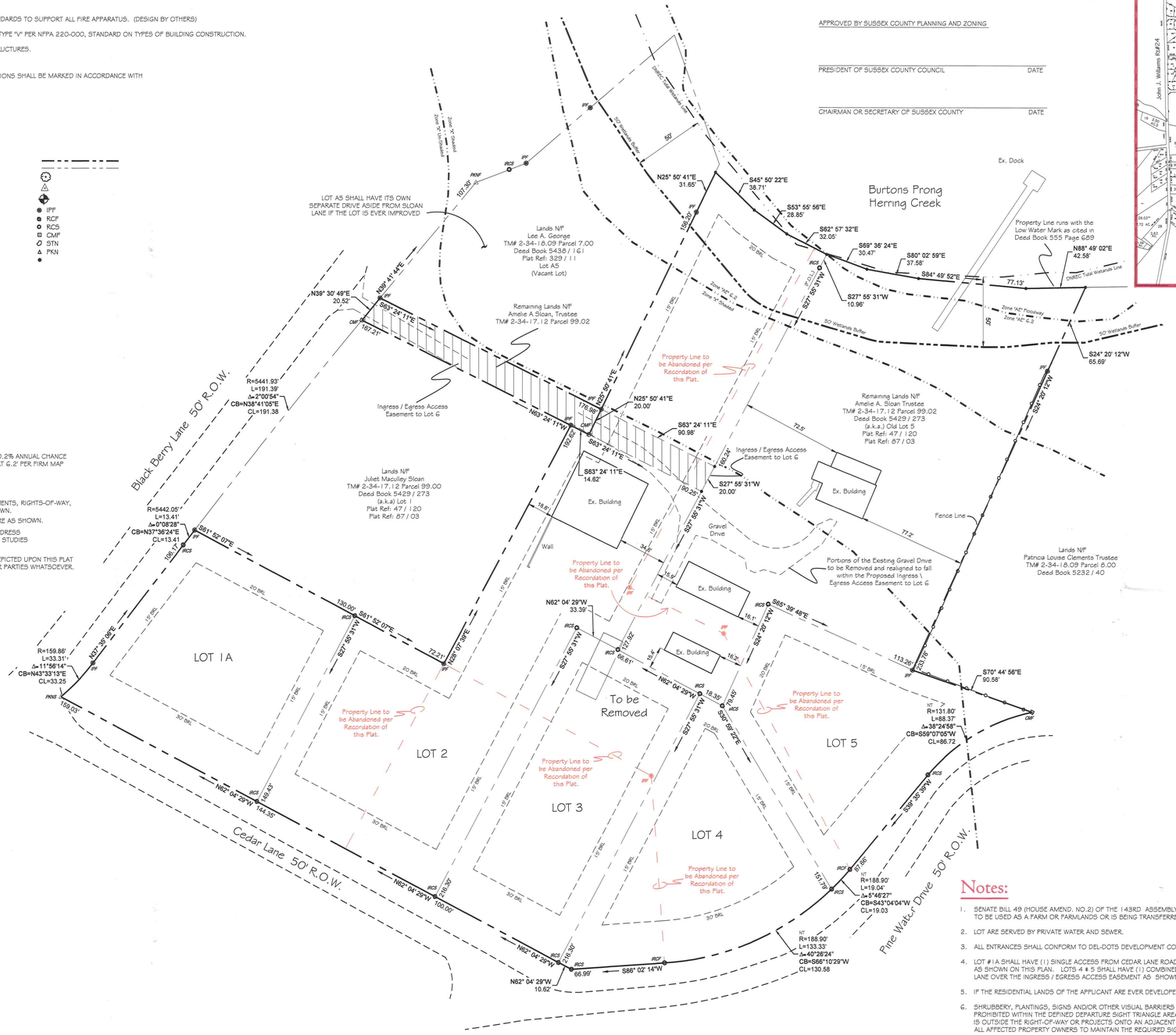
I HEREBY CERTIFY THAT I AM THE OWNER/DEVELOPER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN. THE PLAN WAS MADE AT MY DIRECTION, THAT I ACKNOWLEDGE THE SAME TO BE MY ACT. IT IS MY DESIRE TO HAVE THE PLAN DEVELOPED AS SHOWN AND IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

SIGNATURE:_____DATE:_____

AMELIE A. SLOAN TRUSTEE
5 BLACKBERRY LANE
HARBESON DE 19951

LEGEND:

Property Line	
Adjacent Property Line	
Trees Marked "Boundary Line"	
Control Point	
Benchmark	
Iron Pipe Found	IPF
Capped Rebar Found	RCF
Capped Rebar Set	RCS
Concrete Monument Found	CMF
Stone Found	STN
PKN Found	PKN
Unmarked-Point	


APPROVED BY SUSSEX COUNTY PLANNING AND ZONING
PRESIDENT OF SUSSEX COUNTY COUNCIL DATE
CHAIRMAN OR SECRETARY OF SUSSEX COUNTY DATE
Black Berry Lane 50' R.O.W.
Cedar Lane 50' R.O.W.
Pine Water Drive 50' R.O.W.
LOT 1A
LOT 2
LOT 3
LOT 4
LOT 5
To be Removed
LOT A5 SHALL HAVE ITS OWN SEPARATE DRIVE ASIDE FROM SLOAN LANE IF THE LOT IS EVER IMPROVED
Lands N/F Lot A. George TM# 2-34-18.09 Parcel 7.00 Deed Book 5438 / 161 Plat Ref: 329 / 11 Lot A5 (Vacant Lot)
Remaining Lands N/F Amelie A Sloan, Trustee TM# 2-34-17.12 Parcel 99.02
Lands N/F Juliet Maculley Sloan TM# 2-34-17.12 Parcel 99.00 Deed Book 5429 / 273 (a.k.a) Lot 1 Plat Ref: 47 / 120 Plat Ref: 87 / 03
Remaining Lands N/F Amelie A. Sloan Trustee TM# 2-34-17.12 Parcel 99.02 Deed Book 5429 / 273 (a.k.a.) Old Lot 5 Plat Ref: 47 / 120 Plat Ref: 87 / 03
Lands N/F Patricia Louise Clements Trustee TM# 2-34-18.09 Parcel 6.00 Deed Book 5232 / 40
Burtons Prong Herring Creek
Ex. Dock
Property Line runs with the Low Water Mark as cited in Deed Book 555 Page 689
Property Line to be Abandoned per Recordation of this Plat.
Ingress / Egress Access Easement to Lot 6
Portions of the Existing Gravel Drive to be Removed and realigned to fall within the Proposed Ingress \ Egress Access Easement to Lot 6
Ex. Building
Gravel Drive
Wall
Fence Line
50' Wetlands Buffer
Zone "AE" 6.2 Zone "X" Shaded
Zone "X" Shaded Zone "X" Unshaded
Direct Tidal Wetlands Line
R=5441.93' L=191.39' Δ=2°00'54" CB=N38°41'05"E CL=191.38
R=5442.05' L=13.41' Δ=0°08'28" CB=N37°36'24"E CL=13.41
R=159.86' L=33.31' Δ=11°56'14" CB=N43°13'13"E CL=33.25
R=131.80' L=88.37' Δ=38°24'58" CB=S59°07'05"W CL=86.72
R=188.90' L=133.33' Δ=40°26'24" CB=S66°10'29"W CL=130.58
R=188.90' L=19.04' Δ=5°46'27" CB=S43°04'04"W CL=19.03
N39° 30' 49"E 20.52'
N39° 41' 44"E
S63° 24' 11"E 157.21'
N25° 50' 41"E 31.65'
S45° 50' 22"E 38.71'
S53° 55' 56"E 28.85'
S62° 57' 32"E 32.05'
S69° 36' 24"E 30.47'
S80° 02' 59"E 37.58'
S84° 49' 52"E 77.13'
N88° 49' 02"E 42.58'
S27° 55' 31"W 10.96'
S24° 20' 12"W 65.69'
N25° 50' 41"E 20.00'
S63° 24' 11"E 90.98'
S63° 24' 11"E 14.62'
S27° 55' 31"W 20.00'
S24° 20' 12"W 113.26'
S70° 44' 56"E 90.58'
N62° 04' 29"W 33.39'
S27° 55' 31"W 127.92'
S24° 29' 12"W 16.1'
S85° 39' 48"E 16.1'
N62° 04' 29"W 66.61'
S27° 55' 31"W 18.36'
S07° 39' 22"E 70.45'
S86° 02' 14"W 66.99'
N62° 04' 29"W 10.62'
S68° 07' 38"E 72.21'
N27° 39' 09"E 130.00'
S61° 52' 07"E 130.00'
S61° 52' 07"E 190.17'
N62° 04' 29"W 144.35'
N62° 04' 29"W 216.30'
N62° 04' 29"W 100.00'
N62° 04' 29"W 216.30'
S68° 35' 39"W 151.78'
S87° 55' 31"W 190.25'
S27° 55' 31"W 34.5'
S27° 55' 31"W 72.5'
S24° 20' 12"W 77.2'
S27° 55' 31"W 15.9'
S27° 55' 31"W 18.4'
S27° 55' 31"W 90.00'
S27° 55' 31"W 15.9'
S24° 20' 12"W 16.2'
S24° 20' 12"W 18.7'
S24° 20' 12"W 90.00'
S24° 20' 12"W 15.9

Pinewater Civic Association
c/o Ken Sale
15 Pinewater Dr
Harbeson DE 129951
302-945-2095 ksale@aol.com

July 15, 2022

Jamie Whitehouse
Sussex County Delaware Planning and Zoning Commission
PO Box 417
Georgetown DE 19947
(by hand delivery and email pandz@sussexcountyde.gov)

Re: 2022-06 Amelie Sloan Trust (Tax Map 234-17.12-99.01, 99.02, 99.03, 99.04)

Dear Mr. Whitehouse,

The residents of Pinewater recently became aware that the Amalie Sloan Trust was proposing to reorganize three lots at the proverbial head and center of the Pinewater community. The end result will create five smaller more compact lots. The size of the new lots are inconsistent with the original design of the community which Sam and Amalie Sloan developed and helped oversee, with the intension of creating a closely knit community with "*spacious lots"* and open spaces for the community to enjoy. Many of the lots/homes have been enjoyed by families for over 50 years.

The residents of the community were informed of the intension to create smaller lots in what has long been considered the heart of the Pinewater community and have overwhelmingly signed a petition requesting that any reorganization or resizing of buildable lots remain consistent with the original plan of Pinewater Farm. Sam M Sloan's original Pinewater Farm brochure **described a community of *"spacious lots (30,000 - 34,000 square feet) – enough for both a home and a large garden"*** *(attached).* The fourth bullet point in the same brochure reads: ***"restrictions to protect property values and rights of property owners."***

Most all of the long-time residents of Pinewater have stories to tell of how involved Sam and Amalie Sloan were in the community, even providing oversight for approving home plans at various times, so as to ensure the community remained just as they had intended. They were always an integral part of the Pinewater community and are missed by the Pinewater's long term residents who knew them.

Copies of the signed petition are attached, as is a map of all the residents who responded. It is safe to say that community appears to overwhelmingly agree when it comes to the lots in

question being part of the community and that any subdividing be consistent with the original intentions of Sam and Amalie Sloan, being 30,000-34,000 square feet in size. That is a fair and reasonable request to ensure that Pinewater remain as it has always been since it became a community.

On behalf of the Pinewater Farm community, thank you for your time and consideration.

Respectfully,

Kenneth Sale

Kenneth Sale
President, Pinewater Civic Association

Cc: Elliot Young, Christin Scott

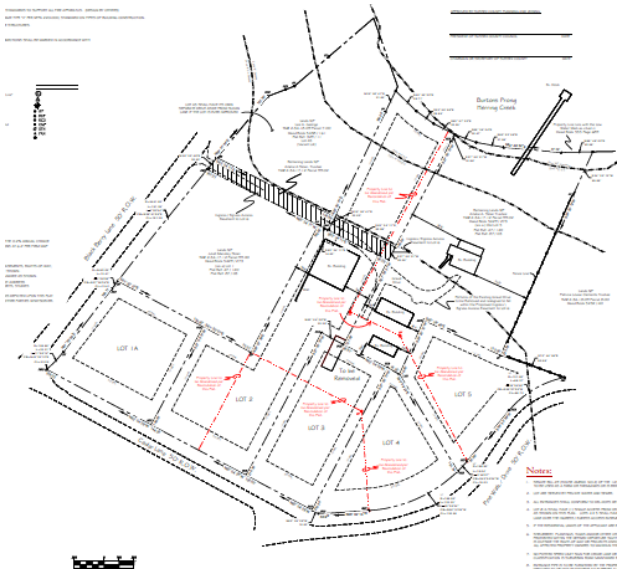
Attachments: 1. Petition with Map of the respondents/respondent signatures
2. Original Pinewater brochure

Survey of Pinewater Farm Residents to determine their view of the proposed subdividing/reorganization of lots adjacent to and part of the Sloan Farmhouse.

Background:

As a result of a Pinewater residents being asked to "sign off" on a request to subdivide/reorganize lots that are adjacent to their lot and the Sloan family farmhouse, the Pinewater Civic Association was made aware of the intention to subdivide lots that were previously 3/4 of an acre in size to five lots that are 1/2 acre or less.

Sam Sloan Jr. has yet to formerly notify the Pinewater Civic Association of his intentions but has already submitted to Sussex County Planning and Zoning, a preliminary request to subdivide the property arguing the property in question is not part of Pinewater.



When Pinewater was first established, Samuel M Sloan intended to create a development that offered: *(Copy of original print brochure attached)*

- "**Spacious lots (30,000-34,000 square feet) enough room for both a home and large garden"** ***(Copy of original print brochure attached)***

- ***Restrictions to protect property values and rights of property owners.***

The Sloan family, including Samuel Sr. and Amalie had always considered themselves to be part of Pinewater Farm. In fact, during a period as recently as several years ago before her passing Amalie Sloan personally provided architectural review and welcoming new homeowners to the neighborhood and was a member of the Pinewater Civic Association.

By signing below, you acknowledge that:

1. To the best of your knowledge, Sam Sloan Jr, or a representee on behalf of Sam Sloan Jr and/or the Sloan family, NEVER provided any detailed information relative to the lot sub-dividing/reorganization to the community, nor sought formal acceptance of the proposal.

2. As a resident of Pinewater, you are stating that you DO NOT WANT the Pinewater community to be impacted by lots that are smaller size and homes that are closer together at the center of the Pinewater community. This would change the look and feel of all that is within the Pinewater community, destroying the open space that surrounds our homes and is inconsistent with the foundation for which the Pinewater community was founded.

3. The location of the lots in question are not only adjacent to the lots and homes of other residents of Pinewater, they are also in the proverbial center of the community and in direct view of the common area spaces in Pinewater. As a result, subdividing these lots into smaller ones than those which were originally created and adjacent to other homes and lots within the community would not only change the look of the community but also could adversely affect the land/home values of adjacent lots/homes.

4. It has been my understanding and belief as a Pinewater resident and/or lot owner that the properties in question including and surrounding the Sloan farm, have always been considered part of Pinewater Farm and an integral part of the community.

5. Since these lots are in the center of the community, it is especially important that any sub-dividing or reorganization of lots should remain consistent with what was intended for the community of Pinewater Farm, being at least 30,000-34,000 square feet, consistent how the community was based, enjoyed by residents, with many homes handed down through families, and described in the original Pinewater Farm brochure (attached).

Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
KATHY GREENE	Kathy Greene	5 Virden Lane	13.5	302-226-0473
KATHY GREENE	Kathy Greene	Pinewater Dr	13.5	302-226-0473
Janice Fipp	Janice Fipp	3 Virden Lane	1986-36yrs	609.517.8113
Michael Murphy	Michael Murphy	3 Multi Farm	18	302-542 7522
James Joachimowski	James Joachimowski	6 Mulberry Lane	3	302-388-1864
EDWARD H. JOYNER III	Edward H Joyner III	#1 VIRDEN LANE	37	302 945 1315
ROBERT MAEGERLE	R Maegerle	33 PINEWATER DR.	60	3029471051
JOHN J. MAEGERLE	JM (BY R/M)	30 PINEWATER DR.	4	3022998848
MARY A. KUCHARSKI	MK (BY R/M)	3 SASSAFRAS LA.	6	3025935851
JOHN D. HERRICK	J D Herrick	9 PINEWATER	57	302 945-0655
MARGARET CRAVEN	Margaret Craven	4 Sloan Rd	30	302-377-7729
Dennis Crichlow	Dennis Crichlow	5 Sloan	4	917-468-4832
FRANCIS J. BAKER JR	Francis J Baker Jr	2 SLOAN	37	302-945-1595
MARK CLARK	2 Blackberry Lane	Mark Clark		302-420-7666
Sharon Fry	9 Sloan	Sharon Fry		454 D-395 2037
Brittany Layton	BNL	3 Sloan Rd	1	302-757-1028
Shawn Woolchman	Shawn W/a	7 Sloan Road	1	302-682-9191
Edwin MacDonald	Edwin MacDonald	13 SLOAN RD	3	302 947 9752
Mark S. Ayers	MARK AYERS	9 PINEWATER RD. 29		302-545-7840
P. Clements	Patricia Clements	1 Pinewater	2	3023500600

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Eileen Dawson	Eileen Dawson	31 Pinewater Dr.	3	302-494-5531
Norma Parks		26 Pinewater Dr.	40	302-947-9002
JANE TAYLOR	Jane E Taylor	24 PINEWATER DR.	30	3029470194
JOHN HOPKINS		22 PINEWATER DR	40	302-381-9736
Michelle Durand		25 Pinewater	6	302-541-4320
TOM Gillen	Tom Gillen	22 Pinewater	4yrs	4126130902
Dawn Stewart		21 Pinewater Dr	15	302.841.8419
Eloise Lee	Eloise Lee	18 Pinewater Dr	25	3029457652
Eloise Lee	Eloise Lee	5 Dogwood Dr	25	3029457652
Mike Brown		17 Pinewater Dr.	2	703.994.9829
Lila P. Goodman		32 Pinewater Dr.	23	3029452173
Ralph Eddi	Ralph Eddi	35 Pinewater Dr	10	610 656 1025
ROSEMARIE SIMMONS	Rosemarie Simmons	117 PINEWATER DR	10	302-945-8732
William Heckman		115 PINEWATER DR		302-858-7460
LINDA ROONEY	Linda R Rooney	8 SASSAFRASS LA	6	302.330.4046
Paul Zarebicki		113 Pinewater Drive	15	302-945-5301

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Patricia A. Quill	Patricia A. Quill	16 Pinewater Dr.	24	302-947-1029
DAVID RANKIN	David Rankin	20 PINEWATER DR		302-947-2834
CHARLES HOLLAND		14 PINEWATER DR		302-645-4521
Susan Savarese	Susan E. Savarese	19 Pinewater Dr.	30	302-947-1526
ROBERT RAMSEY		107 PINEWATER DR		2034706614
KENNETH SALE	Kenneth Sale	PCA - PAVILION		202 422 8826
"		PCA - KETTLE		"
"		PCA - FIELD		"

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Joyce Platt	Joyce Platt	15 Sloan Rd	20	302 947-2445
Barbara Hoffman	Barbara Hoff.	20 Sloan Rd	2	970 689-4344
RAY PETTERSEN	R Petterson	23617 SLOAN RD	9	717-542-1632
Rick Ackerman	Rick Ackerman	4 Persimmon Lane	4	2039430153 Persimmon
HELEN M ABRAMS	Helen M Abrams	4 Blackberry Ln	37	302 945-2368
Jessie Achey	Jessie Achey	23387 Sloan Rd	22	302-947-2607
Carla Wdowski	C Wdowski	104 Pinewater Dr.	16	914-552-5444
Nancy Talley	102 Pinewater DR.		23	302-945-
Hilda Slomoluch	30 Sloan Road		43yr.	3029451590
Pamela M Reuther	with Ruth	28 Sloan Rd	16 years	302-947-0904
JOANN HENNESSY	Joann Hennessy	5 Mulberry Ln	10 yrs	3029463534
Susan Gum		17 Sloan Rd	4	302.945.5368
Eileen Polini	Eileen Polini	3 Waterside Ln	22	302-945-5549
Susan Lee	Susan L. Ames	8 WATERSIDE La	15	3025456955
		1 Wato Sde	22	484 948 9629
Joseph PARKER	Joseph Parker	11 SLOAN RD	23	3023885189
Rev. William T. Cason	Rev. Wm T. Cason	1 Dogwood Drive Harbeson	36	302-945-4468

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
DIANA SHOTAK	Diana Shotak	9 Multiflora	16yr.	3027530070
Brenda Radick/Pichala		11 Multiflora Dr.	14	302-245-3272
Mac Drennan		13 Dogwood Drive	23	302-569-5215
Brad Thompson		11 Dogwood Dr	3	2676388887
THOMAS HONTZ	Thomas Hontz	4 DOGWOOD DR.	5	302-945-1945
DANIEL SCHIMELC		31 PERSIMMON LN	11	302-945-5838
Dawn Jackson	Dawn Jack	3 Pinewater	7	3028934987
	Leslie Skeen	15 Dogwood Dr.	19	302-562-0025
Karin E Snoots	Karin E Snoots	4 Sassafras LN Harbeson DE		302-947-1808
Wade Pam Wabood		3 dogwood		724-689-8029
WALTER + Kathy Hauss		18 DOGWOOD DR		9143194136

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Francis McInerney		5 Mulberry Ln	10	302-945-3534
WURST JR. LLOYD		4 MULBERRY LN.	32	302 945-5160
Chris Sale		15 Pinewater Dr	17	202-577-1484
WAYNE B. ERICKSEN		101 PINEWATER DR	59	302-853-2225

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Marcia Melson	Marcia Melson	105 Pinewater Drive	40 plus	302-945-7638
PAUL PHILLIPS		2 WATERSIDE LN	25	(302)399-1086
Al Profico		26 Sloan Rd	20	6102275623
Andrea Levick	Andrea Levick PHL	6 Persimmon Lane	5	

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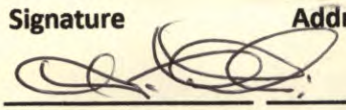
Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
THOMAS C. GOSLIN III		12 SLOAN RD.	10	6106131083

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Lee George	Lee George	9 Bayberry Lane	1yr	302-245-3453

Survey of Pinewater Farm Residents to determine their view of assuming the financial, administrative, and potential liabilities associated with the proposed annexed Sloan family subdivision.

Sloan Family Subdivision Background:

In the fall winter of 2018, Sam Sloan Jr. presented to the community the desire to subdivide a 7.9 acre lot west of Pinewater of off Pinewater Dr. with the intension to sell single family lots to *be divided among the four Sloan family members.* He asked for consent by the community to ***"submit a plan for the subdivision"*** and specifically stated ***"it was not approval of the subdivision, only to submitting the plan to Sussex County."***

The application was presented to Sussex County Planning and Zoning in April/May 2019, who were under the impression that Sam Sloan presented the plan to the Pinewater Community and that over 51% of the community voted to accept the proposed annexed submission as part of Pinewater and that Pinewater would accept responsibility for care and maintenance, administration and all liabilities pertaining to all additional common areas, as well as storm water management facilities.

Sussex County Planning and Zoning formally approved planned annexed subdivision in April of 2022 under the conditions that it would be part of Pinewater and the Pinewater would assume these responsibilities. The entire annex was then offered for sale to a builder or developer.

By signing below, you acknowledge that:

1. To the best of your knowledge, Sam Sloan Jr, or a representee on behalf of Sam Sloan Jr and/or the Sloan family, NEVER provided any detailed information relative to the planned annexed submission to the community, nor sought formal acceptance of the proposal.

2. As a resident of Pinewater, you are stating that you DO NOT WANT the Pinewater community to be responsible for the maintenance, oversight, and potential liabilities assoced with the administration and management of the proposed annexed subdivision.

3. Given the unique costs to the proposed annexed subdivision that would likely lead to an increase in homeowner association fees, without benefit to the rest of the Pinewater and its residents, that all costs related to administration, management and potential liabilities should be solely the responsibility of the future owners of those lots/home and only those lots/homes in the annexed subdivision.

4. I do not have any personal memory or recollection of ever being asked to provide a vote to accept the proposed annexed subdivision as part of the Pinewater community.

Name	Signature	Address (Number and Street)	Phone Number
DAVID RANKIN	David Rankin	20 PINEWATER DRIVE	302-947-2834
Myra Rankin	Myra Rankin	20 Pinewater Drive	3029472834

4. It has been my understanding and belief as a Pinewater resident and/or lot owner that the properties in question including and surrounding the Sloan farm, have always been considered part of Pinewater Farm and an integral part of the community.

5. Since these lots are in the center of the community, it is especially important that any sub-dividing or reorganization of lots should remain consistent with what was intended for the community of Pinewater Farm, being at least 30,000-34,000 square feet, consistent how the community was based, enjoyed by residents, with many homes handed down through families, and described in the original Pinewater Farm brochure (attached).

Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
THOMAS BAIER	EMAIL BY [illegible]	28 PINEWATER DR.	4	570-244-6771
COY THOMAS	EMAIL BY [illegible]	103 PINEWATER DR	6	—

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
HERBERT C. MILLER, JR.	Herbert C. Miller Jr.	14 Sloan Road, Newark, De	20	302-945-5610

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
[illegible]	[signature]	17 Dogwood Dr.	32	(435) 9707

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Cindy Chait	Cindy Chait	19 Dogwood Dr E		516 473 3407

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
G Thomas Henderson	T om Henderson	125 S. Bedford St Georgetown, De 19947	50+	302-856-7529
Christine Henderson	C. Henderson	125 S. Bedford St Georgetown, DE 19947	50+	302-856-7529
		We own Lot B-5 Pinewater		

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Jay Haddock		4 Huckelberry LN.	16	202 285-0722

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5. Since these lots are in the center of the community, it is especially important that any sub-dividing or reorganization of lots should remain consistent with what was intended for the community of Pinewater Farm, being at least 30,000-34,000 square feet, consistent how the community was based, enjoyed by residents, with many homes that have been handed downs through families, and described in the original Pinewater Farm brochure (attached).

Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Sharon Schiavone	Sharon Schiavone	3 Mulberry Lane	6	4103752157

4. It has been my understanding and belief as a Pinewater resident and/or lot owner that the properties in question including and surrounding the Sloan farm, have always been considered part of Pinewater Farm and an integral part of the community.

5. Since these lots are in the center of the community, it is especially important that any sub-dividing or reorganization of lots should remain consistent with what was intended for the community of Pinewater Farm, being at least 30,000-34,000 square feet, consistent how the community was based, enjoyed by residents, with many homes handed down through families, and described in the original Pinewater Farm brochure (attached).

Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Eileen McLaughlin	[signature]	6 Matthews Dr	9	(302) 740-0197

4. It has been my understanding and belief as a Pinewater resident and/or lot owner that the properties in question including and surrounding the Sloan farm, have always been considered part of Pinewater Farm and an integral part of the community.

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Paul Bradley	Paul Bradley	Dogwood & Persimmon Drive	17	302 239-4793

4. It has been my understanding and belief as a Pinewater resident and/or lot owner that the properties in question including and surrounding the Sloan farm, have always been considered part of Pinewater Farm and an integral part of the community.

5. Since these lots are in the center of the community, it is especially important that any sub-dividing or reorganization of lots should remain consistent with what was intended for the community of Pinewater Farm, being at least 30,000-34,000 square feet, consistent how the community was based, enjoyed by residents, with many homes handed down through families, and described in the original Pinewater Farm brochure (attached).

Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Donald M. Ilman	Donald M. Ilman	30998 Robinsonville Rd (6 Dogwood Dr. Pinewater) Lewes DE	40+	302-249-3869

4. It has been my understanding and belief as a Pinewater resident and/or lot owner that the properties in question including and surrounding the Sloan farm, have always been considered part of Pinewater Farm and an integral part of the community.

5. Since these lots are in the center of the community, it is especially important that any sub-dividing or reorganization of lots should remain consistent with what was intended for the community of Pinewater Farm, being at least 30,000-34,000 square feet, consistent how the community was based, enjoyed by residents, with many homes handed down through families, and described in the original Pinewater Farm brochure (attached).

Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Kimberly Campbell	Kimberly Campbell	14 Dogwood Dr.	5	302-593-8755

4. It has been my understanding and belief as a Pinewater resident and/or lot owner that the properties in question including and surrounding the Sloan farm, have always been considered part of Pinewater Farm and an integral part of the community.

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Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
Donna Stekel	D Stekel	3 Persimmon Lane	20+	301-271-3553

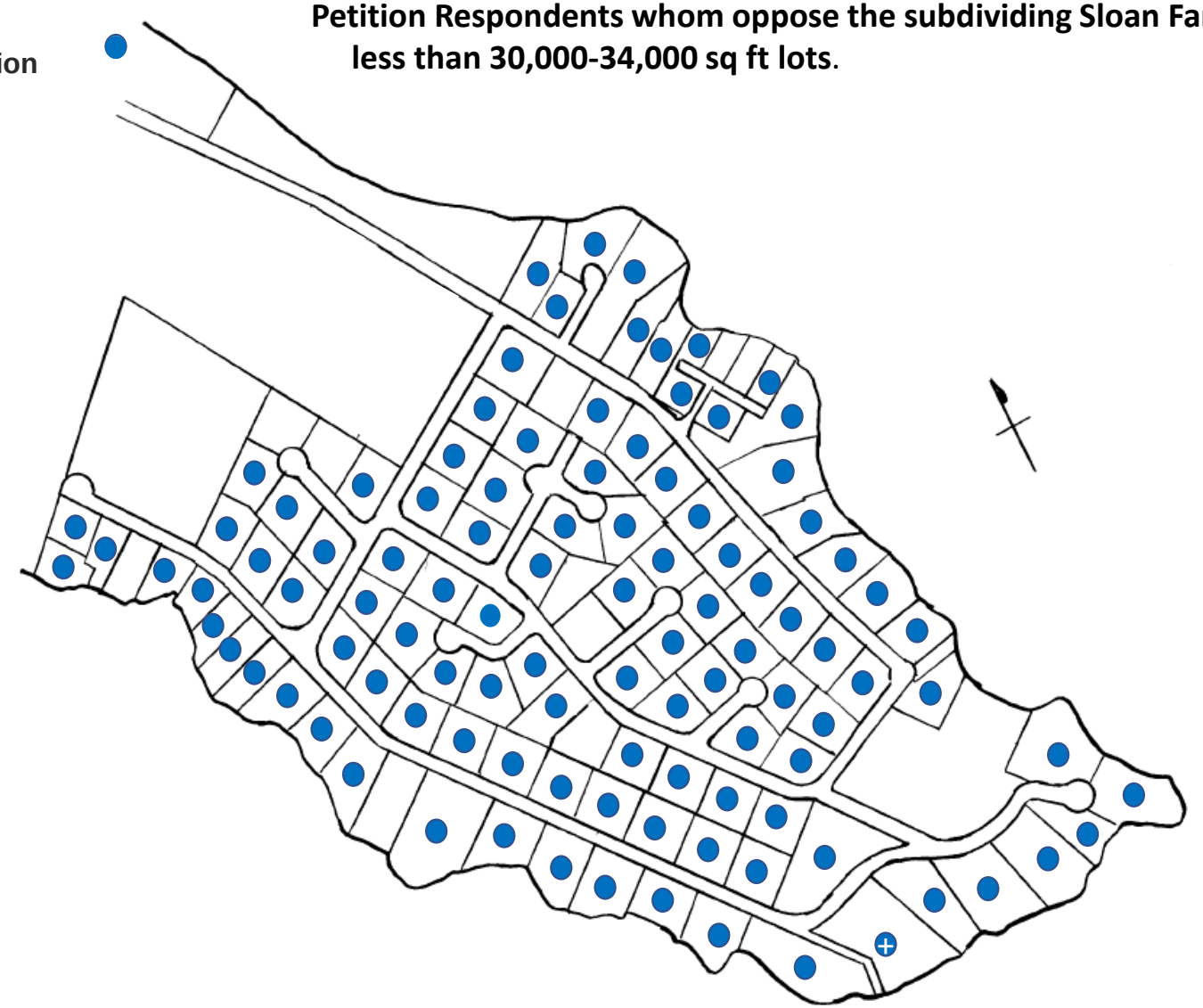
4. It has been my understanding and belief as a Pinewater resident and/or lot owner that the properties in question including and surrounding the Sloan farm, have always been considered part of Pinewater Farm and an integral part of the community.

5. Since these lots are in the center of the community, it is especially important that any sub-dividing or reorganization of lots should remain consistent with what was intended for the community of Pinewater Farm, being at least 30,000-34,000 square feet, consistent how the community was based, enjoyed by residents, with many homes that have been handed downs through families, and described in the original Pinewater Farm brochure (attached).

Name (Print)	Signature	Address (Number and Street)	Years in PWF	Phone Number
MARY ANN Scott	Mary Ann Scott	31 Huckleberry		302 947
Joanne & Wm Manley	Joanne & Wm Manley	6 Huckleberry Lane	45-2069	302
Susan Bryan		8 Sloan Road		(302) 438 994

Signed in favor of petition

Petition Respondents whom oppose the subdividing Sloan Farm lots to less than 30,000-34,000 sq ft lots.



Pinewater Farm

. . . an elevated peninsula radiating peace, quiet and seclusion . . . the setting - a natural unspoiled landscape amidst the wildlife habitat of deer, ducks, geese, birds, fish and shellfish . . . located only 8 miles from Rehoboth Beach . . . direct access from a private docking area provided exclusively for Pinewater residents to the Rehoboth Bay (2.5 miles) or the Atlantic Ocean (7.5 miles) for all fishing and water sports.

Pinewater Farm is a restricted community with fine year-round and vacation homes. Here, discriminating families have contributed much to making this a most desirable place to live and one where values will remain at a high level.

For more information contact:

Samuel M. Sloan
Pinewater Farm
R. D. 5, Box 160
Harbeson, Delaware 19951

(302) 945-0842
(evenings & weekends)

Printed by Countion Press, Inc. Georgetown, De.

Pinewater Farm

Advantages of the development . . .

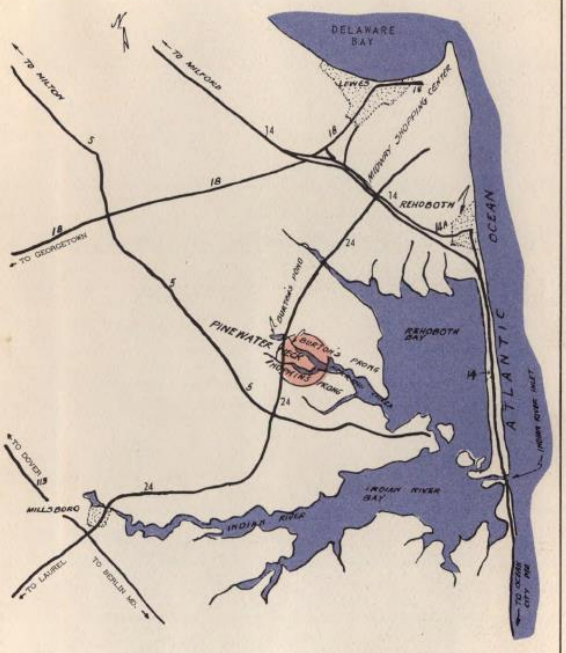
Pinewater Farm is located 10 miles southwest of Rehoboth Beach, 1 mile east of Route 24 near Burton Pond in Sussex County, Delaware. This development, located on a peninsula bordered by Herring Creek, offers:

- spacious lots - (30,000 - 34,000 square feet) - enough room for both a home and a large garden.
- reasonable financing by developer.
- by boat, easy access to Rehoboth Bay and Indian River Inlet.
- by car, 15 min. drive to Rehoboth Beach, Lewes and Millsboro.
- restrictions to protect property values and rights of property owners.
- private boat ramp and recreation areas.

We feel that our limited development, unspoiled and controlled by restrictions, offers a permanent location to own a year-round home or an attractive seasonal home.

S. M. Sloan
Owner and Developer

Location . . .



See inside for detailed map of Pinewater Farm.

JAMIE WHITEHOUSE, AICP
DIRECTOR OF PLANNING & ZONING
(302) 855-7878 T
(302) 854-5079 F
jamie.whitehouse@sussexcountyde.gov

Sussex County
DELAWARE
sussexcountyde.gov

PLEASE NOTE

This paperless packet is published on the County's website for convenience purposes, and only includes information received up to the close of business on the day before a public hearing. Documents received after this, or documents submitted during the public hearing are not uploaded to the Paperless Packet. The legal record is the paper record maintained in the Offices of the Planning & Zoning Department.

PLANNING & ZONING COMMISSION
ROBERT C. WHEATLEY, CHAIRMAN
KIM HOEY STEVENSON, VICE-CHAIRMAN
R. KELLER HOPKINS
J. BRUCE MEARS
HOLLY J. WINGATE

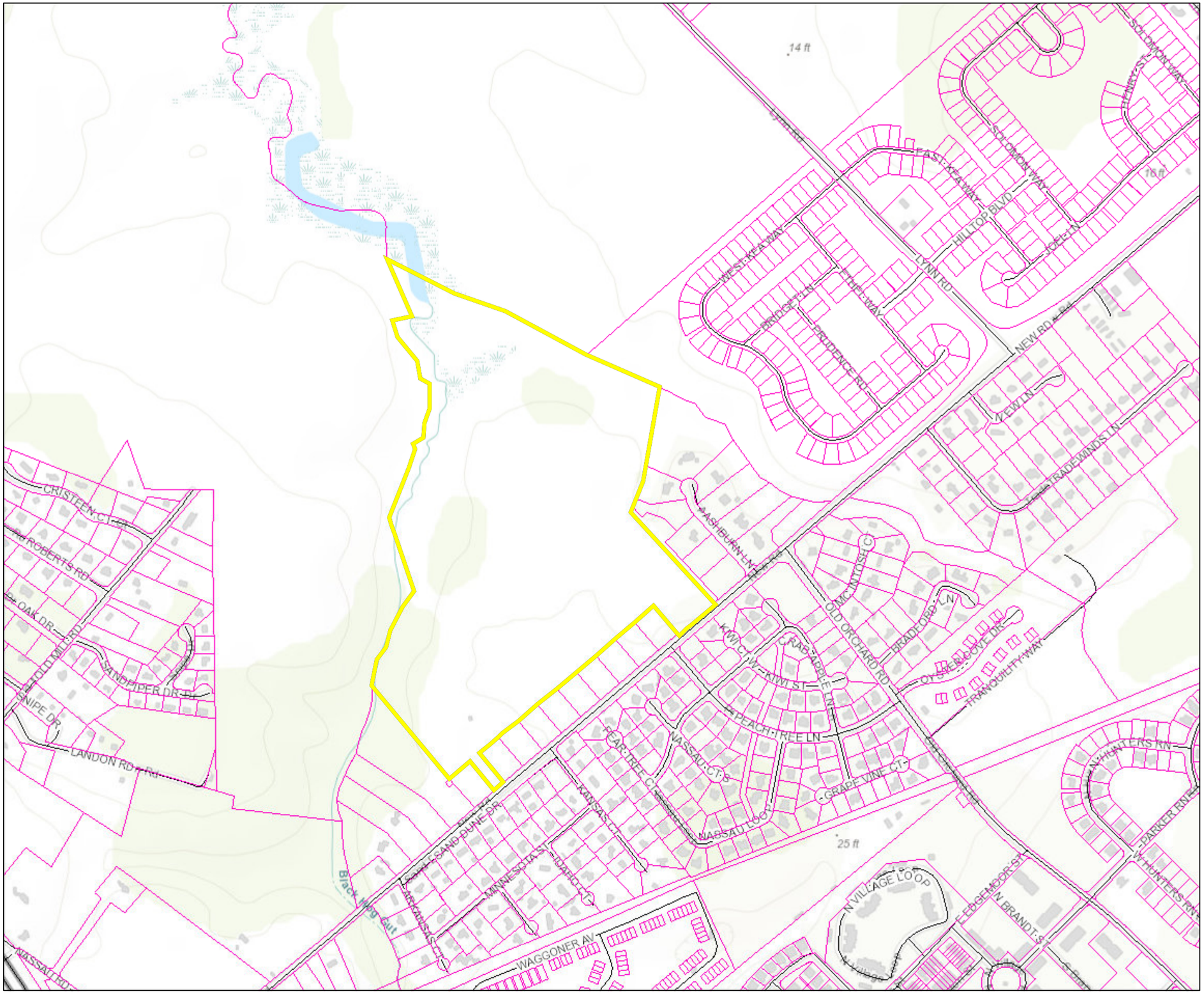
Sussex County
DELAWARE
sussexcountyde.gov
302-855-7878 T
302-854-5079 F
JAMIE WHITEHOUSE, AICP
DIRECTOR

PLANNING AND ZONING AND COUNTY COUNCIL INFORMATION SHEET
Planning Commission Public Hearing Date: August 25th, 2022

Application:	Glenwood (2021-31)
Applicant:	Glenwood Lewes, LLC 18949 Coastal Highway, Suite 301 Rehoboth Beach, DE 19971
Owner:	Leslie Gay Knapp Marini, Successor Trustee 1102 Bay Avenue Lewes, DE 19958
Site Location:	Lying on the northwest side of New Road (S.C.R. 266), approximately 0.51-mile northeast of Nassau Road (S.C.R. 266B)
Current Zoning:	Agricultural Residential (AR-1) Zoning District
Proposed Use:	131 Lot Cluster Subdivision
Comprehensive Land Use Plan Reference:	Low Density
Councilmanic District:	Mr. Schaeffer
School District:	Cape Henlopen School District
Fire District:	Lewes Fire Company
Sewer:	Sussex County
Water:	Tidewater Utilities
Site Area:	77.24 acres +/-
Tax Map ID.:	335-7.00-6.00

EQUAL HOUSING OPPORTUNITY

Sussex County



PIN:	335-7.00-6.00
Owner Name	KNAPP HALSEY G TRUSTEE
Book	4250
Mailing Address	1102 BAY AVE
City	LEWES
State	DE
Description	NW/NEW RD
Description 2	N/A
Description 3	N/A
Land Code	

polygonLayer

Override 1

polygonLayer

Override 1

Tax Parcels

Streets

County Boundaries

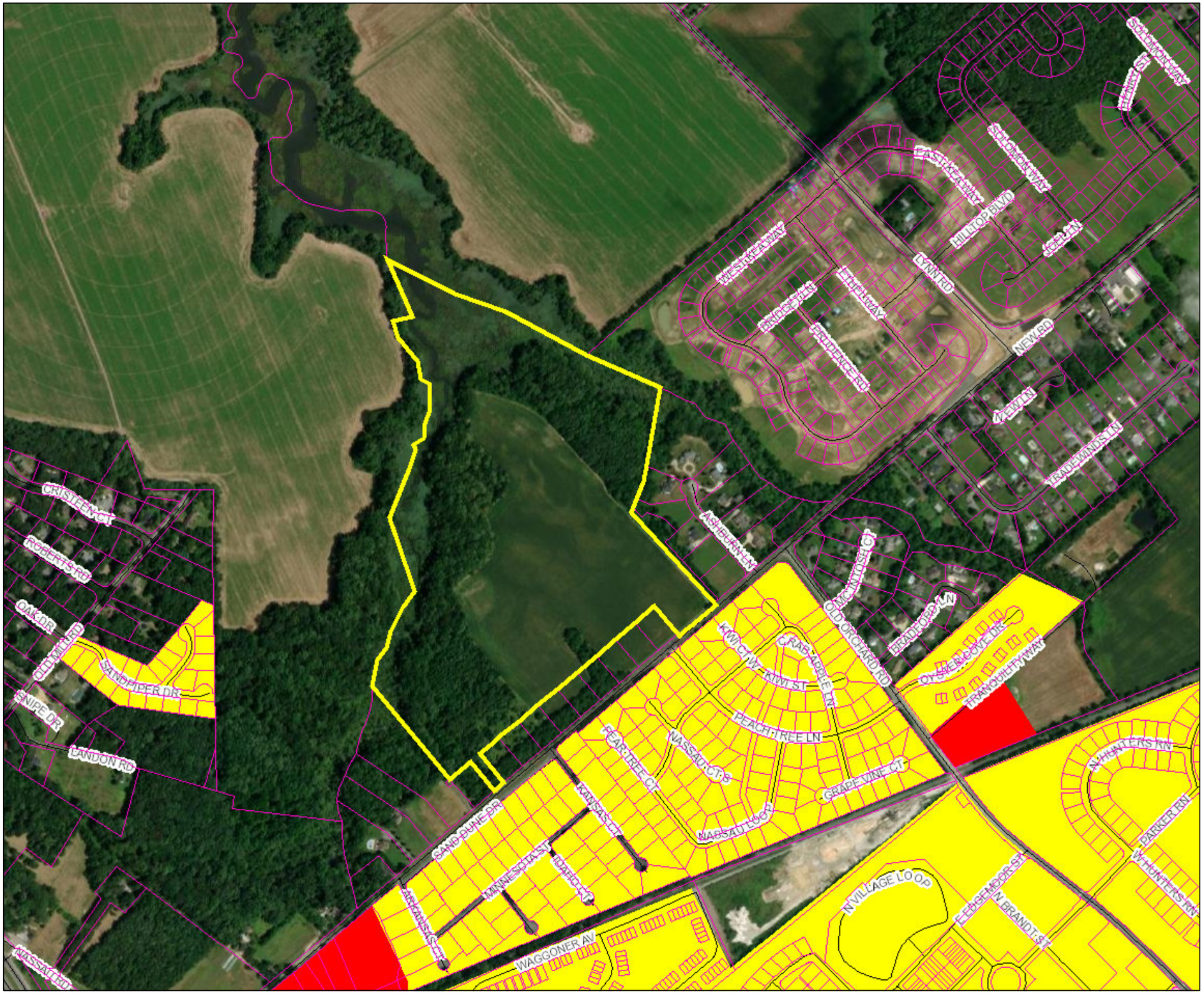
1:9,028

0 0.1 0.2 0.4 mi

0 0.175 0.35 0.7 km

July 26, 2022

Sussex County



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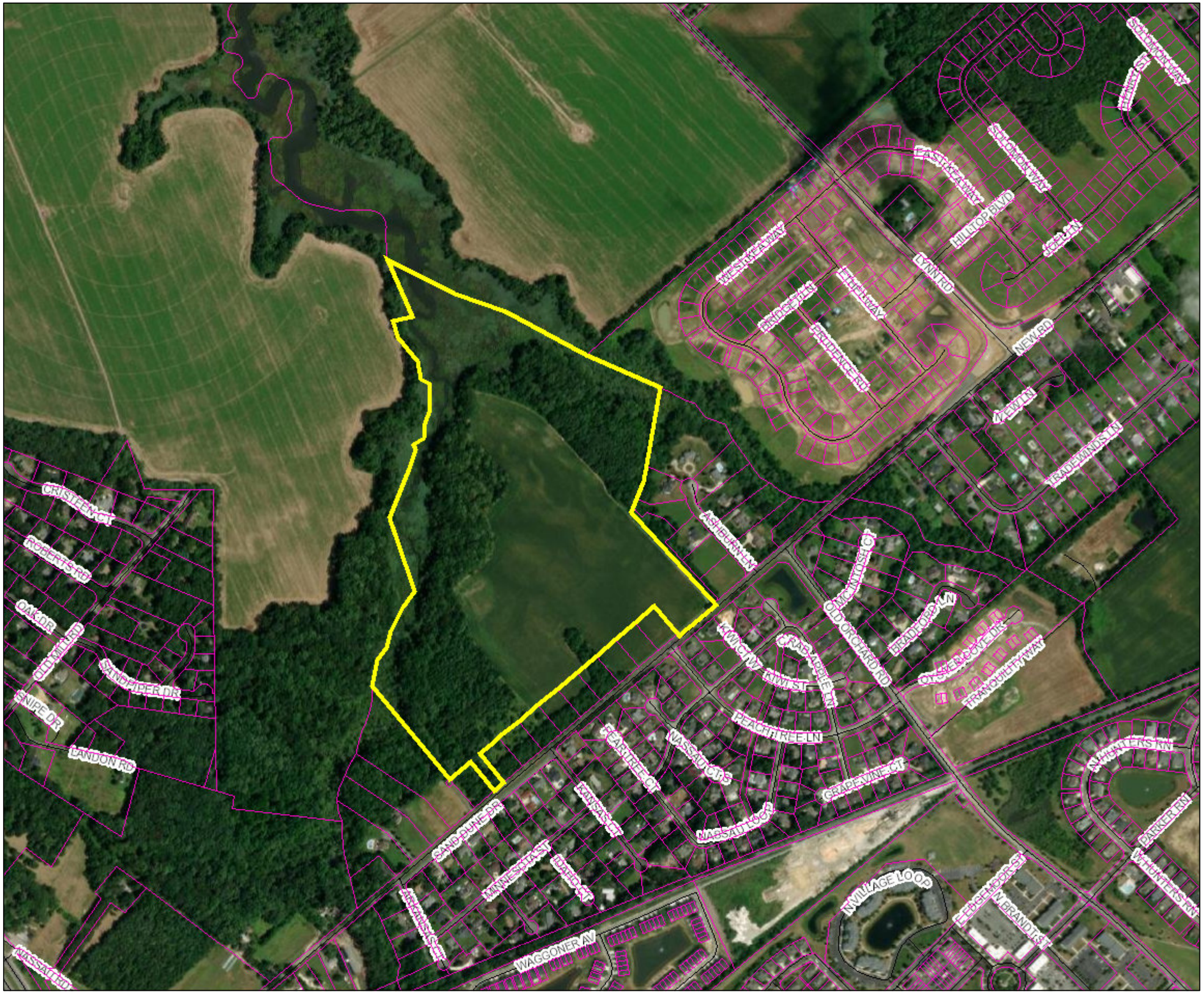

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Tax Parcels

Streets

County Boundaries

July 26, 2022

1:9,028

0 0.1 0.2 0.4 mi

0 0.175 0.35 0.7 km

File #: 2021-31
Pre-App Date:

Sussex County Major Subdivision Application

202114292

Sussex County, Delaware

Sussex County Planning & Zoning Department
2 The Circle (P.O. Box 417) Georgetown, DE 19947
302-855-7878 ph. 302-854-5079 fax

Type of Application: (please check applicable)
Standard: __
Cluster: ✔
Coastal Area: __

Location of Subdivision:

North side of New Road, +/- 2,400' east of Nassau Road

Proposed Name of Subdivision:

Glenwood

Tax Map #: 335-7.00-6.00 Total Acreage: 77.24 +/- acres

Zoning: AR-1 **Density:** 1.69 **Minimum Lot Size:** 7,500 **Number of Lots:** 131

Open Space Acres: 41.97 +/- acres

Water Provider: Tidewater Utilities **Sewer Provider:** Sussex County

Applicant Information

Applicant Name: Glenwood Lewes, LLC
Applicant Address: 18949 Coastal Hwy, Suite 301
City: Rehoboth Beach State: DE ZipCode: 19971
Phone #: (302) 227-3573 E-mail: ben@oacompanies.com

Owner Information

Owner Name: Leslie Gay Knapp Marini, Successor Trustee
Owner Address: 1102 Bay Ave
City: Lewes State: DE Zip Code: 19958
Phone #: E-mail:

Agent/Attorney/Engineer Information

Agent/Attorney/Engineer Name: Davis, Bowen & Friedel, Inc. - W. Zachary Crouch, P.E.
Agent/Attorney/Engineer Address: 1 Park Ave
City: Milford State: DE Zip Code: 19963
Phone #: (302) 424-1441 E-mail: wzc@dbfinc.com

Check List for Sussex County Major Subdivision Applications

The following shall be submitted with the application

✔ **Completed Application**

✔ **Provide ten (10) copies of the Site Plan or Survey of the property and a PDF (via e-mail)**

- Plan shall show the existing conditions, setbacks, roads, floodplain, wetlands, topography, proposed lots, landscape plan, etc. **Per Subdivision Code 99-22, 99-23 & 99-24**
- Provide compliance with Section 99-9.
- Deed or Legal description, copy of proposed deed restrictions, soil feasibility study

✔ **Provide Fee $500.00**

___ **Optional - Additional information for the Commission to consider** (ex. photos, exhibit books, etc.) If provided submit seven (7) copies and they shall be submitted a minimum of ten (10) days prior to the Planning Commission meeting.

___ **Please be aware that Public Notice will be sent to property owners within 200 feet of the subject site and County staff will come out to the subject site, take photos and place a sign on the site stating the date and time of the Public Hearings for the application.**

___ **PLUS Response Letter** (if required) ☐ **Environmental Assessment & Public Facility Evaluation Report** (if within Coastal Area)

___ **51% of property owners consent if applicable**

The undersigned hereby certifies that the forms, exhibits, and statements contained in any papers or plans submitted as a part of this application are true and correct.

I also certify that I or an agent on by behalf shall attend all public hearing before the Planning and Zoning Commission and any other hearing necessary for this application and that I will answer any questions to the best of my ability to respond to the present and future needs, the health, safety, morals, convenience, order, prosperity, and general welfare of the inhabitants of Sussex County, Delaware.

Signature of Applicant/Agent/Attorney

_____ Date: 9-24-2021

Signature of Owner

Leslie Lockup Successor Trustee Date: Sept 23 2021

For office use only:

Date Submitted: 9/28/21 Fee: $500.00 Check #: 3474

Staff accepting application: LBD Application & Case #: 2021-31

Location of property: _____

Date of PC Hearing: _____ Recommendation of PC Commission: _____

Mailing List Application Form

For Applications Requiring a Public Hearing in Sussex County

Please fill out this form and return it with your application. As a part of your application, a Public Hearing is required. The property owners within 200' of the site of the application will be notified. Staff will notify the property owners.

Application Information:

Site Address: North side of New Road, +/- 2,400' east of Nassau Road

Lewes, DE 19958

Parcel #: 335-7.00-6.00

Site Address: _____

_____

Parcel #: _____

Applicant Name: Glenwood Lewes, LLC

Owner Name: Leslie Gay Knapp Marini, Successor Trustee

Type of Application:

Conditional Use: ☐
Change of Zone: ☐
Subdivision: ☒
Board of Adjustment: ☐

Date Submitted: 9/27/21

For office use only:

Date of Public Hearing: _____

File #: _____

Date list created: _____ List created by: _____

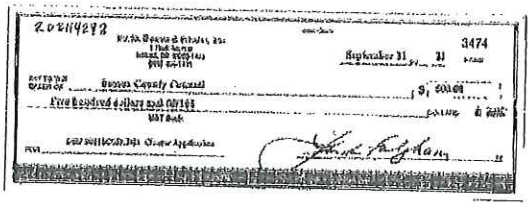
Date letters mailed: _____ Letters sent by: _____

Sussex County, D.
Treasury
P.O. Box 601
Georgetown, DE 19947
Welcome

33020633-0146 Lindsey S 09/28/2021 10:29AM

PERMITS / INSPECTIONS	
SUBDIVISION - FEE	
2021 Item: 202114292|2005	500.00
	500.00
Subtotal	500.00
Total	500.00
CHECK	500.00
Check Number003474	
Change due	0.00

Paid by: DAVIS BOWEN & FRIEDEL INC.



Thank you for your payment

Sussex County, DE COPY
DUPLICATE RECEIPT

DAVIS BOWEN & FRIEDEL, INC.

ARCHITECTS • ENGINEERS • SURVEYORS

Michael R. Wigley, AIA, LEED AP
W. Zachary Crouch, P.E.
Michael E. Wheedleton, AIA, LEED GA
Jason P. Loar, P.E.
Ring W. Lardner, P.E.
Jamie L. Sechler, P.E.

September 27, 2021

Sussex County Planning and Zoning Commission
County Administration Building
2 The Circle
Georgetown, DE 19947

Attn: Mr. Jamie Whitehouse
Director of Planning

RE: Glenwood
Chapter 99-9 C Response
Tax Parcel No.: 335-7.00-6.00
DBF #0818C053

Dear Mr. Whitehouse:

On behalf of our client, Ocean Atlantic Companies, we are pleased to provide you with our written response to the items listed in Chapter 99-9C.

1. **Integration of the proposed subdivision into the existing terrain and surrounding landscape.**

    a. The proposed Glenwood development includes the required 50' tidal wetlands buffer and an additional 50' buffer for a total of 100' from tidal wetlands. There is also a 50' voluntary buffer from non-tidal wetlands to the building setback.

    b. There will be a 30' landscape buffer between the developed area and all adjoining properties.

    c. All landscaping will use native species to aid in the proposed subdivisions fitting in and enhancing surrounding scenery.

2. **Minimal use of wetlands and floodplains.**

    a. A wetlands delineation was performed by ERI Consulting. The investigation found both State and Federal Wetlands. Tidal wetlands will be protected by a 100' wetlands buffer. A building setback of 50' has been established along all non-tidal wetlands. The only possible impacts we anticipate would be small areas for discharge protection at stormwater outfalls.

3. **Preservation of natural and historical features.**

    a. The proposed development will be designed around natural features on-site including, tidal and non-tidal wetlands.

    b. Tidal wetlands will be protected by a 100' wetlands buffer. A building setback of 50' has been established along all non-tidal wetlands.

    c. The developer is in the process of completing a Phase I archeological study even though the site does not contain any known historical archaeological site or National Register listed properties.

4. **Preservation of open space and scenic views.**

    a. The proposed community is staged to present views to a central stormwater pond which will also serve as an aesthetic amenity. Recreational open space is provided west of the pond which will include a pool, tot lot, dog park, grill & fireplace, pickleball courts, as well as community gardens.

    b. A 50 ft voluntary buffer is provided from non-tidal wetlands to help preserve additional open space.

5. **Minimization of tree, vegetation and soil removal and grade changes.**

    a. Grade changes will be minimized to the extent necessary to provide road construction to meet design requirements, flood protection and to ensure proper lot drainage.

    b. We will be preserving 13.9 acres of old growth forest and only removing 4.1 acres of old growth forest.

6. **Screening of objectionable features from neighboring properties and roadways.**

    a. There will be a 30' landscape buffer between the developed area and all adjoining properties.

7. **Provision for water supply.**

    a. Tidewater Utilities, Inc. will supply all homes with central water.

b. The developer will construct internal water mains within the project that will receive approval from, be owned by, and maintained by Tidewater Utilities, Inc.

8. **Provision for sewage disposal.**

a. Sussex County will provide sanitary sewer conveyance and treatment for the proposed subdivision. The property is located within the West Rehoboth Expansion of the Dewey Beach Sanitary Sewer District. The development will be served by gravity sewer to an existing regional pump station located adjacent to the site.

9. **Prevention of pollution of surface and groundwater.**

a. The storm drainage system will capture drainage from the site.

b. Best Available Technologies (BATs) will be used during the design and construction of the property.

c. Best Management Practices (BMPs) will be used during the design and construction of the property.

d. The site will utilize Green Technologies such as bio-retention areas, bio-swales or submerged gravel wetlands where feasible for the project.

10. **Minimization of erosion and sedimentation, minimization of changes in groundwater levels, minimization of increased rates of runoff, minimization of potential for flooding and design of drainage so that groundwater is maximized.**

a. The stormwater management areas will be designed to meet all local, state and federal guidelines for sediment and nutrient removal.

b. An Erosion and Sediment Control Plan will be developed and implemented as required by the Sussex Conservation District and DNREC. The plan will specify in detail how the project is to be constructed to limit the amount of sediment and other pollutants from leaving the site during construction.

c. All storms will be controlled and discharged at the pre-development rate. The 100-year storm will be safely routed through this site.

11. **Provision for safe vehicular and pedestrian movement within the site and to adjacent roadways.**

a. The interior of the subdivision contains sidewalks on both sides of the street providing pedestrian connection throughout the site.

b. The road design will conform to Sussex County standards and specifications and will be turned over to the homeowner's association for maintenance upon acceptance by the County.

c. Street lighting will be provided for this project.

d. The Developer will provide multi-modal path for bike and pedestrian use as required by DelDOT.

12. **Effect on area property values.**

a. The project's development should have no adverse effect on property values in the area.

13. **Preservation and conservation of farmland.**

a. About half of the total acreage is being currently. With developments already surrounding the parcel of land, large cropland acreage no longer exists. Development of the land will increase the quality of runoff and aid in nutrient laden waters from entering adjacent waterways.

14. **Effect on schools, public buildings and community facilities.**

a. The increase in tax revenue to the school district will assist in the maintenance and operations of schools within the Cape Henlopen School District.

15. **Effect on area roadways and public transportation.**

a. The approved entrance was designed to DelDOT standards and the streets will be designed to Sussex County standards and specifications.

b. The developer will be required to provide a future multi-modal path for bike and pedestrian use.

16. **Compatibility with other area land uses.**

a. The Glenwood community is compatible with its existing zoning. It is located in an area of the county where growth is encouraged and in close proximity to existing water and sewer infrastructure.

b. Glenwood is a short distance from many other residential neighborhoods and the City of Lewes area.

17. **Effect on area waterways.**

a. The Glenwood community will be designed to improve the quality of runoff from the site.

b. The site will comply with all TMDLs and PCS's as adopted by the State.

On behalf of our client, we thank you for your review and consideration of this response. If you should have any questions or concerns, please contact me at (302) 424-1441

Sincerely,
DAVIS, BOWEN & FRIEDEL, INC.

W. Zachary Crouch, P.E.
Principal

Phase I Archaeological Investigation
Knapp Farm on New Road
Lewes, Sussex County, Delaware

July 26, 2022

Prepared for:
Glenwood Lewes LLC
18949 Coastal Highway, Unit 301
Rehoboth Beach, Delaware 19971

By
Edward Otter, Ph.D. & Jill L. Showell
Edward Otter, Inc.
1704 Camden Avenue
Salisbury, Md. 21801

ABSTRACT

Edward Otter, Inc. was contacted in the Summer of 2021 to perform a Phase I archaeological investigation on a tract of land known as the Knapp Farm, Sussex County Parcel 335-7.00-6.00. Work was initiated and funded by Glenwood Lewes LLC. as part of an effort toward developing the property into a residential community. The project as designed would not require any federal involvement and there were no regulatory compliance issues concerning cultural resources. The goal of this work is to determine if archaeological sites exist on the property and if so, where. This information can then be used for planning purposes.

The project is located along the northwest side of New Road approximately 2.25 miles southwest of the town of Lewes, Sussex County, Delaware. The project area includes 77.22 acres of land consisting of tilled farmland and woodlands. This is within Lower Coastal Plain physiographic zone with drainage to the Delaware Bay. Black Hog Gut runs along the southwest and Prettyman's Branch runs near the northeast sides of the property. These are tributaries to the Great Marsh and Broadkill River. Being close to Lewes, the land seemingly holds potential to contain sites from prehistory and the early 17th century settlement of Delaware. This project was initiated to determine whether archaeological deposits exist on the property.

Archival research and field study, in the form of surface survey and shovel tests, were conducted in order to achieve this goal. In all, archaeological field work identified eight archaeological sites, six precontact and two historic. The prehistoric sites are small with few artifacts, compared to some other sites in the region. A few fragments of Early Woodland and Late Woodland pottery indicate these sites cover a broad swath of time. The two historic period sites include one from the 18th century and one from the early 20th century. The 20th century site was likely the house occupied by Samuel Davidson between 1917 and 1925. The earlier site likely represents the home of Thomas Gray who lived on this land between 1770 and 1783.

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INTRODUCTION

Edward Otter, Inc. was contacted in the Summer of 2021 to perform a Phase I archaeological investigation on a tract of land known as the Knapp Farm, Sussex County Parcel 335-7.00-6.00. Work was initiated and funded by Glenwood Lewes, LLC. as part of an effort toward developing the property into a residential community. The project as designed would not require any federal involvement and there were no regulatory compliance issues concerning cultural resources. The goal of this work is to determine if archaeological sites exist on the property and if so, where. This information can then be used for planning purposes.

Project Location and Setting

The project is located along the northwest side of New Road approximately 2.25 miles southwest of the City of Lewes, Sussex County, Delaware (Figure 1). The project area includes 77.22 acres of land consisting of tilled farmland and woodlands (Figure 2). Ten lots fronting New Road were previously cut from original parcel configuration. The ten lots were not included in this archaeological survey. Until the 20th century, Lewes was a small town. It was the original county seat and has been permanently occupied since 1659. The lands outside of the town were primarily held in large agricultural tracts. The Knapp property is a remnant of that landscape.

The project lies within the Delaware Shore of the Lower Coastal Plain physiographic zone (Custer 1984) with drainage to the Delaware Bay. Black Hog Gut runs along the southwest and Prettyman's Branch runs near the northeast sides of the property. These are tributaries to the Great Marsh and Broadkill River. Current literature describes the Great Marsh as a 17,000-acre expanse of marsh and waterways teaming with aquatic life. From the streams to the marsh and to the Delaware Bay, salinity regimes change from fresh to near-ocean salinity levels. This provides habitat for a diverse range of plants and animals. Elevations in the Lewes area are typically below 20 feet above mean sea level (amsl). The current project area elevations range from 10 to 20 feet amsl.

SCOPE OF WORK

Being close to Lewes City limits, the land seemingly holds potential to contain sites from the early 17th century settlement era as well as prehistoric occupation of Delaware. This project was initiated to determine whether archaeological deposits exist on the property. Archival research and field study were conducted in order to achieve this goal.

Archival Research Design

Delaware Division of Historical and Cultural Affairs (DHCA) Chris was reviewed to determine if archaeological sites were previously identified in or within a one-half mile radius of the project area. Land history research was conducted at Delaware Public Archives. A history of the land was created from primary and secondary documents, historic maps, and aerial photography. Through land research, an indication of land use can be found. It is not uncommon to find direct references to occupants and sometimes plat maps showing the locations of buildings. Indications of cemeteries might also be found. This form of research makes it possible to associate any identified historic period site with the people who owned the land at the time the site was occupied. Sites become more meaningful when they can be associated with specific individuals and families.

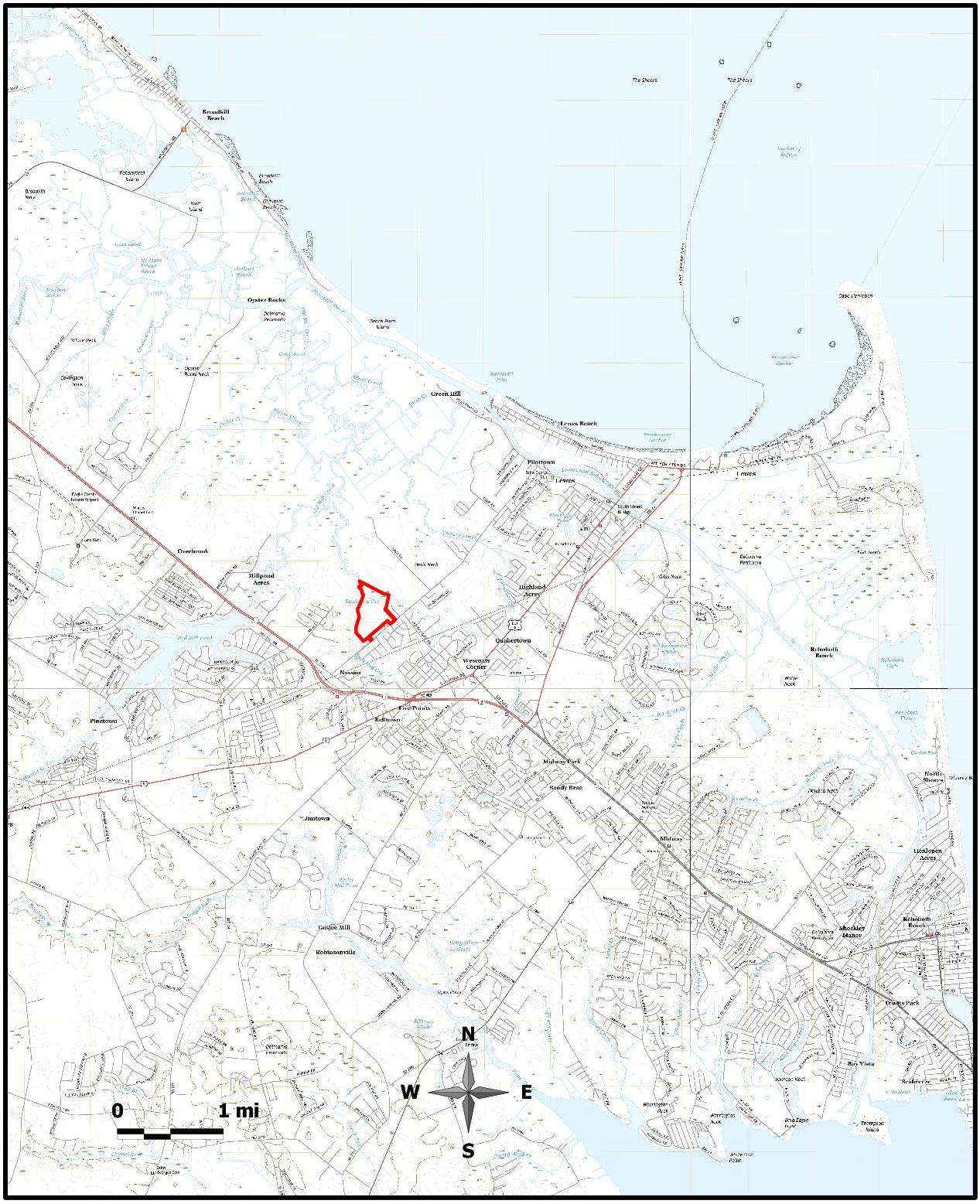

Figure 1. Project Location

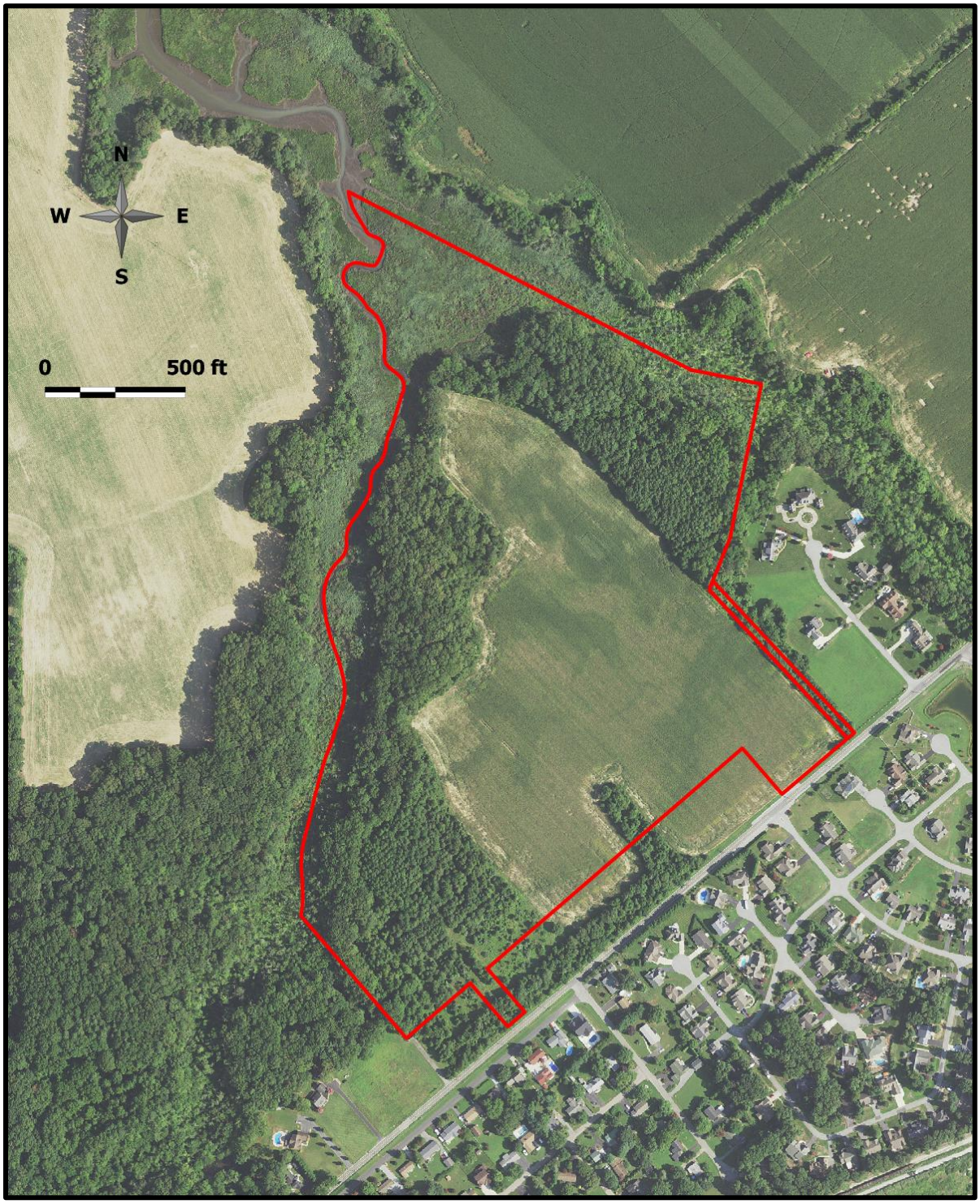

Figure 2. Project Setting

Field Study Design

Field work was designed to locate any archaeological sites that might exist on the property. This work consisted of a comprehensive surface survey through plowed fields and subsurface testing through woodlands.

The field was plowed and allowed for rain to wash soils from any artifacts brought to the surface. Dr. Otter and his crew walked the entire field spaced about 10 feet apart. Artifacts were marked with pin flags. Artifacts were mapped using total station and data collector. When an area concentrated with artifacts was found, it was walked again in other directions. This effort was to discover temporally diagnostic artifacts and to better determine the limits of the concentration.

Shovel tests were placed on a 50-foot interval grid through the woods. The goal of the shovel tests was to examine stratigraphy and to test the subsoil for potential buried artifacts and features. Additional shovel tests were placed selectively within the plowed field to examine soil profiles.

Shovel tests are excavations measuring between 12 inches and 18 inches in diameter and are dug to a depth sufficient to intersect subsoil. All soils are screened through ¼-inch hardware cloth to recover artifacts. Each test is noted in terms of its location, strata, and the color and texture of each stratum. Artifacts were retained and processed at the archaeological lab.

Laboratory

In the laboratory, artifacts were cleaned and cataloged. The catalog maintains provenience data and includes information on material and function. A modified version of classifications originally presented by Stanley South (South 1977) is used. Artifact types provide information temporal associations and functions.

Spatial analysis is aided by computer programs including Quattro Pro, Surfer, and Manifold. The combination of programs allows for materials to be sorted by any chosen data set and mapped. The maps can then be generated for inclusion in the report.

CULTURAL HISTORY

Humans have occupied the North American continent for at least 15,000 years. The span of human existence is divided into two eras, prehistoric and historic. The historic era is equivalent to the time of Euro-American occupation. The prehistoric period is divided into periods and sub-periods. Delaware and Maryland use different names and dates for these divisions. Presented here is a sort of hybrid of these.

Prehistoric Era

Extensive research has been conducted over the last half-century providing information about the people living in the Middle Atlantic region for the last 15000 years. Recent work has raised the possibility of pushing the earliest occupation date back as far as 20,000 years ago.

Paleoindian (20000+ - 13500 B.C.)

While there was some evidence for human occupation in North America prior to 12,000 B.C., the notion was not widely accepted. More recently, sites such as Cactus Hill in Virginia (McAvoy & McAvoy 1997) and Miles River in Talbot County, Maryland (Lowery et al 2010) provide strong evidence for the sites with these early dates.

The closest thing to a temporally diagnostic artifact for this period is the bi-point. At least eight sites from Delmarva have produced bi-points. Most of these have been from submerged contexts (Stanford et al 2014). Associated with bi-points is a tool kit including choppers, scrapers, and prismatic blades. The Miles Point site in Talbot County produced prismatic blades (Lowery et al 2010). These artifacts were recovered from a loess deposit dated between 40,000 and 20,000 years bp (Wah, Lowery & Wagner 2012).

Other points associated with Paleoindians are the Clovis, followed by mid-paleo points, and lastly Hardaway and Dalton points. Clovis and mid-paleo points are characteristically fluted and are distinguished by their size and thickness. Mid-paleo points are smaller and thinner than Clovis and at least some fit the definition of the Crowfield type. Dalton points have well defined shoulders and a deep notch in their base.

Geomorphologic analysis indicates the Clovis period is at or before the onset of the Younger Dryas. The Younger Dryas was a period in which global temperatures abruptly dropped after a period of warming. Clovis aged sites have been associated with the Tilghman paleosol (Wah, Lowery & Wagner 2012:39). This paleosol is buried under a significant loess deposit (Paw Paw Loess). The Paw Paw Loess covers a large portion of the Maryland section of Delmarva and part of Delaware with the greatest thickness on the western shoreline of the Peninsula. The source for the sediment is thought to be the ancestral Susquehanna Channel (Wah, Lowery & Wagner 2012: 37). Sediment thickness is greatest near the source and generally less than 1.8 meters. Exceptions to this are locations on the east side of confluences and major waterways. Presumably these bodies contributed sediment that settled locally.

Across Delmarva, the different types of paleo points are found together on the same sites. This suggests a similarity in subsistence/settlement patterns. Geographic settings have changed significantly since Paleo II times with large amounts of aeolian deposition and stream modifications so that present conditions may not reflect what the setting once was. Many of these sites are found eroding from the shoreline and it is likely that the Paw Paw loess deposits conceal a number of these sites.

Paleoindian points have been found in many places along the shoreline where erosion has cut through the loess deposits. Paleo points have been near Eldorado and another on the Nanticoke near Riverton. In Delaware, there is a cluster on the upper portion of the Marshyhope west of Greenwood (Custer 1989:94). The numbers of points found in the interior of the peninsula may be related to the lack of Paw Paw loess leaving Paleoindian age soils closer to the surface.

Most stone tools found from the Paleo-Indian Period are associated with the processing of foods and other raw materials acquired through these activities. The tool kit typically contained projectile points for the killing and butchering of animals, biface blades for butchering and for the

manufacture of other multi-purpose bifacial tools, and flaked tools for various purposes such as working bone, antler, or hide (Raber 1985; Custer 1989, 1996).

Paleo-Indian culture is interpreted as consisting of small mobile groups subsisting through hunting, fishing, and gathering. A correlation has been noted between Paleoindian site locations and specific resource areas, notably quarries (Gardner 1974, 1977; Raber 1985; Kraft 1986; Ritchie 1969). There are no primary outcrops of lithics on Delmarva only cobble deposits. These include high quality material and are peppered across the region. On Delmarva, there appears to be a correlation with spring heads and streams (Lowery 2002: 67). These, too, are spread across Delmarva. The low relief of much of Delmarva results in a uniform mosaic of environmental niches. Small changes in elevation result in differences between dry and wet soils and this factor, in conjunction with proximity to flowing surface water are seen as the major predictors of site locations for this and subsequent periods.

Archaic Period (8000 - 1000 BC)

Around 7,000 B.C., evolving Holocene environments continued to change with a gradual warming of the climate melting ice caps and raising the sea level. Spruce woodland gave way to mixed coniferous/deciduous forests establishing essentially modern floral and faunal patterns (Carbone 1976; Custer 1989). These environmental changes spurred a shift in human adaptation hunter-gatherer strategies producing new settlement-subsistence patterns based around exploitation of new seasonally rich environments including acorns, nuts, berries, and tubers with abundant fauna resources of fish, shellfish, deer, elk, bear, and a variety of small mammals.

Early Archaic Period (7000 BC – 5000 BC)

The most commonly found points of this period are Kirk and Palmer types. Amos and Charleston are less frequently found. The Early Archaic tool kit is much like that from the Paleo-Indian period (Dent, 1995; Raber et al 1998). The most notable change was in the form of scrapers which changed at this time. The remainder of the tools appear the same as those from the Paleo-Indian period.

Early Archaic site locations are generally the same as for Paleo-Indian sites, based on the current databases for site locations on Delmarva. The Crane Site assemblage from Dorchester County is characteristic of this with Dalton/Hardaway points and Kirk/Palmers. Local stone resources, such as quartz and rhyolite, were preferred for tool manufacture instead of exotic mineral types formerly obtained from distant sources.

The Archaic people are interpreted living in small, egalitarian and mobile hunter-gatherer groups. Their economy was based on hunting, fishing, and gathering utilizing a wide range of plants. The flora and fauna became much more like that we see today although sea level was still significantly lower than the present.

The Middle Archaic Period (5000 B.C. - 3000 B.C.)

The Middle Archaic Period is poorly documented and understood. This period is marked archaeologically by the appearance of bifurcated projectile points in the earlier portion. In the later part of the period Stanly and Morrow Mountain points are found. A significant change at this time is the appearance of ground stone objects. Plant processing tools, axes and mortars appear during this

period suggesting more use of plant resources. Pollen studies indicate an increase in nut producing trees, including oaks. Pollen studies also indicate a warming period across the middle Atlantic with a continued rise in sea level resulting in the inland expansion of tides and saline water.

Archaeological work has been done on relatively few sites of this period. Middle archaic sites tend to not be where early archaic sites, are suggesting a shift in either environmental setting or settlement preference. The interpretation is that settlement changes are related to environmental factors. Settlements that have been recognized are small and contain few artifacts. Only stone artifacts have been found, mostly waste flakes. The size of the sites and the relatively few artifacts suggest these were short-term camps with a small number of inhabitants (Barse & Marston 2007).

Late Archaic Period (3,000 B.C. - 800 B.C.)

In Delaware's chronology, this portion of prehistory is identified as the earlier portion of the Woodland I (Custer 1984). Two complexes are recognized, the Clyde Farm complex to the north and Barkers Landing to the south. The sites in lower Delaware and adjacent areas of Maryland fall into the Barkers Landing Complex (Custer 1989).

Projectile points characteristic of the Late Archaic period include the Otter Creek, Lamoka, Brewerton, Savannah River, Halifax, and Susquehanna and Perkiomen broadspear types. Soapstone bowls were manufactured and used during this period and are a good temporal diagnostic for the later part of the period. Lithic materials were procured locally and from distant sources. Rhyolite and argillite from piedmont areas is common and nearly all ground stone objects are produced of foreign stone such as slate or basalt.

Climatic changes, about 2,600 B.C., produced the warmest and driest conditions of the current post-glacial period, with oak and hickory emerging as the dominant tree species in the Middle Atlantic region. These nuts provide important food sources for many species including deer and turkey and humans. Sea level rise was slowing and the Chesapeake and Delaware estuaries were becoming more stable. This allowed for an increase in estuarine resources, shellfish in particular.

Increases in population and sedentism (and decreased foraging territory) are suggested by the new archaeological visibility of sites (Dent 1995). Sites are found in a variety of locations with larger sites found along major waterways. Areas with well drained soils along bodies of water, especially in association with freshwater springs or freshettes and bay basin features are good locations for small sites of this period.

During the beginning of the Late Archaic, there is evidence for long-distance trade/exchange, exploitation of local nuts and seeds, a wide variety of lithic resources, and new riverine focus giving rise to large settlements along fertile major waterways (possibly in response to dryer climate).

At the end of the Late Archaic period pottery technology developed with the continuation of some projectile point types. Traditionally, pottery is used to mark the beginning of the Woodland Period. Over the years research has revealed that except for the introduction of pottery the Late Archaic and the earliest part of the Woodland Period are very much alike. In Pennsylvania the term Transitional is used to refer to this period. The first pottery vessels (Marcey Creek ware) were tempered with steatite. The shape of these vessels, with flat bottoms and lug handles, suggests an imitation of earlier steatite bowls. Steatite bowl fragments have been recovered from sites on the lower

shore and adjacent areas of Delaware. For this reason, the earliest ceramic wares are here included as part of the Late Archaic.

On the lower shore, Marcey Creek is found as are other recognized types of similar form. Dames Quarter is probably the second most common. It is tempered with crushed black rock, probably gneiss making it distinctive. Marcey Creek pottery is flat bottomed as are some of the Dames Quarter vessels. Ware plain, another early type is also flat bottomed.

Late Archaic site locations on Delmarva are more often not where Middle Archaic sites are found although sites of the Late Archaic are more numerous than any of the previous periods. While this is at least partly attributable to environmental change, fundamental changes in subsistence were occurring at this time. Small wild seeds, roots, and squash, were likely important components of the diet.

In Delaware, and the greater Middle Atlantic region, early varieties of cultigens and cultivars have been found in archaeological context (Adavasio & Johnson 1981; Hart & Scarry 1999; Gremillion1997). Cultivation appears to have started during the later part of the Late Archaic as cultivars have been found in terminal Archaic contexts elsewhere in the Eastern United States (Purrington 1983). Tobacco may have been cultivated at this time. The presence of pipes during this cultural period suggests the use of tobacco at this time. However, there is no evidence for beans or maize at this period.

A species of setaria, S. parviflora, has been found in dated contexts 4000 – 3500 B.C. in the southwest (Austin, 2006) and within a similar time frame from southwestern Mexico (Callen 1963:237). Other relatives in this family have been domesticated in Asia. Austin claims that Setaria was the dominant grain prior to maize domestication (Austin 2006:149) noting that setaria has been recovered from sites across the United States (Austin 2006:151).

Analysis of residue on Marcey Creek ceramics recovered from the Gray Farm (7K-F-11 & 7K-F-169) resulted in the identification of plant starch grains and phytoliths. Bristlegrass (Setaria sp) and little barley grass (Hordeum sp), were recovered as was arrowhead, sometimes called indian potato or duck potato (sagittaria sp) and sedge (scirpus sp). Arrowhead and sedge are both aquatic plants. Both have been found in prehistoric contexts (Hart 2008) and there is a claim from British Columbia of a purposefully built potato garden (Wade 2016). Given the emphasis often given to Chenopodium and Knotweed (Smith 1995), it is perhaps surprising these plants were not identified.

Squash may have been the first truly domesticated plants in North America (Smith & Yarnall 2009). Squash remains have been identified on sites of this time frame from across the eastern United States including New York, Michigan, and elsewhere (Hart 2008). Squash remains have been dated in Pennsylvania to about 5400 B.C. (McConaughy 2008). The hard-skinned winter varieties of squash can be stored for months. Leaves and flowers, available in the early spring can be eaten and fruit can be harvested green or mature. These plants can provide food for over six months of a year. They are versatile and easy to grow.

The development of horticulture and agriculture from this time to contact is poorly understood. True farming may not have taken place but simple encouragement of key plants can have an impact on plant communities. For example, removing competing plants or burning may have been used to encourage wild plant growth.

Two technological advances are seen as indicators of more sedentary lives and the use of storable surplus food supplies. These are pottery and pits. Pits appear first and are occasionally reported from non-ceramic sites such as 18TA424 near Easton, Maryland (Otter 2012). Pits are believed to have been used to store surplus foods for later use. Pottery provided a new means of preparing and storing food and, because of their fragile nature, suggest a more sedentary life. These changes continued into the Woodland Period.

Woodland Period (800 BC - A.D. 1550)

About 2,000 years before present the shorelines and landforms similar to those of today began to emerge as warm and dry climatic conditions gave way to a cooler, moister modern climate. The dominant oak-hickory forest was also superseded by oak and chestnut vegetation. The Woodland period is marked by the introduction of agriculture, intensive pottery production, and transition from spear to hunting with a bow concurrent with the progression from hunting and gathering to horticulture and eventually full agricultural-based societies with complex social structures.

Shifts in settlement pattern, and the creation of long-distance trade networks begin at this time and continue through the Early Woodland. The intensive trade and exchange network noted during the Late Archaic fades from the archaeological record, although increasing evidence of sedentism is manifested in the expanded use of storage facilities and the development of long-term residential architecture and permanent villages. Increased harvesting of plants reflects an intensification of food procurement, generally acknowledged as being spurred by population growth. Material culture of the Woodland period is typified by distinctive ceramic forms, small triangular projectile points reflective of bow-and-arrow technology.

Early Woodland Period (800 B.C. - A. D. 100)

Across the Middle Atlantic conoidal shaped ceramics with sand or crushed quartz temper spread quickly. These appear to derive possibly from Vinette I centered in lower New York and northern Pennsylvania. On Delmarva the wares are crushed quartz tempered Wolf Neck ceramics and sand tempered Accokeek ware. Analogous ceramic types spread across the eastern United States by about 500 B.C. forming a good horizon marker. In Delaware, this period is termed the Wolfe Neck complex. Radiocarbon dates on Wolfe Neck associated features range from around 800 BC to 100 BC (Bastian 1975; Griffith 2010).

Wolfe Neck pottery is a recognized pottery type found across the Delmarva Peninsula at this time. This ware is seen as homologous to other pottery types across the Middle Atlantic region including Popes Creek in southern Maryland, Bushkill in Pennsylvania, and Prince George ware in Virginia. A riverain or maritime orientation is indicated by site settings along waterways. Numerous shell middens exist along the bay shores and brackish waterways. Settlement patterns seem very similar to the Late Archaic.

Wolfe neck pottery is often found on sites with stemmed points with Rossville being the most recognized (Custer 1989:250). Sites of this period might also contain Accokeek pottery which similarly contains crushed quartz temper and cord or net marked exteriors. Sites of the Early Woodland often coincide with sites of the Late Archaic.

With the more fully developed estuaries, shellfish are used more often. Shell deposits are found in coastal areas beginning at this period. Some are many feet thick. These are often described as trash deposits but little effort has been given to alternative explanations. In the American southeast shell deposits have been recognized as ceremonial sites.
The use of wild plants and some domesticated, or semi-domesticated plants continued. Squash almost certainly was grown at this time.

During this period a distinctive projectile point type known as Meadowood is found. This is associated with the Meadowood culture from New York. These points are not common and do not appear on all sites of this period. They are not as rare as once thought with a distribution that covers the entire Delmarva Peninsula.

One of the characteristics associated with Meadowood in New York are elaborate burials with exotic goods referred to as Middlesex (Ritchie 1969). Tubular stone pipes, birdstones, and other exotic artifacts are found in these burials. Similar items have been found on Delmarva (Lowery 2005). Materials for these items cannot be procured locally and there can be no doubt long distance trade was taking place.

However, the presence of these items might indicate something more than trade. It is possible this represents an influx of people from the north. Another possible explanation is that this material represents a stratification of society where elites possessed these exotic goods (Tache 2011). Such a society is often cited as being based on food surplus. Historically archaeologists have claimed abundant fish resources were involved. It is possible that this interpretation reflects a bias toward protein sources in the diet, on the part of archaeologists, and that the surpluses could have come from other resources such as agricultural surplus. The presence of these items spread sparsely across the region without the ceremonial burial sites found in New York suggests that whatever was going on here wasn't quite the same.

Slightly later than Meadowood, is the Delmarva Adena. Like Meadowood, there are exotic artifacts produced from materials obtained in Ohio and New York. Elaborate burials with these exotic artifacts have been found in Delaware and the Maryland coastal plain. Besides the exotic materials, other artifacts associated with Adena are Coulbourne ceramics (Custer 1984: 89; Wise, Clark & Dunn 1989:45) and Adena points. Sites such as Sandy Hill in Dorchester County, Maryland and the Frederica Site in Kent County, Delaware have produced spectacular artifacts.

Unlike the Meadowood, these are more closely associated with burial sites. Using Tache's (2011) approach, these would be more ceremonial items than trade goods. This remains a poorly understood aspect of Delmarva archaeology with no sites identifiable as Adena habitations. The major sites that have been identified mostly were found by accident and artifacts collected without the benefit of scientific archaeology.

Middle Woodland Period (A.D. 100 - A.D. 1000)

Around A.D. 100 Mockley ceramics became dominant on Delmarva and continued until about 1000 A.D (Griffith 2010). This ceramic contains crushed shell temper. Vessels are either cord marked or net marked. Sites are often defined by the presence of large amounts of oyster shell refuse. Selby Bay/Fox Creek projectiles are typically found with Mockley pottery. These are frequently made from rhyolite which must be imported from the piedmont.

Middle Woodland sites indicate the most intense maritime exploitation of all prehistoric cultures. Sites are usually located along streams and include oyster or mussel shells, fish bones, and terrestrial animals. Reptile bones are common. Sites seem to be associated with marsh areas and are generally located in settings which would provide food throughout the year including seed crops such as amaranth and chenopodium (Custer, Stiner & Watson 1983:28). Evidence exists, in the form of more numerous pit features, for increased sedentism over the Early Woodland period.

Economic changes are possibly related to environmental conditions. The period was warmer and dryer. Oyster bearing sites are found further upstream than at any other time possibly indicating an intrusion of salt water. The Taft Site in Fairfax County Virginia has a Middle Woodland component with oyster shells and a Late Woodland component of fresh water mussel. Such an intrusion would have affected all of the major streams on Delmarva.

The drastic change in pottery technology is seen as an indication of an abrupt social transformation. Site locations change with an increased focus on estuarine resources. A majority of Middle Woodland sites do not overlay Early Woodland sites. It has been proposed that changes seen in the archaeological record indicate Algonquian speakers entering the area (Luckenbach, Clark & Levy 1987).

Jacks Reef points are another type found during this time frame and are a trait of the Webb Phase (Thomas & Warren 1970; Custer 1984). These points are widely spread over Delmarva and have a date range between 500 AD and 1000 AD. They are sometimes found in association with Hell Island pottery which is tempered with finely crushed quartz. Hell Island Pottery appears to be more northerly with only minor amounts found in the lower Delaware and adjacent Maryland. Jacks Reef points are more widespread and have been found across Delmarva (Lowery 2013).

The most studied Webb Phase site in Delaware is the Island Field Site which contained a large cemetery. Exotic goods such as platform pipes were recovered. Similarities have been noted with Kipp Island sites of New England in the types of artifacts recovered (Custer et al 1990:58). Similar pipes and Jacks Reef points have been recovered from the Riverton site in Wicomico County which was destroyed by sand mining.

Late Woodland Period (1000 AD -1650 AD)

The last prehistoric period, known as the Late Woodland Period (1000 AD -1650 AD), lasted until the first contacts with European cultures. The Late Woodland was marked by settled life supported by agriculture although much of the diet continued to be drawn from wild food resources. Site locations are often the same as Middle Woodland sites suggesting a continuation of lifeways. There are more Late Woodland sites than Middle Woodland suggesting a population increase.

This is the first period where maize agriculture is known through archaeological samples in the Middle Atlantic. Maize has been reported from the Thomas Point Site in St. Marys County, at the Ritter site and Kea I and II sites in Lewes (Otter nd). Ethnographic data from the eastern shore indicate corn was grown at the time of European contact (Smith 1844). However, recent studies at Gray Farm found bristlegrass (Setaria sp), little barley (Hordeum sp) and possibly wild rye (elymus sp) and maize remains on late woodland pottery shards (Hay et al 2012). The presence of these starch grains and phytoliths indicates the diet of Native Americans during the Late Woodland was not

focused on the "three sisters" corn, beans, and squash. Likely these were components of the diet but a variety of native plants would have also been consumed.

Soil type would be an important factor in site location with sites located at the most productive soil. The cooler conditions during the Little Ice Age may have increased the availability of surface water by reducing evaporation rates. Thus, sites might be found in places that presently do not have reliable water sources.

Late Woodland settlements were not dense concentrations of houses but were more dispersed. John Smith's description seems appropriate: "Their houses are in the midst of their fields or gardens, which are small plots of ground. Some 20 acres, some 40, some 100, some 200. Some more, some less. In some places from 2 to 5 houses together, or but a little separated by groves of trees" (Smith 1982). It seems that the prehistoric village at Lewes included a number of dwellings that were spread along the courses of Canary Creek, Black Hog Gut, and Pothook's creek where fresh water was available.

An account by Henry Norwood in 1649 provides a glimpse of dispersed housing on the lower portion of Delmarva. Individual houses were spread across the landscape (Norwood 1649). In his travels, Norwood visits a fisherman's house, then a Queen's house and a King's house a half mile away. Work at the Chicone Reservation in Dorchester County seems to show a similar pattern with house sites along Chicone Creek and a King's house identified as having more material (Busby 2010). This explains the lack of an easily identifiable Indian town at the reservation sites. Palisaded villages are not found on Delmarva except in the far north western portion. Those villages were in areas of conflict with groups from the north.

In general, Late Woodland sites yield fewer flaked and ground stone tools than earlier periods but now include more artifacts of pottery, bone, and shell. Triangular, un-stemmed, projectile points of various shapes are characteristic of the Late Woodland Period throughout the Middle Atlantic States. Townsend/Rappahannock pottery and Killens pottery are typical for this period.

During the Late Woodland, there is a greater use of local stone material (cobbles). There is also regionalization of ceramic technology. Across the Middle Atlantic regional ceramic types such as Minquanan, Killens, Moyoane, Yeowicomico, and others have been identified. These factors suggest populations with more established territories and a reduction in long distance trade.

This is not to say trade or contact with outside groups ceased. Small amounts of non-local ceramics have been found on sites along the Nanticoke. Clemson Island pottery has been noted at sites on the Nanticoke drainage at Middleford (Mellin personal communication), at Prickly Pear Island (Archaeological files, Delaware State Museums) and near Portsville at site 7S-H-104 (Custer & Mellin 1989). This pottery type dates to the early part of the Late Woodland.

Early ethnographic reports record contact between Delmarva groups and those in Pennsylvania and New York. It is uncertain how much of that contact is a result of the impact of European contact and trade.

Ossuary burials are known from this period but single burials are also known. The reason for the two styles is unknown. Dog burials have also been found. Burials have been found in and near habitation sites and lack exotic goods seen in the earlier Adena and Webb Phase burials. True ossuary

burials appear to be a late manifestation, after c. 1450 AD, with some containing European goods (Curry 1999).

Historic Period

Exploration and Frontier Settlement (1630 - 1730) (Contact Period)

European settlement of the Delmarva Peninsula began in Virginia (present day Cape Charles) in 1628, at Swaanendael (present day Lewes) in 1631, and along the upper Chesapeake Bay at Fort Kent (present day Kent Island) in 1631. The Dutch West India Company attempted to colonize Swaanendael (in 1631). This early settlement was disrupted before the close of one year after a disagreement with the Siconese. All but one of the Dutch settlers were killed by the Native Americans.

Under Peter Stuyvesant, the Dutch resettled Lewes in 1659, naming it Hoerenkill. They at first constructed a fort and trading post and established trade networks extending across Delaware Bay and up Delaware River. After initial encounters, there is sparse mention of the Siconese in records dating to the Dutch resettlement. In 1662, Peter Cornelius Plockhoy, a Dutch Mennonite philosopher, transported forty-one individuals from Netherland and established his utopian colony at Lewes (Carter 1976). Sir Robert Carr destroyed Plockhoy's colony *"to a very naile"* in 1664 (O'Callaghan 1848:538). The Dutch settlement at Lewes was again raided and burned by (English) Marylanders in 1673 (DeValinger 1950).

Delaware settlements were contested, lost, and won between the Dutch, Swedes, and English until 1674 when the Anglo-Dutch War ended with the Treaty of Westminster. The English gained complete control of the colony now patented to Duke of York and governed by Edmund Andros. The Dutch who wished to stay in the colony were required to swear their allegiance to the English. Although the remaining Dutch acquiesced (largely), their submission to English authority would not have at once transformed Dutch culture and tradition (Van Winkle 1908).

The Whorekill extended from Fenwick Island to Bombay Hook (Scharf 1888). Maryland claimed as far north as the Indian River. After William Penn was granted the three lower counties (of Pennsylvania) in 1682, the economic focus was centered around Philadelphia. Lewes not only served as a gateway to Philadelphia commerce, but was the seat of the Whorekill.

As European settlements expanded, Native Americans were displaced, their culture and lifeways disrupted. By an act of General Assembly in Maryland, the Broad Creek Reservation was set aside for the Nanticokes in 1711 (Maryland Archives Online). The reservation was created near an existing Nanticoke town that had been occupied for at least one hundred years (Rountree and Davidson 1997). The three-thousand-acre reservation included land on the north and south sides of Broad Creek including where the town of Laurel is now located. Although the Nanticoke now had land set aside for their sole use, the English continued to disregard boundaries and tensions escalated (Busby 2010). At this same time a roughly one-thousand-acre reservation, Askekesky, was created on the south side of Shiles Branch of the Indian River west of present-day Millsboro.

In 1742 Maryland's Lord Proprietor entered into new treaties with the lower Eastern Shore tribes. Indian people would not be allowed to possess hunting rifles unless they were licensed. No relatives or groups from outside of the reservation were permitted to visit. Native people were not permitted to enter an English town without a prior appointment or announcement. Separate treaties

were made with the groups across the shore including the Chicone and Broad Creek groups (Maryland Archives 1883A). These treaties forbade the groups from combining their leadership (Maryland Archives 1883A).

After 1742 there was continued disintegration of the Native American communities (Roundtree & Davidson 1997:155). There was continual encroachment and harassment by European settlers and individuals were moving between reservations. Many reservation inhabitants went to live with the Susquehannas. Some removed to the Six Nations area where they were assimilated into the Iroquois. Others left the reservation and acculturated within English society. Because of the depopulation of the Native groups, the reservations of Chicone and Broad Creek were reclaimed by Maryland and sold off between 1768 and 1785 (Roundtree & Davidson 1997:159). Native inhabitants sold off the last of the Askekesky lands by 1741 (Roundtree & Davidson 1997:156).

Those who did not leave Delmarva bought land and incorporated a European lifestyle with traditional lifeways. Social ties were maintained and closed communities developed. In 1881 the Indian River Nanticokes incorporated and were recognized by the state of Delaware after the Nanticoke were studied and documented by social scientists as a surviving Native American population (Babcock 1899; Speck 1915). There exists today a tribal organization and there is a conscious effort to rebuild the tribe's identity.

Free African American families seem to arrive in Delmarva coeval to European migration patterns (Cox 2010). John Johnson, Jr. was one such individual who appears in early records of Sussex County (Horle 1991). In 1677, John Johnson purchased a forty-four-acre farm in Indian River Hundred, which he named Angola (Breen & Innes 1980). John Johnson is believed to be the grandson of Anthony Johnson, an indentured man, noted for his presence in Warresquioke, Virginia as early as 1621. By 1650 Anthony Johnson was released from his indenture and owned land on the eastern shore of Virginia along Pungoteague Creek. Anthony was listed as "Free Negro" in 1650 at which time he had bonded to himself five indentured servants and one enslaved man, John Casor. After a fire, the family moved north to Somerset, Maryland where they leased a farm known as Tonies Vineyard. Other free families known to inhabit Somerset, Maryland contemporaneously with the Johnsons are identified by surnames Vincent, Driggus, George, and Harmon (Davidson 1983). These families and descendants likewise appear in the Sussex County records by the early 18th century.

The earliest known enslaved African in Delaware was "Black Anthony" who first arrived in New Sweden (Fort Christina) in 1639 and later became a free man, serving as assistant to Governor Printz and sailing Printz's sloop up Delaware River during the 1640s and 1650s (Williams 1996).

Early wills, inventories, and tax assessments indicate enslaved Africans arrived in Sussex County, Delaware by the latter half of the 17th century with the first Euro-American land patentees. One such patentee was John Avery who settled Avery's Rest in Lewes & Rehoboth Hundred on Rehoboth Bay, patented in 1676 under Duke of York (Wise & Nelson 1978). Avery and his family removed from Somerset, Maryland before arriving in Sussex. After his death in 1682, Avery's estate inventory included *"2 Negro Slaves"* who were valued at 6,000 pounds of tobacco. In October 1690, Robert Clifton petitioned the Sussex County court "*that hee might be allowed for two Negroes belonging to the Estate of Capt Every appraised att six thousand pounds of tobacco, wch Negroes ware dead before they ware appraised*" (Horle 1991).

Archaeological work was conducted at the Avery's Rest Site (7S-G-57) from 2006 through 2016. Artifact assemblages indicate the site was occupied from circa 1670 to 1720, at which time it seems to have been abandoned (Crossan 2014). Included in the archaeological work at Avery's Rest was the excavation of a cemetery which contained eleven individuals, three of whom were of African ancestry and eight of European ancestry (Fleskes et al 2019). At least four of the European individuals were genetically related while the African individuals were genetically unrelated. Two adult males presented with mitochondrial DNA occurring in geographical areas associated with 17th century slave trading ports−western and central Africa and a five-year-old child carried mitochondrial DNA most often assigned to populations along the eastern coast of Africa (Fleskes et al 2019).

Intensified and Durable Occupation (1730 - 1770)

The population of lower Delmarva grew steadily during this period. Life was centered around agrarian pursuits. Farm products reached foreign markets through Philadelphia or Baltimore with the Nanticoke River being an important avenue to the Chesapeake. Iron forges came into existence along the Nanticoke, and presumably along other waterways, about 1760 and were largely gone by the Revolution. Road networks were developed and settlers moved further inland. Small hamlets like Cannon's Ferry developed at this time, mostly along river crossings (DeCunzo & Catts 1990:44).

Transformation from Colony to State (1770 - 1830)

The Revolution altered foreign markets. Food produced on Delmarva was sold in Baltimore and Philadelphia instead of Europe or the West Indies. By 1775, an estimated 2,000 African Americans lived in Delaware (Marks 1976). These individuals worked in farming and domestic services as well as skilled occupations such as tanners, carpenters, ship builders, and tailors. In her book, Marks writes, *"During the American Revolution, the black population of Delaware contributed to American victory as toilers of the soil and in general services. Delaware blacks served as express riders, supervisors of horses, and teamsters. Free Blacks showed their loyalty by paying taxes in bushels of wheat for the support of the army, just as their white neighbors did".*

Rapid population growth after the Revolution led to the clearing and tilling of marginal lands (DeCunzo & Catts 1990:53). In 1776 the Maryland/Delaware boundary was established in its present location and the lands on the west side of the Nanticoke were re-patented in Delaware. In 1810 more than 70% of the textile mills of Delaware were in Sussex County. Flax and wool were major crops in the county. Diversified farming of grains and potatoes along with various livestock existed in the rural areas.

The War of 1812 ensued when the British seized United States merchant vessels in an effort to restrict United States trade. The British captured two ships, the Eliza and the Mary Robbins, near the mouth of Lewes Creek during April 6th and 7th in 1813. A third vessel, the Charlestown Packet, was burned before the British sailed further up the Delaware Bay.

Lewes was a fortified town and was attacked in 1813. Hannah Burton's Tuesday, April 6th and Wednesday, April 7th diary entries describe sounds of *"great guns"* heard twelve miles away from Lewes Town during the bombardment. Daniel Rodney, in his diary, notes a Congaree rocket from the British passed over his house in Lewes and landed in his field (Turner 1911).

Industrialization and Capitalization (1830 - 1880)

The rise of Baltimore as an important overseas port siphoned Delmarva goods away from Philadelphia. Railroads reached the lower peninsula around 1850 and Seaford in 1868. This allowed farmers to raise more perishable, and lucrative, crops such as peaches. Canning also developed after the Civil War and became an important industry. Corn and wheat remained the major crops. At the same time, it shifted the main commercial routes from water to the rail lines with new railroad towns springing up.

At the beginning of the Civil War, more than half of the enslaved population resided in Sussex County. Delaware was a slave state, but voted against secession in 1861, remaining loyal to the Union. The war resulted in the emancipation of enslaved workers, however there was little change in the social and economic status of African Americans. In southern Delaware, white landowners provided small houses for their former slaves in exchange for first right to their labor (De Cunzo 2017). African American communities formed on outskirts of towns around churches and schools.

Urbanization and Sub-urbanization (1880 - 1940)

The term for this period is somewhat misleading for central and southern Delaware. Little urbanization occurred. The most significant changes of this period in southern Delaware were improvements in transportation and a shift to truck crops and poultry as major farm products. Some industry related to the wars, in particular the establishment of airfields, did occur. The modern poultry industry that quickly raises and markets chickens was developed in Sussex County. The need to satisfy feeding requirements of the birds shifted crops from truck items to feed crops.

Rural families of Sussex County were without modern conveniences throughout much of the the 1930s. Kerosene lamps provided light. Wood and coal burning stoves provided heat. Water was hand pumped from the wells and outhouses were still in use. Under President Roosevelt in 1936, the Rural Electrification Act was passed and provided for federal loans available through the Rural Electrification Administration (REA). Since investor-owned utility companies showed little interest in expanding service to sparsely populated areas, the REA drafted the Electric Cooperative Corporation Act in 1937, which enabled the formation and operation of not-for-profit consumer-owned electric cooperatives. Sussex County farmers banded together, forming Delaware Rural Electric Association (later renamed Delaware Electric Cooperative) in 1937. Utilizing federal money as well as its collective investment, the association had constructed over 2,000 miles of electric line in rural areas of Kent and Sussex Counties by 1945, providing electric to approximately 3,900 families.

RESULTS

Previous Research

The Lewes area has interested archaeologists for over 150 years (Otter 2022). It appears, however, that the Knapp property has not been previously investigated. Prior works have been conducted nearby, including work for Sewer projects (Thomas 1977). One site, 7S-D-31 is mapped on the Delaware Chris system as existing on the property. A contracting stem point is noted from the site. As will be discussed, there is a mapping issue with this site.

Two organizations formed in the second quarter of the 20th century that were dedicated to archaeological study: the Sussex Society for Archaeology and History, and the Archaeological Society of Delaware. These groups conducted several excavations in the area which are reported in the Bulletin of the Archaeological Society of Delaware, and the Archeolog; the publication of the Sussex Society. There is no indication that these groups surveyed the Knapp property. They did conduct work to the northeast resulting in the identification of the Ritter Site (Omwake 1951; 1953), Ritter 2 (Omwake 1954), and Ritter 3. These sites contained significant Late Woodland deposits, mostly in the form of shell filled pit features.

Similar features were found on the Groome Property directly across Prettyman's Branch from the Knapp Farm in 2018 by Edward Otter. Survey and excavations prior to development resulted in the identification of three sites with Late Woodland deposits and an 18th century site. Four pit features were excavated and are still under study. Maize has been recovered from all four pits which range in age from c.1230 ad to 1610 ad. With modern tools available for the analysis, these deposits are providing new insights into precontact life in the Lewes area.

Prehistoric Site Potential

Generalized predictive models for Native American site locations vary depending on the views of the creators of those models. Commonalities in the models are environmental variables used as predictors for site locations. These include soil slope, soil drainage, and distance to surface water. Slopes greater than 8 percent are generally seen as not likely to contain Native American sites except for specialty sites such as rock-shelters or quarries. Well drained soils are more likely to contain sites than poorly drained soils.

The distance to surface water is the most variable criterion among models. In some models 200 meters (656 feet) is the limit for high potential (Lothrop, Custer & De Santis 1987). For Ranere and Hansell 100 meters is the limit of any site potential (Ranere & Hansell 1985).

The type of water, salt or fresh, also seems to play a factor in coastal plain site locations (Ranere & Hansell 1985) with salt water not having the same attraction as fresh water. Appropriate soils along salt water bodies are not likely to contain sites unless there is also a fresh water source nearby. However, in wetland settings small changes in topography can greatly enhance site potential (Cavallo & Mounier 1980).

Two facts must be considered, streams that are no longer flowing on the surface. and salt water intrusion further inland as a result of sea level rise. Another approach is to look at landform rather than distance to water (Siegel, Kellogg & Kingsley 2001). Stream benches hold the most sites followed by terraces, floodplains and upland flats. Ridgetops and slopes hold relatively few sites. While this approach was developed in the piedmont, it likely has utility in the coastal plain as well. In a break-down of landform and temporal period of Pineland sites, smaller sites are found in areas further from water, such as drainage divides, and on areas of limited land area like hummocks (Cavallo & Mounier 1980). Larger sites tend to be on the larger bodies of fresh water where there is a broad area of well-drained soil.

Soils on the Knapp farm are well drained. There are streams on the south, north, and east sides. Immediately across the creek to the northeast are known precontact sites. Based on these

factors, the Knapp farm has a high potential to contain significant precontact sites. It was suspected that sites similar to those found on the Groome Property would be present.

Archival Study and Historic Site Potential

In an attempt to understand land ownership, habitation, and use of Parcel 335-7.00-6.00, deeds, wills and probates, orphans' court, census enumerations, tax assessments, and genealogical records were studied. A chain of title (Appendix I) was created by working from the present to the first land patent granted in the last quarter of the 17th century.

Sussex County Parcel 335-7.00-6.00 is a 77.22-acre parcel located along the northwest side of New Road, approximately one-half mile northeast of Nassau Village in Lewes and Rehoboth Hundred, Sussex County, Delaware. The tract, comprised of tilled land and woodlands, is currently owned by Halsey G. Knapp Trustee (Deed 4250/339) and has been continuously owned by Knapp Family members, businesses, and trusts, since the early 20th century. The parcel in its current configuration (Plot 344/83) consists of 55 acres formerly known as Parcel 3 and 34.25 acres formerly known as Parcel 2 (Deed 4250/339) less ten estate lots fronting New Road which were cut from these two parcels (Parcel 2 and Parcel 3).

The recorded land history began March 25, 1676 when Edmund Andros acting for Duke of York patented 400 acres known as Tower Hill to Daniel Brown (Duke of York Records). The land, surveyed by Edmond Cantwell, was described as lying upon Pagan's Creek near the Whorekill. Court Records (Maryland Provincial Court Proceedings JJ:520) place Brown in the Whorekill by 1672. A census of the whorekill enumerates Brown in 1671 (Craig 1999:75). The Duke of York patent of 1676 reestablished the four bushels of wheat quit rent for the land Brown already inhabited.

William Rodney, attorney for Daniel Brown, sold the 400 acres to Samuel Preston on November 2, 1693 (Deed 1/145). Samuel Preston sold the premises to James Peterkin in the same year on December 7 (Deed 1/145). Thomas Peterkin, the son of James Peterkin, acting as power of attorney, sold 200 acres of land to John Prettyman, Sr. on December 8, 1697 (Deed 1/215; Deed 6/300). This sale split the 400-acre Tower Hill patent. The other 200-acre part of Tower Hill was sold to Richard Paynter. New Road was later placed along the division line between the two 200-acre parcels.

On May 8, 1719 John Prettyman, Sr. conveyed to William Prettyman, a part of the tract known as Tower Hill "that lies on the south side of a branch proceeding from a beaver dam" (Deed 1/240). The 200-acre tract was further divided on March 14, 1734 when William Prettyman deeded a part of it to his son, John Prettyman (Deed 6/110). Deed 6/110 states this is "part of the 200-acre tract" lying on the south side of a branch proceeding from a beaver dam that formerly belonged to the plantation where John Prettyman Senior once lived and was formerly occupied by Thomas Prettyman.

In his will dated February 23, 1754, John Prettyman bequeathed to his son John Jr. the plantation on which he (John, the father) at the time lived (Will B2/71) and "also that land I purchased of my father William Prettyman being about 100 acres of land and is part of that tract called Tower Hill". The 100 acres, not the plantation, is a larger part of the project area now known as Parcel 335-7.00-6.00.

John Prettyman, Jr. sold the 100 acres to Thomas Gray on March 6, 1770 sixteen years after he inherited it from his father. Deed 11/206 describes how the land came to be the property of the current John Prettyman, it being 100 acres on the northwest side of the 400-acre Tower Hill patent and lying on the south side of a beaver dam. Ownership history to the time of the 1770 deed (11/206) was reiterated in this deed.

In 1772 Thomas Gray and his wife Sophia took a mortgage on the 100 acres, owing to James Martin and Oliver Stockley. The mortgage (Deed 11/207) states Gray purchased the land from John Prettyman, it being the 100 acres on which he (Gray) now dwells. When Thomas Gray died in 1783, he left his son-in-law Andrew Thompson as sole executor of his estate and directed his lands be sold to settle his debts. Whilst performing this work, Andrew Thompson died. James Martin then (November 25, 1783) petitioned the Orphans' Court to appoint him executor and to allow a sale of Gray's real estate to settle debts. Marnia Virdin being the highest bidder at public auction, purchased Gray's 100-acre portion of Tower Hill (Deed 14/98). Within the same year, Virdin deeded back to James Martin, Esq. this land plus an additional 20 acres lying on the southeast side of the Beaverdam Branch (Deed 13/158).

James Martin conveyed the land to Thomas Prettyman by alienation bond February 8, 1786. Thomas Prettyman sold 110 acres to Cornelius Wiltbank, Jr. on March 2, 1797 (Deed 34/125). The deed states Thomas and his wife Penelope lived on the land when they sold it, it being formerly owned by John Prettyman and by conveyances became the property of James Martin, Esquire.

When Cornelius Wiltbank died in 1813, he left lands "he bought from Jacob White and others" to his son John (Will G7/14). The inheritance included the 110 acres his father purchased from Thomas Prettyman (Deed 34/125) as well as 40 acres of marsh (Deed 13/445) on Pagan Creek purchased of Jacob White (Deed 13/445). An 1828 county tax assessment (Lewes & Rehoboth Hundred) for John Wiltbank listed a 160-acre mansion farm, 65-acre timberland, 75-acre timberland, and 60-acre marsh—a total of 360 acres of land attributed to him. John died February 14, 1830, leaving behind his wife, Eliza Paynter Wiltbank and two minor sons, Samuel P. and Alfred S. His estate was administrated by Eliza's brother, Samuel R. Paynter. Much of John's personal property was sold during probate since he had accrued debts and the debts owed to him had not been recovered in his lifetime. No last will was included in John's probate record and no Orphans' Court record could be located. John's widow Eliza was assessed county taxes for a 260-acre mansion farm and 100 acres of marsh, a total of 360 acres in 1836 and 1841.

In a deed of sale dated October 24, 1843 (Deed 51/178) sheriff Thomas W. Records transferred 300 acres of land to Samuel Paynter Esquire, being property adjoining lands of Joel Prettyman and Cornelius Wiltbank "which was late in the possession of Samuel P. Wiltbank" (oldest son of John and Eliza P. Wiltbank). The lands were seized and sold to pay a debt and damages to Samuel P. Paynter, plaintiff in suit against Samuel P. Wiltbank. Proceeds were subject to a dower payable to Eliza P. Wiltbank. The buyer, Samuel Paynter Esquire was Eliza's father. When Samuel Paynter died in 1845, he left to his daughter Eliza a life estate in the lands purchased at this sheriff's sale and to his grandson Alfred S. Wiltbank at the death of his mother Eliza (Will K10/115). When Eliza died in 1857 the lands were inherited by Alfred S. Wiltbank.

When Alfred S. Wiltbank died in 1860 at 30 years old, he left his young wife Hannah and a minor son to survive him. His brother-in-law Henry Wolfe administered his estate. Comfort B. Holland (unknown relationship) filed suit in 1863 against Henry Wolfe as surviving obligor of Alfred

S. and Eliza P. Wiltbank for $300 debt owed, forcing the sale of 309 acres known as Tower Hill Farm (Superior Court Writ Exponas 435). The land is described as having a two-story house with a story and a half attached as well as a single-story kitchen, barn, stables, smokehouse, and other out houses.

Sheriff Aaron B. Marvel transferred the property to Harbeson Hickman, highest bidder at auction on November 2, 1863 (Deed 70/396). As of 1868, based on the Pomeroy & Beers Atlas, the Knapp land did not have a house (Figure 3). When Harbeson Hickman died in 1890 he left to his widow and minor children a number of farms and lots (Will Q16/40). This is an interesting will for its time, written as a trust with executors directed to continue conducting Hickman's business in his usual manner until his youngest child would arrive at the age of 21 years of age, at which time a division of the properties could be made. At the time of his death, Hickman lived in the town of Lewes and his many farms were tenanted. Hickman's will describes Tract Number 3, the 271 acre Tower Hill Farm, which was tenanted by James Waples. Hickman's heirs held interest in the lands collectively until 1894 when the lands were divided and deeded to the various heirs.

Deeded to Harry B. Hickman (Deed 120/262) were eight properties. Among them was the 271-acre farm described as Wiltbank land purchased at sheriff's sale. Harry B. Hickman held onto the land until 1902 when he sold 274 acres to Timothy E. Townsend (Deed 143/373).

In 1908 Townsend sold 274 acres to Charles Vaughn, Jr. in a straw deed (Deed 116/112). Vaughn immediately transferred the 274 acres back to Townsend (Deed 116/113). For the next eight years, Townsend sold off this land in moderate sized pieces, splitting it further into 9 separate parcels (Table 1). The deeds all state the lands were purchased by Timothy E. Townsend from Harry B. Hickman and recorded in Book 143 Page 373. Conspicuously, the total acreage of the land Townsend sold exceeds that of the amount Hickman sold to Townsend. Based on the deed descriptions, not all of these lands were part of the original Tower Hill tract, but are located very nearby.

DATE	GRANTEE	DEED	ACRES
12 JUN 1908	RICHARD B. DERRICKSON	165/276	37
2 OCT 1909	CUSTUS A. LINGO	170/461	15
19 APR 1910	ANNA M. WYATT	190/332	10 ACRES 140 PERCHES
4 DEC 1911	EMMA M. WILSON	182/53	15
25 MAR 1913	MINOS B. LOWE	193/460	37.5
1 APR 1913	MARY T. HITCHENS	185/433	55 W SIDE OF PUBLIC RD LDG FM NASSAU TO PILOT TOWN AND ADJOINING LANDS OF GEORGE LODGE PART OF TOWER HILL FARM
1 APR 1913	GEORGE W. LODGE	208/436	34.25 W SIDE OF PUBLIC RD LDG FM NASSAU TO PILOT TOWN PARK OF TOWER HILL FARM
15 MAY 1916	CHARLES BAYNUM	201/111	45
25 OCT 1916	ISAAC A. MITCHELL	202/437	TRACT 1: 10 ACRES TRACT 2: 30 ACRES TRACT 3: 7 ACRES

Table 1. Division of Timothy Townsend's Land

Figure 3. 1868 Pomeroy & Beers Atlas

The lands which make up Sussex County Parcel 335-7.00-6.00 include the 55 acres Mary T. Hitchens purchased (Deed 185/433) and the 34.25 acres George W. Lodge purchased (Deed 208/436) from Townsend on April 1, 1913. The northwestern portion was the land sold to Hitchens. There had been an earlier contract with Mary's husband, Hiram. The contract is mentioned in the deed and identified as being null and void.

The 34.25-acre tract was sold to Leslie G. Knapp by Lola S. Wilson and heirs of George W. Lodge on July 7, 1924 (Deed 246/530). The deed states this was land Lodge had purchased from Timothy E. Townsend. The following year Knapp transferred the property to Burton Orchards (Deed 247/370).

The 55-acre parcel was sold to Edgar W. Ingram and Thomas R. Ingram by Mary T. and Hiram H. Hitchens on January 10, 1917 (Deed 203/135). It was likely the Ingrams that built the house as it appears on the 1918 topographic map (Figure 4). The Ingrams sold the land to Samuel W. Davidson on December 20, 1920 (Deed 226/233). Samuel Davidson and his wife are identified in census records as living there in 1920 while Edgar Ingram and his wife Cordelia were living on South Street (Savannah Road). Davidson sold the land to Thomas M. Palmer in 1925 (Deed 252/531). Leslie G. Knapp acquired the 55-acre tract from Palmer on January 7, 1928 by Deed 268/216. Knapp transferred the land to Burton Orchards on April 25, 1928 (Deed 269/261). As of 1926, the land was not yet an orchard (Figure 5).

Deed 288/180 states Burton Orchards, Inc. filed bankruptcy and by order of the chancellor, Lawrence B. Knapp was appointed receiver on April 27, 1932. The lands were then assigned to Nassau Orchard, Inc. by this deed (288/180). An orchard did exist on the land by 1937 (Figure 6). Buildings, but no orchard was present by 1953 (Figure 7). It is unknown whether the house remained standing, was tenanted, or vacant.

On December 28, 1988 Nassau Orchard transferred a number of parcels including Parcel 2: 34.25 acres and Parcel 3: 55 acres to Halsey G. and Joan D. Knapp (Deed 1620/195). The lands were transferred to Knapp trustees in 1995 (Deed 2074/261). A portion of this parcel consisting of 14.923 acres was sold to A. Rickard Collins in 1999 (Deed 2427/226) and was developed as residential community Ashburn. Sussex County Parcel 335-7.00-6.00 was resurveyed in 2021 (Plot Book 344/83) cutting ten lots fronting New Road from the earlier configuration. The project area, Sussex County Parcel 335-7.00-6.00, currently contains 77.22 acres.

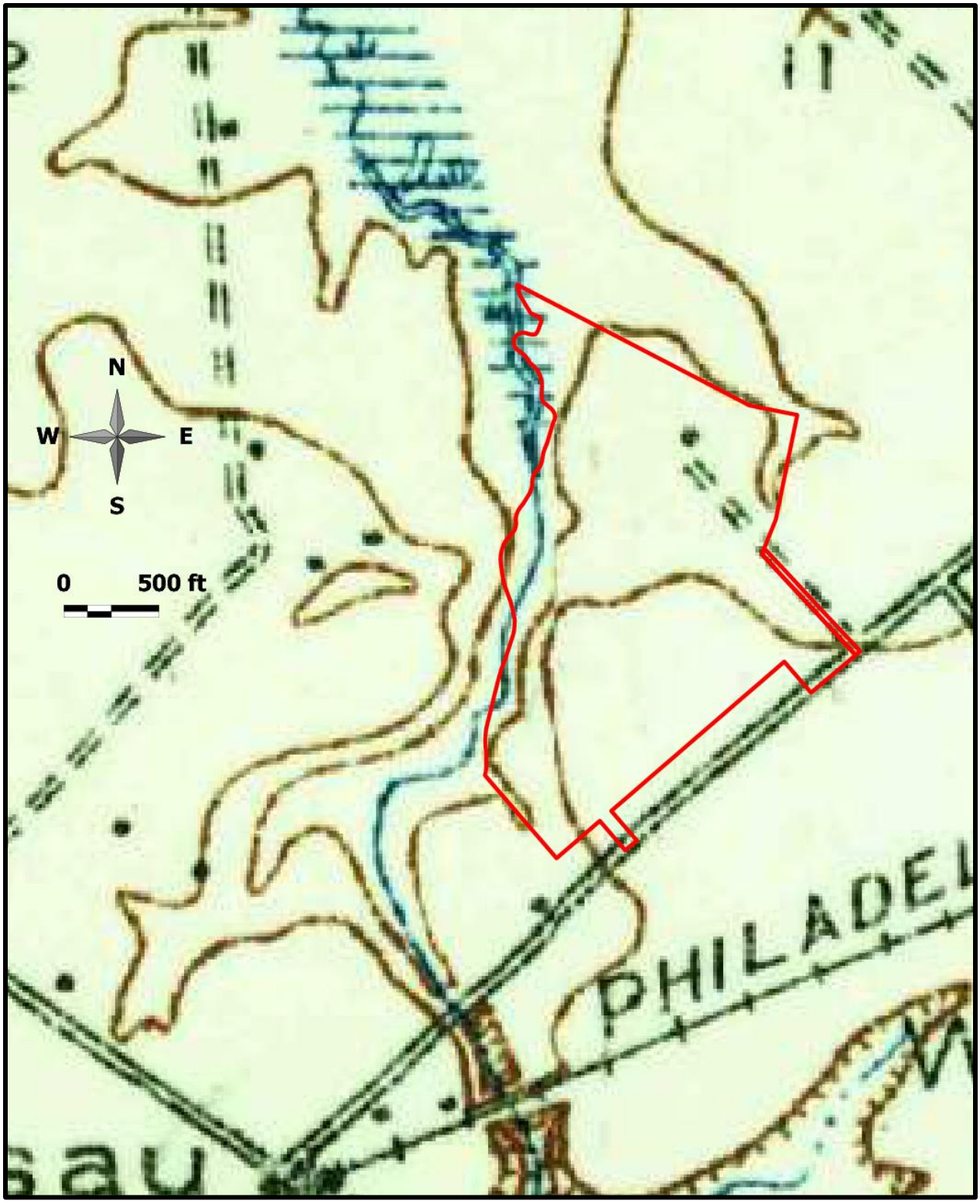

Figure 4. 1918 U.S.G.S. Topographic Map, Cape Henlopen Quadrangle

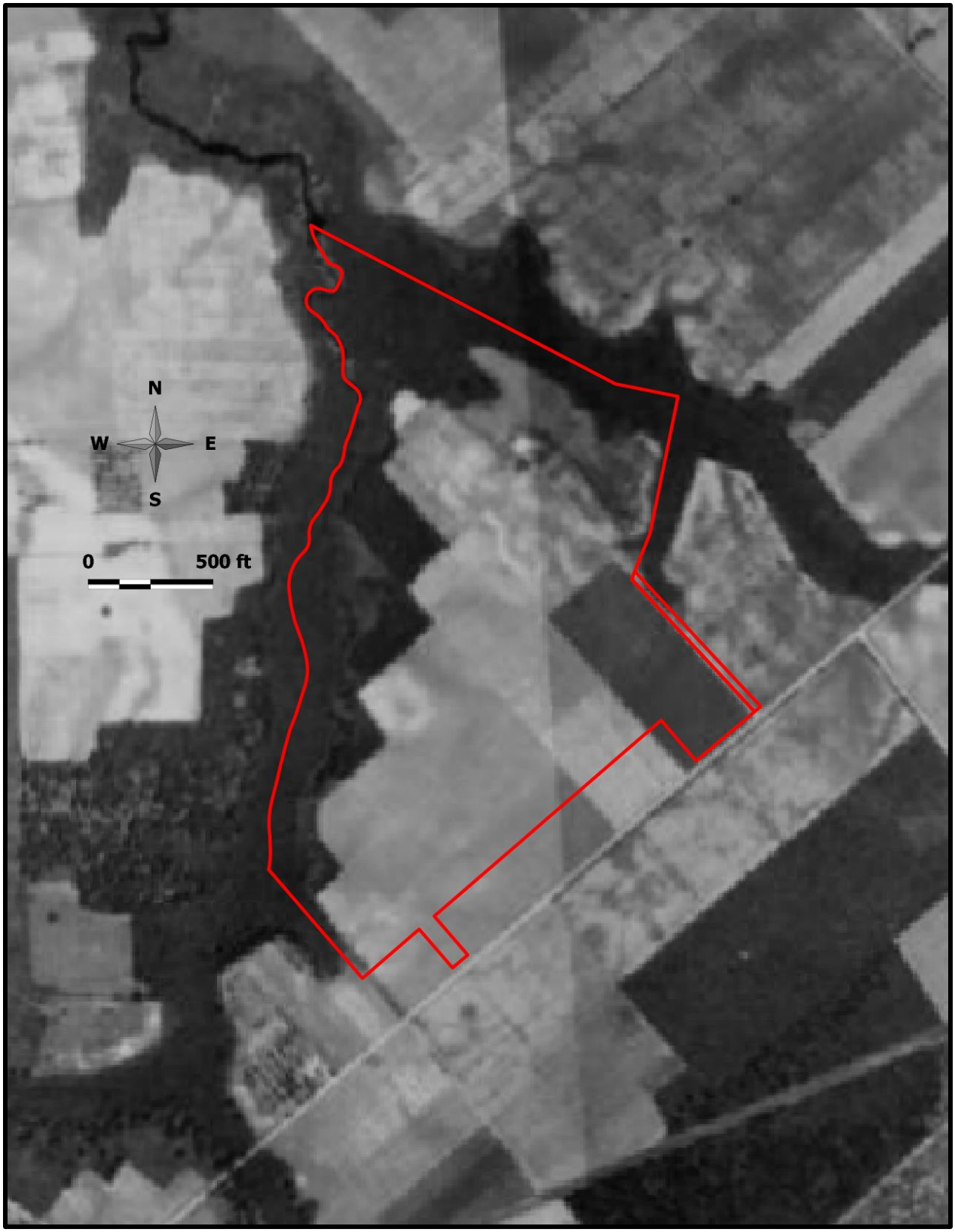

Figure 5. 1926 Aerial Photograph, USDA

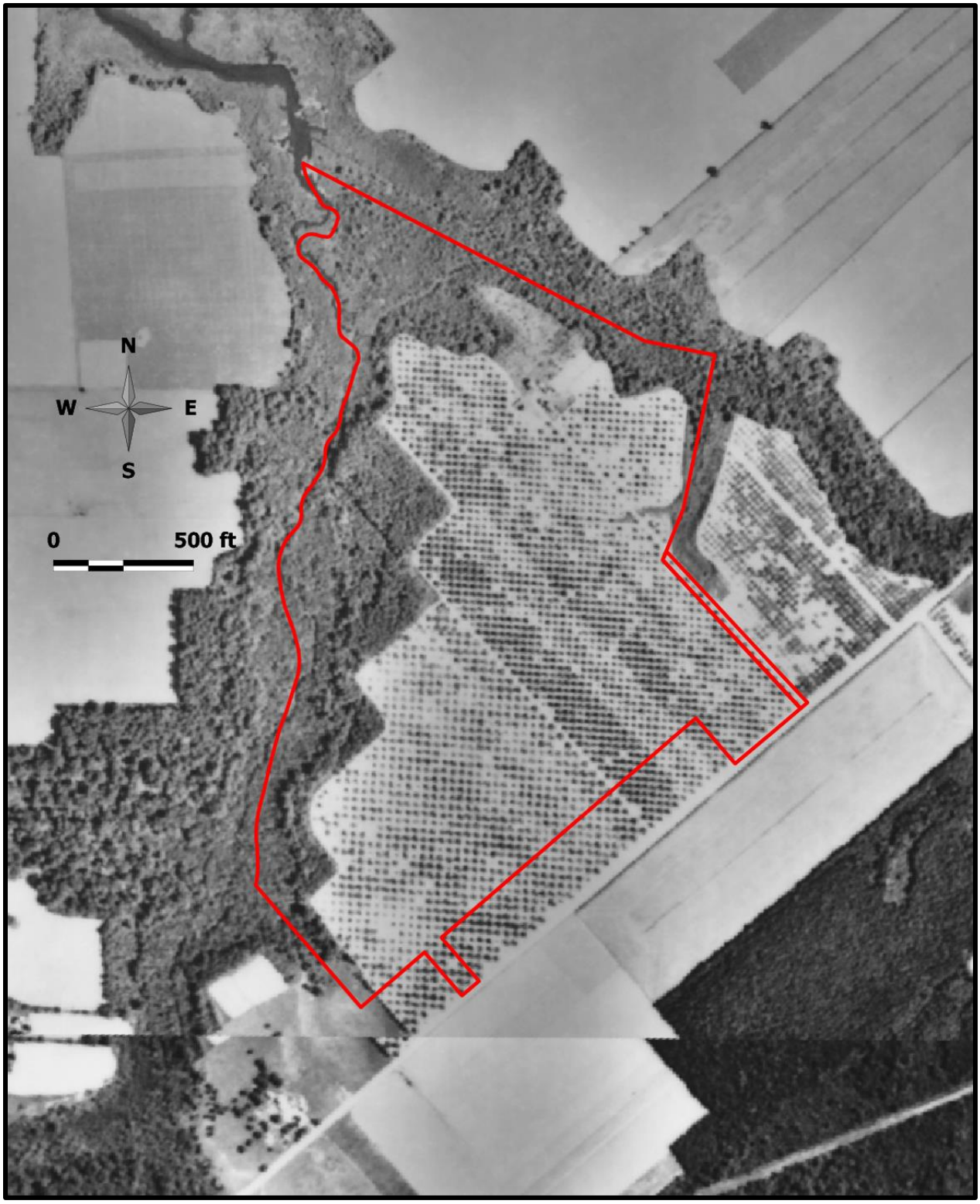

Figure 6. 1937 Aerial Photograph

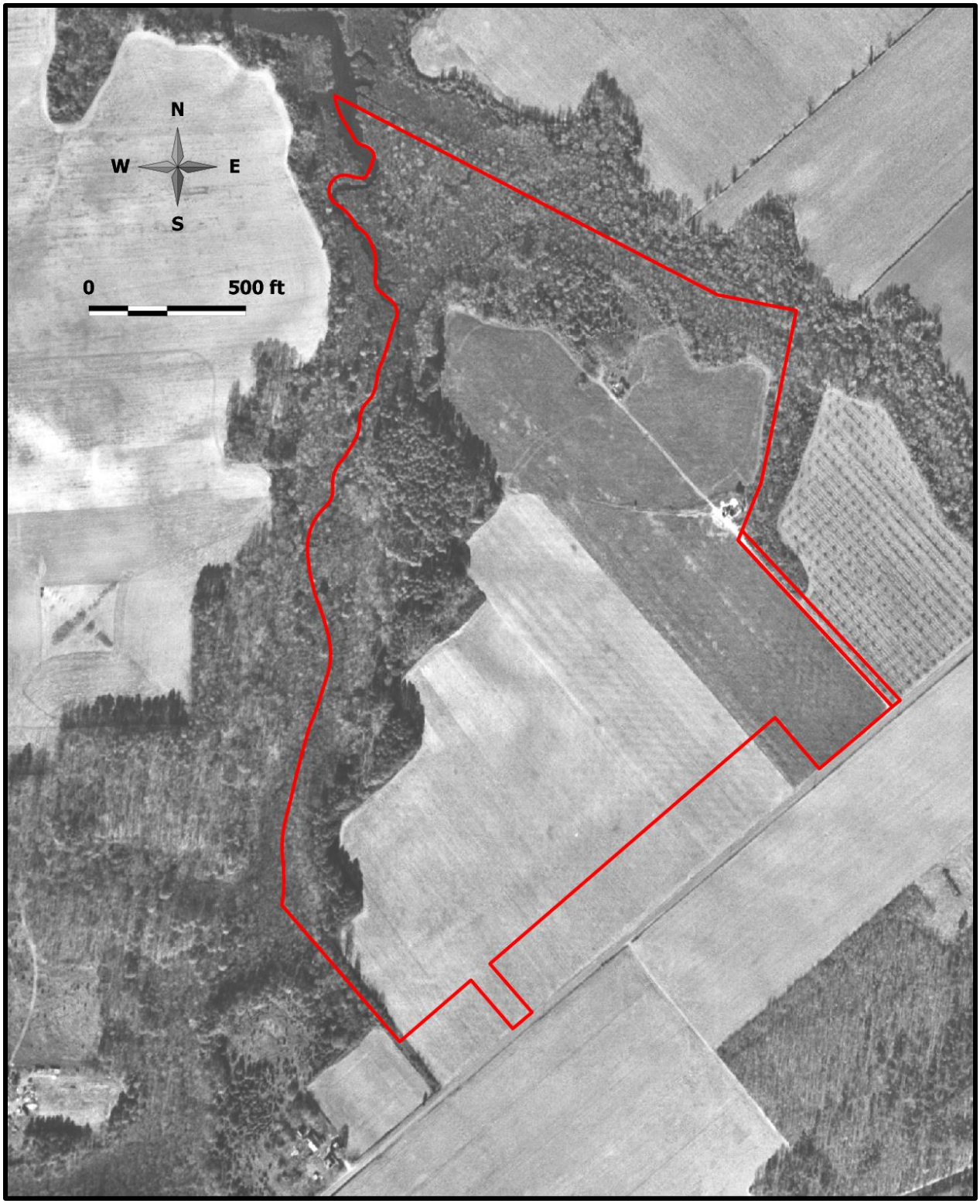

Figure 7. 1953 Aerial Photograph

Field Study

Field investigation consisted of a combination of shovel tests and surface survey. The wooded portions of the property that were not wetland were subject to shovel tests. A total of 461 tests were excavated within the woods (Figure 8). This consisted of tests excavated on the original 50-foot grid plus radial tests around finds (Appendix II).

Soils across the project area generally consisted of a plow zone on top of a B horizon (Appendix II). A few tests intersected what appear to be burn pits which are believed to be associated with the orchard operations.

Artifacts recovered from the shovel tests include historic and prehistoric materials (Appendix III). From the shovel tests, 515 historic period artifacts and 66 prehistoric artifacts were recovered. There were 348 historic artifacts found on the surface making the total historic artifact count 863. These items covered time from the late 18th century to the present.

Precontact Finds

Contrary to our expectations, few prehistoric artifacts were identified. No prehistoric artifacts were found during the surface survey. There were 44 shovel tests that produced precontact artifacts. Most of these were non-diagnostic lithics. No projectile points were found. Five prehistoric sites have been defined based on these finds (Figure 10). Four of these sites have yielded sand or quartz tempered pottery. Shell tempered sherds were found on one site. Fragments are small and eroded and cannot be typed with confidence. The sites are, at least in part, from the Woodland period. They are not dense with artifacts. This is a dramatic difference from the Kea sites and Ritter site directly across Prettyman's Branch on the Groome Property.

Knapp Site 1 (CRS S13461)

Knapp Site 1 was on high ground overlooking Black Hog Gut (Figure 10). Soils within this location consist of Downer sandy loam (DodB). Eleven shovel tests produced 23 artifacts (Figure 11) making this the largest prehistoric site identified on the property. The artifacts include one argillite flake, nine chert secondary flakes, two chert primary flakes, two pieces of chert shatter, four sand tempered pottery sherds, two shell temp sherds, two sandstone fire cracked rock, and a hammerstone. Based on the two different tempering materials, it appears this is a multi-component site with Early Woodland and Late Woodland components.

Knapp Site 2 (CRS S13462)

Knapp Site 2 is located on the northeast corner of the tract (Figure 10). This was an elevated spot consisting of Fort Mott soils (FmB) overlooking Prettyman Branch. Among the 12 artifacts recovered from this site were five chert secondary flakes, four chert primary flakes, two pieces of chert shatter and a tested chert cobble (Figure 12). No temporally diagnostic materials were found. All but one artifact were found in the plow zone.

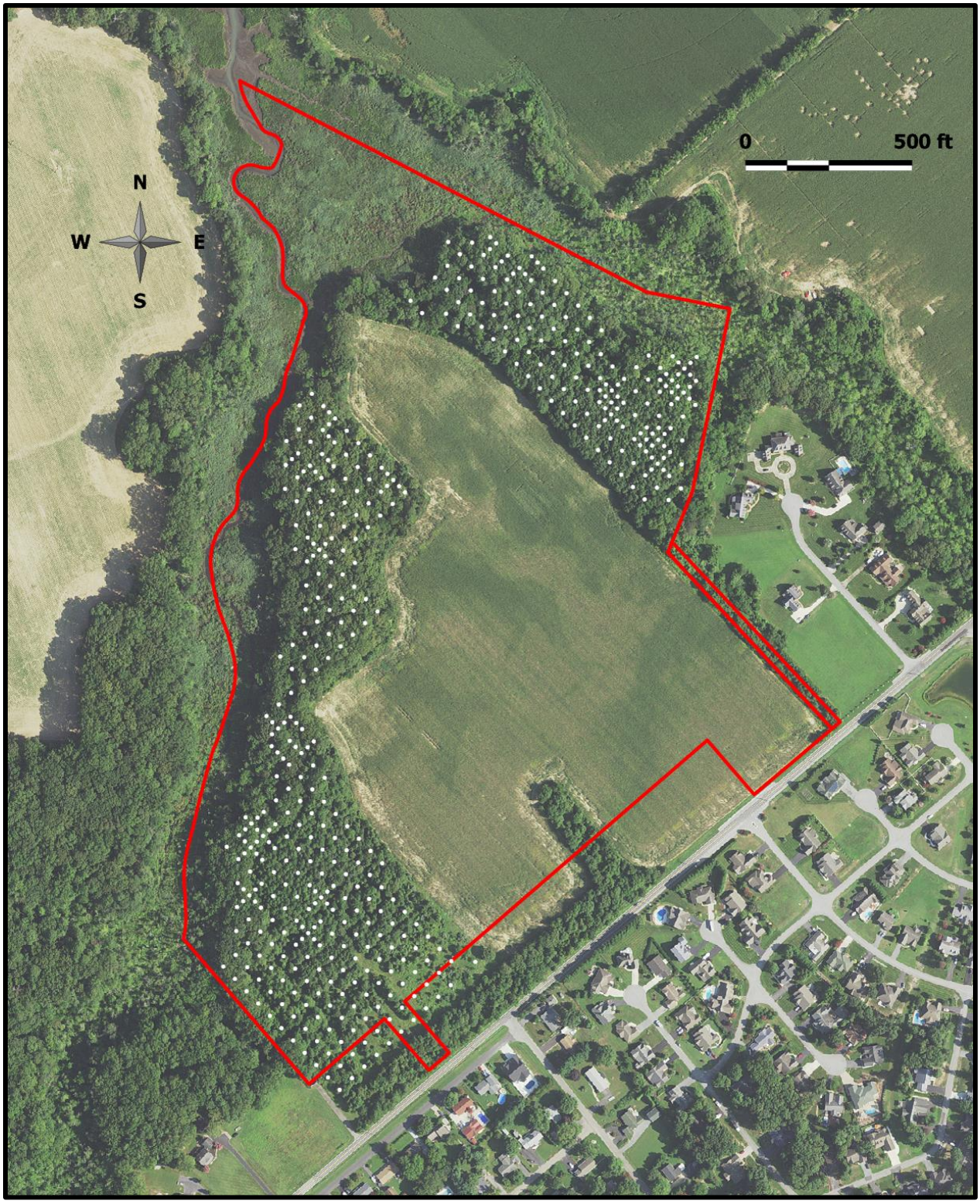

Figure 8. Shovel Test Locations

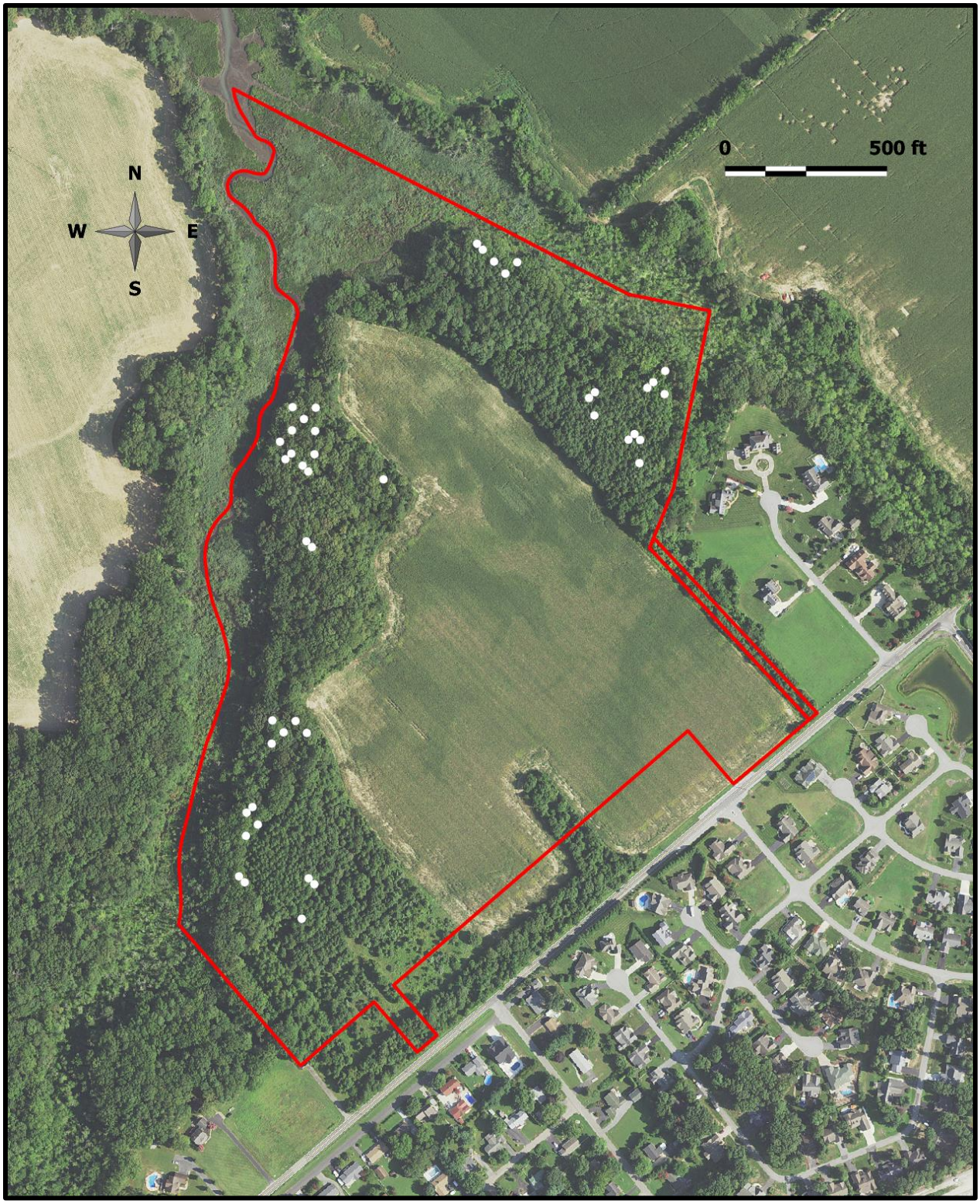

Figure 9. Shovel Tests with Precontact Artifact

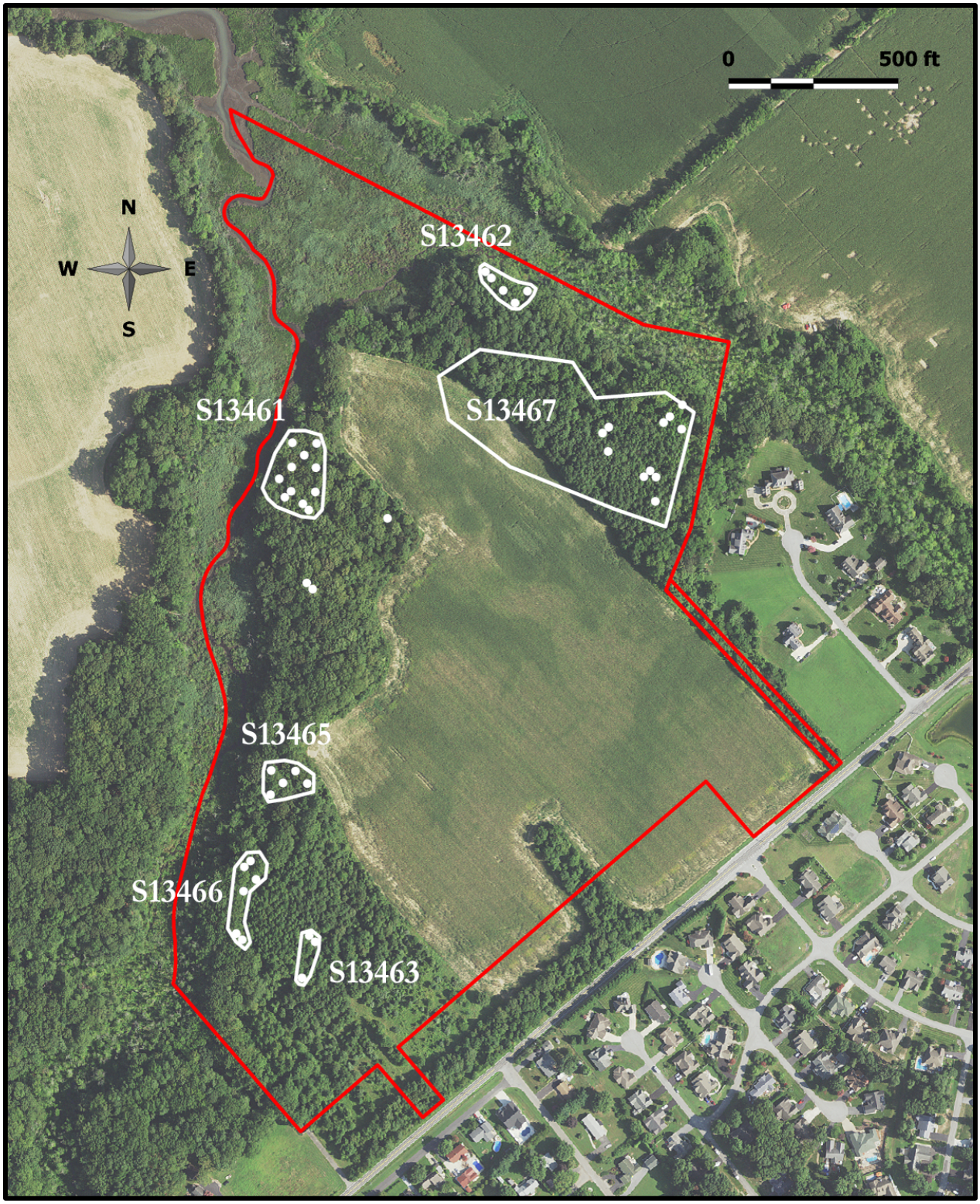

Figure 10. Identified Precontact Sites

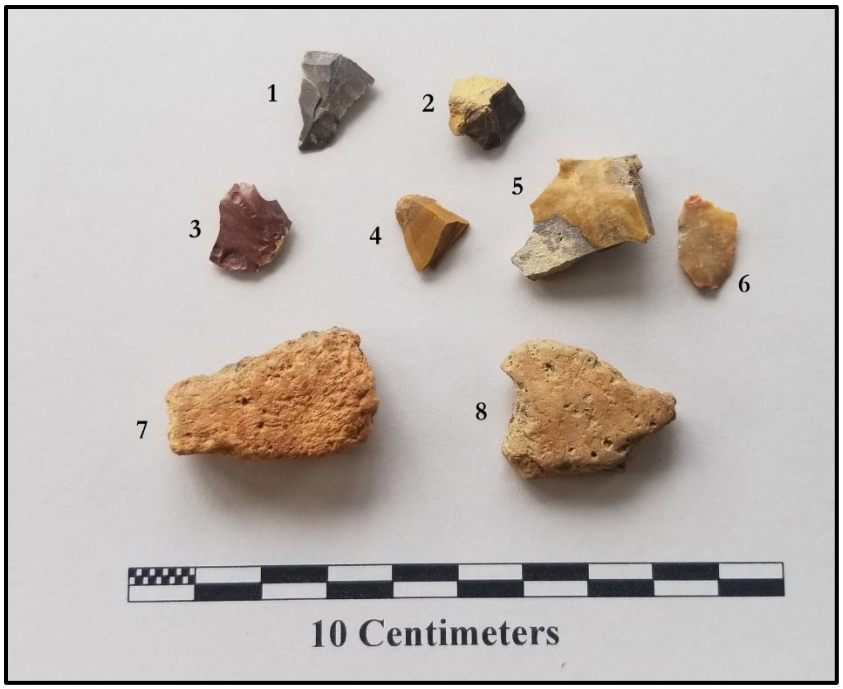

Figure 11. Representative Artifacts from CRS S13461 (1 through 6 - Chert Flakes, 7 - Grit Tempered Pottery, 8 - Shell Tempered Pottery)

Figure 12. Representative Artifacts from CRS S13462 (Chert Flakes)

Knapp Site 7 (CRS 13467)

This is a multi-component site with the boundary drawn around the larger historic component. Prehistoric finds were located on the eastern end of the site near the stream (Figure 10). This location is marked by well drained Fort Mott soils (FmB) and is near an ephemeral stream that flows to Prettyman's Branch. Recovered from 11 shovel tests were 13 artifacts (Figure 13). These include six chert secondary flakes, one chert primary flake, one quartz primary flake, one quartz secondary flake, a shell tempered pottery shard, likely Townsend ware, and another shard too small to determine temper. There was also one sandstone fire cracked rock. All but one artifact were recovered from the plow zone.

Knapp Site 4 (CRS S13465)

This site is located on the east side of Black Hog Gut (Figure 10). The artifacts recovered from the site include four chert secondary flakes, one chert primary flake and a quartz secondary flake (Figure 14). No pottery was found here. The soils at this location consist of Greenwich Loam (GrA). Two flakes from test N1700 E1300 may have come from the B horizon.

Knapp Site 5 (CRS S13466)

This site is located on the east side of Black Hog Gut a little south of Knapp Site 4 (Figure 10). Recovered from Knapp Site 5 were two chert secondary flakes, three chert primary flakes, and a sand tempered pottery sherd were found (Figure 15) in a total of six positive tests within this area. All artifacts were found within the plow zone. Soils are Greenwich (GrA).

Knapp Site 6 (CRS S13463)

Knapp Site 6 is a small site consisting of three positive tests (Figure 10). Artifacts recovered from this site include one chert flake and two pieces of quartz shatter (Figure 16). Soils at this location are Greenwich Loam (GrA). All artifacts were recovered from plow zone contexts.

Historic Finds

Historic artifacts were recovered from shovel tests and during surface survey within the plowed field (Figure 16). Not all artifacts recorded during the surface survey were collected. The western portion of the property had been orchard in the past. Plastic drip irrigation lines were found as was a scatter of predominately 20th century artifacts. These do not represent an archaeological site in that area. On the more northern portion of the western woods there was evidence of a late 20th century livestock enclosure including wire fencing and a wood and tin shelter.

On the eastern portion of the property, historic artifacts were more concentrated. The artifacts include architectural and domestic debris and are dated from the late 19th and early 20th century with a scatter of more modern refuse (Figure 17). Aerial photography from the early 20th century shows buildings in this area. Also, these artifacts are seen extending into the field, based on the surface survey.

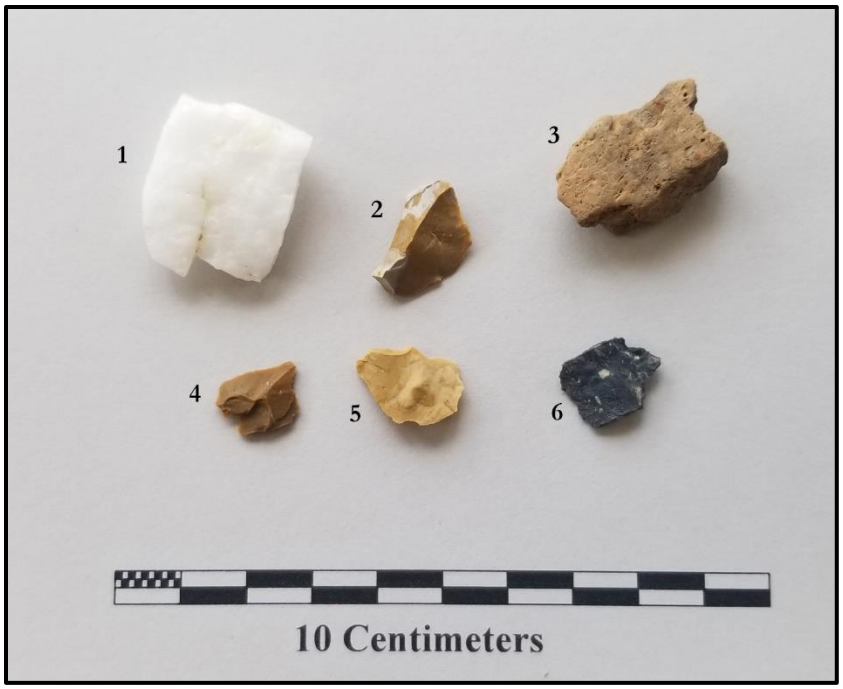

Figure 13. Representative Prehistoric Artifacts from CRS S13467 (1- Quartz Flake, 2, 4, 5 Chert Flakes, 6 Rhyolite Flake, 3, Pottery)

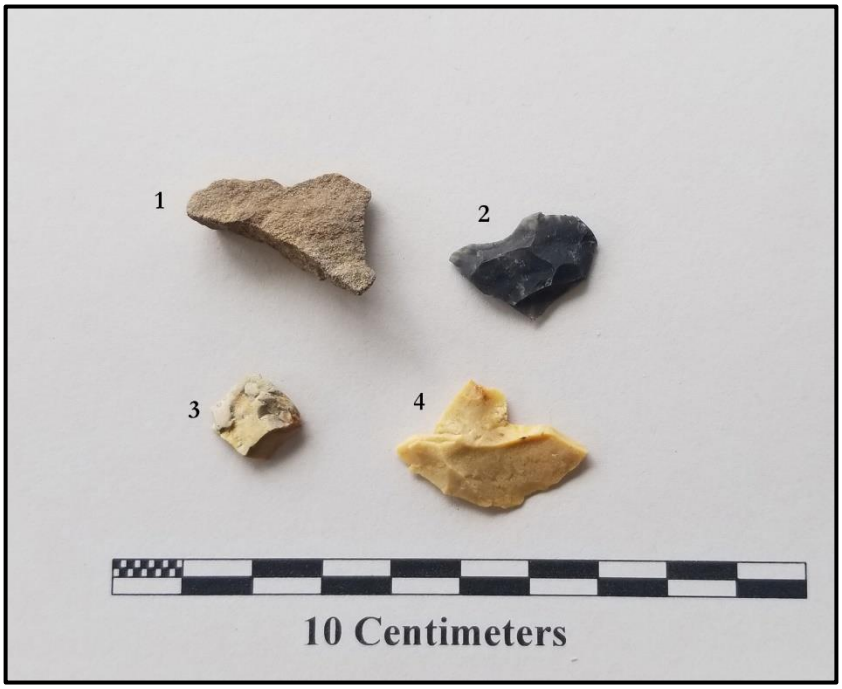

Figure 14. Representative Artifacts from CRS S13465 (1 - Sandstone FCR, 2, 3, 4 - Chert Flakes)

Figure 15. Representative Artifacts from CRS S13466 (Jasper & Quartz Flakes)

Figure 16. Representative Artifacts from CRS S13463 (1, 2 - Chert Flakes 3 - Shell Tempered Pottery)

Looking at the distribution of historic architectural artifacts: brick, window glass and nails, two concentrations are seen (Figure 17). One is along the northeast side of the field and extends into the woods. The other is centrally located within the field. These concentrations represent two historic period archaeological sites of different ages. When dateable ceramics are plotted (Figure 18), these show that the two sites represent separate periods of occupation on the Knapp farm. These have been designated Knapp Site 7 (CRS 13467) and Knapp Site 8 (CRS S13464) (Figure 19).

Knapp Site 7 (CRS S13467)

The historic component of CRS S13467 contained early 20th century ceramic types (Figure 20) including whiteware (1840 – 1940s), ironstone (1850 – 1920s), and salt glazed stoneware crockery (1850s – 1940s). These materials were found in the location of the house seen on the 1918 U.S.G.S. topographic map and was likely occupied by Samuel Davidson and his wife between 1920 and 1925. Based on deed research and artifacts, this site had a duration of no more than a couple decades. Barns persisted on the property past the period of occupation with one standing until the 1990s.

Knapp Site 8 (CRS S13464)

CRS S13464 included late 18th and early 19th century ceramic types (Figure 21) of pearlware (1780-1840), scratch blue (1730-1780) and redware (pre-1860 mostly). This is likely the site occupied by Thomas Gray between 1770 and 1783. That Gray lived on this tract is clear. After his death in 1783 his land was sold but may have still been occupied, based on the presence of pearlware ceramics at the site. This site appears to have been abandoned by the mid-19th century.

Shovel Tests

Ten shovel tests were dug within the plowed portion of the property in order to assess the soils and to test the identified sites (Figure 22). Two tests were placed in Site 7 and four in Site 8. In both sites, soils were plow zone on top of subsoil.

Tests three through six were placed in an area where a prehistoric site is identified on the CHRIS map. No prehistoric artifacts were found in any of these tests (or on the surface in this area). An area of buried plow zone, the result of modern slope wash, contained a fragment of a clay pigeon indicating the recent movement of soils.

Figure 17. Historic Period Architectural Artifacts (STP and Field Survey)

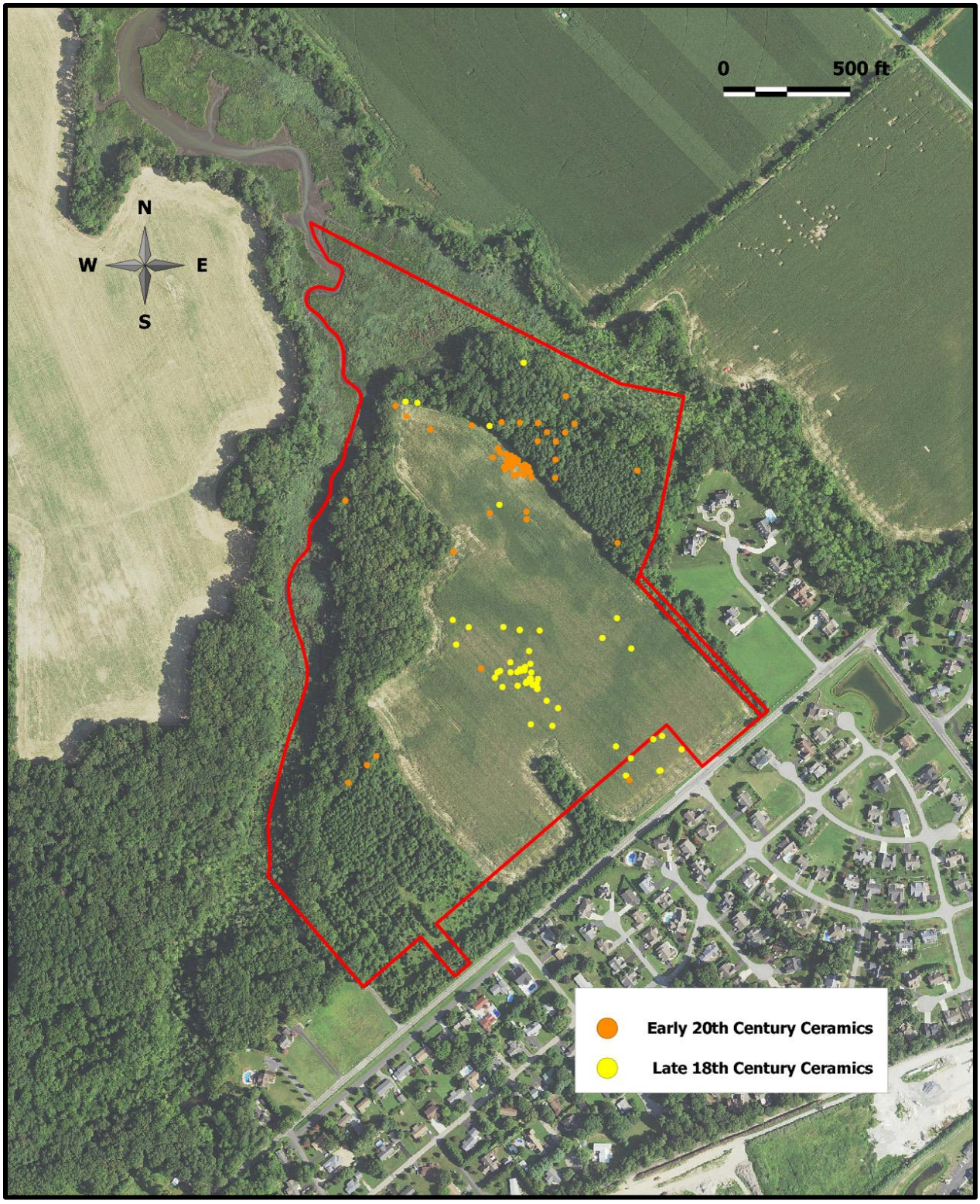

Figure 18. Historic Ceramic Distribution by Age

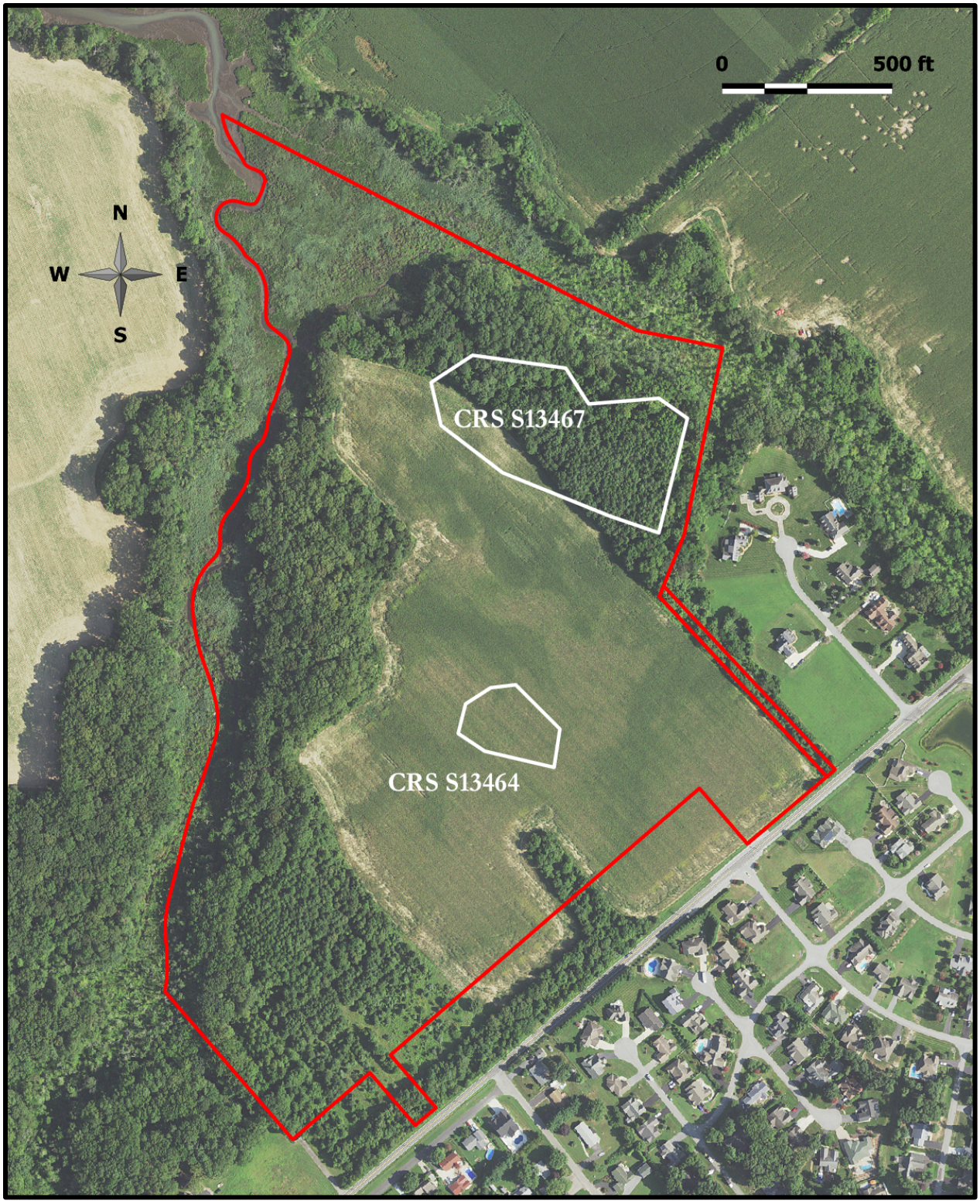

Figure 19. Historic Site Locations

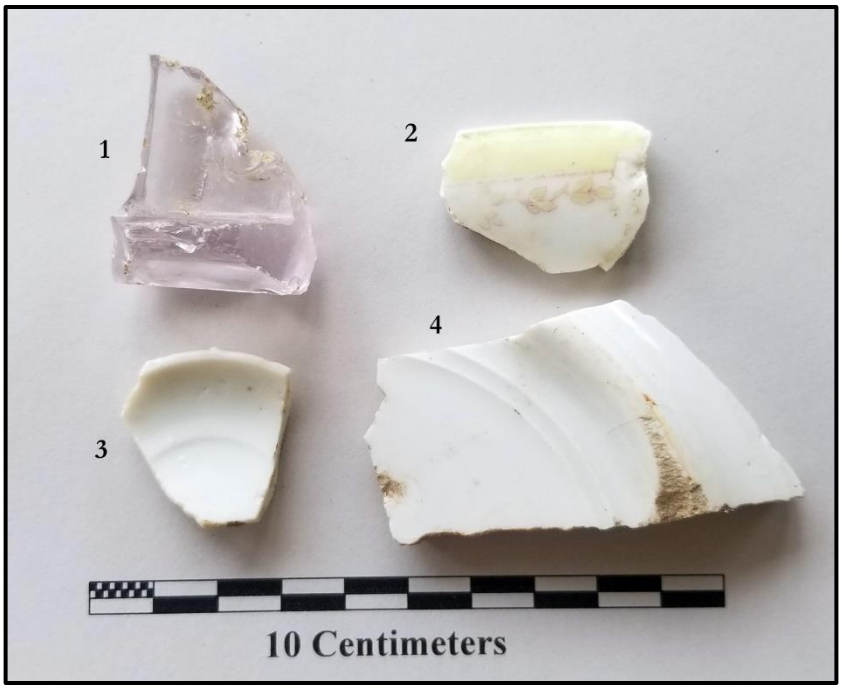

Figure 20. Representative Historic Artifacts from CRS S13467 (1 - Solarized Glass, 2 - Decal Decorated China, 3 - Porcelain, 4 - Ironstone)

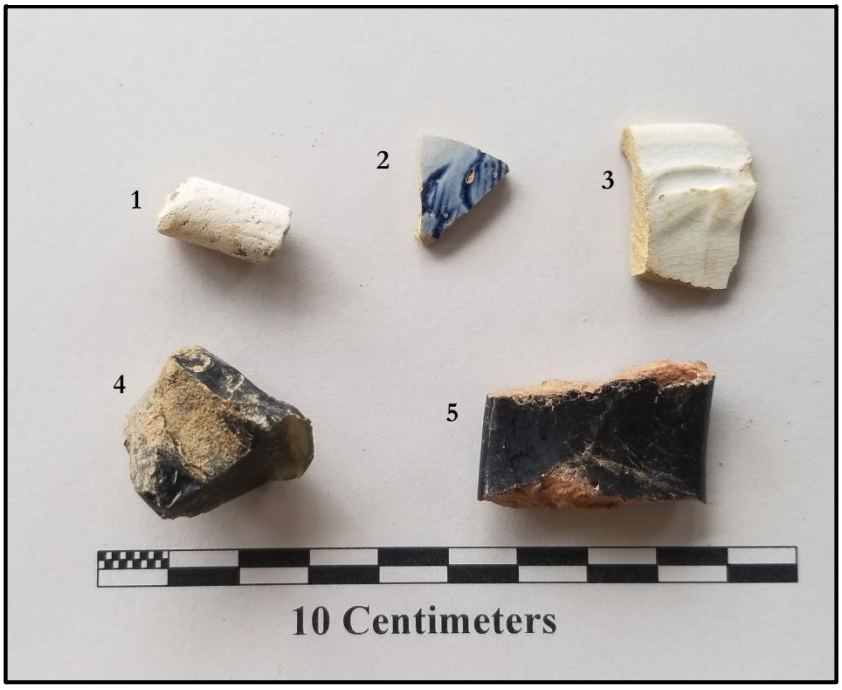

Figure 21. Representative Artifacts from CRS S13464 (1 - Pipe Stem, 2 - Scratch Blue, 3 - Pearlware, 4 - Olive Bottle, 5 - Red Bodied Earthenware)

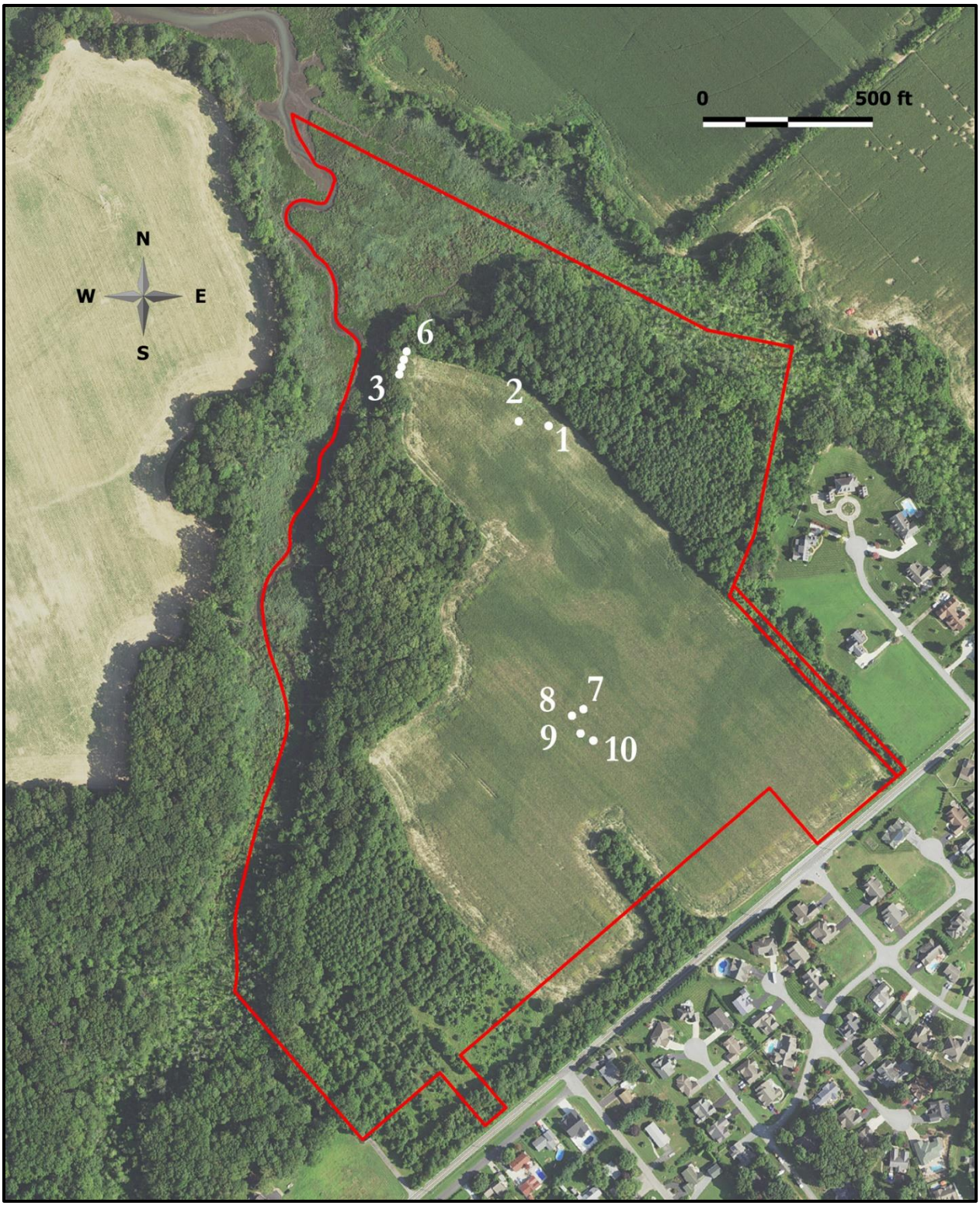

Figure 22. Shovel Test Locations within the Plowed Field

Summary

In all, archaeological field work has identified eight archaeological sites, six precontact and two historic. The prehistoric sites are small with few artifacts, compared to some other sites in the region. A few fragments of Early Woodland and Late Woodland pottery indicate these sites cover a broad swath of time. No temporally diagnostic lithic items have been found on the sites.

A site recorded on the state CHRIS map on the northern extreme of the plowed field was not found. Based on the existing site form, the site was found in plowed field. It clearly is not at this location and the nearby woods has been woods for the last 100 years. No prehistoric artifacts were located on the surface or in the five shovel tests dug across this area. It is believed this site is actually within the Ashburn neighborhood.

The two historic period sites include one from the 18th century and one from the early 20th century. The 20th century site was likely the house occupied by Samuel Davidson between 1917 and 1925. Most of the artifacts that were found are architectural in nature. Buildings can be seen on the property into the late 20th century. It is unknown whether the house remained occupied, or even existed, after about 1930. The general sparsity of domestic artifacts suggests that, if it existed after that time, it was not occupied as a dwelling.

The earlier site represents the likely home of Thomas Gray who lived on this land between 1770 and 1783. This site is not rich in domestic artifacts which is not out of character for a site from that time. Few sites of that age have been examined in Sussex County so additional study on this site may provide new information about life during the 18th century.

CONCLUSION

Archival research reveals Euro-American history for the Knapp farm beginning in the late 17th century when it was originally patented as part of the 400-acre Tower Hill Tract. Through most of that time it appears to have been farmland with two clear periods of occupation; once in the second half of the 18th century and again in the early 20th century.

Knapp Site 7, believed to be the home of Samuel Davidson during the early 20th century seems to be scattered with few artifacts, considering its period of use. It is felt that additional work here would not produce much new information about life during that period. Knapp Site 8, the site of Thomas Gray's house, holds the most promise of having significant features for meaningful archaeological study. Additional work at this site would likely provide new information on the lives of middling farmers in early 18th century Sussex County.

Prehistoric occupation on the land was presumed to extend thousands of years into the past and archaeological field investigations located evidence of prehistoric occupation. A site marked on the Delaware CHRIS map was not located. Six locations have been defined as sites (Figure 16). The few temporally diagnostic artifacts that were found indicate occupations during the Late Archaic/Early Woodland time frame roughly 2000 years ago. Limited Late Woodland materials (1000AD – 1600 Ad) were also found. Unlike the major prehistoric sites found on the north side of Prettyman's' Branch in previous studies, these prehistoric sites are small and contain few artifacts. Additional archaeological work on the larger of these sites, Knapp Sites 1 and Knapp Site 2, could provide a better understanding of the nature of these smaller sites.

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APPENDIX I: CHAIN OF TITLE

RECORD	DATE	TO	FROM	DESCRIPTION
PLOT BOOK 344/83	07/14/2021	LESLIE GAY KNAPP	HALSEY G. AND JOAN D. KNAPP TRUST	77.22 ACRES. (84.80 ACRES INCLUDING LOTS FRONTING NEW ROAD)
DEED BOOK 4250/339	04/21/2014	HALSEY G. KNAPP TRUSTEE UNDER REVOCABLE TRUST OF HALSEY G. AND JOAN D. KNAPP DATED 4/21/2014.	HALSEY G. KNAPP ½ UNDIVIDED INTEREST AND JOAN D. KNAPP ½ UNDIVIDED INTEREST REVOCABLE TRUST DATED 8/23/1995.	PARCEL 2: 34.25 ACRES ABUTTING BLACK OAK GUT FRONTING NORTHWEST SIDE OF PUBLIC ROAD LEADING FROM PILOT TOWN TO NASSAU. PARCEL 3: 55 ACRES OF UPLAND AND MESSUAGE FRONTING ON NORTHWEST SIDE OF PUBLIC ROAD LEADING FROM PILOT TOWN TO NASSAU WITH A FRAME DWELLING HOUSE AND OTHER OUTBUILDINGS.
DEED BOOK 2074/261	08/31/1995	HALSEY G. KNAPP, TRUSTEE ½ UNDIVIDED INTEREST AND JOAN D. KNAPP, TRUSTEE ½ UNDIVIDED INTEREST	HALSEY G. KNAPP AND JOAN D. KNAPP, HUSBAND AND WIFE	PARCEL 2: 34.25 ACRES. PARCEL 3: 55 ACRES. BEING PART OF LANDS CONVEYED TO HALSEY AND JOAN KNAPP BY NASSAU ORCHARD IN 1988.
DEED BOOK 1620/195	12/28/1988	HALSEY G. AND JOAN D. KNAPP	NASSAU ORCHARD, INC.	PARCEL 2: 34.25 ACRES BEING LANDS LESLIE G. AND MAUDE KNAPP, HUSBAND AND WIFE CONVEYED TO NASSAU ORCHARD INC IN 1925 BY DEED 247/370. PARCEL 3: 55 ACRES BEING LANDS LESLIE G. AND MAUDE KNAPP HUSBAND AND WIFE CONVEYED TO NASSAU ORCHARD IN 1932 BY DEED 288/180.
DEED BOOK 288/180	05/21/1932	NASSAU ORCHARD, INC.	LESLIE G. KNAPP	55 ACRES BEING PART OF LANDS SOLD BY LAWRENCE B. KNAPP, RECEIVER IN BANKRUPTCY FOR BURTON ORCHARDS INC., CONVEYED TO LESLIE G. KNAPP BY ORDER OF CHANCELLOR 4/27/1932, DEED NOT YET OF RECORD.
DEED BOOK 269/261	04/25/1928	BURTON ORCHARDS, INC.	LESLIE AND MAUDE KNAPP	BEING LAND CONVEYED BY THOMAS PALMER 1/7/1925
DEED BOOK 268/216	01/07/1928	LESLIE G. AND MAUDE KNAPP	THOMAS PALMER	BEING LAND SAMUEL W. DAVIDSON CONVEYED TO THOMAS PALMER IN 1925.

DEED BOOK 252/531	09/30/1925	THOMAS AND BESSIE M. PALMER	SAMUEL W. AND MAMIE J. DAVIDSON	55 ACRES UPLAND BESIDES MARSH AND CRIPPLE CONVEYED TO DAVIDSONS BY EDGAR W. INGRAM ET AL.
DEED BOOK 226/233	12/20/1920	SAMUEL W. DAVIDSON AND WIFE	EDGAR W. AND CORDELIA INGRAM, THOMAS R. AND ELIZABETH INGRAM	55 ACRES CONVEYED BY HIRAM H. HITCHENS AND WIFE.
DEED BOOK 203/135	01/10/1917	EDGAR W. INGRAM ET AL	HIRAM H. AND MARY T. HITCHENS	55 ACRES UPLAND AND MESSUAGE
DEED BOOK 185/433	04/01/1913	MARY T. HITCHENS ET AL	TIMOTHY E. TOWNSEND	55 ACRES BEING PART OF THE HICKMAN LAND KNOWN AS THE TOWER HILL FARM CONVEYED BY HARRY B. HICKMAN TO TIMOTHY E. TOWNSEND.
DEED BOOK 247/370	01/07/1925	NASSAU ORCHARD, INC.	LESLIE G. AND MAUDE KNAPP	34.25 ACRES
DEED BOOK 246/530	01/07/1924	LESLIE G. KNAPP	LOLA S. WILSON AND HEIRS OF GEORGE W. LODGE	34.25 ACRES
DEED BOOK 208/436	04/01/1913	GEORGE W. LODGE	TIMOTHY E. TOWNSEND	34.25 ACRES
DEED BOOK 143/373	3/3/1903	TIMOTHY E. TOWNSEND	HARRY B. AND ANNIE B. HICKMAN	309 +/- ACRES LANDS KNOWN AS TOWER HILL FARM LESS 35 ACRES SOLD TO RICHARD B. DERRICKSON BY THIS GRANTEE, A TRACT PURCHASED BY HARBESON HICKMAN FROM AB MARVAL AND WAS ASSIGNED TO HARRY B. HICKMAN
DEED BOOK 120/262	06/05/1894	HARRY B. HICKMAN	ELIZABETH C. BEERS AND HEIRS OF HARBESON HICKMAN	271 ACRES LANDS OBTAINED FROM WILTBANK
WILL BOOK Q16/40	1890	HEIRS OF HARBESON HICKMAN	HARBESON HICKMAN	VARIOUS FARMS AND LOTS INCLUDING NO. 3 THE TOWER HILL FARM NOW OCCUPIED BY JAMES WAPLES AS TENANT
DEED BOOK 70/396	11/02/1863	HARBESON HICKMAN	A.B. MARVEL, SHERIFF	309 ACRES TOWER HILL FARM. SUPERIOR COURT 1863 WRIT OF CONDITION EXPONAS NO. 435: SUIT OF COMFORT B. HOLLAND AGAINST HENRY WOLFE, ADM. OF ALFRED

				S. WILTBANK, DECEASED WHO WAS THE SURVIVING OBLIGOR OF ALFRED S. AND ELIZA P. WILTBANK, DEFENDANT FOR $300 REAL DEBT TO PUBLIC VENUE, THE LANDS OF HENRY WOLFE. HAVING THEREON A TWO- STORY HOUSE, STORY AND HALF ATTACHED, SINGLE STORY KITCHEN, BARN STABLES, SMOKE HOUSE AND OTHER OUT HOUSES.
ALBERT S. WILTBANK DEATH	1860	HENRY WOLFE, ADM FOR ALFRED S. WILTBANK	ALFRED S. WILTBANK, DECEASED	309 ACRES TOWER HILL FARM
ELIZA P. WILTBANK DEATH	1857	ALFRED S. WILTBANK, SON	ELIZA PAYNTER. WILTBANK, MOTHER	INHERITED FROM GRANDFATHER SAMUEL PAYNTER (WILL K10/115) AT DEATH OF MOTHER ELIZA P. WILTBANK.
WILL BOOK K10 PAGE 115SAMUEL PAYNTER	14 OCT 1845	ELIZA P. WILTBANK, DAUGHTER	SAMUEL PAYNTER, FATHER	TO ELIZA P. WILTBANK, A LIFE ESTATE IN THE LANDS AND MARSH PURCHASED AT SHERIFF'S SALE, LATE THE PROPERTY OF SAMUEL P. WILTBANK. TO MY GRANDSON ALFRED S. WILTBANK AT THE DECEASE OF HIS MOTHER ALL CLAIM TO THE LAND PURCHASED AT SHERIFF'S SALE, THE LATE PROPERTY OF SAMUEL P. WILTBANK.
DEED BOOK 51/178	24 OCT 1843	SAMUEL PAYNTER, ESQ	THOMAS W RECORDS, SHERIFF	300 +/-ACRES ADJOINING JOEL PRETTYMAN AND CORNELIUS WILTBANK. THESE LANDS IN POSSESSION OF SAMUEL P. WILTBANK, WERE SEIZED AND SOLD AT PUBLIC VENDUE TO PAY $80.61 DEBT AND DAMAGES TO JOHN P. PAYNTER, PLAINTIFF IN SUIT AGAINST SAMUEL P. WILTBANK. SALE TO HIGHEST BIDDER SAMUEL PAYNTER ESQ SUBJECT TO DOWER PAYABLE TO ELIZA P. WILTBANK.
DEATH JOHN WILTBANK, ESTATE ADM BY SAMUEL R. PAYNTER	14 FEB 1830	ELIZA P. WILTBANK DOWER LANDS AND TO OLDEST SON SAMUEL P. WILTBANK	JOHN WILTBANK	NO WILL WAS INCLUDED IN ARCHIVED WILL AND PROBATE RECORD (DE STATE ARCHIVES).
CORNELIUS WILTBANK WILL G7/14	27 MAY 1813	JOHN WILTBANK	CORNELIUS WILTBANK	LAND TO THE NORTHWEST OF DIVISION LINE AND BOUGHT FROM JACOB WHITE & OTHERS (THOMAS PRETTYMAN)

DEED BOOK 34/125	2 MAR 1797	CORNELIUS WILTBANK, JR	THOMAS PRETTYMAN AND PENELOPE, HIS WIFE	110 ACRES WHERE THOMAS AND PENELOPE PRETTYMAN NOW DWELL BEING LAND FORMERLY OWNED BY JOHN PRETTYMAN AND BY CONVEYANCES BECAME PROPERTY OF JAMES MARTIN ESQ WHO BY ALIENATION BOND DATED 8 FEB 1786 CONVEYED TO THOMAS PRETTYMAN.
ALIENATION BOND	8 FEB 1786	THOMAS PRETTYMAN	JAMES MARTIN	*UNABLE TO LOCATE THIS RECORD
DEED BOOK 13/158	1785	JAMES MARTIN, ESQ	MARNIA VIRDEN	PART OF TOWER HILL 100 ACRES WHICH WAS GRANTED TO WM PRETTYMAN IN 1757 AND ASSIGNED OVER TO THOMAS GRAY. ALSO, 20 ACRES +/ ADJ AND ON THE SOUTHEAST SIDE OF BEAVERDAM BRANCH
DEED BOOK 14/98	1785	MARNIA VIRDEN	JAMES MARTIN ESQ, ADM OF THOMAS GRAY	PART OF TOWER HILL LATE PROPERTY OF THOMAS GRAY 100 ACRES +/- THOMAS GRAY DIED INTESTATE ORPHANS' COURT 25 NOV 1783 ORDERED SALE.
DEED BOOK 11/207 (Mortgage)	1772	THOMAS GRAY AND SOPHIA HIS WIFE	JAMES MARTIN AND OLIVER STOCKLEY, YEOMAN	A MORTGAGE ON 100 ACRES BEING THE SAME WHERE THOMAS GRAY NOW DWELLS. LAND HE PURCHASED FROM JOHN PRETTYMAN 6 MARCH 1767. PART OF PATENT TO DANIEL BROWN

DEED BOOK 11/206	6 MAR 1770	THOMAS GRAY, COOPER	JOHN PRETTYMAN	SMALL PARCEL BEING PART OF A TRACT FORMERLY GRANTED 25 MAR 1676 BY NEW YORK PATENT UNTO DANIEL BROWN CALLED TOWER HILL. BROWN ASSIGNED UNTO SAMUEL PRESTON 1693. PRESTON ASSIGNED TO JAMES PETERKIN 1693. THOMAS PETERKIN ATTNY FOR JAMES PETERKIN CONVEYED 200 ACRES, THE ONE HALF MOITY UNTO JOHN PRETTYMAN IN 1697. JOHN CONVEYED 100 ACRES OF THIS IN 1719 TO WM PRETTYMAN HIS SON, BEING NW SIDE OF THE 400 ACRE TRACT, LYING ON THE BEAVER DAM. WM PRETTYMAN CONVEYED 100 ACRES TO JOHN PRETTYMAN, MINOR. JOHN PRETTYMAN BY WILL DATED 23 FEB 1754 DEVISED 100 ACRES TO JOHN.
WILL BOOK B2/PAGE 71	23 FEB 1754	JOHN PRETTYMAN JR	JOHN PRETTYMAN	I GIVE UNTO SON JOHN THE PLANTATION ON WHICH I NOW LIVE. ALSO, THAT LAND I PURCHASED OF MY FATHER WM PRETTYMAN BEING ABOUT 100 ACRES OF LAND AND IS PART OF THAT TRACT CALLED TOWER HILL
DEED BOOK 6/110	14 MAR 1734	JOHN PRETTYMAN, YEOMAN	WM PRETTYMAN, YEOMAN	PART OF 200 ACRE TRACT KNOWN AS TOWER HILL WHICH CONTAINED 400 ACRES. ALL THE PART LYING ON THE SOUTH SIDE OF A BRANCH PROCEEDING FROM A BAVER DAM AND IN A FORMER DEED BELONGED TO THE PLANTATION WHERE JOHN PRETTYMAN SENIOR FORMERLY DID LIVE AND WAS FORMERLY IN OCCUPATION OF THOMAS PRETTYMAN.

DEED BOOK 1/240	8 MAY 1719	WILLIAM PRETTYMAN	JOHN PRETTYMAN, SR.	A PARCEL OF LAND SITUATE LYING AND BEING ON PAGAN CREEK IN SUSSEX PART OF A TRACT OF LAND CALLED TOWER HILL WHICH SAID PARCEL IS THAT PART OF THE SAID WHOLE TRACT THAT LYE ON THE SOUTH SIDE OF A BRANCH PROCEEDING FROM A BEAVER DAM BRANCH.
DEED BOOK 1/215	8 DEC 1697	JOHN PRETTYMAN	THOMAS PETERKIN, POA FOR JAMES PETERKIN	200 ACRES OF LAND IN SUSSEX PART OF A TRACT CALLED TOWER HILL AND UNTO RICHARD PAYNTER 200 ACRES MORE OF LAND BEING THE REST OF THE SAID TRACT CALLED TOWER HILL
DEED BOOK 1/145	7 DEC 1693	JAMES PETERKIN	SAMUEL PRESTON	LAND PATENT AND PREMISES 400 ACRES
DEED BOOK 1/145	2 NOV 1693	SAMUEL PRESTON	WM RODNEY, ATTNY FOR DANIEL BROWN	A CERTAIN PATENT FOR 400 ACRES OF LAND
DUKE OF YORK PATENT	25 MAR 1676	DANIEL BROWN	EDMUND ANDROSS	400 ACRES TOWER HILL LYING UPON PAGANS CREEKE NEARE THE WHOR KILL SURVEYED BY CAPT' EDMOND CANTWELL. QUIT RENT 4 BUSHELL WHEAT

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
900	1000	0 - 0.25'	10YR 3/4	SILTY LOAM	Ao	DAMP; CLEAR TRANS.
900	1000	0.25 - 0.8'	10YR 4/4	SILTY LOAM	Ap	DAMP; ABRUPT TRANS.
900	1000	0.8 - 1.2'	10YR 5/4	SILTY CLAY LOAM	B	
900	1050	0 - 0.6'	7.5YR 4/3	SILTY LOAM	Ap1	DAMP; ABRUPT TRANS.
900	1050	0.6 - 1.3'	10YR 4/4	SILTY LOAM	Ap2	DAMP; ABRUPT TRANS.
900	1050	1.3 - 1.7'	7.5YR 5/4	SILTY CLAY LOAM	B	
900	1100	0 - 0.25'	10YR 3/4	SILTY LOAM	Ao	DAMP; CLEAR TRANS.
900	1100	0.25 - 1.0'	10YR 4/4	SILTY LOAM	Ap	DAMP; ABRUPT TRANS.
900	1100	1.0 - 1.4'	7.5YR 4/6	SILTY CLAY LOAM	B	
900	1150	0 - 0.2'	10YR 3/3	SILTY LOAM	Ao	DAMP; CLEAR TRANS.
900	1150	0.2 - 0.9'	7.5YR 4/3	SILTY LOAM	Ap	DAMP; ABRUPT TRANS.
900	1150	0.9 - 1.3'	7.5YR 4/4	SILTY CLAY LOAM	B	
900	1200	0 - 0.2'	10YR 3/3	LOAM	Ao	DAMP; CLEAR TRANS.
900	1200	0.2 - 0.9'	7.5YR 4/3	SANDY LOAM	Ap	DAMP; ABRUPT TRANS.
900	1200	0.9 - 1.3'	7.5YR 4/4	SILTY LOAM w/ 5% GRAVEL	B	DAMP
900	650	0 - 0.5'	10YR 3/3	SANDY LOAM	Ao	
900	650	0.5 - 1.1'	10YR 5/4	SANDY LOAM	Ap	
900	650	1.1 - 1.5'	7.5YR 4/6	LOAM	B	
900	700	0 - 0.35'	10YR 3/3	SANDY LOAM	Ao	
900	700	0.35 - 1.05'	10YR 5/4	SANDY LOAM	Ap	
900	700	1.05 - 1.3'	7.5YR 4/6	LOAM	B	
900	750	0 - 0.15'	10YR 3/4	SILTY LOAM	Ao	
900	750	0.15 - 0.8'	10YR 4/3	SILTY LOAM	Ap	DAMP; ABRUPT TRANS.
900	750	0.8 - 1.1'	10YR 5/4	SILTY LOAM	B1	DAMP; CLEAR TRANS.
900	750	1.1 - 1.5'	7.5YR 5/4	SILTY CLAY LOAM	B2	
900	800	0 - 0.2'	10YR 3/4	SILTY LOAM	Ao	SOD CAP
900	800	0.2 - 0.8'	10YR 4/3	SILTY LOAM	Ap	DAMP; ABRUPT TRANS.
900	800	0.8 - 1.5'	7.5YR 5/4	SILTY CLAY LOAM	B	10YR3/4 SiLo w/ 2% GRAVEL, IN 1/2 OF STP 1' B.S TO B.O.E.
900	850	0 - 0.2'	10YR 3/4	SILTY LOAM	Ao	
900	850	0.2 - 0.95'	10YR 4/3	SILTY LOAM	Ap	DAMP; ABRUPT TRANS.
900	850	0.95 - 1.35'	10YR 5/4	SILTY LOAM	B1	DAMP; CLEAR TRANS.
900	850	1.35 - 1.7'	7.5YR 5/4	SILTY CLAY LOAM	B2	
900	900	0 - 0.1'	10YR 3/4	SILTY LOAM	Ao	
900	900	0.1 - 0.95'	10YR 4/3	SILTY LOAM	Ap	DAMP; ABRUPT TRANS.
900	900	0.95 - 1.25'	10YR 5/4	SILTY LOAM	B1	DAMP; CLEAR TRANS.
900	900	1.25 - 1.5'	7.5YR 5/4	SILTY CLAY LOAM	B2	
900	950	0 - 0.2'	10YR 3/4	SILTY LOAM	Ao	
900	950	0.2 - 0.95'	10YR 4/3	SILTY LOAM	Ap	DAMP; ABRUPT TRANS.
900	950	0.95 - 1.8'	10YR 5/4	SILTY LOAM	B1	DAMP; CLEAR TRANS.

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
900	950	1.8 - 2.1'	7.5YR 5/4	SILTY CLAY LOAM	B2	
950	1000	0 - 0.15'	10YR 3/2	SILTY LOAM	Ao	SOD CAP
950	1000	0.15 - 0.75'	10YR 4/4	SILTY LOAM	Ap	
950	1000	0.75 - 1.2'	10YR 5/6	SILTY LOAM	B	
950	1050	0 - 0.15'	10YR 3/2	SANDY LOAM	Ao	SOD CAP
950	1050	0.15 - 0.95'	10YR 4/4	SANDY LOAM	Ap	
950	1050	0.95 - 1.4'	10YR 5/6	LOAM	B	
950	1100	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
950	1100	0.1 - 0.75'	10YR 4/4	SILTY LOAM	Ap	
950	1100	0.75 - 1.1'	7.5YR 5/6	SANDY LOAM	B	
950	1150	0 - 0.25'	10YR 3/3	SANDY LOAM	Ao	
950	1150	0.25 - 0.8'	10YR 4/4	SANDY LOAM	Ap	
950	1150	0.8 - 1.2'	7.5YR 5/6	LOAM	B	
950	650	0 - 0.5'	10YR 3/3	SANDY LOAM	Ao	
950	650	0.5 - 1.0'	10YR 5/4	SANDY LOAM	Ap/E	LEACHED
950	650	1.0 - 1.5'	7.5YR 4/6	LOAM	B	
950	700	0 - 0.4'	10YR 3/3	SILTY LOAM	Ao	
950	700	0.4 - 1.1'	10YR 5/4	SANDY LOAM	Ap	
950	700	1.1 - 1.6	10YR 5/6	SANDY LOAM	B	
950	750	0 - 0.3'	10YR 3/3	SANDY LOAM	Ao	
950	750	0.3 - 0.9'	10YR 4/4	SANDY LOAM	Ap	E. SIDE LOOKS DISTURBED
950	750	0.9 - 1.25'	10YR 5/6	LOAMY SAND	B	
950	800	0 - 0.2'	10YR 3/2	SILTY LOAM	Ao	
950	800	0.2 - 0.95'	10RYR 4/4	SILTY LOAM	Ap	
950	800	0.95 - 1.2'	10YR 4/6	LOAM	B	
950	850	0 - 0.2'	10YR 3/3	SILTY LOAM	Ao	
950	850	0.2 - 0.8'	10YR 4/4	SILTY LOAM	Ap	
950	850	0.8 - 1.3'	10YR 5/6	SILTY LOAM	B1	
950	850	1.3 - 1.6'	10YR 4/6	SILTY LOAM	B2	
950	900	0 - 0.25'	10YR 3/3	SILTY LOAM	Ao	
950	900	0.25 - 0.9'	10YR 4/4	SILTY LOAM	Ap	
950	900	0.9 - 1.2'	7.5YR 5/6	LOAM	B	
950	950	0 - 0.15'	10YR 3/2	SILTY LOAM	Ao	SOD CAP
950	950	0.15 - 0.85'	10YR 4/4	SILTY LOAM	Ap	
950	950	0.85 - 1.2'	10YR 5/6	SILTY LOAM	B	
1000	1000	0 - 0.15'	10YR 3/3	LOAM	Ao	MOIST
1000	1000	0.15 - 0.7'	10YR 4/4	SILTY LOAM	Ap	MOIST
1000	1000	0.7 - 1.25'	7.5YR 5/4	SILTY LOAM	B1	MOIST
1000	1000	1.25 - 1.5'	7.5YR 5/6	SILTY LOAM	B2	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1000	1050	0 - 0.1'	10YR 3/3	LOAM	Ao	MOIST
1000	1050	0.1 - 0.75'	10YR 4/4	SILTY LOAM	Ap	MOIST
1000	1050	0.75 - 0.95'	7.5YR 5/4	SILTY LOAM	B1	MOIST
1000	1050	0.95 - 1.2'	7.5YR 5/6	SILTY CLAY LOAM	B2	
1000	1100	0 - 0.2'	10YR 3/3	SANDY LOAM	Ao	MOIST
1000	1100	0.2 - 0.85'	7.5YR 4/4	SANDY LOAM	Ap	MOIST; ABRUPT TRANS.
1000	1100	0.85 - 1.3'	5YR 4/4	SANDY LOAM	B	
1000	1150	0 - 0.2'	10YR 3/4	LOAM	Ao	MOIST
1000	1150	0.2 - 0.8'	7.5YR 4/3	SANDY LOAM w/ 1% GRAVEL	Ap	MOIST; ABRUPT TRANS.
1000	1150	0.8 - 1.2'	7.5YR 4/4	LOAMY SAND w/ 2% GRAVEL	B	
1000	650	0 - 0.5'	7.5YR 4/4	SANDY LOAM	Ao	
1000	650	0.5 - 2.2'	10YR 4/4	SANDY LOAM	FILL	10YR 4/3 & 10YR 5/6 MOTTLES; CARBON IN LOWER PORTION
1000	650	2.2 - 2.7'	10YR 6/4	LOAMY SAND	B	
1000	700	0 - 0.25'	10YR 3/3	SILTY LOAM	Ao	LOOSE, MOIST
1000	700	0.25 - 0.85'	10YR 4/4	LOAM	Ap	LOOSE, MOIST
1000	700	0.85 - 1.6'	10YR 5/6	SANDY LOAM	B1	LOOSE, MOIST
1000	700	1.6 - 2.2'	7.5YR 5/6	SANDY LOAM	B2	FIRM
1000	750	0 - 0.7'	7.5YR 4/4	LOAM	Ap	FIRM; ABRUPT TRANS.
1000	750	0.7 - 0.9'	7.5YR 5/4	SANDY LOAM	Apb or FILL?	FIRM; ABRUPT TRANS.
1000	750	0.9 - 1.2'	7.5YR 5/6	SANDY LOAM	B	COMPACT
1000	800	0 - 0.75'	10YR 4/4	LOAM	Ap	LOOSE; ABRUPT TRANS.; MOIST
1000	800	0.75 - 1.1'	7.5YR 5/6	SILTY LOAM	B	FIRM
1000	850	0 - 0.8'	10YR 4/4	LOAM	Ap	LOOSE; ABRUPT TRANS.; MOIST
1000	850	0.8 - 1.2'	7.5YR 5/6	SILTY LOAM	B	FIRM
1000	900	0 - 0.2'	10YR 3/3	SILTY LOAM	Ao	MOIST
1000	900	0.2 - 0.9'	10YR 4/4	LOAM	Ap	MOIST
1000	900	0.9 - 1.3'	7.5YR 5/6	SILTY CLAY LOAM	B	FIRM
1000	950	0 - 0.2'	10YR 3/4	LOAM	Ao	MOIST
1000	950	0.2 - 0.95'	10YR 4/4	SILTY LOAM	Ap	MOIST
1000	950	0.95 - 1.5'	7.5YR 5/4	SANDY LOAM	B	MOIST
1050	1000	0 - 0.15'	10YR 3/2	SILTY LOAM	Ao	
1050	1000	0.15 - 0.8'	10YR 4/3	SANDY LOAM	Ap	
1050	1000	0.8 - 1.1'	10YR 5/6	SANDY LOAM	B1	
1050	1000	1.1 - 1.4'	10YR 5/8	LOAMY SAND	B2	
1050	1050	0 - 0.2'	10YR 3/2	SILTY LOAM	Ao	
1050	1050	0.2 - 0.8'	10YR 4/3	SANDY LOAM	Ap	
1050	1050	0.8 - 1.1'	10YR 5/6	SANDY LOAM	B1	
1050	1050	1.1 - 1.3'	10YR 5/8	LOAMY SAND	B2	
1050	1100	0 - 0.3'	10YR 3/3	SILTY LOAM	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1050	1100	0.3 - 1.0'	10YR 4/3	SILTY LOAM	Ap	
1050	1100	1.0 - 1.3'	10YR 5/8	SILTY LOAM	B	
1050	1150	0 - 0.2'	10YR 3/3	SANDY LOAM	Ao	
1050	1150	0.2 - 0.9'	10YR 4/4	SANDY LOAM	Ap	
1050	1150	0.9 - 1.6'	10YR 6/6	LOAMY SAND	C	
1050	650	0 - 0.4'	10YR 4/2	LOAMY SAND	Ao	
1050	650	0.4 - 1.1'	10YR 4/4	SANDY LOAM	Ap	
1050	650	1.1 - 1.5'	10YR 5/4	LOAMY SAND	B	
1050	700	0 - 0.3'	10YR 3/3	SILTY LOAM	Ao	
1050	700	0.3' - 0.8'	10YR 5/4	SILTY LOAM	Ap	
1050	700	0.8 - 1.1'	7.5YR 4/6	SANDY LOAM	B	
1050	750	0 - 0.2'	10YR 3/3	SILTY LOAM	Ao	
1050	750	0.2 - 0.9'	10YR 5/4	SILTY LOAM	Ap	
1050	750	0.9 - 1.1'	7.5YR 4/6	CLAY LOAM	B	
1050	800	0 - 0.2'	10YR 3/3	SILTY LOAM	Ao	
1050	800	0.2 - 0.8'	10YR 4/3	SILTY LOAM	Ap	
1050	800	0.8 - 1.3'	10YR 5/6	SANDY LOAM w/ 10% GRAVEL	B	
1050	850	0 - 0.15'	10YR 3/3	SILTY LOAM	Ao	
1050	850	0.15 - 0.75'	10YR 4/3	SILTY LOAM	Ap	
1050	850	0.75 - 1.1'	10YR 5/6	SANDY LOAM w/ 10% GRAVEL	B	
1050	900	0 - 0.85'	10YR 4/3	SILTY LOAM	Ap	
1050	900	0.85 - 1.2'	10YR 5/6	SILTY LOAM	B	
1050	950	0 - 0.2'	10YR 3/2	SILTY LOAM	Ao	
1050	950	0.2 - 0.85'	10YR 4/3	SANDY LOAM	Ap	
1050	950	0.85 - 1.2'	10YR 5/6	SANDY LOAM	B1	
1050	950	1.2 - 1.5'	10YR 5/6	LOAMY SAND	B2	
1100	1000	0 - 0.15'	10YR 3/2	SILTY LOAM	Ao	
1100	1000	0.15 - 0.85'	10YR 4/4	SILTY LOAM	Ap	
1100	1000	0.85 - 1.1'	7.5YR 5/6	SILTY LOAM	B	
1100	1050	0 - 0.2'	10YR 3/2	SILTY LOAM	Ao	
1100	1050	0.2 - 0.9'	10YR 4/4	SILTY LOAM	Ap	
1100	1050	0.9 - 1.1'	10YR 5/6	SILTY LOAM	B	
1100	1100	0 - 0.2'	10YR 3/2	SILTY LOAM	Ao	
1100	1100	0.2 - 0.9'	10YR 4/4	SILTY LOAM	Ap	
1100	1100	0.9 - 1.1'	10YR 5/6	SILTY LOAM	B	
1100	1150	0 - 0.2'	10YR 3/2	SILTY LOAM	Ao	
1100	1150	0.2 - 1.0'	10YR 4/4	SILTY LOAM	Ap	
1100	1150	1.0 - 1.2'	10YR 5/6	SILTY LOAM	B	
1100	650	0 - 0.4'	10YR 3/2	SILTY LOAM	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1100	650	0.4 - 0.9'	10YR 4/3	SILTY LOAM	Ap	
1100	650	0.9 - 1.4'	10YR 5/8	LOAMY SAND w/ 10% GRAVEL	B	
1100	700	0 - 0.5'	10YR 4/3	SILTY LOAM	Ao	
1100	700	0.5 - 1.1'	10YR 5/4	LOAMY SAND	A/E	
1100	700	1.1 - 1.9'	10YR 5/3	LOAMY SAND	Apb	
1100	700	1.9 - 2.3	10YR 6/4	LOAMY SAND	B	
1100	750	0 - 0.2'	10YR 5/3	SILTY LOAM	Ao	
1100	750	0.2 - 0.6'	10YR 4/3	SILTY LOAM	Ap	
1100	750	0.6 - 1.2'	10YR 5/3	SANDY LOAM	Apb or FEA. ?	
1100	750	1.2 - 1.9'	7.5YR 4/4	LOAMY SAND w/ 2% COARSE GRAVEL	B1	
1100	750	1.9 - 2.4'	10YR 5/4	LOAMY SAND w/ 2% GRAVEL	B2	
1100	800	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1100	800	0.1 - 0.65'	10YR 4/3	SILTY LOAM	Ap	
1100	800	0.65 - 0.95'	10YR 3/6	SILTY LOAM w/ LITTLE CARBON	FEATURE	NO SMELL
1100	800	0.95 - 1.2'	7.5YR 5/6	LOAMY SAND w/ 10% GRAVEL	B	
1100	850	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1100	850	0.1 - 0.7'	10YR 4/3	SILTY LOAM	Ap	
1100	850	0.7 - 1.0'	10YR 3/6	SILTY LOAM w/ LITTLE CARBON	FEATURE	BURNT SMELL
1100	850	1.0 - 1.2'	7.5YR 5/6	LOAMY SAND w/ 10% GRAVEL	B	
1100	900	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1100	900	0.1 - 0.8'	10YR 4/3	SILTY LOAM	Ap	
1100	900	0.8 - 1.2'	10YR 3/6	SILTY LOAM w/ LITTLE CARBON	FEATURE	BURNT SMELL
1100	900	1.2 - 1.4'	7.5YR 5/6	LOAMY SAND w/ 10% GRAVEL	B	
1100	950	0 - 0.75'	10YR 4/3	SILTY LOAM	Ap	DUG IN GRASSY LANE
1100	950	0.75 - 1.05'	10YR 3/6	SILTY LOAM w/ CARBON & BRICK FLKS	FEATURE	FLAT BOTTOM
1100	950	1.05 - 1.25'	7.5YR 4/6	SANDY LOAM w/ 10% GRAVEL	B	TRUNCATED
1150	1000	0 - 0.7'	10YR 4/4	SILTY LOAM	Ap	
1150	1000	0.7 - 1.1'	7.5YR 5/6	SILTY LOAM	B	COMPACT
1150	1050	0 - 0.75'	10YR 5/4	SILTY LOAM	Ap	
1150	1050	0.75 - 1.1'	10YR 5/6	SILTY LOAM	B	COMPACT
1150	1100	0 - 0.7'	10YR 5/4	SILTY LOAM	Ap	
1150	1100	0.7 - 1.0'	10YR 5/6	SILTY LOAM	B	COMPACT
1150	1150	0 - 0.9'	10YR 5/4	SILTY LOAM	Ap	
1150	1150	0.9 - 1.2'	10YR 5/6	LOAMY SAND w/ 5% GRAVEL	B	COMPACT
1150	650	0 - 0.4'	10YR 3/2	SILTY LOAM	Ao	
1150	650	0.4 - 0.8'	10YR 5/4	SILTY LOAM	Ap	
1150	650	0.8 - 1.7'	10YR 5/8	SANDY LOAM w/ 10% GRAVEL	B	
1150	700	0 - 0.35'	10YR 3/3	SILTY LOAM	Ao	
1150	700	0.35 - 1.0'	10YR 4/4	LOAM	Ap	LOOSE

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1150	700	1.0 - 1.7'	10YR 4/4	SANDY LOAM	Ape	COMPACT
1150	700	1.7 - 2.1'	10YR 5/4	SILTY LOAM	E ?	DRY
1150	700	2.1 - 2.3'	10YR 6/4	SILTY LOAM	B	DRY
1150	750	0 - 0.1'	10YR 3/3	SILTY LOAM	Ao	
1150	750	0.1 - 0.8'	10YR 4/4	LOAM	Ap	
1150	750	0.8 - 1.6'	7.5YR 4/4	SANDY LOAM w/ 2% GRAVEL	E ?	
1150	750	1.6 - 1.9'	7.5YR 5/4	LOAMY SAND w/ 5% LG GRAVEL	B	
1150	800	0 - 0.8'	10YR 4/3	LOAM	Ap	
1150	800	0.8 - 1.3'	7.5YR 5/6	SAND w/ 5% GRAVEL	B	
1150	850	0 - 0.75'	10YR 4/4	SILTY LOAM	Ap	
1150	850	0.75 - 1.1'	7.5YR 4/6	SILTY LOAM	B	
1150	900	0 - 0.75'	10YR 4/4	SILTY LOAM	Ap	MOIST
1150	900	0.75 - 1.2'	7.5YR 4/6	SILTY LOAM	B	
1150	950	0 - 0.7'	10YR 4/4	SILTY LOAM	Ap	
1150	950	0.7 - 1.1'	7.5YR 5/6	SILTY LOAM	B	COMPACT
1200	1000	0 - 0.05'	10YR 3/2	SILTY LOAM	Ao	
1200	1000	0.05 - 1.0'	10YR 4/4	SILTY LOAM	Ap	
1200	1000	1.0 - 1.2'	7.5YR 4/6	SANDY LOAM	B	
1200	1050	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1200	1050	0.1 - 0.95'	10YR 4/4	SILTY LOAM	Ap	
1200	1050	0.95 - 1.15'	10YR 5/6	SILTY LOAM	B	
1200	1100	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1200	1100	0.1 - 1.0'	10YR 4/4	SILTY LOAM	Ap	
1200	1100	1.0 - 1.15'	10YR 5/6	SILTY LOAM	B	
1200	1150	0 - 0.2'	10YR 3/2	SILTY LOAM	Ao	
1200	1150	0.2 - 1.0'	10YR 4/4	SILTY LOAM	Ap	
1200	1150	1.0 - 1.1'	10YR 5/6	SILTY LOAM	B	BLOCKED BY LG. ROOT AT BOTTOM OF Ap
1200	650	0 - 0.5'	10YR 3/2	SILTY LOAM	Ao	
1200	650	0.5 - 1.0'	10YR 5/4	SANDY LOAM	Ap	
1200	650	1.0 - 1.4'	10YR 5/8	LOAM w/ 10% GRAVEL	B	
1200	700	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1200	700	0.3 - 0.65'	10YR 4/4	SANDY LOAM	Ap	
1200	700	0.65 - 0.9'	10YR 4/6	SANDY LOAM	B	
1200	750	0 - 0.25'	10YR 3/2	SANDY LOAM	Ao	
1200	750	0.25 - 1.0'	10YR 4/4 w/ P	SANDY LOAM	FILL/REDEPOSI	
1200	750	1.0 - 1.2'	7.5YR 4/6	LOAM	B	
1200	800	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1200	800	0.1 - 0.8'	10YR 4/3	SILTY LOAM	Ap	
1200	800	0.8 - 0.95'	7.5YR 4/6	LOAM	B	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1200	850	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1200	850	0.1 - 1.0'	10YR 4/3	SILTY LOAM	Ap	
1200	850	1.0 - 1.25'	7.5YR 4/6	LOAM	B	
1200	900	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1200	900	0.1 - 0.75'	10YR 4/3	SILTY LOAM	Ap	
1200	900	0.75 - 1.0'	10YR 5/6	SANDY LOAM	B	
1200	950	0 - 0.05'	10YR 3/2	SILTY LOAM	Ao	
1200	950	0.05 - 0.8'	10YR 4/4	SILTY LOAM	Ap	
1200	950	0.8 - 1.0'	7.5YR 4/6	SANDY LOAM	B	
1250	1000	0 - 0.25'	10YR 3/3	LOAMY SAND	Ao	
1250	1000	0.25 - 0.75'	10YR 5/4	SILTY LOAM	Ap	
1250	1000	0.75 - 1.0'	10YR 4/6	SANDY LOAM	B	
1250	1050	0 - 0.3'	10YR 3/3	LOAMY SAND	Ao	
1250	1050	0.3 - 0.8'	10YR 5/4	SILTY LOAM	Ap	
1250	1050	0.8 - 1.1'	10YR 4/6	SANDY LOAM	B	
1250	1100	0 - 0.2'	10YR 3/3	LOAMY SAND	Ao	
1250	1100	0.2 - 0.75'	10YR 5/4	SILTY LOAM	Ap	
1250	1100	0.75 - 1.0'	10YR 4/6	SANDY LOAM	B	
1250	1150	0 - 0.3'	10YR 3/3	LOAMY SAND	Ao	
1250	1150	0.3 - 0.65'	10YR 5/4	LOAMY SAND	Ap	
1250	1150	0.65 - 1.1'	10YR 4/6	SANDY LOAM	B	
1250	650	0 - 0.4'	10YR 3/2	SILTY LOAM	Ao	
1250	650	0.4 - 1.0'	10YR 5/4	SANDY LOAM	Ap	
1250	650	1.0 - 1.6'	10YR 5/8	LOAM w/ 10% GRAVEL	B	
1250	700	0 - 0.3'	10YR 4/2	SILTY LOAM	A	
1250	700	0.3 - 0.7'	10YR 5/6	LOAM	B	
1250	750	0 - 0.15'	10YR 3/2	SILTY LOAM	Ao	
1250	750	0.15 - 0.55'	10YR 4/4	SILTY LOAM	Ap	
1250	750	0.55 - 0.8'	10YR 3/6	LOAM	B	
1250	800	0 - 0.1'	10YR 2/1	SILTY LOAM	Ao	
1250	800	0.1 - 0.5'	10YR 4/3	SILTY LOAM	FILL	
1250	800	0.5 - 1.0'	10YR 4/4	SILTY LOAM	Apb	
1250	800	1.0 - 1.2'	10YR 3/6	LOAM	B	
1250	850	0 - 0.1'	10YR 3/2	LOAMY SAND	Ao	
1250	850	0.1 - 0.7'	10YR 4/4	LOAMY SAND	Ap	
1250	850	0.7 - 0.95'	10YR 5/6	SILTY LOAM	B1	
1250	850	0.95 - 1.1'	10YR 5/8	SANDY LOAM	B2	
1250	900	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1250	900	0.2 - 0.8'	10YR 4/4	SILTY LOAM	Ap	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1250	900	0.8 - 1.0'	10YR 5/8	SANDY LOAM	B	
1250	950	0 - 0.2'	10YR 3/3	LOAMY SAND	Ao	
1250	950	0.2 - 0.8'	10YR 4/4	SILTY LOAM	Ap	
1250	950	0.8 - 1.0'	10YR 5/8	SANDY LOAM	B	
1275	900	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1275	900	0.1 - 0.7'	10YR 4/4	SILTY LOAM	Ap	COMPACT
1275	900	0.7 - 1.0'	10YR 5/8	SILTY LOAM	B	V. COMPACT
1300	1000	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1300	1000	0.2 - 0.8'	10YR 5/4	SANDY LOAM w/ <1% GRAVEL	Ap	
1300	1000	0.8 - 1.0'	7.5YR 5/6	SILTY LOAM	B	
1300	1050	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1300	1050	0.3 - 0.8'	10YR 4/3	SANDY LOAM w/ <1% GRAVEL	Ap	
1300	1050	0.8 - 1.1'	10YR 5/6	SILTY LOAM	B	
1300	1100	0 - 0.2'	10YR 4/2	SANDY LOAM	Ao	
1300	1100	0.2' - 0.8'	10YR 5/4	SILTY LOAM w/ 1% GRAVEL	Ap	
1300	1100	0.8 - 1.0'	7.5YR 5/6	SILTY LOAM	B	
1300	1150	0 - 0.15'	10YR 4/2	LOAMY SAND	Ao	
1300	1150	0.15 - 0.9'	10YR 4/4	LOAMY SAND w/ 1% GRAVEL	Ap	
1300	1150	0.9 - 1.3'	10YR 5/6	SANDY LOAM w/ 2% GRAVEL	B	
1300	1200	0 - 0.2'	10YR 4/2	SANDY LOAM	Ao	
1300	1200	0.2 - 0.75'	10YR 5/4	SILTY LOAM	Ap	
1300	1200	0.75 - 0.9'	7.5YR 5/6	CLAY LOAM	B	
1300	650	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1300	650	0.2 - 0.7'	10YR 4/3	SILTY LOAM	Ap	
1300	650	0.7 - 0.9'	10YR 5/4	SANDY LOAM w/ IRON STAINS	B	
1300	700	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
1300	700	0.3 - 0.55'	10YR 4/3	SILTY LOAM	Ap	
1300	700	0.55 - 0.85'	10YR 5/4	SANDY LOAM w/ IRON STAINS	B	
1300	750	0 - 0.15'	10YR 3/2	SANDY LOAM	Ao	
1300	750	0.15 - 0.6'	10YR 4/3	SILTY LOAM	Ap	
1300	750	0.6 - 1.0'	10YR 3/6	SANDY LOAM w/ IRON STAINS	B	
1300	800	0 - 0.35'	10YR 2/1	SANDY LOAM w/ CARBON CHUNKS	Ao	BURNED
1300	800	0.35 - 0.9'	10YR 5/4	SANDY LOAM	Ap	
1300	800	0.9 - 1.1'	10YR 5/6	LOAM	B	
1300	850	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1300	850	0.2 - 0.7'	10YR 5/4	SANDY LOAM	Ap	
1300	850	0.7 - 0.9'	7.5YR 5/6	LOAM	B	
1300	875	0 - 0.2'	10YR 3/2	SILTY LOAM	Ao	
1300	875	0.2 - 0.7'	10YR 4/4	SILTY LOAM	Ap	COMPACT

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1300	875	0.7 - 0.9'	10YR 5/8	SILTY LOAM	B	V. COMPACT
1300	900	0 - 0.1'	10YR 3/2	SANDY LOAM	Ao	
1300	900	0.1 - 0.7'	10YR 5/4	SANDY LOAM	Ap	
1300	900	0.7 - 0.85'	10YR 5/6	LOAM	B	
1300	925	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1300	925	0.1 - 0.6'	10YR 4/4	SILTY LOAM	Ap	COMPACT
1300	925	0.6 - 0.9'	10YR 5/8	SILTY LOAM	B	V. COMPACT
1300	950	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1300	950	0.2 - 0.85'	10YR 5/4	SANDY LOAM	Ap	
1300	950	0.85 - 1.05'	10YR 5/6	SANDY LOAM	B	
1325	1000	0 - 0.2'	10YR 3/2	SILTY LOAM	Ao	
1325	1000	0.2 - 0.55'	10YR 5/4	SILTY LOAM	Ap	COMPACT
1325	1000	0.55 - 0.9'	10YR 5/6	SILTY LOAM	B	V. COMPACT
1325	900	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1325	900	0.1 - 0.8'	10YR 4/4	SILTY LOAM	Ap	COMPACT
1325	900	0.8 - 1.1'	10YR 5/8	SILTY LOAM	B	V. COMPACT
1350	1000	0 - 0.15'	10YR 3/2	SANDY LOAM	Ao	
1350	1000	0.15 - 0.7'	10YR 5/4	SANDY LOAM w/ <1% GRAVEL	Ap	
1350	1000	0.7 - 0.9'	7.5YR 5/6	SILTY LOAM	B	
1350	1025	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1350	1025	0.1 - 0.65'	10YR 4/4	SILTY LOAM	Ap	COMPACT
1350	1025	0.65 - 0.9'	10YR 5/6	SILTY LOAM	B	V. COMPACT
1350	1050	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
1350	1050	0.3 - 1.2'	10YR 4/3	LOAMY SAND	Ap	
1350	1050	1.2 - 1.4'	10YR 5/6	LOAMY SAND	B1	
1350	1050	1.4 - 1.6'	10YR 5/8	SANDY LOAM	B2	
1350	1100	0 - 0.15'	10YR 4/2	SANDY LOAM	Ao	
1350	1100	0.15 - 1.0'	10YR 5/4	SILTY LOAM w/ 1% GRAVEL	Ap	
1350	1100	1.0 - 1.25'	7.5YR 5/6	SILTY LOAM	B	
1350	1150	0 - 0.15'	10YR 4/2	LOAMY SAND	Ao	
1350	1150	0.15 - 1.0'	10YR 4/4	LOAMY SAND w/ 1% GRAVEL	Ap	
1350	1150	1.0 - 1.3'	10YR 5/6	SANDY LOAM w/ 2% GRAVEL	B	
1350	1200	0 - 0.25'	10YR 4/2	SANDY LOAM	Ao	
1350	1200	0.25 - 0.8'	10YR 4/3	SILTY LOAM w/ 1% GRAVEL	Ap	
1350	1200	0.8 - 1.0'	10YR 5/6	SANDY LOAM w/ 2% GRAVEL	B	
1350	650	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	BOTTLE DUMP NEARBY
1350	650	0.2 - 0.7'	10YR 4/3	SILTY LOAM	Ap	
1350	650	0.7 - 1.05'	10YR 5/4	SANDY LOAM w/ IRON STAINS	B	
1350	700	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1350	700	0.25 - 0.55'	10YR 4/3	SILTY LOAM	Ap	
1350	700	0.55 - 0.75'	10YR 5/4	SANDY LOAM w/ IRON STAINS	B	
1350	750	0 - 0.25'	10YR 3/2	SANDY LOAM	Ao	
1350	750	0.25 - 0.7'	10YR 4/3	SILTY LOAM	Ap	
1350	750	0.7 - 0.95'	10YR 3/6	SANDY LOAM w/ IRON STAINS	B	
1350	800	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
1350	800	0.25 - 0.85'	10YR 5/4	SANDY LOAM	Ap	
1350	800	0.85 - 1.0'	7.5YR 5/6	LOAM	B	
1350	850	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
1350	850	0.3 - 0.9'	10YR 5/4	LOAMY SAND	Ap	
1350	850	0.9 - 1.1'	10YR 5/6	SANDY LOAM	B	
1350	900	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1350	900	0.2 - 0.8'	10YR 5/4	SANDY LOAM	Ap	
1350	900	0.8 - 1.0'	10YR 5/6	LOAM	B	
1350	950	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1350	950	0.2 - 0.8'	10YR 5/4	SANDY LOAM	Ap	
1350	950	0.8 - 1.0'	10YR 5/6	SANDY LOAM	B	
1350	975	0 - 0.05'	10YR 3/2	SILTY LOAM	Ao	
1350	975	0.05 - 0.55'	10YR 4/4	SILTY LOAM	Ap	COMPACT
1350	975	0.55 - 0.9'	10YR 5/6	SILTY LOAM	B	V. COMPACT
1375	1000	0 - 0.1'	10YR 3/2	SILTY LOAM	Ao	
1375	1000	0.1 - 0.6'	10YR 4/4	SILTY LOAM	Ap	COMPACT
1375	1000	0.6 - 0.9'	10YR 5/6	SILTY LOAM	B	V. COMPACT
1400	1000	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1400	1000	0.2 - 1.0'	10YR 5/4	SANDY LOAM w/ <1% GRAVEL	Ap	
1400	1000	1.0 - 1.2'	7.5YR 5/6	SILTY LOAM	B	
1400	1050	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
1400	1050	0.25 - 0.8'	10YR 5/4	SILTY LOAM w/ 1% GRAVEL	Ap	
1400	1050	0.8 - 1.1'	10YR 5/6	SANDY LOAM w/ 2% GRAVEL	B	
1400	1100	0 - 0.15'	10YR 4/2	SANDY LOAM	Ao	
1400	1100	0.15 - 0.9'	10YR 5/4	SILTY LOAM w/ 1% GRAVEL	Ap	
1400	1100	0.9 - 1.15'	7.5YR 5/6	SILTY LOAM	B	
1400	1150	0 - 0.15'	10YR 4/2	LOAMY SAND	Ao	
1400	1150	0.15 - 0.95'	10YR 4/4	LOAMY SAND w/ 1% GRAVEL	Ap	
1400	1150	0.95 - 1.2'	10YR 5/6	SANDY LOAM w/ 2% GRAVEL	B	
1400	1200	0 - 0.2'	10YR 4/2	SANDY LOAM	Ao	
1400	1200	0.2 - 0.8'	10YR 4/3	SILTY LOAM w/ 1% GRAVEL	Ap	
1400	1200	0.8 - 1.0'	10YR 5/6	SANDY LOAM w/ 2% GRAVEL	B	
1400	650	0 - 0.45'	10YR 3/2	LOAMY SAND	Ao	BOTTLE DUMP NEARBY

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1400	650	0.45 - 0.9'	10YR 4/3	SILTY LOAM	Ap	
1400	650	0.9 - 1.4'	10YR 5/4	SANDY LOAM w/ IRON STAINS	B	
1400	700	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
1400	700	0.4 - 0.9'	10YR 4/6	SILTY LOAM	Ap	
1400	700	0.9 - 1.1'	10YR 5/6	SILTY LOAM	B	
1400	750	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1400	750	0.3 - 0.7'	10YR 4/3	SILTY LOAM	Ap	
1400	750	0.7 - 0.9'	10YR 3/6	SANDY LOAM w/ IRON STAINS	B	
1400	800	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
1400	800	0.25 - 1.0'	10YR 5/4	LOAMY SAND	Ap	
1400	800	1.0 - 1.25'	10YR 5/8	SANDY LOAM	B	
1400	850	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
1400	850	0.25 - 0.9'	10YR 5/4	LOAMY SAND	Ap	
1400	850	0.9 - 1.1'	10YR 5/6	SANDY LOAM	B	
1400	900	0 - 0.25'	10YR 3/2	SANDY LOAM	Ao	
1400	900	0.25 - 0.75'	10YR 5/4	SANDY LOAM	Ap	
1400	900	0.75 - 0.9'	10YR 5/6	LOAM	B	
1400	950	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1400	950	0.3 - 0.85'	10YR 5/4	SANDY LOAM	Ap	
1400	950	0.85 - 1.15'	10YR 5/6	SANDY LOAM	B1	
1400	950	1.15 - 1.3'	7.5YR 5/6	SANDY LOAM	B2	
1450	1000	0 - 0.15'	10YR 3/2	SANDY LOAM	Ao	
1450	1000	0.15 - 0.8'	10YR 5/4	SANDY LOAM w/ <1% GRAVEL	Ap	
1450	1000	0.8 - 1.0'	7.5YR 5/6	SILTY LOAM	B	
1450	1050	0 - 0.15'	10YR 3/2	LOAMY SAND	Ao	
1450	1050	0.15 - 0.7'	10YR 5/4	SILTY LOAM w/ 1% GRAVEL	Ap	
1450	1050	0.7 - 0.9'	10YR 5/6	SANDY LOAM w/ 2% GRAVEL	B	
1450	1100	0 - 0.2'	10YR 4/2	SANDY LOAM	Ao	
1450	1100	0.2 - 0.8'	10YR 5/4	SILTY LOAM w/ 1% GRAVEL	Ap	
1450	1100	0.8 - 1.0'	7.5YR 5/6	SILTY LOAM	B	
1450	1150	0 - 0.25'	10YR 4/2	SANDY LOAM	Ao	
1450	1150	0.25 - 0.85'	10YR 4/4	SILTY LOAM w/ <1% GRAVEL	Ap	
1450	1150	0.85 - 1.1'	7.5YR 5/6	SILTY LOAM	B	
1450	1200	0 - 0.2'	10YR 4/4	SANDY LOAM	Ao	
1450	1200	0.2 - 1.0'	10YR 5/4	SANDY LOAM w/ 2% GRAVEL	Ap	
1450	1200	1.0 - 1.3'	10YR 5/6	SANDY LOAM w/ <1% GRAVEL	B	
1450	750	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
1450	750	0.4 - 0.75'	10YR 4/2	LOAMY SAND	Ap	
1450	750	0.75 - 1.0'	10YR 5/4	SILTY LOAM	B	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1450	800	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1450	800	0.3 - 0.55'	10YR 5/4	SANDY LOAM	Ap	
1450	800	0.55 - 0.7'	7.5YR 5/6	LOAM	B	
1450	850	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
1450	850	0.3 - 0.7'	10YR 5/4	SANDY LOAM	Ap	
1450	850	0.7 - 1.1'	10YR 6/4	SANDY LOAM	B	
1450	900	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1450	900	0.2 - 0.55'	10YR 5/4	SANDY LOAM	Ap	
1450	900	0.55 - 0.9'	10YR 5/6	LOAM	B	
1450	950	0 - 0.15'	10YR 3/2	SANDY LOAM	Ao	
1450	950	0.15 - 0.65'	10YR 5/4	SANDY LOAM	Ap	
1450	950	0.65 - 0.8'	10YR 5/6	CLAY LOAM	B	
1475	850	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1475	850	0.3 - 0.8'	10YR 5/4	SILTY LOAM	Ap	
1475	850	0.8 - 1.0'	10YR 5/6	SILTY LOAM	B	
1500	1000	0 - 0.25'	10YR 3/2	SANDY LOAM	Ao	
1500	1000	0.25 - 0.8'	10YR 5/4	SANDY LOAM w/ <1% GRAVEL	Ap	
1500	1000	0.8 - 1.0'	10YR 5/6	SILTY LOAM	B	
1500	1050	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
1500	1050	0.25 - 0.7'	10YR 5/4	SILTY LOAM w/ 1% GRAVEL	Ap	
1500	1050	0.7 - 0.9'	10YR 5/6	SANDY LOAM w/ 2% GRAVEL	B	
1500	1100	0 - 0.2'	10YR 4/2	SANDY LOAM	Ao	
1500	1100	0.2 - 0.65'	10YR 5/4	SILTY LOAM	Ap	
1500	1100	0.65 - 0.9'	7.5YR 5/6	SANDY LOAM w/ CONCRETIONS	B	
1500	1150	0 - 0.2'	10YR 4/2	LOAMY SAND	Ao	
1500	1150	0.2 - 0.8'	10YR 5/4	LOAMY SAND w/ 3-5% GRAVEL	Ap	
1500	1150	0.8 - 1.0'	10YR 5/6	SANDY LOAM w/ 5% GRAVEL	B	
1500	1200	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1500	1200	0.2 - 0.8'	10YR 5/4	SANDY LOAM w/ 2% GRAVEL	Ap	
1500	1200	0.8 - 1.0'	7.5YR 5/6	CLAY LOAM w/ 2% GRAVEL	Bt	
1500	2550	0 - 1.8'	10YR 4/3	SANDY LOAM	Ap	SLOPE WASH
1500	2550	1.8 - 2.4'	10YR 5/6	LOAMY SAND	B	
1500	2600	0 - 0.3	10YR 3/2	LOAMY SAND	Ao	
1500	2600	0.3 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
1500	2600	0.9 - 1.9'	10YR 5/6	LOAMY SAND	B1	
1500	2600	1.9 - 2.4'	10YR 6/4	SAND w/ PEBBLES	B2	
1500	800	0 - 0.45'	10YR 3/2	SANDY LOAM	Ao	
1500	800	0.45 - 0.75'	10YR 5/4	SANDY LOAM	Ap	
1500	800	0.75 - 1.1'	7.5YR 5/6	LOAM	B	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1500	825	0 - 0.25'	10YR 3/2	SANDY LOAM	Ao	
1500	825	0.25 - 0.9	10YR 5/4	SILTY LOAM	Ap	
1500	825	0.9 - 1.2'	10YR 5/6	SILTY LOAM	B	
1500	850	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1500	850	0.2 - 0.9'	10YR 5/4	SANDY LOAM	Ap	
1500	850	0.9 - 1.1'	7.5YR 5/6	SANDY LOAM	B	
1500	875	0 - 0.2'	10YR4/3	SANDY LOAM	Ao	
1500	875	0.2 - 0.7'	10YR 5/4	SILTY LOAM	Ap	
1500	875	0.7 - 0.8	7.5YR 5/6	LOAM	B	
1500	900	0 - 0.25'	10YR 3/2	SANDY LOAM	Ao	
1500	900	0.25 - 0.65'	10YR 5/4	SANDY LOAM	Ap	
1500	900	0.65 - 0.8'	10YR 5/6	SANDY LOAM	B	
1500	950	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1500	950	0.2 - 0.95'	10YR 5/4	SANDY LOAM	Ap	
1500	950	0.95 - 1.2'	10YR 5/6	SANDY LOAM	B1	
1500	950	1.2 - 1.3'	7.5YR 5/6	SANDY LOAM	B2	
1525	850	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1525	850	0.3 - 0.65'	10YR 5/4	SILTY LOAM	Ap	
1525	850	0.65 - 1.1'	10YR 5/6	SILTY LOAM	B	
1550	1000	0 - 0.25'	10YR 4/2	SILTY LOAM	Ao	
1550	1000	0.25 - 0.7'	10YR 5/4	SILTY LOAM	Ap	
1550	1000	0.7 - 0.9'	10YR 5/8	SANDY LOAM w/ 2% GRAVEL	B	V. COMPACT
1550	1050	0 - 0.15'	10YR 4/2	SILTY LOAM	Ao	
1550	1050	0.15 - 0.5'	10YR 5/4	SILTY LOAM	Ap	DEFLATED
1550	1050	0.5 - 0.8'	10YR 6/4	SILTY LOAM w/ 1% GRAVEL	B	V. COMPACT
1550	1100	0 - 0.2'	10YR 4/3	SILTY LOAM	Ap	DEFLATED
1550	1100	0.2 - 0.9'	10YR 5/6	SILTY LOAM w/ 5% GRAVEL	B	V. COMPACT
1550	1150	0 - 1.2'	10YR 5/6	SILTY LOAM w/ 5% GRAVEL	FILL	DISTURBED; ROTTEN TREE RODENT HOLE
1550	1150	1.2 - 1.7'	10YR 5/8	SILTY LOAM w/ 10% GRAVEL	B2	
1550	1200	0 - 0.2'	10YR 4/3	SANDY LOAM	Ao	EDGE OF DRIP IRRIGATION
1550	1200	0.2 - 0.6'	10YR 5/4	SANDY LOAM	Ap	SEVERELY DEFLATED
1550	1200	0.6 - 0.8'	7.5YR 5/6	CLAY LOAM w/ 2% GRAVEL	Bt	
1550	2500	0 - 1.1'	10YR 4/3	LOAMY SAND	Ap	
1550	2500	1.1 - 1.5'	10YR 5/6	LOAMY SAND	B1	
1550	2500	1.5 - 1.8'	10YR 5/8	LOAMY SAND	B2	
1550	2550	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1550	2550	0.2 - 0.95'	10YR 4/3	LOAMY SAND	Ap	
1550	2550	0.95 - 1.3'	7.5YR 5/4	SANDY LOAM	B	
1550	2600	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1550	2600	0.2 - 0.65'	10YR 4/4	SANDY LOAM	Ap	
1550	2600	0.65 - 1.2'	10YR 5/4 m/w	LOAMY SAND	B	
1550	2650	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1550	2650	0.2 - 1.0'	10YR 4/4	SANDY LOAM	Ap	
1550	2650	1.0 - 1.3'	10YR 5/4 m/w	SANDY LOAM	B	
1550	850	0 - 0.1'	10YR 4/2	SILTY LOAM	Ao	EDGE OF ORCHARD
1550	850	0.1 - 0.8'	10YR 5/4	SILTY LOAM	Ap	FIRM
1550	850	0.8 - 1.3'	10YR 6/4	SILTY LOAM	B	V. COMPACT
1550	900	0 - 0.2'	10YR 4/2	SILTY LOAM	Ao	
1550	900	0.2 - 0.85'	10YR 5/4	SILTY LOAM	Ap	
1550	900	0.85 - 1.3'	10YR 5/6	SILTY LOAM	B	V. COMPACT
1550	950	0 - 0.25'	10YR 4/2	SILTY LOAM	Ao	
1550	950	0.25 - 0.65'	10YR 5/4	SILTY LOAM	Ap	
1550	950	0.65 - 0.9'	10YR 5/6	SILTY LOAM	B	V. COMPACT
1575	1000	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1575	1000	0.2 - 1.0'	10YR 4/3	SILTY LOAM	Ap	
1575	1000	1.0 - 1.2'	10YR 5/6	SILTY LOAM	B	COMPACT
1575	2600	0 - 0.25'	10YR 3/3	LOAMY SAND	Ao	
1575	2600	0.25 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
1575	2600	0.9 - 1.05'	7.5YR 5/8	SANDY LOAM	B	COMPACT
1575	950	0 - 0.4'	10YR 3/2	SANDY LOAM	Ao	
1575	950	0.4 - 0.7'	10YR 4/3	SILTY LOAM	Ap	
1575	950	0.7 - 0.9'	10YR 5/6	SILTY LOAM	B	
1600	1000	0 - 0.2'	10YR 4/2	SILTY LOAM	Ao	EDGE OF DRIP IRRIGATION
1600	1000	0.2 - 1.4'	10YR 5/4	SILTY LOAM	Ap	
1600	1000	1.4 - 1.7'	10YR 6/4	SILTY LOAM	B	
1600	1025	0 - 0.25'	10YR 3/2	SANDY LOAM	Ao	
1600	1025	0.25 - 0.8'	10YR 4/3	SILTY LOAM	Ap	
1600	1025	0.8 - 1.5'	10YR 5/6	SANDY LOAM	B	
1600	1050	0 - 0.15'	10YR 4/2	SILTY LOAM	Ao	EDGE OF DRIP IRRIGATION
1600	1050	0.15 - 0.55'	10YR 5/4	SILTY LOAM	Ap	
1600	1050	0.55 - 1.1'	10YR 6/4	SILTY LOAM w/ 1% GRAVEL	B	V. COMPACT
1600	1100	0 - 0.1'	10YR 4/2	SILTY LOAM	Ao	EDGE OF DRIP IRRIGATION
1600	1100	0.1 - 0.6'	10YR 5/4	SILTY LOAM	Ap	
1600	1100	0.6 - 1.2'	10YR 6/4	SILTY LOAM w/ 2% GRAVEL	B	V. COMPACT
1600	1150	0 - 0.3'	10YR 4/3	SILTY LOAM	A	DEFLATED; EDGE OF DRIP IRRIGATION
1600	1150	0.3 - 0.9'	10YR 5/6	SILTY LOAM	B	V. COMPACT
1600	1200	0 - 0.5'	10YR 5/4	SILTY LOAM	Ao	
1600	1200	0.5 - 1.1'	10YR 4/4	LOAM	Ap	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1600	1200	1.1 - 1.3'	10YR 4/6	SANDY LOAM	B1	
1600	1200	1.3 - 1.5'	7.5YR 4/6	CLAY LOAM	B2	
1600	1250	0 - 0.35'	10YR 4/2 m/w	LOAMY SAND	Ao	DISTURBED
1600	1250	0.35 -2.0'	10YR 5/3	LOAMY SAND	A	COMPACT; COAL AT 1.5'; DID NOT REACH SUBSOIL
1600	2500	0 - 1.1	10YR 4/3	LOAMY SAND	Ap	
1600	2500	1.1 - 1.4'	10YR 5/6	LOAMY SAND	B1	
1600	2500	1.4 - 1.6'	10YR 5/8	LOAMY SAND	B2	
1600	2550	0 - 0.65'	10YR 5/3	LOAMY SAND	Ap	
1600	2550	0.65 - 1.05'	10YR 6/4	LOAMY SAND	B	
1600	2575	0 - 0.2'	10YR 3/3	LOAMY SAND	Ao	
1600	2575	0.2 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
1600	2575	0.9 - 1.0'	10YR 5/8	SANDY LOAM	B	COMPACT
1600	2600	0 - 0.85'	10YR 4/4	SANDY LOAM	Ap	
1600	2600	0.85 - 1.3'	10YR 5/4	LOAMY SAND	B	
1600	2625	0 - 0.2'	10YR 3/3	LOAMY SAND	Ao	
1600	2625	0.2 - 0.75'	10YR 4/4	LOAMY SAND	Ap	
1600	2625	0.75 - 1.4'	10YR 5/4	LOAMY SAND	B1	
1600	2625	1.4 - 1.8'	10YR 5/6	LOAMY SAND w/ LAMALLAE	B2	
1600	2650	0 - 0.8'	10YR 4/4	SANDY LOAM	Ap	
1600	2650	0.8 - 1.2'	10YR 6/4 m/w	SANDY LOAM	B	
1600	2700	0 - 0.2'	7.5YR 3/2	LOAMY SAND	Ao	
1600	2700	0.2 - 0.85'	10YR 4/4	LOAMY SAND	Ap	W/ CLEAR PLOW SCAR
1600	2700	0.85 - 1.3'	7.5YR 4/4	SANDY LOAM	B	
1600	900	0 - 0.1'	10YR 4/2	SILTY LOAM	Ao	EDGE OF ORCHARD
1600	900	0.1 - 1.2'	10YR 5/4	SILTY LOAM	Ap	
1600	900	1.2 - 1.4	10YR 6/2	SILTY LOAM	B	V. COMPACT
1600	925	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1600	925	0.3 - 0.5'	10YR 4/3	SILTY LOAM	Ap	
1600	925	0.5 - 1.0'	10YR 5/6	SILTY LOAM w/ IRON STAINS	B	
1600	950	0 - 0.2'	10YR 4/2	SILTY LOAM	Ao	EDGE OF ORCHARD
1600	950	0.2 - 1.1'	10YR 5/4	SILTY LOAM	Ap	
1600	950	1.1 - 1.4'	10YR 5/6	SILTY LOAM	B	COMPACT
1600	975	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1600	975	0.2 - 0.6'	10YR 4/3	SILTY LOAM	Ap	
1600	975	0.6 - 1.2'	10YR 5/6	SANDY LOAM	B	
1625	1000	0 - 0.2'	10YR 3/2	SILTY LOAM	Ao	
1625	1000	0.2 - 0.75'	10YR 4/3	SILTY LOAM	Ap	
1625	1000	0.75 - 1.5'	10YR 5/6	SILTY LOAM	B	
1625	2600	0 - 0.2'	10YR 3/3	LOAMY SAND	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1625	2600	0.2 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
1625	2600	1.1 - 1.25'	10YR 5/6	LOAMY SAND	B	GETS REDDER
1625	2650	0 - 0.15'	10YR 3/3	LOAMY SAND	Ao	
1625	2650	0.15 - 1.0'	10YR 4/4	LOAMY SAND	Ap	
1625	2650	1.0 - 1.5'	10YR 5/4	LOAMY SAND	B	
1625	950	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1625	950	0.3 - 1.0'	10YR 4/3	SILTY LOAM	Ap	
1625	950	1.0 - 1.3'	10YR 5/6	SILTY LOAM	B	
1650	1000	0 - 0.15'	10YR 4/2	SILTY LOAM	Ao	TOP OF RISE
1650	1000	0.15 - 0.85'	10YR 5/4	SILTY LOAM	Ap	
1650	1000	0.85 - 1.2'	10YR 5/6	SILTY LOAM	B	COMPACT
1650	1025	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1650	1025	0.2 - 0.8'	10YR 4/3	SANDY LOAM	Ap	
1650	1025	0.8 - 0.9'	10YR 5/8	SILTY LOAM	B	
1650	1050	0 - 0.25'	10YR 4/2	SILTY LOAM	Ao	DOWNSLOPE TO NORTH
1650	1050	0.25 - 0.65'	10YR 5/4	SILTY LOAM	A	COMPACT
1650	1050	0.65 - 1.1'	7.5YR 4/4	SANDY LOAM w/ 2% GRAVEL	B	V. COMPACT
1650	1100	0 - 0.25'	10YR 4/2	SILTY LOAM	Ao	
1650	1100	0.25 - 0.65'	10YR 5/3	SILTY LOAM	Ap	LOOSE
1650	1100	0.65 - 1.3'	10YR 6/4	SILTY LOAM	B1	COMPACT
1650	1100	1.3 - 1.5'	10YR 5/6	SILTY LOAM	B2	V. COMPACT
1650	1150	0 - 0.55'	10YR 4/3	SILTY LOAM	A	TOP OF RISE
1650	1150	0.55 - 1.2'	10YR 5/6	SILTY LOAM	B	V. COMPACT
1650	1200	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1650	1200	0.2 - 0.8'	10YR 5/4	SANDY LOAM	Ap	
1650	1200	0.8 - 1.2'	10YR 5/8	LOAM	B	
1650	1250	0 - 0.1	10YR 4/2	LOAMY SAND	Ao	TOP OF RISE
1650	1250	0.1 - 0.6	10YR 4/3	LOAMY SAND	Ap	
1650	1250	0.6 - 1.2'	10YR 6/3	LOAMY SAND	B	COMPACT
1650	2500	0 - 0.95'	10YR 4/3	SANDY LOAM	Ap	
1650	2500	0.95 - 1.1'	10YR 5/6	SANDY LOAM	B1	
1650	2500	1.1 - 1.3'	10YR 5/8	SANDY LOAM	B2	COMPACT
1650	2550	0 - 1.0'	2.5YR 4/3	SANDY LOAM	Ap	
1650	2550	1.0 - 1.2'	10YR 4/6	LOAM	B	COMPACT
1650	2600	0 - 0.9'	10YR 4/4	SANDY LOAM	Ap	
1650	2600	0.9 - 1.4'	7.5YR 5/4	SANDY LOAM	B	
1650	2625	0 - 0.2'	10YR 3/3	LOAMY SAND	Ao	
1650	2625	0.2 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
1650	2625	0.8 - 1.0'	10YR 5/6	LOAMY SAND	B1	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1650	2625	1.0 - 1.4'	10YR 5/8	SANDY LOAM	B2	
1650	2650	0 - 0.95'	10YR 4/4	SANDY LOAM	Ap	
1650	2650	0.95 - 1.3'	10YR 6/4	LOAMY SAND	B	
1650	2675	0 - 0.2'	10YR 3/3	LOAMY SAND	Ao	
1650	2675	0.2 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
1650	2675	0.9 - 1.3'	10YR 5/4	LOAMY SAND	B	
1650	2700	0 - 0.8'	10YR 4/3	LOAMY SAND	Ap	
1650	2700	0.8 - 1.4'	7.5YR 4/6	SANDY CLAY LOAM	B	ANOMOLOUS: HALF OF PROFILE IS 10YR 6/4 SAND
1650	2750	0 - 0.2'	7.5YR 3/2	SANDY LOAM	Ao	
1650	2750	0.2 - 0.7'	10YR 4/4	SANDY LOAM	Ap	
1650	2750	0.7 - 1.1'	7.5YR 4/4	LOAMY SAND	B	
1650	2800	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1650	2800	0.2 - 1.1'	10YR 4/4	LOAMY SAND	Ap1	
1650	2800	1.1 - 1.5'	10YR 4/3	SANDY LOAM	Ap2	
1650	2800	1.5 - 2.0'	10YR 5/3	LOAMY SAND	B1	
1650	2800	2.0 - 2.5'	10YR 5/4	SAND w/ SOME GRAVEL	B2	DAMP
1650	900	0 - 0.1'	10YR 4/2	SILTY LOAM	Ao	DOWNSLOPE TO NW
1650	900	0.1 - 0.7'	10YR 5/4	SILTY LOAM	Ap	
1650	900	0.7 - 1.3'	7.5YR 4/4	SANDY LOAM	B	POSS. RODENT TUNNEL IN UPPER PORTION OF B
1650	950	0 - 0.25'	10YR 4/2	SILTY LOAM	Ao	
1650	950	0.25 - 1.0'	10YR 5/4	SILTY LOAM	Ap	
1650	950	1.0 - 1.3'	10YR 5/6	SILTY LOAM	B	COMPACT
1650	975	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1650	975	0.2 - 1.0'	10YR 4/3	SANDY LOAM	Ap	
1650	975	1.0 - 1.3'	10YR 5/8	SILTY LOAM	B	
1675	1000	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1675	1000	0.3 - 0.8'	10YR 4/3	SANDY LOAM	Ap	
1675	1000	0.8 - 0.9'	10YR 5/8	SILTY LOAM	B	
1675	2600	0 - 0.3'	10YR 3/3	LOAMY SAND	Ao	
1675	2600	0.3 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
1675	2600	1.1 - 1.4'	10YR 5/8	SANDY LOAM	B	
1675	2625	0 - 0.1'	10YR 3/3	LOAMY SAND	Ao	
1675	2625	0.1 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
1675	2625	0.8 - 1.1'	10YR 5/6	LOAMY SAND	B1	
1675	2625	1.1 - 1.3'	7.5YR 5/6	SANDY LOAM	B2	COMPACT
1675	2650	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1675	2650	0.2 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
1675	2650	1.0 - 1.15'	7.5YR 5/6	SILTY CLAY LOAM	B	
1675	2675	0 - 0.2'	10YR 3/3	LOAMY SAND	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1675	2675	0.2 - 1.0'	10YR 4/4	LOAMY SAND	Ap	
1675	2675	1.0 - 1.3'	10YR 5/6	LOAMY SAND	B1	
1675	2675	1.3 - 1.5'	7.5YR 5/6	SANDY LOAM	B2	
1675	2800	0 - 1.15'	10YR 4/4	LOAMY SAND	Ap	
1675	2800	1.15 - 1.5'	7.5YR 4/6	SANDY CLAY LOAM	B	
1700	1150	0 - 0.25'	10YR 4/2	SILTY LOAM	Ao	DOWNSLOPE TO NW; LOOSE, DRY
1700	1150	0.25 - 1.0'	10YR 5/4	SILTY LOAM	A	PROB. SLOPEWASH; NOT ABRUPT TRANS.
1700	1150	1.0 - 1.3'	10YR 5/6	SILTY LOAM	B	COMPACT
1700	1200	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1700	1200	0.2 - 0.7'	10YR 4/3	LOAMY SAND	Ap	
1700	1200	0.7 - 1.0'	10YR 5/6	LOAMY SAND	B1	
1700	1200	1.0 - 1.3'	10YR 5/6	SANDY LOAM w/ CONCRETIONS	B2	
1700	1250	0 - 0.5'	10YR 4/2	LOAMY SAND	Ao	DOWNSLOPE TO WEST; LOOSE, DRY
1700	1250	0.5 - 0.8'	10YR 5/4	LOAMY SAND	A	NOT ABRUPT TRANS., DEFLATED
1700	1250	0.8 - 1.4'	10YR 6/3	LOAMY SAND	B	FIRM
1700	1275	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
1700	1275	0.3 - 0.7'	10YR 4/4	LOAMY SAND	Ap	
1700	1275	0.7 - 1.2'	10YR 5/6	LOAMY SAND	B	
1700	1300	0 - 0.6'	10YR 3/2	LOAMY SAND	Ao	
1700	1300	0.6 - 1.1'	10YR 5/4	LOAMY SAND	Ap	
1700	1300	1.1 - 1.7'	10YR 5/6	LOAMY SAND	B	
1700	2500	0 - 0.9'	2.5YR 4/2	SANDY LOAM	Ap	
1700	2500	0.9 - 1.3'	2.5YR 5/6	SANDY LOAM	B	COMPACT
1700	2550	0 - 1.0'	2.5YR 4/3	LOAMY SAND	Ap	
1700	2550	1.0 - 1.3'	2.5YR 5/4	SANDY LOAM	B	
1700	2600	0 - 0.95'	10YR 4/4	SANDY LOAM	Ap	
1700	2600	0.95 - 1.3'	10YR 5/4	LOAMY SAND	B	COMPACT
1700	2625	0 - 0.25'	10YR 3/3	LOAMY SAND	Ao	
1700	2625	0.25 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
1700	2625	1.1 - 1.4'	10YR 5/8	SANDY LOAM	B	
1700	2650	0 - 0.9'	10YR 4/3	SANDY LOAM	Ap	
1700	2650	0.9 - 1.3'	7.5YR 4/4	SANDY LOAM	B	
1700	2700	0 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
1700	2700	1.0 - 1.4'	10YR 5/4	LOAMY SAND	B	
1700	2750	0 - 0.8'	10YR 4/3	SANDY LOAM	Ap	
1700	2750	0.8 - 1.4'	7.5YR 4/6	SANDY CLAY LOAM	B	
1700	2775	0 - 0.2'	10YR 3/3	SANDY LOAM	Ao	
1700	2775	0.2 - 0.65'	10YR 4/4	LOAMY SAND	Ap	
1700	2775	0.65 - 1.1'	7.5YR 4/6	SANDY CLAY LOAM	B	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1700	2800	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
1700	2800	0.3 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
1700	2800	0.9 - 1.5'	10YR 5/6	SANDY LOAM w/ SOME GRAVEL	B	
1700	2825	0 - 1.0'	10YR 4/4	LOAMY SAND	Ap	
1700	2825	1.0 - 1.3'	10YR5/4	LOAMY SAND	B	
1700	2850	0 - 1.05'	10YR 4/3	LOAMY SAND	Ap	
1700	2850	1.05 - 1.5'	10YR 5/4	SAND	B	
1725	1200	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
1725	1200	0.4 - 0.75'	10YR 4/4	LOAMY SAND	Ap	
1725	1200	0.75 - 1.2'	10YR 5/6	SANDY LOAM	B	
1725	1250	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1725	1250	0.2 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
1725	1250	0.8 - 1.3'	10YR 5/6	LOAMY SAND	B	
1725	2775	0 - 0.3'	10YR 3/3	LOAMY SAND	Ao	
1725	2775	0.3 - 1.0'	10YR 4/4	LOAMY SAND	Ap	
1725	2775	1.0 - 1.3'	7.5YR 5/6	SILTY CLAY LOAM	B	
1725	2800	0 - 0.2'	10YR 3/3	LOAMY SAND	Ao	
1725	2800	0.2 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
1725	2800	0.8 - 1.1'	7.5YR 5/6	SILTY CLAY LOAM	B	
1725	2850	0 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
1725	2850	0.8 - 1.1'	7.5YR 4/6	SANDY CLAY LOAM	B	
1750	1200	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
1750	1200	0.25 - 0.9'	10YR 4/3	LOAMY SAND	Ap	
1750	1200	0.9 - 1.4'	10YR 5/6	LOAMY SAND	B1	
1750	1200	1.4 - 1.7'	10YR 5/6	SANDY LOAM w/ CONCRETIONS	B2	
1750	1250	0 - 0.4'	10YR 4/2	LOAMY SAND	Ao	DOWNSLOPE TO WEST; LOOSE, DRY
1750	1250	0.4 - 1.0'	10YR 5/4	LOAMY SAND	A	LOOSE; NOT ABRUPT TRANS.
1750	1250	1.0 - 2.0'	10YR 6/3	LOAMY SAND	B	FIRM
1750	1300	0 - 0.35'	10YR 3/2	LOAMY SAND	Ao	
1750	1300	0.35 - 1.1'	10YR 5/4	LOAMY SAND	Ap	
1750	1300	1.1 - 1.6'	10YR 5/6	LOAMY SAND	B1	
1750	1300	1.6 - 1.9'	10YR 6/6	SAND w/ LAMALLAE	B2	
1750	2500	0 - 0.95'	2.5YR 4/2	SANDY LOAM	Ap	
1750	2500	0.95 - 1.3'	2.5YR 5/6	SANDY LOAM	B	COMPACT
1750	2550	0 - 0.8'	10YR 4/3	SANDY LOAM	Ap	
1750	2550	0.8 - 1.0'	10YR 5/6	SANDY LOAM	B1	
1750	2550	1.0 - 1.2'	7.5YR 5/6	SANDY LOAM	B2	
1750	2600	0 - 0.95'	10YR 4/4	SANDY LOAM	Ap	
1750	2600	0.95 - 1.3'	10YR 5/4	LOAMY SAND	B	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1750	2650	0 - 0.95'	10YR 4/3	SANDY LOAM	Ap	
1750	2650	0.95 - 1.3'	7.5YR 4/4	SANDY LOAM	B	
1750	2700	0 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
1750	2700	1.0 - 1.3'	10YR 5/4	LOAMY SAND	B	
1750	2750	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1750	2750	0.2 - 0.7'	10YR 4/3	SANDY LOAM	Ap	
1750	2750	0.7 - 1.1'	10YR 5/4	SANDY LOAM	B	
1750	2775	0 - 0.6'	10YR 4/4	LOAMY SAND	Ap	
1750	2775	0.6 - 1.0'	10YR 5/4	LOAMY SAND	B	
1750	2800	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1750	2800	0.2 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
1750	2800	0.8 - 1.2'	7.5YR 4/6	SANDY CLAY LOAM	B	
1750	2825	0 - 0.3'	10YR 3/3	LOAMY SAND	Ao	
1750	2825	0.3 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
1750	2825	0.9 - 1.2'	7.5YR 5/6	SILTY CLAY LOAM	B	
1750	2850	0 - 0.3'	10YR 3/3	SANDY LOAM	Ao	
1750	2850	0.3 - 0.9'	10YR 4/3	LOAMY SAND	Ap	
1750	2850	0.9 - 1.2'	7.5YR 4/6	SANDY CLAY LOAM	B	
1750	2875	0 - 0.4'	10YR 3/3	LOAMY SAND	Ao	
1750	2875	0.4 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
1750	2875	0.9 - 1.3'	10YR 5/4	LOAMY SAND	B	
1750	2900	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	DUG NEAR EDGE OF LANDFORM
1750	2900	0.4 - 1.1'	10YR 5/6	LOAMY SAND	B1	
1750	2900	1.1 - 1.5'	10YR 5/4	SAND	B2	
1775	1200	0 - 0.15'	10YR 3/2	LOAMY SAND	Ao	
1775	1200	0.15 - 0.6'	10YR 4/4	LOAMY SAND	Ap	
1775	1200	0.6 - 1.2'	10YR 5/6	SANDY LOAM	B	
1775	1300	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
1775	1300	0.25 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
1775	1300	0.8 - 1.3'	10YR 5/6	LOAMY SAND	B	
1775	2600	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1775	2600	0.2 - 1.2'	10YR 4/3	LOAMY SAND	Ap	
1775	2600	1.2 - 1.4'	10YR 5/4	LOAMY SAND	B	COMPACT
1775	2775	0 - 0.15'	10YR 3/3	LOAMY SAND	Ao	
1775	2775	0.15 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
1775	2775	0.8 - 1.2'	10YR 5/6	LOAMY SAND	B1	
1775	2775	1.2 - 1.5'	10YR 5/8	SANDY LOAM	B2	
1775	2800	0 - 0.25'	10YR 3/3	SANDY LOAM	Ao	
1775	2800	0.25 - 1.1'	10YR 4/4	LOAMY SAND	Ap	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1775	2800	1.1 - 1.5'	10YR 5/6	SANDY LOAM	B	
1775	2850	0 - 1.15'	10YR 4/4	LOAMY SAND	Ap	
1775	2850	1.15 - 1.6'	10YR 5/4	LOAMY SAND	B	
1800	1225	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
1800	1225	0.4 - 0.85'	10YR 5/4	LOAMY SAND	Ap	
1800	1225	0.85 - 1.4'	10YR 5/6	LOAMY SAND	B	
1800	1250	0 - 0.15'	10YR 4/2	LOAMY SAND	Ao	DOWNSLOPE TO WEST
1800	1250	0.15 - 0.6'	10YR 5/4	LOAMY SAND	A	LOOSE; NOT ABRUPT TRANS.
1800	1250	0.6 - 1.5'	10YR 6/3	LOAMY SAND	B	COMPACT
1800	1275	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
1800	1275	0.4 - 0.85'	10YR 4/4	LOAMY SAND	Ap	
1800	1275	0.85 - 1.3'	10YR 5/6	LOAMY SAND	B	
1800	1300	0 - 0.5'	10YR 3/2	LOAMY SAND	Ao	TOP OF RISE
1800	1300	0.5 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
1800	1300	0.8 - 1.4'	10YR 5/6	SANDY LOAM w/ CONCRETIONS	B	
1800	2500	0 - 1.25	2.5YR 4/2	SANDY LOAM	Ap	
1800	2500	1.25 - 1.6	2.5YR 5/4	SANDY LOAM	B	
1800	2550	0 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
1800	2550	1.0 - 1.3'	10YR 5/6	SANDY LOAM	B	
1800	2575	0 - 0.2'	10YR3/2	LOAMY SAND	Ao	
1800	2575	0.2 - 0.9'	10YR 4/3	LOAMY SAND	Ap	
1800	2575	0.9 - 1.4'	10YR 5/4	LOAMY SAND	B	COMPACT
1800	2600	0 - 0.95'	10YR 4/3	LOAMY SAND	Ap	
1800	2600	0.95 - 1.3'	10YR 5/6	SANDY LOAM	B	
1800	2625	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
1800	2625	0.25 - 1.05'	10YR 4/3	LOAMY SAND	Ap	
1800	2625	1.05 - 1.4'	10YR 5/4	LOAMY SAND	B	
1800	2650	0 - 0.85	10YR 4/3	SANDY LOAM	Ap	
1800	2650	0.85 - 1.2'	7.5YR 4/4	SANDY LOAM	B	
1800	2700	0 - 0.9'	10YR 4/3	LOAMY SAND	Ap	
1800	2700	0.9 - 1.3'	10YR 5/4	LOAMY SAND	B	
1800	2750	0 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
1800	2750	1.1 - 1.5'	10YR 5/6	SAND	B	
1800	2800	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1800	2800	0.2 - 1.25'	10YR 4/4	LOAMY SAND	Ap	
1800	2800	1.25 - 1.6'	10YR 5/4	SAND	B	
1800	2850	0 - 0.5'	7.5YR 4/3	LOAM	Ao	HAS SLOPE DEPOSITION
1800	2850	0.5 - 1.4'	10YR 4/4	LOAMY SAND	Ap	
1800	2850	1.4 - 1.8'	10YR 5/4	LOAMY SAND	B	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1825	1250	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	DOWNSLOPE TO WEST
1825	1250	0.3 - 0.6'	10YR 4/4	LOAMY SAND	Ap	
1825	1250	0.6 - 1.0'	10YR 5/6	SANDY LOAM	B	
1825	2600	0 - 0.2'	10YR 3/3	LOAMY SAND	Ao	
1825	2600	0.2 - 1.15'	10YR 4/4	LOAMY SAND	Ap	
1825	2600	1.15 - 1.3'	10YR 5/8	SANDY LOAM	B	
1825	2625	0 - 0.3'	10YR 3/3	LOAMY SAND	Ao	
1825	2625	0.3 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
1825	2625	1.1 - 1.5'	10YR 5/6	SANDY LOAM	B	
1825	2650	0 - 0.3'	10YR 3/3	LOAMY SAND	Ao	
1825	2650	0.3 - 1.0'	10YR 4/4	LOAMY SAND	Ap	
1825	2650	1.0 - 1.3'	10YR 5/8	SANDY LOAM	B	
1850	1250	0 - 0.35'	10YR 4/2	LOAMY SAND	Ao	DUG ON SLOPE; DRY SOILS
1850	1250	0.35 - 1.0	10YR 5/4	LOAMY SAND	A	PROB. SLOPEWASH
1850	1250	1.0 - 1.3'	10YR 6/3	SAND	B2	
1850	1300	0 - 0.5'	10YR 3/2	LOAMY SAND	Ao	ON DOWNSLOPE TO WETLAND
1850	1300	0.5 - 0.9'	10YR 4/2	LOAMY SAND	Ap	
1850	1300	0.9 - 1.6'	10YR 5/6	LOAMY SAND	B	
1850	1350	0 - 0.35'	10YR 3/2	LOAMY SAND	Ao	
1850	1350	0.35 - 1.1'	10YR 4/2	LOAMY SAND	Ap	
1850	1350	1.1 - 1.5'	10YR 5/4	LOAMY SAND	B1	
1850	1350	1.5 - 1.9'	10YR 5/6	LOAMY SAND w/ 1% GRAVEL	B2	
1850	1400	0 - 0.1'	10YR 4/2	LOAMY SAND	Ao	
1850	1400	0.1 - 0.5'	10YR 5/3	LOAMY SAND	Ap	
1850	1400	0.5 - 1.0'	10YR 5/4	LOAMY SAND	B	
1850	1450	0 - 0.1'	10YR 4/2	LOAMY SAND	Ao	
1850	1450	0.1 - 0.5'	10YR 5/3	LOAMY SAND	Ap	
1850	1450	0.5 - 1.5'	10YR 5/4	LOAMY SAND	B	
1850	1500	0 - 0.15'	10YR 4/2	LOAMY SAND	Ao	
1850	1500	0.15 - 0.6'	10YR 5/3	LOAMY SAND	Ap	
1850	1500	0.6 - 1.0'	10YR 5/4	LOAMY SAND	B	
1850	1550	0 - 0.25'	10YR 4/2	LOAMY SAND	Ao	
1850	1550	0.25 - 1.0	10YR 5/3	LOAMY SAND	Ap	
1850	1550	1.0 - 1.3'	10YR 5/4	LOAMY SAND	B	
1850	1600	0 - 0.15'	10YR 4/2	LOAMY SAND	Ao	
1850	1600	0.15 - 0.8'	10YR 5/3	LOAMY SAND	Ap	
1850	1600	0.8 - 1.2'	10YR 5/4	LOAMY SAND	B	
1850	1650	0 - 0.4'	10YR 4/2	LOAMY SAND	Ao	
1850	1650	0.4 - 0.9'	10YR 5/3	LOAMY SAND	Ap	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1850	1650	0.9 - 1.4'	10YR 5/4	LOAMY SAND	B	
1850	1700	0 - 0.3'	10YR 4/2	LOAMY SAND	Ao	
1850	1700	0.3 - 0.7'	10YR 5/3	LOAMY SAND	Ap	
1850	1700	0.7 - 1.0'	10YR 5/6	LOAMY SAND	B	
1850	2500	0 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
1850	2500	1.0 - 1.5'	10YR 5/4	LOAMY SAND	B	COMPACT
1850	2550	0 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
1850	2550	1.0 - 1.3'	10YR 5/4	LOAMY SAND	B	
1850	2600	0 - 1.05'	10YR 4/3	LOAMY SAND	Ap	
1850	2600	1.05 - 1.3'	10YR 5/6	SANDY LOAM	B	COMPACT
1850	2625	0 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
1850	2625	0.9 - 1.4'	10YR 5/6	SILT LOAM	B	
1850	2650	0 - 0.15'	10YR 3/2	SANDY LOAM	Ao	GRADUAL TRANS.
1850	2650	0.15 - 0.8'	10YR 4/3	SANDY LOAM	Ap	ABRUPT TRANS.
1850	2650	0.8 - 1.2'	10YR 5/4	LOAMY SAND	B	
1850	2675	0 - 0.25'	10YR 3/3	LOAMY SAND	Ao	
1850	2675	0.25 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
1850	2675	0.9 - 1.3'	10YR 5/6	LOAMY SAND	B1	
1850	2675	1.3 - 1.6'	7.5YR 5/8	SANDY LOAM	B2	
1850	2700	0 - 0.9'	10YR 4/3	LOAMY SAND	Ap	DAMP
1850	2700	0.9 - 1.2'	10YR 5/4	LOAMY SAND	B	DAMP
1850	2750	0 - 0.35'	10YR 3/2	SANDY LOAM	Ao	DUG NEAR EDGE OF LANDFORM
1850	2750	0.35 - 1.05'	10YR 4/4	LOAMY SAND	Ap	
1850	2750	1.05 - 1.5'	10YR 5/6	SAND w/ SOME GRAVEL	B	
1850	2800	0 - 0.25'		ROOT MAT	O	DUG NEAR EDGE OF LANDFORM
1850	2800	0.25 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
1850	2800	0.9 - 1.4'	10YR 5/6	SAND	B	
1875	2625	0 - 0.15'	10YR 3/3	LOAMY SAND	Ao	
1875	2625	0.15 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
1875	2625	0.8 - 1.3'	10YR 5/6	LOAMY SAND	B1	
1875	2625	1.3 - 1.5'	7.5YR 5/6	SILT LOAM	B2	
1875	2650	0 - 0.3'	10YR 3/3	LOAMY SAND	Ao	
1875	2650	0.3 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
1875	2650	1.1 - 1.5'	10YR 5/6	SILT LOAM	B	
1900	1400	0 - 0.6'	10YR 3/2	LOAMY SAND	Ao	
1900	1400	0.6 - 1.3'	10YR 5/4	LOAMY SAND	Ap	
1900	1400	1.3 - 1.8'	10YR 6/6	LOAMY SAND	B1	
1900	1400	1.8 - 2.1'	10YR 6/4	LOAMY SAND w/ 1% PEBBLES	B2	
1900	1450	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1900	1450	0.3 - 0.7'	10YR 5/4	LOAMY SAND	Ap	
1900	1450	0.7 - 1.1'	10YR 6/6	LOAMY SAND	B1	
1900	1450	1.1 - 1.5'	10YR 5/6	SANDY LOAM	B2	
1900	1500	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
1900	1500	0.3 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
1900	1500	0.8 - 1.3'	10YR 6/6	LOAMY SAND	B1	
1900	1500	1.3 - 1.5'	10YR 5/6	SANDY LOAM	B2	
1900	1550	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1900	1550	0.2 - 0.8'	10YR 4/3	SILTY LOAM	Ap	
1900	1550	0.8 - 1.2'	10YR 5/8	LOAM	B	
1900	1600	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	
1900	1600	0.3 - 0.7'	10YR 4/3	SANDY LOAM	Ap	
1900	1600	0.7 - 1.0'	10YR 5/6	SILTY LOAM	B1	
1900	1600	1.0 - 1.3'	10YR 5/8	LOAM	B2	
1900	1650	0 - 0.35'	10YR 3/3	SANDY LOAM	Ao	
1900	1650	0.35 - 0.75'	10YR 5/4	SILTY LOAM	Ap	
1900	1650	0.75 - 1.1'	10YR 5/8	LOAM	B	
1900	1700	0 - 0.25'	10YR 3/3	SANDY LOAM	Ao	
1900	1700	0.25 - 0.8'	10YR 5/4	SILTY LOAM	Ap	
1900	1700	0.8 - 1.2'	10YR 5/8	LOAM	B	
1900	2500	0 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
1900	2500	1.0 -1.4'	10YR 5/4	LOAMY SAND	B1	
1900	2500	1.4 - 1.7'	10YR 5/6	LOAMY SAND	B2	
1900	2550	0 - 1.1'	10YR 4/3	LOAMY SAND	Ap	
1900	2550	1.1 - 1.5'	10YR 5/4	LOAMY SAND	B1	
1900	2550	1.5 - 1.6'	10YR 5/6	LOAMY SAND	B2	COMPACT
1900	2600	0 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
1900	2600	1.0 - 1.4'	10YR 5/6	LOAMY SAND	B1	
1900	2600	1.4 - 1.7'	7.5YR 5/6	SANDY LOAM	B2	COMPACT
1900	2650	0 - 0.15'	10YR 3/2	SANDY LOAM	Ao	
1900	2650	0.15 - 0.9'	10YR 4/3	SANDY LOAM	Ap	
1900	2650	0.9 - 1.3'	10YR 5/4	LOAMY SAND	B	
1900	2700	0 - 1.1'	10YR 4/3	LOAMY SAND	Ap	
1900	2700	1.1 - 1.4'	10YR 5/4	LOAMY SAND	B	
1950	1400	0 - 0.6'	10YR 3/2	LOAMY SAND	A	
1950	1400	0.6 - 1.2'	10YR 4/2	LOAMY SAND	Ap	
1950	1400	1.2 - 1.4	10YR 5/3	LOAMY SAND	E	
1950	1400	1.4 - 1.7'	10YR 4/3	LOAMY SAND	B	
1950	1450	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
1950	1450	0.4 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
1950	1450	0.8 - 1.4'	10YR 6/4	LOAMY SAND w/ 1-2% GRAVEL	B	
1950	1500	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
1950	1500	0.2 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
1950	1500	0.8 - 1.4'	10YR 6/4	SANDY LOAM	B	
1950	1550	0 - 0.2'	10YR 3/2	SANDY LOAM	Ao	
1950	1550	0.2 - 0.5'	10YR 5/4	SANDY LOAM	Ap	
1950	1550	0.5 - 0.7'	7.5YR 5/6	LOAM	B	
1950	1600	0 - 0.3'	10YR 3/3	SANDY LOAM	Ao	
1950	1600	0.3 - 0.7'	10YR 5/4	SANDY LOAM	Ap	
1950	1600	0.7 - 1.0'	10YR 5/6	SILTY LOAM	B1	
1950	1600	1.0 - 1.3'	10YR 5/8	LOAM	B2	
1950	1650	0 - 0.35'	10YR 3/3	SANDY LOAM	Ao	
1950	1650	0.35 - 0.9'	10YR 5/4	SANDY LOAM	Ap	
1950	1650	0.9 - 1.1'	10YR 5/6	SILTY LOAM	B1	
1950	1650	1.1 - 1.3'	10YR 5/8	LOAM	B2	
1950	1700	0 - 0.2'	10YR 3/3	SANDY LOAM	Ao	
1950	1700	0.2 - 0.65'	10YR 5/4	SANDY LOAM	Ap	
1950	1700	0.65 - 1.0'	10YR 5/6	SANDY LOAM	B1	
1950	1700	1.0 - 1.3'	10YR 5/8	SANDY LOAM	B2	
1950	2500	0 - 1.3'	10YR 4/3	LOAMY SAND	Ap	
1950	2500	1.3 - 1.7'	10YR 5/4	LOAMY SAND	B1	
1950	2500	1.7 - 2.2'	10YR 5/6	LOAMY SAND	B2	
1950	2550	0 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
1950	2550	1.0 - 1.5'	10YR 5/4	LOAMY SAND	B1	
1950	2550	1.5 - 1.7'	10YR 5/6	LOAMY SAND	B2	COMPACT
1950	2600	0 - 1.05'	10YR 4/3	SANDY LOAM	Ap	
1950	2600	1.05 - 1.3'	10YR 5/8	SANDY LOAM	B	COMPACT
1950	2650	0 - 0.95'	10YR 4/3	SANDY LOAM	Ap	
1950	2650	0.95 - 1.3'	10YR 5/4	LOAMY SAND	B	
1950	2700	0 - 0.7'	10YR 4/3	LOAMY SAND	Ap	
1950	2700	0.7 - 1.0'	10YR 5/4	LOAMY SAND	B	
2000	1550	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2000	1550	0.3 - 0.9'	10YR 5/4	LOAMY SAND	Ap	
2000	1550	0.9 - 1.3'	10YR 5/6	LOAMY SAND	B1	
2000	1550	1.3 - 1.6'	10YR 5/8	LOAMY SAND	B2	
2000	1600	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2000	1600	0.2 - 0.7'	10YR 5/4	LOAMY SAND	Ap	
2000	1600	0.7 - 1.0'	10YR 5/6	LOAMY SAND	B1	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2000	1600	1.0 - 1.2'	10YR 5/8	LOAMY SAND	B2	
2000	1650	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	DRY SOILS
2000	1650	0.4 - 1.1'	10YR 5/4	LOAMY SAND	Ap	
2000	1650	1.1 - 1.4'	10YR 5/6	LOAMY SAND	B	COMPACT
2000	1700	0 - 0.3'	10YR 5/3	LOAMY SAND	A	DUG IN DRAINAGE AREA; DRY SOILS
2000	1700	0.3 - 1.1'	10YR 5/4	LOAMY SAND	Ap	
2000	1700	1.1 - 1.4'	10YR 5/6	LOAMY SAND	B	
2000	1750	0 - 0.3'	10YR 5/3	LOAMY SAND	A	DRY SOILS
2000	1750	0.3 - 1.1'	10YR 5/4	LOAMY SAND	Ap	
2000	1750	1.1 - 1.3'	10YR 5/6	LOAMY SAND	B	COMPACT
2000	2500	0 - 0.9'	10YR 4/3	LOAMY SAND	Ap	
2000	2500	0.9 - 1.7'	10YR 4/3 m/w	LOAMY SAND	DISTURBED	IRREGULAR BOTTOM, PATCHY COLORS
2000	2500	1.7 - 2.2'	10YR 5/4	LOAMY SAND	B1	
2000	2500	2.2 - 2.5'	10YR 5/6	LOAMY SAND	B2	
2000	2550	0 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
2000	2550	1.0 - 1.3'	10YR 5/6	SANDY LOAM	B	
2000	2600	0 - 1.0'	10YR 4/3	SILT LOAM	Ap	
2000	2600	1.0 - 1.3'	10YR 4/6	SILT LOAM	B	
2000	2650	0 - 0.25'	10YR 3/2	SANDY LOAM	Ao	
2000	2650	0.25 - 0.8'	10YR 4/3	SANDY LOAM	Ap	
2000	2650	0.8 - 1.1'	10YR 5/4	LOAMY SAND	B	
2000	2700	0 - 0.25'	10YR 3/2	SANDY LOAM	Ao	
2000	2700	0.25 - 0.7'	10YR 4/3	LOAMY SAND	Ap	
2000	2700	0.7 - 1.2'	10YR 5/6	SANDY CLAY LOAM	B	
2000	2750	0 - 0.25'	10YR 3/3	LOAMY SAND	Ao	
2000	2750	0.25 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
2000	2750	0.8 - 1.2'	7.5YR 5/8	LOAM	B	
2050	1600	0 - 0.35'	10YR 3/2	LOAMY SAND	Ao	
2050	1600	0.35 - 0.7'	10YR 4/4	LOAMY SAND	Ap	
2050	1600	0.7 - 1.1'	10YR 5/6	LOAMY SAND	B1	
2050	1600	1.1 - 1.5'	10YR 5/8	SANDY LOAM w/ 1% GRAVEL	B2	
2050	1650	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
2050	1650	0.4 - 0.85'	10YR 4/4	LOAMY SAND	Ap	
2050	1650	0.85 - 1.2'	10YR 5/6	LOAMY SAND	B1	
2050	1650	1.2 - 1.4'	10YR 5/8	SANDY LOAM w/ 1% GRAVEL	B2	
2050	1700	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2050	1700	0.2 - 0.75'	10YR 4/4	LOAMY SAND	Ap	
2050	1700	0.75 - 1.3'	10YR 5/6	SANDY LOAM	B	
2050	1750	0 - 0.15'	10YR 3/2	LOAMY SAND	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2050	1750	0.15 - 0.85'	10YR 4/4	LOAMY SAND	Ap	
2050	1750	0.85 - 1.4'	10YR 5/6	SANDY LOAM	B	
2050	1800	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2050	1800	0.3 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
2050	1800	0.9 - 1.4'	10YR 5/6	SANDY LOAM	B	
2050	1850	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2050	1850	0.3 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
2050	1850	0.8 - 1.4'	10YR 5/6	SANDY LOAM	B	
2050	1900	0 - 0.45'	10YR 3/3	LOAMY SAND	Ao	RICH, THICK Ao IN ANIMAL PEN
2050	1900	0.45 - 0.9'	10YR 5/4	LOAMY SAND	Ap	
2050	1900	0.9 - 1.3'	10YR 5/6	SANDY LOAM	B	
2050	1950	0 - 0.1'	10YR 3/2	LOAMY SAND	Ao	
2050	1950	0.1 - 0.65'	10YR 4/4	LOAMY SAND	Ap	
2050	1950	0.65 - 1.0'	10YR 5/6	SANDY LOAM	B	
2050	2000	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
2050	2000	0.4 - 0.95'	10YR 4/4	LOAMY SAND	Ap	
2050	2000	0.95 - 1.45'	10YR 5/6	SANDY LOAM	B	
2050	2500	0 - 1.1'	7.5YR 4/3	LOAMY SAND	Ap	LOOSE
2050	2500	1.1 - 1.8'	7.5YR 4/6	SANDY LOAM	B/C	
2050	2500	1.8 - 2.1'	10YR 6/4	LOAMY SAND w/ LAMALLAE	C	
2050	2550	0 - 1.0'	10YR 4/3	SANDY LOAM	Ap	
2050	2550	1.0 - 1.3'	10YR 5/4	SANDY LOAM	B	
2050	2600	0 - 0.2'	7.5YR 2.5/2	SANDY LOAM	Ao	DAMP
2050	2600	0.2 - 0.7'	10YR 4/3	SANDY LOAM	Ap	DAMP
2050	2600	0.7 - 1.1'	10YR 5/4	LOAMY SAND	B	DAMP
2050	2650	0 - 0.8'	10YR 4/3	SANDY LOAM	Ap	
2050	2650	0.8 - 1.3'	10YR 5/4	LOAMY SAND	B	
2050	2700	0 - 0.3'	10YR 3/2	SANDY LOAM	Ao	DAMP
2050	2700	0.3 - 0.5'	10YR 4/3	SANDY LOAM	Ap	DAMP
2050	2700	0.5 - 1.0'	10YR 5/4	LOAMY SAND	B	DAMP
2050	2750	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2050	2750	0.3 - 0.85'	10YR 4/4	LOAMY SAND	Ap	
2050	2750	0.85 - 1.5'	10YR 5/4	LOAMY SAND	B	
2050	2750	1.5 - 1.9'	10YR 5/6	SAND	B/C	
2075	1700	0 - 0.15'	10YR 3/2	LOAMY SAND	Ao	
2075	1700	0.15 - 0.9'	10YR 5/4	LOAMY SAND	Ap	
2075	1700	0.9 - 1.1'	10YR 5/8	SANDY LOAM	B	
2075	2000	0 - 0.1'	10YR 4/3	LOAMY SAND	Ao	
2075	2000	0.1 - 0.6'	10YR 5/4	LOAMY SAND	Ap	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2075	2000	0.6 - 1.1'	10YR 5/6	SANDY LOAM	B	
2100	1650	0 - 0.15'	10YR 4/2	LOAMY SAND	Ao	
2100	1650	0.15 - 0.65'	10YR 5/4	LOAMY SAND	Ap	
2100	1650	0.65 - 1.3'	10YR 5/6	SANDY LOAM	B	
2100	1675	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
2100	1675	0.4 - 0.9'	10YR 5/4	LOAMY SAND	Ap	
2100	1675	0.9 - 1.5'	10YR 5/6	LOAMY SAND	B	GETS A LITTLE REDDER BUT STAYS SANDY
2100	1700	0 - 0.1'	10YR 4/2	LOAMY SAND	Ao	
2100	1700	0.1 - 0.4'	10YR 5/4	LOAMY SAND	Ap	DEFLATED
2100	1700	0.4 - 0.85'	10YR 5/6	SANDY LOAM w/ 1% GRAVEL	B1	COMPACT
2100	1700	0.85 - 1.2'	10YR 5/8	SANDY LOAM w/ 10% GRAVEL	B2	COMPACT
2100	1725	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2100	1725	0.2 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
2100	1725	0.8 - 1.2'	10YR 5/8	SANDY LOAM	B	
2100	1750	0 - 0.4'	10YR 5/4	LOAMY SAND	Ap	DEFLATED
2100	1750	0.4 - 1.0'	10YR 5/6	SANDY LOAM	B1	
2100	1750	1.0 - 1.3'	10YR 5/8	SANDY LOAM w/ 10% GRAVEL	B2	
2100	1800	0 - 0.35'	10YR 4/2	LOAMY SAND	Ao	DRY SOILS
2100	1800	0.35 - 0.95'	10YR 5/4	LOAMY SAND	Ap	
2100	1800	0.95 - 1.4'	10YR 5/6	SANDY LOAM	B	
2100	1850	0 - 0.1'	10YR 4/2	LOAMY SAND	Ao	DRY SOILS
2100	1850	0.1 - 0.65'	10YR 5/4	LOAMY SAND	Ap	
2100	1850	0.65 - 1.15'	10YR 5/6	SANDY LOAM	B1	
2100	1850	1.15 - 1.4'	10YR 5/8	SANDY LOAM	B2	
2100	1900	0 - 0.2'	10YR 4/2	LOAMY SAND	Ao	
2100	1900	0.2 - 0.6'	10YR 5/4	LOAMY SAND	Ap	
2100	1900	0.6 - 1.2'	10YR 5/6	SANDY LOAM	B	
2100	1950	0 - 0.2'	10YR 4/2	LOAMY SAND	Ao	
2100	1950	0.2 - 0.65'	10YR 5/4	LOAMY SAND	Ap	
2100	1950	0.65 - 0.9'	10YR 5/6	SANDY LOAM	B1	
2100	1950	0.9 - 1.1'	10YR 5/8	SANDY LOAM	B2	
2100	1975	0 - 0.3'	10YR 4/3	LOAMY SAND	Ao	
2100	1975	0.3 - 0.85'	10YR 5/4	LOAMY SAND	Ap	
2100	1975	0.85 - 1.3'	10YR 5/6	SANDY LOAM	B	
2100	2000	0 - 0.15'	10YR 4/2	LOAMY SAND	Ao	
2100	2000	0.15 - 0.7'	10YR 5/4	LOAMY SAND	Ap	
2100	2000	0.7 - 1.45'	10YR 5/6	SANDY LOAM	B1	
2100	2000	1.45 - 1.6'	10YR 5/8	SANDY LOAM	B2	
2100	2500	0 - 1.1'	10YR 4/2	LOAMY SAND	Ap	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2100	2500	1.1 - 1.6'	10YR 5/4	LOAMY SAND	B	
2100	2550	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
2100	2550	0.4 - 0.9'	10YR 4/2	SANDY LOAM	FILL	
2100	2550	0.9 - 1.2'	10YR 4/6	CLAY LOAM	FILL	
2100	2550	1.2 - 1.6'	10YR 4/3	SANDY LOAM	FILL	
2100	2550	1.6 - 2.0'	10YR 2/2	SANDY LOAM	FILL	STOPPED BY CONCRETE CHUNKS
2100	2600	0 - 0.85'	10YR 3/3	SANDY LOAM	Ap	DAMP
2100	2600	0.85 - 1.3'	10YR 5/4	LOAMY SAND	B	DAMP
2100	2650	0 - 0.55'	10YR 4/4	SANDY LOAM	FILL	
2100	2650	0.55 - 1.2'	10YR 4/3	SANDY LOAM	Ap	
2100	2650	1.2 - 1.6'	10YR 6/4	LOAMY SAND	B	
2100	2700	0 - 0.8'	10YR 4/3	LOAMY SAND	Ap	DUG NEAR TRASH PILE
2100	2700	0.8 - 1.3'	10YR 5/4	LOAMY SAND	B	
2100	2750	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2100	2750	0.2 - 0.7'	10YR 4/4	LOAMY SAND	Ap	
2100	2750	0.7 - 1.2'	10YR 5/6	LOAMY SAND	B	
2100	2750	1.2 - 1.5'	10YR 6/4	SAND	B/C	
2125	1700	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2125	1700	0.3 - 0.7'	10YR 5/4	LOAMY SAND	Ap	
2125	1700	0.7 - 1.2'	10YR 5/6	SANDY LOAM	B	REDDER/LOAMIER AT 1.0'
2125	2000	0 - 0.3'	10YR 4/3	LOAMY SAND	Ao	
2125	2000	0.3 - 0.75'	10YR 5/4	LOAMY SAND	Ap	
2125	2000	0.75 - 1.1'	10YR 5/6	SANDY LOAM	B	
2150	1650	0 - 0.15'	10YR 3/2	LOAMY SAND	Ao	
2150	1650	0.15 - 0.6'	10YR 4/4	LOAMY SAND	Ap	
2150	1650	0.6 - 1.2'	10YR 5/6	SANDY LOAM	B	
2150	1700	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
2150	1700	0.25 - 0.7'	10YR 4/4	LOAMY SAND	Ap	
2150	1700	0.7 - 1.1'	10YR 5/6	SANDY LOAM	B	
2150	1750	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2150	1750	0.2 - 0.7'	10YR 4/4	LOAMY SAND	Ap	
2150	1750	0.7 - 1.0'	10YR 5/6	SANDY LOAM	B	
2150	1800	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2150	1800	0.2 - 0.7'	10YR 4/4	LOAMY SAND	Ap	
2150	1800	0.7 - 1.05'	10YR 5/6	SANDY LOAM	B	
2150	1850	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2150	1850	0.2 - 0.7'	10YR 4/4	LOAMY SAND	Ap	
2150	1850	0.7 - 1.0'	10YR 5/6	SANDY LOAM	B	
2150	1900	0 - 0.15'	10YR 3/2	LOAMY SAND	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2150	1900	0.15 - 0.65'	10YR 4/4	LOAMY SAND	Ap	
2150	1900	0.65 - 1.0'	10YR 5/6	SANDY LOAM	B	
2150	1950	0 - 0.4'	10YR 3/2	SAND	Ao	TREEFALL & GROUNDHOG MOUND
2150	1950	0.4 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
2150	1950	1.1 - 1.4'	7.5YR 5/6	LOAM	B	
2150	2000	0 - 0.45'	10YR 3/2	LOAMY SAND	Ao	
2150	2000	0.45 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
2150	2000	0.9 - 1.2'	10YR 5/6	SANDY LOAM	B	
2150	2500	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
2150	2500	0.4 - 1.0'	10YR 5/3	SANDY LOAM w/ CLAY BALLS	FILL	or Ap
2150	2500	1.0 - 1.6'	10YR 5/6	SANDY LOAM	B	
2150	2550	0 - 1.1'	10YR 4/3 m/w	LOAMY SAND	FILL	DUG ON PUSH PILE
2150	2550	1.1 - 2.0'	10YR 3/2	SANDY LOAM	Apb	
2150	2550	2.0 - 2.4'	10YR 5/4	SANDY LOAM	B	
2150	2600	0 - 0.95'	10YR 4/3	LOAMY SAND	Ap	
2150	2600	0.95 - 1.4'	10YR 5/4	SANDY LOAM	B	
2150	2650	0 - 0.35'	10YR 3/2	LOAMY SAND	Ao	
2150	2650	0.35 - 0.75'	10YR 4/3	LOAMY SAND	Ap	
2150	2650	0.75 - 1.4'	10YR 5/4	LOAMY SAND	B	
2150	2700	0 - 0.65'	10YR 4/3	LOAMY SAND	Ap	
2150	2700	0.65 - 1.3'	10YR 5/4	LOAMY SAND	B	
2150	2750	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2150	2750	0.2 - 0.5'	10YR 4/3	LOAMY SAND	Ap	
2150	2750	0.5 - 1.0'	10YR 5/4	SANDY LOAM	B	
2200	1700	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2200	1700	0.2 - 0.5'	10YR 5/4	LOAMY SAND	Ap	
2200	1700	0.5 - 1.0'	10YR 5/6	SANDY LOAM	B	
2200	1750	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2200	1750	0.2 - 0.5'	7.5YR 4/4	SANDY LOAM	Ap	
2200	1750	0.5 - 1.0'	7.5YR 5/6	LOAM	B	
2200	1800	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
2200	1800	0.4 - 0.75'	10YR 5/4	LOAMY SAND	Ap	
2200	1800	0.75 - 1.3'	10YR 5/6	SANDY LOAM	B	
2200	1850	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
2200	1850	0.4 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
2200	1850	0.8 - 1.3'	10YR 5/6	SANDY LOAM	B	
2200	1900	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2200	1900	0.3 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
2200	1900	0.8 - 1.2'	10YR 5/6	SANDY LOAM	B	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2200	1950	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
2200	1950	0.25 - 0.7'	10YR 5/4	LOAMY SAND	Ap	
2200	1950	0.7 - 1.1'	10YR 5/6	SANDY LOAM	B	
2200	2000	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2200	2000	0.3 - 0.9'	10YR 5/4	LOAMY SAND	Ap	
2200	2000	0.9 - 1.15'	10YR 5/6	SANDY LOAM	B	
2200	2500	0 - 1.4	10YR 4/3	LOAMY SAND	Ap	DUG ON PUSH PILE, NO CLEARLY DEFINED FILL LAYER
2200	2500	1.4 - 2.2'	10YR 5/4	LOAMY SAND	B	
2200	2550	0 - 0.9'	10YR 4/2	LOAMY SAND	Ap	
2200	2550	0.9 - 1.3'	10YR 5/6	LOAMY SAND	B	
2200	2600	0 - 0.95'	10YR 3/4	LOAMY SAND	Ap	NEXT TO COLLAPSED CATTLE FENCE
2200	2600	0.95 - 1.4'	7.5YR 4/4	LOAMY SAND	B	
2200	2650	0 - 0.8'	10YR 4/3	LOAMY SAND	Ap	
2200	2650	0.8 - 1.4'	10YR 6/4	LOAMY SAND	B	
2200	2700	0 - 0.9'	10YR 4/3	LOAMY SAND	Ap	
2200	2700	0.9 - 1.3'	10YR 5/4	LOAMY SAND	B	
2200	2750	0 - 0.35'	10YR 3/2	LOAMY SAND	Ao	
2200	2750	0.35 - 0.95'	10YR 4/4	LOAMY SAND	Ap	
2200	2750	0.95 - 1.4'	10YR 5/6	LOAMY SAND	B	
2200	2750	1.4 - 1.7'	10YR 6/4	SAND	B/C	
2250	1750	0 - 0.35'	10YR 3/2	LOAMY SAND	Ao	
2250	1750	0.35 - 0.7'	10YR 5/4	LOAMY SAND	Ap	
2250	1750	0.7 - 1.2'	10YR 5/6	SANDY LOAM	B1	
2250	1750	1.2 - 1.4'	10YR 5/8	SANDY LOAM	B2	COMPACT
2250	1800	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2250	1800	0.3 - 0.5'	10YR 5/4	LOAMY SAND	Ap	DEFLATED
2250	1800	0.5 - 1.0'	10YR 5/6	SANDY LOAM	B	
2250	1850	0 - 0.15'	10YR 4/2	LOAMY SAND	Ao	
2250	1850	0.15 - 0.75'	10YR 5/4	LOAMY SAND	Ap	
2250	1850	0.75 - 1.1'	10YR 5/6	SANDY LOAM	B	COMPACT
2250	1900	0 - 0.15'	10YR 4/2	LOAMY SAND	Ao	
2250	1900	0.15 - 0.6'	10YR 5/4	LOAMY SAND	Ap	
2250	1900	0.6 - 0.9'	10YR 5/6	SANDY LOAM	B	COMPACT
2250	1950	0 - 0.3'	10YR 4/2	LOAMY SAND	Ao	
2250	1950	0.3 - 0.6'	10YR 5/4	LOAMY SAND	Ap	
2250	1950	0.6 - 1.0'	10YR 5/6	SANDY LOAM	B	COMPACT
2250	2000	0 - 0.3'	10YR 4/2	LOAMY SAND	Ao	
2250	2000	0.3 - 0.7'	10YR 5/4	LOAMY SAND	Ap	
2250	2000	0.7 - 1.1'	10YR 5/6	SANDY LOAM	B	COMPACT

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2250	2500	0 - 0.9'	10YR 4/3	LOAMY SAND	Ap	
2250	2500	0.9 - 1.3'	10YR 5/6	LOAMY SAND	B1	
2250	2500	1.3 - 1.6'	10YR 4/6	SANDY LOAM	B2	
2250	2550	0 - 1.0'	10YR 3/2	LOAMY SAND	Ap	
2250	2550	1.0 - 1.3'	2.5Y 5/4	LOAMY SAND	B	
2250	2600	0 - 1.1'	10YR 4/3	LOAMY SAND	Ap	
2250	2600	1.1 - 1.8'	10YR 5/4	LOAMY SAND	B	
2250	2650	0 - 0.7'	10YR 4/3	LOAMY SAND	Ap	
2250	2650	0.7 - 1.3'	10YR 5/4	LOAMY SAND	B	
2250	2700	0 - 0.9'	10YR 4/3	LOAMY SAND	Ap	
2250	2700	0.9 - 1.4'	10YR 5/4	LOAMY SAND	B	
2250	2750	0 - 0.3'	10YR 3/3	LOAMY SAND	Ao	
2250	2750	0.3 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
2250	2750	1.1 - 1.4'	10YR 5/6	LOAMY SAND	B1	
2250	2750	1.4 - 1.7'	10YR 6/4	LOAMY SAND	B2	
2275	1850	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2275	1850	0.3 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
2275	1850	0.8 - 1.3'	10YR 5/6	SANDY LOAM	B	
2275	1900	0 - 0.35'	10YR 4/2	SANDY LOAM	Ao	
2275	1900	0.35 - 0.75'	10YR 5/4	SANDY LOAM	Ap	
2275	1900	0.75 - 1.1'	10YR 5/6	SANDY LOAM	B	
2275	2700	0 - 0.25'	10YR 3/3	SANDY LOAM	Ao	
2275	2700	0.25 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
2275	2700	0.8 - 1.3'	10YR 5/4	LOAMY SAND	B	COMPACT
2275	2750	0 - 0.35'	10YR 3/3	SANDY LOAM	Ao	
2275	2750	0.35 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
2275	2750	1.1 - 1.6'	10YR 5/4	LOAMY SAND	B	COMPACT
2300	1750	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
2300	1750	0.4 - 0.7'	10YR 5/4	SANDY LOAM	Ap	
2300	1750	0.7 - 1.0'	10YR 5/6	SANDY LOAM	B	COMPACT
2300	1800	0 - 0.55'	10YR 3/2	LOAMY SAND	Ao	
2300	1800	0.55 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
2300	1800	1.0 - 1.5'	10YR 5/6	LOAMY SAND	B	
2300	1825	0 - 0.25'	10YR 4/2	SANDY LOAM	Ao	
2300	1825	0.25 - 0.65'	10YR 5/4	SANDY LOAM	Ap	
2300	1825	0.65' - 1.0'	10YR 5/6	SANDY LOAM	B	
2300	1850	0 - 0.2'	10YR 3/2	LOAMY SAND	Ao	
2300	1850	0.2 - 0.8'	10YR 4/3	LOAMY SAND	Ap	
2300	1850	0.8 - 1.2'	10YR 5/6	LOAMY SAND	B	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2300	1900	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2300	1900	0.3 - 0.65'	10YR 4/3	LOAMY SAND	Ap	
2300	1900	0.65 - 0.95'	10YR 5/6	LOAMY SAND	B	
2300	1950	0 - 0.35'	10YR 3/2	LOAMY SAND	Ao	
2300	1950	0.35 - 0.85'	10YR 4/3	LOAMY SAND	Ap	
2300	1950	0.85 - 1.2'	10YR 5/6	LOAMY SAND	B	
2300	2000	0 - 0.45'	10YR 3/2	LOAMY SAND	Ao	
2300	2000	0.45 - 1.0'	10YR 5/4	LOAMY SAND	Ap	
2300	2000	1.0 - 1.3'	10YR 5/6	SANDY LOAM	B	
2300	2450	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2300	2450	0.3 - 0.85'	10YR 5/4	LOAMY SAND	Ap	
2300	2450	0.85 - 1.1'	10YR 5/6	SANDY LOAM	B	COMPACT
2300	2500	0 - 0.95'	10YR 4/2	LOAMY SAND	Ap	
2300	2500	0.95 - 1.5'	10YR 5/4	SANDY LOAM	B	
2300	2550	0 - 1.1'	10YR 3/2	LOAMY SAND	Ap	SURFACE TRASH TO NORTH
2300	2550	1.1 - 1.3'	2.5Y 5/4	LOAMY SAND	B	
2300	2600	0 - 1.15'	10YR 4/3	LOAMY SAND	Ap	
2300	2600	1.15 - 1.6'	10YR 5/4	LOAMY SAND	B	
2300	2650	0 - 0.85'	10YR 4/3	LOAMY SAND	Ap	
2300	2650	0.85 - 1.3'	10YR 5/4	LOAMY SAND	B	
2300	2675	0 - 0.45'	10YR 3/3	SANDY LOAM	Ao	
2300	2675	0.45 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
2300	2675	0.9 - 1.4'	10YR 5/4	LOAMY SAND	B	COMPACT
2300	2700	0 - 0.7'	10YR 4/3	LOAMY SAND	Ap	
2300	2700	0.7 - 1.3'	10YR 5/4	LOAMY SAND	B	
2300	2750	0 - 0.3'	10YR 3/3	LOAMY SAND	Ao	
2300	2750	0.3 - 0.95'	10YR 4/4	LOAMY SAND	Ap	
2300	2750	0.95 - 1.4'	10YR 5/6	LOAMY SAND	B1	
2300	2750	1.4 - 1.8'	10YR 6/4	LOAMY SAND	B2	
2325	1950	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2325	1950	0 - 0.3'	10YR 4/2	SANDY LOAM	Ao	
2325	1950	0.3 - 0.75'	10YR 5/4	SANDY LOAM	Ap	
2325	1950	0.3 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
2325	1950	0.75 - 1.1'	10YR 5/6	SANDY LOAM	B	
2325	1950	0.8 - 1.4'	10YR 5/6	SANDY LOAM	B	REDDER AT ABOUT 1.2'
2350	1800	0 - 0.3'	10YR 4/3	SANDY LOAM	Ao	
2350	1800	0.3 - 0.7'	10YR 5/4	SANDY LOAM	Ap	
2350	1800	0.7 - 1.0'	10YR 5/6	SANDY LOAM	B	
2350	1825	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2350	1825	0.25 - 0.6'	10YR 5/4	LOAMY SAND	Ap	
2350	1825	0.6 - 1.3'	10YR 5/6	SANDY LOAM	B	REDDER AT 1.1'
2350	1850	0 - 0.4'	10YR 4/3	SANDY LOAM	Ao	
2350	1850	0.4 - 0.8'	10YR 5/4	SANDY LOAM	Ap	
2350	1850	0.8 - 1.1'	10YR 5/6	SANDY LOAM	B	
2350	1900	0 - 0.25'	10YR 4/3	SANDY LOAM	Ao	
2350	1900	0.25 - 0.75'	10YR 5/4	SANDY LOAM	Ap	
2350	1900	0.75 - 1.1'	10YR 5/6	SANDY LOAM	B	DRY
2350	1950	0 - 0.2'	10YR 4/3	SANDY LOAM	Ao	
2350	1950	0.2 - 0.8'	10YR 5/4	SANDY LOAM	Ap	
2350	1950	0.8 - 1.1'	10YR 5/6	SANDY LOAM	B	
2350	1975	0 - 0.4'	10YR 4/2	SANDY LOAM	Ao	
2350	1975	0.4 - 0.9'	10YR 5/4	SANDY LOAM	Ap	
2350	1975	0.9 - 1.2'	10YR 5/6	SANDY LOAM	B	
2350	2000	0 - 0.3'	10YR 4/2	LOAMY SAND	Ao	
2350	2000	0.3 - 0.7'	10YR 5/4	LOAMY SAND	Ap	
2350	2000	0.7 - 1.1'	10YR 5/6	SANDY LOAM	B	
2350	2450	0 - 0.25'		ROOT MAT	O	
2350	2450	0.25 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
2350	2450	1.0 - 1.5'	10YR 6/3	SAND	B	
2350	2500	0 - 0.4'	10YR 3/3	SANDY LOAM	Ao	
2350	2500	0.4 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
2350	2500	1.1 - 1.6'	10YR 5/4	LOAMY SAND	B	
2350	2550	0 - 0.3'	10YR 2/2	SANDY LOAM	Ao	
2350	2550	0.3 - 0.7'	10YR 3/2	SANDY LOAM	Ap	
2350	2550	0.7 - 1.0'	7.5YR 4/1	LOAMY SAND	E	
2350	2550	1.0 - 1.5'	7.5YR 5/2	SAND w/ SM. GRAVEL	B	DAMP
2350	2600	0 - 0.35'	10YR 3/3	SANDY LOAM	Ao	
2350	2600	0.35 - 0.95'	10YR 4/4	LOAMY SAND	Ap	
2350	2600	0.95 - 1.4'	10YR 5/4	LOAMY SAND	B	
2350	2650	0 - 0.5'	10YR 3/3	SANDY LOAM	Ao	
2350	2650	0.5 - 0.95'	10YR 4/4	LOAMY SAND	Ap	
2350	2650	0.95 - 1.3'	10YR 5/4	LOAMY SAND	B	
2350	2675	0 - 0.35'	10YR 3/2	LOAMY SAND	Ao	
2350	2675	0.35' - 0.8'	10YR 4/4	LOAMY SAND	Ap	
2350	2675	0.8 - 1.4'	10YR 5/6	LOAMY SAND	B	
2350	2700	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
2350	2700	0.25 - 0.8'	10YR 4/4	LOAMY SAND	Ap	
2350	2700	0.8 - 1.4'	10YR 5/6	LOAMY SAND	B	GETS REDDER WITH DEPTH

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2375	2000	0 - 0.4'	10YR 3/2	LOAMY SAND	Ao	
2375	2000	0.4 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
2375	2000	0.8 - 1.6'	10YR 5/6	LOAMY SAND	B	MOTTLED/LOAMIER AT 1.4'
2400	1850	0 - 0.25'	10YR 3/2	LOAMY SAND	Ao	
2400	1850	0.25 - 0.95'	10YR 5/4	LOAMY SAND	Ap	
2400	1850	0.95 - 1.3'	10YR 5/6	SANDY LOAM	B	
2400	1900	0 - 0.35'	10YR 3/2	LOAMY SAND	Ao	
2400	1900	0.35 - 0.8'	10YR 5/4	LOAMY SAND	Ap	
2400	1900	0.8 - 1.7'	10YR 5/6	LOAMY SAND	B	MOTTLED/LOAMIER AT 1.5'
2400	1950	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2400	1950	0.3 - 0.7'	10YR 5/4	LOAMY SAND	Ap	
2400	1950	0.7 - 1.3'	10YR 5/6	LOAMY SAND	B	MOTTLED/LOAMIER AT 1.1'
2400	2000	0 - 0.35'	10YR 3/2	LOAMY SAND	Ao	
2400	2000	0.35 - 0.9'	10YR 5/4	LOAMY SAND	Ap	
2400	2000	0.9 - 1.6'	10YR 5/6	LOAMY SAND	B	MOTTLED/LOAMIER AT 1.4'
2400	2400	0 - 0.2'	10YR 3/3	SANDY LOAM	Ao	
2400	2400	0.2 - 1.0'	10YR 4/4	LOAMY SAND	Ap	
2400	2400	1.0 - 1.5'	10YR 5/4	LOAMY SAND	B	
2400	2500	0 - 0.3'	10YR 3/3	SANDY LOAM	Ao	
2400	2500	0.3 - 1.1'	10YR 4/4	SANDY LOAM	Ap	
2400	2500	1.1 - 1.4'	10YR 5/6	SANDY LOAM	B	
2400	2550	0 - 0.4'	7.5YR 2.5/3	SANDY LOAM	Ao	
2400	2550	0.4 - 1.0'	10YR 2/1	SANDY LOAM	Ap	
2400	2550	1.0 - 1.3'	10YR 6/1	LOAMY SAND w/ 5% GRAVEL	B	HYDRIC
2400	2600	0 - 0.5'	10YR 3/2	LOAMY SAND	Ao	
2400	2600	0.5 - 1.1'	10YR 4/4	LOAMY SAND	Ap	
2400	2600	1.1 - 1.4'	10YR 5/6	LOAMY SAND	B	
2400	2650	0 - 0.5'	10YR 3/2	LOAMY SAND	Ao	
2400	2650	0.5 - 1.0'	10YR 4/4	LOAMY SAND	Ap	
2400	2650	1.0 - 1.4'	10YR 5/6	LOAMY SAND	B	
2400	2675	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2400	2675	0.3 - 1.2'	10YR 4/4	LOAMY SAND	Ap	
2400	2675	1.2 - 1.7'	10YR 5/6	LOAMY SAND	B	
2400	2700	0 - 0.5'	10YR 3/2	LOAMY SAND	Ao	
2400	2700	0.5 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
2400	2700	0.9 - 1.2'	10YR 5/6	LOAMY SAND	B1	
2400	2700	1.2 - 1.4'	10YR 5/8	LOAMY SAND	B2	
2425	2700	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2425	2700	0.3 - 1.1'	10YR 4/4	LOAMY SAND	Ap	

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2425	2700	1.1 - 1.6'	10YR 5/6	LOAMY SAND	B	OFFSET 2' W TO SIT ON TOP OF BLUFF
2450	1950	0 - 0.35'	10YR 4/2	SANDY LOAM	A	DEFLATED, DRY
2450	1950	0.35 - 0.75'	10YR 6/3	SANDY LOAM	B1	
2450	1950	0.75 - 1.25'	10YR 5/8	SANDY LOAM	B2	
2450	2000	0 - 0.35'	10YR 4/2	SANDY LOAM	A	DEFLATED, DRY
2450	2000	0.35 - 0.9'	10YR 6/3	SANDY LOAM	B1	
2450	2000	0.9 - 1.2'	10YR 5/8	SANDY LOAM	B2	
2450	2400	0 - 0.4'	10YR 3/3	SANDY LOAM	Ao	DUG IN MODERN BOTTLE DUMP
2450	2400	0.4 - 1.0'	10YR 4/4	LOAMY SAND	Ap	
2450	2400	1.0 - 1.1'	10YR 5/4	LOAMY SAND	B	STOPPED BY ROOTS
2450	2500	0 - 0.6'	7.5YR 2.5/2	SANDY LOAM	Ao	
2450	2500	0.6 - 1.0'	10YR 2/1	SANDY LOAM	Ap	
2450	2500	1.0 - 1.3'	10YR 6/1	LOAMY SAND w/ 1-2% GRAVEL	B	HYDRIC
2450	2550	0 - 0.5'	7.5YR 2.5/3	LOAMY SAND	Ao	
2450	2550	0.5 - 1.1'	10YR 2/1	LOAMY SAND	Ap	
2450	2550	1.1 - 1.4'	10YR 4/1	LOAMY SAND w/ 1-2% GRAVEL	B	HYDRIC
2450	2600	0 - 0.5'	7.5YR 2.5/3	LOAMY SAND	Ao	
2450	2600	0.5 - 1.1'	10YR 4/3	LOAMY SAND	Ap	
2450	2600	1.1 - 1.7'	7.5YR 4/4	LOAMY SAND w/ 1-2% GRAVEL	B	
2450	2650	0 - 0.3'	10YR 3/2	LOAMY SAND	Ao	
2450	2650	0.3 - 0.9'	10YR 4/4	LOAMY SAND	Ap	
2450	2650	0.9 - 1.1'	10YR 5/4	LOAMY SAND	B1	
2450	2650	1.1 - 1.9'	10YR 5/6	LOAMY SAND	B2	
2500	2600	0 - 0.3'	7.5YR 2.5/3	LOAMY SAND	Ao	
2500	2600	0.3 - 1.0'	10YR 4/3	LOAMY SAND	Ap	
2500	2600	1.0 - 1.3'	10YR 5/3	LOAMY SAND	E	
2500	2600	1.3 - 1.6'	7.5YR 4/4	LOAMY SAND w/ 1-2% GRAVEL	B	
2096.33	2404	0 - 1.0'	10YR5/4	LOAMY SAND	Ap	STP 1
2096.33	2404	1 - 1.3'	10YR5/6	LOAMY SAND	B	STP 1
2164.78	2351	0 - 1.05'	10YR5/4	LOAMY SAND	Ap	STP 2
2164.78	2351	1.05 - 1.35'	10YR5/6	LOAMY SAND	B	STP 2
2499.08	2196	0 - 1.0'	10YR4/4	LOAMY SAND	Ap	STP 3
2499.08	2196	1.0 - 1.5'	10YR5/6	LOAMY SAND	B	STP 3
2510.13	2214	0 - 1.0'	10YR4/4	LOAMY SAND	Ap	STP 4
2510.13	2214	1.0 - 1.3'	10YR5/6	LOAMY SAND	B	STP 4
2520.54	2234	0 - .7'	10YR5/4	LOAMY SAND	Ap	STP 5
2520.54	2234	.7 - .9'	10YR4/3	LOAMY SAND	Ap	STP 5
2520.54	2234	.9 - 1.05'	10YR4/4	LOAMY SAND	Ap	STP 5
2520.54	2234	1.05 - 1.3'	10YR6/4	LOAMY SAND	B	STP 5

APPENDIX II: KNAPP SHOVEL TEST LOG

NORTH	EAST	DEPTH	MUNSELL	TEXTURE	DESCRIPTION	NOTES
2532.1	2256	0 -.9'	10YR3/4	LOAMY SAND	Ap	STP 6
2532.1	2256	.9 - 1.7'	10YR4/4	LOAMY SAND	Ap	STP 6
2532.1	2256	1.7 - 2.0'	10YR5/6	LOAMY SAND	B	STP 6
1446.87	1879	0 -.9'	10YR4/4	SANDY LOAM	Ap	STP 7
1446.87	1879	.9 - 1.3'	7.5YR4/6	SANDY CLAY LOAM	B	STP 7
1437.95	1916	0 -.9'	10YR4/4	SANDY LOAM	Ap	STP 8
1437.95	1916	.9 - 1.3'	7.5YR4/6	SANDY CLAY LOAM	B	STP 8
1392.99	1861	0 -.9'	10YR4/4	SANDY LOAM	Ap	STP 9
1392.99	1861	.9 - 1.3'	7.5YR4/6	SANDY CLAY LOAM	B	STP 9
1352.67	1874	0 -.9'	10YR4/4	SANDY LOAM	Ap	STP 10
1352.67	1874	.9 - 1.3'	7.5YR4/6	SANDY CLAY LOAM	B	STP 10

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
1	1650	2650	1	Ap	P	1	L	CHERT	SECONDARY	FLAKE		GRAY	
1	1650	2650	1	Ap	P	1	D	CERAMIC	IND				
1	1675	2625	3	B	P	1	L	CHERT	SECONDARY	FLAKE		GRAY	
1	1675	2650	2	Ap	P	1	L	SANDSTONE		FCR			
1	1700	2800	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		TAN	
1	1750	2775	1	Ap	P	1	D	CERAMIC	SAND/SHELL TEMPER				
1	1750	2800	2	Ap	P	1	L	CHERT	PRIMARY	FLAKE		TAN	COULD BE SPALL
1	1750	2800	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		BROWN	
1	1750	2850	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		TAN	
1	1800	1250	2	A	P	1	D	CERAMIC	SAND TEMPER				
1	1800	2600	1	Ap	P	1	L	QUARTZ	SECONDARY	FLAKE		WHITE	
1	1850	2625	1	Ap	P	1	L	CHERT	SECONDARY	FLAKE		BROWN	
1	1850	2650	2	Ap	P	1	L	QUARTZITE	PRIMARY	FLAKE			
1	2100	1700	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		TAN	
1	2100	2000	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		TAN	
1	2125	1700	2	Ap	P	1	L	CHERT	PRIMARY	FLAKE		GRAY	
2	2300	2700	1	Ap	P	2	L	CHERT	SECONDARY	FLAKE		BROWN/GRAY	
2	2300	2750	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		BROWN	
2	2300	2750	2	Ap	P	1	L	CHERT	PRIMARY	FLAKE		GRAY	
2	2350	2700	3	B	P	2	L	CHERT	PRIMARY	FLAKE		BROWN	
2	2400	2700	2	Ap	P	1	L	CHERT	PRIMARY	FLAKE		BROWN	
2	2400	2700	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		BROWN	
2	2400	2700	2	Ap	P	1	L	CHERT		TESTED PEBBLE			
2	2425	2700	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		GRAY	
2	2425	2700	2	Ap	P	2	L	CHERT		SHATTER			
3	2300	1850	2	Ap	P	1	L	SANDSTONE		HAMMERSTONE			
3	2300	1900			P	1	L	CHERT	SECONDARY	FLAKE		TAN	
3	2350	1825	2-3	Ap	P	1	L	CHERT	SECONDARY	FLAKE		RED	
3	2300	1900			P	1	L	CHERT	SECONDARY	FLAKE		TAN	
3	2350	1825	2-3	Ap	P	1	L	CHERT	SECONDARY	FLAKE		RED	
3	2350	1825	2-3	Ap	P	1	D	CERAMIC	SAND TEMPER				
3	2350	1850	2	Ap	P	1	D	CERAMIC	SHELL TEMPER				
3	2350	1950	2	Ap	P	1	L	ARGYLITE		FLAKE			
3	2400	1850	2	Ap	P	1	L	CHERT	PRIMARY	FLAKE		RED	
3	2400	1850	2	Ap	P	2	L	CHERT	SECONDARY	FLAKE		TAN	
3	2400	1850	2	Ap	P	2	L	CHERT		SHATTER			
3	2400	1850	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		GRAY	
3	2400	1900	2-3	Ap	P	1	L	CHERT	SECONDARY	FLAKE		TAN	
3	2400	1900	2-3	Ap	P	3	D	CERAMIC	SAND TEMPER				
3	2400	1950	2	Ap	P	2	L	CHERT	SECONDARY	FLAKE		TAN	
3	2400	1950	2	Ap	P	1	D	CERAMIC	SHELL TEMPER				
3	2400	2000	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		BROWN	
3	2450	1950	1	A	P	1	L	SANDSTONE		FCR			
4	1600	2600	1	Ap	P	1	L	CHERT	SECONDARY	FLAKE		BLACK	
4	1700	1300	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		BROWN	
4	1750	1200	2	Ap	P	1	L	CHERT	PRIMARY	FLAKE		BROWN	
4	1750	1250	3	B	P	1	L	CHERT	SECONDARY	FLAKE		TAN	
4	1750	1300	3	B	P	1	L	CHERT	SECONDARY	FLAKE		BLACK	
4	1750	1300	3	B	P	1	L	QUARTZITE	SECONDARY	FLAKE			
5	1500	850	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		BROWN	
5	1525	850	2	Ap	P	1	L	CHERT	PRIMARY	FLAKE		BROWN	
5	1600	950	2	Ap	P	1	L	CHERT	SECONDARY	FLAKE		BROWN	
5	1600	1000	1	Ao	P	1	L	CHERT	PRIMARY	FLAKE		GRAY	

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
5	1650	1000	2	Ap	P	1	L	CHERT	PRIMARY	FLAKE		TAN	
5	1650	1025	2	Ap	P	1	D	CERAMIC	SAND TEMPER				
6	1300	900	2	Ap	P	1	L	QUARTZ		SHATTER			
6	1350	1000	2	Ap	P	1	L	QUARTZ		SHATTER			
6	1375	1000	2	Ap	P	1	L	CHERT		FLAKE		RED	
7	1860.206	2307.999			H	1	D	CERAMIC	STONEWARE				20TH CENTURY
7	1873.003	1922.599			H	1	U	COAL					
7	1875	2625	2	Ap	H	2	U	COAL					NOT RETAINED
7	1875	2650	2	Ap	H	1	A	CERAMIC	BRICK	BRICK			
7	1875	2650	2	Ap	H	1	A	GLASS	FLAT	WINDOW		AQUA TINT	
7	1875	2650	2	Ap	H	1	U	COAL					
7	1882.045	2328.919			H	1	D	CERAMIC	STONEWARE				20TH CENTURY
7	1889.769	2321.08			H	1	A	CERAMIC	BRICK	BRICK			
7	1900	2500	1	Ap	H	1	D	CERAMIC	WHITEWARE	HW			
7	1900	2500	1	Ap	H	3	U	COAL					NOT RETAINED
7	1900	2500	1	Ap	H	2	A	GLASS	FLAT	WINDOW			
7	1900	2500	1	Ap	H	1	A	IRON	IND	NAIL			
7	1900	2600	1	Ap	H	1	A	IRON	IND	NAIL			
7	1909.772	2293.993			H	1	A	CERAMIC	BRICK	BRICK			
7	1950	1700	2	Ap	H	1	A	CERAMIC	BRICK	BRICK			NOT RETAINED
7	1950	2500	1	Ap	H	2	D	GLASS		BOTTLE		CLEAR	
7	1950	2500	1	Ap	H	1	U	IRON	IND	IND			
7	1950	2500	1	Ap	H	1	D	GLASS	COKE	BOTTLE		AQUA	COKE
7	1950	2500	1	Ap	H	1	A	IRON	IND	NAIL			
7	1950	2500	1	Ap	H	1	D	GLASS	COKE	BOTTLE		AQUA	COKE
7	1950	2500	1	Ap	H	1	A	IRON	IND	NAIL			
7	1950	2550	1	Ap	H	1	D	CERAMIC	WHITEWARE				
7	1950	2550	1	Ap	H	2	U	CERAMIC		CLAY PIGEON			
7	1950	2600	1	Ap	H	1	U	COAL					
7	1950	2600	1	Ap	H	2	A	IRON	IND	NAIL			
7	1950	2600	1	Ap	H	2	A	CERAMIC	BRICK	BRICK			
7	1963.903	2434.248			H	1	D	CERAMIC	PORCELAIN		PAINTED		
7	1964.526	2434.583			H	1	D	GLASS	MILK	CANNING LID		WHITE	
7	1965.702	2256.322			H	1	D	CERAMIC	RBEW				
7	1966.036	2015.837			H	1	D	CERAMIC	WHITEWARE				
7	1976.126	2222.003			H	1	D	GLASS	MILK			WHITE	
7	1980.167	2416.627			H	1	D	CERAMIC	PORCELAIN				
7	1982.669	2373.433			H	1	D	GLASS		BOTTLE		AQUA	
7	1983.434	2445.754			H	1	D	CERAMIC	STONEWARE				20TH CENTURY
7	1992.119	2420.351			H	1	D	CERAMIC	WHITEWARE				
7	1993.287	2438.06			H	1	D	CERAMIC	WHITEWARE				
7	1993.574	2414.643			H	1	A	GLASS	FLAT	WINDOW			
7	1994.03	2433.803			H	1	D	CERAMIC	WHITEWARE				
7	1996.39	2426.959			H	1	D	GLASS		BOTTLE		AQUA	
7	1997.607	2450.689			H	1	D	GLASS	MILK	canning lid		WHITE	
7	1999.479	2432.657			H	1	A	CERAMIC	BRICK	BRICK			
7	2000	2500	1	Ap	H	2	D	GLASS		BOTTLE		CLEAR	
7	2000	2500	1	Ap	H	1	D	GLASS		BOTTLE		AQUA	
7	2000	2500	1	Ap	H	6	A	IRON	IND	IND			
7	2000	2500	1	Ap	H	9	A	CERAMIC	BRICK	BRICK			1 PC. IS LARGE
7	2000	2550	1	Ap	H	1	D	CERAMIC	PORCELAIN	FW	OVERGLAZE PAIN		
7	2000	2550	1	Ap	H	3	A	GLASS	FLAT	WINDOW			
7	2000	2550	1	Ap	H	3	D	GLASS		JAR		CLEAR	

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
7	2000	2550	1	Ap	H	1	D	GLASS		JAR		CLEAR	
7	2000	2600	1	Ap	H	1	U	CERAMIC		CLAY PIGEON		BLACK	
7	2000	2600	1	Ap	H	1	D	CERAMIC	WHITEWARE	FW			
7	2000	2600	1	Ap	H	1	D	GLASS		HW		WHITE	
7	2000	2600	1	Ap	H	6	A	CERAMIC	BRICK	BRICK			
7	2000	2600	1	Ap	H	1	D	GLASS		BOTTLE		CLEAR	
7	2000	2600	1	Ap	H	1	D	GLASS		BOTTLE		AMBER	
7	2000	2600	1	Ap	H	5	A	IRON	IND	NAIL			
7	2000	2650	2	Ap	H	1	D	CERAMIC	WHITEWARE				
7	2000	2650	2	Ap	H	3	A	IRON	IND	NAIL			
7	2000	2650	2	Ap	H	1	U	CERAMIC		CLAY PIGEON			
7	2000	2650	2	Ap	H	1	A	CERAMIC	BRICK	BRICK			
7	2000	2700	2	Ap	H	1	D	CERAMIC	WHITEWARE		TRANSFER	COBALT	
7	2001.084	2439.605			H	1	A	CERAMIC	BRICK	BRICK			
7	2001.666	2399.966			H	1	D	GLASS		BOTTLE		AQUA	
7	2001.699	2440.788			H	1	D	GLASS		BOTTLE		AQUA	
7	2001.716	2440.037			H	1	D	CERAMIC	TERRA COTTA				
7	2002.17	2454.422			H	1	D	GLASS	MILK	canning lid		WHITE	
7	2006.242	2446.265			H	1	D	GLASS		BOTTLE		AQUA	
7	2007.985	2385.408			H	1	D	GLASS		BOTTLE		CLEAR	
7	2009.174	2438.685			H	1	A	GLASS	FLAT	WINDOW			
7	2009.637	2438.251			H	1	D	GLASS	MILK	CANNING LID		WHITE	
7	2011.01	2407.148			H	1	D	CERAMIC	STONEWARE				20TH CENTURY
7	2012.078	2449.289			H	1	D	GLASS	MILK			WHITE	
7	2012.564	2450.687			H	1	D	CERAMIC	WHITEWARE				
7	2012.692	2430.208			H	1	D	CERAMIC	PORCELAIN				ENGLISH
7	2013.416	2448.216			H	1	D	CERAMIC	WHITEWARE				
7	2014.002	2421.559			H	1	A	CERAMIC	BRICK	BRICK			
7	2014.955	2450.553			H	1	D	CERAMIC	WHITEWARE				
7	2018.353	2439.249			H	1	D	GLASS	MILK	canning lid		WHITE	
7	2018.852	2450.267			H	1	D	CERAMIC	WHITEWARE				
7	2019.277	2390.825			H	1	D	GLASS	MILK			WHITE	
7	2024.833	2439.78			H	1	D	GLASS		BOTTLE		GREEN	
7	2025.085	2435.392			H	1	D	CERAMIC	WHITEWARE				
7	2026.051	2429.505			H	1	D	GLASS		VESSEL		CLEAR	
7	2026.845	2440.938			H	1	P	CERAMIC	PORCELAIN	DOLL			
7	2026.935	2424.08			H	1	A	CERAMIC	BRICK	BRICK			
7	2030.304	2440.044			H	1	D	GLASS		VESSEL		COBALT	
7	2030.652	2395.337			H	1	D	CERAMIC	PORCELAIN				
7	2031.269	2430.11			H	1	D	GLASS		BOTTLE		AQUA	
7	2034.998	2365.044			H	1	A	CERAMIC	BRICK	BRICK			
7	2035.392	2408.743			H	1	D	GLASS		BOTTLE		AQUA	
7	2035.574	2325.022			H	1	D	GLASS		VESSEL		AMETHYST	
7	2037.164	2385.925			H	1	A	CERAMIC	BRICK	BRICK			
7	2037.534	2430.787			H	1	D	GLASS		BOTTLE		AQUA	
7	2038.151	2428.107			H	1	D	GLASS		BOTTLE		AQUA	
7	2039.413	2420.133			H	1	D	GLASS		BOTTLE		AMBER	
7	2039.642	2434.017			H	1	D	GLASS		BOTTLE		CLEAR	
7	2040.19	2434.36			H	1	D	GLASS		BOTTLE		AQUA	
7	2040.278	2429.204			H	1	P	CARBON		BATTERY ROD			
7	2041.494	2393.228			H	1	A	CERAMIC	BRICK	BRICK			

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
7	2041.761	2443.244			H	1	D	GLASS		BOTTLE		SOLARIZED	
7	2041.878	2399.098			H	1	D	GLASS		BOTTLE		AQUA	
7	2042.259	2404.874			H	1	D	GLASS		BOTTLE		AQUA	
7	2042.865	2355.227			H	1	D	GLASS	FLAT	WINDOW			
7	2043.357	2438.812			H	1	A	CERAMIC	BRICK	BRICK			
7	2046.145	2437.532			H	1	D	GLASS	FLAT	WINDOW			
7	2046.237	2449.913			H	1	D	CERAMIC	PORCELAIN				ENGLISH
7	2046.335	2409.738			H	1	D	GLASS		BOTTLE		CLEAR	
7	2046.391	2404.094			H	1	D	CERAMIC	WHITEWARE				
7	2048.641	2423.605			H	1	A	CERAMIC	BRICK	BRICK	GLAZED		
7	2048.83	2421.479			H	1	D	GLASS		BOTTLE		AQUA	
7	2049.114	2443.82			H	1	D	CERAMIC	WHITEWARE				
7	2049.198	2391.442			H	1	D	GLASS		BOTTLE		AQUA	
7	2049.736	2438.198			H	1	D	GLASS				AMBER	
7	2050	2500	1	Ap	H	2	D	GLASS		VESSEL		GREEN TINT	
7	2050	2500	1	Ap	H	2	A	IRON	IND	NAIL			
7	2050	2500	1	Ap	H	1	D	GLASS		BULB OR CHIMNEY		CLEAR	V. THIN
7	2050	2500	1	Ap	H	3	A	CERAMIC	BRICK	BRICK			
7	2050	2500	1	Ap	H	1	D	GLASS		BOTTLE	SCREW CAP	CLEAR	
7	2050	2500	1	Ap	H	16	D	GLASS		BOTTLE		CLEAR	
7	2050	2500	1	Ap	H	2	A	GLASS	FLAT	WINDOW			
7	2050	2500	1	Ap	H	5	D	GLASS		BOTTLE		BROWN	
7	2050	2550	1	Ap	H	3	D	GLASS		BOTTLE		CLEAR	
7	2050	2550	1	Ap	H	9	A	IRON	IND	NAIL			
7	2050	2550	1	Ap	H	3	D	GLASS		BOTTLE		CLEAR	
7	2050	2550	1	Ap	H	9	A	IRON	IND	NAIL			
7	2050	2550	1	Ap	H	1	U	LEAD ALLOY		IND			MELTED
7	2050	2550	1	Ap	H	1	D	GLASS		BOTTLE		CLEAR	
7	2050	2550	1	Ap	H	1	D	CERAMIC	STONEWARE	CROCKERY	INT/EXT GLAZE	DK. BROWN	
7	2050	2550	1	Ap	H	1	D	GLASS		LID LINER		WHITE	
7	2050	2550	1	Ap	H	4	A	CERAMIC	BRICK	BRICK			
7	2050	2550	1	Ap	H	1	D	GLASS	DECORATIVE	TABLEWARE	IMPRESSED	SOLARIZED	
7	2050	2550	1	Ap	H	4	A	GLASS	FLAT	WINDOW			
7	2050	2600	2	Ap	H	1	D	GLASS		BOTTLE		SOLARIZED	
7	2050	2600	2	Ap	H	1	D	GLASS		BOTTLE		BROWN	V. HEAVY
7	2050	2600	2	Ap	H	2	D	CERAMIC	WHITEWARE	FW			
7	2050	2600	2	Ap	H	1	D	GLASS		BOTTLE		LT. GREEN	
7	2050	2600	2	Ap	H	3	A	IRON	IND	NAIL			
7	2050	2600	2	Ap	H	3	A	CERAMIC	BRICK	BRICK			
7	2050	2600	2	Ap	H	1	A	GLASS	FLAT	WINDOW			
7	2050	2600	2	Ap	H	1	U	BRASS	SHEET	IND			
7	2050	2600	2	Ap	H	3	D	GLASS		BOTTLE		CLEAR	
7	2050	2650	1	Ap	H	1	D	GLASS		VESSEL		LT. GREEN	
7	2050	2650	1	Ap	H	3	A	IRON	IND	NAIL			
7	2050	2650	1	Ap	H	1	D	GLASS		LID LINER		WHITE	
7	2050	2650	1	Ap	H	1	U	SLAG					V. SHINY
7	2050	2650	1	Ap	H	1	A	CERAMIC	BRICK	BRICK			
7	2050.163	2396.808			H	1	D	GLASS		BOTTLE		BROWN	
7	2050.696	2418.92			H	1	D	CERAMIC	WHITEWARE				
7	2052.767	2432.499			H	1	D	CERAMIC	WHITEWARE				
7	2053.367	2441.291			H	1	A	CERAMIC	BRICK	BRICK			
7	2054.336	2400.311			H	1	D	GLASS		BOTTLE		CLEAR	
7	2054.518	2439.986			H	1	D	CERAMIC	IRONSTONE				

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
7	2054.857	2427.492			H	1	D	GLASS	MILK				
7	2055.089	2426.087			H	1	D	CERAMIC	PORCELAIN				
7	2055.13	2431.812			H	1	D	GLASS		BOTTLE		GREEN	
7	2055.86	2426.505			H	1	D	CERAMIC	PORCELAIN				
7	2056.353	2442.489			H	1	D	GLASS		BOTTLE		AQUA	
7	2056.507	2423.761			H	1	D	GLASS	MILK	VESSEL		WHITE	
7	2057.679	2382.375			H	1	D	CERAMIC	WHITEWARE				
7	2060.446	2412.894			H	1	D	GLASS		BOTTLE		CLEAR	
7	2061.751	2435.282			H	1	D	GLASS				COBALT	
7	2061.816	2439.162			H	1	D	CERAMIC	PORCELAIN				
7	2062.05	2422.859			H	1	D	CERAMIC	WHITEWARE				
7	2062.281	2438.871			H	1	A	CERAMIC	BRICK	BRICK			
7	2062.402	2409.362			H	1	D	CERAMIC	WHITEWARE				
7	2064.286	2418.968			H	1	D	GLASS				SOLARIZED	
7	2064.486	2402.831			H	1	D	CERAMIC	WHITEWARE				
7	2064.648	2429.659			H	1	D	GLASS	MILK	CANNING LID		WHITE	
7	2065.144	2440.812			H	1	D	GLASS	MILK	CANNING LID		WHITE	
7	2066.043	2420.8			H	1	D	GLASS				SOLARIZED	
7	2066.076	2440.639			H	1	A	GLASS	FLAT	WINDOW			
7	2066.324	2433.126			H	1	A	CERAMIC	BRICK	BRICK			
7	2066.466	2419.965			H	1	A	GLASS	FLAT	WINDOW			
7	2066.772	2432.515			H	1	D	GLASS				COBALT	
7	2066.896	2389.125			H	1	D	CERAMIC	PORCELAIN				
7	2068.254	2386.097			H	1	D	CERAMIC	WHITEWARE				
7	2068.478	2379.636			H	1	A	CERAMIC	BRICK	BRICK			
7	2069.545	2427.215			H	1	D	GLASS		JAR RIM		AQUA	
7	2070.079	2401.331			H	1	D	GLASS		TUMBLER		CLEAR	
7	2070.331	2400.4			H	1	A	GLASS	FLAT	WINDOW			
7	2070.783	2421.919			H	1	A	GLASS	FLAT	WINDOW			
7	2071.573	2429.995			H	1	D	GLASS	MILK	CANNING LID		WHITE	
7	2071.694	2429.226			H	1	A	GLASS	FLAT	WINDOW			
7	2073.488	2432.427			H	1	D	GLASS		BOTTLE		AQUA	
7	2073.86	2419.539			H	1	D	GLASS				SOLARIZED	
7	2074.265	2431.584			H	1	D	GLASS		BOTTLE		AQUA	
7	2074.785	2438.405			H	1	D	GLASS				SOLARIZED	
7	2075.009	2432.257			H	1	A	GLASS	FLAT	WINDOW			
7	2076.005	2446.257			H	1	D	GLASS				BURNED	
7	2076.445	2420.642			H	1	D	GLASS	MILK	CANNING LID		WHITE	
7	2076.47	2424.786			H	1	D	GLASS				SOLARIZED	
7	2076.803	2409.846			H	1	D	CERAMIC	WHITEWARE				
7	2077.854	2422.187			H	1	A	CERAMIC	BRICK	BRICK			
7	2079.596	2436.294			H	1	D	CERAMIC	WHITEWARE				
7	2081.253	2430.577			H	1	A	GLASS	FLAT	WINDOW			
7	2081.392	2434.646			H	1	A	CERAMIC	BRICK	BRICK			
7	2082.007	2385.915			H	1	A	CERAMIC	BRICK	BRICK			
7	2083.864	2434.467			H	1	D	CERAMIC	PORCELAIN				
7	2085.421	2414.227			H	1	A	CERAMIC	BRICK	BRICK			
7	2089.279	2378.658			H	1	A	CERAMIC	BRICK	BRICK			
7	2094.617	2433.691			H	1	D	GLASS		BOTTLE		AQUA	
7	2096.329	2403.966	1	Ap	H	4	D	GLASS	IND			CLEAR	STP 1
7	2096.329	2403.966	1	Ap	H	2	A	CERAMIC	BRICK				STP 1

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
7	2096.329	2403.966	1	Ap	H	7	A	IRON	IND	NAIL			STP 1
7	2096.329	2403.966	1	Ap	H	1	U	COAL					STP 1
7	2096.707	2433.891			H	1	D	GLASS		BOTTLE		AQUA	
7	2098.591	2426.846			H	1	D	GLASS	MILK	VESSEL		WHITE	
7	2100	2500	1	Ap	H	1	D	ALUMINUM		CAN			
7	2100	2500	1	Ap	H	1	A	GLASS	FLAT	WINDOW			
7	2100	2500	1	Ap	H	1	U	RUBBER		IND		RED	
7	2100	2500	1	Ap	H	1	D	GLASS		BOTTLE		LT. GREEN	
7	2100	2500	1	Ap	H	6	D	GLASS		BOTTLE		CLEAR	
7	2100	2500	1	Ap	H	1	D	GLASS		TUMBLER	ROULETTE	CLEAR	
7	2100	2500	1	Ap	H	3	D	GLASS		BOTTLE		BROWN	
7	2100	2500	1	Ap	H	1	U	PLASTIC		IND		GREEN	
7	2100	2550	1	FILL	H	3	U	IRON	SHEET	IND			
7	2100	2550	1	FILL	H	1	U	PLASTIC		SHEETING		BLACK	
7	2100	2550	1	FILL	H	1	U	BRASS		SPIGOT			
7	2100	2550	1	FILL	H	1	D	GLASS		HW		WHITE	
7	2100	2550	1	FILL	H	1	A	CERAMIC	BRICK	BRICK			
7	2100	2550	1	FILL	H	1	D	GLASS		BOTTLE		SOLARIZED	
7	2100	2550	1	FILL	H	1	D	GLASS		BOTTLE		CLEAR	
7	2100	2550	1	FILL	H	9	D	GLASS		BOTTLE		BROWN	
7	2100	2550	1	FILL	H	1	D	GLASS		BOTTLE		BROWN	
7	2100	2550	1	FILL	H	1	U	COAL					
7	2100	2550	1	FILL	H	1	A	GLASS	FLAT	WINDOW			
7	2100	2550	1	FILL	H	11	A	IRON	IND	NAIL			
7	2100	2550	1	FILL	H	32	D	GLASS		BOTTLE		CLEAR	
7	2100	2550	2-4	FILL	H	1	D	GLASS		BOTTLE		GREEN	
7	2100	2550	2-4	FILL	H	14	D	GLASS		VESSEL		CLEAR	
7	2100	2550	2-4	FILL	H	1	A	IRON	IND	NAIL			NOT WIRE
7	2100	2550	2-4	FILL	H	30	A	IRON	IND	NAIL			
7	2100	2550	2-4	FILL	H	2	D	GLASS		JAR		CLEAR	
7	2100	2550	2-4	FILL	H	1	D	GLASS		BOTTLE		AQUA	
7	2100	2550	2-4	FILL	H	3	A	GLASS	FLAT	WINDOW			
7	2100	2550	2-4	FILL	H	11	D	GLASS		BOTTLE		BROWN	
7	2100	2550	2-4	FILL	H	2	A	CERAMIC	BRICK	BRICK			
7	2100	2550	2-4	FILL	H	12	U	IRON	IND	IND			BADLY RUSTED
7	2100	2550	2-4	FILL	H	1	D	GLASS		JAR		CLEAR	
7	2100	2600	1	Ap	H	3	A	IRON	IND	NAIL			
7	2100	2600	1	Ap	H	1	U	PLASTIC		SHOTGUN WAD			
7	2100	2600	1	Ap	H	1	D	GLASS		BOTTLE		CLEAR	ANCHOR HOCKING MARK
7	2100	2600	1	Ap	H	2	U	CERAMIC		CLAY PIGEON		BLACK	REFIT
7	2100	2600	1	Ap	H	1	D	GLASS		BOTTLE		CLEAR	
7	2100	2600	1	Ap	H	1	U	PLASTIC		SHEETING		BLACK	
7	2100	2600	1	Ap	H	1	D	CERAMIC	WHITEWARE	FW			
7	2100	2650	1	FILL	H	1	L	CHERT	SECONDARY	FLAKE		TAN/GRAY	FOUND IN FILL LAYER
7	2100	2650	1	FILL	H	2	D	GLASS		BOTTLE		BROWN	
7	2100	2650	1	FILL	H	3	A	IRON	IND	NAIL			
7	2100	2750	2	Ap	H	1	D	CERAMIC	WHITEWARE	FW			
7	2100	2750	2	Ap	IND	1	F	SHELL	OYSTER				
7	2105.93	2430.251			H	1	D	GLASS		BOTTLE		AQUA	
7	2108.236	2430.024			H	1	A	GLASS	FLAT	WINDOW			
7	2108.413	2263.44			H	1	A	CERAMIC	BRICK	BRICK			

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
7	2115.131	2381.685			H	1	A	GLASS	FLAT	WINDOW			
7	2117.768	2413.969			H	1	D	CERAMIC	WHITEWARE				
7	2125.315	2380.134			H	1	D	CERAMIC	WHITEWARE				
7	2128.571	2397.66			H	1	D	GLASS		BOTTLE		CLEAR	
7	2136.568	2419.623			H	1	D	CERAMIC	WHITEWARE				
7	2139.164	2372.515			H	1	D	GLASS		BOTTLE		CLEAR	
7	2146.602	2367.38			H	1	D	GLASS				COBALT	
7	2150	2000	2	Ap	H	1	U	COAL					NOT RETAINED
7	2150	2500	1	Ao	H	1	D	GLASS		BOTTLE	TEXTURED	CLEAR	
7	2150	2500	1	Ao	H	1	U	PLASTIC		SHEETING		BLACK	
7	2150	2500	2	FILL/Ap	H	2	D	GLASS		BOTTLE		BROWN	
7	2150	2500	2	FILL/Ap	H	3	D	GLASS		BOTTLE		CLEAR	
7	2150	2550	1-2	FILL/Ap	H	6	U	IRON		CAN			BADLY RUSTED
7	2150	2550	1-2	FILL/Ap	H	1	U	IRON		FARM IMPLEMENT			BADLY RUSTED
7	2150	2550	1-2	FILL/Ap	H	4	D	GLASS		BOTTLE		CLEAR	
7	2150	2550	1-2	FILL/Ap	H	1	D	GLASS		TABLEWARE		ROSE TINT	SUGAR BOWL(?) W/ BRACKET HANDLE
7	2150	2550	1-2	FILL/Ap	H	4	D	PLASTIC		SCREW CAP		BLACK	"ANCHOR"
7	2150	2550	1-2	FILL/Ap	H	1	A	IRON	WIRE	NAIL			
7	2150	2550	1-2	FILL/Ap	H	1	D	GLASS		VESSEL		AQUA TINT	
7	2150	2550	1-2	FILL/Ap	H	5	D	GLASS	LIQUOR	BOTTLE	EMBOSSED	BROWN	CONTINENTAL DISTILLING CORP. PHILA
7	2150	2550	1-2	FILL/Ap	H	6	F	BONE					
7	2150	2550	1-2	FILL/Ap	H	5	D	BRASS		SCREW CAP			BRITTLE
7	2150	2550	1-2	FILL/Ap	H	1	D	CERAMIC	WHITEWARE				
7	2150	2550	1-2	FILL/Ap	H	1	U	IRON		CHAIN			LIGHT DUTY
7	2150	2550	1-2	FILL/Ap	H	1	A	IRON	ROOFING	NAIL			
7	2150	2550	1-2	FILL/Ap	H	1	D	GLASS		BOTTLE		CLEAR	
7	2150	2550	1-2	FILL/Ap	H	10	A	IRON	CUT	NAIL			
7	2150	2550	1-2	FILL/Ap	H	3	D	GLASS	FLAT	WINDOW			
7	2150	2550	1-2	FILL/Ap	H	1	U	COAL					
7	2153.899	2405.124			H	1	A	CERAMIC	BRICK	BRICK			
7	2157.46	2418.008			H	1	A	GLASS	FLAT	WINDOW			
7	2164.775	2350.87	1	Ap	H	1	D	GLASS		VESSEL		CLEAR	STP 2
7	2170.477	2422.793			H	1	A	CERAMIC	BRICK	BRICK			
7	2178.592	2361.943			H	1	D	GLASS		BOTTLE		AQUA	
7	2200	2500	1	Ap	H	5	D	CERAMIC	WHITEWARE	FW			
7	2200	2700	1	Ap	H	1	A	CERAMIC	BRICK	BRICK			NOT RETAINED
7	2209.596	2385.129			H	1	A	CERAMIC	BRICK	BRICK			
8	1152.428	1870.091			H	1	D	GLASS		BOTTLE		CLEAR	
8	1204.746	1819.904			H	1	D	CERAMIC	RBEW		BROWN GLAZE		
8	1213.597	2245.868			H	1	D	CERAMIC	RBEW		BROWN GLAZE		
8	1235.976	1870.113			H	1	A	CERAMIC	BRICK	BRICK			
8	1238.287	2246.616			H	1	A	CERAMIC	BRICK	BRICK			
8	1239.803	1882.63			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1248.798	1853.471			H	1	A	CERAMIC	BRICK	BRICK			
8	1266.003	1763.844			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1269.91	1868.653			H	1	A	GLASS	FLAT	WINDOW			
8	1274.435	2074.712			H	1	A	CERAMIC	BRICK	BRICK			
8	1289.288	1870.897			H	1	D	GLASS		BOTTLE		CLEAR	
8	1290.375	1870.336			H	1	D	CERAMIC	RBEW				
8	1293.49	2048.701			H	1	A	CERAMIC	BRICK	BRICK			
8	1299.562	2067.017			H	1	A	CERAMIC	BRICK	BRICK			

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
8	1310.837	1875.779			H	1	A	CERAMIC	BRICK	BRICK			
8	1319.43	2192.883			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1322.044	1951.656			H	1	A	CERAMIC	BRICK	BRICK			
8	1332.855	1982.88			H	1	A	CERAMIC	BRICK	BRICK			
8	1336.199	2286.1			H	1	D	CERAMIC	RBEW				
8	1339.307	1910.049			H	1	A	CERAMIC	BRICK	BRICK			
8	1348.005	1877.03			H	1	D	CERAMIC	RBEW		CLEAR GLAZE		
8	1348.558	1874.488			H	1	D	CERAMIC	SCRATCH BLUE				
8	1348.706	1885.417			H	1	A	CERAMIC	BRICK	BRICK			
8	1349.287	1877.807			H	1	D	CERAMIC	RBEW		BROWN GLAZE		
8	1351.329	1784.908			H	1	A	CERAMIC	BRICK	BRICK	GLAZED		
8	1356.709	1946.092			H	1	A	CERAMIC	BRICK	BRICK			
8	1361.174	1920.04			H	1	L	celt					
8	1362.18	1798.224			H	1	A	CERAMIC	BRICK	BRICK			
8	1364.623	1852.095			H	1	A	CERAMIC	BRICK	BRICK			
8	1364.727	1852.084			H	1	A	CERAMIC	BRICK	BRICK			
8	1364.965	1843.741			H	1	A	CERAMIC	BRICK	BRICK			
8	1365.04	1888.096			H	1	D	CERAMIC	PEARLWARE				
8	1365.993	1892.867			H	1	A	CERAMIC	BRICK	BRICK			
8	1369.081	1854.176			H	1	D	GLASS		BOTTLE		OLIVE	
8	1369.251	2000.431			H	1	A	CERAMIC	BRICK	BRICK			
8	1369.652	1853.885			H	1	A	CERAMIC	BRICK	BRICK			
8	1370.219	2049.738			H	1	U	IRON					
8	1371.352	1872.767			H	1	D	CERAMIC	RBEW				
8	1372.117	1867.836			H	1	A	CERAMIC	BRICK	BRICK			
8	1372.697	1878.41			H	1	A	CERAMIC	BRICK	BRICK			
8	1373.518	1863.255			H	1	A	CERAMIC	BRICK	BRICK			
8	1374.598	1903.934			H	1	D	CERAMIC	RBEW				
8	1375.874	1886.317			H	1	A	CERAMIC	BRICK	BRICK			
8	1379.222	1887.36			H	1	A	CERAMIC	BRICK	BRICK			
8	1379.345	1852.276			H	1	A	CERAMIC	BRICK	BRICK			
8	1380.169	1859.287			H	1	A	CERAMIC	BRICK	BRICK			
8	1380.506	1769.904			H	1	D	CERAMIC	PORCELAIN				
8	1380.511	1856.445			H	1	A	CERAMIC	BRICK	BRICK			
8	1380.903	1892.658			H	1	A	GLASS	FLAT	WINDOW			
8	1381.091	1769.308			H	1	A	CERAMIC	BRICK	BRICK			
8	1381.407	1955.515			H	1	P	CERAMIC		PIPE STEM		WHITE	
8	1382.371	1868.57			H	1	A	CERAMIC	BRICK	BRICK			
8	1382.746	1896.029			H	1	D	GLASS		BOTTLE		OLIVE	
8	1385.205	1785.708			H	1	A	CERAMIC	BRICK	BRICK			
8	1385.521	1857.152			H	1	A	CERAMIC	BRICK	BRICK			
8	1386.346	1855.017			H	1	A	CERAMIC	BRICK	BRICK			
8	1387.004	1871.336			H	1	A	GLASS	FLAT	WINDOW			
8	1389.77	1859.411			H	1	A	CERAMIC	BRICK	BRICK			
8	1391.372	1857.135			H	1	A	CERAMIC	BRICK	BRICK			
8	1391.451	1881.903			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1392.985	1865.337			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1392.985	1861.412	1	Ap	H	3	A	CERAMIC	BRICK				STP 10
8	1392.985	1861.412	1	Ap	H	1	D	CERAMIC	CREAMWARE			PAINTED	STP 10
8	1393.693	1727.259			H	1	A	CERAMIC	BRICK	BRICK			
8	1393.928	1881.732			H	1	A	CERAMIC	BRICK	BRICK			

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
8	1394.412	1854.908			H	1	A	CERAMIC	BRICK	BRICK			
8	1395.12	1858.812			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1396.094	1859.255			H	1	A	CERAMIC	BRICK	BRICK			
8	1396.237	1854.649			H	1	A	CERAMIC	BRICK	BRICK			
8	1396.261	1902.924			H	1	A	CERAMIC	BRICK	BRICK			
8	1396.603	1883.913			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1396.894	1880.341			H	1	D	CERAMIC	RBEW		CLEAR GLAZE		
8	1397.039	1862.832			H	1	D	CERAMIC	RBEW				
8	1399.196	1948.916			H	1	A	CERAMIC	BRICK	BRICK			
8	1401.67	1892.76			H	1	A	CERAMIC	BRICK	BRICK			
8	1405.915	1851.267			H	1	D	GLASS		BOTTLE		CLEAR	
8	1406.555	1927.601			H	1	A	GLASS	FLAT	WINDOW			
8	1407.012	1855.419			H	1	A	CERAMIC	BRICK	BRICK			
8	1409.187	1828.747			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1410.04	1847.296			H	1	A	CERAMIC	BRICK	BRICK			
8	1410.739	1902.361			H	1	D	CERAMIC	RBEW		CLEAR GLAZE		
8	1411.449	1821.534			H	1	D	GLASS		BOTTLE		OLIVE	
8	1414.65	1907.458			H	1	A	CERAMIC	BRICK	BRICK			
8	1419.358	1826.194			H	1	D	GLASS		BOTTLE		OLIVE	
8	1421.418	1882.998			H	1	A	CERAMIC	BRICK	BRICK			
8	1422.755	1877.295			H	1	A	GLASS	FLAT	WINDOW			
8	1423.467	1894.184			H	1	A	CERAMIC	BRICK	BRICK			
8	1423.983	1899.853			H	1	A	CERAMIC	BRICK	BRICK			
8	1432.378	1860.983			H	1	A	CERAMIC	BRICK	BRICK			
8	1434.434	1889.118			H	1	D	CERAMIC	RBEW		CLEAR GLAZE		
8	1437.269	1922.248			H	1	D	CERAMIC	RBEW		CLEAR GLAZE		
8	1437.413	1917.361			H	1	A	CERAMIC	BRICK	BRICK	GLAZED		
8	1442.38	1898.35			H	1	A	CERAMIC	BRICK	BRICK	GLAZED		
8	1442.52	1899.195			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1443.054	1876.926			H	1	D	CERAMIC	RBEW		SLIPPED		
8	1443.614	1876.541			H	1	D	GLASS		BOTTLE		OLIVE	
8	1445.686	1782.917			H	1	D	CERAMIC	RBEW		CLEAR GLAZE		
8	1446.869	1879.075	1	Ap	F	1	F	SHELL	CLAM				STP 7
8	1446.869	1879.075	1	Ap	H	2	D	GLASS		BOTTLE		AQUA	STP 7
8	1446.869	1879.075	1	Ap	H	1	A	CERAMIC		BRICK			STP 7
8	1446.869	1879.075	1	Ap	H	2	D	CERAMIC	CREAMWARE				STP 7
8	1446.869	1879.075	1	Ap	H	1	D	CERAMIC	RBEW				STP 7
8	1448.816	1863.347			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1449.393	1879.204			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1450.198	1967.127			H	1	A	CERAMIC	BRICK	BRICK			
8	1460.73	1819.598			H	1	D	GLASS		BOTTLE		BROWN	
8	1461.819	1900.949			H	1	A	CERAMIC	BRICK	BRICK			
8	1465.282	1844.108			H	1	A	CERAMIC	BRICK	BRICK			
8	1465.902	1844.439			H	1	D	CERAMIC	RBEW		SLIPPED		
8	1466.321	1881.556			H	1	A	CERAMIC	BRICK	BRICK			
8	1473.454	1854.256			H	1	A	CERAMIC	BRICK	BRICK			
8	1476.296	1952.257			H	1	D	CERAMIC	RBEW		BROWN GLAZE		
8	1479.64	1978.328			H	1	A	CERAMIC	BRICK	BRICK			
8	1481.867	1764.526			H	1	A	CERAMIC	BRICK	BRICK			
8	1482.569	1857.999			H	1	A	CERAMIC	BRICK	BRICK			
8	1484.565	1827.162			H	1	A	CERAMIC	BRICK	BRICK			

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
8	1491.954	1786.298			H	1	D	CERAMIC	RBEW		CLEAR GLAZE		
8	1494.215	1870.413			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1496.928	1818.554			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1497.349	1852.137			H	1	A	CERAMIC	BRICK	BRICK			
8	1497.735	1786.711			H	1	A	CERAMIC	BRICK	BRICK			
8	1497.977	1803.738			H	1	A	CERAMIC	BRICK	BRICK			
8	1498.022	1795.43			H	1	A	CERAMIC	BRICK	BRICK			
8	1498.929	1802.129			H	1	A	CERAMIC	BRICK	BRICK			
8	1499.682	1807.327			H	1	D	CERAMIC	RBEW				
8	1502.809	1836.907			H	1	A	CERAMIC	BRICK	BRICK			
8	1503.484	1812.028			H	1	A	CERAMIC	BRICK	BRICK			
8	1504.365	1864.55			H	1	A	CERAMIC	BRICK	BRICK			
8	1505.936	2036.312			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1506.213	1763.916			H	1	A	CERAMIC	BRICK	BRICK			
8	1506.434	1915.53			H	1	A	CERAMIC	BRICK	BRICK			
8	1506.676	1784.542			H	1	A	CERAMIC	BRICK	BRICK			
8	1507.08	1996.824			H	1	A	CERAMIC	BRICK	BRICK			
8	1513.899	1912.04			H	1	D	CERAMIC	PORCELAIN				
8	1518.416	1972.357			H	1	A	CERAMIC	BRICK	BRICK			
8	1523.701	1903.957			H	1	D	GLASS		BOTTLE		OLIVE	
8	1559.826	1982.108			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
8	1560.387	1982.027			H	1	D	CERAMIC	PEARLWARE				
8	1562.281	2324.337			H	1	A	CERAMIC	BRICK	BRICK			
	794.036	2005.224			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
	795.633	2001.248			H	1	D	CERAMIC	PEARLWARE				
	796.964	2120.491			H	1	D	CERAMIC	RBEW				
	806.99	2102.937			H	1	A	CERAMIC	BRICK	BRICK			
	852.207	1895.552			H	1	D	CERAMIC	STONEWARE				
	866.98	2003.037			H	1	A	CERAMIC	BRICK	BRICK			
	869.637	1807.542			H	1	D	GLASS		BOTTLE		CLEAR	
	870.815	1895.055			H	1	D	CERAMIC	RBEW				
	879.679	2030.066			H	1	A	CERAMIC	BRICK	BRICK			
	879.703	2120.85			H	1	A	CERAMIC	BRICK	BRICK			
	886.048	2101.081			H	1	D	CERAMIC	PEARLWARE				
	888.694	1908.376			H	1	A	CERAMIC	BRICK	BRICK			
	900	650	2	Ap	H	1	D	GLASS	COKE	BOTTLE		AQUA	NOT RETAINED
	900	750	2	Ap	H	1	D	GLASS		BOTTLE		CLEAR	NOT RETAINED; MODERN
	900	750	2	Ap	H	1	D	GLASS		BOTTLE		BROWN	NOT RETAINED; MODERN
	900	950	2	Ap	H	1	U	COAL					NOT RETAINED
	900	1200	2	Ap	H	1	U	COAL					NOT RETAINED
	900.829	2067.62			H	1	D	CERAMIC	PEARLWARE				
	904.677	1954.65			H	1	A	CERAMIC	BRICK	BRICK			
	906.366	1954.746			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
	932.895	1901.355			H	1	A	CERAMIC	BRICK	BRICK			
	933.634	2006.616			H	1	A	CARBON	BRICK	BRICK			
	950	850	2	Ap	H	1	U	COAL					NOT RETAINED
	951.198	1906.39			H	1	A	CERAMIC	BRICK	BRICK			
	978.989	1943.896			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
	997.917	2037.182			H	1	D	GLASS		BOTTLE		GREEN	
	1094.83	2089.878			H	1	A	CERAMIC	BRICK	BRICK			
	1106.126	1926.427			H	1	A	CERAMIC	BRICK	BRICK			

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
	1133.384	2195.279			H	1	A	CERAMIC	BRICK	BRICK			
	1150	750	2	Ap	H	2	U	PLASTIC	SEMI-RIGID				NOT RETAINED
	1150	800	1	Ap	H	1	U	PLASTIC	FLEXIBLE				NOT RETAINED
	1150	1050	1	Ap	H	1	U	COAL					NOT RETAINED
	1150	1100	1	Ap	H	1	U	COAL					NOT RETAINED
	1193.64	1882.329			H	1	A	CERAMIC	BRICK	BRICK			
	1200	1050	2	Ap	H	1	D	GLASS	PANEL	BOTTLE		CLEAR	MOLDED LETTERING
	1300	800	1	Ao	H	8	A	IRON	CUT	NAIL			
	1300	1100	1-2	Ao/Ap	H	3	U	COAL					NOT RETAINED
	1375	1000	2	Ap	H	1	A	CERAMIC	BRICK	BRICK			
	1400	1200	2	Ap	H	1	D	GLASS		VESSEL		CLEAR	
	1500	850	2	Ap	H	3	U	COAL					NOT RETAINED
	1500	900	1	Ao	H	1	U	COAL					NOT RETAINED
	1534.304	2319.574			H	1	A	CERAMIC	BRICK	BRICK			
	1550	850	2	Ap	H	1	D	GLASS		VESSEL		CLEAR	
	1550	1000	2	Ap	H	1	D	GLASS		BOTTLE		CLEAR	NOT RETAINED; MODERN
	1550	2500	1	Ap	H	1	D	CERAMIC	WHITEWARE	FW			
	1550	2550	2	Ap	H	1	A	IRON	CUT	NAIL			
	1550	2650	2	Ap	H	1	A	CERAMIC	BRICK	BRICK			
	1563.912	1779.837			H	1	D	CERAMIC	IRONSTONE				
	1575	2600	2	Ap	H	1	D	GLASS		BOTTLE		CLEAR	NOT RETAINED; MODERN
	1576.04	1756.974			H	1	D	CERAMIC	PORCELAIN				
	1590.324	1748.405			H	1	D	CERAMIC	PORCELAIN				
	1599.561	1431.311			H	1	D	CERAMIC	PORCELAIN				
	1600	1100	2	Ap	H	1	D	CERAMIC	WHITEWARE	IND			
	1600	1100	2	Ap	H	1	D	GLASS		BOTTLE		CLEAR	
	1600	1200	2	Ap	H	1	D	CERAMIC	WHITE GRANITE	IND			
	1600	1250	2	Ap	H	1	D	GLASS		VESSEL		CLEAR	
	1600	1250	2	Ap	H	1	U	COAL					
	1600	1250	2	Ap	H	1	D	CERAMIC	WHITEWARE	IND			
	1600	2600	1	Ap	H	1	D	ALUMINUM		BEV. CAN			NOT RETAINED
	1600	2650	1	Ap	H	1	U	BRASS		SHOTGUN SHELL			"WRA 410"
	1600.36	1880.623			H	1	A	CERAMIC	BRICK	BRICK			
	1611.649	1943.688			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
	1625	2650	2	Ap	H	2	U	COAL					NOT RETAINED
	1628.931	1907.468			H	1	A	CERAMIC	BRICK	BRICK			
	1635.303	2343.858			H	1	U	IRON					
	1637.233	1985.541			H	1	D	GLASS		BOTTLE		GREEN	
	1650	2550	1	Ap	H	1	U	COAL					
	1664.414	2071.942			H	1	U	coal					
	1675	2675	2	Ap	H	3	U	COAL					NOT RETAINED
	1675	2800	1	Ap	H	1	U	PLASTIC/BRASS		SHOTGUN SHELL			NOT RETAINED
	1682.046	1924.668			H	1	D	GLASS		BOTTLE		CLEAR	
	1687.314	1765.25			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
	1700	1275	1-2	Ao/Ap	H	1	D	CERAMIC	PORCELAIN	STUD/BUTTON			
	1700	1275	1-2	Ao/Ap	H	1	A	GLASS	FLAT	WINDOW ?			
	1700	1275	1-2	Ao/Ap	H	3	A	IRON	IND	NAIL			
	1700	1275	1-2	Ao/Ap	H	1	A	CERAMIC	BRICK	BRICK			
	1700	1300	2	Ap	H	1	A	IRON	WROUGHT ?	NAIL			
	1700	2650	1	Ap	H	3	U	COAL					NOT RETAINED
	1700	2750	1	Ap	H	3	D	GLASS		BOTTLE		CLEAR	

APPENDIX III: KNAPP ARTIFACT INVENTORY
MOST NON-STP ARTIFACTS WERE NOT COLLECTED

SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
	1700	2750	1	Ap	H	1	U	PLASTIC		SHEETING		BLACK	
	1700	2750	1	Ap	H	1	D	CERAMIC	WHITEWARE				
	1700	2850	1	Ap	H	1	U	PLASTIC		SHEETING		BLACK	NOT RETAINED
	1703.037	1846.41			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
	1723.044	1840.843			H	1	D	GLASS		BOTTLE		CLEAR	
	1725	2800	2	Ap	H	1	U	COAL					NOT RETAINED
	1736.734	1932.884			H	1	D	GLASS		BOTTLE		BROWN	
	1740.178	1718.526			H	1	D	GLASS		BOTTLE		AQUA	
	1743.763	1957.898			H	1	A	CERAMIC	BRICK	BRICK			
	1749.526	1887.594			H	1	D	GLASS		BOTTLE		AQUA	
	1750	1300	2	Ap	H	1	A	IRON	SQUARE	NAIL			
	1750	2500	1	Ap	H	1	A	IRON	IND	NAIL			
	1750	2600	1	Ap	H	2	U	COAL					NOT RETAINED
	1750	2650	1	Ap	H	1	A	GLASS	FLAT	WINDOW			
	1750	2825	2	Ap	H	1	U	PLASTIC		BAG			NOT RETAINED
	1761.864	1903.679			H	1	A	CERAMIC	BRICK	BRICK			
	1763.547	1693.805			H	1	D	GLASS		BOTTLE		AQUA	
	1765.409	1820.507			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
	1800	1250	2	A	H	1	A	IRON	WROUGHT ?	NAIL			
	1800	1275	1	Ao	H	1	U	IRON		RIVET ?			
	1800	2500	1	Ap	H	1	U	GLASS		LIGHT BULB			V. THIN
	1800	2625	2	Ap	H	1	U	COAL	ASH				NOT RETAINED
	1811.532	1752.112			H	1	A	CERAMIC	BRICK	BRICK			
	1818.399	1857.957			H	1	D	GLASS		BOTTLE		OLIVE	
	1820.32	2275.495			H	1	A	CERAMIC	BRICK	BRICK			
	1825	2625	2	Ap	H	1	U	COAL					NOT RETAINED
	1820.32	2275.495			H	1	A	CERAMIC	BRICK	BRICK			
	1825	2625	2	Ap	H	1	U	COAL					NOT RETAINED
	1850	2500	1	Ap	H	6	U	SLAG	IND				
	1850	2500	1	Ap	H	1	A	GLASS	FLAT	WINDOW			
	1850	2600	1	Ap	H	3	A	IRON	IND	NAIL			
	1850	2600	1	Ap	H	1	U	PLASTIC		SHEETING		BLACK	
	1850	2600	1	Ap	H	1	U	COAL					
	1850	2650	2	Ap	H	1	D	ALUMINUM		SCREW CAP	"SPRITE"		NOT RETAINED
	1850	2750	2	Ap	H	2	D	GLASS	BEER	BOTTLE			NOT RETAINED
	2050	1950	2	Ap	H	1	A	IRON	SQUARE	NAIL			
	2050	1950	2	Ap	H	5	A	IRON	IND	NAIL			NOT WIRE
	2050	2000	2	Ap	H	1	D	GLASS		VESSEL		SOLARIZED	
	2075	2000	2	Ap	H	1	D	IRON	SHEET	IND			NOT RETAINED
	2075	2000	2	Ap	H	1	D	GLASS		BOTTLE		CLEAR	NOT RETAINED; MODERN
	2212.707	2436.974			H	1	D	CERAMIC	PEARLWARE				
	2250	2500	1	Ap	H	4	A	IRON	IND	NAIL			
	2271.172	2407.406			H	1	D	CERAMIC	WHITEWARE				
	2275	1850	2	Ap	P	1	L	SANDSTONE		FCR			
	2275	1850	2	Ap	P	1	L	CHERT	PRIMARY	FLAKE		TAN	
	2281.704	2369.79			H	1	D	CERAMIC	BISQUE				
	2300	2450	1	Ao	H	1	U	PLASTIC		BAG			NOT RETAINED
	2300	2450	2	Ap	H	1	A	CERAMIC	BRICK	BRICK			NOT RETAINED
	2300	2700	1	Ap	H	1	D	CERAMIC	RBEW		INT/EXT GLAZE	BLACK	
	2300	2750	2	Ap	H	1	U	SLAG					
	2303.664	2299.765			H	1	A	CERAMIC	BRICK	BRICK			
	2350	1825	2-3	Ap	IND	1	L	HEMATITE					RED OCHRE ?
	2350	1950	2	Ap	H	1	D	GLASS		BOTTLE		CLEAR	NOT RETAINED; MODERN

APPENDIX III: KNAPP ARTIFACT INVENTORY
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SITE	NORTH	EAST	LEVEL	HORIZON	P/H	COUNT	CLASS	MATERIAL	TYPE	FUNCTION	DECORATION	COLOR	NOTES
	2355.863	2121.05			H	1	D	GLASS		BOTTLE		AQUA	
	2362.526	2283.93			H	1	D	GLASS				SOLARIZED	
	2362.704	2190.083			P	1	L	SANDSTONE					
	2370.814	2281.011			H	1	A	CERAMIC	BRICK	BRICK			
	2371.354	2280.364			H	1	D	CERAMIC	WHITEWARE				
	2379.544	2272.818			H	1	D	GLASS		VESSEL		COBALT	
	2393.177	2278.33			H	1	D	GLASS		BOTTLE		AQUA	
	2394.132	2233.303			H	1	D	CERAMIC	PORCELAIN				JAPANESE
	2398.768	2258.856			H	1	D	GLASS		BOTTLE		AQUA	
	2400	1850	2	Ap	H	1	D	CERAMIC	WHITEWARE	FW			
	2400	1900	2-3	Ap	H	1	U	COAL					
	2400	2000	2	Ap	H	1	D	GLASS	FLAT	BOTTLE		CLEAR	NOT RETAINED
	2400	2000	2	Ap	H	1	U	COAL					
	2400	2400	2	Ap	H	1	U	CARBON	ROD	BATTERY			NOT RETAINED
	2400	2675	2	Ap	H	2	U	COAL					NOT RETAINED
	2413.441	2214.548			H	1	D	GLASS		BOTTLE		AQUA	
	2445.848	2153.976			H	1	D	GLASS		BOTTLE		AQUA	
	2447.888	2137.477			H	1	D	GLASS		BOTTLE		AQUA	
	2450	2400	2	Ap	H	1	D	GLASS		IND		CLEAR	NOT RETAINED; MODERN
	2452.195	2203.909			H	1	D	GLASS		BOTTLE		AQUA	
	2454.414	2204.621			H	1	D	GLASS		BOTTLE		AQUA	
	2468.383	2295.555			H	1	D	CERAMIC	RBEW		SLIPPED		
	2472.549	2248.228			H	1	D	CERAMIC	STONEWARE				20TH CENTURY
	2500.902	2200.949			H	1	D	CERAMIC	PORCELAIN				JAPANESE
	2502.846	2265.665			H	1	D	CERAMIC	RBEW		BLACK GLAZE		
	2510.127	2214.096	1	Ap	H	2	A	GLASS		WINDOW		CLEAR	STP 4
	2519.221	2247.096			H	1	A	CERAMIC	BRICK	BRICK			
	2524.462	2233.254			H	1	D	GLASS		BOTTLE		AQUA	
	2524.464	2233.254			P	1	L	CHERT	PRIMARY	FLAKE			
	2526.338	2250.679			H	1	A	GLASS	FLAT	WINDOW			
	2526.712	2215.664			H	1	D	GLASS		BOTTLE		AQUA	
	2531.405	2245.828			H	1	D	GLASS	MILK				
	2532.101	2255.991	1	Ap	H	1	D	CERAMIC	RBEW				STP 6
	2532.101	2255.991	1	Ap	H	1	I	PLASTIC		TUBING			STP 6
	2532.101	2255.991	1	Ap	H	1	P	PLASTIC		SHOTGUN SHELL			STP 6
	2532.101	2255.991	1	Ap	H	1	A	CERAMIC		BRICK			STP 6
	2532.101	2255.991	1	Ap	H	2	U	COAL					STP 6
	2532.101	2255.991	1	Ap	H	2	F	SHELL	CLAM				STP 6
	2532.101	2255.991	2	Ap	H	1	P	CERAMIC		CLAY PIGEON			STP 6

APPENDIX IV: Qualifications of Principal Investigator
Edward Otter, Ph.D. President and Principal of Edward Otter, Inc.

Education

2002	Ph.D., Anthropology/Archaeology Catholic University of America, Washington D.C.
1989	Master of Arts in Anthropology/Archaeology Catholic University of America, Washington D.C.
1980	Bachelor of Arts in Anthropology University of Delaware, Newark, Delaware

Capabilities

Over 40 years experience in archaeology in the Middle Atlantic United States. Work during this period has involved prehistoric and historic sites at all levels of expertise from Field Crewmember to Principal Investigator. Responsibilities have included project design and implementation, field and laboratory supervision, artifact analysis, archival research, report writing, site interpretation to the public, field and classroom instruction, and faunal analysis.

Select Recent Projects

2021	Phase I Archaeological Survey Wolfe Runne Sewer Expansion, Lewes, Delaware
2020	Phase I Archaeological Survey, Egret Shores, Substation Road, Millville, Delaware.
2020	Archaeological Assessment Old Mill Landing, Sussex County, Delaware.
2019	Phase I Survey, Goldsboro Gravel, Ingleside, Maryland.
2019	Phase I Survey, West Sussex Sewer Expansion, Seaford, Delaware
2019	Phase I Survey, Laurel Transite Water line replacement, Laurel, Delaware.
2019	Cemetery Delineation, Private Hall Cemetery (USCT) Ocean View, Delaware
2018	Phase I Survey, Weatherstone Sewer Project, Kent County, Delaware
2018	Phase I Survey, Eastville Health, Eastville, Northampton County, Va.
2017	Phase I Survey Jones Farm, Millington, Maryland
2016 - 2017	Phase I and Phase II Archaeological Survey. Plain Dealing, Denton, Caroline County, Maryland
2016	Phase I and Phase II Archaeological Survey. Estuary, Sussex County, Delaware.
2015	Phase II Study. Prehistoric Site MBS-9, Millville, Sussex County, Delaware.
2014/2015	Historic Cemetery Removal. Lewes, Sussex County, Delaware.
2003 – 2021	Phase IA, Phase I, Phase II and Monitoring. Over 1000 cell tower locations in New Jersey, New York, Maryland, Delaware, Pennsylvania and Virginia.

SUSSEX COUNTY ENGINEERING DEPARTMENT
UTILITY PLANNING & DESIGN REVIEW DIVISION
C/U & C/Z COMMENTS

TO: **Jamie Whitehouse**

REVIEWER: **Chris Calio**

DATE: **7/29/2022**

APPLICATION: **2021-31 Glenwood**

APPLICANT: **Glenwood Lewes, LLC**

FILE NO: **OM-9.04**

TAX MAP & PARCEL(S): **335-7.00-6.00**

LOCATION: **Lying on the northwest side of New Road (SCR 266), approximately 0.51 mile northeast of Nassau Road (SCR 266B)**

NO. OF UNITS: **131 lot Cluster Subdivision**

GROSS ACREAGE: **77.24**

SYSTEM DESIGN ASSUMPTION, MAXIMUM NO. OF UNITS/ACRE: **2**

SEWER:

(1). Is the project in a County operated and maintained sanitary sewer and/or water district?

Yes ☐ No ☒

a. If yes, see question (2).
b. If no, see question (7).

(2). Which County Tier Area is project in? **Tier 2**

(3). Is wastewater capacity available for the project? **Yes** If not, what capacity is available? **N/A**.

(4). Is a Construction Agreement required? **Yes** If yes, contact Utility Engineering at (302) 855-7717.

(5). Are there any System Connection Charge (SCC) credits for the project? **No** If yes, how many? **N/A**. Is it likely that additional SCCs will be required? **Yes** If yes, the current System Connection Charge Rate is **Unified $6,600.00** per EDU. Please contact **Christine Fletcher** at **302-855-7719** for additional information on charges.

(6). Is the project capable of being annexed into a Sussex County sanitary sewer district? **Yes**

☒ Attached is a copy of the Policy for Extending District Boundaries in a Sussex County Water and/or Sanitary Sewer District.

(7). Is project adjacent to the Unified Sewer District? **Yes**

(8). Comments: **Click or tap here to enter text.**

(9). Is a Sewer System Concept Evaluation required? **Yes, Contact Utility Planning at 302-855-7370 to apply**

(10). Is a Use of Existing Infrastructure Agreement Required? **Yes**

(11). **All residential roads must meet or exceed Sussex County minimum design standards.**

UTILITY PLANNING & DESIGN REVIEW APPROVAL:

John J. Ashman
Sr. Manager of Utility Planning & Design Review

Xc: Hans M. Medlarz, P.E.
Lisa Walls
Christine Fletcher

Policy for Extending District Boundaries

1. Property owner (developer) and/or his representative shall make a request to the Utility Planning Division for a Sewer System Concept Evaluation.

2. Property owner (developer) and/or his representative shall meet with the applicable planning and zoning agency to determine if zoning is appropriate for the development being planned.

3. With appropriate zoning, property owner (developer) and/or his representative shall send a letter (with appropriate application fee as listed below) requesting the Sussex County Council to consider extending the water and/or sanitary sewer district boundaries. (Sussex County Code)

Application Fees	
Less than 2 acres	**$500.00**
2.1 -9.99 acres	**$750.00**
10 - 150.00 acres	**$1,500.00**
Greater than 150.00 acres	**$2,500.00**

4. The Sussex County Engineering Department shall present, for Sussex County Council's consideration, posting of notices for the proposed extension of the district boundaries.

5. The Sussex County Council approves posting notices for the proposed extension of the boundaries. (If approval to post the notices is not given, the appropriate fee is refunded.)

6. Within ninety days of the posting of the notices, the Sussex County Council approves/disapproves extending the boundaries.

7. The Sussex County Council approves/disapproves of the extension of the water and/or sanitary sewer pipelines under the appropriate Sussex County Ordinance.

STATE OF DELAWARE
DEPARTM ENT OF NATURAL RESOURCES AND ENVIRONM ENTAL CONTRO L
DIVISION OF WATERSHED STEWARDSHIP
21309 BERLIN RD
UNIT #6
GEORGETOWN, DE 19947

DRAINAGE PROGRAM

PHONE: (302) 855-1930
FAX: (302) 670-7059

November 18, 2021

Lauren DeVore
Sussex County
Planning and Zoning Office
2 The Circle
Georgetown, DE 19947

RE: Parcel # 335-7.00-6.00; Glenwood

The Delaware Department of Natural Resources and Environmental Control (DNREC), Drainage Program has reviewed the preliminary plans submitted by Davis, Bowen & Friedel for the above noted property.

The Drainage Program has performed a preliminary review and offers the following guidance:

- The proposed project is not within a Tax Ditch nor a Tax Ditch Watershed.
- All existing ditches on the property should be evaluated for function and cleaned, if needed, prior to the construction of the project.
- All precautions should be taken to ensure the project does not hinder any off-site drainage upstream of the project or create any off-site drainage problems downstream by the release of on-site storm water.
- Any area designated as a drainage/utility easement should be open space and not owned by the individual landowners.
- Any drainage/utility easement owned by an individual landowner should not possess structures such as decks, buildings, sheds, kennels, or fences within the drainage easement to allow for future drainage maintenance. Trees and shrubs planted within a drainage/utility easement should be spaced to allow for drainage maintenance at maturity.

If you have any questions or concerns, please contact the Drainage Program at (302) 855-1930.

Sincerely,

Jordan Watson
Jordan Watson
EPS Tech

cc: Brittany L. Haywood, Tax Ditch Program Manager I

ENGINEERING DEPARTMEI

JOHN J. ASHMAN
SR. MANAGER OF UTILITY PLANNING
& DESIGN REVIEW

(302) 855-7370 T
(302) 854-5391 F
jashman@sussexcountyde.gov

Sussex County

DELAWARE
sussexcountyde.gov

Date: **November 24, 2021**

REF: **T. A. C. COMMENTS**
Glenwood
SUSSEX COUNTY ENGINEERING DEPARTMENT
SUSSEX COUNTY TAX MAP NUMBER
33-7.00-6.00
AGREEMENT NO.1191

The following comments are the result of the Sussex County Engineering Department's review of the preliminary site plan for the above referenced project:

DESIGN REVIEW COMMENTS

1. Proposed developments with private roads or projects required to meet or exceed the County street design requirements shall be regulated by and conform to Sussex County Code and the comments here listed.

2. This project **is not** located within the limits of a Ground Water Management Zone (GMZ). Projects located within a GMZ must be forwarded to the County Engineer for review and comment.

3. Project Construction Drawings shall show, in detail, the proposed improvements. The work required includes preparation and delivery of an AutoCAD 2012 digitized plan showing existing and proposed lines, grades, topography, and features in a given area, which was utilized in preparing plans for construction. The individual sheet types will be in a separate design to show plan views on sheets separate from profile views. In addition, each sheet of the plans shall be submitted in a PDF format.

4. All work shall be geo-referenced to the Delaware State Grid System NAD-83 (HARN) and provided in an AutoCAD 2012 format. North Arrow required to identify northern direction and viewport should be best fit for the project.

5. Topographic contours at one-foot intervals shall be shown and referenced to United States Geological Survey Mean Sea Level Datum NAVD 1988 Datum.

6. The plans shall be provided on 24" x 36" drawing sheets at a scale of 1" = 50' or less.

The plans shall show and address the following items at minimum:

7. The project requires professional land surveying services to accurately delineate, and show the following items but is not limited to the following: all property and right-of-

way lines, established at a minimum, survey monuments, easements, existing and proposed topographic contours at 1-foot vertical intervals and spot elevations as necessary to establish grades, the locations of all existing structures, highway and roadway pavements, shoulders, curbs, driveways, sidewalks, lighting structures, traffic control signs, and all public and private utilities, including, but not limited to, electric power and telephone lines, poles and boxes, underground electric, telephone, and communication lines, potable water lines, fire hydrants and valve boxes, gas lines, wells, sanitary sewers including septic systems, rim and invert elevations of manholes and cleanouts, and the rims and invert elevations and type of storm water structures, drainage ditches, ponds, streams and waterways, flood zones and flood zone boundaries and elevations, and State and Federal wetlands, trees, cemeteries and historic features, and the finished floor elevations of buildings.

8. Plans shall show the seal and signature of a registered Delaware land surveyor or registered Delaware professional engineer.

9. The plan requires a Certification Signature and/or a Certification Block for the following:

    a. Delaware Professional Engineer or Delaware Land Surveyor.
    b. Owner or Representative of the Owner.
    c. Professional Wetlands Delineator.

10. The name, address, phone number and contact person's name of the Owner of Record, the Developer and the Engineer or Surveyor preparing the plan.

11. Indicate the location of all wetlands, both state and federal, in order to facilitate compliance with County, State and Federal requirements.

12. Define the courses and distances of the property perimeter and the approximate acreage contained therein. Establish and set in the field two (2) CONCRETE MONUMENT project benchmarks, preferably at property perimeter corners, geo-referenced to the Delaware State Plane Coordinate system NAD 83 and show the location including the North and East coordinates of the marks on the plans.

13. Indicate the development construction phases proposed showing the boundaries of each phase. Phasing boundaries shall include buildings, residential units, amenities, roads, storm water management facilities, wastewater systems and all other improvements and utilities required to service each phase and shall be recorded prior to being issued a notice to proceed.

14. Show the layout, width and names of all streets, alleys, crosswalks and easements proposed to be dedicated for private or public use. Street names shall not duplicate nor closely resemble existing street names in the same hundred or postal district, except for extensions of existing streets. Sussex County Mapping & Addressing will have final say on proposed street names.

15. When on site individual septic tank systems are to be used and the lot topography is to be modified by cuts and fills it is required that the Design Engineer contact the Delaware Department of Natural Resources and Environmental Control, Division of Groundwater Water Discharge Section, 21305 Berlin Rd., Suite 2, Georgetown, DE 19947 phone number 302-856-4561 subject to mass grading operations for documented approval.

16. Provide the limits and elevations of the 100-year flood. This may require the design engineer to complete an analysis and provide a report including the depiction of the subject watershed(s), calculations and other technical data necessary to determine the limits and elevations of the base flood.

17. False berms shall not be utilized to create roadside drainage swale back slopes.

18. For parking lots and drives, provide spot elevations at the edge of pavement, right-of-way, or travel way centerline, at changes in grade, and high points and low points, to the nearest drainage facilities. Show the limits of the various surface materials and provide construction sections.

19. Provide and show the locations and details of all ADA pedestrian connections.

20. If the site has a cemetery located on it the Developer shall contact the Delaware State Historic Preservation Office and satisfy the requirements of that Office prior to beginning any construction activity. This area shall not be disturbed by this project. Adequate access to the site and buffers to protect the site, shall be provided.

21. Private rights-of-way adjacent to and abutting parcels not part of the project shall be located and designed to provide adequate buffer so that construction activities do not encroach onto adjacent properties.

22. Provide statements explaining how and when the developer proposes to provide and install the required water supply, sewers or other means of sewage disposal, street pavement, drainage structures and any other required improvements.

23. Provide statements concerning any proposed deed restrictions to be imposed by the owner.

24. Where special physical conditions exist, which may act as constraints on normal development or may preclude development, the developer may be required to submit special technical data, studies or investigations. This information must be prepared by individuals technically qualified to perform such work. Additional information may include but is not limited to the following: on-site sanitary sewage disposal feasibility, water supply surveys, such as test well drilling, storm water runoff computations and identification of areas subject to periodic flooding.

25. If special conditions are found to exist, the Engineering Department may elect to withhold approval of a construction plan until it is determined that it is technically feasible to overcome such conditions. The Engineering Department may then require the developer to incorporate specific improvement design criteria into the plat as a condition to its approval.

26. When special studies or investigations pertain to a regulatory program of another public agency, the developer shall submit the results of these studies or investigations to said public agencies for technical review and approval. Approvals and/or written comments from these agencies shall be supplied to Sussex County by the developer.

SEWER SPECIFIC COMMENTS

LOCATION: **New Rd., West of Old Orchard Rd**

NO. OF UNITS:131

GROSS ACREAGE: 63.58

(1). Is the project in a County operated and maintained sanitary sewer and/or water district?

Yes ☐ No ☒

(2). Which County Tier Area is project in? Tier 2

(3). Is wastewater capacity available for the project? Yes If not, what capacity is available? n/a.

(4). Is a Construction Agreement required? Yes If yes, contact Utility Engineering at (302) 855-7370 / option 2.

(5). Are there any System Connection Charge (SCC) credits for the project? No If yes, how many? **Click or tap here to enter text.**. Is it likely that additional SCCs will be required? **Yes**

If yes, the current System Connection Charge Rate is $6,600.00 per EDU. Please contact **Christine Fletcher** at **302-855-7719** for additional information on charges.

(6). Is the project capable of being annexed into a Sussex County sanitary sewer district? **Yes**

☒ Attached is a copy of the Policy for Extending District Boundaries in a Sussex County Water and/or Sanitary Sewer District.

(7). Is project adjacent to the Unified Sewer District? **Yes**

(8). Comments: **The proposed subdivision is adjacent to Unified Sewer District**

(9). Is a Sewer System Concept Evaluation required? **Yes, Contact Utility Planning at 302-855-7370 to apply**

(10). Is a Use of Existing Infrastructure Agreement Required? **Yes**

If the above items, as applicable, are incorporated into the development plans, then preliminary approval is recommended. However, final plan approval should be withheld pending the approval of the construction plans by the Sussex County Engineering Department.

Policy for Extending District Boundaries

1. Property owner (developer) and/or his representative shall make a request to the Utility Planning Division for a Sewer System Concept Evaluation.

2. Property owner (developer) and/or his representative shall meet with the applicable planning and zoning agency to determine if zoning is appropriate for the development being planned.

3. With appropriate zoning, property owner (developer) and/or his representative shall send a letter (with appropriate application fee as listed below) requesting the Sussex County Council to consider extending the water and/or sanitary sewer district boundaries. (Sussex County Code)

Application Fees	
Less than 2 acres	**$500.00**
2.1 -9.99 acres	**$750.00**
10 - 150.00 acres	**$1,500.00**
Greater than 150.00 acres	**$2,500.00**

4. The Sussex County Engineering Department shall present, for Sussex County Council's consideration, posting of notices for the proposed extension of the district boundaries.

5. The Sussex County Council approves posting notices for the proposed extension of the boundaries. (If approval to post the notices is not given, the appropriate fee is refunded.)

6. Within ninety days of the posting of the notices, the Sussex County Council approves/disapproves extending the boundaries.

7. The Sussex County Council approves/disapproves of the extension of the water and/or sanitary sewer pipelines under the appropriate Sussex County Ordinance.

ENGINEERING DEPARTMENT

JOHN J. ASHMAN
SR. MANAGER OF UTILITY PLANNING
& DESIGN REVIEW

(302) 855-7370 T
(302) 854-5391 F
jashman@sussexcountyde.gov

Sussex County
DELAWARE
sussexcountyde.gov

Date: **November 19, 2021**

REF: **T. A. C. COMMENTS**
Glenwood
SUSSEX COUNTY ENGINEERING DEPARTMENT
SUSSEX COUNTY TAX MAP NUMBER
33-7.00-6.00
AGREEMENT NO.1191

The following comments are the result of the Sussex County Engineering Department's review of the preliminary site plan for the above referenced project:

DESIGN REVIEW COMMENTS

1. Proposed developments with private roads or projects required to meet or exceed the County street design requirements shall be regulated by and conform to Sussex County Code and the comments here listed.

2. This project **is not** located within the limits of a Ground Water Management Zone (GMZ). Projects located within a GMZ must be forwarded to the County Engineer for review and comment.

3. Project Construction Drawings shall show, in detail, the proposed improvements. The work required includes preparation and delivery of an AutoCAD 2012 digitized plan showing existing and proposed lines, grades, topography, and features in a given area, which was utilized in preparing plans for construction. The individual sheet types will be in a separate design to show plan views on sheets separate from profile views. In addition, each sheet of the plans shall be submitted in a PDF format.

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Sussex County, Delaware
Technical Advisory Committee

Comment Sheet

****

DATE OF REVIEW: November 18, 2021

REVIEWING AGENCY: **Delaware State Fire Marshal's Office, Sussex Office**

INDIVIDUAL REVIEWERS: **Duane T. Fox, CFPS, CFPE, CFI, Asst. Chief Technical Services**
Dennett E. Pridgeon, CFPS, CFPE, CFI, Sr. Fire Protection Specialist
Jefferson L. Cerri, CFI, Sr. Fire Protection Specialist
Desiree B. McCall, CFI, Sr. Fire Protection Specialist
John A. Colpo, Fire Protection Specialist

AGENCY PHONE NUMBERS: **302-856-5298, Fax: 302-856-5800**

RE: GLENWOOD (2021-21)

The reasons and conditions applied to this project and their sources are itemized below:

****

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):

a. **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. (Assembly)
   - Where a water distribution system is proposed for single-family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required. (One & Two- Family Dwelling)
     - In September 2021 the DE State Fire Prevention Regulations are changing to require all fire hydrants to be on 800 ft centers and not more than 300 feet from a fire department connection. Measurements are as the fire apparatus drive.
   - Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

b. **Fire Protection Features:**
   - All structures over 10,000 sqft aggregate will require automatic sprinkler protection installed.
   - Buildings greater than 10,000 sqft, 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements.
   - Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
   - Show Fire Lanes and Sign Detail as shown in DSFPR

c. **Accessibility**
   - All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from New Road 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.

d. **Gas Piping and System Information:**
   - Provide type of fuel proposed and show locations of bulk containers on plan.

e. **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

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, technical services link, plan review, applications or brochures.

THIS DOCUMENT IS INFORMATIONAL ONLY, AND DOES NOT CONSTITUTE ANY TYPE OF APPROVAL FROM THE DELAWARE STATE FIRE MARSHAL'S OFFICE

DELAWARE DEPARTMENT OF
AGRICULTURE

2320 South DuPont Highway
Dover, Delaware 19901
agriculture.delaware.gov

Telephone: (302) 698-4500
Toll Free: (800) 282-8685
Fax: (302) 697-6287

February 2, 2022

Lauren DeVore, Planner III
Planning & Zoning Commission
P.O. Box 417
Georgetown, Delaware 19947

Subject: **Preliminary Plans for Glenwood**

Dear Ms. DeVore,

Thank you for providing preliminary plans for Glenwood submitted by Davis, Bowen & Friedel, INC. The plans submitted to our section dated July 2021 are sufficient to meet the Sussex County Planning and Zoning Forested Buffer Ordinance.

The Delaware Forest Service recommends the plans reflect tree planting specifications and that the ISA ANSI A300 best management practices are followed for newly installed trees. DFS recommends planting a 70/30 mix of hardwood and evergreen tree species. There are several tree species that are not recommended for planting in the state due to their invasive nature or the susceptibility to pests and diseases. These species are listed on our department website.

The Delaware Forest Service has no further comment to Glenwood preliminary subdivision plans dated July, 2021 at this time.

If you have any questions please feel free to contact me at taryn.davidson@delaware.gov.

Sincerely,

Taryn Davidson

Taryn Davidson
Urban Forestry Program
Delaware Forest Service

Jesse Lindenberg

From: Cullen, Kathleen M <kathleen_cullen@fws.gov>
Sent: Tuesday, March 8, 2022 11:24 AM
To: Planning and Zoning
Subject: FWS review of Independence and Glenwood

FILE COPY

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or reply unless you recognize the sender and know the content is safe. Contact the IT Helpdesk if you need assistance.

Hello-

This email is regarding the Independence and Glenwood subdivisions. There are no federally listed species at these locations, so no further Section 7 consultation is needed. You can fill out the Online Certification Letter if further documentation is needed: https://www.fws.gov/chesapeakebay/saving-wildlife/project-review/online-certification-letter.html

Our office is currently teleworking for the foreseeable future, so there may be delays in mail pick up. For future projects, the fastest way to get a response is to submit through IPaC: https://ecos.fws.gov/ipac/. Please let me know if you have any questions!

Thank you,
Kathleen

Kathleen Cullen
U.S. Fish & Wildlife Service - Chesapeake Bay Field Office
177 Admiral Cochrane Dr., Annapolis MD, 21401
410-573-4579 - kathleen_cullen@fws.gov

MAPPING & ADDRESSING

MEGAN NEHRBAS
MANAGER OF GEOGRAPHIC
INFORMATION SYSTEMS (GIS)
(302) 855-1176 T
(302) 853-5889 F

Sussex County
DELAWARE
sussexcountyde.gov

October 5, 2021

Ocean Atlantic Companies
Attn: Ben Gordy

RE: **Proposed Subdivision Name(s)**

I have reviewed the name(s) submitted for your proposed subdivision located in **Lewes** (**335-7.00-6.00**). In reviewing the proposed name(s) the following has been **approved** for this subdivision:

BLACK OAK

Should you have any questions please contact the **Sussex County Addressing Department at 302-853-5888 or 302-855-1176.**

Sincerely,

Brian L. Tolley
GIS Specialist II

CC: Christin Scott
Planning & Zoning

Tax Map Parcel Numbers: See **Exhibit B** attached hereto for list of Tax Parcel Numbers

Prepared by and Return to:
Jonathan Horner, Esq
20184 Phillips Street
Rehoboth Beach, DE 19971

MASTER DECLARATION FOR

BLACK OAK

SUSSEX COUNTY, DELAWARE

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MASTER DECLARATION FOR BLACK OAK

THIS MASTER DECLARATION FOR **BLACK OAK** (this "Declaration") is made effective the ____ day of _____, 2023 (the "Effective Date"), by **GLENWOOD LEWES, LLC**, a Delaware limited liability company ("Declarant").

RECITALS

WHEREAS, pursuant to that certain Deed recorded in the Office of the Recorder of Deeds in and for Sussex County, Delaware (the "Recorder's Office") in Deed Book _____, Page ____, Declarant is the owner of those certain lots, pieces or parcels of land being more particularly depicted on hat certain Record Plan for Black Oak prepared by _____ _____, dated _____, said plan being recorded Recorder's Office at Plot Book _____, Page _____ as superseded in part by that certain Record Plan for Black Oak prepared by _____, dated _____, said plan being recorded in the Recorder's Office at Plot Book _____, Page _____ (as such Record Plan may be amended from time to time, the "Master Plan").

WHEREAS, the property that is depicted on the Master Plan is situated in Sussex County, Delaware ("County") and such property is currently designated for the development of a common interest community project to be known as "Black Oak" ("Project"), which Project will consist of up to [_____] finished single-family residential dwelling lots (each individually a "Lot" and collectively the "Lots") and the Common Areas (as hereinafter defined).

WHEREAS, the maximum number of dwelling units that Declarant reserves the right to create in the Project is [_____].

WHEREAS, Declarant desires to control and restrict (1) the construction of original dwellings, structures and other improvements on those portions of the Project that are initially (and as may be subsequently) subjected to this Declaration, (2) any modification to such dwellings, structures and other improvements, which modifications shall be made in accordance with and subject to the terms and conditions of this Declaration, and (3) the use to which such dwellings, structures and other improvements are put, to promote and facilitate the development of a safe, harmonious, attractive, and valuable residential community and to preserve the value of the Project. Towards this end, Declarant desires to subject the land being more particularly bounded and described on **Exhibit A-1** attached hereto and made a part hereof (the "Property") to, and burden the Property with, the covenants, conditions, restrictions, easements, and agreements as more particularly set forth in this Declaration, all of which Declarant deems to be for the benefit of Declarant, the Property, and each Owner (as hereinafter defined).

W I T N E S S E T H

NOW, THEREFORE, Declarant hereby declares that the Property shall be held, conveyed, hypothecated, encumbered, sold, leased, rented, used, occupied, and improved subject to the covenants, conditions, restrictions, easements, and agreements set forth in this Declaration, which

covenants, conditions, restrictions, easements, and agreements shall run with and burden the Property and be binding on all parties having any right, title or interest in or to all or any portion of the Property, their heirs, personal representatives, executors, successors, transferees, and assigns, and which covenants, conditions, restrictions, easements, and agreements shall inure to the benefit of and bind the Declarant, the Property and each Owner.

ARTICLE 1
DEFINITIONS

Section 1.1 "*Act*" shall mean and refer to the Delaware Uniform Common Interest Ownership Act (25 Del. C. §81-101, et seq.), as amended from time to time.

Section 1.2 "*Association*" shall mean and refer to the Black Oak Homeowners Association, Inc., a non-stock Delaware corporation, its successors and assigns.

Section 1.3 "Association Documents" shall mean and refer collectively to this Declaration; the Bylaws of the Association; the Certificate of Incorporation of the Association; any Design Guidelines of the Association promulgated by the Board of Directors and/or ARC (defined below), as applicable, pursuant to Article 6 hereof; any resolutions of the Board of Directors; and any rules and/or regulations of the Association promulgated by the Board of Directors in accordance with the authority set forth in this Declaration, the Bylaws, and applicable law; all as any the same may be amended and/or supplemented from time to time.

Section 1.4 "*Attached hereto*" shall mean "attached hereto and made a part hereof by reference as if fully rewritten herein."

Section 1.5 "*Board*" shall mean and refer to the Board of Directors of the Association.

Section 1.6 "*Bylaws*" shall mean and refer to the Bylaws of the Association, as such Bylaws may be amended from time to time.

Section 1.7 "*Certificate of Incorporation*" shall mean and refer to the Certificate of Incorporation of the Association, as such Certificate of Incorporation may be amended from time to time.

Section 1.8 "*Common Areas*" shall mean and refer to (a) all real property owned, leased or maintained by the Association for the common use and enjoyment of the Owners, which real property consists of all areas of the Property expressly excluding the Lots and (b) the Common Facilities.

Section 1.9 "*Common Expenses*" shall mean and refer to the actual and estimated expenses of operating the Association, including a reasonable reserve for expenses of the maintenance of the Common Areas in accordance with this Declaration, all as may be found to be necessary or appropriate by the Board in accordance with the terms of this Declaration, the Bylaws, the Certificate of Incorporation, and the Act.

Section 1.10 "*Common Facilities*" shall mean and refer to (a) all improvements,

structures, facilities, and other betterments situated on the Common Areas, including any streets, right-of-ways, alleys, roads, parking areas, sidewalks, walkways, trails, irrigation facilities, pool, pool house, active and passive recreational facilities, entrance features or improvements, security gates and entrance and exit equipment, security structures and facilities, and lighting, street lighting, storm water management facilities, drainage pipes, infiltration trenches, ponds, basins, swales, berms, out-flow control devices, drainage areas, filters, inlets, oil/grit separators, underground facilities, culvert pipes, entry strips, signage, lawns, and other landscaping and (b) any other real and personal property except for any Lots that the Association is obligated or elects to maintain pursuant to this Declaration, or pursuant to any lease, easement or other agreement, or pursuant to the direction of any governmental authority or agency.

Section 1.11 "*Community-Wide Standard*" shall mean and refer to the standard of conduct, maintenance or other activity generally prevailing in the Project. Such standard may be more specifically determined and set forth by the Board.

Section 1.12 "*Declarant*" shall mean and refer to GLENWOOD LEWES, LLC, and to its successors and assigns, but only to the extent that any of the rights, reservations, easements, interests, exemptions, privileges, or powers of Declarant are specifically assigned or transferred to any such successors or assigns by an instrument in writing. In no event shall a conveyance of all or any portion of the Property, including any one or more Lots, by Declarant be deemed to include any such assignment or transfer, but such assignment or transfer must be by a separate instrument to be effective.

Section 1.13 "*Declarant Control Period*" shall mean and refer to the period beginning on the date of recordation of this Declaration and ending on the date which is no later than the later of (a) sixty (60) days after the date on which seventy-five percent (75%) of the Lots that may be created on the Property have been conveyed to Owners other than Declarant or a Participating Builder; (b) two (2) years after Declarant and all Participating Builders have ceased to offer Lots for residential purposes for sale in the ordinary course of business; (c) two (2) years after any right to add new Lots for residential purposes was last exercised; (d) at such time as may be required by applicable Laws; or (e) the day Declarant, after giving written notice to the Owners, records an instrument voluntarily surrendering all rights to control activities of the Association.

Section 1.14 "*Development Plans*" shall mean and refer to the approved site plan and plats for the Property and Project, including the Master Plan; and further including all amendments, modifications and extensions of all of the foregoing made from time to time.

Section 1.15 "*Eligible Mortgage Holder*" shall mean and refer to a holder, insurer or guarantor of a First Mortgage on a Lot who has submitted a written request for notice from the Association of amendments to this Declaration or the Bylaws or the Certificate of Incorporation, or other significant matters which would affect the interests of the Mortgagee.

Section 1.16 "*Emergency*" and its various derivations shall mean and refer to any event, circumstance or condition created or arising out of the use, operation, or occupancy of any portion of the Property or the Project that may, in the absence of immediate action by Declarant, an Owner or the Association, as applicable, and as otherwise provided under this Declaration (a) pose an immediate threat or irreparable harm to Declarant, any Owner, any Member or the

Association or their respective tenants, subtenants, agents, officers, directors, employees, agents, contractors, customers, visitors, licensees, invitees, guests, members or concessionaires or any other third party; (b) pose an immediate threat or irreparable harm or significant property damage to any portion of the Property, or the Project, or to any property adjacent to the Property or the Project; (c) violate or result in the revocation of any authorizations, approvals, certificates or permits or other instruments or documents that are issued by and from any local, county, state or federal agency or body which govern the occupancy, use and operation of the Property or the Project; (d) invoke, create or impose civil or criminal liability upon Declarant, any Owner, any Member, or the Association; or (e) any event, circumstance, or condition reasonably determined by Declarant to be an emergency.

Section 1.17 *"Expansion Property"* shall mean and refer to, individually and collectively, any of the real property contiguous to or in the vicinity of the Property described in **Exhibit A-2** attached hereto.

Section 1.18 "*including*" shall mean "including, without limitation," and shall be construed as a word or phrase of illustration and not a term of limitation.

Section 1.19 "*Lawn Area*" shall mean and refer to any portion of the front, side or rear (if applicable) yard areas of any Lot that contains grass, shrubs, bushes, trees or other planted materials; provided, however, that any portion of a Lot which is enclosed by a wall, fence or other obstruction and which is not readily accessible to the Association as determined by the Board shall not be considered a Lawn Area.

Section 1.20 "*Laws*" shall mean and refer to all statues, laws, rules, regulations, ordinances and similar enactments or promulgations, by and from any local, county, state or federal agency or body, including environmental laws and regulations and applicable zoning, subdivision, health and building codes and any and all authorizations, approvals, certificates or permits or other instruments or documents that are issued by and from any local, county, state or federal agency or body which govern the ownership, occupancy, use, or operation (including any maintenance, repair and or replacement) of the Property or the Project.

Section 1.21 "*Lot*" and "*Lots*" shall have the meaning given in the Recitals to this Declaration. Notwithstanding anything contained in this Declaration to the contrary, Lots shall not include the Common Areas.

Section 1.22 "*Mandatory Best Management Practices*" shall mean practical methods for preventing and reducing the type of pollution that is carried by precipitation and runoff. A major goal of these practices is to improve water quality.

Section 1.23 "*Maintain*" *or* "*Maintenance*" or any variation thereof shall mean and refer to the maintenance, management, installation, repair, restoration, addition, demolition, removal, replacement, enlargement, reduction, connection to, or any other change, alteration or modification of all or any portion of any real or personal property subject to this Declaration.

Section 1.24 "*Member*" shall mean and refer to every Person who is a member of the Association.

Section 1.25 "*Mortgagee*" shall mean and refer to the holder of any recorded mortgage encumbering one or more of the Lots and shall not be limited to institutional mortgagees. "First Mortgage" shall mean and refer to a mortgage with priority over all other mortgages. As used in this Declaration, the term "institutional mortgagee" or "institutional holder" shall mean and refer to banks, trust companies, insurance companies, mortgage insurance companies, savings and loan associations, trusts, mutual savings banks, credit unions, pension funds, mortgage companies, Federal National Mortgage Association ("FNMA"), Government National Mortgage Association ("GNMA"), Federal Home Loan Mortgage Corporation ("FHLMC"), any agency or department of the United States Government or of any state or municipal government, or any other organization or entity which has a security interest in one or more of the Lots. In the event any mortgage is insured by the Federal Housing Administration ("FHA") or guaranteed by the Department of Veterans Affairs ("VA"), then as to such mortgage the terms "mortgagee" and "institutional mortgagee" include the FHA or the VA as the circumstances may require, acting, respectively, through the Federal Housing Commission and the Secretary of Veterans Affairs or through other duly authorized agents.

Section 1.26 "*Owner*" shall mean and refer to the record owner, whether one or more Persons, of fee simple title to any of the Lots that are part of the Property, including but not limited to the Declarant or a Participating Builder, but expressly excluding those having such interest merely as security for the performance of an obligation.

Section 1.27 "*Participating Builder*" shall mean and refer to [_____] and (b) a person or entity other than the Declarant that, in the ordinary course of such person's or entity's business, constructs residential structures on any portion of the Property for sale or lease to others and is under contract to purchase no less than ten (10) Lots from Declarant, or (d) any person or entity otherwise designated as a Participating Builder by the Declarant.

Section 1.28 "*Person*" shall mean and refer to any individual, partnership, corporation, limited liability company, association, joint stock company, trust, joint venture, unincorporated organization, governmental entity, any department, agency or political subdivision thereof, or any other legal entity or combination thereof.

Section 1.29 "*Project*" shall having the meaning given in the Recitals to this Declaration.

Section 1.30 "*Property*" shall having the meaning given in the Recitals to this Declaration. Notwithstanding anything contained in this Declaration to the contrary, the Property shall expressly include the Lots and Common Areas.

Section 1.31 "*Recorder's Office*" shall having the meaning given in the Recitals to this Declaration.

Section 1.32 "*Utilities*" or any variation thereof shall mean and refer to electric power, natural gas, propane or any other type of gas, telephone, communications services, internet services, solar, cable television, sanitary and storm sewer, potable water, storm sewer lines, and other related utility services now or hereinafter located on, or provided to, all or any portion of the

Property, together with all pipes, lines, wires, cables and conduits, accessory or appurtenant facilities, structures or improvements, meters, utility vaults, substations and pumping or treatment stations now or in the future associated with any one or more such Utilities.

ARTICLE 2
DECLARANT'S RIGHTS

Section 2.1 *Property Subject to this Declaration.* The Property shall be a planned community (as defined in the Act) that is held, conveyed, hypothecated, encumbered, sold, leased, rented, used, occupied and improved subject to all of the covenants, conditions, restrictions, easements, and agreements set forth in this Declaration.

Section 2.2 *Addition of Expansion Property.*

(a) The covenants, conditions, restrictions, easements, and agreements set forth in this Declaration may be extended to any Expansion Property. Any portion of the Expansion Property may be added to the Property and Project by Declarant without the consent of any Owner, any Member, the Association, or any other Person for a period of fifty (50) years from the date of recordation of this Declaration; provided, however, that if Declarant is delayed in the improvement and development of the Property or Project on account of a sewer, water, or building permit moratorium, or any other similar moratorium, or any other causes or events beyond Declarant's control, then the aforesaid fifty (50)-year period shall be extended by a period of time equal to the length of the delays or an additional three (3) years, whichever is greater. The scheme of this Declaration shall not, however, be extended to include any Expansion Property unless and until the same is included within the Property and Project by Declarant by the recordation of an amendment to the Declaration as provided in Section 2.2(b) of this Declaration. Except as otherwise provided above with respect to expansion of the real property by Declarant, any other expansion of real property within the Property and Project and the jurisdiction of the Association shall require the consent of two-thirds (2/3) of the Owners and, for so long as Declarant owns all or any portion of the Property or Project, the Declarant.

(b) Any expansion made pursuant to this Article, or otherwise, shall be made by recording an amendment to the Declaration with the Recorder's Office, which amendment shall extend the scheme of this Declaration to such property. Any amendment to the Declaration made pursuant to the provisions of this Article, or otherwise, may contain such complementary or supplemental additions and modifications to the covenants, conditions, restrictions, easements, and agreements set forth in this Declaration as may be considered necessary by the maker of such amendment to reflect the different character or use, if any, of the property being included in this Declaration, including a partial or complete waiver of all or any portion of the covenants, conditions, restrictions, easements, or agreements set forth in this Declaration with respect to such property.

Section 2.3 *Deannexations.* Declarant may deannex and withdraw all or any portion of any property annexed within the Property or Project and the jurisdiction of the Association as provided in Section 2.3 any above or all or any other portion of the Property or Project without the consent of any Owner, any Member, the Association, or any other Person for

a period of fifty (50) years from the date of recordation of this Declaration; provided, however, that (a) Declarant is the owner of such property at the time of such deannexation and withdrawal, or (b) if Declarant is not the owner of such property, Declarant deannexes and withdraws such property with the written consent of the owner of such property. If Declarant is delayed in the improvement and development of the annexed property or any portion of the Property or Project on account of a sewer, water, or building permit moratorium, or any other similar moratorium, or any other cause or event beyond Declarant's control, then the aforesaid fifty (50)-year period to exercise the deannexation and withdrawal right shall be extended by a period of time equal to the length of the delays or an additional three (3) years, whichever is greater. Any deannexed and withdrawn property shall no longer be subject to the covenants, conditions, restrictions, easements, or agreements set forth in this Declaration except for (a) any easements, rights, reservations, exemptions, powers or privileges reserved to Declarant pursuant to this Declaration which affect the deannexed and withdrawn property and (b) any other easements, rights, reservations, exemptions, powers or privileges which are expressly reserved to Declarant in the instrument effectuating such deannexation and withdrawal. Such deannexation and withdrawal shall be made by recording a Supplementary Declaration with the Recorder's Office, withdrawing the effect of the covenants, conditions, restrictions, and easements of this Declaration from the deannexed and withdrawn property. Such deannexed and withdrawn property may be utilized by Declarant and any successor, assign or transferee thereof, for any lawful purpose or use.

Section 2.4 *Intentionally Omitted.*

Section 2.5 *Special Declarant Rights*

Declarant reserves the following rights for the period from the date of recordation of this Declaration through the date fifty (50) years thereafter, which rights as set forth in subsections (a)(1) through (a)(9) below Declarant hereby assigns to each Participating Builder (individually and collectively, the "Special Declarant Rights"):

(1) The right to complete or make improvements indicated on the Development Plans;

(2) the right to maintain sales offices, management offices, storage sheds/trailers, and models on all or any portion of the Property, to the extent described in the following table:

	NUMBER	SIZE	LOCATION
Model Homes	Three per each Participating Builder	Per home plan prepared by applicable Participating Builder	On Lot designated by applicable Participating Builder
Sales Offices	One per each Participating Builder	Determined by Participating Builder	Within Model Home, or if no Model Home has been constructed by a Participating Builder, then in a trailer of a size determined by

			Participating Builder
Construction Management Offices	One per each Participating Builder	Trailer of size determined by Participating Builder	On Lots or on the portions of the Common Areas designated by Declarant
Storage Sheds/ Trailers	Five per each Participating Builder	Trailer/shed of size determined by Participating Builder	On Lot or on the portions of the Common Areas designated by Declarant

(3) the right to maintain signs on the Property to advertise the sales of homes on all or any portion of the Property;

(4) the right to conduct sales business and construction activities on all or any portion of the Property;

(5) the right to use and permit others to use, easements through on all or any portion of the Property as may reasonably necessary for the purpose of discharging the Declarant's and Participating Builders' obligations under the Act and this Declaration;

(6) the right of Declarant to grant and convey one or more conservation easements or other similar agreements on or with respect to portions of the Common Areas in favor of any non-profit entity or organization to protect or preserve environmentally sensitive areas or habitats on such portions of the Common Areas;

(7) the right of Declarant, subject to the consent of any affected Participating Builder, which consent shall not be unreasonably withheld, conditioned or delayed, to adopt and establish written guidelines for the size, design, materials, location, duration and other criteria for signs or advertising devices of any kind or character from time to time (the "Signage/Advertising Guidelines"), including the right to prohibit the right of an Owner (other than a Participating Builder) from displaying any "for sale" or similar signage during the first two (2) years of the Declarant Control Period pursuant to § 81-320 (c) of the Act;

(8) the right of Declarant to add to, remove, or otherwise modify or alter the landscaping, trees, and any other physical features or characteristics of any portion of the Property owned by Declarant from time to time, including any such property that is adjacent to, in the general vicinity of, or otherwise visible from any Owner's Lot, including changing the location, configuration, size, or other features or characteristics of any Lots, Common Areas, or Common Facilities, and neither Declarant, nor any Participating Builder shall have any liability, duty or obligation to any such Owner or any third parties as a result of such modifications, including any alterations in the physical view from such Owner's Lot, whether resulting from or attributable to the presence, absence or re-configuration of other dwellings, structures, trees, landscape, amenities, or any other improvements or betterments or any modifications thereto (collectively the "Protected Development Rights"); and

(9) the right of Declarant to modify the Design Guidelines from time to time, subject to the consent of any affected Participating Builder, which consent shall not

be unreasonably withheld, conditioned or delayed. Any such approved modifications shall become effective upon adoption, subject to exceptions and exemptions for existing or pending construction pursuant to the prior Design Guidelines then in effect when contracts were entered into between any Participating Builder and its third party homebuyers.

Section 2.6 *Limitations on Special Declarant Rights.* Unless sooner terminated by a recorded instrument signed by Declarant, any Special Declarant Rights may be exercised by the Declarant or any Participating Builder (as expressly designated above) as assignee thereof for the period of time that commences on the date of recordation of this Declaration and ends on the date which is fifty (50) years thereafter.

Section 2.7 *Development Rights.* Declarant reserves the right to further create additional and/or modify Lots and Common Areas after the date of this Declaration through the date fifty (50) years thereafter, in the portions of the Property and the Expansion Property, so that up to a maximum number of one hundred twenty-seven (127) Lots may be created on such portions of the Property and Expansion Property.

ARTICLE 3
PROPERTY RIGHTS

Section 3.1 *Owners' Easements of Enjoyment.* Every Owner shall have a non-exclusive right and easement (in common with others entitled thereto) of enjoyment in and to the Common Areas which shall be appurtenant to and shall pass with the title to every Lot, subject to the following provisions:

(a) the right of the Association to charge reasonable and uniform admission and other fees for the use of the Common Areas;

(b) the right of the Association to suspend an Owner's right to use the Common Areas (i) for any period during which any assessment against such Owner's Lot remains unpaid and (ii), after notice and an opportunity for a hearing, for a period not to exceed sixty (60) days for any infraction of the Association's published rules and regulations; provided, however, that the obligation of such Owner to pay assessments shall continue unabated during such period of suspension of the right to utilize the Common Areas;

(c) the right of the Association to dedicate, sell or transfer all or any part of the Common Areas to any public agency, authority, or utility for such purposes and subject to such conditions as may be agreed to by the Members. Notwithstanding anything contained in this Declaration to the contrary, no such dedication, sale or transfer shall be effective without the consent of Declarant or Participating Builder (for so long as Declarant or Participating Builder shall own any portion of the Property) and two-thirds (2/3) of the total votes of the Members;

(d) the right of the Association to limit the number of guests, visitors, licensees, invitees, or lessees of Owners utilizing the Common Areas;

(e) the right of the Association to establish uniform rules and regulations pertaining to the use of the Common Areas;

(f) the right of the Association to provide for the exclusive use by specified Owners of certain designated parking spaces within the Common Areas;

(g) the right of the Association, Declarant, Participating Builders, utility companies and other Owners with respect to the easements established by this Declaration;

(h) the right of the Association, in accordance with its Certificate of Incorporation and Bylaws, and with the consent of Declarant and any Participating Builder (for so long as Declarant or the applicable Participating Builder each still own any portion of the Property) and two-thirds (2/3) of the total votes of the Members, to borrow money for the purpose of improving the Common Areas in a manner designed to promote the enjoyment and welfare of the Owners and in aid thereof to mortgage any portion of the Common Areas;

(i) the right of the Association to take such steps as are reasonably necessary to protect the property of the Association against mortgage default and foreclosures; provided, however, that the same are in conformity with the other provisions of this Declaration;

(j) the right of Declarant, as more fully set forth in this Declaration, to grant easements, to utilize reserved rights and easements, and to otherwise utilize the Common Areas as Declarant deems appropriate in connection with the use, ownership, and development of the Property and Project;

(k) the right of the Association to grant easements, licenses or other rights of use of the Common Areas to Persons for such consideration and on such terms and conditions as the Board may from time to time consider appropriate or in the best interest of the Association, the Property, or the Project;

(l) the right of the Association to be the lessee of all or any portion of the Common Areas and the right of the Association to enforce the terms of any such lease against such property and the Owners and their guests, visitors, licensees, invitees, or lessees; and

(m) the right of the Association to transfer or convey portions of the Common Areas for purposes of adjusting the boundary lines of one or more Lots or the Common Areas; provided, however, that such transfer or conveyance has been approved, as necessary, by applicable local governmental authorities or agencies, or is otherwise in conformance with applicable Laws.

Section 3.2 *Limitations.* Notwithstanding anything contained in this Declaration to the contrary, the Association shall have no right to suspend the right of any Owner to use the Common Areas for necessary, ordinary and reasonable vehicular and pedestrian ingress and egress to and from such Owner's Lot, or to suspend any easement, license or other property interest over the Common Areas for Utilities to all or any portion of the Property. The Common Areas will be available for the type of active and passive recreational and open space uses contemplated under the Development Plans and the Laws. All Owners shall have the non-exclusive right (in common with others entitled thereto) to access and make reasonable use of the Common Areas as described in the approved Development Plans and the Laws both before and after they are conveyed to the Association, with the exception of those areas as may be reasonably

and necessarily restricted for access because of temporary safety reasons in connection with the development of the Property.

Section 3.3 *Delegation of Use.* Any Owner may delegate, in accordance with the Bylaws and rules and regulations of the Association, such Owner's right of enjoyment to the Common Areas to such Owner's family members, guests, visitors, licensees, invitees, or lessees.

ARTICLE 4
MEMBERSHIP

Section 4.1 *Membership.* Every Person or any combination thereof who is an Owner of any Lot which is part of the Property shall be a Member of the Association; provided, however, that any such Person or any combination thereof, who holds such interest solely as security for the performance of an obligation shall not be a Member solely on account of such interest.

Section 4.2 *Appurtenant Right.* Membership shall be appurtenant to, and may not be separated from, ownership of a Lot. Conveyance of a Lot shall, without the need specifically to provide therein, terminate membership of the grantor in the Association with respect to the Lot conveyed; and, by accepting the conveyance, the grantee shall be deemed to accept membership in the Association.

Section 4.3 *Association Voting Rights.* Each Member shall have voting rights as provided in the Bylaws.

ARTICLE 5
COVENANT FOR MAINTENANCE ASSESSMENTS

Section 5.1 *Creation of the Lien and Personal Obligation for Assessments.* There are hereby created assessments for Common Expenses as may be from time to time specifically authorized by the Board to be commenced at the time and in the manner set forth in this Article 5. Each Owner of any Lot by acceptance of a deed therefor, whether or not it shall be so expressed in such deed, is deemed to covenant and agree to pay to the Association annual and special assessments at such times and intervals as provided under this Declaration. The annual and special assessments, together with interest, costs of collection, late fees and reasonable attorneys' fees, shall be a charge on the Lot (including all improvements thereon), and shall be a continuing lien upon the Lot against which each such assessment is made. Each such assessment, together with interest, costs of collection, late fees and reasonable attorneys' fees, shall also be the personal obligation of the Person who was the Owner of the Lot at the time when the assessment fell due. The personal obligation for delinquent assessments shall not pass to a prior Owner's successors in title unless expressly assumed by such successors.

Section 5.2 *Purpose of Assessments.*

(a) The assessments levied by the Association shall be used exclusively (i) to promote the recreation, health, safety, and welfare of the residents in the Property; (ii) for the

improvement, maintenance, repair, and replacement of the Common Areas; (iii) for the payment of real estate taxes, assessments and utility services for the Common Areas; (iv) for management fees, administration expenses, insurance and all other costs and expenses incurred by the Association in the proper conduct of its activities, including reserves for replacements or contingencies and charges accruing under any cross-easement or other agreement; and (v), if approved by the Board, for grass cutting of each Lawn Area on a Lot and for such other maintenance approved by the Board from time to time, if any, and made available to each Lot Owner from time to time with respect to any Lawn Area on a Lot (the "Lawn Care Program"), which shall be assessed exclusively against the Lots benefited thereby pursuant to §81-315(c)(2) of the Act. If required by the Board, each Lot Owner shall be obligated and required to participate in and pay for the Lawn Care Program subject to the Act and such reasonable written rules, regulations, policies and procedures adopted and promulgated by the Association pursuant to §81-320 of the Act. The assessments may also be used for the maintenance, repair and replacement of any property or facilities serving or appurtenant to the Property which the Association is obligated or elects to maintain whether or not such property or facilities are owned by the Association or are located within the Property.

(b) The assessments levied by the Association with respect to the Common Areas shall also be used for maintenance, repair and replacement (including reserves) of any and all Utilities, whether such Utilities are located within the Property or not, as long as such Utilities are designed to benefit or serve any portion of the Property, or are required or intended to be maintained by the Association pursuant to this Declaration or any easement, agreement or the direction of any governmental authority or agency. The Association shall not refuse to accept the conveyance of any such Utilities from Declarant. Such Utilities may also benefit property not within the jurisdiction of the Association and the maintenance of such Utilities may be set forth in a cross-easement or other agreement, in which event the Association shall maintain such Utilities pursuant to such agreement.

Section 5.3 Annual Assessments; Budgets.

(a) After the first assessment has been made by the Association, assessments must be made by the Board annually. The Board shall from time to time set the annual assessment at an amount sufficient to meet the Common Expenses of the Association. Without limiting the generality of the foregoing, the Association shall, at all times, levy and collect annual assessments in sufficient amounts to (i) maintain the Common Areas in accordance with sound property and facility management standards, (ii) establish necessary reserves for the future repair and replacement of any capital improvements compromising the Common Areas, and (iii), if approved by the Board, maintain Lawn Area on any Lot pursuant to the Lawn Care Program, which shall be assessed exclusively against the Lots benefited thereby and may be equitable adjusted based on Lot size or added costs due to fencing on a Lot pursuant to the provisions of §81-315(c)(2) of the Act. The Board shall determine the amount of the annual assessment before the beginning of each fiscal year in connection with preparation of the Association's annual budget, and may do so at more frequent intervals should circumstances so require. Upon resolution of the Board, installments of annual assessments may be levied and collected on a monthly, quarterly, semi-annual or annual basis. Any Member may prepay one or more installments of any annual assessment levied by the Association without premium or penalty.

(b) During the Declarant Control Period, the Board shall, at least annually, prepare and adopt a budget, which budget shall be final and binding. After the Declarant Control Period, the Board shall, at least annually, prepare and adopt a proposed budget and, within thirty (30) days after the adoption of such proposed budget, the Board shall provide to all Owners a summary of such proposed budget, along with notice of the meeting of the Association Members to consider ratification of the proposed budget, to be held not less than fourteen (14) nor more than sixty (60) days after providing the summary of such proposed budget. Unless at such meeting a majority of all Owners reject such proposed budget, such proposed budget is ratified as the budget for such fiscal year, whether or not a quorum is present at such meeting of the Association. Notwithstanding the foregoing, however, in the event that the membership disapproves any such proposed budget or the Board fails for any reason to determine a budget for any fiscal year of the Association, then and until such time as a budget shall have been determined as provided herein, the budget in effect for the immediately preceding fiscal year shall continue for the succeeding fiscal year.

Section 5.4 *Initial Working Capital and Reserve Fund Contributions.* Declarant shall establish (a) a working capital fund for the initial and ongoing operation of the Association and (b) an initial reserve fund for the Association. Each such working capital fund and initial reserve fund shall be funded by a one-time assessment of Two Thousand and 00/100 Dollars ($2,000.00) each and each shall be payable by the initial purchaser of each Lot from Declarant or a Participating Builder at the earlier of settlement and transfer or initial occupancy of such Lot. A working capital contribution and a reserve fund contribution each equal to Two Thousand and 00/100 Dollars ($2,000.00) shall also be payable by each transferee owner upon subsequent resale of any Lot at the time of settlement and transfer of title of such Lot. The Board may increase or decrease either of the foregoing contributions no more frequently than annually provided that, in the event of an increase, the new capital contribution for each of the working capital and initial reserve shall not exceed the respective prior year's capital contribution by more than twenty-five percent (25%). All such working capital funds and reserve funds may be used by the Association towards the Common Expenses and to make up any budget deficits. If any annual budget deficit (defined as actual annual Association expenses exceeding Association income adjusted upwards by the amount of any annual assessments that are due and payable from Owners but remain delinquent and unpaid at the end of the applicable fiscal year) remains at the end of the Association's fiscal year for which a budget was approved by the Board during the Declarant Control Period only, after the application of all such working capital funds and reserve funds towards such deficit as provided above, then the Declarant shall make a nonrefundable capital contribution to the working capital fund of the Association in the amount of such remaining budget deficit.

In addition to the annual assessment and other charges provided for in this Article 5, with respect to each Lot, a one-time administrative setup fee of [Seventy-Five Dollars ($75.00)] or such other amount as may be determined by the Declarant, in its sole discretion, from time to time, or as may be set pursuant to applicable law, and shall be payable by (i) the Declarant's grantee to the Association upon the earlier of settlement or occupancy of a completed dwelling located on any Lot, and, again (ii) by all future grantees to the Association upon the resale of the Lot, to defray the cost associated with setting up a collection account relating to the annual assessment and other charges respecting the Lots. The Declarant shall not be subject to the account setup fee. After the

Declarant Control Period, the Board of Directors, in lieu of the Declarant, shall have the right to change the amount of the account setup fee by resolution. The account setup fee shall be deemed an Assessment hereunder.

Section 5.5 *Special Assessments, Budget Amendments.*

(a) In addition to the annual assessments authorized by this Article, the Association may levy, in any assessment year, a special assessment or special assessments applicable to that year only for such purposes as the Board may deem appropriate, including for purposes of funding, in whole or in part, the cost of any construction, reconstruction, repair or replacement of any capital improvement located upon the Common Areas, including the Common Facilities and all fixtures and personal property related thereto, and to meet unforeseen or special expenditures as well as any budget deficit; provided, however, that any such assessment shall be approved by Members entitled to cast not less than sixty-seven percent (67%) of the votes of Members present, in person or by proxy, and voting at any meeting of the Association duly called for this purpose. Notwithstanding the foregoing, any special assessment required because of conditions which, if not corrected, could constitute an Emergency or reasonably result in a threat to the health or safety of the Members or a significant risk of damage to the Common Areas may be approved by unanimous vote of the Board without the foregoing vote of the Members, and in such case the notice of the emergency assessment must be promptly provided to all Owners and the Board shall spend the funds paid on account of the emergency assessment solely for the purposes described in the Board vote.

(b) The Association may also levy a special assessment against any Owner to reimburse the Association for costs incurred in bringing the Owner or such Owner's Lot into compliance with the provisions of this Declaration, the Certificate of Incorporation, the Bylaws, any rules and regulations adopted by the Association in accordance with this Declaration, or any applicable Laws; provided, that such special assessment may only be levied upon the affirmative vote of a majority of the Board, after notice and an opportunity for a hearing has been provided to the Owner.

(c) Any amendment to a previously approved budget shall be approved by majority vote of the Board; provided, however, that any amendment to a budget for the then current fiscal year previously approved in accordance with Section 5.3 hereof that (i) would result in an increase in the Common Expenses of the Association in excess of thirty percent (30%) of the budgeted amount for Common Expenses set forth in the budget for the immediately preceding fiscal year (including any increase in Common Expenses adopted in the budget for the then current fiscal year previously approved in accordance with Section 5.3 hereof), or (ii) would result in an increase in the annual assessments payable by the Members in excess of thirty percent (30%) of the budgeted amount for annual assessments set forth in the budget for the immediately preceding fiscal year (including any increase in assessments adopted in the budget for the then current fiscal year previously approved in accordance with Section 5.3 hereof), shall be approved by the affirmative vote of Members entitled to cast not less than sixty-seven percent (67%) of the votes of Members present, in person or by proxy, and voting at any meeting of the Association duly called for this purpose.

Section 5.6 *Lot Only Assessment*. Notwithstanding anything contained in this

Declaration, the Certificate of Incorporation, or the Bylaws to the contrary, any Owner of an empty Lot (other than Declarant or Participating Builder) that does not have a home constructed on said Lot, upon the commencement of annual assessments pursuant to Section 5.9 hereof, shall be subject to a "Lot-Only Assessment" in the amount of $200.00 per year until the date that is sixty (60) days after the date a Certificate of Occupancy has been issued for a home on the Lot and thereafter such Lot shall be subject to assessments pursuant to Section 5.9 hereof. The Lot-Only Assessment hereby imposed shall be in lieu of the regular, annual assessment imposed by this Declaration and is an amount reasonably determined by Declarant to reflect the portion of the Common Expenses that each individual Lot is benefited pursuant to §81-315(c) of the Act prior to issuance of a Certificate of Occupancy. All other assessment amounts or charges imposed in accordance with this Declaration or other governing document of the Association shall continue to be the obligation of all Owners, including purchasers of an empty Lot who are subject to a Lot-Only Assessment in accordance with this Section 5.6.

Section 5.7 Notice and Quorum. Notice and quorum of any annual or special meeting of the members shall be in accordance with, and as provided for, in the Bylaws, and as otherwise permitted under Delaware law, including but not limited to the general corporate laws of the State of Delaware.

Section 5.8 Uniform Rate of Assessment.

(a) Both annual and special assessments must be fixed at a uniform rate for all Lots, and may be collected in advance on a monthly, quarterly, semi-annual, or annual basis, or upon such other basis as may be determined by the Board.

(b) In the event that the actions or activities of any Owner causes or results in increased expenses for the Association, the Board may assess such increase in expenses against the Owner and such Owner's Lot, after notice to such Owner and an opportunity for a hearing. For example, and for purposes of illustration only, the Board may assess the amount of any insurance deductible paid by the Association against any Owner and such Owner's Lot if the Association is required to pay such deductible as a result of the misuse or neglect of the Owner. Such assessment shall be a lien against the Owner's Lot and shall be payable and collectible in the same manner as any other assessments required to be paid to the Association; provided, however, that Declarant shall not be subject to any assessment based on this Section 5.8 (b).

Section 5.9 Date of Commencement of Annual Assessments; Due Dates; Lien Docket. Subject to Section 5.6 hereof, the annual assessments provided for herein shall commence and be payable as to each Lot on the later of, the date of conveyance of the Lot from Participating Builder or Declarant to the initial purchaser, or sixty (60) days after the date a Certificate of Occupancy has been issued for a home on the Lot owned by an Owner other than Declarant or Participating Builder. The first annual assessment shall be adjusted according to the number of months remaining in the calendar year. The Board shall make reasonable efforts to fix the amount of the annual assessment against each Lot at least thirty (30) days in advance of each annual assessment period. Written notice of the annual assessment shall be sent to every Owner subject thereto. The due dates shall be established by the Board. The Association shall keep an assessment lien docket (the "Docket") at the registered office of the Association, or such other location as the Association may determine from time to time. Immediately upon an assessment becoming

delinquent as herein above provided, the Treasurer of the Association or the Treasurer's designee shall cause an entry thereof to be made in the Docket, which entry shall disclose the date the entry is made, the names of the Owners of the Lot as shown in the Association's records, the number of the Lot, the amount of the delinquent assessment, and the due date and the assessment period of the delinquent assessment. Upon written inquiry of any Owner or any attorney-at-law who certifies to the Association that such attorney-at-law represents either an Owner of a Lot or a prospective purchaser or mortgagee thereof, the Treasurer or such Treasurer's designee, upon receipt of a reasonable service charge (as established by the Association from time to time), shall certify within ten (10) business days after the receipt of such request to the inquiring Owner, attorney-at-law, prospective purchaser or mortgagee as to the assessment status of the Lot that is the subject of the inquiry, in a written statement in form recordable in the Recorder's Office stating:

(a) Whether the current assessment(s) is paid; or

(b) If there are any delinquent assessments or late fees, interest or costs, all of the information entered in the Docket with respect to the Lot which is the subject of the inquiry, together with the per diem interest thereon, to be computed on each delinquent assessment from its respective due date to the date of receipt by the Association of payment thereof in full. Upon receipt by the Association of payment of any delinquent assessment, with late fees, interest and costs, if applicable, as herein above provided, the Treasurer or such Treasurer's designee shall enter in the Docket the date and amount of the payment received, together with the notation "Paid in Full." A properly executed certificate of the Association setting forth the status of assessments on a Lot shall be binding on the Association as of the date of its issuance.

Section 5.10 Effect of Non-Payment of Assessments; Remedies of the Association. Any assessment not paid within thirty (30) days after the due date shall bear interest from the due date until paid at a rate determined by the Board, up to the maximum rate of interest permitted under the laws of the State of Delaware. The Association may also charge a reasonable late fee, not to exceed any limit established under applicable Laws, against any Owner (or such Owner's Lot) who is more than fifteen (15) days delinquent in the payment of any assessment. Additionally, the entire balance of the unpaid annual assessments for the remainder of the fiscal year may be accelerated at the option of the Board and be declared due, payable and collectible in the same manner as the delinquent portion of such annual assessment. By an Owner's acceptance of title to any Lot, such Owner shall be held to vest in the Association the right and power in such Owner's own name, to take and prosecute all actions or suits, legal, equitable, or otherwise, which may be, in the opinion of the Association, necessary or advisable for the collection of such assessments. The Association may bring an action at law against the Owner personally obligated to pay the same, or foreclose the lien against the Lot (and all improvements thereon). No Owner may waive or otherwise escape liability for the assessments provided for herein by non-use of the Common Areas or abandonment of such Owner's Lot. The Owner shall also be obligated to pay all attorneys' fees, court costs and administrative costs incurred in connection with the collection of assessments if not paid when due. This Section shall not be deemed to limit or waive, and shall be without prejudice to, any and all rights, remedies, or recourses as may be available to the Association for non-payment of assessments.

Section 5.11 Subordination of the Lien to Mortgages. The lien of the assessments provided for herein shall be subordinate to the lien of any First Mortgage. Sale or transfer of any

Lot shall not affect the assessment lien. However, the sale or transfer of any Lot pursuant to a mortgage foreclosure or any proceeding in lieu thereof, shall extinguish the lien of such assessments as to payments which became due prior to such sale or transfer, except for liens or claims for a pro-rata share of such assessments resulting from a pro-rata reallocation of such assessments to all Lots, including the mortgaged Lot. No sale or transfer shall relieve such Lot from liability for any assessments thereafter becoming due or from the lien thereof. No amendment to this Section shall affect the rights of the holder of any First Mortgage on any Lot (or the indebtedness secured thereby) recorded prior to recordation of such amendment unless the holder thereof (or the indebtedness secured thereby) shall join in the execution of such amendment.

Section 5.12 Reserve Fund Budget and Contribution. The Board shall annually prepare a reserve fund budget which shall take into account the number and nature of the replaceable assets of the Association, the expected life of each asset, and the expected repair or replacement cost of each asset. The Board shall set the required reserve fund contribution in an amount sufficient to meet the projected reserve needs of the Association, as shown on the reserve fund budget, with respect both to amount and timing by the imposition of annual assessments over the period of the budget. The reserve fund contribution shall be fixed by the Board and included within the budget and assessment, as provided in Section 5.3. Such reserve fund contribution shall be payable as part of the annual assessment, applicable to all Lots (except as otherwise provided in Section 5.6), to the extent such reserve fund will be utilized to replace assets which are determined by the Board to benefit substantially all Owners. Reserves may also be maintained for operating contingencies and insurance deductibles. A separate reserve fund account shall be established and maintained by the Association. A copy of the reserve fund budget shall be distributed to each Owner in the same manner as the operating budget. Except where an Emergency requires an expenditure to prevent or minimize loss from further damage to, or deterioration of, the Common Areas, reserves accumulated for one purpose may not be expended for any other purpose unless approved by the Board and by the affirmative vote of Members entitled to cast not less than sixty-seven percent (67%) of the votes of all Members present, in person or by proxy, and voting at a meeting of the Association duly called for this purpose.

Section 5.13 Special Actions. Notwithstanding anything contained in this Declaration, the Certificate of Incorporation, or the Bylaws to the contrary, after termination of the Declarant Control Period, the Board shall not be authorized to take any "Special Actions" (as defined below) without the affirmative vote of Members entitled to cast not less than sixty-seven percent (67%) of the votes of all the Members present, in person or by proxy, and voting at a meeting of the Association duly called for this purpose. As used herein, the term "Special Actions" shall mean any and all actions taken by or on behalf of the Association, including commencing or maintaining any litigation, arbitration or similar proceeding, which would reasonably require the expenditure of funds in excess of Fifteen Thousand Dollars ($15,000.00) in the aggregate during any fiscal year of the Association; provided, however, that the term "Special Actions" shall not be deemed to include (i) routine assessment collection actions under Article 5 of this Declaration, (ii) routine actions required to enforce the architectural controls set forth in Article 6 of this Declaration, use restrictions set forth in Article 7 of this Declaration, or any rules and regulations of the Association adopted by the Board, or (iii) any expenditure made by the Association in accordance with any budget or budget amendment duly adopted in accordance with Article 5 of this Declaration, or (iv) any special assessment duly adopted in accordance with Article 5 of this

Declaration. Each planned expenditure of more than Fifteen Thousand Dollars ($15,000.00) shall require the prior approval of the Members in accordance with this Section. The Association shall not borrow against or encumber any portion of the Common Areas nor use any funds from reserves of the Association to pay for such Special Actions, but the same shall be paid from and limited to the amounts provided in the annual budget for such expenditures for the fiscal year and shall be raised by special assessment levied against the Members for such purpose. If such Special Actions are not concluded within one (1) year of the date of such resolution, the continued prosecution of such Special Actions beyond such period must be reaffirmed annually at a special meeting held for such purpose by the percentage vote of the Association as was required to adopt the original resolution. If the continued prosecution of such Special Actions are not reaffirmed, the Special Actions shall be discontinued and the Association shall have no further authority to act as the attorney-in-fact for the Association in the further prosecution or defense of such Special Actions but may, with the affirmative vote of Members entitled to cast not less than sixty-seven percent (67%) of the votes of all Members present, in person by proxy, and voting at a meeting of the Association duly called for this purpose, act as its attorney-in-fact with respect to any settlement or compromise of such Special Actions; provided the same is completed within six (6) months thereafter. If the Members, in accordance with this Section, authorize the Association to initiate any Special Actions, then the decisions relating to the conduct of the Special Actions shall be made by the Association and its legal counsel, consultants and others engaged or retained by the Association for such purposes.

Section 5.14 *Actions Without a Meeting.* Any action which may be taken by the vote of the Members at a regular or special meeting may be taken without a meeting as to and to the extent permitted by Delaware law, including the general corporation laws of the State of Delaware.

ARTICLE 6
ARCHITECTURAL CONTROL

Section 6.1 *General Provisions.* In order to encourage harmonious architectural design and to protect the visual integrity, architectural spirit and long-term property values of the Property, Declarant has established the Design Guidelines and Procedures, as the same may be amended from time to time (the "Design Guidelines"). No dwelling, structure, improvement, landscaping or other man-made object, including buildings, tennis courts, basketball courts, children's recreation equipment or other recreational or sporting facilities, decks, patios, porches, pool houses, below ground swimming pools, greenhouses, tool sheds, ponds, gardens, driveways, paved areas, satellite dishes, radio antennas, communications equipment or facilities, fences, walls, together with all forms or types of landscaping or exterior lighting (collectively, the "Improvements") located on any portion of the Property shall be designed, constructed, maintained, altered, extended, added to, removed or otherwise modified without the express written consent and approval of the Architectural Review and Design Committee (the "ARC"). In addition, no Improvements, once approved by the ARC shall be altered, extended, added to, removed or otherwise modified, nor shall any additional structures of any nature be erected, used or maintained nor shall any exterior change or alteration be made (including exterior facade color changes or change in grade or drainage) to the Improvements except in accordance with the Design Guidelines and this Declaration, as applicable. ***Notwithstanding anything contained in this***

Declaration to the contrary, any Improvements marketed, constructed or sold by Declarant or any Participating Builder or any affiliate of the Declarant and Participating Builder shall be deemed to have complied with the Design Guidelines and are presumed to have been pre-approved by Declarant and the ARC, without the need or obligation to obtain any approvals or authorizations from either Declarant or the ARC (the "Pre-Approval").

Section 6.2 *Design Committee.* Declarant has established the ARC which shall consist of no less than three (3) members and not more than five (5) members. Declarant shall appoint the members of the ARC for so long as Declarant owns all or any portion of the Property, or until such earlier time as Declarant may elect in writing to relinquish such right. Thereafter, the Board shall appoint the members of the ARC. ARC members may be any Person, provided all such members shall be an Owner, a designee of Declarant, or an architect licensed in the State of Delaware (individually an "ARC Member" and collectively the "ARC Members"). The regular term of office for each ARC Member shall be one (1) year, measured from the date of such ARC Member's appointment or election. Declarant may remove with or without cause any ARC Member appointed by Declarant at any time by written notice to such appointee. A successor or successors appointed by Declarant to fill such a vacancy shall serve the remainder of the term of the former ARC Member. Any ARC Member appointed by the Board may be removed by a majority vote of the Board. The ARC shall select its own Chairman and such Chairman, or in such Chairman's absence the Vice Chairman, shall be presiding officer at its meetings. The ARC shall meet at least once in each calendar month if there are matters to be reviewed or upon call of the Chairman whenever the Chairman deems necessary in order to discharge its obligations and responsibilities hereunder, including rendering any decisions specified in this Article 6 or the Design Guidelines. All meetings shall be held at the offices of the Association or at such other reasonable place as may be designated by the Chairman. A majority of the ARC Members shall constitute a quorum for the transaction of business. The affirmative vote of a majority of the ARC Members shall constitute the action of the ARC on any matter before it. The ARC shall operate in accordance with its own rules of procedure, and these rules shall be filed with the Association. The ARC shall be authorized (but not obligated) to retain the services of consulting architects, landscape architects, community planners or attorneys to advise and assist the ARC in performing the design review functions herein prescribed. The ARC shall keep accurate records of its membership and actions and shall from time to time, as warranted, notify all Owners of any change in the membership of the ARC as a result of resignations and replacements of ARC Members. The ARC may establish its own rules for the conduct of its meetings and its decision making process which shall which shall be adopted, promulgated, applied and enforced in a uniform and non-discriminatory manner among the Owners.

Section 6.3 *Criteria For Submission, Review and Decisions or Plans.*

(a) Any request from an Owner for any Improvements shall be in writing and shall be submitted to the ARC (or a designated property management company if notified to do so by the ARC) in accordance with and pursuant to the Design Guidelines.

(b) In passing upon any plans and specifications submitted by an Owner, the ARC, in accordance with the provisions of this Declaration and the Design Guidelines, shall consider the aesthetic suitability and harmony of the Improvements to be constructed, to and

with that portion of the Property on which it is proposed to be located; the comparability of the height, profile and color scheme with neighboring residences whether existent, under construction, or approved for construction; the impact of the item to be constructed on the environment, including the preservation of trees and open spaces, and surface water drainage; the effect of the proposed Improvement and its planned usage and purpose, on the outlook of any neighboring Lots, Common Areas, or other adjacent property, and the quality of the materials to be used in construction and the proposed method of construction including the effect of lighting and signage upon any neighboring Lots, Common Areas, or other adjacent property. The terms "aesthetic suitability and harmony" shall be interpreted to encourage the use of traditional architecture and materials set forth in the Design Guidelines. No exterior colors or materials installed or approved by the ARC shall be changed through replacement, repair, redecoration, repainting or otherwise, except upon prior submission to and approval by the ARC, which approval may be withheld in the ARC's reasonable discretion. With respect to Improvements, including driveways and turnarounds, fences, walls, recreational facilities, barbeques and patios, the ARC shall have the right in its absolute and sole but good faith discretion to prohibit such Improvements altogether if in the opinion of the ARC the construction and use of such Improvements will necessitate the removal of valuable trees, cause drainage problems, or have a detrimental effect on the outlook from or use of any neighboring Lots, Common Areas, or other adjacent property.

(c) In the event that repair, replacement or other work on Improvements becomes necessary, or the erection of any additional structures is necessary, then any such work shall, to the extent practicable, be performed so that the condition and appearance is equal to and identical to the condition and appearance of the dwelling, building, structure or improvement as originally constructed, or with respect to additional structures, the construction and appearance is in architectural harmony with the Improvements as originally built and developed under this Declaration.

(d) The ARC reserves the right to approve in advance proposed architects, builders and landscape designers.

(e) *Review Fee.* Except for Improvements to be constructed by Declarant or any Participating Builder, any application to the ARC for review shall be accompanied by a reasonable application deposit (as determined and published by the ARC and provided to the Owners from time to time) to defray the reasonable costs and expenses of professional services (the "Professional Services") that the ARC may reasonably incur to properly evaluate the plans and specifications (the "Plans and Specifications") provided by an Owner with respect to the Improvements which such Owner requests approval pursuant to this Declaration and the Design Guidelines (the "Review Deposit"). The cost of the Review Deposit as of the Effective Date shall be One Hundred Dollars ($100.00), and shall be adjusted, from time to time as determined by the Board, to account for all reasonable costs and expenses attributable to the review and evaluation of an application. The ARC may waive the Review Deposit on a case by case basis if the application for any such Improvements does not require the ARC to incur any Professional Services or other out-of-pocket costs or expenses in connection with its review and evaluation of the Plans and Specifications. The Review Deposit shall be non-refundable unless the applicant withdraws its application prior to the ARC incurring any Professional Services in connection with its review and evaluation of the application; otherwise, the Review Deposit shall be used to pay

the Professional Services and any unused portion shall be returned to the Owner at the completion of the review and decision process set forth below, or alternatively, if the Professional Services exceed the Review Deposit, the Owner covenants and agrees to remit to the ARC within fifteen (15) days after the completion of the review and decision process set forth below and receipt of a statement from the ARC for any balance due. The failure of any Owner to timely pay any such balance shall entitle the ARC, in addition to any other rights and remedies it may have to exercise those rights and remedies as provided under Section 12.5 captioned "Enforcement". All Plans and Specifications submitted to the ARC shall be retained by the ARC and shall not be returned to the applicant, unless the ARC elects to do so.

(f) *Review and Decision Process*. Within thirty (30) days after the Owner has submitted all the required Plans and Specifications to the ARC, the ARC shall notify the Owner in writing whether such Plans and Specifications are either approved or disapproved. Any disapproval or objections shall be in writing and shall include an explanation for the basis or reason for such disapproval or objections, together with such reasonable changes, modification or other alterations and recommendations as appropriate or practicable that would render the Plans and Specifications acceptable to the ARC and in compliance with the review and approval criteria established under this Declaration. In the event Declarant fails to approve or disapprove an Owner's submission of the Plans and Specifications in writing within the aforementioned thirty (30) day period, then the Owner's submission shall be conclusively presumed to have been denied. No construction of the Improvements provided for in the submitted Plans and Specifications shall be commenced until the receipt of the ARC's written approval of the Plans and Specifications, or as otherwise provided under paragraph (j) of this Section 6.3.

(g) *Time for Review of Revised Plans and Specifications*. In the event the ARC shall disapprove any part of the Plans and Specifications as submitted in accordance with this Article, then the Owner shall have the opportunity to revise or resubmit its Plans and Specifications to incorporate such changes, modifications, additions or deletions, as applicable, and shall resubmit the Plans and Specifications as revised, if applicable, to the ARC, if the Owner so chooses, together with an additional Review Fee and the ARC shall have twenty (20) days within which to review such revised Plans and Specifications and to determine the Owner's compliance with the ARC's designated changes. In the event the ARC fails or neglects to advise the Owner in writing of whether or not such submitted or revised Plans and Specifications are in compliance (or non-compliance) within the aforementioned twenty (20) day period, then ARC's approval shall be conclusively presumed to have been granted; provided, however that the aforesaid presumption shall not be deemed a waiver of the applicable provisions of this Declaration or be deemed to be the prior written approval of the ARC under any specific provision herein. Any disapproval by the ARC of such revised and resubmitted Plans and Specification shall be communicated to the Owner in a written response in accordance with the details required for the ARC's disapproval as provided in paragraph (f) above.

(h) *Changes in Approved Plans and Specifications*. Once the ARC has approved an Owner's Plans and Specifications and the Improvements, then the Owner shall not change, revise or otherwise modify the approved Plans and Specifications or the Improvements without first securing the ARC's written approval in the manner prescribed under this Article. The ARC shall endeavor to review such changes, revisions or other modifications within a shorter

period of time than the aforementioned thirty (30) day period but shall not be required to do so.

(i) *Approval for Landscaping Plans*. Landscaping shall be approved by the ARC in the same manner as set forth above. In addition to all applicable foregoing guidelines no excavation shall be made, or fill, sand, gravel, crushed stone, brick, asphalt, concrete or the like be placed, set or poured on any portion of the Property so as to cause any blatant and material change in the appearance of such portion of the Property from the street or from any neighboring portion of the Property, unless the ARC shall first have consented in writing. No fences, walls, hedges or other barriers shall be erected on any portion of the Property without the approval of the ARC, and no existing fences, hedges or barriers shall be removed without the approval of the ARC.

(j) Dispute Resolution Process. If any Owner believes that either the expressed or presumed disapproval of any Plans and Specifications submitted by the Owner to the ARC hereunder or the ARC's proposed changes to such Plans and Specifications that may be required for the ARC's approval, or any of the Pre-Approvals are arbitrary and capricious, then any such Owner may, as its sole and exclusive remedy, appeal the decision of the ARC to the Board. The Board shall review the application together with relevant evidence and information submitted by the Owner in support of their appeal and shall render a decision within sixty (60) days of receipt of the appeal. In the event the Owner believes that either the expressed or presumed disapproval of any Plans and Specifications submitted by the Owner to the Board hereunder or the Board's proposed changes to such Plans and Specifications that may be required for the Board's approval, or any of the Pre-Approvals are arbitrary and capricious, then any such Owner may, as its sole and exclusive remedy submit such dispute to final and binding arbitration in accordance with the provisions of the Delaware Uniform Arbitration Act (the "Arbitration Act") and the rules of the American Arbitration Association applicable to such disputes, to the extent such rules are not inconsistent with the Arbitration Act. The fees of such arbitrator and all reasonable costs and expenses incurred by the ARC in defending its decision(s) shall be paid by the Owner, unless the arbitrator specifically finds and rules that the ARC acted in an arbitrary, capricious and meritless manner, in which event the Owner shall not be required to reimburse the ARC for its reasonable costs and expenses. In determining any question, matter, or dispute before such arbitrator, the arbitrator shall apply the provisions of this Declaration without varying therefrom in any respect, and shall not have the power or authority to add, modify, or otherwise change any of the provisions of this Declaration. The parties to any such arbitration agree to reasonably cooperate; to obtain the cooperation of their employees, agents and contractors, as applicable; to use reasonable efforts to supply as witnesses such employees, agents and contactors, as applicable; and to produce any relevant documents that may be required.

(k) *Approvals/Disapprovals*. Neither the Declarant, any Participating Builder, the ARC, nor the ARC Members, and their respective agents, employees, representatives, and its successors and assigns shall be liable or responsible for any damages to any Owner or to any other person submitting Plans and Specifications to the ARC for approval or to any third party by reason of a mistake in judgment, negligence or nonfeasance arising out of or in connection with the approval, disapproval, or failure to approve any Plans and Specifications. In addition, neither the Declarant nor any Participating Builder, the ARC, the ARC Members, or their respective agents, employees or representatives, shall be responsible for (i) determining the safety or

structural soundness of any Lot Improvements proposed or contained within the Plans and Specifications presented to the ARC for its review under this Article 6 or their compliance with all applicable Laws or (ii) determining the accuracy of any Lot Improvements after construction. Every person who submits Plans and Specifications to the ARC for approval, as provided herein, agrees, by submission of such Plans and Specifications, and every Owner or person claiming by or through the Owner agrees, by acquiring title to any Lot any interest in any Lot, that it shall not initiate, commence or prosecute any action, claim or suit against the Declarant, any Participating Builder, the ARC, the ARC Members, and their respective agents, employees or representatives to recover any such damages, including special, consequential or punitive damages with respect to any approval, denial or failure to approve any Plans and Specifications or their compliance or non-compliance with all applicable Laws, and such Owner shall indemnify and hold the ARC and the ARC Members harmless from and against any and all such damages.

ARTICLE 7
USE RESTRICTIONS

In addition to all other covenants contained herein, the use of the Property is subject to the following:

Section 7.1 *Permitted Uses.* All buildings located or erected on any portion of the Property shall be used for residential purposes exclusively, and no building shall be erected, altered, placed or permitted to remain on any portion of the Property other than one used for residential purposes, except that a home-based business may be maintained within such a building, provided that (a) such maintenance and use is limited to the person actually residing in such building; (b) no employees or staff other than a person actually residing in such building are utilized; (c) no clients, customers, employees, or vendors of such business visit such building; (d) the number of persons, other than clients, customers, employees, or vendors, that shall visit such business and the frequency of such visits shall be kept to a reasonable minimum, as determined in the sole discretion of the Board; (e) such maintenance and use is in strict conformity with the provisions of any applicable Laws; (f) the person utilizing such business maintains a principal place of business at a location other than such building; (g) such business uses no equipment or process that creates noise, vibration, glare, fumes, odors, or electrical or electronic interference detectable by neighbors and does not cause an increase of Common Expenses that can be solely and directly attributable to the business; and (h) such business does not involve the use, storage or disposal of any materials that the United States Secretary of Transportation or the State of Delaware, Sussex County or any local governing body designates as hazardous material. Nothing contained in this Article, or elsewhere in this Declaration, shall be construed to prohibit Declarant or any Participating Builder from using any portion of the Property, or any improvements thereon, for promotional or display purposes, as "model homes," as sales or construction offices, or the like.

Section 7.2 *Prohibited Uses and Nuisances.* Except for the activities of Declarant and any Participating Builder during the construction and development of the Property, or except with the prior written approval of the Board and Declarant, or as may be necessary in connection with reasonable and necessary repairs or maintenance to the Common Areas:

(a) No noxious or offensive trade or activity shall be carried out upon any portion of the Property, nor shall anything be done therein or thereon which may be or become

an annoyance or nuisance to the Declarant or the other Owners. Without limiting the generality of the foregoing, no speaker, horn, whistle, siren, bell, amplifier or other sound device, except such devices as may be used exclusively for security purposes, as well as outdoor speakers and associated equipment installed by any Participating Builders as part of the building and improvements constructed on a Lot, shall be located, installed or maintained upon the exterior of any building or other improvements constructed upon any portion of the Property. In addition, no objectionable noise-producing activities, including the operation of machinery, such as lawn mowing equipment, chain saws, construction equipment, and similar devices, shall be permitted except during such prescribed times and periods as the Association may from time to time adopt as part of the rules and regulations under Section 7.6 below.

(b) The maintenance, keeping, boarding or raising of animals, livestock, or poultry of any kind, regardless of number, shall be and is hereby prohibited on any portion of the Property or within any building or other improvement located thereon, except that this shall not prohibit the keeping of a reasonable number of dogs, cats, caged birds or other small domestic animals as pets not to exceed four (4) provided (i) they are not kept, bred or maintained for commercial purposes; (ii) such domestic pets are not a source of annoyance or nuisance to the neighborhood or other Owners; and (iii) such pets are maintained in strict conformance with all Laws. The Board shall have the authority, after a hearing, to determine whether a particular pet is a nuisance or a source of annoyance to other Owners, and such determination shall be conclusive. Pets shall be attended at all times and shall be registered, licensed and inoculated as may from time to time be required by all Laws. Except for designated and fenced dog parks, pets shall not be permitted upon the Common Areas unless accompanied by a responsible person and unless they are carried or leashed. The Board shall have the right to adopt such additional rules and regulations regarding pets as it may from time to time consider necessary or appropriate, including the right to establish a leash free area for pets provided the same complies with applicable law.

(c) No burning of any trash and no accumulation or storage of litter, lumber, scrap metals, refuse, bulk materials, waste, new or used building materials, or trash of any other kind shall be permitted on any portion of the Property. Firewood shall be neatly stacked in the rear yard areas of the Lots.

(d) Except for parking within garages, and except as herein elsewhere provided, no junk vehicle, commercial vehicle (including vans used for commercial use and vehicles displaying commercial signage), truck (except pickup trucks, sport utility vehicles and jeeps), unlicensed or inoperable motor vehicle (which shall include, without limitation, any vehicle that would not pass applicable state inspection criteria), trailer, mobile home, camp truck, house trailer, recreational vehicle, boat or other similar vehicles, machinery or equipment of any kind or character (except for such equipment and machinery as may be reasonable, customary and usual in connection with the use and maintenance of any dwelling or Lawn Area and except for such equipment and machinery as the Association may require in connection with the maintenance and operation of the Common Areas or Lawn Area) shall be kept upon the Property or upon the public or private streets within or adjacent to the Property, nor (except for bona fide Emergencies) shall the repair or extraordinary maintenance of automobiles or other vehicles be carried out thereon; provided, however, any trailer, mobile home, camp truck, house trailer, recreational vehicle, boat or other similar vehicles that are either owned, rented or leased by an Owner may be temporarily

kept upon the Owner's Lot (but not any adjacent portions of the public or private streets) solely with respect to either cleaning, loading or unloading any of the foregoing described vehicles, or picking up or discharge passengers therefrom for a reasonable period of time not to exceed forty eight (48) hours. This subsection (d) shall not be applicable to the Declarant or any Participating Builder during the construction and development of the Property.

(e) Trash and garbage containers shall not be permitted to remain in public view except on days of trash collection and the evening prior to such days of trash collection. No incinerator shall be kept or maintained upon any portion of the Property. No garbage or trash containers shall be kept on the front or side yard of any Lot other than within an enclosed structure constructed by any Participating Builder or approved by the ARC, as part of the building and improvements constructed on a Lot (as approved by the Declarant). Garbage and trash containers must be kept or maintained in an enclosed area within a side or rear yard of any Lot screened from public view, from any angle, at all times. This subsection (e) shall not be applicable to the Declarant or any Participating Builder during the construction and development of the Property.

(f) No Lot shall be further divided or subdivided and no portion of any Lot (other than the entire Lot) shall be transferred or conveyed for any purpose. The provisions of this subsection shall not apply to Declarant or a Participating Builder and, further, the provisions hereof shall not be construed to (i) prohibit the granting of any easement or right-of-way to any municipality, political subdivision, public utility or other public body or authority, or to the Association, Declarant, or any other individual or entity for any purpose, or (ii) prohibit minor boundary line adjustments between adjoining Owners if done in accordance with applicable Laws. Further, the provisions of this subsection shall not be deemed to preclude any Owner from granting an easement or right-of-way to any municipality, political subdivision, public utility or other public body or authority, or to the Association, to serve necessary public purposes, or from dedicating or conveying a portion of such Owner's Lot for such purposes.

(g) No tree, hedge or other landscape feature shall be planted or maintained in a location which obstructs sight-lines for vehicular traffic on public streets or on private streets and roadways. Without limiting the generality of the foregoing, no wire or other lawn edging, fencing or other treatment shall be placed or maintained on any portion of the Property which would impede the Association's ability to perform its obligations as set forth in this Declaration, or which would be inharmonious with the aesthetics of the Property.

(h) No decorative lawn ornament, no structure of a temporary character, and no trailer, tent, shack, barn, pen, kennel, run, stable, or other similar building shall be erected, used or maintained on any portion of the Property at any time. This subsection (h) shall not be applicable to the Declarant or any Participating Builder during the construction and development of their respective Lots.

(i) Except for entrance signs, directional signs, signs for traffic control or safety, community "theme areas" and such sales and promotional sign or signs as may be maintained by or with the written consent of Declarant or the Association, no signs or advertising devices of any character shall be erected, posted or displayed upon, in or about any portion of the Property, except as provided: (i) under Section 2.(a)(3) as to Declarant and Participating Builders; (ii) as may be expressly permitted under applicable Laws; and (iii) in strict compliance with the

Signage/Advertising Guidelines under Section 2.4(a)(7).

The provisions and limitations of this subsection shall not apply to any institutional first Mortgagee of any Lot who comes into possession of the Lot by reason of any remedies provided by Law or in such mortgage or as a result of a foreclosure sale or other judicial sale or as a result of any proceeding, arrangement, assignment or deed in lieu of foreclosure.

(j) No water pipe, sewer pipe, gas pipe, drainage pipe, cable or other similar transmission line shall be installed or maintained upon any portion of the Property above the surface of the ground and no wire, cable or other similar transmission line may be attached to the exterior of any structure on any portion of the Property; provided, however, that such transmission lines, wires or cables providing utility services to any portion of the Property (including electricity, telephone, gas, water and cable television) shall be permitted. Except during periods of actual use, no hose shall be stored or placed in the front or side yard of any dwelling unless screened from public view. In addition, unless used solely for irrigation and when the location for the same is approved by the ARC and permitted through any applicable jurisdictional body, no wells or any other equipment or apparatus shall be permitted to be constructed, operated or otherwise Maintained on any Lot that results in the extraction, consumption or otherwise utilizes groundwater.

(k) No play equipment, including basketball backboards, basketball hoops and other equipment associated with either adult or juvenile recreation, shall be attached in any manner to the exterior of any dwelling without obtaining prior written approval pursuant to Article 6 hereof. If approved in accordance with this Declaration, such play equipment must be properly maintained at all times.

(l) No structure, fence, planting or other material or improvements of any kind shall be placed or permitted to remain upon any portion of the Property which may damage or interfere with any easement for the installation or maintenance of utilities, or which may unreasonably change, obstruct or retard the direction or flow of any drainage channels.

(m) Vegetable gardens shall be maintained only within the rear yard of any Lot and shall be maintained in a neat and attractive manner. No composting activities of any kind or nature shall be permitted on any portion of the Property, including natural composting activities. In addition, no Owner shall erect or maintain any composting piles or receptacles or containers on any portion of the Property.

(n) Lawn furniture shall be used and maintained in rear yards or decks or front porches only, unless otherwise determined by the Board, and shall be maintained in a neat and attractive manner.

(o) No equipment or machinery (including equipment or machinery for use in connection with the maintenance of any dwelling) shall be stored in the front, rear or side yard of any Lot.

(p) No Owner shall make any private, exclusive or proprietary use of any of the Common Areas and no Owner shall engage or direct any employee of the Association

on any private business of the Owner during the hours such employee is employed by the Association, nor shall any Owner direct, supervise or in any manner attempt to assert control over any employee of the Association.

(q) Any fence constructed upon the Property shall not extend forward of the mid-point building line of the main portion of dwelling on any Lot upon which any such fence is erected and shall be not extend past 3 feet from the applicable side and rear yard property lines of any Lot and shall not otherwise impede or interfere with the proper drainage of any drainage swales or other drainage or storm water related facilities. No fence shall be constructed or maintained upon a Lot until the plans for the same have been approved in writing in accordance with the provisions of Article 6 herein. No fence shall be more than fifty four inches (54") in height. Such fences shall be constructed of black anodized aluminum and shall be in one of up to three (3) available styles of fencing that are available to choose from and have otherwise been approved in writing pursuant to Article 6 herein. All other types, materials and colors of fencing are specifically prohibited, including chain link and split rail. Notwithstanding the foregoing, this subsection shall not apply to fences installed by or on behalf of Declarant or any Participating Builder during the construction and development of the Property, which in the sole opinion of Declarant or such Participating Builder, as applicable, shall be required, convenient or incidental to Declarant's or such Participating Builder's, as applicable, construction, development, marketing, leasing and sales activities within the Property.

(r) Bed sheets, plastic sheets, newspapers, plastic storm windows or other similar window treatments shall not be hung or placed in or on any window on any dwelling located on any Lot.

(s) Children's play and similar equipment, including portable basketball hoops, shall not be allowed to remain overnight within any front yard of any Lot or within the Common Areas.

(t) Children's outdoor permanent playhouses and swinging or climbing apparatus or equipment shall be permitted within the rear yard of a Lot; provided, however, that prior written approval is obtained pursuant to Article 6 and that such equipment, playhouse(s) or apparatus is properly maintained at all times.

(u) All on-Lot lighting shall be designed and mounted in accordance with the terms of the Design Guidelines and operated and Maintained pursuant to the Design Guidelines and such other reasonable rules of operating as adopted and promulgated by the ARC from time to time and as otherwise provided under this Declaration. Any such lighting shall be generally directed in such a manner to enhance the immediate area around any dwelling on a Lot and shall not be directed toward other dwellings on adjacent Lots or properties surrounding the Property, so as to be a nuisance to adjacent Owners or landowners outside of the Property. Any modifications of any kind to such on-Lot lighting installed by any Participating Builder shall be subject to all applicable provisions of this Declaration, including Article 6. In addition, the foregoing shall not prohibit the display of customary holiday decorations, subject to such specific and reasonable limitations on type, manner of display and duration as the Association may from time to time fix and determine in accordance with Section 7.6 below.

(v) No drying or airing of any clothing or bedding shall be permitted outdoors or within any Lot other than within rear yards, and clothes hanging devices such as lines, reels, poles, and frames shall be stored out of sight when not in use.

(w) ARC-approved below-ground pools, hot tubs, and/or jacuzzis are permitted. Above ground pools of any kind shall not be permitted. Hot tubs and jacuzzis must be placed on either concrete or pavers.

(x) No garage or outbuilding properly erected on a Lot shall at any time be used for human habitation, temporarily or permanently, nor shall any structure of a temporary character be used for human habitation. No garage may be altered, modified or changed in any manner which would inhibit or in any way limit its function as a parking area for vehicles without obtaining prior written approval pursuant to Article 6 of this Declaration. Notwithstanding the foregoing, any Lot owned by Declarant or a Participating Builder upon which is situated a dwelling in which the garage has been modified to serve as living area or marketing/sales area shall be exempt from this paragraph and any grantee of Declarant, and such grantee's successors and assigns, shall also be exempt until such time as the garage is restored or a garage is constructed on such Lot. Except when being used as an entrance or exit after 7:00 PM, garage doors shall be maintained in a closed position at all times.

(y) No flags and associated poles or other related supports shall be erected, displayed or maintained on any Lot or the Property except for flags permitted by Federal and State laws and flags suspended on poles or supports no longer than five (5) feet in length which are attached to the front porch or garage of a dwelling unit on such Lot and as otherwise provided pursuant to Section 7.6.

(z) Only full view storm doors, defined as doors where the glass covers at least 80% of the door surface are permitted. Storm doors must be painted the same color as the door that it services, or its adjacent trim. If a storm door meets the foregoing requirements, an application to the ARC under Section 6.3 is not required.

(aa) No air conditioners or other equipment or apparatus shall be permitted to be installed, maintained, or otherwise protrude from any windows.

(bb) Lot Owners or occupants shall not: (i) do anything on a Lot or the Common Area that would change or interfere with the swales, bio-retention devices, dry-wells, or other stormwater management devices located within a Lot, (ii) erect permanent structures over any such swales, bio-retention devices, dry-wells, or other stormwater management devices, or (iii) change the grade of a Lot in any manner without the prior written approval of the Board of Directors or ARC, as applicable, in accordance with Article 6 of this Declaration. The Declarant, the County and the Association, and their respective agents and employees shall have an irrevocable right and easement to enter all of the Lots for the purpose of constructing, inspecting, maintaining, repairing or replacing any portion of the swales, bio-retention devices, dry-wells, or other stormwater management devices located within a Lot. Lot Owners are hereby notified that any landscaping that may be planted on, over or near any such swales, bio-retention devices, drywells, or other stormwater management devices located within a Lot shall be subject to being removed and replanted in the event that the Declarant, the County or the Association shall require

access to the swales, bio-retention devices, dry-wells, or other stormwater management devices set forth in this Section. Neither the Declarant the County nor the Association and their respective agents and employees shall be liable or responsible for any damage caused to such landscaping or to any improvements that a Lot Owner constructs on, over or near any such swales, bio-retention devices, dry-wells, or other stormwater management devices located within a Lot. The Association shall establish a reserve fund for costs anticipated for maintenance, inspection and repair of the referenced swales, bio-retention devices, dry-wells or other stormwater management devices constructed for the benefit of the Community but located on an Owner's Lot. The Owners or occupants of any Lot on which swales, bio-retention devices, dry-wells, or other stormwater management devices are located shall be responsible for the cost of any maintenance, repair, replacement or damage to the swales, bio-retention devices, dry-wells or other stormwater management devices located within a Lot.

(cc) No Owner shall have the right to remove any healthy growing trees located on any of the Lots without the approval of the Board of Directors or its designated committee. In no event shall any trees located within any public easement or public right-of-way be removed without the prior, written consent of the applicable governmental authority and the Association.

(dd) Installation of any small wind energy systems that are permitted by the County Code shall require prior approval of the Board of Directors. Installation of small wind energy systems shall be governed by rules and regulations adopted by Federal, State and/or local agencies which govern such small wind energy systems. The Board of Directors may adopt rules and regulations, consistent with Federal, State and/or local agencies' rules and regulations, regarding such criteria as size, location and screening of small wind energy systems, provided the same does not (i) significantly increase the cost of the small wind energy system, or (ii) significantly decrease the efficiency of the small wind energy system. Any such small wind energy system shall not be attached to any house or other building.

(ee) Open burning of fires is not permitted on the Property, except that outdoor fireplaces, grills, and/or chimneys may be used if equipped with fire screens to prevent the discharge of embers or ashes. Any Owner or such Owner's tenants, lessees, agents, guests, invitees, licensees, family members or other persons who use such outdoor fireplaces, grills, and/or chimneys on any portion of the Property shall be deemed to have agreed to indemnify, defend and hold harmless the Association, each other Owner and the Declarant, from any loss, claim or liability of any kind or character whatsoever arising by reason of, resulting from or relating to such use within the Property.

(ff) Owners, or such Owner's tenants, lessees, agents, guests, invitees, licensees or family members persons must obtain written consent from the Board of Directors prior to operating an unmanned aerial system ("Drone") on the Property. Any such operator of a Drone on any portion of the Property shall be deemed to have indemnified and agreed to hold the Association, each Owner, the Declarant, and the Association free and harmless from any loss, claim or liability of any kind or character whatever arising by reason of their operation of a Drone within the Property. At least three (3) business days prior to the operation of the Drone, the operator shall provide proof of insurance covering the drone to the Association. The operator of the Drone shall comply with all federal and state rules and regulations as well as any county, local

or municipal ordinances.

(gg) Security cameras, video alarm systems, video doorbells, and similar technology shall not be installed on any Lot without the prior written approval of the Board of Directors or ARC, as applicable. The use of any such devices shall be limited to security purposes only, and no camera shall be directed into any dwelling on an adjacent Lot.

(hh) The placement of any lawn ornaments within any portion of the front, side or rear (if applicable) yard areas of any Lot is prohibited without the prior written approval of the Board of Directors or ARC, as applicable. Notwithstanding the foregoing, seasonal holiday decorations are permitted from Thanksgiving until December 31 of each year.

(ii) The foregoing use restrictions are not intended to and do not expand permitted uses under the applicable zoning code of the municipality with jurisdiction over the Property in effect at the time of the final approval of the Project.

Section 7.3 Satellite Dishes. Installation of antennas, including satellite dishes, shall be governed by this Section and such other additional reasonable rules and regulations regarding the location and screening of any such items that the Board shall impose from time to time. The Federal Communications Commission (the "FCC") adopted a rule effective October 14, 1996 (the "FCC Rule"), preempting certain restrictions concerning the installation, maintenance, and use of direct broadcast satellite, television broadcast, and multipoint distribution service antennas (collectively, "Antennas"). The requirements set forth in this Section are generally consistent with the FCC Rule; however, because the FCC Rule is subject to change or modification, the Board reserves the right to amend and modify any requirements governing installation, maintenance, and use of Antennas, which may be more restrictive than as set forth herein and which may, in the discretion of the Board, be applied retroactively. Antennas not covered by the FCC Rule, including satellite dishes in excess of one (1) meter in diameter, shall not be installed on the exterior portions of any Lot or dwelling without prior written approval as required by Article 6. Antennas situated entirely within a dwelling, and not visible from the exterior are permitted. Antennas covered by the FCC Rule, including satellite dishes of one (1) meter or less in diameter, are permitted within a Lot, provided such Antennas shall not be visible from the front elevation of the Lot; provided, however, that nothing herein requires installation of such an Antenna in a location from which an acceptable quality signal cannot be received, as certified in writing by a licensed installer or which causes an unreasonable delay or cost increase in such installation.

Section 7.4 Leasing and Transfers.

(a) No portion of a dwelling unit located on any Lot, other than an entire dwelling unit located on such Lot, may be leased or rented unless the prior written approval of the Board is obtained. All leases shall be on forms approved by the Association (which approval shall not be unreasonably withheld, conditioned or delayed) and shall (i) contain provisions advising the tenant of his obligation to comply with all provisions of this Declaration, the Certificate of Incorporation, Bylaws and rules and regulations of the Association, and (ii) provide that the Association shall have the right, in addition to all other rights provided by the Act and any other applicable Laws, to terminate the lease upon default by the tenant in observing any of the

provisions of this Declaration, the Certificate of Incorporation, Bylaws or rules and regulations of the Association, or of any other document, agreement or instrument governing such Lot or the Property. The Owners of a leased dwelling unit shall notify the Association in writing of the Owners' current address. The Owners of such a leased dwelling unit shall be jointly and severally liable with his tenants to the Association to pay any claim for injury or damage to persons or property caused by any action or omission, including the negligence of the tenants. Every lease shall be subordinate to any lien filed by the Association, whether before or after such lease was entered into. The minimum term any dwelling unit on a Lot may be rented or leased shall be one (1) week. Notwithstanding any inconsistent or contrary provision in this Declaration, if there are any FHA, VA or USDA insured loans affecting a Lot, and only for so long as any such loans affect the Lot, any restrictions in this Declaration on renting, subleasing, or reconveyance that violate any FHA, VA or USDA requirements shall not apply to such Lot or its Owner.

(b) Prior to the sale, conveyance, or transfer of any Lot to any Person, the Owner shall notify the Board in writing of the name and address of the person to whom the proposed sale, conveyance, or transfer is to be made (the "Transferee") and provide to it such other information as the Board may reasonably require in order to obtain the required initial capital contribution from the Transferee. Failure to comply with the provisions of this Section 7.4(b) shall not void, prohibit or otherwise invalidate the sale, conveyance, or transfer of any Lot nor will it have any affect upon any mortgage or deed of trust thereon.

Section 7.5 *Parking.* Parking within any of the Common Areas within the Property shall be subject to the following restrictions:

(a) The Board shall be entitled to establish supplemental rules concerning parking and traffic control on any portion of the Property that involves the Common Areas, including providing for reserved parking which allows the non-exclusive use of one or more parking spaces by one or more Owners or the involuntary removal of any vehicle violating the provisions of this Declaration or such rules.

(b) Each Owner shall comply in all respects with such supplemental rules which are not inconsistent with the provisions of this Declaration which the Board may from time to time adopt and promulgate with respect to parking and traffic control within the Property, and the Board is hereby authorized to adopt such rules.

(c) Parking shall be prohibited in the turn-arounds, fire lanes and cul-de-sacs as provided on the Development Plans, if applicable.

Section 7.6 *Rules and Regulations.* The Association shall have the right to adopt rules and regulations in accordance with § 81-320 of the Act governing the use by the Owners of the Common Areas Property and/or Lots, which rules and regulations shall not apply to any Participating Builder and which shall not be inconsistent with the provisions of this Declaration. Such rules and regulations may include the regulation of rentals in the Property and govern specific leasing standards, including, permitted signage or advertising, minimum lease terms and maximum number of occupants permitted to occupy a main dwelling, the display of American flags or other flags (consistent with federal law, § 81-320 of the Act and Section 7.2 above, as applicable) and/or the display and placement of political signs (consistent with § 81-320 of the

Act). Any rules and regulations adopted by the Association shall be a governing document of the Association.

Section 7.7 *Exemptions and Limitations.* Notwithstanding anything contained in this Declaration to the contrary, none of the restrictions and provisions set forth in this Article 7 nor any other restrictions and provisions contained in this Declaration shall be applicable (a) to any portion of the Property owned by Declarant or any Participating Builder, (b) to the activities of Declarant or any Participating Builder, and their respective officers, employees, agents, successors and assigns, in their development, marketing, leasing and sales activities within the Property, or (c) to the Association, its officers, employees and agents, in connection with the proper maintenance, repair, replacement and improvement of the Common Areas. Nothing contained in this Article 7, or elsewhere in this Declaration, shall be construed to prohibit Declarant or any Participating Builder from using any portion of the Property, or any improvements thereon, except for any Lots not owned by Declarant or any such Participating Builder, for promotional or display purposes, as "model homes," as sales or construction offices, or the like.

Section 7.8 *Notice of Special Provisions Regarding the Property.*

(a) *Resource Buffer*. The Project contains a protected resource buffer around the exterior of the Project as identified in Schedule 7.8(a) attached hereto and made a part hereof (the "Resource Buffer"). The Resource Buffer shall not be disturbed except as set forth herein. In the event the Association, an Owner or a Participating Builder causes the Resource Buffer to be disturbed, such party shall (a) pay a fine in an amount equal to $10,000 per quarter-acre of disturbance or part thereof with such fine payable to the Sussex County Land Trust (or in the event the Sussex County Land Trust is no longer in existence, to a charitable organization dedicated to preservation of land or the environment primarily in Sussex County, Delaware) and (b) for every tree removed or destroyed with a caliper of six inches or greater at breast height, such party shall cause at least three (3) replacement trees to be planted with such trees to be a native species and at least two inches caliper at breast height and such installation shall be overseen at the offending party's expense by an ISA Certified Arborist to insure the replanting design provides adequate space for root and crown development. The provisions of the Section 7.8(a) shall inure to the benefit of the Declarant, the Association, the County and the Sussex County Land Trust and each of the foregoing shall have the right to enforce this Section 7.8(a) by any means including by bringing an action for specific performance and the cost of enforcement of this Section 7.8(a) shall be borne by the offending party. Notwithstanding the foregoing, the Resource Buffer may be disturbed for (a) invasive species control which is to be completed under the guidance and approval of a Licensed Forester, ISA Certified Arborist, Registered Landscape Architect or Qualified Resource Buffer Professional or (b) to remove a tree which based on the determination of an ISA Certified Arborist or Licensed Forester presents a risk of physical injury to a person, dwelling or structure, provided, however, that the removal of a tree for the foregoing reason shall still require the planting of three (3) replacement trees as set forth above but no fine shall be levied.

(b) *Turf Nutrient Restrictions – Use of Chemicals and Fertilizer*. No Owner shall apply chemicals or fertilizers to a Lot or Common Area. The Association shall be responsible for all lawn, plant and turf maintenance and shall ensure Mandatory Best Management Practices are observed in conjunction with an environmental consultant. In the event an Owner violates the foregoing covenant, the Association may fine such Owner up to $1,000 per violation

of the foregoing with each such application of a chemical or fertilizer being a separate violation hereunder.

(c) *Notice of Agricultural Use*. The Property is located in the vicinity of land used primarily for agricultural purposes on which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of the Property is expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities.

(d) *Specific Tree Restrictions*. Select lots within the Property are subject to deed restrictions specific to an old growth, specimen tree that place additional requirements upon those select Owners with respect to the care of the specimen tree(s). All provisions related to on-lot trees within this Declaration apply to the specimen trees in addition to the specific restrictions outlined in the deed restrictions unique to certain Lots.

(e) *Forested Property*. The Property contains many existing trees which will remain even following the constructions of homes on the Lots. Each Owner, by acceptance of a deed for a Lot, hereby acknowledges and agrees that any damage, claim, cause of action, cost or expense related to any trees on the Property, including but not limited to damage related to a tree falling, shall not be the responsibility of the Declarant or a Participating Builder and such Owner agrees to hold the Declarant and Participating Builder harmless from any such damage, claim, cause of action, cost or expense.

ARTICLE 8
DECLARATION OF EASEMENTS AND RIGHTS

Section 8.1 *Declaration of Easements and Rights.* The following easements and rights are hereby declared or reserved:

(a) For so long as Declarant or Participating Builder owns all or any portion of the Property, Declarant reserves for itself and Participating Builders the right to grant easements, both temporary and permanent, to all public authorities and utility companies over any part of the Property.

(b) Each Lot and the Common Areas are hereby declared to have an easement, not exceeding one foot (1') in width, over all adjoining Lots and Common Areas for the purpose of accommodating any encroachment due to engineering errors, errors in original construction, settlement or shifting of the building, roof overhangs, gutters, architectural or other appendages, draining of rainwater from roofs, or any other similar cause, there shall be valid easements for the maintenance of said encroachments so long as they shall exist, and the rights and obligations of the Owners shall not be altered in any way by said encroachment, settlement or shifting; provided, however, that in no event shall a valid easement for encroachment be created in favor of any Owner if said encroachment occurred due to the willful misconduct of said Owner. In the event a structure on any Lot or any Common Areas is partially or totally destroyed and then

repaired or rebuilt, the Owners of each Lot and the Association agree that minor encroachments over adjoining Lots or Common Areas shall be permitted and that there shall be easements for the maintenance of said encroachments so long as they shall exist.

(c) There is hereby reserved unto Declarant and each Participating Builder, for the benefit of the real property shown on the Development Plans, and for the benefit of Declarant and each Participating Builder, a non-exclusive, perpetual blanket easement upon, across and under the Property for vehicular and pedestrian ingress and egress, curb cuts, slope, and grading easements, as well as for the installation, replacement, repair and maintenance of all Utilities, and further including the right to connect to and use any such Utilities which may exist or be located upon the Property from time to time. By virtue of this easement, it shall be expressly permissible to erect and maintain the necessary poles, pipes, lines, service boxes, and other equipment on the Property, to affix and maintain electrical or telephone wires and conduits, sewer and water drainage lines, on, above, or below any portion of the Property, including any improvements constructed thereon, and to have construction vehicles, equipment and the like exercise the aforesaid right of ingress and egress over the Property. There is further reserved unto Declarant and each Participating Builder the right to erect entry features, promotional and other similar items within the Property provided they do not unreasonably interfere with the use, operation and enjoyment of the Property. There is further reserved unto Declarant the right to grant specific easements, both temporary and permanent, to any Person, including all public authorities and utility companies, over any part of the Property in furtherance of the blanket easement created by this subsection. Further, without limiting the generality of the foregoing, Declarant reserves the right to unilaterally execute and record such additional easements and agreements as may be necessary in order to give effect to the foregoing easements and other rights, which additional easements and other agreements need not be consented to or joined in by any party having an interest in the Property; provided, however, that if requested by Declarant, any party having an interest in the Property shall promptly join in and execute such confirmatory easements and other agreements.

(d) An easement is hereby reserved to Declarant and each Participating Builder to enter the Lots and any Common Areas during the period of construction and sale on the Property, and to maintain the Common Areas and perform such operations as in the sole opinion of Declarant or Participating Builder, as applicable, may be reasonably required, convenient or incidental to the construction of the Common Areas and for the construction and sale of residences, including a business office, sales/leasing office, storage area, construction yards, signs, displays and model units.

(e) An easement is hereby reserved to Declarant and each Participating Builder to enter the Lots and any Common Areas for the purpose of carrying out any obligations it may have, or assume, with respect to the curing of any defects in workmanship or materials in the Property, or the improvements thereon. There is further reserved unto Declarant and each Participating Builder a non-exclusive easement over, across and through all of the Property for the purpose of access, the storage of building supplies and materials and equipment and, without any limitation, for any and all purposes reasonably related to the completion of the development, construction, rehabilitation and repair of the Property.

(f) Declarant reserves a perpetual blanket easement and right on, over

and under the Property to establish, maintain, change and correct drainage of surface water in order to maintain reasonable standards of health, safety and appearance. Notwithstanding anything contained in this Declaration to the contrary, Declarant shall have no obligation whatsoever to perform any work or to take any action regarding drainage of surface water within the Property. Such right expressly includes the right to cut any trees, bushes or shrubbery, make any grading of the soil, or to take any other similar action as may be reasonably necessary, following which Declarant shall restore the affected property to its original condition as near as practicable. Declarant shall give reasonable notice of intent to take such action to all affected Owners, unless in the opinion of Declarant an Emergency exists which precludes such notice. There is further reserved unto Declarant the right to grant specific easements, both temporary and permanent, to any Person, over any part of the Property in furtherance of the blanket easement created by this subsection. Each Participating Builder shall have the same rights as Declarant under this Section 8.1(g) but such rights shall only apply to the portion of the Property which such Participating Builder owns.

(g) The rights and duties of the Association and the Owners with respect to all public or private Utilities serving or benefiting all or any portion of the Property shall be governed by the following:

(1) Each Lot is hereby subject to a non-exclusive perpetual easement and right of passage upon, across and under such Lot for the benefit of the Association and the Owners for the installation, maintenance, repair, replacement, inspection, operation and use of all Utilities. The Association and Owners shall have the right, and they are hereby granted an easement and right of passage to the extent necessary therefor, to enter upon or have a utility company enter upon any portion of the Property in which the Utilities lie, to inspect, repair, replace and generally maintain such Utilities.

(2) The right granted in subsection (i) above shall be only to the extent necessary to entitle the Owner of the property serviced by the Utilities (including the Association as the owner of the Common Areas) to their full and reasonable use and enjoyment of such property, and provided further that anyone exercising such right shall be responsible for restoring the surface of the easement area so used to its condition prior to such use.

(h) Each Lot is hereby subject to an easement and right of passage upon, across and under such Lot for the drainage and discharge of water from any storm drain, down spout or yard drain situated on another Lot or the Common Areas and the Owner of such Lot may not alter or obstruct such drainage or flow of water to the detriment of any Lot or the Common Areas.

(i) The Association shall have an easement to enter any portion of the Property for the performance of its duties hereunder, including fenced, or other similar areas of the Property.

(j) With respect to any step, patio, deck, downspout or yard drain or other similar structure that may benefit any Lot and is constructed by or on behalf of the Declarant or by any Participating Builder and that may encroach upon any portion of the Common Areas, there is hereby reserved for the benefit of the Lot that such step, patio, deck, downspout, drain or

other structure serves, a perpetual easement for the location, maintenance, repair and use of such structure or items within the Common Areas, but only to the extent that the original construction thereof encroaches within the Common Areas. The Owner of the Lot benefiting from such easement agrees to maintain such structure or item and to indemnify and hold the Association harmless from any loss, liability or damage arising out of or resulting from the use, enjoyment and benefit of the easement granted hereby.

(k) There is hereby created for the benefit of each Lot that is enclosed, in whole or in part, by any wooden, brick, stone or other similar fence or wall constructed by or on behalf of the Declarant or by any Participating Builder, a perpetual easement to use any portion of the Common Areas that may be located between such fence or wall and the record platted lot line for such benefited Lot. The obligation to maintain such portion of the Common Areas shall be that of the Owner of the benefited Lot, and the obligation to maintain such portion of the wooden, brick, stone, or other similar fencing as is located within the Common Areas, and that encloses the benefited Lot, in whole or in part, shall be that of the Association. The Owner of any Lot benefiting from the foregoing easement agrees to indemnify and hold the Association harmless from any loss, liability or damage arising out of or resulting from the use, enjoyment and benefit of the easement rights provided for herein.

(l) A mutual right and easement for utility services is hereby established for the benefit of all Owners, such that no Owner shall take any action which would in any way interfere with utility services being provided to other Owners. If a Lot contains any utility pipes, ducts, conduits, wires or the like which are for the benefit, in whole or in part, of other Owners, then the Owner of such Lot shall promptly, at such Owner's expense, repair any damage to such utilities caused by such Owner, or such Owner's tenants, lessees, agents, guests, invitees, licensees or family members.

(m) The Association shall have an irrevocable right and an easement to enter all or any portion of the Property for purposes of exercising the rights and fulfilling the obligations established by this Declaration and any supplementary declarations recorded hereafter.

(n) Declarant or a Participating Builder, to the extent permitted by applicable law and only with respect to any Lots or portions of the Property owned by such Participating Builder, reserve the right to amend, modify, alter, or other change the size, number, type, character, and location of the Lots or Common Areas, and any improvements thereon, as Declarant, or Participating Builder, as applicable, deems necessary or desirable in conjunction with the development of the Property or the Project (the "Permitted Activities"); provided that any such Permitted Activities shall not amend, modify or otherwise alter or change the existing property lines of any Lot owned by an Owner other than the Declarant or Participating Builder, as applicable. Without limiting the generality of the foregoing, Declarant and Participating Builder, to the extent permitted by applicable law and only with respect to any Lots or portions of the Property owned by such Participating Builder, reserves the right to resubdivide all or a portion of the Property or Project, to convey all or any portion of the Property or Project, including any Lots owned by Declarant or Participating Builder, as applicable, as well as the Common Areas (until such time as the control of the Association is transferred to the Owners), to modify the Development Plans. Declarant and Participating Builder also reserve the right to construct the Common Facilities on the Common Areas. Declarant reserved the right to take whatever other

action with respect to the Lots or Common Areas as Declarant may deem necessary or desirable.

(o) The Association is hereby granted a non-exclusive easement and right of passage on, through, over, under and across the Lots and Common Areas to maintain, repair and replace any Common Facilities situated within the Lots or Common Areas.

(p) There is hereby reserved unto Declarant and Participating Builder, for the benefit of the real property shown on the Development Plans, and for the benefit of Declarant, a non-exclusive perpetual blanket easement upon, across and under the Property for the following purposes: (i) ingress and egress to and from any and all portions of the Property by trucks, construction equipment, construction personnel and the like; (ii) to construct, install, reconstruct, alter, modify, remove and replace the Common Facilities or any other improvements within the Property; (iii) to excavate, fill and coordinate the height, grade, slope and contour of the Property, and to add and remove soil from the Property; and (iv) for the conduct of all other development, construction, marketing, sales, leasing and related activities as may be deemed necessary or desirable by Declarant or Participating Builder to implement the Development Plans, to comply with requirements imposed by Sussex County, Delaware, or any governmental or quasi-governmental agency or authority having regulatory jurisdiction over the Property, or to comply with applicable Laws.

(q) Each Lot (referred to in this Section 8.1(q) only as the "Burdened Lot"**)** is hereby subject to a perpetual, non-exclusive access easement and right of passage, for the benefit of any adjacent Lot (referred to in this Section 8.1(q) only as the "Benefited Lot"**)** and the Owner of such Benefited Lot (referred to in this Section 8.1(q) only as the "Benefited Owner"), to the extent reasonably necessary to permit the Benefited Owner access to the exterior of the dwelling unit situated upon such Burdened Lot, for purposes of inspecting, maintaining, repairing, replacing and otherwise caring for the exterior of the Benefited Owner's dwelling unit, including, but not limited to, the heating and air conditioning unit that may be located upon said Burdened Lot; provided, however*,* that the Benefited Owner shall take reasonable steps to minimize any damage to any Burdened Lot or any improvements, landscaping or plantings thereon as a result of the exercise of this easement, and to the extent the Benefitted Owner causes any damage to same in connection with the exercise of the foregoing easement, the Benefitted Owner shall promptly repair such damage at its sole cost and expense. The Benefited Owner's exercise of its rights hereunder shall be at reasonable times and shall not interfere with the use and enjoyment of any Burdened Lot by the Owner thereof. The Benefited Owner shall indemnify and save harmless any Burdened Lot Owner from any loss or damage that such Owner may sustain, including reasonable attorneys' fees, as a result of the entry by the Benefited Owner on the Owner's Burdened Lot.

(r) During the Declarant Control Period, the Declarant and the Participating Builder, for themselves and on behalf of their respective successors and assigns, and any public or private utility company, reserves the right to install "ganged" or shared utility meters or utility service boxes and grants an easement over those portions of each Lot as are necessary to install said utility meters or utility service boxes and to provide access to and from the same from and to a public right of way. The easement over each Lot is to be located in an area which does not interfere with the construction of the residential improvements on the Lot and which will provide access necessary to install and to maintain, repair and replace the said utility meters or utility service boxes. Notwithstanding anything to the contrary contained herein, the Declarant and

the Participating Builder have the right, but not the obligation, to install any such "ganged" or shared utility meters or utility service boxes.

(s) Some Lots may contain a retaining wall and related components, which may include, without limitation, geogrid support systems located beneath the surface of the Lots, if any, as shown on the Development Plan. The Association shall be responsible for maintaining all retaining walls whether located on a Lot or within the Common Area which have been constructed by Declarant or Participating Builder (and their respective designees, contractors or assigns), pursuant to the Development Plan. All determinations regarding the need for and extent of any maintenance, repair, replacement or inspection of any retaining wall shall be made by the Association. The Owners of any such Lots which contain a retaining wall or are located near or adjacent to a retaining wall hereby grant to the Association, the Declarant, the Participating Builder, and their respective designees, contractors and/or assigns, a nonexclusive, perpetual maintenance easement and right of passage on, through, over, under, around and across that portion of such Owner's Lot as is located within five (5) feet of the retaining wall (the "Retaining Wall Easement Area") for purposes of constructing, inspecting, maintaining, repairing, and/or replacing any such retaining wall, including, without limitation, the temporary storage of materials and equipment; provided, however, that reasonable steps are taken to minimize any damage to the Lots or inconvenience to the Owners. All costs associated with the maintenance, repair, replacement or inspection of any retaining wall shall be borne by the Association and included as part of the annual assessment. No walls, barriers, fences, structures, plantings or other obstructions shall be erected or allowed to remain within the Retaining Wall Easement Area. Any such walls, barriers, fences, structures, plantings or other obstructions (whether or not previously approved by the Board of Directors or ARC, as applicable), erected within the Retaining Wall Easement Area may be required to be removed at Owner's expense in the event of maintenance, repair or replacement of the Retaining Wall, and shall be erected at Owner's risk.

(t) The Property is hereby subject to a non-exclusive, perpetual easement and right of passage, for the benefit of the Owners, for ordinary and reasonable pedestrian ingress and egress over, across and upon any and all Common Areas, together with all streets, roads, and rights-of-way.

(u) In addition to the foregoing reservations and grants of easement rights, Lots shall be subject to any and all easements set forth on the Development Plans.

Section 8.2 Association Easements. The Board shall have the right to grant easements, rights-of-way, licenses and similar interests over any part of the Common Areas for any lawful purpose which the Board determines, in its sole discretion, to be in the best interests of the Association.

Section 8.3 Party Wall Easements and Rights. To the extent not inconsistent with the provision of this Section, the general rules of law regarding party walls and liability for property damage due to negligence or willful act or omissions shall apply to each party wall, party fence, deck, or other structure or improvement which is built as part of the original construction of the dwellings upon the applicable Lots and any replacement thereof.

(a) Encroachments. The event that any portion of any dwelling,

structure or improvement, as originally constructed by or on behalf of the Declarant or a Participating Builder on a Lot or the Common Areas, including any party wall, fence, or deck shall protrude over an adjoining Lot or the Common Areas, then such dwelling, structure or improvement (including any party wall, fence or other projection) (collectively, the "Projections") shall not be deemed to be an encroachment upon the adjoining Lots or Common Areas, and no Owner shall maintain any action for removal of any such Projections nor any action for damages. In the event there is a Projection as described aforesaid, it shall be deemed that the Owners and, where applicable, the Association have granted perpetual easements to the adjoining Owners for continuing maintenance and use of the Projections. The foregoing shall also apply to replacements of any such Projections if same are constructed in conformance with the original Projection constructed by or on behalf of Declarant or a Participating Builder. The foregoing conditions shall be perpetual in duration and shall not be subject to amendment of these covenants and, restrictions.

(b) Sharing of Repair and Maintenance. The cost of reasonable repair and maintenance of a party wall shall be shared equally by the Owners who make use of the wall in proportion to such use.

(c) Destruction by Fire or Other Casualty. If a party wall or party fence is destroyed or damaged by fire or other casualty, any Owner who has used the wall may restore it, and if the other Owners thereafter make use of the wall or fence, they shall contribute to the cost of restoration thereof in proportion to such use, without prejudice, however, to the right of any such Owners to call for a larger contribution from the others under any rule of law regarding liability for negligent or willful acts or omissions.

(d) Weatherproofing. Notwithstanding any other provision of this Article, an Owner, who by his negligent or willful act causes the party wall to be exposed to the elements, shall bear the whole cost of furnishing the necessary protection against such elements.

(e) Right to Contribution Runs with Land. The right of any Owner to contribution from any other Owner under this Article shall be appurtenant to the land and shall pass to such Owner's successors and assigns in title.

(f) Arbitration. In the event of any dispute arises concerning a party wall or party fence, or under the provisions of this Article, such dispute shall be adjudicated by the ARC pursuant to Article 6.

Section 8.4 Common Area Turnover. Upon completion of the construction of any Common Facilities located in the Common Areas, Declarant shall have the right to turnover and deed such Common Facilities and Common Areas to the Association and the Association shall have no right to deny acceptance of any deed related thereto. As used in the preceding sentence, completion of Common Facilities means: (a) for a building, a certificate of occupancy has been issued, (b) for roads and sidewalks, the county has inspected the roads and sidewalks and the bonds for the applicable road has been released, (c) for stormwater management facilities, the applicable governmental agency has inspected the stormwater management facilities and the bonds for the applicable facilities have been released and (d) for other Common Areas and Common Facilities, such areas have been built in accordance with the approved plans for the Project and, if an inspection by a government agency is required or a bond has been placed, such inspection has

occurred and is satisfied and the bond has been released. Upon completion of any Common Areas or Common Facilities, the Association shall immediately assume responsibility for the maintenance obligations thereof. Declarant shall not be responsible for the reinstallation, repair or replacement of any landscaping after the same has been installed. The Association shall have no right to object to the turnover of any Common Areas or Common Facilities and the deeding of the same provided the foregoing conditions have been satisfied. The Declarant shall have no obligation to perform any additional work to any Common Facilities or Common Areas beyond the foregoing. Upon deeding and turning over any Common Facilities or Common Areas, the Declarant shall assign any and all warranties still in effect to the Association. Additionally, the Association and each Owner covenant and agree that the inspection and completion of any of the foregoing is a process involving the Declarant and the applicable governing authority and the Association and the Owners shall have no right to interfere with the foregoing including but not limited to by (a) contacting permitting or other governmental authorities in an effort to influence, impede or prevent the inspection and completion of a Common Area or Common Facility or (b) attempting to attend or interfere with on-site inspections being undertaken.

Section 8.5 Exemptions and Limitations. Notwithstanding anything contained in this Declaration to the contrary, none of the restrictions and provisions set forth in this Article 8 nor any other restrictions and provisions contained in this Declaration shall be applicable (a) to any portion of the Property owned by Declarant or any Participating Builder, (b) to the activities of Declarant or any Participating Builder, and their respective officers, employees, agents, successors and assigns, in their development, marketing, leasing and sales activities within the Property, or (c) to the Association, its officers, employees and agents, in connection with the proper maintenance, repair, replacement and improvement of the Common Areas. Nothing contained in this Article 8, or elsewhere in this Declaration, shall be construed to prohibit Declarant or any Participating Builder from using any portion of the Property, or any improvements thereon, except for any Lots not owned by Declarant or any such Participating Builder, for promotional or display purposes, as "model homes," as sales or construction offices, or the like in accordance with Section 2.5 of this Declaration.

ARTICLE 9
MAINTENANCE

Section 9.1 *Owners' Maintenance.* Except as otherwise specifically provided in this Declaration, the Owner of each Lot shall keep the Lot, and all improvements therein or thereon, including, but not limited to, all sidewalks and driveways, in good order and repair and free of debris in a manner and with such frequency as is consistent with good property management and the Community-Wide Standard, including responsibility for fertilizing, trimming, pruning and/or otherwise maintaining all or any portion of the shrubs, bushes, trees and other planted materials, and any replacements thereof, as may be located within the Lawn Area; provided that, if approved by the Board, each Owner shall be required to participate in and pay for the Lawn Care Program. The Association shall also have the right, but not the obligation, to enter the Lots to correct drainage. Whenever entry is not required in an Emergency situation, the Association shall afford the Owner reasonable notice and opportunity to cure the problem prior to entry. All costs related to such correction, repair or restoration, including reasonable attorneys' fees, shall be collectible from the Owner of such Lot, in the same manner as assessments as provided in Article

5 herein.

Section 9.2 *Association Maintenance.* The Association shall maintain, repair and replace the Common Areas and shall keep the Common Areas in good order at all times and shall arrange for grass cutting and other maintenance approved by the Board from time to time, if any, to the Lawn Area. This obligation shall include, without limitation (a) the maintenance, repair and, as necessary, replacement of any privately maintained streets and parking areas within the Common Areas, (b) the maintenance, repair and, as necessary, replacement of any landscaping, pathways, sidewalks, trails and walkways that are constructed or installed by, or on behalf of, Declarant within the Common Areas, provided that the Association shall not be obligated to maintain, repair or replace any landscaping, pathway, sidewalk, trail or walkway leader, or portion thereof, within any Lot (the maintenance, repair and replacement of any such landscaping, pathway, sidewalk, trail or walkway leader shall be the obligation of the Owner of such Lot), and (c) the removal of accumulated snow and ice from within all privately maintained streets and parking areas within the Common Areas and from all Common Areas pathways, sidewalks, trails, walkways, or portions thereof that front any clubhouse. Further, the Association shall maintain, repair and replace (a) any rights-of-way, swales, culvert pipes, entry strips, signage, and entrance features or improvements that are situated within or that are appurtenant to and serve the Property, including by way of illustration any entrance gates and/or guard house as well as landscaping and other flora and improvements situated thereon, and (b) any other real and personal property, facilities and equipment as the Association is obligated or elects to maintain pursuant to this Declaration, or any lease, easement or agreement, or the direction of any governmental authority or agency. The expenses of all such maintenance, repair and replacement of the Common Areas shall be a Common Expense of the Association, including reserves for the maintenance, repair and replacement of any such property or improvements. The Association shall also maintain any portion of any Lot that it is obligated or elects to maintain pursuant to this Declaration, any easement or any other agreement.

The Association shall also have the right to enter any Lot without the consent of the Owner or occupant or other governing body thereof, to conduct any Emergency repairs as are necessary and for the maintenance and protection of the Common Areas or any Lot that the Association is responsible for under this Declaration. The costs of such repairs shall be collectible from the Owner of such Lot in the same manner as assessments as provided in Article 5 herein.

The Association shall be responsible for the maintenance, repair and replacement of any of the Common Areas, including, but not limited to, storm water management areas or facilities situated within the Common Areas to the extent that the County does not assume the responsibility for the maintenance, repair and replacement of any such storm water management areas or facilities, including drainage pipes, culvert pipes, infiltration trenches, ponds, basins, swales, berms, out-flow control devices, drainage areas, filters, inlets, oil/grit separators and underground facilities, if any, which serve or benefit the Property whether or not located within the Common Areas if the Association is responsible therefor pursuant to any easement, agreement or the direction of any governmental authority or agency. Such responsibility may be in the form of contributing the Association's share of the maintenance costs of any such Common Areas, including any such storm water management area, facility or equipment pursuant to an easement or agreement, all of which shall be a Common Expense of the Association. The Board may enter

into any such easements or other agreements as the Board may deem necessary or desirable for purposes of allocating or sharing the costs associated with the maintenance of any such Common Areas, including any such storm water management areas, facilities or equipment which serve or benefit the Property. The Association shall not refuse to accept the conveyance of any such Common Areas, including any such storm water management area, facilities or equipment, from Declarant.

Section 9.3 *Additional Maintenance Responsibilities.* The Association may, in the discretion of the Board, provide additional services or assume additional maintenance responsibilities with respect to all or any portion of the Property. In such event, all costs of such services or maintenance shall be assessed only against those Owners residing within the portion of the Property receiving the additional services. This assumption of responsibility may take place either by contract or because, in the opinion of the Board, the level and quality of service or maintenance then being provided is not consistent with the Community-Wide Standard.

ARTICLE 10
INSURANCE

Section 10.1 *Required Coverage.* The Board, or its duly authorized agent, shall be required to obtain, maintain and pay the premiums, as a Common Expense, upon a policy of hazard insurance covering the Common Areas and any property required to be insured by the Association pursuant to any easement or lease agreement (except land, foundation, excavation and other items normally excluded from coverage) including fixtures and building service equipment, to the extent that they are a part of the Common Areas or such other property which the Association may insure, as well as common personal property and supplies.

(a) The hazard insurance policy shall afford, as a minimum, protection against loss or damage by fire and all other perils normally covered by the standard extended coverage endorsement, as well as all other perils which are customarily covered with respect to projects similar in construction, location and use, including all perils normally covered by "special" causes of loss coverage form, where such is available, shall meet the requirements of §81-313 of the Act, and shall name the Association as a named insured. The insurance should cover one hundred percent (100%) of the current replacement cost (less a reasonable deductible) of the insured property. Coverage need not include land, foundations, excavations or other items that are usually excluded from insurance coverage. Unless a higher maximum amount is required pursuant to the law of the State of Delaware, the maximum deductible amount for coverage of the Common Areas is the lesser of Ten Thousand Dollars ($10,000.00) or one percent (1%) of the policy face amount. The funds to cover this deductible amount should be included in the Association's operating reserve account.

(b) Each hazard insurance policy must be written by a hazard insurance carrier which has a current rating by the Best's Key Rating Guide of B/III or better (or its equivalent). Each insurer must be specifically licensed or authorized by law to transact business within the State of Delaware. The policy contract shall provide that no assessment may be made against the Mortgagee, and that any assessment made against others may not become a lien on the mortgaged Lot superior to the First Mortgage.

(c) The hazard insurance policy must provide that the insurance carrier shall notify the Association and each Mortgagee named in the mortgagee clause in writing at least ten (10) days before it cancels or substantially changes the Association's coverage. In addition, each Eligible Mortgage Holder shall receive timely written notice of any lapse, material modification or cancellation of any insurance policy covering the Common Areas.

(d) All policies of hazard insurance must contain or have attached the standard mortgagee clause commonly accepted by private institutions as mortgage investors in the area in which the mortgaged premises are located. The following endorsements are also required: (i) an Inflation Guard Endorsement (if reasonably available); (ii) a Construction Code Endorsement if the Common Areas are subject to a construction code provision which would become operative and require changes to undamaged portions of any structures, even when only part of a structure is destroyed by an insured hazard or peril; and (iii) a Steam Boiler and Machinery Coverage Endorsement if any structure within the Common Areas has central heating or cooling, which should provide for the insurer's minimum liability per accident per location to be at least equal to the lesser of Two Million Dollars ($2,000,000.00) or the insurable value of the structure(s) housing the boiler or machinery.

(e) If the Common Areas is located in a Special Flood Hazard Area designated as A, AE, AH, AO, A1-30, A-99, V, VE, or V1-30 on a Flood Insurance Rate Map, the Association must maintain a "master" or "blanket" policy of flood insurance on the Common Areas. The amount of flood insurance shall be at least equal to the lesser of one hundred percent (100%) of the insurable value of all structures and improvements situated in such Special Flood Hazard Area or the maximum coverage available under the applicable National Flood Insurance Administration program. Unless a higher deductible amount is required under the laws of the State of Delaware, the maximum deductible amount for flood insurance policies shall be the lesser of Five Thousand Dollars ($5,000.00) or one percent (1%) of the policy's face amount. The funds to cover this deductible amount should be included in the Association's operating reserve account.

(f) The Association shall obtain and maintain a comprehensive general liability policy of insurance covering all of the Common Areas, public ways and any other areas that are under the Association's supervision that meets the requirements of §81-313 of the Act. The policy shall also cover any commercial space owned by the Association, even if such space is leased to others. The policy should provide coverage for bodily injury (including death) and property damage that results from the operation, maintenance or use of the Common Areas, and any legal liability that results from law suits related to employment contracts in which the Association is a party. Supplemental coverage to protect against additional risks should also be obtained, if required by a Mortgagee. Such insurance policy shall contain a "severability of interest" endorsement which shall preclude the insurer from denying the claim of an Owner because of negligent acts of the Association or other Owners. Liability coverage shall be at least One Million Dollars ($1,000,000.00) per occurrence, for bodily injury and property damage, unless higher amounts of coverage are required by a Mortgagee. The liability policy must provide that the insurance carrier shall notify the Association in writing at least ten (10) days before it cancels or substantially modifies the Association's coverage.

Section 10.2 Fidelity Coverage. To the extent reasonably available, blanket fidelity insurance may be maintained by the Board for all officers, directors, managers, trustees,

employees and volunteers of the Association and all other persons handling or responsible for funds held or administered by the Association, whether or not they receive compensation for their services. Where the Board has delegated some or all of the responsibility for the handling of funds to a management agent, such management agent shall be covered by its own fidelity insurance policy which must provide the same coverage as fidelity insurance maintained by the Board. Except for fidelity insurance that a management agent obtains for its personnel, all other fidelity insurance policies should name the Association as the insured and should have their premiums paid as a Common Expense by the Association. Fidelity insurance obtained by a management agent shall include theft of client property or funds. The total amount of fidelity coverage required should be sufficient to cover the maximum funds (including reserve funds) that will be in the custody of the Association or management agent at any time while the fidelity insurance policy is in force, and should at least equal the sum of three (3) months aggregate assessments on all Lots, plus any reserves. Fidelity insurance policies should contain waivers by the insurers of all defenses based upon the exclusion of persons serving without compensation from the definition of "employees", or similar terms or expressions. The fidelity insurance policies should provide that they cannot be canceled or materially modified (including cancellation for non-payment of premium) without at least ten (10) days prior written notice to the Association.

Section 10.3 *Repair and Reconstruction of Common Areas After Fire or Other Casualty.* In the event of damage to or destruction of any portion of the Common Areas covered by insurance payable to the Association as a result of fire or other casualty, the Board shall arrange for the prompt repair and restoration thereof, and shall disburse the proceeds of all insurance policies to the contractors engaged in such repair and restoration, as appropriate; and shall otherwise comply with the requirements of §81-313(h) of the Act. Promptly after a casualty causing damage or destruction of any portion of the Common Areas for which the Association has the responsibility of maintenance, repair, or replacement, the Board shall obtain reliable and detailed estimates of the cost to place the damaged portions of the Common Areas in as good a condition as existed prior to the casualty. Such costs may include, without limitation, professional fees and premiums for such bonds as the Board may desire.

ARTICLE 11
MANAGEMENT

Section 11.1 *Management Agent.* The Board may employ for the Association a management agent or manager (the "Management Agent") at a rate of compensation established by the Board to perform such duties and services as the Board shall from time to time authorize in writing, including the following:

(a) to establish (with the approval of the Board) and provide for the collection of the annual maintenance assessments and any other assessments provided for in this Declaration and to provide for the enforcement of liens therefor in a manner consistent with the law and the provisions of this Declaration;

(b) to provide for the care, upkeep, maintenance and surveillance of the Common Areas;

(c) to designate, hire and dismiss such personnel as may be required for the good working order, maintenance and efficient operation of the Common Areas;

(d) to promulgate (with the approval of the Board) and enforce such rules and regulations and such restrictions or requirements, "house rules" or the like as may be deemed proper respecting the use of the Common Areas and the Lots; and

(e) to provide such other services (including legal and accounting services) for the Association as may be consistent with law and the provisions of this Declaration.

Section 11.2 Duration of Management Agreement. Any management agreement entered into by the Association shall provide, among other things, that such agreement may be terminated for cause by either party upon thirty (30) days written notice thereof to the other party. The term of any such management agreement shall not exceed three (3) years; provided, however, that the term of any such management agreement may be renewable by mutual agreement of the parties for successive one (1) year periods.

Any management agreement entered into prior to expiration of the Declarant Control Period must be terminable, without cause, any time after transfer of control from Declarant, on not less than thirty (30) nor more than ninety (90) days' notice, and no charge or penalty may be associated with such termination.

ARTICLE 12
GENERAL PROVISIONS

Section 12.1 Common Areas Responsibility. The Association, subject to the rights of the Owners as set forth in this Declaration, shall be responsible for the exclusive management and control of the Common Areas and any property, real or personal, which the Association is delegated the responsibility for pursuant to any easement or lease agreement, and all improvements thereon (including furnishings and equipment related thereto, private drainage facilities and common landscaped areas), and shall keep the Common Areas and such other property in good, clean, attractive, and sanitary condition, order, and repair, pursuant to the terms and conditions hereof. The Association shall accept title to any real estate or personal property, including the Common Areas, offered to the Association by Declarant. The Association shall be obligated to accept title to any real estate or personal property offered or conveyed to the Association by the Declarant, including the Common Areas. Any such conveyance shall be made in compliance with all applicable Laws and Declarant shall have the right, title and authority to consummate any such conveyance pursuant to the authority granted and reserved in the irrevocable power of attorney coupled with an interest under this Article XII. Notwithstanding the foregoing, the scope, extent, timing, duration as well as all other aspects pertaining to the operation and staffing of any security gates and entrance and exit equipment, security structures and facilities, as well as lighting shall be determined solely and exclusively by the Declarant in the exercise of its reasonable judgment to facilitate and accommodate marketing and sales activities for the benefit of Declarant and any Participating Builders during the Declarant Control Period.

Section 12.2 Personal Property and Real Property for Common Use. The Association may acquire, lease, hold, and dispose of tangible and intangible personal property and

real property, subject to the requirements of this Declaration. The Board, acting on behalf of the Association, will accept title to any real or personal property, leasehold, or other property interests within the Property offered or conveyed to Association by the Declarant.

Section 12.3 Implied Rights. The Association may exercise any other right or privilege given to it expressly by this Declaration, the Certificate of Incorporation, the Bylaws or any lease, easement or other agreement or document affecting the Association, and every other right or privilege reasonably to be implied from the existence of any right or privilege given to it herein or reasonably necessary to effectuate any such right or privilege.

Section 12.4 Limitation of Liability. The Association shall not be liable for any failure of any services to be obtained by the Association or paid for out of the Common Expense funds, or for injury or damage to persons or property caused by the elements or resulting from water which may leak or flow from any portion of the Common Areas or other property within the control or supervision of the Association, or from any wire, pipe, drain, conduit or the like. The Association shall not be liable to any Owner for loss or damage, by theft or otherwise, of articles which may be stored upon the Common Areas or other property within the control or supervision of the Association. No diminution or abatement of assessments, as herein elsewhere provided for, shall be claimed or allowed for (a) any inconvenience or discomfort arising from the making of repairs or improvements to the Common Areas or other property within the control or supervision of the Association; (b) any action taken by the Association to comply with any of the provisions of this Declaration or with any Laws or with the order or directive of any municipal or other governmental authority; or (c) any reason of a force majeure, including an act of God, fire, casualty, action of the elements, strikes, lockouts, other labor troubles, inability to procure or general shortage of labor, equipment, facilities, materials or supplies, failure of transportation or of power, restrictive governmental laws or regulations, riots, insurrection, war, terrorism, epidemics or pandemics, medical viruses or germs, distributed denial of service attacks, widespread viruses or hacks, or any other cause beyond the control of the Association.

Section 12.5 Enforcement. Declarant, the Association, the ARC, any Owner, or any Mortgagee of any Lot shall have the right to enforce, by any proceeding at law or in equity, all restrictions, conditions, covenants, reservations, easements, liens, assessments, charges or other obligations or terms now or hereafter imposed by the provisions of this Declaration, the Certificate of Incorporation, the Bylaws, or any rule or regulation promulgated by the Association pursuant to its authority as provided in this Declaration, the Certificate or the Bylaws. Failure by Declarant, the Association, the ARC, or any Owner or Mortgagee of any Lot to enforce any covenants, restrictions or obligations herein contained or any provision of the Bylaws, Certificate of Incorporation or rules and regulations of the Association shall in no event be deemed a waiver of the right to do so thereafter. There shall be and there is hereby created and declared to be a conclusive presumption that any violation or breach or attempted violation or breach of any of the within covenants or restrictions or any provision of the Bylaws or Certificate of Incorporation cannot be adequately remedied by action at law or exclusively by recovery of damages. If Declarant, the Association, the ARC, or any Owner or Mortgagee of any Lot, successfully brings an action to extinguish a violation or otherwise enforce the provisions of this Declaration, the Certificate of Incorporation, or the Bylaws, the costs of such action, including legal fees, shall become a binding, personal obligation of the Owner committing or responsible for such violation,

and such costs shall also be a lien upon the Lot of such Owner.

Without limiting the generality of the foregoing, and in addition to any other remedies available, the Association after reasonable written notice, in writing, provided to the Owner, may enter any Lot to remedy any violation of the provisions of this Declaration, the Bylaws, the Certificate of Incorporation, or rules and regulations of the Association provided, however, that the Association may not enter the interior of any dwelling unit on a Lot except in an Emergency. The costs of such action, including reasonable attorneys' fees, shall become a binding, personal obligation of the Owner otherwise responsible for such violation and shall also be a lien upon the Lot of such Owner.

Section 12.6 Fines. In addition to the means for enforcement provided elsewhere in this Declaration, the Association shall have the right to levy reasonable fines against an Owner or such Owner's guests, relatives, lessees or invitees, in the manner set forth herein, and such fines shall be collectible in the same manner as any other assessment such that the Association shall have a lien against the Lot of such Owner as provided in this Declaration, the Bylaws, and the Certificate of Incorporation and such fine(s) shall also become the binding personal obligation of such Owner.

(a) Except with respect to matters pertaining to the Design Guidelines which shall be within the exclusive jurisdiction of the ARC, the Board shall be charged with determining whether there is probable cause that any of the provisions of this Declaration, the Bylaws, the Certificate of Incorporation, or the rules and regulations of the Association, regarding the use of the Lots or Common Areas, other Association property, are being or have been violated. In the event that the Board or the ARC, with respect to the Design Guidelines, determines an instance of such probable cause, the ARC shall provide written notice to the person alleged to be in violation, and the Owner of the Lot which that person occupies or is visiting if such person is not the Owner, of the specific nature of the alleged violation and of the opportunity for a hearing before the ARC or Board, as applicable, upon a request made within five (5) days of the sending of the notice. The notice shall also specify, and it is hereby provided, that each recurrence of the alleged violation or each day during which it continues shall be deemed a separate offense, subject to a separate fine not to exceed a reasonable amount established by the Board or the ARC, as applicable, for each offense. The amount of the fine established or imposed by the Board or the ARC shall be reasonable and shall not be a penalty. The notice shall also specify, and it is hereby provided, that in lieu of requesting a hearing, the alleged violator or Owner may respond to the notice within five (5) days of its sending, acknowledging in writing that the violation occurred as alleged and promising that the violation will thereafter cease and will not recur, and that such acknowledgment and promise, and performance in accordance therewith, shall terminate the enforcement activity of the Board or ARC, as applicable, with regard to such violation.

(b) If a hearing is timely requested, the Board or the ARC, as applicable, shall hold the same, and shall hear any and all defenses to the charges, including any witnesses that the alleged violator, Owner, the Board or the ARC may produce. Any party at the hearing may be represented by counsel.

(c) Subsequent to any hearing, or if no hearing is timely requested and if no acknowledgment and promise is timely made, the Board or the ARC, as applicable, shall

determine whether there is sufficient evidence of a violation or violations as provided herein. If the Board or the ARC, as applicable, determines that there is sufficient evidence, it may levy a fine for each violation in the amount provided herein.

(d) A fine pursuant to this Section shall be assessed against the Lot which the violator occupied or was visiting at the time of the violation, whether or not the violator is an Owner of that Lot, and shall be collectible in the same manner as any other assessment, including by the Association's lien rights as provided in this Declaration and the Bylaws. Nothing herein shall be construed to interfere with any right that an Owner may have to obtain from a violator occupying or visiting such Owner's Lot payment of the amount of any fine(s) assessed against that Lot.

(e) Nothing herein shall be construed as a prohibition of or limitation on the right of the Association to pursue any other means of enforcement of the provisions of this Declaration, the Bylaws, the Certificate of Incorporation, or the rules and regulations of the Association, including legal action for damages or any equitable action, including injunctive relief.

Section 12.7 Severability. Invalidation of any one of these covenants or restrictions by judgment or court order shall in no way affect any other provisions, which shall remain in full force and effect.

Section 12.8 Duration and Amendment. All covenants, conditions and restrictions set forth in this Declaration shall run with and bind the land and shall be perpetual unless expressly stated otherwise in this Declaration. In addition to the provisions of Section 12.9, this Declaration may be amended by an instrument signed by, or the affirmative vote of, Members entitled to cast not less than sixty-seven (67%) of the total votes of all Members and shall require the prior written consent of the Declarant (for so long as the Declarant shall own any portion of the Property, and Participating Builder, to the extent the amendment materially affects the development, sale or marketing of any Lots owned by such Participating Builder). To be effective, any such amendment must be recorded in the Recorder's Office.

Section 12.9 Changes and Modifications by Declarant. Declarant shall have the right, for a period of fifty (50) years following the date of recordation of this Declaration, without the consent or joinder of the Members, any Mortgagee or any other party, to (a) modify, amend, or otherwise change any of the provisions of this Declaration, as Declarant may deem necessary or desirable, or (b) if such amendments are:

(a) required by federal, state, county or local laws;

(b) required by any Mortgagee of improved Lots and dwelling houses in the Property;

(c) required by any title insurance company issuing title insurance to Owners or Mortgagees of same;

(d) required by the Federal Housing Administration, Department of Housing and Urban Development, Veterans Administration, Farmers Home Administration,

Delaware State Housing Authority, Federal National Mortgage Association, Federal Home Loan Mortgage Service Corporation, GNMA or by any like public or private institution acquiring, guaranteeing or insuring mortgages or providing any type of financial assistance with respect to dwelling units in the Property; or

(e) required to correct errors or technical deficiencies or imperfections or to clarify ambiguities.

Notwithstanding the foregoing, neither Declarant nor the Owners shall modify or change the requirement that all Lots be used for residential purposes, unless such decision is made by all of the Owners. Declarant also reserves the right to waive or modify any requirement as to any individual Lot or the Common Areas in general necessary to avoid any hardship resulting from unintentional noncompliance with this Declaration. Declarant also reserves the right to waive or modify any requirement as to any individual Lot in general necessary to avoid hardship resulting from unintentional noncompliance with this Declaration.

Section 12.10 Casualty Losses. In the event of substantial damage or destruction to any of the Common Areas, the Board shall give prompt written notice of such damage or destruction to the Eligible Mortgage Holders who hold First Mortgages of record on the Lots. No provision of this Declaration, the Certificate of Incorporation, or the Bylaws shall entitle any Member to any priority over the holder of any First Mortgage of record on his Lot with respect to the distribution to such Member of any insurance proceeds paid or payable on account of any damage or destruction of any of the Common Areas.

Section 12.11 Condemnation or Eminent Domain. In the event any part of the Common Areas are made the subject matter of any condemnation or eminent domain proceeding, or are otherwise sought to be acquired by any condemning authority, then the Board shall give prompt written notice of any such proceeding or proposed acquisition to the Eligible Mortgage Holders who hold First Mortgages of record on the Lots. No provision of this Declaration, the Certificate of Incorporation, or the Bylaws shall entitle any Member to any priority over the holder of any First Mortgage of record on his Lot with respect to the distribution to such Member of the proceeds of any condemnation or settlement relating to a taking of any portion of the Common Areas.

Section 12.12 Notice to Eligible Mortgage Holders; Deemed Consent.

(a) The Association shall give prompt written notice to each Eligible Mortgage Holder of (and each Owner hereby consents to, and authorizes such notice):

(1) Any condemnation loss or any casualty loss which affects a material portion of the Common Areas or any Lot subject to a First Mortgage or security interest held, insured, or guaranteed by such Eligible Mortgage Holder.

(2) Any delinquency in the payment of Common Expense assessments or charges owed by an Owner whose Lot is subject to a First Mortgage or security interest held, insured, or guaranteed, by such Eligible Mortgage Holder which remains uncured for a period of sixty (60) days.

(3) Any lapse, cancellation, or material modification of any insurance policy or fidelity coverage maintained by the Association.

(4) Any other matter with respect to which Eligible Mortgage Holders are entitled to notice or to give their consent as provided in this Declaration.

(b) To be entitled to receive notice of the matters set forth in this Section, the Eligible Mortgage Holder must send a written request to the Association, stating both its name and address and the Lot or address of the Lot on which it has (or insures or guarantees) the mortgage. Any Eligible Mortgage Holder or Mortgagee who is notified of any matter for which it is entitled to notice as provided herein (such notice to be delivered by certified or registered mail, return receipt requested), and which fails to respond within sixty (60) days of receipt of such notice shall be deemed to have consented, if applicable, to the matter of which the Eligible Mortgage Holder or Mortgagee was provided notice.

Section 12.13 Declarant's Power of Attorney. Notwithstanding any provision to the contrary contained in this Declaration, the Certificate of Incorporation, or the Bylaws, the Declarant hereby reserves for itself, its successors, transferees and assigns, for a period of fifty (50) years from the date the first Lot is conveyed to an Owner, or until it conveys title to all of the Lots whichever occurs first, the right to execute on behalf of the Association and all contract purchasers, Owners, Members, Eligible Mortgage Holders, Mortgagees, and other lien holders or parties claiming a legal or equitable interest in any portion of the Property, including any Lot or the Common Areas, any agreements, documents, amendments or supplements to this Declaration, the Certificate of Incorporation, and the Bylaws which may be required by FNMA, FHA, VA, FHLMC, GNMA, Sussex County, Delaware, any governmental or quasi-governmental agency or authority having regulatory jurisdiction over the Association, the Property, any Lot, any public or private utility company designated by the Declarant, any institutional lender or title insurance company designated by the Declarant, or as may be required to comply with the federal Fair Housing Act, or to comply with other applicable Laws or to correct any typographical or clerical errors or correct any ambiguity in the text of this Declaration; together with any and all other documents, instruments or agreements, including by way of illustration and not limitation; deeds, transfer tax affidavits, agreements, closing statements, with respect to any of the rights, title and authorizations, and acts reserved by or provided to the Declarant under this Declaration; or as otherwise expressly reserved by or granted to Declarant hereunder.

(a) By acceptance of a deed to any Lot or by the acceptance of any other legal or equitable interest in any portion of the Property, including the Lots or Common Areas, each and every such contract purchaser, Owner, Member, Eligible Mortgage Holder, Mortgagee or other lien holder or party having a legal or equitable interest in any portion of the Property, including any Lot or the Common Areas does automatically and irrevocably name, constitute, appoint and confirm the Declarant, its successors, transferees and assigns, as attorney-in-fact for the purpose of executing any and all such agreement, document, amendment, supplement and other instrument(s) necessary to effect the foregoing rights, duties and obligations subject to the limitations set forth herein.

(b) No such agreement, document, amendment, supplement or other instrument which adversely affects the value of a Lot, or substantially increases the financial

obligations of an Owner, or reserves any additional or special privileges for the Declarant not previously reserved, shall be made without the prior written consent of the affected Owner(s) and all Mortgagees of any Mortgage encumbering the Lots owned by the affected Owner(s). Any such agreement, document, amendment, supplement or instrument which adversely affects the priority or validity of any mortgage which encumbers any Lot or the Common Areas shall not be made without the prior written consent of all such Mortgagees.

(c) The power of attorney aforesaid is expressly declared and acknowledged to be coupled with an interest in the subject matter hereof and the same shall run with the title to the Property, including each Lot and the Common Areas for a period of fifty (50) years from the date of the recordation of this Declaration in the Recorder's Office and shall be binding upon the heirs, personal representatives, successors, transferees and assigns of any of the foregoing parties. Further, said power of attorney shall not be affected by the death or disability of any principal and is intended to deliver all right, title and interest of the principal in and to said power of attorney. Said power of attorney shall be vested in the Declarant, its successors, transferees and assigns for a period of fifty (50) years from the date the first Lot is conveyed to a an Owner, or until Declarant conveys title to the last Lot, whichever occurs first. Each Owner covenants and agrees, if requested, to execute and deliver to Declarant or a Participating Builder a separate irrevocable power of attorney coupled with an interest in form and content consistent with this Section to be recorded in the Recorder's Office at the Owner's sole cost which shall run with and bind the Lot for a period of fifty (50) years as specified above. In addition, the Declarant or a Participating Builder may require that a party accepting any such interest in a Lot execute the separate and written power of attorney coupled with an interest in the form set forth in the attached **Exhibit C** and record it in the Recorder's Office. However, the power of attorney coupled with an interest provided by this paragraph shall be deemed fully granted to Declarant when any such interest is acquired, whether or not such separate and written power of attorney coupled with an interest is executed and recorded.

(d) To accomplish the foregoing, each Owner covenants and agrees, that by acceptance of, together with the recordation of a deed to its Lot from either the Declarant or a Participating Builder or any Owner, each Owner has affirmatively acknowledged and granted to Declarant the foregoing irrevocable power of attorney coupled with an interest, which shall be deemed to have been incorporated in and made a part of such deed by either a specific reference to this Declaration or by a general reference to any and all documents of record to which the Lot and such Owner are subject to.

Section 12.14 Successors of Declarant.

(a) Any and all rights, reservations, easements, interests, exemptions, privileges and powers of Declarant hereunder, or any part of them, may be assigned and transferred (exclusively or non-exclusively) by Declarant by an instrument, in writing, without notice to the Association, any Owner, any Member, or any other Person to one or more successors or assigns (hereinafter referred to as an "Assignee").

(b) Each Owner of any Lot, by acceptance of a deed therefore, whether or not it shall be so expressed in such deed is deemed to covenant and agree to the following:

(1) Neither Participating Builder nor Declarant shall assume or be responsible for any liabilities, warranties or obligations which have or may accrue to the other, including any liabilities, warranties or obligations concerning any Lots or Common Areas, any buildings or other improvements constructed, or to be constructed, by or on behalf of the other, nor shall such Lots or Common Areas or any buildings or other improvements be deemed to be part of any contract, or to constitute the basis of the bargain, between Declarant and any Lot purchaser;

(2) No Participating Builder makes any representation or warranty whatsoever, whether express or implied, with respect to any Lots, Common Areas, Facilities, buildings or other improvements constructed or sold by parties other than the Participating Builder, nor has any Participating Builder authorized any other party to make any such representation or warranty, and such other parties are without legal authority to enforce or make any such representation or warranty. No Participating Builder shall assume or be responsible for, and each Lot Owner expressly waives any and all claims against each Participating Builder for, any liabilities, warranties or obligations which have or may accrue to Declarant or any Assignee under the Declaration or pursuant to law in connection with Declarant's or any Assignee's status as Declarant under this Declaration, or in connection with Declarant's or any Assignee's development of all or any real property subjected, or to be subjected, to this Declaration, including, any liabilities, warranties or obligations concerning any Lots or the Common Areas, or dwelling units or other improvements constructed, or to be constructed, by or on behalf of Declarant or any Assignee;

(3) Declarant makes no representation or warranty whatsoever, whether express or implied, with respect to any Lots or Common Areas, or Common Facilities, buildings or other improvements constructed or sold by parties other than Declarant, nor has Declarant authorized any other party to make any such representation or warranty, and such other parties are without legal authority to enforce or make any such representation or warranty. Declarant shall not assume or be responsible for, and each Lot Owner expressly waives any and all claims against Declarant for, any liabilities, warranties or obligations which have or may accrue to any Participating Builder or any Assignee under this Declaration or pursuant to law in connection with such Participating Builder's or any Assignee's status as Declarant under this Declaration, or in connection with such Participating Builder's or any Assignee's development of all or any real property subjected, or to be subjected, to this Declaration, including, any liabilities, warranties or obligations concerning any Lots, or the Common Areas, or dwelling units or other improvements constructed, or to be constructed, by or on behalf of such Participating Builder or any Assignee.

Section 12.15 Dispute Resolution Process.

(a) Notwithstanding any provision of this Declaration or the Association Documents to the contrary, but subject to all applicable Laws, if, after good faith efforts to negotiate a satisfactory solution have failed, any dispute that cannot be resolved between (i) the Declarant (including any of the Declarant's employees, agents, or contractors) and (ii) the Association or any Owner or Owners (other than a Participating Builder), such dispute will be resolved through the Common Interest Community Ombudsperson Act (CICOA) as contained in

29 Del. C. Section 2544 (the "CICOA"). The procedures for such dispute resolution are set forth and contained below and in the CICOA. As used in this Section 12.15(a), the term "dispute" includes any controversy or claim, including, without limitation, any claim based on contract, tort, or statute, arising out of or relating to (1) the rights or obligations of such parties under this Declaration, the Association Documents, or any rules promulgated by the Board or the ARC or (2) the design, construction, or warranty of the Association Property. Upon the request of a party to a dispute, the issue shall be adjudicated in accordance with the provisions of the CICOA applicable to such disputes.

(b) The Association shall follow the following procedure regarding complains from Owners (the "Internal Complaint Procedure"):

i. An Owner or other interested person may present a common interest community complaint to the Association (a "CIC Complaint"). The Association may present a CIC Complaint to an Owner or other interested person. Whoever presents a CIC Complaint is the "Complainant." Whoever the CIC Complaint seeks a response from is the "Respondent." An Owner shall not be charged a fee to participate in the Internal Complaint Procedure, unless the Association determines the process is being abused.

ii. The CIC Complaint must be on the CIC Complaint Form attached to this Declaration as **Exhibit D** or be substantially similar to the CIC Complaint Form. The Association will provide a copy of the form to the Owner upon request, or otherwise make the form generally available.

iii. The Complainant must deliver the completed CIC Complaint, including all required supporting information to the Respondent: in person; or, by mail or delivery service. The Association's representative shall mark on the CIC Form the date the CIC Complaint is received, and shall mark the date of receipt on copies of the CIC Form if requested by the Owner. For the purposes of the Internal Complaint Procedure a party makes "delivery" in one of the following ways:

(1) hand delivery by or to an Owner to the current address, in person, or by services such as FedEx, UPS or other delivery service that creates a record of delivery; or

(2) registered or certified mail, return receipt requested; or USPS "delivery confirmation," at the address provided by the Association or the Owner.

If an Owner delivers a CIC Complaint to the Association, the Association must participate in this internal dispute resolution procedure.

iv. The Association must deliver written acknowledgment of receipt of an Owner's CIC Complaint to the Owner within fourteen (14) days of receipt by any of the means described in Section 12.5(c).

v. Any specific documentation required in support of the CIC Complaint must be delivered with the CIC Complaint, and must be described in the CIC

Complaint. This documentation may include:

(1) the Declaration;

(2) the Bylaws;

(3) any Rules of the Association;

(4) any other governing document of the Association;

and, if needed for the issue in dispute:

(5) notice letters, correspondence;

(6) bills;

(7) checks;

(8) photographs; and

(9) any other document or evidence that supports the CIC Complaint, or is relevant to the matter complained about.

The Association will make and provide a copy of the governing documents to the Owner upon request, including the Certificate of Incorporation, Declarations, Bylaws, Rules, covenants or any other documents creating or governing the Association and other pertinent books and records of the Association. If the Complainant or Respondent relies upon any law or regulation applicable to the CIC Complaint, they should provide that information, and describe the desired action or resolution in the CIC Complaint.

vi. A party to a dispute may request the other party, in writing, to meet and confer in an effort to resolve the dispute. The Board shall promptly designate a Director to meet and confer. The parties shall meet promptly at a mutually convenient time and place, informally explain their positions to each other; and confer in good faith in an effort to resolve the dispute. A resolution of the dispute agreed to by the parties shall be memorialized in writing and signed by the parties, including the Board designee on behalf of the Association. The agreement binds the parties and is judicially enforceable if it is signed by the parties; is not in conflict with law or the governing documents of the Association; and is either consistent with the authority granted by the Board to its designee or the agreement is ratified by the Board.

vii. If the dispute is not resolved through "meet and confer" in Section 12.5(f) above or requires additional information, the Respondent, if it is the Association, shall review the CIC Complaint at the next Association meeting, and within ten (10) days after, make a reasonable, efficient, and timely request for any additional information that is necessary for the Owner to provide in order to continue processing the CIC Complaint. An Owner who is a Respondent may request additional information within twenty (20) days of receipt of the Complaint.

viii. The Respondent will provide the requested information, if any,

within ten (10) days of the request, unless there are unforeseen circumstances. If there are unforeseen circumstances the Respondent must notify the Complainant when the information will be provided.

ix. The Respondent must respond to and act upon the CIC Complaint within twenty (20) days after the Complainant provides the information requested, or the time expires.

x. The Association must notify the Owner a reasonable time before, of the date, time, and location at which the Association will consider the CIC Complaint. For purposes of this paragraph, "reasonable time" means the time established by the Association's internal complaint procedure, but not less than seven (7) days prior to the date for consideration of the CIC Complaint or at a convenient time for both the Association and the Owner. The Association will deliver notice of the date, time, and location for consideration of the CIC Complaint to the Owner by the means described in Section 12.5(c).

xi. The Association must permit the Owner a full opportunity to explain the Owner's position and evidence, and to question witnesses, Association members, employees or representatives. The Association may ask the Owner questions, and question others.

xii. Each party must treat the other with dignity, respect and civility. Neither party need tolerate rudeness, name calling, or disrespect. Either party may call a ten (10) minute recess in the meeting for this reason.

xiii. No later than fourteen (14) business days after consideration of the CIC Complaint, the Association shall make its final determination of the CIC Complaint in writing. The Association shall deliver written notice of the final determination to the Owner.

xiv. The notice of final determination shall be dated with the date of issuance and include:

(1) the written final determination with an explanation of the decision;

(2) specific quotation of the Associations declaration, bylaws, rules or other governing documents, or

(3) a reference to an applicable law or, regulation or rule that led to the final determination of the Association;

(4) any supporting documents, correspondence, and other materials related to the final decision that led to the final determination, as well as:

(5) the registration number for the Association, if any; and

(6) the name and license number of the community manager, if any.

xv. The notice of final determination, if adverse to the Owner, shall inform the Owner of the right to submit the Association's final determination to the Delaware Department of Justice's Office of the Ombudsperson for the Common Interest Community in substantially the following form:

You have the right to file a notice of final adverse determination with the Common Interest Community Ombudsperson in accordance with 29 *Del. C.* §2544 (9), (10).

The notice to the Ombudsperson:

- must be filed within (30) days of the date of the final adverse decision;
- must be in writing on a "Contact/Complaint" form provided by the Office of the Common Interest Community Ombudsperson ("Ombudsperson") (available at the website of the Ombudsperson or by calling the number below);
- must include copies of any Required Information listed in the Contact/Complaint form and supporting documents, correspondence and other materials related to the decision; and
- must be accompanied by a thirty-five dollar ($35) filing fee (unless waived by the Ombudsperson for good cause).

You may contact the Office of the Ombudsperson at any of the following:
Delaware Department of Justice
Office of the Common Interest Community Ombudsperson
820 N. French Street
Wilmington, DE 19801
Telephone: (302) 577-8400
EMail: Common.Interest.Community.Ombudsperson@state.de.us

(c) Notwithstanding any provision of this Article to the contrary, the term "dispute" shall not be deemed to include any claim, grievance or dispute of any kind or nature whatsoever, including, without limitation, claims regarding the design, construction and/or warranty of any dwelling unit or other improvements constructed within the Property, arising (i) in connection with any agreement of sale between an Owner or contract purchaser of a Lot and Declarant or any Participating Builder ("Agreement of Sale"), or (ii) with respect to matters covered by a "new home warranty plan" provided to an Owner or contract purchaser of a Lot as part of such Agreement of Sale (a "Warranty Plan"). Any and all such claims, grievances and disputes shall be resolved in accordance with the provisions of such Agreement of Sale and/or Warranty Plan, as applicable.

Section 12.16 No Dedication to Public Use. Nothing herein contained shall be construed as a dedication to public use or as an acceptance for maintenance of any portion of the

Common Areas by any public or municipal agency, authority, or utility and no public or municipal agency, authority or utility shall have any responsibility or liability for the maintenance or operation of any portion of the Common Areas.

Section 12.17 Disputes with Participating Builders.

(a) Participating Builders, the Association and its officers, directors and committee members, all Owners and all other parties subject to this Declaration (collectively, the "Bound Parties"), agree that it is in the best interest of all concerned to encourage the amicable resolution of disputes involving Participating Builders without the emotional and financial costs of litigation. Accordingly, each Bound Party agrees not to file suit in any court with respect to a "Claim" described in Section 12.17(b) hereof, unless and until it has first submitted such Claim to the alternative dispute resolution procedures set forth in this Section 12.186 in a good faith effort to resolve such Claim.

(b) As used in this Article, the term "Claim" will refer to any claim, grievance or dispute arising out of:

(i) the interpretation, application or enforcement of the Association Documents with regard to a Participating Builder; or

(ii) the rights, obligations, and duties of any Participating Builder under the Association Documents; or

(iii) the design or construction of improvements within the Project, but not including any claim, grievance or dispute involving (1) determinations made by the Board of Directors or ARC with respect to Participating Builders.

(c) The following will not be considered "Claims" unless all parties to the matter otherwise agree to submit the matter to the procedures set forth in this Section 12.18:

(i) any suit by the Association to collect assessments or other amounts; and

(ii) any suit by any Participating Builder, or the Association to obtain a temporary restraining order (or emergency equitable relief) and such ancillary relief as the court may deem necessary in order to maintain the status quo and preserve the ability to enforce the provisions of this Declaration; and

(iii) any suit which does not include any Participating Builder, or the Association as a party, if such suit asserts a Claim which would constitute a cause of action independent of the Association Documents and/or the rules and regulations of the Association; and

(iv) any suit in which any indispensable party is not a Bound Party; and

(v) any suit as to which any applicable statute of limitations would expire within one hundred and eighty (180) days of giving the notice required by Section

12.17(a), unless the party or parties against whom the Claim is made agree to toll the statute of limitations as to such Claim for such period as may reasonably be necessary to comply with this Article.

(d) Notwithstanding any provision of this Article to the contrary, the term "Claim" shall not be deemed to include any claim, grievance or dispute of any kind or nature whatsoever, including, without limitation, claims regarding the design, construction and/or warranty of any dwelling unit or other improvements constructed within the Property, arising (i) in connection with any agreement of sale entered by a Bound Party for the purchase of a Lot ("Agreement of Sale"), or (ii) with respect to matters covered by a "new home warranty security plan" provided to a Bound Party by a Participating Builder (a "Warranty Plan"). Any and all such claims, grievances and disputes shall be resolved in accordance with the provisions of such Agreement of Sale and/or Warranty Plan, as applicable.

Section 12.18 Dispute Resolution Procedures.

(a) Notice. The Bound Party asserting a Claim ("Claimant") against another Bound Party ("Respondent") will give written notice to each Respondent and to the Board of Directors stating plainly and concisely:

(i) the nature of the Claim, including the parties involved and the Respondent's role in the Claim;

(ii) the legal basis of the Claim (i.e., the specific authority out of which the Claim arises);

(iii) the Claimant's proposed resolution or remedy; and

(iv) the Claimant's desire to meet with the Respondent to discuss in good faith ways to resolve the Claim.

(b) Negotiation. The Claimant and Respondent will make every reasonable effort to meet in person and confer for the purpose of resolving the Claim by good faith negotiation. If requested in writing, accompanied by a copy of the Notice, the Declarant or any Participating Builder during the Development Period, and thereafter the Association, may appoint a representative to assist the parties in negotiating a resolution of the Claim.

(c) Mediation. If the parties have not resolved the Claim through negotiation within thirty (30) days of the date of the notice described in Section 12.18(a) (or within such other period as the parties may agree upon), the Claimant will have thirty (30) additional days to submit the Claim to mediation with an entity designated by the Participating Builder when a Participating Builder is a party to a Claim. If the Claimant does not submit the Claim to mediation within such time, or does not appear for the mediation when scheduled, the Claimant will be deemed to have waived the Claim, and the Respondent will be relieved of any and all liability to the Claimant (but not third parties) on account of such Claim. If the parties do not settle the Claim within thirty (30) days after submission of the matter to mediation, or within such time as determined reasonable by the mediator, the mediator will issue a notice of termination of the mediation proceedings

indicating that the parties are at an impasse and the date that mediation was terminated. The Claimant will thereafter be entitled to file suit or to initiate administrative proceedings on the Claim, as appropriate. Each party will bear its own costs of the mediation, including attorney's fees, and each party will share equally all fees charged by the mediator.

(d) Settlement. Any settlement of the Claim through negotiation or mediation will be documented in writing and signed by the parties. If any party thereafter fails to abide by the terms of such agreement, then any other party may file suit or initiate administrative proceedings to enforce such agreement without the need to again comply with the procedures set forth in this Section 12.18. In such event, the party taking action to enforce the agreement or award will, upon prevailing, be entitled to recover from the non-complying party (or if more than one non-complying party, from all such parties in equal proportions) all costs incurred in enforcing such agreement or award, including, without limitation, attorneys' fees and court costs.

(e) Date for Action. If any date upon which action is required under Sections 12.17 or 12.18 of this Article shall be a Saturday, Sunday or legal holiday, the date for such action shall be extended to the first regular business day after such date which is not a Saturday, Sunday or legal holiday.

(f) Waiver of Jury Trial. ANY ACTION AGAINST ANY PARTICIPATING BUILDER, BY A CLAIMANT SHALL BE SOLELY BEFORE A JUDGE IN THE JURISDICTION WHERE THE PROPERTY IS LOCATED. THE ASSOCIATION AND ALL INDIVIDUAL OWNERS WAIVE TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM BROUGHT BY THE ASSOCIATION OR ANY INDIVIDUAL OWNER AGAINST ANY PARTICIPATING BUILDER, IN CONNECTION WITH ANY RIGHTS OR OBLIGATIONS BETWEEN THE ASSOCIATION AND/OR AN OWNER AGAINST ANY PARTICIPATING BUILDER REGARDLESS OF THE FORM OF THE CLAIM(S) MADE OR DAMAGES SOUGHT. THIS WAIVER OF JURY TRIAL WILL EXTEND TO ANY THIRD PARTY NAMED IN ANY PROCEEDING BY THE ASSOCIATION, ANY OWNER OR DECLARANT OR ANY PARTICIPATING BUILDER. BY ACQUIRING AN INTEREST IN ANY PORTION OF THE PROPERTY, EACH CLAIMANT ACKNOWLEDGES THAT THIS WAIVER IS MADE KNOWINGLY, VOLUNTARILY, AND AFTER CONSULTING WITH, OR HAVING HAD THE OPPORTUNITY TO CONSULT WITH, COUNSEL OF ITS OWN CHOOSING AS TO THE MEANING OF THIS WAIVER..

Section 12.19 Declarant Reserved Rights. No amendment to this Declaration, the Bylaws, or the Certificate of Incorporation may remove, revoke, or modify any right, reservation or privilege of Declarant without the prior written consent of Declarant or any successors or assignees of Declarant (as evidenced by a written instrument and recorded in the Recorder's Office) and no amendment to this Declaration, the Bylaws or the Certificate of Incorporation may remove, revoke, or modify any right, reservation or privilege of a Participating Builder without the prior written consent of such Participating Builder.

Section 12.20 Perpetuities. If any of the covenants, conditions, easements, restrictions, or other provisions of this Declaration shall be unlawfully void, or voidable for violation of the rule against perpetuities, then such provisions shall continue only until twenty-one (21) years after the death of the last survivor of the now living descendants of John F. Kennedy,

the thirty-fifth President of the United States of America.

Section 12.21 Captions and Gender. The captions contained in this Declaration are for convenience only and are not a part of this Declaration and are not intended in any way to limit or enlarge the terms and provisions of this Declaration or to aid in the construction or interpretation of this Declaration. Whenever in this Declaration the context so requires, the singular number shall include the plural and the converse, and the use of any gender shall be deemed to include all genders.

Section 12.22 Limitations on Owners', Association's, and Other Persons' Easements, Rights, Powers, and Privileges. Notwithstanding anything contained in this Declaration, the Certificate of Incorporation, or the Bylaws to the contrary, the use, enjoyment, or exercise by any Owner, the Association, or any other Person of any easement, right, power, or privilege granted or reserved to such Owner, the Association, or such other Person under this Declaration shall not interfere with, alter, modify, amend, or change in any manner or nature whatsoever any easement, right, power, or privilege granted or reserved to Declarant or a Participating Builder under this Declaration without the prior written consent of Declarant or Participating Builder, as applicable.

Section 12.23 Declarant's Exercise of Discretion and Judgment. Notwithstanding anything contained in this Declaration, the Certificate of Incorporation, or the Bylaws to the contrary, the exercise by Declarant of any discretion or judgment under this Declaration or the granting or withholding of any consents or approvals by Declarant under this Declaration, shall be exercised, granted or withheld by Declarant, in Declarant's sole subjective and absolute discretion and judgment.

Section 12.24 Appurtenant Easement and Licenses §81-205(a)(13) of the Act. In accordance with §81-205(a)(13) of the Act, the recording data for recorded easements and licenses appurtenant to or included in the Property or to which any portion of the Property is or may become subject by virtue of a reservation in this Declaration is contained in **EXHIBIT E** attached hereto.

Section 12.25 Exemptions and Limitations. Notwithstanding anything contained in this Declaration to the contrary, none of the restrictions and provisions set forth in this Declaration, including the requirement to pay assessments, working capital fund or initial reserve fund contributions in Article 5, the use restrictions in Article 7, and the rights and easements of the Association and Owners in Article 8, shall be applicable (a) to any portion of the Property owned by Declarant or any Participating Builder, (b) to the activities of Declarant or any Participating Builder, and their respective officers, employees, agents, successors and assigns, in their development, marketing, leasing and sales activities within the Property, or (c) to the Association, its officers, employees and agents, in connection with the proper maintenance, repair, replacement and improvement of the Common Areas. Nothing contained in this Declaration shall be construed to prohibit Declarant or any Participating Builder from using any portion of the Property, or any improvements thereon, except for any Lots not owned by Declarant or any such Participating Builder, for promotional or display purposes, as "model homes," as sales or construction offices, or the like.

Section 12.26 Expiration of Developer Rights. In accordance with §81-307(c) of

the Act, if all development rights reserved or granted to Declarant have expired with respect to any real estate, such real estate shall become part of the Common Areas and Declarant shall no longer be liable for any fees, costs or expenses associated with, or incurred in connection with, such real estate.

Section 12.27 Specific Provisions of the Act.

(a) In accordance with §81-205(a)(9) of the Act, if any development rights contained herein may be exercised with respect to different parcels of real estate at different times: (i) no assurances are made in those regards, and (ii), if any development right contained herein is exercised in any portion of the Property subject to that development right, that development right may not be exercised in all or in any other portion of the remainder of that portion of the Property.

(b) In accordance with §81-205(a)(8) of the Act, Declarant shall have fifty (50) years from the date of recordation of this Declaration to exercise any development rights or other special declarant rights reserved by Declarant, including any such rights reserved by Declarant under this Declaration, the Bylaws, or the Certificate of Incorporation.

[END OF TEXT - SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, Declarant has caused its seal to be affixed hereto and these presents to be signed effective as of the Effective Date.

SEALED AND DELIVERED
IN THE PRESENCE OF **[_____] LLC**

_____ By: _____(SEAL)
Name: _____
Title: _____

STATE OF DELAWARE)
) SS.
SUSSEX COUNTY)

BE IT REMEMBERED, that on the _____ day of _____, 20___, personally came before me, the Subscriber, a Notary Public for the State of Delaware, _____, as _____, of **[_____] LLC,** party to this Indenture, known to me personally to be such and acknowledged this Indenture to be their act and deed and the act and deed of such limited partnership.

GIVEN under my Hand and Seal of Office, the day and year aforesaid.

_____
Notary Public

_____
Print Name

My Commission Expires:_____

EXHIBIT A-1

PROPERTY LEGAL DESCRIPTION

ADD LEGAL DESCRIPTION FOR MODEL LOT AND ROADS AND COMMON AREAS ONLY.

EXHIBIT A-2
EXPANSION PROPERTY

ADD LEGAL DESCRIPTION FOR ALL LOTS IN PROJECT EXCEPTING OUT THE MODEL LOTS.

EXHIBIT B

PROPERTY TAX PARCEL NUMBERS

ADD TPN FOR MODEL LOT ONLY

EXHIBIT C

IRREVOCABLE POWER OF ATTORNEY COUPLED WITH AN INTEREST

Tax Parcel No. _____

Prepared By and Return to:

_____
_____
_____
_____

IRREVOCABLE POWER OF ATTORNEY COUPLED WITH AN INTEREST

KNOW ALL MEN BY THESE PRESENTS that I/We, _____, owner(s) of that certain lot, piece or parcel of land, together with any improvements thereon, situate in _____Hundred, _____ County, Delaware, and known as _____ (the "Lot") on the _____ Plat, prepared by _____, dated _____, said plan being recorded in the Office of the Recorder of Deeds, _____ County, Delaware (the "Recorder's Office") at Plat Book ___, Page ___, as it may be amended from time to time (the "Master Plan"), hereby make(s), constitute(s), and appoint(s) _____, a _____, its successors and assigns, acting by and through its manager or authorized member or designated attorney-in-fact ("Attorney"), to be my/our true and lawful attorney, and in my/our name, place and stead and in my/our behalf, to do and execute all or any of the following acts, deeds and things, that is to say:

To do, make, file, execute, acknowledge, deliver and record any and all manner and description of instruments, agreements, plans, applications, authorizations, documents, deeds, easements, restrictions, causes of action, appeals, modifications, and amendments (collectively, the "Documents") and any other undertakings as may be required to amend, modify or otherwise change any and all Documents, of record or not of record, with respect to, applicable to, or affecting the Lot and the Project and Property (both as defined in the Master Declaration of Covenants, Conditions, Easements and Restrictions For The Community Of "_____," dated _____, and of record in the Recorder's Office at Book _____, Page ____ (the "Master Declaration")), including, by way of example but not of limitation, (1) the Master Declaration; (2) the Certificate of Incorporation of the Association, and (3) the By-Laws of the Association, together with any and all variances, special exceptions or other zoning or subdivision actions or proceedings (and any applicable appeals), amendments, modifications or supplements thereto or thereof, and any and all instruments or documents collateral thereto, which my/our Attorney, in its sole subjective and absolute discretion, deems necessary or advisable, as provided under the Master Declaration, including, but not limited to, Sections 12.9 and 12.13 of Article XII of the Master Declaration, the terms of which are expressly incorporated herein by reference; provided that any such act, deed or thing shall not amend, modify or otherwise alter or change the existing property lines of the Lot and shall be undertaken and accomplished in accordance with all applicable Federal, State and County statutes, laws, ordinances, regulations or other governmental

enactments or regulations (the "Regulations") (collectively, the "Permitted Activities").

To do, make, execute, acknowledge, deliver and record any and all manner and description of actions, instruments, agreements, documents, amendments and any other undertakings, together with any and all amendments, modifications or supplements thereto or thereof, and any and all instruments or documents collateral thereto, which Attorney, in its sole subjective and absolute discretion, deems necessary or advisable with respect to the Permitted Activities; provided that any such Permitted Activities shall not amend, modify or otherwise alter or change the existing property lines of the Lot and shall be undertaken and accomplished in accordance with the Regulations.

To cause each or all of the Documents to be amended by filing with the Recorder's Office any and all instruments, documents and plans, together with any amendments thereto, as may be necessary, in my/our Attorney's sole subjective and absolute discretion, to correct any clerical or typographical errors, ambiguities, title questions or defects, or conflicts with or to comply with any and all applicable Regulations.

Without in any way detracting from the hereinabove authorized powers, I/we specifically request and authorize that my/our hereinabove designated true and lawful Attorney be authorized and directed to take any and all such action which it deems necessary or advisable, in its sole subjective and absolute discretion, for the purposes provided above.

Hereby giving unto my/our said Attorney full power and authority to do and perform all and every act and thing whatsoever requisite, necessary or convenient to be done for the purposes herein stated and in and about the Lot, Project or Property, as fully to all intents and purposes as I/we might or could do if personally present and acting, with full power of substitution and revocation, hereby ratifying and confirming all that my/our Attorney or substitute shall lawfully do or cause to be done by virtue hereof.

And I/we hereby, for myself/ourselves, my/our heirs, executors, administrators, successors and assigns, confirm and agree to ratify and confirm whatsoever my/our Attorney may lawfully do by virtue of these presents, it being understood that this instrument is intended to be and is an Irrevocable Power of Attorney Coupled With An Interest, and that this instrument shall bind all future owners of the Lot and shall run with and bind the Lot for period commencing on the date of recordation of the Master Declaration and ending on the later of (i) the date the Attorney no longer owns all or any portion of the Project or Property or (ii) the date which is fifty (50) years after the date that the last lot in the Project is sold by Attorney to a third party.

This Power of Attorney Coupled With An Interest is coupled with an interest and irrevocable and shall not be revoked or affected by my/our subsequent disability or incapacity, it being my/our intention that this Power of Attorney Coupled With An Interest be a durable Power of Attorney pursuant to 12 Del. C. Ch. 49, and is intended to be construed according to Delaware law.

Whenever used, the singular number shall include the plural, the plural the singular and the use of any gender shall include all genders.

IN TESTIMONY WHEREOF, I/We have hereunto set my/our hand(s) and seal(s) this ___day of _____, 20___.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

_____ _____(SEAL)
WITNESS Print Name: _____

_____ _____(SEAL)
WITNESS Print Name: _____

STATE OF DELAWARE)
) SS.
_____ COUNTY)

BE IT REMEMBERED, that on this _____ day of _____, 20___, personally came before me the Subscriber, a Notary Public for the State and County aforesaid _____, parties to this foregoing Irrevocable Power of Attorney Coupled With An Interest, known to me personally to be such, and acknowledged said Irrevocable Power of Attorney Coupled With An Interest to be his/her/their voluntary act and deed.

GIVEN under my Hand and Seal of Office, the day and year aforesaid.

_____
NOTARY PUBLIC

_____
Print Name

_____
Date Commission Expires

EXHIBIT D
Common Interest Community (CIC) Complaint Form

_____ Homeowners Association, Inc.
c/o _____ Property Management, _____,
(302) _____

COMMON INTEREST COMMUNITY (CIC) COMPLAINT FORM

Pursuant to Chapter 25 of Title 29 of the Delaware Code, the Board of Directors (Board) of the _____ Homeowners Association, Inc. (Association) has established this complaint form for use by persons who wish to file written CIC Complaints with the Association regarding the action, inaction, or decision by the governing board, managing agent or Association inconsistent with the Declaration, Bylaws, Rules or any governing document of the Association, or applicable law.

Legibly describe your CIC Complaint in the area provided below, as well as the requested action or resolution of the issues described in the complaint. Please state the specific facts and circumstances at issue and quote the specific provisions of the governing documents, Delaware laws and regulations that you rely upon in support of your CIC Complaint. If you need more space, please attach additional pages to this CIC Complaint Form. Also, please attach any supporting documents, correspondence and other materials related to the Complaint.

_____
_____
_____
_____
_____
_____

Please sign, date, and print your name and address below and submit this completed form to the Association at the address listed above.

Printed Name:

_____
Signature Date:

Your Mailing Address:
Lot/Unit Address:
Your Contact Preference: ☐ Phone ☐Email
Your Email Address:
Your Phone Number:
☐ Other:

NOTICE:

If the Association issues a final decision adverse to your CIC Complaint, you have the right to file a notice of final adverse decision with the Common Interest Community Ombudsperson in accordance with 29 *Del. C.* §2544 (9), (10). The notice must be filed within 30 days of the date of the final adverse decision, must be in writing on the "Contact/Complaint" form provided by the Office of the Common Interest Community Ombudsperson ("Ombudsperson"); must include copies of any "Required Information" and supporting documents, correspondence and other material related to the decision, and must be accompanied by a $35 filing fee, unless waived for good cause by the Ombudsperson. The Ombudsperson may be contracted at:

Delaware Department of Justice
Office of the Common Interest Community Ombudsperson
820 N. French Street
Wilmington, DE 19801
Tel: (302) 577-8600

Email: Common.Interest.Community.Ombudsperson@state.de.us

I hereby certify that I caused this CIC Complaint and all attached documents to be delivered to the Association at the address provided by the association on _____[Date] at _____ o'clock am./pm., by the following means of delivery:

[Check one:]

_____ I personally delivered the papers to the current address of the Association.
_____ FedEx, to the current address provided by the Association.
_____ UPS, to the current address provided by the Association.
_____ other delivery service that creates a record of delivery [specify] _____ to the current address provided by the Association.
_____ registered mail, return receipt requested, to the current address provided by the Association.
_____ certified mail, return receipt requested, to the current address provided by the Association.
_____ USPS "delivery confirmation," to the current address provided by the Association.
_____ [if consistent with established procedure of the Association,] by electronic means, to [email address]_____.

I further certify that I have made and kept a record of delivery.

Your Name [printed or typed]:

Signature: _____

EXHIBIT E

RECORDING DATA FOR RECORDED EASEMENTS AND LICENSES

BLACK OAK
CLUSTER SUBDIVISION

CONDITIONAL USE APPLICATION
SUSSEX COUNTY, DELAWARE

0818C053.K01

JULY 2022

DAVIS BOWEN & FRIEDEL, INC.

ARCHITECTS • ENGINEERS • SURVEYORS

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    b. FEMA Firmette
    c. 2020 State Strategies
    d. Sussex County 2045 Future Land Use Map
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    f. 1992 Aerial Photo
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    h. Environmental Map
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A

Presentation Outline

A. Land Use & Zoning

1. The project is a proposed cluster subdivision consisting of 127 single family lots.

2. The property is located on the north side of New Road, approximately 2,300 feet northeast of Nassau Road.

3. The Owner of the parcel is Halsey G. Knapp Trustee.

4. The parcel is being developed by Glenwood Lewes, LLC.

5. The property is currently zoned AR-1 (Agricultural Residential) in Sussex County.

6. The property is in Investment Level Areas 2, 3, & 4 on the 2020 State Strategies Map, with the majority of lots located in Level 3 Areas.

7. The property is designated as Low Density on Sussex Counties 2045 future land use map in the latest comprehensive plan.

8. The property is not located within Sussex Counties Coastal Area.

B. Land Utilization

1. The total acreage of the site is 77.235 acres of land.

2. The project proposed will consist of 127 single family lots.

3. 42.043 acres (54%) of open space is proposed.

C. Environmental

1. State(Tidal) and Federal(Non-Tidal) wetlands do exist on site.

2. A draft archaeological site study is being finalized and will be submitted for future record. The developer has engaged ED Otter to complete a Phase 2 archaeological study on the 18th century homestead (Thomas Gray site, Site #8).

3. The proposed project is partially located within an Excellent Groundwater Recharge Area.

4. The proposed project is not within a Wellhead Protection Area.

5. The property is impacted by the 100 year floodplain, Zone AE (Elev. 8') as determined by FEMA Map 10005C0193K (Dated March 16, 2015).

D. Traffic

1. The subdivision proposes one entrance to New Road. A separate stabilized grass emergency access way will also be provided.

2. The developer will enter an agreement with DelDOT to pay the Area Wide Study Fee in lieu of doing a Traffic Study.

3. The developer will continue to work with DelDOT on offsite improvements, sidewalks, and shared use path installation to compliment the work being performed by DelDOT in the area.

E. Civil Engineering

1. The internal street will be privately maintained and will meet or exceed the requirements of the Code of Sussex County.

2. The grading of the site will meet or exceed the requirements of the Code of Sussex County.

3. Drinking and fire protection water will be provided by Tidewater Utilities, Inc.

4. Wastewater will be provided by Susses County(West Rehoboth Expansion of the Dewey Beach Sanitary Sewer District).

5. The stormwater management system will meet all State, County, and Conservation District requirements through a combination of Best Management Practices (BMP) and Best Available Technologies (BAT).

6. Fire protection will be provided by the Lewes Fire Department.

7. Electricity will be provided by Delaware Electric Cooperative.

8. The parcels are located in the Cape Henlopen School District.

B

Black Oak
Data Sheet

Owner:	Halsey G. Knapp Trustee
Developer:	Glenwood Lewes, LLC.
Engineer:	Davis, Bowen & Friedel, Inc.
Legal Services:	Fuqua, Willard, Stevens, & Schab, P.A.

Project Description

Physical Location:	Property is located on the north side of New Road, approximately 2,300 feet northeast of Nassau Road.
Tax Parcel #:	335-7.00-6.00
Acreage:	77.235 +\- Acres
Proposed Units:	127 Single Family Dwelling
Proposed Density:	1.64 Units/Acre
Current Zoning:	AR-1 (Agricultural Residential)
Proposed Zoning:	AR-1(Agricultural Residential) – Cluster Development
Existing Land Use:	Agriculture
Proposed Land Use:	Residential
County Future Land Use:	Low Density
Existing Woodlands:	29.862 Acres
Woodlands to Remain:	16.233 Acres (54%)(Included Reforestation)
Wetlands:	Federal (Non-Tidal) and State (Tidal) Wetlands exist on site
Flood Plain:	Impacted by the 100 year flood, Zone AE(Elev.8') Map #10005C0193K
Coastal Area:	Project is not with the Coastal Area
Source Water Protection:	Project in not within a Wellhead Protection Area Project is within the "Fair, Good and Excellent" Groundwater Recharge Areas
Water Provider:	Tidewater Utilities, Inc.
Wasterwater Provider:	West Rehoboth Expansion of the Dewey Beach SSD

Land Use:

Right of Ways:	7.495 Acres (10%)
Lot Area:	27.514 Acres (36%)
DelDOT Dedication:	0.183 Acres
Open Space:	42.043 Acres (54%)
Total	77.235 Acres

AR-1 Bulk and Area Regulations:

Minimum Lot Area:	7,500 SQFT.
Minimum Lot Width:	60 FT
Minimum Lot Depth:	100 FT
Front Yard Setback:	25 FT
Side Yard Setback:	10 FT
Corner Yard Setback:	15 FT
Rear Yard Setback:	10 FT
Maximum Building Height:	42 FT
Open Space:	30%

C

File #: _____
Pre-App Date: _____

Sussex County Major Subdivision Application
Sussex County, Delaware

Sussex County Planning & Zoning Department
2 The Circle (P.O. Box 417) Georgetown, DE 19947
302-855-7878 ph. 302-854-5079 fax

Type of Application: (please check applicable)
Standard: __
Cluster: ✔
Coastal Area: __

Location of Subdivision:

North side of New Road, +/- 2,400' east of Nassau Road

Proposed Name of Subdivision:

Glenwood

Tax Map #: 335-7.00-6.00 Total Acreage: 77.24 +/- acres

Zoning: AR-1 **Density:** 1.69 **Minimum Lot Size:** 7,500 **Number of Lots:** 131

Open Space Acres: 41.97 +/- acres

Water Provider: Tidewater Utilities **Sewer Provider:** Sussex County

Applicant Information

Applicant Name: Glenwood Lewes, LLC
Applicant Address: 18949 Coastal Hwy, Suite 301
City: Rehoboth Beach State: DE ZipCode: 19971
Phone #: (302) 227-3573 E-mail: ben@oacompanies.com

Owner Information

Owner Name: Leslie Gay Knapp Marini, Successor Trustee
Owner Address: 1102 Bay Ave
City: Lewes State: DE Zip Code: 19958
Phone #: _____ E-mail: _____

Agent/Attorney/Engineer Information

Agent/Attorney/Engineer Name: Davis, Bowen & Friedel, Inc. - W. Zachary Crouch, P.E.
Agent/Attorney/Engineer Address: 1 Park Ave
City: Milford State: DE Zip Code: 19963
Phone #: (302) 424-1441 E-mail: wzc@dbfinc.com

Check List for Sussex County Major Subdivision Applications

The following shall be submitted with the application

✔ **Completed Application**

✔ **Provide ten (10) copies of the Site Plan or Survey of the property and a PDF (via e-mail)**
- Plan shall show the existing conditions, setbacks, roads, floodplain, wetlands, topography, proposed lots, landscape plan, etc. **Per Subdivision Code 99-22, 99-23 & 99-24**
- Provide compliance with Section 99-9.
- Deed or Legal description, copy of proposed deed restrictions, soil feasibility study

✔ **Provide Fee $500.00**

___ **Optional - Additional information for the Commission to consider** (ex. photos, exhibit books, etc.) If provided submit seven (7) copies and they shall be submitted a minimum of ten (10) days prior to the Planning Commission meeting.

___ **Please be aware that Public Notice will be sent to property owners within 200 feet of the subject site and County staff will come out to the subject site, take photos and place a sign on the site stating the date and time of the Public Hearings for the application.**

___ **PLUS Response Letter** (if required) ☐ **Environmental Assessment & Public Facility Evaluation Report** (if within Coastal Area)

___ **51% of property owners consent if applicable**

The undersigned hereby certifies that the forms, exhibits, and statements contained in any papers or plans submitted as a part of this application are true and correct.

I also certify that I or an agent on by behalf shall attend all public hearing before the Planning and Zoning Commission and any other hearing necessary for this application and that I will answer any questions to the best of my ability to respond to the present and future needs, the health, safety, morals, convenience, order, prosperity, and general welfare of the inhabitants of Sussex County, Delaware.

Signature of Applicant/Agent/Attorney

_____ Date: 9-24-2021

Signature of Owner

Leslie Lee Kupp Successor Trustee Date: Sept. 23 2021

For office use only:

Date Submitted: _____ Fee: $500.00 Check #: _____

Staff accepting application: _____ Application & Case #: _____

Location of property: _____

_____

Date of PC Hearing: _____ Recommendation of PC Commission: _____

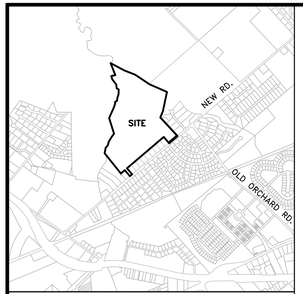
D

BLACK OAK

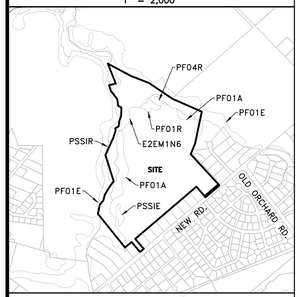
PRELIMINARY PLANS FOR RESIDENTIAL SUBDIVISION

LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DELAWARE

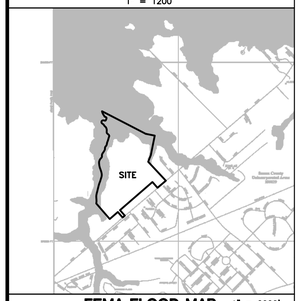
SUSSEX COUNTY PROJECT #2021-31
DBF PROJECT NO. 0818C053 SEPTEMBER 2021



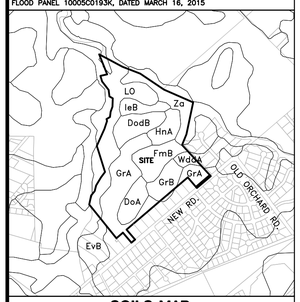
LOCATION MAP
1" = 2,000'



NWI WETLANDS MAP
1" = 1200'



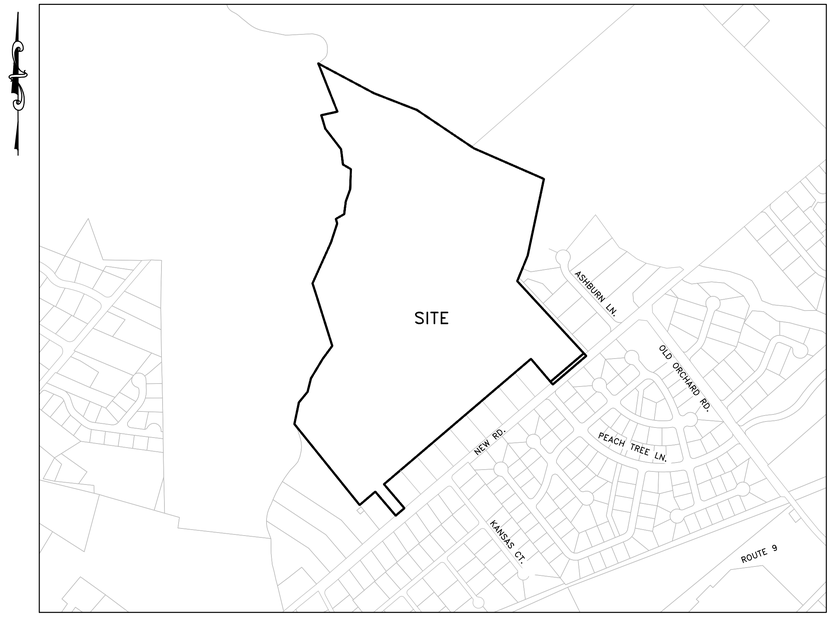
FEMA FLOOD MAP 1" = 2000'
FLOOD PANEL 10005C0193K, DATED MARCH 16, 2015



SOILS MAP
1" = 1200'

SOILS DATA

LABEL	SOIL NAME	TYPE
DoA	DOWNER SANDY LOAM, 0–2 PERCENT SLOPES	A
DodB	DOWNER SANDY LOAM, 2–5 PERCENT SLOPES	A
EvB	EVESBORO LOAMY SAND, 0–2 PERCENT SLOPES	A
FmB	FORT MOTT SANDY LOAM, 2–5 PERCENT SLOPES	A
GrA	GREENWICH LOAM, 0–2 PERCENT SLOPES	B
GrB	GREENWICH LOAM, 2–5 PERCENT SLOPES	B
HnA	HAMMONTON SANDY LOAM, 0–2 PERCENT SLOPES	B
IeB	INGLESIDE LOAMY SAND, 2–5 PERCENT SLOPES	A
LO	LONGMARSH & INDIANTOWN, FREQUENTLY FLOODED	B/D
WdsA	WOODSTOWN SANDY LOAM, 0–2 PERCENT SLOPES	C
Za	ZEKIAH SANDY LOAM, FREQUENTLY FLOODED	B/D



LOCATION MAP
SCALE: 1"=500'

0 500 1000 1500

DATA COLUMN

TAX MAP ID:	335–7.00–6.00
DEED REF:	D 4250/339
EXISTING ZONING:	AR–1
PROPOSED ZONING:	AR–1(CLUSTER DEVELOPMENT)
EXISTING USE:	AGRICULTURE
PROPOSED USE:	127 UNIT RESIDENTIAL SUBDIVISION W/CLUBHOUSE
PROPOSED CONSTRUCTION:	WOOD/CONCRETE BLOCK
FLOOD HAZARD MAP:	THE PROPERTY IS IMPACTED BY THE 100 YEAR FLOODPLAIN AS DETERMINED BY FEMA MAP 10005C0193K, DATED MARCH 16, 2015. (0.2% ANNUAL CHANCE & FLOOD ZONE AE (ELEV. 8')
WETLANDS:	THE PROPERTY AS SHOWN DOES CONTAIN STATE (TIDAL) & FEDERALLY (404 NON–TIDAL) REGULATED WETLANDS.
FUTURE LAND USE DESIGNATION:	LOW–DENSITY
COASTAL AREA:	PROJECT IS NOT LOCATED WITHIN THE COASTAL AREA.
SOURCE WATER PROTECTION:	PROJECT IS NOT LOCATED WITHIN A WELLHEAD PROTECTION AREA. A PORTION OF THE PROJECT IS LOCATED WITHIN THE "EXCELLENT"GROUNDWATER RECHARGE AREA.
EXISTING SITE AREA:	77.235 ACRES
PROPOSED UNITS:	127 SINGLE FAMILY UNITS
PROPOSED DENSITY:	1.64 UNITS/ACRE
AREA OF LOTS:	27.514 AC. (36%)
PROVIDED OPEN SPACE	42.043 AC.(54%)
ROW DEDICATION:	0.183 AC. (0%)
AREA OF ROW:	7.495 AC. (10%)
MINIMUM LOT SIZE:	7,503 SQFT.
MAXIMUM LOT SIZE:	15,373 SQFT.
AVERAGE LOT SIZE:	9,437 SQFT.
EXISTING FORESTED ACREAGE	29.862 AC.
FORESTED ACREAGE REMOVED	14.539 AC. (49%)
REFORESTED ACREAGE	0.910 AC. (3%)
FORESTED ACREAGE TO REMAIN	16.233 AC. (54%)
OLD GROWTH FOREST PRESERVED	13.600 AC. (86.8%)
OLD GROWTH FOREST REMOVED	2.063 AC. (13.2%)
NON–TIDAL WETLANDS	7.921 AC.
TIDAL WETLANDS	11.008 AC.
TOTAL WETLANDS AREA	18.929 AC.

AR–1 CLUSTER – NUMBER OF DWELLING UNITS PERMITTED CALCULATION

TOTAL PROPOSED SITE AREA	77.235 AC.
STATE WETLANDS AREA	–11.008 AC.
TOTAL GROSS AREA	16.227 AC.

PERMITTED UNITS CALCULATION
TOTAL GROSS AREA x 43560 / 21780
66.227 x 43560 / 21780 = 132 UNITS PERMITTED

AR–1 SETBACK REQUIREMENTS

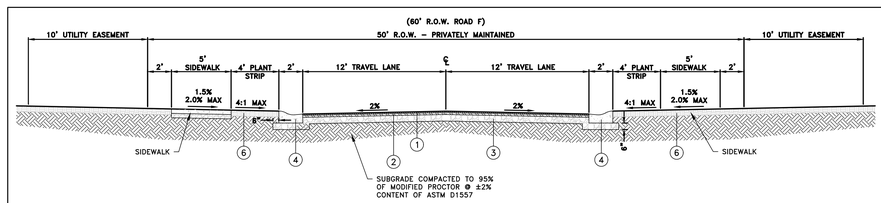
FRONT YARD:	25 FT.
CORNER:	15' (ONE SIDE)
SIDE YARD:	10 FT.
REAR YARD:	10 FT.
MIN LOT AREA:	7500 S.F.
MIN LOT WIDTH:	60 FT
MIN LOT DEPTH:	100 FT
PROPOSED MAXIMUM BUILDING HEIGHT:	42 FT. (3–½ STORIES)
SANITARY SEWER:	WEST REHOBOTH EXPANSION OF THE DEWEY BEACH SSD
WATER SUPPLY:	TIDEWATER UTILITIES, INC.

DATUM

VERTICAL:	NAVD 88
HORIZONTAL:	NAD 83(DE STATE PLANE)

INDEX OF SHEETS

PL–01	PRELIMINARY TITLE
PL–02	PRELIMINARY SITE PLAN OVERVIEW
PL–03 – PL–06	PRELIMINARY SITE PLAN



RESIDENTIAL ROAD SECTION
24' PAVEMENT SECTION
NOT TO SCALE

LEGEND

1. BITUMINOUS CONCRETE, SUPERPAVE, TYPE 'C', PG 64–22, 160 GYRATIONS (CARBONATE STONE)
2. BITUMINOUS CONCRETE, SUPERPAVE, TYPE 'B', PG 64–22, 160 GYRATIONS
3. GRADED AGGREGATE BASE COURSE, TYPE 'B', SHALL BE OVER APPROVED SUBGRADE
4. INTEGRAL P.C.C. CURB & GUTTER, TYPE 2
5. P.C.C. CURB, TYPE 2
6. TOPSOIL (6" DEPTH), PERMANENT GRASS SEEDING, DRY GROUND

GENERAL NOTES:

1. STREETS, STORMWATER MANAGEMENT FACILITIES, FORESTED BUFFER STRIPS AND OTHER COMMON AREAS SHALL BE MAINTAINED BY THE DEVELOPER UNTIL SUCH TIME AS A HOMEOWNER'S ASSOCIATION CAN PROVIDE FOR REQUIRED MAINTENANCE. SUSSEX COUNTY AND THE STATE OF DELAWARE ASSUME NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF THESE FACILITIES WITHIN THE SITE.
2. SUBDIVISION STREETS CONSTRUCTED WITHIN THE LIMITS OF THE RIGHT–OF–WAY SHOWN ON THIS PLAN ARE PRIVATE AND ARE TO BE MAINTAINED BY THE DEVELOPER, PROPERTY OWNERS OR BOTH. THE STATE ASSUMES NO MAINTENANCE RESPONSIBILITIES FOR THE FUTURE MAINTENANCE OF THESE STREETS.
3. THE SIDEWALK SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, THE PROPERTY OWNERS OR BOTH WITHIN THIS SUBDIVISION. SUSSEX COUNTY AND THE STATE OF DELAWARE ASSUME NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF THE SIDEWALK.
4. ACCESS TO ALL LOTS SHALL BE PROVIDED FROM THE PRIVATE SUBDIVISION STREETS PROPOSED WITH THIS PLAN. NO DIRECT ACCESS TO PUBLIC STREETS IS PROPOSED EXCEPT THE ENTRANCES SPECIFICALLY SHOWN ON THIS PLAN.
5. UPON COMPLETION OF THE CONSTRUCTION OF THE SIDEWALK OR SHARED–USE PATH ACROSS THIS PROJECT'S FRONTAGE AND PHYSICAL CONNECTION TO ADJACENT EXISTING FACILITIES, THE DEVELOPER, THE PROPERTY OWNERS OR BOTH ASSOCIATED WITH THIS PROJECT, SHALL BE RESPONSIBLE TO REMOVE ANY EXISTING ROAD TIE–IN CONNECTIONS LOCATED ALONG ADJACENT PROPERTIES, AND RESTORE THE AREA TO GRASS. SUCH ACTIONS SHALL BE COMPLETED, IN CONFORMANCE WITH DELDOT'S "SHARED–USE PATH AND/OR SIDEWALK TERMINATION POLICY".
6. THE BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IN THESE PLANS ARE BASED ON FIELD SURVEYS PERFORMED BY DAVIS, BOWEN & FRIEDEL, INC.
7. UTILITY EASEMENTS DEPICTED HEREON REPRESENT. TO THE GREATEST EXTENT PERMITTED BY LAW. PRIVATE EASEMENTS FOR THE EXCLUSIVE USE AND BENEFIT OF THOSE UTILITY COMPANIES AND/OR OTHER PROVIDERS OF SERVICES TO THE DEVELOPMENT AS MAY BE DESIGNED BY OWNER, OR ITS SUCCESSORS AND ASSIGNS, FROM TIME TO TIME BY AN INSTRUMENT IN WRITING, AND IN NO WAY GRANT, CONVEY OR CREATE ANY GENERAL PUBLIC UTILITY EASEMENT OR ANY GENERAL OR PUBLIC ACCESS RIGHTS.
8. UNLESS OTHERWISE DESIGNATED BY OWNER, OR ITS SUCCESSORS AND ASSIGNS, FROM TIME TO TIME BY AN INSTRUMENT IN WRITING, STORM DRAIN EASEMENTS DEPICTED HEREON REPRESENT PRIVATE EASEMENTS TO ACCESS THE STORM DRAINS FOR THE SOLE PURPOSE OF MAINTAINING AND REPAIRING SUCH STORM DRAINS, AND IN NO WAY GRANT, CONVEY OR CREATE ANY GENERAL PUBLIC UTILITY EASEMENT OR ANY GENERAL OR PUBLIC ACCESS RIGHTS.
9. WETLANDS EXIST ON THIS PARCEL.
10. THE HOMEOWNERS' ASSOCIATION SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE STORMWATER DRAINAGE AND MANAGEMENT FACILITIES RELATED TO THE RESIDENTIAL PROPERTIES, HOMEOWNERS' ASSOCIATION PROPERTIES AND ROAD RIGHT–OF–WAY WITHIN THE PROJECT. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION AS REQUIRED BY SUSSEX COUNTY, DELAWARE. SHOULD THE OWNER OR OWNERS OF THE PROPERTY DEFAULT IN THE MAINTENANCE OF THE STORMWATER DRAINAGE AND MANAGEMENT FACILITIES, THE HOMEOWNERS' ASSOCIATION SHALL HAVE THE RIGHT TO MAINTAIN THE FACILITIES SUBJECT TO THE TERMS AND CONDITIONS OF THE COVENANTS.
11. EXISTING VEGETATION IN THE FORESTED BUFFER TO REMAIN, AND SUPPLEMENTED WITH ADDITIONAL PLANTINGS.
12. THIS PROJECT IS NOT LOCATED WITHIN ANY TRANSPORTATION IMPROVEMENT DISTRICT.
13. THIS PROPERTY IS LOCATED IN THE VICINITY OF LAND USED PRIMARILY FOR AGRICULTURAL PURPOSED ON WHICH NORMAL AGRICULTURAL USES AND ACTIVITIES MAY NOW OR IN THE FUTURE INVOLVE NOISE, DUST, MANURE AND OTHER ODORS, THE USE OF AGRICULTURAL CHEMICALS AND NIGHTTIME FARM OPERATIONS. THE USE AND ENJOYMENT OF THIS PROPERTY IS EXPRESSLY CONDITIONED ON ACCEPTANCE OF ANY ANNOYANCE OR INCONVENIENCE WHICH MAY RESULT FROM SUCH NORMAL AGRICULTURAL USES AND ACTIVITIES.
14. ANY ADDITIONAL SIGNAGE WILL REQUIRE APPROVAL AND PERMITTING FROM SUSSEX COUNTY.

APPROVED BY:

CHAIRMAN OF PLANNING COMMISSION _____ DATE _____

PRESIDENT OF SUSSEX COUNCIL _____ DATE _____

SUSSEX CONSERVATION DISTRICT

OWNER/DEVELOPER STATEMENT

I, THE UNDERSIGNED, CERTIFY THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO BE ACT AND DESIRE THE PLAN TO BE RECORDED TO ORDINANCE.

HALSEY G. KNAPP TRUSTEE _____ DATE _____
1102 BAY AVENUE
LEWES, DE 19958

DEVELOPER'S STATEMENT

I, THE UNDERSIGNED, HEREBY STATE THAT I AM THE DEVELOPER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THE PLAN WAS MADE AT MY DIRECTION, I ACKNOWLEDGE THE SAME TO BE MY ACT AND DESIRE THE PLAN BE RECORDED ACCORDING TO LAW.

GLENWOOD LEWES, LLC _____ DATE _____
18949 COASTAL HWY. SUITE 301
REHOBOTH BEACH, DE 19971

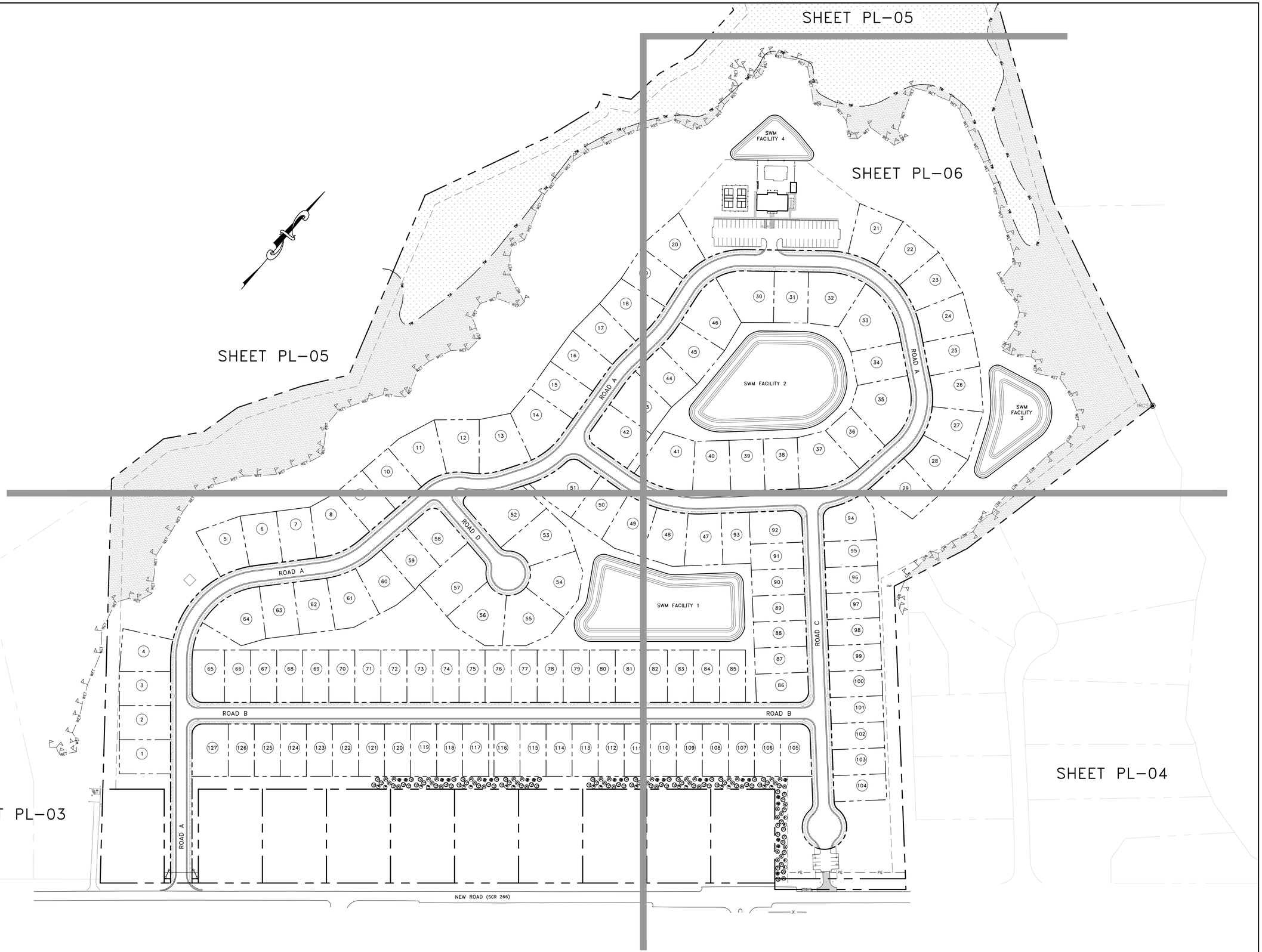
ENGINEER'S STATEMENT

I, W. ZACHARY CROUCH, P.E., HEREBY STATE THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO MY BEST KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

by W. ZACHARY CROUCH, P.E. _____ DATE _____
DAVIS, BOWEN & FRIEDEL, INC.
1 PARK AVE.
MILFORD, DELAWARE, 19963

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543–9091
MILFORD, DELAWARE (302) 424–1441
EASTON, MARYLAND (410) 770–4744

PL–01



DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MIDDLETOWN, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

PRELIMINARY PLAN OVERVIEW

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	SEPTEMBER 2021
Scale:	1"=100'
Dwn.By:	DJR
Proj.No.:	818C052.A01
Dwg.No.:	PL-02

P:\Ocean Atlantic\0818C053 Knapp\PRELIMINARY\PRELIMINARY PLAN.dwg Jul 07, 2022 - 11:45am jbaj

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MATCHLINE (SEE SHEET PL-05)

MATCHLINE (SEE SHEET PL-04)

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
NEW CASTLE, DELAWARE (302) 322-8791
EASTON, MARYLAND (410) 770-4744

PRELIMINARY PLAN

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	SEPTEMBER 2021
Scale:	1"=50'
Dwn.By:	DJR
Proj.No.:	818C052.A01
Dwg.No.:	PL-03

0 50 100 150

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MATCHLINE (SEE SHEET PL-06)

MATCHLINE (SEE SHEET PL-03)

ROAD A
(DEDICATED TO PUBLIC USE, PRIVATELY MAINTAINED)

ROAD B
(DEDICATED TO PUBLIC USE, PRIVATELY MAINTAINED)

ROAD C
(DEDICATED TO PUBLIC USE, PRIVATELY MAINTAINED)

NEW ROAD
(SCR 266)

SWM FACILITY 1

PARCEL 6.19
0.76 ± ACRES

PARCEL 6.20
0.76 ± ACRES

OPEN SPACE A
1,472,578 S.F.
33.806 AC.

30' LANDSCAPE BUFFER

50' R.O.W.

24'

VOLUNTARY
50' NON-TIDAL
WETLANDS BUFFER

30' BUFFER ZONE/OPEN SPACE/STORM WATER MANAGEMENT
(PER PLOT BOOK 45/188)

FUTURE
EMERGENCY
ACCESS
EASEMENT

EMERGENCY ACCESS

BUS STOP

P.O.B.
N: 276,689.76
E: 724,634.30

N/F
COLLINS A. RICKARDS
335-7.00-6.21
D.B. 2427/226

N/F
LINN & MARJORIE WORRELL
335-7.00-38.00
D.B. 2704/65

N/F
COLLINS A. RICKARDS
335-7.00-43.00
D.B. 2427/226

N/F
VAN PAPADOPOULOS
335-7.00-37.00
D.B. 5434/1

N/F
JEFFREY A. & SHERRY L. STEWART
335-7.00-36.00
D.B. 2745/194

N/F
COLLINS A. RICKARDS
335-7.00-35.00
D.B. 2427/226

N/F
ERIC H. & COLLEEN H. MESSICK
335-7.00-34.00
D.B. 2745/196

0 50 100 150

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
ANNAPOLIS, MARYLAND (301) 261-4446
EASTON, MARYLAND (410) 770-4744

PRELIMINARY PLAN

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date: SEPTEMBER 2021
Scale: 1"=50'
Dwn.By: DJR
Proj.No.: 818C052.A01
Dwg.No.: PL-04

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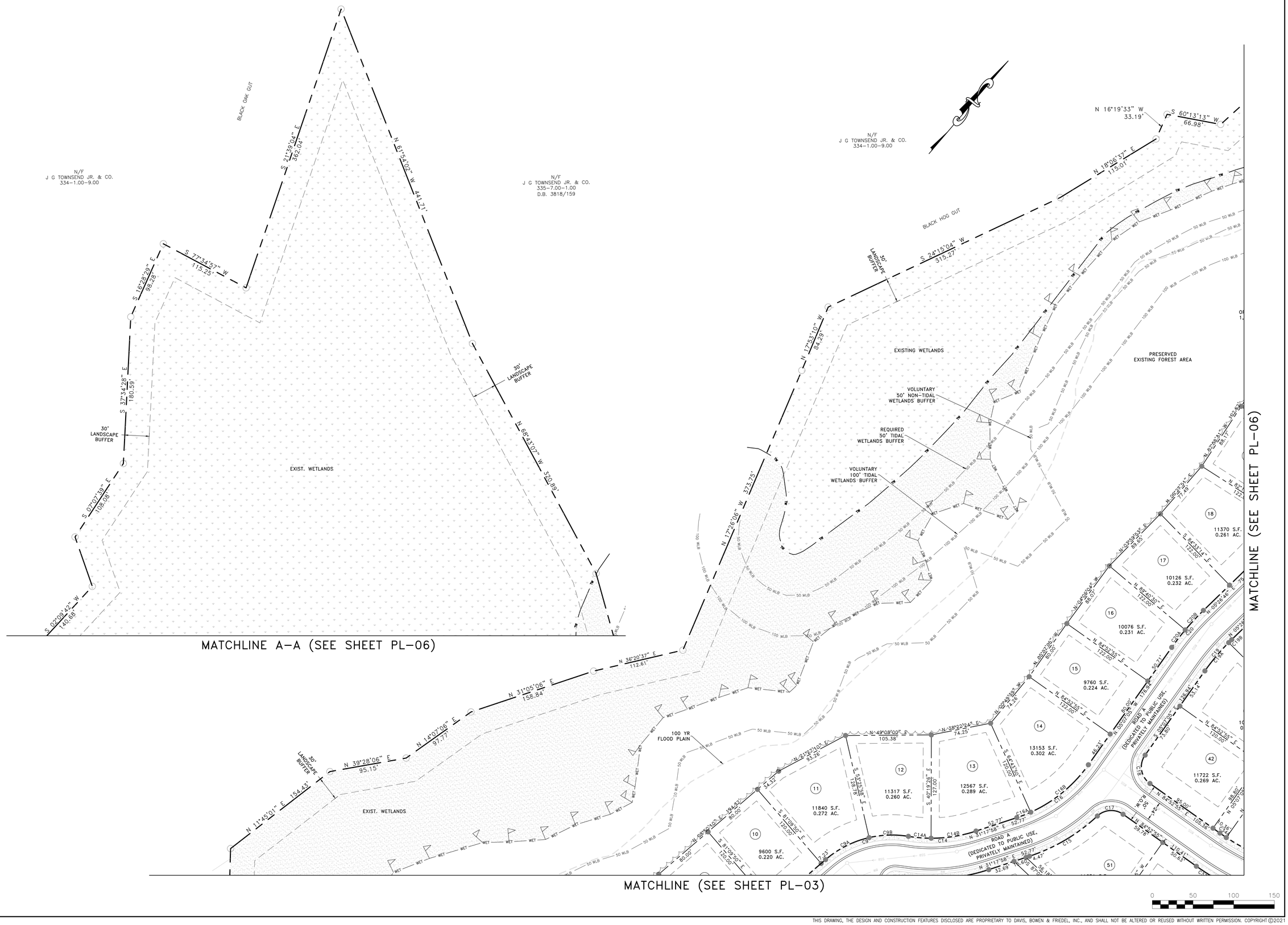
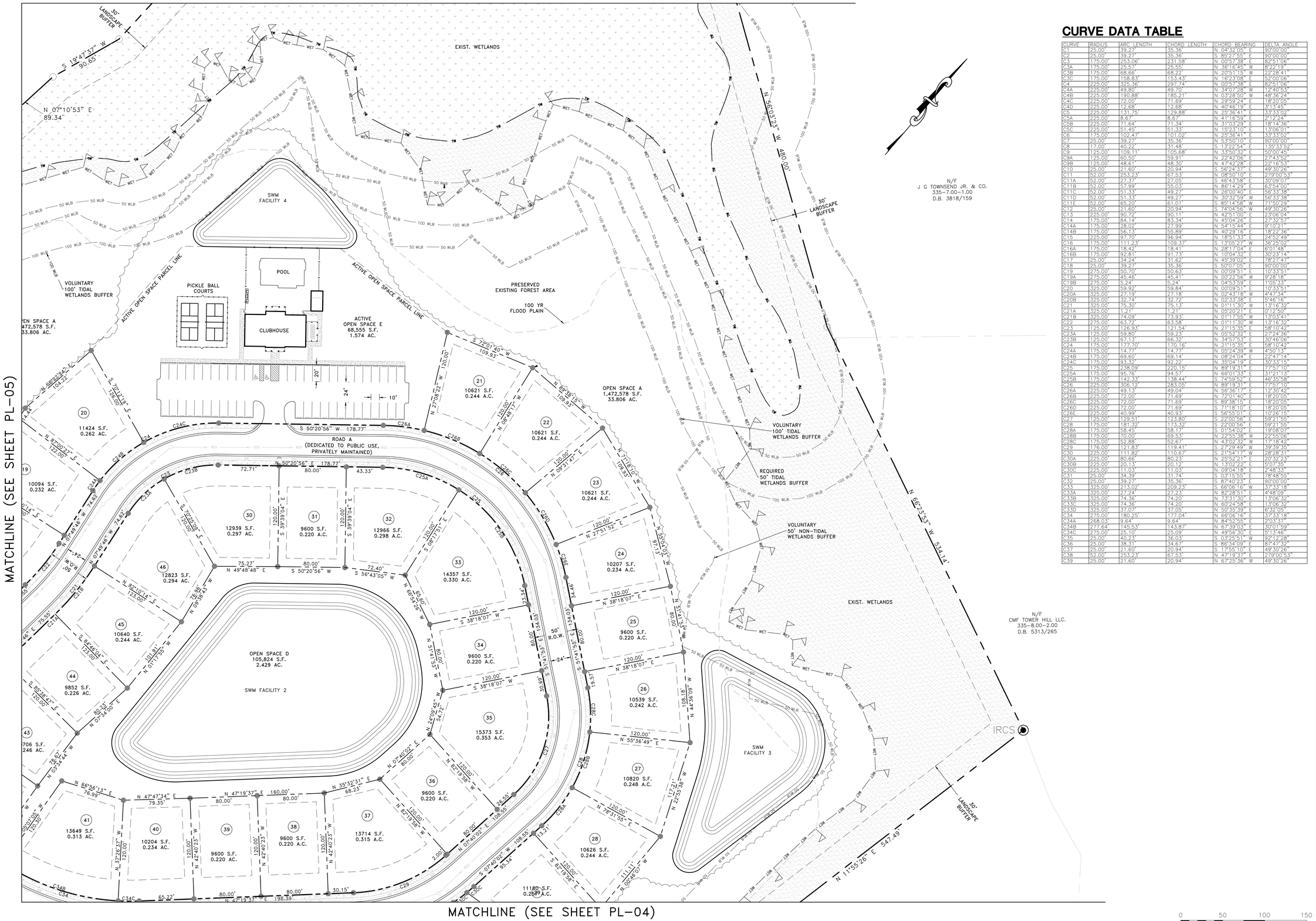

N/F
J G TOWNSEND JR. & CO.
334-1.00-9.00
N/F
J G TOWNSEND JR. & CO.
335-7.00-1.00
D.B. 3818/159
BLACK OAK GUT
BLACK HOG GUT
S 16°28'29" E
98.28'
S 37°34'28" E
180.59'
S 07°07'39" E
108.08'
S 02°09'42" W
140.88'
S 77°34'57" W
115.25'
S 21°39'04" E
362.04'
N 61°54'02" W
44.71'
N 68°43'07" W
320.89'
30' LANDSCAPE BUFFER
EXIST. WETLANDS
MATCHLINE A-A (SEE SHEET PL-06)
N 17°26'06" W
373.75'
N 36°20'37" E
112.61'
N 31°05'06" E
158.84'
N 14°07'06" E
97.77'
N 39°28'06" E
95.15'
N 11°45'01" E
154.43'
100 YR FLOOD PLAIN
EXISTING WETLANDS
PRESERVED EXISTING FOREST AREA
VOLUNTARY 50' NON-TIDAL WETLANDS BUFFER
REQUIRED 50' TIDAL WETLANDS BUFFER
VOLUNTARY 100' TIDAL WETLANDS BUFFER
N 16°19'33" W
33.19'
S 60°13'13" W
66.98'
N 18°08'57" E
175.01'
S 24°15'04" W
315.27'
N 17°53'10" W
84.29'
N 49°08'00" E
105.38'
N 38°23'24" E
74.25'
N 21°27'10" E
93.26'
N 08°50'10" E
191.62'
S 81°09'50" E
120.00'
S 40°19'28" E
127.00'
S 84°52'55" E
120.00'
N 05°07'05" W
175.84'
S 05°07'05" E
73.80'
N 84°52'55" E
120.00'
N 05°07'05" W
80.00'
N 84°52'55" E
120.00'
S 05°07'05" E
80

MATCHLINE A–A (SEE SHEET PL–05)



MATCHLINE (SEE SHEET PL–04)

CURVE DATA TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	25.00'	39.27'	35.36'	N 04°32'05" E	90°00'00"
C2	25.00'	39.27'	35.36'	S 85°27'55" E	90°00'00"
C3	175.00'	253.06'	231.58'	N 00°57'38" E	82°51'06"
C3A	175.00'	25.57'	25.55'	N 36°16'45" W	8°22'19"
C3B	175.00'	68.66'	68.22'	N 20°51'15" W	22°28'41"
C3C	175.00'	158.83'	153.43'	N 16°23'08" E	52°00'06"
C4	225.00'	325.36'	297.74'	N 00°57'38" E	82°51'06"
C4A	225.00'	49.80'	49.70'	N 34°07'28" W	12°40'53"
C4B	225.00'	190.88'	185.21'	N 03°28'50" W	48°36'24"
C4C	225.00'	72.00'	71.69'	N 29°59'24" E	18°20'05"
C4D	225.00'	12.68'	12.68'	N 40°46'19" E	3°13'45"
C5	225.00'	131.75'	129.88'	N 25°36'41" E	33°33'02"
C5A	225.00'	8.67'	8.67'	N 41°16'59" E	2°12'24"
C5B	225.00'	71.64'	71.34'	N 31°03'29" E	18°14'36"
C5C	225.00'	51.45'	51.33'	N 15°23'10" E	13°06'01"
C6	175.00'	102.47'	101.02'	N 25°36'41" E	33°33'02"
C7	25.00'	39.27'	35.36'	N 53°50'10" E	90°00'00"
C8	17.00'	40.22'	31.48'	S 19°22'54" E	135°33'52"
C9	125.00'	109.11'	105.68'	N 33°50'32" E	50°00'45"
C9A	125.00'	60.50'	59.91'	N 22°42'06" E	27°43'52"
C9B	125.00'	48.61'	48.30'	N 47°42'28" E	22°16'53"
C10	25.00'	21.60'	20.94'	S 56°24'37" E	49°30'26"
C11	52.00'	253.23'	67.53'	N 08°50'10" E	279°00'53"
C11A	52.00'	27.30'	27.05'	S 46°43'58" E	30°09'07"
C11B	52.00'	57.99'	55.03'	N 86°14'29" E	63°54'00"
C11C	52.00'	51.33'	49.27'	N 26°00'40" E	56°33'38"
C11D	52.00'	51.33'	49.27'	N 30°32'59" W	56°33'38"
C11E	52.00'	65.20'	61.01'	S 85°14'58" W	71°50'29"
C12	25.00'	21.60'	20.94'	S 74°04'56" W	49°30'26"
C13	225.00'	90.72'	90.11'	N 42°51'00" E	23°06'04"
C14	175.00'	84.14'	83.34'	N 45°04'24" E	27°33'57"
C14A	175.00'	28.02'	27.99'	N 54°15'44" E	9°10'21"
C14B	175.00'	56.13'	55.89'	N 40°29'16" E	18°22'36"
C15	225.00'	97.70'	96.94'	N 18°51'13" E	24°52'49"
C16	175.00'	111.23'	109.37'	S 13°05'27" W	36°25'02"
C16A	175.00'	18.42'	18.41'	N 28°17'04" E	6°01'48"
C16B	175.00'	92.81'	91.73'	N 10°04'32" E	30°23'14"
C17	25.00'	34.24'	31.62'	N 45°39'02" E	78°27'47"
C18	25.00'	39.27'	35.36'	S 50°07'05" E	90°00'00"
C19	275.00'	50.70'	50.63'	N 00°09'51" E	10°33'51"
C19A	275.00'	45.46'	45.41'	N 00°22'56" W	9°28'18"
C19B	275.00'	5.24'	5.24'	N 04°53'59" E	1°05'33"
C20	325.00'	59.92'	59.84'	N 00°09'51" E	10°33'51"
C20A	325.00'	27.19'	27.18'	N 02°43'18" W	4°47'54"
C20B	325.00'	32.74'	32.72'	N 02°33'38" E	5°46'16"
C21	325.00'	75.30'	75.13'	N 01°11'30" W	13°16'32"
C21A	325.00'	1.21'	1.21'	N 05°20'21" E	0°12'50"
C21B	325.00'	74.09'	73.93'	N 01°17'55" W	13°03'41"
C22	275.00'	63.72'	63.58'	N 01°11'30" W	13°16'32"
C23	125.00'	126.93'	121.54'	N 21°15'55" E	58°10'42"
C23A	125.00'	59.80'	59.23'	N 05°52'32" E	27°24.36"
C23B	125.00'	67.13'	66.32'	N 34°57'53" E	30°46'06"
C24	175.00'	177.70'	170.16'	N 21°15'55" E	58°10'42"
C24A	175.00'	14.77'	14.77'	N 05°24'39" W	4°50'13"
C24B	175.00'	69.60'	69.14'	N 08°24'04" E	22°47'14"
C24C	175.00'	93.32'	92.22'	N 35°04'19" E	30°33'15"
C25	175.00'	238.09'	220.15'	N 89°19'51" E	77°57'10"
C25A	175.00'	95.76'	94.57'	N 66°01'33" E	31°21'13"
C25B	175.00'	142.33'	138.44'	S 74°59'52" E	46°35'58"
C26	225.00'	283.12'	283.05'	N 89°19'51" E	77°57'10"
C26A	225.00'	49.13'	49.04'	N 56°36'17" E	12°30'42"
C26B	225.00'	72.00'	71.69'	N 72°01'40" E	18°20'05"
C26C	225.00'	72.00'	71.69'	S 89°38'15" E	18°20'05"
C26D	225.00'	72.00'	71.69'	S 71°18'10" E	18°20'05"
C26E	225.00'	40.99'	40.93'	S 56°55'01" E	10°26'15"
C27	125.00'	129.51'	123.80'	S 22°00'56" E	59°21'55"
C28A	175.00'	58.45'	58.17'	S 01°54'02" E	19°08'07"
C28B	175.00'	70.00'	69.53'	N 27°55'38" W	22°55'06"
C28C	175.00'	52.88'	52.67'	N 43°02'32" W	17°18'42"
C29	176.00'	121.83'	119.41'	S 27°29'49" W	39°39'35"
C30	225.00'	111.82'	110.67'	S 21°54'17" W	28°28'31"
C30A	225.00'	80.66'	80.23'	N 25°52'21" E	20°32'23"
C30B	225.00'	20.13'	20.12'	N 13°02'22" E	5°07'35"
C30C	225.00'	11.03'	11.03'	N 09°04'18" E	2°48'33"
C31	25.00'	34.39'	31.74'	S 03°15'55" E	78°48'55"
C32	25.00'	39.27'	35.36'	S 87°40'23" E	90°00'00"
C33	325.00'	213.02'	209.23'	S 66°06'16" W	37°33'18"
C33A	325.00'	27.24'	27.23'	N 82°28'51" E	4°48'09"
C33B	325.00'	74.36'	74.20'	N 73°31'30" E	13°06'32"
C33C	325.00'	74.36'	74.20'	N 60°24'58" E	13°06'32"
C33D	325.00'	37.07'	37.05'	N 50°35'39" E	6°32'05"
C34	275.00'	180.25'	177.04'	N 66°06'16" E	37°33'18"
C34A	268.03'	9.64'	9.64'	N 84°52'55" E	2°03'37"
C34B	277.64'	145.53'	143.87'	N 67°39'03" E	30°01'59"
C34C	275.00'	25.10'	25.09'	N 49°56'30" E	5°13'46"
C35	25.00'	40.23'	36.03'	S 03°25'51" W	92°12'28"
C36	25.00'	38.31'	34.67'	S 86°34'09" E	87°47'32"
C37	25.00'	21.60'	20.94'	S 17°55'10" E	49°30'26"
C38	52.00'	253.23'	67.53'	N 47°19'37" E	279°00'53"
C39	25.00'	21.60'	20.94'	N 67°25'36" W	49°30'26"

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PRELIMINARY PLAN

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	SEPTEMBER 2021
Scale:	1"=50'
Dwn.By:	DJR
Proj.No.:	818C052.A01
Dwg.No.:	PL-06

P:\Ocean Atlantic\0818C053 Knapp\PRELIMINARY\PRELIMINARY PLAN.dwg Jul 07, 2022 - 11:46am joaj

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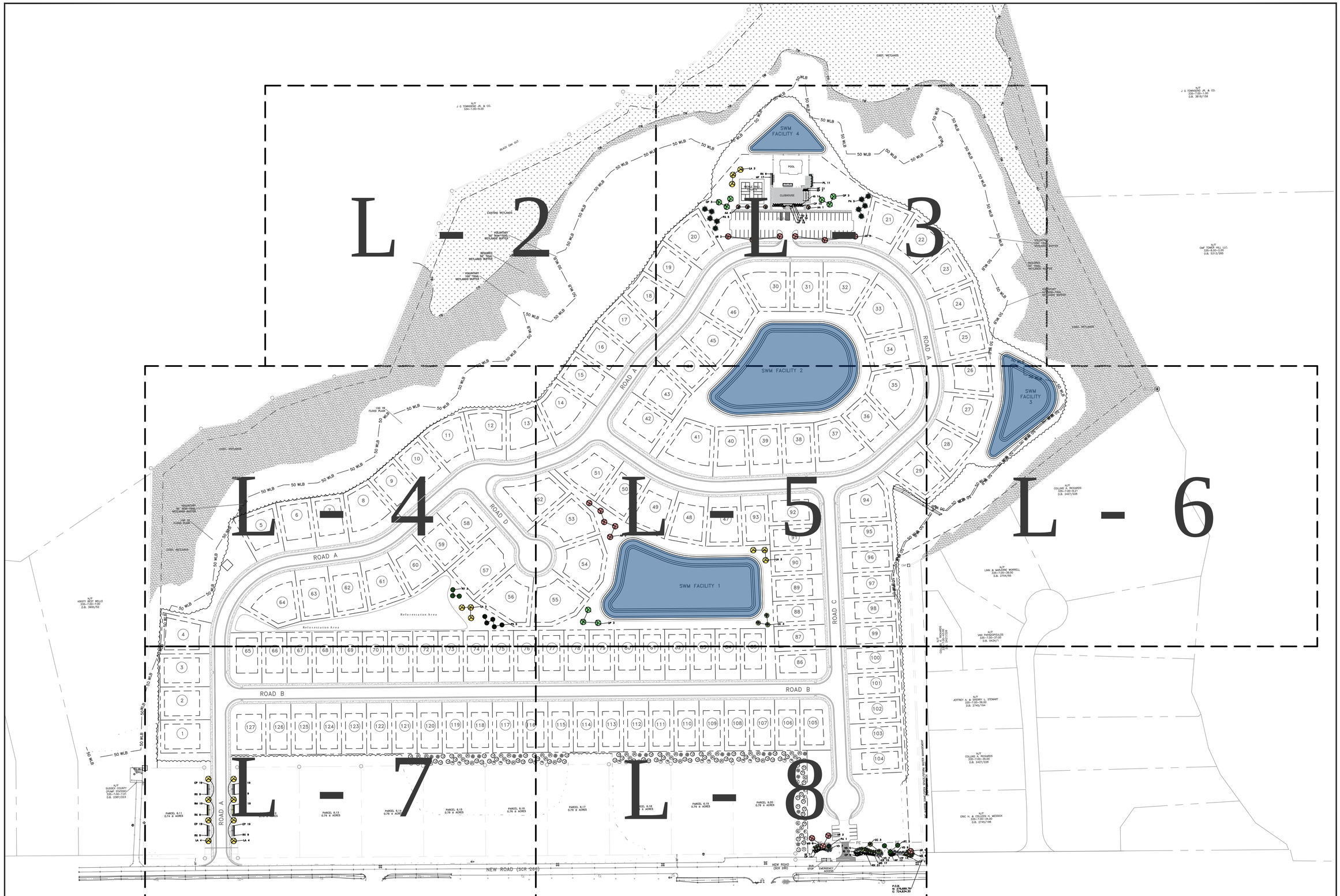

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BLACK OAK

Landscape Plan

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No.	Revision	Date

Date:
June 9, 2022

Drawn by:
a. davis

sheet page:
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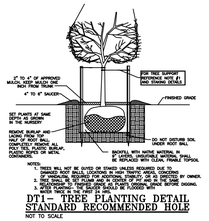
Construction Documents

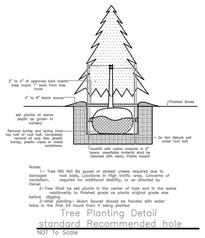
Plant Key

AR	Red Maple	2-2.5" Cal
LA	Sweetgum	2-2.5" Cal
QP	Willow Oak	2-2.5" Cal
PA	Norway Spruce	6-8' Height
PT	Loblolly Pine	6-8' Height
PS	White Pine	6-8' Height
AA	Serviceberry	6-8' Height
CC	Redbud	6-8' Height
TO	Emerald Green Arborvitae	6-8' Height
IG	INKBERRY	#3
IH	Helleri Holly	#3
CP	Gold Thread Cypress	#3
RV	Swamp Azalea	#3
PL	Schip Laurel	36" Height
RP	Swamp Rose	#3
RX	Knockout Rose	#3
MS	Miscanthus	#3
VD	Viburnum	#3
EP	Coneflower	#1
RH	Black Eyed Susan	#1
HF	Dwarf Fountain Grass	#1



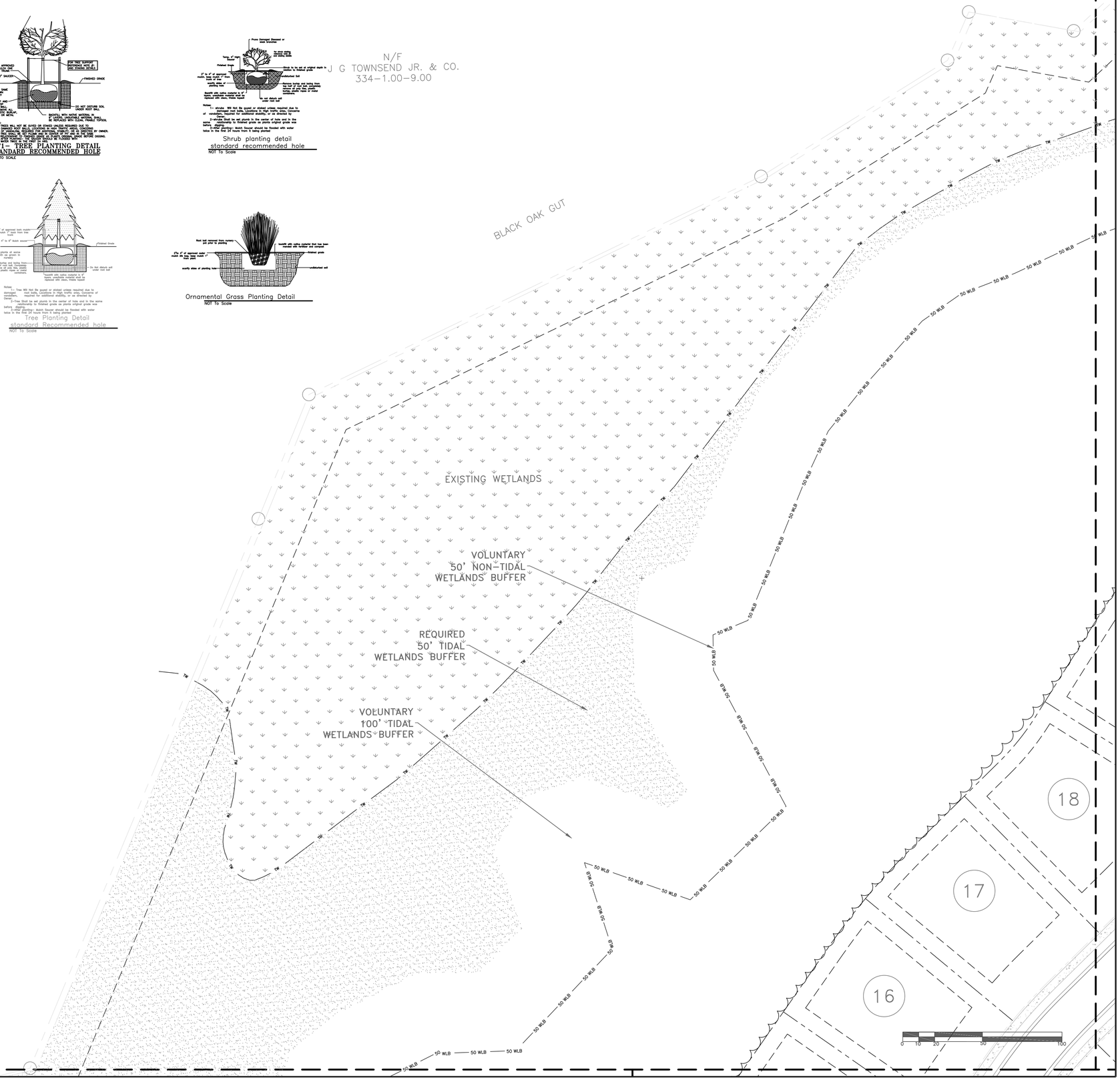
DT1– TREE PLANTING DETAIL
STANDARD RECOMMENDED HOLE
NOT TO SCALE

Shrub planting detail
standard recommended hole
NOT To Scale



Tree Planting Detail
standard Recommended hole
NOT To Scale

Ornamental Grass Planting Detail
NOT To Scale



PLANTING NOTES

PLANT IDENTIFICATION - ALL PLANTS SHALL BE PROPERLY MARKED FOR IDENTIFICATION AND CHECKING.

LIST OF PLANT MATERIAL - THE QUANTITIES GIVEN IN THE PLANT LIST ARE APPROXIMATE. THE CONTRACTOR WILL VERIFY PLANT QUANTITIES PRIOR TO BIDDING AND DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF LANDSCAPE DESIGNER. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PLANTS REQUIRED TO COMPLETE THE WORK AS SHOWN WITHIN THE DRAWINGS. SUBSTITUTIONS SHALL NOT BE MADE WITHOUT THE WRITTEN APPROVAL OF DENISON LANDSCAPING AND THE OWNER. THIS CONTRACT WILL BE BASED ON THE BIDDER HAVING VERIFIED PRIOR TO BIDDING THE AVAILABILITY OF THE REQUIERED PLANT MATERIAL AS SPECIFIED WITHIN THE DESIGN.

PLANT QUALITY - ALL SHRUBS SHALL BE DENSE, HEAVY TO THE GROUND, WELL GROWN, SHOWING EVIDENCE OF HAVING BEEN PRUNED REGULARLY AND SHALL BE VIGOROUS, HEALTHY AND OF GOOD COLOR. ALL PLANTS SHALL BE SOUND, FREE OF PLANT DISEASE, INFESTATION OR INSECT EGgS AND SHALL HAVE A HEALTHY, NORMAL ROOT SYSTEM. ALL PLANTS SHALL BE NURSERY GROWN. PLANTS SHALL NOT BE PRUNED OR RE-POTTED IMMEDIATELY PRIOR TO DELIVERY. THE SHAPE OF THE PLANT SHALL CONFORM TO IT'S NATURAL GROWTH PROPORTIONS UNLESS OTHERWISE SPECIFIED. ALL PLANTS SHALL CONFORM TO THE BRANCHING, CALIPER AND HEIGHT SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S PUBLICATION ENTITLED AMERICAN STANDARD FOR NUrSERY STOCK AND SHALL HAVE A WELL SHAPED, HEAVY-BRANCHED STRUCTURE FOR THE SPECIES. EVERGREEN TREES ARE TO HAVE AN INTERNODE NO GREATER THAN 24" AND SHALL BE UNIFORMLY WELL SHAPED. PLANTS OF A GIVEN SIZE SHALL NOT MEASURE LESS THAN THE MINIMUM SIZE AS SET FORTH IN THE AMERICAN STANDARD FOR NURSERY STOCK.

ROOTBALL SIZE - THE ROOTBALL SIZE OF ALL PLANTS SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NUrSERYMEN'S PUBLICATION ENTITLED AMERICAN STANDARD FOR NURSERY STOCK. ROOTBALLS SHALL BE WRAPPED IN UNTREATED BURLAP.

PLANT SPACING - PLANT SPACING IS TO SCALE ON PLAN.

EXCAVATION AND BED PREPARATION - HOLES FOR ALL TREES SHALL BE 2 TIMES THE SIZE OF THE ROOT BALL OR CONTAINER AND SHALL HAVE VERTICAL SIDES. HOLES FOR SHRUBS SHALL BE 12" WIDER THAN THE ROOT BALL. BEDS FOR MASS PLANTING SHALL BE ENTIRELY ROTOTILLED TO A DEPTH OF 12". MIX FERTILIZER AND ORGANIC MATTER AND INCORPORATE INTO PLANT BEDS BY TILLING AGAIN TO A DEPTH OF 8", MIXING THEM THOROUGHLY INTO THE SOIL AND BREAKING UP THE LUMPS. USE A TILLER THAT WILL CULTIVATE TO A MINIMUM DEPTH OF 8" AND DO NOT MAKE MORE THAN TWO PASSES. THE ENTIRE BED MAY BE CULTIVATED WITH A SPADE IF PREFERRED. WHEN FINISHED, RAKE SURFACE WITH A STEEL-TOOTH RAKE UNTIL SMOOTH. MOISTEN THE BED, LET THE WATER SOAK IN AND RAKE IT AGAIN.

PLANTING - PLANTS BILL BE PLANTED HIGHER THAN SURROUNDING GRADE. SHRUBS AND TREES WILL BE SET AT A DEPTH TO PLACE 1/8TH OF THE ROOTBALL ABOVE FINISH GRADE. REMOVE ROPE FROM TREE TRUNKS AND LAY BACK BURLAP AND WIRE BASKETS FROM TOP 1/3 OF ALL B&B MATERIAL. NYLON, PLASTIC OR VINYL ROPE AND/OR BURLAP WILL BE COMPLETELY REMOVED FROM ALL PLANT MATERIAL PRIOR TO PLANTING.

CULTIVATION - ALL TRENCHES AND SHRUB BEDS SHALL BE CULTIVATED, EDGED AND MULCHED WITH A LAYER OF WELL AGED, SHREDDED HARDWOOD MULCH. 2" MINIMUM, 3" MAXIMUM DEPTH. THE AREA AROUND ISOLATED PLANTS SHALL BE MULCHED TO AT LEAST A 6" GREATER DIAMETER THAN THE HOLE.

GUARANTEE & REPLACEMENT - ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR. THE GUARANTEE WILL BEGIN ON THE DATE OF FINAL ACCEPTANCE OF THE WORK. AFTER A PLANT HAS BEEN DETERMINED TO BE DEAD, DYING OR DAMAGED FROM HANDLING OR INSTALLATION, IT WILL BE REPLACED DURING THE NEXT GROWING SEASON. THE GUARANTEE WILL END FOR ALL PLANT MATERIAL ONE YEAR AFTER ACCEPTANCE. DURING THE GUARANTEE PERIOD, THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR MECHANICAL INJURY OR VANDALISM CAUSED BY OTHER PARTIES. IMPROPER WATERING WILL BE CONSIDERED A VOID OF GUARANTEE.

MATERIAL INSPECTION - OWNER AND/OR GENERAL CONTRACTOR SHALL AT THEIR DISCRETION, INSPECT PLANT MATERIAL BEFORE AND DURING DELIVERY AND INSTALLATION. PLANT MATERIAL WILL BE PROPERLY DELIVERED IN COVERED TRUCKS. OWNER WILL HAVE AUTHORITY TO OBSERVE SITE PREPARATION AND PLANTING INSTALLATIONS AND HAVE THE RIGHT TO REJECT ANY WORK IF THE SPECIFICATIONS AND CONSTRUCTION DOCUMENTS ARE NOT FOLLOWED. ALL PLANT MATERIAL SHALL BE OF THE QUALITY SPECIFIED AND INSTALLED AS DESCRIBED ABOVE. UNLESS THESE MINIMUM STANDARDS ARE SATISFIED, THE PLANTS WILL BE REJECTED.

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BLACK OAK

Landscape Plan

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No.	Revision	Date

Date:
June 9, 2022

Drawn by:
a. davis

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Construction Documents

SWM FACILITY 4

POOL

CLUBHOUSE

PICKLE BALL COURTS

LA 3
RX 9
HF 17
PL 11
HF 11
RP 7
IG 14
QP 3
QP 3
PA 5
CP 10
AA 1
AA 4
PA 5
TO 2
RV 14
IH 6
HF 18
AR 3
AR 3

20
19
21
22
23
24
25
30
31
32
33
34
46
45
44

ROAD A

VOLUNTARY 100' TIDAL WETLANDS BU

REQUIRED 50' TIDAL WETLANDS BUFFER

VOLUNTA 50' NON WETLAN

0 10 20 40 100

BLACK OAK

Landscape Plan

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ROAD A

ROAD C

SWM FACILITY 2

SWM FACILITY 1

AR 5

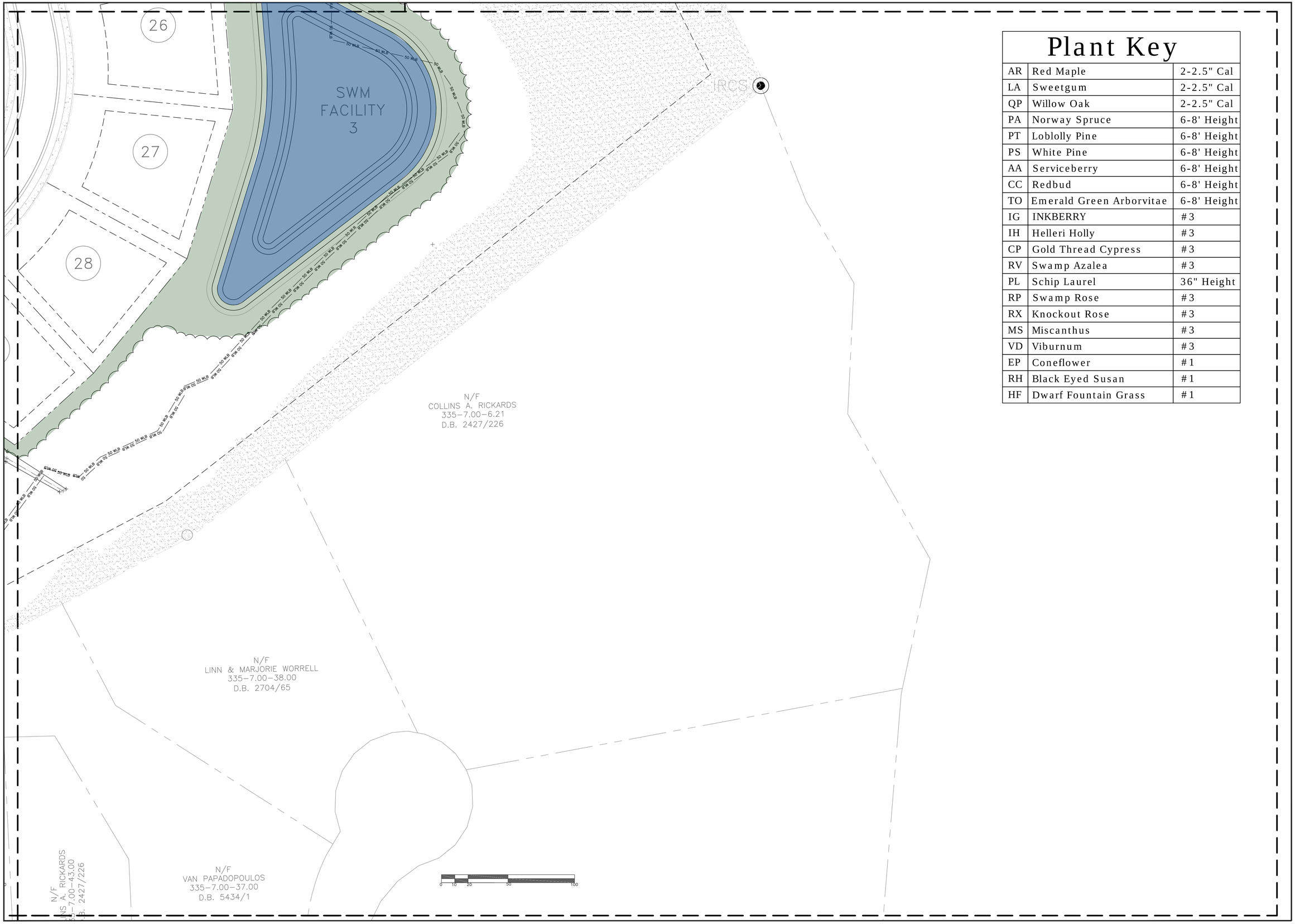
LA 3

QP 3

CC 3

CMF

0 10 20 50 100



Plant Key

AR	Red Maple	2-2.5" Cal
LA	Sweetgum	2-2.5" Cal
QP	Willow Oak	2-2.5" Cal
PA	Norway Spruce	6-8' Height
PT	Loblolly Pine	6-8' Height
PS	White Pine	6-8' Height
AA	Serviceberry	6-8' Height
CC	Redbud	6-8' Height
TO	Emerald Green Arborvitae	6-8' Height
IG	INKBERRY	#3
IH	Helleri Holly	#3
CP	Gold Thread Cypress	#3
RV	Swamp Azalea	#3
PL	Schip Laurel	36" Height
RP	Swamp Rose	#3
RX	Knockout Rose	#3
MS	Miscanthus	#3
VD	Viburnum	#3
EP	Coneflower	#1
RH	Black Eyed Susan	#1
HF	Dwarf Fountain Grass	#1

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Date:
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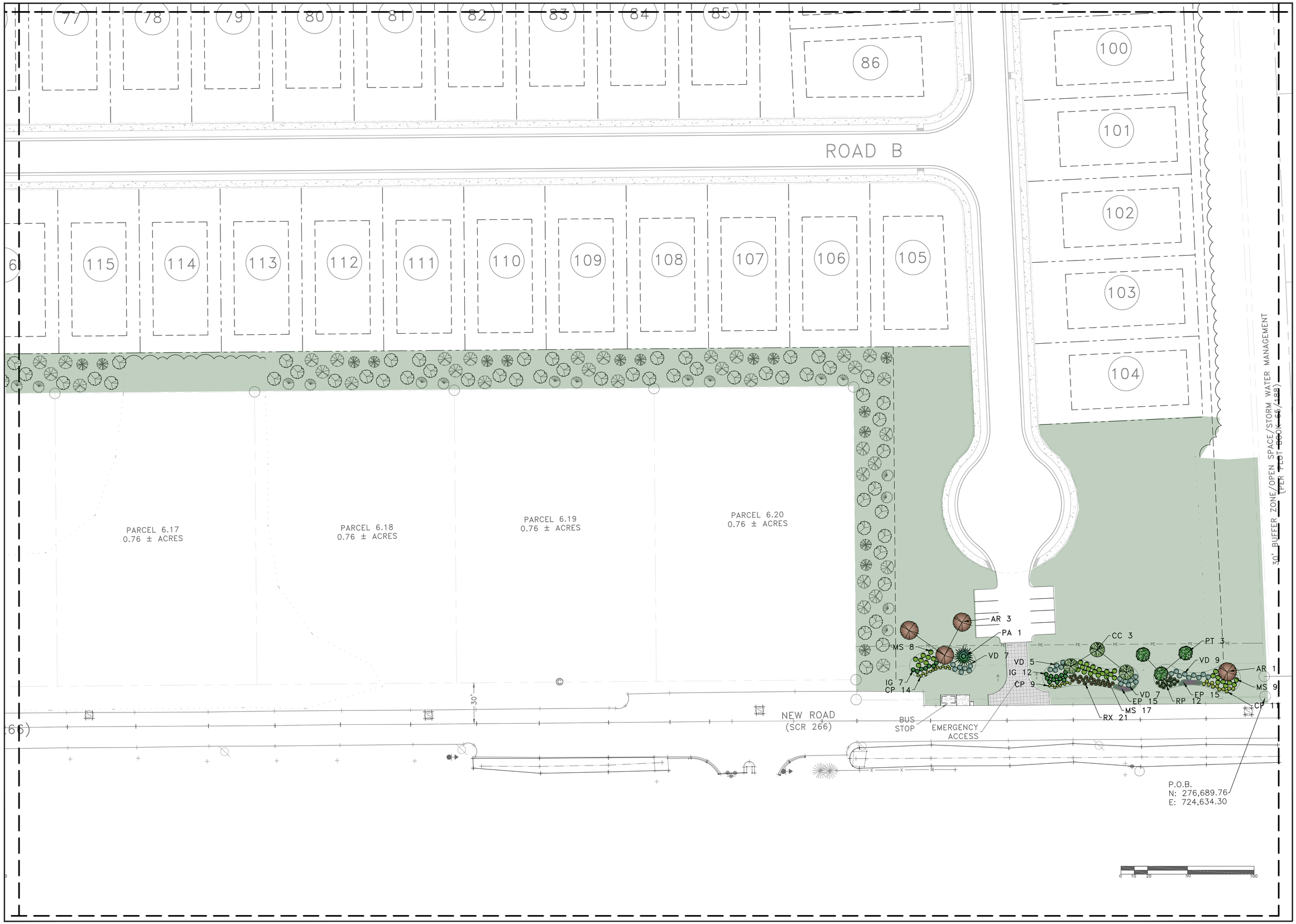

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MIDDLETOWN, DELAWARE (302) 464-4441
EASTON, MARYLAND (410) 770-4744

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

PRELIMINARY PLAN

Revisions:

Date:	SEPTEMBER 2021
Scale:	1"=150'
Dwn.By:	DJR
Proj.No.:	818C052.A01
Dwg.No.:	PLN

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BLACK OAK SUBDIVISION

Sussex County, Delaware

DAVIS BOWEN & FRIEDEL, INC.
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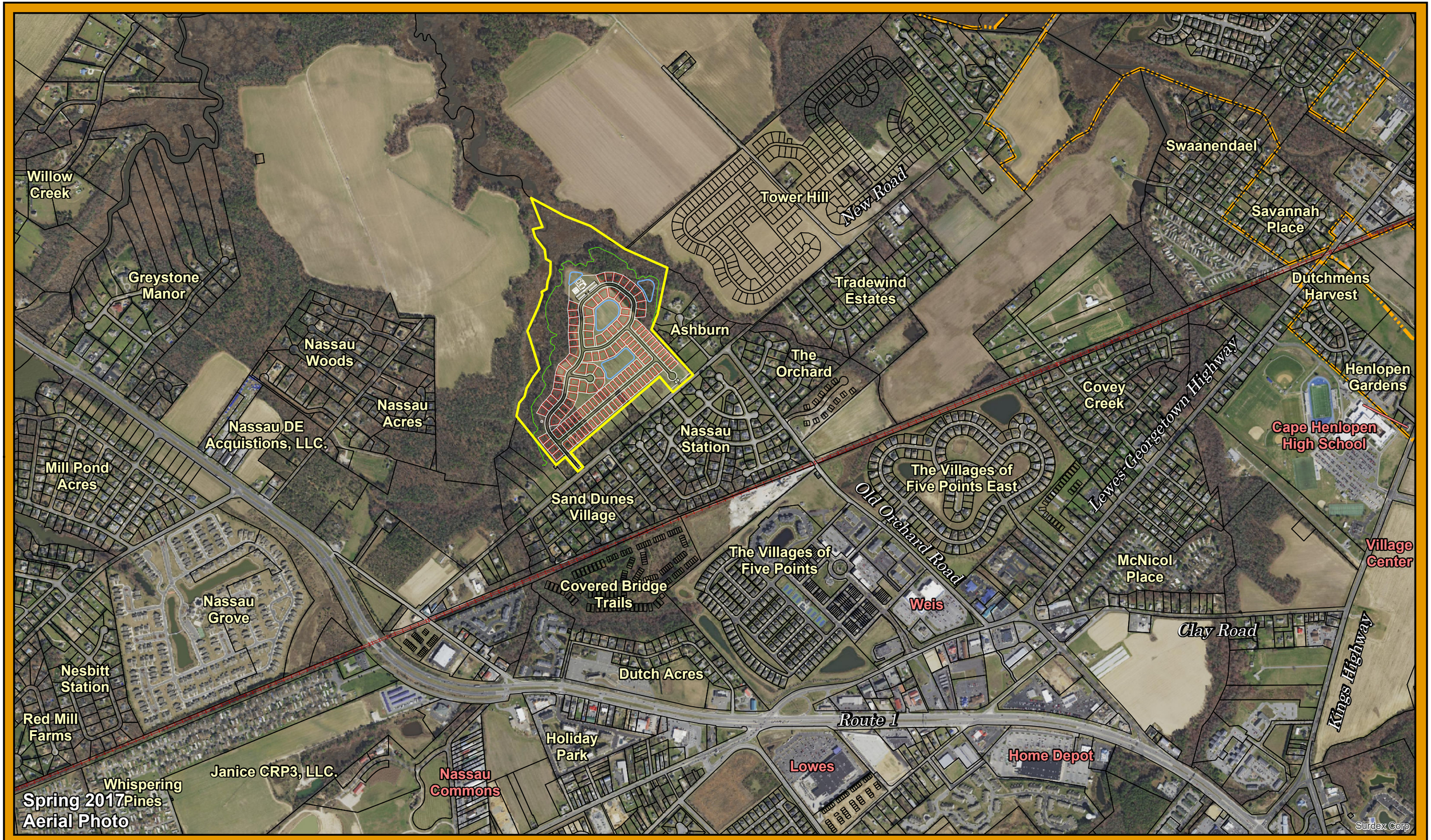
Exhibit 1



June 2022

Surrounding Communities Map

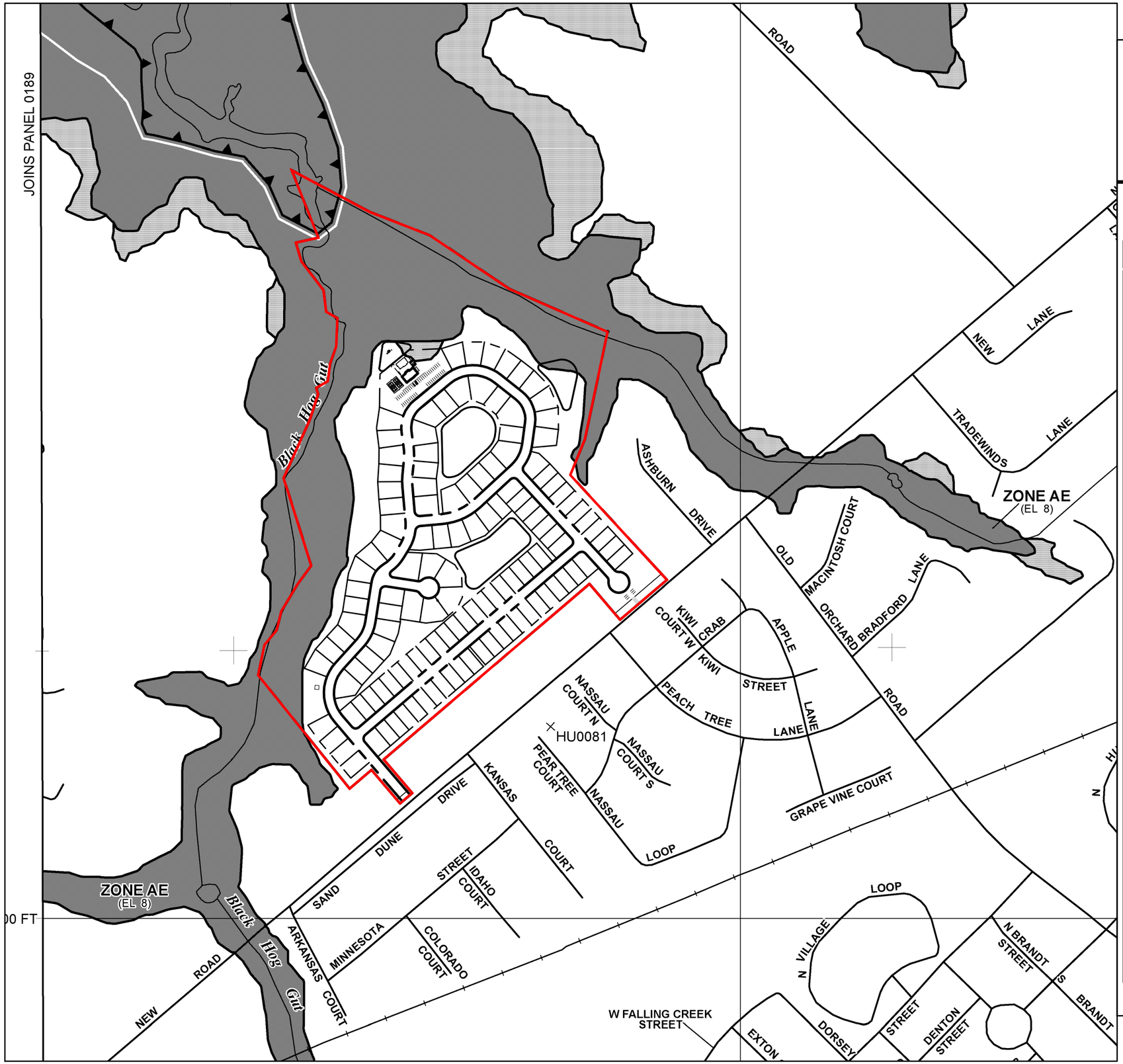
Black Oak

Sussex County, Delaware

Sources:
Tax Parcels per Sussex County

0 1,000 2,000 Feet

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS • ENGINEERS • SURVEYORS



MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0193K

FIRM

FLOOD INSURANCE RATE MAP

SUSSEX COUNTY, DELAWARE
AND INCORPORATED AREAS

PANEL 193 OF 660

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LEWES, CITY OF	100041	0193	K
SUSSEX COUNTY	100029	0193	K

- NOTE -

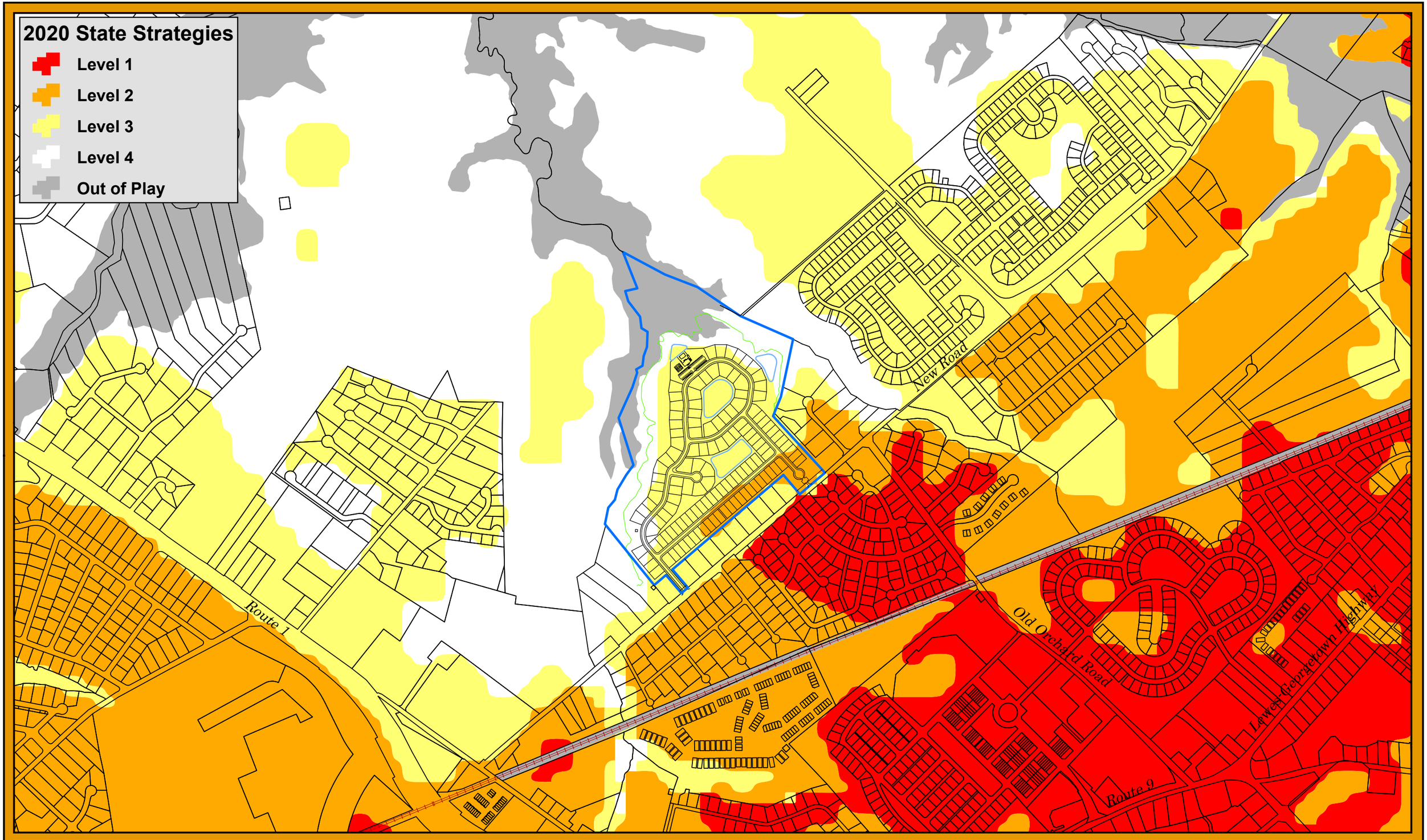
THIS MAP INCLUDES BOUNDARIES OF THE COASTAL BARRIER RESOURCES SYSTEM ESTABLISHED UNDER THE COASTAL BARRIER RESOURCES ACT OF 1982 AND/OR SUBSEQUENT ENABLING LEGISLATION.

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
10005C0193K

MAP REVISED
MARCH 16, 2015

Federal Emergency Management Agency



Sources:
Tax Parcels per Sussex County

N
W E
S

June 2022

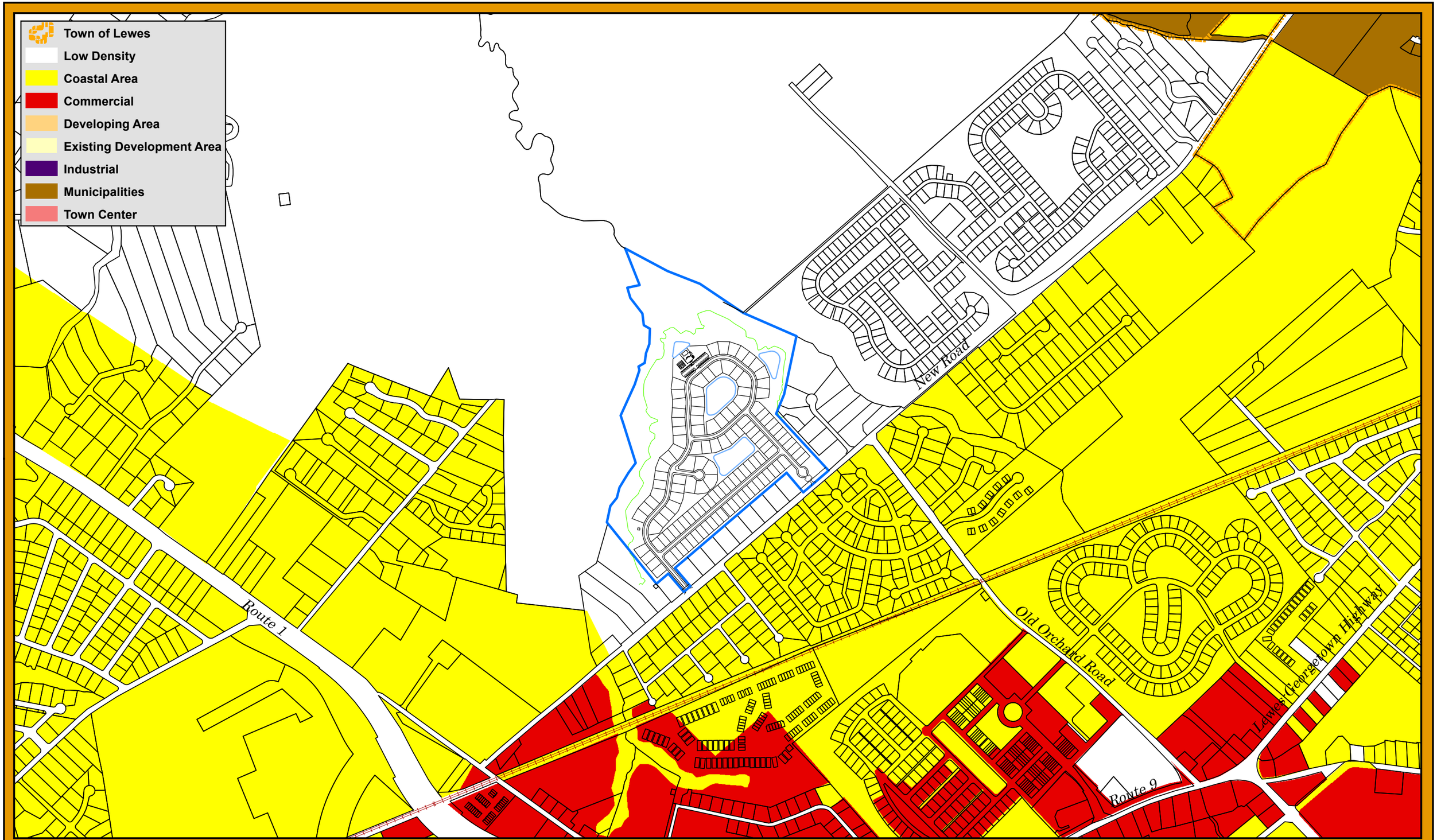
2020 State Strategies

Black Oak

Sussex County, Delaware

0 800 1,600 Feet

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS • ENGINEERS • SURVEYORS



Sources:
Tax Parcels per Sussex County

N
W E
S

June 2022

Sussex County 2045 Future Land Use Map

Black Oak

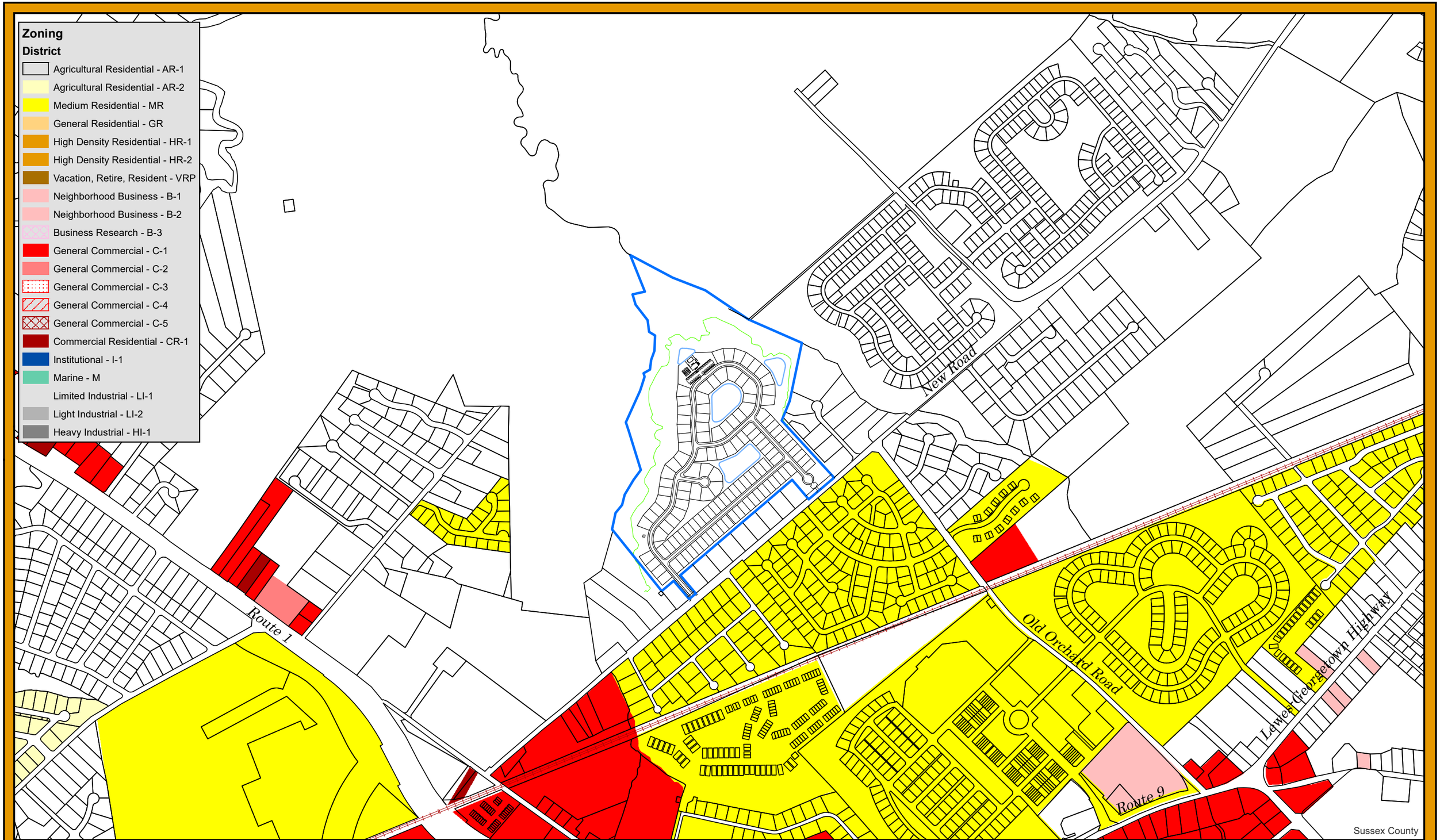
Sussex County, Delaware

0 800 1,600 Feet

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS • ENGINEERS • SURVEYORS

Zoning
District

- Agricultural Residential - AR-1
- Agricultural Residential - AR-2
- Medium Residential - MR
- General Residential - GR
- High Density Residential - HR-1
- High Density Residential - HR-2
- Vacation, Retire, Resident - VRP
- Neighborhood Business - B-1
- Neighborhood Business - B-2
- Business Research - B-3
- General Commercial - C-1
- General Commercial - C-2
- General Commercial - C-3
- General Commercial - C-4
- General Commercial - C-5
- Commercial Residential - CR-1
- Institutional - I-1
- Marine - M
- Limited Industrial - LI-1
- Light Industrial - LI-2
- Heavy Industrial - HI-1



Sources:
Tax Parcels per Sussex County

N
W E
S

June 2022

Sussex County Zoning Map

Black Oak

Sussex County, Delaware

0 800 1,600 Feet

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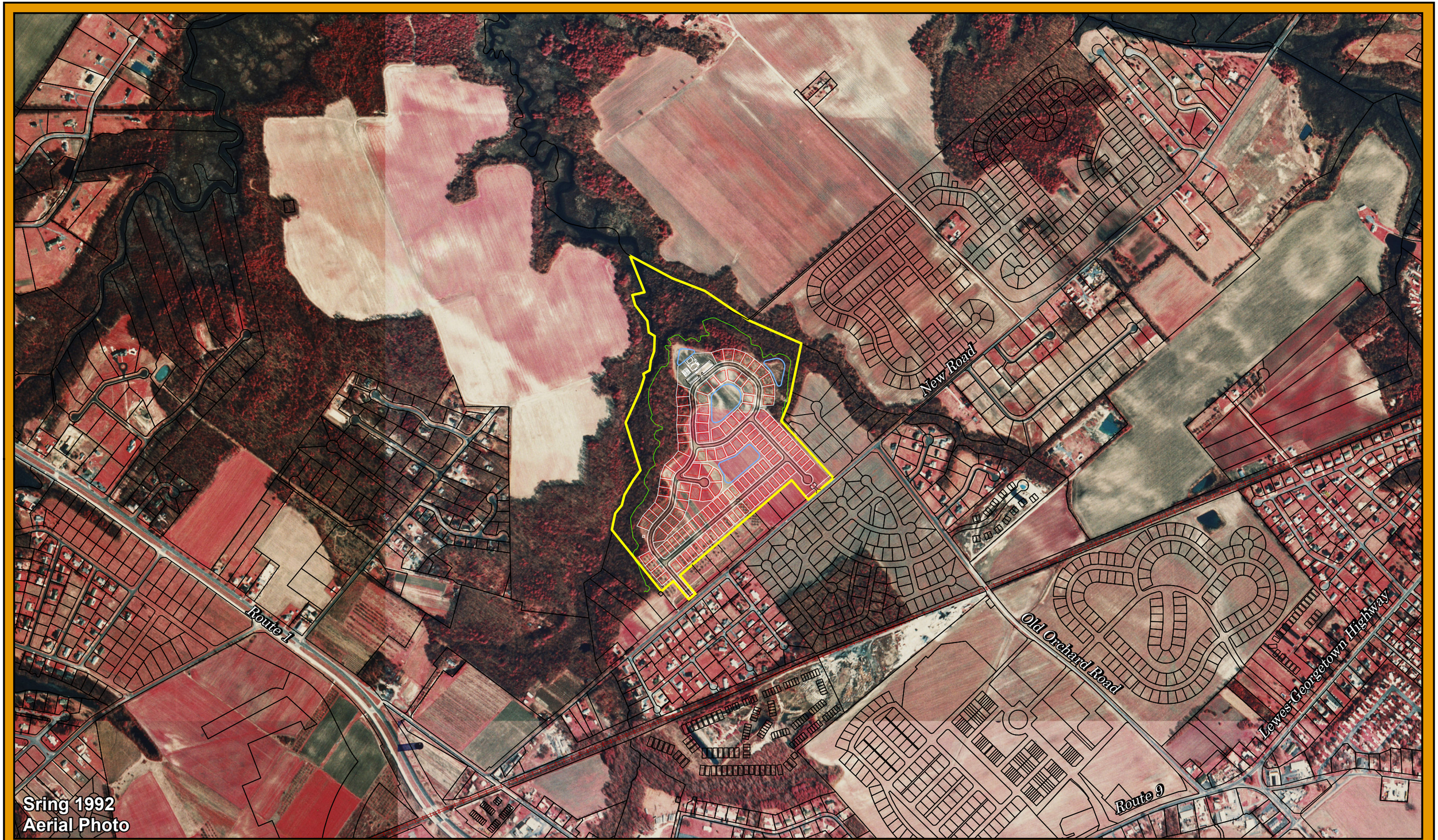
www.dbfinc.com



Sources:
Tax Parcels per Sussex County

N
W E
S

June 2022

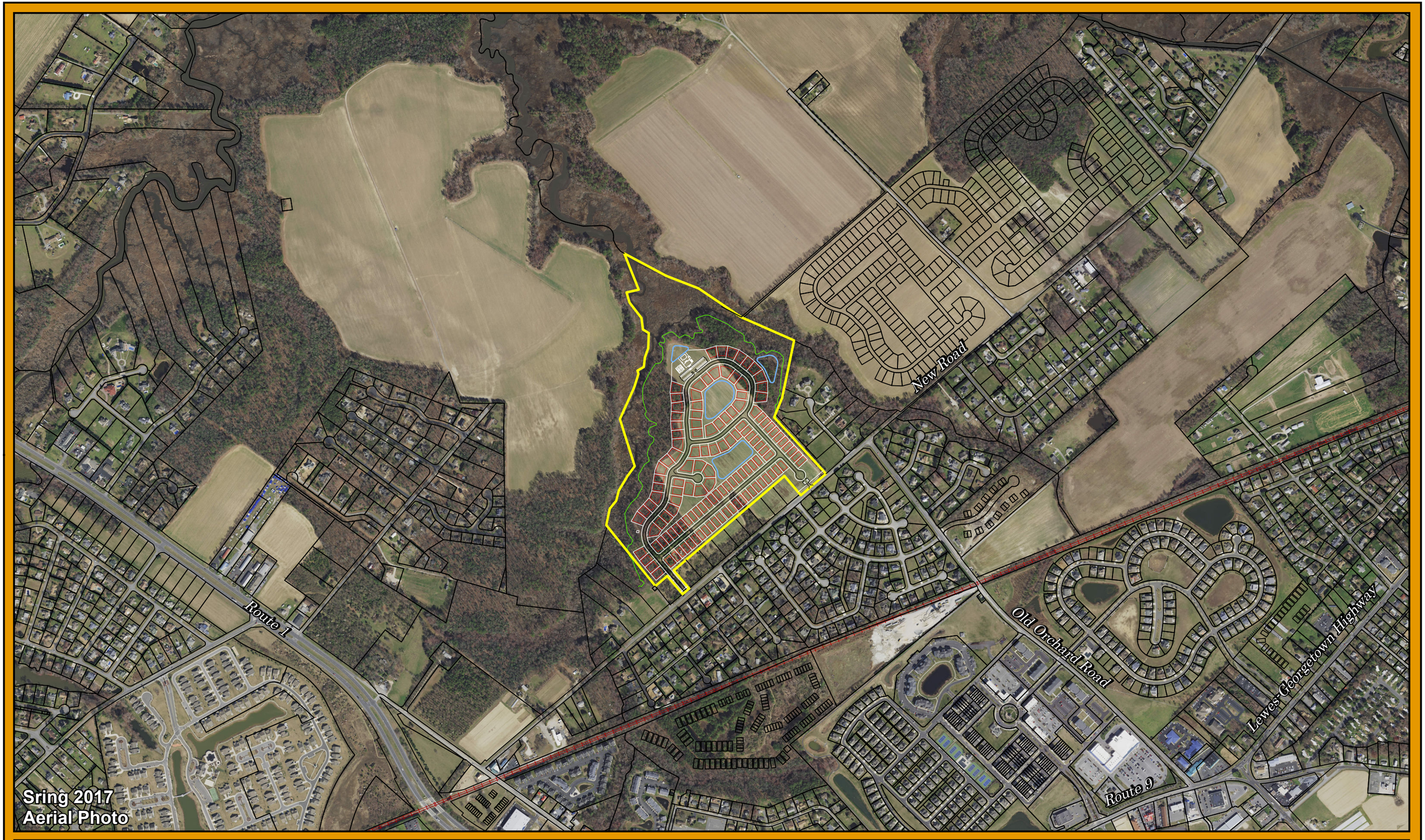
1992 Aerial Photo

Black Oak

Sussex County, Delaware

0 800 1,600 Feet

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS • ENGINEERS • SURVEYORS



Sources:
Tax Parcels per Sussex County

N
W E
S

June 2022

2017 Aerial Photo

Black Oak

Sussex County, Delaware

0 800 1,600 Feet

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS • ENGINEERS • SURVEYORS

Environmental Map

Black Oak

Sussex County, Delaware

June 2022

N
W E
S

Sources:
Tax Parcels per Sussex County

0 800 1,600
Feet

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS • ENGINEERS • SURVEYORS

Wellhead Protection Area

Excellent Recharge Area

New Road

Route 1

Old Orchard Road

Lewes Georgetown Highway

Route 9

Spring 2017
Aerial Photo

Sources:
Tax Parcels per Sussex County

N
W E
S

June 2022

Source Water Protection Areas

Black Oak

Sussex County, Delaware

0 800 1,600
Feet

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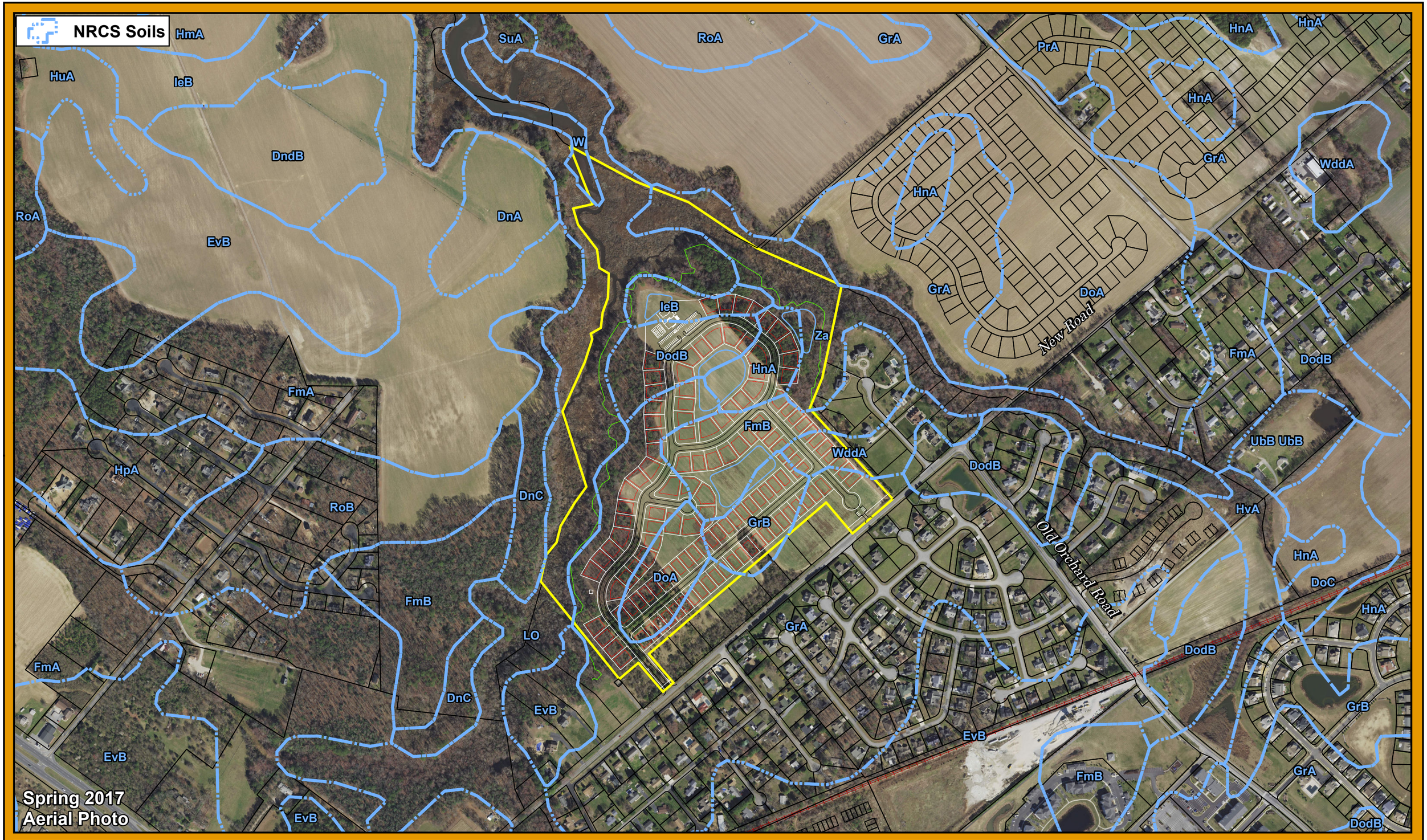


Sources:
Tax Parcels per Sussex County

N
W E
S

June 2022

NCRS Soil Survey

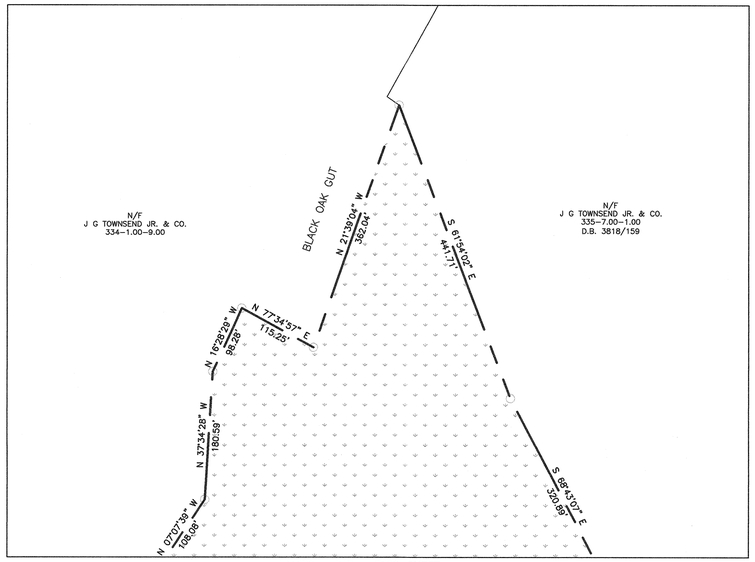
Black Oak

Sussex County, Delaware

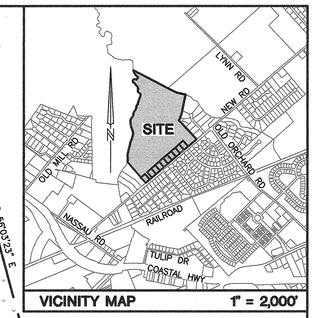
0 500 1,000 Feet

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS • ENGINEERS • SURVEYORS
www.dbfinc.com

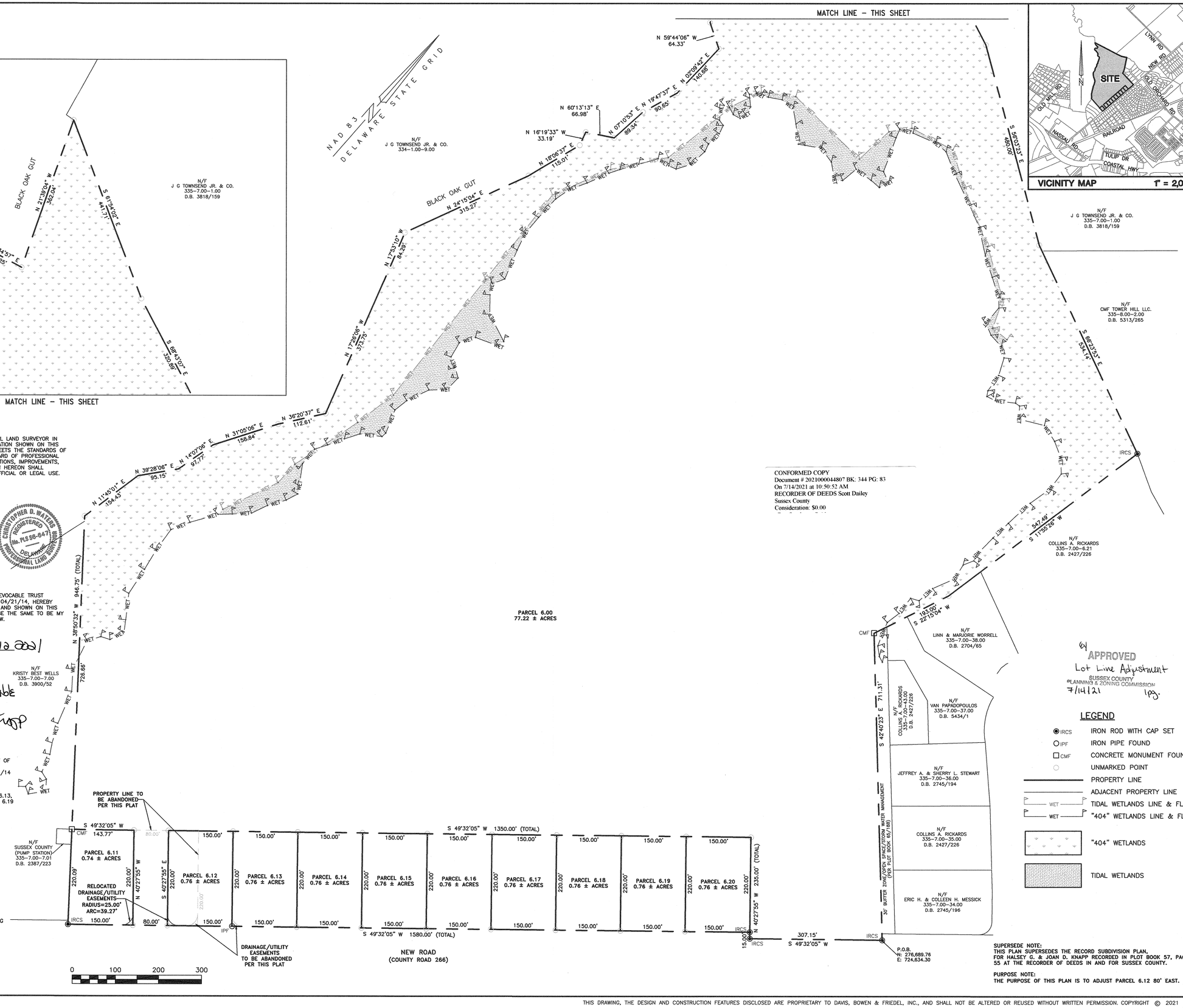
Exhibit 2



MATCH LINE – THIS SHEET



VICINITY MAP 1" = 2,000'



CONFORMED COPY
Document # 20210000044807 BK: 344 PG: 83
On 7/14/2021 at 10:50:52 AM
RECORDER OF DEEDS Scott Dailey
Sussex County
Consideration: $0.00

SURVEYOR CERTIFICATION

I, CHRISTOPHER D. WATERS, REGISTERED AS A PROFESSIONAL LAND SURVEYOR IN THE STATE OF DELAWARE, HEREBY STATE THAT THE INFORMATION SHOWN ON THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND MEETS THE STANDARDS OF PRACTICE AS ESTABLISHED BY THE STATE OF DELAWARE BOARD OF PROFESSIONAL LAND SURVEYORS. ANY CHANGES TO THE PROPERTY CONDITIONS, IMPROVEMENTS, BOUNDARY OR PROPERTY CORNERS AFTER THE DATE SHOWN HEREON SHALL NECESSITATE A NEW REVIEW AND CERTIFICATION FOR ANY OFFICIAL OR LEGAL USE.

DAVIS, BOWEN & FRIEDEL, INC.
by CHRISTOPHER D. WATERS, AGENT

7/7/21

CHRISTOPHER D. WATERS
PROFESSIONAL LAND SURVEYOR
DE NO. S6-647
EXPIRES: 6/30/23

CHRISTOPHER D. WATERS REGISTERED No. LS S6-647 DELAWARE PROFESSIONAL LAND SURVEYOR

OWNER'S STATEMENT

I, LESLIE GAY KNAPP MARINI, SUCCESSOR TRUSTEE UNDER REVOCABLE TRUST AGREEMENT OF HALSEY G. KNAPP & JOAN D. KNAPP DATED 04/21/14, HEREBY STATE THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THE PLAN WAS MADE AT MY DIRECTION, I ACKNOWLEDGE THE SAME TO BE MY ACT AND DESIRE THE PLAN BE RECORDED ACCORDING TO LAW.

Leslie Gay Knapp — July 12 2021
SIGNATURE — DATE

Leslie Gay Knapp Marini
PRINT

Successor Trustee under Revocable Trust Agreement of Halsey G Knapp & Joan D Knapp
TITLE

4/21/14

SITE DATA

OWNER:	LESLIE GAY KNAPP MARINI, SUCCESSOR TRUSTEE UNDER REVOCABLE TRUST AGREEMENT OF HALSEY G. KNAPP & JOAN D. KNAPP DATED 04/21/14 1102 BAY AVE LEWES, DE 19958
TAX PARCEL NO.:	335-7.00-6.00, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19 & 6.20
AREA: TOTAL:	84.80 ± ACRES
WETLANDS AREA:	18.93 ± ACRES
DEED REFERENCE:	4250/339
PLAT REFERENCE:	57/55
ZONING:	AR-1
BUILDING SETBACKS:	FRONT: 40' SIDE: 15' REAR: 20'
MAX. BLDG HEIGHT:	42'
FLOOD ZONE:	ZONE "X" – MINIMAL FLOODING ZONE AE-8' ZONE AE-9'
F.I.R.M. No.:	10005C0193K
EFFECTIVE DATE:	MARCH 16, 2015

N/F KRISTY BEST WELLS 335-7.00-7.00 D.B. 3900/52

APPROVED
Lot Line Adjustment
SUSSEX COUNTY
PLANNING & ZONING COMMISSION
7/14/21

LEGEND

- IRCS — IRON ROD WITH CAP SET
- IPF — IRON PIPE FOUND
- CMF — CONCRETE MONUMENT FOUND
- UNMARKED POINT
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- WET — TIDAL WETLANDS LINE & FLAG
- WET — "404" WETLANDS LINE & FLAG
- "404" WETLANDS
- TIDAL WETLANDS

SUPERSEDE NOTE:
THIS PLAN SUPERSEDES THE RECORD SUBDIVISION PLAN, FOR HALSEY G. & JOAN D. KNAPP RECORDED IN PLOT BOOK 57, PAGE 55 AT THE RECORDER OF DEEDS IN AND FOR SUSSEX COUNTY.

PURPOSE NOTE:
THE PURPOSE OF THIS PLAN IS TO ADJUST PARCEL 6.12 80' EAST.

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441

LOT LINE ADJUSTMENT PLAN of the Lands of HALSEY G. KNAPP, TRUSTEE

LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DE

Revisions:
06-28-2021: REVISED PARCEL 6.12

Date:	JUNE 2021
Scale:	1"=100'
Dwn.By:	KTH
Proj.No.:	0818C052
Dwg.No.:	1 OF 1

S:\0818m\0818C052 - KNAPP PROPERTY\FIELD 2021\boundary.dwg Jun 29, 2021 - 9:54am

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11867

BK: 4250 PG: 339

Tax Parcel#

3 - 35 - 5.00 - 72.04
3 - 35 - 7.00 - 6.00
3 - 35 - 7.00 - 6.11 thru 6.20

Prepared by: David W. Baker, Esq., P.A.
119 South Race Street
P.O. Box 551
Georgetown, Delaware 19947

Return to: HALSEY G. KNAPP
JOAN D. KNAPP
1102 Bay Avenue
Lewes, DE 19958

NO TITLE OR LIEN SEARCH PERFORMED - NONE REQUESTED

This Deed, made this 21st day of April, in the year of our Lord Two Thousand Fourteen.

Between HALSEY G. KNAPP, TRUSTEE UNDER REVOCABLE TRUST AGREEMENT OF HALSEY G. KNAPP DATED 8/23/95, as to an undivided one-half interest, and JOAN D. KNAPP, TRUSTEE UNDER REVOCABLE TRUST AGREEMENT OF JOAN D. KNAPP DATED 8/23/95, as to an undivided one-half interest, of 1102 Bay Avenue, Lewes, Delaware 19958, parties of the first part,

-and-

HALSEY G. KNAPP, TRUSTEE UNDER REVOCABLE TRUST AGREEMENT OF HALSEY G. KNAPP AND JOAN D. KNAPP DATED 4/21/14, of 1102 Bay Avenue, Lewes, Delaware 19958, party of the second part,

Witnesseth, that the said parties of the first part, for and in consideration of the sum of One Dollar ($1.00) and other valuable consideration, lawful money of the United States of America, the receipt whereof is hereby acknowledged, hereby grant and convey the hereinafter described property unto the said party of the second part, its Successors and Assigns,

PARCEL NO. 1:

ALL those certain lots, pieces and parcels of land situate, lying and being in Lewes and Rehoboth Hundred, Sussex County,

KS

SF

State of Delaware and located on the northerly side of County Road 266 and more particularly described as "LOTS 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20" on a survey plot prepared by Adams-Kemp Associates, Inc. dated August 14, 1996, a copy of which is filed of record in the Office of the Recorder of Deeds, in and for Sussex County, State of Delaware, in Plot Book 57 at page 55.

EXCEPTING AND RESERVING THEREFROM all previous out conveyances.

SUBJECT to any and all declarations, amendments, restrictions, including agricultural use protections, reservations, conditions, easements, agreements, plots, etc. filed of record in the Office of the Recorder of Deeds in and for Sussex County, State of Delaware.

PARCEL NO. 2:

ALL that certain tract, piece and parcel of land situate lying and being in Lewes and Rehoboth Hundred, County of Sussex and State of Delaware, abutting Black Oak Gut and fronting on the northwest side of the Public Road leading from Pilot Town in Lewes to Nassau, and bounded and described as follows, to wit: BEGINNING at a stake in Black Oak Gut a corner for these lands and lands now or formerly of Isaac A. Mitchell, thence south 33 1/4 degrees, east fifty-eight and eight-tenths perches to the middle of the aforesaid Public Road; thence with said road north fifty-six and one-half degrees east sixty-six and two-tenths perches to the corner of the lands now or formerly of Samuel Davidson; thence north 331/4 degrees west one hundred and seven perches to a stake in the middle of Black Oak Gut; thence south with watercourses of said Black Oak Gut to the place of beginning. Containing thirty-four and one quarter acres of land, be the same more or less.

EXCEPTING AND RESERVING THEREFROM all previous out conveyances.

PARCEL NO. 3:

ALL that certain tract, piece and parcel of upland and messuage, situate, lying and being in Lewes and Rehoboth hundred, County of Sussex and State of Delaware, fronting on the northwest side of the public Road leading from Nassau to Pilot Town, in the Town of Lewes and bounded and described as follows, to wit:

BEGINNING in the center of the aforesaid Public Road leading from Nassau to Pilot Town at the southeast corner of other lands owned by party of the first part marked by a stone, and running

north thirty-three and one-quarter degrees west one hundred and seven perches to a stake in the middle of Black Oak Gut; thence in a northerly direction along and with the watercourses of the said Black Oak Gut to lands now or formerly of Ira Brittingham; thence in a westerly direction along with and binding the line of the lands now or formerly of Brittingham to the middle of the aforesaid Public Road; thence in a southerly direction down of the center of the said Public Road home to the place of BEGINNING, containing fifty-five (55) acres of upland besides marsh and cripple, be the same more or less.

TOGETHER with the frame dwelling house and other outbuildings thereon.

EXCEPTING AND RESERVING THEREFROM all previous out conveyances.

PARCEL NO. 4:

ALL that certain tract, piece or parcel of land situate in Lewes and Rehoboth Hundred, Sussex County, and State of Delaware, being a portion of the right of way acquired by the Delaware State Highway Department under said highway Department Contract No. 1151 along the road leading from Five Points to Road 38, said road being shown and noted on the Sussex County Map of the said Highway Department as Road No. 14, said tract being more particularly bounded and described as follows, to wit: BEGINNING at a point formed by the intersection of the existing southwesterly right of way line of Road No. 14 with the division line between these lands of the State of Delaware and lands now or formerly of Leslie Knapp, said point being located opposite State Highway Department survey station 33+13 more or less and 35 feet distant, measured at right angles thereto, as shown on the Construction Plans for Delaware State highway Department Contract No. 1151; thence along said right of way line not parallel to the existing centerline of Road No. 14, north 57 degrees 41 minutes 55 seconds west, 496.39 feet more or less to a point located opposite State Highway Department survey station 38+00 and 130 feet distant, measured at right angles thereto, as shown on the aforesaid plans; thence continuing along the aforesaid right of way line parallel to the said centerline and 130 feet distant, measured at right angles thereto, north 46 degrees 39 minutes 55 seconds west, 184.75 feet more or less to a point on the new northeasterly right of way line of the Nassau By-Pass of Road No. 14 as intended to be constructed by the aforesaid highway Department under Contract No. 64-05-004, said point being located opposite State highway Department survey station 43+10 and 150 feet distant, measured at right angles thereto, as shown and noted on the Right of Way Plans for Contract No. 64-05-004; thence continuing along an extension of said new right of way line north 19 degrees 58 minutes 33 seconds west, 111.51 feet to a point located 100 feet from the intersection of

said right of way line extension and the newly established southwesterly right of way of the existing Road No. 14, said new right of way line being located parallel to the existing centerline of said road and 35 feet distant, measured at right angles thereto; thence continuing along a new line north 56 degrees 40 minutes 46 seconds east, 46.16 feet to a point on the said newly established right of way line, said point being located 100 feet from the said intersection and 35 feet from the existing centerline of Road No. 14; thence continuing along aforesaid newly established right of way line parallel to the said centerline and 35 feet distant, measured at right angles thereto, . south 46 degrees 39 minutes 55 seconds east (south 46° 30' east, State Highway Department Contract No. 1151 datum) 759.97 feet more or less to the first described point and place of beginning, containing in all 1.09 acres of land, be the same, more less.

EXCEPTING AND RESERVING THEREFROM all previous out conveyances.

BEING a part of the same lands conveyed unto HALSEY G. KNAPP, TRUSTEE UNDER REVOCABLE TRUST AGREEMENT OF HALSEY G. KNAPP DATED 8/23/95, as to an undivided one-half interest, and JOAN D. KNAPP, TRUSTEE UNDER REVOCABLE TRUST AGREEMENT OF JOAN D. KNAPP DATED 8/23/95, as to an undivided one-half interest, by Deed of HALSEY G. KNAPP and JOAN D. KNAPP, husband and wife, dated the 31st day of August, 1995 and filed of record in the Office of the Recorder of Deeds, in and for Sussex County, State of Delaware in Deed Book 2074, at page 261.

Said Trustees shall have and hold the herein described property in fee simple and with full power and authority in said Trustees to sell, contract, exchange, convey, mortgage, encumber, lease, subdivide, or otherwise dispose of and deal with said property.

No party dealing with the Trustees in relation to said property in any manner whatsoever shall be obligated to (a) see to the application of any purchase money, rent or money borrowed or otherwise advanced on the property, (b) to see that the terms of this trust have been complied with, (c) to inquire into the authority, necessity or expediency of any act of the Trustees, or (d) be privileged to inquire into any of the terms of the trust agreement.

Every deed, mortgage, lease, or trust or other instrument executed by the Trustees in relation to the property shall be conclusive evidence in favor of every person claiming any right, title or interest thereunder (a) that at the time of the delivery thereof, this deed was in full force and effect, (b) that such

instrument was executed in accordance with the trust, terms and conditions thereof and of the trust agreement and is binding upon all beneficiaries thereunder, (c) that the Trustees were duly authorized and empowered to execute and deliver every such instrument, and (d) if such conveyance has been made by a successor or successors in trust, or a Trustee or Trustees have been substituted, that such successor or successors have been properly and are fully vested with all the right, title, estate, powers and duties of his or her predecessor in trust. The Trustees shall have no individual liability or obligation whatsoever arising from their ownership as Trustees of the legal title to said property or with respect to any act done or contract entered into or indebtedness incurred by their dealing with said property or in otherwise acting as such Trustees except only so far as said trust property and any trust funds in actual possession of the Trustees shall be applicable to the payment and discharge thereof.

In Witness Whereof, the parties of the first part have hereunto set their Hands and Seals the day and year first above written.

Witness

HALSEY G. KNAPP, Trustee (Seal)

Witness

JOAN D. KNAPP, Trustee (Seal)

Consideration: .00

County .00
State .00
Town .00
Total
Received: Courtney M Apr 22,2014

STATE OF DELAWARE :
: ss.
COUNTY OF SUSSEX :

BE IT REMEMBERED, that on this 21st day of April, A.D. 2014, personally appeared before me, the Subscriber, a Notary Public for the State and County aforesaid, HALSEY G. KNAPP, TRUSTEE UNDER REVOCABLE TRUST AGREEMENT OF HALSEY G. KNAPP DATED 8/23/95, and JOAN D. KNAPP, TRUSTEE UNDER REVOCABLE TRUST AGREEMENT OF JOAN D. KNAPP DATED 8/23/95, parties to this indenture, known to me personally to be such, and acknowledged this Indenture to be their act and deed.

GIVEN under my Hand and Seal of Office, the day and year aforesaid.

Notary Public (SEAL)

DAVID W. BAKER
ATTORNEY AT LAW
NOTARY PUBLIC - STATE OF DELAWARE
My Commission Has No Expiration
29 Del. C. § 4323(a)(3)

RECEIVED
APR 22 2014
ASSESSMENT DIVISION
OF SUSSEX COUNTY

Recorder of Deeds
Scott Dailey
Apr 22,2014 03:41P
Sussex County
Doc. Surcharge Paid

Exhibit 3

TIDAL WETLANDS

NON-TIDAL WETLANDS

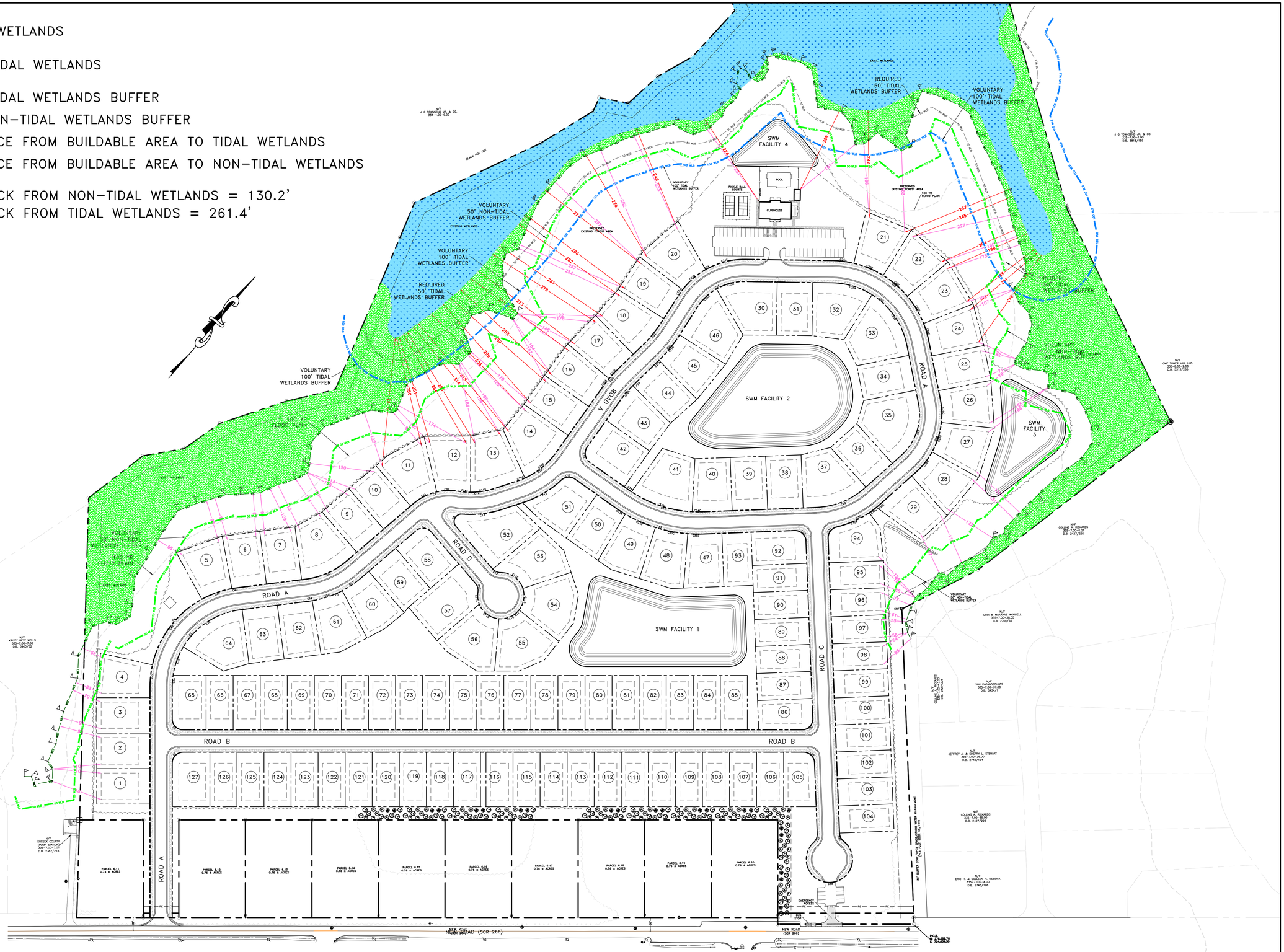
100 WLB — 100' TIDAL WETLANDS BUFFER

50 WLB — 50' NON-TIDAL WETLANDS BUFFER

100 — DISTANCE FROM BUILDABLE AREA TO TIDAL WETLANDS

100 — DISTANCE FROM BUILDABLE AREA TO NON-TIDAL WETLANDS

AVERAGE SETBACK FROM NON-TIDAL WETLANDS = 130.2'
AVERAGE SETBACK FROM TIDAL WETLANDS = 261.4'



DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
1 PARK AVENUE (302) 856-3344
EASTON, MARYLAND (410) 770-4744

WETLANDS EXHIBIT

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2022
Scale:	1"=100'
Dwn.By:	JMJ
Proj.No.:	818C052.A01
Dwg.No.:	1

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P:\Ocean Atlantic\0818C053 Knapp\PRELIMINARY\Wetlands Distance Exhibit from Setback.dwg Jun 09, 2022 - 3:06pm joaj

Lot #	Distance to Non-Tidal (Back Left)	Distance to Non-Tidal (Back Right)	Distance to Tidal (Back Left)	Distance to Tidal (Back Right)
1	118	110		
2	110	97		
3	92	70		
4	63	56		
5	65	98		
6	99	97		
7	96	109		
8	113	104		
9	101	105		
10	114	150		
11	128	97	291	250
12	107	174	251	284
13	183	186	295	314
14	190	182	318	306
15	179	162	299	288
16	154	143	282	275
17	146	178	273	279
18	192	254	281	282
19	257	267	280	274
20	262	233	278	224
21	166	183	242	257
22	227	180	245	204
23	173	108	198	195
24	107	92	201	243
25	82	71		
26	79	155		
27	168	136		
28	131	122		
29	116	97		
94		124		
95	109	86		
96	77	61		
97	55	58		
98	64	85		
Clubhouse	201	161	224	209
TOTAL	4524	4591	3958	3884
AVERAGE	129.26	131.17	263.87	258.93

Exhibit 4

WETLANDS (18.929 AC.)

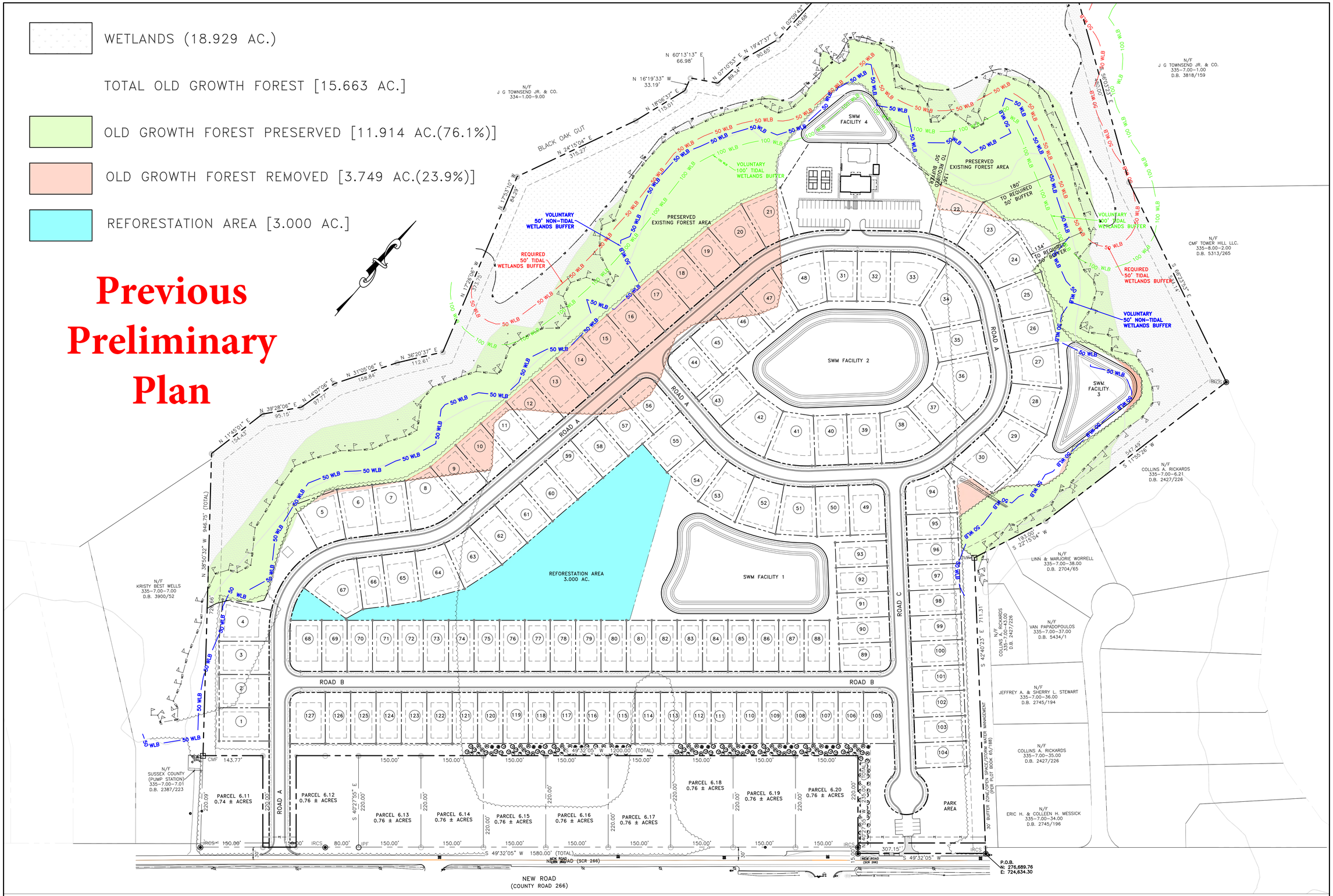
TOTAL OLD GROWTH FOREST [15.663 AC.]

OLD GROWTH FOREST PRESERVED [11.914 AC.(76.1%)]

OLD GROWTH FOREST REMOVED [3.749 AC.(23.9%)]

REFORESTATION AREA [3.000 AC.]

Previous Preliminary Plan



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EASTON, MARYLAND (410) 770-4744

FOREST CONSERVATION PLAN

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JULY 2021
Scale:	1"=100'
Dwn.By:	JMJ
Proj.No.:	818C052.A01
Dwg.No.:	TREE

P:\Ocean Atlantic\0818C053 Knapp\PRELIMINARY\Tree Plan Previous.dwg Jun 13 , 2022 - 10:56am joaj

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WETLANDS (18.929 AC.)

TOTAL OLD GROWTH FOREST [15.663 AC.]

OLD GROWTH FOREST PRESERVED [13.600 AC.(86.8%)]

OLD GROWTH FOREST REMOVED [2.063 AC.(13.2%)]

REFORESTATION AREA [0.910 AC.]

N/F
J G TOWNSEND JR. & CO.
334-1.00-9.00

N/F
J G TOWNSEND JR. & CO.
335-7.00-1.00
D.B. 3818/159

BLACK OAK GUT

SWM FACILITY 4

PRESERVED EXISTING FOREST AREA

VOLUNTARY 100' TIDAL WETLANDS BUFFER

VOLUNTARY 50' NON-TIDAL WETLANDS BUFFER

REQUIRED 50' TIDAL WETLANDS BUFFER

N/F
CMF TOWER HILL LLC.
335-8.00-2.00
D.B. 5313/265

SWM FACILITY 2

SWM FACILITY 3

ROAD A

ROAD B

ROAD C

ROAD D

SWM FACILITY 1

IRCS

N/F
COLLINS A. RICKARDS
335-7.00-6.21
D.B. 2427/226

N/F
KRISTY BEST WELLS
335-7.00-7.00
D.B. 3900/52

N/F
SUSSEX COUNTY
(PUMP STATION)
335-7.00-7.01
D.B. 2387/223

CMF

PARCEL 6.11
0.74 ± ACRES

PARCEL 6.12
0.76 ± ACRES

PARCEL 6.13
0.76 ± ACRES

PARCEL 6.14
0.76 ± ACRES

PARCEL 6.15
0.76 ± ACRES

PARCEL 6.16
0.76 ± ACRES

PARCEL 6.17
0.76 ± ACRES

PARCEL 6.18
0.76 ± ACRES

PARCEL 6.19
0.76 ± ACRES

PARCEL 6.20
0.76 ± ACRES

PARK AREA

30' BUFFER ZONE/OPEN SPACE/STORM WATER MANAGEMENT (PER PLOT BOOK 401/186)

N/F
LINN & MARJORIE WORRELL
335-7.00-38.00
D.B. 2704/65

N/F
VAN PAPADOPOULOS
335-7.00-37.00
D.B. 5434/1

N/F
COLLINS A. RICKARDS
335-7.00-43.00
D.B. 2427/226

N/F
JEFFREY A. & SHERRY L. STEWART
335-7.00-36.00
D.B. 2745/194

N/F
COLLINS A. RICKARDS
335-7.00-35.00
D.B. 2427/226

N/F
ERIC H. & COLLEEN H. MESSICK
335-7.00-34.00
D.B. 2745/196

NEW ROAD
(COUNTY ROAD 266)

P.O.B.
N: 276,689.76
E: 724,634.30

0 100' 200' 300'

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FOREST CONSERVATION PLAN

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2022
Scale:	1"=100'
Dwn.By:	JMJ
Proj.No.:	818C052.A01
Dwg.No.:	TREE

P:\Ocean Atlantic\0818C053 Knapp\PRELIMINARY\Tree Plan.dwg Jun 13, 2022 - 10:53am jaaj

Exhibit 5

CONSERVATION AREA – DEED RESTRICTED – 30.93 ACRES (40% OF PROPERTY)

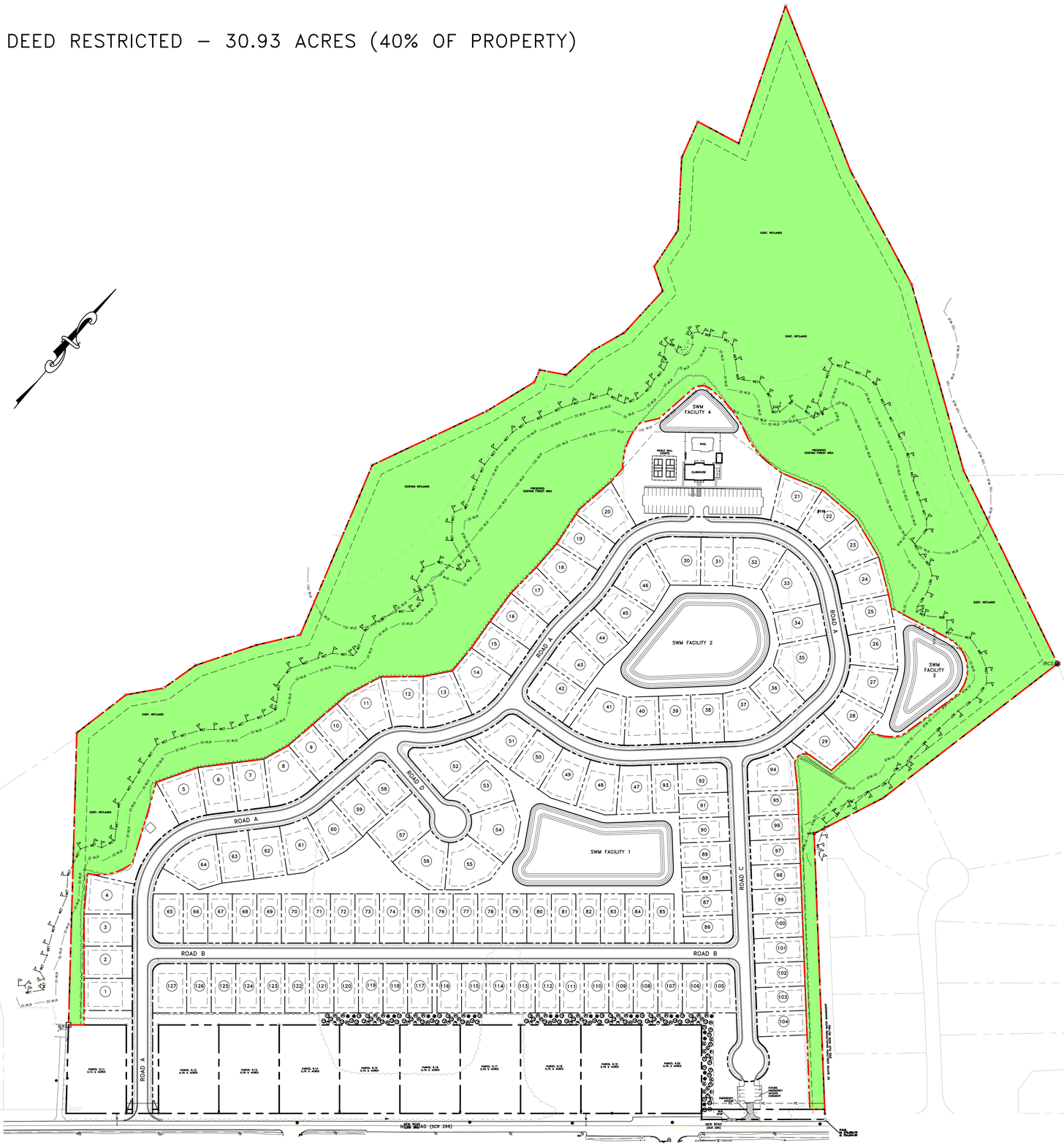

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EXHIBIT 1

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2022
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Dwn.By:	JMJ
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P:\Ocean Atlantic\0818C053 Knapp\PRELIMINARY\Exhibit 1 Conservation Area.dwg, Jul 21 , 2022 - 11:19am jpaj

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EXISTING WETLANDS

VOLUNTARY 50' NON-TIDAL WETLANDS BUFFER

REQUIRED 50' TIDAL WETLANDS BUFFER

VOLUNTARY 100' TIDAL WETLANDS BUFFER

VOLUNTARY 100' TIDAL WETLANDS BUFFER

PRESERVED EXISTING FOREST AREA

PRESERVED EXISTING FOREST AREA

100 YR FLOOD PLAIN

100 YR FLOOD PLAIN

PICKLE BALL COURTS

POOL

CLUBHOUSE

SWM FACILITY 2

SWM FACILITY 1

ROAD A

ROAD A

ROAD A

ROAD C

ROAD D

CMF

VOLU 50' N WETL

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TREE STUDY PLAN

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

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Dwn.By:	JMJ
Proj.No.:	818C052.A01
Dwg.No.:	1

Black Oak

Tree Survey

Tree #	Circumference of Tree Feet	Inches		Tree #	Circumference of Tree Feet	Inches		Tree #	Circumference of Tree Feet	Inches	
1	7	4		25	4	5	pine	49	5	0	
2	6	5		26	6	1		50	8	8	double trunk
3	8	6		27	5	1		51	7	2	
4	5	7		28	5	2		52	6'4" & 6'2"		double trunk
5	8	3		29	6	11		53	5	0	
6	6	3		30	7	3		54	6	2	
7	6	0		31	5	7		55	5	4	
8	5	3		32	8	5		56	7	5	
9	5	10		33	8	1		57	6	8	
10	7	4		34	6	1		58	6	6	
11	7	6		35	7	11		59	5	8	
12	6	8		36	6	5		60	6	11	
13	8	1	double trunk	37	8	1		61	8	0	
14	5	1		38	5	9		62	5	11	
15	9	3		39	7	8		63	5	7	
16	5	2		40	6	9		64	6	2	
17	6	4		41	8	2		65	6	10	
18	8	8		42	6	2		66	6	0	
19	7	1		43	8	1		67	6	0	
20	6	0		44	5	3	pine	68	5	11	
21	5	0		45	9	9	pine + hardwood	69	6	1	
22	6	5	double trunk	46	7	0		70	5	4	
23	4	6		47	8	3		71	6	0	
24	6	0		48	7	3		72	7	8	

Black Oak

Tree Survey

Tree #	Circumference of Tree Feet	Inches		Tree #	Circumference of Tree Feet	Inches		Tree #	Circumference of Tree Feet	Inches	
73	6	6		97	8	5		121	5	0	pine
74	5	0	pine	98	5	7		122	5	0	pine
75	6	2		99	10	8		123	6	0	pine
76	5	7		100	6	2		124	6	6	pine
77	5	7		101	6	7		125	7	0	pine
78	5	3	next to pine	102	5	3	pine	126			
79	6	5		103	5	2		127			
80	5	3		104	5	7		128			
81	7	3		105	7	2		129			
82	5	6		106	6	8	pine	130			
83	6	10		107	5	10		131			
84	7	7		108	8	4	two trunk	132			
85	6	0	double trunk	109	7	10		133			
86	5	8	pine	110	6	7		134			
87	7	6		111	6	7		135			
88	5	7		112	9	10		136			
89	6	3		113	8	11		137			
90	6	5		114	6	0		138			
91	6	8		115	5	7	pine	139			
92	6	0		116	5	8		140			
93	5	5	pine	117	5	9		141			
94	6	8		118	6	0		142			
95	5	7		119	8	7		143			
96	6	11		120	5	10	pine	144			

Exhibit 6

TIDAL WETLANDS

NON–TIDAL WETLANDS

50 WLB — 50' TIDAL WETLANDS BUFFER PER SUSSEX COUNTY EXISTING ORDINANCE

SWM FACILITY 4

POOL

PICKLE BALL COURTS

CLUBHOUSE

PRESERVED EXISTING FOREST AREA

EXIST. WETLANDS

SWM FACILITY 2

SWM FACILITY 3

SWM FACILITY 1

ROAD A

ROAD B

ROAD C

ROAD D

PARCEL 6.11 0.74 ± ACRES

PARCEL 6.12 0.76 ± ACRES

PARCEL 6.13 0.76 ± ACRES

PARCEL 6.14 0.76 ± ACRES

PARCEL 6.15 0.76 ± ACRES

PARCEL 6.16 0.76 ± ACRES

PARCEL 6.17 0.76 ± ACRES

PARCEL 6.18 0.76 ± ACRES

PARCEL 6.19 0.76 ± ACRES

PARCEL 6.20 0.76 ± ACRES

EMERGENCY ACCESS

NEW ROAD (SCR-266)

NEW ROAD (SCR 266)

P.O.B. N: 774,888.76 E: 701,824.30

20' WATER SYNCHRONIZATION WATER MANAGEMENT (SCR-LOT 2 & PARK AREA)

0 100' 200' 300'

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EXISTING WETLAND BUFFER ORDINANCE

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2022
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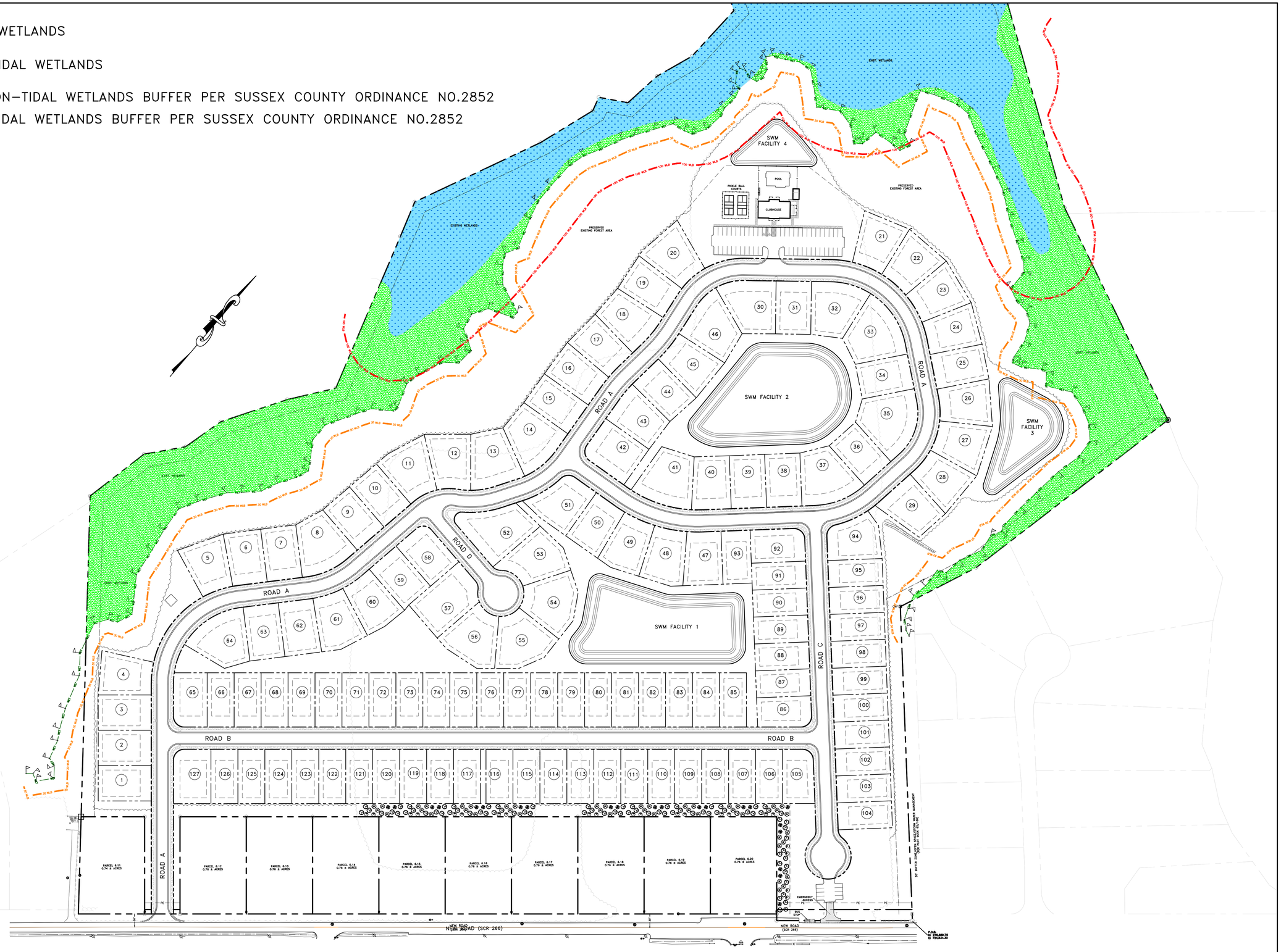
Proj.No.:	818C052.A01
Dwg.No.:	1

TIDAL WETLANDS

NON–TIDAL WETLANDS

30 WLB — 30' NON–TIDAL WETLANDS BUFFER PER SUSSEX COUNTY ORDINANCE NO.2852

100 WLB — 100' TIDAL WETLANDS BUFFER PER SUSSEX COUNTY ORDINANCE NO.2852



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NEW WETLAND BUFFER ORDINANCE

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

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Exhibit 7

ACREAGE TABLE

UPLAND AGRICULTURAL FIELD:	34.076 ACRES
UPLAND FOREST:	31.773 ACRES
PALUSTRINE FORESTED WETLAND FEDERALLY REGULATED (ACOE):	7.921 ACRES
MIXED PALUSTRINE FORESTED AND EMERGENT WETLANDS STATE(DNREC) AND FEDERALLY REGULATED (ACOE):	11.008 ACRES
UPLAND AREA MAPPED AS STATE REGULATED WETLANDS:	0.022 ACRES
TOTAL SITE AREA:	84.800 ACRES

WETLAND STATMENT

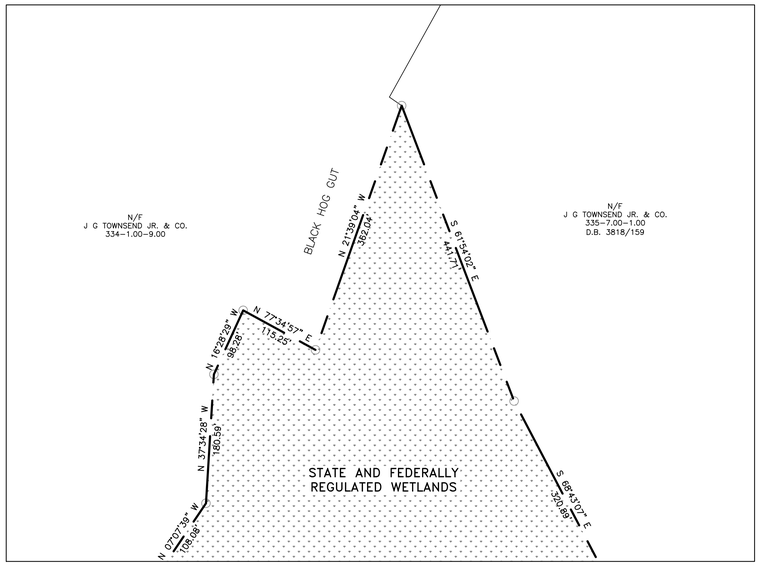
I, Edward M. Launay, SPWS, STATE THAT THE BOUNDARY OF WATERS OF THE UNITED STATES INCLUDING WETLANDS SUBJECT TO THE CORPS OF ENGINEERS REGULATOR PROGRAM DELINEATED ON THE PROPERTY ILLUSTRATED ON THESE PLANS HAS BEEN DETERMINED USING MY PROFESSIONAL JUDGEMENT IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL AND ALL CURRENTLY APPLICABLE SUPPLEMENTAL GUIDANCE INCLUDING THE ATLANTIC AND GULF COAST REGIONAL MANUAL (VERSION 2.0). THIS DELINEATION HAS NOT BEEN CONDUCTED FOR THE USDA PROGRAM OR AGRICULTURAL PURPOSED.

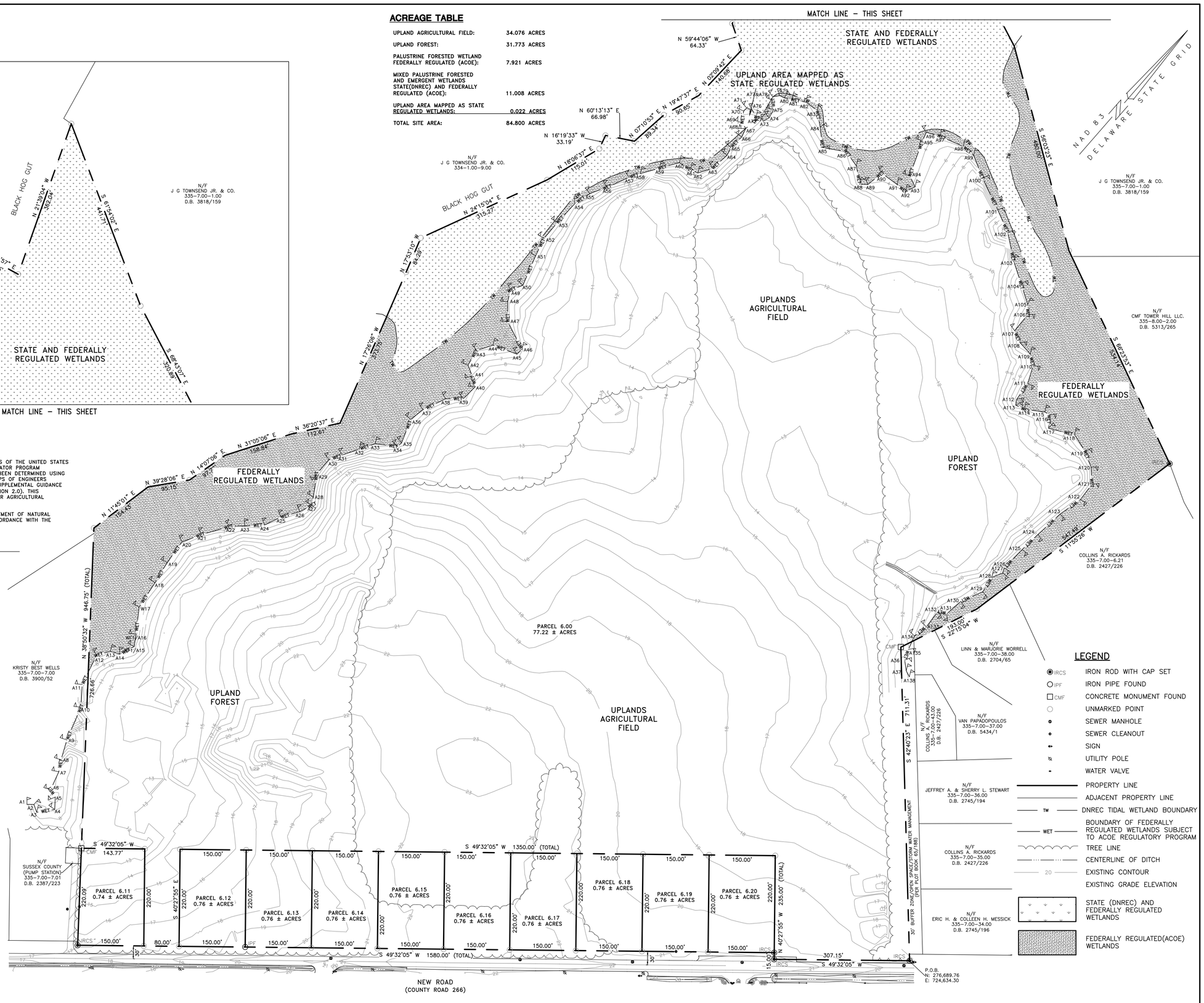
THE BOUNDARY OF WETLANDS REGULATED BY THE DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL WAS DETERMINED IN ACCORDANCE WITH THE DEPARTMENT'S WETLAND MAP NO's. DNR-090 & 091.

EDWARD M LAUNAY, SENIOR PWS No. 875 — DATE
SOCIETY OF WETLANDS SCIENTISTS
CORPS OF ENGINEERS, CERTIFIED WETLAND DELINEATOR WDCP93MD0510036B

SITE DATA

OWNER:	HALSEY G. KNAPP, TRUSTEE 1102 BAY AVE LEWES, DE 19958
TAX PARCEL NO.:	335-7.00-6.00, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19 & 6.20
AREA: TOTAL:	84.80 ± ACRES
WETLANDS AREA:	18.93 ± ACRES
DEED REFERENCE:	4250/339
PLAT REFERENCE:	57/55
ZONING:	AR-1
BUILDING SETBACKS:	FRONT: 40' SIDE: 15' REAR: 20'
MAX. BLDG HEIGHT:	42'
FLOOD ZONE:	ZONE "X" – MINIMAL FLOODING ZONE AE–8' ZONE AE–9'
F.I.R.M. No.:	10005C0193K
EFFECTIVE DATE:	MARCH 16, 2015





LEGEND

- IRCS — IRON ROD WITH CAP SET
- IPF — IRON PIPE FOUND
- CMF — CONCRETE MONUMENT FOUND
- UNMARKED POINT
- SEWER MANHOLE
- SEWER CLEANOUT
- SIGN
- UTILITY POLE
- WATER VALVE
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- TW — DNREC TIDAL WETLAND BOUNDARY
- WET — BOUNDARY OF FEDERALLY REGULATED WETLANDS SUBJECT TO ACOE REGULATORY PROGRAM
- TREE LINE
- CENTERLINE OF DITCH
- 20 — EXISTING CONTOUR
- EXISTING GRADE ELEVATION
- STATE (DNREC) AND FEDERALLY REGULATED WETLANDS
- FEDERALLY REGULATED(ACOE) WETLANDS

0 100 200 300

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MILFORD, DELAWARE (302) 424-1441

TOPOGRAPHIC SURVEY & WETLAND BOUNDARY PLAN of the Lands of HALSEY G. KNAPP, TRUSTEE

LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DE

Revisions:

Date:	JUNE 2022
Scale:	1"=100'
Dwn.By:	JMJ
Proj.No.:	0818C052
Dwg.No.:	1 OF 1

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WETLAND DELINEATION REPORT

IDENTIFICATION OF WATERS OF THE UNITED STATES,
INCLUDING WETLANDS SUBJECT TO THE CORPS OF ENGINEERS
REGULATORY PROGRAM

Tax Map 335-7.00 Parcels 16.00 and 6.11 through 6.20
New Road (SCR 266), 84.80 Acres
Lewes Rehoboth Hundred, Sussex County, Delaware

June 21, 2022

Prepared For:

Ocean Atlantic Companies
18949 Coastal Highway, Unit 301
Rehoboth Beach, DE 19971
Attn: Mr. Ben Gordy

Prepared By:

Edward M. Launay, Senior Professional Wetland Scientist No. 875
Environmental Resources, Inc.
38173 DuPont Blvd.
P.O. Box 169
Selbyville, DE 19975
Phone: 302-436-9637

ERI Project: 0486#1119

Wetland Delineation Report

Identification of Waters of the United State, Including Wetlands Subject to the Corps of Engineers Regulatory Program

Tax Map 335-7.00 Parcels 16.00 and 6.11 through 6.20
New Road (SCR 266), 84.80 Acres
Lewes Rehoboth Hundred, Sussex County, Delaware

TABLE OF CONTENTS

INTRODUCTION 1

INVESTIGATION METHODS 1

EXISTING RESOURCE GUIDANCE MAPPING..... 3

INVESTIGATION RESULTS 4

APPENDICES

A) Site Maps

Figure 1: USGS Topographic Map

Figure 2: National Wetland Inventory Map

Figure 3: Web Soil Survey Map

Figure 4: Tax Map Parcel 334-7.00-6.00

B) Wetland Determination Data Forms (4 Total)

C) Site Photos

INTRODUCTION

On behalf of the applicant, Ocean Atlantic Companies, Environmental Resources, Inc. (ERI) has investigated the subject properties to determine the extent of waters of the United States including wetlands subject to the U.S. Army Corps of Engineers (ACOE) Regulatory Program. The subject site consists of eleven tax map parcels, located along the northwest side of New Road (SCR 266) opposite the intersection with Peach Tree Lane near the town of Lewes within the Lewes Rehoboth Hundred of Sussex County, Delaware (USGS Topographic Map - Figure 1, Appendix A).

The subject property totals 84.80 acres. It is identified on Sussex County Tax Map 335-7.00 as Parcels 6.00 and 6.11 through 6.20. Parcel 6.00 is the largest parcel totaling 77.22 acres. Parcel 6.11 through 6.20 are small abutting residential lots which occupy the frontage along New Road.

At the time of the investigation the 84.80 acre site consisted of approximately 34.076 acres of agricultural upland field, 31.773 acres of upland mid to late succession pine and mixed hardwood forest, 7.91 acres of palustrine forested wetlands and 11.008 acres of mixed palustrine forest emergent wetlands which is also state regulated (DNREC) wetlands. A total of 0.022 acres of uplands are mapped as state regulated wetlands. Land use on adjacent properties was forest, forested wetlands and moderate-density residential development along New Road.

Wetlands boundaries identified during this investigation are depicted on the attached site plan entitled *Topographic Survey & Wetland Boundary of the Lands of Halsey G. Knapp, Trustee, Lewes Rehoboth Hundred, Sussex County, DE* dated June 2022 prepared by Davis, Bowen & Friedel, Inc.

For the purposes of this investigation, all wetlands and waters within the subject property are considered jurisdictional and subject to the ACOE Regulatory Program as they abut a tidally flowed tributary Black Hog Gut which discharge to Broadkill River, a traditionally navigable water.

This report and accompanying Waters/Wetlands Delineation Plan are being submitted to the Philadelphia District Corps of Engineers for issuance of a Preliminary Jurisdictional Determination. There are no geographically isolated wetlands on this site.

INVESTIGATION METHODS

This investigation consisted of a review of available agency resource mapping and on-site investigations to determine the extent of waters of the United States, including wetlands, for the purposes of Section 404 of the CWA and Section 10 of the Rivers and Harbors Act of 1899.

Routine level field investigations were conducted within the subject property by Edward M. Launay (Senior Professional Wetland Scientist #875) of ERI between May 8, 2021 and June 12, 2022 to delineate Waters of the United States boundaries, including wetlands. The

delineation was conducted in accordance with the *1987 Corps of Engineers Wetland Delineation Manual* in conjunction with the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region; Version 2.0* (November 2010) and supplemental guidance.

For the purposes of Section 404 of the CWA, wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Positive evidence of hydrophytic vegetation, hydric soils, and wetland hydrology is needed for an area to be classified as wetlands. The boundary between wetlands and non-wetlands is defined as the location where positive indicators of one of the three parameters are no longer present.

The Ordinary High Water Mark within any streams and drainage channels was delineated in accordance with methods provided in Regulatory Guidance Letter 05-05 (Ordinary High Water Mark Identification, December 7, 2005). The Ordinary High Water Mark defines the lateral limits of CWA jurisdiction within non-tidal waters of the United States (streams, ditches, ponds, etc.) in the absence of adjacent wetlands.

A total of four Data Sampling Points were established on June 12, 2022 within representative landscape positions to describe existing site conditions, with information regarding hydrology, vegetation, and soils recorded on Wetland Determination Data Forms (Appendix "B"). The Data Sampling Point locations are depicted on the attached Wetland Delineation Plan. Representative Site Photos (Appendix "C") were also taken to document existing site conditions. The hydrology parameter was evaluated by visual observation of hydrology indicators made during the on-site investigations. Water table levels were measured within un-lined hand auger boring holes at the established Data Sampling Points. Only two data sheets were needed to describe the site since the wetland boundary occurs at the base of a well defined slope along upland forest occupying well-drained soils and a high landscape position.

The vegetation parameter was evaluated using visual estimates to determine the absolute percent cover of all dominant species within each of the Data Sampling Points. The wetland indicator status of observed plant species was determined using the *U.S. Army Corps of Engineers Atlantic and Gulf Coastal Plain 2016 Regional Wetland Plant List*. Soils were evaluated in accordance with the *U.S. Department of Agriculture Natural Resource Conservation Service Field Indicators of Hydric Soils in the United States* (Version 8.2, 2018).

Jurisdiction supporting documents considered during this investigation includes the *Memorandum of Clean Water Act Jurisdiction Following the U.S. Supreme Court Decision in Rapanos v. United States & Carabell v. United States* (June 5, 2007 and December 2, 2008 revisions); and the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (May 30, 2007).

Final authority as to the extent and jurisdictional status of Waters of the United States within the subject parcel rests with the Philadelphia District U.S. Army Corps of Engineers.

EXISTING RESOURCE GUIDANCE MAPPING

TOPOGRAPHY AND DRAINAGE

The United States Geological Survey (USGS) Lewes Quadrangle (Figure 1, Appendix A) identifies site elevations ranging from approximately 0 feet to 5 feet within the wetlands portion of the site, then very abruptly rising to elevations of 15 to 20 feet and greater. Two blue-line tributary stream features associated with Black Hog Gut are depicted within the subject property. These tributaries form the west and north property boundaries. The USGS Topographic Quadrangle is consistent with the results of the ERI delineation of wetlands.

As shown on the Wetland Delineation Plan elevations in the upland portion of the site actually range between elevation 5 and 23 feet. Most of the upland property is a terrace ranging in elevation from 10 to 20 feet. In general, the palustrine forested wetlands and emergent wetlands bordering Black Hog Gut range from elevations of 5 to 6 feet down to elevation 2.0 feet.

WEB SOIL SURVEY

The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (Figure 3, Appendix A) identifies the following upland soil series within the subject property:

Fort Mott Loamy Sand
Downer Loamy Sand
Evesboro Loamy Sand
Ingleside Loamy Sand
Woodstown Sandy Loam
Hammonton Sandy Loam
Greenwich Loam

All seven of these soil types are considered upland soil types and in very well drained to somewhat poorly drained drainage classes.

Zekiah Sandy Loam and Longmarsh and Indiantown soils (Lo) are poorly drained and very poorly drained hydric soil types mapped within the delineated wetlands along the western and northern sides of the site. Both theses soil types are associated with the occurrence of wetlands.

Soil series boundaries depicted on the Web Soil Survey are consistent with representative profiles observed by ERI during this investigation. The extent of delineated wetlands is consistent with the limits of hydric soils depicted on the Web Soil Survey. Upland conditions were observed in the areas consisting of seven types of uplands soils mapped in this site.

NATIONAL WETLANDS INVENTORY

The United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI, Figure 2, Appendix A) identifies estuarine wetlands along the west side of the subject property and at the juncture of the two Black Hog Gut tributaries. Palustrine forested scrub shrub

wetlands are mapped within the upstream extent of these two tributaries. This is consistent with the approximate location of the head of tide for Black Hog Gut and the extent of emergent wetlands vegetation within the delineated wetlands. Wetland boundaries and types identified by ERI within the subject property during the on-site investigations are consistent with the NWI mapping and the Wetland Delineation Plan.

INVESTIGATION RESULTS

ERI's review of this property found that the conditions and extent of wetlands were consistent with NWI Mapping and the boundary of hydric soils as mapped by the USDA Soil Survey. A detailed topographic survey of the site found that wetlands occur at or below an elevation of 5 to 6 feet. The wetlands abut tributaries of Black Hog Gut which discharge into the Broadkill River, a traditionally navigable water. A well defined transitional slope borders these wetlands. A broad terrace of uplands ranging from 10 to 26 feet in elevation occurs landward of the delineated wetland. A total of 34.076 acres of the site are upland agricultural fields mapped as well drained soils under active cultivation. The fields are bordered by wooded uplands.

As detailed by Data Sheet "Wetland 1" associated with Wetland Flag A22, dominant species within wetlands included red maple, black gum, American holly and sweet pepper bush. A number of emergent wetland species were noted including skunk cabbage, soft rush and Phragmites australis near the head of tide, which is near the center of the site on Black Hog Gut.

Salt marsh vegetation also occurs in the interior portion of the estuarine wetland as noted on the NWI Map. Soil conditions in this area are flooded or saturated very near to the surface. A narrow portion of transitional slope with palustrine forest wetlands borders the mixed emergent and forested wetlands.

Upland conditions immediately landward of the delineated wetlands are documented by Data Sheets "Upland 1", "Upland 2" and "Upland 3". Soil borings at those locations were dry to greater than 30 inches. Soil textures were consistently loamy sands with a shallow dark yellowish brown (chroma 3 or 4) surface horizon and yellowish brown B horizons (chroma 4 to 6). No redoximorphic features were present within 30 inches. As these data points were on transitional slopes bordering wetlands, the vegetative parameter for wetlands classification was generally met as facultative wetland species such as red maple, loblolly pine and American holly were common even in uplands. As shown on site photographs 5 and 6, the interior portion of upland forest is dominated by tulip poplar and facultative upland oak species. Upland conditions are quite obvious.

CONCLUSION

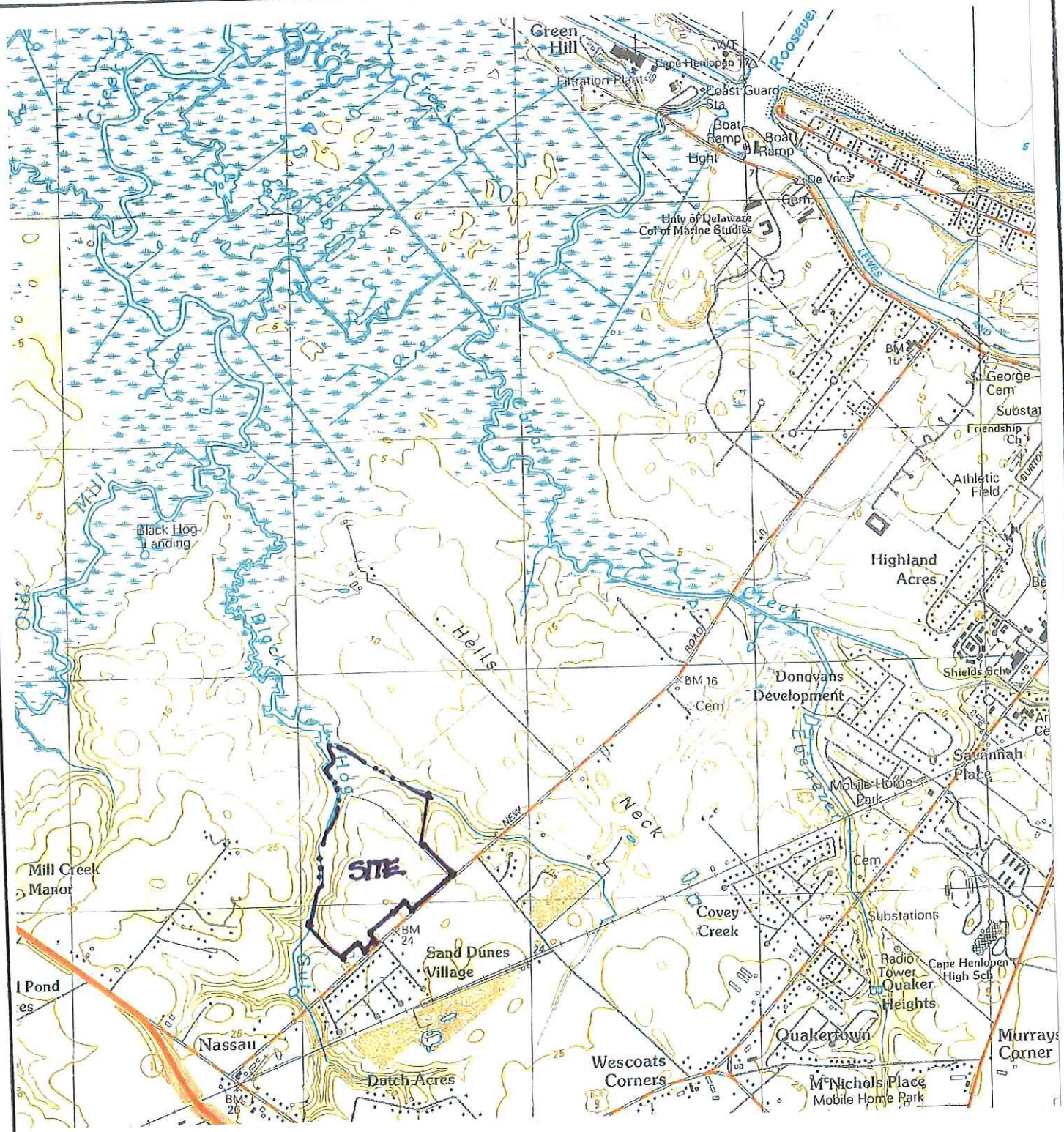
ERI conducted a detailed investigation of the subject site to determine the extent of wetlands in accordance with the procedures outlined in the *1987 Corps of Engineers Wetland Manual and associated guidance*. The results of ERI's delineation of wetlands was highly consistent with NWI, USDA Soil Survey and USGS topographic guidance maps. The area of investigation involved 11 abutting tax parcels totaling 84.80 acres. Parcel 335-7.00-6.00 is the largest parcel totaling 77.22 acres. All delineated wetlands occur on this parcel.

The subject site contains 34.076 acres of upland agricultural land, all of which occurs upon well drained soil types. A total of 31.773 acres of upland forest surrounds these fields. Upland forest is dominated by tulip poplar, loblolly pine, American holly, southern red and white oak. Red maple, sweet gum and black gum commonly occur along the transitional slope areas bordering delineated wetlands.

A total of 7.921 acres of palustrine forested wetlands occur along the two tributaries of Black Hog Gut above the head of tide. The interior portions of this wetland is frequently flooded and an understory of emergent wetland vegetation occurs notably skunk cabbage. A total of 11.008 acres of mixed palustrine forested and estuarine emergent wetlands occur along tidal portions of Black Hog Gut. These wetlands are also subject to regulation by the Delaware Department of Natural Resources and Environmental Control in accordance with their official wetland map (DNR-090 & 091). These wetlands contain the Section 10 waters of Black Hog Gut.

EXHIBIT A

SITE MAPS



N W E S	1" = 2000 FEET SUSSEX CO. DE.	LEWES QUADRANGLE LOCATION MAP USGS TOPOGRAPHIC	KNAPP PROPERTY TM# 335-7.00-6.00 & 6.11 THROUGH 6.20

ENVIRONMENTAL RESOURCES, INC.	Date: June 22 2022 Revisions:	Dwn.By: JRW Proj.No.: 486 # 1119	SHEET: 1

U.S. Fish and Wildlife Service

National Wetlands Inventory

Knapp Halsey

April 28, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Soil Map—Sussex County, Delaware

75° 11' 7" W
38° 45' 58" N
483900
484000
484100
484200
484300
484400
484500
484600
484700
484800
75° 10' 27" W
38° 45' 16" N
4290800
4290700
4290600
4290500
4290400
4290300
4290200
4290100
4290000
4289900
4289800
4289700
4289600

Map Scale: 1:6,300 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sussex County, Delaware
Survey Area Data: Version 21, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 21, 2018—Mar 12, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DnA	Downer loamy sand, 0 to 2 percent slopes	0.0	0.0%
DnC	Downer loamy sand, 5 to 10 percent slopes, Northern Tidewater Area	4.5	3.5%
DoA	Downer sandy loam, 0 to 2 percent slopes, Northern Tidewater Area	6.9	5.5%
DodB	Downer sandy loam, 2 to 5 percent slopes, Northern Tidewater Area	8.8	7.0%
EvB	Evesboro loamy sand, 0 to 5 percent slopes	1.6	1.3%
FmA	Fort Mott loamy sand, 0 to 2 percent slopes	1.7	1.3%
FmB	Fort Mott loamy sand, 2 to 5 percent slopes	12.8	10.1%
GrA	Greenwich loam, 0 to 2 percent slopes	30.5	24.1%
GrB	Greenwich loam, 2 to 5 percent slopes	5.6	4.4%
HnA	Hammonton sandy loam, 0 to 2 percent slopes	4.6	3.7%
IeB	Ingleside loamy sand, 2 to 5 percent slopes	3.6	2.8%
LO	Longmarsh and Indiantown soils, frequently flooded	25.7	20.3%
W	Water	0.7	0.6%
WddA	Woodstown sandy loam, 0 to 2 percent slopes, Northern Tidewater Area	5.4	4.2%
Za	Zekiah sandy loam, frequently flooded	14.2	11.2%
Totals for Area of Interest		**126.6**	**100.0%**

Sussex County

PIN:	335-7.00-6.00
Owner Name	KNAPP HALSEY G TRUSTEE
Book	4250
Mailing Address	1102 BAY AVE
City	LEWES
State	DE
Description	NW/NEW RD
Description 2	
Description 3	
Land Code	

polygonLayer
- Override 1

polygonLayer
- Override 1
- Tax Parcels
- Streets
- County Boundaries

Sussex_Co
- Depression Index
- Depression Intermediate
- Normal Index
- Normal Intermediate
- <all other values>

1:4,514

0 0.05 0.1 0.2 mi

0 0.075 0.15 0.3 km

June 22, 2022

EXHIBIT B

WETLAND DETERMINATION DATA FORMS

UPLAND 1 30' @ FLAG 9A

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Knapp Property City/County: Lewes - Sussex Co Sampling Date: 6/2/2022

Applicant/Owner: Ocean Atlantic Companies State: DE Sampling Point: 9A UPLAND 1

Investigator(s): E.M. Lavnay S.P.W.S. No. 875 Section, Township, Range: Lewes - Penhorn Hundred

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0-2

Subregion (LRR or MLRA): Lat: 38.757879 Long: 75.182907 Datum: NAD83

Soil Map Unit Name: Greenwich Loam NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	Is the Sampled Area within a Wetland?	Yes ____ No X
Hydric Soil Present?	Yes ____ No ✓		
Wetland Hydrology Present?	Yes ____ No ✓		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) (LRR U)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): 32+
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Boring Dry at 32" +

Sampling Point: A9 UPLAND

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/3						loamy sand	
8-24	10YR 4/4						Loamy Sand	
24-30	2.5Y 5/3						loamy Sand	
30-32+	10YR 5/4						Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) (LRR P, T, U)
- ___ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ___ Muck Presence (A8) (LRR U)
- ___ 1 cm Muck (A9) (LRR P, T)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) (MLRA 150A)
- ___ Sandy Mucky Mineral (S1) (LRR O, S)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (LRR P, S, T, U)
- ___ Polyvalue Below Surface (S8) (LRR S, T, U)
- ___ Thin Dark Surface (S9) (LRR S, T, U)
- ___ Loamy Mucky Mineral (F1) (LRR O)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (LRR U)
- ___ Depleted Ochric (F11) (MLRA 151)
- ___ Iron-Manganese Masses (F12) (LRR O, P, T)
- ___ Umbric Surface (F13) (LRR P, T, U)
- ___ Delta Ochric (F17) (MLRA 151)
- ___ Reduced Vertic (F18) (MLRA 150A, 150B)
- ___ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ___ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR O)
- ___ 2 cm Muck (A10) (LRR S)
- ___ Reduced Vertic (F18) (outside MLRA 150A,B)
- ___ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ___ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

Soil texture are loamy sand verses Web Soil Survey mapped (Greenwich Loam)

A9

Sampling Point: UPLAND 1

VEGETATION (Five Strata) – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 4/11)			
1. tulip poplar		yes	FACU
2. american holly		yes	FAC
3. sassafras		no	FACU
4.			
5.			
6.			
		= Total Cover	
50% of total cover:		20% of total cover:	
Sapling Stratum (Plot size:)			
1. american holly		yes	FAC
2.			
3.			
4.			
5.			
6.			
		= Total Cover	
50% of total cover:		20% of total cover:	
Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
		= Total Cover	
50% of total cover:		20% of total cover:	
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
		= Total Cover	
50% of total cover:		20% of total cover:	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:		20% of total cover:	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (If observed, list morphological adaptations below).

Except for holly area is dominated by Facultative Upland Species

30' of wetland flag A22 (UPLAND2)

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Knapp Property City/County: Lewes - Sussex Co Sampling Date: 6/2/2022

Applicant/Owner: Ocean Atlantic Companies State: DE Sampling Point: UPLAND2 A22

Investigator(s): E.M. Launay S.P.W.S. No. 275 Section, Township, Range: Lewes - Rehoboth Hundred

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): @ ~5%

Subregion (LRR or MLRA): Lat: 38.758653 Long: 75.182729 Datum: NAVD88

Soil Map Unit Name: Downer Sandy Loam NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	Is the Sampled Area within a Wetland?	Yes ____ No X
Hydric Soil Present?	Yes ____ No ✓		
Wetland Hydrology Present?	Yes ____ No ✓		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) (LRR U)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present?	Yes ____	No ✓	Depth (inches): ____
Water Table Present?	Yes ____	No ✓	Depth (inches): 32
Saturation Present? (includes capillary fringe)	Yes ____	No ✓	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Boring Dug at 32"

Sampling Point: UPLAND 2 A22

VEGETATION (Five Strata) – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size:)			
1. tulip poplar		yes	FACU
2. black cherry			FACU
3. black gum			FAC
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size:)			
1. American Holley		yes	FAC
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No __

Remarks: (If observed, list morphological adaptations below).

UPLAND2

SOIL

Sampling Point: A22

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/3						loamy sand	
6-24	10YR 4/4						loamy sand	
24-36+	10YR 5/6						loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) (LRR P, T, U)
- ___ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ___ Muck Presence (A8) (LRR U)
- ___ 1 cm Muck (A9) (LRR P, T)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) (MLRA 150A)
- ___ Sandy Mucky Mineral (S1) (LRR O, S)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (LRR P, S, T, U)
- ___ Polyvalue Below Surface (S8) (LRR S, T, U)
- ___ Thin Dark Surface (S9) (LRR S, T, U)
- ___ Loamy Mucky Mineral (F1) (LRR O)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (LRR U)
- ___ Depleted Ochric (F11) (MLRA 151)
- ___ Iron-Manganese Masses (F12) (LRR O, P, T)
- ___ Umbric Surface (F13) (LRR P, T, U)
- ___ Delta Ochric (F17) (MLRA 151)
- ___ Reduced Vertic (F18) (MLRA 150A, 150B)
- ___ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ___ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR O)
- ___ 2 cm Muck (A10) (LRR S)
- ___ Reduced Vertic (F18) (outside MLRA 150A,B)
- ___ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ___ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

30'± flag A86

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region Upland 3

Project/Site: Knapp Property City/County: Lewes - Sussex Co Sampling Date: 6/2/2022

Applicant/Owner: Ocean Atlantic Companies State: DE Sampling Point: (A86) UPLAND3

Investigator(s): E.M. Launay S.P.W.S. No. 875 Section, Township, Range: Lewes - Rehoboth Hundred

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 2-5

Subregion (LRR or MLRA): Lat: 38.762295 Long: 75.181099 Datum: NAD88

Soil Map Unit Name: Ingleside Loamy Sand NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ____	Is the Sampled Area within a Wetland? Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) (LRR U)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present?	Yes ____	No ✓	Depth (inches): ____
Water Table Present?	Yes ____	No ✓	Depth (inches): 32+
Saturation Present? (includes capillary fringe)	Yes ____	No ✓	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry at 32"

A86

Sampling Point: UPLAND 3

VEGETATION (Five Strata) – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. loblolly pine		Yes	FAC
2. American Holly		Yes	FAC
3. Hackberry			FACU
4.			
5.			
6.			
	= Total Cover		
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: _____)			
1. Am Holly		Yes	
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		
50% of total cover: _____	20% of total cover: _____		
Woody Vine Stratum (Plot size: _____)			
1. Common greenbrier			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover: _____	20% of total cover: _____		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (If observed, list morphological adaptations below).

A 86

SOIL

Sampling Point: UPLAND 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/4						Loamy sand	
8-18	10YR 4/4						Loamy sand	
18-29	10YR 5/6						Loamy sand	
29+	10YR 5/6		7.5Y 4/4	8	C	M	Loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) (LRR P, T, U)
- ___ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ___ Muck Presence (A8) (LRR U)
- ___ 1 cm Muck (A9) (LRR P, T)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) (MLRA 150A)
- ___ Sandy Mucky Mineral (S1) (LRR O, S)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (LRR P, S, T, U)
- ___ Polyvalue Below Surface (S8) (LRR S, T, U)
- ___ Thin Dark Surface (S9) (LRR S, T, U)
- ___ Loamy Mucky Mineral (F1) (LRR O)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (LRR U)
- ___ Depleted Ochric (F11) (MLRA 151)
- ___ Iron-Manganese Masses (F12) (LRR O, P, T)
- ___ Umbric Surface (F13) (LRR P, T, U)
- ___ Delta Ochric (F17) (MLRA 151)
- ___ Reduced Vertic (F18) (MLRA 150A, 150B)
- ___ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ___ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR O)
- ___ 2 cm Muck (A10) (LRR S)
- ___ Reduced Vertic (F18) (outside MLRA 150A,B)
- ___ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ___ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

30'2 AZZ

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region WETLAND 4

Project/Site: Knapp Property City/County: Lewes - Sussex Co Sampling Date: 6/2/2022

Applicant/Owner: Ocean Atlantic Companies State: DE Sampling Point: WETLAND 4/AZZ

Investigator(s): E.M. Lavnay S.P.W.S. No. 875 Section, Township, Range: Lewes - Rehoboth Hundred

Landform (hillslope, terrace, etc.): wetland floodplain Local relief (concave, convex, none): Concave Slope (%): 0-2

Subregion (LRR or MLRA): Lat: 38.758695 Long: 75.182917 Datum: NAVD88

Soil Map Unit Name: Longmarsh - Indiantown NWI classification: PSSIR

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	Is the Sampled Area within a Wetland? Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) (LRR U)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- X Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 4
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): Surface

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

30' FLAG A22

Sampling Point: WET 1

VEGETATION (Five Strata) – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. Red maple		yes	FAC
2. Black gum		yes	FAC
3. American Holly		yes	FAC
4.			
5.			
6.			
		= Total Cover	
50% of total cover: _____		20% of total cover: _____	
Sapling Stratum (Plot size: _____)			
1. am holly		yes	FAC
2.			
3.			
4.			
5.			
6.			
		= Total Cover	
50% of total cover: _____		20% of total cover: _____	
Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
		= Total Cover	
50% of total cover: _____		20% of total cover: _____	
Herb Stratum (Plot size: _____)			
1. skunk cabbage		yes	OBL
2. phragmites sp.		yes	FACW
3. cinnamon fern		yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
		= Total Cover	
50% of total cover: _____		20% of total cover: _____	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

30 & FLAGAZZ

Sampling Point: WETLAND 4

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR2/1						mucky silt	
1-8	10YR2/1						sandy loam	
8-20+	2.5Y5/2		10YR2/1	1	C	M	sandy loam	stains

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- X Muck Presence (A8) **(LRR U)**
- X 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ✓ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

EXHIBIT C

SITE PHOTOGRAPHS

Photo 1 View from wetland flag A5 into mixed forested scrub shrub wetlands

Photo 2 Upland data point Upland 1 30' ± flag A5.

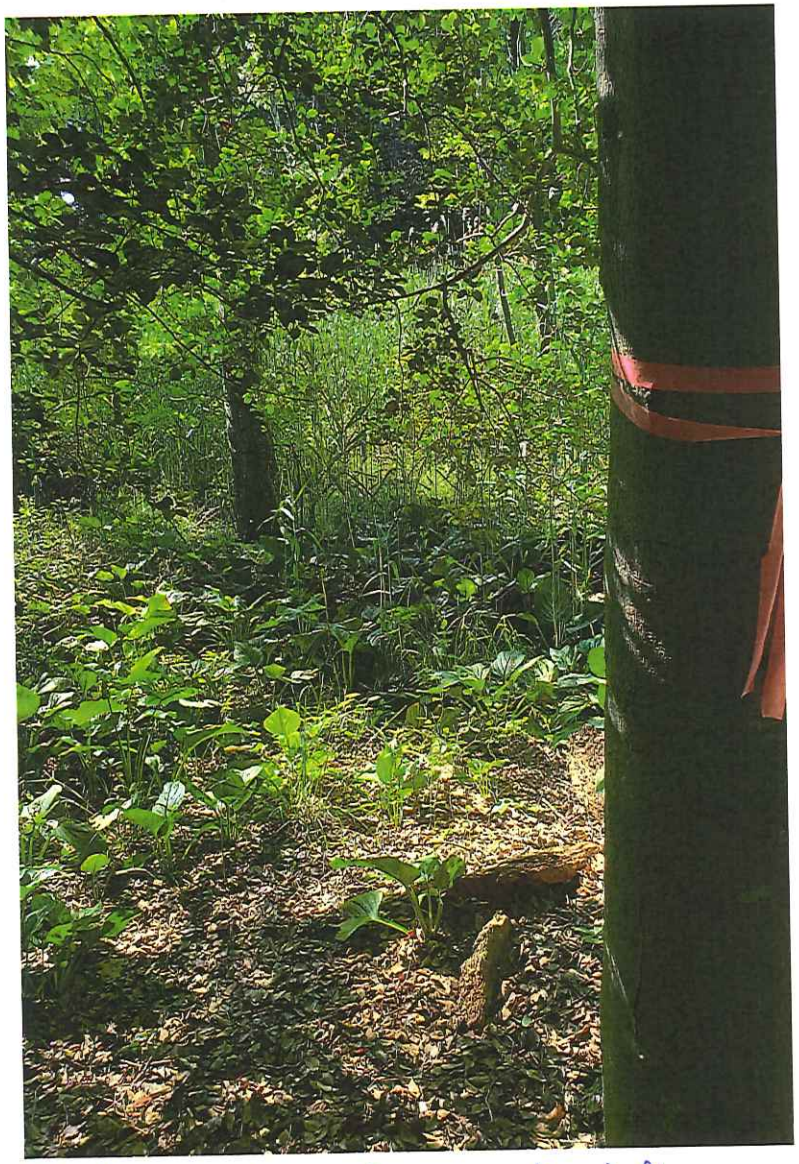


Photo 3 View from wetland flag A22 (Wetland Data Point Wetland 1) West in mixed palustrine & emergent wetland.

Photo 4 View east into upland forest at Upland Data Point 2 30' & Wetland Flag A22

Photo 5 - Typical forest condition north of AS and east of A22, tulip poplar dominated upland

Photo 6 - Upland forest conditions near field edge north of A22, tulip poplar & loblolly pine dominated.

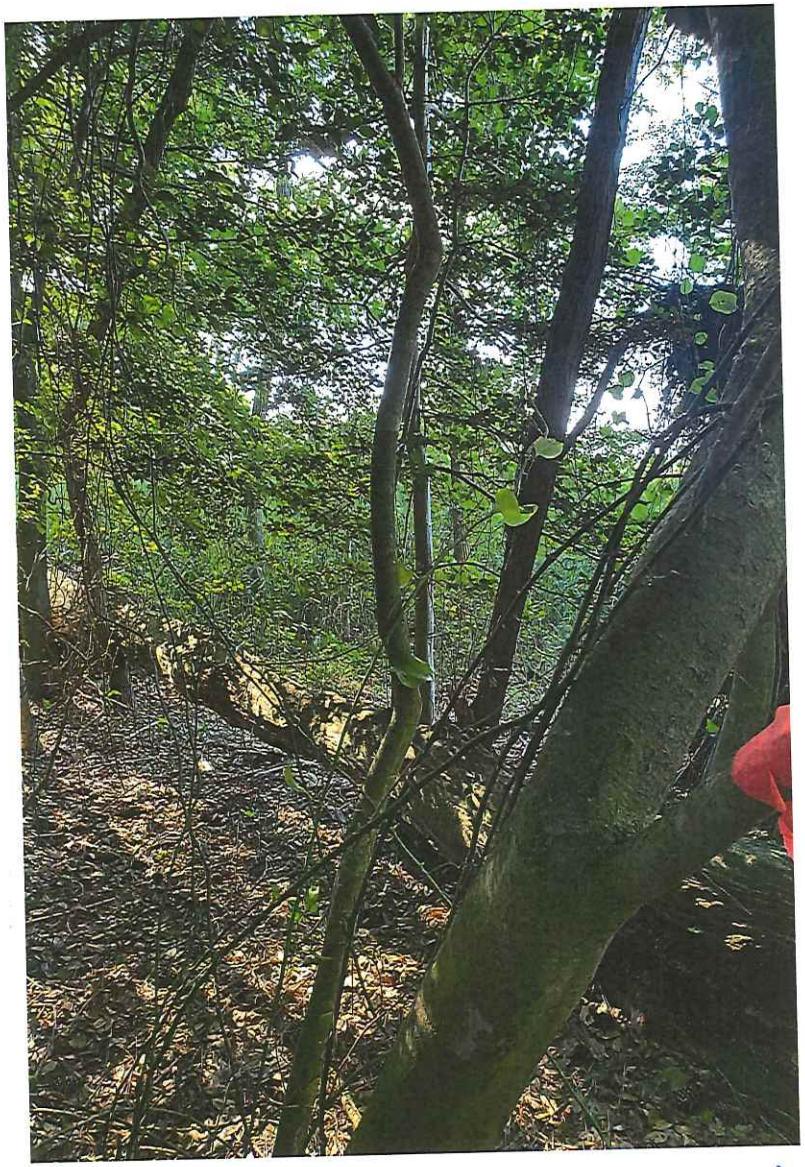


Photo 7 View west into wetland from flag A 86. mixed forested & emergent wetland.

Photo 8 Photo at Data Point Upland 3, 30 ft. west of flag A86

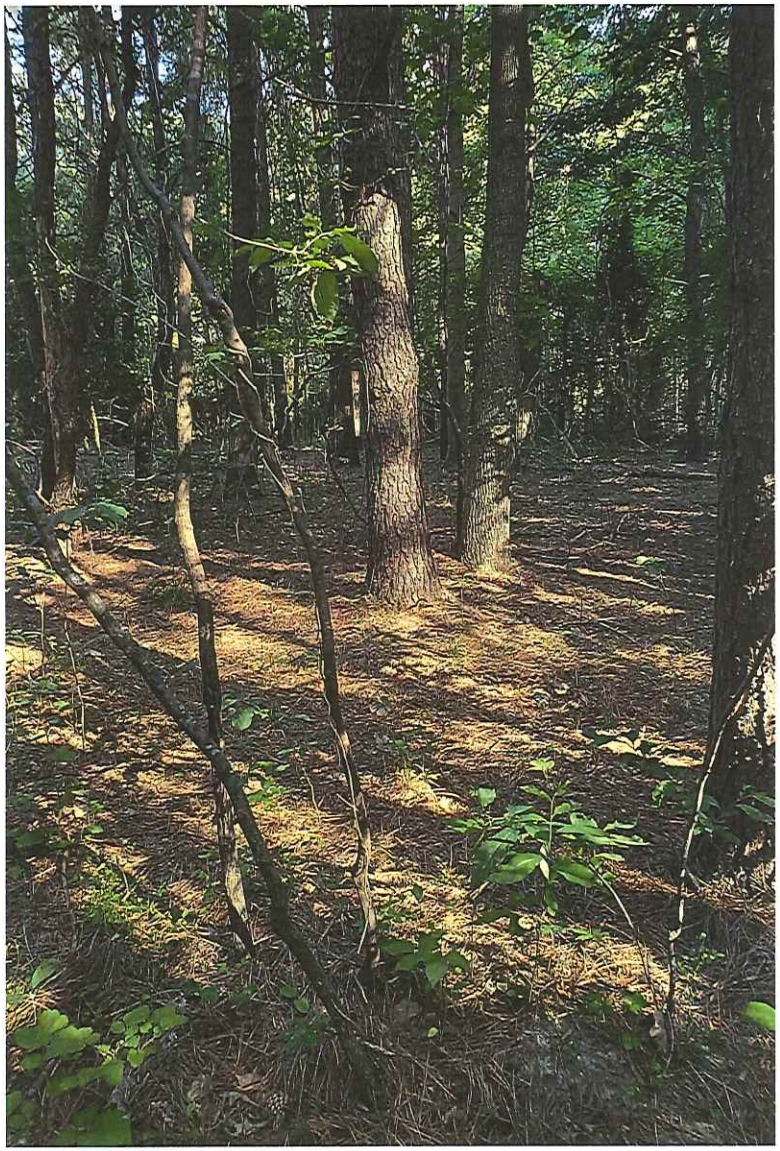


Photo 9. Pine dominated upland forest typical of northerly portion of site.

Photo 10 Center of upland agricultural field looking southeast toward New Road.

Photo 11 View of upland agricultural field looking southwest toward New Road

Photo 12 View of upland agricultural field looking west from center of site

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, PHILADELPHIA DISTRICT
100 PENN SQUARE EAST
PHILADELPHIA PENNSYLVANIA 19107-3390

June 23, 2022

Regulatory Branch

SUBJECT: Preliminary Jurisdictional Determination NAP-2022-00808-85
Knapp Property New Road SX
Center coordinates (38.76075°, -75.180736°)

Ben Gordy
Ocean Atlantic Companies
18949 Coastal Highway
Unit 301
Rehoboth Beach, Delaware 19971

Dear Mr. Gordy:

This Preliminary Jurisdictional Determination (PJD) is provided in response to your request on June 22, 2022 for concurrence from this office of the delineation of aquatic resources. The site associated with your request is located at 16500 New Road on tax map parcel numbers 335-7.00-16.00 and 6.11 through 6.20 in Lewes, Sussex County, Delaware.

The findings of this PJD are documented in the **enclosed** PJD Form. The locations of aquatic resources are depicted on the **enclosed** plan(s) identified as *TOPOGRAPHIC SURVEY & WETLAND BOUNDARY PLAN OF THE LANDS OF HALSEY G. KNAPP, TRUSTEE*, prepared by Davis, Bowen & Friedel, Incorporated, dated June 2022, 1 sheet.

This PJD is non-binding and indicates that there *may* be jurisdictional aquatic resources on the subject site. PJDs are advisory in nature and may not be appealed. The applicant retains the right to request an Approved Jurisdictional Determination (AJD) which would make a determination of federal jurisdiction and may be appealed. Please be aware that for purposes of computation of impacts, compensatory mitigation requirements and other resource protection measures, a permit decision made on the basis of a PJD will treat all waters and wetlands that would be impacted by the permitted activity as if they are subject to federal jurisdiction.

The delineation, included herein, has been conducted to identify the location and extent of the aquatic resource boundaries for the particular site identified in this request. This delineation may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

This PJD is valid for a period of five (5) years. This PJD is issued in accordance with current Federal guidance and is based upon the existing site conditions and information provided by you in your request. This office reserves the right to reevaluate and modify the PJD at any time should existing site conditions change, or should the information provided by you prove to be false, incomplete or inaccurate.

If you have any questions regarding this matter, please contact Michael D. Yost at (267) 240-5278 or michael.d.yost@usace.army.mil.

Sincerely,

Michael D. Yost
Applications Section I Biologist

Enclosures

cc:
Wetlands and Subaqueous Lands Section, DDNREC
Sussex Conservation District

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. **REPORT COMPLETION DATE FOR PJD: June 23, 2022**

B. **NAME AND ADDRESS OF PERSON REQUESTING PJD:**
Ben Gordy
Ocean Atlantic Companies
18949 Coastal Highway
Unit 301
Rehoboth Beach, DE 19971

C. **DISTRICT OFFICE, FILE NAME, AND NUMBER:**
NAP, Knapp Property New Road SX, NAP-2022-00808-85

D. **PROJECT LOCATION(S) AND BACKGROUND INFORMATION:**
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: DE County/parish/borough: Sussex County City: Lewes

Center coordinates of site (lat/long in degree decimal format):
Lat.: 38.76075° Long.: -75.180736°
Universal Transverse Mercator: 18

Name of nearest waterbody: Ebenezer Branch

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

☒ Office (Desk) Determination. Date: June 23, 2022
☒ Field Determination. Date(s): June 23, 2022

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site Number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Site A	38.761254	-75.181012	7.921 acres	Wetland	Section 404
Site B	38.763009	-75.182109	11.08 acres	Wetland	Section 10/404

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the.JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there “may be” waters of the U.S. and/or that there “may be” navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☐ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: Topographic Survey & Wetland Boundary Plan, Halsey G. Knapp, Trustee.

■ Data sheets prepared/submitted by or on behalf of the PJD requestor.
☒ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report. Rationale: _____.

☐ 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: Lewes, DE.

☐ Natural Resources Conservation Service Soil Survey. Citation: Web Soil Survey 2.0.

■ National wetlands inventory map(s). Cite name: Lewes, DE.

☐ State/local wetland inventory map(s): _____.

☐ FEMA/FIRM maps: 10005C0193K.

☐ 100-year Floodplain Elevation is: 8.(National Geodetic Vertical Datum of 1929)

■ Photographs: ☐ Aerial (Name & Date): Google Earth 2022.
or ■ Other (Name & Date): Site Photos June 12, 2022.

☐ Previous determination(s). File no. and date of response letter: _____.

☐ Other information (please specify): _____.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

_____	_____ 6/22/2022
Signature and date of Regulatory staff member completing PJD	Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Ben Gordy of Ocean Atlantic Companies	File Number: NAP-2022-00808-85	Date: 6/23/2022
Attached is:		See Section below
☐	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
☐	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
☐	PERMIT DENIAL	C
☐	APPROVED JURISDICTIONAL DETERMINATION	D
☒	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

U.S. Army Corps of Engineers Philadelphia District
Attn: CENAP-OPR
7th Floor, Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
Telephone: (215) 656-6728
E-mail: NAPREGULATORY@usace.army.mil

If you only have questions regarding the appeal process you may also contact:

U.S. Army Corps of Engineers North Atlantic Division
Attn: Amanda Regan (CENAD-PD-OR)
Fort Hamilton Military Community
General Lee Avenue, Building 301
Brooklyn, NY 11252-6700
Telephone: (917) 831-9105
E-mail: Amanda.M.Regan@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

ACREAGE TABLE

UPLAND AGRICULTURAL FIELD:	34.076 ACRES
UPLAND FOREST:	31.773 ACRES
PALUSTRINE FORESTED WETLAND FEDERALLY REGULATED (ACOE):	7.921 ACRES
MIXED PALUSTRINE FORESTED AND EMERGENT WETLANDS STATE(DNREC) AND FEDERALLY REGULATED (ACOE):	11.008 ACRES
UPLAND AREA MAPPED AS STATE REGULATED WETLANDS:	0.022 ACRES
TOTAL SITE AREA:	84.800 ACRES

WETLAND STATMENT

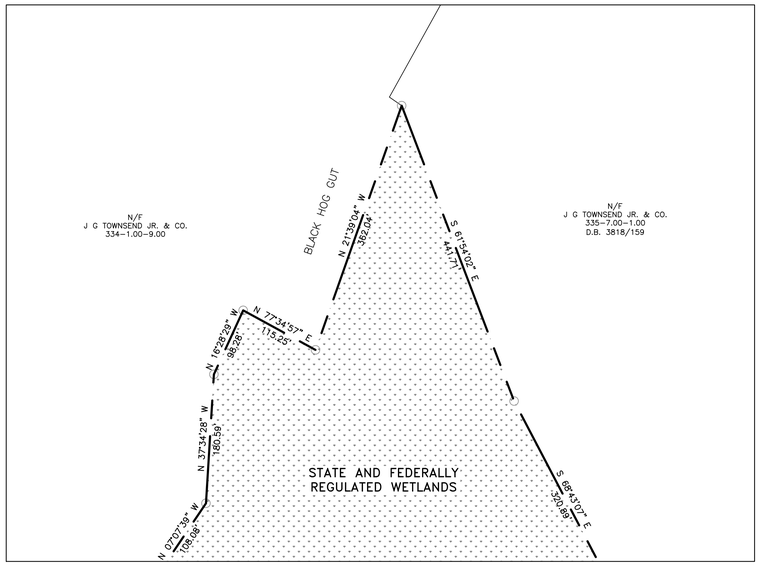
I, Edward M. Launay, SPWS, STATE THAT THE BOUNDARY OF WATERS OF THE UNITED STATES INCLUDING WETLANDS SUBJECT TO THE CORPS OF ENGINEERS REGULATOR PROGRAM DELINEATED ON THE PROPERTY ILLUSTRATED ON THESE PLANS HAS BEEN DETERMINED USING MY PROFESSIONAL JUDGEMENT IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL AND ALL CURRENTLY APPLICABLE SUPPLEMENTAL GUIDANCE INCLUDING THE ATLANTIC AND GULF COAST REGIONAL MANUAL (VERSION 2.0). THIS DELINEATION HAS NOT BEEN CONDUCTED FOR THE USDA PROGRAM OR AGRICULTURAL PURPOSED.

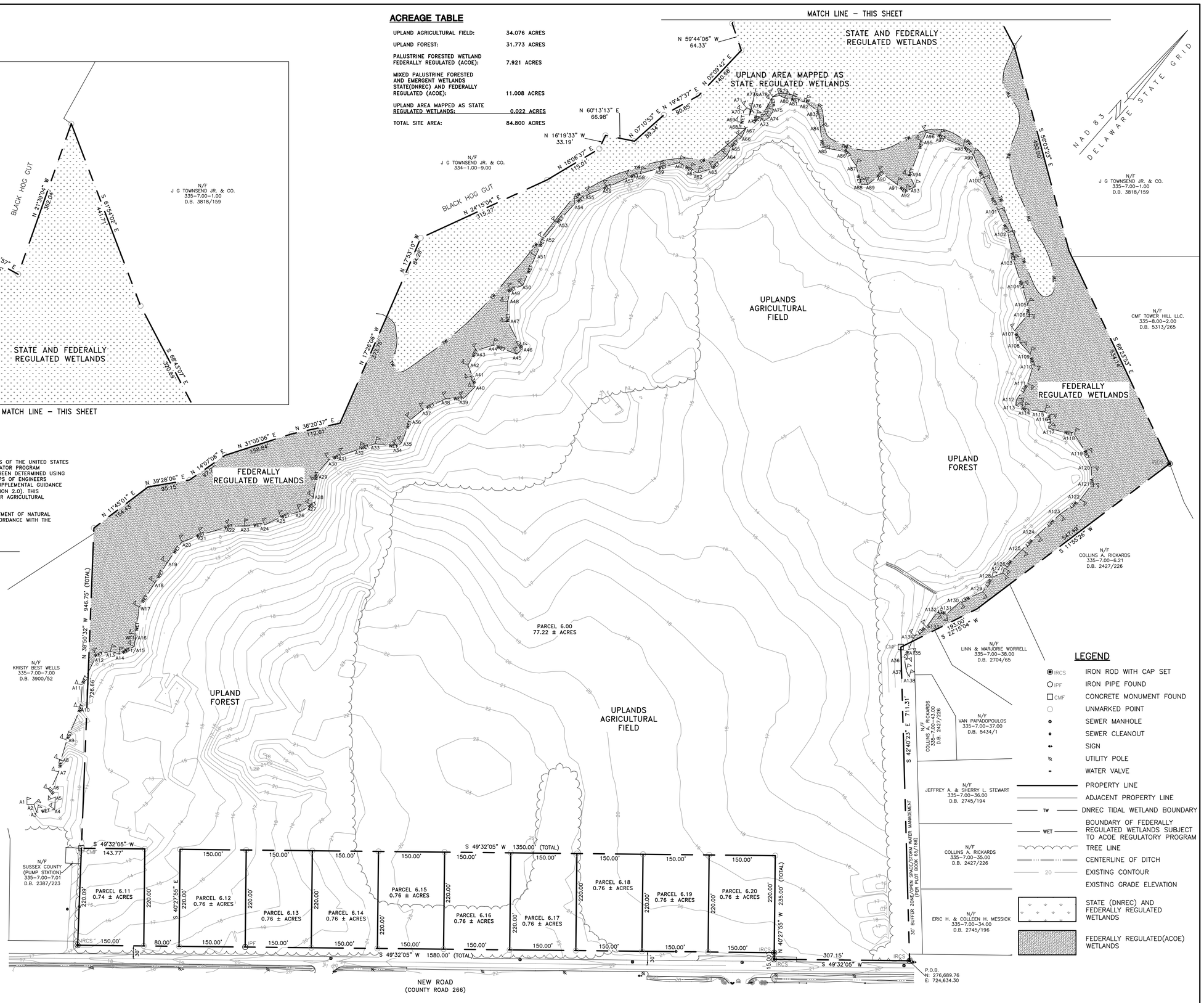
THE BOUNDARY OF WETLANDS REGULATED BY THE DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL WAS DETERMINED IN ACCORDANCE WITH THE DEPARTMENT'S WETLAND MAP NO's. DNR-090 & 091.

EDWARD M LAUNAY, SENIOR PWS No. 875 — DATE
SOCIETY OF WETLANDS SCIENTISTS
CORPS OF ENGINEERS, CERTIFIED WETLAND DELINEATOR WDCP93MD0510036B

SITE DATA

OWNER:	HALSEY G. KNAPP, TRUSTEE 1102 BAY AVE LEWES, DE 19958
TAX PARCEL NO.:	335-7.00-6.00, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19 & 6.20
AREA: TOTAL:	84.80 ± ACRES
WETLANDS AREA:	18.93 ± ACRES
DEED REFERENCE:	4250/339
PLAT REFERENCE:	57/55
ZONING:	AR-1
BUILDING SETBACKS:	FRONT: 40' SIDE: 15' REAR: 20'
MAX. BLDG HEIGHT:	42'
FLOOD ZONE:	ZONE "X" – MINIMAL FLOODING ZONE AE–8' ZONE AE–9'
F.I.R.M. No.:	10005C0193K
EFFECTIVE DATE:	MARCH 16, 2015





LEGEND

- IRCS — IRON ROD WITH CAP SET
- IPF — IRON PIPE FOUND
- CMF — CONCRETE MONUMENT FOUND
- UNMARKED POINT
- SEWER MANHOLE
- SEWER CLEANOUT
- SIGN
- UTILITY POLE
- WATER VALVE
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- TW — DNREC TIDAL WETLAND BOUNDARY
- WET — BOUNDARY OF FEDERALLY REGULATED WETLANDS SUBJECT TO ACOE REGULATORY PROGRAM
- TREE LINE
- CENTERLINE OF DITCH
- 20 — EXISTING CONTOUR
- EXISTING GRADE ELEVATION
- STATE (DNREC) AND FEDERALLY REGULATED WETLANDS
- FEDERALLY REGULATED(ACOE) WETLANDS

0 100 200 300

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441

TOPOGRAPHIC SURVEY & WETLAND BOUNDARY PLAN of the Lands of HALSEY G. KNAPP, TRUSTEE

LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DE

Revisions:

Date:	JUNE 2022
Scale:	1"=100'
Dwn.By:	JMJ
Proj.No.:	0818C052
Dwg.No.:	1 OF 1

P:\Ocean Atlantic\0818C052 Knapp\GIS\Wetlands Exhibit.dwg Jun 14, 2022 - 8:38am

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Exhibit 8

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, Maryland 21401
http://www.fws.gov/chesapeakebay

July 23, 2021

Edward Launay
Environmental Resources Inc.
PO Box 169
Selbyville, Delaware 19975

RE: Knapp - Halsey Property

Dear Mr. Launay:

This responds to your letter, received, May 28, 2021, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened within the vicinity of the above referenced project area. We have reviewed the information you enclosed and are providing comments in accordance with section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

This project as proposed will have "no effect" on the endangered, threatened, or candidate species listed on your IPaC species list because while the project is within the range of the species, it is unlikely that the species would occur within the project area that was submitted. Therefore, no Biological Assessment or further section 7 Consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to federally protected threatened or endangered species under our jurisdiction. For information on the presence of other rare species, you should contact Lori Byrne of the Maryland Wildlife and Heritage Division at (410) 260-8573.

An additional concern of the Service is wetlands protection. Federal and state partners of the Chesapeake Bay Program have adopted an interim goal of no overall net loss of the Chesapeake Bay's remaining wetlands, and the long term goal of increasing the quality and quantity of the Chesapeake Bay's wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if construction in wetlands is proposed, the U.S. Army Corps of Engineers, Baltimore District, should be contacted for permit requirements. They can be reached at (410) 962-3670.

TAKE PRIDE® IN AMERICA

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interests in these resources. If you have any questions or need further assistance, please contact Trevor Clark at (410) 573-4527.

Sincerely,

G. LaRouche

Genevieve LaRouche
Supervisor

Exhibit 9

SEWER SPECIFIC COMMENTS

LOCATION: **New Rd., West of Old Orchard Rd**

NO. OF UNITS:131

GROSS ACREAGE: 63.58

(1). Is the project in a County operated and maintained sanitary sewer and/or water district?

Yes ☐ No ☒

(2). Which County Tier Area is project in? Tier 2

(3). Is wastewater capacity available for the project? Yes If not, what capacity is available? n/a.

(4). Is a Construction Agreement required? Yes If yes, contact Utility Engineering at (302) 855-7370 / option 2.

(5). Are there any System Connection Charge (SCC) credits for the project? No If yes, how many? **Click or tap here to enter text.**. Is it likely that additional SCCs will be required? **Yes**

If yes, the current System Connection Charge Rate is $6,600.00 per EDU. Please contact **Christine Fletcher** at **302-855-7719** for additional information on charges.

(6). Is the project capable of being annexed into a Sussex County sanitary sewer district? **Yes**

☒ Attached is a copy of the Policy for Extending District Boundaries in a Sussex County Water and/or Sanitary Sewer District.

(7). Is project adjacent to the Unified Sewer District? **Yes**

(8). Comments: **The proposed subdivision is adjacent to Unified Sewer District**

(9). Is a Sewer System Concept Evaluation required? **Yes, Contact Utility Planning at 302-855-7370 to apply**

(10). Is a Use of Existing Infrastructure Agreement Required? **Yes**

If the above items, as applicable, are incorporated into the development plans, then preliminary approval is recommended. However, final plan approval should be withheld pending the approval of the construction plans by the Sussex County Engineering Department.

Exhibit 10

STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

NICOLE MAJESKI
SECRETARY

MEMORANDUM

TO: Steve McCabe, Sussex County Review Coordinator

FROM: Claudy Joinville, Project Engineer C.J.

DATE: December 30, 2021

SUBJECT: **Glenwood**
(Protocol Tax Parcels # 335-7.00-6.00)
Area Wide Study Fee (AWSF) and Off-site Improvements

The subject development meets DelDOT's volume warrants to pay the Area Wide Study Fee in lieu of doing a Traffic Impact Study (TIS). This memorandum is to address the amount of that fee and the off-site improvements that should be required of the developer in the absence of a TIS. The fee and improvements presented below are an alternative to the developer doing a TIS and the improvements identified through DelDOT's review of that study.

1. The proposed development consists of 131 single-family detached houses. Per the 10th edition of the Institute of Transportation Engineers' (ITE) Trip Generation Manual, the proposed development would generate 1,333 average daily trips and 131 vehicle trips during the p.m. peak hour. The fee is calculated at ten dollars per daily trip. For the proposed development, the fee would be $13,330.00.

2. The developer shall improve the State-maintained road(s) on which they front, within the limits of their frontage, to meet DelDOT's standards for their Functional Classification as found in Section 1.1 of the Development Coordination Manual and elsewhere therein. The improvements shall include both directions of travel, regardless of whether the developer's lands are on one or both sides of the road. Frontage is defined in Section 1 of the Development Coordination Manual, which states "This length includes the length of roadway perpendicular to lines created by the projection of the outside parcel corners to the roadway." Questions on or appeals of this requirement should be directed to the DelDOT Subdivision Review Coordinator in whose area the development is located.

DelDOT

3. The developer should enter into an agreement with DelDOT to fund an equitable portion of the improvements planned as part of the SR 1, Minos Conaway Grade Separated Intersection (Contract No. T201612501) project. More specifically, the agreement would primarily pertain to the proposed improvements at the intersections of Old Orchard Road (Sussex County Road 269A) and New Road (Sussex Road 266) as part the DelDOT project. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of the improvements during the plan review process.

If you have any additional questions or comments, please let me know.

CJ:km
cc: Ben Gordy, Ocean Atlantic Communities, LLC
Zac Crouch, Davis, Bowen & Friedel, Inc.
Michael Simmons, Chief of Project Development South, DOTS
Todd Sammons, Assistant Director, Development Coordination
T. William Brockenbrough, Jr., County Coordinator, Development Coordination
Chris Sylvester, Traffic Studies Manager, DelDOT Traffic, DOTS
Mark Galipo, Traffic Engineer, DelDOT Traffic, DOTS
James Argo, Sussex County Plan Reviewer, South District
Derek Sapp, Subdivision Manager, Development Coordination
Annamaria Furmato, Project Engineer, Development Coordination

Exhibit 11

MAPPING & ADDRESSING

MEGAN NEHRBAS
MANAGER OF GEOGRAPHIC
INFORMATION SYSTEMS (GIS)
(302) 855-1176 T
(302) 853-5889 F

Sussex County
DELAWARE
sussexcountyde.gov

October 5, 2021

Ocean Atlantic Companies
Attn: Ben Gordy

RE: **Proposed Subdivision Name(s)**

I have reviewed the name(s) submitted for your proposed subdivision located in **Lewes** (**335-7.00-6.00**). In reviewing the proposed name(s) the following has been **approved** for this subdivision:

BLACK OAK

Should you have any questions please contact the **Sussex County Addressing Department at 302-853-5888 or 302-855-1176.**

Sincerely,

Brian L. Tolley
GIS Specialist II

CC: Christin Scott
Planning & Zoning

Exhibit 12

DAVIS BOWEN & FRIEDEL, INC.

ARCHITECTS • ENGINEERS • SURVEYORS

Michael R. Wigley, AIA, LEED AP
W. Zachary Crouch, P.E.
Michael E. Wheedleton, AIA, LEED GA
Jason P. Loar, P.E.
Ring W. Lardner, P.E.
Jamie L. Sechler, P.E.

June 6, 2022

Sussex County Administrative Building
Planning and Zoning Department
2 The Circle
P.O. Box 589
Georgetown, Delaware 19947

Attn: Mr. Jamie Whitehouse
Director of Planning

RE: Black Oak
Environmental Assessment and Public Facility Evaluation Report
Tax Parcel No.: 335-7.00-6.00
DBF #0818C053

Dear Mr. Whitehouse:

On behalf of our client, Ocean Atlantic Companies, we are submitting an Environmental Assessment and Public Facility Evaluation Report in accordance with §115-194.3. ES-1 Environmentally Sensitive Development District Overlay Zone (ESDDOZ), Subparagraph B (2). We offer the following information that comprises our report:

(a) *Proposed drainage design and the effect on stormwater quality and quantity leaving the site, including methods for reducing the amount of phosphorous and nitrogen in the stormwater runoff and the control of any other pollutants such as petroleum hydrocarbons or metals*.

The proposed improvements will meet or exceed the state regulations for stormwater management. We intend to use wet pond basin as well as other Best Management Practices to meet these requirements.

(b) *Proposed method of providing potable and, where appropriate, irrigation water and the effect on public or private water systems and groundwater, including an estimate of average and peak demands.*

The proposed project is located in the Tidewater Utilities, Inc. franchise area and they hold the Certificate of Public Necessity (CPCN). A letter from Tidewater Utilities, Inc. said they are willing and able to provide public water for this project. Impacts to the groundwater and other systems have been evaluated as part of Tidewater Utilities, Inc. CPCN.

(c) *Proposed means of wastewater treatment and disposal with an analysis of the effect on the quality of groundwater and surface waters, including alternative locations for on-site septic systems.*

The proposed project is located within the West Rehoboth Expansion of the Dewey Beach Sanitary Sewer District and we have proposed to connect to an existing pump station.

(d) *Analysis of the increase in traffic and the effect on the surrounding roadway system.*

The proposed project will participate in an Area Wide Study and pay the area-wide study fee.

(e) *The presence of any endangered or threatened species listed on federal or state registers and proposed habitat protection areas.*

There is no known state or federally listed endangered or threatened species on this site.

(f) *The preservation and protection from loss of any tidal or non-tidal wetlands on the site.*

Buffers have been provided to protect both tidal and non-tidal wetlands. Lots have been adjusted to increase the tidal wetlands buffer and protect the adjacent woodland areas. Homes on lots 10 through 20 will be located more than 250-318' from tidal wetlands (5 times the required buffers). Behind lots 17 thru 24, 1,700 feet of river frontage is protected by buffers over 195'. The average buffer from non-tidal wetlands is 130.2' and from tidal wetlands is 261.4'. We do not anticipate any impact to or loss of wetlands.

(g) *Provisions for open space as defined in §115-4.*

The proposed community is staged to present views to a central stormwater pond which will also serve as an aesthetic amenity. Recreational open space is provided which will include a pool, tot lot, park, grill & fireplace and pickleball courts.
Wetland buffers have been increased to help preserve existing forest area and provide additional open space. There will also be a 30' landscape buffer between the developed area and all adjoining properties.

(h) *A description of provisions for public and private infrastructure.*

The Developer will construct gravity sewer lines to serve this parcel and will be maintained by Sussex County. The Developer will also construct the internal water mains in the project that will be owned and maintained by Tidewater Utilities, Inc. The internal roadways will be constructed by the Developer and privately maintained. Electric will be provided by Delmarva Power.

(i) *Economic, recreational or other benefits.*

The proposed project will create a considerable number of jobs during construction. Future residents of Sussex County will pay county taxes.

(j) *The presence of any historic or cultural resources that are listed on the National Register of Historic Places.*

The developer is in the process of completing a Phase I archeological study even though the site does not contain any known historical archaeological sites or National Register listed properties.

(k) *An affirmation that the proposed application and proposed mitigation measures are in conformance with the current Sussex County Comprehensive Plan.*

The proposed application and mitigation measures comply with the current Sussex County Comprehensive Plan.

(l) *Actions to be taken by the applicant to mitigate the detrimental impacts identified relevant to Subsection B(2)(a) through (k) above and the manner by which they are consistent with the Comprehensive Plan.*

All mitigation measures, where required, have been discussed in their respective section. All mitigation measures as well as the application are consistent with the Comprehensive Plan.

On behalf of our client, we thank you for your review and consideration of this response. If you should have any questions or concerns, please contact me at (302) 424-1441

Sincerely,
DAVIS, BOWEN & FRIEDEL, INC.

W. Zachary Crouch, P.E.
Principal

Exhibit 13

STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION

January 28, 2022

Sussex County Administrative Building
Planning and Zoning Department
2 The Circle
P.O. Box 589
Georgetown, DE 19947

Attn: Mr. Jamie Whitehouse
Planning Director

RE: Glenwood/Black Oak
Response to PLUS Review-2021-08-09
Tax Map No.: 3-35-7.00-6.00
DBF # 0818C035.A01

Dear Mr. Whitehouse,

On behalf of the owner, Halsey G. Knapp, Trustee, we are pleased to submit a response to the comments provided during the PLUS Review of the Project on August 25, 2021 and received from the Office of State Planning dated October 12, 2021. We have read all of the comments and offer the following item-by-item response narrative for your review:

Strategies for State Policies and Spending

This project is located in Investment Levels 2, 3 and 4 according to the 2020 Strategies *for State Policies and Spending map.* This site is also located in the low density area according to the Sussex County certified plan. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. State investments will support growth in the levels 2 and 3 areas but requests that the developer remove any development planned for the Level 4 area.

The Office of State Planning encourages the county and the developer to work with State agencies to address the concerns noted in this letter to preserve and protect Delaware's natural and cultural resources.

Thank you for your clarification of the State Investment Level designations. The majority of the development occurs in the Level 2 and 3 investment areas. Increased wetlands setbacks, voluntary buffers and preserved forest areas will limit the impact to Level 4 areas. The developer with work closely with State agencies throughout the approval process.

Code Requirements/Agency Permitting Requirements

Department of Transportation – Contact Bill Brockenbrough 760-2109

- The site access on New Road (Sussex Road 266) must be designed in accordance with DelDOT's Development Coordination Manual, which is available at http://www.deldot.gov/Business/subdivisions/index.shtml?dc=changes.
  Access will be designed in accordance with DelDOT's Development Coordination Manual.

- Pursuant to Section 1.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request the 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..
  A pre-submittal meeting will be set up prior to plans being submitted for review.

- Section 1.7 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.
  Developer will work with DelDot and provide the required fees when appropriate.

- 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 1,342 vehicle trip ends per day. Using the 10th edition of the Institute of Transportation Engineers' Trip Generation Manual, DelDOT finds that this number is what would be generated by 132 single-family detached houses. The proposed 131 houses would generate 1,333 vehicle trip ends per day. DelDOT estimates the weekday morning and evening peak hour trip ends at 98 and 132, respectively. Therefore, a TIS would normally be required.

  Section 2.2.2.2 of the Development Coordination Manual provides that for developments generating less than 2,000 vehicle trip ends per day and less than 200 vehicle trip ends per hour in any hour of the day, DelDOT may accept an Area Wide Study (AWS) Fee in lieu of the TIS if the local government does not require a TIS. The AWS Fee is calculated as $10 per daily trip or, in this case, $13,330. AWS Fees are used to fund traffic studies, not to build improvements.

The purpose of a TIS, per DelDOT regulations, is to determine the offsite improvements for which the developer should be responsible to build or contribute toward. In addition to whatever other offsite improvements may be identified, DelDOT anticipates requiring the developer to improve New Road within the limits of their frontage, to meet DelDOT's standards associated with its Functional Classification, as modified by the New Road Master Plan.

Frontage, as defined in Section 1.8 of the Manual, includes the length of roadway perpendicular to lines created by the projection of the outside parcel corners to the roadway. Thus, the projected frontage could be considered to extend north (or east) about 600 feet beyond the physical site frontage. In this case, to provide a continuous improvement, DelDOT anticipates requiring the developer to extend their improvements on New Road about 300 feet further still to meet those being done by the developer of Tower Hill. Also relevant in this regard, the plan shows ten strip lots (Tax Parcel Nos. 335-7.00-6.11 through 6.20) owned by a related company. DelDOT considers them to be included within the development's frontage.

Questions regarding the requirement to improve the site frontage should be directed to the Sussex County Review Coordinator, Mr. Steve McCabe. Mr. McCabe may be reached at Richard.McCabe@delaware.gov or (302) 760-2276.
The developer's engineer is working closely with DelDOT regarding the TIS or paying into the Area wide study. The developer will continue working with DelDOT to determine the extent of improvements that may be required.

- 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 New Road. By this regulation, this dedication is to provide a minimum of 40 feet of right-of-way from the physical centerline. 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.**"
  The required right-of-way width will be dedicated and noted on the record plan.

- 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. 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 for the State of Delaware, as per this plat.**"
  The required permanent easement will be dedicated and noted on the record plan.

- Referring to Section 3.4.2.1 of the Manual, the following items, among other things, are required on the Record Plan:

- A Traffic Generation Diagram. See Figure 3.4.2-a for the required format and content.

- Depiction of all existing entrances within 300 feet of the site entrance.

- Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.

The final Record plan will included the required Traffic Generation Diagram, existing entrances within 300', and all notes regarding improvements/agreements.

- Section 3.5.4.2 of the Manual addresses requirements for Shared Use Paths (SUP) and sidewalks. For projects in Level 1 and 2 Investment Areas, installation of paths or sidewalks along the frontage on State-maintained roads is mandatory. DelDOT has discretion to not require pedestrian facilities in Level 3 and 4 Areas but due to the rapidly developing nature of the New Road corridor, DelDOT anticipates requiring SUP along this development's road frontage.
  The developer will work with DelDOT regarding the requirements of the SUP along New Road.

- Section 3.5.4.4 of the Manual addresses accessways, paved pathways connecting a sidewalk or path along a road frontage to an internal sidewalk or path. DelDOT anticipates requiring an accessway from New Road to the internal street system where the emergency access is proposed.
  A connection can be made from the internal streets and sidewalks to the shared use path along new road.

- In accordance with Section 3.8 of the Manual, storm water facilities, excluding filter strips and bioswales, shall be located a minimum of 20 feet from the ultimate State right-of-way along New Road.
  20' will be provided from the State right-of-way to any stormwater facilities.

- Section 5.2.6 of the Manual addresses entrance length and, in relevant part, addresses entrances controlled by electronic gating systems. There must be sufficient distance between the Shared Use Path and the gate controlling the emergency access for a design vehicle entering the site to stop at the gate without blocking the path.
  Should an electronic gating system be use, the entrance will be designed to me emergency access requirements.

- In accordance with Section 5.2.9 of the Manual, the Auxiliary Lane Worksheet should be used to determine whether auxiliary lanes are warranted at the site entrances and how long those lanes should be. The worksheet can be found at http://www.deldot.gov/Business/subdivisions/index.shtml. DelDOT anticipates that the worksheet will show a need for left turn and right turn lanes and suggests that the

entrance should be moved north so as to bring it within the limits of the site frontage. DelDOT has a strong preference for placing the entrance opposite either Kansas Court or Peach Tree Lane.

Further regarding the currently proposed entrance location, there appears to be a discrepancy between the County tax maps and the plan with regard to how the strip lots are arranged. The tax maps show a gap between Parcels 6.11 and 6.12, while the plan shows a gap between Parcels 6.12 and 6.13.

The auxiliary lane worksheet will be used to determine if which auxiliary lanes are warranted and the dimensions of those lanes. The proposed entrance is located within the gap between 6.11 & 6.12 as recorded by Sussex county.

- 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.
  Existing and proposed utilities will be shown on the plans. Should utilities need to be relocated a utility relocation will be submitted to DelDOT.

Department of Natural Resources and Environmental Control – Beth Krumrine 735-3480

Concerns Identified Within the Development Footprint

Wetlands

Maps from the Statewide Wetlands Mapping Project indicate the presence of tidal and non-tidal wetlands on site, and no disturbance is proposed to the wetlands. The application indicates that wetlands have been delineated.

- If the site design changes and dredge or fill of wetlands or subaqueous lands becomes necessary, permitting and/or authorization requirements apply as described below.

A Federal Contact: U.S. Army Corps of Engineers (Dover Office) at (267) 240-5278.
Website: https://www.nap.usace.army.mil/Missions/Regulatory/Contacts/

State Contact: DNREC Wetlands and Subaqueous Lands Section at (302) 739-9943.
Website: https://dnrec.alpha.delaware.gov/water/wetlands-subaqueous/

Tidal and Non-Tidal wetlands have been delineated and shown on the plans.

Vegetated Buffer Zones

Site plans show a 100-foot vegetated buffer along tidal wetlands and a 50-foot wetland buffer for non-tidal wetlands. Vegetated buffer zones placed adjacent to waterways and wetlands help improve water quality by reducing sediment and pollutants loads. They also provide valuable habitat and can help prevent encroachment of human activities into ecologically sensitive areas. Vegetated buffers are not equivalent to setbacks, as residential lots, walkways, and stormwater management facilities should not be contained within the vegetated buffer zone.

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

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

The Developer has voluntarily doubled the counties required buffers along tidal and non-tidal wetlands. Roadways, lots, walkways and stormwater are all proposed outside of these buffer area to help preserve these areas.

Special Flood Hazard Area

According to the newest Flood Insurance Rate Maps (FIRM), the western and northwestern portions of this parcel are situated within a Special Flood Hazard Area, specifically within the mapped 100-year floodplain (1% annual chance of flooding). The Special Flood Hazard Area identified on the site lies within zone AE. In lands contained within the 100-year floodplain, the National Flood Insurance Program's floodplain management regulations must be enforced through the local floodplain ordinance, which can have higher standards. Lots do not appear to be proposed within the Special Flood Hazard Area.

- The applicant must comply with the local floodplain ordinance and regulations applicable to development or construction within the 100-year floodplain. In determining the boundary of the floodplain, use the most recent FIRM maps available, which can be found at https://floodplanning.dnrec.delaware.gov/

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

The 100-yr flood plain is shown on the plans and all homes are located outside of the 100-yr flood plain.

Stormwater Management

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

- A Sediment and Stormwater Plan must be developed, then approved by the appropriate plan review agency prior to any land disturbing activity taking place on the site. For this project, the plan review agency is the Sussex Conservation District.

- Additionally, to address federal requirements, construction activities that exceed 1.0 acre of land disturbance require Construction General Permit coverage through submittal of an electronic Notice of Intent for Stormwater Discharges Associated with Construction Activity. This form must be submitted electronically (https://apps.dnrec.delaware.gov/enoi/, select Construction Stormwater General Permit) to the DNREC Division of Watershed Stewardship, along with the $195 fee.

- Schedule a project application meeting with the appropriate plan review agency prior to moving forward with the stormwater and site design. As part of this process, you must submit a Stormwater Assessment Study.

Plan review agency contact: Sussex Conservation District at (302) 856-2105 or (302) 856-7219. Website: https://www.sussexconservation.org/

General stormwater contact: DNREC Sediment and Stormwater Program at (302) 739-9921.
E-mail: DNREC.Stormwater@delaware.gov.
Website: https://dnrec.alpha.delaware.gov/watershed-stewardship/sediment-stormwater/

A detailed sediment and stormwater plan will be prepared and submitted to the Sussex Conservation District for their review and approval. A NOI will be obtained through the DNREC Division of Watershed Stewardship.

Water Quality (Pollution Control Strategies)

This site lies within the Broadkill Watershed. Surface water quality in this watershed does not meet State Water Quality Standards and a Pollution Control Strategy is in place for this watershed.

- Consult with the appropriate plan review agency (Sussex Conservation District) to determine if stricter stormwater management standards may apply for development projects due to the Pollution Control Strategy. More information about Pollution Control Strategies can be found at the following website:

https://dnrec.alpha.delaware.gov/watershed-stewardship/assessment/tributary-action-teams/

Contact: DNREC Division of Watershed Stewardship's Watershed Assessment Section at (302) 739-9939. https://dnrec.alpha.delaware.gov/watershed-stewardship/

The development will adhere to all stormwater standards and regulations and will be submitted to the Sussex Conservation District for their review and approval.

Excellent Groundwater Recharge Area

An Excellent Groundwater Recharge Area is located on the western portion of the site. These areas have soils that are conducive to water infiltrating downward from surface water into groundwater. Preservation of these areas is important for replenishing groundwater supplies and ensuring drinking water for future generations.

- The applicant must comply with all county and municipal requirements for construction and uses in Excellent Groundwater Recharge Areas.

Contact: DNREC Source Water Assessment and Protection Program at (302) 739-9945.
Website: https://dnrec.alpha.delaware.gov/water/supply/ground-water-protection/

The development will comply with the counties requirements for construction and uses in excellent groundwater recharge areas.

Natural Areas

The northern and western portions of the parcel are located within a state Natural Areas designation (Great Marsh Natural Area). Natural Areas contain lands of statewide significance identified by the Natural Areas Advisory Council as the highest quality and most important natural lands remaining in Delaware.

- Local codes and ordinances may apply to protect areas designated as Natural Areas. Please consult with local planning agencies to see how local codes and ordinances may impact the proposed development of this site.

Contact: DNREC Division of Parks and Recreation, Office of Nature Preserves at (302) 739-

The development meets and exceeds all local codes and ordinances. Additional buffers and preserved areas help to reduce the impacts of surrounding natural areas.

Nutrient Management Plan

This project proposes open space of 42.75 acres.

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

Contact: Delaware Department of Agriculture's Nutrient Management Program at (302) 698-4558. Website: https://agriculture.delaware.gov/nutrient-management/

A nutrient management plan will be prepared for the maintenance and upkeep of all common areas.

Wastewater Disposal Permitting – Large Systems

Sussex County holds an existing permit with the DNREC Groundwater Discharges Section's Large Systems Branch for wastewater disposal.

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

Contact: DNREC Large Systems Branch at (302) 739-9948.
Website: https://dnrec.alpha.delaware.gov/water/groundwater/

Wastewater Disposal will be provided by Sussex County (West Rehoboth Expansion of the Dewey Beach SSD.

State Historic Preservation Office – Contact Carlton Hall 736-7400

- The Delaware SHPO does not recommend development in Level 4 areas.

- The SHPO has significant concerns about this proposed development. The proposed development will affect several known resources, and impact areas with a very high potential for significant archaeological sites and burials.

- This parcel has high potential for prehistoric archaeological resources. There are two known sites on the parcel, (S09125 and S0522) and seven sites within a half mile radius. Site S0522 was a surface collection in the northern portion of the parcel, and thus site boundaries are not known. Due to the location near Black Hog Gut and other water sources and well-drained soils, this parcel has favorable conditions for prehistoric potential. Native American burials have been found in the vicinity. If unmarked burials (historic or Native American) were to be disturbed, the discovery would fall under the Division's purview (please see 7Del.C. Ch.54). Our office recommends a Phase I archaeological survey prior to any ground disturbance.

- This parcel has a high potential for historic archaeological resources as well. There was a house on the northern extent of the agricultural fields that is shown on the Cape Henlopen 1918 topographic map and is demolished sometime between 1944 and 1954. Site 09125 is a historic site on the parcel near the intersection of New Road and Kansas Ct. The Delaware SHPO is recommending a Phase I archaeological survey prior to any ground disturbance.

- Within a half mile radius of the parcel, there are 4 known prehistoric and historic burials. The Prettyman Cemetery (S11638) is just east of the parcel. When it was initially documented, it was noted there was a possible associated cemetery to the west, which would place it on the parcel.

- It is our understanding that the site is being evaluated by an archaeologist and a survey is being conducted for cultural resources. Our office is requesting the opportunity to meet on site to discuss the work and findings, and to review the reports describing the results of the survey.

- If any project or development proceeds, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law (Del. C. Title 7, Ch. 54), which is currently being revised.

- If there is federal involvement, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. For further information on the Section 106 process please review the Advisory Council on Historic Preservation's website at: www.achp.gov

  Thank you for the information regarding prehistoric, historic archaeological sites and the potential for unmarked graves. We do not anticipate any federal funding for this project.

Delaware State Fire Marshall's Office – Contact John Rudd 323-5365

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:

Fire Protection Water Requirements:

- Where a water distribution system is proposed for single-family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required.
- Where a water distribution system is proposed for townhouse type dwellings it shall be capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 800 feet spacing on centers are required.

- The infrastructure for fire protection water shall be provided, including the size of water mains.

Water distribution will be provided by Tidewater Utilities, Inc. using existing infrastructure.

Accessibility:

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from New Road must be constructed so fire department apparatus may negotiate it. If a "center island" is placed at an entrance into the subdivision, it shall be arranged in such a manner that it will not adversely affect quick and unimpeded travel of fire apparatus into the subdivision.

- 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.

The site plan will comply with all Fire Department access requirements.

Gas Piping and System Information:

- Provide type of fuel proposed and show locations of bulk containers on plan.

The site plan will provide locations of underground tanks and types of fuel proposed.

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"
- Name of Water Supplier
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- Townhouse 2-hr separation wall details shall be shown on site plans

- Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads

The required information and notes will be provided on the plans and submitted to the fire marshal for their review and approval.

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 the suggestions can benefit the project.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- The applicant should expect a requirement that any substation and/or wastewater facilities will be required to have access from an internal driveway with no direct access to New Road.
  We do not anticipate any new substation, all facilities on the site will require direct access internally from the site.

- The applicant should expect a requirement that all PLUS and Technical Advisory Committee (TAC) comments be addressed prior to submitting plans for review.
  PLUS and TAC comments will be addressed prior to agency review.

- 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 dates of March 21, 2019 and March 16, 2021. The notes can be found at https://www.deldot.gov/Business/subdivisions/
  The latest Standard General Notes will be used.

Department of Natural Resources and Environmental Control – Beth Krumrine 735-3480

Wetlands and Vegetated Buffer Zones

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

- Expand the 50-foot non-tidal wetland buffer to no less than 100 feet to protect water quality and to provide an additional margin of safety for flooding.

  The buffers shown are more than double the required buffers. In areas closest to tidal waters those buffer have been increased to over 200'. Behind lots 17 thru 24, 1,700 feet of river frontage is protected by buffers over 200'.

- Vegetated buffer zones should be left undisturbed during construction and should be identified outside of the Limit of Disturbance on the engineering plans. In some instances, stormwater outfalls, conveyances, and emergency spillways may cross through these zones, and will require temporary disturbance during construction.

  The majority of these buffer zones will remain undisturbed forest and construction activities will avoid the removal of the existing forest.

- Vegetated buffer zones should be deeded as community open space. Signage should be installed at the edge and within the buffer zones to deter residents from encroaching into these common areas.

  Conservation areas will be noted on the plans and recorded by Sussex county. Such areas will be deeded over to the Home Owners Association.

- Maintain vegetated buffer zones as either grasslands/meadows or forest. Buffer zones should be planted exclusively with native trees and plants. Native plants are well-suited to our climate and require limited maintenance. They also provide an increasingly important role in the survival of native birds and beneficial insects whose habitat is shrinking due to development and climate change.
  The buffers will be maintained as forest. The buffers will remain existing vegetation.
- Grass cutting for vegetated buffer zones if maintained as meadow should not occur between April 1st to July 31st to reduce impacts to nesting birds and other wildlife species that utilize meadows and grasslands for breeding habitat.

  The majority of buffers would be in woodlands. We do not anticipate the need for mowing.

Federal Wetlands Contact: U.S. Army Corps of Engineers (Dover Office) at (267) 240-5278.
Website: https://www.nap.usace.army.mil/Missions/Regulatory/Contacts/

State Wetlands Contact: DNREC Wetlands and Subaqueous Lands Section at (302) 739-9943.
Website: https://dnrec.alpha.delaware.gov/water/wetlands-subaqueous/

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

Delaware Ecological Network

- A significant portion of the project site to the north and west lies within lands designated within the Delaware Ecological Network, a statewide network of interconnected lands of significant ecological value. This GIS data layer is based on principles of landscape

ecology and conservation biology, providing a consistent framework to identify and prioritize areas for natural resource protection. Forest disturbances on this site will jeopardize habitat on the parcel and likely beyond the parcel's boundary.

- Removing forested areas within the Delaware Ecological Network should be avoided to the greatest extent possible. These areas provide wildlife habitat, uptake nutrients, infiltrate stormwater, and improve water quality. Forests also provide shading and cooling, while also reducing carbon that contributes to climate change.

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

70%+ of the existing forest will be preserved. A reforested area equal to 15% of the existing forest is proposed. Therefore, 85% of the forest area will remain in perpetuity.

Mature Forest

- According to the site plans, the project proposes the elimination of about 4 of 18 acres of mature forest on the site. An analysis of historical data indicates that the forest area located on the northeastern and northwestern portions of the site has likely maintained some degree of forest cover since 1937 and could be considered mature forest. Mature forests possess the potential for rare, threatened, or endangered species that rely on this type of habitat.

- Removing forested areas for development, especially mature forests, should be avoided to the greatest extent possible. Forests filter water for improved water quality, provide habitat for wildlife, absorb nutrients, infiltrate stormwater, moderate temperatures, and store atmospheric carbon which would otherwise contribute to climate change.

- To reduce impacts to nesting birds and other wildlife species that utilize forests for breeding, it is recommended that tree clearing not occur from April 1st to July 31st. Likewise, avoid mowing open space areas and grass filter strips during the same timeframe, as various species of birds utilize these areas for nesting sites.

Contact: DNREC Wildlife Species Conservation & Research Program at (302) 735-3600.
Website: https://dnrec.alpha.delaware.gov/water/groundwater/septic-systems/

Impact to the existing mature forest will be reduced as much as possible. The areas to be preserved will remain undisturbed throughout the development process.

Sea Level Rise

- The western and northwestern portions of this site are vulnerable to permanent inundation from sea level rise. By 2050, mean sea levels are projected to rise by 0.7 – 1.9 feet; by end of century sea levels are projected to increase by 1.7 – 5.0 feet. In addition to permanent inundation, as mean sea levels rise, the frequency and severity of tidal flooding events is expected to increase. Lots do not appear to be proposed within the sea level rise area.

- In areas within 5 feet of mean sea level, avoid construction of permanent structures and infrastructure. All infrastructure and structures on site should incorporate the effects of sea level rise through the expected lifespan of the structures. This may include increasing freeboard of structures, ensuring that critical infrastructure is elevated to withstand future sea level rise, construction of flood control measures, and incorporating green infrastructure for flood control.

Contact: DNREC Climate and Sustainability Section at (302) 735-3480.
Website: https://dnrec.alpha.delaware.gov/coastal-programs/planning-training/adapting-to-sea-level-rise/

Thank you for the information on sea level rise. The current flood elevation is 8'. The existing topo shows all lots greater than 11', proposed houses will be several feet above future flood elevations.

Special Flood Hazard Area

- As proposed, locate all structures outside of the floodplain. If this is not possible, the developer should consider designing structures to a higher standard to avoid potential future flood damage and loss.

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

All structures are proposed well outside the 100 yr flood plain.

Stormwater Management

- Where the site and soil conditions allow, integrate runoff reduction techniques including infiltration basins, bioretention (rain gardens), filter strips, and pavers to encourage on-site stormwater infiltration and reduce runoff.

- For improved stormwater management, preserve existing trees, wetlands, and passive open space.

Plan review agency contact: Sussex Conservation District at (302) 856-2105 or (302) 856-7219. Website: https://www.sussexconservation.org/

General stormwater contact: DNREC Sediment and Stormwater Program at (302) 739-9921.
E-mail: DNREC.Stormwater@delaware.gov.
Website: https://dnrec.alpha.delaware.gov/watershed-stewardship/sediment-stormwater/

Extensive buffers and existing woodlands will provide additional stormwater benefits. A detailed stormwater analysis and plan will be submitted to your office for your review and approval.

Excellent Groundwater Recharge Area

- For Excellent Groundwater Recharge Areas, limit impervious surfaces (recommendation of no more than 20% of the entire area designated as having excellent recharge).

Contact: DNREC Source Water Assessment and Protection Program at (302) 739-9945.
Website: https://dnrec.alpha.delaware.gov/water/supply/ground-water-protection/

Less that 20% of the portion withing the excellent Groundwater Recharge area will be impervious surface.

Natural Areas

- Reduce environmental impacts in Natural Areas by avoiding impacts to sensitive areas such as wetlands and forest habitat. Where possible, design site features to avoid the removal of contiguous tracts of forests.

- The developer could also investigate dedicating forested areas as a Nature Preserve through a conservation easement or donation of land. For more information, please contact the DNREC Planning Preservation and Development Section.

Contact: DNREC Division of Parks and Recreation, Office of Nature Preserves at (302) 739-9039. Website: https://dnrec.alpha.delaware.gov/parks/natural-areas/

Thank you for the information of Natural Areas and the potential for dedicating lands.

Mosquitos

- The project will be impacted by mosquitoes due to its location near large expanses of wetlands. Mosquito control issues are increasing as developments infringe on wetland areas, often leading to increased demands for mosquito control services beyond what DNREC has the resources to provide.

- If necessary, arrange for long-term mosquito control services through a private company licensed in this area of specialty. In some cases, the DNREC Mosquito Control Section may be able to provide these services free of charge.

Contact: DNREC Division of Fish and Wildlife, Mosquito Control Section at (302) 739-9917. Website: https://dnrec.alpha.delaware.gov/fish-wildlife/mosquito-control/

Thank you for the information regarding potential mosquito impacts.

Potential Wildlife Habitat

- The DNREC Division of Fish & Wildlife reviewed this project through the Environmental Review process in June 2021. At that time, aerial photo analysis of the project site revealed potential habitat that could support rare plants and animals. At that time, reviewers requested the opportunity to conduct a site survey to evaluate habitat and determine the potential for species of conservation concern.

- Contact the Division of Fish & Wildlife to schedule a site survey to identify potential species of conservation concern.

Contact: DNREC Division of Fish & Wildlife at (302) 735-3600.
Website: https://dnrec.alpha.delaware.gov/fish-wildlife/contact-information/

Thank you the information regarding potential species of concern.

Additional Sustainable Practices

- Build garages and parking spaces to be "EV-ready." Many manufacturers have pledged to sell only electric vehicles in the next 10-15 years. Installing a 240-volt outlet in one or two locations in a garage will enable a resident to easily (and cheaply) install a level 2 electric vehicle charger. This will increasingly be a selling point for homes.

- Offer the option to install solar or geothermal systems for each home. This allows a purchaser to incorporate the cost into their mortgage, making it more affordable. For community facilities such as the proposed clubhouse, consider using renewable energy infrastructure such as solar or geothermal to reduce energy costs and further reduce pollution created from offsite generation. Grant funds and incentives are available for Delmarva Power customers through the DNREC Green Energy Fund, which includes several funding types through the state's major electric utilities (https://dnrec.alpha.delaware.gov/climate-coastal-energy/renewable/assistance/).

- Incorporate nonmotorized connectivity and install bicycle racks where feasible to help facilitate non-vehicular travel modes.

- Use efficient Energy Star rated products and materials in construction and redevelopment. Energy efficient appliances use less energy over time. This saves consumers and businesses money, while also helping to reduce pollution from power generation.

- Use structural paint coatings that are low in Volatile Organic Compounds to help protect air quality. Air pollution from new construction is generated through the use of maintenance equipment, paints, and consumer products like roof coatings and primers.

- Use recycled materials, such as reclaimed asphalt pavement, to reduce heat island effects on paved surfaces, prevent landfill waste, and lower material costs.

Contact: DNREC Division of Climate, Coastal & Energy at (302) 735-3480.
Website: https://dnrec.alpha.delaware.gov/climate-coastal-energy/

Delaware State Fire Marshall's Office – Contact John Rudd 323-5365

- Although not a requirement of the State Fire Prevention Regulations, the Office of the State Fire Marshal encourages home builders to consider the benefits of home sprinkler protection in dwellings.

- The Office of the State Fire Marshal also reminds home builders that they are obligated to comply with requirements of Subchapter III of Chapter 36 of Title 6 of the Delaware Code which can be found at the following website: http://delcode.delaware.gov/title6/c036/sc03/index.shtml

- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.statefiremarshal.delaware.gov, Plan Review & Inspections link.

The homebuilder will consider the benefits of home sprinklers. Home builders are to be aware of Subchapter III of Chapter 36. We look forward to working with your office throughout the approval process.

Sussex County Housing – Contact: Brandy Nauman 855-7779

- Sussex County endeavors to promote non-discrimination and affordable housing whenever possible throughout the County. In this regard, the developer and associated financial institutions are encouraged to provide and finance affordable housing opportunities to Sussex County residents in all new developments, and affirmatively market those affordable housing units to diverse populations.

- For questions about opportunities available for affordable housing projects within Sussex County, please consult Sussex County's "Affordable Housing Support Policy". The policy along with other resources are available on the County's Affordable & Fair Housing Resource Center website: www.sussexcountyde.gov/affordable-and-fair-housing-resource-center. The County's Community Development & Housing Department can advise about existing affordable housing opportunities in Sussex County

and the appropriate County Department to contact regarding specific development issues concerning future affordable housing projects within Sussex County.

- The Community Development & Housing Department can also explain and assist with any financial support or incentives that may be available to a project from federal, state and county sources, as well as private funding sources that also promote affordable housing in Sussex County.

- Please understand that all residential projects, including Affordable Housing Projects are subject to the applicable provisions of the Sussex County Subdivision and Zoning Codes, and the approval processes set forth in those Codes.

- On behalf of Sussex County, we look forward to cooperating with you and your project as it moves forward.

Thank you for the information regarding affordable housing and the programs available. The development will adhere to all Sussex County Subdivision and Zoning Codes.

On behalf of the Owner, we thank the State for providing us with these comments. Please contact me at (302) 424-1441 if you have any questions or need additional information.

Sincerely,

DAVIS, BOWEN & FRIEDEL, INC.

W. Zachary Crouch, P.E.

Principal

CC: Dorothy Morris, AICP, Office of State Planning

Improving our communities.
Shaping the world around us.

Creating Value by Design.

1 Park Avenue
Milford, DE 19963
(302) 424-1441

601 East Main Street, Suite 100
Salisbury, MD 21804
(410) 543-9091

106 Washington Street, Suite 103
Easton, MD 21601
(410) 770-4744

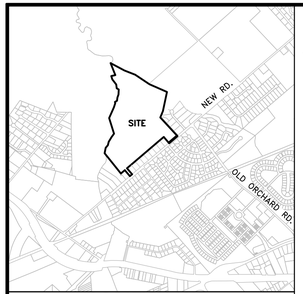
www.dbfinc.com

BLACK OAK

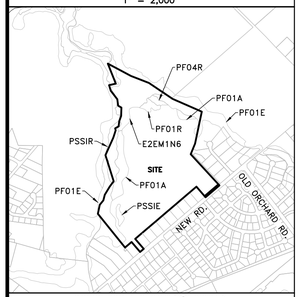
PRELIMINARY PLANS FOR RESIDENTIAL SUBDIVISION

LEWES & REHOBOTH HUNDRED
SUSSEX COUNTY, DELAWARE

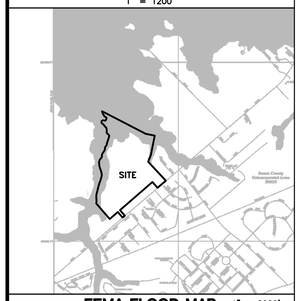
SUSSEX COUNTY PROJECT #2021-31
DBF PROJECT NO. 0818C053 SEPTEMBER 2021



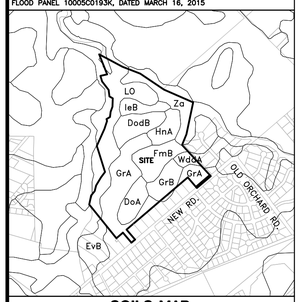
LOCATION MAP
1" = 2,000'



NWI WETLANDS MAP
1" = 1200'



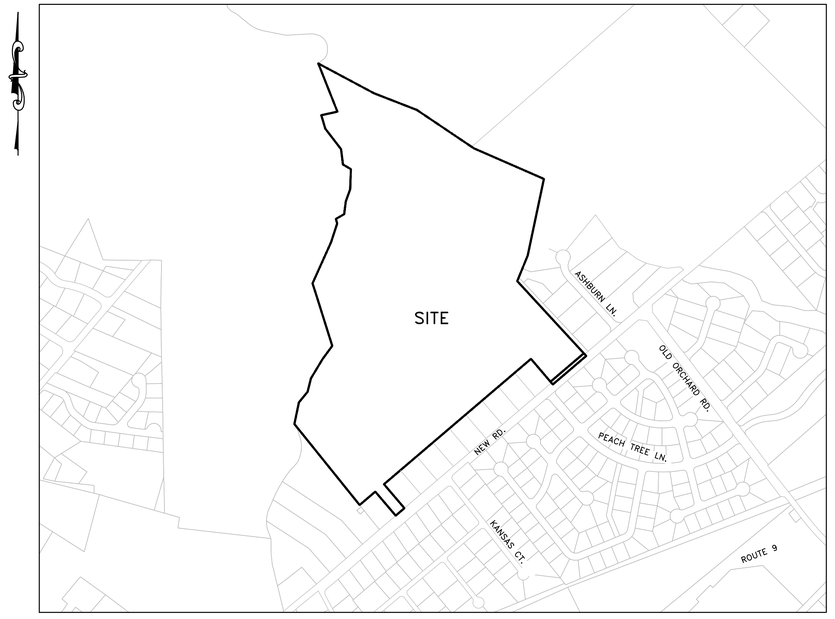
FEMA FLOOD MAP 1" = 2000'
FLOOD PANEL 10005C0193K, DATED MARCH 16, 2015



SOILS MAP
1" = 1200'

SOILS DATA

LABEL	SOIL NAME	TYPE
DoA	DOWNER SANDY LOAM, 0–2 PERCENT SLOPES	A
DodB	DOWNER SANDY LOAM, 2–5 PERCENT SLOPES	A
EvB	EVESBORO LOAMY SAND, 0–2 PERCENT SLOPES	A
FmB	FORT MOTT SANDY LOAM, 2–5 PERCENT SLOPES	A
GrA	GREENWICH LOAM, 0–2 PERCENT SLOPES	B
GrB	GREENWICH LOAM, 2–5 PERCENT SLOPES	B
HnA	HAMMONTON SANDY LOAM, 0–2 PERCENT SLOPES	B
IeB	INGLESIDE LOAMY SAND, 2–5 PERCENT SLOPES	A
LO	LONGMARSH & INDIANTOWN, FREQUENTLY FLOODED	B/D
WdsA	WOODSTOWN SANDY LOAM, 0–2 PERCENT SLOPES	C
Za	ZEKIAH SANDY LOAM, FREQUENTLY FLOODED	B/D



LOCATION MAP
SCALE: 1"=500'

0 500 1000 1500

DATA COLUMN

TAX MAP ID:	335–7.00–6.00
DEED REF:	D 4250/339
EXISTING ZONING:	AR–1
PROPOSED ZONING:	AR–1(CLUSTER DEVELOPMENT)
EXISTING USE:	AGRICULTURE
PROPOSED USE:	127 UNIT RESIDENTIAL SUBDIVISION W/CLUBHOUSE
PROPOSED CONSTRUCTION:	WOOD/CONCRETE BLOCK
FLOOD HAZARD MAP:	THE PROPERTY IS IMPACTED BY THE 100 YEAR FLOODPLAIN AS DETERMINED BY FEMA MAP 10005C0193K, DATED MARCH 16, 2015. (0.2% ANNUAL CHANCE & FLOOD ZONE AE (ELEV. 8')
WETLANDS:	THE PROPERTY AS SHOWN DOES CONTAIN STATE (TIDAL) & FEDERALLY (404 NON–TIDAL) REGULATED WETLANDS.
FUTURE LAND USE DESIGNATION:	LOW–DENSITY
COASTAL AREA:	PROJECT IS NOT LOCATED WITHIN THE COASTAL AREA.
SOURCE WATER PROTECTION:	PROJECT IS NOT LOCATED WITHIN A WELLHEAD PROTECTION AREA. A PORTION OF THE PROJECT IS LOCATED WITHIN THE "EXCELLENT"GROUNDWATER RECHARGE AREA.
EXISTING SITE AREA:	77.235 ACRES
PROPOSED UNITS:	127 SINGLE FAMILY UNITS
PROPOSED DENSITY:	1.64 UNITS/ACRE
AREA OF LOTS:	27.514 AC. (36%)
PROVIDED OPEN SPACE	42.043 AC.(54%)
ROW DEDICATION:	0.183 AC. (0%)
AREA OF ROW:	7.495 AC. (10%)
MINIMUM LOT SIZE:	7,503 SQFT.
MAXIMUM LOT SIZE:	15,373 SQFT.
AVERAGE LOT SIZE:	9,437 SQFT.
EXISTING FORESTED ACREAGE	29.862 AC.
FORESTED ACREAGE REMOVED	14.539 AC. (49%)
REFORESTED ACREAGE	0.910 AC. (3%)
FORESTED ACREAGE TO REMAIN	16.233 AC. (54%)
OLD GROWTH FOREST PRESERVED	13.600 AC. (86.8%)
OLD GROWTH FOREST REMOVED	2.063 AC. (13.2%)
NON–TIDAL WETLANDS	7.921 AC.
TIDAL WETLANDS	11.008 AC.
TOTAL WETLANDS AREA	18.929 AC.

AR–1 CLUSTER – NUMBER OF DWELLING UNITS PERMITTED CALCULATION

TOTAL PROPOSED SITE AREA	77.235 AC.
STATE WETLANDS AREA	–11.008 AC.
TOTAL GROSS AREA	16.227 AC.

PERMITTED UNITS CALCULATION
TOTAL GROSS AREA x 43560 / 21780
66.227 x 43560 / 21780 = 132 UNITS PERMITTED

AR–1 SETBACK REQUIREMENTS

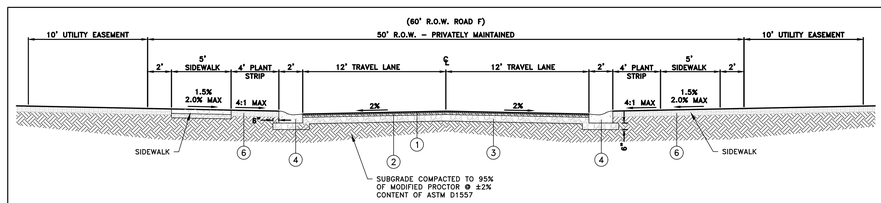
FRONT YARD:	25 FT.
CORNER:	15' (ONE SIDE)
SIDE YARD:	10 FT.
REAR YARD:	10 FT.
MIN LOT AREA:	7500 S.F.
MIN LOT WIDTH:	60 FT
MIN LOT DEPTH:	100 FT
PROPOSED MAXIMUM BUILDING HEIGHT:	42 FT. (3–½ STORIES)
SANITARY SEWER:	WEST REHOBOTH EXPANSION OF THE DEWEY BEACH SSD
WATER SUPPLY:	TIDEWATER UTILITIES, INC.

DATUM

VERTICAL:	NAVD 88
HORIZONTAL:	NAD 83(DE STATE PLANE)

INDEX OF SHEETS

PL–01	PRELIMINARY TITLE
PL–02	PRELIMINARY SITE PLAN OVERVIEW
PL–03 – PL–06	PRELIMINARY SITE PLAN



RESIDENTIAL ROAD SECTION
24' PAVEMENT SECTION
NOT TO SCALE

LEGEND

1. BITUMINOUS CONCRETE, SUPERPAVE, TYPE 'C', PG 64–22, 160 GYRATIONS (CARBONATE STONE)
2. BITUMINOUS CONCRETE, SUPERPAVE, TYPE 'B', PG 64–22, 160 GYRATIONS
3. GRADED AGGREGATE BASE COURSE, TYPE 'B', SHALL BE OVER APPROVED SUBGRADE
4. INTEGRAL P.C.C. CURB & GUTTER, TYPE 2
5. P.C.C. CURB, TYPE 2
6. TOPSOIL (6" DEPTH), PERMANENT GRASS SEEDING, DRY GROUND

GENERAL NOTES:

1. STREETS, STORMWATER MANAGEMENT FACILITIES, FORESTED BUFFER STRIPS AND OTHER COMMON AREAS SHALL BE MAINTAINED BY THE DEVELOPER UNTIL SUCH TIME AS A HOMEOWNER'S ASSOCIATION CAN PROVIDE FOR REQUIRED MAINTENANCE. SUSSEX COUNTY AND THE STATE OF DELAWARE ASSUME NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF THESE FACILITIES WITHIN THE SITE.
2. SUBDIVISION STREETS CONSTRUCTED WITHIN THE LIMITS OF THE RIGHT–OF–WAY SHOWN ON THIS PLAN ARE PRIVATE AND ARE TO BE MAINTAINED BY THE DEVELOPER, PROPERTY OWNERS OR BOTH. THE STATE ASSUMES NO MAINTENANCE RESPONSIBILITIES FOR THE FUTURE MAINTENANCE OF THESE STREETS.
3. THE SIDEWALK SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, THE PROPERTY OWNERS OR BOTH WITHIN THIS SUBDIVISION. SUSSEX COUNTY AND THE STATE OF DELAWARE ASSUME NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF THE SIDEWALK.
4. ACCESS TO ALL LOTS SHALL BE PROVIDED FROM THE PRIVATE SUBDIVISION STREETS PROPOSED WITH THIS PLAN. NO DIRECT ACCESS TO PUBLIC STREETS IS PROPOSED EXCEPT THE ENTRANCES SPECIFICALLY SHOWN ON THIS PLAN.
5. UPON COMPLETION OF THE CONSTRUCTION OF THE SIDEWALK OR SHARED–USE PATH ACROSS THIS PROJECT'S FRONTAGE AND PHYSICAL CONNECTION TO ADJACENT EXISTING FACILITIES, THE DEVELOPER, THE PROPERTY OWNERS OR BOTH ASSOCIATED WITH THIS PROJECT, SHALL BE RESPONSIBLE TO REMOVE ANY EXISTING ROAD TIE–IN CONNECTIONS LOCATED ALONG ADJACENT PROPERTIES, AND RESTORE THE AREA TO GRASS. SUCH ACTIONS SHALL BE COMPLETED, IN CONFORMANCE WITH DELDOT'S "SHARED–USE PATH AND/OR SIDEWALK TERMINATION POLICY".
6. THE BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IN THESE PLANS ARE BASED ON FIELD SURVEYS PERFORMED BY DAVIS, BOWEN & FRIEDEL, INC.
7. UTILITY EASEMENTS DEPICTED HEREON REPRESENT. TO THE GREATEST EXTENT PERMITTED BY LAW. PRIVATE EASEMENTS FOR THE EXCLUSIVE USE AND BENEFIT OF THOSE UTILITY COMPANIES AND/OR OTHER PROVIDERS OF SERVICES TO THE DEVELOPMENT AS MAY BE DESIGNED BY OWNER, OR ITS SUCCESSORS AND ASSIGNS, FROM TIME TO TIME BY AN INSTRUMENT IN WRITING, AND IN NO WAY GRANT, CONVEY OR CREATE ANY GENERAL PUBLIC UTILITY EASEMENT OR ANY GENERAL OR PUBLIC ACCESS RIGHTS.
8. UNLESS OTHERWISE DESIGNATED BY OWNER, OR ITS SUCCESSORS AND ASSIGNS, FROM TIME TO TIME BY AN INSTRUMENT IN WRITING, STORM DRAIN EASEMENTS DEPICTED HEREON REPRESENT PRIVATE EASEMENTS TO ACCESS THE STORM DRAINS FOR THE SOLE PURPOSE OF MAINTAINING AND REPAIRING SUCH STORM DRAINS, AND IN NO WAY GRANT, CONVEY OR CREATE ANY GENERAL PUBLIC UTILITY EASEMENT OR ANY GENERAL OR PUBLIC ACCESS RIGHTS.
9. WETLANDS EXIST ON THIS PARCEL.
10. THE HOMEOWNERS' ASSOCIATION SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE STORMWATER DRAINAGE AND MANAGEMENT FACILITIES RELATED TO THE RESIDENTIAL PROPERTIES, HOMEOWNERS' ASSOCIATION PROPERTIES AND ROAD RIGHT–OF–WAY WITHIN THE PROJECT. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION AS REQUIRED BY SUSSEX COUNTY, DELAWARE. SHOULD THE OWNER OR OWNERS OF THE PROPERTY DEFAULT IN THE MAINTENANCE OF THE STORMWATER DRAINAGE AND MANAGEMENT FACILITIES, THE HOMEOWNERS' ASSOCIATION SHALL HAVE THE RIGHT TO MAINTAIN THE FACILITIES SUBJECT TO THE TERMS AND CONDITIONS OF THE COVENANTS.
11. EXISTING VEGETATION IN THE FORESTED BUFFER TO REMAIN, AND SUPPLEMENTED WITH ADDITIONAL PLANTINGS.
12. THIS PROJECT IS NOT LOCATED WITHIN ANY TRANSPORTATION IMPROVEMENT DISTRICT.
13. THIS PROPERTY IS LOCATED IN THE VICINITY OF LAND USED PRIMARILY FOR AGRICULTURAL PURPOSED ON WHICH NORMAL AGRICULTURAL USES AND ACTIVITIES MAY NOW OR IN THE FUTURE INVOLVE NOISE, DUST, MANURE AND OTHER ODORS, THE USE OF AGRICULTURAL CHEMICALS AND NIGHTTIME FARM OPERATIONS. THE USE AND ENJOYMENT OF THIS PROPERTY IS EXPRESSLY CONDITIONED ON ACCEPTANCE OF ANY ANNOYANCE OR INCONVENIENCE WHICH MAY RESULT FROM SUCH NORMAL AGRICULTURAL USES AND ACTIVITIES.
14. ANY ADDITIONAL SIGNAGE WILL REQUIRE APPROVAL AND PERMITTING FROM SUSSEX COUNTY.

APPROVED BY:

CHAIRMAN OF PLANNING COMMISSION _____ DATE _____

PRESIDENT OF SUSSEX COUNCIL _____ DATE _____

SUSSEX CONSERVATION DISTRICT

OWNER/DEVELOPER STATEMENT

I, THE UNDERSIGNED, CERTIFY THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO BE ACT AND DESIRE THE PLAN TO BE RECORDED TO ORDINANCE.

HALSEY G. KNAPP TRUSTEE _____ DATE _____
1102 BAY AVENUE
LEWES, DE 19958

DEVELOPER'S STATEMENT

I, THE UNDERSIGNED, HEREBY STATE THAT I AM THE DEVELOPER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THE PLAN WAS MADE AT MY DIRECTION, I ACKNOWLEDGE THE SAME TO BE MY ACT AND DESIRE THE PLAN BE RECORDED ACCORDING TO LAW.

GLENWOOD LEWES, LLC _____ DATE _____
18949 COASTAL HWY. SUITE 301
REHOBOTH BEACH, DE 19971

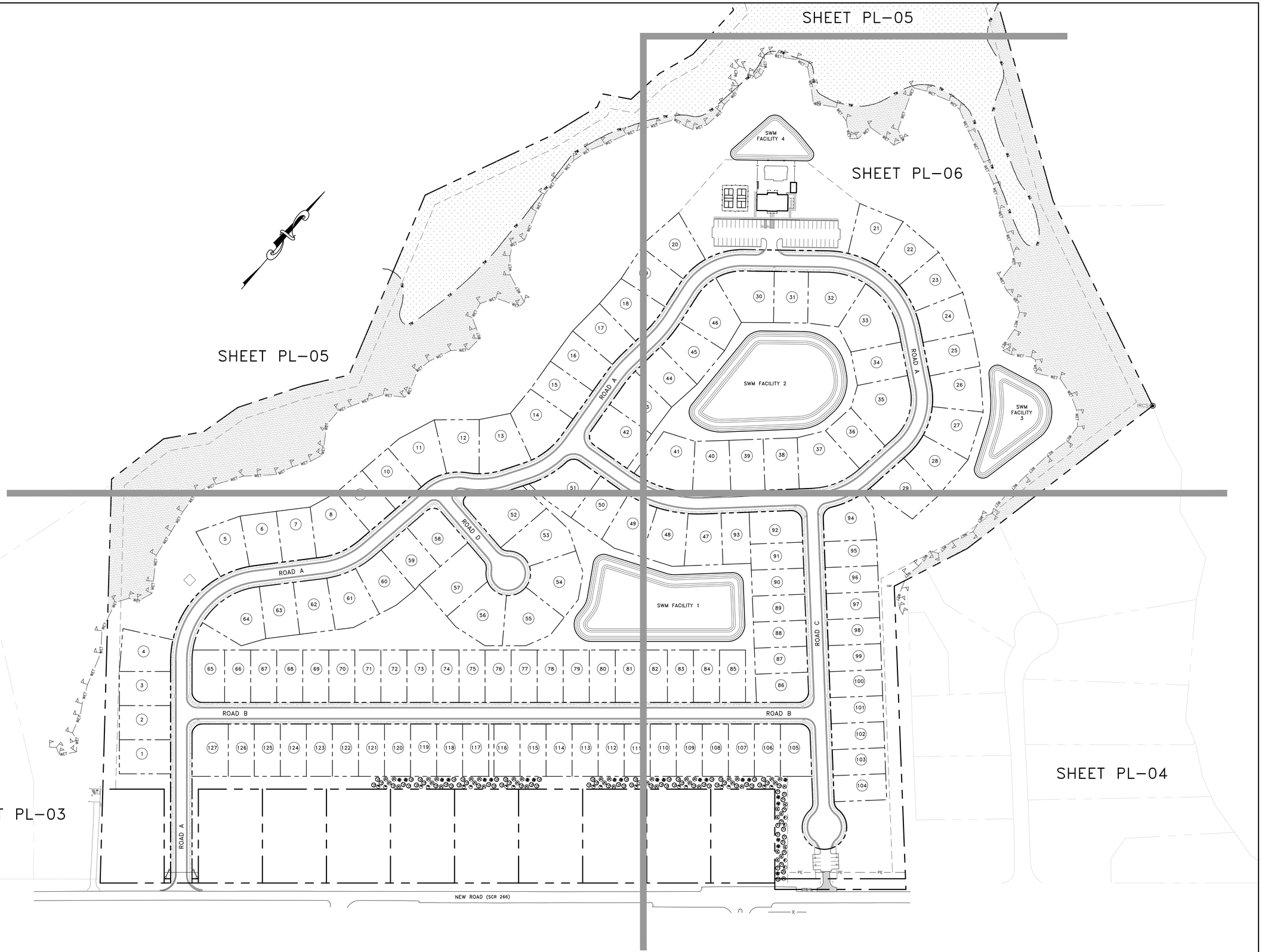
ENGINEER'S STATEMENT

I, W. ZACHARY CROUCH, P.E., HEREBY STATE THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO MY BEST KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

by W. ZACHARY CROUCH, P.E. _____ DATE _____
DAVIS, BOWEN & FRIEDEL, INC.
1 PARK AVE.
MILFORD, DELAWARE, 19963

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543–9091
MILFORD, DELAWARE (302) 424–1441
EASTON, MARYLAND (410) 770–4744

PL–01



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ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MIDDLETOWN, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

PRELIMINARY PLAN OVERVIEW

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	SEPTEMBER 2021
Scale:	1"=100'
Dwn.By:	DJR
Proj.No.:	818C052.A01
Dwg.No.:	PL-02

P:\Ocean Atlantic\0818C053 Knapp\PRELIMINARY\PRELIMINARY PLAN.dwg Jul 07, 2022 - 11:45am jbaj

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MATCHLINE (SEE SHEET PL-05)

MATCHLINE (SEE SHEET PL-04)

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
NEW CASTLE, DELAWARE (302) 322-8791
EASTON, MARYLAND (410) 770-4744

PRELIMINARY PLAN

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	SEPTEMBER 2021
Scale:	1"=50'
Dwn.By:	DJR
Proj.No.:	818C052.A01
Dwg.No.:	PL-03

0 50 100 150

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MATCHLINE (SEE SHEET PL-06)

MATCHLINE (SEE SHEET PL-03)

ROAD A
(DEDICATED TO PUBLIC USE, PRIVATELY MAINTAINED)

ROAD B
(DEDICATED TO PUBLIC USE, PRIVATELY MAINTAINED)

ROAD C
(DEDICATED TO PUBLIC USE, PRIVATELY MAINTAINED)

NEW ROAD
(SCR 266)

SWM FACILITY 1

PARCEL 6.19
0.76 ± ACRES

PARCEL 6.20
0.76 ± ACRES

OPEN SPACE A
1,472,578 S.F.
33.806 AC.

30' LANDSCAPE BUFFER

50' R.O.W.

24'

VOLUNTARY
50' NON-TIDAL
WETLANDS BUFFER

30' BUFFER ZONE/OPEN SPACE/STORM WATER MANAGEMENT
(PER PLOT BOOK 45/188)

FUTURE
EMERGENCY
ACCESS
EASEMENT

EMERGENCY ACCESS

BUS STOP

P.O.B.
N: 276,689.76
E: 724,634.30

N/F
COLLINS A. RICKARDS
335-7.00-6.21
D.B. 2427/226

N/F
LINN & MARJORIE WORRELL
335-7.00-38.00
D.B. 2704/65

N/F
COLLINS A. RICKARDS
335-7.00-43.00
D.B. 2427/226

N/F
VAN PAPADOPOULOS
335-7.00-37.00
D.B. 5434/1

N/F
JEFFREY A. & SHERRY L. STEWART
335-7.00-36.00
D.B. 2745/194

N/F
COLLINS A. RICKARDS
335-7.00-35.00
D.B. 2427/226

N/F
ERIC H. & COLLEEN H. MESSICK
335-7.00-34.00
D.B. 2745/196

0 50 100 150

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
ANNAPOLIS, MARYLAND (301) 261-4446
EASTON, MARYLAND (410) 770-4744

PRELIMINARY PLAN

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date: SEPTEMBER 2021
Scale: 1"=50'
Dwn.By: DJR
Proj.No.: 818C052.A01
Dwg.No.: PL-04

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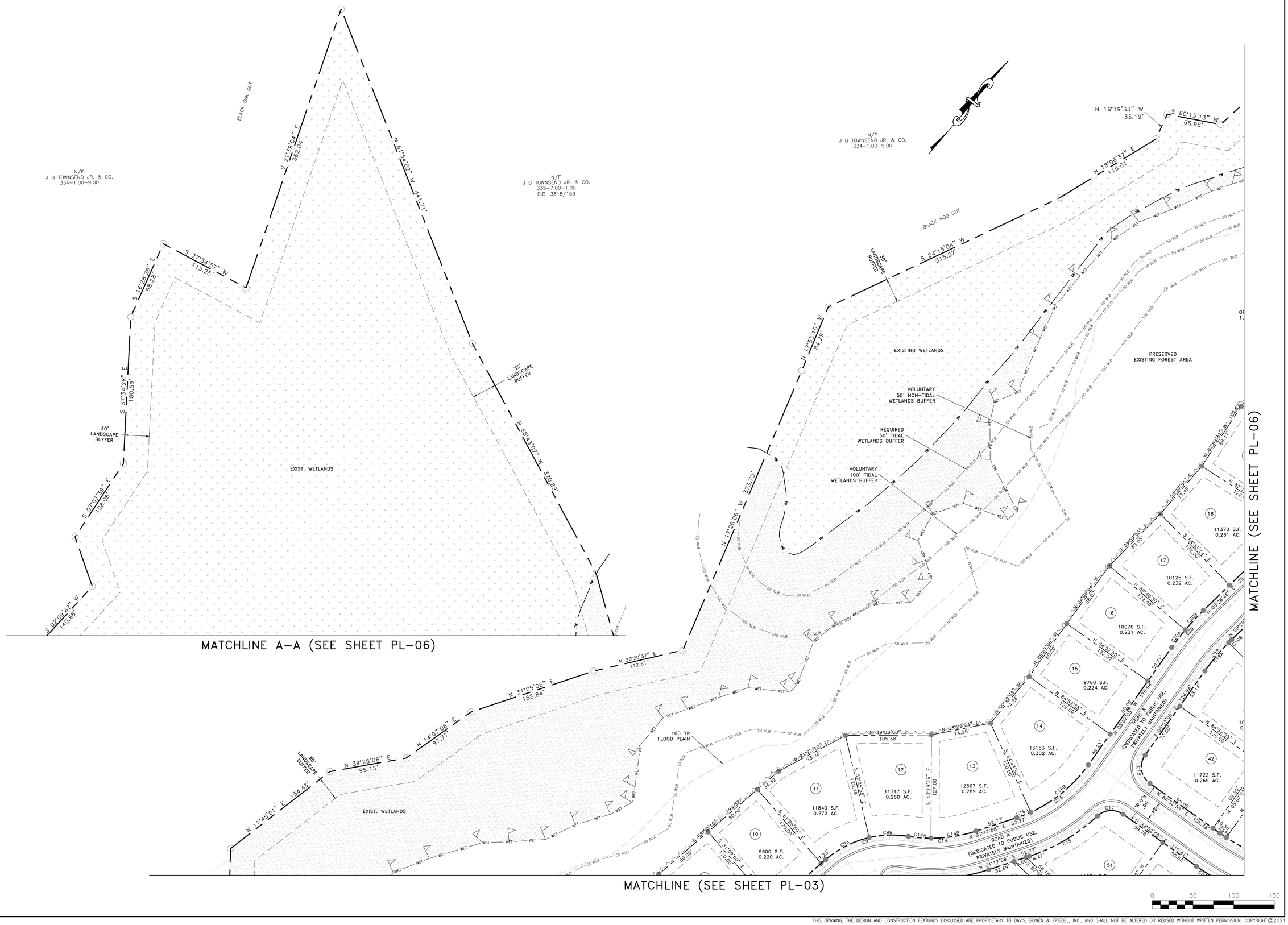
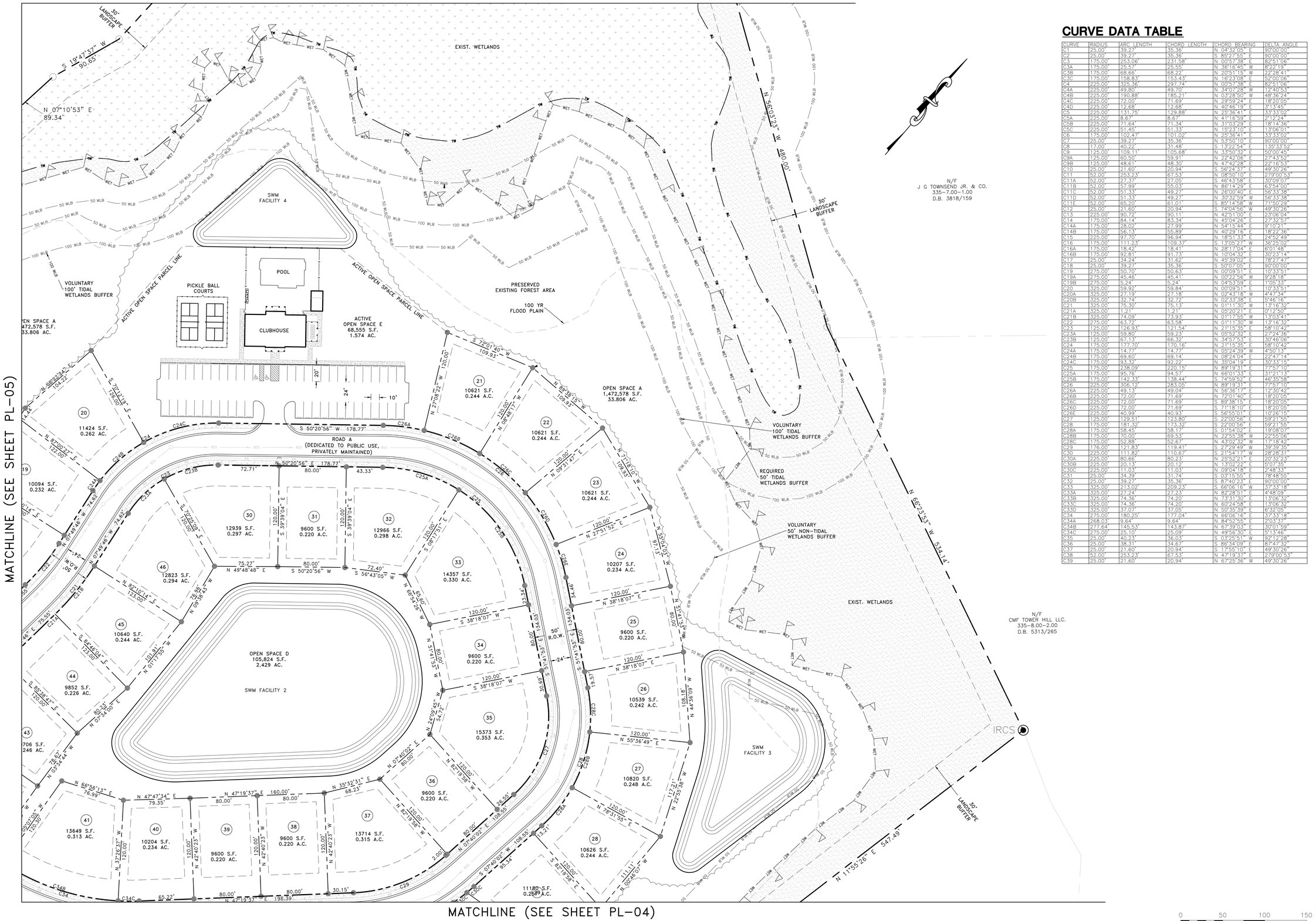

N/F
J G TOWNSEND JR. & CO.
334-1.00-9.00
N/F
J G TOWNSEND JR. & CO.
335-7.00-1.00
D.B. 3818/159
BLACK OAK GUT
BLACK HOG GUT
S 16°28'29" E
98.28'
S 37°34'28" E
180.59'
S 07°07'39" E
108.08'
S 02°09'42" W
140.88'
S 77°34'57" W
115.25'
S 21°39'04" E
362.04'
N 61°54'02" W
44.71'
N 68°43'07" W
320.89'
30' LANDSCAPE BUFFER
EXIST. WETLANDS
MATCHLINE A-A (SEE SHEET PL-06)
N 17°26'06" W
373.75'
N 36°20'37" E
112.61'
N 31°05'06" E
158.84'
N 14°07'06" E
97.77'
N 39°28'06" E
95.15'
N 11°45'01" E
154.43'
100 YR FLOOD PLAIN
EXISTING WETLANDS
PRESERVED EXISTING FOREST AREA
VOLUNTARY 50' NON-TIDAL WETLANDS BUFFER
REQUIRED 50' TIDAL WETLANDS BUFFER
VOLUNTARY 100' TIDAL WETLANDS BUFFER
N 16°19'33" W
33.19'
S 60°13'13" W
66.98'
N 18°08'57" E
175.01'
S 24°15'04" W
315.27'
N 17°53'10" W
84.29'
N 49°08'00" E
105.38'
N 38°23'24" E
74.25'
N 21°27'10" E
93.26'
N 08°50'10" E
191.62'
S 81°09'50" E
120.00'
S 40°19'28" E
127.00'
S 84°52'55" E
120.00'
N 05°07'05" W
175.84'
S 05°07'05" E
73.80'
N 84°52'55" E
120.00'
N 05°07'05" W
80.00'
N 84°52'55" E
120.00'
S 05°07'05" E
80

MATCHLINE A–A (SEE SHEET PL–05)



MATCHLINE (SEE SHEET PL–04)

CURVE DATA TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	25.00'	39.27'	35.36'	N 04°32'05" E	90°00'00"
C2	25.00'	39.27'	35.36'	S 85°27'55" E	90°00'00"
C3	175.00'	253.06'	231.58'	N 00°57'38" E	82°51'06"
C3A	175.00'	25.57'	25.55'	N 36°16'45" W	8°22'19"
C3B	175.00'	68.66'	68.22'	N 20°51'15" W	22°28'41"
C3C	175.00'	158.83'	153.43'	N 16°23'08" E	52°00'06"
C4	225.00'	325.36'	297.74'	N 00°57'38" E	82°51'06"
C4A	225.00'	49.80'	49.70'	N 34°07'28" W	12°40'53"
C4B	225.00'	190.88'	185.21'	N 03°28'50" W	48°36'24"
C4C	225.00'	72.00'	71.69'	N 29°59'24" E	18°20'05"
C4D	225.00'	12.68'	12.68'	N 40°46'19" E	3°13'45"
C5	225.00'	131.75'	129.88'	N 25°36'41" E	33°33'02"
C5A	225.00'	8.67'	8.67'	N 41°16'59" E	2°12'24"
C5B	225.00'	71.64'	71.34'	N 31°03'29" E	18°14'36"
C5C	225.00'	51.45'	51.33'	N 15°23'10" E	13°06'01"
C6	175.00'	102.47'	101.02'	N 25°36'41" E	33°33'02"
C7	25.00'	39.27'	35.36'	N 53°50'10" E	90°00'00"
C8	17.00'	40.22'	31.48'	S 19°22'54" E	135°33'52"
C9	125.00'	109.11'	105.68'	N 33°50'32" E	50°00'45"
C9A	125.00'	60.50'	59.91'	N 22°42'06" E	27°43'52"
C9B	125.00'	48.61'	48.30'	N 47°42'28" E	22°16'53"
C10	25.00'	21.60'	20.94'	S 56°24'37" E	49°30'26"
C11	52.00'	253.23'	67.53'	N 08°50'10" E	279°00'53"
C11A	52.00'	27.30'	27.05'	S 46°43'58" E	30°09'07"
C11B	52.00'	57.99'	55.03'	N 86°14'29" E	63°54'00"
C11C	52.00'	51.33'	49.27'	N 26°00'40" E	56°33'38"
C11D	52.00'	51.33'	49.27'	N 30°32'59" W	56°33'38"
C11E	52.00'	65.20'	61.01'	S 85°14'58" W	71°50'29"
C12	25.00'	21.60'	20.94'	S 74°04'56" W	49°30'26"
C13	225.00'	90.72'	90.11'	N 42°51'00" E	23°06'04"
C14	175.00'	84.14'	83.34'	N 45°04'24" E	27°33'57"
C14A	175.00'	28.02'	27.99'	N 54°15'44" E	9°10'21"
C14B	175.00'	56.13'	55.89'	N 40°29'16" E	18°22'36"
C15	225.00'	97.70'	96.94'	N 18°51'13" E	24°52'49"
C16	175.00'	111.23'	109.37'	S 13°05'27" W	36°25'02"
C16A	175.00'	18.42'	18.41'	N 28°17'04" E	6°01'48"
C16B	175.00'	92.81'	91.73'	N 10°04'32" E	30°23'14"
C17	25.00'	34.24'	31.62'	N 45°39'02" E	78°27'47"
C18	25.00'	39.27'	35.36'	S 50°07'05" E	90°00'00"
C19	275.00'	50.70'	50.63'	N 00°09'51" E	10°33'51"
C19A	275.00'	45.46'	45.41'	N 00°22'56" W	9°28'18"
C19B	275.00'	5.24'	5.24'	N 04°53'59" E	1°05'33"
C20	325.00'	59.92'	59.84'	N 00°09'51" E	10°33'51"
C20A	325.00'	27.19'	27.18'	N 02°43'18" W	4°47'54"
C20B	325.00'	32.74'	32.72'	N 02°33'38" E	5°46'16"
C21	325.00'	75.30'	75.13'	N 01°11'30" W	13°16'32"
C21A	325.00'	1.21'	1.21'	N 05°20'21" E	0°12'50"
C21B	325.00'	74.09'	73.93'	N 01°17'55" W	13°03'41"
C22	275.00'	63.72'	63.58'	N 01°11'30" W	13°16'32"
C23	125.00'	126.93'	121.54'	N 21°15'55" E	58°10'42"
C23A	125.00'	59.80'	59.23'	N 05°52'32" E	27°24.36"
C23B	125.00'	67.13'	66.32'	N 34°57'53" E	30°46'06"
C24	175.00'	177.70'	170.16'	N 21°15'55" E	58°10'42"
C24A	175.00'	14.77'	14.77'	N 05°24'39" W	4°50'13"
C24B	175.00'	69.60'	69.14'	N 08°24'04" E	22°47'14"
C24C	175.00'	93.32'	92.22'	N 35°04'19" E	30°33'15"
C25	175.00'	238.09'	220.15'	N 89°19'51" E	77°57'10"
C25A	175.00'	95.76'	94.57'	N 66°01'33" E	31°21'13"
C25B	175.00'	142.33'	138.44'	S 74°59'52" E	46°35'58"
C26	225.00'	283.12'	283.05'	N 89°19'51" E	77°57'10"
C26A	225.00'	49.13'	49.04'	N 56°36'17" E	12°30'42"
C26B	225.00'	72.00'	71.69'	N 72°01'40" E	18°20'05"
C26C	225.00'	72.00'	71.69'	S 89°38'15" E	18°20'05"
C26D	225.00'	72.00'	71.69'	S 71°18'10" E	18°20'05"
C26E	225.00'	40.99'	40.93'	S 56°55'01" E	10°26'15"
C27	125.00'	129.51'	123.80'	S 22°00'56" E	59°21'55"
C28A	175.00'	58.45'	58.17'	S 01°54'02" E	19°08'07"
C28B	175.00'	70.00'	69.53'	N 27°55'38" W	22°55'06"
C28C	175.00'	52.88'	52.67'	N 43°02'32" W	17°18'42"
C29	176.00'	121.83'	119.41'	S 27°29'49" W	39°39'35"
C30	225.00'	111.82'	110.67'	S 21°54'17" W	28°28'31"
C30A	225.00'	80.66'	80.23'	N 25°52'21" E	20°32'23"
C30B	225.00'	20.13'	20.12'	N 13°02'22" E	5°07'35"
C30C	225.00'	11.03'	11.03'	N 09°04'18" E	2°48'33"
C31	25.00'	34.39'	31.74'	S 03°15'55" E	78°48'55"
C32	25.00'	39.27'	35.36'	S 87°40'23" E	90°00'00"
C33	325.00'	213.02'	209.23'	S 66°06'16" W	37°33'18"
C33A	325.00'	27.24'	27.23'	N 82°28'51" E	4°48'09"
C33B	325.00'	74.36'	74.20'	N 73°31'30" E	13°06'32"
C33C	325.00'	74.36'	74.20'	N 60°24'58" E	13°06'32"
C33D	325.00'	37.07'	37.05'	N 50°35'39" E	6°32'05"
C34	275.00'	180.25'	177.04'	N 66°06'16" E	37°33'18"
C34A	268.03'	9.64'	9.64'	N 84°52'55" E	2°03'37"
C34B	277.64'	145.53'	143.87'	N 67°39'03" E	30°01'59"
C34C	275.00'	25.10'	25.09'	N 49°56'30" E	5°13'46"
C35	25.00'	40.23'	36.03'	S 03°25'51" W	92°12'28"
C36	25.00'	38.31'	34.67'	S 86°34'09" E	87°47'32"
C37	25.00'	21.60'	20.94'	S 17°55'10" E	49°30'26"
C38	52.00'	253.23'	67.53'	N 47°19'37" E	279°00'53"
C39	25.00'	21.60'	20.94'	N 67°25'36" W	49°30'26"

DAVIS, BOWEN & FRIEDEL, INC.
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OCEAN CITY, MARYLAND (410) 524-7441
EASTON, MARYLAND (410) 770-4744

PRELIMINARY PLAN

BLACK OAK
RESIDENTIAL SUBDIVISION
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	SEPTEMBER 2021
Scale:	1"=50'
Dwn.By:	DJR
Proj.No.:	818C052.A01
Dwg.No.:	PL-06

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Amy Hollis

From: Melissa Pickworth <mpickworth@gmail.com>
Sent: Wednesday, August 17, 2022 6:55 PM
To: Planning and Zoning
Subject: Proposed Glenwood subdivision along New Road

Categories: Amy

Opposition Exhibit

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or reply unless you recognize the sender and know the content is safe. Contact the IT Helpdesk if you need assistance.

Please deny this new proposed subdivision as it will affect several known resources, including the 18 acres of woodlands and 19 acres of wetlands currently there, but also areas with a very high potential for significant archaeological sites and burials. Furthermore, the subdivision would generate 1,300 vehicle trips per day creating more traffic along New Road.

Melissa Pickworth
Lewes Resident