

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



2 THE CIRCLE | PO BOX 417  
GEORGETOWN, DE 19947  
(302) 855-7878 T  
(302) 854-5079 F  
sussexcountyde.gov

# Sussex County Planning & Zoning Commission

## AGENDA\*

February 18, 2021

3:00 P.M.

**PLEASE NOTE THAT THE MEETING WILL BE HELD AT THE FOLLOWING  
LOCATION: ROOM 540, CARTER PARTNERSHIP CENTER AT DELAWARE  
TECHNICAL COMMUNITY COLLEGE, 21179 COLLEGE DRIVE, GEORGETOWN, DE  
PLEASE REVIEW THE MEETING LOCATION AND PARTICIPATION INSTRUCTIONS  
AT THE BOTTOM OF THE AGENDA**

### Call to Order

### Approval of Agenda

### Approval of Minutes – January 21, 2021

### Other Business

#### Estates at Milton Crossing Subdivision (2019-16)

KS

Revised Preliminary Subdivision Plan

#### Furniture Land

HW

Revised Preliminary Site Plan

#### Windmill Woods (C/U 1502)

BM

Revised Site Plan

#### Boys & Girls Club of Delaware (S-21-01)

BM

Revised Site Plan

### Old Business

#### Ord. 20-07 - Future Land Use Map

AN ORDINANCE TO AMEND THE FUTURE LAND USE MAP OF THE  
COMPREHENSIVE PLAN IN RELATION TO TAX PARCEL NO. 235-13.00-29.00,  
29.01 & 235-14.00-570.00

#### C/Z 1923 Reed Farms, LLC

KS

An Ordinance to amend the Comprehensive Zoning Map of Sussex County from an AR-1





**Agricultural Residential District to a HI-1 Heavy Industrial District for a certain parcel of land lying and being in Broadkill Hundred, Sussex County, containing 67.31 acres, more or less.** The property is lying on the west side of Gravel Hill Rd. (Rt. 30) approximately 309 feet south of Milton-Ellendale Hwy. (Rt. 16). 911 Address: 14888, 14866. & 14742 Gravel Hill Rd., Milton. Tax Parcels: 235-13.00-29.00, 29.01 & 235-14.00-570.00

**2019-30 Pelican Point 4-5**

KS

A cluster subdivision to divide 109.99 acres +/- into 219 single family lots to be located within Pelican Point 2-5 subdivision on a certain parcel of land lying and being in Indian River Hundred, Sussex County. The property is lying on the south and east sides of Townsend Rd. (S.C.R 303), approximately 750 ft. south of Harmons Hill Rd. (S.C.R. 302) and accessed off of Pelican Point Blvd. approximately 380 ft. west of Cannon Rd. (S.C.R 307). Tax Parcel: 234-16.00-21.03, 21.07, 23.01 and 234-16.00-1509.00 through 1697.00. Zoning District: AR-1 (Agricultural Residential District)

**C/U 2258 Bioenergy Development Group, LLC**

HW

**An Ordinance to grant a Conditional Use of land in an AR-1 Agricultural Residential District to amend Conditional Use No. 1314 (Ordinance No. 1354) (as amended by Conditional Use No. 1691 (Ordinance No. 1865) and Conditional Use No. 1962 (Ordinance No. 2311)) to permit the processing and handling of poultry litter to include nutrient recovery for natural gas and electrical generation, to be located on a certain parcel of land lying and being in Broad Creek hundred, Sussex County, containing 228.88 acres, more or less.** The property is lying on the west side of Seaford Rd. (Rt. 13A) approximately 0.2 mile north of Oneals Rd. (S.C.R. 485). 911 Address: 28338 Enviro Way, Seaford. Tax Parcels: 132-6.00-88.01 & 95.00, 132-11.00-41.00 & 41.02.

**Public Hearings**

**2019-24 – Stratus Estates (F.K.A. Cool Spring Meadows)**

KS

A cluster subdivision to divide 187.93 acres +/- into 226 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 and south side of Stockley Road (S.C.R 280), approximately 0.65 mile southeast of Forest Road (S.C.R. 292). Tax Parcels: 234-5.00-30.00 & 33.00. Zoning District: AR-1 (Agricultural Residential District).

**C/U 2207 CBB Cedar Pines, LLC (Marlin Chase F.K.A. Marlin Run)**

BM

**An Ordinance to grant a Conditional Use of land in a MR (Medium Density Residential District) for multi-family (75 units) to be located on a certain parcel of land lying and being in Baltimore Hundred, Sussex County, containing 29.34 acres, more or less.** The property is lying on the east side of Cedar Neck Rd. (Rt. 357) approximately 0.3 mile north of Hickman Rd. 911 Address: N/A. Tax Parcels: 134-9.00-21.00, 21.03, 21.04, 21.05 & 1227.00-1269.00

**Recess**

**5:30 P.M.**

**C/U 2206 Linder & Company, Inc. (Evans Farm)**

BM

**An Ordinance to grant a Conditional Use of land in a GR General Residential District for multi-family (200 units) to be located on a certain parcel of land lying and being in Baltimore Hundred, Sussex County, containing 50.62 acres, more or less.** The property is lying on the north corner of the intersection of Railway Road (S.C.R. 350) and Old Mill Road (S.C.R. 349) and also being on the south side of Railway Rd. (S.C.R. 350) approximately 696 feet northeast of Old Mill Rd. (S.C.R. 349). 911 Address: 31434 Railway Road, Ocean View. Tax Parcel: 134-12.00-74.00

**In accordance with 29 Del. C. §10004(e)(2), this Agenda was posted on February 11, 2021 at 8:55 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.**

-MEETING INSTRUCTIONS-

\* The Sussex Planning & Zoning Commission is holding this meeting under the authority issued by Governor John C. Carney through Proclamation No. 17-3292.

**PLEASE NOTE:** The meeting is to be held at the following location: **Room 540, Carter Partnership Center at Delaware Technical Community College, 21179 College Drive, Georgetown, DE**

The public is encouraged to view the meeting on-line. Any person attending in-person will be required to go through a wellness and security screening, including a no-touch temperature check. The public will be required to wear a facial mask.

Seating capacity is limited and seating assignments will be enforced.

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

The County is required to provide 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](mailto:pandz@sussexcountyde.gov). All comments shall be submitted by 4:00 P.M on Wednesday, February 17, 2021.

# # # #



## Memorandum

To: Sussex County Planning Commission Members

From: Jamie Whitehouse, Director, Department of Planning & Zoning; Jenny Norwood, Planning and Zoning Manager, Lauren DeVore, Planner III, Christin Headley, Planner I, Nicholas Torrance, Planner I, and Chase Phillips, Planner I

CC: Vince Robertson, Assistant County Attorney

Date: February 10<sup>th</sup>, 2021

RE: Other Business for the February 18<sup>th</sup>, 2021 Planning Commission Meeting

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This memo is to provide background for the Planning Commission to consider as a part of the Other Business to be reviewed during the February 18, 2021 Planning Commission meeting.

### **Estates at Milton Crossing Subdivision (2019-16)**

KS

Revised Preliminary Subdivision Plan

This is a Revised Preliminary Subdivision Plan for the Estates at Milton Crossing (2019-16) Subdivision, which is a standard subdivision comprising eighty-seven (87) single family lots within an AR-1 (Agricultural Residential Zoning District). The Preliminary Subdivision Plan was approved by the Planning and Zoning Commission at its meeting of December 12, 2019. The revisions include minor lot adjustments and the revision to Condition "D" that was approved by the Planning Commission on February 13, 2020. The Revised Preliminary Subdivision Plan complies with the Sussex County Zoning and Subdivision Code and all Conditions of Approval. Tax Parcels: 235-8.00-26.00, 26.03 & 31.00. Zoning District: AR-1 (Agricultural Residential Zoning District.)

### **FurnitureLand**

Revised Preliminary Site Plan

This is a Revised Preliminary Site Plan for the a 2-phase addition to the existing FurnitureLand. Phase I will consist of 35,000 square foot addition, 14 new parking spaces and other site improvements. Phase II will consist of a new 5,465 square foot building, 5 new parking spaces, and additional site improvements. In total all site improvements will consist of 40,465 square feet of new building space and 19 new parking spaces. The Revised Preliminary Site Plan complies with the Sussex County Zoning Code. Tax Parcel: 532-13.00-63.04. Zoning District: LI-2 (Light Industrial) and within the Combined Highway Corridor Overlay Zone (CHCOZ). Staff are awaiting agency approvals.

### **Windmill Woods Revised Site Plan**

Revised Final Site Plan

This is a Revised Final Site Plan for Windmill Woods (CU 1502) residential community. This plan proposes the removal of a berm along and the addition of a swale along Red Cedar Loop, a change in the hiking trail to a sidewalk, and the removal of fencing along the perimeter of the community. Windmill Woods is known as Conditional Use No. 1502 which was approved by the Sussex County Council on December 16, 2003 through Ordinance No. 1647. The Final Site Plan was approved on June 24, 2004 by the Planning and Zoning Commission. Additionally, the Site Plan was revised in 2016. This revision was approved by the Planning and Zoning Commission on September 8, 2016. Sussex Conservation District has submitted an approval letter for the changes associated with the



berm and the swale. This Revised Final Site Plan is eligible for preliminary and final approval. Of the 73 current members of the Condominium Owner's Association (COA), 43 approve the proposed changes. This is an approval rate of 59%. The Revised Final Site Plan complies with the Sussex County Zoning Code and all conditions of approval. Tax Parcel: 134-12.00-388.00. Zoning District: MR (Medium Density Residential).

**Boys and Girls Club of Delaware (S-21-01)**

Revised Preliminary Site Plan

This is a Revised Preliminary Site Plan for a proposed 2,269 square foot addition to the existing building that is utilized for the Boys of Girls Club of Delaware. The property is located at 31550 Oak Orchard Road (Route 5) in Millsboro. Staff notes that the Sussex County Board of Adjustment approved two variances for the addition on December 14, 2020 through Case No. 12492. Additionally, Conditional Use No. 1417, which was approved by the Sussex County Council on October 16, 2001, applies to this site. The site is located within a Wellhead Protection Area; however, staff notes the existing structure and many other site improvements were completed before the adoption of Chapter 89. Otherwise, this site plan complies with Sussex County Zoning Code and all conditions of approval. Tax Parcel: 234-29.00-69.06. Zoning: AR-1 (Agricultural Residential Zoning District). Staff are awaiting agency approvals.



SITE DATA:

1. TAX MAP NUMBER:

235-8.00 PARCELS 31.00, 26.00 & 26.03
2. OWNERS:

WILLIAM T SAMMONS, SR., MARY JANE SAMMONS, WILLIAM T. SAMMONS, JR. & BONNIE VOSHELL (FORMERLY SAMMONS)  
12984 COASTAL HIGHWAY  
MILTON, DE 19968  
PARCELS 31.00 & 26.00  
DEED BOOK 2845 PAGE 285 & DEED BOOK 3085 PAGE 262  
70.78 +/- ACRES  
  
GRJS OUTREACH, LLC  
P.O. BOX 212  
LEWES, DE 19958  
PARCEL 26.03  
DEED BOOK 3398 PAGE 31  
31.36 +/- ACRES
3. TOTAL AREA:

102.14 +/- ACRES
4. DEVELOPER NAME:

PRESTON L. DYER, GRJS OUTREACH, LLC
5. TOWN/HUNDRED/COUNTY:

MILTON / BROAD KILL HUNDRED / SUSSEX
6. CURRENT ZONING:

AR-1 RESIDENTIAL DISTRICT
7. PROPOSED ZONING:

AR-1
8. PRESENT USE:

AGRICULTURAL
9. PROPOSED USE:

DETACHED SINGLE FAMILY DWELLINGS (115-20 A. (1))
10. REQUIRED SETBACKS (B.R.L.):

AR-1 (115-25 C.)  
  
DEPTH OF FRONT YARD (FEET) 30'  
DEPTH OF CORNER SIDE YARD 15' (115-182 B.)  
WIDTH OF SIDE YARD (FEET) 20'  
DEPTH OF REAR YARD (FEET) 100'  
MINIMUM LOT WIDTH 100'
11. DWELLING UNIT CALCULATIONS: (115-25 A. (2) LOW DENSITY AREA)

GROSS AREA: 102.14 AC.  
LESS 25% FOR LOW DENSITY: 76.605 AC.  
PERMITTED LOTS: 76.605 / 0.75 = 102.14 UNITS  
PROPOSED LOTS: 87 UNITS
12. GROSS DENSITY (UNITS/AC.):

0.85
13. REQUIRED LOT SIZE (MIN.) (115-25 A. (2)):

WIDTH : 100 FT.  
DEPTH : 100 FT.  
AREA : 21,780 S.F. (0.50 ACRES)  
PROPOSED MIN. LOT SIZE: 21,800 S.F.  
PROPOSED AVERAGE LOT SIZE: 21,800 S.F.
14. WATER SUPPLIER:

PRIVATE - INDIVIDUAL ON-SITE WELLS (DNRC) WATER IS SUBJECT TO THE APPROVAL OF THE DELAWARE STATE DEPARTMENTS OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL AND THE DELAWARE DIVISION OF PUBLIC HEALTH
15. SECTION 89 - SOURCE WATER PROPERTY:

A. SUBJECT PROPERTY IS WITHIN AN AREA OF "FAIR" GROUNDWATER RECHARGE.  
B. SUBJECT PROPERTY IS NOT LOCATED IN A WELLHEAD PROTECTION AREA.
16. SANITARY SEWER PROVIDER:

PRIVATE - INDIVIDUAL ON-SITE WASTEWATER DISPOSAL SYSTEM (DNREC)
17. STREETS:

PRIVATE (99-18 D & E.)
18. POSTED SPEED LIMIT (REYNOLDS RD):

50 MPH
19. STATE INVESTMENT AREA:

LEVEL 3
20. MAXIMUM BUILDING HEIGHT (115-25 D.):

42 FEET
21. SITE AREA AND ACREAGE:

EX FORESTED ACREAGE (APPROXIMATE): 30.11 AC.  
REMAINDER 72.03 AC.  
  
GROSS ACREAGE / NET DEVELOPMENT AREA: 102.14 AC.  
LOT AREA (87 LOTS): 45.91 AC. (44.9%)  
DELDOT R.O.W. DEDICATION: 0.15 AC.  
PRIVATE ROAD R.O.W.: 3.80 AC.  
IMPERVIOUS: 3.96 AC.  
GRASS: 48.32 AC.  
OPEN SPACE: 48.32 AC.  
TOTAL : 102.14 AC.
22. REQUIRED OPEN SPACE (99-21 D.):

REQUIRED 0% OF GROSS AREA (0 AC)  
PROPOSED OPEN SPACE AREA (48.32 AC)
23. OPEN SPACE AREA BREAKDOWN:

LANDSCAPE BUFFER: 4.27± AC (8.8%)  
ACTIVE OPEN SPACE AND SWM: 25.47± AC (52.7%)  
FLOODPLAIN AREA: 18.58± AC (38.5%)  
WETLAND AREA: 9.62± AC\*  
TOTAL OPEN SPACE AREA: 48.32± AC  
\*WETLAND AREA IS LOCATED WITHIN THE FLOODPLAIN AREA
24. LONGITUDE AND LATITUDE

STATE PLANE COORDINATES: LONGITUDE: W 75°17'57.35"  
LATITUDE: N 38°48'48.44"
25. PROPOSED DISCHARGE LOCATION:

PRIME HOOK CREEK WATERSHED, ULTIMATELY TO DELAWARE BAY
26. LIMIT OF DISTURBANCE:

80.11 AC. ±
27. WATERSHED:

PRIME HOOK CREEK WATERSHED
28. FLOOD ZONE:

THIS PROPERTY IS LOCATED ON THE FEMA FLOOD INSURANCE RATE MAP NUMBERS 10005C0160K AND 10005C0166K. MAPS REVISED MARCH 16, 2015. 100 YEAR FLOODPLAIN: ZONE AE 8 BASE FLOOD ELEVATION DETERMINED ALONG THE EASTERN PORTION OF THE PROPERTY. 100 YEAR FLOODPLAIN AREA: 18.58 +/- ACRES
29. WETLANDS AREA:

9.62 +/- ACRES NON-TIDAL WETLANDS - DELINEATED BY ENVIRONMENTAL RESOURCES, INC. IN 2004. THE WETLANDS WILL BE RECERTIFIED DURING THE ENGINEERING STAGES OF THE PROJECT.
30. WETLAND AREA IMPACTED:

0 AC.
31. FLOWAGE EASEMENT:

29.3 +/- ACRES (67%) PER DEED BOOK 612 - PAGE 296 (30.65 +/- ACRES MEASURED)
32. TOPOGRAPHY:

NAD 83; NAVD 88 DATUM SURVEYED BY PENNONI IN OCTOBER 2020 AND WINGS AERIAL TOPOGRAPHY FOR DESIGN CONSULTANTS GROUP, LLC DATED 01/23/2004.
33. SURVEY:

DESIGN CONSULTANTS GROUP, LLC BOUNDARY SURVEY AND FIELD VERIFIED IN JANUARY 2004 AND FIELD SURVEYED BY PENNONI IN OCTOBER 2020.
34. LOCAL GOVERNMENT RESPONSIBLE FOR LAND USE APPROVAL:

SUSSEX COUNTY

ESTATES AT MILTON CROSSING

(2019-16)

PRELIMINARY SUBDIVISION PLAT

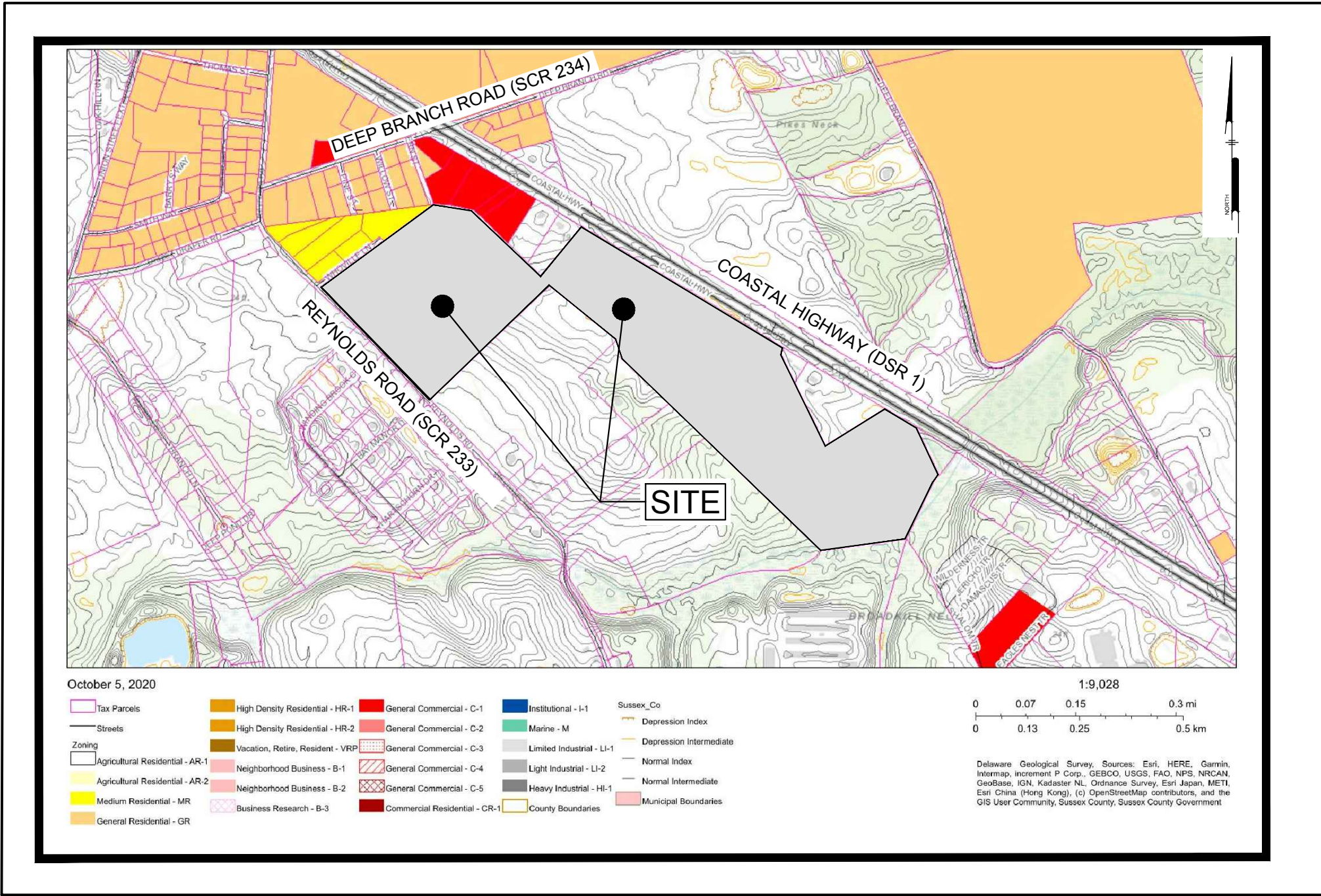
SUSSEX COUNTY - MILTON

REYNOLDS ROAD (SCR 233), MILTON, DE 19968

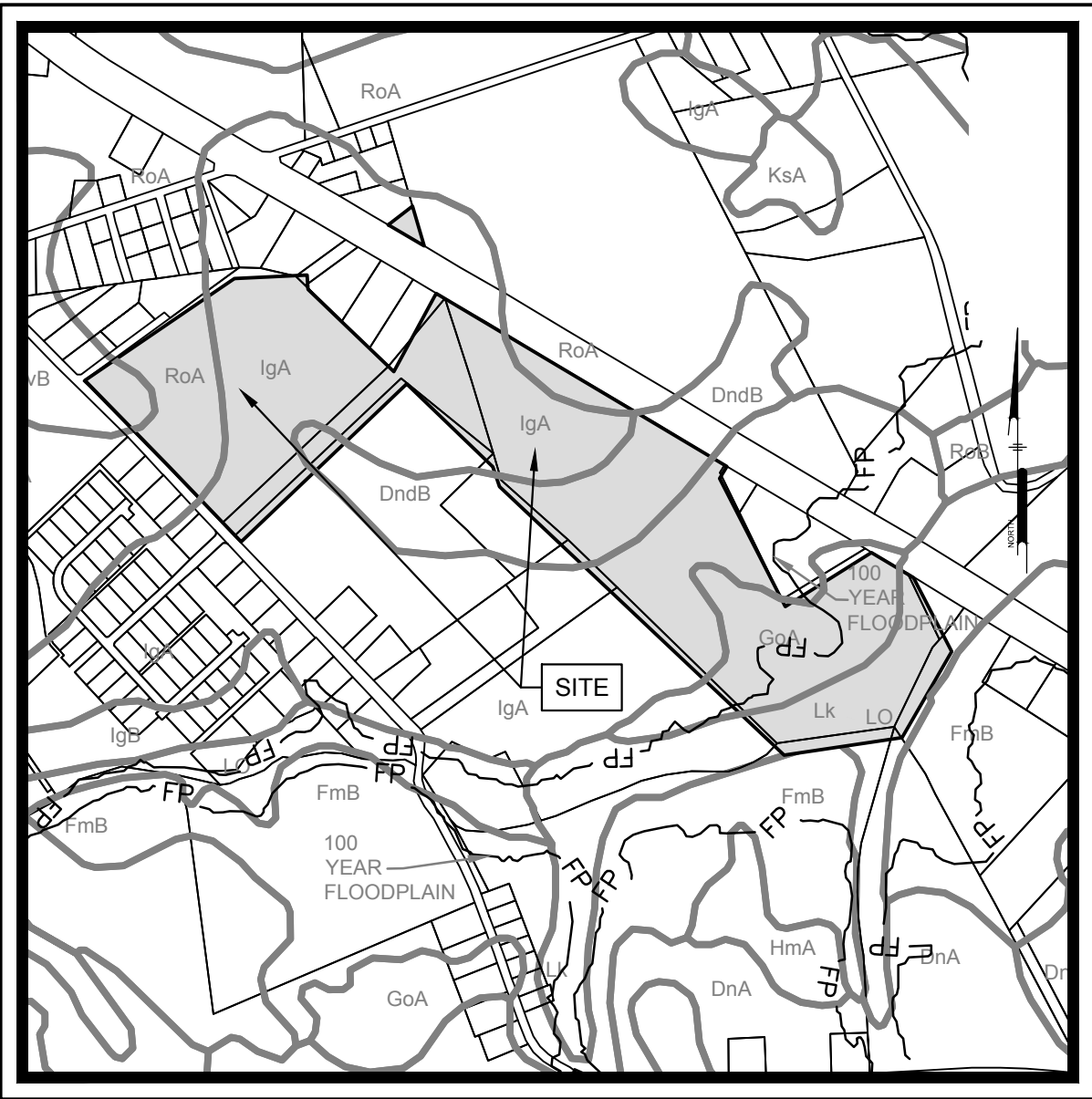
PREPARED FOR:  
OWNER/DEVELOPER

GRJS OUTREACH, LLC

P.O. BOX 212  
LEWES, DE 19958  
(302) 644-1400



LOCATION MAP  
SCALE: 1"=1000'



SOILS / FEMA MAP  
Scale: 1" = 1000'

INDEX OF SHEETS		
SHEET NUMBER	SHEET DESCRIPTION	SHEET TITLE
1	PP0001	PRELIMINARY SUBDIVISION PLAT COVER SHEET
2	PP0002	PRELIMINARY SUBDIVISION PLAT NOTES AND DETAILS
3	PP1001	PRELIMINARY SUBDIVISION PLAT
4	PP1002	PRELIMINARY SUBDIVISION PLAT

TRAFFIC GENERATION - REYNOLDS RD (SCR 233) (FULL MOVEMENT)	
	<b>ROAD TRAFFIC DATA:</b> FUNCTIONAL CLASSIFICATION - SCR233 (REYNOLDS ROAD) - LOCAL ROAD POSTED SPEED LIMIT - 50 MPH AADT = 471 TRIPS (FROM 2019 DELDOT TRAFFIC SUMMARY) DIRECTIONAL DISTRIBUTION <sup>1</sup> 10 YEAR PROJECTED AADT = 471 x 1.16 = 547 TRIPS 10 YEAR PROJECTED AADT + SITE ADT = 1,462 TRIPS TRAFFIC PATTERN GROUP = 7 (FROM 2019 DELDOT TRAFFIC SUMMARY) PEAK HOUR - 14.15% x 547 TRIPS = 78 TRIPS TRUCK VOLUME = 13.11% x 547 = 72 TRUCKS  <b>SITE TRAFFIC DATA:</b> SOURCE: ITE TRIP GENERATION MANUAL 10TH EDITION <sup>2</sup>  EXISTING LAND USE: FARM FIELD TOTAL ADT FOR SITE = 0 TRIPS PROPOSED LAND USE: 87 LOTS - SINGLE FAMILY DETACHED HOUSING (ITE 210) 87 LOTS - Ln(T)=0.92Ln(X)+2.71 = 915 TRIPS (WEEKDAY) 87 LOTS - Ln(T)=0.94Ln(X)+2.56 = 861 TRIPS (SATURDAY)  WEEKDAY PEAK HOUR BREAKDOWN: AM: T=0.71(X)+4.80 = 67 TRIPS (WEEKDAY) (25% ENTER / 75% EXIT) PM: Ln(T)=0.98Ln(X)+0.20 = 89 TRIPS (WEEKDAY) (83% ENTER / 17% EXIT) T=0.84(X)+17.99 = 91 TRIPS (SATURDAY)  DIRECTIONAL DISTRIBUTION: 50% TO AND FROM THE EAST (457 TRIPS) (33)[44] 50% TO AND FROM THE WEST (447 TRIPS) (34)[45] [SITE TRUCK TRAFFIC = 46 TRIPS (5%)]

**WETLANDS CERTIFICATION:**  
THIS PROPERTY, TAX MAP 235-8.00, HAS BEEN EXAMINED BY KENNETH W. REDINGER, ENVIRONMENTAL SERVICES FOR THE PRESENCE OF WATERS OF THE UNITED STATES, INCLUDING WETLANDS (SECTION 404 AND SECTION 10), STATE SUBAQUEOUS LANDS AND STATE REGULATED WETLANDS AS ESTABLISHED BY THE REVIEWING AGENCIES IN THE FORM OF MANUALS, POLICIES AND PROCEDURES IN PLACE AT THE TIME THAT THE INVESTIGATION WAS CONDUCTED. THE WETLAND INFORMATION CONTAINED IN THIS PLAN SET IS IN ACCORDANCE WITH THESE CRITERIA.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
KENNETH W. REDINGER, PROFESSIONAL WETLANDS SCIENTIST #2126  
P.O. BOX 479 / HORNTOWN, VA 23395  
(757) 894-7032 / EMAIL:KWREDINGER@GMAIL.COM

SUSSEX CONSERVATION DISTRICT

NAME \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_

CHAIRMAN OR SECRETARY OF PLANNING & ZONING COMMISSION DATE \_\_\_\_\_

PRESIDENT OF SUSSEX COUNTY COUNCIL DATE \_\_\_\_\_

REFERENCE #: 2019-16

**OWNER/DEVELOPER 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.

WILLIAM T. SAMMONS, SR.  
12984 COASTAL HIGHWAY  
MILTON, DE 19968

DATE \_\_\_\_\_

**OWNER/DEVELOPER CERTIFICATION:**  
IT IS HEREBY CERTIFIED 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 RECORDED AS SHOWN AND IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
GRJS OUTREACH, LLC  
PRESTON DYER  
P.O. BOX 212  
LEWES, DE 19958  
(302) 644-1400

**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

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
		BUILDING
		FULL DEPTH PAVEMENT
		2" PAVEMENT OVERLAY
		CURB
		EDGE OF PAVEMENT
		EDGE OF 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
		SOIL BOUNDARY
		VEGETATED SWALE
		SOIL LABEL
		WELL
		SOIL BORING
		SPOT ELEVATION
		MARKING, HANDICAP PARKING
		LIGHT POLE
		EXISTING CONIFER TREE
		EXISTING OAK TREE
		100yr FLOOD PLAN

SOILS		
TYPE	DESCRIPTION	HYDROLOGIC SOIL
DndB	DOWNER LOAMY SAND, 2 TO 5 PERCENT SLOPES	A
EvB	EVESBORO LOAMY SAND, 0 TO 5 PERCENT SLOPES	A
GoA	GLASSBORO SANDY LOAM, 0 TO 2 PERCENT SLOPES	A/D
IgA	INGLESIDE SANDY LOAM, 0 TO 2 PERCENT SLOPES	A
LK	LENAPE MUCKY PEAT, VERY FREQUENTLY FLOODED, TIDAL	C/D
RoA	ROSEDALE LOAMY SAND, 0 TO 2 PERCENT SLOPES	A

BASED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA ) FLOOD INSURANCE RATE MAP (FIRM) 10005C0160K & 10005C0166K, EFFECTIVE DATE MARCH 16, 2016, THE SUBJECT PROPERTY IS LOCATED IN FLOOD ZONE "Y", UNSHADED, WHICH IS AN AREA DETERMINED TO LIE OUTSIDE THE 500 YEAR FLOODPLAIN.  
FIELD WORK CONDUCTED IN NOVEMBER 2020. SOILS REPORT PREPARED BY ACCENT ENVIRONMENTAL, LLC.

LIMIT OF DISTURBANCE: 80.11 AC.

ESTATES AT MILTON CROSSING

REYNOLDS ROAD (SCR 233)

MILTON, DE 19968

T. M.: 235-8.00, PARCELS 31.00, 26.00 & 26.03

PRELIMINARY SUBDIVISION PLAT COVER SHEET

GRJS OUTREACH, LLC

P.O. BOX 212  
LEWES, DE 19958

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

PROJECT STATUS: PLOTTED: 11/02/2021 2:08 PM BY: Kevin B. B. PLOTTED BY: Kevin B. B.

PROJECT STATUS: PLOTTED: 11/02/2021 2:08 PM BY: Kevin B. B. PLOTTED BY: Kevin B. B.

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 ASSOCIATE, AND OWNER SHALL INDENTIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT GRJSO19001

DATE 2020-03-11

DRAWING SCALE AS SHOWN

DRAWN BY TPM

APPROVED BY AMD

PP0001

SHEET 1 OF 4







SITE KEYED NOTES

- G1 CO-POST STOP SIGN (R1-1) 36" X 36" AND STREET SIGN
- G2 SCHOOL BUS STOP
- G3 DEVELOPMENT SIGN
- G4 COMMUNITY CENTER AND POOL, SHEET PP1002
- G5 IRON PIN TO BE SET, TYP.
- G6 PARKING FOR SCHOOL BUS STOP
- G7 STREET LIGHTS
- G8 5" WIDE PAINTED STRIPE, CONTINUOUS (WHITE)

U:\Accounting\GRJ\GRJ\19001 - Subdivision\14-RT\DESIGN\PP1001.dwg PLOTTED: 1/10/2021 8:08 PM BY: Kevin B. PROJECTIONS: NAD83



MATCH LINE - SEE SHEET PP1002

LEGEND

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF TREELINE/WOODS
- EXISTING CONTOUR LINE
- EXISTING SOIL BOUNDARY
- IRON PIPE FOUND
- CONCRETE MONUMENT FOUND
- IRON PIN TO BE SET
- STREET LIGHT

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

ESTATES AT MILTON CROSSING  
REYNOLDS ROAD (SR 233)  
MILTON, DE 19968  
T. M.: 235-8.00, PARCELS 31.00, 26.00 & 26.03

PRELIMINARY SUBDIVISION PLAT  
GRJS OUTREACH, LLC  
P.O. BOX 212  
LEWES, DE 19958

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 ASSOCIATE. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.			
PROJECT	GRJS019001		
DATE	2020-03-11		
DRAWING SCALE	1"=100'		
DRAWN BY	TPM		
APPROVED BY	AMD		
PP1001			
SHEET	3	OF 4	

PENNONI ASSOCIATES INC.  
18072 Davidson Drive  
Milton, DE 19968  
T 302.684.3030 F 302.684.8054



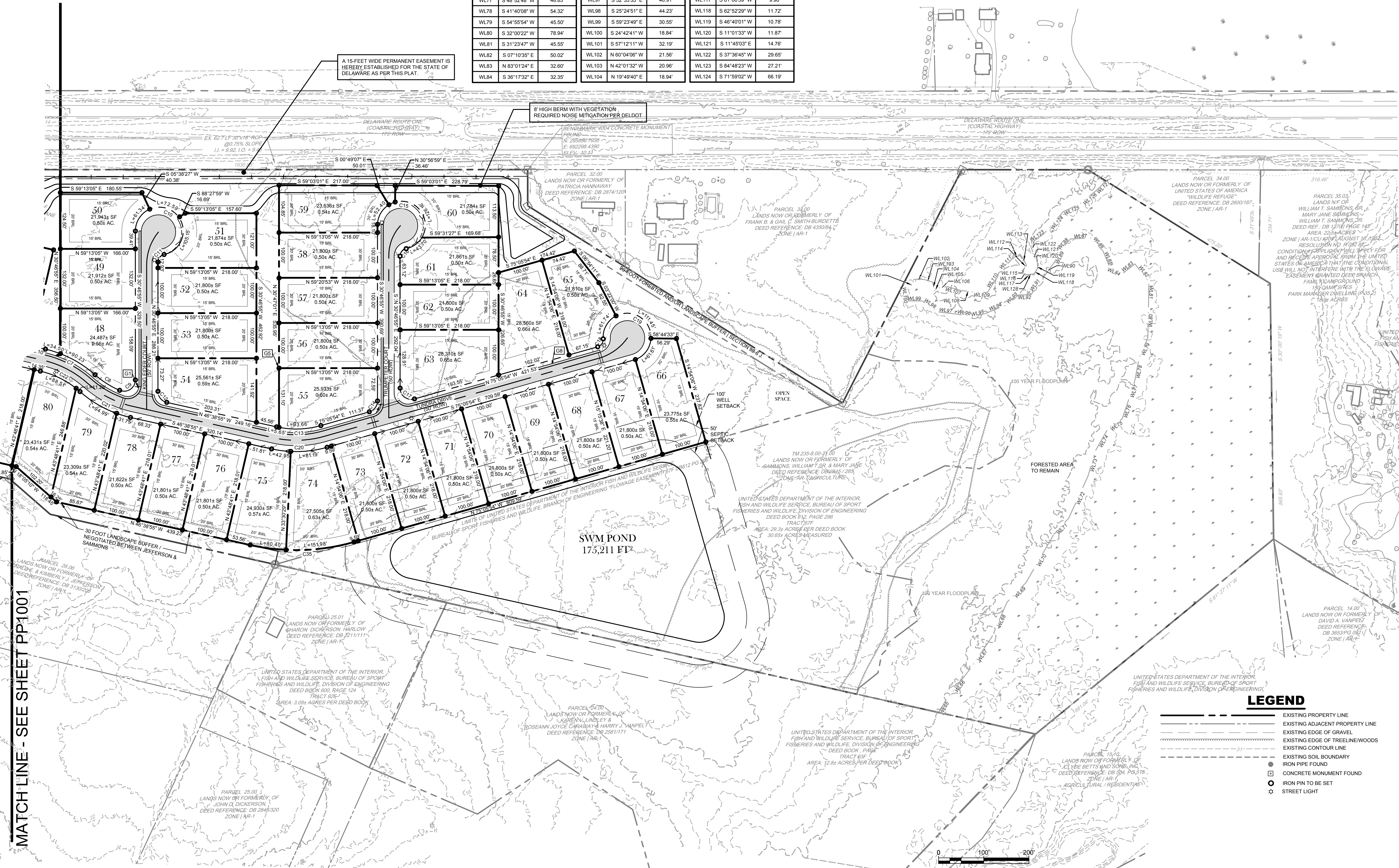
G1	CO-POST STOP SIGN (R1-1) 36" X 36" AND STREET SIGN
G2	SCHOOL BUS STOP
G3	DEVELOPMENT SIGN
G4	COMMUNITY CENTER AND POOL, SHEET PP1002
G5	IRON PIN TO BE SET, TYP.
G6	PARKING FOR SCHOOL BUS STOP
G7	STREET LIGHTS
G8	5" WIDE PAINTED STRIPE, CONTINUOUS (WHITE)

WETLAND LINE TABLE		
LINE #	BEARING	DISTANCE
WL65	S 60°56'41" W	29.81'
WL66	S 68°33'02" W	90.78'
WL67	S 64°56'05" W	83.27'
WL68	S 54°23'56" W	84.59'
WL69	S 74°46'06" W	60.64'
WL70	S 60°46'31" W	125.06'
WL71	S 74°02'41" W	103.49'
WL72	S 55°27'11" W	46.24'
WL73	S 48°35'20" W	55.97'
WL74	S 60°13'35" W	59.03'
WL75	S 87°14'19" W	37.42'
WL76	S 49°21'14" W	40.09'
WL77	S 48°52'48" W	48.83'
WL78	S 41°40'08" W	54.32'
WL79	S 54°55'54" W	45.50'
WL80	S 32°00'22" W	75.94'
WL81	S 31°23'47" W	48.55'
WL82	S 07°10'35" E	50.02'
WL83	N 83°01'24" E	32.60'
WL84	S 36°17'32" E	32.35'

WETLAND LINE TABLE		
LINE #	BEARING	DISTANCE
WL85	S 08°03'56" W	38.41
WL86	S 10°37'25" E	39.28
WL87	S 62°12'25" E	46.41
WL88	N 71°46'43" E	36.18
WL89	N 55°56'12" E	24.12
WL90	N 66°38'47" E	46.46
WL91	N 66°24'28" E	44.56
WL92	S 31°07'32" E	28.12
WL93	N 77°13'56" E	28.37
WL94	S 61°23'06" E	56.37
WL95	S 73°57'00" E	25.88
WL96	S 51°36'59" E	38.27
WL97	S 52°35'55" E	40.91
WL98	S 25°24'51" E	44.23
WL99	S 59°23'49" E	30.55
WL100	S 24°42'41" W	32.84
WL101	S 57°12'11" W	18.19
WL102	N 60°04'06" W	21.56
WL103	N 42°01'32" W	20.94
WL104	N 19°49'40" E	18.96

WETLAND LINE TABLE		
LINE #	BEARING	DISTANCE
WL105	S 86°27'48" W	10.00'
WL106	N 67°30'56" W	20.31'
WL107	N 43°46'26" W	32.46'
WL108	N 52°51'11" W	34.28'
WL109	N 58°05'39" W	23.94'
WL110	S 63°47'07" W	57.14'
WL111	S 72°17'35" W	40.03'
WL112	N 72°50'19" W	17.17'
WL113	N 00°11'07" E	23.84'
WL114	N 78°16'08" E	8.97'
WL115	N 51°50'13" E	9.34'
WL116	N 00°53'14" W	16.68'
WL117	S 81°06'39" W	9.96'
WL118	S 62°52'29" W	11.87'
WL119	S 46°40'01" W	10.78'
WL120	S 11°01'33" W	11.87'
WL121	N 11°45'03" E	14.76'
WL122	S 37°36'45" W	29.65'
WL123	S 84°48'23" W	27.21'
WL124	S 71°59'02" W	66.19'

WETLAND LINE TABLE		
LINE #	BEARING	DISTANCE
WL125	N 84°06'59" W	39.64'
WL126	S 81°40'28" W	50.73'
WL127	S 75°20'20" W	27.15'
WL128	N 66°29'40" W	9.17'



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

ESTATES AT MILTON CROSSING

**PRELIMINARY SUBDIVISION PLAT**  
T. M.: 235-8.00, PARCELS 31.00, 26.00 & 26.03  
MILTON, DE 19968

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PROJECT GRJSO19001

DATE 2020-03-11

DRAWING SCALE 1"=100'

PROJECT	GRJSO19001
DATE	2020-03-11
DRAWING SCALE	1"=100'
DRAWN BY	TPM
APPROVED BY	AMD

# PP1002

SHEET 4 OF 4



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



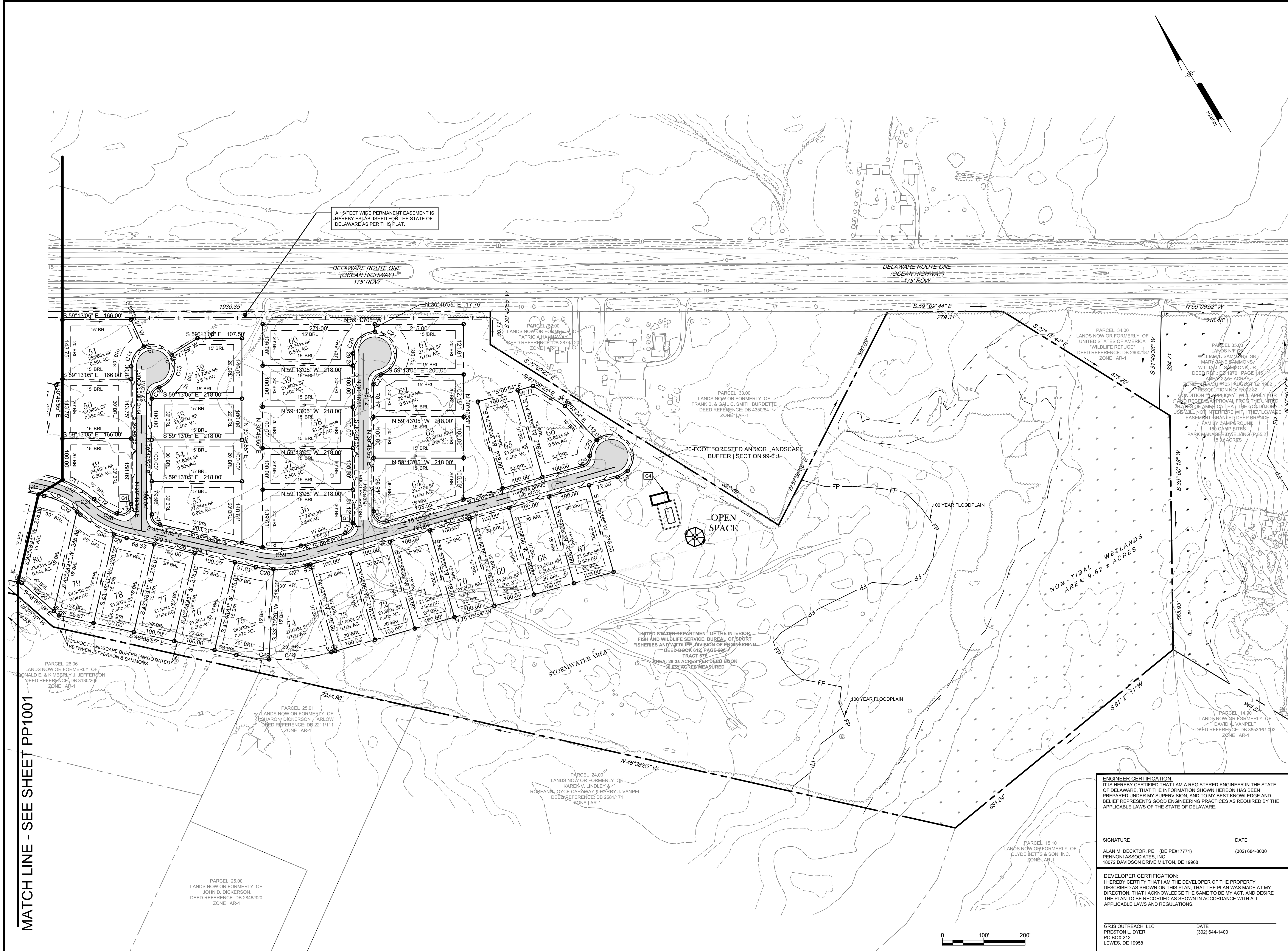












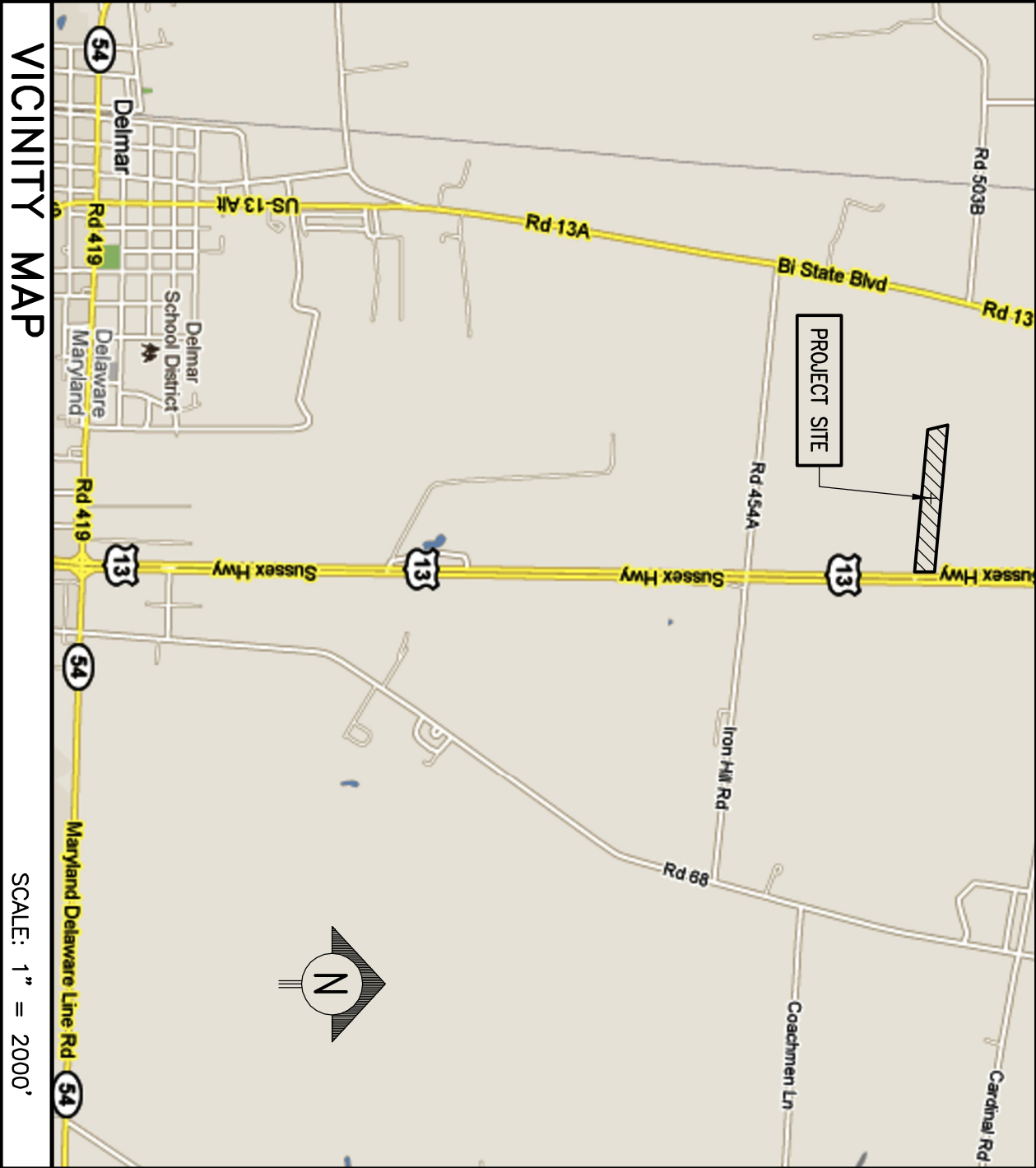


OWNER INFORMATION

ENTERPRISES ERIN BRADY, LLC  
LAURENCE & BETH BARNES  
c/o JUSTINE BARNES, MBA, VICE PRESIDENT  
36344 SUSSEX HIGHWAY  
DELMAR, DE 19940-5913  
302-646-3003 (PHONE)  
jbrad@erinfurniture.com (EMAIL)  
www.erinfurniture.com (WEBSITE)

CONSULTANT INFORMATION

AWB ENGINEERS  
JAMES E. SMITH, PE (PROJECT MANAGER)  
1942 NORTHWOOD DRIVE  
SAUSBURY, MARYLAND 21801-7824  
410-742-7299 (OFFICE)  
410-742-0273 (FAX)  
jsmith@awbengineers.com (EMAIL)  
jbrad@erinfurniture.com (WEBSITE)  
www.awbengineers.com (WEBSITE)



PROJECT DATA

911 ADDRESS 36344 SUSSEX HIGHWAY DELMAR, DELAWARE 19940-3573  
TAX MAP 5-32-13.00-63.04  
PROJECT COORDINATES PROJECT BENCHMARK - NORTHEAST PROPERTY CORNER  
176653.7992 - NORTHING / 615709.0819 - EASTING / 4404 - ELEVATION

LAND AREA 10.5 ACRES (453,215 SQ. FT.)

BUILDING AREA  
EXISTING 47,000 SQ. FT. (40,000 (WAREHOUSE) + 7,000 (WHOLESALE))  
PROPOSED 40,465 SQ. FT. (35,000 (PHASE I - WAREHOUSE) + 5,465 (PHASE II - WHOLESALE))  
TOTAL 87,465 SQ. FT.

PAVED AREA  
EXISTING 63,432 SQ. FT.  
PROPOSED 43,887 SQ. FT. (32,030 (PHASE I - WAREHOUSE) + 11,857 (PHASE II - WHOLESALE))  
TOTAL 106,400 SQ. FT.

LIMIT OF DISTURBANCE  
PHASE I 146,238 SQ. FT. (3.36 ACRES)  
PHASE II 42,463 SQ. FT. (0.98 ACRES)  
TOTAL 188,201 SQ. FT. (4.34 ACRES)

ZONING U-2 (LIGHT INDUSTRIAL)  
50' FRONT / CHC02 -60' (\*)  
20' REAR  
20' SIDES

BUILDING SETBACKS (\*) CHC02 = COMBINED HIGHWAY CORRIDOR OVERLAY ZONE

BUILDING CODE 2012 IBC, 2010 ADAS  
2015 NFPA 101, & 2015 DELAWARE STATE FIRE PREVENTION REGULATIONS

CONSTRUCTION TYPE TYPE I-B (IB) / TYPE I-A-000 (NFA 220) - PHASE I  
TYPE V-B (IB) / TYPE V-A-000 (NFA 220) - PHASE II

BUILDING USE GROUP GROUP S-1 [MODERATE HAZARD STORAGE (IB) / STORAGE (NFA 101)] - PHASE I  
MERCANTILE [BC / NFPA 101] - PHASE II

BUILDING HEIGHT 38.16 FT. - 1 STORY (PHASE I)  
30.0 FT. - 1 STORY (PHASE II)

SPRINKLER SYSTEM FULLY SPRINKLERED SYSTEM COMPLYING WITH NFPA 13 - PHASE I  
WATER SUPPLY AUTOMATIC FIRE SPRINKLERS ARE NOT PROPOSED FOR THIS STRUCTURE - PHASE II  
WELL & TANK

PHASE I PARKING SPACES  
REGULAR 13  
REQUIRED 14 (\*)  
EXISTING 46  
PROPOSED 47

PHASE II PARKING SPACES  
REGULAR 4  
REQUIRED 4  
PROPOSED 5 (\*)

(\*) PARKING REQUIREMENT: 1 SPACE PER 2 EMPLOYEES ON LARGEST SHIFT

NO WETLANDS WERE LOCATED ON THIS PARCEL PER BOUNDARY SURVEY BY A-ES ARCHITECT (REF. BELOW IN SURVEY DATA)  
EXTERIOR LIGHTING FOR BOTH PHASE I & II WILL BE MOUNTED ON THE FACE OF EXTERIOR FRAMING OF EACH BUILDING.

SURVEY DATA

DEED REFERENCES: D.B. 3921, P. 331 & D.B. 3235, P. 318

PLAT REFERENCES: P.B. 98, P.260

MEAS. AND BOUNDS WERE TAKEN FROM A DRAWING BY A-ES ARCHITECT, DATED 08.22.05 (A-ES PROJECT NO. 04220), ORIGINAL SURVEY TAKEN FROM A-ES DTD.

TOPOGRAPHIC DATA TAKEN FROM TOPOGRAPHIC SURVEY DONE BY AWB ENGINEERS ON AUGUST 5, 2010.  
PROJECT BENCHMARK (BM) IS EXISTING SANITARY SEWER MANHOLE RIM (ELEV=80.27) BASED ON MAGD 88 DATUM.

THIS PROPERTY IS SHOWN ON FIRM, COMMUNITY PANEL #100650360 (PANEL 560 OF 660), DATED JUNE 20, 2018 AS BEING IN FLOOD ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

SEPARATIONS

HEAVY ASPHALT PAVING SHALL CONSIST OF 10 INCHES OF CR-6 STONE OVER SIBSOL AND BOTH COMPACTED TO 95% OF THE MOISTED PROCTOR TEST. THIS SHALL BE OVERLAPPED WITH 3 INCHES OF 180 MM HOT MIX ASPHALT AND A 2 INCH LAYER OF 9.5 MM HOT MIX ASPHALT.

LIGHT ASPHALT PAVING SHALL CONSIST OF 6 INCHES OF CR-6 STONE OVER SIBSOL AND BOTH COMPACTED TO 95% OF THE MOISTED PROCTOR TEST. THIS SHALL BE OVERLAPPED WITH 2% INCHES OF 180 mm HOT MIX ASPHALT AND A 1% INCH LAYER OF 9.5 mm HOT MIX ASPHALT.

STONE STABILIZATION FOR TRUCK TRAFFIC SHALL CONSIST OF 6" OF CR-6 OVER COMPACTED STRUCTURAL FILL, COMPACT BOTH CR-6 AND FILL TO 95% OF THE APPROPRIATE STANDARD PROCTOR MAXIMUM DRY DENSITY.

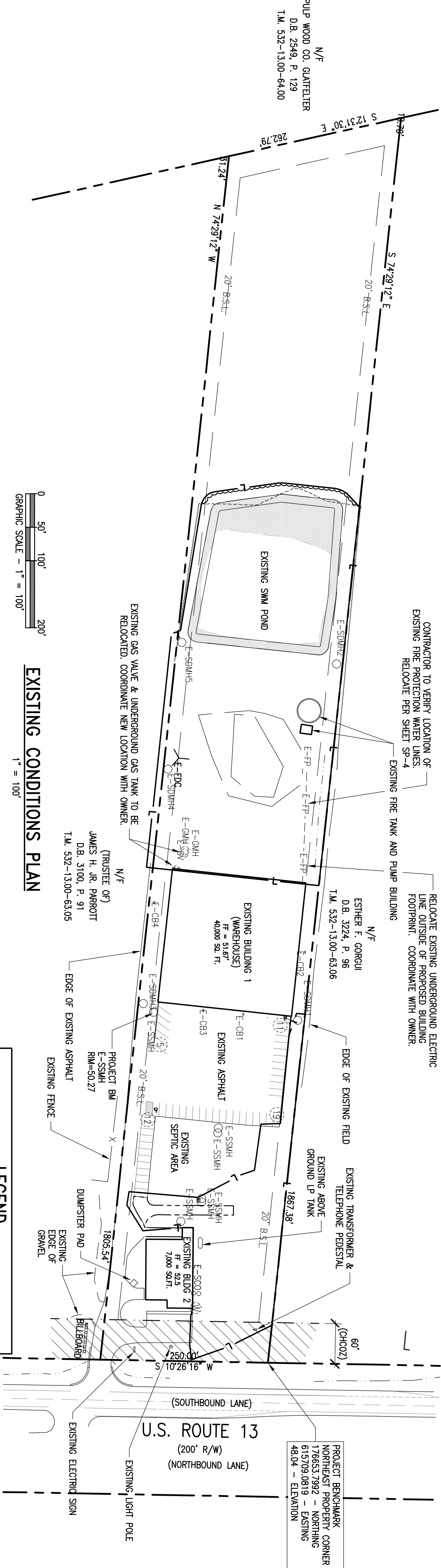
ALL WALKS SHALL CONSIST OF 4 INCH THICK SLABS OF 4,000 PSI CONCRETE REINFORCED WITH 6#-W14W14 W.W.M. ALL EXTERIOR CONCRETE SHALL HAVE 3% ENHANCED AIR PLUS OR MINUS 1%. PLACE EXPANSION JOINTS AT ALL RE-ENTRANT CORNERS AND AT NO MORE THAN 20 FEET CENTERS. ALL CONCRETE SLABS SHALL BE PLACED OVER SUBSOILS COMPACTED TO 95% OF THE STANDARD PROCTOR TEST.

CONCRETE PAVING SUBJECT TO TRUCK TRAFFIC SHALL CONSIST OF 8 INCH THICK, 4,000 PSI CONCRETE SLABS REINFORCED WITH #5 REBAR @ 1'-0" O.C.E.W. OVER 6" OF CR-6 AND SIBSOL BOTH COMPACTED TO 95% OF THE STANDARD PROCTOR TEST. ALL EXTERIOR CONCRETE SHALL HAVE 3% ENHANCED AIR PLUS OR MINUS 1%. PLACE CONTROL JOINTS AT ALL RE-ENTRANT CORNERS AND AT NO MORE THAN 20 FEET CENTERS.

DUMPSITER PAD SHALL CONSIST OF 8 INCH THICK, 4,000 PSI CONCRETE SLABS REINFORCED WITH #5 REBAR @ 1'-0" O.C.E.W. OVER 6" OF CR-6 AND SIBSOL BOTH COMPACTED TO 95% OF THE STANDARD PROCTOR TEST. ALL EXTERIOR CONCRETE SHALL HAVE 3% ENHANCED AIR PLUS OR MINUS 1%. PLACE CONTROL JOINTS AT ALL RE-ENTRANT CORNERS AND AT NO MORE THAN 20 FEET CENTERS.

2020 DISTRIBUTION CENTER EXPANSION  
DELMAR, DELAWARE

SEDIMENT & STORMWATER PROGRAM / TAX MAP 5-32-13.00-63.04 / BUNTINGS BRANCH (WATERSHED) / SUSSEX COUNTY / DELMAR




EXISTING CONDITIONS PLAN

GRAPHIC SCALE - 1" = 100'

GENERAL NOTES

- THE DNRCC SEDIMENT AND STORMWATER PROGRAM SHALL BE NOTED IN WRITING 5 DAYS PRIOR TO COMMENCING WITH CONSTRUCTION, FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
- 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.
- IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DETERMINED NECESSARY BY DNRCC OR THE DELEGATED AGENCY.
- FOLLOWING SOIL DISTURBANCE OR RESTORATION, 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.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
- AT ANY TIME A REMEDIATION OPERATION IS USED, IT SHALL BE PREVIOUSLY APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER FOR A NON-EROSIVE POINT OF DISCHARGE, AND A DEMANDING PERMIT SHOULD BE APPROVED BY THE DNRCC WELL PERMITTING BRANCH.
- APPROVED PLANS REMAIN VALID FOR 5 YEARS FROM THE DATE OF APPROVAL.
- POST CONSTRUCTION VERIFICATION DOCUMENTS SHALL BE SUBMITTED TO THE DEPARTMENT OR DELEGATED AGENCY WITHIN 60-DAYS OF STORMWATER MANAGEMENT FACILITY COMPLETION.
- 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.
- THE NOTICE OF INTENT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER A NPDES GENERAL PERMIT FOR THIS PROJECT IS # (TO BE FILLED IN ONCE RECEIVED). THE PERMITTEE OF RECORD SHALL NOT BE RELEASED OF THEIR RESPONSIBILITIES UNTIL A NOTICE OF TERMINATION HAS BEEN PROCESSED BY THE DEPARTMENT.
- THE OWNER SHALL BE FAMILIAR WITH AND COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION GENERAL PERMIT.
- THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LAIDEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHALL BE CHECKED DAILY AND ADJUSTED OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
- BEFORE ANY EARTHWORK OR EXCAVATION TAKES PLACE, THE CONTRACTOR SHOULD CALL MISS UTILITY AT 811 OR 1-800-282-5555 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO HAVE ALL EXISTING UTILITIES MARKED ON-SITE.
- BEST AVAILABLE TECHNOLOGY (BAT) SHALL BE EMPLOYED TO MANAGE TORBED DISCHARGES IN ACCORDANCE WITH REQUIREMENTS OF 7 DEL.C. CH. 60 AND THE CURRENT DELAWARE CONSTRUCTION GENERAL PERMIT (CGP).
- DOCUMENTATION OF SOIL TESTING AND MATERIALS USED FOR TEMPORARY OR PERMANENT STABILIZATION INCLUDING BUT NOT LIMITED TO SOIL TEST RESULTS, SEED TAGS, SOIL ADJUDMENT TAGS, ETC. SHALL BE PROVIDED TO THE DEPARTMENT OR DELEGATED AGENCY TO VERIFY THAT THE PERMANENT OR TEMPORARY STABILIZATION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED PLAN.
- THE DEPARTMENT OR DELEGATED AGENCY MAY REQUIRE ADDITIONAL SOIL TESTING AND REAPPLICATION OF PERMANENT OR TEMPORARY STABILIZATION IN ACCORDANCE WITH THE SPECIFICATIONS IN THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, OR ALTERNATIVE MEASURES THAT PROVIDE FUNCTIONAL EQUIVALENCY.
- A THIRD PARTY COR (CERTIFIED CONSTRUCTION REVIEWER) WILL BE REQUIRED ON THIS PROJECT FOR BOTH PHASE 1 & 2.

SIGNED LICENSED PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES.

SIGNATURE:  DATE: 02/08/2021

JAMES E. SMITH, PE NAME/TITLE PRINTED: 410-742-7299 PHONE:

OWNER REPRESENTATIVE SIGNATURE: DATE:

OWNER REPRESENTATIVE PRINTED NAME & TITLE

LEGEND	
---	PROPERTY LINE
---	LIMITS OF DISTURBANCE
---	BUILDING SETBACK LINE
---	EXISTING 24" STORMWATER PAVING
---	EXISTING STORMWATER PAVING
---	EXISTING 6" SWALE
---	EXISTING STORMWATER MANHOLE
---	EXISTING SANITARY SEWER MANHOLE
---	EXISTING SITE CLEAN OUT
---	EXISTING WELL

INDEX OF DRAWINGS

CS-1	SITE COVER SHEET
CS-2	OVERALL SITE PAVING PLAN
SP-1	PHASE I AND II PRE-CONSTRUCTION SITE SWM PLAN
SP-2	PHASE I CONSTRUCTION SITE SWM PLAN
SP-3	PHASE I POST CONSTRUCTION EXTENDED DETENTION BASIN IMPROVEMENTS
SP-4	PHASE I SITE IMPROVEMENTS PLAN
SP-5	PHASE II CONSTRUCTION SITE SWM PLAN
SP-6	PHASE II SITE IMPROVEMENTS PLAN
SP-7	SITE NOTES & DETAILS
SP-8	CONSTRUCTION SITE DETAILS & NOTES
SP-9	CONSTRUCTION SITE DETAILS & NOTES
SP-10	CONSTRUCTION SITE DETAILS & NOTES
SP-11	CONSTRUCTION SITE DETAILS & NOTES
RP-1	DEDDOT RECORD PLAN
ENT-1	DEDDOT PRELIMINARY SITE PLAN
ENT-2	DEDDOT ENTRANCE PLAN
**PHASE II IS FUTURE CONSTRUCTION UNDER SEPARATE CONTRACT	

SEDIMENT & STORMWATER PROGRAM  
TAX MAP 5-32-13.00-63.04  
BUNTINGS BRANCH (WATERSHED)  
BALTIMORE HUNDRED - SUSSEX COUNTY

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SCALE AS NOTED

DRAWN EFT

FORUMER LSB

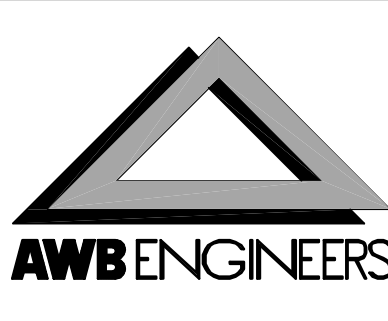
JOB 200212

SHEET

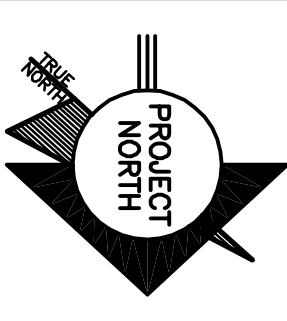
SITE COVER SHEET

2020 DISTRIBUTION CENTER EXPANSION

DELMAR, DELAWARE




ENGINEERS/ARCHITECTS  
1942 NORTHWOOD DRIVE, SAUSBURY, MARYLAND 21801-7824  
PH. (410) 742-7299 FAX. (410) 742-0273

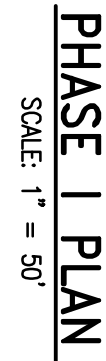


REV	DESCRIPTION	BY	DATE
	PERMIT REVIEW	EFT	13 NOV 20
	PERMIT REVIEW - COMMENT REVISIONS	EFT	08 FEB 21



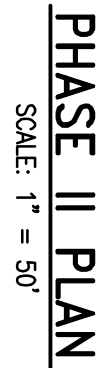


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DRAWN	EFT
PROJ.MGR.	LSB
JOB	200212
SHEET	
CS-2	



# PHASE I

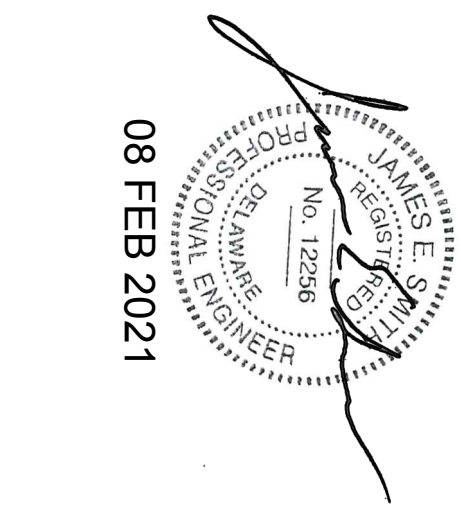
~~PHASE I LIMIT OF DISTURBANCE  
146,238 SQ. FT. (3.36 ACRES)~~



# PHASE II

~~PHASE II LIMIT OF DISTURBANCE  
42,963 SQ. FT. (0.98 ACRES)~~

PROJECT BENCH  
NORTHEAST PRO  
176653.7992 -  
615709.0819 -  
48.04 - ELEVAT



LEGEND	
	PROPERTY LINE
	BUILDING SETBACK LINE
	LIMITS OF DISTURBANCE
	EXISTING & OF SWALE
	EXISTING TREELINE
	EXISTING TREELINE TO BE REMOVED
	PROPOSED TREELINE
	EXISTING FIRE PROTECTION LINE
	PROPOSED FIRE PROTECTION LINE
	EXISTING UNDERGROUND ELECTRIC
	EXISTING STORMDRAIN MANHOLE
	PROPOSED STORMDRAIN MANHOLE
	EXISTING GAS MANHOLE
	EXISTING GAS VALVE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
	EXISTING SANITARY SEWER MANHOLE
	EXISTING PARKING SPACES
	PROPOSED PARKING SPACES
	HANDICAP PARKING
	PROPOSED CONCRETE
	PROPOSED HEAVY ASPHALT
	PROPOSED LIGHT ASPHALT

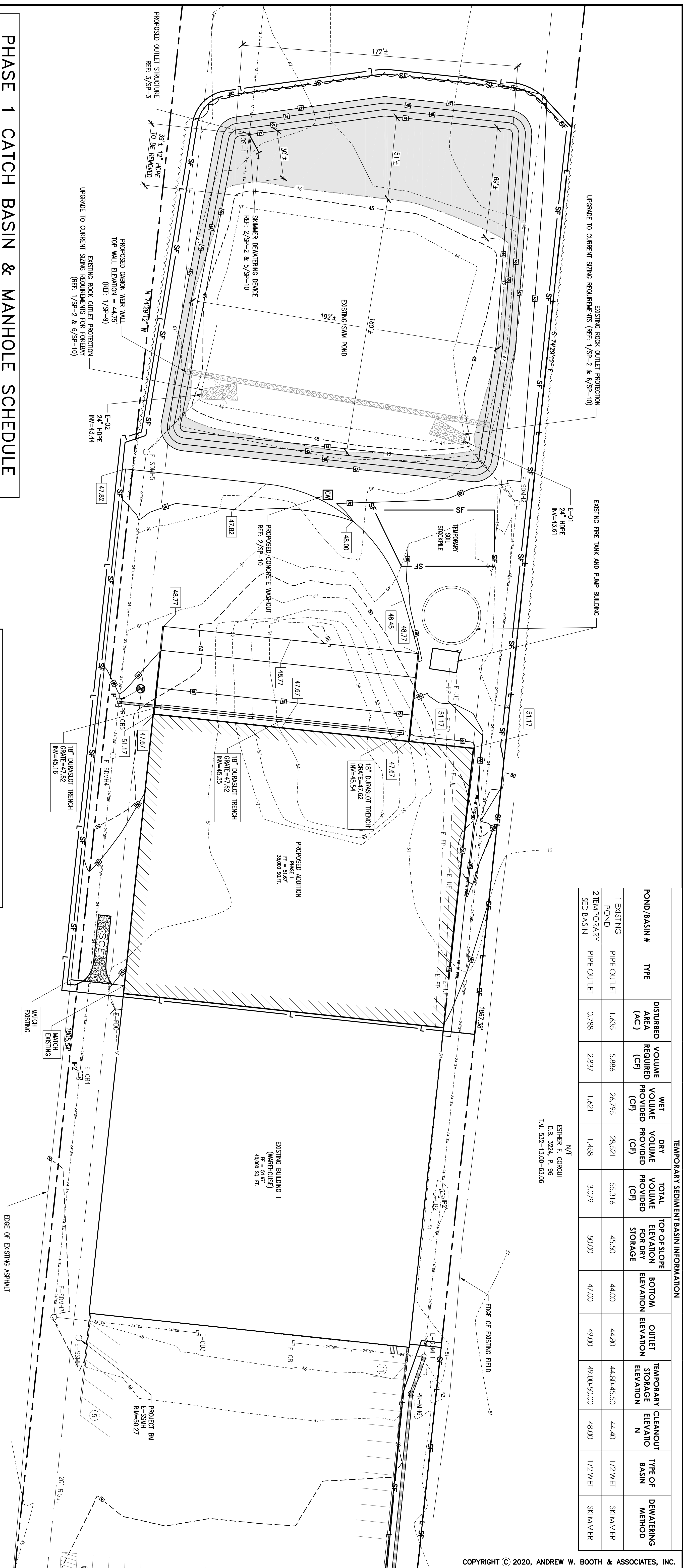
## INDEX OF DRAWINGS BY PHASES

PHASE I	
SP-2	PHASE I CONSTRUCTION SITE SWM PLAN
SP-3	PHASE I POST CONSTRUCTION EXTENDED DETENTION BASIN IMPROVEMENTS
SP-4	PHASE I SITE IMPROVEMENTS PLAN
PHASE II	
SP-5	PHASE II CONSTRUCTION SITE SWM PLAN
SP-6	PHASE II SITE IMPROVEMENTS PLAN
PHASES I & II	
SP-1	PHASE I AND II PRE-CONSTRUCTION SITE SWM PLAN
SP-7	PHASE II PIPE PROFILES
SP-8	SITE NOTES & DETAILS
SP-9	CONSTRUCTION SITE DETAILS & NOTES
SP-10	CONSTRUCTION SITE DETAILS & NOTES
SP-11	CONSTRUCTION SITE DETAILS & NOTES



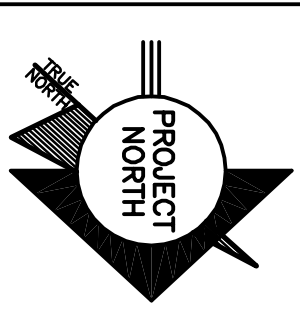




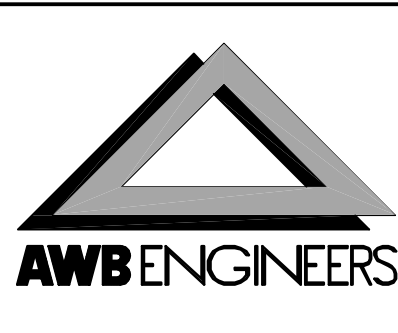


TEMPORARY SEDIMENT BASIN INFORMATION													
POND/BASIN #	TYPE	DISTURBED AREA (AC)	VOLUME REQUIRED (CF)	WET VOLUME PROVIDED (CF)	DRY VOLUME PROVIDED (CF)	TOTAL VOLUME PROVIDED (CF)	TOP OF SLOPE ELEVATION FOR DRY STORAGE	BOTTOM ELEVATION	OUTLET ELEVATION	TEMPORARY STORAGE ELEVATION	CLEANOUT ELEVATIO N	TYPE OF BASIN	DEWATERING METHOD
1 EXISTING POND	PIPE OUTLET	1.635	5.886	26,795	28,521	55,316	45.50	44.00	44.80	44.80-45.50	44.40	1/2 WET	SKIMMER
2 TEMPORARY SED BASIN	PIPE OUTLET	0.788	2.837	1,621	1,458	3,079	50.00	47.00	49.00	49.00-50.00	48.00	1/2 WET	SKIMMER

DATE	BY	DESCRIPTION	REV
13 NOV 20	EFT	PERMIT REVIEW	
01 FEB 21	EFT	PRELIMINARY	
08 FEB 21	EFT	PERMIT REVIEW - COMMENT REVISIONS	



**ENGINEERS/ARCHITECTS**  
1942 NORTHWOOD DRIVE SALISBURY, MARYLAND 21801-7824  
PH. (410) 742-7299 FAX. (410) 742-0273



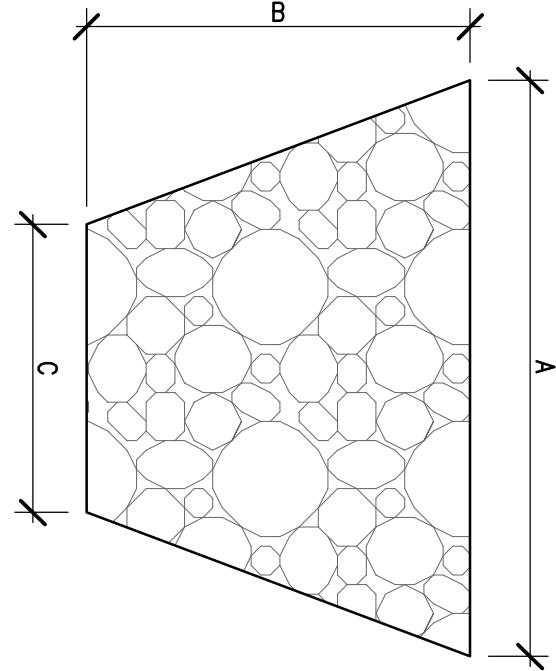
SCALE	1"=30'	<div>PHASE I CONSTRUCTION SITE SWM PLAN</div> <div>2020 DISTRIBUTION CENTER EXPANSION</div> <div>DELMAR, DELAWARE</div>
DRAWN	EFT	
PROJWDR	LSB	
JOB	200212	
SHEET		
SP-2		

PHASE 1 CATCH BASIN & MANHOLE SCHEDULE						
FROM "A"	TO "B"	"A" RIM ELEV	"A" INVERT	A" TO "B" PIPE SIZE & MATERIAL, LENGTH (FT) & SLOPE (%)	"B" RIM ELEV	"B" INVERT
E-031	E-S0MH1	47.56	44.85	24" HDPE, 79.14 FT, 0.05%	50.54	44.79
E-S0MH1	E-C02	50.54	44.79	24" HDPE, 98.82 FT, 0.05%	50.86	44.74
E-C02	E-S0MH2	50.86	44.74	24" HDPE, 429.16 FT, 0.24%	47.70	43.70
E-S0MH2	E-01	47.70	43.70	24" HDPE, 49.77 FT, 0.15%	---	43.61
E-C03	E-S0MH3	47.62	44.87	24" HDPE, 87.32 FT, 0.01%	50.05	44.88
E-S0MH3	E-C04	50.05	44.88	24" HDPE, 148.19 FT, 0.45%	50.33	44.21
E-C04	E-S0MH4	50.33	44.21	24" HDPE, 196.79 FT, 0.02%	49.73	44.17
E-S0MH4	E-S0MH5	49.73	44.17	24" HDPE, 186.44 FT, 0.04%	47.88	44.10
E-S0MH5	E-02	47.88	44.10	24" HDPE, 48.32 FT, 1.35%	---	43.44
PE TR DR	PE-C05	47.62	45.16	18" HDPE, 27.27 FT, 0.26%	49.06	45.09
PR-C05	E-S0MH5	49.06	44.16	24" HDPE, 155.06 FT, 0.03%	47.88	44.10

RIP RAP SIZING CHART			
	A	B	C
2 1/2" HDPE Pipe	10.8'	22'	6'

**NOTES:**

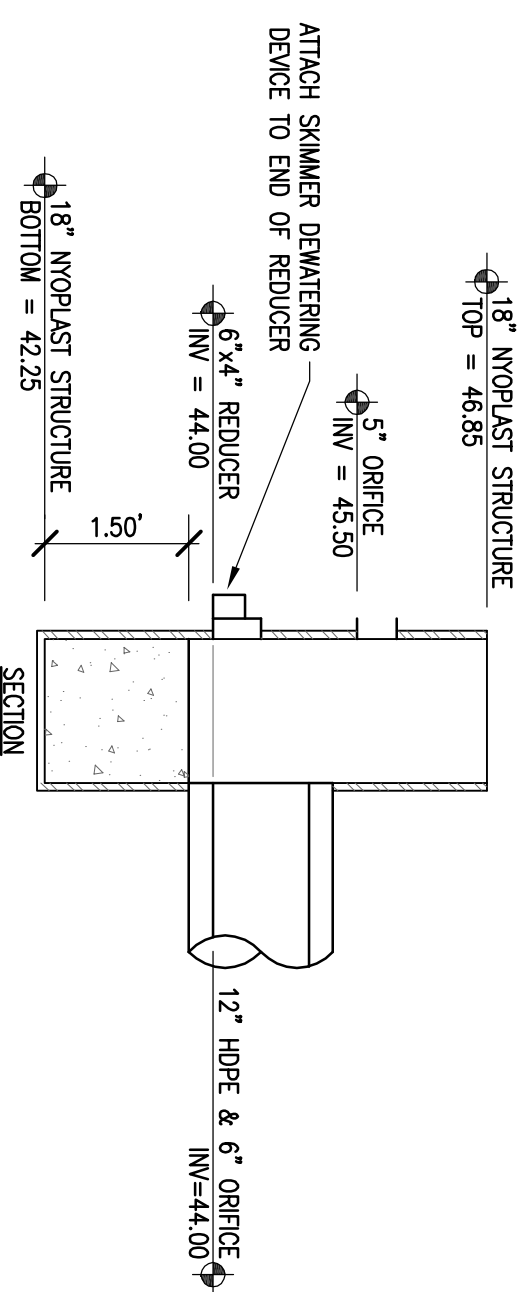
1. STONE SIZE  $d_{50} = 6''$
2. STONE DEPTH = 18"
3. DIMENSIONS IN SIZING CHART ABOVE ARE MINIMUM SIZES.



1  
SP-2 FOREBAY RIP RAP OUTLET PROTECTION  
SCALE: N.T.S.

**LEGEND**

_____	PROPERTY LINE
_____ 10' B.S.L. _____	BUILDING SETBACK LINE
_____ L _____	LIMITS OF DISTURBANCE
_____ SF _____	SILT FENCE (REF: 4/SP-10)
_____ IP _____	INLET PROTECTION TYPE 1 (REF: 5/SP-11)
_____ IP2 _____	INLET PROTECTION TYPE 2 (REF: 6/SP-11)
_____ 51 _____	EXISTING CONDUIT
_____ 50 _____	PROPOSED CONDUIT
_____ 49.18 _____	PROPOSED SPOT ELEVATION
_____	EXISTING CENTERLINE OF SHALE
_____	EXISTING FREELINE
_____	EXISTING FREELINE TO BE REMOVED
_____	PROPOSED FREELINE
_____ E-FP _____	EXISTING FIRE PROTECTION LINE
_____ PR-W FIRE _____	PROPOSED FIRE PROTECTION LINE
_____ E-UE _____	EXISTING UNDERGROUND ELECTRIC
_____ 24" SW _____ 24" SW _____	EXISTING STORMDRAIN PIPING
_____	PROPOSED STORMDRAIN PIPING
_____ E-SDMH ○	EXISTING STORMDRAIN MANHOLE
_____ ○ SDMH	PROPOSED STORMDRAIN MANHOLE
_____ E-ODH ○	EXISTING GAS MANHOLE
_____ E-GV Δ	EXISTING GAS VALVE
_____ E-ODH □	EXISTING CATCH BASIN
_____ PR-OSB □	PROPOSED CATCH BASIN
_____ ○ E-SSMH	EXISTING SANITARY SEWER MANHOLE
_____ (S)	EXISTING PARKING SPACES



**NOTES:**

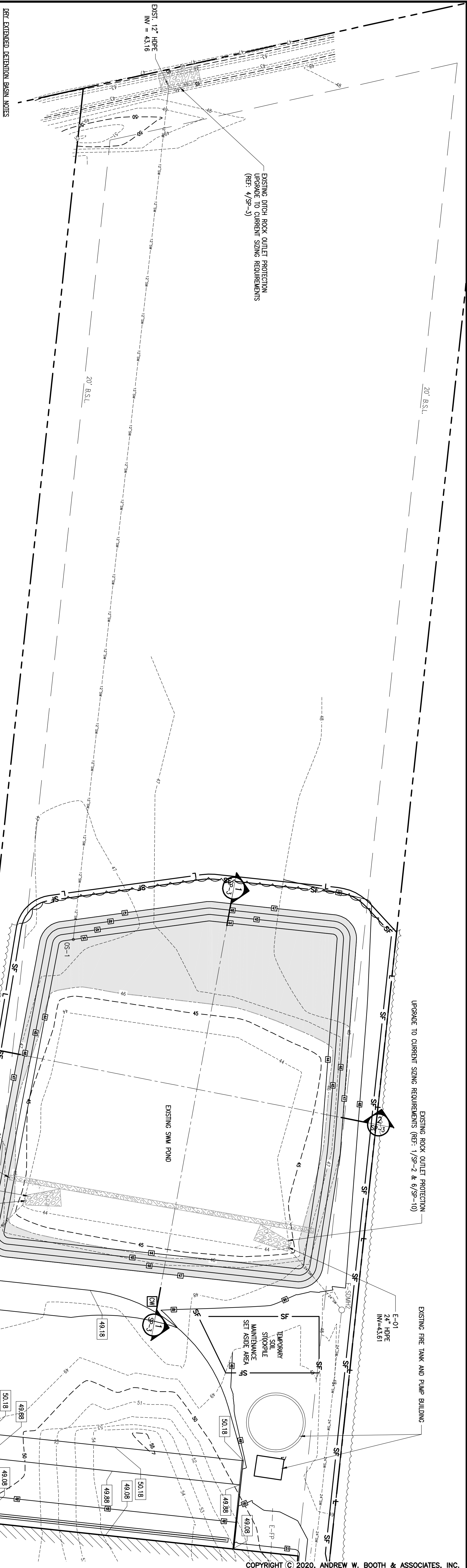
1. ONCE SITE IS STABILIZED AND SEDIMENT TRAP IS NO LONGER REQUIRED REMOVE 6"x4" REDUCER.
2. 1.5' OF STRUCTURE TO BE FILLED WITH CONCRETE.

## 2 OUTLET STRUCTURE SKIMMER DEWATERING DEVICE DETAIL

SP-2  
SCALE: 1" = 2.0'

SEDIMENT & STORMWATER PROGRAM  
TAX MAP 5-32-13.00-63.04  
BUNTINGS BRANCH (WATERSHED)  
BALTIMORE HUNDRED - SUSSEX COUNTY





**SEQUENCE OF CONSTRUCTION:**

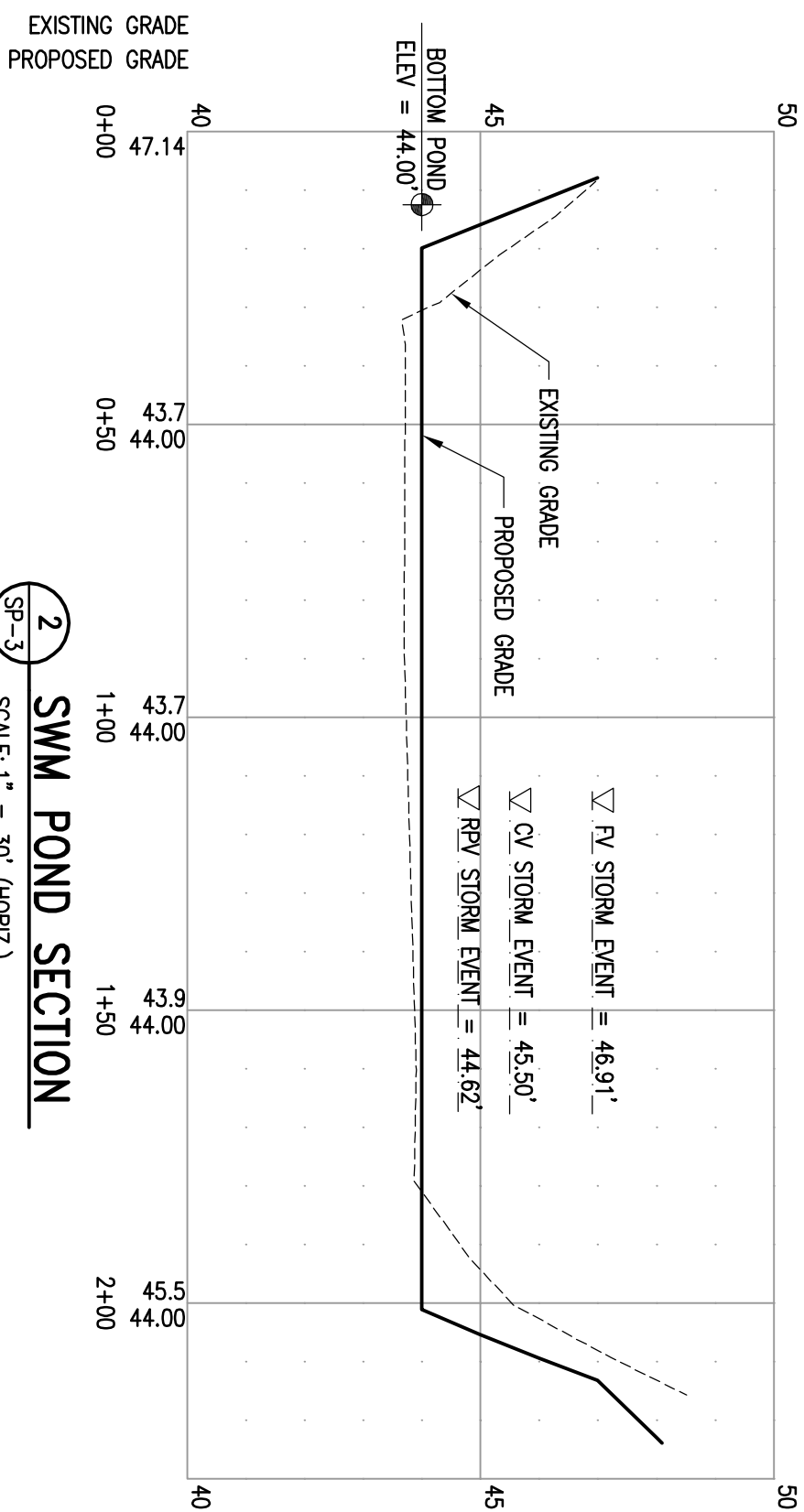
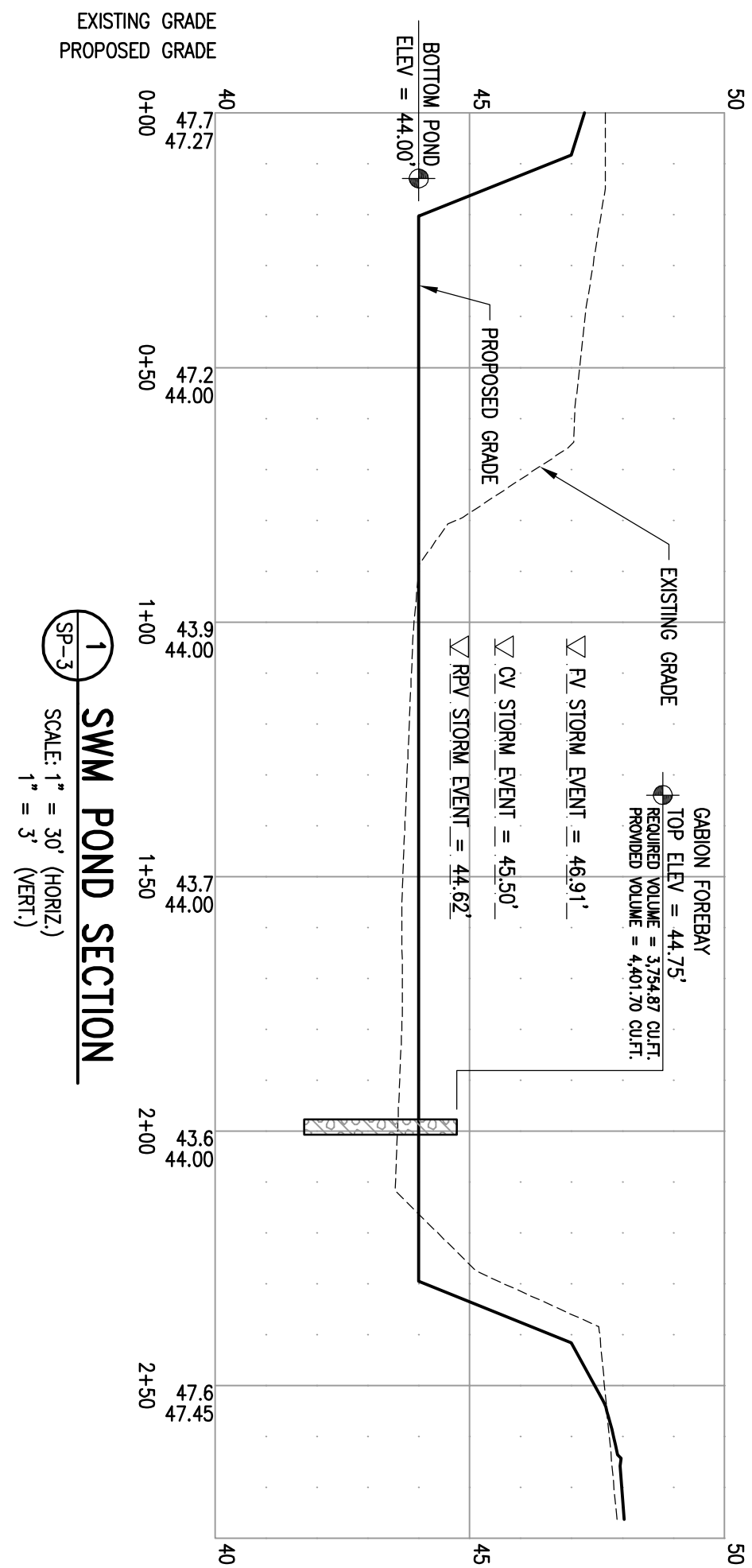
1. THE EXISTING DRY BASIN TO HAVE EXISTING PARAMETERS REMOVED AND WILL BE UTILIZED AS THE TEMPORARY SEEDING BASIN DURING PHASE 1 CONSTRUCTION.
2. ASSEMBLE CONSTRUCTION MATERIALS ON-SITE, MAKE SURE THEY MEET DESIGN SPECIFICATIONS, AND PREPARE ANY STAGING AREAS.
3. INSTALL EROSION AND SEDIMENT CONTROLS PRIOR TO CONSTRUCTION, INCLUDING TEMPORARY DITCHING DEVICES AND STORMWATER DIVERSION PRACTICES. ALL AREAS SURROUNDING THE POND OR BASIN THAT ARE GRADED OR DITCHED DURING CONSTRUCTION SHOULD BE PLANTED WITH TUFT GRASS, NATIVE PLANTS, OR OTHER APPROVED METHODS OF SOIL STABILIZATION.
4. CLIPPER AND STRIP THE EMPOWERMENT AREA TO THE DESIRED SUB-GRADE.
5. INSTALL THE REEF OR OUTFLOW STRUCTURE AND ENSURE THAT THE TOP INLET OF THE OUTFLOW WEIR IS CONSTRUCTED LEVEL AT THE DESIGN ELEVATION. INSTALL THE SHOWER DEMANDING DEVICE FOR USE IN THE SEEDING BASIN DURING THE CONSTRUCTION PHASE.
6. EXCAVATE BASIN TO BE USED AS SEDIMENT BASIN DURING CONSTRUCTION PHASE.
7. ONCE THE CONSTRUCTION PHASE OF THE PROJECT IS COMPLETE THE FACILITY WILL BE DEMATERED, DREDGED, AND RE-GRADDED TO DESIGN DIMENSIONS AFTER THE ORIGINAL SITE CONSTRUCTION IS COMPLETED.
8. EXCAVATE/GRADE UNTIL THE APPROPRIATE ELEVATION AND DESIRED CONTROLS ARE ACHIEVED FOR THE BOTTOM AND SIDE SLOPES OF THE DRY BASIN, CONSTRUCT FORTYFOUR (44) TEMPORARILY STABILIZED SOILS.
9. CONSTRUCT THE EMERGENCY SLOTTING IN CUT OR STRUCTURALLY STABILIZED SOILS.
10. INSTALL OUTLET PILES, INCLUDING ANY FLEED AND SECTIONS, HEADWAYS, AND DOWNSTREAM RIPRAP APRON PROTECTION UNDERBAY BY STABILIZATION GEOTEXTILE.
11. STABILIZE EXPOSED SOILS WITH THE APPROVED SEED MIXTURE IN ACCORDANCE WITH THE VEGETATIVE STABILIZATION SPECIFICATIONS AND STORMWATER MANAGEMENT PLAN.
12. PLANT THE DRY DETENTION POND OR DRY DRY BASIN.
13. POST CONSTRUCTION VERIFICATION.

**MAINTENANCE CRITERIA:**

1. REPAIR OF CRITICAL STRUCTURAL FEATURES SUCH AS EXHAUSTS AND RISERS SHALL BE PERFORMED BY RESPONSIBLE PERSONNEL THAT HAVE QUALIFIED TO COMPLETE THE DEPARTMENT CONTRACTOR TRAINING PROGRAM.
2. SEDIMENT REMOVAL IN THE DRY DETENTION POND OR DRY ED BASIN PRETREATMENT PRACTICE MUST OCCUR WHEN 50% OF TOTAL FLOWS CAPACITY HAS BEEN LOST. THE OWNER ON PLAN FOR THIS MAINTENANCE ACTIVITY TO OCCUR EVERY 5 TO 7 YEARS.
3. EXHAUST AREAS (I.E., ACCESS, MAINTENANCE, OR OFFSHORE) AND ACCESSWAYS TO STORMWATER FACILITIES SHALL HAVE REGULAR MAINTENANCE PERFORMED TO KEEP THE GRASS 10% OR LESS.
4. REMOVE NOISE SPECIES ON OR NEAR EXHAUSTMENT, STRUCTURAL COMPONENTS AND MAINTENANCE ACCESS AREAS AS NEEDED.

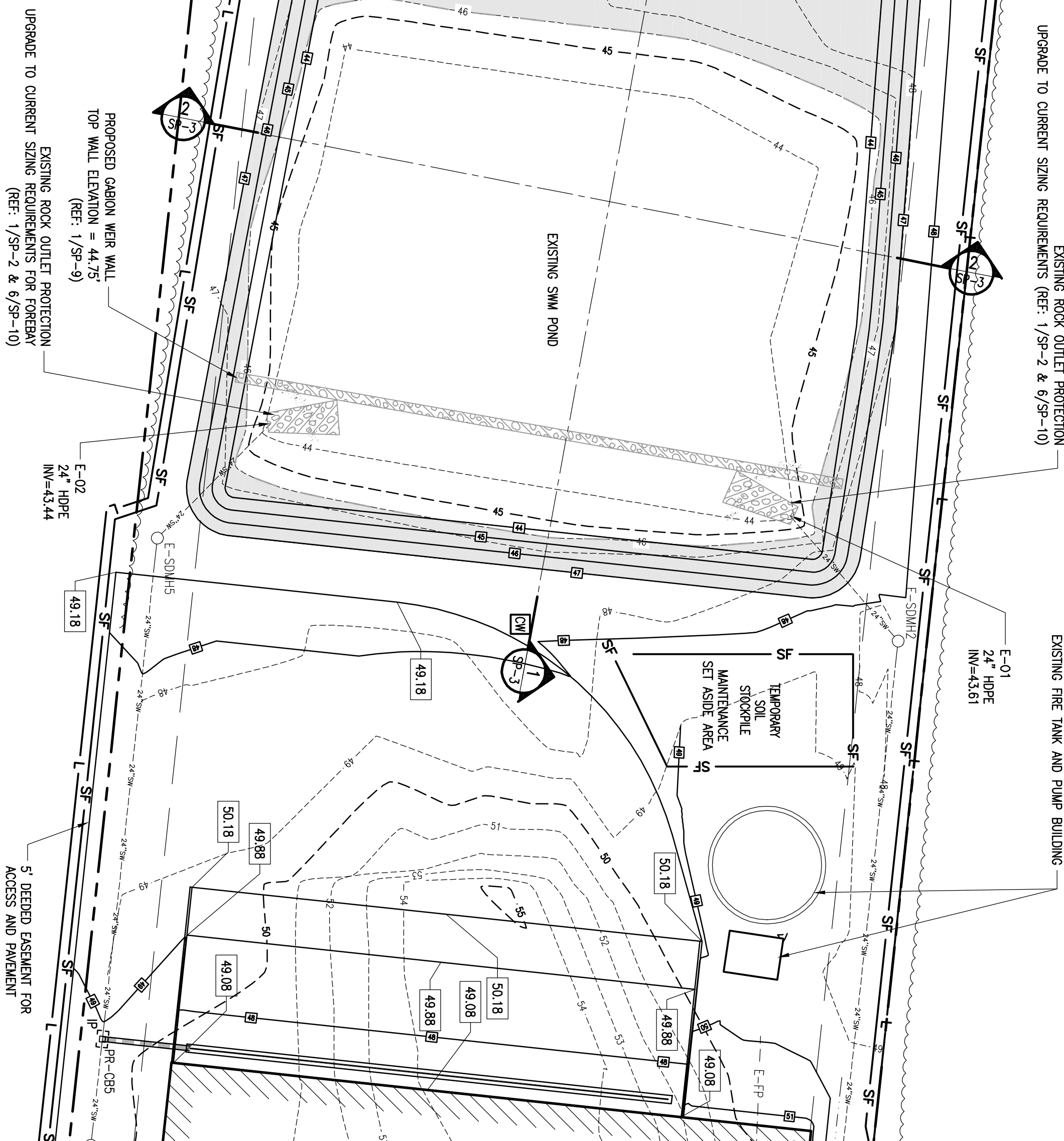
OPERATION AND MAINTENANCE NOTES:

1. THE SUSSEX COOPERATION DISTRICT (SCD) RESERVES THE RIGHT TO ENTER PRIVATE PROPERTY FOR PURPOSES OF PERIODIC SITE REVIEW.
2. SCD SHALL BE NOTIFIED WITHIN 30 BUSINESS DAYS IF THE PROPERTY OWNERSHIP IS TRANSFERRED TO A NEW PERSON OR ENTITY.
3. SCD MAY SEEK ENFORCEMENT ACTION AGAINST ANY OWNER DEEMED NEGLIGENT IN FULFILLING THE OPERATION AND MAINTENANCE REQUIREMENTS OF THE DEWAME SEDIMENT AND STORMWATER REGULATIONS.
4. SCD SHALL BE CONVICTED IF ANY CONCERN IS RAISED REGARDING A STORMWATER MANAGEMENT FACILITY BEFORE ANY NON-ROUTINE MAINTENANCE, OR IF MODIFICATIONS TO THE FACILITY ARE DESIRED.
5. REPAIR OF CRITICAL STRUCTURAL FEATURES (I.E. DRAINWATERS AND RESERS) SHALL BE PERFORMED BY RESPONSIBLE PERSONNEL THAT HAVE SUCCESSFULLY COMPLETED THE DEPARTMENT CONTRACTOR TRAINING PROGRAM.
6. ANY DESIGNED MODIFICATIONS MADE TO THE STORMWATER SYSTEM SHALL REQUIRE APPROVAL OF THE PLANS) BY SCD.
7. EXISTING AREAS (I.E. ACCESS, MAINTENANCE, OR OFFSITE) AND ACCESSWAYS TO STORMWATER FACILITIES SHALL HAVE REMAINING PAVED LENGTHS SUFFICIENT TO KEEP THE GRASS 10" OR LESS. NO PERMANENT STRUCTURES, (I.E. FENCES OR SIGNS) SHALL BE LOCATED WITHIN THE EXISTENT OR ACCESSWAY.
8. TREES SHALL NOT BE PLANTED, AND SHALL BE REMOVED IF FOUND GROWING ON OR WITHIN 15 FEET OF ALL DRAINWATERS, ON SLOPES OR WITHIN 10 FEET OF STRUCTURAL COMPONENTS.
9. WHEN THE FACILITY IS EXPOSED TO REMOTE ACCUMULATED SEDIMENT, THE DISPOSAL AREA BE PERMANENTLY STABILIZED SO THAT IT DOES NOT REQUIRE AN EROSION PROBLEM. ANY MATERIAL TAKEN OFF-SITE SHALL BE DISPOSED OF IN AN APPROVED MANAGER.
10. BEFORE ANY DRAINWATER OR EXCAVATION TAKES PLACE, THE CONTRACTOR SHALL CALL MISS UTILITY AT 811 OR 1.800.282.8555 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO HAVE ALL EXISTING UTILITIES MARKED ON-SITE.



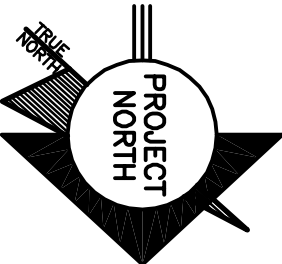
## PHASE I POST CONSTRUCTION DETENTION BASIN IMPROVEMENTS

SCALE: 1" = 30'



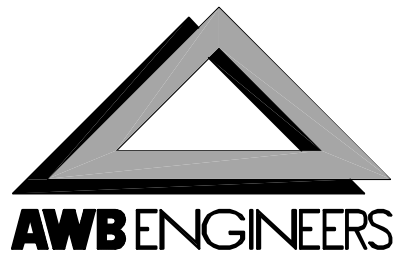
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DATE	BY	DESCRIPTION	REV
13 NOV 20	EFT	PERMIT REVIEW	
01 FEB 21	EFT	PRELIMINARY	
08 FEB 21	EFT	PERMIT REVIEW - COMMENT REVISIONS	



**ENGINEERS/ARCHITECTS**

1942 NORTHWOOD DRIVE SALISBURY, MARYLAND 21801-7824  
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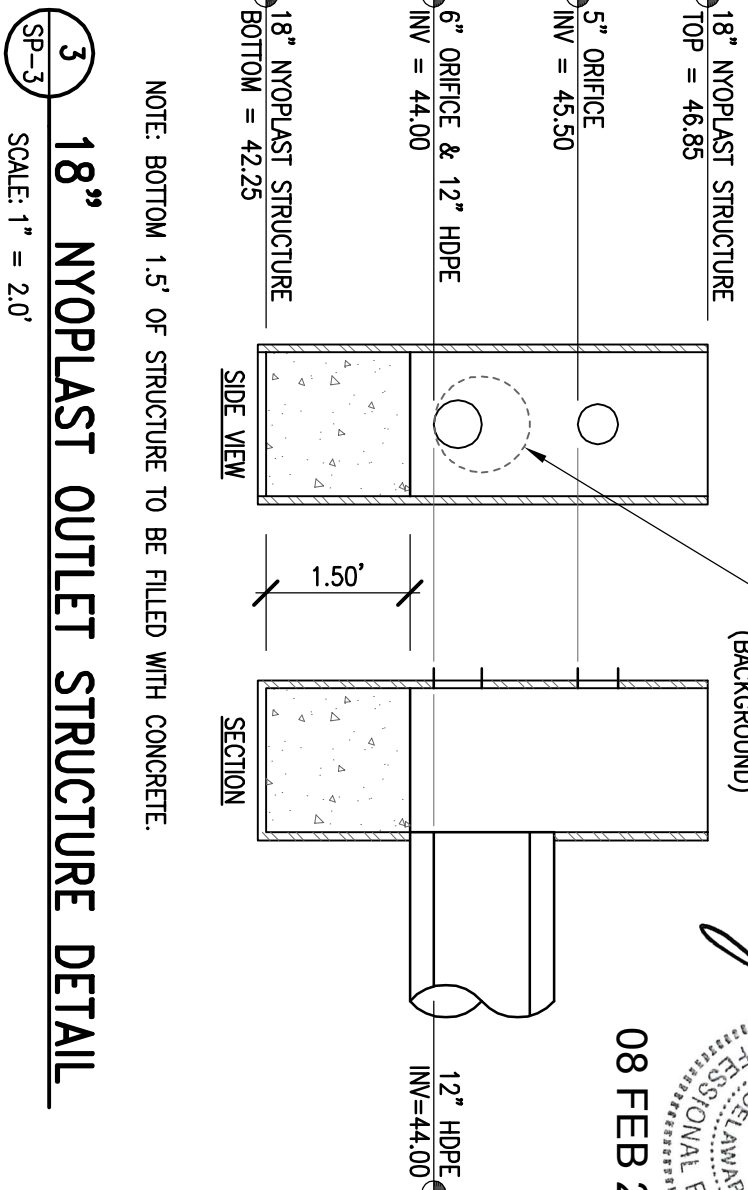
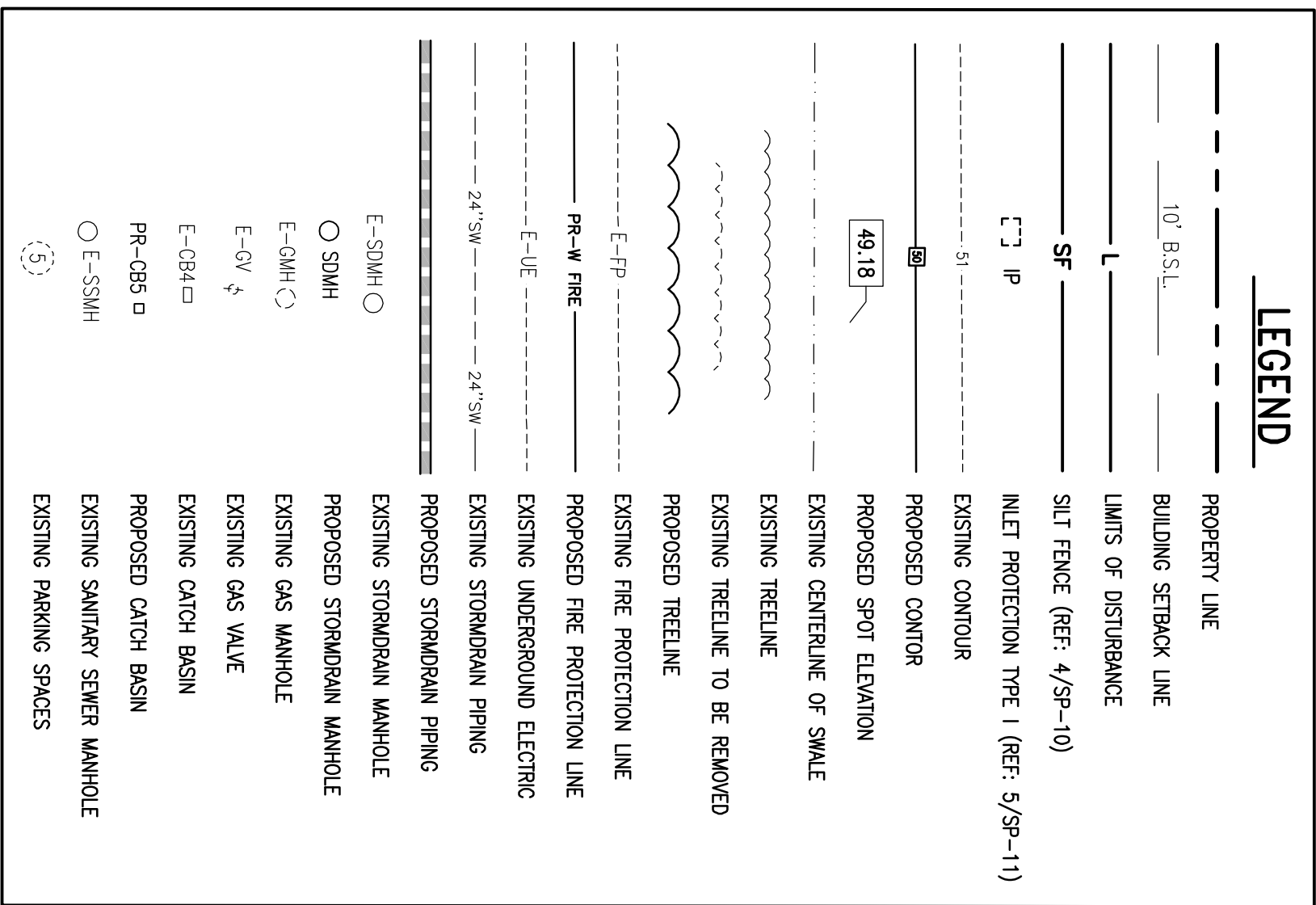


## PHASE I POST CONSTRUCTION EXTENDED DETENTION BASIN IMPROVEMENTS

# 2020 DISTRIBUTION CENTER EXPANSION

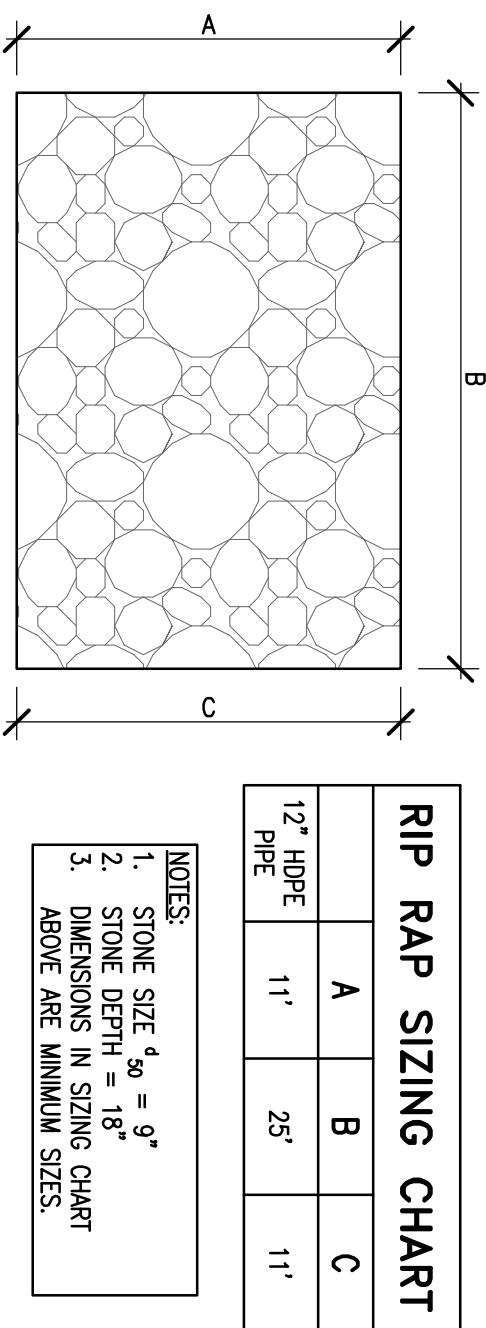
## DELMAR, DELAWARE

SCALE	AS NOTED
DRAWN	EJT
PROJ. MGR.	LSB
JOB	200212
SHEET	



3 18" NYOPLAST OUTLET STRUCTURE DETAIL

SCALE: 1" = 2.0'

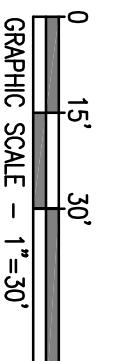


**NOTES:**

1. STONE SIZE  $d_{50} = 9"$
2. STONE DEPTH = 18"
3. DIMENSIONS IN SIZING CHART ABOVE ARE MINIMUM SIZES.

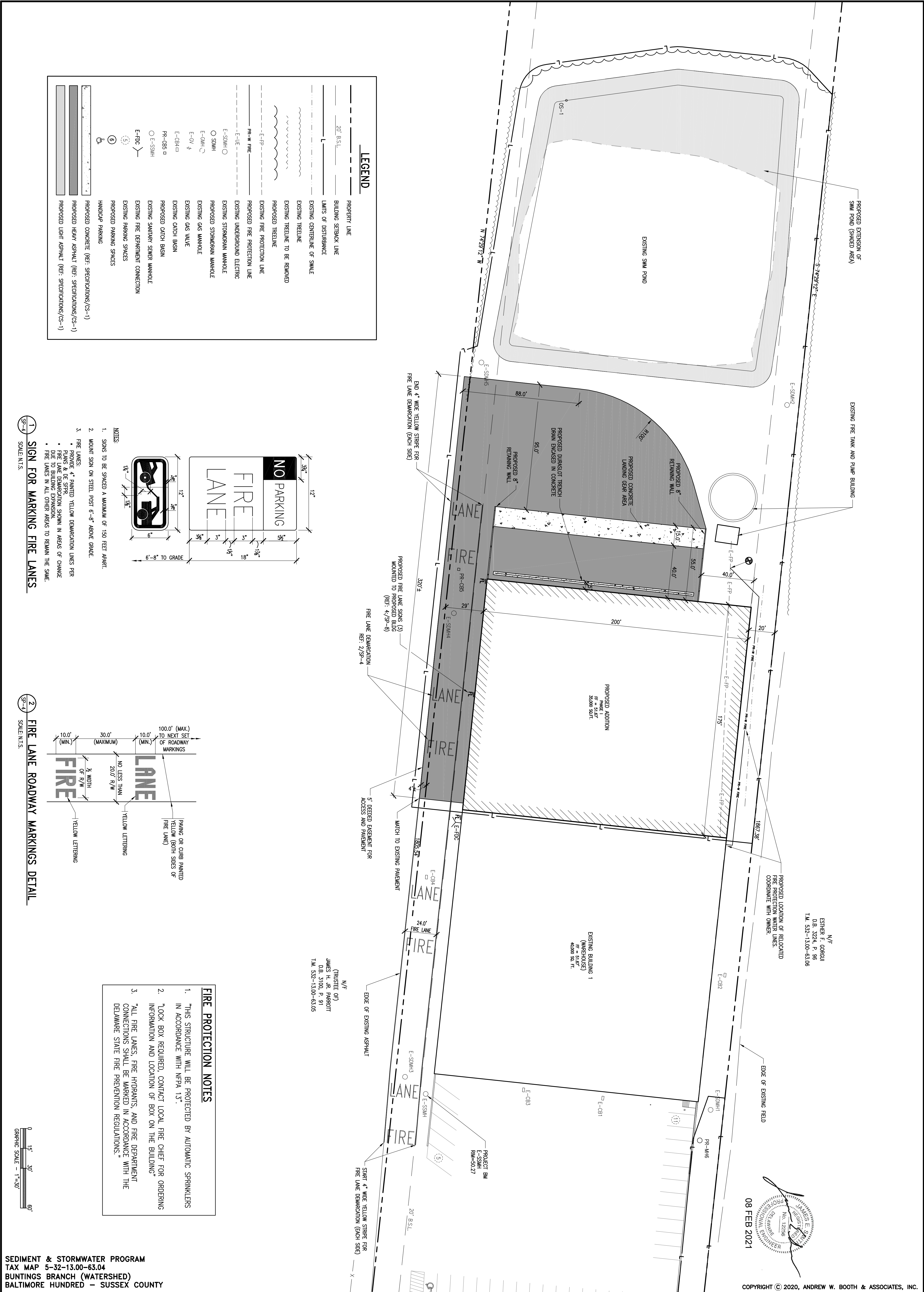
4 EXISTING DITCH RIP RAP OUTLET PROTECTION

SCALE: N.T.S.



SEDIMENT & STORMWATER PROGRAM  
TAX MAP 5-32-13.00-63.04  
BUNTINGS BRANCH (WATERSHED)  
BALTIMORE HUNDRED - SUSSEX COUNTY





SEDIMENT & STORMWATER PROGRAM  
TAX MAP 5-32-13.00-63.04  
BUNTINGS BRANCH (WATERSHED)  
BALTIMORE HUNDRED - SUSSEX COUNTY

PHASE I SITE IMPROVEMENTS PLAN

2020 DISTRIBUTION CENTER EXPANSION

DELMAR, DELAWARE

ENGINEERS/ARCHITECTS

1942 NORTHWOOD DRIVE, SALISBURY, MARYLAND 21801-7824  
PH. (410) 742-7299 FAX. (410) 742-0273

PROJECT NORTH

DATE	BY	DESCRIPTION	REV
13 NOV 20	EFT	PERMIT REVIEW	
01 FEB 21	EFT	PRELIMINARY	
08 FEB 21	EFT	PERMIT REVIEW - COMMENT REVISIONS	

SCALE

1"=30'

DRAWN

EFT

PROLIMER

LSB

JOB

200212

SHEET

SP-4

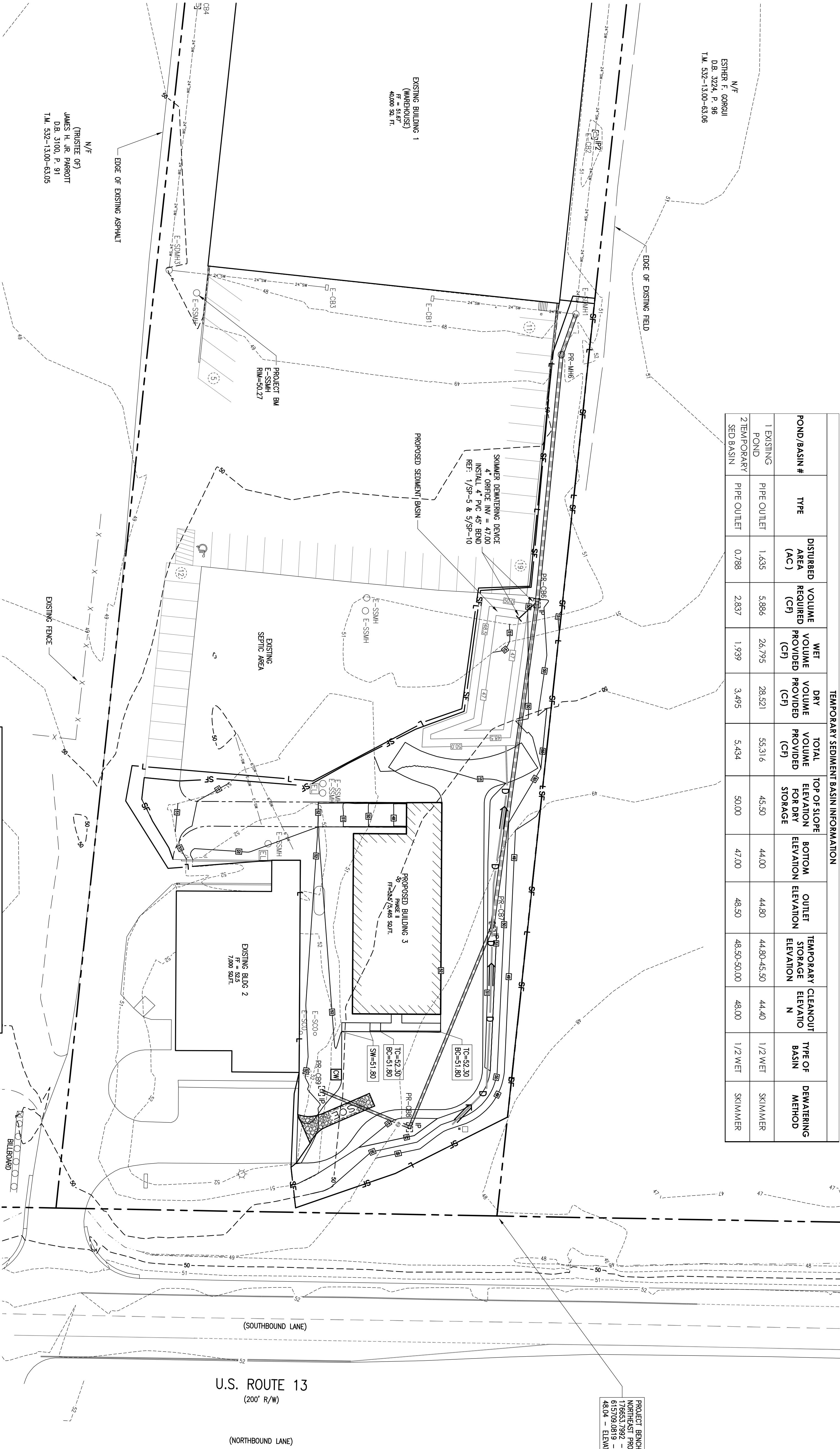
**FIRE PROTECTION NOTES**

- "THIS STRUCTURE WILL BE PROTECTED BY AUTOMATIC SPRINKLERS IN ACCORDANCE WITH NFPA 13".
- "LOCK BOX REQUIRED, CONTACT LOCAL FIRE CHIEF FOR ORDERING INFORMATION AND LOCATION OF BOX ON THE BUILDING"
- "ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS."



PHASE 2 CATCH BASIN & MANHOLE SCHEDULE					
FROM "A"	TO "B"	"A" RIM ELEV	"A" INVERT	"A" TO "B" PIPE SIZE & MATERIAL, LENGTH (F)	"B" RIM ELEV
E-SDMH1	E-CB2	50.54	44.79	24" HDPE, 98.92 FT, 0.05%	44.74
E-CB2	E-SDMH2	50.86	44.74	24" HDPE, 429.16 FT, 0.24%	43.70
E-SDMH2	E-01	47.70	43.70	24" HDPE, 49.77 FT, 0.16%	43.61
PR-CB9	PR-CB8	51.25	48.20	18" HDPE, 53.90 FT, 0.50%	47.93
PR-CB8	PR-CB7	50.50	47.83	18" HDPE, 122.92 FT, 0.51%	47.20
PR-CB7	PR-CB6	50.50	46.85	24" HDPE, 104.90 FT, 0.50%	45.92
PR-CB6	PR-SDMH6	49.50	45.82	24" HDPE, 141.42 FT, 0.49%	45.12
PR-SDMH6	E-SDMH1	50.60	45.02	24" HDPE, 24.43 FT, 0.49%	44.90

TEMPORARY SEDIMENT BASIN INFORMATION									
POND/BASIN #	TYPE	DISTURBED AREA (AC)	VOLUME REQUIRED (CF)	WET VOLUME PROVIDED (CF)	DRY VOLUME PROVIDED (CF)	TOTAL VOLUME PROVIDED (CF)	TOP OF SLOPE ELEVATION	BOTTOM ELEVATION	OUTLET ELEVATION
1 EXISTING POND	PIPE OUTLET	1.635	5,686	26,795	28,521	55,316	45.50	44.00	44.80
2 TEMPORARY SED BASIN	PIPE OUTLET	0.788	2,837	1,939	3,495	5,434	50.00	47.00	48.50
									48.50-50.00
									48.00
									1/2 WET
									SKIMMER



**LEGEND**

— — — — — PROPERTY LINE

— — — — — LIMITS OF DISTURBANCE

— — — — — SILT FENCE (REF: 4/SP-10)

— — — — — INLET PROTECTION TYPE 1 (REF: 5/SP-11)

— — — — — EXISTING CONTOUR

— — — — — PROPOSED CONTOUR

— — — — — PROPOSED SPOT ELEVATION

— — — — — EXISTING CENTRELINE OF SWALE

— — — — — EXISTING TREELINE

— — — — — EXISTING TREELINE TO BE REMOVED

— — — — — PROPOSED TREELINE

— — — — — EXISTING STORMDRAIN PIPING

— — — — — PROPOSED STORMDRAIN PIPING

— — — — — EXISTING STORMDRAIN MANHOLE

— — — — — PROPOSED STORMDRAIN MANHOLE

— — — — — EXISTING GAS MANHOLE

— — — — — EXISTING GAS VALVE

— — — — — EXISTING CATCH BASIN

— — — — — PROPOSED CATCH BASIN

— — — — — EXISTING SANITARY SEWER MANHOLE

— — — — — EXISTING PARKING SPACES

— — — — — TEMPORARY DIVERSION (REF: 7/SP-11)

**1 SKIMMER DEWATERING DEVICE CB-6 ATTACHMENT DETAIL.**

SCALE: 1" = 2'0"

GRAPHIC SCALE: 1" = 2'0"

4" 45° BEND

ATTACH SKIMMER DEWATERING DEVICE TO END OF 4" 45° BEND

PROPOSED CB-6

4" OFFICE INV=47.00

NOTE: ONCE SITE IS STABILIZED AND SEDIMENT TRAP IS REMOVED 4" OFFICE IS TO BE SEALED

SEDIMENT & STORMWATER PROGRAM  
TAX MAP 5-32-13.00-63.04  
BUNTINGS BRANCH (WATERSHED)  
BALTIMORE HUNDRED - SUSSEX COUNTY

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**PHASE II CONSTRUCTION SITE SWM PLAN**

**2020 DISTRIBUTION CENTER EXPANSION**

DELMAR, DELAWARE

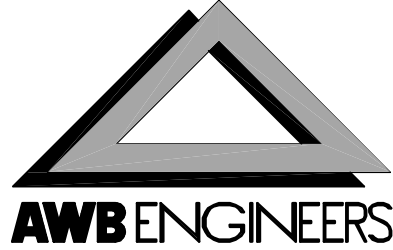
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DRAWN: EFT

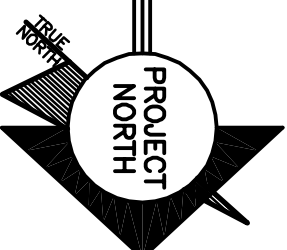
PROJLMGR: LSB

JOB: 200212

SHEET: SP-5



ENGINEERS/ARCHITECTS  
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PH. (410) 742-7299 FAX. (410) 742-0273



DATE	BY	DESCRIPTION	REV
13 NOV 20	EFT	PERMIT REVIEW	
01 FEB 21	EFT	PRELIMINARY	
08 FEB 21	EFT	PERMIT REVIEW - COMMENT REVISIONS	



PROJECT BENCHMARK  
NORTHEAST PROPERTY CORNER  
176653.7992 - NORTHING  
615709.0819 - EASTING  
48.04 - ELEVATION



N/F  
ESTHER F. GORGULI  
D.B. 3224, P. 96  
T.M. 532-1300-6306

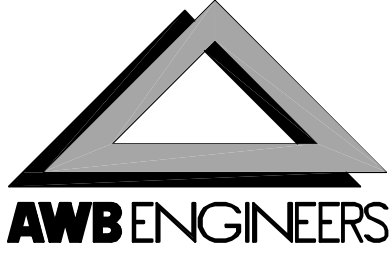
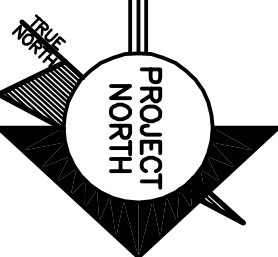
N/F  
(TRUSTEE OF)  
JAMES H. JR. PARROTT  
D.B. 3100, P. 91  
T.M. 532-1300-6305

PROJECT BENCHMARK CORNER  
175653.282' - NORTHING  
615709.0819' - EASTING  
4804' - ELEVATION

08 FEB 2021

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REV	DESCRIPTION	BY	DATE
	PERMIT REVIEW	EFT	13 NOV 20
	PRELIMINARY	EFT	01 FEB 21
	PERMIT REVIEW - COMMENT REVISIONS	EFT	08 FEB 21



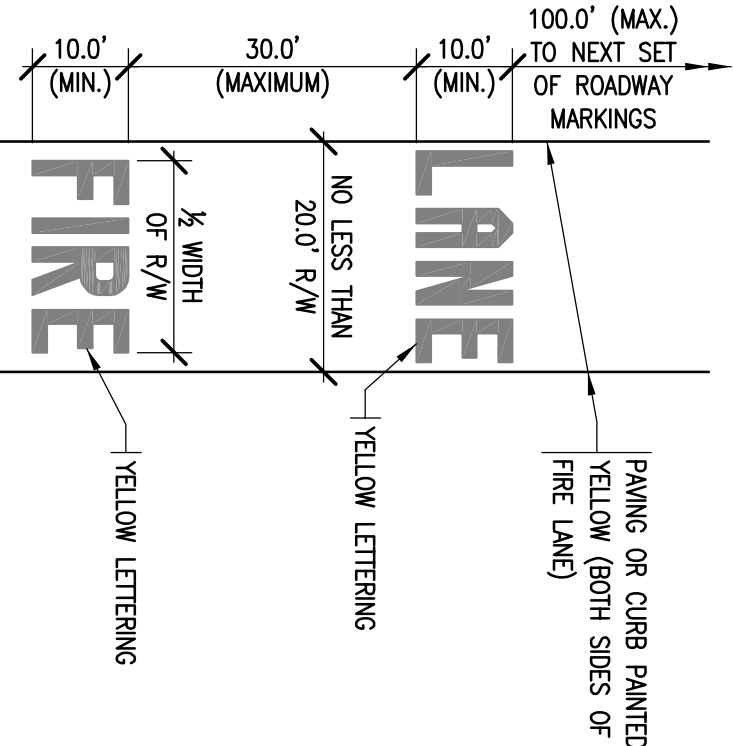
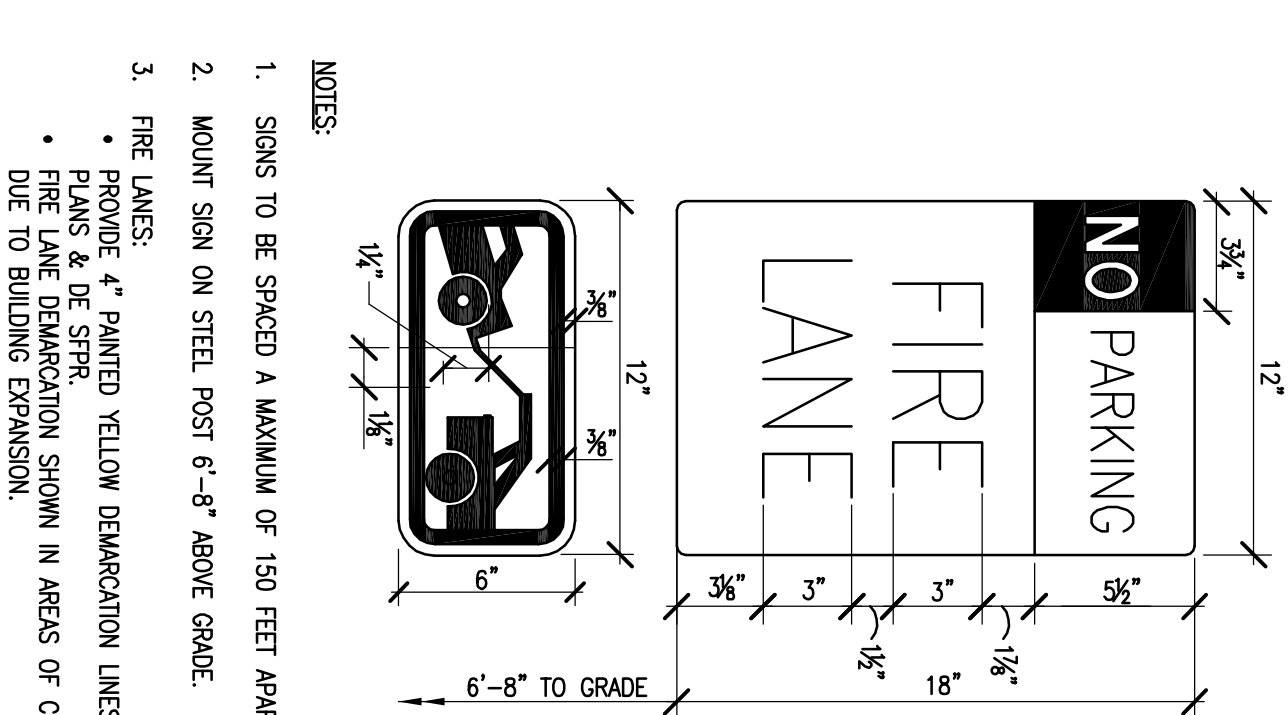
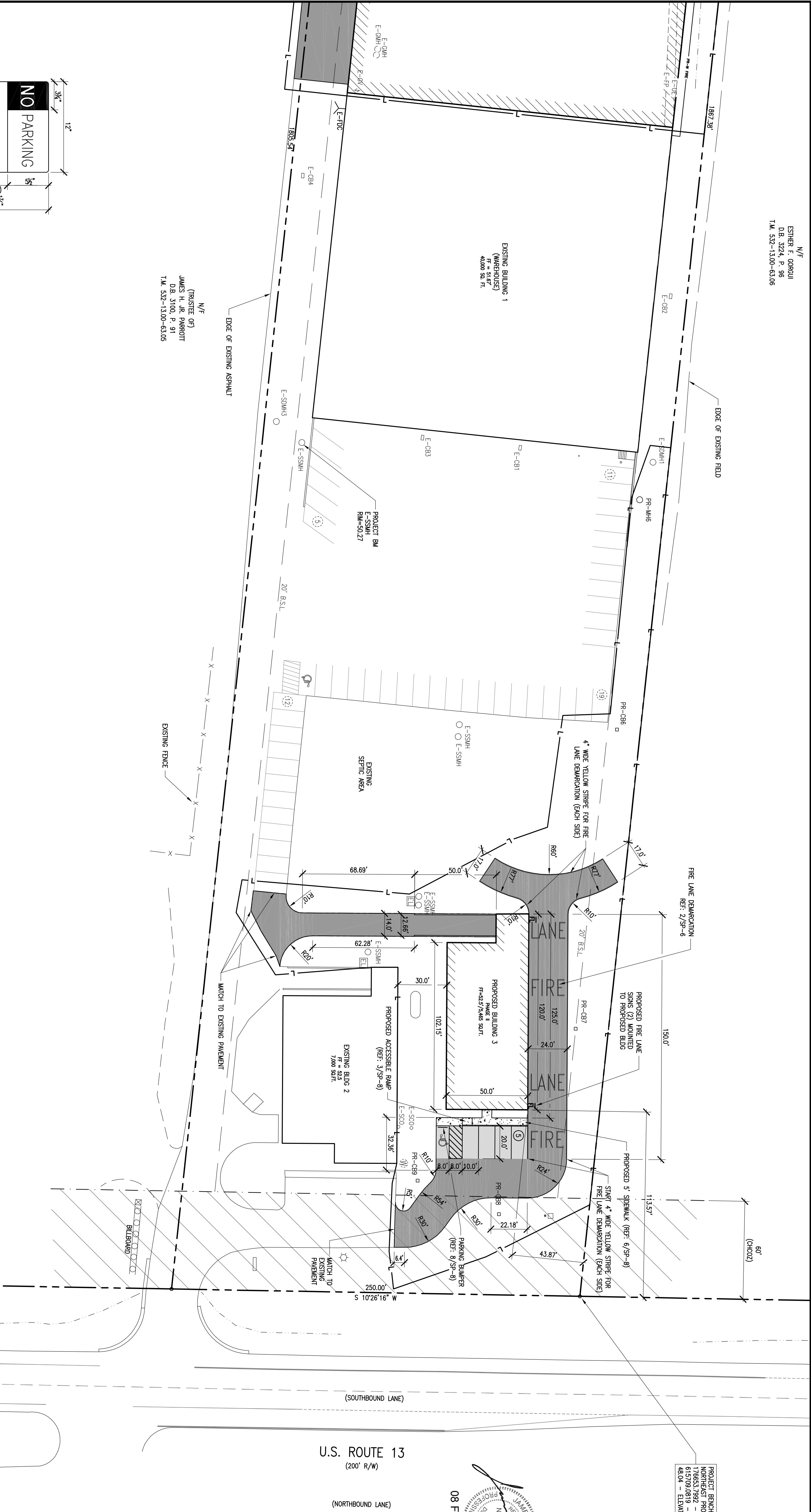
ENGINEERS/ARCHITECTS  
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PH. (410) 742-7299 FAX. (410) 742-0273



PHASE II SITE IMPROVEMENTS PLAN  
2020 DISTRIBUTION CENTER EXPANSION  
DELMAR, DELAWARE

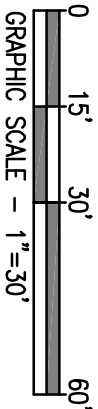
SCALE	PROJ/MGR.	DRAWN	JOB	SHEET
1"=30'	LSB	EFT	200212	SP-6

SEDIMENT & STORMWATER PROGRAM  
TAX MAP 5-32-13.00-63.04  
BUNTINGS BRANCH (WATERSHED)  
BALTIMORE HUNDRED - SUSSEX COUNTY

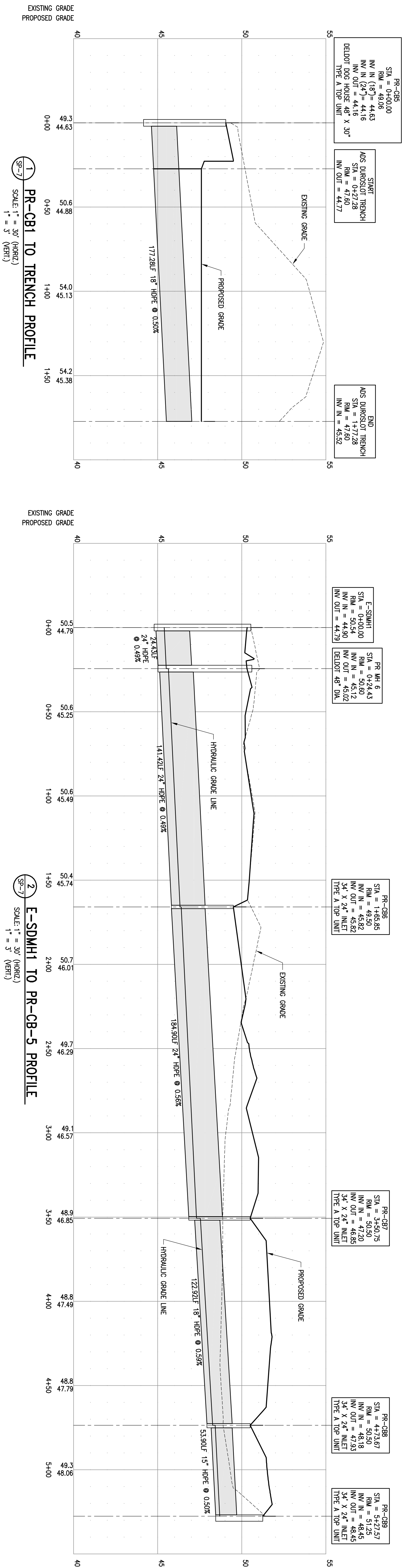


- FIRE PROTECTION NOTES**
- "THIS STRUCTURE WILL BE PROTECTED BY AUTOMATIC SPRINKLERS IN ACCORDANCE WITH NFPA 13."
  - "LOOK BOX REQUIRED, CONTACT LOCAL FIRE CHIEF FOR ORDERING INFORMATION AND LOCATION OF BOX ON THE BUILDING"
  - "ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS."

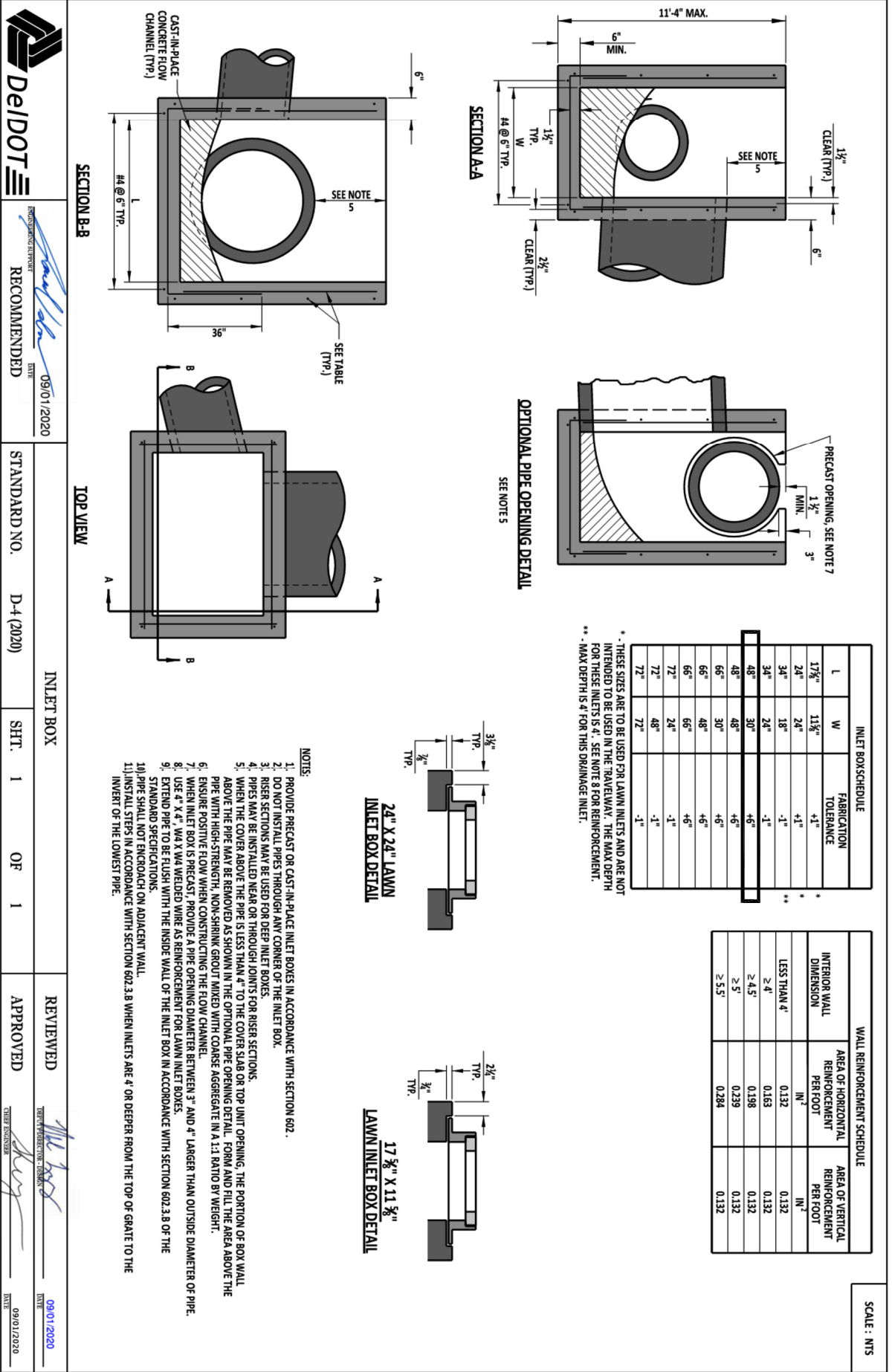
LEGEND	
	PROPERTY LINE
	BUILDING SETBACK LINE
	LIMITS OF DISTURBANCE
	EXISTING STORMDRAIN MANHOLE
	PROPOSED STORMDRAIN MANHOLE
	EXISTING GAS MANHOLE
	EXISTING GAS VALVE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
	EXISTING SANITARY SEWER MANHOLE
	EXISTING PARKING SPACES
	PROPOSED PARKING SPACES
	HANDICAP PARKING
	PROPOSED CONCRETE (REF: SPECIFICATIONS/CS-1)
	PROPOSED HEAVY ASPHALT (REF: SPECIFICATIONS/CS-1)
	PROPOSED LIGHT ASPHALT (REF: SPECIFICATIONS/CS-1)



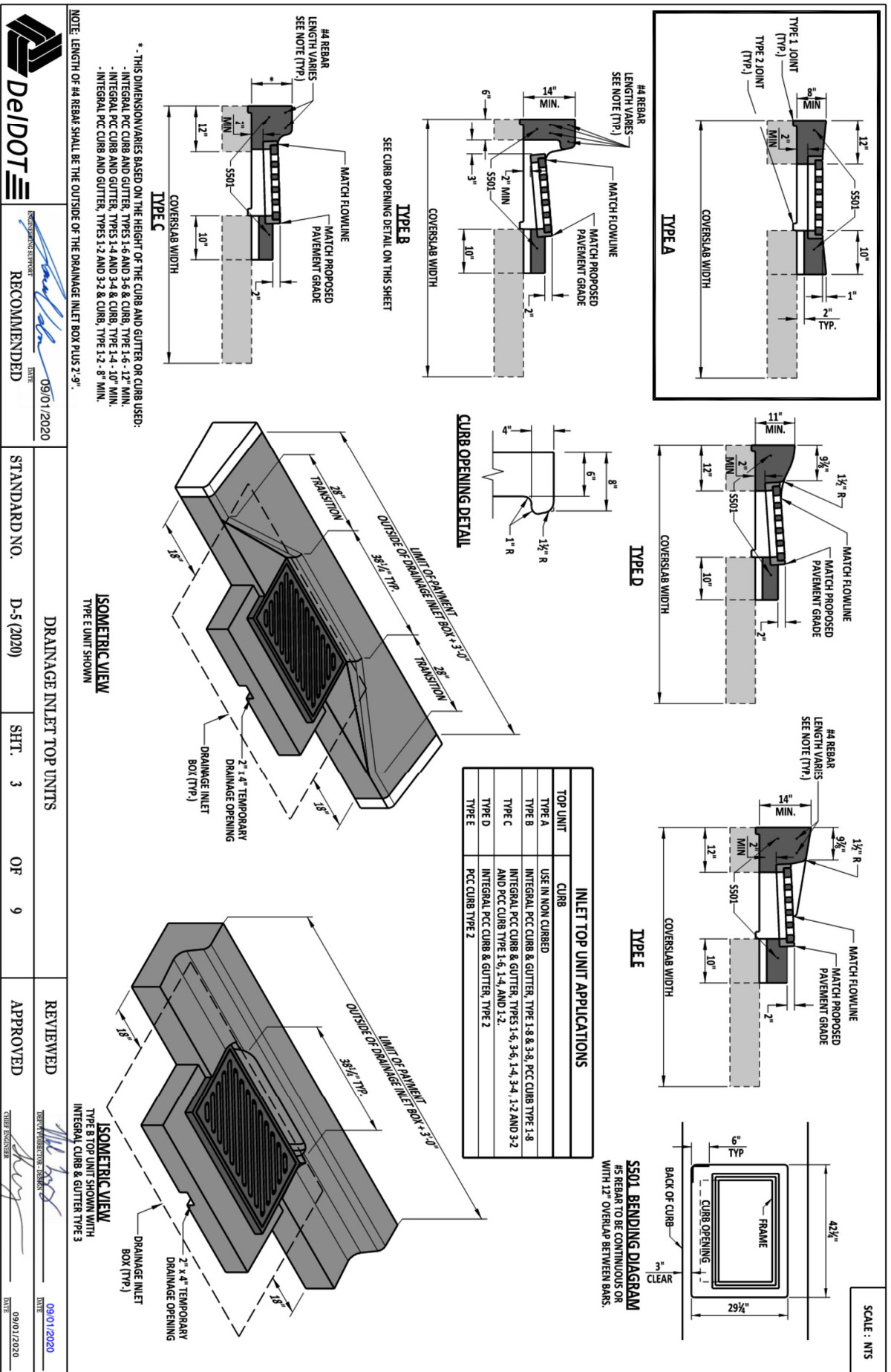




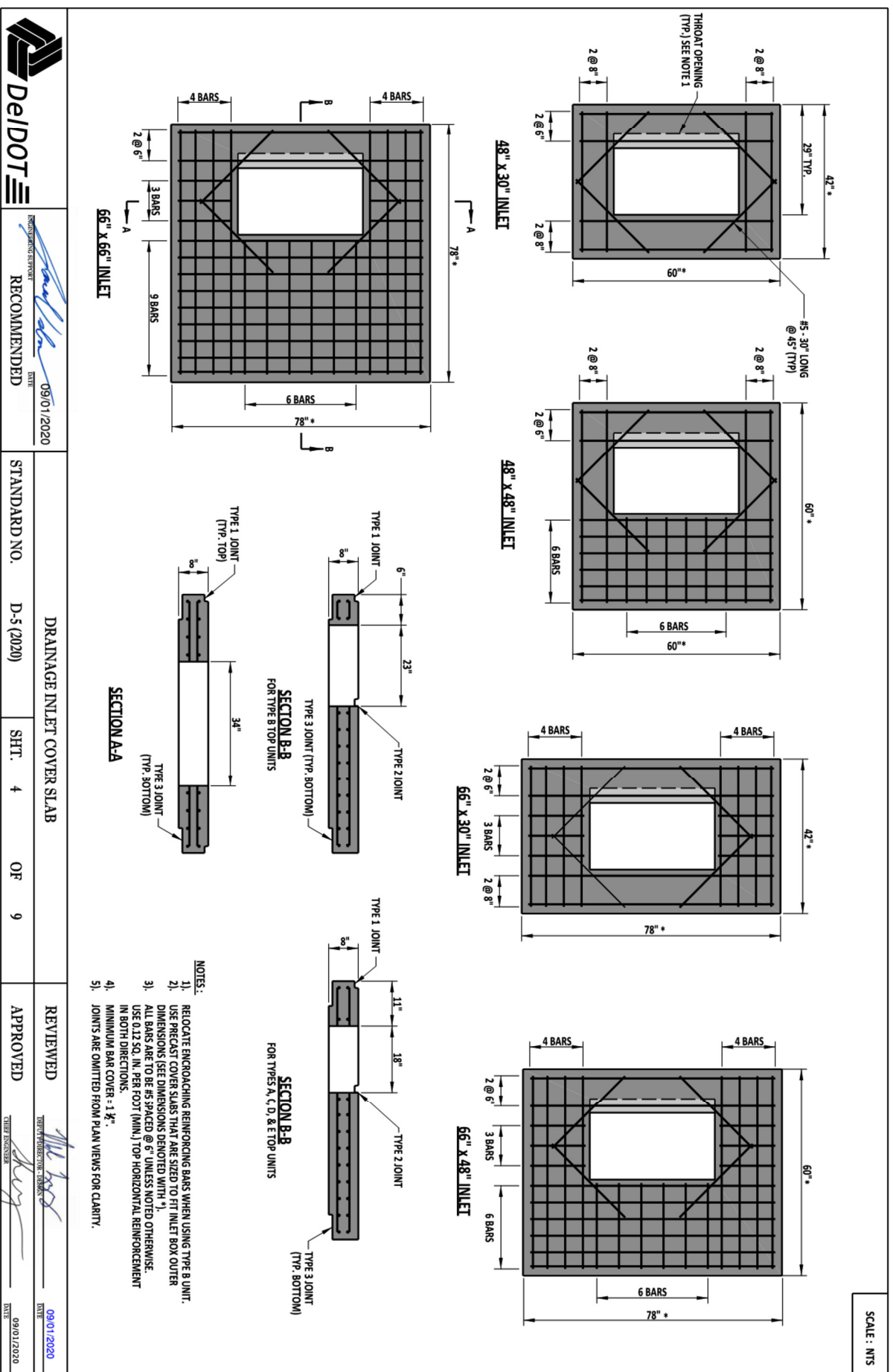
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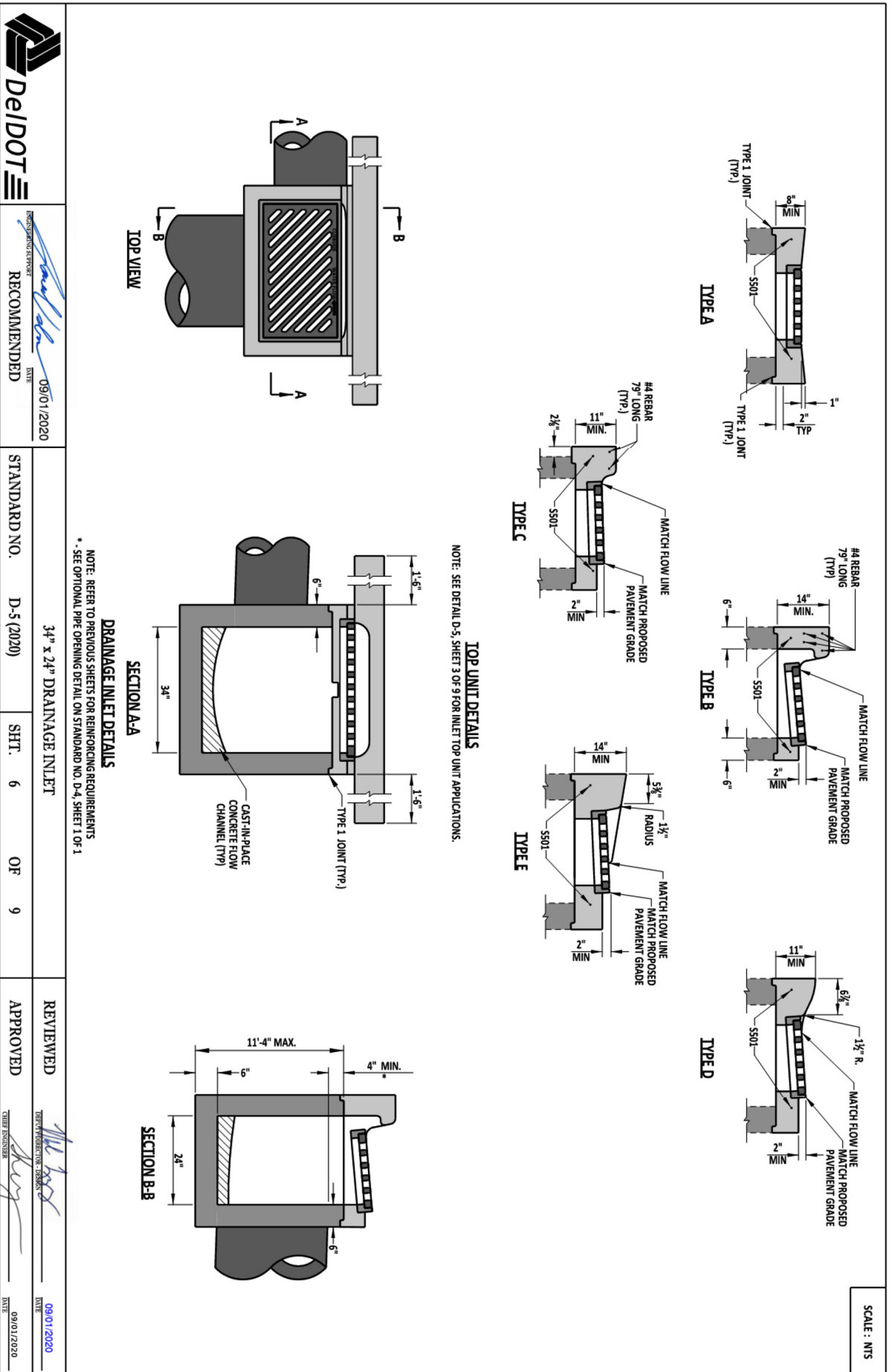
3 CB-5 INLET BOX DETAIL  
SCALE: NTS



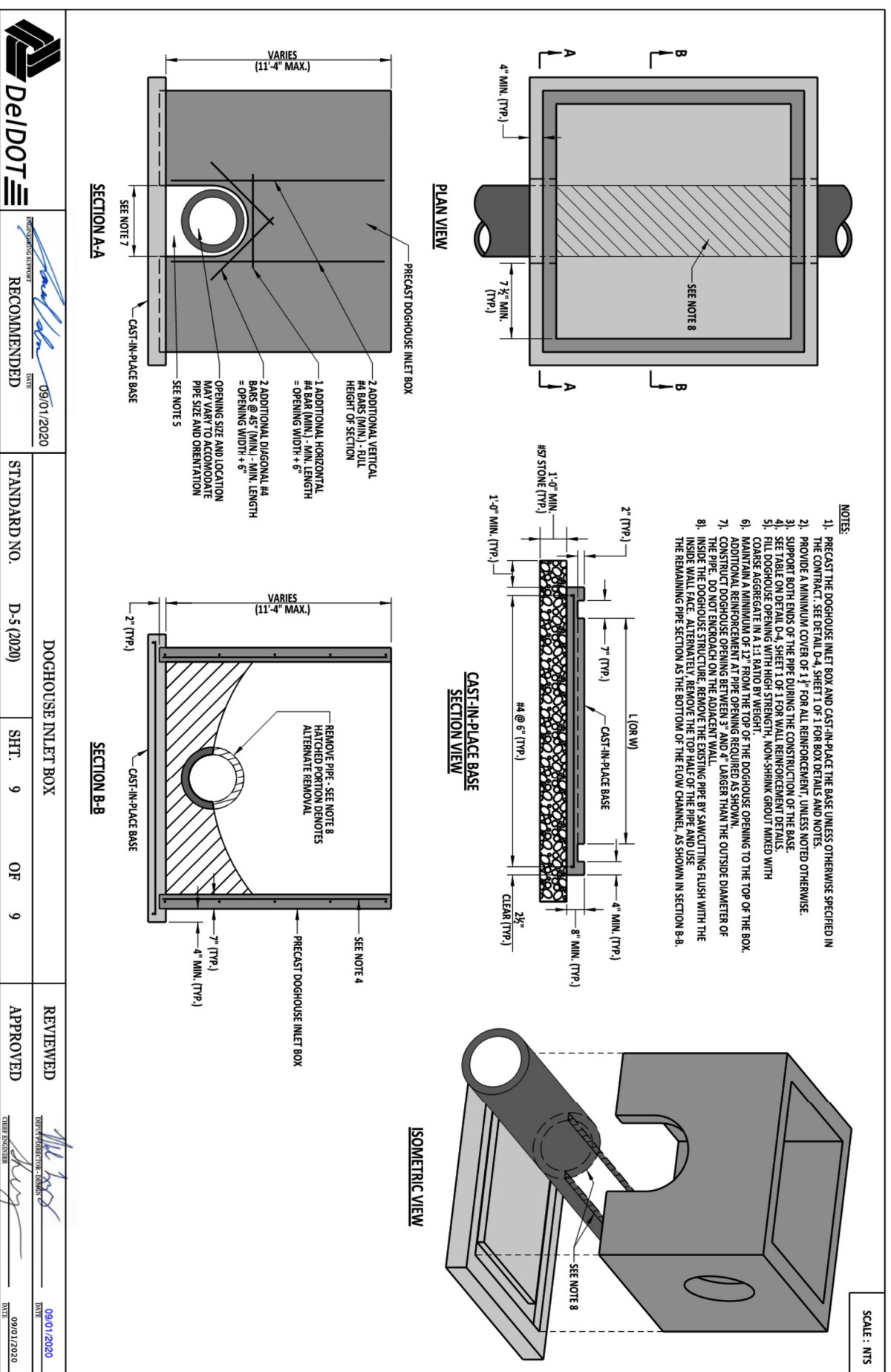
4 CB-5 DRAINAGE INLET TOP UNIT DETAIL  
SCALE: NTS



5 CB-5 DRAINAGE INLET COVER SLAB DETAIL  
SCALE: NTS



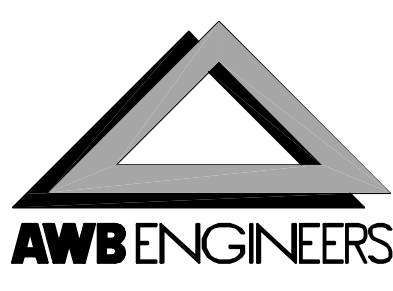
6 CB-6, CB-7, CB-8 & CB-9, 34" X 24" DRAINAGE INLET DETAIL  
SCALE: NTS



7 CB-5 DOGGHOUSE INLET BOX DETAIL  
SCALE: NTS

SEDIMENT & STORMWATER PROGRAM  
TAX MAP 5-32-13.00-63.04  
BUNTINGS BRANCH (WATERSHED)  
BALTIMORE HUNDRED - SUSSEX COUNTY

PHASE II PIPE PROFILES  
2020 DISTRIBUTION CENTER EXPANSION  
DELMAR, DELAWARE



ENGINEERS/ARCHITECTS  
1942 NORTHWOOD DRIVE, SALISBURY, MARYLAND 21801-7824  
PH. (410) 742-7299 FAX. (410) 742-0273

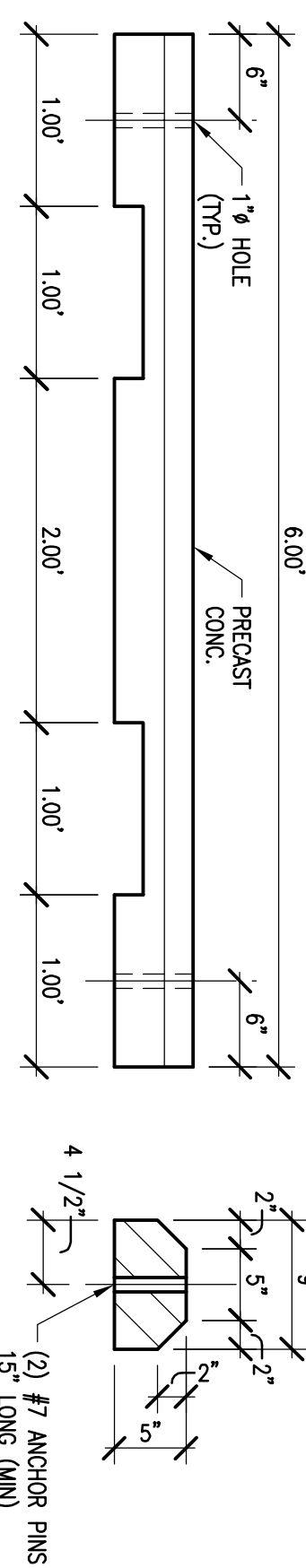
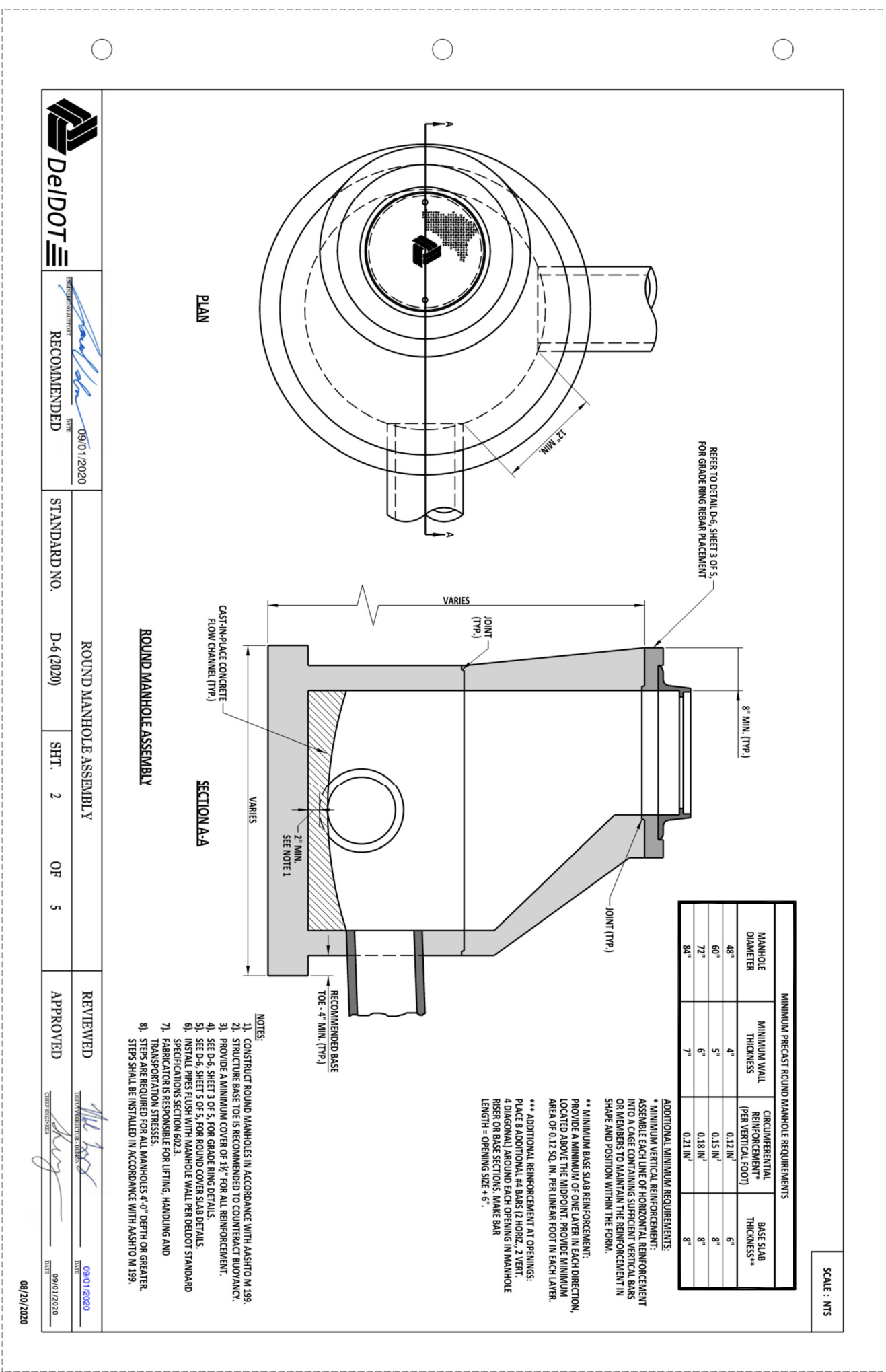
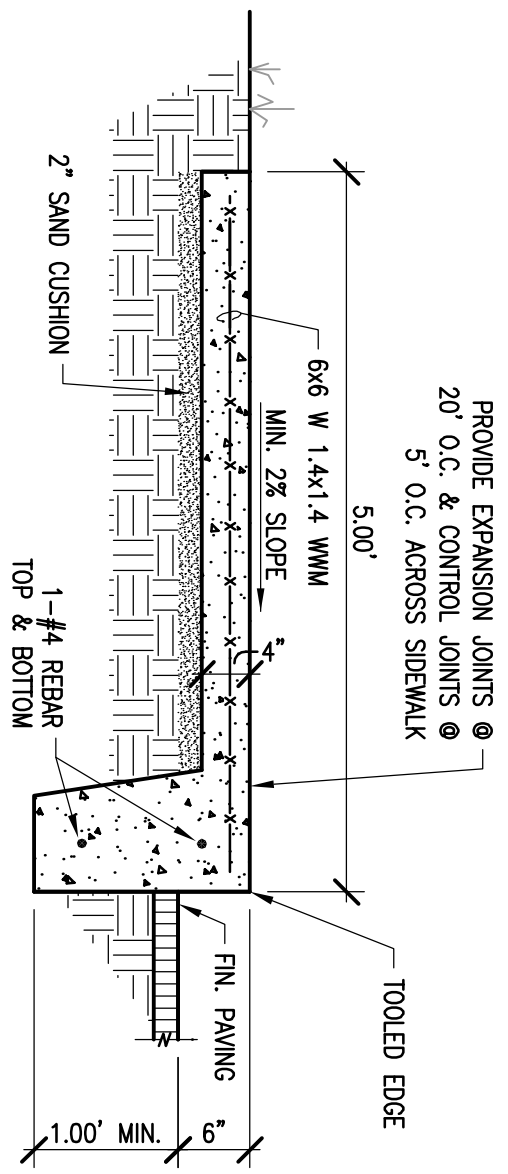
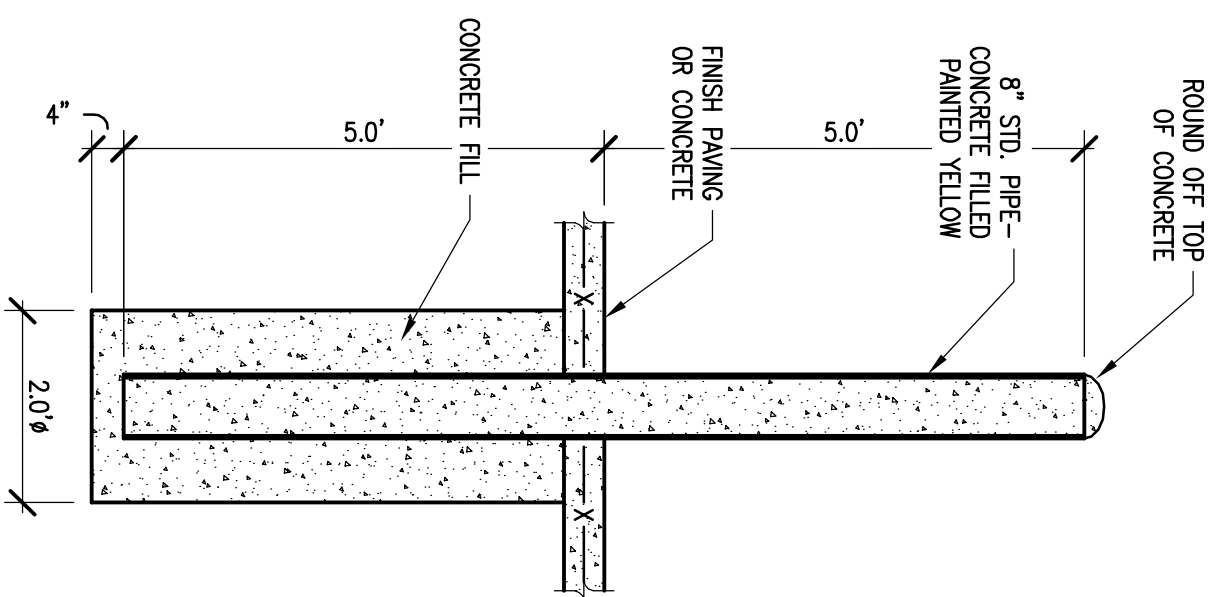
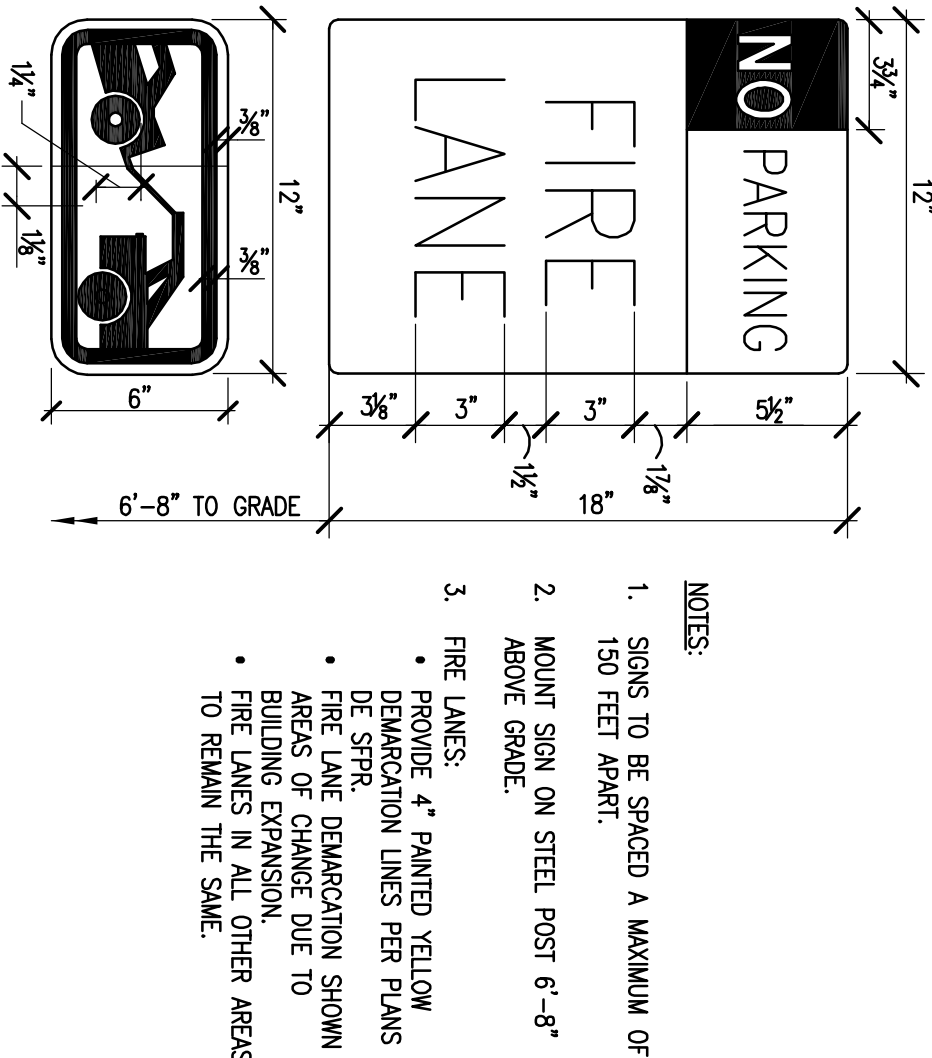
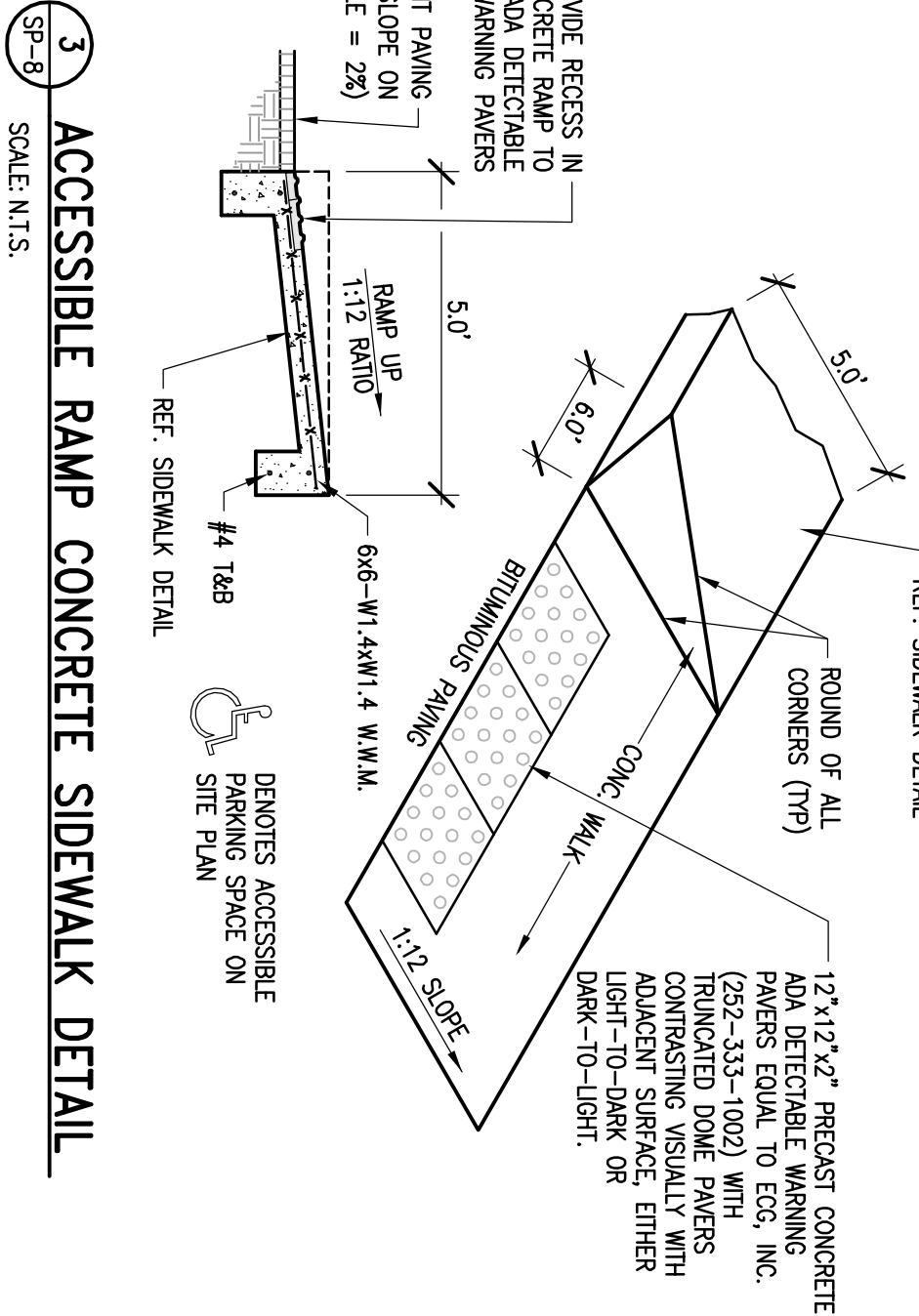
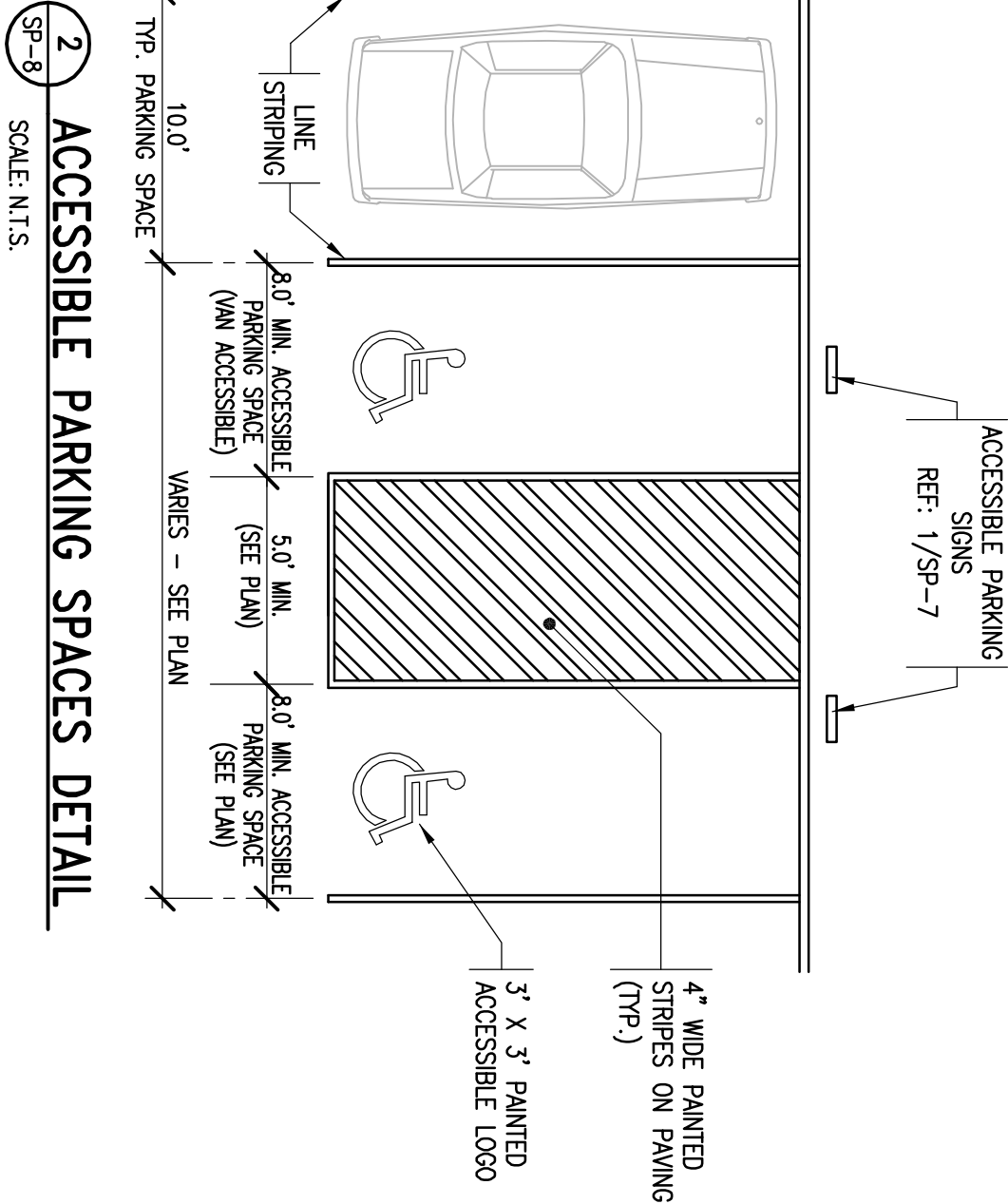
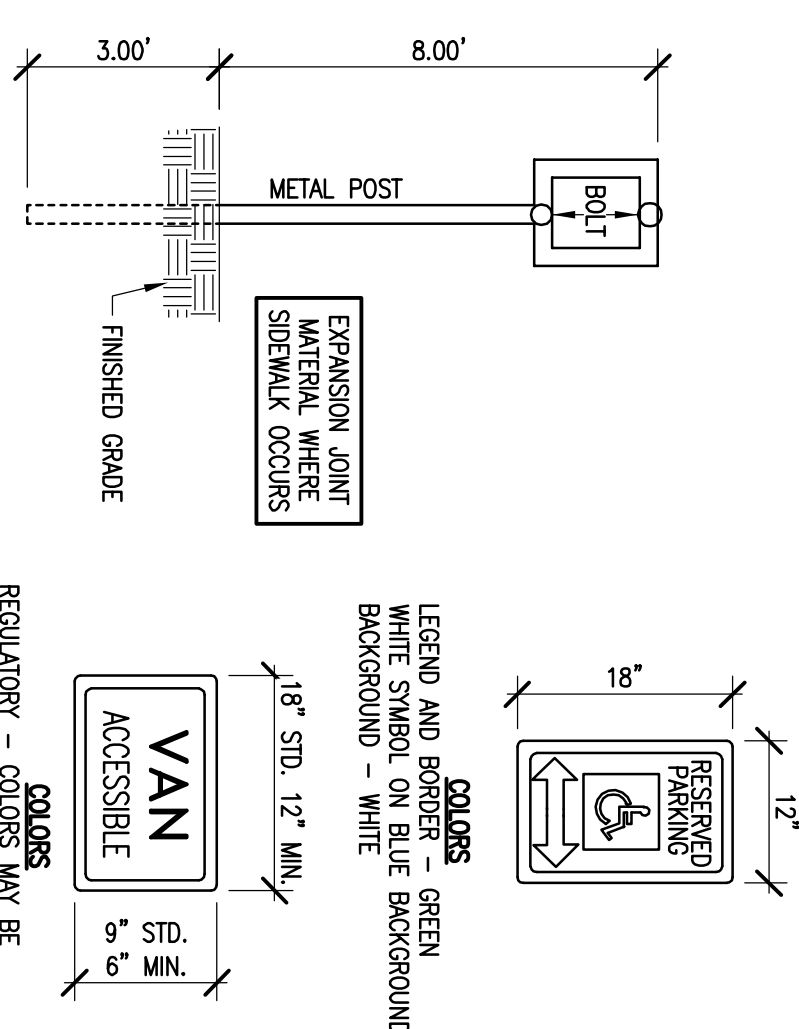
REV	DESCRIPTION	BY	DATE
1	PERMIT REVIEW	EFT	13 NOV 20
2	PERMIT REVIEW - COMMENT REVISIONS	EFT	08 FEB 21

SCALE	AS SHOWN
DRAWN	EFT
PROJ. MGR.	LSB
JOB	200212
SHEET	SP-7



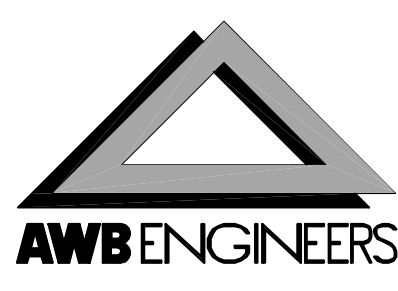
GENERAL NOTES – SEWER

1. THE CONTRACTOR SHALL VERIFY THE LOCATION AND INVERT ELEVATION OF ALL UNDERGROUND UTILITIES, AND VERIFY PROPERTY CORNERS AND TOPO BEFORE ANY CONSTRUCTION IS BEGUN. CALL UTILITY COMPANIES BEFORE EXCAVATION TO LOCATE ALL BURIED CABLES AND UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHOULD NOTIFY THE ENGINEERS FOR A REVIEW SHOULD DISCREPANCIES BE DISCOVERED AT THE SITE OR ON THE DRAWINGS BEFORE AND DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE BETWEEN ALL CIVIL DRAWINGS WITH GRADING AND UTILITY CONTRACTORS IN ORDER TO AVOID PROBLEMS DURING CONSTRUCTION.
3. CONTRACTOR TO SCHEDULE A PRECONSTRUCTION MEETING WITH ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER ENGINEER IN WRITING THAT WATER AND SEWER LINES HAVE BEEN TESTED AND CONSTRUCTED ACCORDING TO THE ENGINEER'S AND UTILITY COMPANY'S DRAWINGS AND SPECIFICATIONS.
4. ALL DIMENSIONS SHOWN ARE MEASURED FROM OUTSIDE FACE OF BUILDING WALL AND TO FACE OF CURB LINE.
5. EARTHWORK SHALL BE TO THE LINES AND GRADES SHOWN. PROOF ROLLING AND COMPACTION TEST SHALL BE ACCOMPLISHED IN THE FIELD TO TEST ALL AREAS. THE CONTRACTOR SHALL REMAIN THE SERVICES OF A TESTING COMPANY TO TEST ALL AREAS.
6. CONTRACTOR SHALL PROTECT ALL TREES THAT ARE TO REMAIN AS SHOWN ON THE DRAWINGS.
7. THE GRADING CONTRACTOR SHALL PROOF-ROLL THE CONSTRUCTION AREA WITH A FULLY-LOADED TANDEN-ALE DUMP TRUCK, OR APPROVED EQUIV. BY MAKING 2 COMPLETE PASSES IN EACH OF 2 PERPENDICULAR DIRECTIONS. ALL SOFT SPOTS SHALL BE UNDER-ROLL AND RE-COMPACTED WITH SUITABLE STRUCTURAL FILL MATERIAL.
8. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ACCURACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON, OR NEAR THE CONSTRUCTION SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL BARRICADES, WARNING SIGNS, FLASHING LIGHTS, AND TRAFFIC CONTROL DEVICES DURING CONSTRUCTION. THE CONTRACTOR IS TO COMPLY WITH ALL OSHA REGULATIONS, REQUIREMENTS, AND SAFETY MEETING REQUIREMENTS.
9. ALL NEW ELEVATIONS SHOWN ARE FINISH GRADE ELEVATION. THE GRADING CONTRACTOR SHALL DETAIL THE FOLLOWING FOR SUBGRADE ELEVATION: ROAD PAVEMENT – 12"; SIDEWALKS – 4"; TURF AREA – 4".
10. THE CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION THAT INTERFERE WITH NEW CONSTRUCTION. REMOVE DEBRIS FROM SITE OR BURN IN ACCORDANCE WITH LOCAL LAWS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY BURNING PERMITS. PROTECT ALL TREES THAT ARE TO REMAIN.
11. TOPSOIL SHALL BE STRIPPED TO A DEPTH AS REQUIRED AND STOCKPILED AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
12. THE TOP 18" OF FILL SHALL BE COMPACTED TO 98 DENSITY BY THE STANDARD PROCTOR METHOD ASTM D-698. ALL OTHER FILL SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY.
13. ALL EXCAVATION SHALL BE "CLASSIFIED EXCAVATION". EXCAVATION SHALL BE "CLASSIFIED" AS "COMMON EXCAVATION" OR "ROCK EXCAVATION". ROCK EXCAVATION SHALL BE EXCAVATED TO THE BOTTOM OF THE EXCAVATION AND ALL MATERIALS SHALL BE REMOVED FROM THE EXCAVATION. ROCK EXCAVATION SHALL INCLUDE ALL MATERIALS THAT CAN BE RIPPED, BULDOZED, AND ALL OTHER MATERIALS THAT DO NOT FALL IN THE CATEGORY OF ROCK EXCAVATION AS DEFINED ABOVE.
14. THE CLASSIFICATION OF SOILS INCLUDE: TOPSOIL, FILL MATERIAL, UNSUITABLE MATERIAL, AND ROCK EXCAVATION. THE CLASSIFICATION OF SOILS IS THE RESPONSIBILITY OF THE OWNER'S SOIL TESTING FIRM.
15. ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE TESTING COMPANY AND SHALL BE FREE OF ROOTS, ORGANICS AND BOULDERS LARGER THAN 1 CUBIC FOOT. FILL SHALL BE PLACED IN 6" LIFTS AND COMPACTED AS SPECIFIED.
16. ALL EXISTING SLOPES STEEPER THAN 4:1 THAT WILL RECEIVE FILL SHALL BE PLOWED AND SCARIFIED SO NEW FILL WILL BOND WITH EXISTING SURFACE.
17. CONTRACTOR SHALL SCARIFY ALL EXISTING ASPHALT PAVEMENT BEFORE PLACING FILL, UNLESS OVERLAYING ASPHALT ONTO EXISTING ASPHALT.
18. THE GRADING CONTRACTOR SHALL CONFORM TO ELEVATIONS AND DIMENSIONS SHOWN WITHIN A TOLERANCE OF PLUS OR MINUS 0.10 FEET. (FINAL GRADED SURFACE UNDER BUILDING SLABS SHALL BE WITHIN A TOLERANCE OF 3/8" WHEN MEASURED WITH A 10' STRAIGHT EDGE).
19. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS III, UNLESS NOTED ON DRAWINGS WITH BELL & SPOT ENDS AND SHALL CONFORM TO ALL REQUIREMENTS OF ASTM C 76, LATEST EDITION, INSTALLED WITH FLEXIBLE PLASTIC (GROUTED) GASKETS AT ALL JOINTS. GASKETS SHALL COMPLY WITH ASTM M-198 751, TYPE B, AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATIONS.
20. ALL CORRUGATED PLASTIC PIPE SHALL MEET THE REQUIREMENTS OF ASTM M-294, TYPE S. SHALL BE SMOOTH INTERIOR WITH ANNUAL CORRUGATED EXTERIOR. ALL CORRUGATED PLASTIC PIPE SHALL BE CLASS III, UNLESS NOTED ON DRAWINGS WITH BELL & SPOT ENDS AND SHALL CONFORM TO ALL REQUIREMENTS OF ASTM C 76, LATEST EDITION, INSTALLED WITH FLEXIBLE PLASTIC (GROUTED) GASKETS AT ALL JOINTS. GASKETS SHALL COMPLY WITH ASTM M-198 751, TYPE B, AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATIONS.
21. ANY REINFORCED CONCRETE PIPE WITH MORE THAN 15 FOOT OF COVER SHALL BE CLASS IV WITH 0-RING JOINTS.
22. ALL STORM PIPE LENGTH AND ELEVATIONS (TOPS AND INVERTS) OF STORM DRAINAGE STRUCTURES SHOWN ON THE DRAWINGS ARE APPROXIMATE. CONTRACTOR MAY HAVE TO FIELD ADJUST AS NECESSARY DURING CONSTRUCTION.
23. ANY REINFORCED CONCRETE PIPE STEEPER THAN 10 PERCENT MUST HAVE CONCRETE COLLARS. CORRUGATED METAL PIPE WITH HIGHER BANDS MAY BE SUBSTITUTED. THE NUMBER OF CONCRETE COLLARS AND TYPE OF STORM PIPE WILL BE DETERMINED TOGETHER BY THE CONTRACTOR AND THE ENGINEER.
24. ALL CORRUGATED STEEL PIPE SHALL BE GALVANIZED AND BROWNSONS. COATED INSIDE AND OUT USING ASTHO M-36 AND M-100. 16 GAUGE FOR SIZES 24 AND 30. 14 GAUGE FOR SIZES 36 AND 42. ALL CONNECTIONS SHALL BE MADE USING HIGHER BANDS WITH 0-RING GASKETS. OR, ALL CORRUGATED STEEL PIPE SHALL BE GALVANIZED AND BROWNSONS. COATED INSIDE AND OUT USING ASTHO M-36 AND M-100. 16 GAUGE FOR SIZES 24 AND 30. 14 GAUGE FOR SIZES 36 AND 42. ALL CONNECTIONS SHALL BE MADE USING HIGHER BANDS WITH 0-RING GASKETS.
25. ALL SANITARY SEWER WORK SHALL BE CONSTRUCTED TO LINES AND GRADES SHOWN AND AS DETAILD ON THE DRAWINGS. ALL MANHOLE TOP ELEVATIONS ON CIVIL DRAWINGS ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MANHOLE TOPS ARE FLUSH WITH PAVEMENT THROUGHOUT THE PROJECT.
26. THE CONTRACTOR SHALL PROVIDE STANDARD CLEAN-OUTS OR MANHOLES AT ALL BRINS AND CHANGES IN GRADE IN SEWER LINES AND CONNECTIONS TO EXISTING SEWER LINES. PIPE BEDDING AND BACKFILL SHALL BE CAREFULLY CONTROLLED. ALL SANITARY SEWER SHALL COMPLY WITH LOCAL CODES AND ORDINANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING WITH THE LOCAL AND STATE SEWER APPROVAL AUTHORITIES TO INSURE THAT ALL MATERIALS, INSTALLATION, TESTING, AND AS-BUILT DRAWING REQUIREMENTS WILL BE TO THE SATISFACTION OF THE LOCAL AND STATE AUTHORITIES.
27. ALL WATER LINES SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS. ALL PIPES, VALVES, AND FITTINGS SHALL COMPLY WITH AWWA STANDARDS. ALL LOCAL AND STATE CODES AND ORDINANCES. PIPE BEDDING AND BACKFILL SHALL BE CAREFULLY CONTROLLED. WATER LINES SHALL BE PRESSURE TESTED, AND DISCONNECTED AS REQUIRED. ALL NECESSARY AS-BUILTS SHALL BE ACCOMPLISHED TO THE SATISFACTION OF THE LOCAL AUTHORITY.
28. ALL UTILITY TRENCHES SHALL BE THOROUGHLY COMPACTED AND TESTED TO PREVENT SETTLEMENT AND DAMAGE TO FUTURE PAVEMENT AND STRUCTURES.
29. ALL AREAS NOT COVERED BY PAVEMENT SHALL RECEIVE TOPSOIL AND BE GRASSED IN ACCORDANCE WITH STATE SPECIFICATIONS (OR GRASSED IN ACCORDANCE WITH OWNER'S SPECIFICATIONS).
30. THE GRADING CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES. CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY AREAS THAT MAY NOT DRAIN PROPERLY DURING CONSTRUCTION.
31. GRADING CONTRACTOR SHALL INCLUDE IN COST ALL CUT/FILL NECESSARY FOR EARTHWORK BALANCE. CONTRACTOR SHALL INCLUDE IN COST ALL WETTING/DRYING OF SOILS NECESSARY TO ACHIEVE COMPACTION PER SPECIFICATIONS.
32. THE SEQUENCE OF WORK SHALL CONFORM TO THE EROSION CONTROL NARRATIVE.
33. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE WHEN INSTRUCTIONS FROM REGULATORY AGENCIES ARE RECEIVED AND COMPLY WITH INSTRUCTIONS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
34. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONSTRUCTION DOCUMENTS AND SHALL AT ONCE REPORT TO THE ENGINEER ANY INCONSISTENCIES OR OMISSIONS DISCOVERED. THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS TO VERIFY THAT ALL LOCATIONS ARE CORRECT PRIOR TO COMMENCING CONSTRUCTION.
35. THE CONTRACTOR SHALL NOT PERFORM ANY WORK ON ANY UTILITIES OR IN ANY PUBLIC RIGHT-OF-WAYS UNTIL HE HAS OBTAINED COPIES OF ALL NECESSARY ENDORSEMENT AND CONSTRUCTION PERMITS.
36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING ANY EXISTING UTILITIES NECESSARY FOR SITE CONSTRUCTION INCLUDING ALL PERMITS AND FEES.
37. THE CONTRACTOR SHALL VERIFY BENCH MARK LOCATION AND ELEVATION WITH SURVEYOR BEFORE BEGINNING CONSTRUCTION.
38. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EASEMENTS ON THE SITE BEFORE PROCEEDING WITH CONSTRUCTION.
39. IN THE CASE OF A CONFLICT IN SPECIFICATIONS, NOTES, OR DETAILS, THE STRICTER SHALL GOVERN.
40. AREAS NOTED FOR TOPSOIL STORAGE ARE TO BE USED FOR TOPSOIL AND FILL STORAGE. THESE MATERIALS SHALL BE SEPARATED.
41. ANY WEATHER CONTROL AT THE SITE INCLUDING DUST CONTROL, WETTING/DRYING SOILS, PUMPING OF GROUNDWATER OUT FOR POUNDS/UTILITY TRENCHES IS THE RESPONSIBILITY OF THE CONTRACTOR.



SEDIMENT & STORMWATER PROGRAM  
TAX MAP 5-32-13.00-63.04  
BUNTINGS BRANCH (WATERSHED)  
BALTIMORE HUNDRED – SUSSEX COUNTY

**SITE NOTES & DETAILS**  
**2020 DISTRIBUTION CENTER EXPANSION**  
DELMAR, DELAWARE



**ENGINEERS/ARCHITECTS**  
1942 NORTHWOOD DRIVE, SALISBURY, MARYLAND 21801-7824  
PH. (410) 742-7299 FAX. (410) 742-0273

REV	DESCRIPTION	BY	DATE
	PERMIT REVIEW	HJR	13 NOV 20
	PERMIT REVIEW – COMMENT REVISIONS	EFT	08 FEB 21

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SEDIMENT CONTROL NOTES

ALL EROSION AND SEDIMENT CONTROLS MEASURES MUST BE IN PLACE BEFORE ANY EARTHMOVING OPERATIONS MAY START. THE ABOVE SCHEDULE IS AN ENGINEER'S ESTIMATE AND MAY VARY DUE TO THE ELEMENTS, ETC.

ONCE PREVIOUS CONCRETE IS INSTALLED MEASURES SHOULD BE TAKEN TO KEEP TRAFFIC AND SEDIMENTS AWAY FROM PREVIOUS CONCRETE UNTIL AFTER FINAL STABILIZATION.

PRIOR TO COMMENCING A NEW PHASE OF CONSTRUCTION, THE CONTRACTOR SHALL RECEIVE APPROVAL FROM THE AGENCY CONSTRUCTION SITE REVIEWER THAT THE PREVIOUS PHASE HAS BEEN SUFFICIENTLY STABILIZED.

ALL PERIMETER CONTROLS ARE TO BE REVIEWED BY THE AGENCY CONSTRUCTION SITE REVIEWER AND APPROVED PRIOR TO PROCEEDING WITH FURTHER SITE DISTURBANCE OR CONSTRUCTION.

NOTIFY THE PERSON RESPONSIBLE FOR STORMWATER SYSTEM CONSTRUCTION REVIEW AT LEAST 3 DAYS PRIOR TO THE START OF THE STORMWATER SYSTEM CONSTRUCTION; STORMWATER FACILITIES MUST BE REVIEWED THROUGHOUT THEIR CONSTRUCTION.

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. NON-SHAFT IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.

IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DETERMINED NECESSARY BY DNRDC OR THE DELEGATED AGENCY.

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.

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

AT ANY TIME A DOWNTURNING OPERATION IS USED, IT SHALL BE PREVIOUSLY APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER FOR A NON-DESTRUCTIVE OPERATION. A DOWNTURNING PERMIT SHOULD BE APPROVED BY THE DNRDC WELL PERMITTING BRANCH.

THE TERMINATION OF THE CONSTRUCTION GENERAL PERMIT WILL REQUIRE SUBMISSION AND ACCEPTANCE OF THE POST CONSTRUCTION VEGETATION DOCUMENTS, INCLUDING FINAL STABILIZATION THROUGHOUT THE SITE. ALL ELEMENTS OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN IMPLEMENTED, AND ACCEPTANCE OF THE FINAL OPERATION AND MAINTENANCE PLAN.

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 DAMAGE AND OTHER APPLICABLE LAWS.

THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LAIDEN RUNOFF OR WIND FROM LEAVING THE SITE. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. ANY DAMAGE TO THE LEAVING THE SITE ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.

BEST AVAILABLE TECHNOLOGY (BAT) SHALL BE EMPLOYED TO MANAGE TURBID DISCHARGES IN ACCORDANCE WITH REQUIREMENTS OF 7 DEL. C. § 60. REGULATIONS GOVERNING THE CONTROL OF WATER POLLUTION, SECTION 91.02, KNOWN AS SPECIAL CONDITIONS FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES, AND DNRDC POLICIES, PROCEDURES, AND GUIDANCE.

THE SUSSEX CONSERVATION DISTRICT RESERVES THE RIGHT TO ENTER PRIVATE PROPERTY FOR PURPOSES OF PERIODIC SITE INSPECTION.

THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND REPAIR ALL EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT PRACTICES DURING CONSTRUCTION.

OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETE.

APPROVED PLANS REMAIN VALID FOR 5 YEARS FROM THE DATE OF AN APPROVAL.

AS-BUILT SURVEYS AND DRAWINGS ARE TO BE SUBMITTED TO THE DISTRICT WITHIN 60 DAYS OF STORMWATER MANAGEMENT FACILITY COMPLETION.

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 DAMAGE AND OTHER APPLICABLE LAWS.

ALL EROSION AND SEDIMENT CONTROLS MEASURES MUST BE IN PLACE BEFORE ANY EARTHMOVING OPERATIONS MAY START. ALL SEDIMENTS SHALL BE REMOVED FROM THE POND WHEN CONVERTING IT FROM A TEMPORARY SEDIMENT BASIN TO PERMANENT POND. EROSION AND SEDIMENT CONTROL DEVICES TO BE REMOVED ONLY AFTER WORK IN AN AREA HAS BEEN COMPLETED AND STABILIZED, WITH WRITTEN APPROVAL FROM THE AGENCY CONSTRUCTION SITE REVIEWER.

THE SITE CONTRACTOR WILL SUBMIT A GEOTECHNICAL REPORT REGARDING POND EMBANKMENT CONSTRUCTION TO THE DISTRICT UPON COMPLETION.

STABILIZATION

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, TEMPORARY OR PERMANENT STABILIZATION WITH SEED AND MULCH SHALL BE COMPLETED WITHIN 14 DAYS TO TECH SURFACE OF ALL DISTURBED AREAS NOT ACTIVELY UNDER CONSTRUCTION.

SPECIFIC STABILIZATION RECOMMENDATIONS MAY BE FOUND IN THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK 1989.

SMALLS OR OTHER AREAS THAT TRANSPORT CONCENTRATED FLOW WILL BE STABILIZED WITH EROSION CONTROL MATTING OR SOO DOWNPOUNTS WILL BE PROTECTED BY SPLASHBROOKS, SOO OR OTHER MEANS OF ADEQUATE PROTECTION TO PREVENT EROSION.

TEMPORARY VEGETATION: ALL DISTURBED AREAS REQUIRING TEMPORARY VEGETATION SHALL BE SEED AS FOLLOWS:

SEED = PERGRASS @ 1 LB./1,000 SQ.FT.  
FERTILIZER = 10-10-10 @ 14 LBS./1,000 SQ.FT.  
STRAW MULCH = @ 70-90 LBS./1,000 SQ.FT.  
LIME = @ 46 LBS./1,000 SQ.FT.

STRAW MULCH WITH ANCHORAGE AS REQUIRED BY ONE OF THE FOLLOWING METHODS:  
MULCH ANCHORING TOOL, "TACKLING," OR LIQUID MULCH BINDER, USING APPROVED PROCEDURES AND RATES. ASPHALT MULCH BINDER IS UNACCEPTABLE. A SYNTHETIC BINDER IS RECOMMENDED.

PERMANENT VEGETATION

AFTER ALL FINAL GRADING IS COMPLETE, ALL AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL BE SEED BY APPROVED METHODS. MINIMUM SEEDING SHALL BE AS FOLLOWS ON 4" MINIMUM TOP SOIL. CONTRACTOR MAY OBTAIN A SOIL TEST THRU THE COOP. EXTENSION SERVICE TO DETERMINE LIME & FERTILIZER REQUIRED IN LEO OF THE BELOW RECOMMENDATIONS.

SEED = DELAWARE MIX NO. 7  
TALL FESCUE 3.5#/1,000 SQ. FT.  
KENTUCKY BLUEGRASS 0.46#/1,000 SQ. FT.  
PERENNIAL RITGRASS 0.46#/1,000 SQ. FT.  
FERTILIZER = 10-10-10 @ 33 LBS./1,000 SQ.FT.  
STRAW MULCH = @ 92 LBS./1,000 SQ.FT.  
LIME = @ 92 LBS./1,000 SQ.FT.

STRAW MULCH WITH ANCHORAGE AS REQUIRED BY ONE OF THE FOLLOWING METHODS:  
MULCH ANCHORING TOOL, "TACKLING," OR LIQUID MULCH BINDER, USING APPROVED PROCEDURES AND RATES. ASPHALT MULCH BINDER IS UNACCEPTABLE. A SYNTHETIC BINDER IS RECOMMENDED.

GRADING

INITIAL EARTH DISTURBANCE WILL BE LIMITED TO THAT AREA NECESSARY TO INSTALL SEDIMENT CONTROL MEASURES.

THE EXISTING DRIVEWAY OR ENTRANCE LOCATION SHALL BE USED AS THE STABILIZED CONSTRUCTION ENTRANCE. TWO INCH STONE SHALL BE PLACED 6 INCHES DEEP, FIFTY FEET LONG AND AS WIDE AS NECESSARY TO ACCOMMODATE ALL CONSTRUCTION VEHICLES.

AT ANY LOCATION WHERE SEDIMENT LAYERS RUN-OFF MAY EXIT THE PROPERTY, PERIMETER CONTROLS WILL BE INSTALLED TO PREVENT SEDIMENT FROM BEING TRANSPORTED OFF-SITE.

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.

GRADING SHALL NOT NEAR SURFACE DRAINAGE. CREATE AN EROSION HAZARD OR CREATE A SOURCE OF SEDIMENT TO ANY ADJACENT WATERBODY OR PROPERTY OWNER.

LOCAL GRADING REQUIREMENTS MAY SUPPLEMENT THESE GRADING CONDITIONS.

PROPOSED SEQUENCE OF CONSTRUCTION PHASE II

NOTIFY THE DNRDC SEDIMENT AND STORMWATER PROGRAM (OR RELEVANT DELEGATED AGENCY) IN WRITING AT LEAST FIVE (5) DAYS PRIOR TO START OF CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.

PRIOR TO ANY CLEARING, INSTALLATION OF SEDIMENT CONTROL MEASURES OR GRADING, A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED AND CONDUCTED WITH THE AGENCY CONSTRUCTION SITE REVIEWER. THE LANDOWNER/DEVELOPER, CONTRACTOR AND CERTIFIED CONSTRUCTION REVIEWER ARE REQUIRED TO BE IN ATTENDANCE AT THE PRE-CONSTRUCTION MEETING; THE DESIGNER IS RECOMMENDED TO ATTEND.

CLEARING AND GRUBBING AREAS USED AS PERIMETER CONTROLS	START	COMPLETE
EXTENDED DETENTION BASIN TO FUNCTION AS SEDIMENT BASIN WITH SUMMER DEVICE INSTALLED AT LOW FLOW ORifice.	DAY 5	DAY 15
ROUGH GRADE AREA FOR BUILDING PAD.	DAY 5	DAY 20
ROUGH GRADE TRUCK DOCK AND AREA OF PROPOSED CONCRETE AND ASPHALT. INSTALL TRENCH DRAIN AND CATCH BASIN. INSTALL STONE BASE.	DAY 21	DAY 50
CONSTRUCT BUILDING AND INSTALL UTILITIES.	DAY 65	DAY 150
INSTALL HEAVY PAVEMENT AND CONCRETE IN TRUCK DOCKS DRIVE ASILES.	DAY 150	DAY 170
PERMANENT VEGETATION	DAY 170	DAY 185
REMOVAL OF CONTROLS & STABILIZE ONCE APPROVED TO DO SO BY THE SUSSEX CONSERVATION DISTRICT	DAY 185	DAY 190

NOTE:

- ALL EROSION AND SEDIMENT CONTROLS MEASURES MUST BE IN PLACE BEFORE ANY EARTHMOVING OPERATIONS MAY START. THE ABOVE SCHEDULE IS AN ENGINEER'S ESTIMATE AND MAY VARY DUE TO THE ELEMENTS, ETC.
- STABILIZED THE BASIN WILL BE CONVERTED TO FINAL DRY EXTENDED DETENTION BASIN DESIGN.
- PRIOR TO MOVING TO PHASE II CONSTRUCTION PHASE I SHOULD BE STABILIZED AND AS-BUILT'S SUBMITTED AND APPROVED BY THE SUSSEX CONSERVATION DISTRICT.

PROPOSED SEQUENCE OF CONSTRUCTION PHASE II (CONTINUED)

NOTIFY THE DNRDC SEDIMENT AND STORMWATER PROGRAM (OR RELEVANT DELEGATED AGENCY) IN WRITING AT LEAST FIVE (5) DAYS PRIOR TO START OF CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.

PRIOR TO ANY CLEARING, INSTALLATION OF SEDIMENT CONTROL MEASURES OR GRADING, A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED AND CONDUCTED WITH THE AGENCY CONSTRUCTION SITE REVIEWER. THE LANDOWNER/DEVELOPER, CONTRACTOR AND CERTIFIED CONSTRUCTION REVIEWER ARE REQUIRED TO BE IN ATTENDANCE AT THE PRE-CONSTRUCTION MEETING; THE DESIGNER IS RECOMMENDED TO ATTEND.

CLEARING AND GRUBBING AREAS USED AS PERIMETER CONTROLS	START	COMPLETE
CONSTRUCTION OF PERIMETER CONTROLS. INSTALL MHE AND CB-6. INSTALL SEDIMENT BASIN WITH SUMMER DEVICE INSTALLED TO CB-6.	DAY 5	DAY 15
ROUGH GRADE AREA FOR BUILDING PAD.	DAY 5	DAY 20
ROUGH GRADE TRUCK DOCK AND AREA OF PROPOSED CONCRETE AND ASPHALT. INSTALL TRENCH DRAIN AND CATCH BASIN. INSTALL STONE BASE.	DAY 21	DAY 50
CONSTRUCT BUILDING AND INSTALL UTILITIES.	DAY 65	DAY 150
INSTALL PAVEMENT AND CONCRETE IN TRUCK DOCKS DRIVE ASILES.	DAY 150	DAY 170
PERMANENT VEGETATION	DAY 170	DAY 185
REMOVAL OF CONTROLS & STABILIZE ONCE APPROVED TO DO SO BY THE SUSSEX CONSERVATION DISTRICT	DAY 185	DAY 190

NOTE:

- ALL EROSION AND SEDIMENT CONTROLS MEASURES MUST BE IN PLACE BEFORE ANY EARTHMOVING OPERATIONS MAY START. THE ABOVE SCHEDULE IS AN ENGINEER'S ESTIMATE AND MAY VARY DUE TO THE ELEMENTS, ETC.
- STABILIZED THE BASIN WILL BE CONVERTED TO FINAL DRY EXTENDED DETENTION BASIN DESIGN.
- CONSERVATION FOR APPROVAL.

PROPOSED GRADING AND EARTH DISTURBANCE

LIMIT OF DISTURBANCE	PHASE I	PHASE II
	146,238 SQ. FT. (3.36 ACRES)	40,263 SQ. FT. (0.92 ACRES)
TOTAL	186,501 SQ. FT. (4.28 ACRES)	

THE DOMINANT SOIL TYPES ON THIS PROJECT ARE HURLOCK LOAMY (0 TO 2 PERCENT SILT) AND EVERSBORO LOAMY (0 TO 5 PERCENT SILT). HYDROLOGIC GROUP A FOR BOTH SOIL TYPES.

ALL EXCESS SOILS ARE TO BE REMOVED FROM THE SITE.

MISCELLANEOUS NOTES

FILTER CLOTH TO BE 60X60 OR APPROVED EQUIV. TP49 340 OR EQUIVALENT.

IF DUST CONTROL BECOMES A PROBLEM, USE WATER, OR PELLETED CALCIUM CHLORIDE TO PREVENT DUST EROSION.

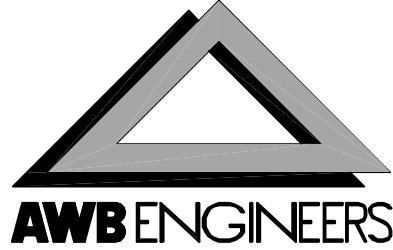
THE GENERAL CONTRACTOR WILL MAINTAIN AND REPAIR ANY EROSION AND SEDIMENT CONTROL DEVICE DAMAGED DURING UTILITY INSTALLATION.

ALL EROSION CONTROL MATTING SHALL BE BIODEGRADABLE. USE NORTH AMERICAN GREEN 575BN OR EQUIVALENT FOR ALL SLOPES 3:1 OR FLATTER.

REV	DESCRIPTION	BY	DATE
	PERMIT REVIEW	EFT	13 NOV 20
	PERMIT REVIEW - COMMENT REVISIONS	EFT	08 FEB 21

ENGINEERS/ARCHITECTS

1942 NORTHWOOD DRIVE, SALISBURY, MARYLAND 21801-7824  
PH. (410) 742-7299 FAX. (410) 742-0273



CONSTRUCTION SITE DETAILS & NOTES

2020 DISTRIBUTION CENTER EXPANSION

DELMAR, DELAWARE

08 FEB 2021




SEDIMENT & STORMWATER PROGRAM  
TAX MAP 533-16.15-PARCELS [PHASE 1]  
40.00, 40.01, 122.00 & [PHASE 2] 55.01  
BUNTINGS BRANCH (WATERSHED)  
BALTIMORE HUNDRED - SUSSEX COUNTY

SCALE	AS SHOWN
DRAWN	EFT
PROJWDR	LSB
JOB	200212
SHEET	

SP-9





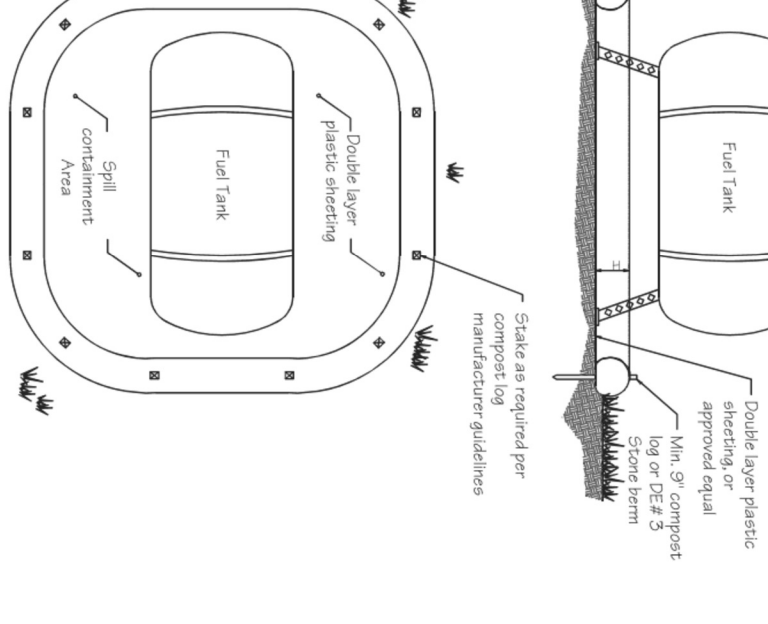


# CONSTRUCTION SITE DETAILS & NOTES


## 2020 DISTRIBUTION CENTER EXPANSION

DELMAR, DELAWARE

SP-10

<p><b>Standard Detail &amp; Specifications</b></p> <p><b>Construction Site Waste Mat &amp; Spill Control</b></p>	 <p><b>BIRCHAM GROUP CORPORATION</b></p>
<p><b>DETAIL NO. D000002-1</b></p> <p>Volume of Potential Spillage Volume of Containment Amount of Containment Volume of Containment</p>	
<p><b>DETAIL NO. D000002-1</b></p> <p>Volume of Potential Spillage Volume of Containment Amount of Containment Volume of Containment</p>	
<p>Source</p> <p>Delaware ESC Handbook</p>	<p>Symbol</p> <p>Detail No. D0000-3.61</p> <p>Sheet of 5</p> <p>Effective FEB 2019</p>

[illegible]

		<h1>Standard Detail &amp; Specifications</h1> <h2>Concrete Washout</h2>	
Construction Notes:		<ol style="list-style-type: none"> <li>1. Locate washout area a minimum of 50 feet from open channels, stormdrain inlets, wetlands or waterbodies.</li> <li>2. Locate washout area so that it is accessible to concrete equipment parked with a minimum 1 foot width gravel accessway, and so it is not in a highly erodible contribution area causing accelerated erosion.</li> <li>3. Minimum dimensions for prefabricated units are 4 feet by 4 feet by 1 foot deep with a minimum 6 inches of concrete on top of the units.</li> <li>4. The liner must be free of tears or holes and placed over smooth surfaces to prevent puncturing or tearing. Liner must be 6 feet by 6 feet deep, with a minimum 30 mil polyethylene liner, 2:1 side slopes, and a 1 foot high by 1 foot wide compacted fill berm.</li> <li>5. For excavated washouts, anchor the liner underneath the berm or overlap with sandbags or concrete blocks to hold in place.</li> <li>6. Provide a slip designating the washout area, and for large construction sites, provide signs throughout directing traffic to the location.</li> <li>7. Allow washed out concrete material to be broken through incorporation of the wastewater. Once the liner has reached 75 percent of its capacity, remove the installed concrete by using the broken aggregate stone, recycling, or disposing of offsite. The hardened material can be buried on site with a minimum of 1 foot of clean compacted fill.</li> <li>7. Apply a new liner before reusing the area for additional washouts after maintenance has occurred.</li> </ol>	
Source:  Adapted from California Urban Storm Drainage Criteria Manual, Vol 3	Symbol:  <div>CW</div>		Detail No.  <b>DE-SSC-3.6.2</b>  Sheet 2 of 2  <b>Ethiopia 2019</b>











# Windmill Woods COA

Member	Email	Billing Address	Shipping Address
Baldwin, Jerry & Jean	jeanbaldwin76@gmail.com, baldwin8375@gmail.com	31545 Golden Aspen Way Ocean View DE 19970	Unit 30
Bennett, Mark & Wanda YPNE	wbennett.wicked1@comcast.net	14000 Twin Cedars Terrace Chester VA 23631	Unit 15
Bennett, Thomas & Michele YPNE	mbennett1107@gmail.com, tom_bennett85@yahoo.com	750 Old Lancaster Road C202 Berwyn PA 19312	Unit 62
Buckles, Brent & Georgia NPNE	bucklesgeorgia@yahoo.com, btb2018@gmail.com	36590 Red Cedar Loop Ocean View DE 19970	Unit 22
Butler, John & Cynthia YPNE	ralph.butler@comcast.net, ntwindows@gmail.com	36746 Red Cedar Loop Ocean View DE 19970	Unit 46
Chen, XiangGuan	guanchen546@gmail.com	36810 Red Cedar Loop Ocean View DE 19970	Unit 54
Czajkowski, Debra Mahan YPNE	star10dc@aol.com	36700 Red Cedar Loop Ocean View DE 19970	Unit 41
Darack, Irvin & Sue Anne NPNE	irwindarack@comcast.net	2002 Country Club Drive Doylestown PA 18901	Unit 4
Deen, Mohamed & Darlene YPNE	dmdeen@aol.com	1217 Fallsmead Way Rockville MD 20854	Unit 9
DiBattista, Mary & Nicholas YPNE	ddibatt@yahoo.com, dibattistaplumbing@gmail.com	5612 Silver Oak Court Derwood MD 20855	Unit 37
Doudoukjian, Charles & Debra NPNE	thedout@aol.com, debradout@aol.com	1057 County Road 619 Newton NJ 07860	Unit 45
Douglass, Jeffrey		259 Glen Mills Road Glen Mills PA 19342	Unit 11

1-1-13-2013



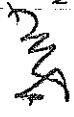


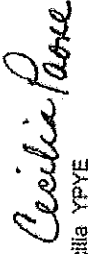



✓	Eberhardt, Steven C. & Gina M. YPVE <i>Shirley Eberhardt</i>	icesplay21@yahoo.com, icesplay21@aol.com	1071 Arbula Rd Abington PA 19001	Unit 65
✓	Fantino/Bleal YPVE	cfantino@yahoo.com	36694 Red Cedar Loop Ocean View DE 19970	Unit 40
✓	Glowacki, Cynthia YPVE	oceanthighlander@gmail.com	36822 Red Cedar Loop Ocean View DE 19970	Unit 55
✓	Goodroe, Charles & Bette	cgoodroe2000@yahoo.com	2437 Valley Glen Dr Little Elm TX 75068	Unit 64
✓	Greco, Steven & Patricia YPVE	selected@aol.com	36856 Red Cedar Loop Ocean View DE 19970	Unit 60
✓	Hager, Bill & Pam YPVE	pamhager@msn.com, rograb123@msn.com	2533 Freetown Drive Reston VA 20191	Unit 3
✓	Halawani, Steven <i>HA DH</i>	stevenhalawani@comcast.net	PO Box 114-5123 Beirut Lebanon	Unit 1
✓	Hess, Donald & Mary YPVE	donhess51@hotmail.com, donhess@verizon.net	38612 Bitternut Hickory Way Ocean View DE 19970	Unit 67
✓	Higgins/Stern <i>CS</i>	mikesterm7475@yahoo.com, celtic2840@yahoo.com	38620 Bitternut Hickory Way Ocean View DE 19970	Unit 70
✓	Holt/Linden YPVE	tholt1650@gmail.com, jlinden22030@gmail.com	38619 Bitternut Hickory Way Ocean View DE 19970	Unit 72
✓	Howard, David & Francisca NPNE	davidmthoward7@msn.com	31553 Golden Aspen Way Ocean View DE 19970	Unit 31
✓	Howley, Richard & Kathy <i>Howley</i>	rkhowley@comcast.net	901 Heritage Hills Drive York PA 17402	Unit 14
✓	Howser, Gary & Mary Ellen	mehowser@gmail.com, ghowser@gmail.com	2693 Thornbrook Road Ellicott City MD 21042	Unit 71
✓	Hubbard, Daniel & Christine YPVE <i>DH</i>	dnh36@verizon.net	367 Mouning Dove Dr Newark DE 19711	Unit 8

1-13-2021 PH

1-13-2021 DH

Unit 43	36717 Red Cedar Loop Ocean View DE 19970	teelesvt@yahoo.com, donnaeleeiarini@gmail.com	Iarini, Donna Lee YPYE
Unit 56	36844 Red Cedar Loop Ocean View DE 19970	thomasj413@aol.com	Jackson, Thomas & Robin NPNE
Unit 57	36836 Red Cedar Loop Ocean View DE 19970	johnstons2bb@gmail.com	Johnston, Suzette & Joseph
Unit 61	1174 Webb Drive Perkasie PA 18944	susanjustice99@yahoo.com	Justice, Edmund & Susan
Unit 18	36607 Red Cedar Loop Ocean View DE 19970	mikekeating1973@gmail.com	Keating, Michael
Unit 51	36782 Red Cedar Loop Ocean View DE 19970	janeking73@icloud.com	King, Jane & Garret
Unit 2	37508 River Birch Lane Ocean View DE 19970	kingb430@hotmail.com	Kingston, Bruce
Unit 20	21 Sheppard Place Edison NJ 08817	gmklemm@gmail.com, rcr3407@gmail.com	Klemm, Gregory M. & Ruth H. NPNE
Unit 17	36601 Red Cedar Loop Ocean View DE 19970	lindalestn@yahoo.com, dennisleslie891@gmail.com	Lesniewski, Dennis & Linda
Unit 48	36780 Red Cedar Loop Ocean View DE 19970	barbara.lohr878@hotmail.com	Lohr, Barbara
Unit 25	36618 Red Cedar Loop Ocean View DE 19970	aelord33999@gmail.com	Lord, Amy
Unit 21	14521 South Hills Ct Centreville VA 20120	info@lovesoulstyle.com, dvlove@it.newyorklife.com	Love, David & Deborah
Unit 29	3010 Rickert Road Perkasie PA 18944	rfmanfredi@live.com, richsand2@verizon.net	Manfredi, Richard & Alexandra NPNE
Unit 47	36754 Red Cedar Loop Ocean View DE 19970	abigail41@verizon.net	McCreary, Nancy & Fred

	McIntyre, Kelly YPPE	kmcintyre40@gmail.com	36680 Red Cedar Loop Ocean View DE 19970	Unit 38
	Macca, Lana & Andrew	lanamecca@yahoo.com	36850 Red Cedar Loop Ocean View DE 19970	Unit 59
	Michalski, Deborah M. YPPE	debmichalski@verizon.net	38618 Bitternut Hickory Way Ocean View DE 19970	Unit 69
	Miller, Mike & Margarita YPPE	michaelmiller661@gmail.com, margarita.miller@cox.net	6535 Novak Woods Court Burke VA 22015	Unit 10
	Mitchell, Laurence & Antoinette YPPE	lmitchell603@yahoo.com	31551 Golden Aspen Way Ocean View DE 19970	Lot 32
	Moyer, Wesley & Katharine NPNE	wyeeha@yahoo.com, kwm8887@yahoo.com	31545 Golden Aspen Way #33 Ocean View DE 19970	Unit 33
	Murphy, Kristi YPPE	kristim999@gmail.com	31542 Golden Aspen Way Ocean View DE 19970	Unit 28
	Nance, Ginger	ganance@aol.com	36686 Red Cedar Loop Ocean View DE 19970	Unit 39
	Neikirk, Suzanne YPPE	neikirksr@comcast.net, lexcamp@verizon.net	38734 Red Cedar Loop Ocean View DE 19970	Unit 44
	Ogurcak, Bob & Amy NPNE	alpaone@verizon.net	1354 Wicklow Drive York PA 17404	Unit 16
	Paone, Anthony & Cecilia YPPE	suepa2018@gmail.com	31540 Golden Aspen Way Ocean View DE 19970	Unit 27
	Pasker, Susan YPPE	renareese@verizon.net, gdc500k@cloud.com	36806 Red Cedar Loop Ocean View DE 19970	Unit 24
	Reese, Kevin & Rena YPPE	ldprichardson@yahoo.com	11010 Lamplighter Ln Potomac MD 20854	Unit 12
	Richardson, Denise & Lance		530 Kennersley Farm Lane Church Hill MD 21623	Unit 66



Richmond, Nicolette	nicrichmond1@gmail.com	38614 Bitternut Hickory Way Ocean View DE 19970	Unit 68
Risser/Ferro NPNE	risseanna@gmail.com, elaineferro63@gmail.com	36658 Red Cedar Loop Ocean View DE 19970	Unit 35
Roemer, Joseph & Kathleen YPYE	jroem41@gmail.com	38617 Bitternut Hickory Way Ocean View DE 19970	Unit 73
Scott, Charles & Dianne	scottysgirl1987@gmail.com, bebopscotty@aol.com	36696 Red Cedar Loop Ocean View DE 19970	Unit 23
Scurachio, Drew & Ellen	drewscurachio@verizon.net, escurachio@icloud.com	2315 Ridge Tree Court Ellicott City MD 21042	Unit 6
Seeley, Brian & Sue	bpseeley1@verizon.net, sseeley37502@gmail.com	37502 River Birch Lane Ocean View DE 19970	Unit 5
Sistek, David & Florence NPNE	tresisteks@gmail.com	6018 Morgan Court Alexandria VA 22312-5512	Unit 34
Smith, Jarrod & Christy YPYE	smithfamilychoolva@gmail.com, jarrod.smith@fmr.com	17518 Mosby's Overlook Lane Leesburg VA 20175	Unit 13
Sprague, Carol & Jeffrey YPYE	cjsprague@gmail.com, magicb6321@gmail.com	300 Sunset Rd Rotonda West FL 33947	Unit 52
Toigo, Theresa Ann	toigo2006@comcast.net	13916 Castaway Drive Rockville MD 20853	Unit 7
Torregrosa, Arthur & Julie	altress@msn.com	265 Peekskill Hollow Rd Putnam Valley NY 10579	Unit 63
Ulrich, Allen & Dorothea YPYE	alulrich1956@verizon.net	36830 Red Cedar Loop Ocean View DE 19970	Unit 56
Usilton, William & Danielle YPYE	brampaig@comcast.net	36611 Red Cedar Loop Ocean View DE 19970	Unit 19
Warble/Harkleroad YPYE	newcarole5166@msn.com	8108 Eleanor Terrace Baltimore MD 21222	Unit 26

1-13-2021

Weselsky, Bruce & Tammi	tammiweselsky@aol.net	1751 Wildwood Road Ukiah CA 95482	Unit 53
White, James & Kelley YPVE	kelleyB402@aol.com, jameswhi@nationalgypsum.com	1196 Annis Squam Harbour Pasadena MD 21122	Unit 36
Willens, Jonathan NPNE	jon.willens@gmail.com	36716 Red Cedar Loop Ocean View DE 19970	Unit 42
Wycoff, Carl & Virginia	gtrnywycoff1122@gmail.com, tomwycoff1@gmail.com	36774 Red Cedar Loop Ocean View DE 19970	Unit 50
Zaika, Ellen & David	zaikaellen@gmail.com, david.zaika@fema.dhs.gov	3401 Queensborough Drive Chney MD 20832	Unit 49



December 22, 2020

Mr. Coleman Bunting  
Windmill Woods LLC  
32996 Lighthouse Road  
Selbyville, DE 19975

**RE: Windmill Woods Drainage Revision**

Dear Mr. Bunting,

A Sediment and Stormwater Management Plan Revision has been reviewed for compliance with the Sediment and Stormwater Regulations and is approved with conditions (see attached). Enclosed herein please find a revision to the approved plans dated March 22, 2018. **Your plans will expire on March 22, 2023.** 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](http://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 storm water 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**

4. 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.
5. 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**

6. 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.
7. Keep available onsite, during all phases of construction, a copy of the approved Sediment and Stormwater Management Plan.
8. Keep available onsite, during all phases of construction, copies of the Developers weekly self-inspection reports and/or the CCR Reports.
9. 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.
10. Grading shall not impair surface drainage, create an erosion hazard, or create a source of sediment to any adjacent watercourse or property owner.
11. 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*.
12. 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.



This Ordinance was adopted subject to the following conditions:

**APPROVED**  
*Revised Final Site Plan*  
 for **PG 984**  
 SUSSEX COUNTY 3/23/15N  
 PLANNING & ZONING COMMISSION  
 5-21-15

N/F  
 H. ROBERT HOWMAN  
 PARCELS 304  
 UNDEVELOPED, 33.51 AC.  
 0271/228

N/F  
 JOHN A. LUCAS, et. ux.  
 PARCELS 304.01  
 2007/417

WINDMILL ROAD (COUNTY ROAD 352)  
 HORSESHOE DRIVE  
 SOUTH PRINCROSS LANE

**DWG. S2**  
**DWG. S3**  
**DWG. S4**  
**DWG. S5**

RED CEDAR LOOP  
 RED CEDAR LOOP  
 RED CEDAR LOOP  
 RED CEDAR LOOP

LOT 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

PINE GROVE LANE  
 PINE GROVE LANE  
 PINE GROVE LANE

PG 984  
 15.15 AC.  
 15.15 AC.  
 15.15 AC.  
 15.15 AC.

PINE GROVE SUBDIVISION  
 PARCELS 1503-1505 INCLUSIVE  
 P.S. 13, P. 133

[illegible]

SIGNATURE: Randy B. Duplechain DATE: 5/19/17

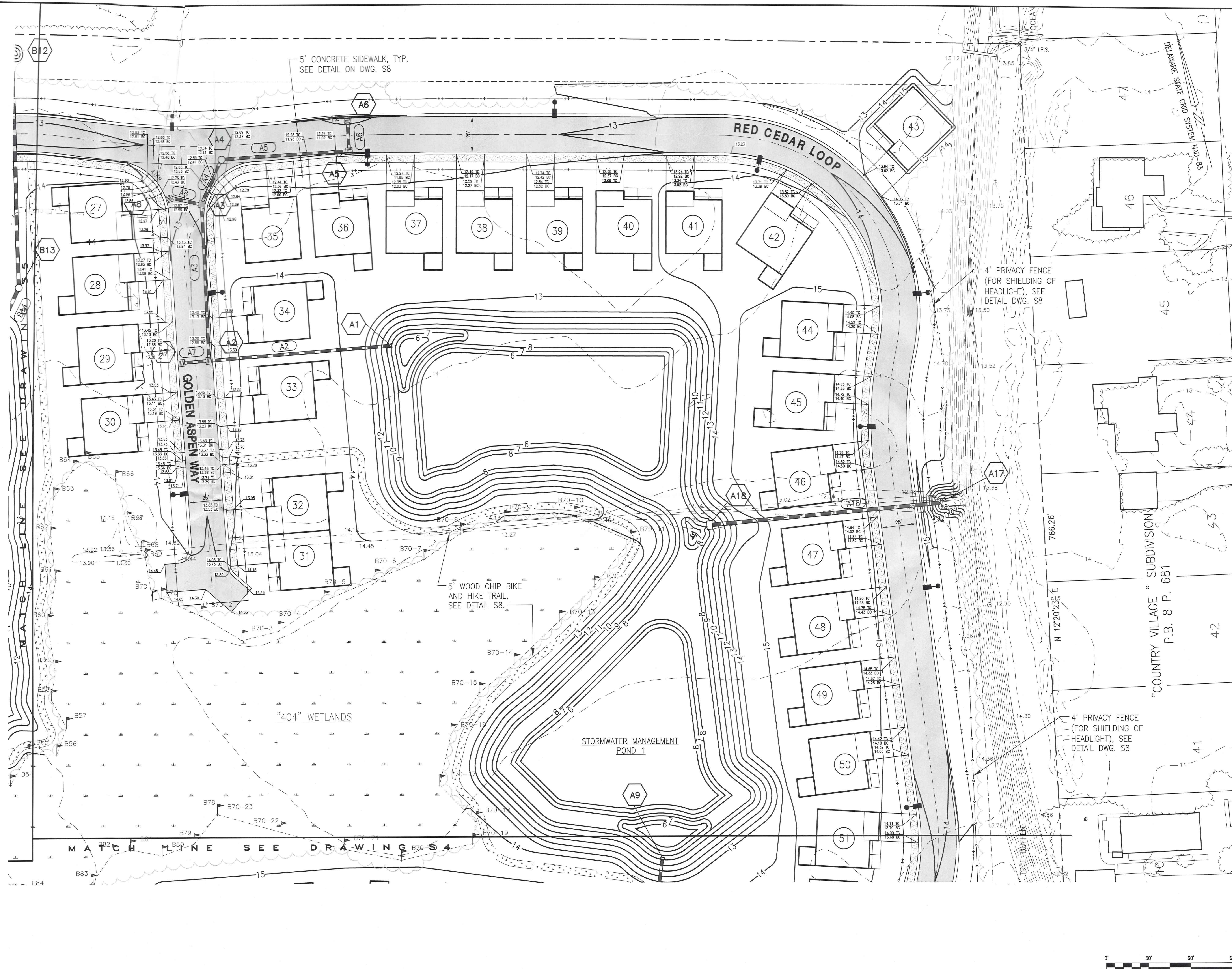
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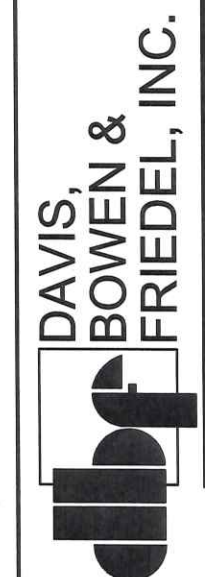




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DAVIS,  
BOWEN &  
FRIEDEL, INC.  
ARCHITECTS ENGINEERS SURVEYORS

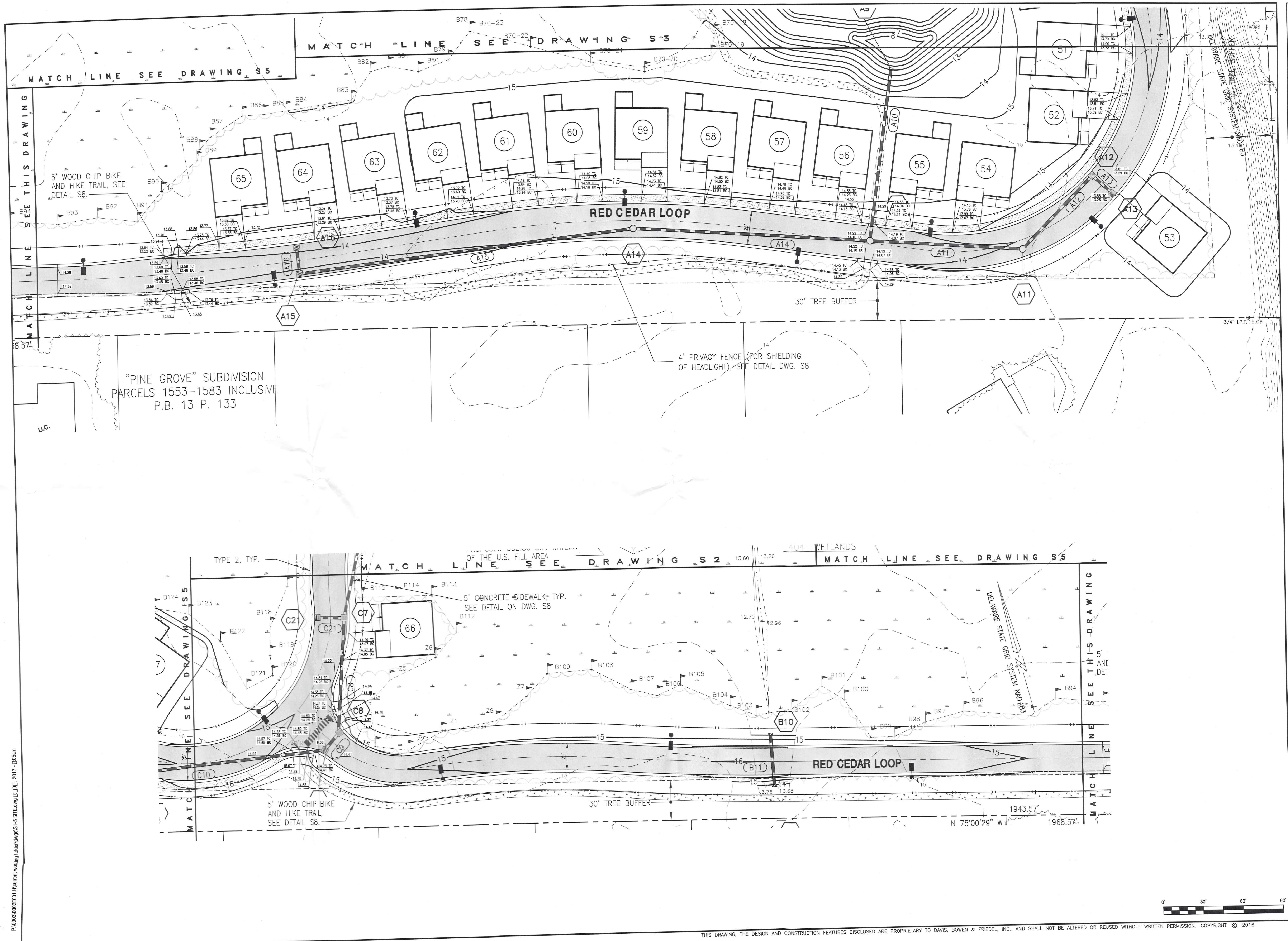


WINDMILL WOODS

Revisions:

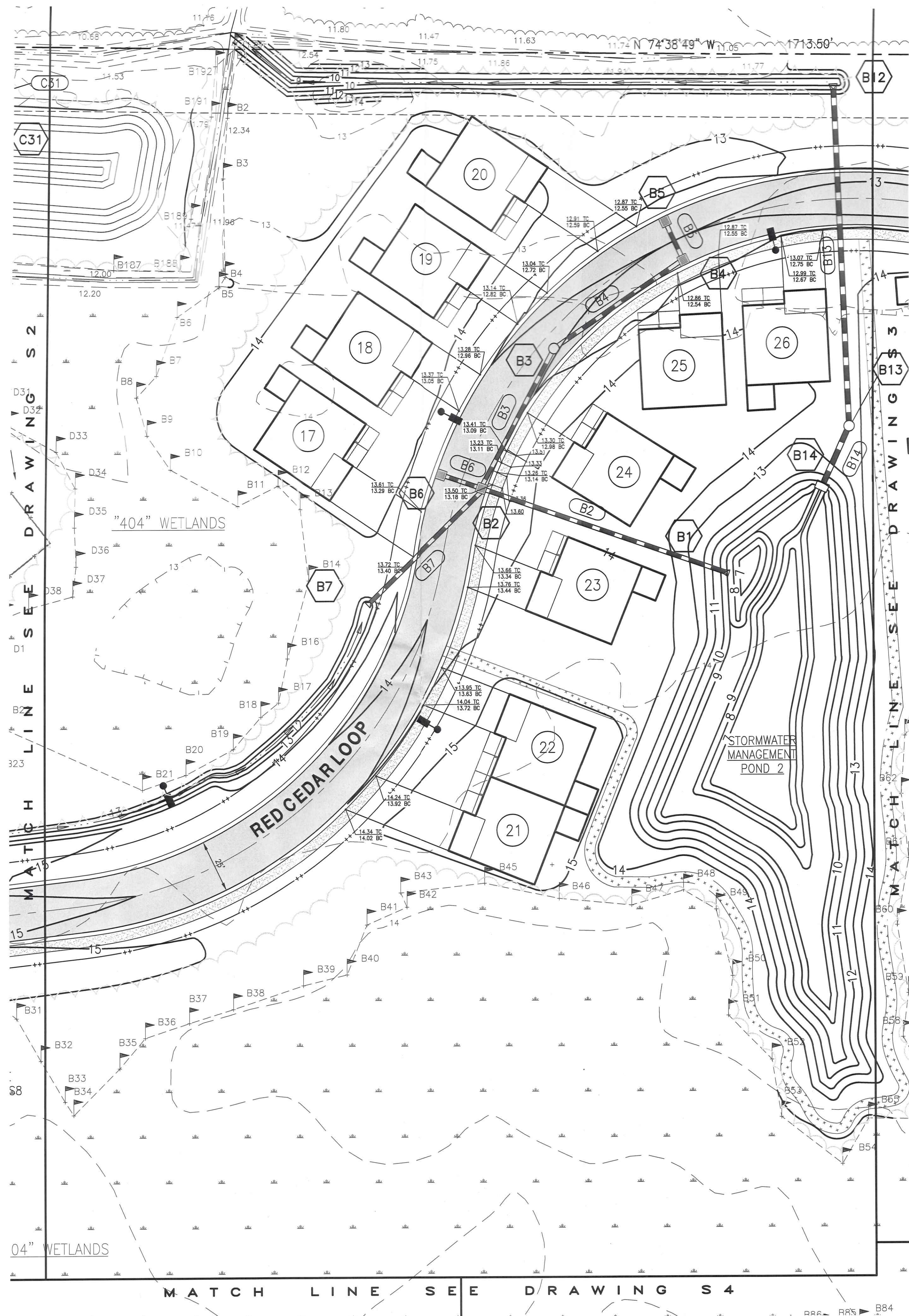
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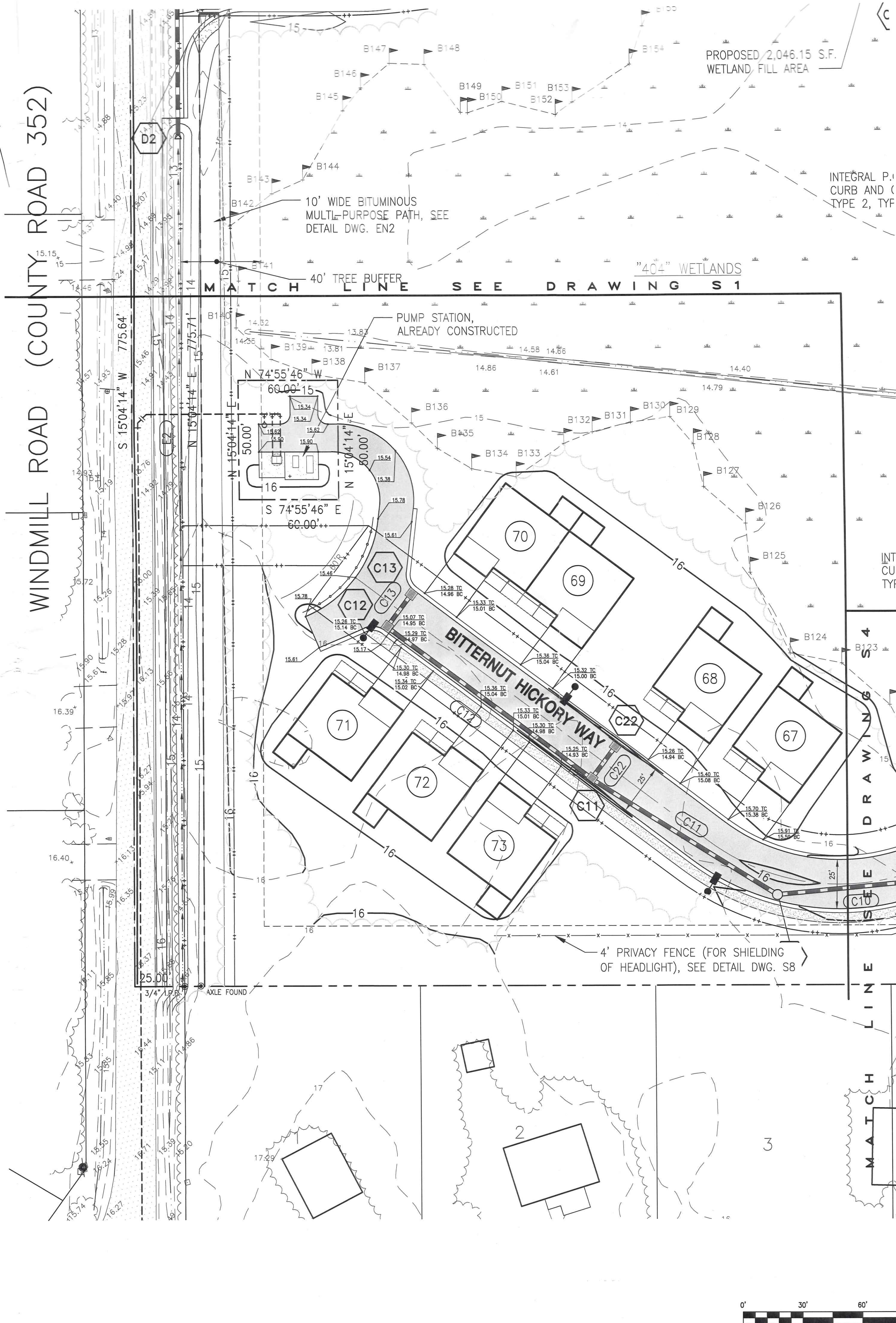


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DELAWARE STATE GRID SYSTEM NAD-83

WINDMILL ROAD (COUNTY ROAD 352)



**WINDMILL WOODS**  
**WINDMILL ROAD**

Revisions:

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Scale: 1" =  
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Proj.No.: 003E  
Dwg.No.: S3

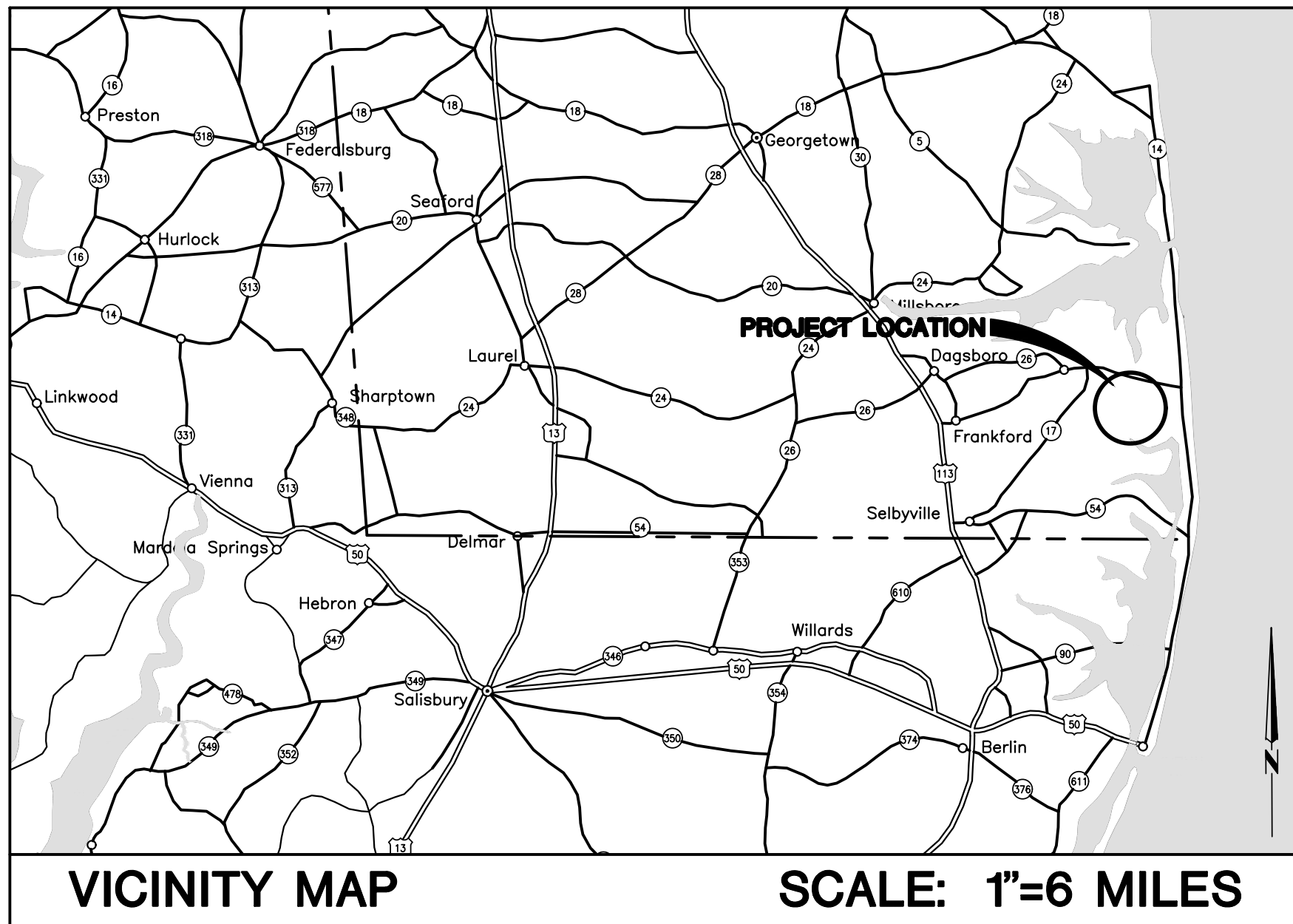
ARCHITECTS ENGINEERS SURVEYORS  
**DAVIS, BOWEN & FRIEDEL, INC.**  
SALESBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441



# WINDMILL WOODS

## WINDMILL ROAD

### SUSSEX COUNTY, DELAWARE



VICINITY MAP

SCALE: 1"=6 MILES

#### SITE DATA

OWNER / DEVELOPER:	WINDMILL WOODS LLC 32996 LIGHT HOUSE ROAD SELBYVILLE, DELAWARE 19975 PHONE: 302-436-5124 FAX: 302-436-4668 CONTACT: COLEMAN BUNTING
TAX MAP, PARCEL NUMBER:	SUSSEX CO. MAP #1-34-12, PARCEL #388.00
SITE AREA:	34.09 ACRES
STATE WETLANDS:	0 ACRES
"404" WETLANDS:	9.23 ACRES
TOTAL STREET AREA:	2.89 ACRES
NET LAND AREA WITHOUT STREETS:	31.20 ACRES
NET DENSITY WITHOUT STREETS:	2.34 UNITS/ACRES
GROSS DENSITY:	2.14 UNITS/ACRE
WETLAND ENCROACHMENT:	3.14 ACRE
EXISTING FORESTED AREA:	34.09 ACRES
RETAINED FORESTED AREA:	16.36 ACRES
ZONING DISTRICT:	MR MEDIUM DENSITY RESIDENTIAL WITH SINGLE FAMILY, DUPLEX AND TOWNHOUSE CONDITIONAL USE
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL COMMUNITY
SETBACKS:	FRONT YARD - 40' SIDE YARD - 20' (40' MIN. BETWEEN BUILDINGS) REAR YARD - 40'
UNITS PROPOSED:	16 THREE STORY TOWNHOUSES (LESS THAN 40' IN HEIGHT) 51 SINGLE FAMILY UNITS 6 DUPLEX UNITS 73 TOTAL UNITS
NET DEVELOPMENT AREA:	34.09 ACRES
REQUIRED PARKING:	20 SPACES (3 SPACES PER TOWNHOUSE UNIT & 1 SPACE/200 S.F.)
PROVIDED PARKING:	34 SPACES PROVIDED
APPROVED WETLAND DELINEATION PERFORMED BY:	ENVIRONMENTAL CONSULTING SERVICES, INC. 100 SOUTH CASS STREET MIDDLETOWN, DE 19709 PHONE: 302-378-9893 FAX: 302-378-9107 CONTACT: DOUG POTTS
U.S. ARMY CORPS OF ENGINEERS PROJECT NUMBER CENAP-OP-R-200202479-26(JD)	
FLOOD PLAIN: ZONE X - SITE IS ENTIRELY OUTSIDE 100 YEAR FLOOD PLAIN SOURCE: FEMA FLOOD MAP #10005C0511J, DATED JANUARY 6, 2005.	

#### OWNER'S CERTIFICATION

SIGNATURE: \_\_\_\_\_  
COLEMAN BUNTING  
WINDMILL WOODS, LLC.

DATE

#### ENGINEER'S STATEMENT

I, RING W. LARDNER, HEREBY STATE THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF DELAWARE.

SIGNATURE: \_\_\_\_\_  
RING W. LARDNER, P.E.

DATE

#### GENERAL NOTES

- CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT (1-800-282-8555 ) AT LEAST (3) WORKING DAYS PRIOR TO EXCAVATION, TO HAVE EXISTING UNDERGROUND UTILITIES LOCATED AND MARKED.
- ALL MATERIALS & WORKMANSHIP SHALL MEET THE STATE OF DELAWARE STANDARDS & SPECIFICATIONS.
- ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND PROJECT SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING TWO WEEKS PRIOR TO THE START OF CONSTRUCTION AND SHALL APPRISE AND COORDINATE DURING ALL PHASES OF CONSTRUCTION:  
WINDMILL VENTURES, LLC 302-228-5383  
SUSSEX COUNTY ENGINEERING DEPARTMENT 302-855-7718  
DAVIS, BOWEN & FRIEDEL, INC. 410-543-9091  
SUSSEX CONSERVATION DISTRICT 302-856-2105
- CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL RIGHT-OF-WAY LINES AND PROPERTY LINES TO HIS OWN SATISFACTION. ALL PROPOSED UTILITIES ARE TO BE CONSTRUCTED WITHIN THE ROADWAY OR EASEMENT RIGHT-OF-WAY. ANY DISTURBED AREAS BEYOND THE EASEMENT LINES SHALL BE RESTORED IMMEDIATELY TO THEIR ORIGINAL CONDITION.
- AERIAL TOPOGRAPHY BY AXIS GEOSPATIAL, LLC., 8903 GLEBE PARK DRIVE, EASTON, MD., ADDITIONAL TOPO PERFORMED BY LAND TECH. LLC. ROUTE 1, BOX 17-B 118 ATLANTIC AVENUE, OCEAN VIEW, DE.
- EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE BASED UPON THE BEST AVAILABLE INFORMATION AND ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. NO GUARANTEE IS MADE OR IMPLIED REGARDING THE ACCURACY OR COMPLETENESS THEREOF. CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF DEPTH, SIZE AND MATERIAL OF ALL UNDERGROUND UTILITIES TO HIS OWN SATISFACTION BEFORE BEGINNING ANY EXCAVATION OR UTILITY INSTALLATION. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION. IF THE CONTRACTOR RELIES ON SAID INFORMATION, HE DOES SO AT HIS OWN RISK. THE GIVING OF THE INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS TO SUPPORT AND PROTECT ALL SHOWN OR NOT SHOWN EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITIES BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
- DRAWINGS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE PERFORMED IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC IN ALL WORK AREAS.
- ROUGH GRADING SHALL BE COMPLETE PRIOR TO THE CONSTRUCTION OF WATER & SEWER SYSTEMS.
- USE ONLY SUITABLE AND APPROVED GRANULAR MATERIAL FOR BACKFILLING TRENCHES.
- CONTRACTOR SHALL ADJUST TO FINISH GRADE AS NECESSARY ANY VALVE BOXES, MANHOLES, CATCH BASINS ETC., PRIOR TO PLACING PAVING.
- CONTRACTOR SHALL PROVIDE STAKEOUT NECESSARY FOR THE INSTALLATION OF UTILITIES, STORMDRAINS, 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.
- CONTRACTOR TO MAINTAIN MINIMUM OF 4 FEET OF COVER OVER ALL NEW WATER LINES AS MEASURED FROM TOP OF PIPE TO FINISHED GRADE, UNLESS OTHERWISE NOTED.
- SEWER LINES SHALL HAVE MINIMUM VERTICAL CLEARANCE OF 18 INCHES FROM WATER MAINS AT CROSSINGS. MAINTAIN A 10 FOOT MINIMUM PLAN SEPARATION BETWEEN SEWER AND WATER MAINS. SEWER LINES SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 6 INCHES FROM OTHER UTILITIES. IF THESE CLEARANCES CANNOT BE MAINTAINED, THEN PROVISIONS FOR PROPERLY ENCASING THE PIPE IN CONCRETE MUST BE PROVIDED.
- LATERALS SERVING TOWNHOMES COMPRISED OF MORE THAN 4 UNITS SHALL BE 8 INCHES IN DIAMETER, WITH VERTICAL CLEANOUTS 8 INCHES IN DIAMETER. ALL OTHER LATERALS TO BE 6 INCHES IN DIAMETER, WITH VERTICAL CLEANOUTS OF 6 INCHES IN DIAMETER. ALL LATERALS TO HAVE A MINIMUM OF 3 FEET OF COVER FROM SUSSEX COUNTY CLEANOUT TO MAIN LINE.
- ALL GRAVITY SEWER PIPES SHALL BE PVC SDR 35. FOR PIPE SLOPES SEE SANITARY SEWER PROFILES.
- MATERIAL OF CONSTRUCTION FOR SEWER FORCE MAINS SHALL BE AS NOTED ON THE DRAWINGS. FORCE MAIN SHALL BE INSTALLED AS PROFILED TO PREVENT FORMATION OF UNANTICIPATED HIGH POINTS IN THE INSTALLATION.
- ALL SEWER LINES MUST BE SUCCESSFULLY TESTED, PRIOR TO FINAL ACCEPTANCE.
- ALL SANITARY SEWER SYSTEM CONSTRUCTION PERFORMED SHALL BE IN ACCORDANCE WITH SUSSEX COUNTY ORDINANCE 38, THESE PLANS AND ALL APPLICABLE CONSTRUCTION PERMITS.
- ALL DROP MANHOLES TO BE 5'-0" IN DIAMETER.
- FITTINGS SHOWN ON THE PLANS ILLUSTRATE ANTICIPATED ANGLE OF DEFLECTION. THIS INFORMATION IS SHOWN FOR GENERAL INFORMATION AND IS NOT GUARANTEED. ACTUAL ANGLE MAY VARY DUE TO FIELD CONDITIONS. USE OF ADDITIONAL FITTINGS SHALL BE AUTHORIZED BY THE ENGINEER.
- THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DEVIATION FROM THESE PLANS UNLESS WRITTEN APPROVAL HAS BEEN PROVIDED BY THE ENGINEER.
- ALL WATER MAINS 6" AND LARGER SHALL BE C-909 CL 235 PVC.
- UNITS 67-73 WILL BE SERVED WITH A DUAL WYE.

JANUARY 2021  
PROJECT NO. 003E001.H



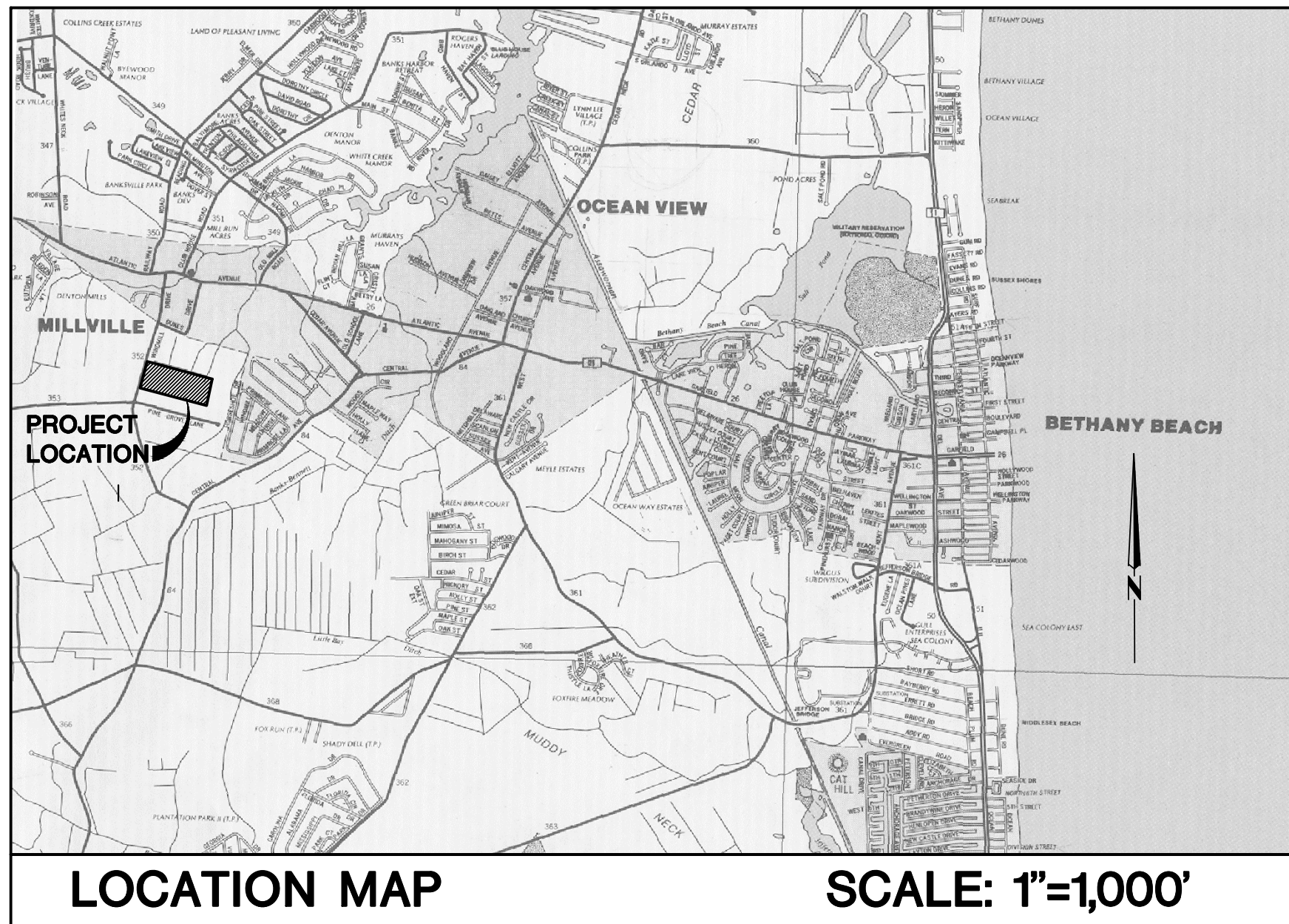
DAVIS,  
BOWEN &  
FRIEDEL, INC.

ARCHITECTS ENGINEERS SURVEYORS

ONE PLAZA EAST, SUITE 200, P.O. BOX 93  
SALISBURY, MARYLAND 21803-0093  
PHONE: 410-543-9091, FAX: 410-543-4172

SUSSEX COUNTY ENGINEERING DEPARTMENT  
APPROVED BY:

NAME \_\_\_\_\_ TITLE \_\_\_\_\_  
AGREEMENT NO. 476-1



LOCATION MAP

SCALE: 1"=1,000'

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#### INDEX OF DRAWINGS:

T	PROJECT TITLE SHEET
S1	SITE KEY MAP
S2-5	SITE & GRADING PLAN
S6-8	SITE DETAILS
ST1-6	STREET PLAN & PROFILE
SD1-3	STORMDRAIN PROFILES
U1	UTILITY KEY MAP
U2-6	UTILITY PLAN
U7-11	UTILITY PROFILES
U12-13	UTILITY DETAILS
L1-2	LANDSCAPE & LIGHTING PLAN
L3	LANDSCAPE NOTES & DETAILS
ESC1	EROSION & SEDIMENT CONTROL KEY PLAN
ESC2-3	EROSION & SEDIMENT CONTROL PLANS
ESC4-5	EROSION & SEDIMENT CONTROL DETAILS
SWM1	PRE-DEVELOPMENT S.W.M. KEY PLAN
SWM2-3	PRE-DEVELOPMENT S.W.M. PLANS
SWM4	POST-DEVELOPMENT S.W.M. KEY PLAN
SWM5-6	POST-DEVELOPMENT S.W.M. PLANS
SWM7-9	S.W.M. BASIN PLANS & SECTIONS

#### WETLANDS CERTIFICATION

I, CHARLES C. MILLER, HEREBY STATE THAT THE FEDERAL WETLANDS BOUNDARIES DELINEATED UPON THIS PLAN ARE ACCURATELY SHOWN, AND THAT THE DELINEATION WAS PERFORMED UNDER MY SUPERVISION AND IN ACCORDANCE WITH THE APPROPRIATE STATE OR FEDERAL STANDARD FOR IDENTIFYING OR DELINEATING JURISDICTIONAL WETLANDS.

CHARLES C. MILLER  
WETLANDS CONSULTANT

DATE

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Conditional Use No. 1502 is subject to the following conditions  
As adopted by County Council (Ordinance #1647, December 16, 2003):

- This Ordinance was adopted subject to the following conditions:
- The maximum number of residential units shall not exceed 106.
  - All entrance, intersection, roadway and multi-modal improvements required by DelDOT shall be completed by the applicant in accordance with DelDOT's determination.
  - Recreational facilities and amenities shall be constructed and open to use by residents of the development within two years of the issuance of the first residential building permit. These amenities shall include a swimming pool and clubhouse.
  - The development shall be served as part of the Ocean View expansion of the Bethany Beach Sanitary Sewer District in accordance with Sussex County Engineering Department specifications.
  - The development shall be served by a public central water system providing adequate drinking water and fire protection as required by applicable regulations.
  - Stormwater management and erosion and sediment control shall be constructed in accordance with applicable State and County requirements. BMP's shall be incorporated into the system design to minimize any environmental impact.
  - Site plan review for each phase of development shall be subject to approval of the Planning and Zoning Commission.
  - The interior street design shall be in accordance with or exceed Sussex County street design requirements and/or specifications.
  - The applicant shall submit as part of the site plan review a landscape plan showing the proposed tree and shrub landscape design.
  - No site preparation, site disturbance, site excavation or other site construction shall be commenced until all permits required by all other laws, ordinances, rules and regulations shall have been issued and the approved final site plan is recorded, except site work for which a permit has been issued by the Sussex Conservation District. The site work authorized by the Sussex Conservation District permit may be commenced upon submission of copies of the application for permits from the Sussex County Engineering Department and DelDOT to the Director of Planning and Zoning and submission of a bond in an amount equal to 125% of the cost of the site work authorized by the Sussex Conservation District and in a form acceptable to the County Attorney. The Bond shall be released upon the issuance of all other permits and the filing of an approved master plan or final site plan.
  - Construction, site work, grading and deliveries of construction materials, landscape materials and fill, on, off or to the property, shall only occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday.
  - A 30 foot forested buffer shall be provided on the southerly and northerly boundaries of the development. A 50 foot forested buffer shall be provided along the easterly boundary of the development.
  - Addressing and street naming shall be reviewed and approved by the Sussex County Mapping and Addressing Division.
  - Landscape and lawn maintenance shall be the responsibility of the Condominium Association. Best management practices will be utilized to minimize any environmental impact.
  - Sidewalk and streetlighting shall be provided.

## LEGEND

EXISTING	PROPOSED
PROPERTY LINE OR RIGHT-OF-WAY LINE	PROPERTY LINE OR RIGHT-OF-WAY LINE
EASEMENTS	EASEMENTS
FENCE	FENCE
CONTOUR	CONTOUR
SPOT ELEVATIONS: SURFACE, TOP OF CURB, BOTTOM OF CURB	SPOT ELEVATIONS: SURFACE, TOP OF CURB, BOTTOM OF CURB
SWALE	SWALE
EDGE OF WOODS, LIMITS OF CLEARING LINE	EDGE OF WOODS, LIMITS OF CLEARING LINE
UNDERGROUND ELECTRIC LINE	UNDERGROUND ELECTRIC LINE
OVERHEAD ELECTRIC LINE	OVERHEAD ELECTRIC LINE
UNDERGROUND TELEPHONE LINE	UNDERGROUND TELEPHONE LINE
UNDERGROUND GAS LINE	UNDERGROUND GAS LINE
SEWER MAIN, MANHOLE, AND CLEAOUT	SEWER MAIN, MANHOLE, AND CLEAOUT
WATER MAIN, HYDRANT, VALVE, AND METER	WATER MAIN, HYDRANT, VALVE, AND METER
STORMDRAIN, MANHOLE, AND INLET	STORMDRAIN, MANHOLE, AND INLET
CURB, CURB AND GUTTER	CURB, CURB AND GUTTER
CONCRETE SIDEWALK, CONCRETE PAD, OR CONCRETE PAVING	CONCRETE SIDEWALK, CONCRETE PAD, OR CONCRETE PAVING
BITUMINOUS PAVING	BITUMINOUS PAVING
BUILDING	BUILDING
ITEMS TO BE DEMOLISHED	ITEMS TO BE DEMOLISHED
DECIDUOUS TREE, EVERGREEN TREE, AND SHRUBS	DECIDUOUS TREE, EVERGREEN TREE, AND SHRUBS
ROAD SIGN, MAIL BOX	ROAD SIGN, MAIL BOX
TRAFFIC SIGNAL POLE	TRAFFIC SIGNAL POLE
UTILITY POLE WITH GUY WIRES	UTILITY POLE WITH GUY WIRES

## SITE DATA

OWNER / DEVELOPER: WINDMILL WOODS, LLC  
32996 LIGHT HOUSE ROAD  
SELBYVILLE, DELAWARE 19975  
PHONE: 302-436-5124  
FAX: 302-436-1668  
CONTACT: COLEMAN BUNTING

TAX MAP, PARCEL NUMBER: SUSSEX CO. MAP #1-34-12, PARCEL #388.00

SITE AREA: 34.09 ACRES

STATE WETLANDS: 0 ACRES

\*404\* WETLANDS: 9.23 ACRES

TOTAL STREET AREA: 2.89 ACRES

NET LAND AREA WITHOUT STREETS: 31.20 ACRES

NET DENSITY WITHOUT STREETS: 2.34 UNITS/ACRES

GROSS DENSITY: 2.14 UNITS/ACRE

WETLAND ENCROACHMENT: 3.14 ACRE

EXISTING FORESTED AREA: 34.09 ACRES

RETAINED FORESTED AREA: 16.36 ACRES

ZONING DISTRICT: MR MEDIUM DENSITY RESIDENTIAL WITH SINGLE FAMILY, DUPLEX AND TOWNHOUSE CONDITIONAL USE

PROPOSED USE: MULTI-FAMILY RESIDENTIAL COMMUNITY

SETBACKS: FRONT YARD - 40'  
SIDE YARD - 20' (40' MIN. BETWEEN BUILDINGS)  
REAR YARD - 40'

UNITS PROPOSED: 16 THREE STORY TOWNHOUSES (LESS THAN 40' IN HEIGHT)  
51 SINGLE FAMILY UNITS  
6 DUPLEX UNITS  
73 TOTAL UNITS

NET DEVELOPMENT AREA: 34.09 ACRES

REQUIRED PARKING: 20 SPACES (3 SPACES PER TOWNHOUSE UNIT & 1 SPACE/200 S.F.)

PROVIDED PARKING: 34 SPACES PROVIDED

APPROVED WETLAND DELINEATION PERFORMED BY: ENVIRONMENTAL CONSULTING SERVICES, INC.  
100 SOUTH CASS STREET  
MIDDLETOWN, DE 19709  
PHONE: 302-378-9893  
FAX: 302-378-8107  
CONTACT: DOUG POTTS

U.S. ARMY CORPS OF ENGINEERS PROJECT NUMBER CENAP-OP-R-200202479-26(JD)

FLOOD PLAN: ZONE X - SITE IS ENTIRELY OUTSIDE 100 YEAR FLOOD PLAIN  
SOURCE: FEMA FLOOD MAP #1000500511, DATED JANUARY 6, 2005.

## APPROVED BY:

CHAIRMAN OF PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

PRESIDENT OF SUSSEX COUNTY COUNCIL \_\_\_\_\_ DATE \_\_\_\_\_

## OWNER'S CERTIFICATION

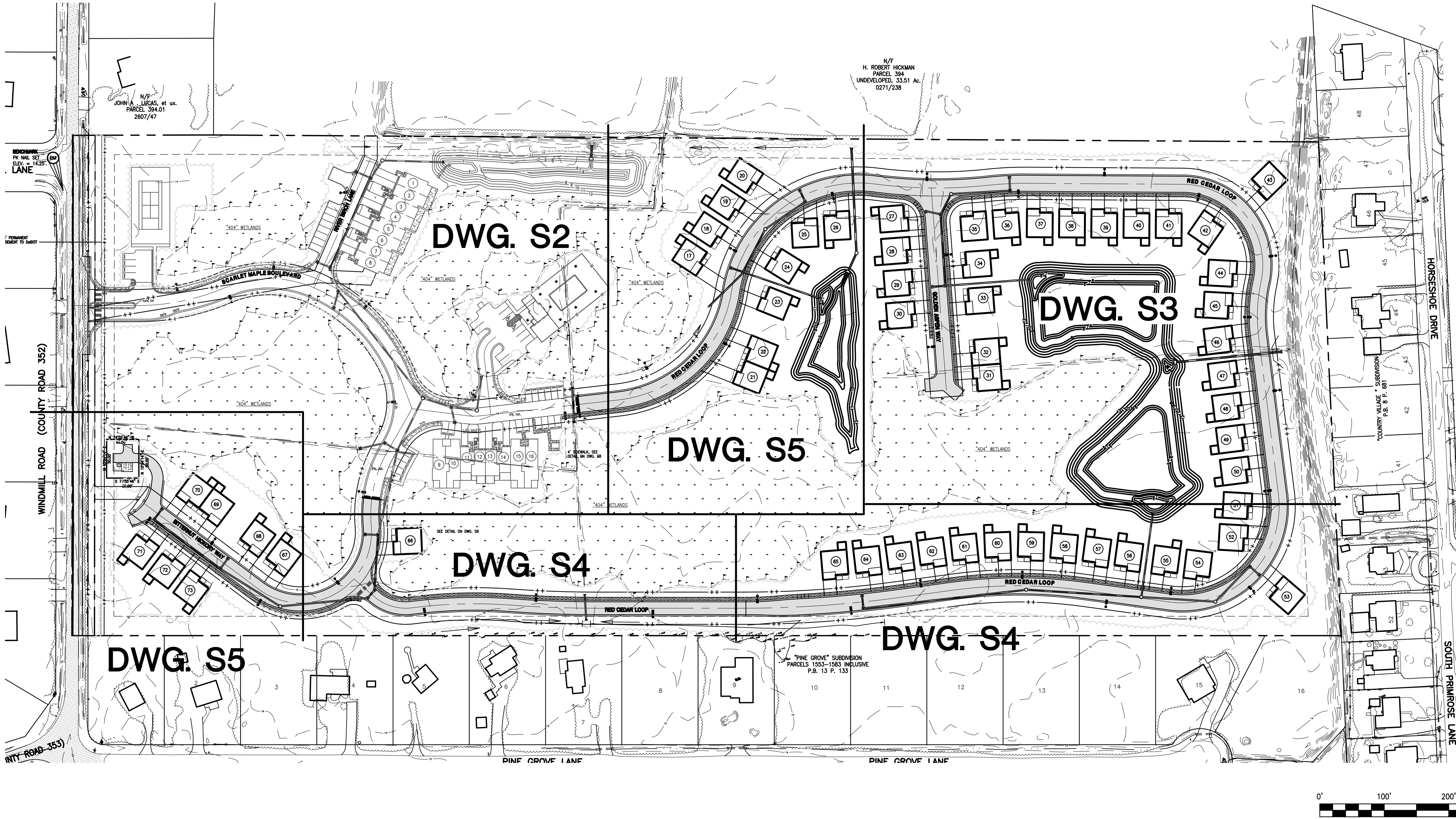
I, WINDMILL WOODS, LLC, HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT OUR DIRECTION, AND THAT WE ACKNOWLEDGE THE SAME TO BE MY ACT AND DESIRE THE PLAN TO BE RECORDED AS SHOWN IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

SIGNATURE: WINDMILL WOODS, LLC. \_\_\_\_\_ DATE \_\_\_\_\_  
COLEMAN BUNTING - MEMBER

## ENGINEER'S STATEMENT

I, RANDY B. DUPLECHAIN, HEREBY STATE THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF DELAWARE, LICENSE NO. 9959, EXPIRATION DATE: 06/30/18.

SIGNATURE: RANDY B. DUPLECHAIN, P.E. \_\_\_\_\_ DATE \_\_\_\_\_



DELAWARE STATE GRID SYSTEM NAD-83

WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

Revisions:

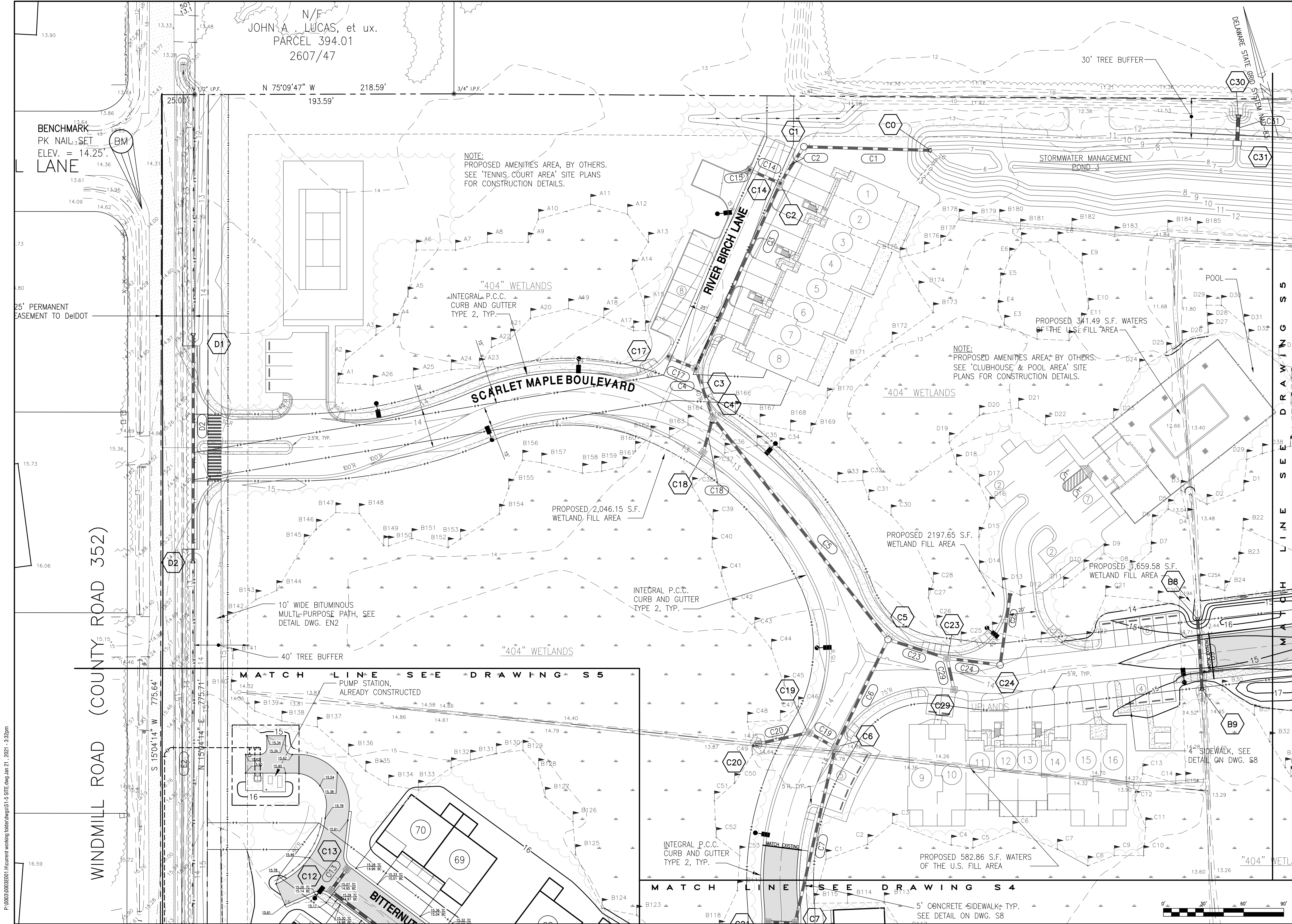
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Dwg.No.:

S1

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ARCHITECTS, ENGINEERS, SURVEYORS  
SAUSBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

SITE KEY MAP





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WINDMILL WOODS

WINDMILL ROAD

SUSSEX COUNTY, DELAWARE

Revisions:

Date: JANUARY 2021

Scale: 1" = 30'

Dwn.By: ADM

Proj.No.: 003E001.H

Dwg.No.:

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ARCHITECTS, ENGINEERS, SURVEYORS

SALISBURY, MARYLAND (410) 543-9091

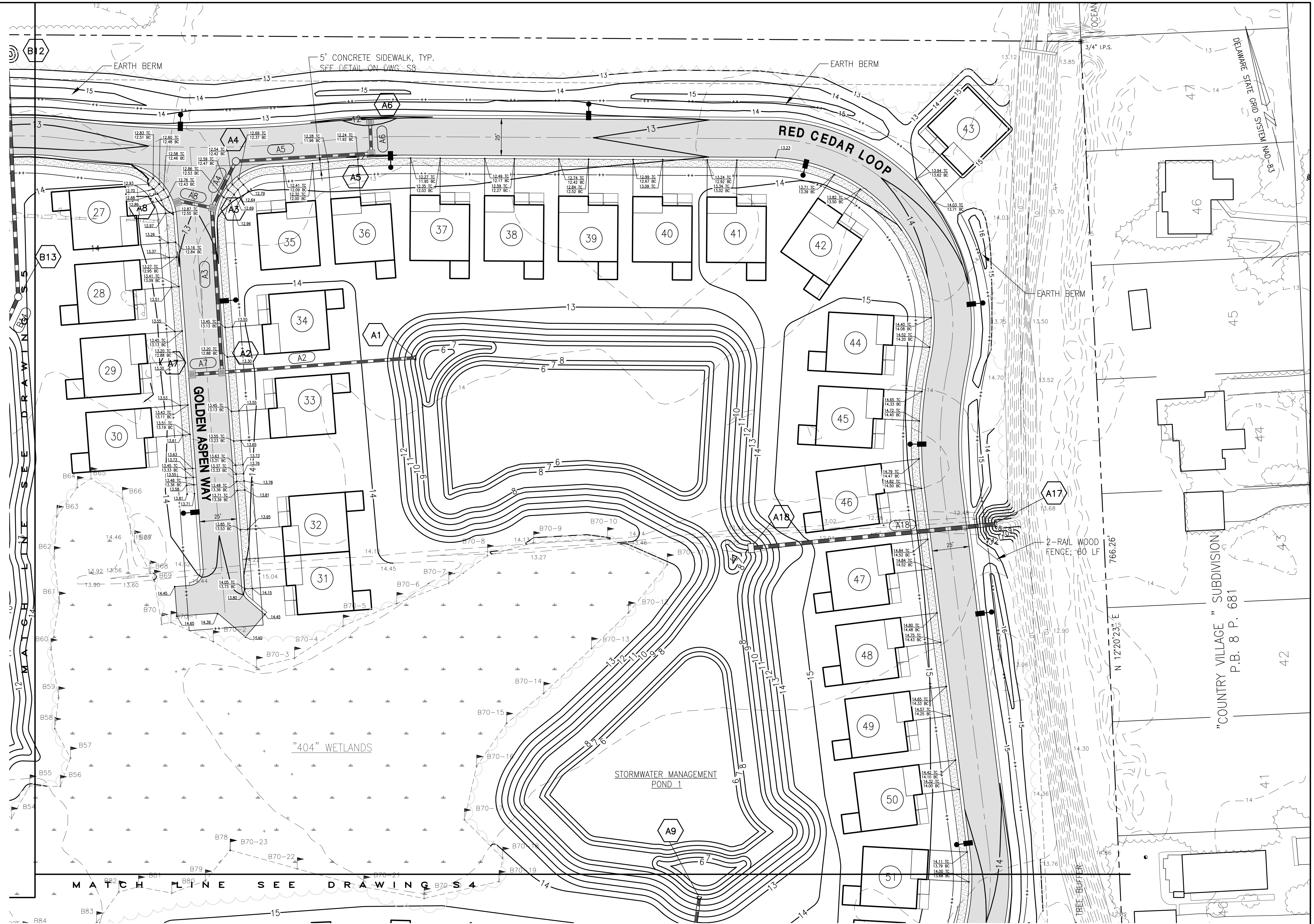
MILFORD, DELAWARE (302) 424-1441

S2

SITE & GRADING PLAN

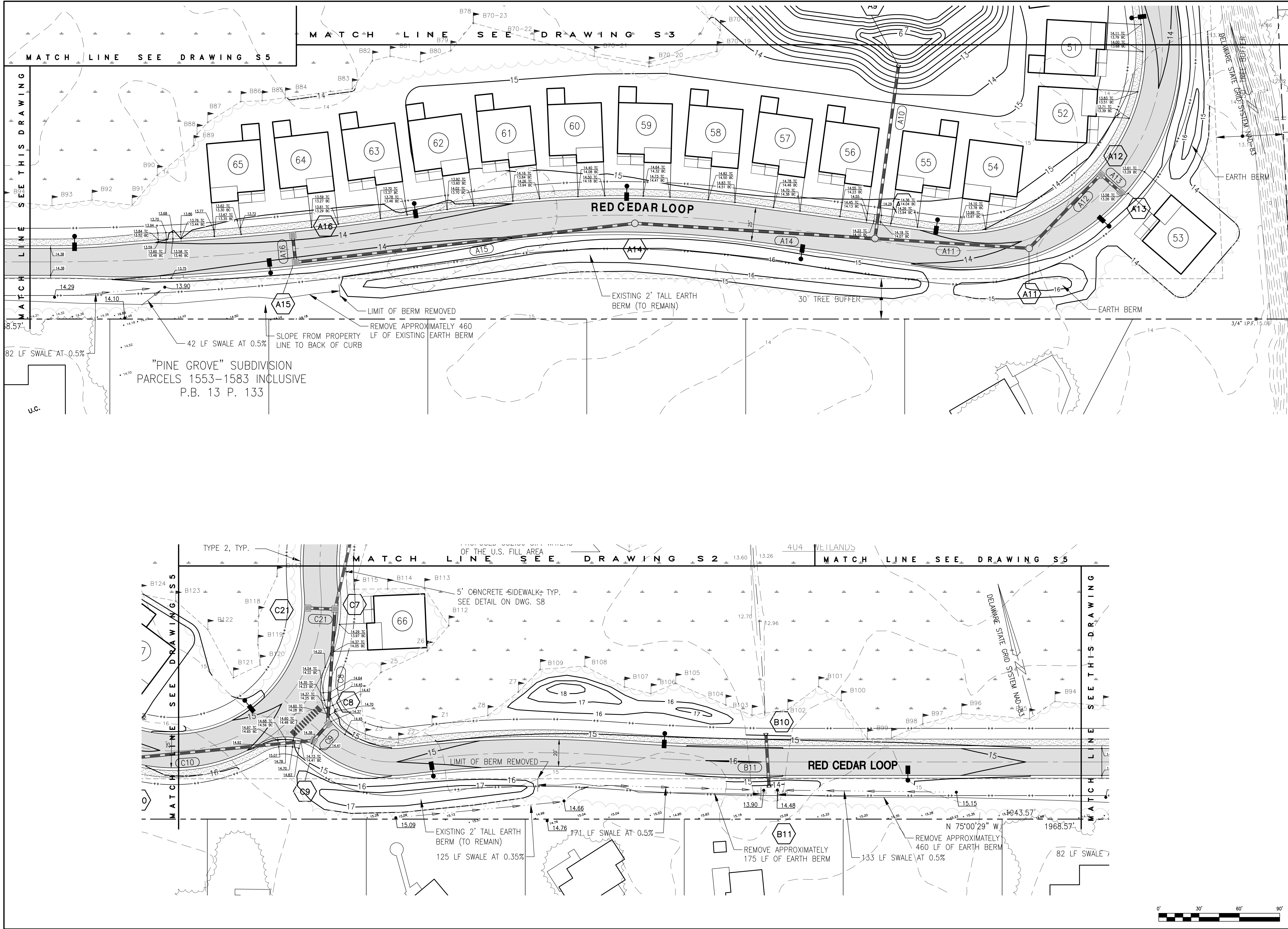


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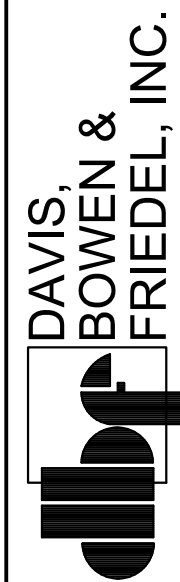
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**WINDMILL WOODS**  
**WINDMILL ROAD**  
**SUSSEX COUNTY, DELAWARE**

Revisions:  
12/22/2020-REMOVAL OF BERM  
ADDITION OF SWALE

Date: JANUARY 2021  
Scale: 1" = 30'  
Dwn.By: ADM  
Proj.No.: 003E001.H  
Dwg.No.:

**S4**



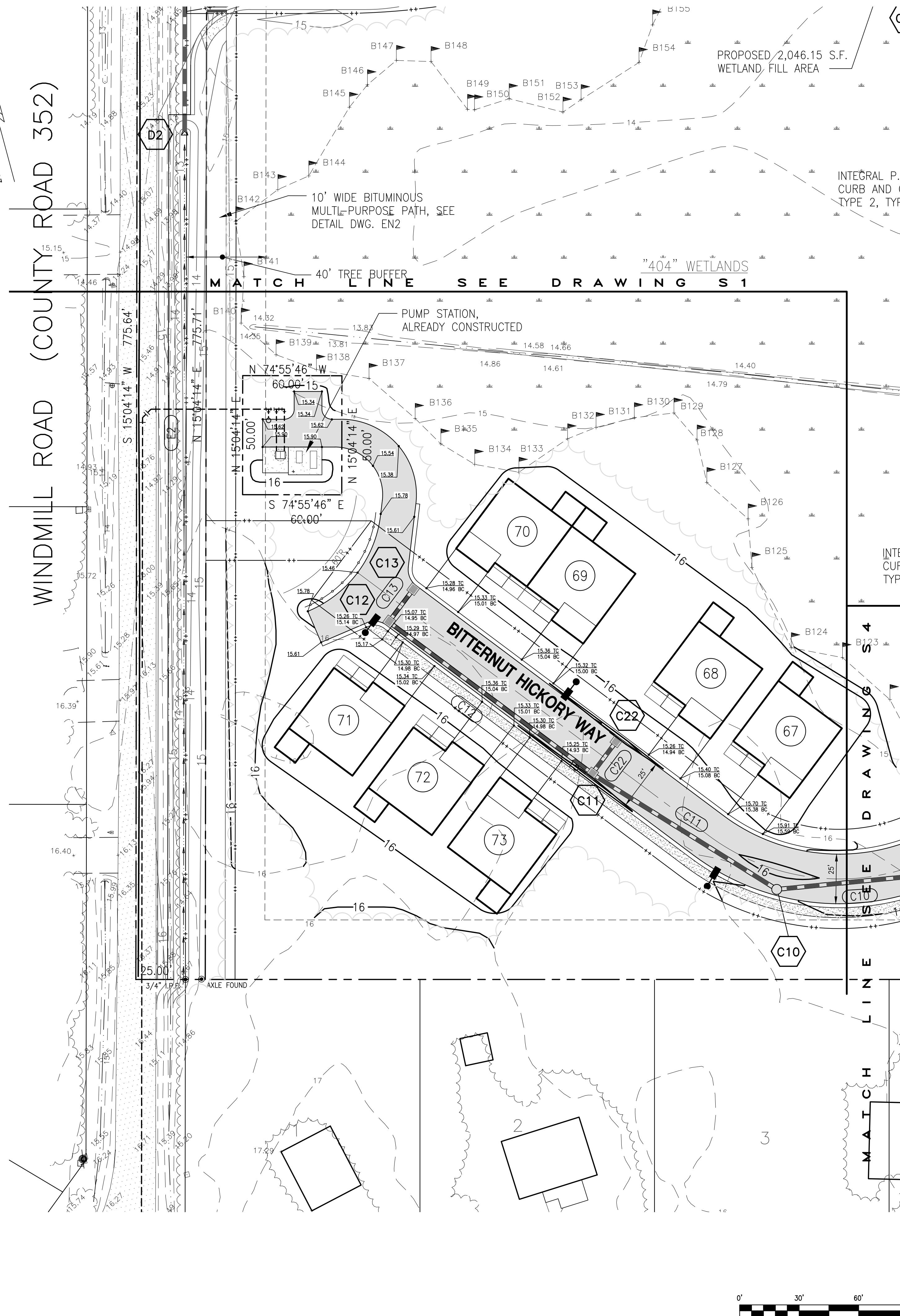
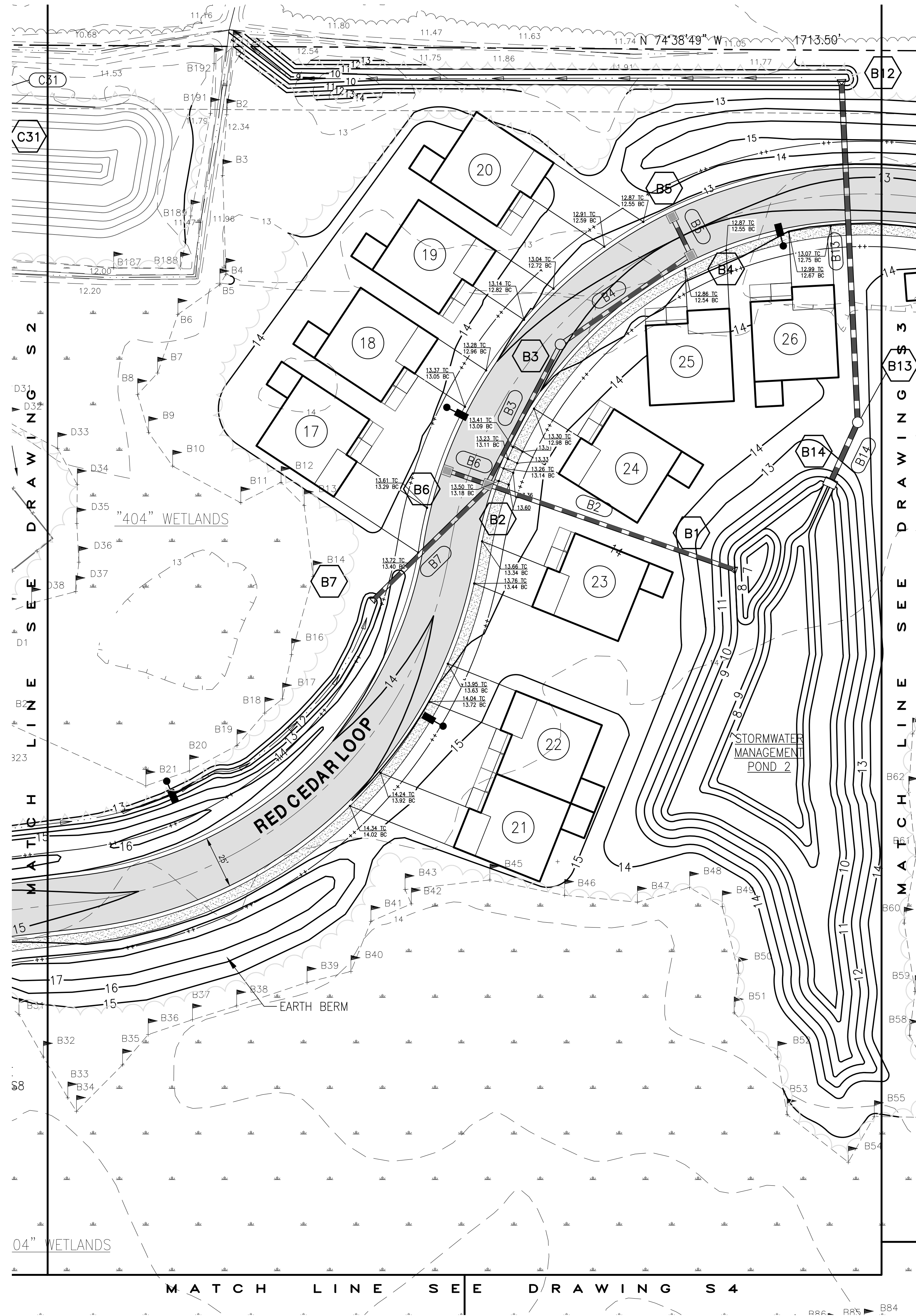
**DAVIS,  
BOWEN &  
FRIEDEL, INC.**

ARCHITECTS, ENGINEERS, SURVEYORS  
SAUSBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

SITE & GRADING PLAN



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**WINDMILL WOODS**  
**WINDMILL ROAD**  
**SUSSEX COUNTY, DELAWARE**

Revisions:

Date: JANUARY 2021  
Scale: 1" = 30'  
Dwn.By: ADM  
Proj.No.: 003E001.H  
Dwg.No.:

**S5**

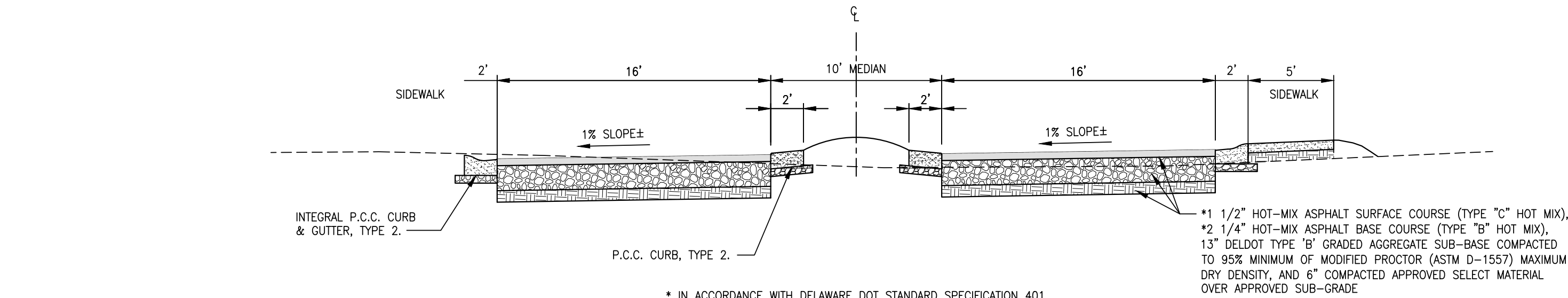
**DAVIS, BOWEN & FRIEDEL, INC.**

ARCHITECTS, ENGINEERS, SURVEYORS  
SAUSBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

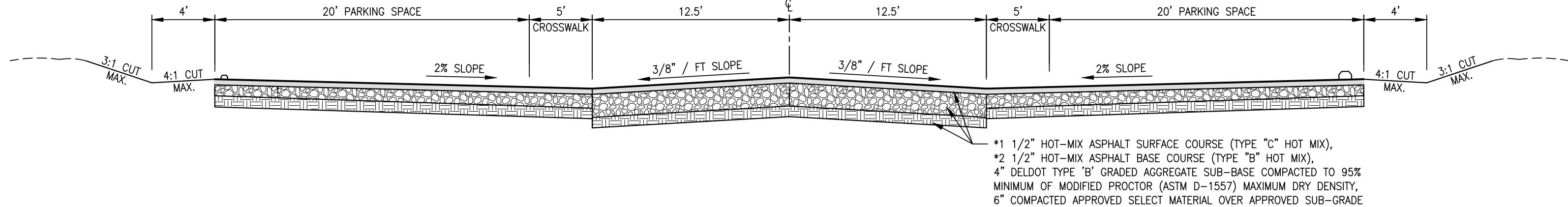
SITE & GRADING PLAN



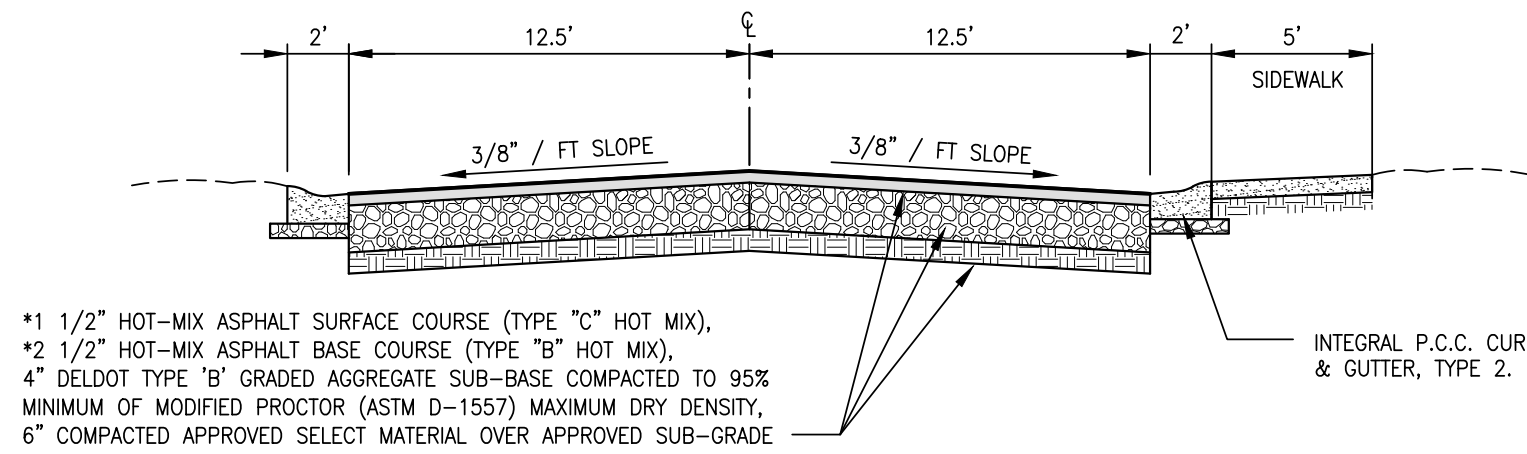
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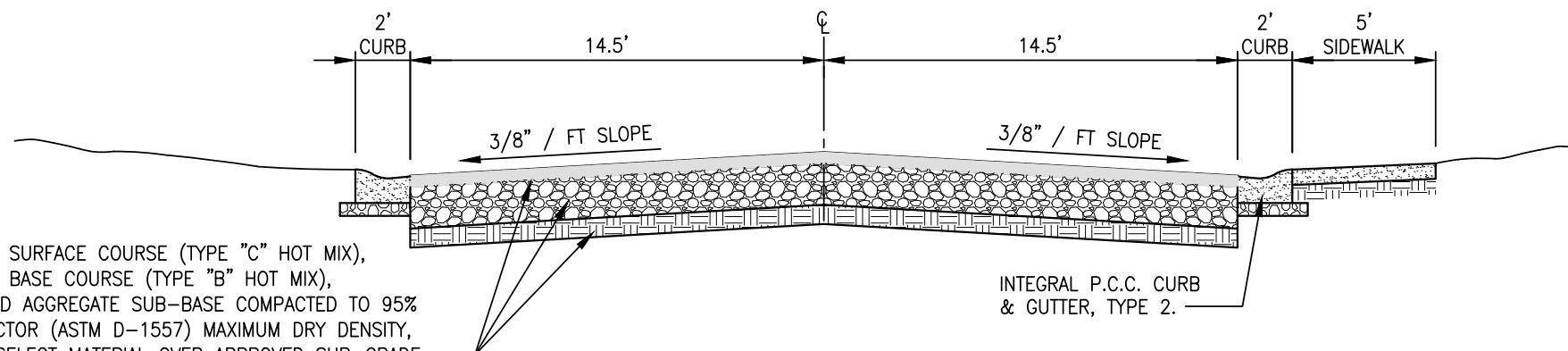
ENTRANCE SECTION SCARLET MAPLE BOULEVARD STA. 0+27.00 TO 0+98.26



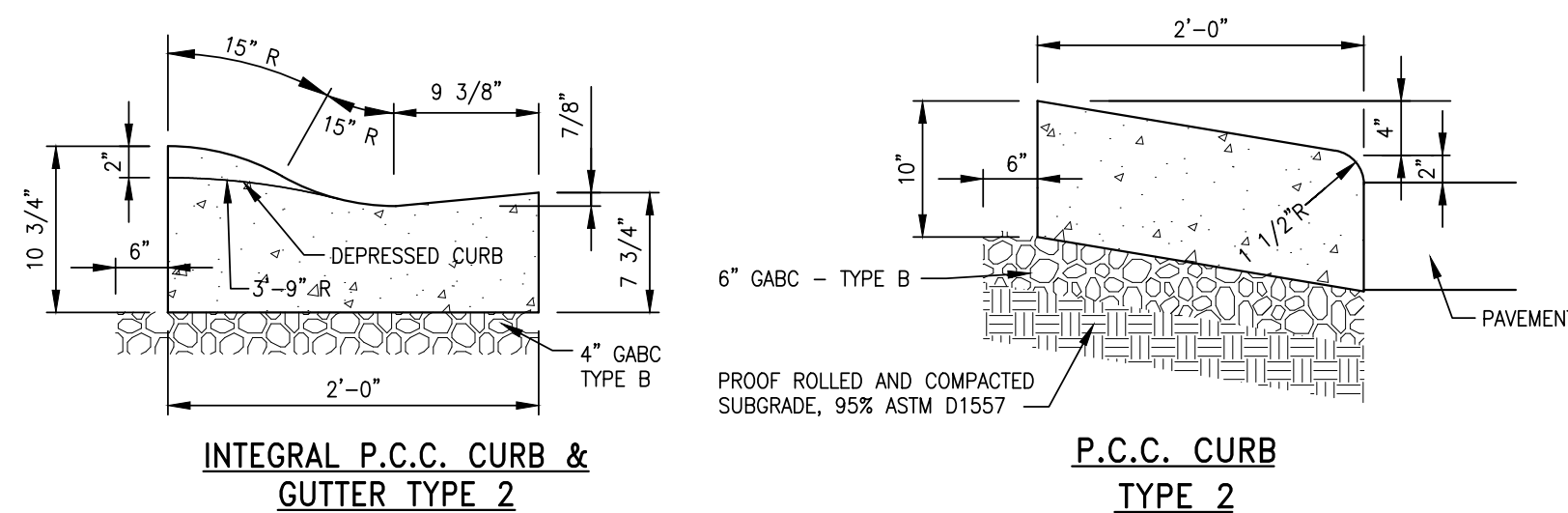
TYPICAL ROAD SECTION W/ ADJACENT PARKING



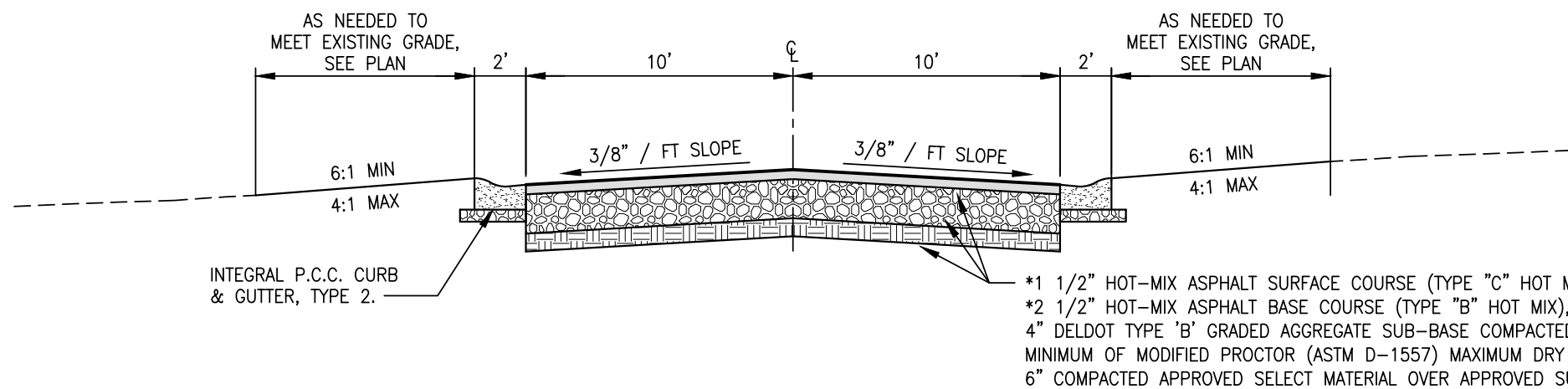
TYPICAL ROAD SECTION



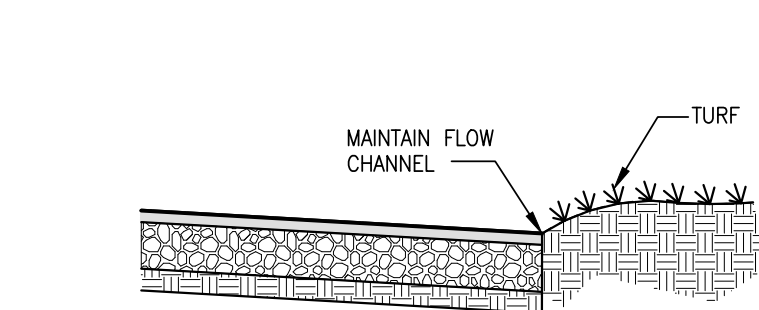
SCARLET MAPLE BOULEVARD SECTION  
STA 1+70.33 TO 5+82.06



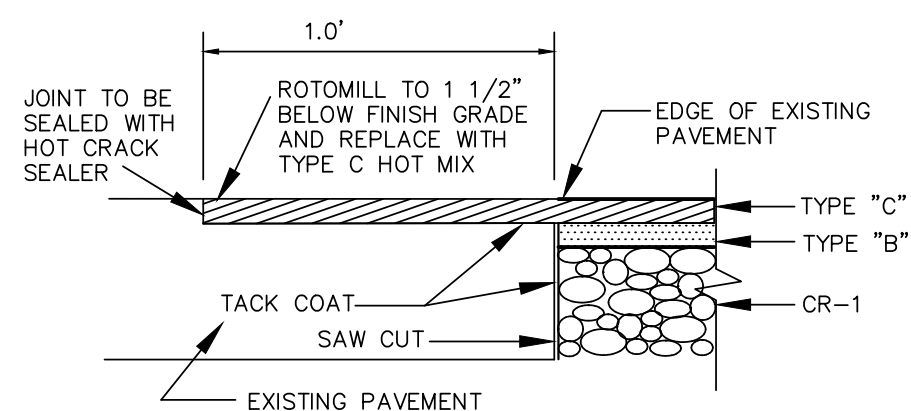
CURB DETAILS  
DEL. D.O.T. STD. C-1 (2001)



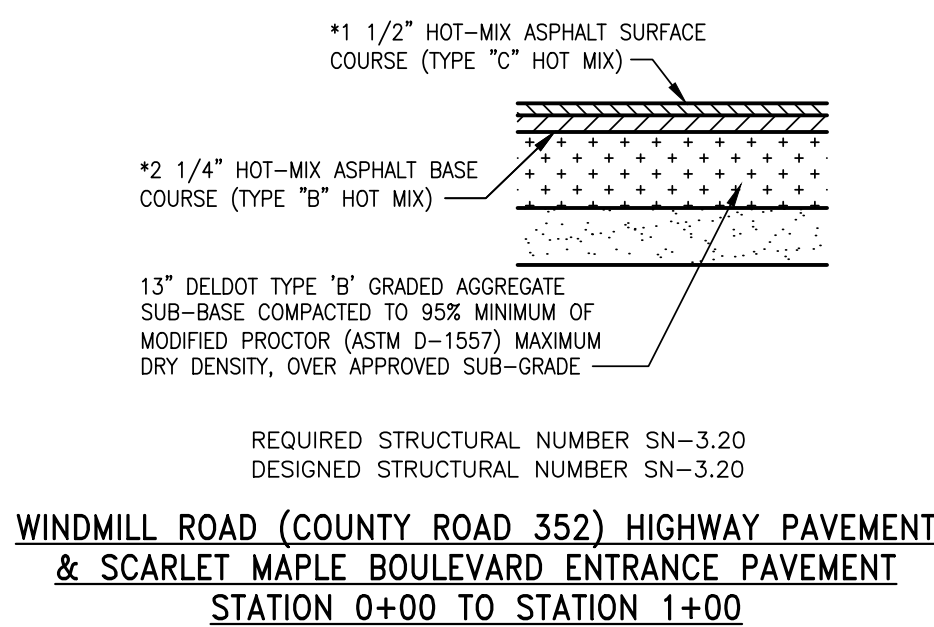
RED CEDAR LOOP SECTION STA. 28+50 TO 34+67.02



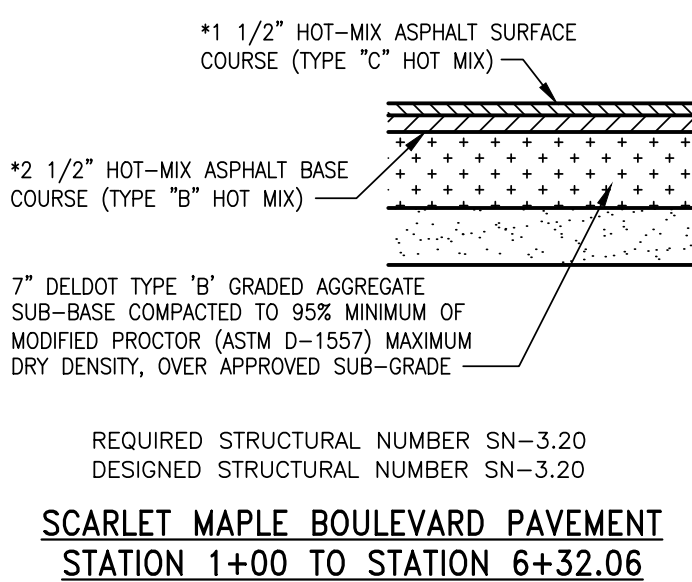
SECTION IN FRONT  
OF TOWNHOMES



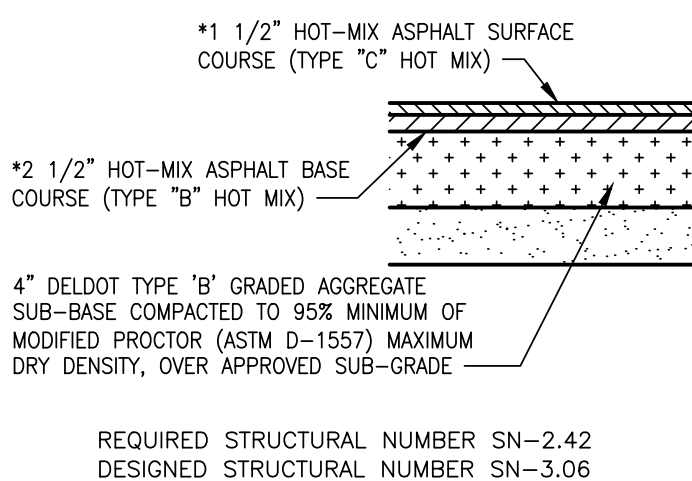
TYPICAL PAVEMENT TIE-IN



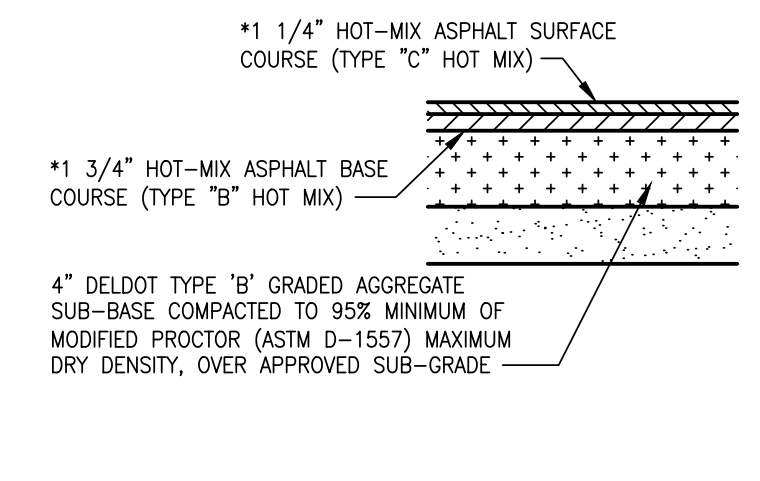
WINDMILL ROAD (COUNTY ROAD 352) HIGHWAY PAVEMENT  
& SCARLET MAPLE BOULEVARD ENTRANCE PAVEMENT  
STATION 0+00 TO STATION 1+00



SCARLET MAPLE BOULEVARD PAVEMENT  
STATION 1+00 TO STATION 6+32.06



TYPICAL INTERIOR STREETS PAVEMENT



PARKING SPACES AND DRIVEWAY PAVEMENT

- NOTES:
- \*HOT-MIX SHALL BE IN ACCORDANCE WITH DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION SECTION 401.
  - PAVEMENT MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, LATEST EDITION.
  - ALL PAVEMENT SUB-GRADE TO BE INSPECTED, PROOF ROLLED AND TESTED BY THE GEOTECHNICAL ENGINEER.

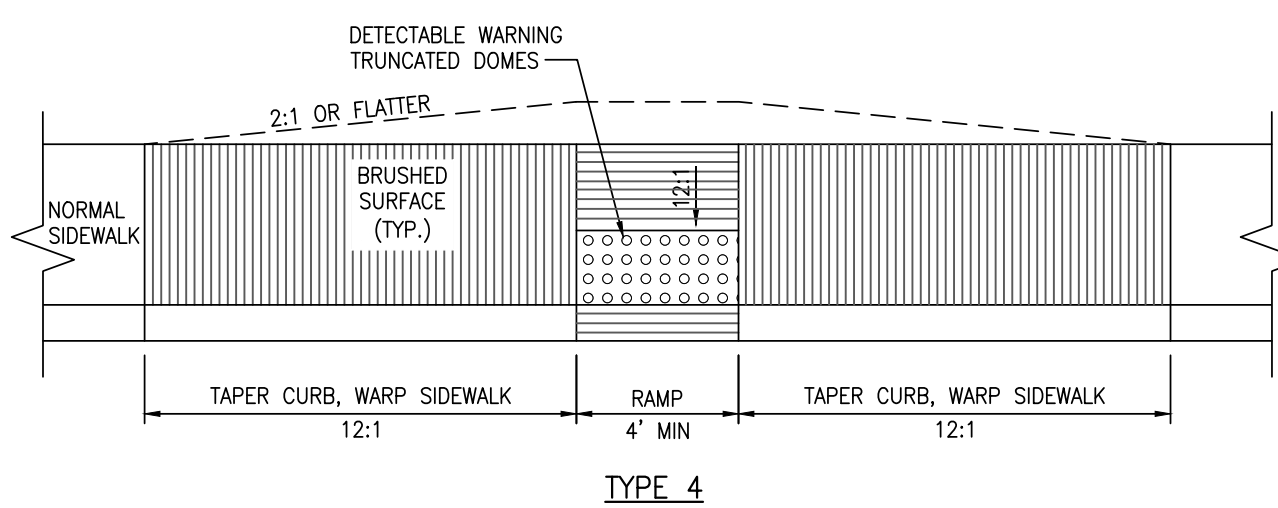
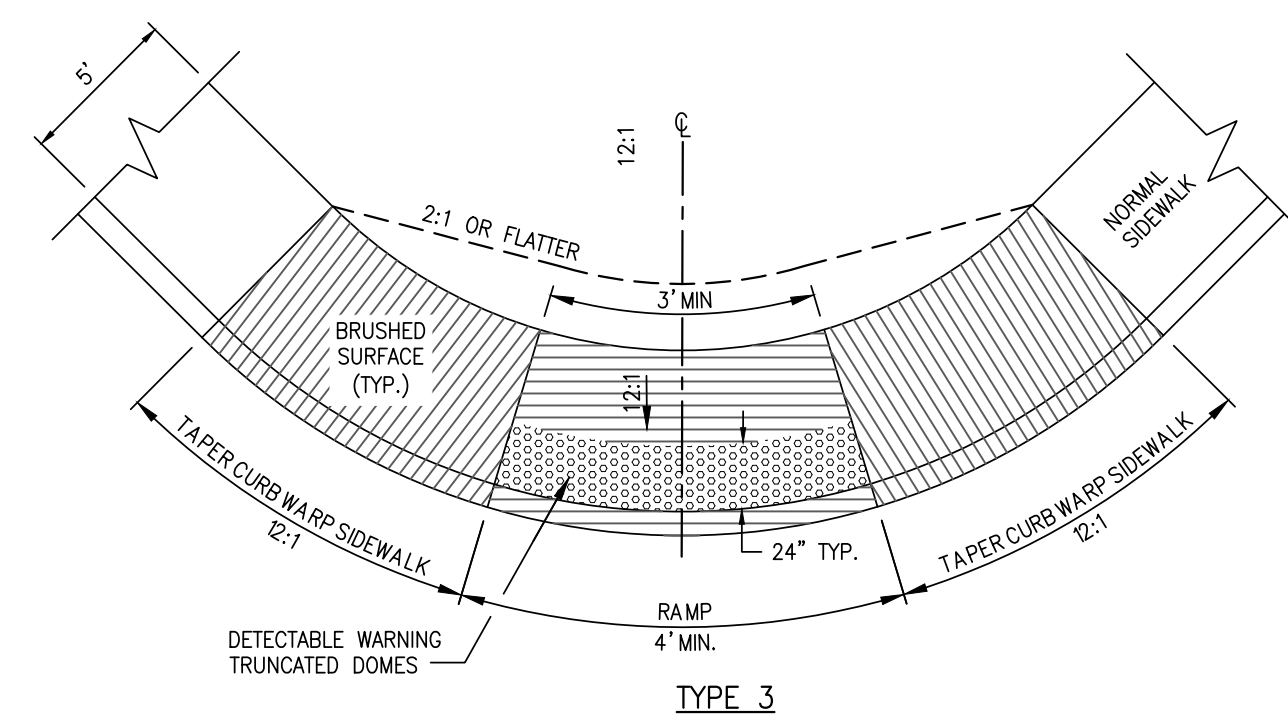
PAVING SECTIONS

STORMWATER STRUCTURE AND PIPE SCHEDULE																	
STRUCTURES (A1)										PIPES (A2)							
No.	Type	Rim/Grade Elev.	Invert In	Invert In	Invert In	Invert Out	Location	Centerline Station	Remarks	No.	Size & Type	Length	Slope %	Upstream Invert	Downstream Invert		
A1	24" HOPE END SECTION	-	7.90	-	-	-	GOLDEN ASPEN WAY	STA. 1+52.92 L=139.29'	-	-	-	-	-	-	-		
A2	72"x48" INLET	13.15	8.10 (24')	10.40 (15')	-	8.05	GOLDEN ASPEN WAY	STA. 1+52.92 L=10.16	TYPE A TOP UNIT	A2	24" HOPE	129'	0.12	8.05	7.90		
A3	48"x48" INLET	12.59	8.75 (18')	9.90 (15')	-	8.25	GOLDEN ASPEN WAY	STA. 0+42.20 L=10.12	TYPE C TOP UNIT	A3	24" RCP	111'	0.14	8.25	8.10		
A4	BOX MANHOLE	12.47	8.90	-	-	8.85	GOLDEN ASPEN WAY	STA. 0+11.39 L=10.15	-	A4	18" RCP	25'	0.29	8.85	8.75		
A5	72"x48" INLET	11.98	9.39	-	-	9.14	RED CEDAR LOOP	STA. 1+100.00 R=12.50	TYPE A TOP UNIT	A5	18" RCP	91'	0.26	9.14	8.90		
A6	72"x24" INLET	11.98	-	-	-	9.49	RED CEDAR LOOP	STA. 1+100.00 L=12.50	TYPE A TOP UNIT	A6	15" RCP	25'	0.40	9.49	9.39		
A7	72"x24" INLET	13.15	-	-	-	10.50	GOLDEN ASPEN WAY	STA. 1+52.92 R=12.50	TYPE A TOP UNIT	A7	15" RCP	23'	0.44	10.50	10.40		
A8	48"x30" INLET	12.48	-	-	-	10.00	GOLDEN ASPEN WAY	STA. 0+35.95 R=10.19	TYPE C TOP UNIT	A8	15" RCP	25'	0.40	10.00	9.90		
A9	24" HOPE END SECTION	-	8.50	-	-	-	RED CEDAR LOOP	STA. 22+40.58 R=129.88'	-	-	-	-	-	-	-		
A10	4" DIA. MANHOLE	14.49	9.75 (15')	9.35 (18')	-	8.85	RED CEDAR LOOP	STA. 22+40.58 R=1.72	-	A10	24" RCP	128'	0.27	8.85	8.50		
A11	BOX MANHOLE	13.76	10.30	-	-	10.25	RED CEDAR LOOP	STA. 21+26.42 L=6.73	-	A11	15" RCP	115'	0.44	10.25	9.75		
A12	72"x24" INLET	13.33	10.70	-	-	10.65	RED CEDAR LOOP	STA. 20+49.77 R=10.12	TYPE C TOP UNIT	A12	15" RCP	77'	0.46	10.65	10.30		
A13	72"x24" INLET	13.33	-	-	-	10.80	RED CEDAR LOOP	STA. 20+49.77 L=10.19	TYPE C TOP UNIT	A13	15" RCP	25'	0.40	10.80	10.70		
A14	4" DIA. MANHOLE	14.56	9.80	-	-	9.75	RED CEDAR LOOP	STA. 24+19.96 L=5.96	-	A14	18" RCP	179'	0.22	9.75	9.35		
A15	72"x48" INLET	13.81	10.70	-	-	10.45	RED CEDAR LOOP	STA. 26+75.02 L=10.19	TYPE C TOP UNIT	A15	18" RCP	254'	0.26	10.45	9.80		
A16	72"x24" INLET	13.81	-	-	-	10.80	RED CEDAR LOOP	STA. 26+75.02 R=12.50	TYPE A TOP UNIT	A16	15" RCP	25'	0.40	10.80	10.70		
A17	18"x30" ERCP END SECTION	-	7.35	-	-	-	RED CEDAR LOOP	STA. 17+02.64 L=32.95	-	-	-	-	-	-	-		
A18	P.W. - B.D. 4 OUTFALL	10.85	9.00	-	-	7.85	RED CEDAR LOOP	STA. 16+98.87 R=133.39	FROM POND 1	A18	18"x30" ERCP	164'	0.30	7.85	7.35		
B1	18" HOPE END SECTION	-	8.75	-	-	-	RED CEDAR LOOP	STA. 6+17.69 R=74.78	-	-	-	-	-	-	-		
B2	48"x48" INLET	13.27	9.25 (15')	10.65 (15')	11.00 (15')	9.00	RED CEDAR LOOP	STA. 6+17.69 R=12.50	TYPE A TOP UNIT	B2	18" HOPE	121'	0.21	9.00	8.75		
B3	BOX MANHOLE	13.07	9.60	-	-	9.55	RED CEDAR LOOP	STA. 6+96.35 R=6.25	-	B3	15" RCP	75'	0.40	9.55	9.25		
B4	72"x24" INLET	12.61	10.00	-	-	9.95	RED CEDAR LOOP	STA. 7+74.56 R=12.50	TYPE A TOP UNIT	B4	15" RCP	75'	0.47	9.95	9.60		
B5	72"x24" INLET	12.61	-	-	-	10.10	RED CEDAR LOOP	STA. 7+74.56 L=12.50	TYPE A TOP UNIT	B5	15" RCP	25'	0.40	10.10	10.00		
B6	48"x30" INLET	13.27	-	-	-	10.75	RED CEDAR LOOP	STA. 6+17.69 L=12.50	TYPE A TOP UNIT	B6	15" RCP	25'	0.40	10.75	10.65		
B7	14"x23" ARCP END SECTION	-	-	-	-	11.25	RED CEDAR LOOP	STA. 5+49.05 L=29.02	-	B7	14"x23" ARCP	79'	0.32	11.25	11.00		
B8	13 1/2"x22" ARCP END SECTION	-	12.36	-	-	-	RED CEDAR LOOP	STA. 2+52.85 L=25.09	-	-	-	-	-	-	-		
B9	13 1/2"x22" ARCP END SECTION	-	-	-	-	12.41	RED CEDAR LOOP	STA. 20+20.20 R=25.09	-	B9	13 1/2"x22" ARCP	50'	0.10	12.41	12.36		
B10	11"x18" ARCP END SECTION	-	13.14	-	-	-	RED CEDAR LOOP	STA. 31+64.47 R=19.23	-	-	-	-	-	-	-		
B11	11"x18" ARCP END SECTION	-	-	-	-	13.35	RED CEDAR LOOP	STA. 31+44.03 L=16.80	-	B11	18"x11" ARCP	36'	0.58	13.35	13.14		
B12	18"x28.5" ARCP END SECTION	-	9.50	-	-	-	RED CEDAR LOOP	STA. 8+56.62 L=54.56	-	-	-	-	-	-	-		
B13	BOX MANHOLE	13.08	9.83	-	-	9.88	RED CEDAR LOOP	STA. 0+57.30 R=108.44	-	B13	18"x28 1/2" RCP	161'	0.21	9.83	9.50		
B14	P.W. - B.D. 4 OUTFALL	11.85	10.00	-	-	9.94	RED CEDAR LOOP	STA. 6+13.84 R=135.14	FROM POND 2	B14	18"x28 1/2" RCP	32'	0.19	9.94	9.88		
C0	30" HOPE END SECTION	-	7.20	-	-	-	RIVER BRCH LANE	STA. 2+58.19 R=104.19	-	-	-	-	-	-	-		
C1	4" DIA. MANHOLE	13.00	7.35	-	-	7.30	RIVER BRCH LANE	STA. 2+21.19 R=12.50	-	C1	30" HOPE	99'	0.10	7.30	7.20		
C2	48"x48" INLET	12.81	7.95 (24')	9.60 (15')	-	7.45	RIVER BRCH LANE	STA. 1+91.19 L=12.50	TYPE A TOP UNIT	C2	30" RCP	30'	0.33	7.45	7.35		
C3	48"x48" INLET	12.57	8.40 (24')	9.95 (15')	-	8.35	RIVER BRCH LANE	STA. 0+38.94 R=10.16	TYPE C TOP UNIT	C3	24" RCP	152'	0.26	8.35	7.95		
C4	72"x48" INLET	12.65	8.55 (24')	10.00 (15')	-	8.50	SCARLET MAPLE BOULEVARD	STA. 4+17.28 L=12.96	TYPE D TOP UNIT	C4	24" HOPE	39'	0.26	8.50	8.40		
C5	BOX MANHOLE	13.74	10.35 (18')	9.35 (18')	-	8.85	RED CEDAR LOOP	STA. 0+14.45 L=18.36	-	C5	24" RCP	211'	0.14	8.85	8.55		
C6	48"x30" INLET	13.92	10.80 (18')	11.00 (15')	-	10.75	BITTERNUT HICKORY WAY	STA. 0+67.30 L=10.13	TYPE C TOP UNIT	C6	18" RCP	90'	0.44	10.75	10.35		
C7	72"x48" INLET	14.02	11.15 (18')	11.45 (15')	-	11.10	BITTERNUT HICKORY WAY	STA. 2+10.00 L=10.19	TYPE C TOP UNIT	C7	18" RCP	135'	0.22	11.10	10.80		
C8	48"x30" INLET	14.36	11.35	-	-	11.30	RED CEDAR LOOP	STA. 3+44.89 R=7.63	TYPE C TOP UNIT	C8	18" RCP	86'	0.17	11.30	11.15		
C9	72"x48" INLET	14.36	11.50	-	-	11.45	RED CEDAR LOOP	STA. 3+44.89 L=7.63	TYPE C TOP UNIT	C9	18" RCP	18'	0.55	11.45	11.35		
C10	BOX MANHOLE	15.78	11.70	-	-	11.65	BITTERNUT HICKORY WAY	STA. 4+48.09 L=9.50	-	C10	18" RCP	134'	0.11	11.65	11.50		
C11	72"x48" INLET	14.98	12.10 (15')	12.38 (15')	-	11.85	BITTERNUT HICKORY WAY	STA. 5+15.00 L=12.47	TYPE A TOP UNIT	C11	18" RCP	110'	0.14	11.85	11.70		
C12	72"x24" INLET	14.98	12.38	-	-	12.33	BITTERNUT HICKORY WAY	STA. 6+70.00 L=12.50	TYPE A TOP UNIT	C12	15" RCP	128'	0.18	12.33	12.10		
C13	72"x24" INLET	14.98	-	-	-	12.48	BITTERNUT HICKORY WAY	STA. 6+70.00 R=10.13	TYPE C TOP UNIT	C13	15" RCP	25'	0.40	12.48	12.38		
C14	48"x48" INLET	12.81	9.75	-	-	9.70	RIVER BRCH LANE	STA. 1+91.19 L=10.13	TYPE C TOP UNIT	C14	15" RCP	23'	0.44	9.70	9.60		
C15	72"x24" INLET	12.51	9.90	-	-	9.85	TULIP POPLAR WAY	STA. 4+46.13 L=10.19	TYPE C TOP UNIT	C15	15" RCP	21'	0.48	9.85	9.75		
C16	72"x24" INLET	12.51	-	-	-	10.00	TULIP POPLAR WAY	STA. 4+46.13 R=10.13	TYPE C TOP UNIT	C16	15" RCP	20'	0.49	10.00	9.90		
C17	48"x30" INLET	12.57	-	-	-	10.05	RIVER BRCH LANE	STA. 0+38.55 L=10.16	TYPE C TOP UNIT	C17	15" RCP	20'	0.49	10.05	9.95		
C18	72"x24" INLET	12.65	-	-	-	10.10	SCARLET MAPLE BOULEVARD	STA. 4+25.01 R=12.91	TYPE C TOP UNIT	C18	15" RCP	27'	0.37	10.10	10.00		
C19	48"x30" INLET	13.92	11.15	-	-	11.10	BITTERNUT HICKORY WAY	STA. 0+67.30 R=10.19	TYPE C TOP UNIT	C19	15" RCP	20'	0.49	11.10	11.00		
C20	LAWN INLET	12.90	-	-	-	11.25	BITTERNUT HICKORY WAY	STA. 0+90.35 R=39.54	-	C20	15" HOPE	39'	0.26	11.25	11.15		
C21	72"x24" INLET	14.02	-	-	-	11.55	BITTERNUT HICKORY WAY	STA. 2+10.00 R=10.13	TYPE C TOP UNIT	C21	15" RCP	25'	0.40	11.55	11.45		
C22	72"x24" INLET	14.98	-	-	-	12.48	BITTERNUT HICKORY WAY	STA. 5+15.00 R=12.50	TYPE A TOP UNIT	C22	15" RCP	25'	0.40	12.48	12.38		
C23	48"x30" INLET	13.58	9.50 (18')	11.00 (15')	-	9.45	RED CEDAR LOOP	STA. 0+60.00 L=10.13	TYPE C TOP UNIT	C23	18" RCP	46'	0.22	9.45	9.35		
C24	BOX MANHOLE	14.01	9.65	-	-	9.60	RED CEDAR LOOP	STA. 1+11.68 L=8.72	-	C24	18" RCP	40'	0.25	9.60	9.50		
										C25	18" RCP STUB	54'	0.12	9.71	9.65		
C29	48"x30" INLET	13.58	-	-	-	11.10	RED CEDAR LOOP	STA. 0+67.28 R=10.19	TYPE C TOP UNIT	C29	15" RCP	22'	0.46	11.10	11.00		
C30	18"x30" ERCP END SECTION	-	8.75	-	-	-	RED CEDAR LOOP	STA. 6+63.01 L=288.29	-	-	-	-	-	-	-		
C31	P.W. - B.D. 4 OUTFALL	11.35	-	9.00	-	9.00	RED CEDAR LOOP	STA. 6+55.22 L=278.28	FROM POND 3	C31	18"x30" ERCP	19'	1.33	9.00	8.75		
D1	11"x18" ARCP END SECTION	-	11.69	-	-	-	RED CEDAR LOOP	STA. 6+63.01 L=288.29	-	-	-	-	-	-	-		
D2	11"x18" ARCP END SECTION	-	-	-	-	12.26	RED CEDAR LOOP	STA. 6+55.22 L=278.28	-	D2	18"x11" ARCP	168'	0.34	12.26	11.69		
E1	11"x18" ARCP END SECTION	-	12.78	-	-	-	RED CEDAR LOOP	STA. 6+63.01 L=288.29	-	-	-	-	-	-	-		
E2	11"x18" ARCP END SECTION	-	-	-	-	12.91	RED CEDAR LOOP	STA. 6+55.22 L=278.28	-	E2	18"x11" ARCP	38'	0.34	12.91	12.78		









## HANDICAP RAMP DETAILS

DEL. D.O.T. STD. C-2 (2012)



DEL. D.O.T. STD. D-6 (2001)



DEL. D.O.T. STD. D-6 (2009)



DEL. D.O.T. STD. D-6 (2007)



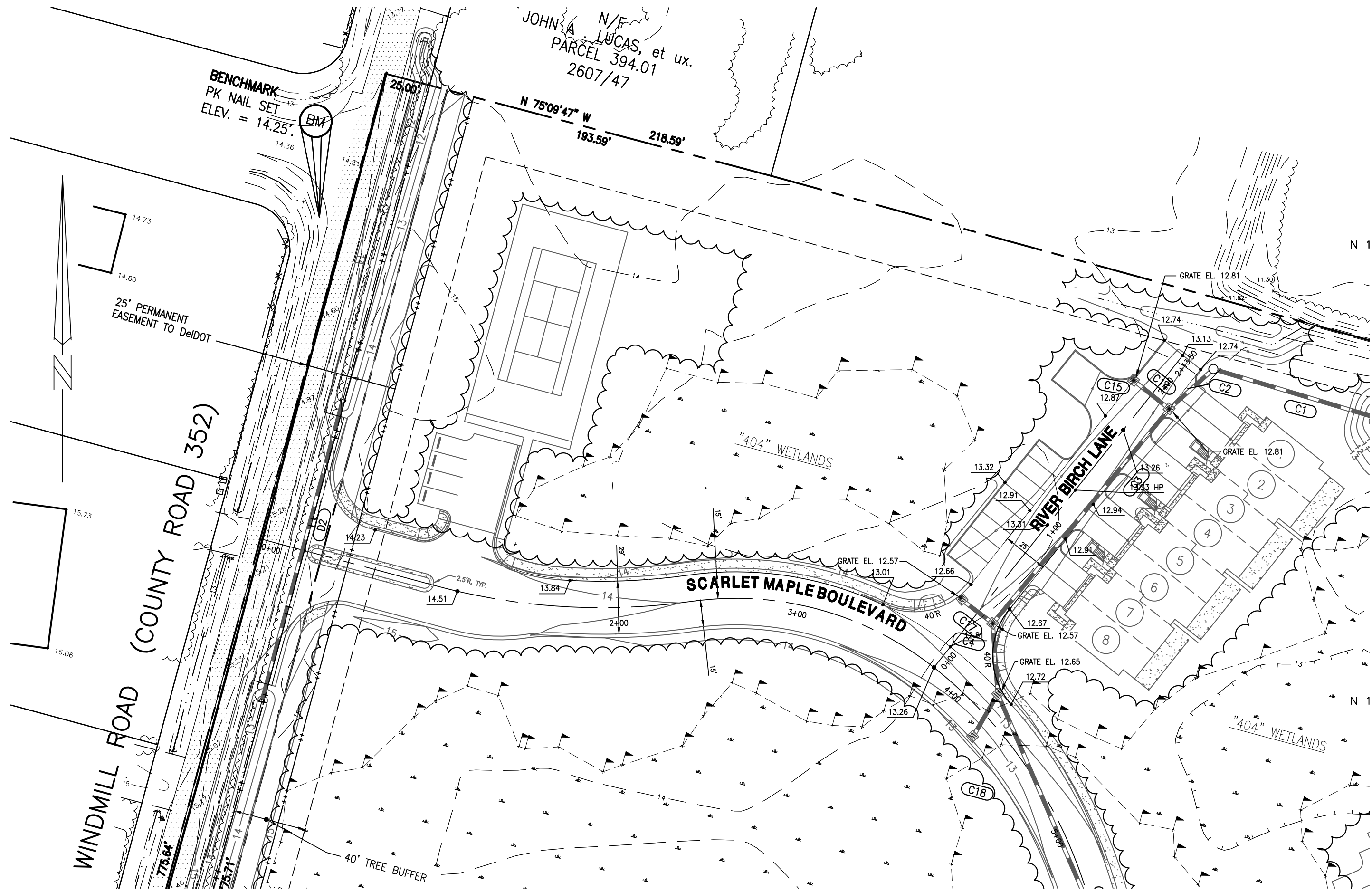
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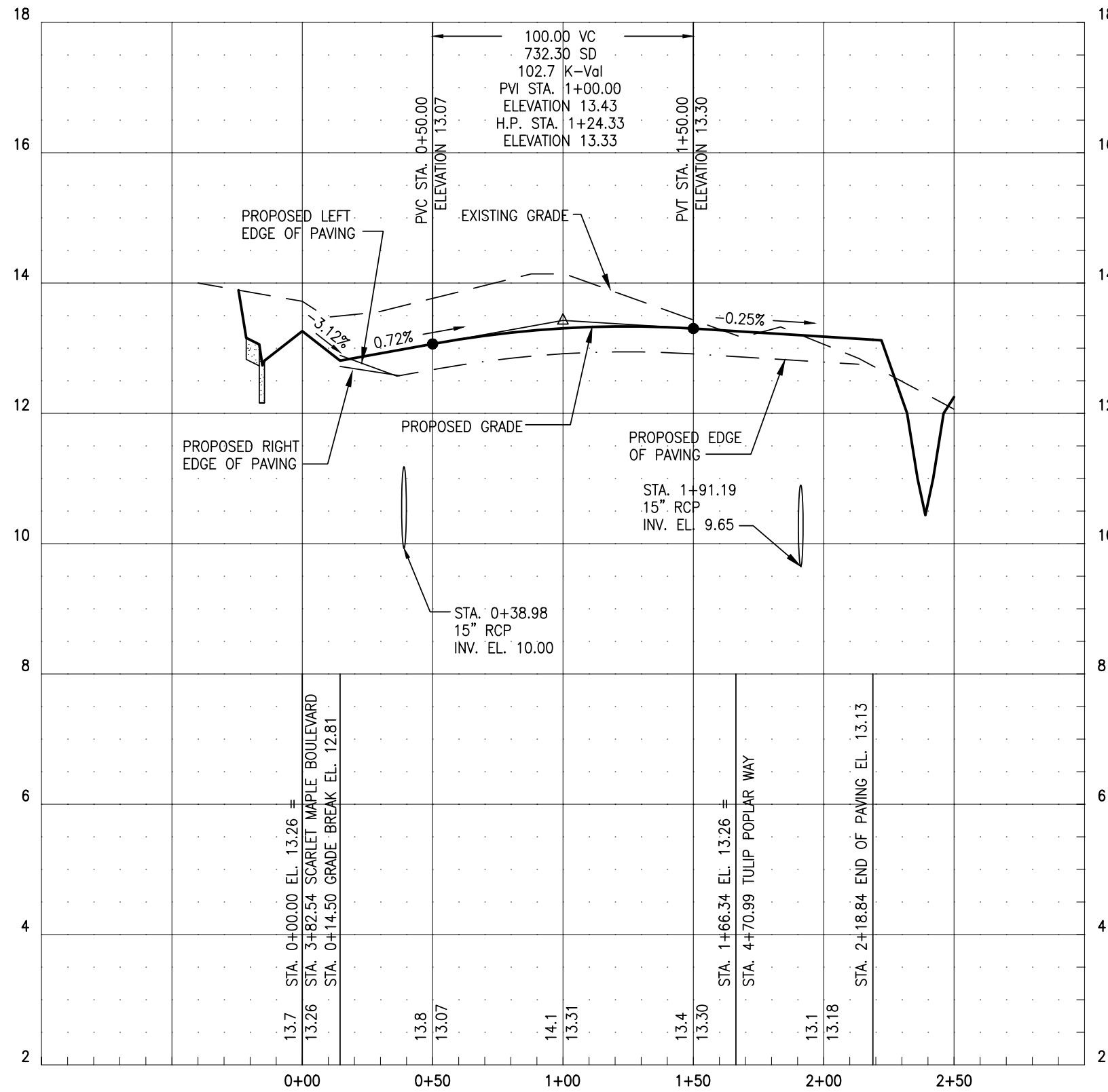


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**RIVER BIRCH LANE PLAN**  
1"=50'

- NOTE:
1. PLAN AND PROFILE PROVIDED FOR REFERENCE ONLY; RIVER BIRCH LANE IS ALREADY CONSTRUCTED.
  2. SPOT ELEVATIONS SHOWN DEPICT THE CENTERLINE AND EDGE OF PAVING ELEVATIONS ONLY. SEE TYPICAL STREET SECTIONS ON DRAWING NO. S6 FOR MORE INFORMATION.

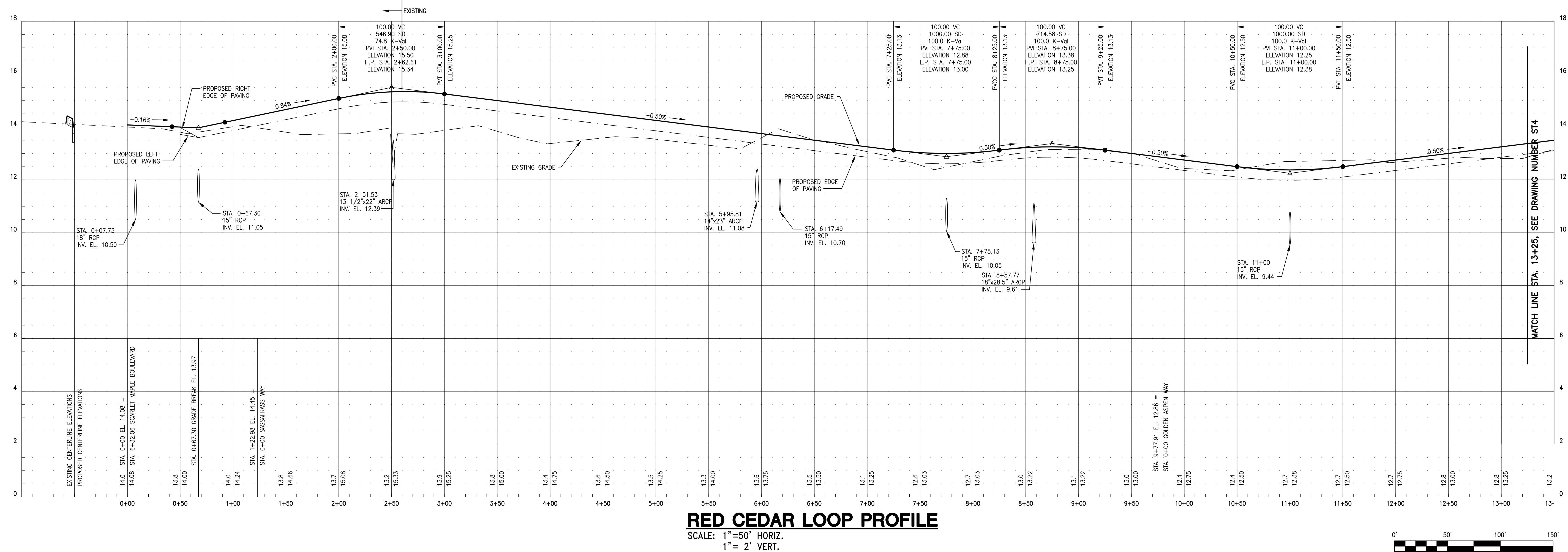
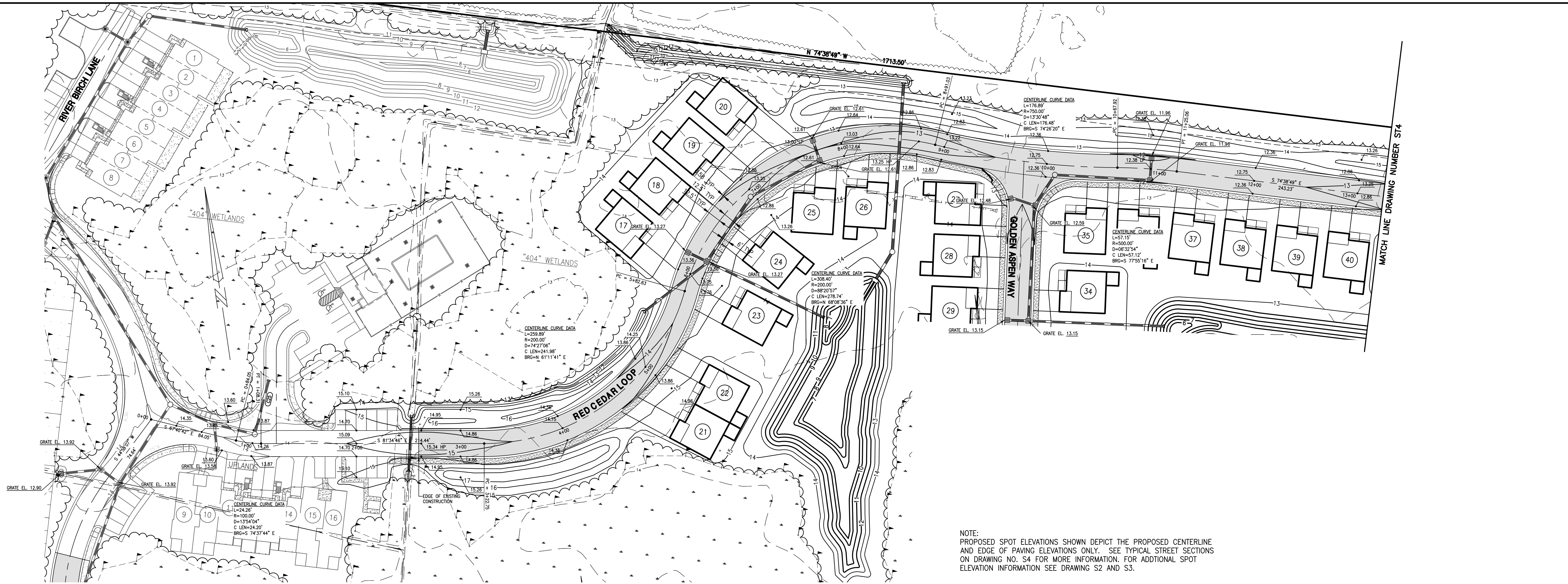


**RIVER BIRCH LANE PROFILE**  
SCALE: 1"=50' HORIZ.  
1"= 2' VERT.





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WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

Revisions:

Date: JANUARY 2021  
Scale: AS SHOWN  
Dwn.By: VLT/EFT  
Proj.No.: 003E001.H  
Dwg.No.:

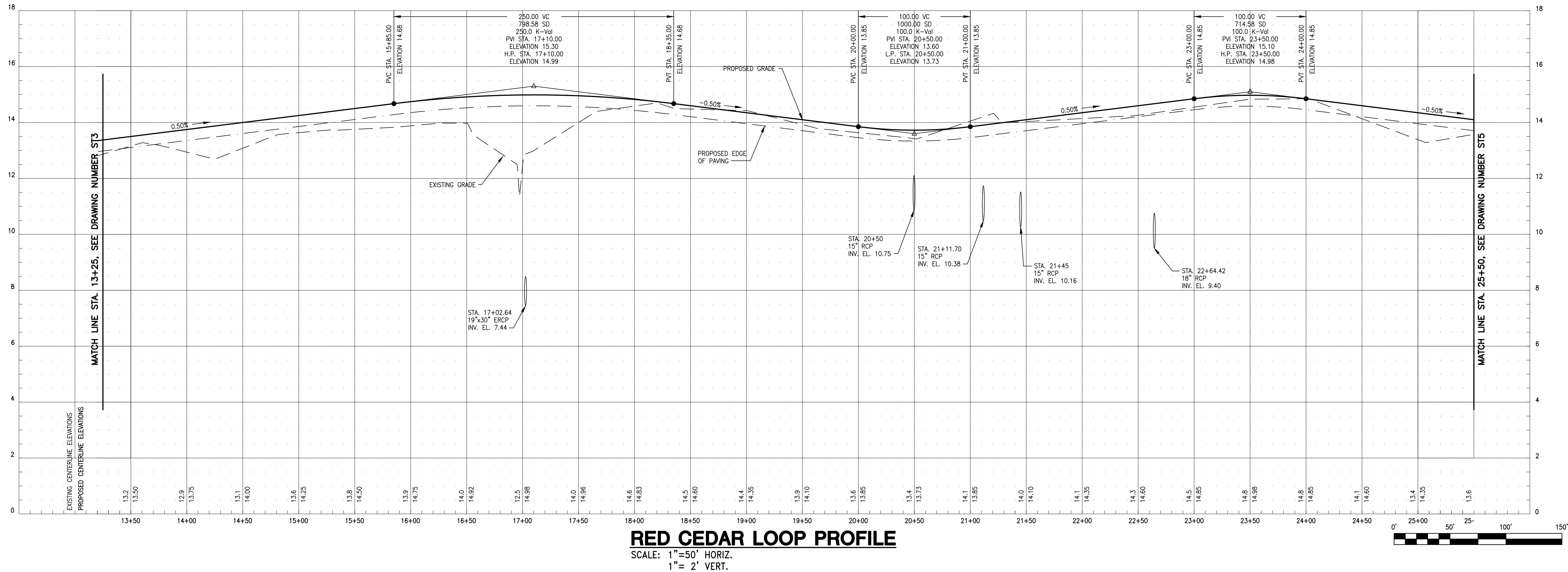
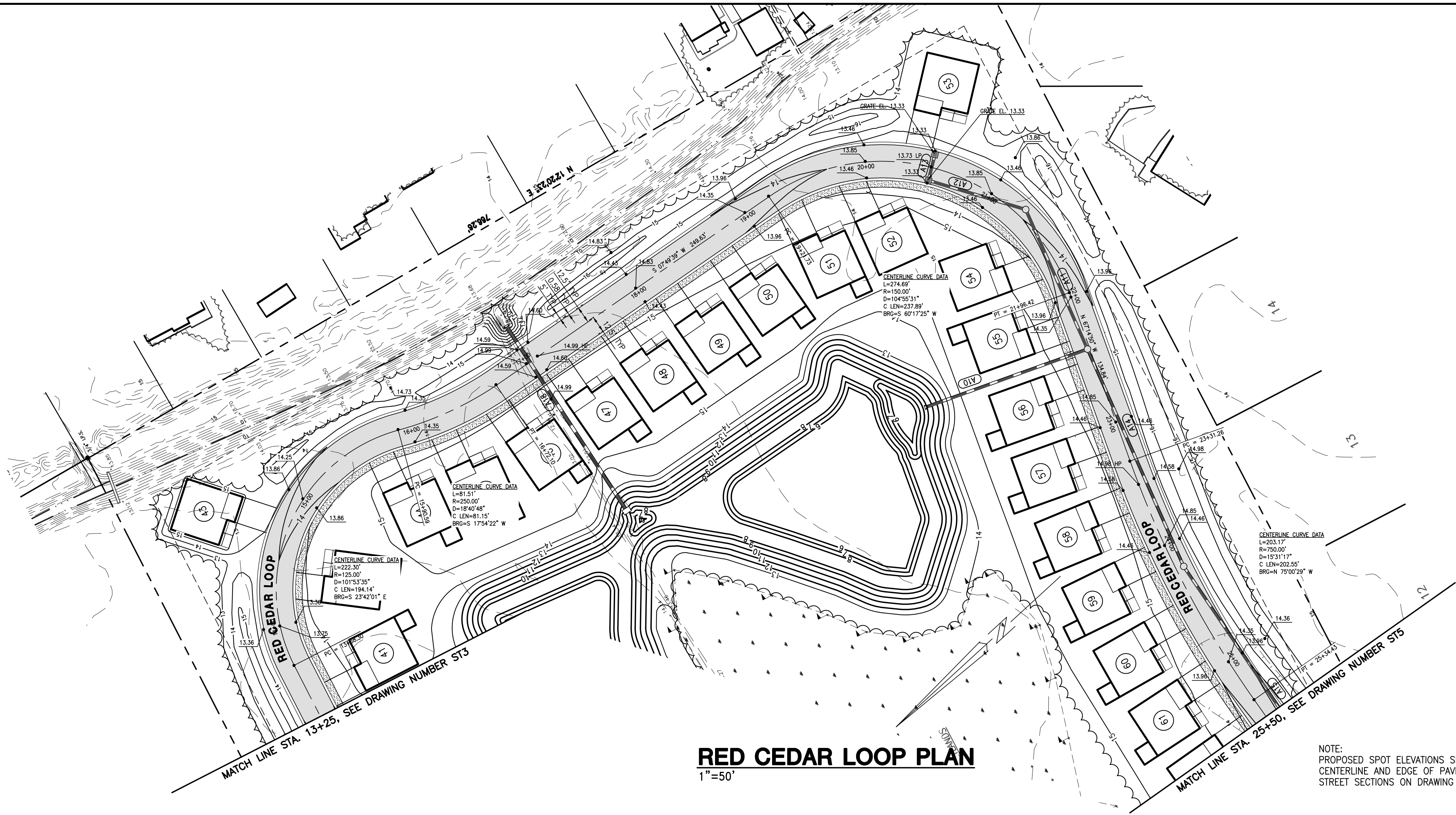
ST3

dbf  
DAVIS, BOWEN & FRIEDEL, INC.  
ARCHITECTS, ENGINEERS, SURVEYORS  
SAUSBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

STREET PLAN & PROFILE

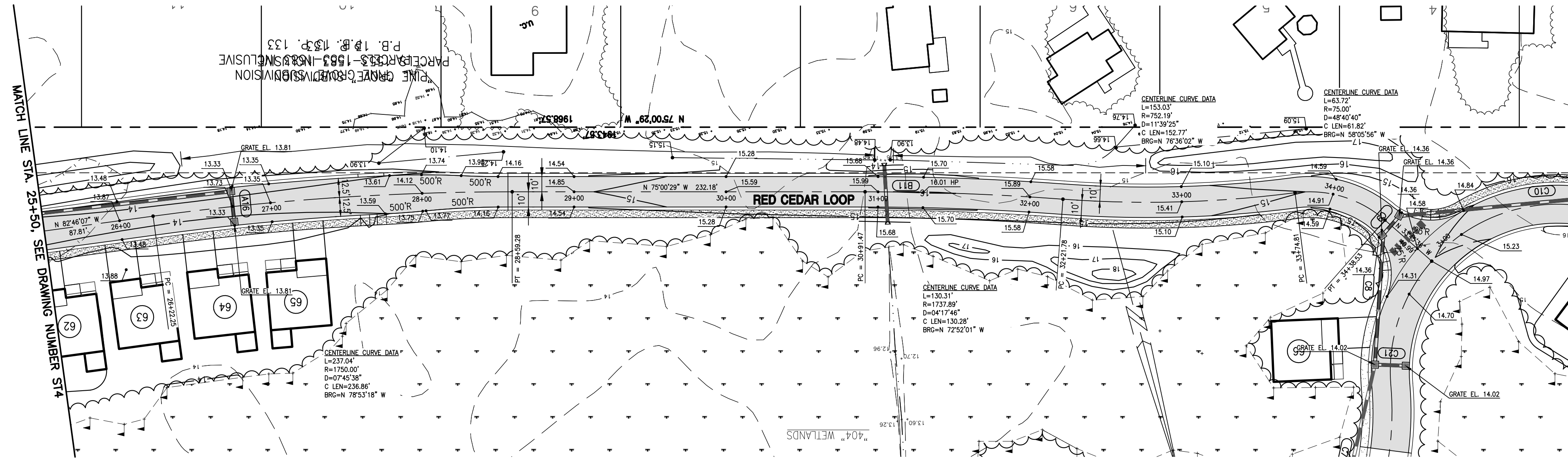


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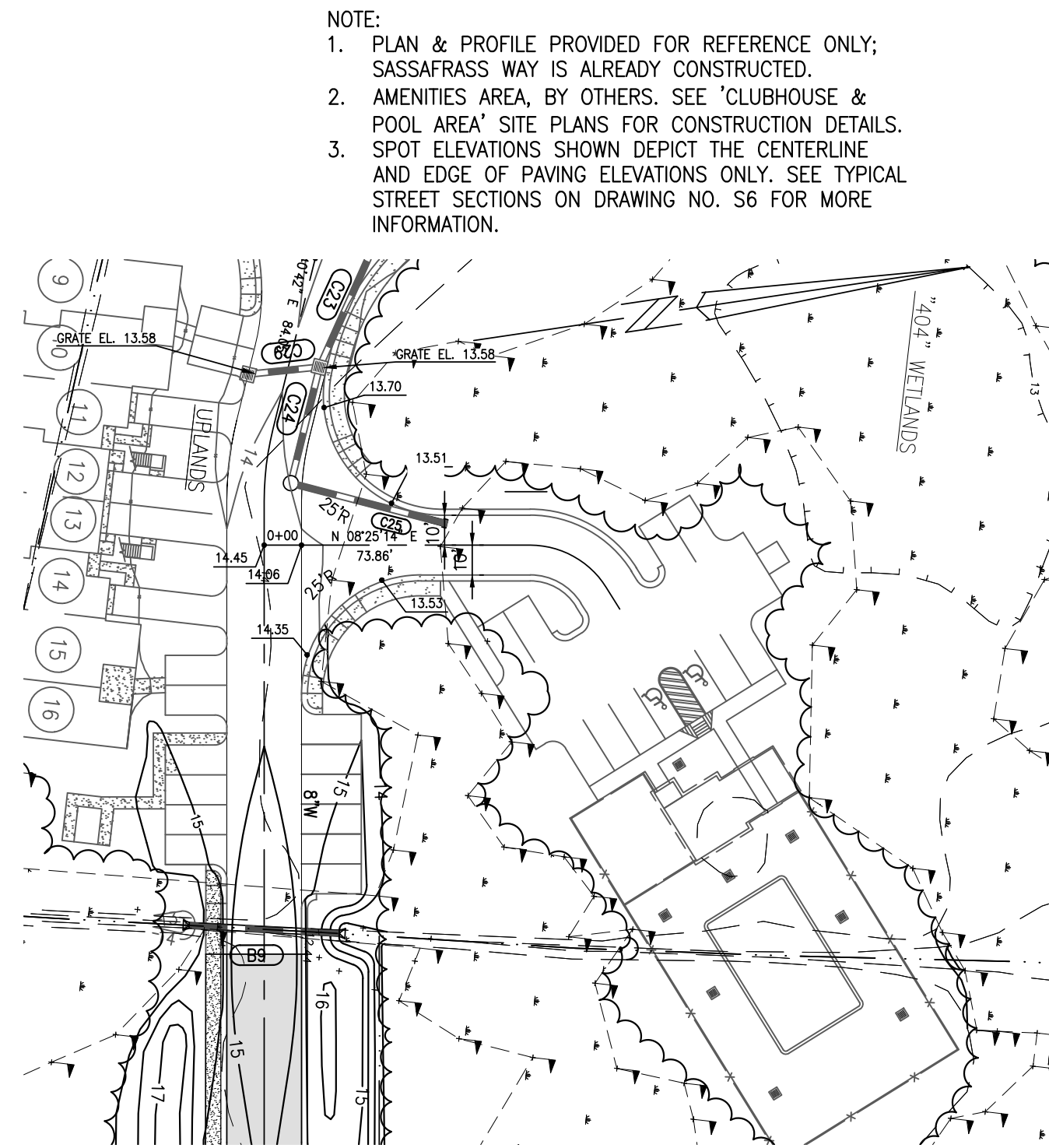


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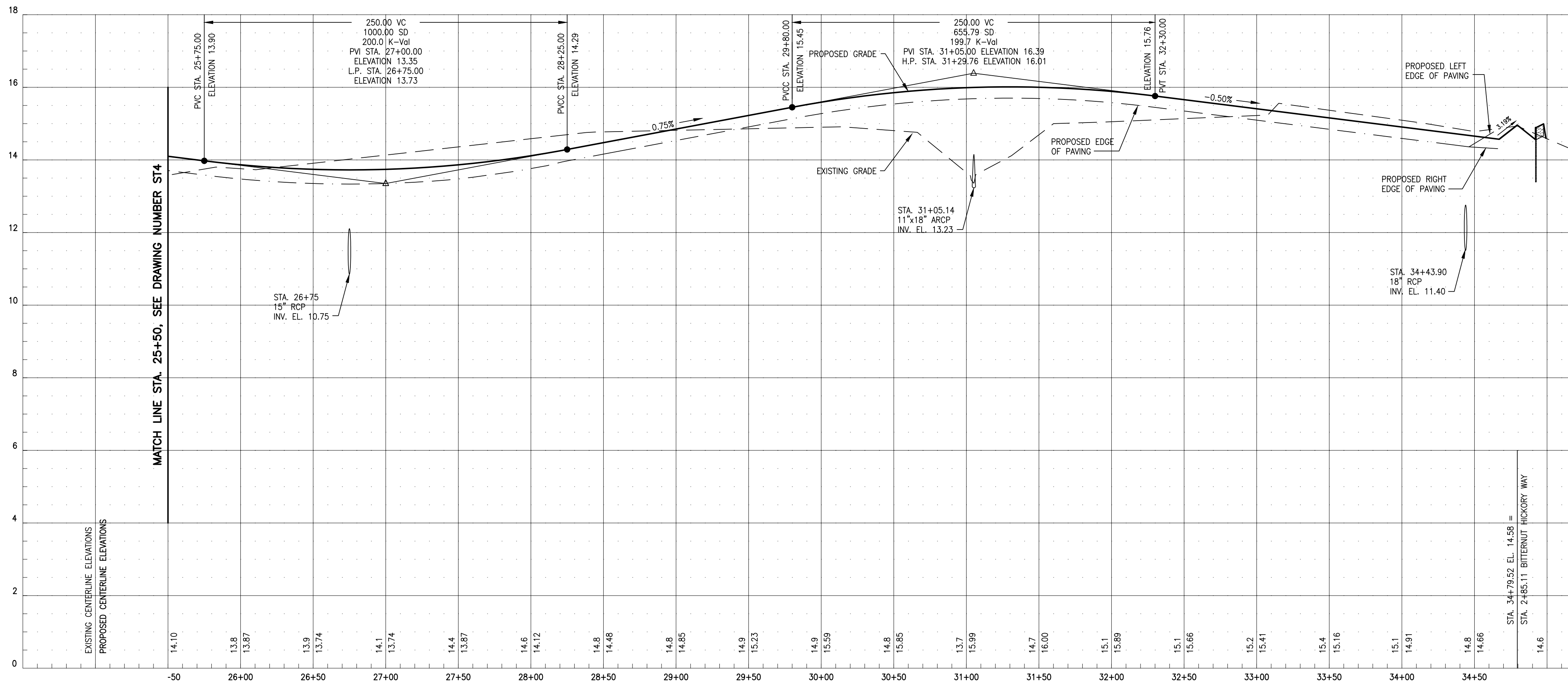
**RED CEDAR LOOP PLAN**  
1"=50'

NOTE:  
PROPOSED SPOT ELEVATIONS SHOWN DEPICT THE PROPOSED  
CENTERLINE AND EDGE OF PAVING ELEVATIONS ONLY. SEE TYPICAL  
STREET SECTIONS ON DRAWING NO. S4 FOR MORE INFORMATION.

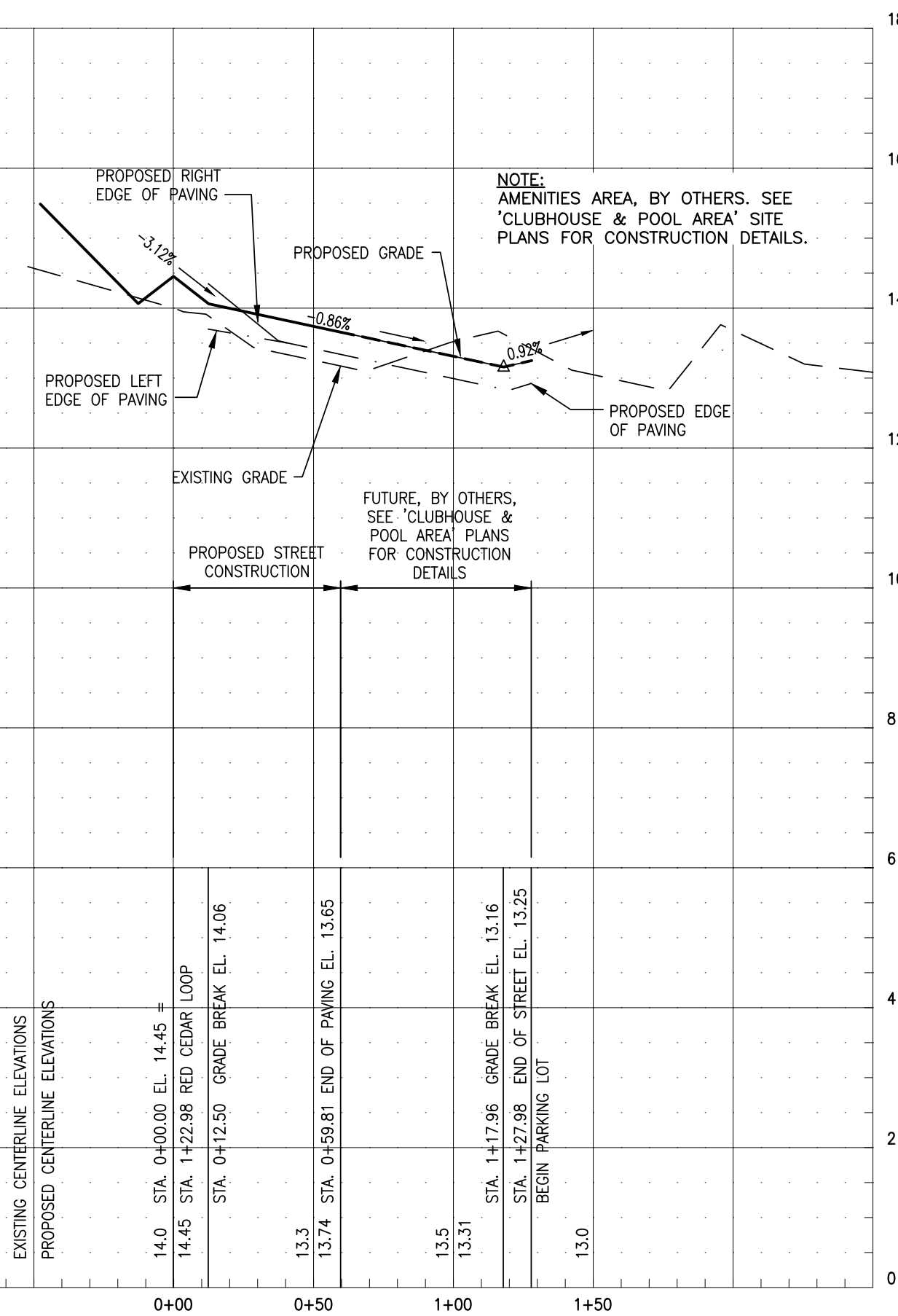


**SASSAFRASS WAY PLAN**  
1"=50'

NOTE:  
1. PLAN & PROFILE PROVIDED FOR REFERENCE ONLY;  
SASSAFRASS WAY IS ALREADY CONSTRUCTED.  
2. AMENITIES AREA, BY OTHERS. SEE 'CLUBHOUSE &  
POOL AREA' SITE PLANS FOR CONSTRUCTION DETAILS.  
3. SPOT ELEVATIONS SHOWN DEPICT THE CENTERLINE  
AND EDGE OF PAVING ELEVATIONS ONLY. SEE TYPICAL  
STREET SECTIONS ON DRAWING NO. S6 FOR MORE  
INFORMATION.



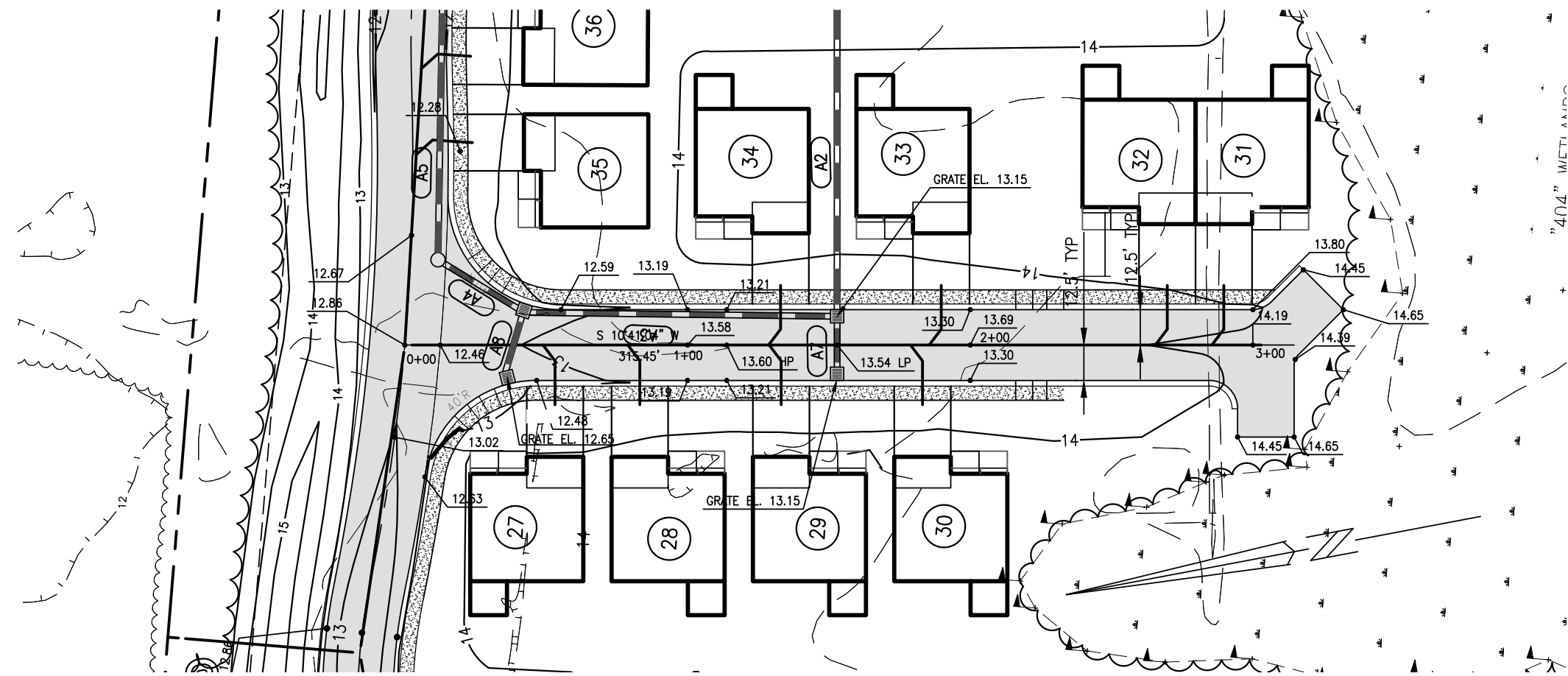
**RED CEDAR LOOP PROFILE**  
SCALE: 1"=50' HORIZ.  
1"= 2' VERT.



**SASSAFRASS WAY PROFILE**  
SCALE: 1"=50' HORIZ.  
1"= 2' VERT.





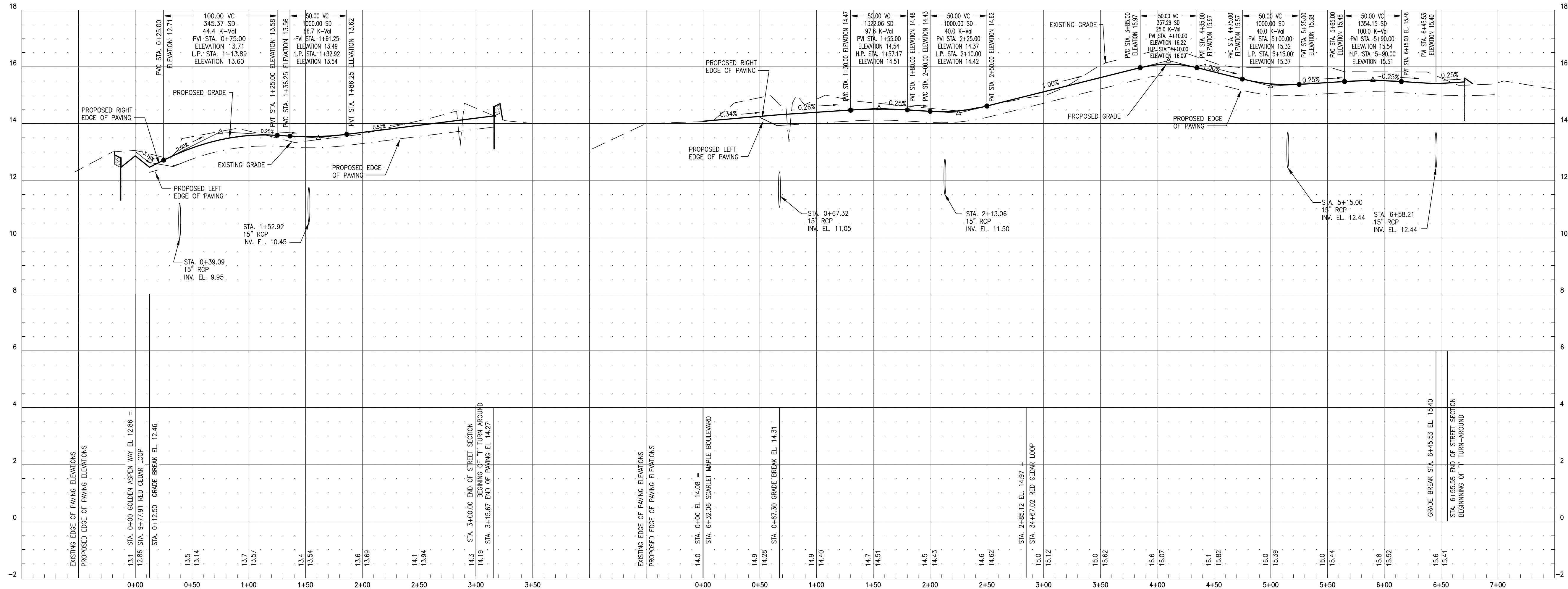


**GOLDEN ASPEN WAY PLAN**  
1"=50'

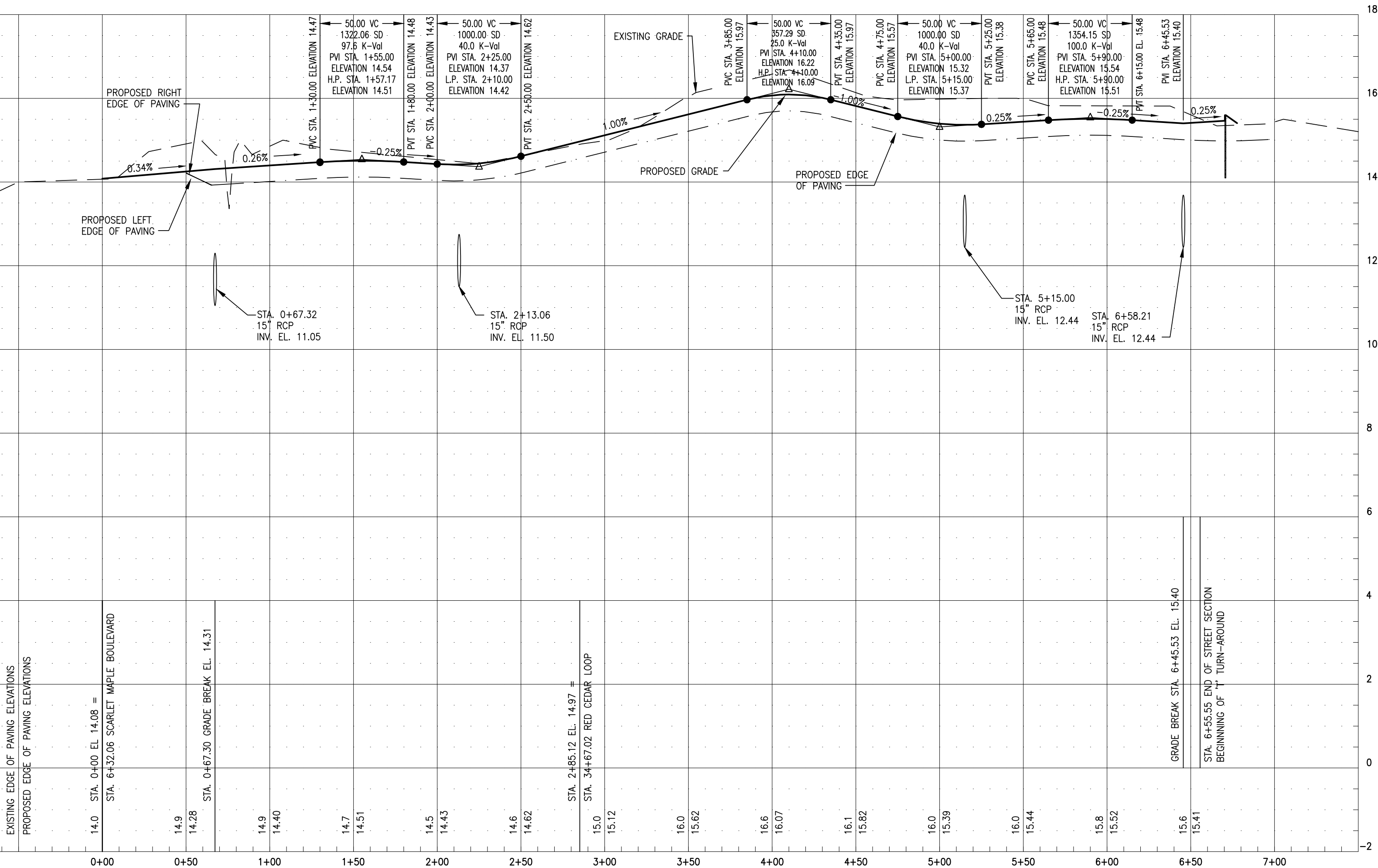


**BITTERNUT HICKORY WAY PLAN**  
1"=50'

NOTE:  
PROPOSED SPOT ELEVATIONS SHOWN DEPICT THE PROPOSED  
CENTERLINE AND EDGE OF PAVING ELEVATIONS ONLY. SEE TYPICAL  
STREET SECTIONS ON DRAWING NO. S4 FOR MORE INFORMATION.



**GOLDEN ASPEN WAY PROFILE**  
SCALE: 1"=50' HORIZ.  
1"= 2' VERT.

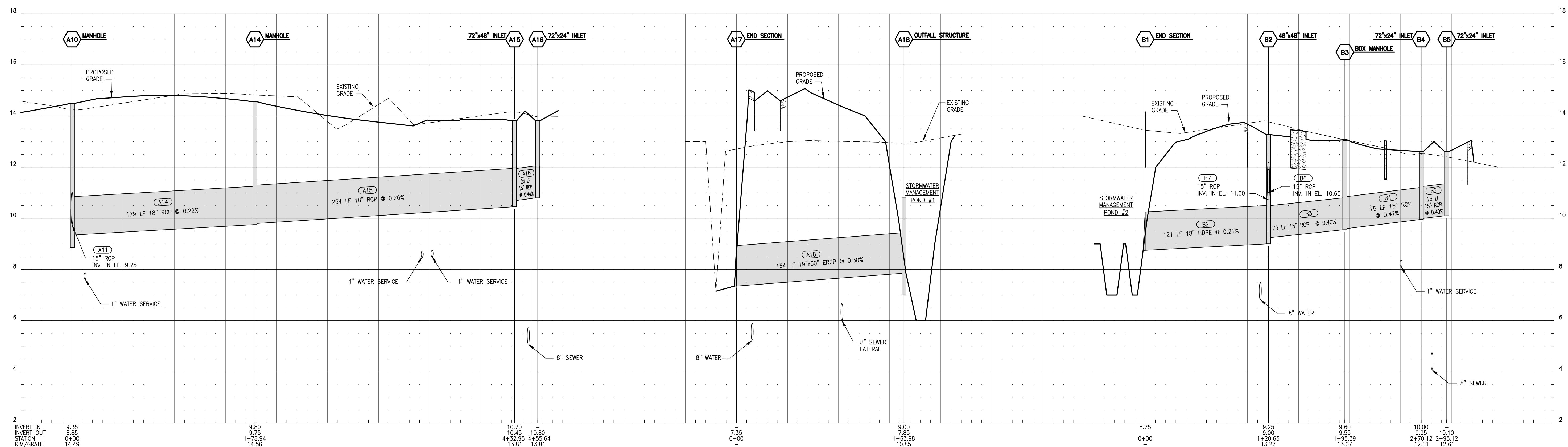


**BITTERNUT HICKORY WAY PROFILE**  
SCALE: 1"=50' HORIZ.  
1"= 2' VERT.



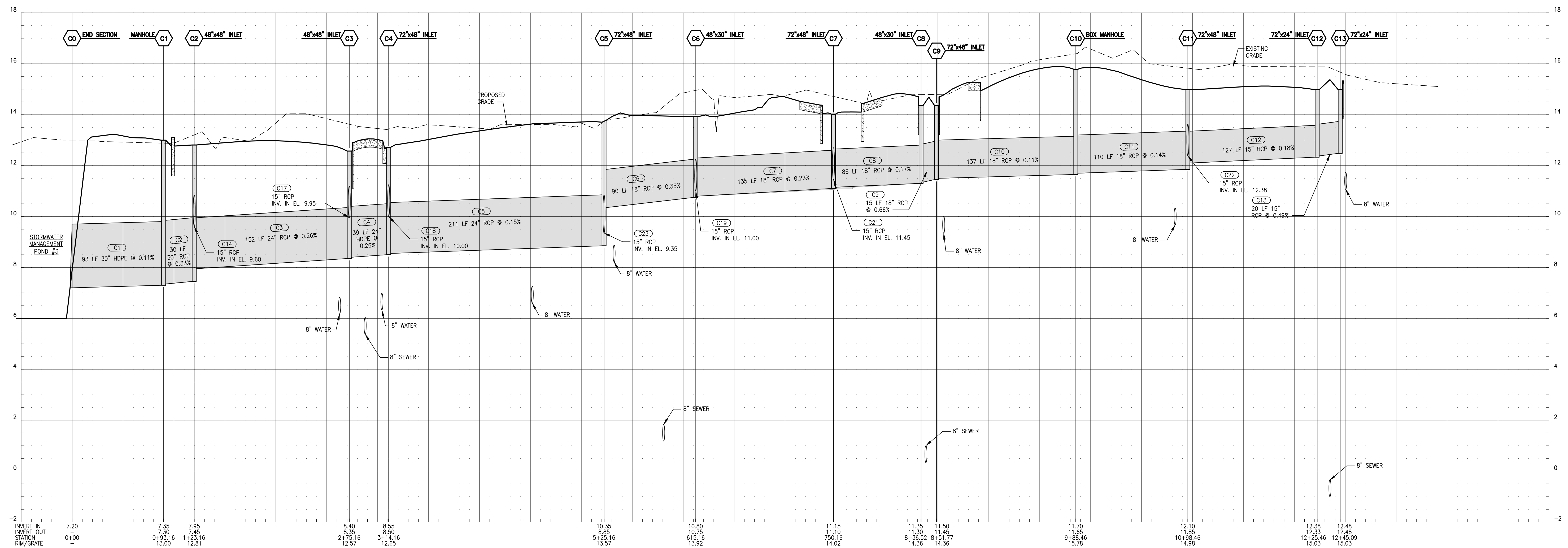
P:\0003\0003E001\Current working folder\dwg\ST6.dwg, Jan 21, 2021 - 3:34pm





SD1

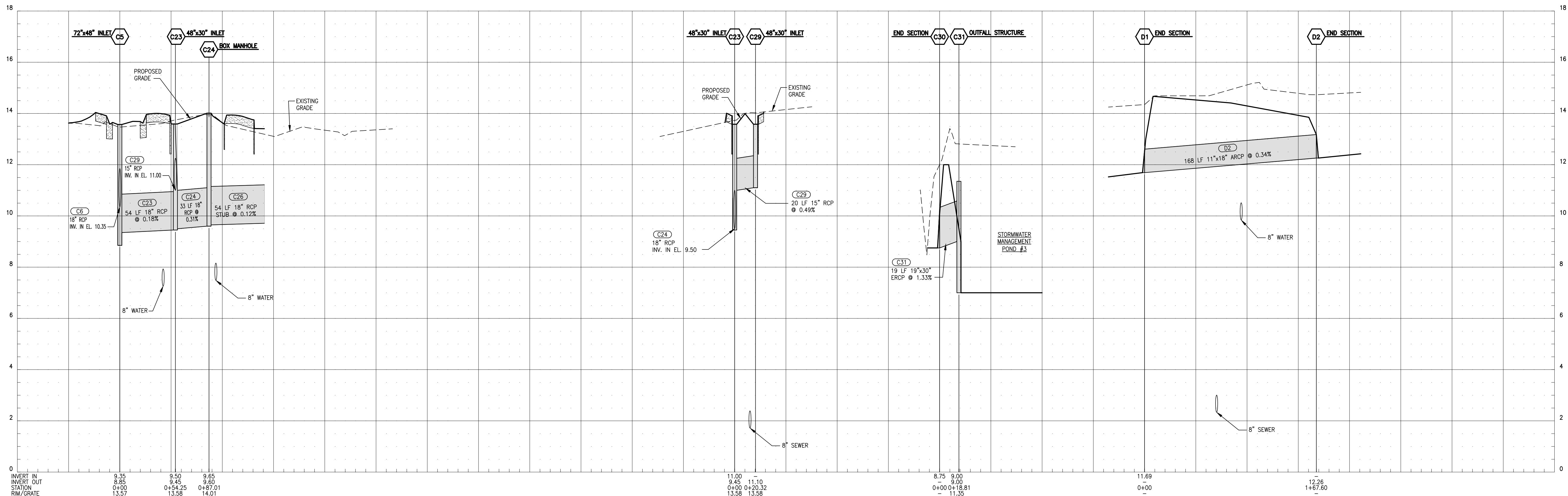
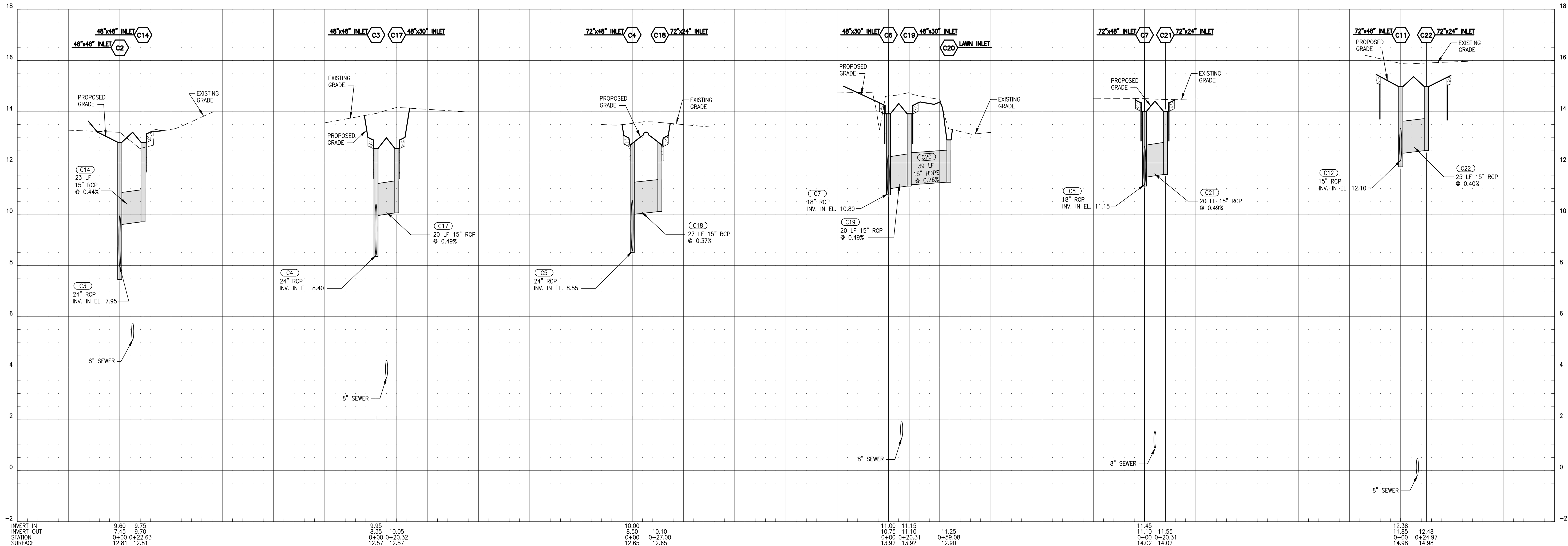




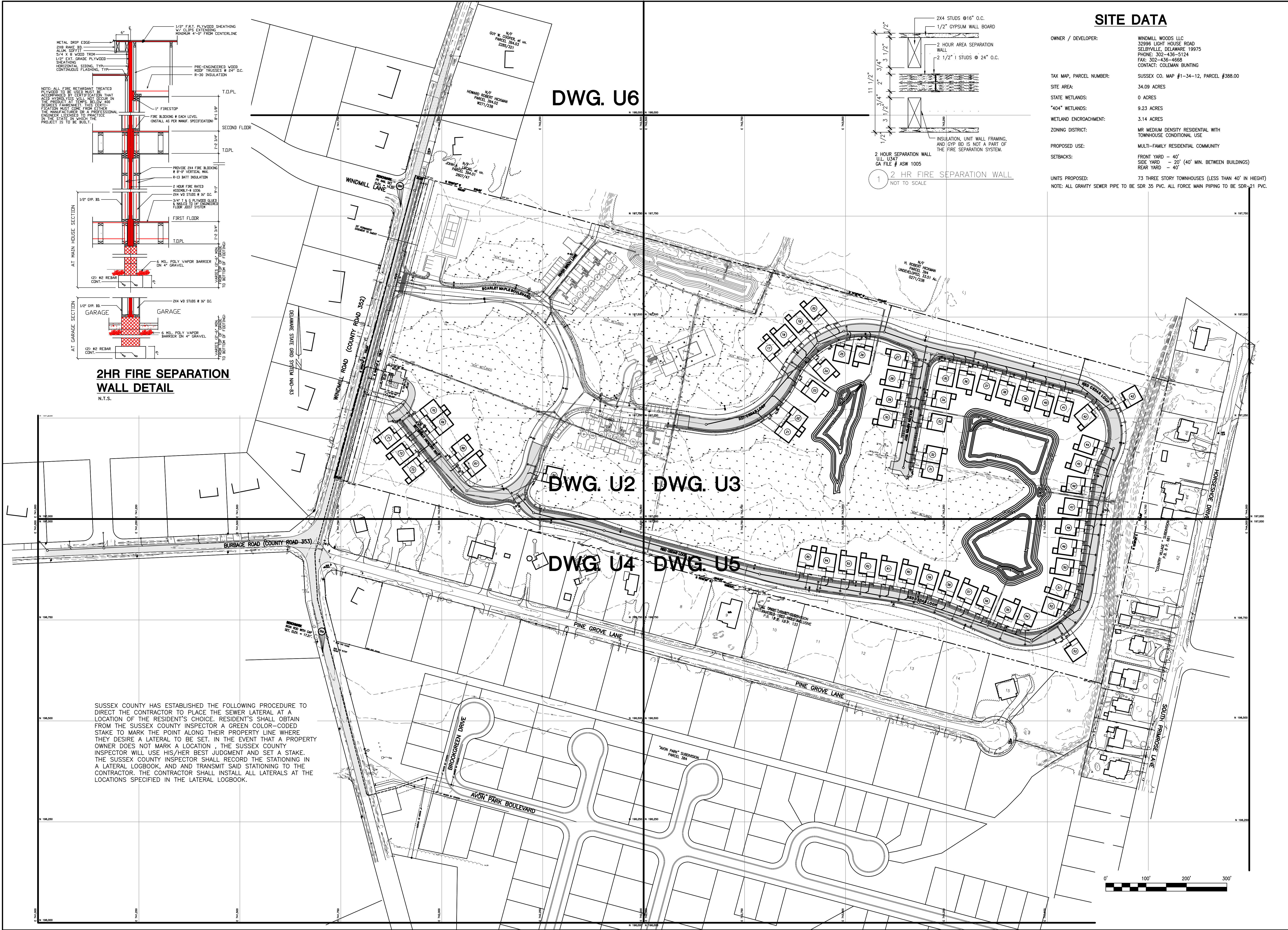
SD2



P:\0003\0003E001\Current working folder\dwgs\SD1-2 STORM PROFILES.dwg Jan 21, 2021 - 3:34pm







## SITE DATA

OWNER / DEVELOPER:	WINDMILL WOODS LLC 32998 LIGHT HOUSE ROAD SELYVILLE, DELAWARE 19975 PHONE: 302-436-5124 FAX: 302-436-4668 CONTACT: COLEMAN BUNTING
TAX MAP, PARCEL NUMBER:	SUSSEX CO. MAP #1-34-12, PARCEL #388.00
SITE AREA:	34.09 ACRES
STATE WETLANDS:	0 ACRES
*404* WETLANDS:	9.23 ACRES
WETLAND ENCROACHMENT:	3.14 ACRES
ZONING DISTRICT:	MR MEDIUM DENSITY RESIDENTIAL WITH TOWNHOUSE CONDITIONAL USE
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL COMMUNITY
SETBACKS:	FRONT YARD - 40' SIDE YARD - 20' (40' MIN. BETWEEN BUILDINGS) REAR YARD - 40'
UNITS PROPOSED:	73 THREE STORY TOWNHOUSES (LESS THAN 40' IN HEIGHT)
NOTE:	ALL GRAVITY SEWER PIPE TO BE SDR 35 PVC. ALL FORCE MAIN PIPING TO BE SDR-21 PVC.

**WINDMILL WOODS**  
**WINDMILL ROAD**  
**SUSSEX COUNTY, DELAWARE**

Revisions:

Date: JANUARY 2021  
Scale: 1" = 100'  
Dwn.By: JDF  
Proj.No.: 003E001.H  
Dwg.No.:

**U1**

**DAVIS, BOWEN & FRIEDEL, INC.**

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SAUSBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

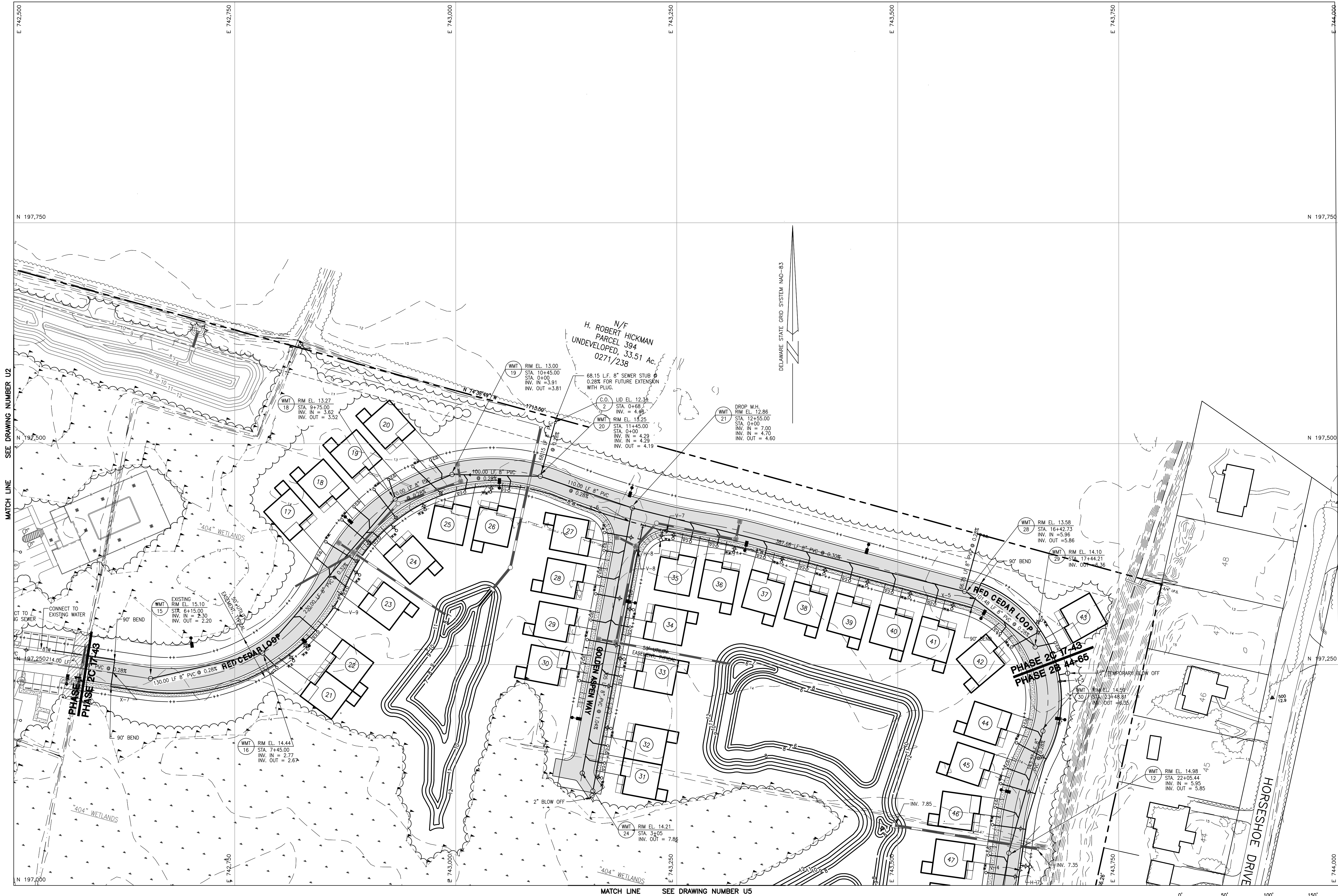
UTILITY KEY MAP







P:\0003\0003E001\Fcurrent working folder\dwgs\U2-6 UTIL.dwg, Jan 21, 2021 - 3:39pm

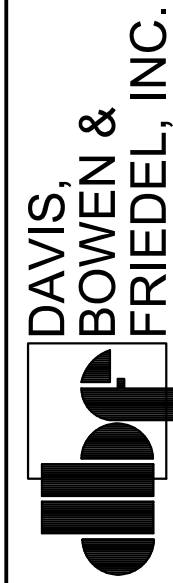


**WINDMILL WOODS**  
**WINDMILL ROAD**  
**SUSSEX COUNTY, DELAWARE**

Revisions:

Date: JANUARY 2021  
Scale: 1" = 50'  
Dwn.By: VLT/JDF  
Proj.No.: 003E001.H  
Dwg.No.:

**U3**



ARCHITECTS ENGINEERS SURVEYORS  
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MILFORD, DELAWARE (302) 424-1441

UTILITY PLAN



P:\0003\0003E001\Fcurrent working folder\dwgs\U2-6 UTL.dwg Jan 21, 2021 - 3:34pm

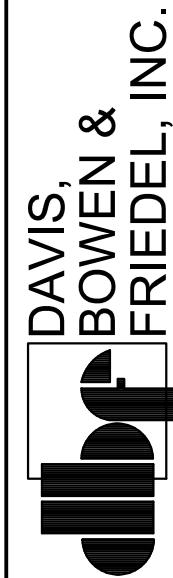


**WINDMILL WOODS**  
**WINDMILL ROAD**  
**SUSSEX COUNTY, DELAWARE**

Revisions:

Date: **JANUARY 2021**  
Scale: **1" = 50'**  
Dwn.By: **VLJ/JDF**  
Proj.No.: **003E001.H**  
Dwg.No.:

**U4**



**DAVIS,  
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UTILITY PLAN



P:\0003\0003E001\Fcurrent working folder\dwgs\U2-6 UTIL.dwg Jan 21, 2021 - 3:34pm



DELAWARE STATE GRID SYSTEM NAD-83

**WINDMILL WOODS**  
**WINDMILL ROAD**  
**SUSSEX COUNTY, DELAWARE**

Revisions:

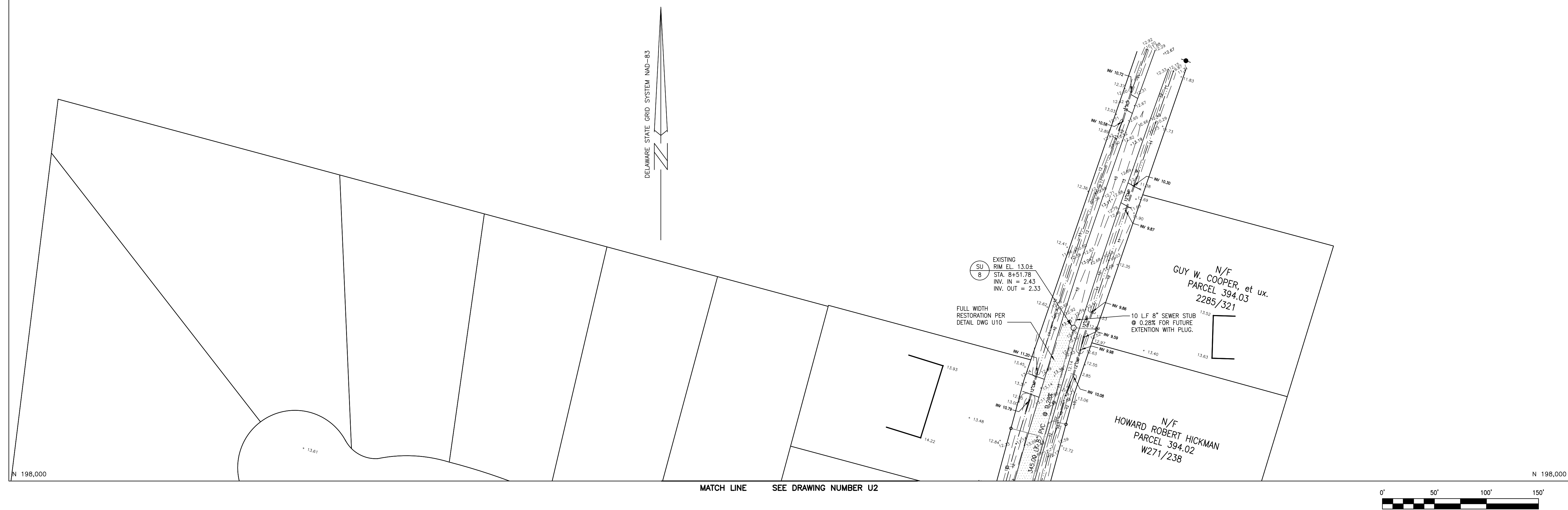
Date: JANUARY 2021  
Scale: 1" = 50'  
Dwn.By: VLT/JDF  
Proj.No.: 003E001.H  
Dwg.No.:

**dbf** DAVIS, BOWEN & FRIEDEL, INC.  
ARCHITECTS, ENGINEERS, SURVEYORS  
SALESBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

UTILITY PLAN

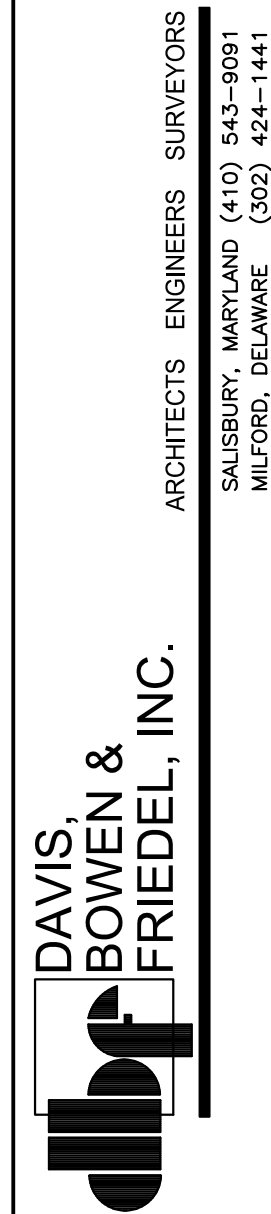
**U5**





P:\0003\0003E001.H\current working folder\dwgs\U2-6 UTIL.dwg Jan 21, 2021 - 3:35pm

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## UTILITY PLAN

**WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE**

Revisions:

Date: JANUARY 2021

Scale: 1" = 50'

Dwn.By: VLT/JDF

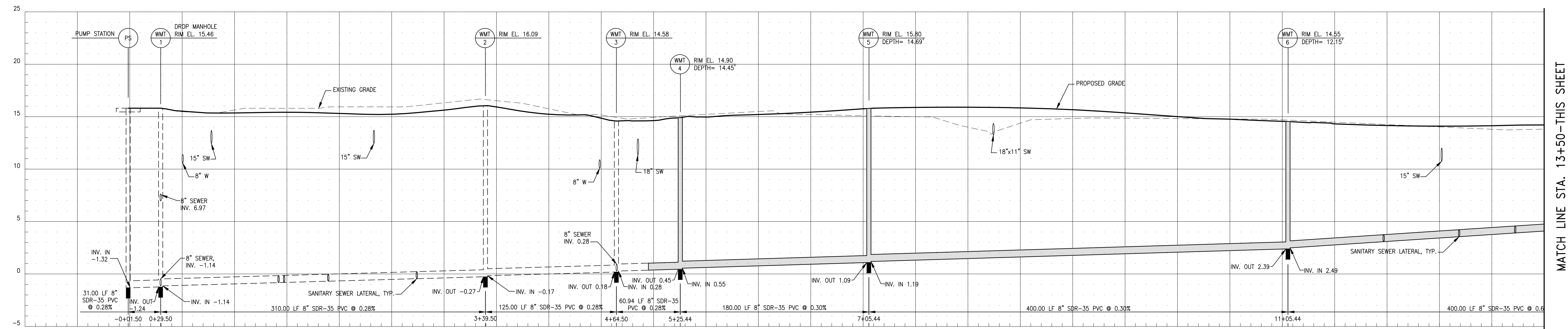
Proj.No.:	003E001 II
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Proj.No.:	003E001.H
Dwg.No.:	

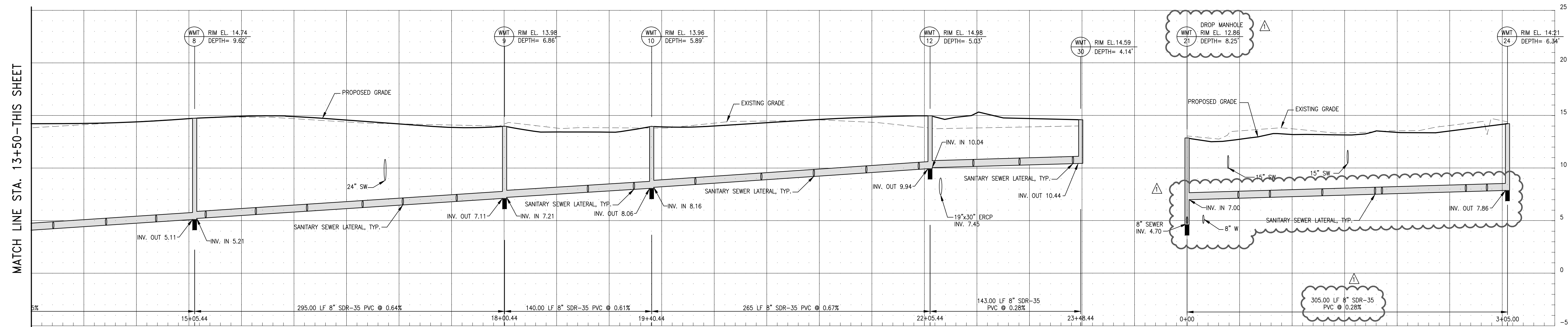
## U6



P:\0003\0003E001\Current working folder\dwg\U7-11 UTIL PROFILES.dwg, Jan 21, 2021 - 3:35pm



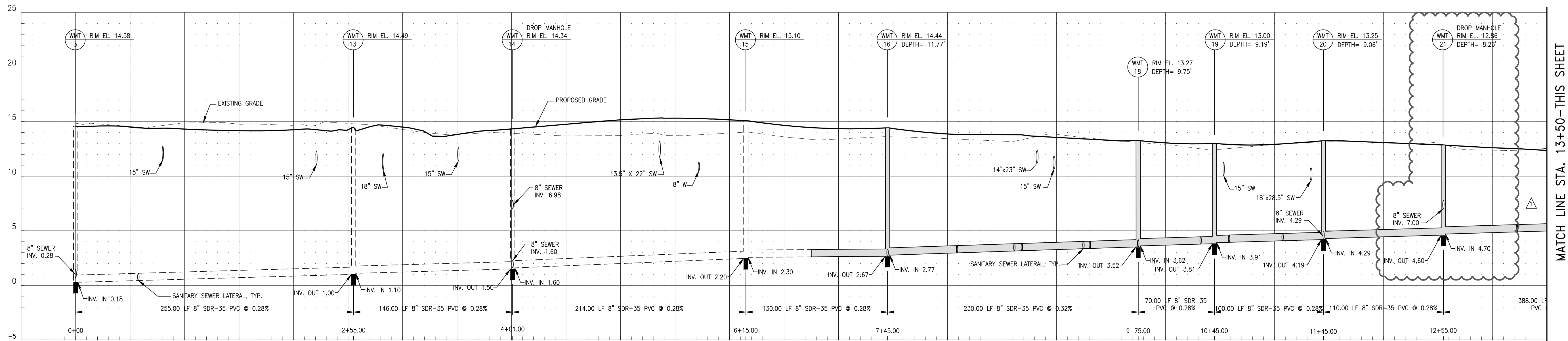
**SEWER MAIN PROFILE**  
SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



**SEWER MAIN PROFILE**  
SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



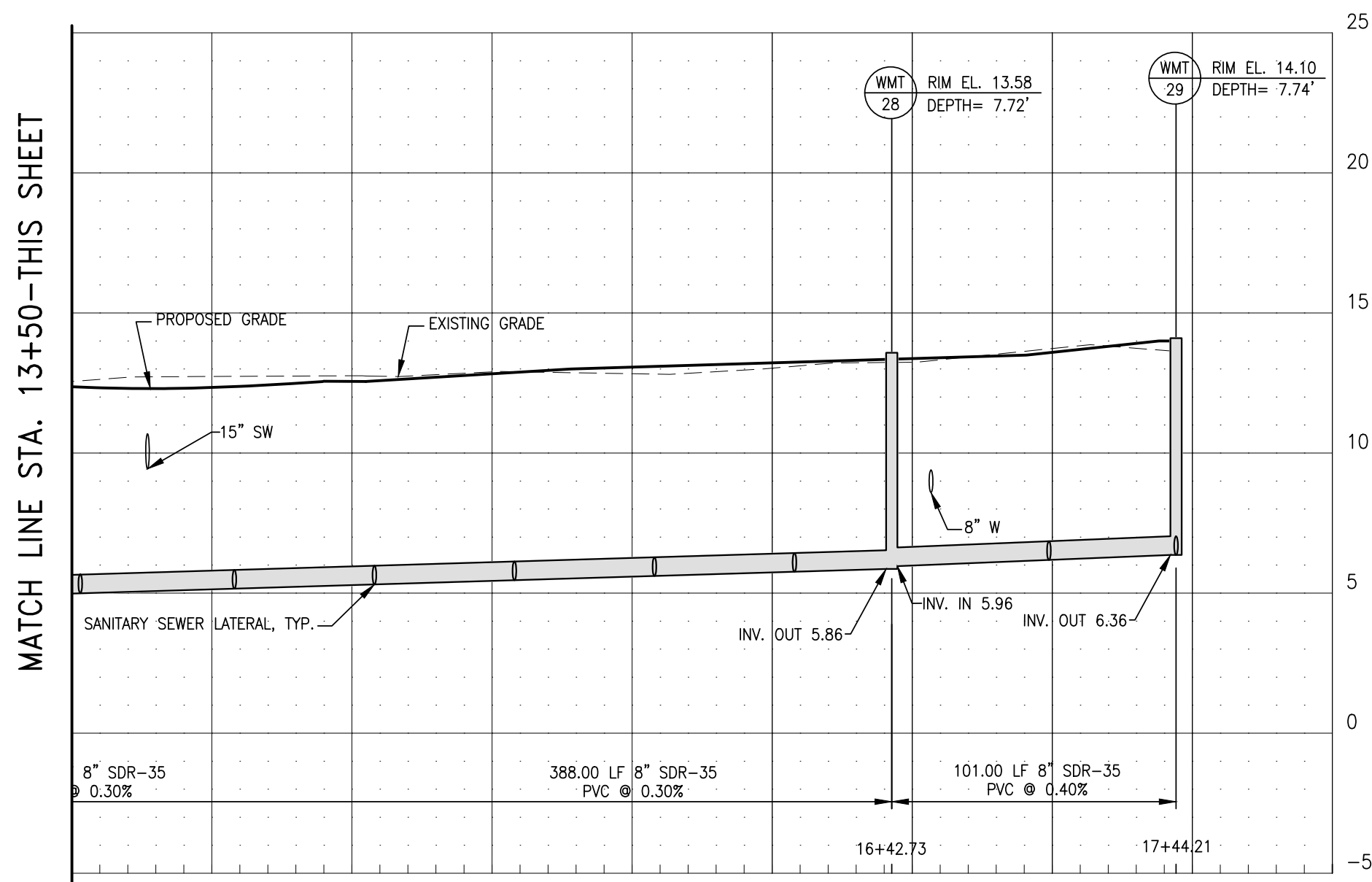
P:\0003\0003E001\Fcurrent working folder\dwg\U7-11 UTILITY PROFILES.dwg, Jan 21, 2021 - 3:35pm



MATCH LINE STA. 13+50—THIS SHEET

### SEWER MAIN PROFILE

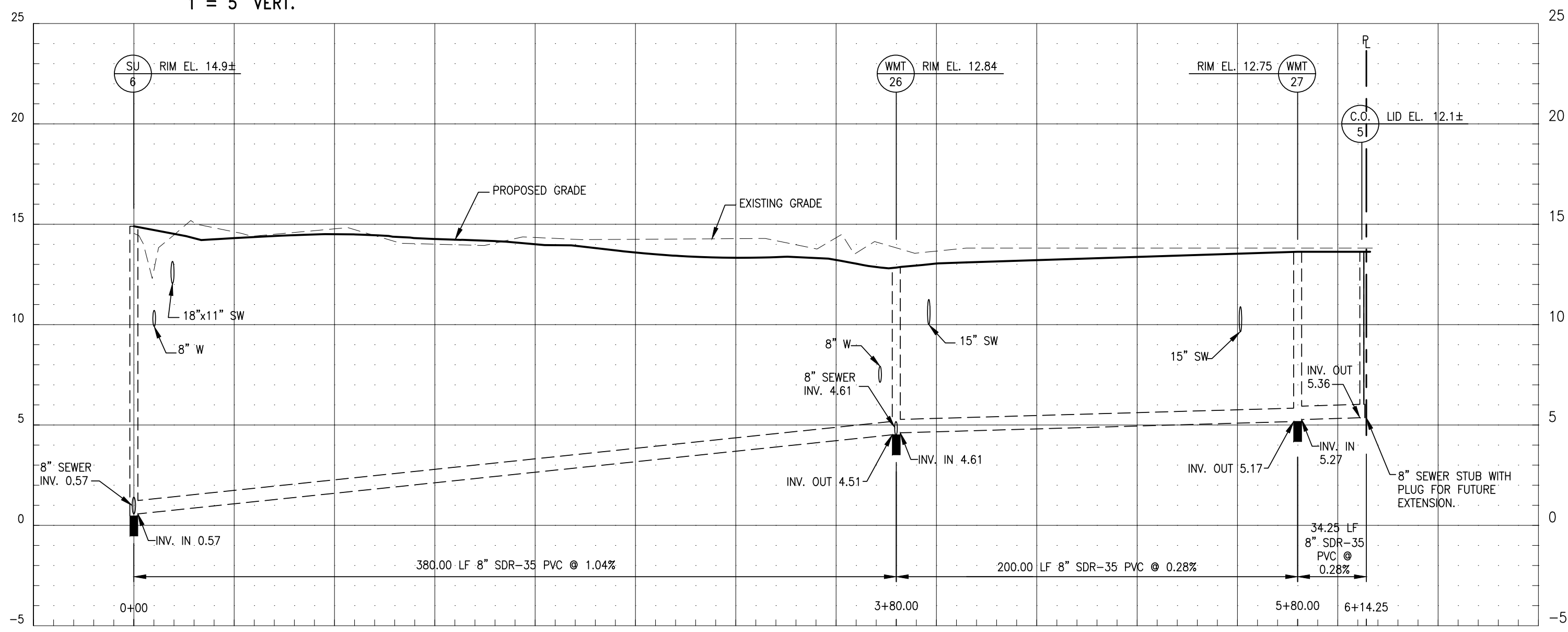
SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



MATCH LINE STA. 13+50—THIS SHEET

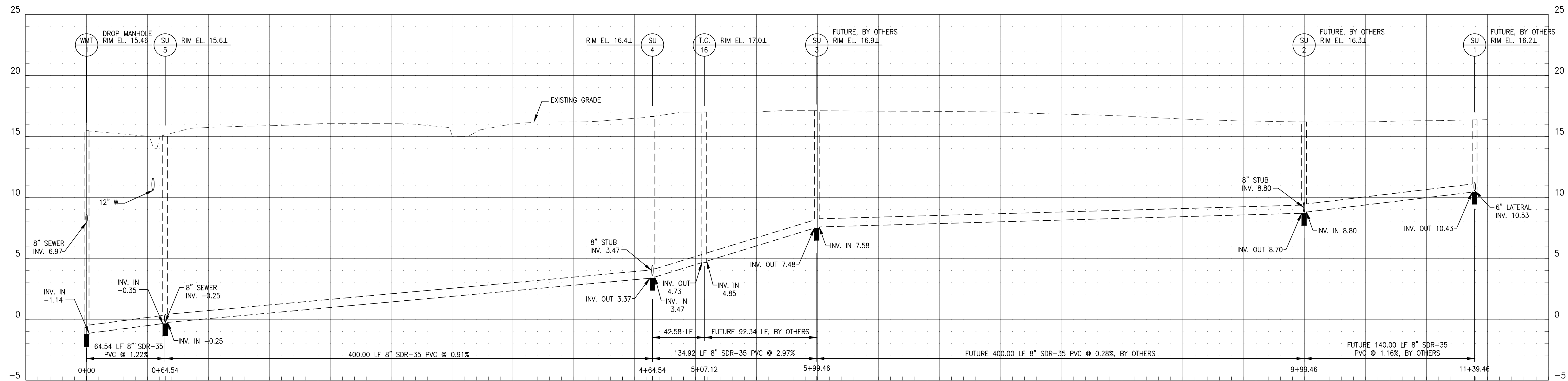
### SEWER MAIN PROFILE

SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



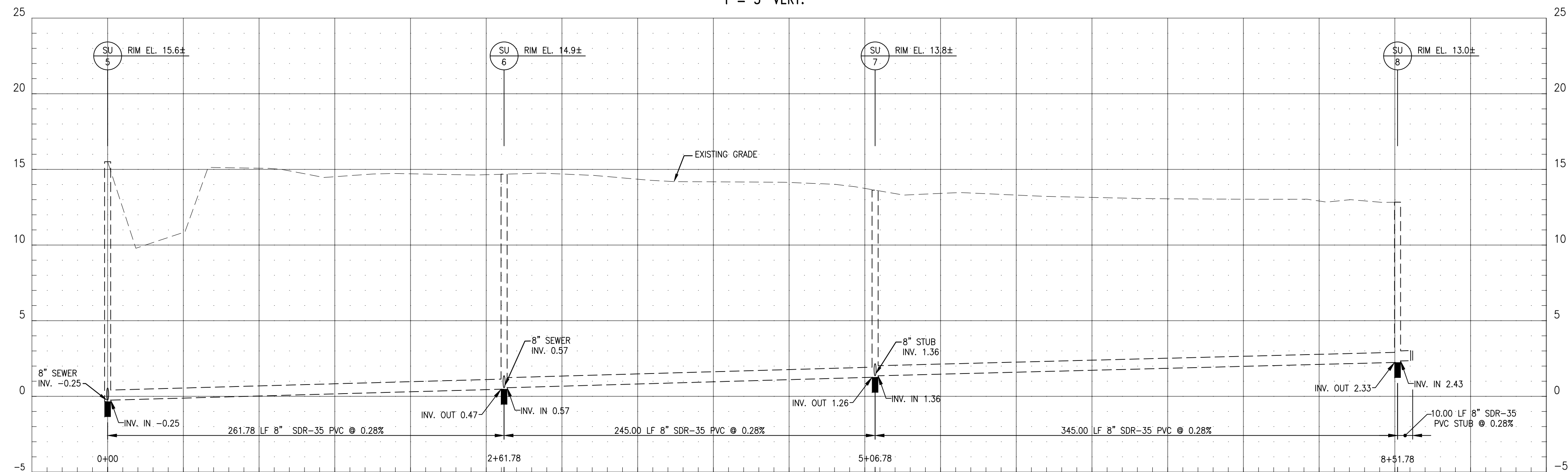


P:\0003\0003E001\Fcurrent working folder\dwgs\UT-11 UTIL PROFILES.dwg Jan 21, 2021 - 3:35pm



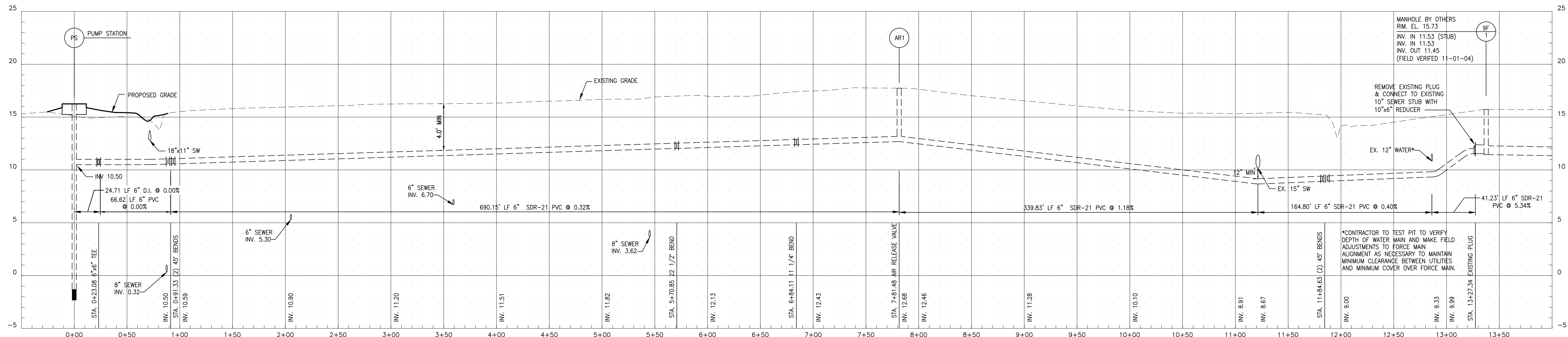
### CONSTRUCTED SEWER MAIN PROFILE

SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



### CONSTRUCTED SEWER MAIN PROFILE

SCALE: 1"=50' HORIZ.  
1"= 5' VERT.

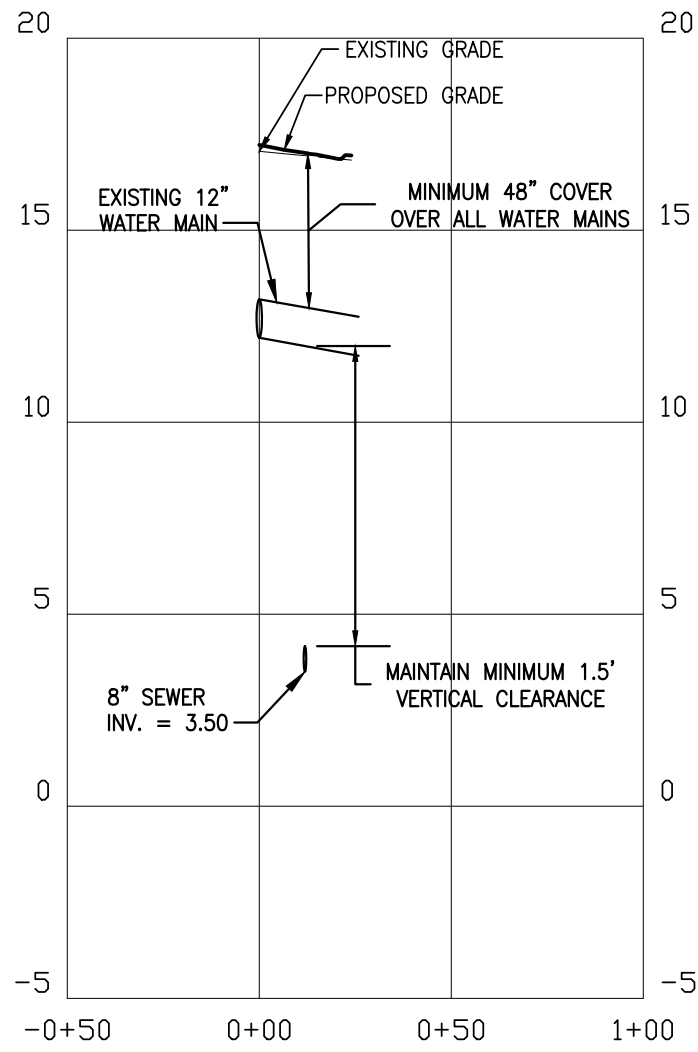


### CONSTRUCTED FORCE MAIN PROFILE

SCALE: 1"=50' HORIZ.  
1"= 5' VERT.

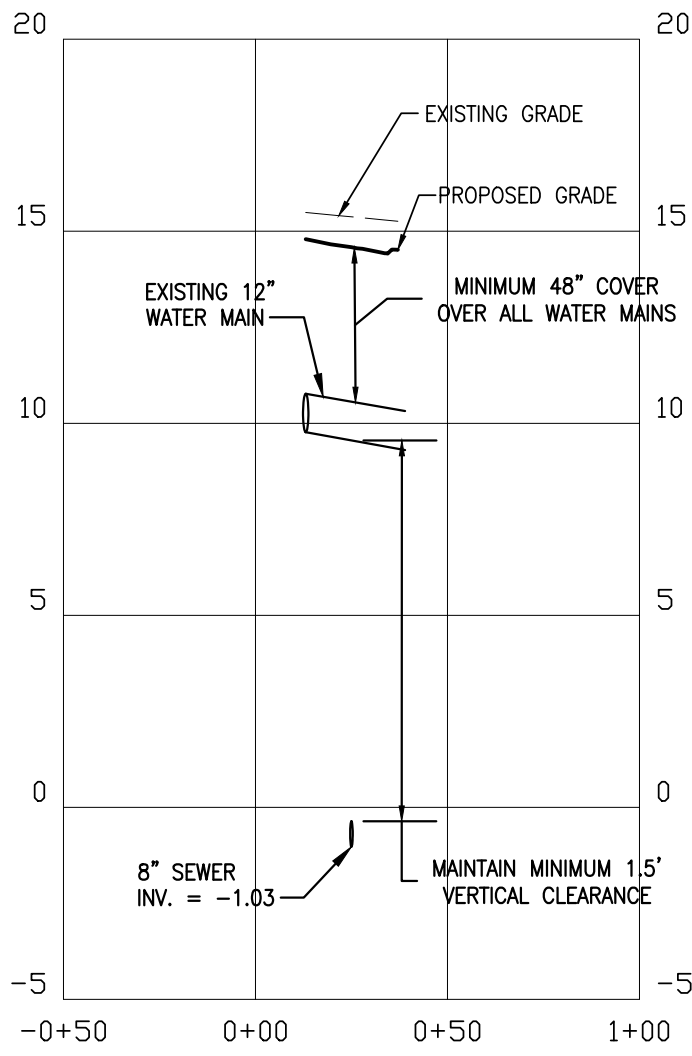


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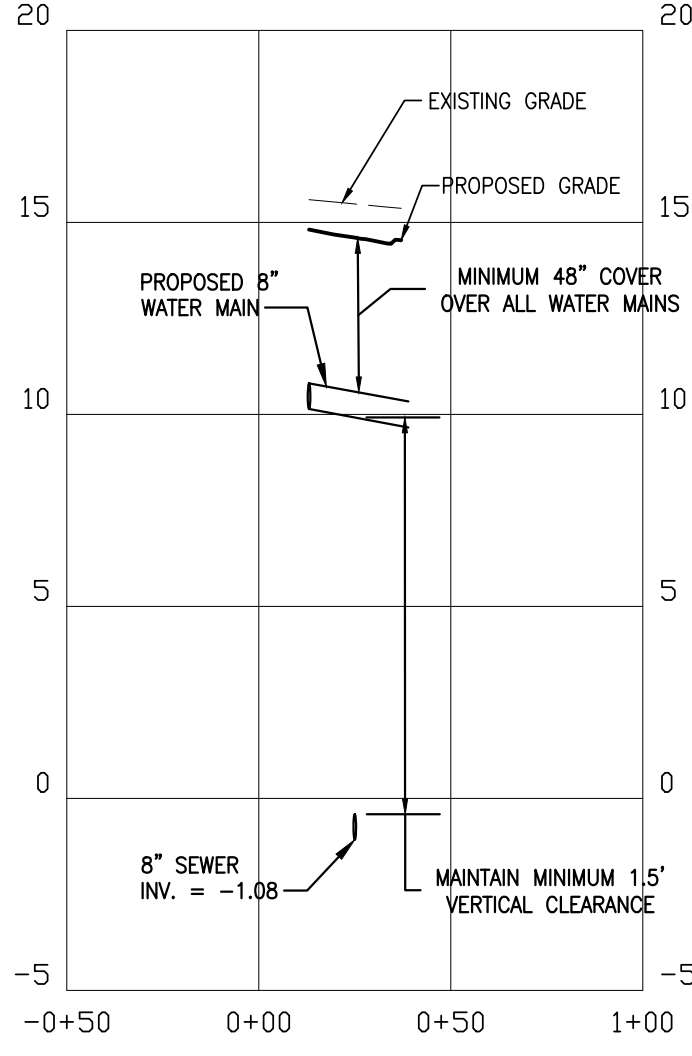
## WATER CROSSING 1

SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



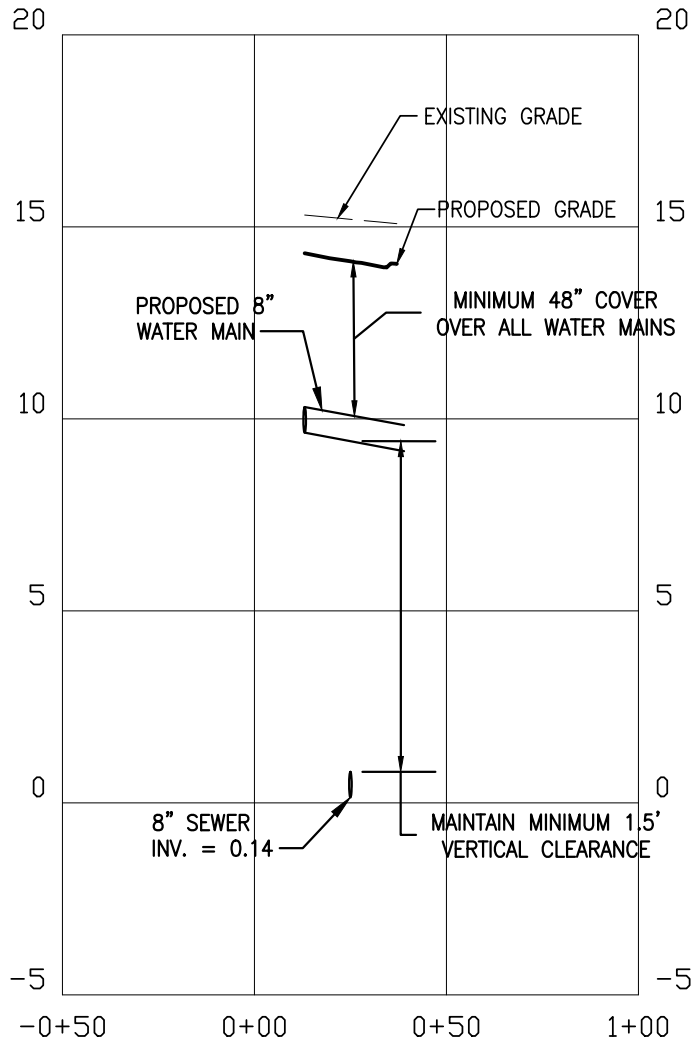
## WATER CROSSING 2

SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



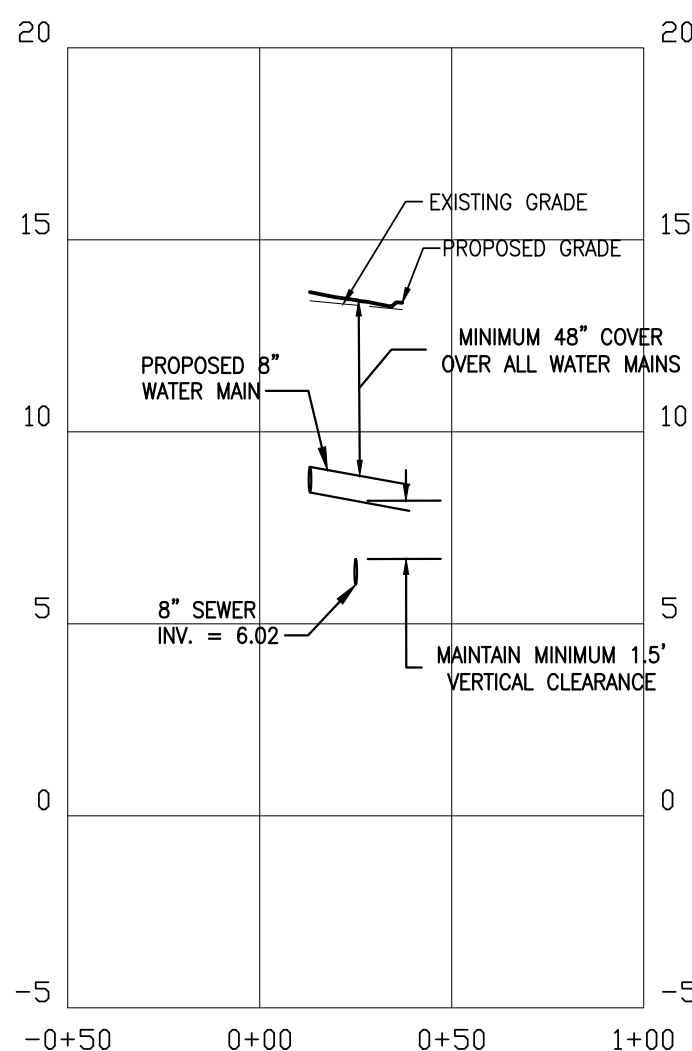
## WATER CROSSING 3

SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



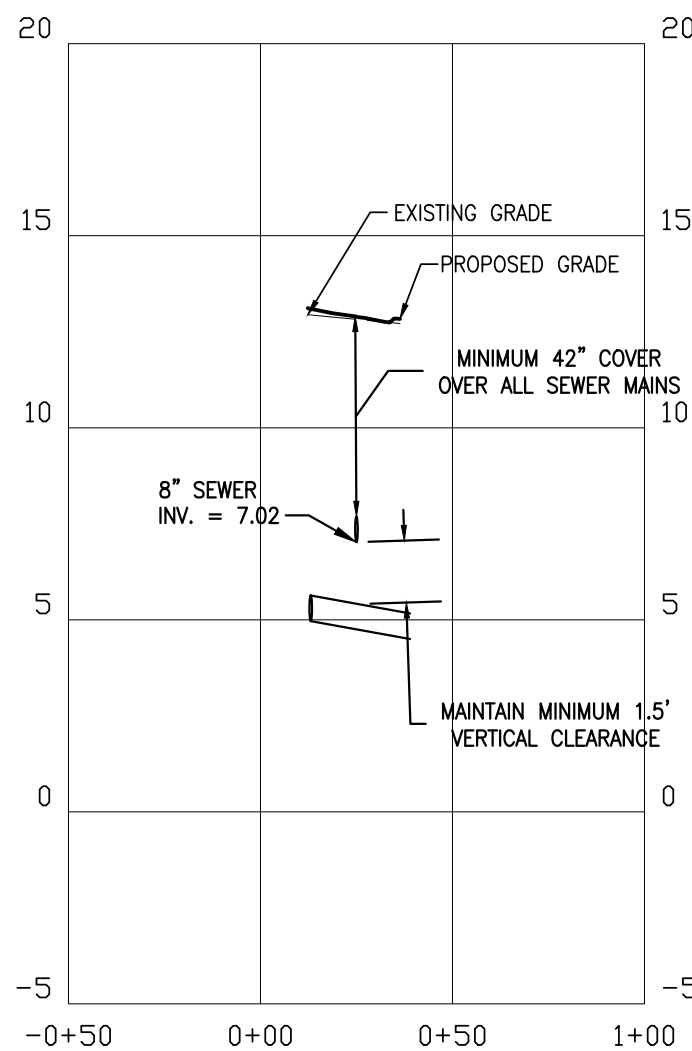
## WATER CROSSING 4

SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



## WATER CROSSING 5

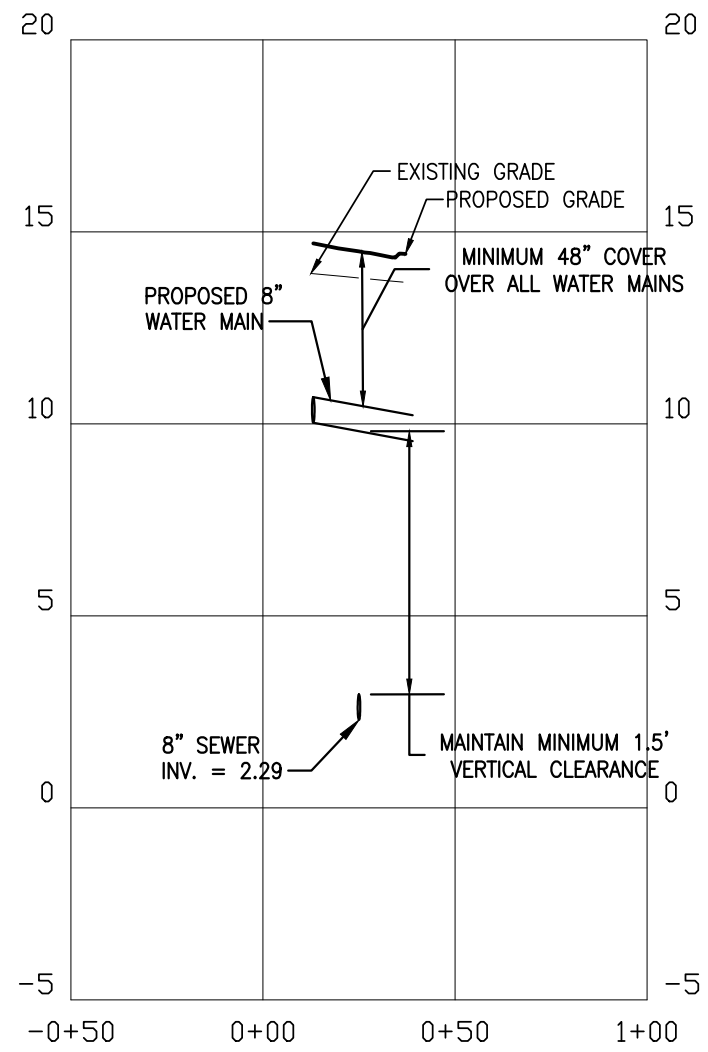
SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



## WATER CROSSING 6

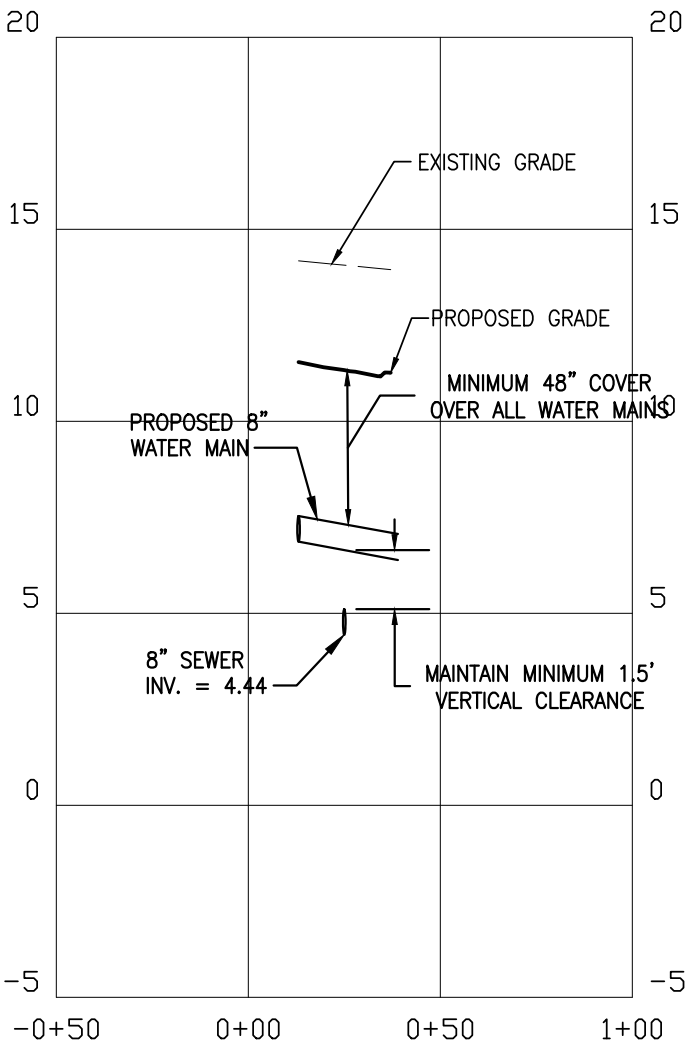
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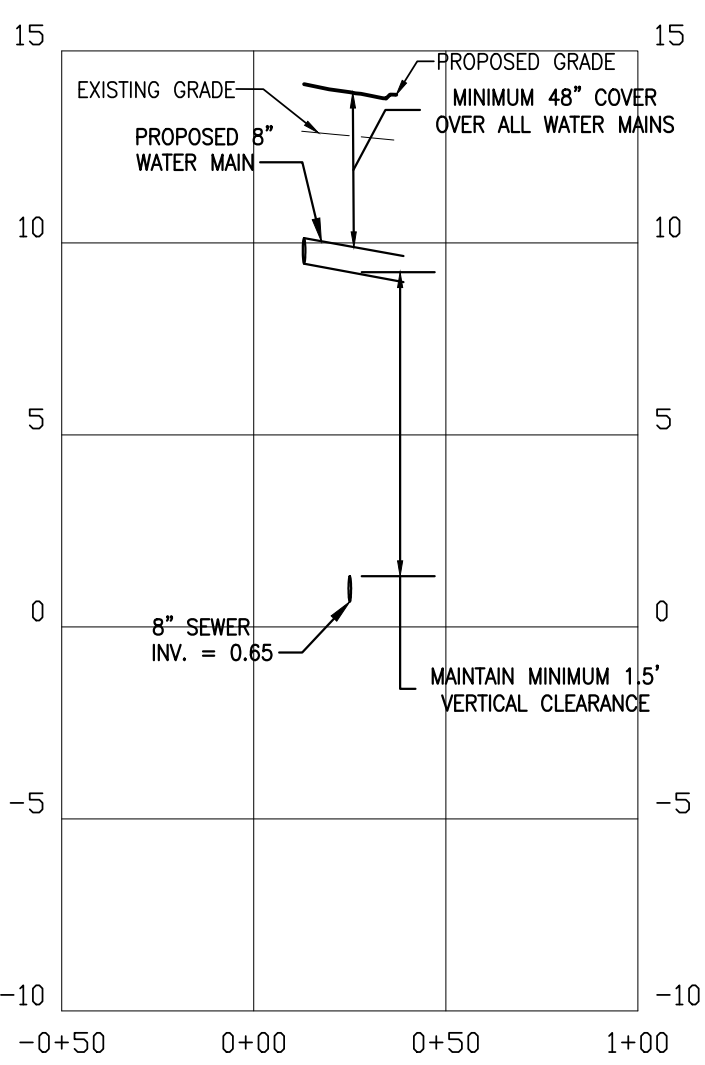
WATER CROSSING 7

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1"= 5' VERT.



WATER CROSSING 8

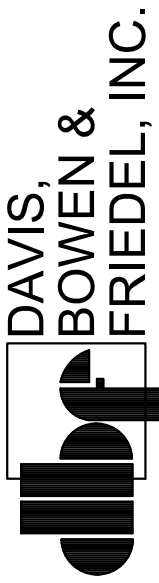
SCALE: 1"=50' HORIZ.  
1"= 5' VERT.



WATER CROSSING 9

SCALE: 1"=50' HORIZ.  
1"= 5' VERT.

P:\0003\0003E001\Fcurrent working folder\dwg\U7-11 UTIL PROFILES.dwg, Jan 21, 2021 - 3:35pm



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MILFORD, DELAWARE (302) 424-1441

UTILITY PROFILES

WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

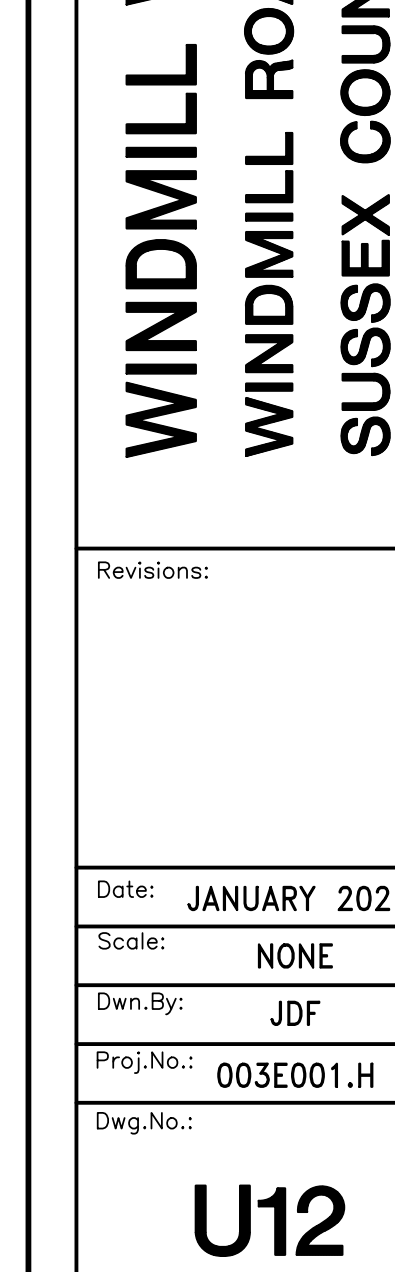
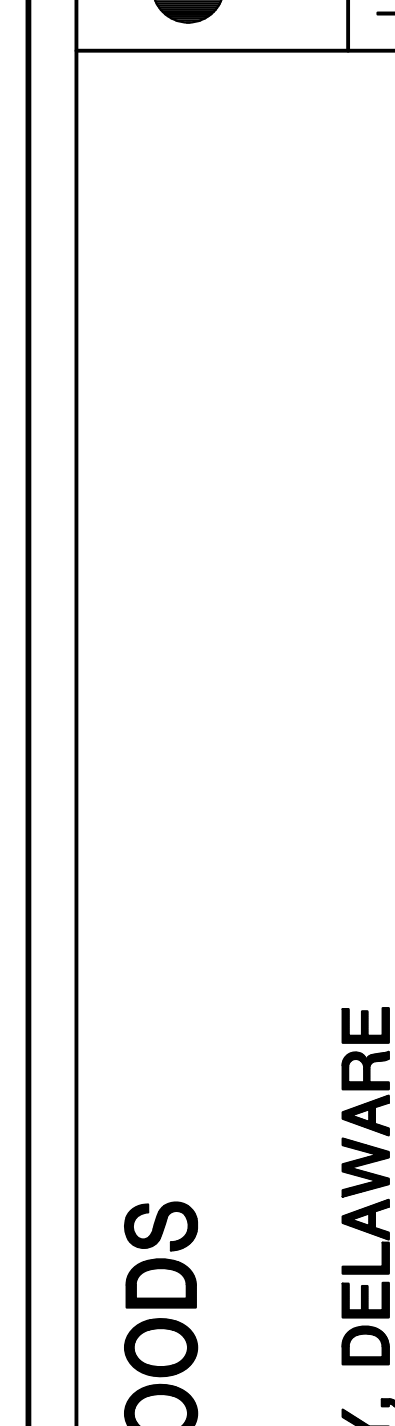
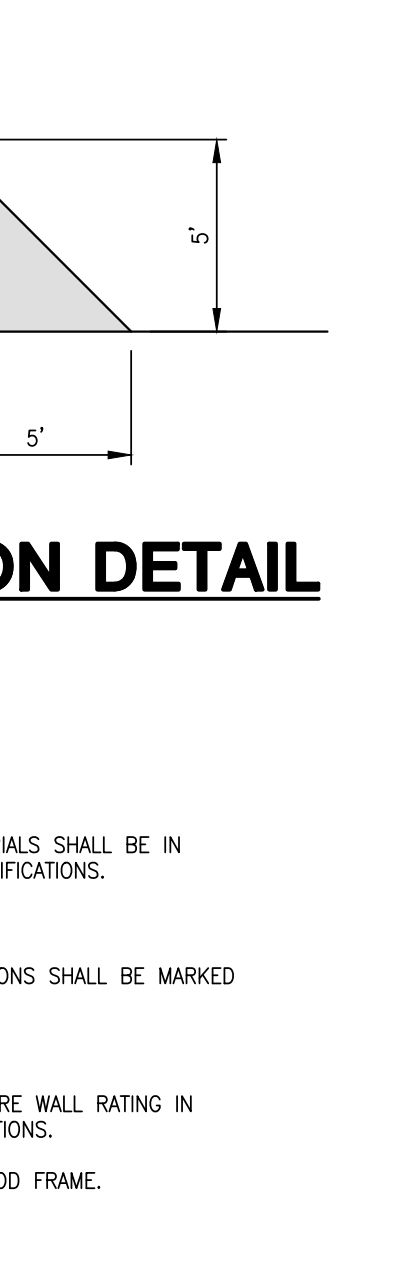
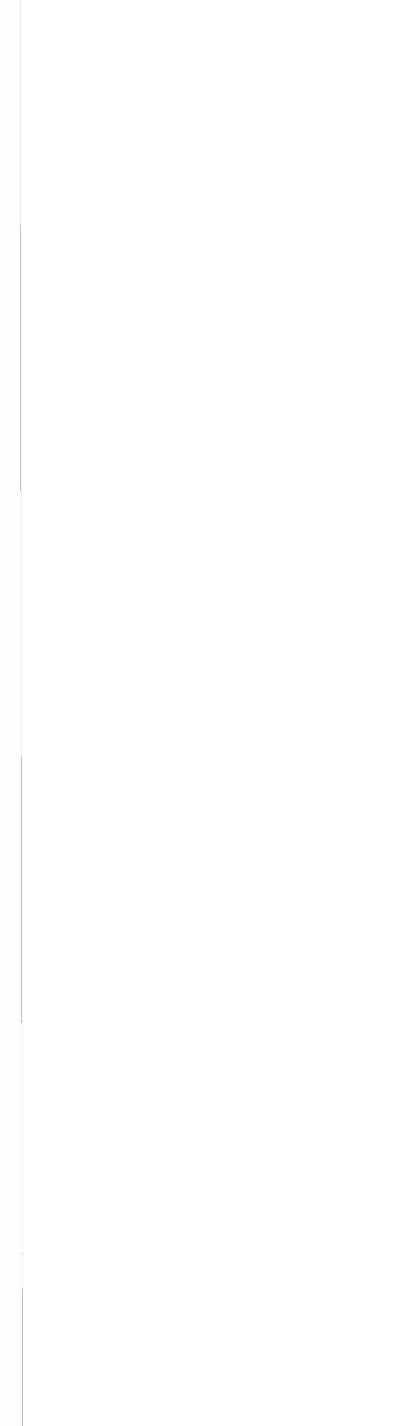
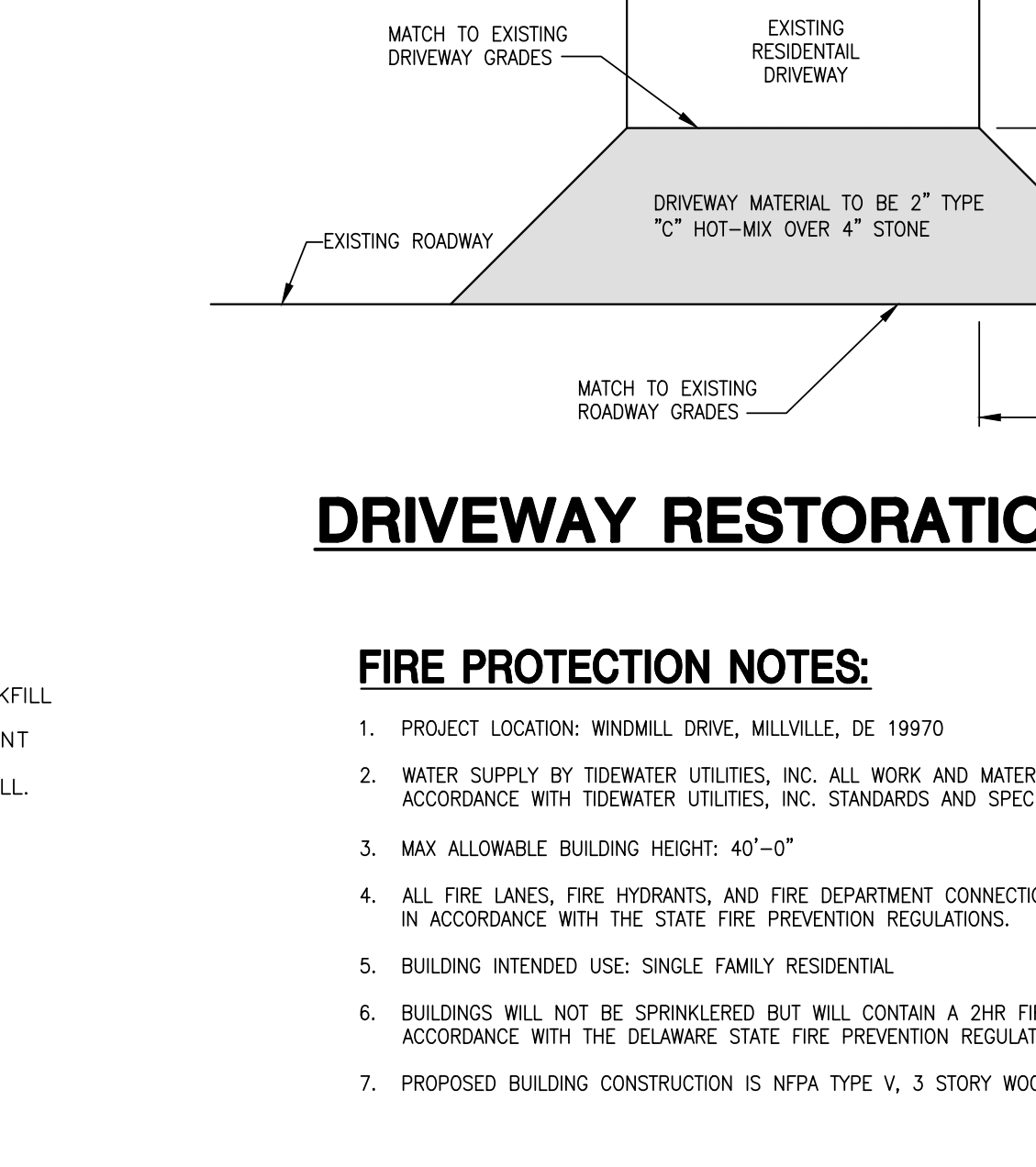
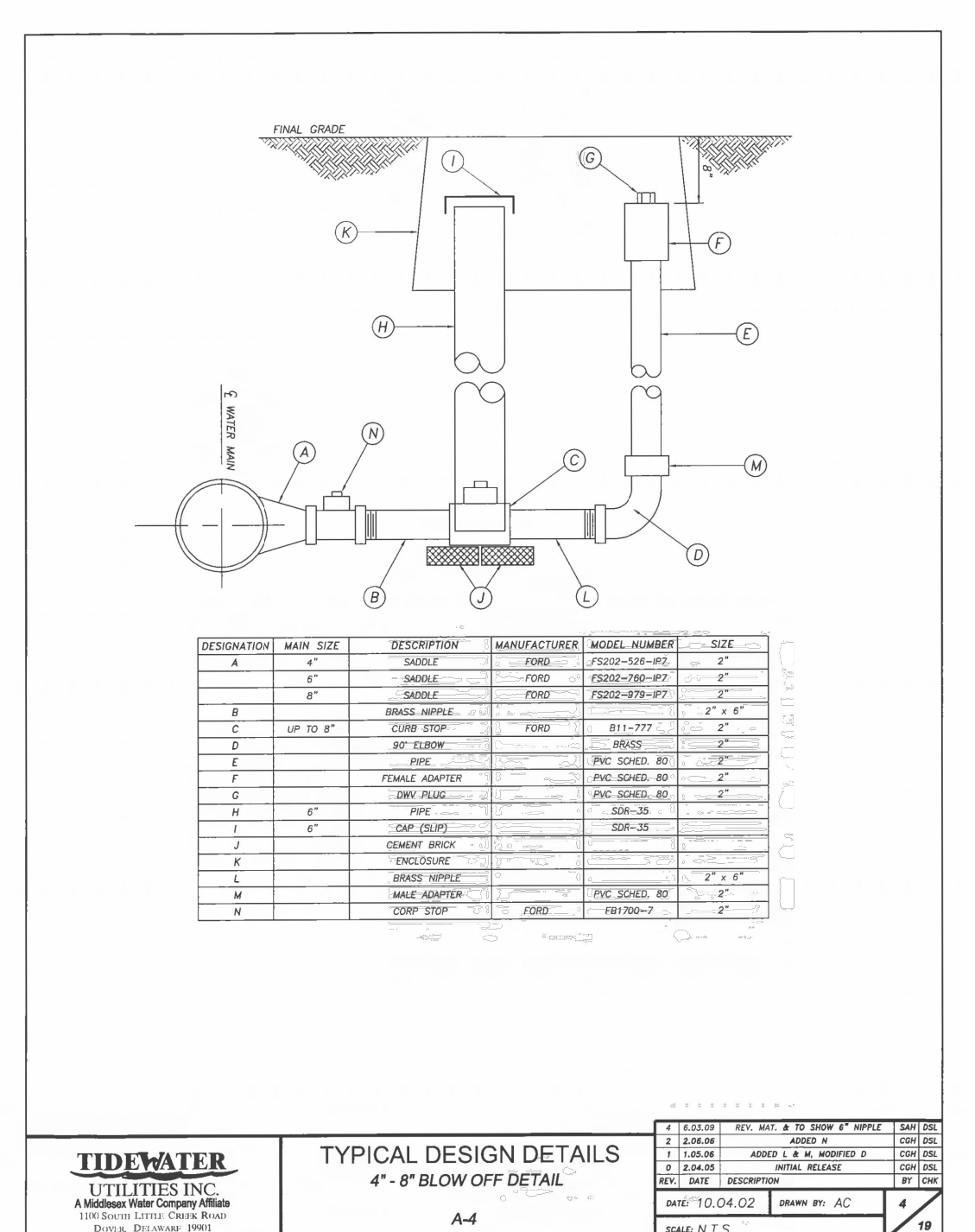
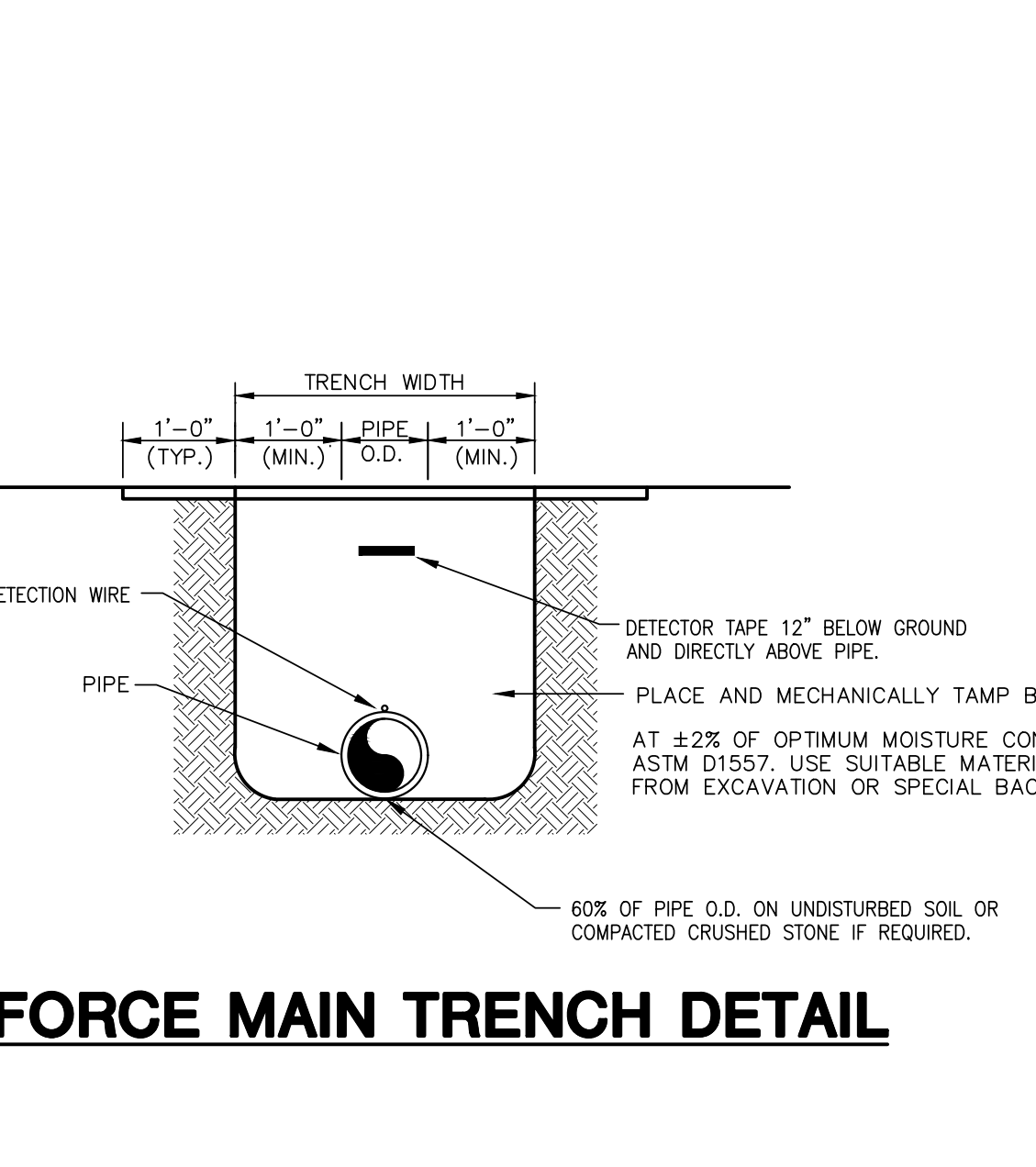
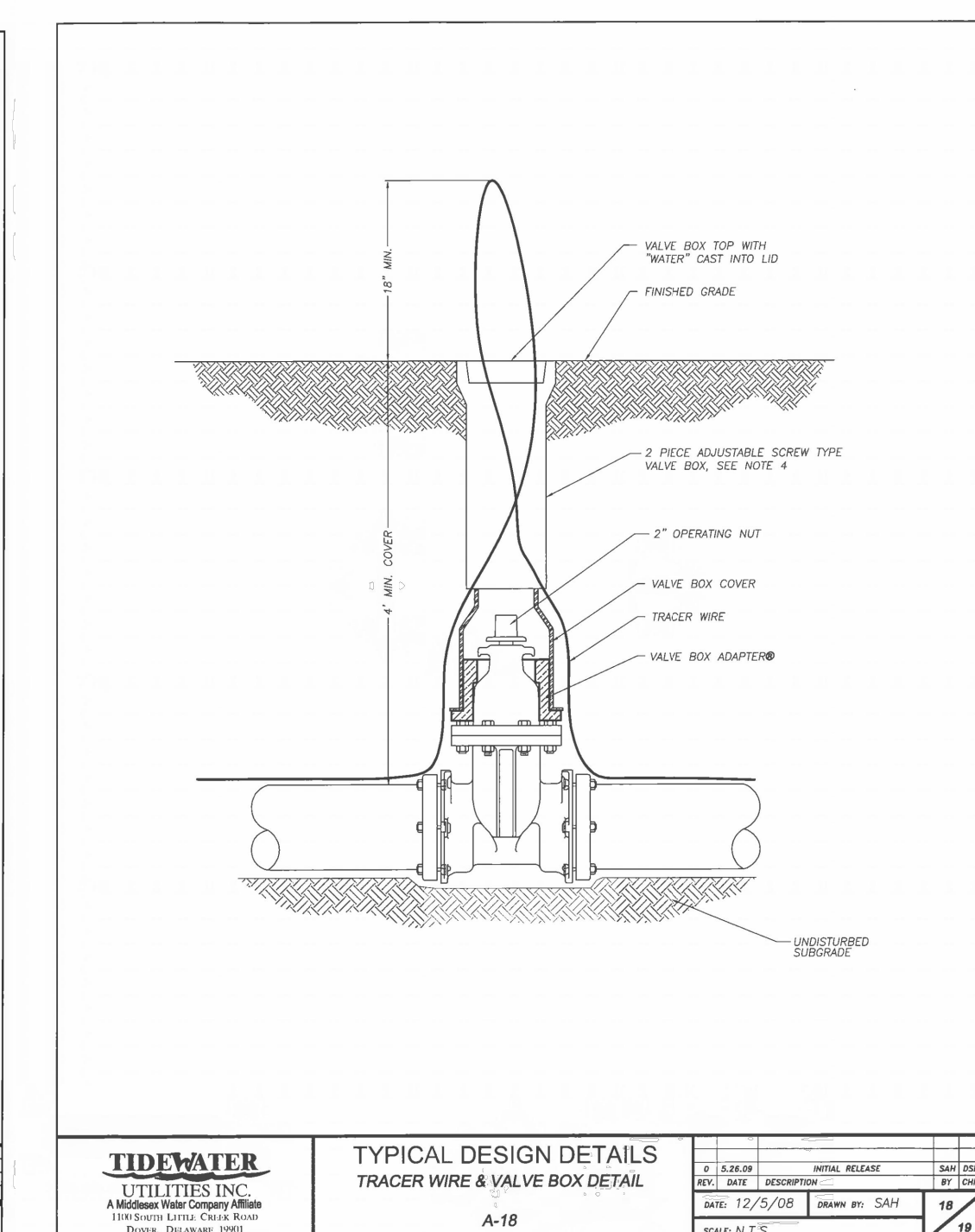
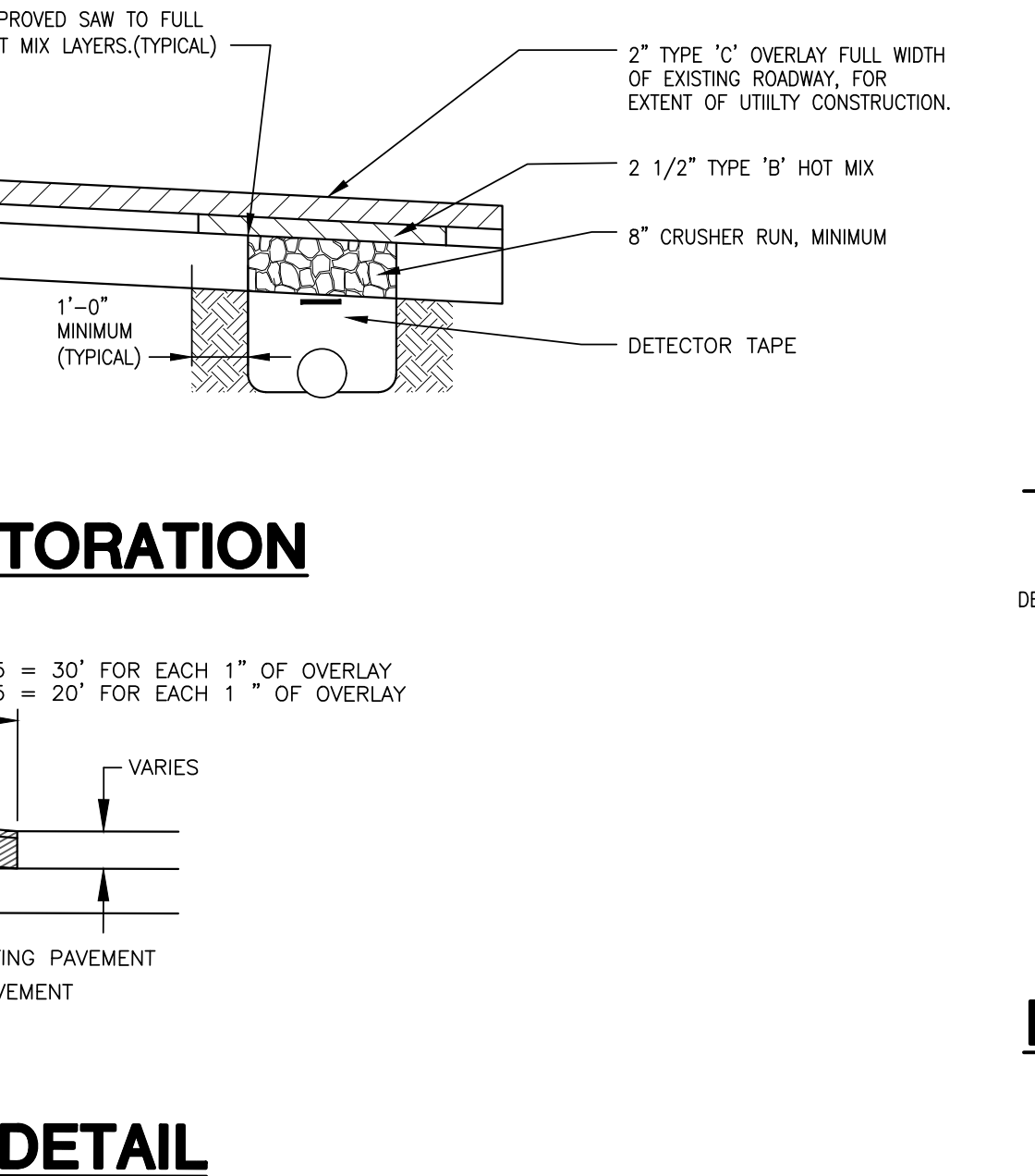
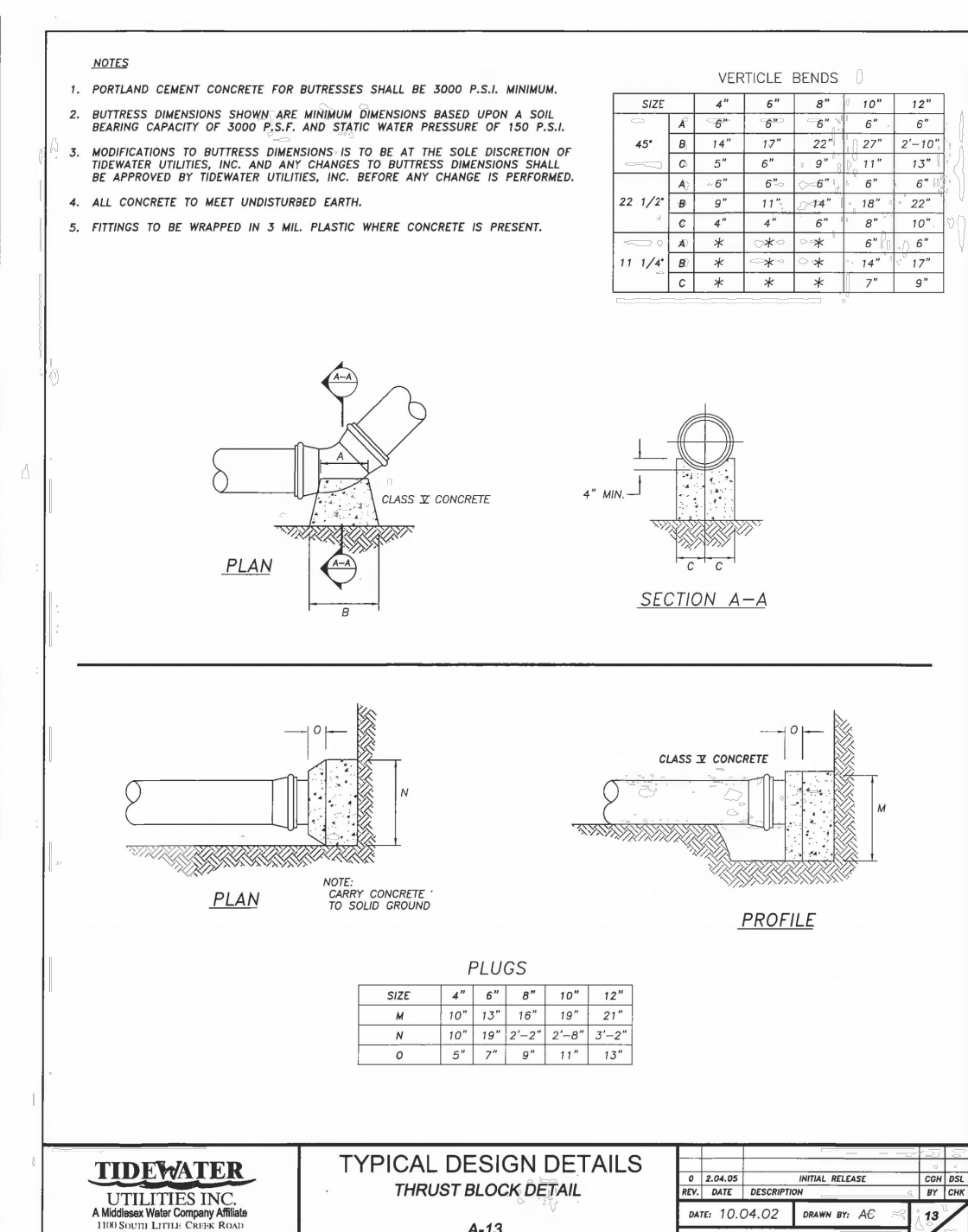
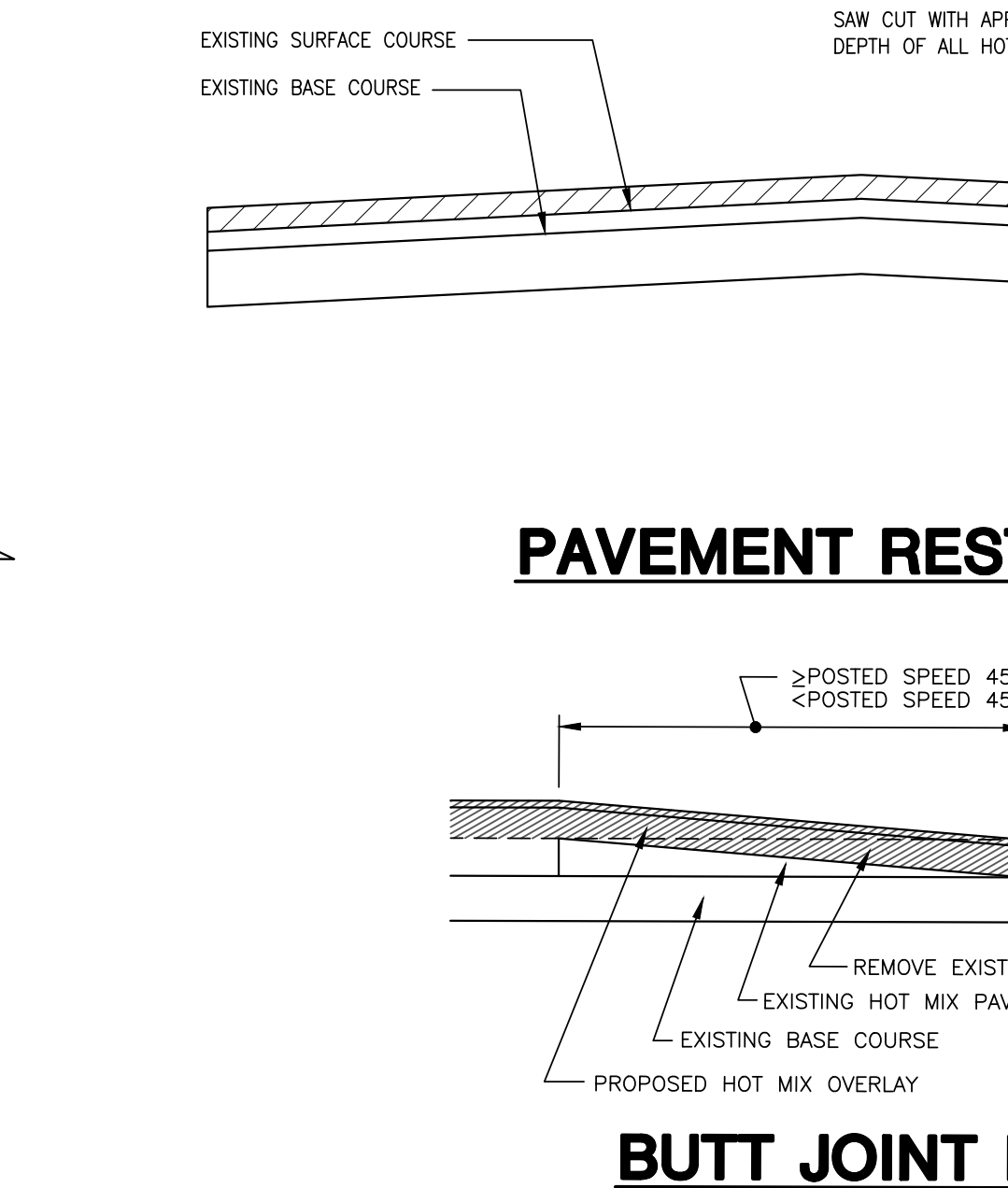
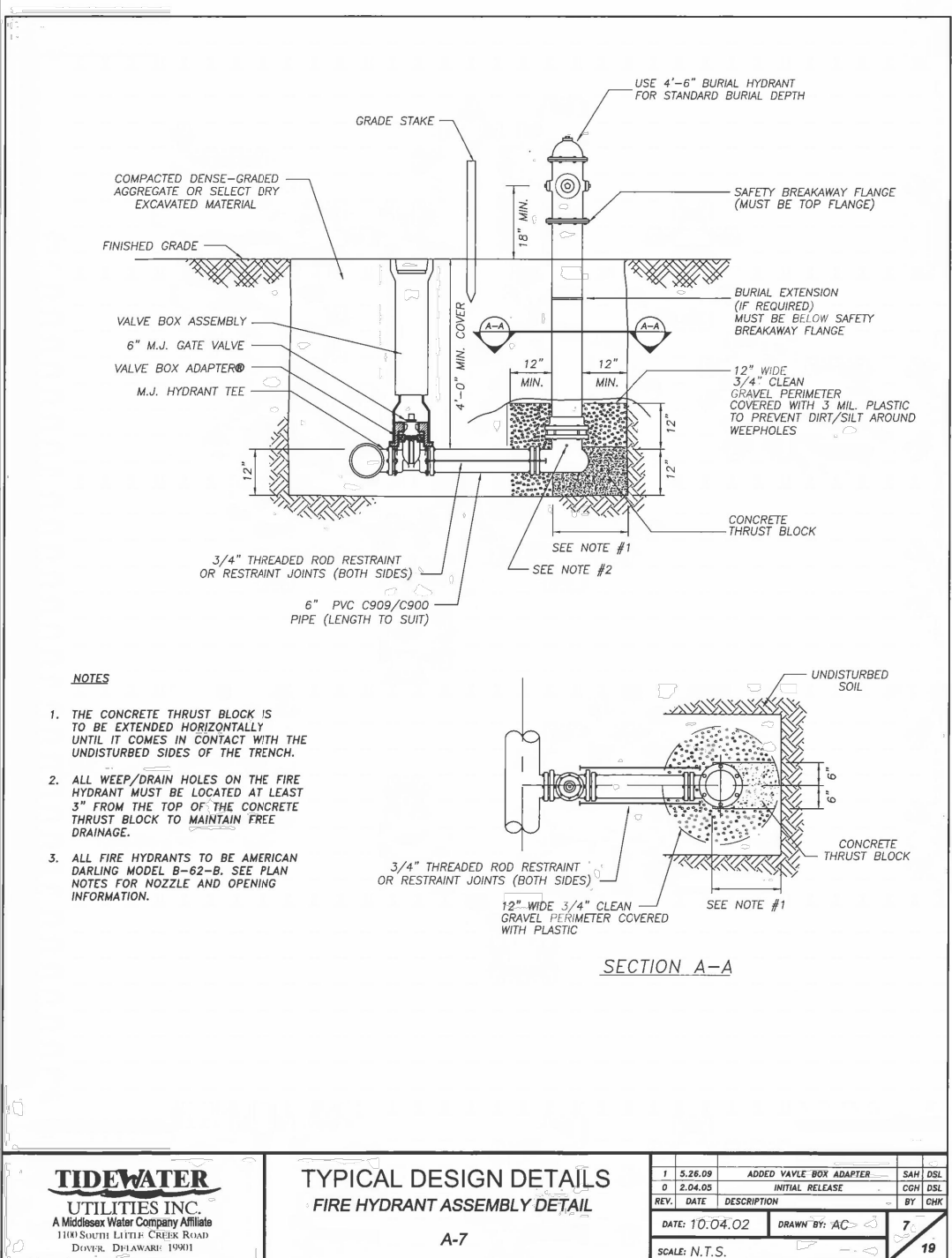
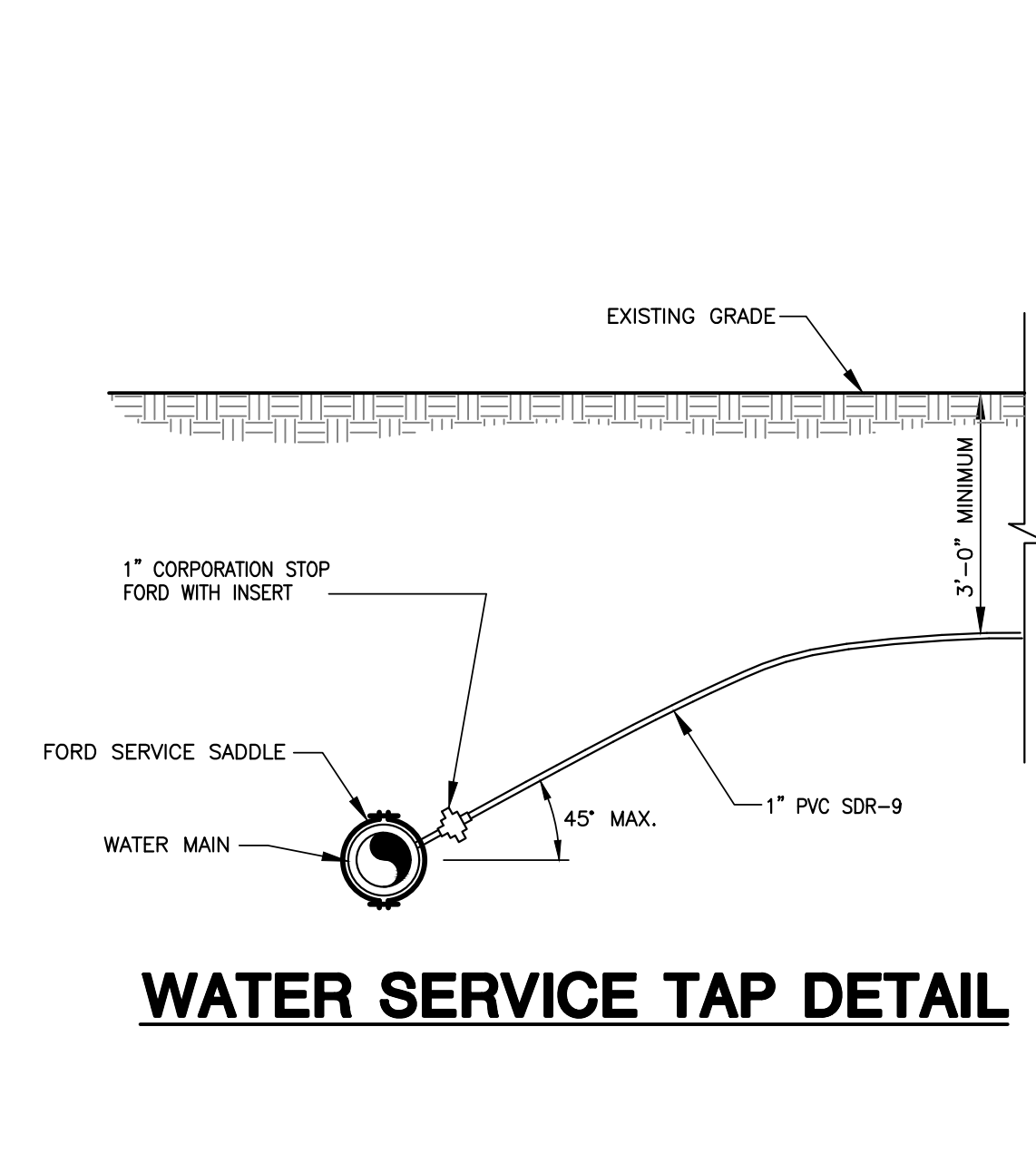
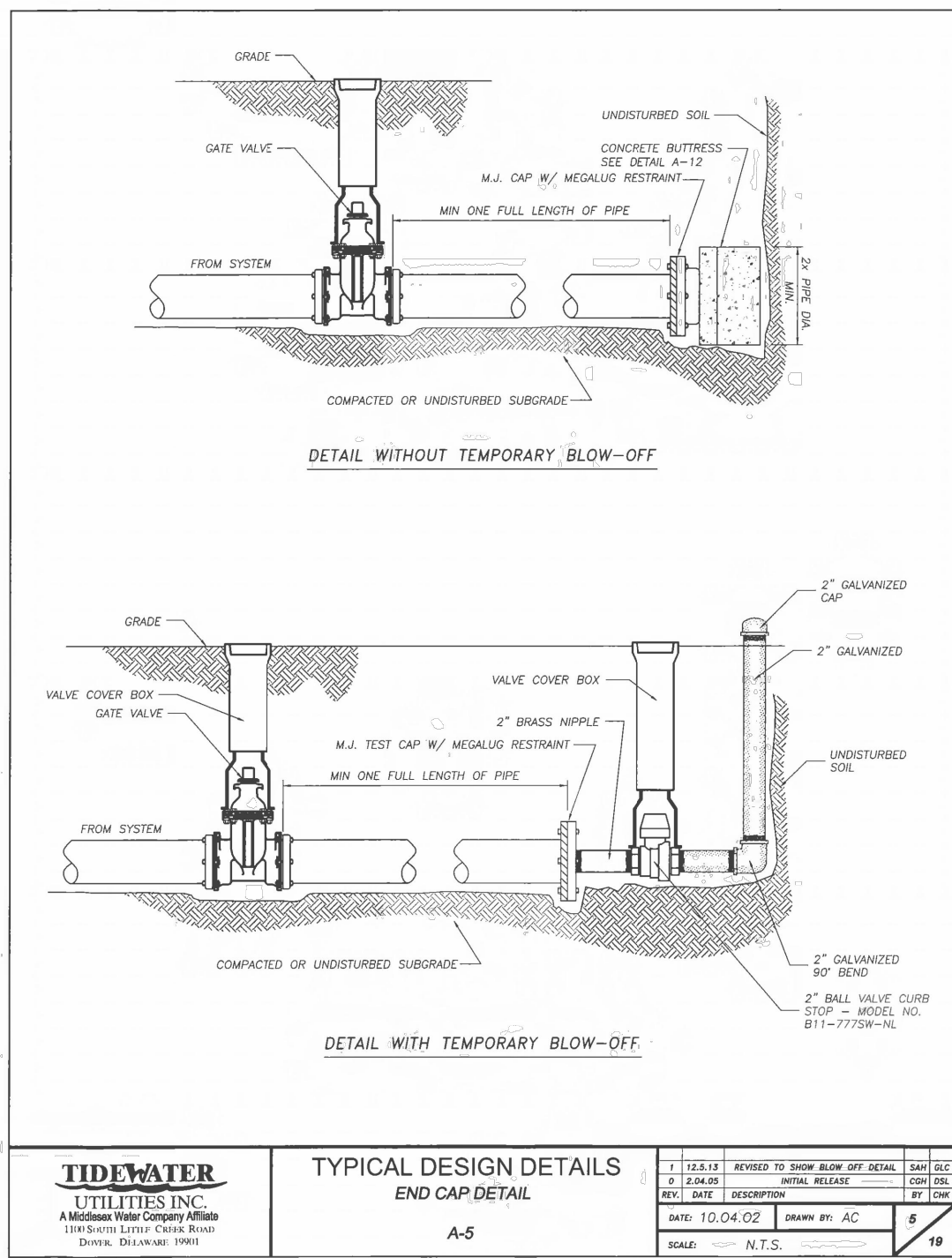
Revisions:

Date: JANUARY 2021  
Scale: AS SHOWN  
Dwn.By: VLT/JDF  
Proj.No.: 003E001.H  
Dwg.No.:

U11

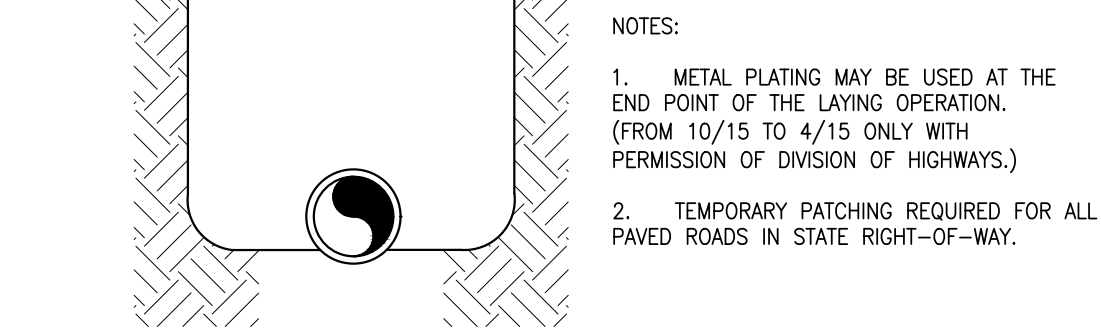
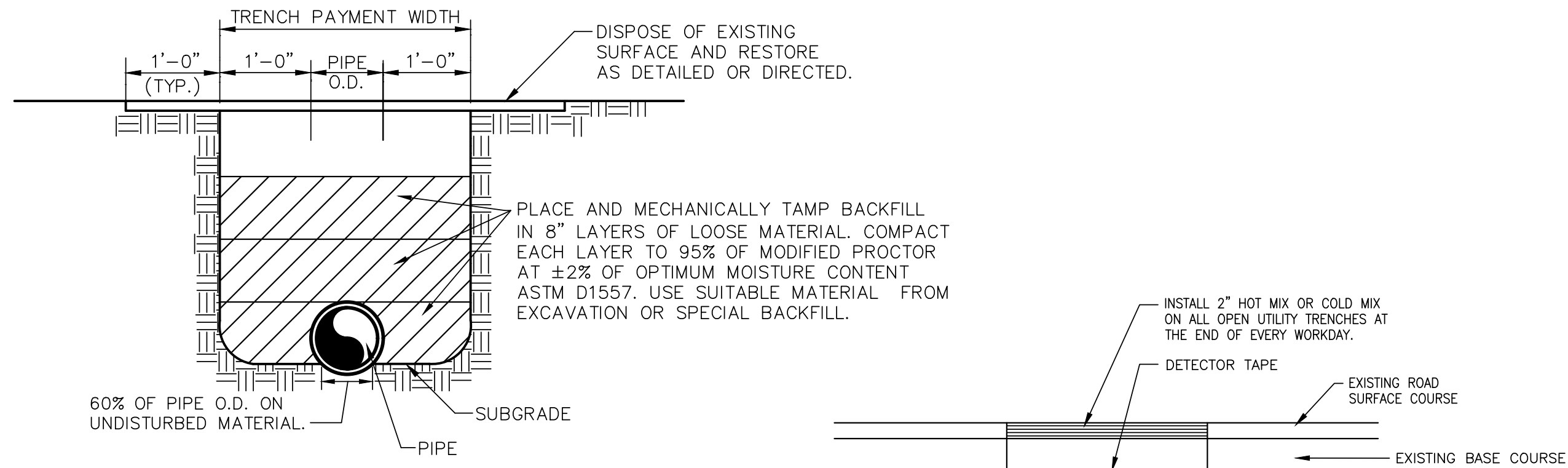


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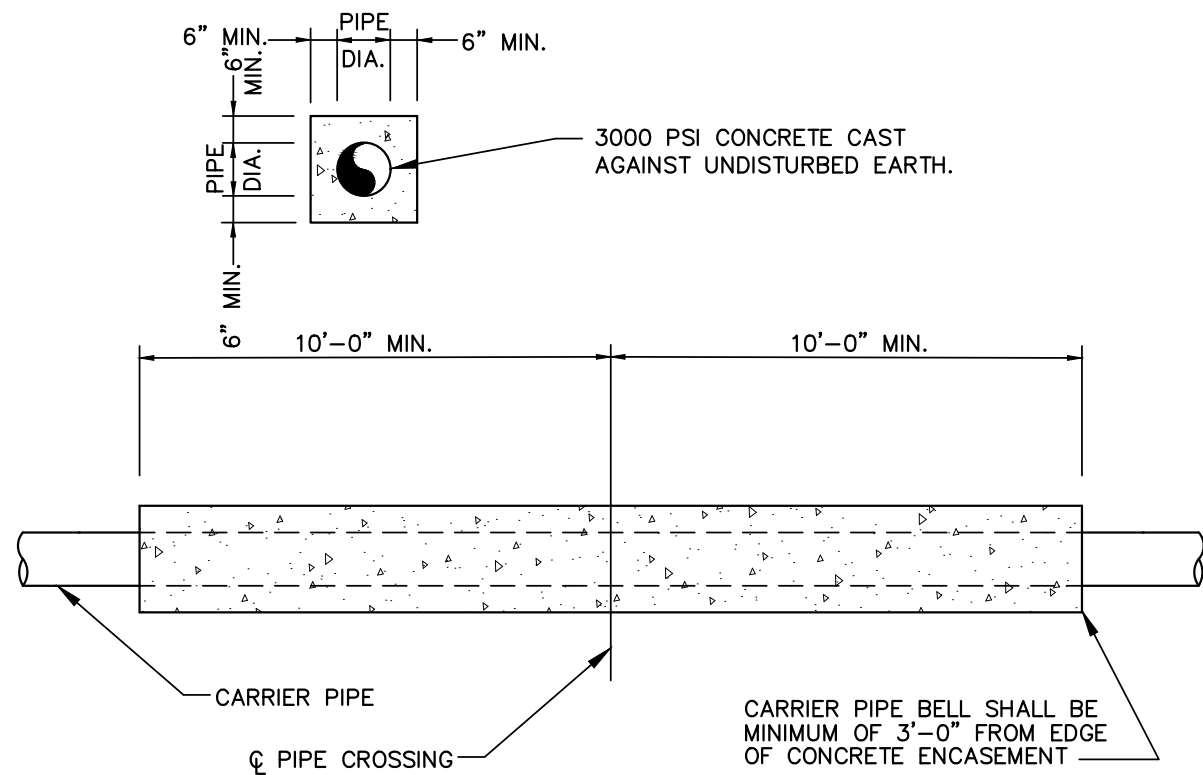




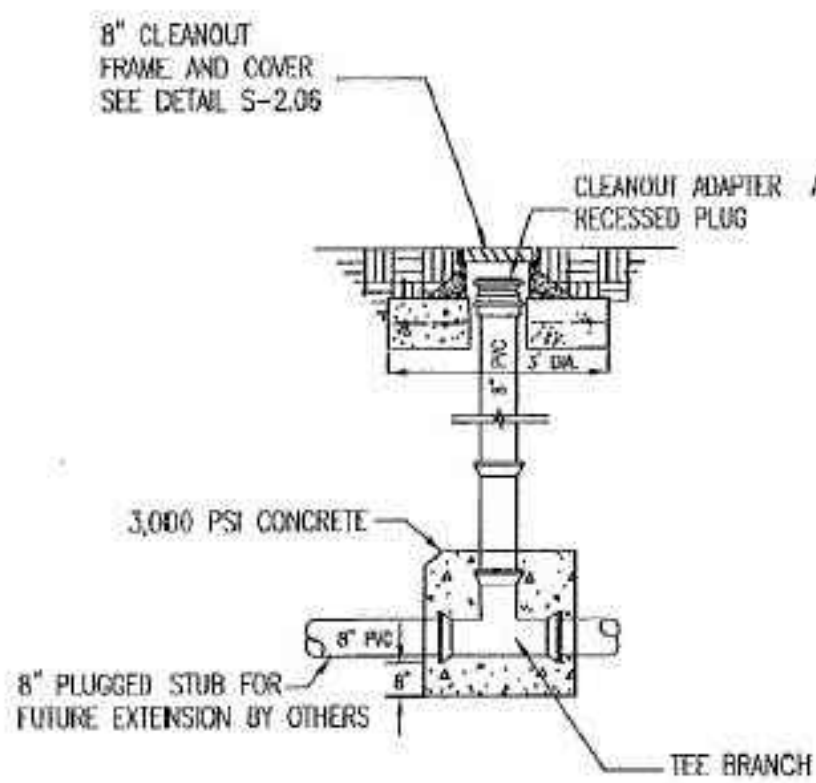
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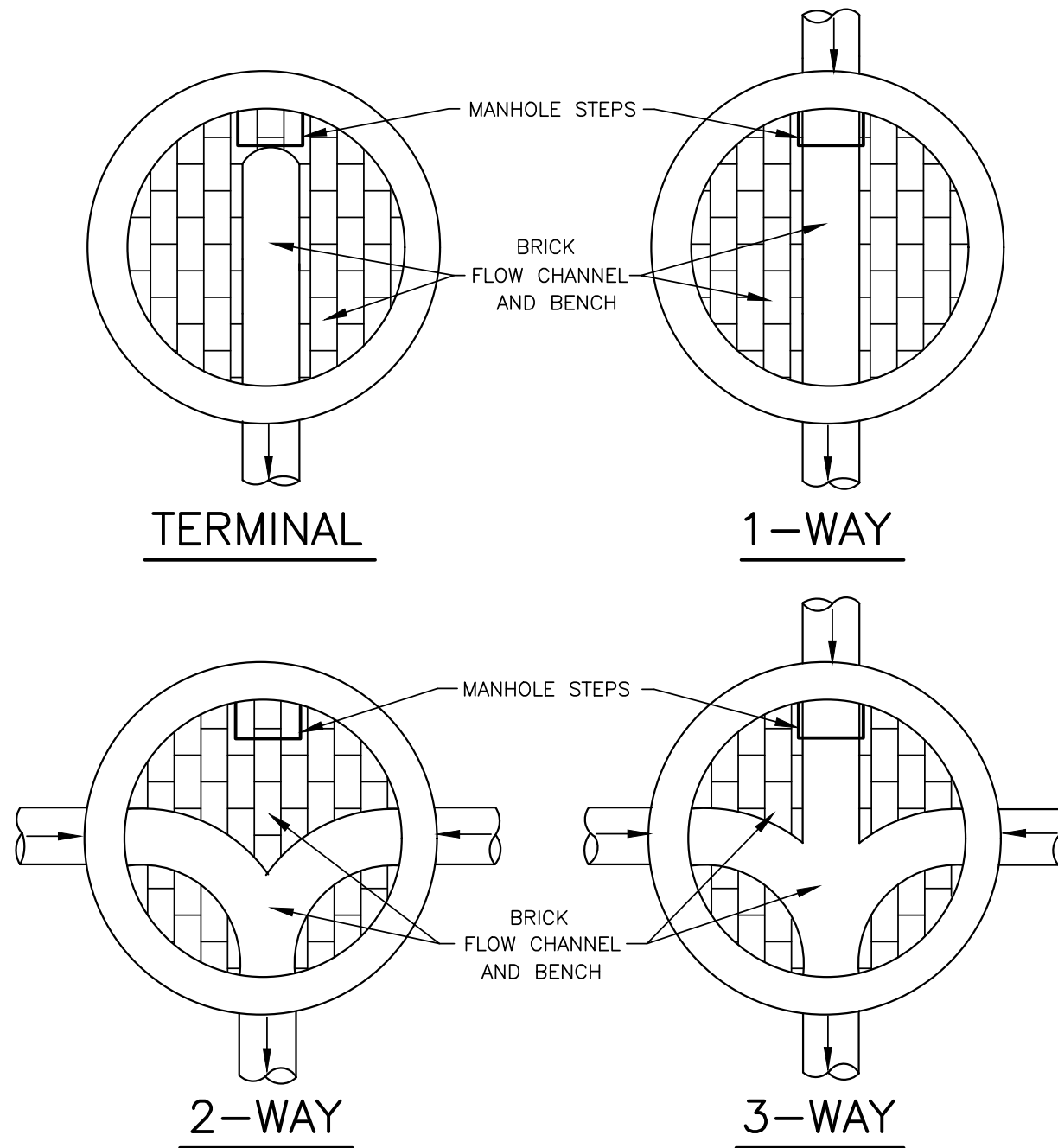
### TEMPORARY CROSS ROAD AND LONGITUDINAL PATCH DETAIL



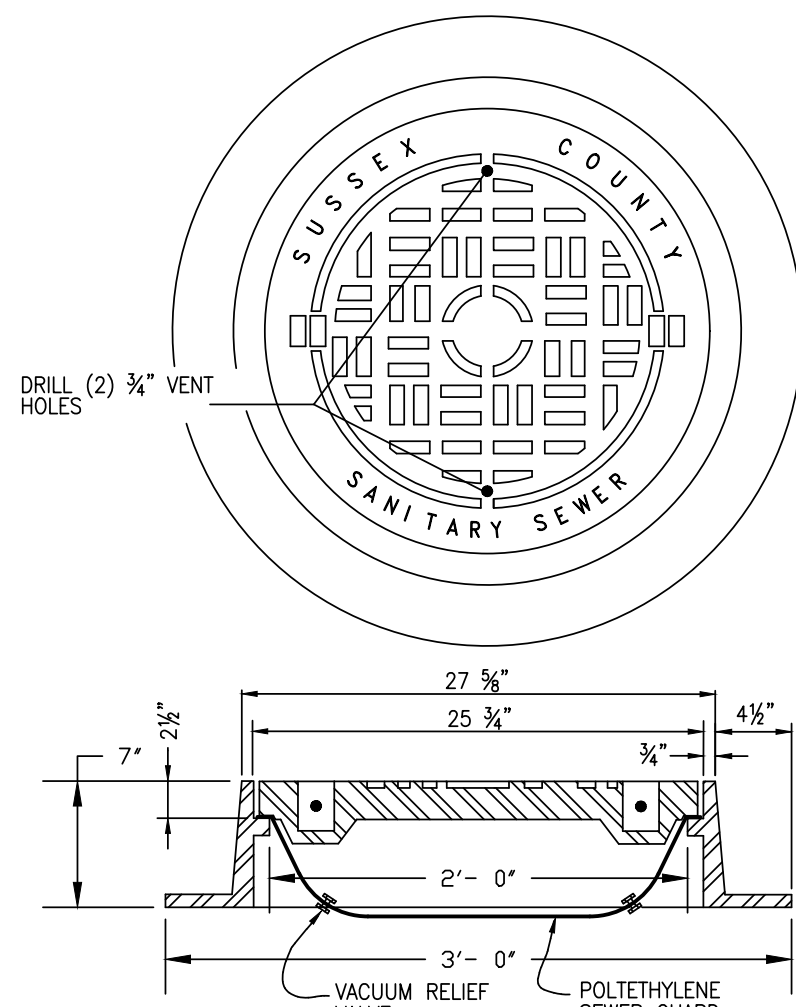
### CONCRETE ENCASEMENT DETAIL



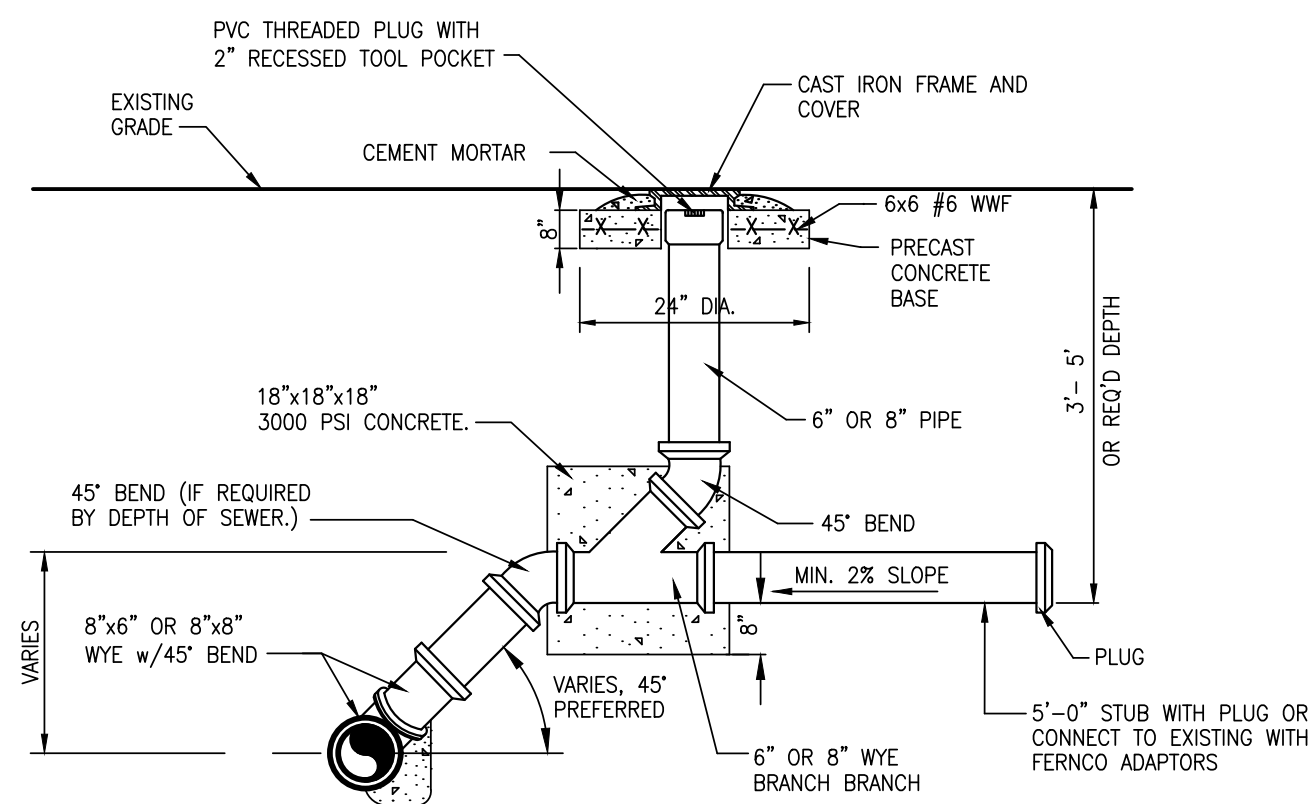
### TEE CLEANOUT FOR SEWER EXTENSIONS



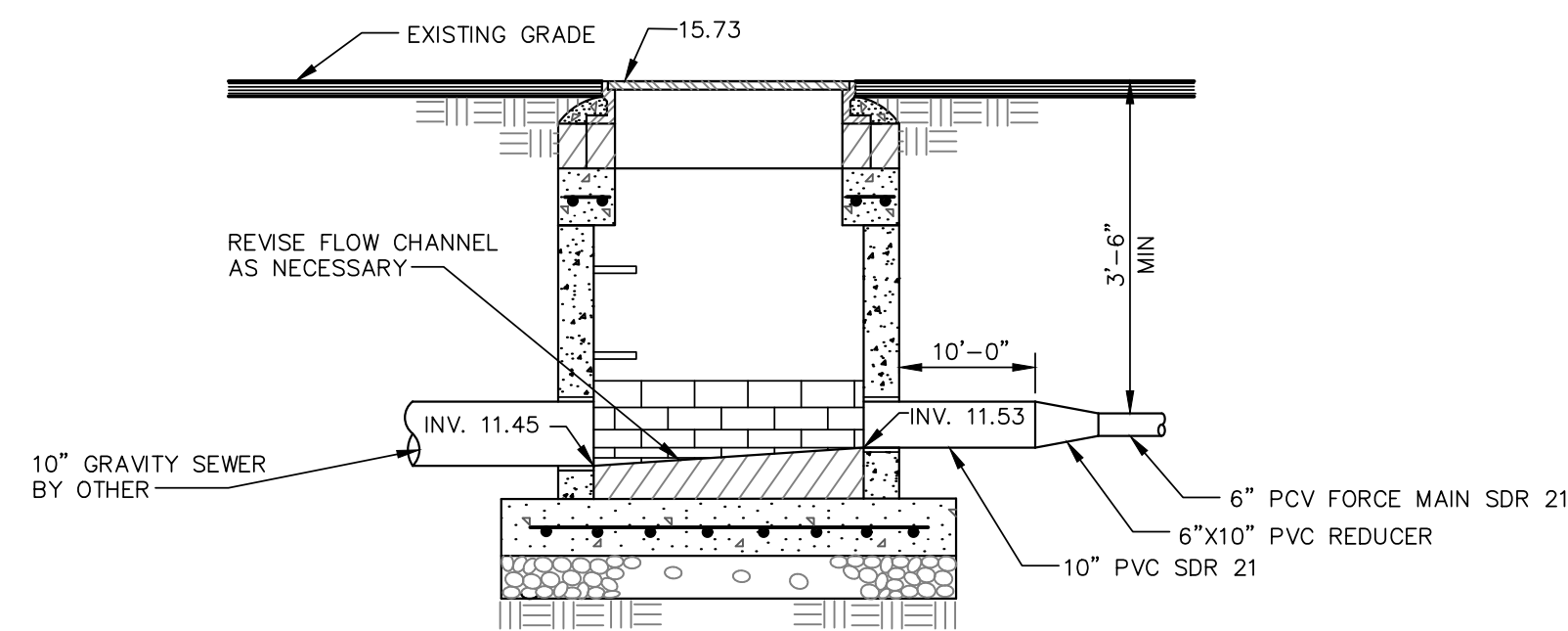
### FLOW CHANNEL DETAIL



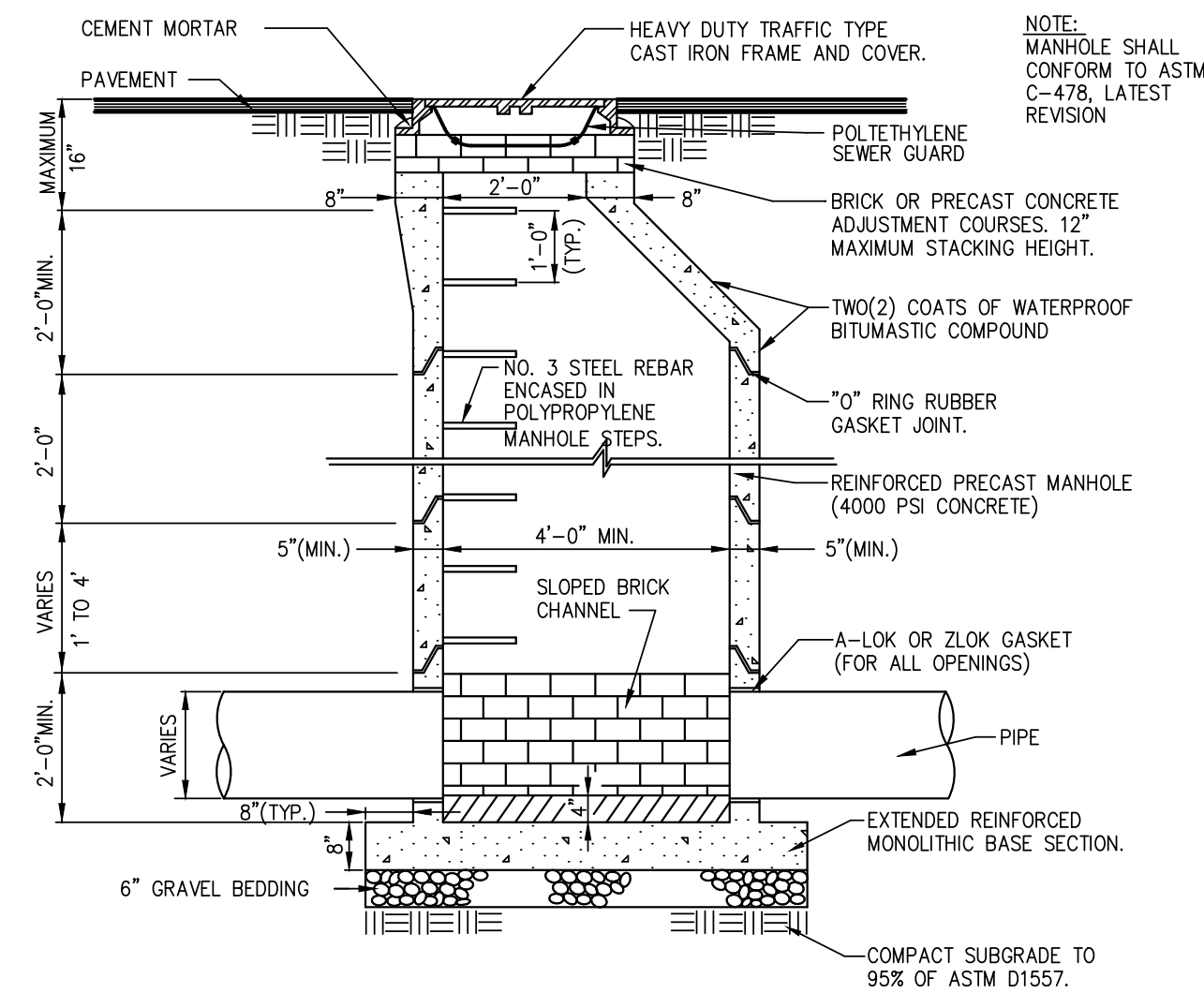
### MANHOLE FRAME & COVER



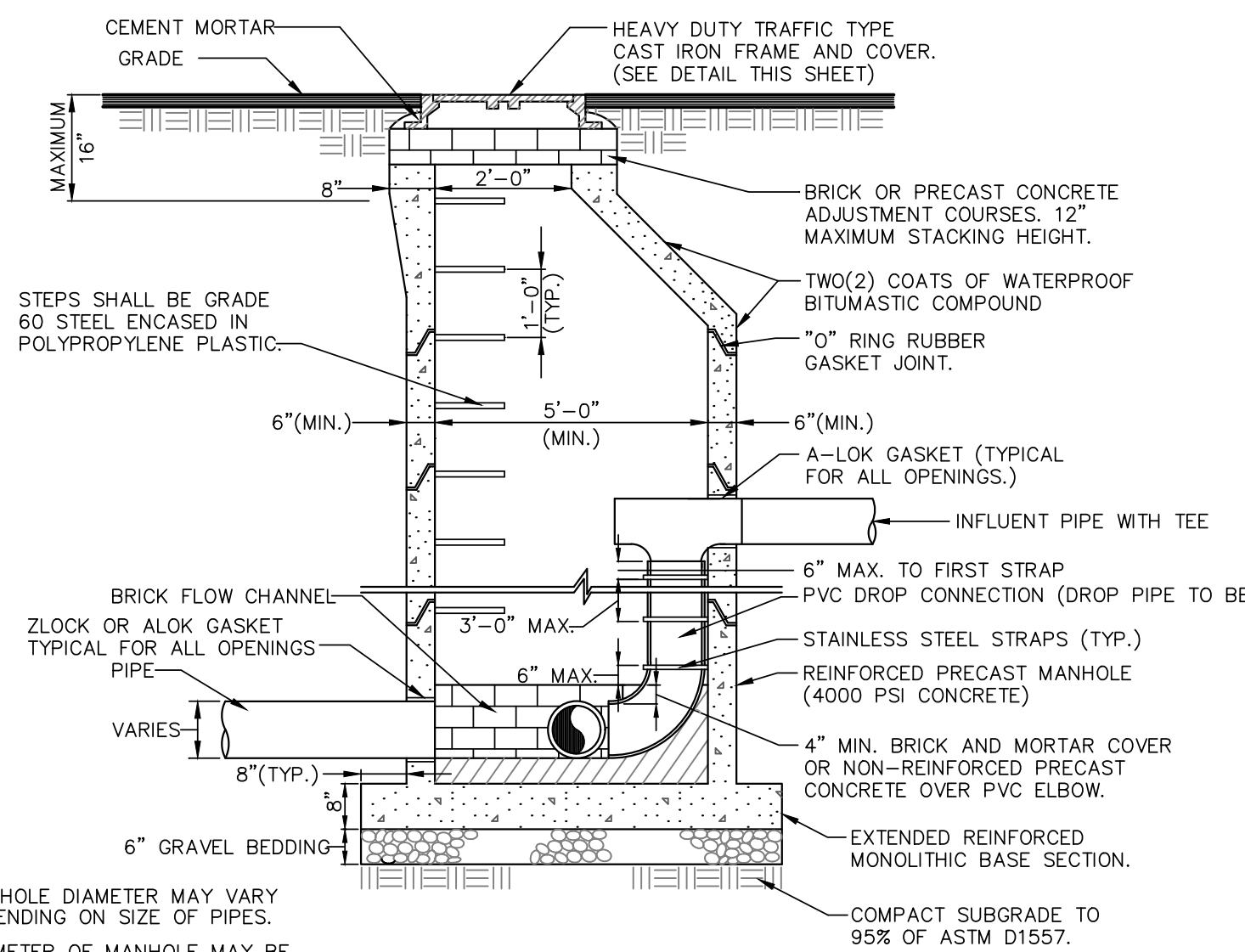
### SEWER LATERAL CLEANOUT DETAIL



### FORCE MAIN DISCHARGE INTO MANHOLE BY OTHERS



### PRECAST CONCRETE MANHOLE DETAIL



### INSIDE DROP MANHOLE DETAIL

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MILFORD, DELAWARE (302) 424-1441

DAVIS, BOWEN & FRIEDEL, INC.

UTILITY DETAILS

WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

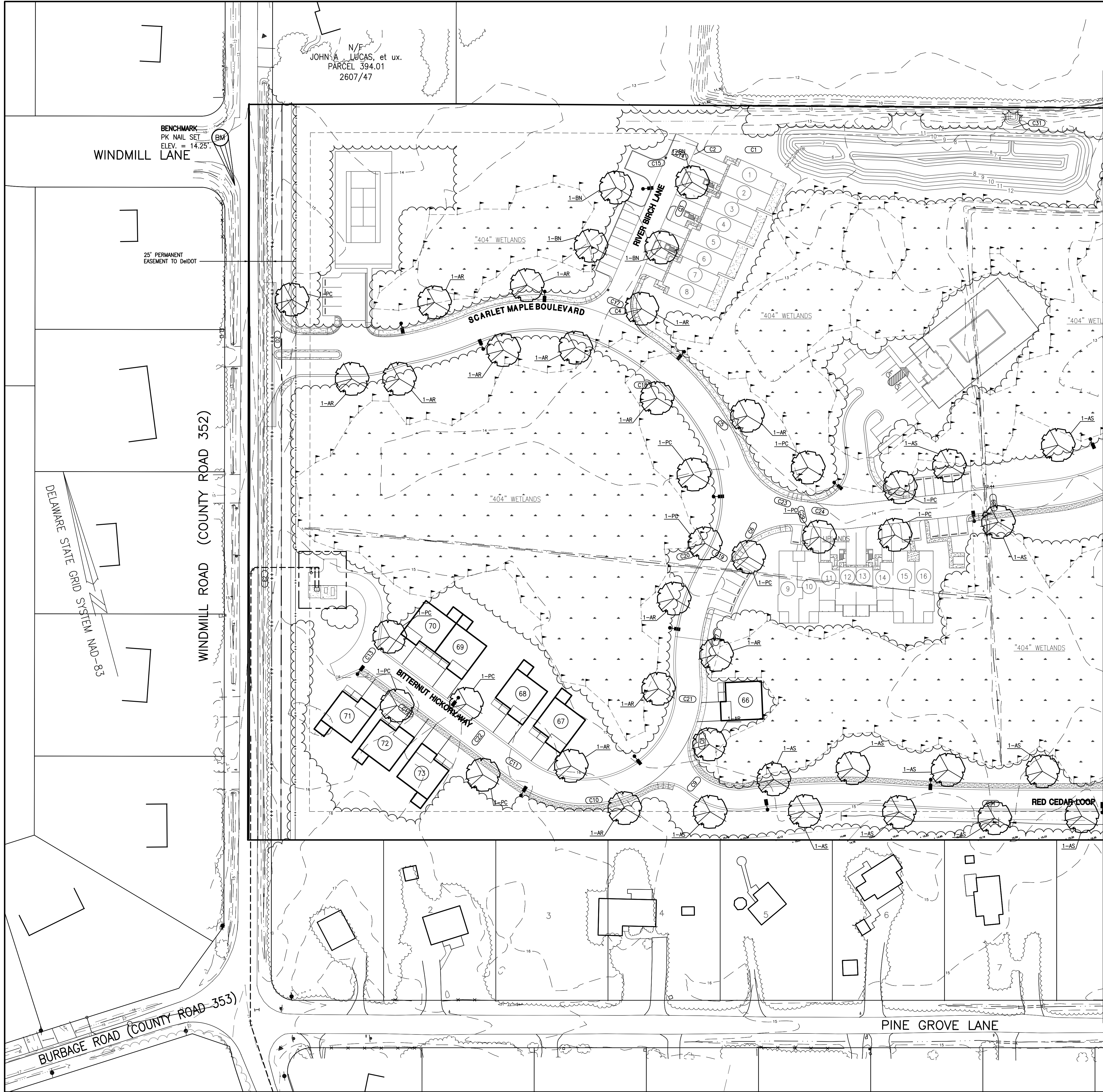
Revisions:

Date: JANUARY 2021  
Scale: NONE  
Dwn.By: EFT  
Proj.No.: 003E001.H  
Dwg.No.:

U13



P:\0003\0003E001\Current working folder\dwg\LS - LANDSCAPE.dwg Jan 21, 2021 - 3:36pm



### LIGHTING LEGEND

- POLE LAMP, 12' FIXTURE MOUNTING HEIGHT HADCO TYPE V MODEL P-2085 POLE WITH MODEL RS1BCNG2ANN6150RG GLOBE, 150 WATT, H.P.S.
- STREET LAMP 100' O.C., STAGGERED.



## WINDMILL WOODS WINDMILL ROAD SUSSEX COUNTY, DELAWARE

Revisions:

Date: JANUARY 2021  
Scale: 1" = 50'  
Dwn.By: VLT/EFT  
Proj.No.: 003E001.H  
Dwg.No.:

L1

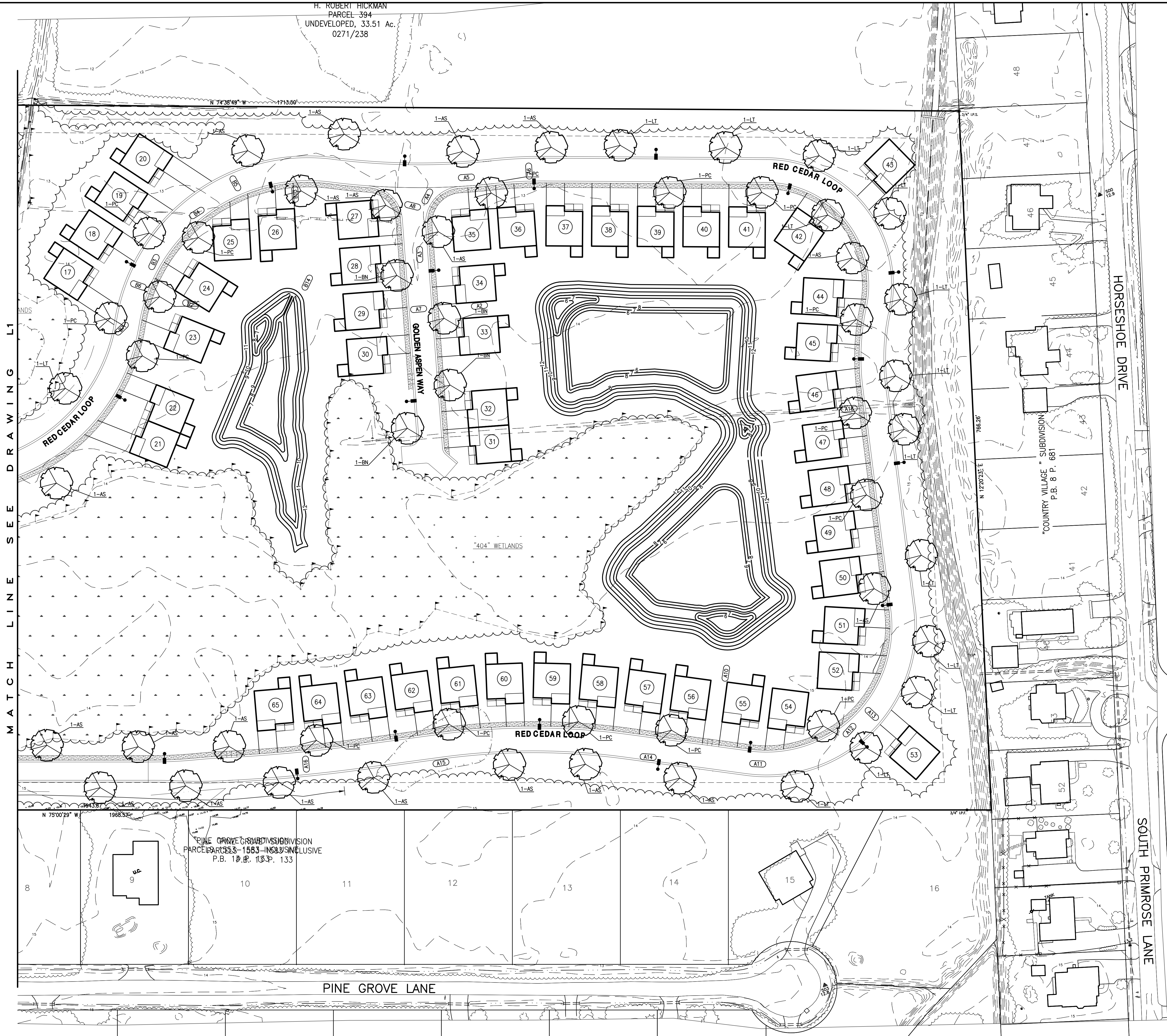
**dbf** DAVIS, BOWEN & FRIEDEL, INC.

ARCHITECTS, ENGINEERS, SURVEYORS  
SALESBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

LANDSCAPE & LIGHTING PLAN

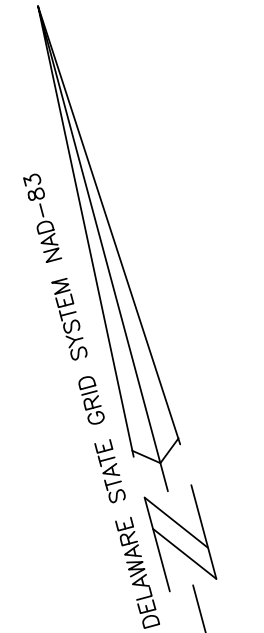


P:\003\0003E001\Current working folder\dwg\LANDSCAPE.dwg Jan 21, 2021, 3:36pm



**LIGHTING LEGEND**

POLE LAMP, 12" FIXTURE MOUNTING HEIGHT HADCO  
TYPE V MODEL P-2065 POLE WITH MODEL  
R51BNG2ANN150RG GLOBE, 150 WATT, H.P.S.  
STREET LAMP 100' O.C., STAGGERED.

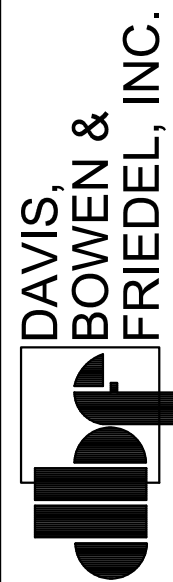


**WINDMILL WOODS**  
**WINDMILL ROAD**  
**SUSSEX COUNTY, DELAWARE**

Revisions:

Date: JANUARY 2021  
Scale: 1" = 50'  
Dwn.By: VLT/EFT  
Proj.No.: 003E001.H  
Dwg.No.:

**L2**

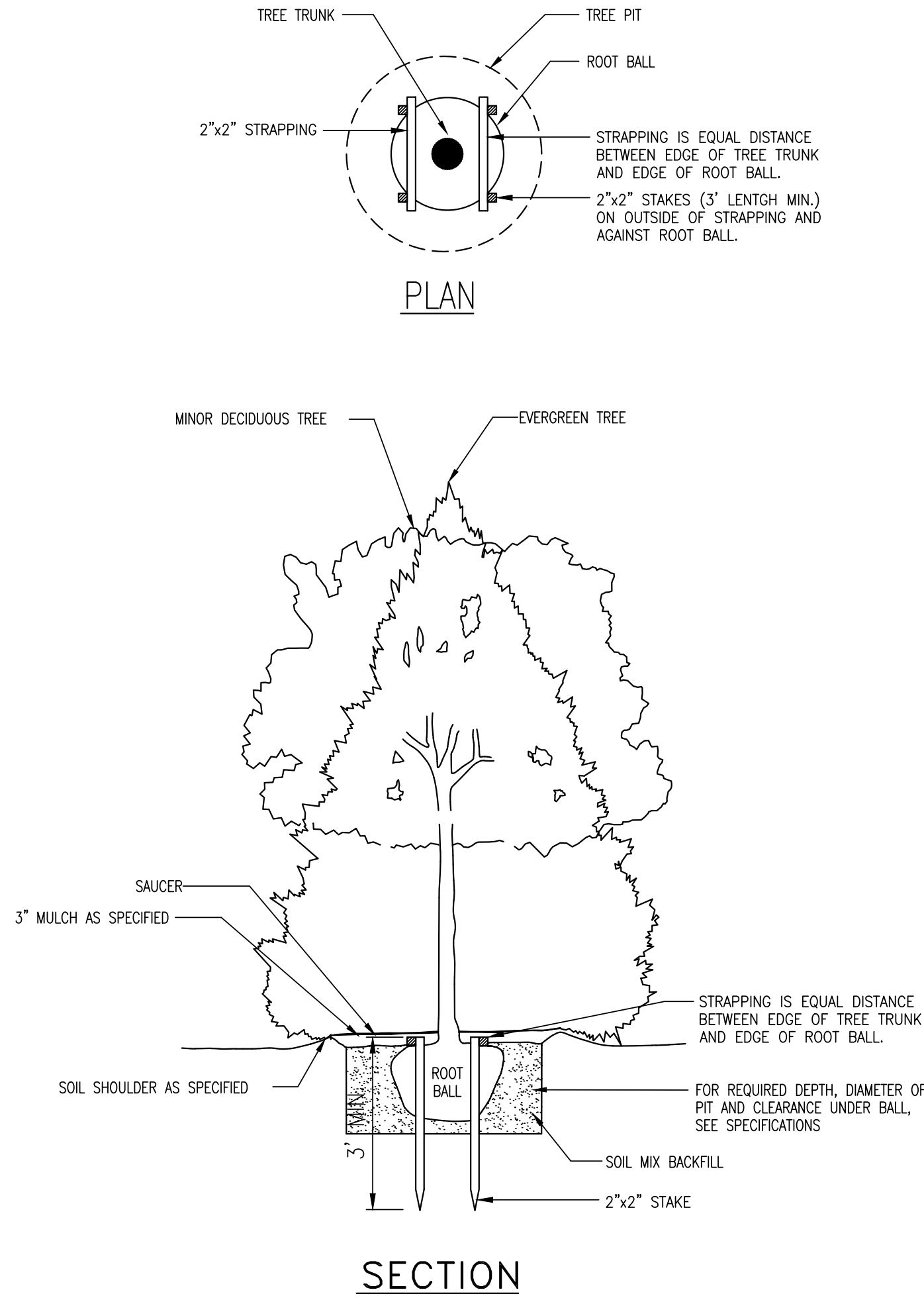


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SALESBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

LANDSCAPE & LIGHTING PLAN

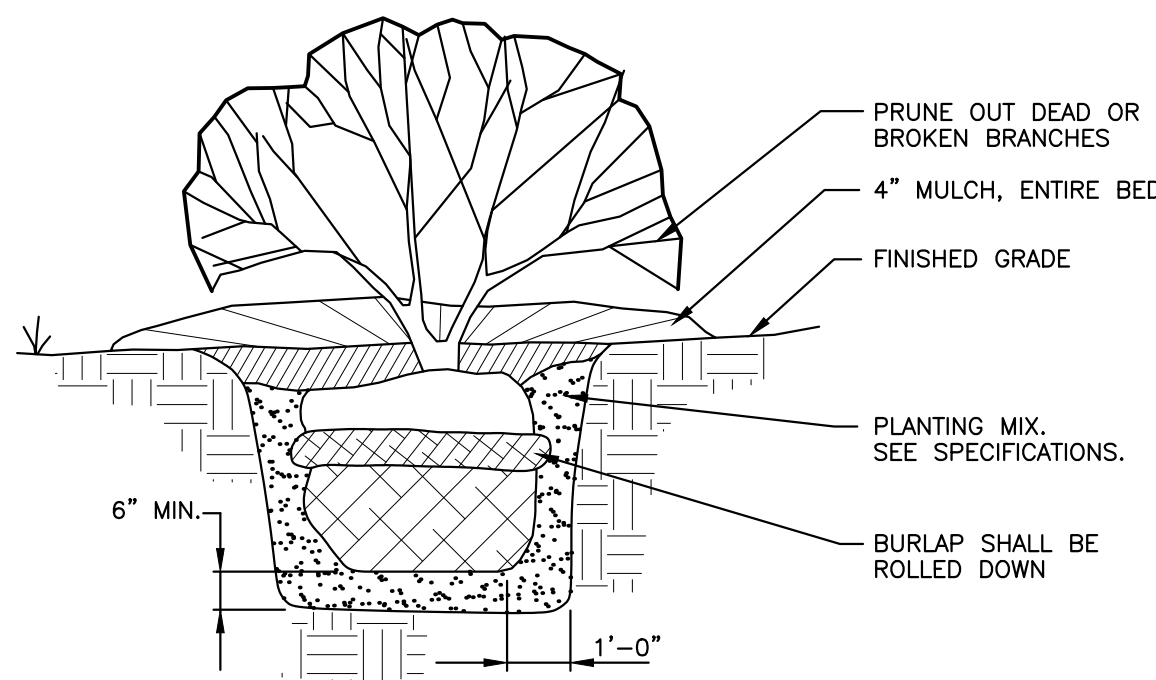


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### TREE STAKING DETAIL

NOT TO SCALE

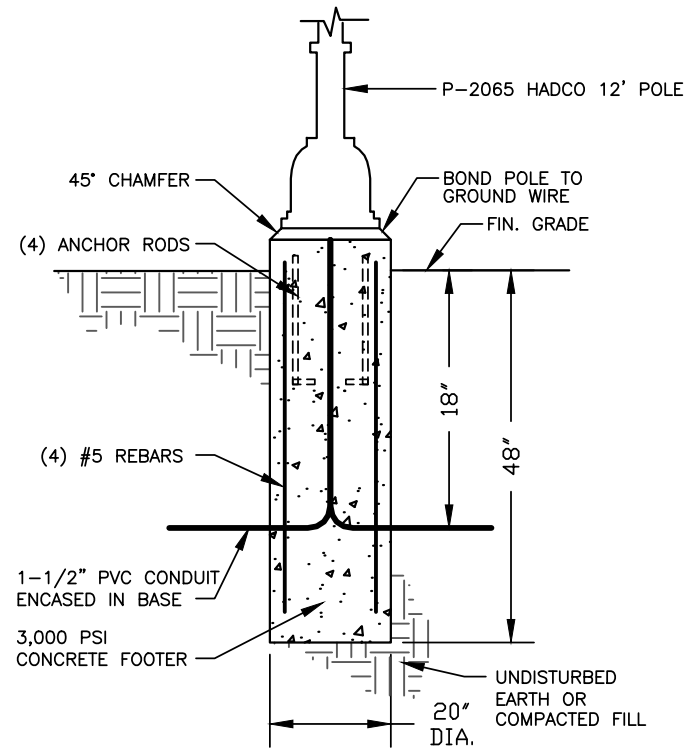


### SHRUB PLANTING DETAIL

NOT TO SCALE

## GENERAL LANDSCAPE NOTES

1. 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".
2. 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.
3. 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.
4. NO SUBSTITUTIONS SHALL BE MADE WITHOUT APPROVAL OF THE OWNER.
5. ALL AREAS NOT STABILIZED IN PAVING OR PLANT MATERIALS SHOULD BE SEEDED AND MULCHED. (SEE EROSION & SEDIMENT CONTROL PLAN.)
6. EVERGREEN TREES SHALL HAVE A FULL, WELL-BRANCHED, CONICAL FORM TYPICAL OF THE SPECIES.
7. ALL DECIDUOUS SHADE TREES SHALL BRANCH A MINIMUM OF 8'-0" ABOVE GROUND LEVEL. TREES SHALL BE PLANTED AND STAKED IN ACCORDANCE WITH THE STAKING DETAIL SHOWN.
8. THE FULL EXTENT OF ALL PLANTING BEDS SHALL RECEIVE 4" OF TOPSOIL AND 3" OF BARK MULCH PER SPECIFICATIONS.
9. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THIS DRAWING AND AS SPECIFIED.
10. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING.
11. THE CONTRACTOR SHALL WATER ALL PLANTS THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING, AND THEN WEEKLY OR MORE OFTEN, IF NECESSARY, DURING THE FIRST GROWING SEASON.
12. LANDSCAPE BEDS NOT DEFINED BY CURBS, SIDEWALKS, WALLS OR OTHER STRUCTURES SHALL BE ENCLOSED BY ALUMINUM EDGING UNLESS OTHERWISE INDICATED.



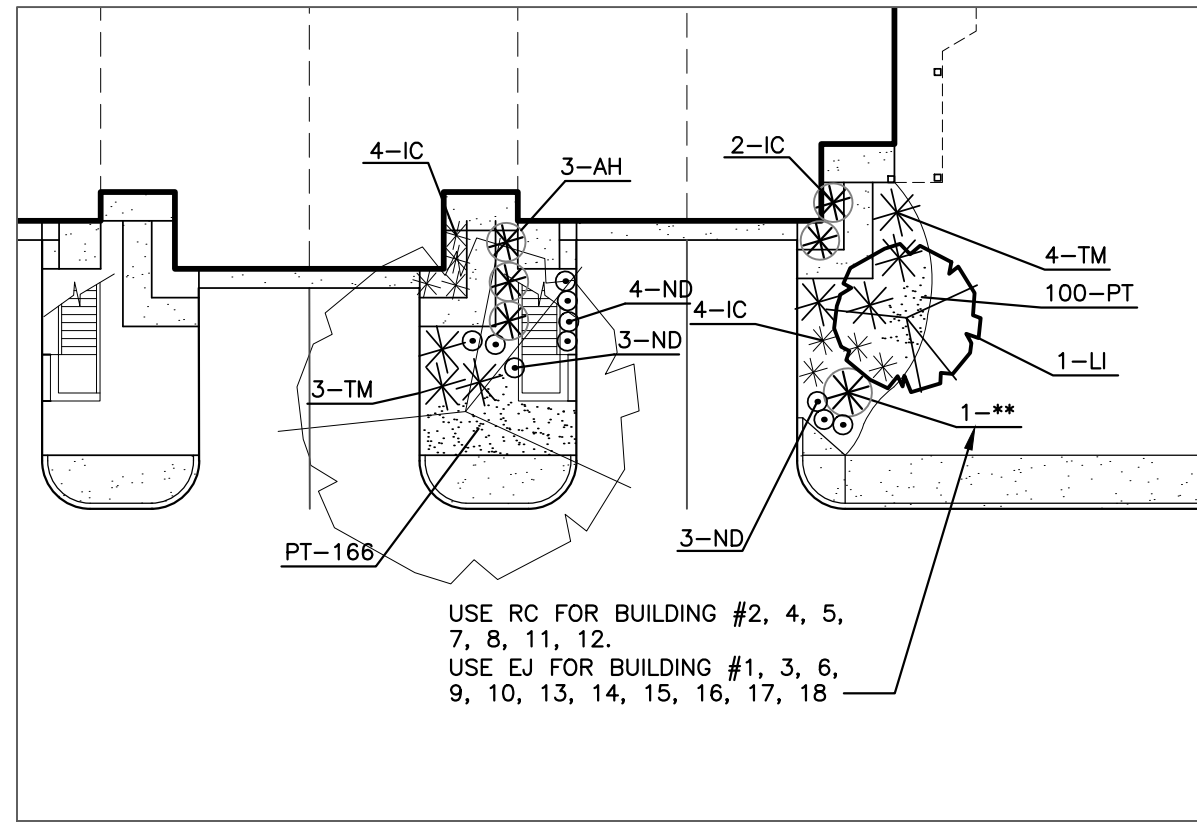
TYPE: MODEL R51BCNG2ANNG150RG GLOBE  
MANUFACTURER: HADCO  
LAMPS: 150 WATT HIGH PRESSURE SODIUM  
MOUNTINGS: CONCRETE ANCHOR BASE  
REMARKS: VICTORIAN LUMINAIR WITH POLYACRYL REFRACTOR GLOBE, SPUN ALUMINIUM ROOF, SPECULAR ALUMINIUM REFLECTOR, CAST ALUMINUM WATERPROOF BALLAST ENCLOSURE LOW TEMPERATURE BALLAST, TYPE III LIGHT DISTRIBUTION, PHOTOCELL, AND BLACK FINISH. LUMINAIR MOUNTED ON 12'-0" CAST ALUMINUM POST WITH BLACK FINISH.

### LIGHT STANDARD BASE DETAIL

NOT TO SCALE

## LANDSCAPE PLANT SCHEDULE

SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
LARGE DECIDUOUS TREES					
	AR	ACER rubrum "OCTOBER GLORY"	OCTOBER GLORY RED MAPLE	2 1/2-3" Cal., B&B	15
	AS	ACER saccharum "GREEN MOUNTAIN"	GREEN MOUNTAIN SUGAR MAPLE	2 1/2-3" Cal., B&B	33
	BN	BETULA nigra	RIVER BIRCH (CLUMP FORM)	10-12' Ht, B&B	10
	PC	PYRUS calleryana "REDSPIRE"	REDSPIRE PEAR	2 1/2-3" Cal., B&B	27
	LT	LIRIODENDRON Tulipifera	TULIP POPLAR	2 1/2-3" Cal., B&B	19
*TOTAL QUANTITY OF LARGE DECIDUOUS TREES.					104*
SMALL DECIDUOUS TREES					
	LI	LAGERSTROEMIA indica "TUSCARORA"	TUSCARORA CRAPE MYRTLE	6-7' Ht., B&B	36
*TOTAL QUANTITY OF SMALL DECIDUOUS TREES.					36*
EVERGREEN SHRUBS					
	AH	AZALEA "HINO CRIMSON"	HINO CRIMSON AZALEA	15-18", Cont.	108
	EJ	EUONYMUS japonicus "SILVER KING"	SILVER KING EUONYMUS	24-30", Cont.	22
	IC	ILEX crenata "GREEN LUSTER"	GREEN LUSTER HOLLY	15-18", B&B	396
	RC	RHODODENDRON catawbiense "P.J.M. WHITE"	WHITE P.J.M. RHODODENDRON	24-30", Cont.	14
	TM	TAXUS x media "SEBIAN"	SEBIAN YEW	18-24", B&B	252
*TOTAL QUANTITY OF EVERGREEN SHRUBS.					792*
DECIDUOUS SHRUBS					
	ND	NANDINA domestica "FIRE POWER"	FIRE POWER NANDINA	12-15", Cont.	360
*TOTAL QUANTITY OF DECIDUOUS SHRUBS.					360*
GROUND COVERS					
	PT	PACHYSANDRA terminalis	PACHYSANDRA	2 1/4"	9576
*TOTAL QUANTITY OF GROUND COVERS.					9576*



### TYPICAL TOWNHOME LANDSCAPE PLAN

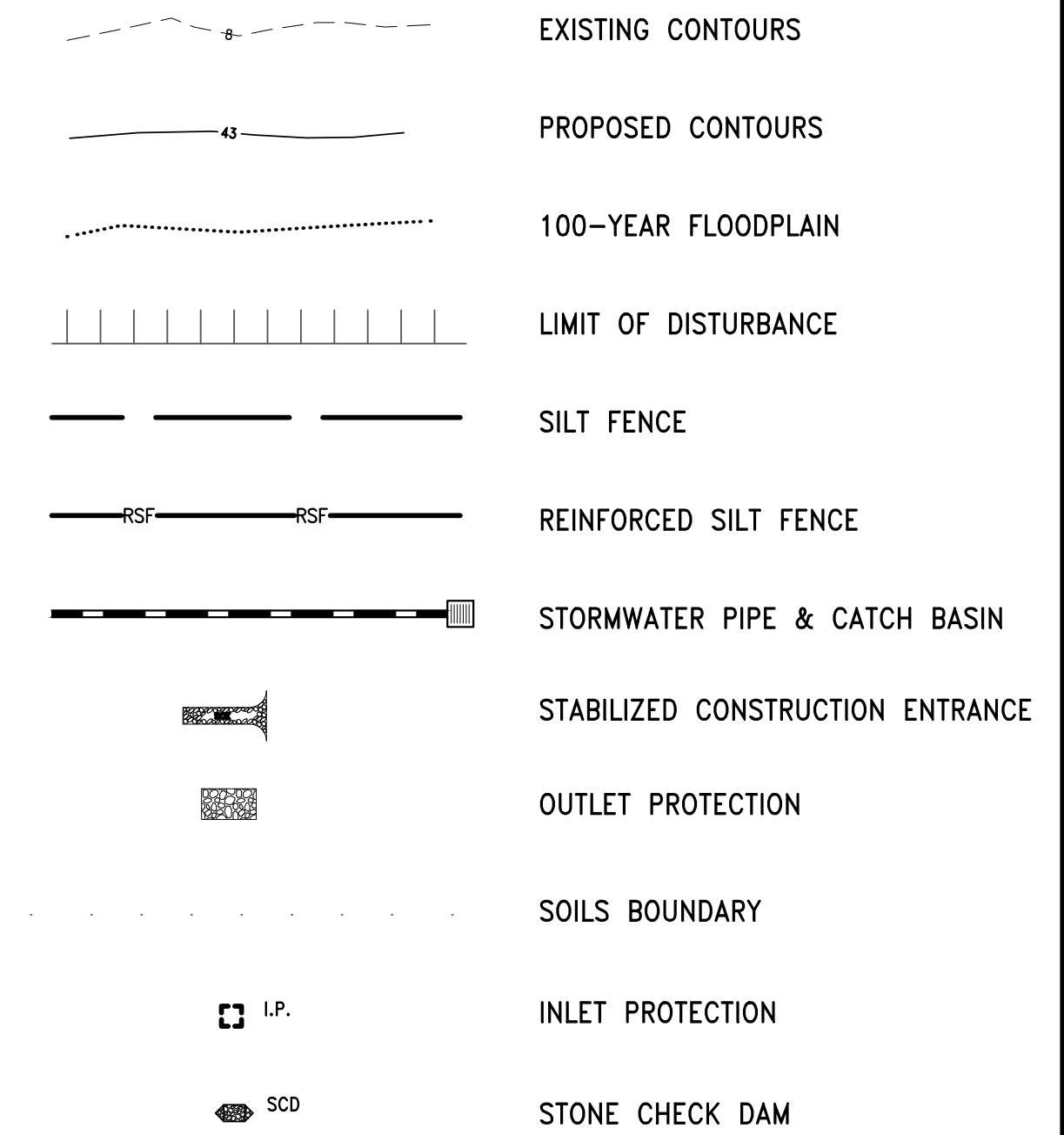
SCALE: 1"=20'



DWG. ESC2

DWG. ESC3

## EROSION &amp; SEDIMENT CONTROL LEGEND



NOTE: - ALL F.F. ELEVATIONS ARE MINIMUM.  
- VOLUME OF FILL FOR SITE IS 25,000 C.F.

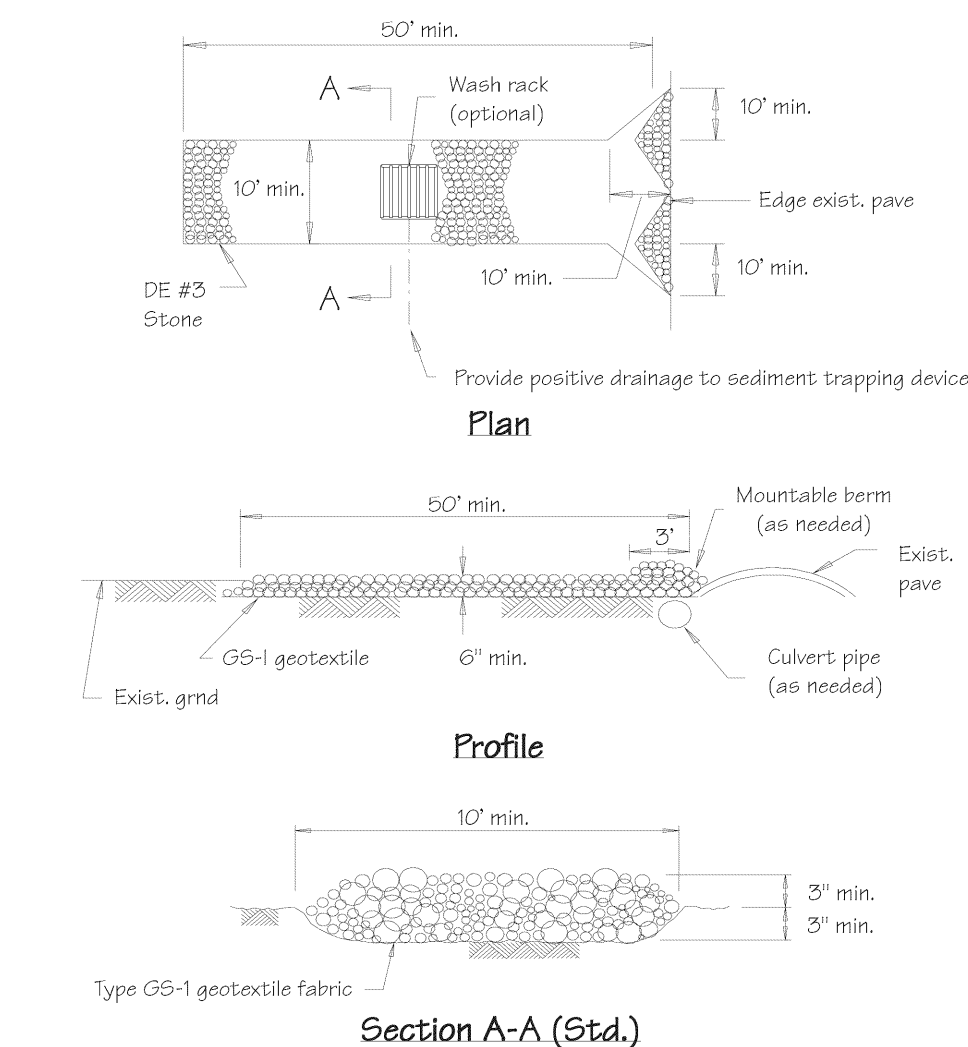
SOIL CLASSIFICATIONS

Fa FALLSINGTON SANDY LOAM  
K1 KLEI LOAMY SAND  
Pm POCOMOKE SANDY LOAM  
Wo WOODSTOWN SANDY LOAM

SOURCE: SOIL SURVEY - SUSSEX COUNTY, DELAWARE  
by U.S.D.A. SOIL CONSERVATION SERVICE

### Standard Detail & Specifications

#### Stabilized Construct. Entrance



Source: Adapted from VA ESC Handbook

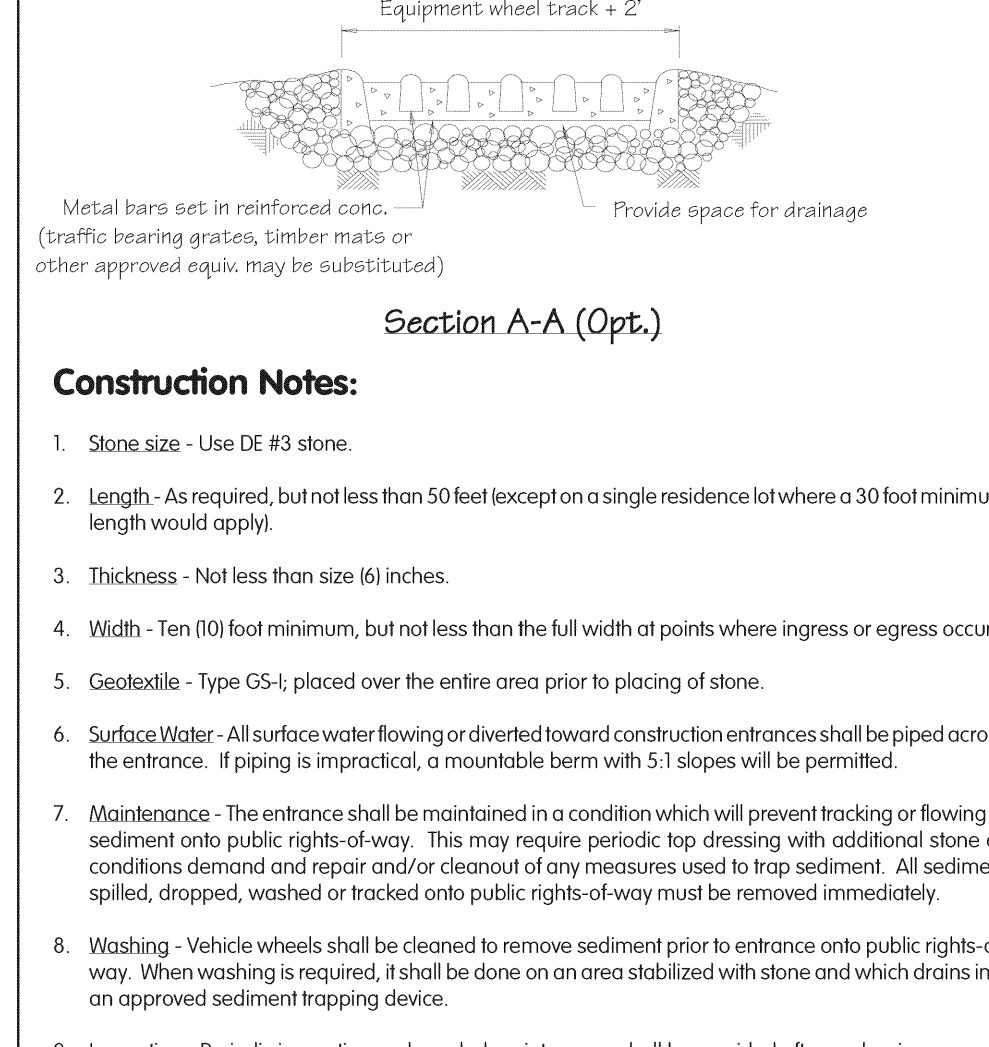
Symbol: SCE

Detail No. DE-ESC-3.4.7 Sheet 1 of 2

Date: 12/03

### Standard Detail & Specifications

#### Stabilized Construct. Entrance

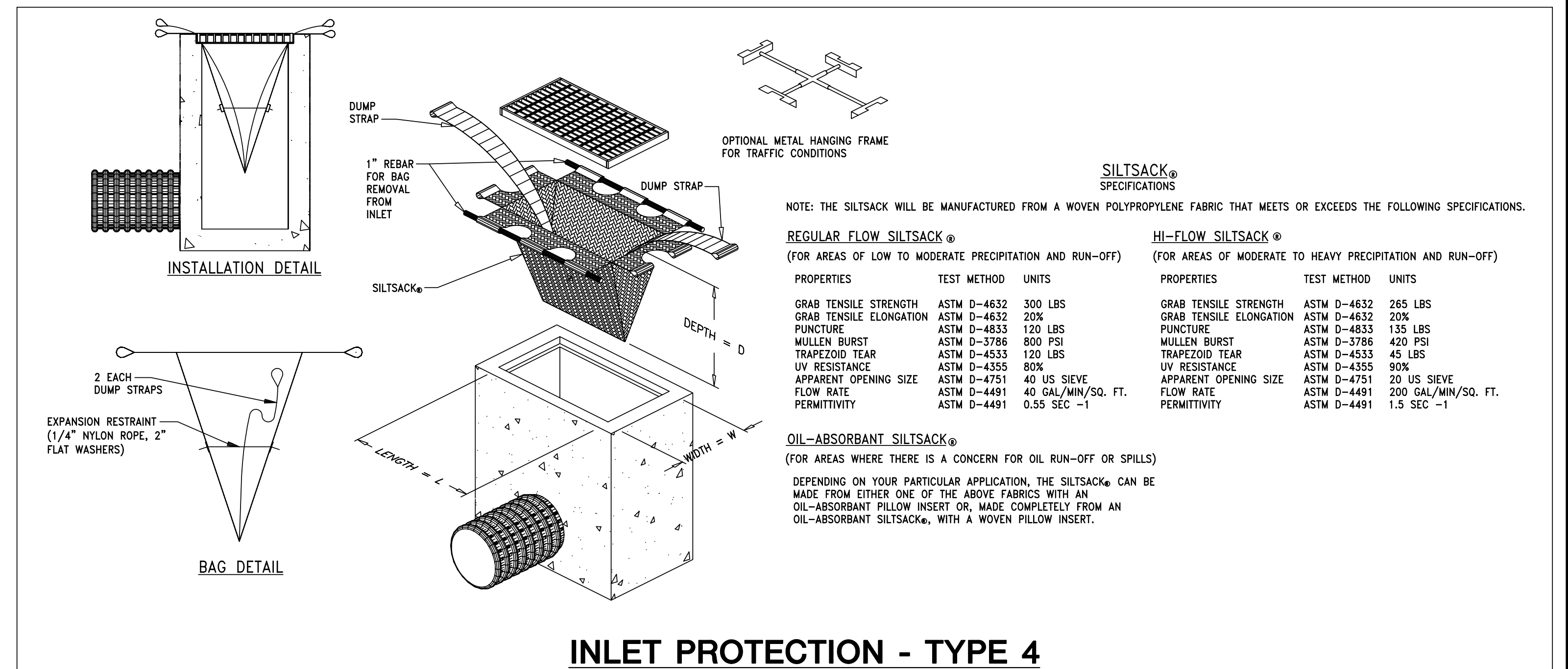


Source: Adapted from VA ESC Handbook

Symbol: SCE

Detail No. DE-ESC-3.4.7 Sheet 2 of 2

Date: 12/03



WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

Revisions:

Date: JANUARY 2021

Scale: 1" = 100'

Dwn.By: LMD

Proj.No.: 003E001.H

Dwg.No.:

ESC1

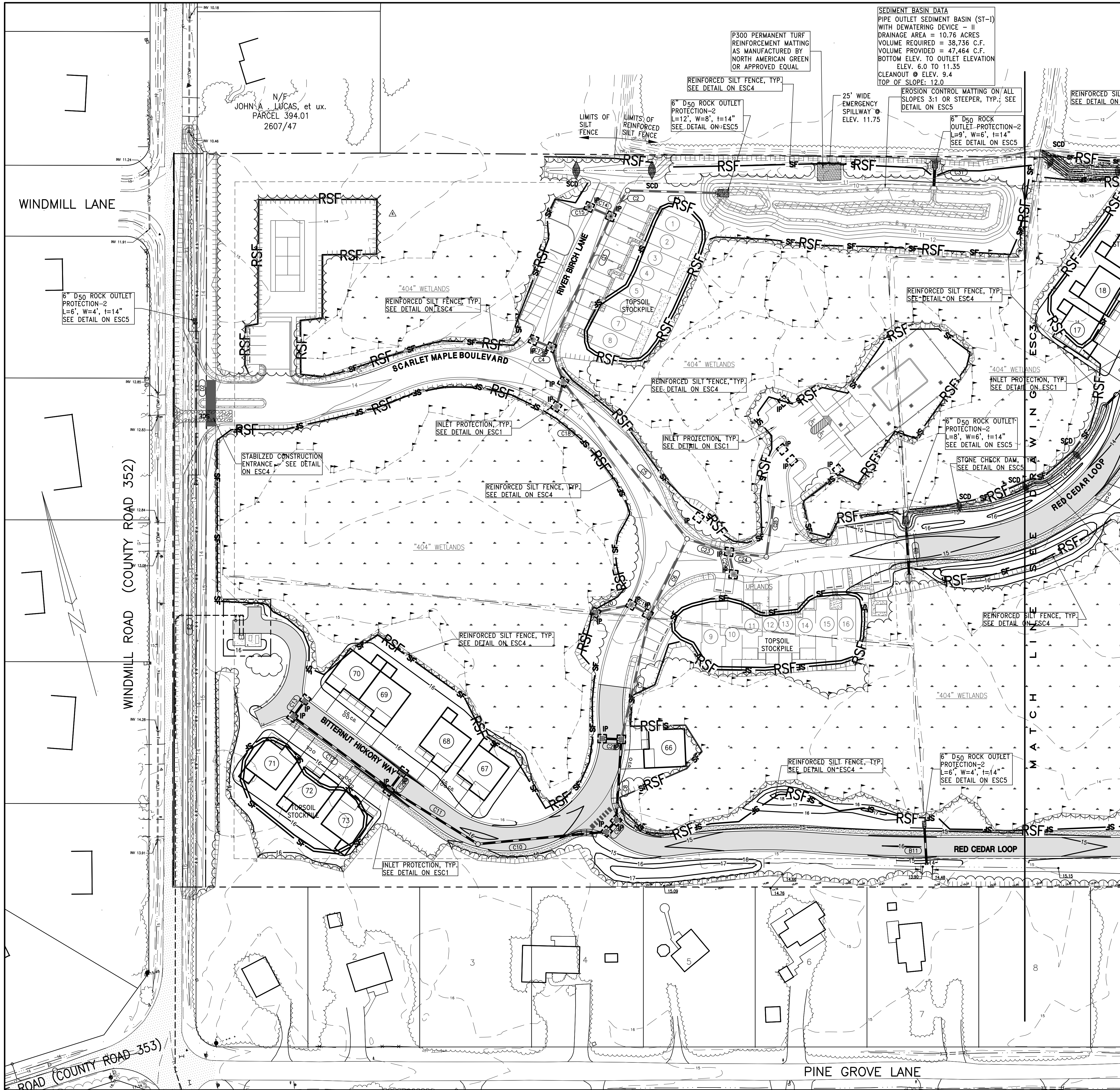
ARCHITECTS ENGINEERS SURVEYORS  
SAUSBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

DAVIS, BOWEN & FRIEDEL, INC.

EROSION & SEDIMENT CONTROL KEY PLAN



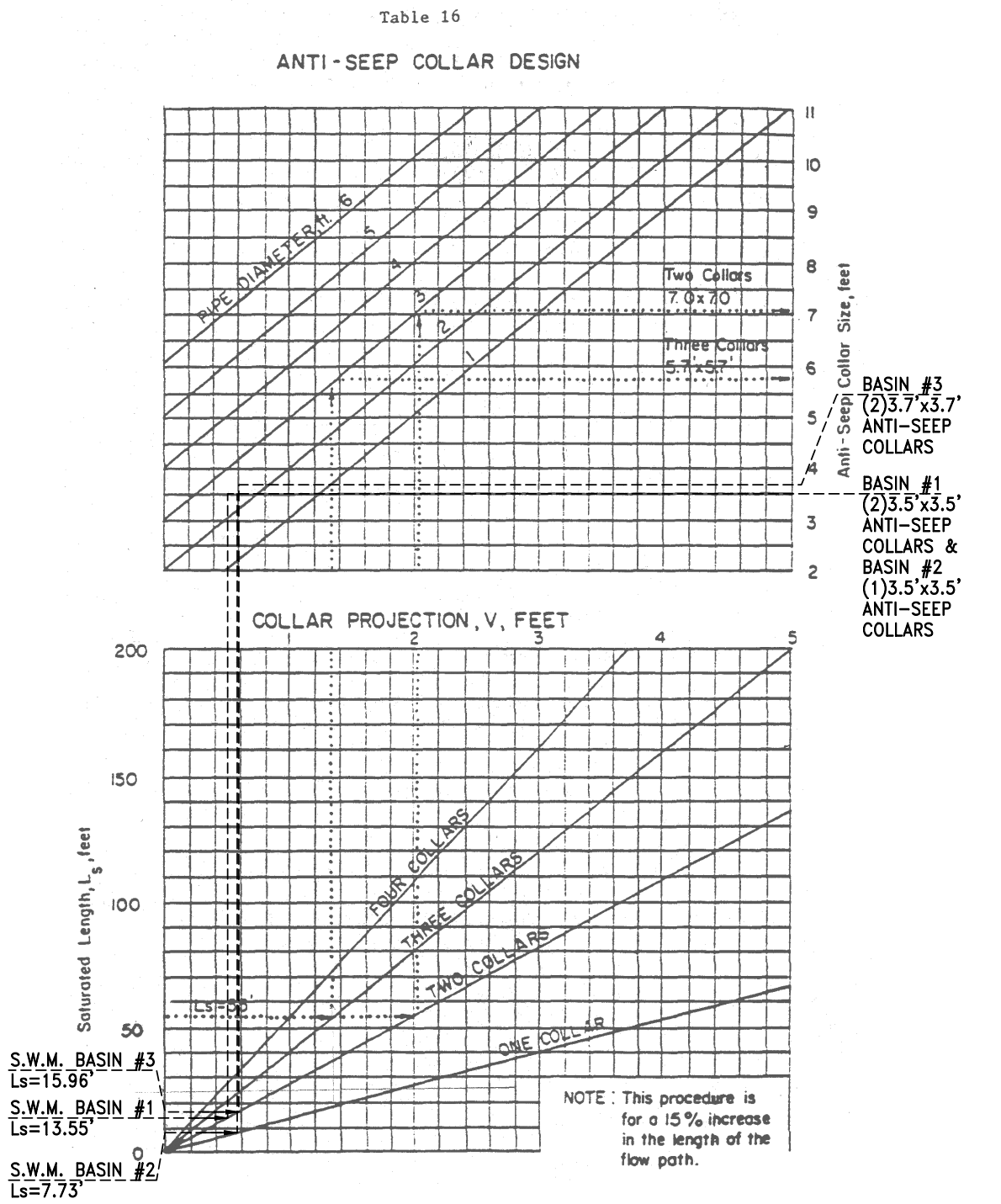
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EROSION & SEDIMENT CONTROL LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- 100-YEAR FLOODPLAIN
- LIMIT OF DISTURBANCE
- SILT FENCE
- REINFORCED SILT FENCE
- STORMWATER PIPE & CATCH BASIN
- STABILIZED CONSTRUCTION ENTRANCE
- OUTLET PROTECTION
- SOILS BOUNDARY
- INLET PROTECTION
- STONE CHECK DAM

NOTE: - ALL F.F. ELEVATIONS ARE MINIMUM.



SOIL CLASSIFICATIONS	
Fa	FALLSINGTON SANDY LOAM
Kl	KLEJ LOAMY SAND
Pm	POCOMOKE SANDY LOAM
Wg	WOODSTOWN SANDY LOAM

SOURCE: SOIL SURVEY - SUSSEX COUNTY, DELAWARE  
by U.S.D.A. SOIL CONSERVATION SERVICE



WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

Revisions:  
△ SCD COMMENTS 08-23-2004  
△ SCD COMMENTS 10-06-2004  
△ 02-01-05 REVIEW COMMENTS  
△ REPLACED TOWNHOUSE UNITS WITH TENNIS COURTS

Date: JANUARY 2021  
Scale: 1" = 50'  
Dwn.By: LMD  
Proj.No.: 003E001.H  
Dwg.No.:

ESC2

DAVIS, BOWEN & FRIEDEL, INC.  
ARCHITECTS ENGINEERS SURVEYORS  
SAUSBURY, MARYLAND (410) 943-9091  
MIFORD, DELAWARE (302) 424-1441

EROSION & SEDIMENT CONTROL PLAN



SEDIMENT BASIN DATA  
PIPE "OUTLET" SEDIMENT BASIN (ST-1)  
WITH DRAINAGE DEVICE - II  
DRAINAGE AREA = 10.76 ACRES  
VOLUME REQUIRED = 38,736 C.F.  
VOLUME PROVIDED = 47,464 C.F.  
ELEV. TO OUTLET ELEVATION  
6.0 TO 11.35  
ELEV. 9.4  
DPE: 12.0

EROSION CONTROL MATTING ON ALL  
SLOPES 3:1 OR STEEPER, TYP.; SEE  
DETAIL ON ESC5

6" D50 ROCK  
OUTLET PROTECTION-2  
L=9', W=6', I=14"  
SEE DETAIL ON ESC5

REINFORCED SILT FENCE, TYP.  
SEE DETAIL ON ESC4

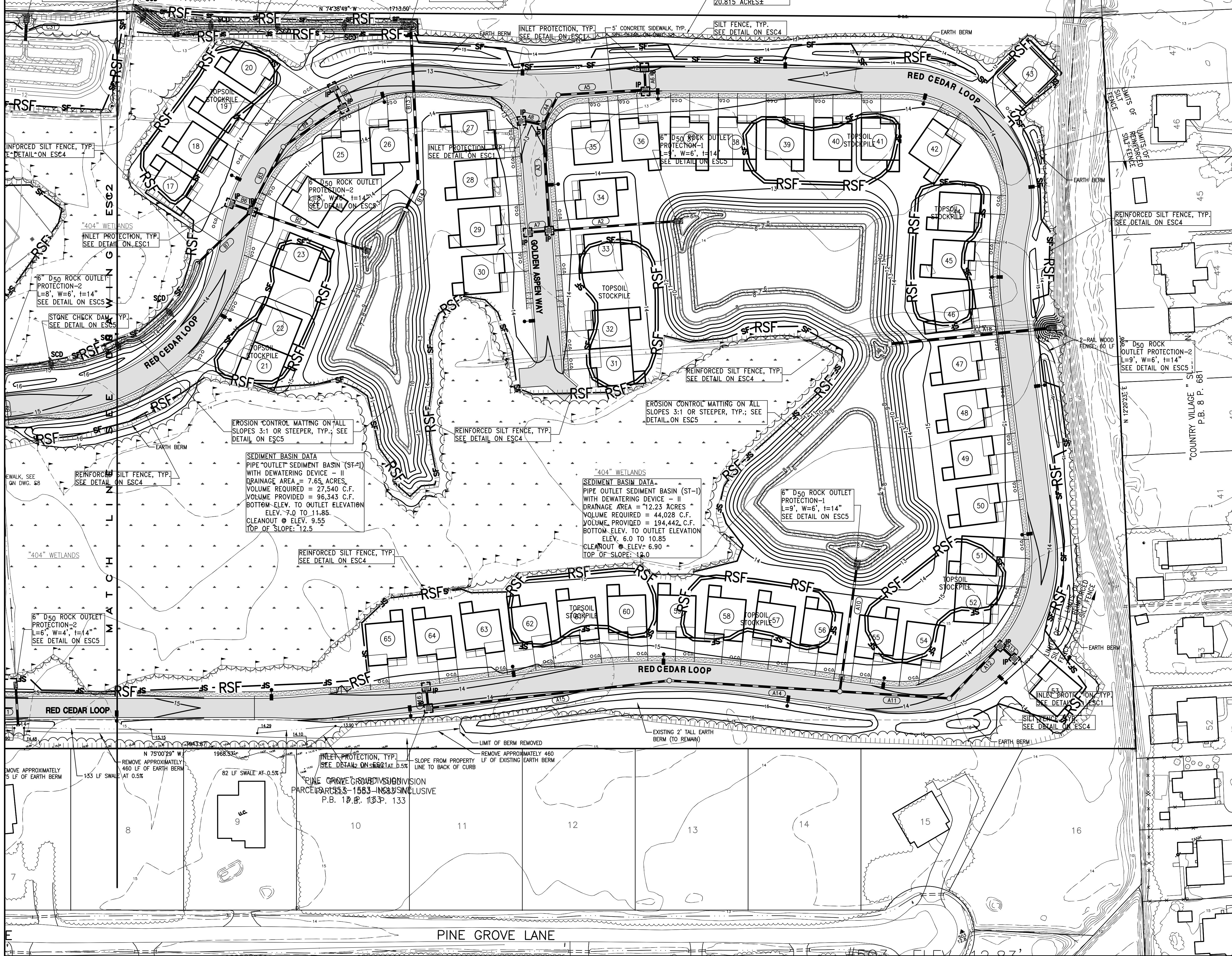
EROSION CONTROL MATTING ON ALL  
SLOPES 3:1 OR STEEPER, TYP.; SEE  
DETAIL ON ESC5

N/F  
H. ROBERT HICKMAN  
PARCEL 394  
UNDEVELOPED, 33.51 Ac.  
0271/238

6" D50 ROCK  
OUTLET PROTECTION-2  
L=9', W=6', I=14"  
SEE DETAIL ON ESC5

STONE CHECK DAM, TYP.  
SEE DETAIL ON ESC5

LIMITS OF DISTURBANCE  
20,815 ACRES±



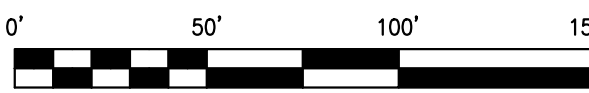
## EROSION & SEDIMENT CONTROL LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- 100-YEAR FLOODPLAIN
- LIMIT OF DISTURBANCE
- SILT FENCE
- REINFORCED SILT FENCE
- STORMWATER PIPE & CATCH BASIN
- STABILIZED CONSTRUCTION ENTRANCE
- OUTLET PROTECTION
- SOILS BOUNDARY
- INLET PROTECTION
- STONE CHECK DAM

NOTE: - ALL F.F. ELEVATIONS ARE MINIMUM.

SOIL CLASSIFICATIONS  
F0 FALLSINGTON SANDY LOAM  
K1 KLEJ LOAMY SAND  
Pm POCONOKE SANDY LOAM  
W0 WOODSTOWN SANDY LOAM

SOURCE: SOIL SURVEY - SUSSEX COUNTY, DELAWARE  
by U.S.D.A. SOIL CONSERVATION SERVICE



ARCHITECTS ENGINEERS SURVEYORS  
SAUSBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

**DAVIS, BOWEN & FRIEDEL, INC.**

EROSION & SEDIMENT CONTROL PLAN

**WINDMILL WOODS**  
**WINDMILL ROAD**  
**SUSSEX COUNTY, DELAWARE**

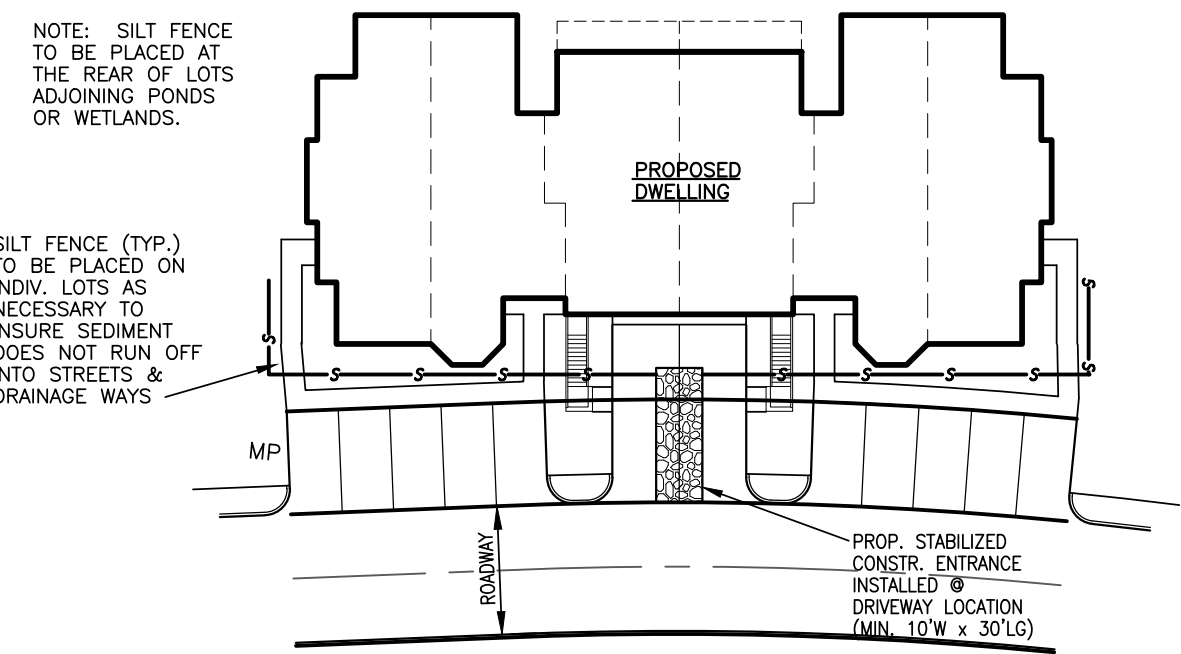
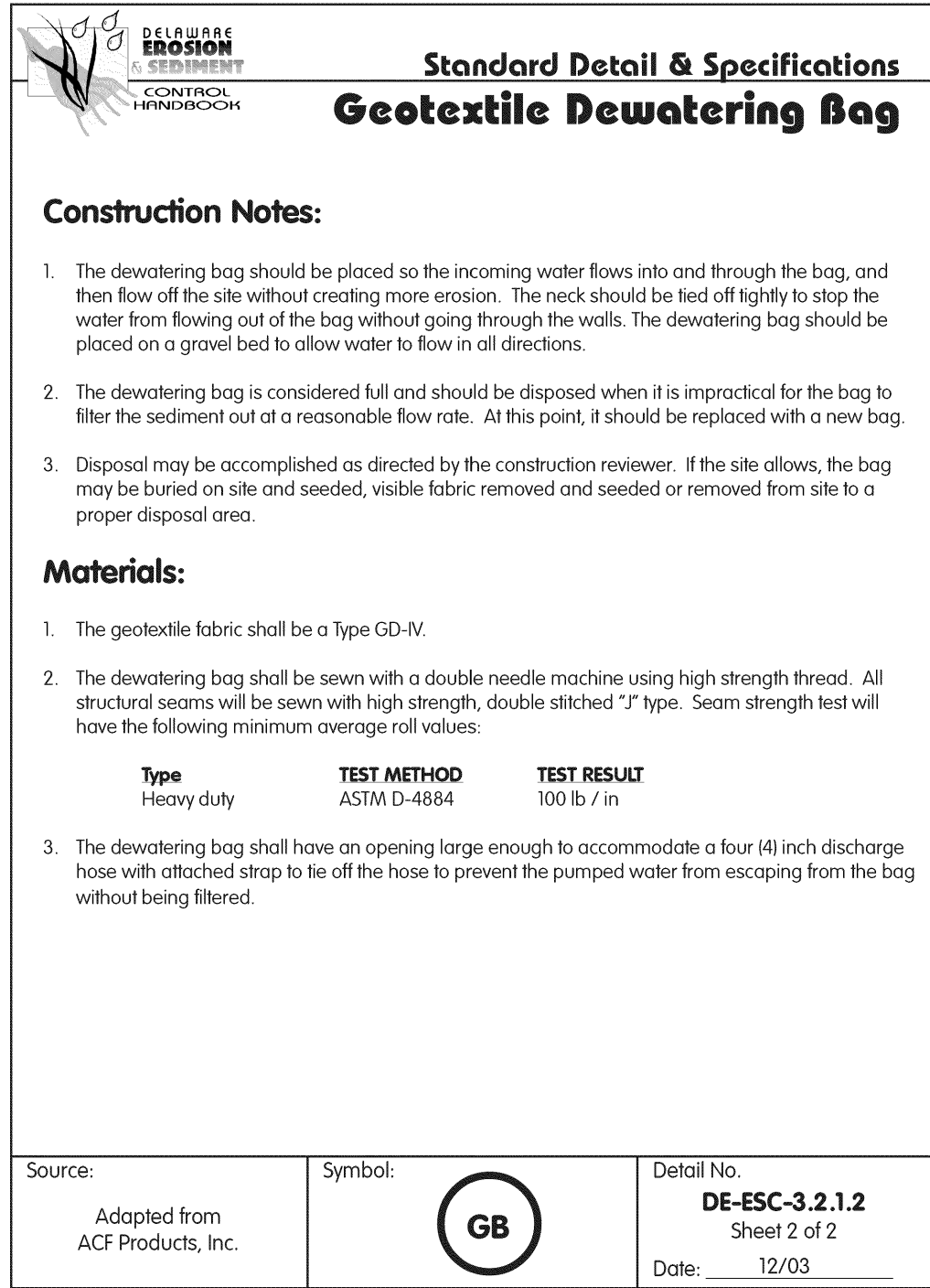
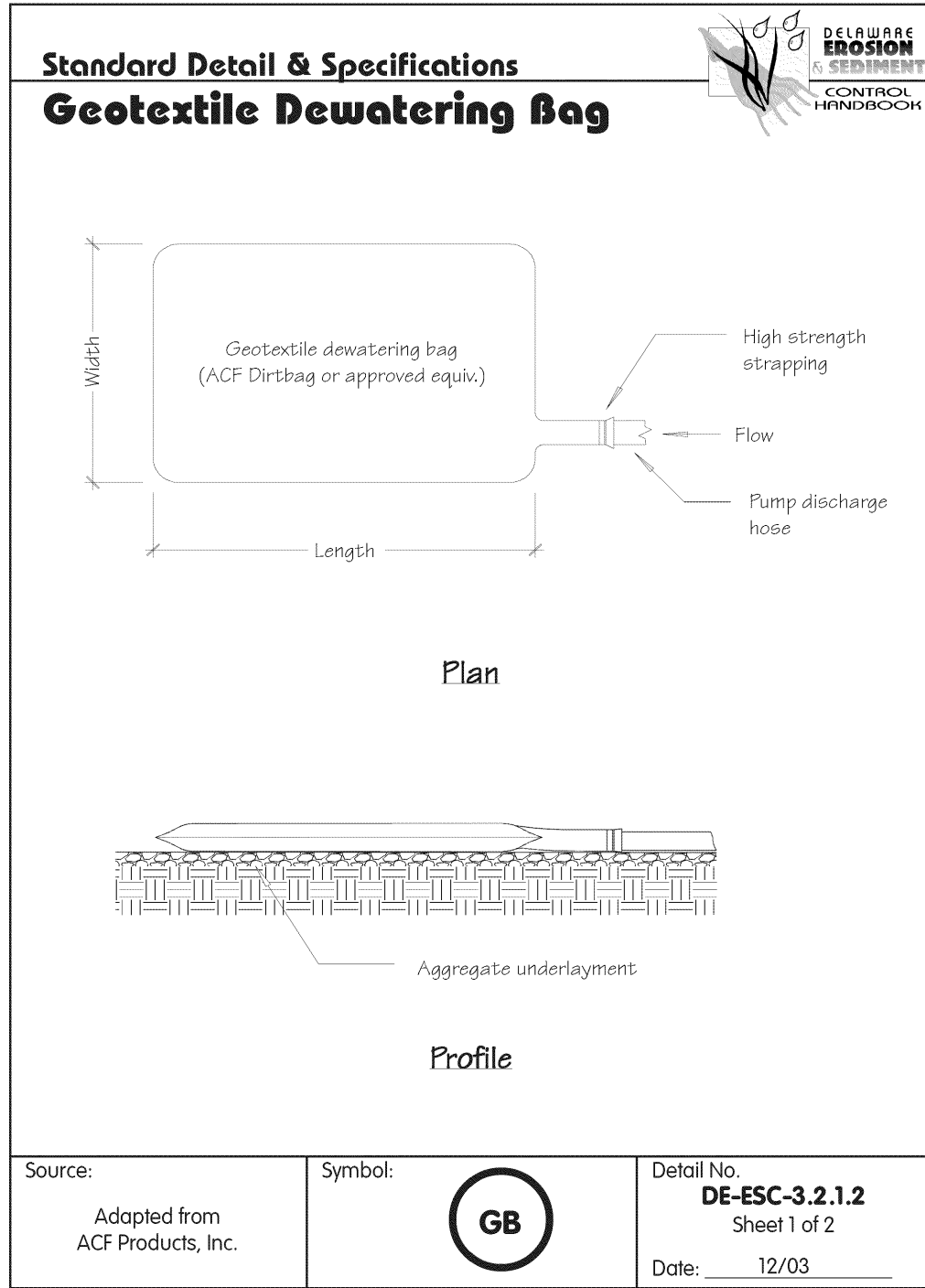
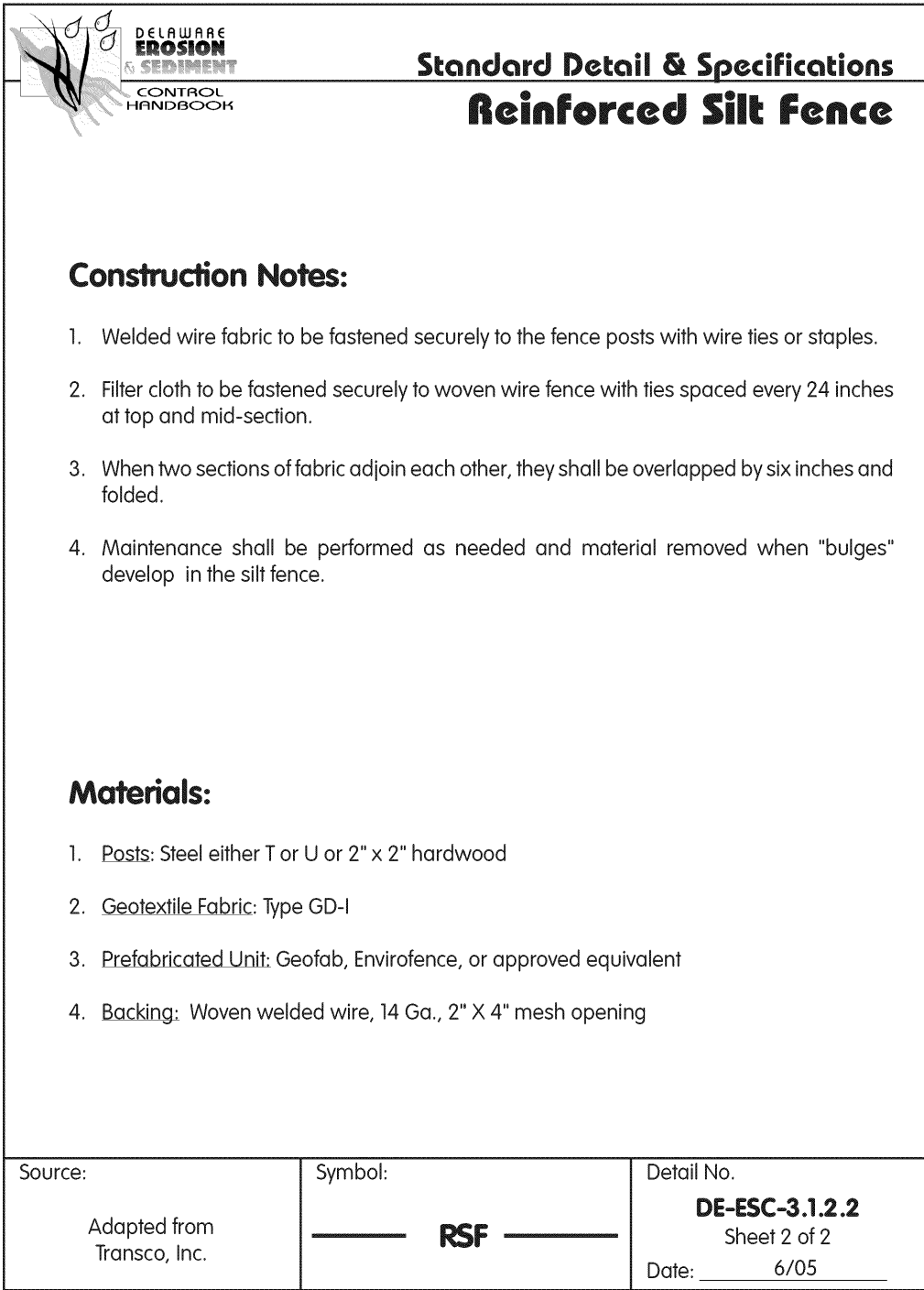
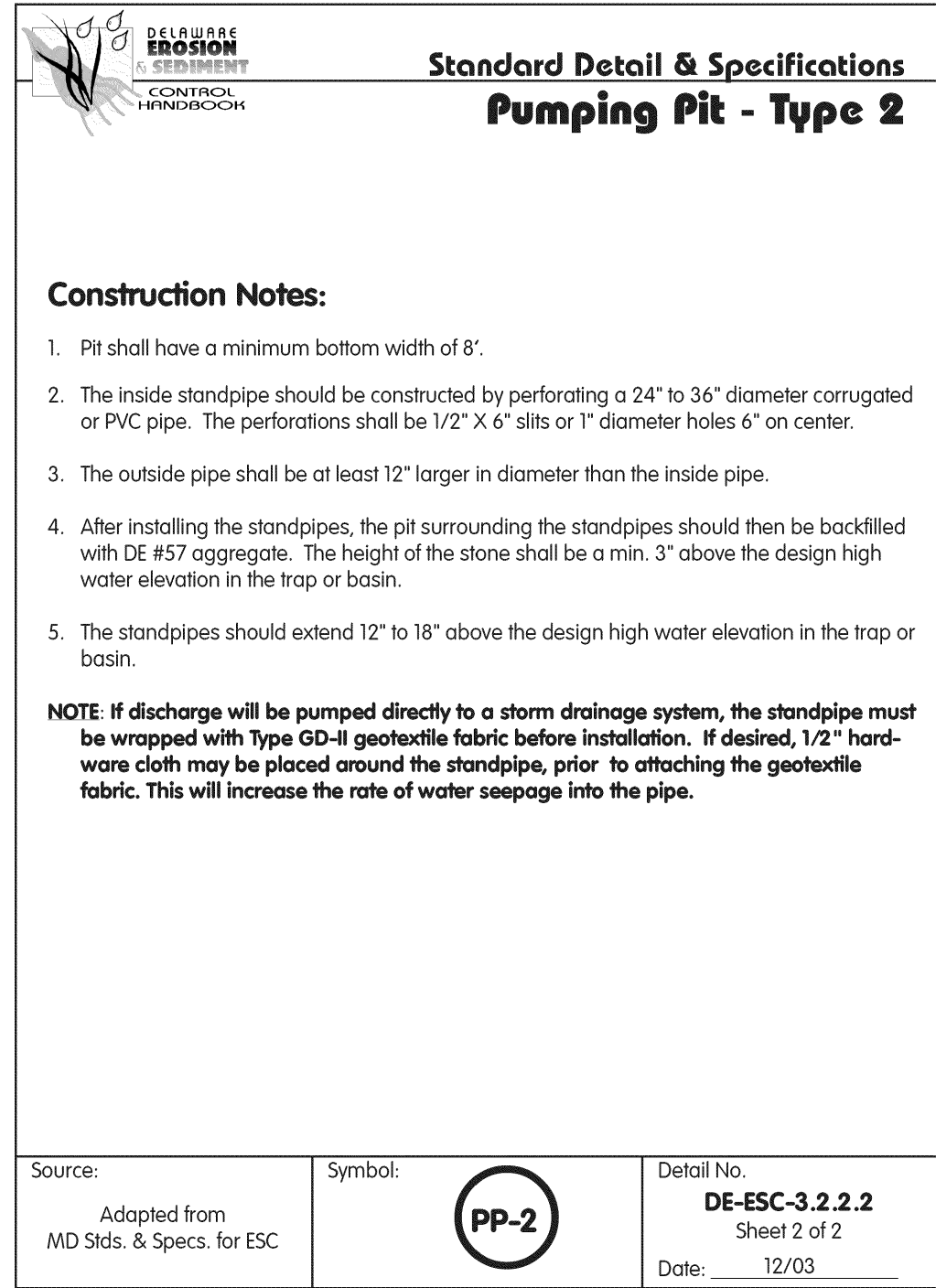
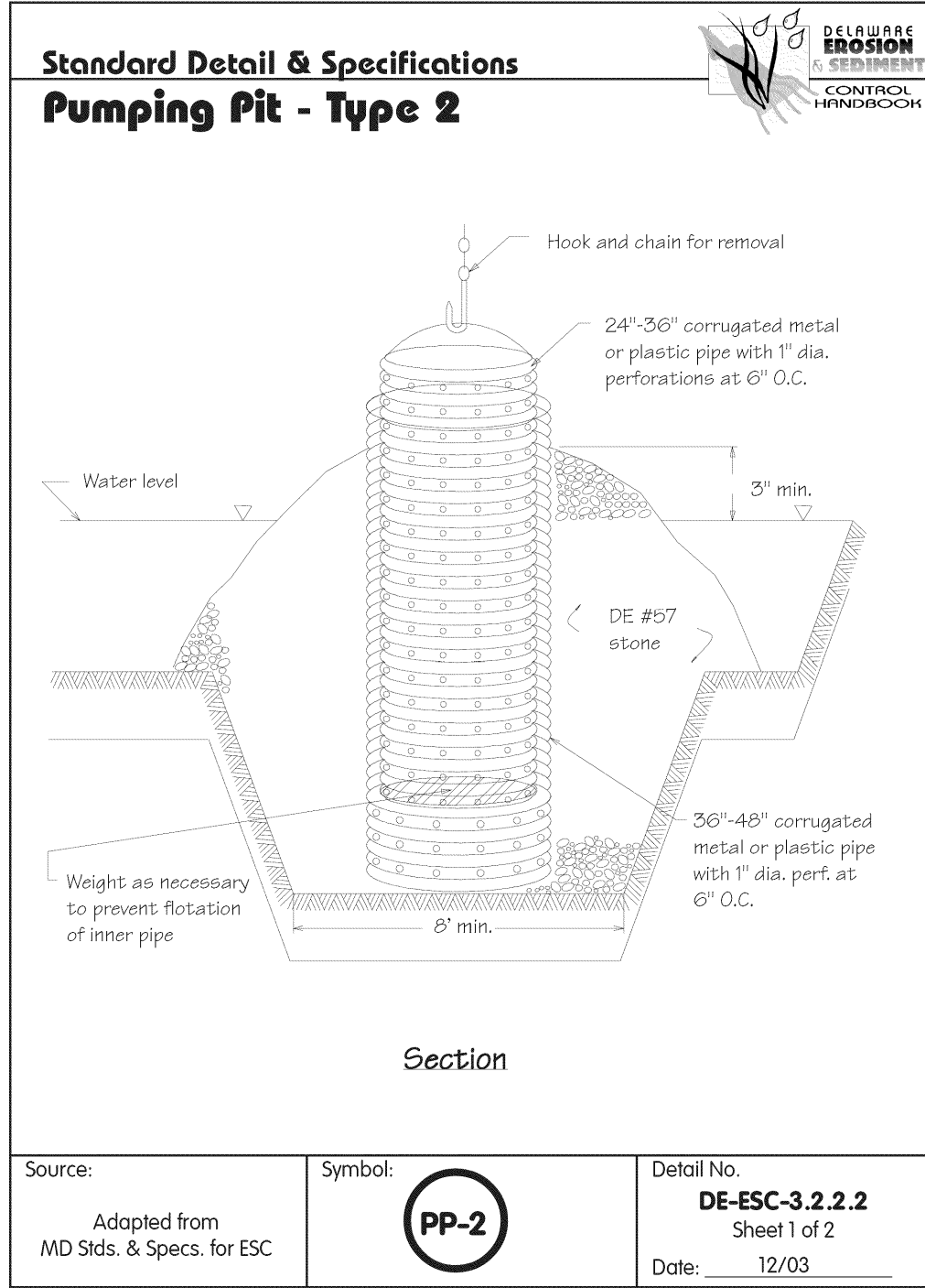
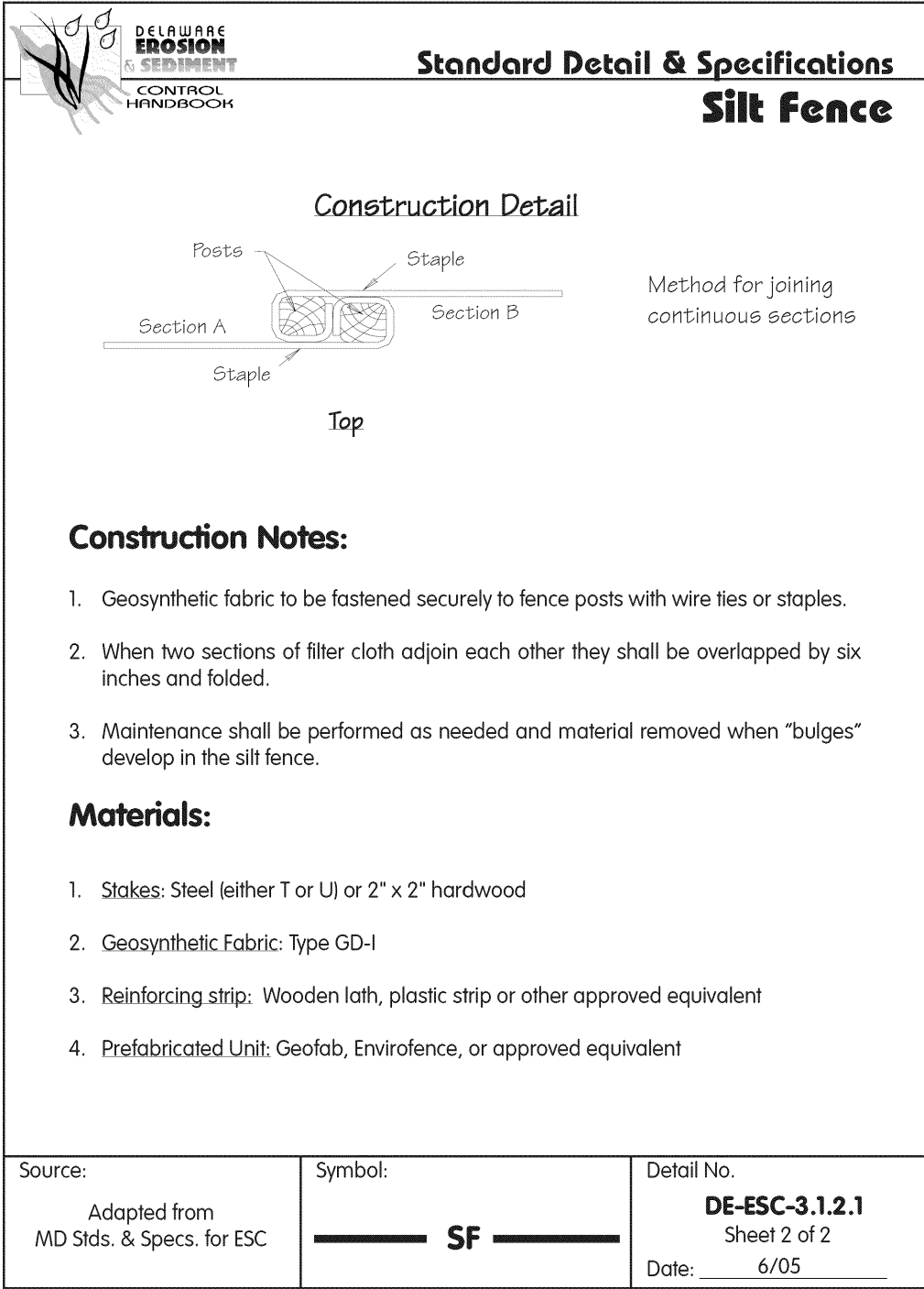
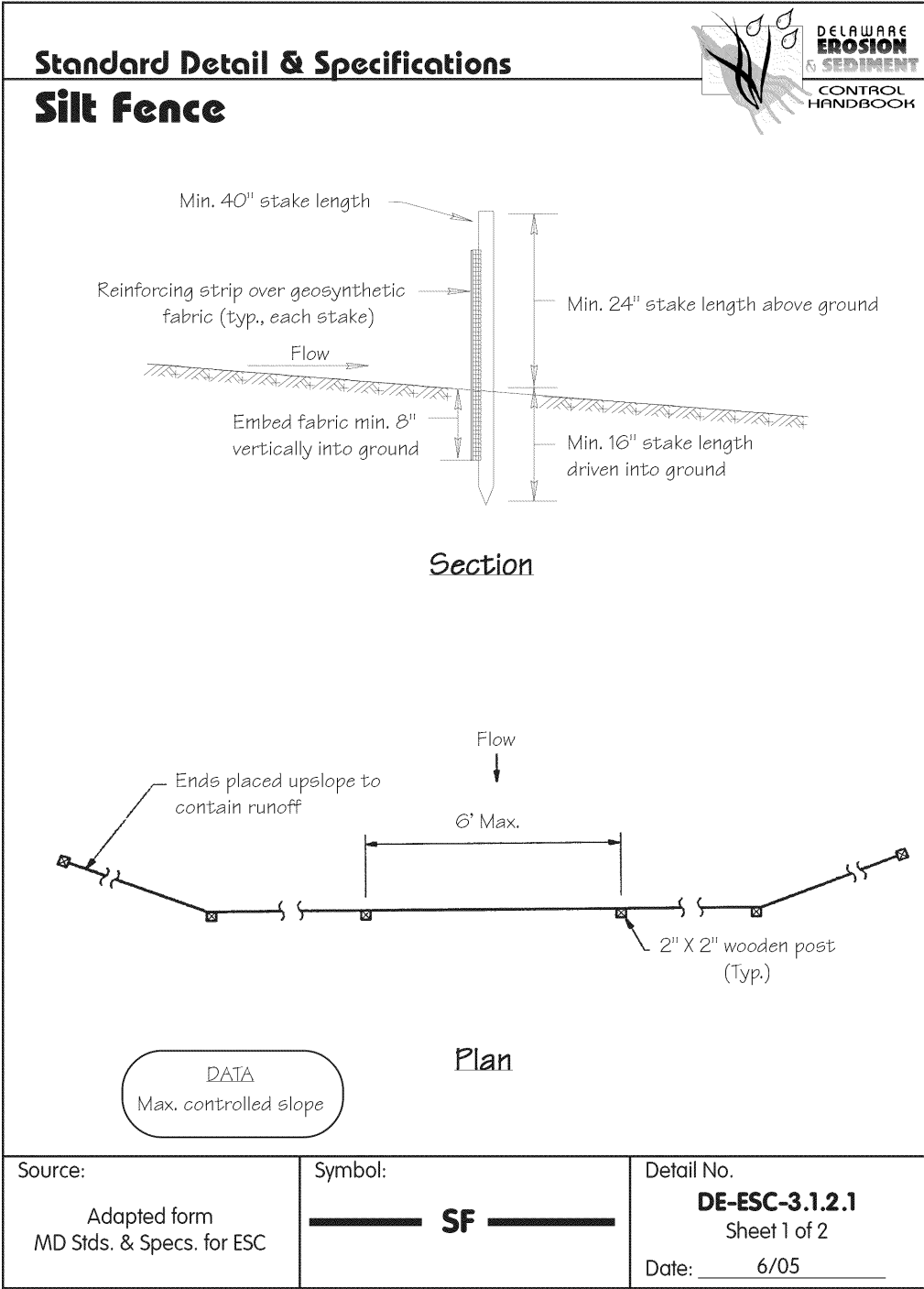
Revisions:

Date: JANUARY 2021  
Scale: 1" = 50'  
Dwn.By: LMD  
Proj.No.: 003E001.H  
Dwg.No.:

**ESC3**



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## EROSION & SEDIMENT CONTROL PLAN FOR TYPICAL TOWNHOUSE LOT

## SEQUENCE OF CONSTRUCTION

- NOTIFY SUSSEX CONSERVATION DISTRICT OF INTENT TO BEGIN CONSTRUCTION AND SCHEDULE A PRE-CONSTRUCTION MEETING. SCD MUST BE NOTIFIED IN WRITING FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
- CONDUCT PRE-CONSTRUCTION MEETING. CERTIFIED CONSTRUCTION REVIEWER (CCR) REQUIRED THROUGHOUT CONSTRUCTION.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN ON EROSION CONTROL PLAN. CLEAR AND GRUB ONLY THOSE AREAS NECESSARY FOR THE INSTALLATION OF PERIMETER CONTROLS. INSTALL PERIMETER CONTROLS.
- CLEAR AND GRUB IN SWM BASIN AREAS AND SWALES.
- CONSTRUCT SWM BASIN DISCHARGE PIPES.
- STRIP TOPSOIL IN SWM BASIN AREAS & SWALES AND PLACE IN SOIL STOCKPILE AREA WITHIN PERIMETER SILT FENCE.
- EXCAVATE SWM BASINS, DEWATERING AS NECESSARY EITHER USING A SUMP PIT OR A REMOVABLE PUMPING STATION. IF DEWATERING IS TO BE DONE WITHOUT THE PUMPING PIT, THE DISCHARGE IS TO BE DONE WITHOUT THE PUMPING PIT, THE DISCHARGE MUST BE PUMPED THROUGH A DIRT BAG. STABILIZE BASINS AND INSTALL DEWATERING DEVICES AT DISCHARGE PIPES TO UTILIZE AS TEMPORARY SEDIMENT TRAPS. GENERAL CONSTRUCTION OF AREAS TRIBUTARY TO SWM BASINS SHALL NOT BEGIN UNTIL BASINS ARE STABILIZED, UNLESS PRIOR APPROVAL FROM CONSERVATION DISTRICT IS OBTAINED.
- CLEAR, GRUB AND STRIP AREAS READY FOR IMMEDIATE CONSTRUCTION AND STOCKPILE.
- ROUGH GRADE ROADWAYS TO SUBGRADE, INSTALL STORM DRAINS WITH INLET PROTECTION AND INSTALL UTILITIES. FINE GRADE SUBGRADE, PLACE AGGREGATE BASE, CONSTRUCT CURBING, PAVE ROADWAYS AND CONSTRUCT LOTS. GRADE REMAINDER OF SITE AS SHOWN ON PLANS.
- STABILIZE DISTURBED AREAS PER EROSION CONTROL NOTES.
- FLUSH STORM DRAINS, REMOVE ACCUMULATED SEDIMENTS, PROVIDE FINAL STABILIZATION. WITH INSPECTOR'S CONCURRENCE, REMOVE TEMPORARY SEDIMENT CONTROL DEVICES. REMOVE ALL UNUSED STOCKPILED MATERIALS FROM SITE.
- CONTINUE TO MONITOR STABILIZED AREAS. RESEED AREAS AS NECESSARY OR DIRECTED WHERE PERMANENT VEGETATION HAS NOT BEEN FULLY ESTABLISHED.
- PROVIDE SUSSEX CONSERVATION DISTRICT WITH AS-BUILT DRAWING OF SWM BASIN.

## SEDIMENT AND STORMWATER NOTES

- THE SUSSEX CONSERVATION DISTRICT MUST BE NOTIFIED IN WRITING FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
- REVIEW AND 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 SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THAT CONTRACTOR FROM ERRORS OR OMISSIONS IN APPROVED PLAN.
- IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY THE SUSSEX CONSERVATION DISTRICT.
- THE SUSSEX CONSERVATION DISTRICT RESERVES THE RIGHT TO ENTER PRIVATE PROPERTY FOR PURPOSES OF PERIODIC SITE INSPECTION.
- FOLLOWING SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 14 CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER SEDIMENT CONTROLS, TOPSOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROPOSED SITE.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK 1989 OR LATEST EDITION.
- THE SITE CONTRACTOR, UNDER THE DIRECTION OF THE OWNER, SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR TO ALL THE SEDIMENT CONTROL AND STORMWATER MANAGEMENT PRACTICES DURING SITE CONSTRUCTION ACTIVITIES INCLUDING UTILITY INSTALLATION.
- THE OWNER/DEVELOPER CERTIFIES THE RIGHT OF THE SUSSEX CONSERVATION DISTRICT OR ANY OTHER DELEGATED INSPECTION AGENCY TO CONDUCT ON-SITE INSPECTIONS.
- THE HOMEOWNER'S ASSOCIATION SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF ALL STORMWATER MANAGEMENT DEVICES FOR THE LIFE OF THIS FACILITY.
- OWNER'S CERTIFICATION  
I, THE UNDERSIGNED, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN AND THAT RESPONSIBLE PERSONNEL (I.E., BLUE CARD HOLDER) INVOLVED IN THE LAND DISTURBANCE WILL HAVE A CERTIFICATION OF TRAINING PRIOR TO INITIATION OF THE PROJECT, AT A DNREC SPONSORED OR APPROVED TRAINING COURSE FOR THE CONTROL OF EROSION AND SEDIMENT DURING CONSTRUCTION. IN ADDITION, I GRANT THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR THE RELEVANT DELEGATED AGENCY THE RIGHT TO CONDUCT ON-SITE REVIEWS, AND I UNDERSTAND MY RESPONSIBILITIES UNDER THE NPDES CONSTRUCTION GENERAL PERMIT, AS REFERENCED ON THIS COVERSHEET.

COLEMAN BUNTING \_\_\_\_\_ DATE \_\_\_\_\_

WINDMILL WOODS LLC  
32998 LIGHTHOUSE ROAD  
SELBYVILLE, DELAWARE 19975  
PHONE: 302-436-5124  
FAX: 302-436-4668

- APPROVED PLANS REMAIN VALID FOR 3 YEARS FROM THE DATE OF APPROVAL.
- AS-BUILT SURVEYS AND DRAWINGS ARE TO BE SUBMITTED TO THE DISTRICT WITHIN 60-DAYS OF THE STORMWATER MANAGEMENT FACILITY COMPLETION.
- 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.
- SUSSEX CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, MODIFY, OR DELETE ANY SEDIMENT CONTROL MEASURES AS IT DEEMS NECESSARY.
- A PERIODIC MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES SHALL BE REQUIRED TO INSURE EFFECTIVE SEDIMENT CONTROL. INSPECTION OF ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MADE WEEKLY AND AFTER EACH RAINFALL.
- SEDIMENTS REMOVED FROM STORMWATER MANAGEMENT STRUCTURES DURING THE COURSE OF REGULAR MAINTENANCE SHALL BE DEPOSITED DIRECTLY INTO LINED DUMP TRUCKS AND TRANSPORTED TO AN APPROVED DISPOSAL SITE.
- USE OF EROSION CONTROL MATTING IS REQUIRED IN ALL AREAS OF CONCENTRATED FLOW AND ALL SLOPES 3:1 OR STEEPER.
- TEMPORARY VEGETATIVE COVER, MULCHING AND/OR SPRINKLING WATER SHALL BE THE METHODS USED AS NECESSARY TO CONTROL DUST.
- ALL AREAS NOT COVERED BY BUILDING OR PAVEMENT WILL BE SEEDED USING PERMANENT SEED MIXTURE SHOWN ON THIS PLAN.
- SEEDING (PERMANENT):
  - OPTIMUM SEEDING PERIODS: FEBRUARY 1 – APRIL 30 OR AUGUST 15 – OCTOBER 31.
  - SEED BED PREPARATION: APPLY 23 LBS. OF 10-10-10 FERTILIZER PER 1000 SQ. FT.; HARROW OR DISC INTO SOIL TO A DEPTH OF 3 TO 4 INCHES; APPLY DOLOMITIC LIMESTONE AT 92 LBS. PER 1000 SQ. FT.
  - SEEDING: APPLY 5.0 LBS. PER 1000 SQ. FT. OF KENTUCKY 31 TALL FESCUE ON A MOIST SEED BED WITH SUITABLE EQUIPMENT. MINIMUM COVERAGE 3/4 INCH.
  - MULCHING: IMMEDIATELY AFTER SEEDING, UNIFORMLY MULCH ENTIRE AREA WITH UNWEATHERED SMALL GRAIN STRAW AT A RATE OF 92 LBS. PER 1000 SQ. FT. MULCH TO BE ANCHORED WITH MULCH ANCHORING TOOL ON THE CONTOUR.
- TEMPORARY STABILIZATION:
  - SEED BED PREPARATION: APPLY 14 LBS. OF 10-10-10 FERTILIZER PER 1000 SQ. FT.; HARROW OR DISC INTO SOIL TO A DEPTH OF 3 TO 4 INCHES; APPLY DOLOMITIC LIMESTONE AT 46 TO 92 LBS. PER 1000 SQ. FT.
  - SEEDING: APPLY 3.2 LBS. PER 1000 SQ. FT. OF RYE GRASS. OPTIMUM SEEDING PERIOD: FEBRUARY 1 TO APRIL 30 OR AUGUST 15 TO OCTOBER 31.
  - MULCH: STRAW SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE, OR 70 TO 90 LBS. (TWO BALES) PER 1000 SQ. FT. SPREAD UNIFORMLY BY HAND OR MECHANICALLY. MULCH TO BE ANCHORED WITH MULCH ANCHORING TOOL ON THE CONTOUR.
- IF TEMPORARY STABILIZATION IS REQUESTED, PERMANENT SEEDING SHALL BE PERFORMED DURING THE NEXT APPLICABLE PERIOD PER PARAGRAPH 20 (A) ABOVE.
- ALL FILL SLOPE AREAS SHOWN HEREON ARE TO BE STABILIZED PER PARAGRAPHS 20 OR 21 ABOVE IMMEDIATELY AFTER COMPLETION OF GRADING OPERATIONS FOR THESE SLOPES.
- ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ESTABLISHED.

OWNER/DEVELOPER  
WINDMILL VENTURES, L.L.C.  
P.O. BOX 538  
BETHANY BEACH, DE 19930  
PHONE: (302) 228-5383  
FAX: (302) 436-5105

ENGINEER  
DAVIS, BOWEN & FRIEDEL, INC.  
P.O. BOX 93  
SAUSBURY, MARYLAND 21803-0093  
PHONE: (410) 543-9091  
FAX: (410) 543-4172

WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

ARCHITECTS ENGINEERS SURVEYORS  
SAUSBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

DAVIS, BOWEN & FRIEDEL, INC.  
**dbf**

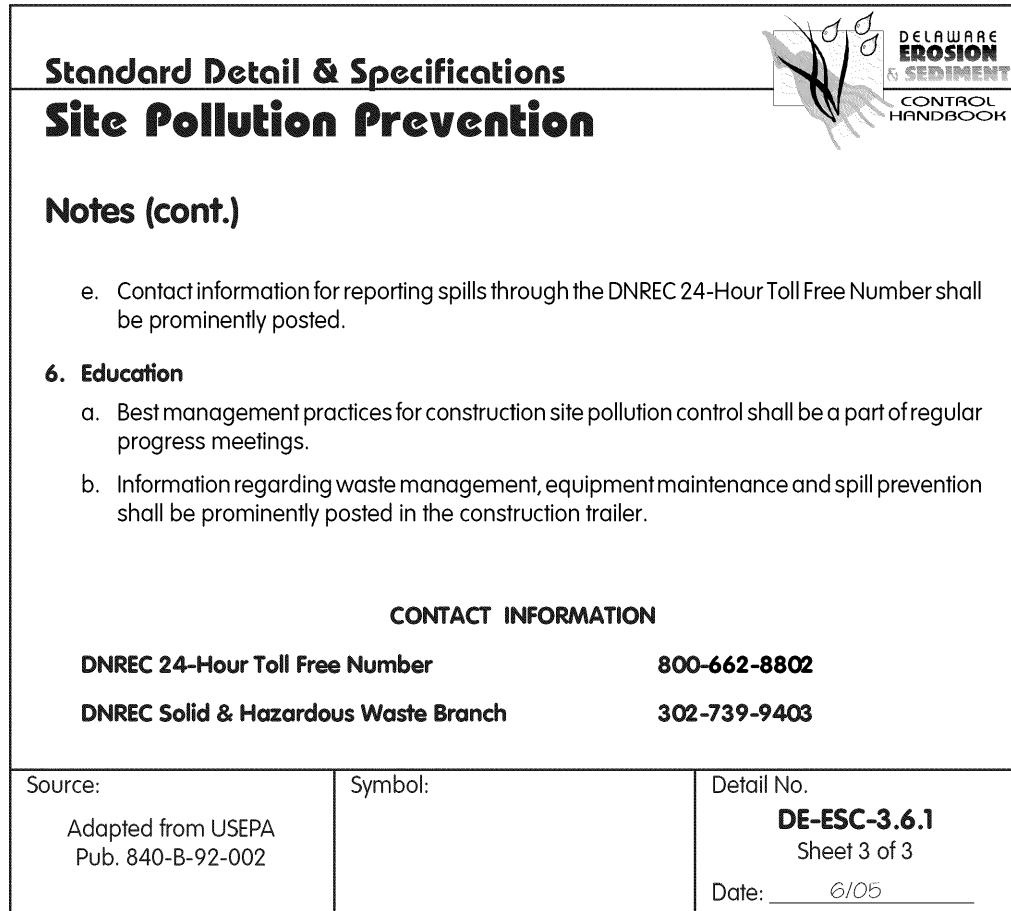
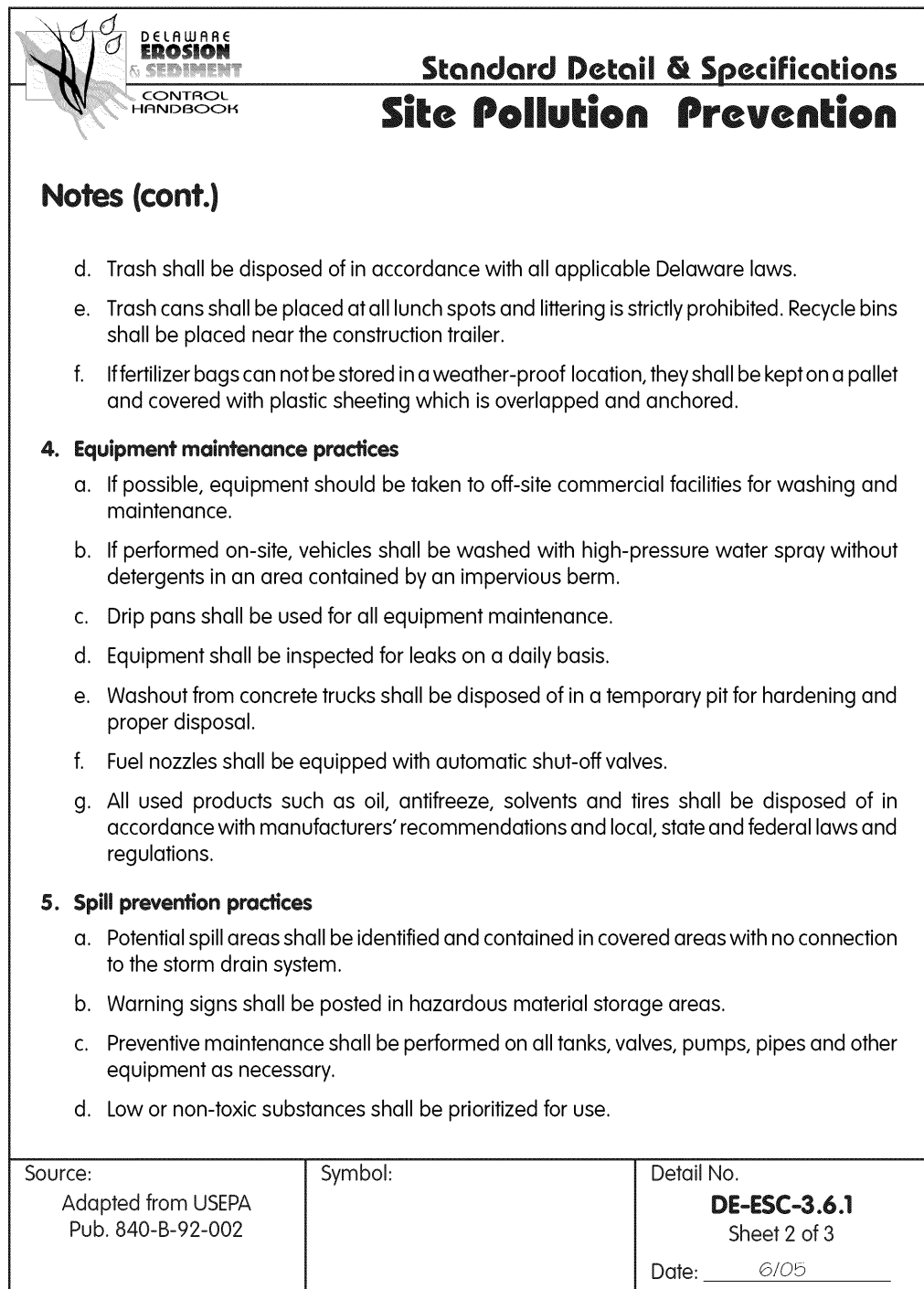
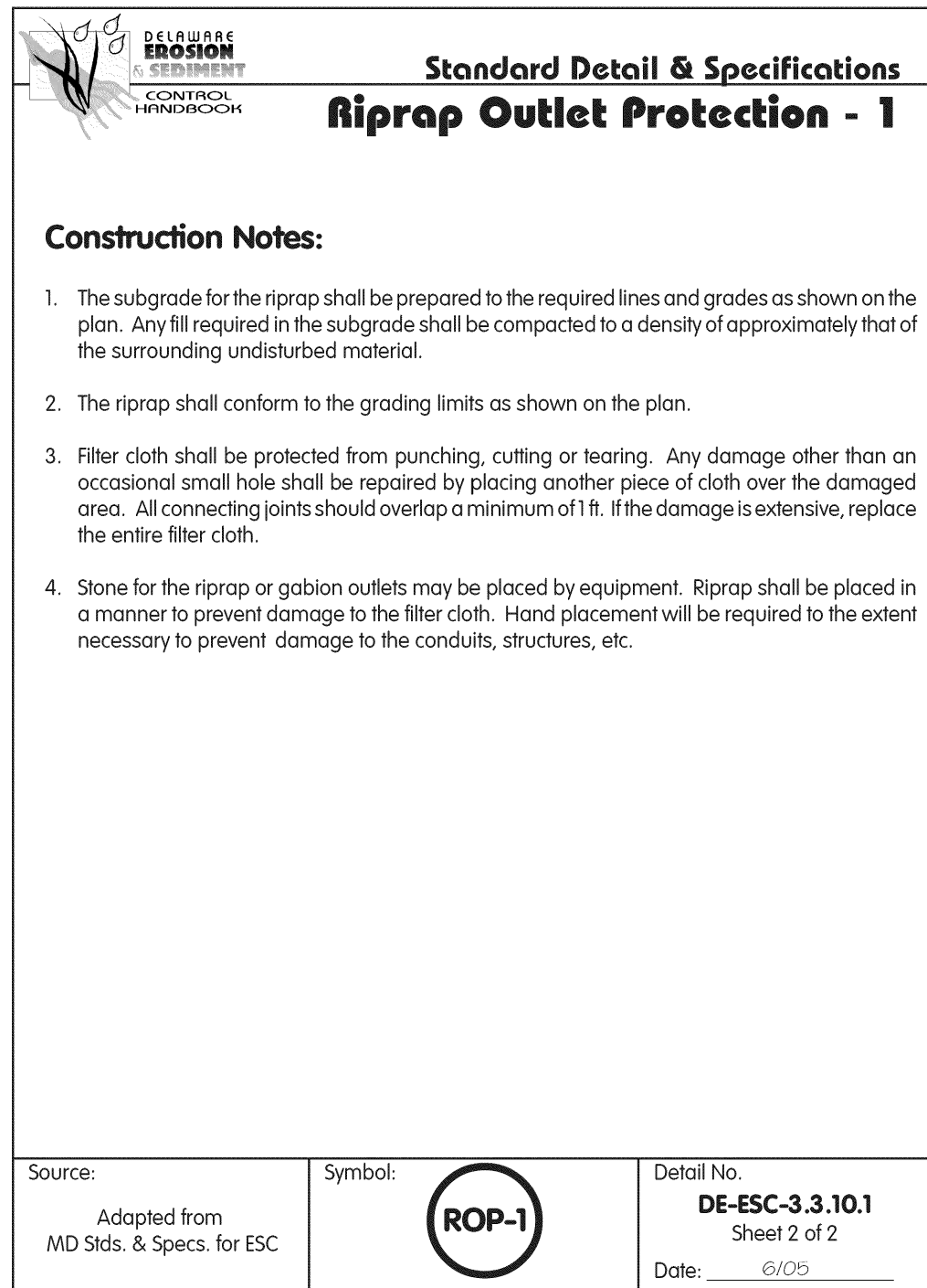
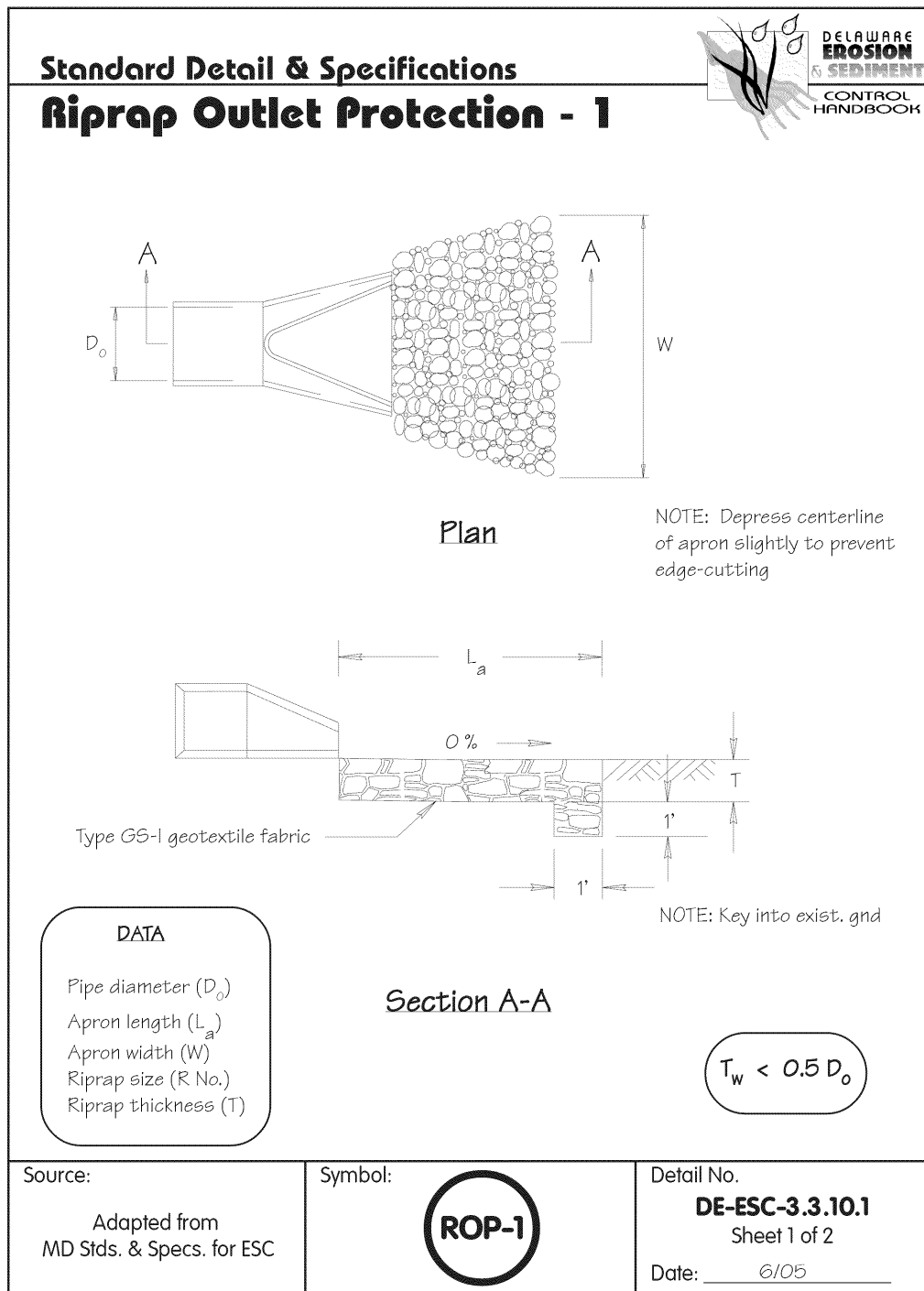
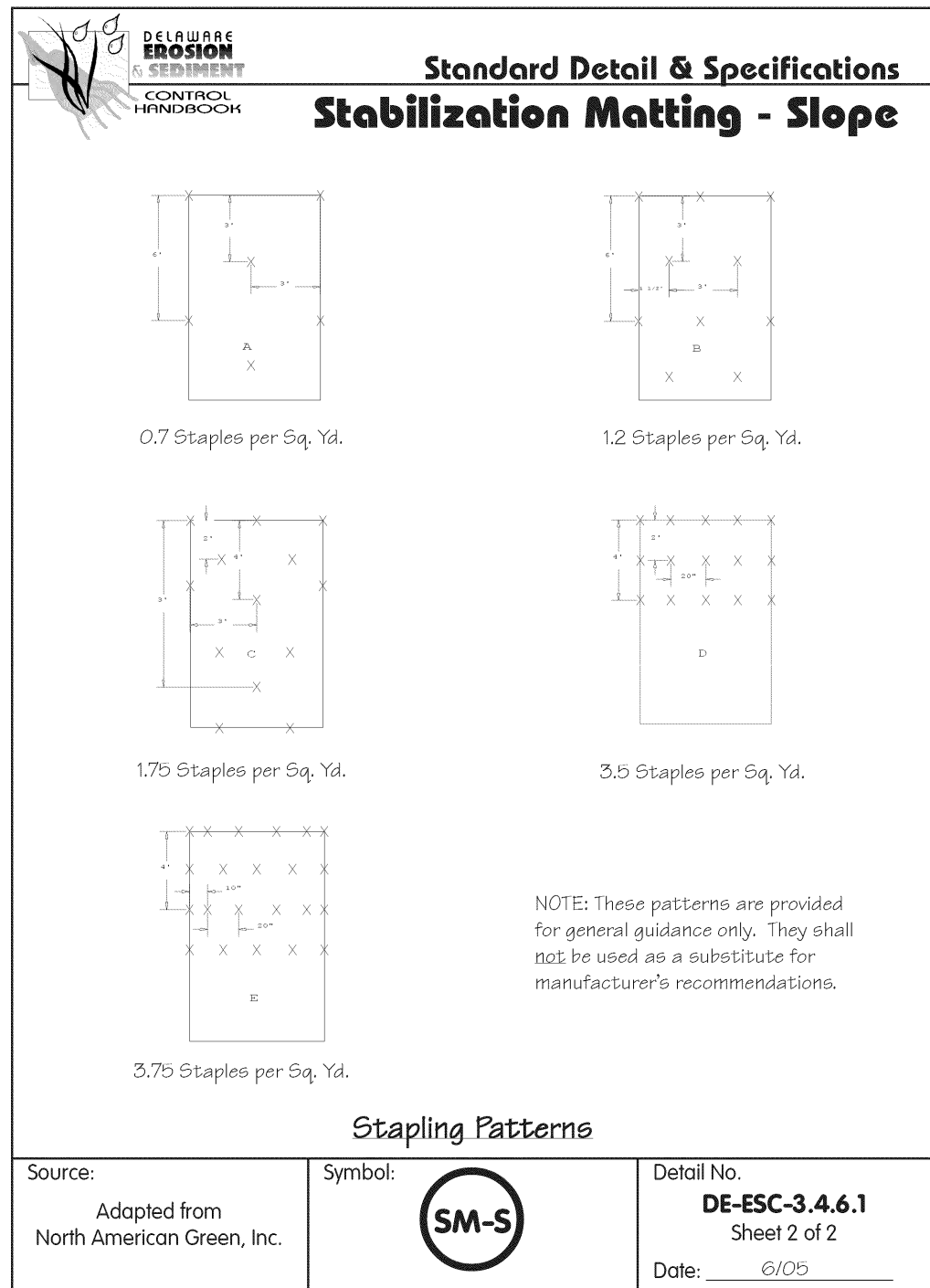
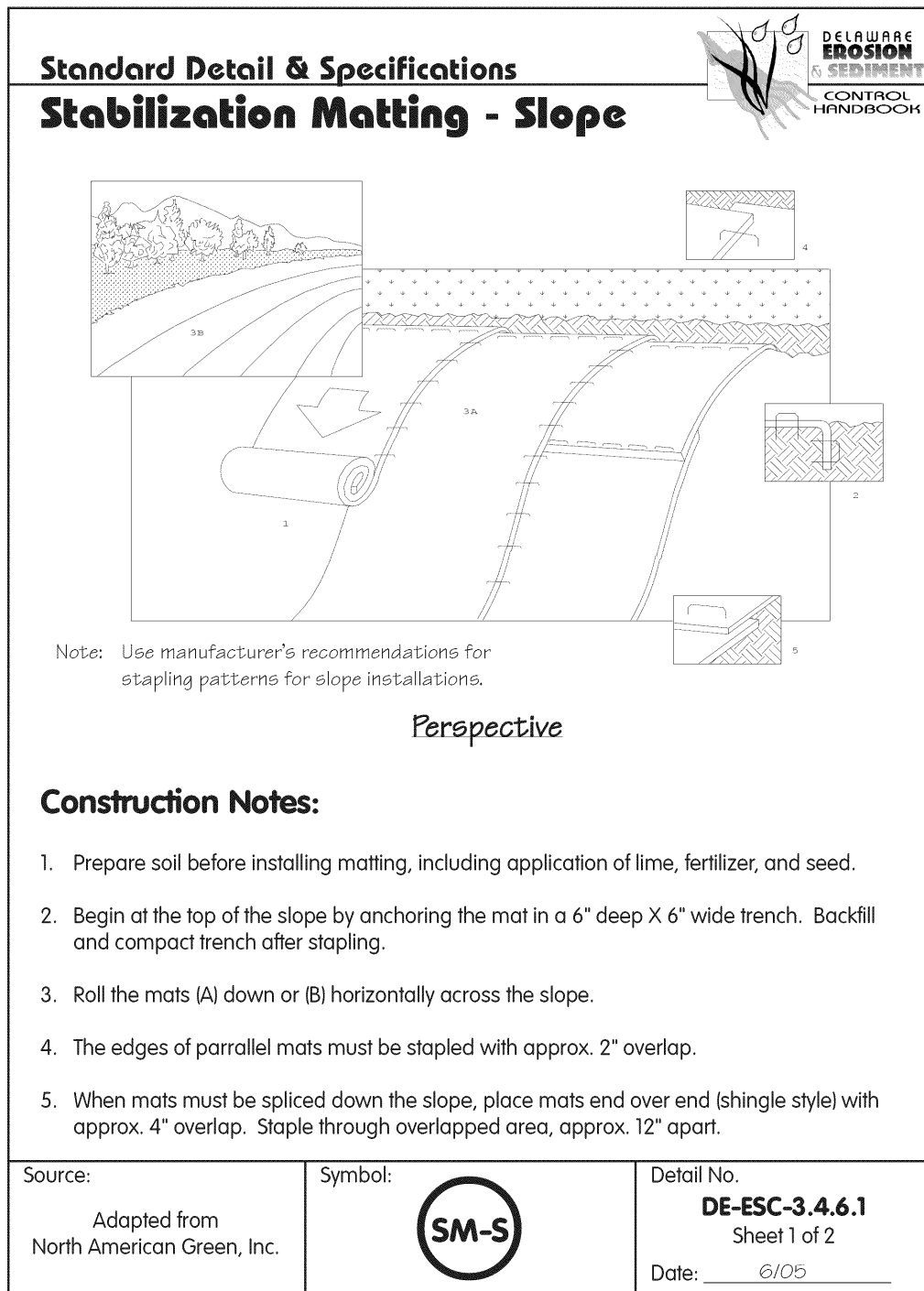
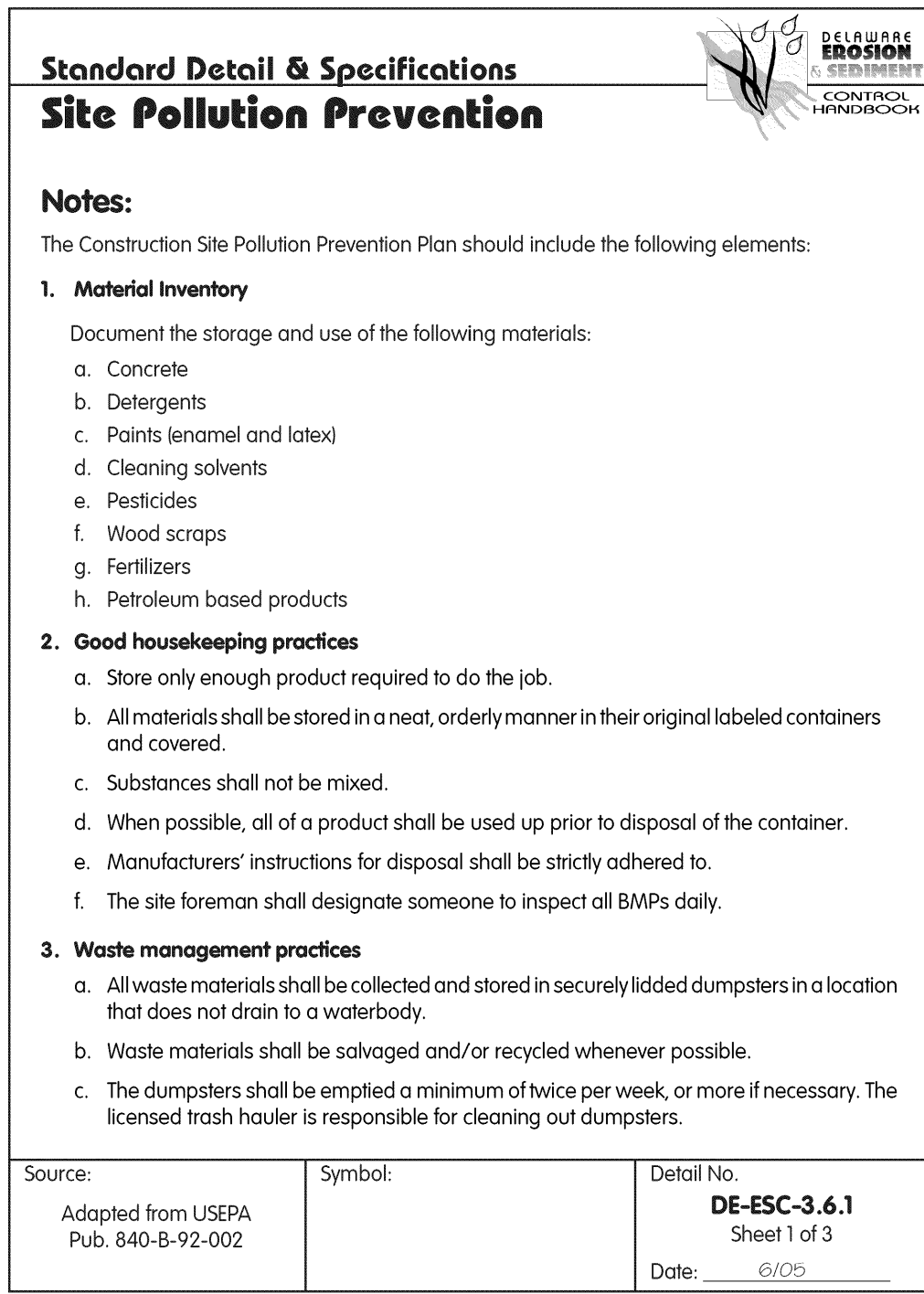
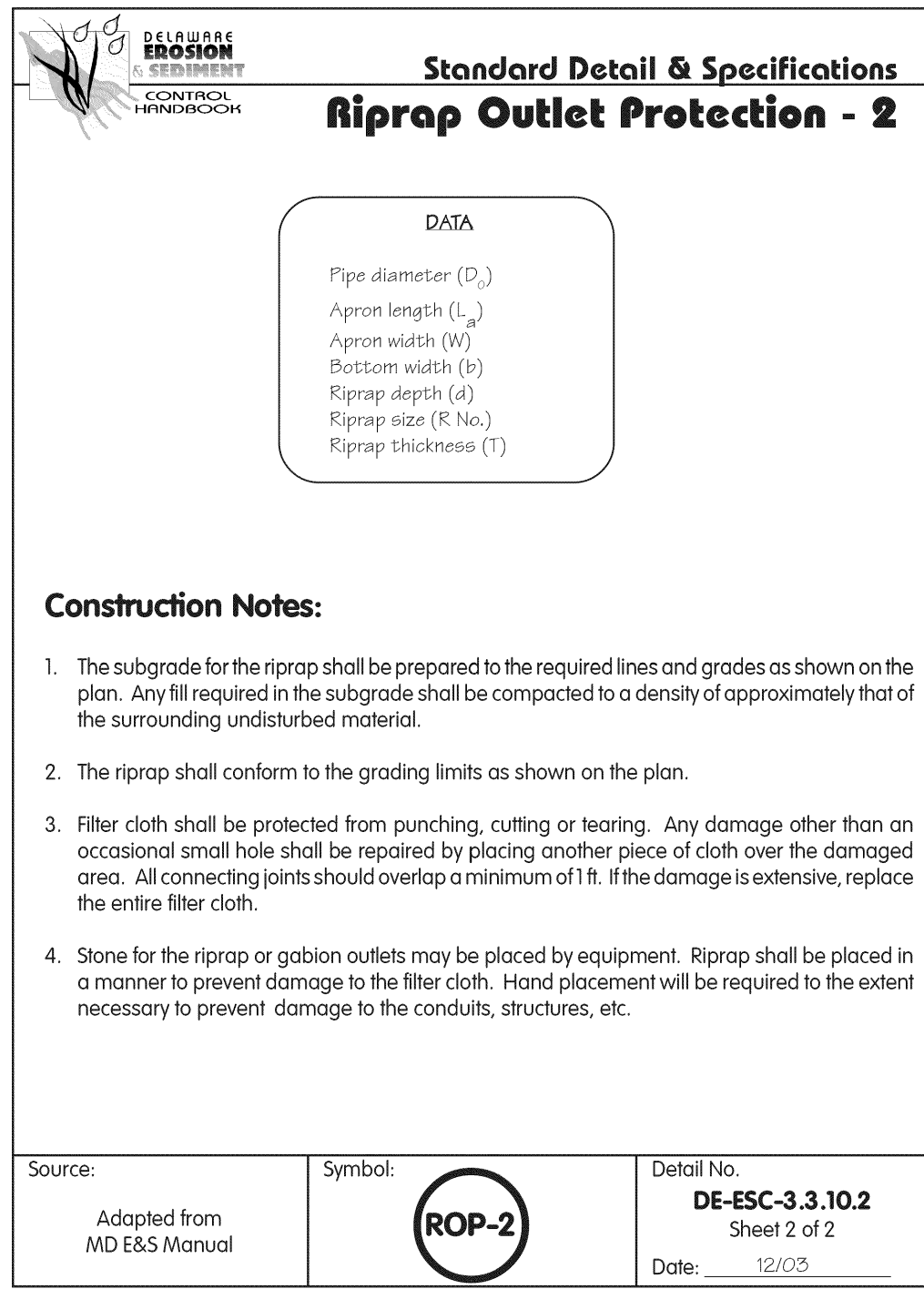
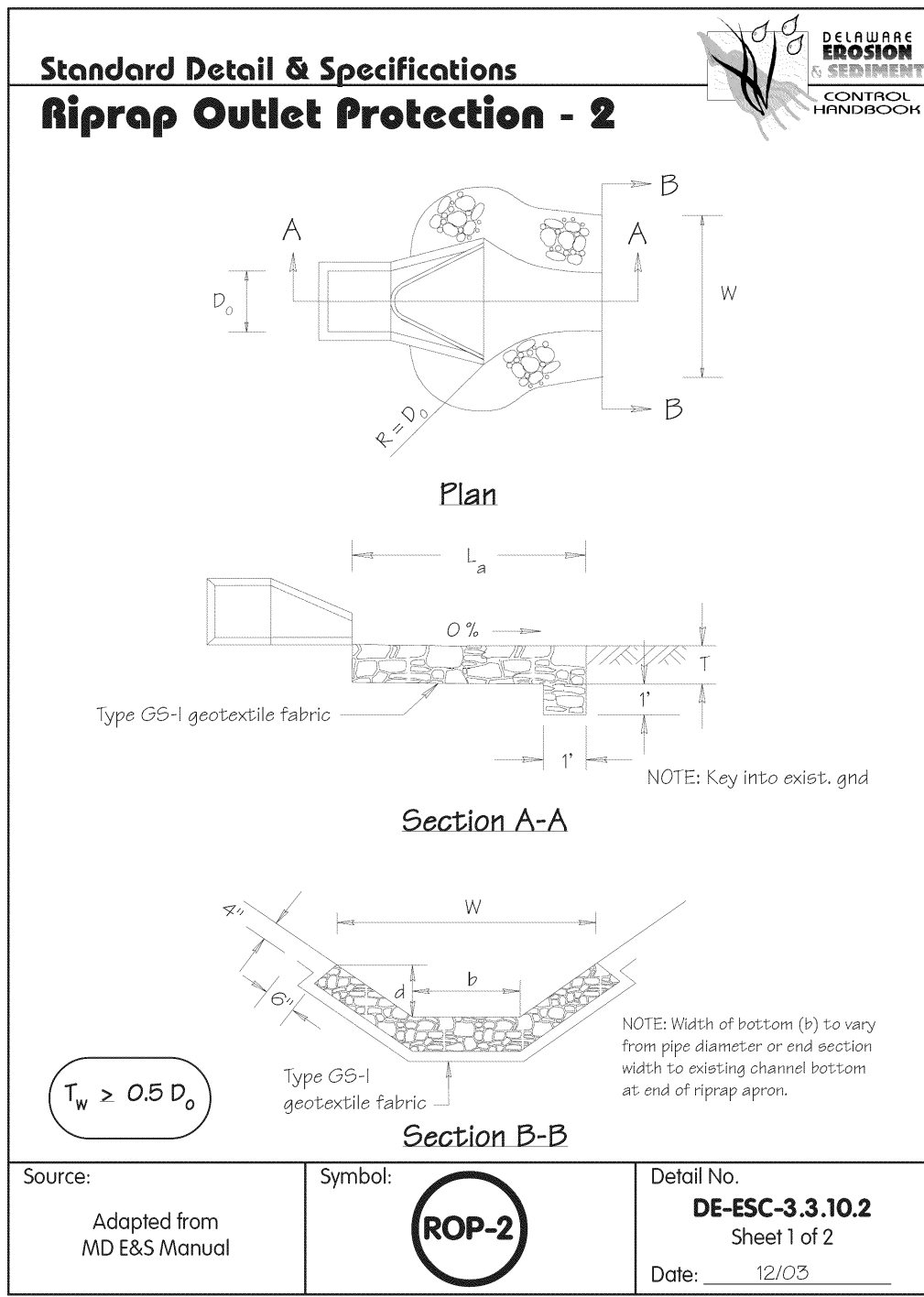
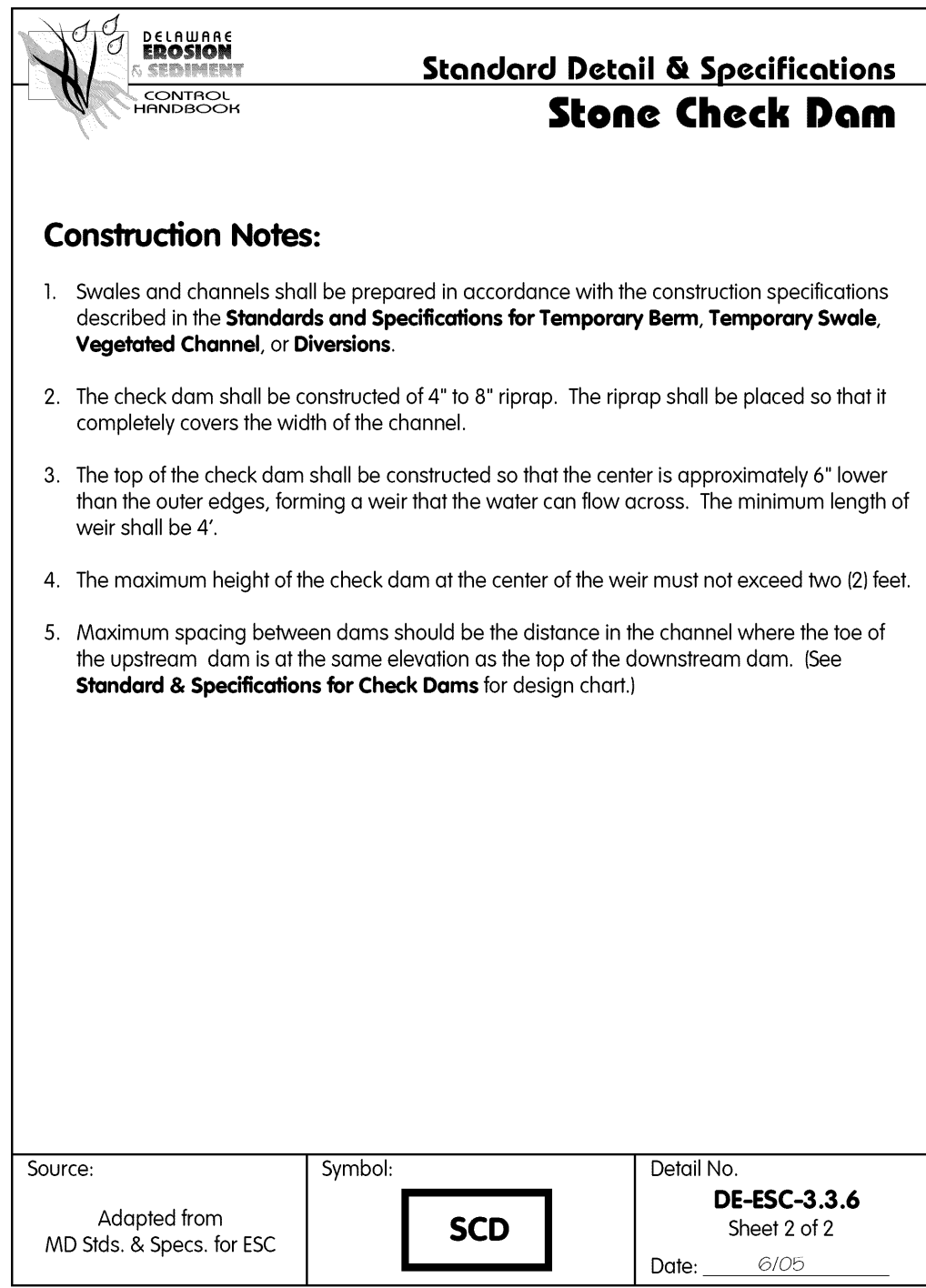
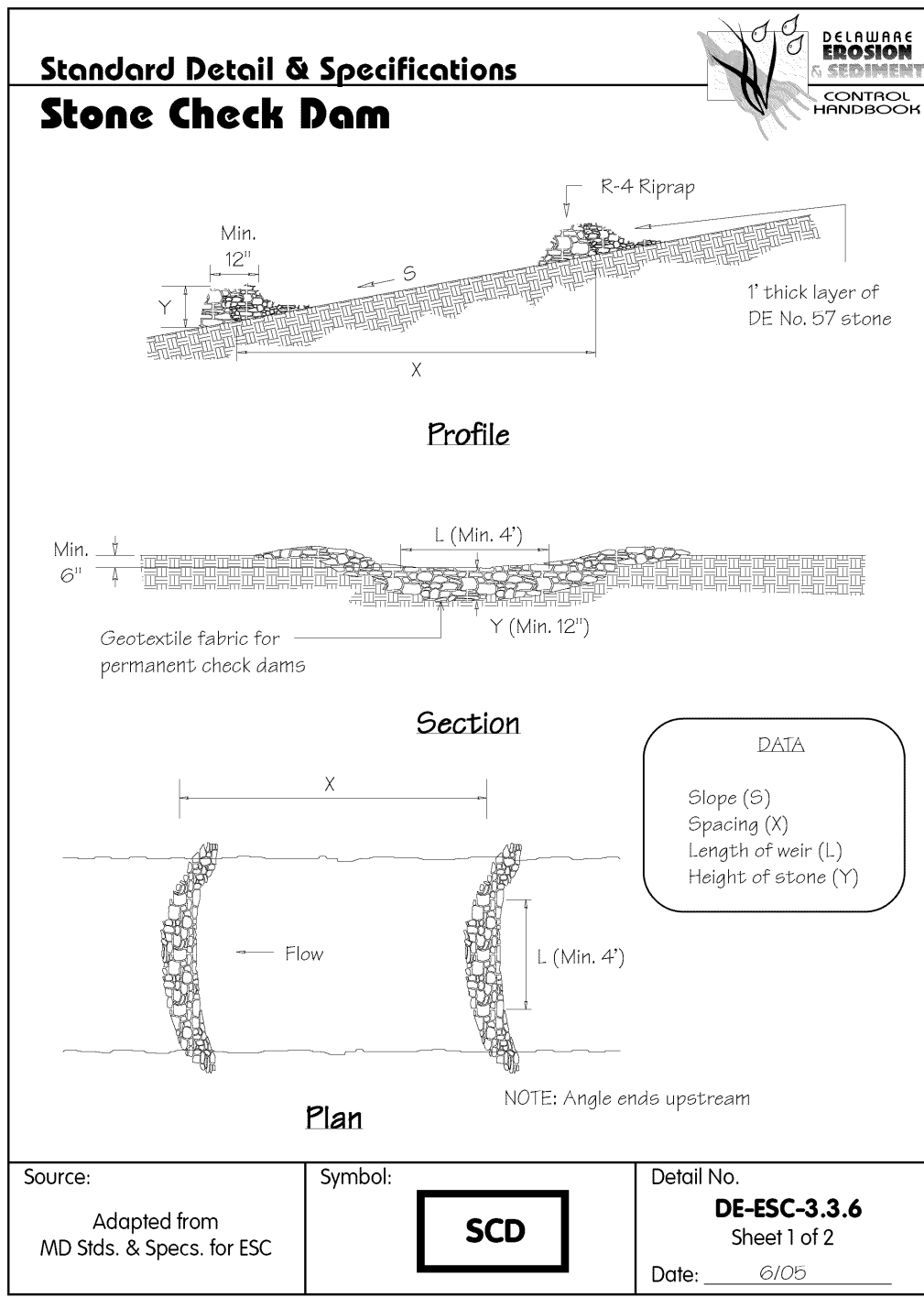
EROSION & SEDIMENT CONTROL DETAILS

Revisions:

Date: JANUARY 2021  
Scale: NONE  
Dwn.By: LMD  
Proj.No.: 003E001.H  
Dwg.No.:

ESC4





**WINDMILL WOODS**  
**WINDMILL ROAD**  
**SUSSEX COUNTY, DELAWARE**

Revisions:

Date: **JANUARY 2021**

Scale: **NONE**

Dwn.By: **LMD**

Proj.No.: **003E001.H**

Dwg.No.:

**ESC5**

**DAVIS, BOWEN & FRIEDEL, INC.**

ARCHITECTS ENGINEERS SURVEYORS

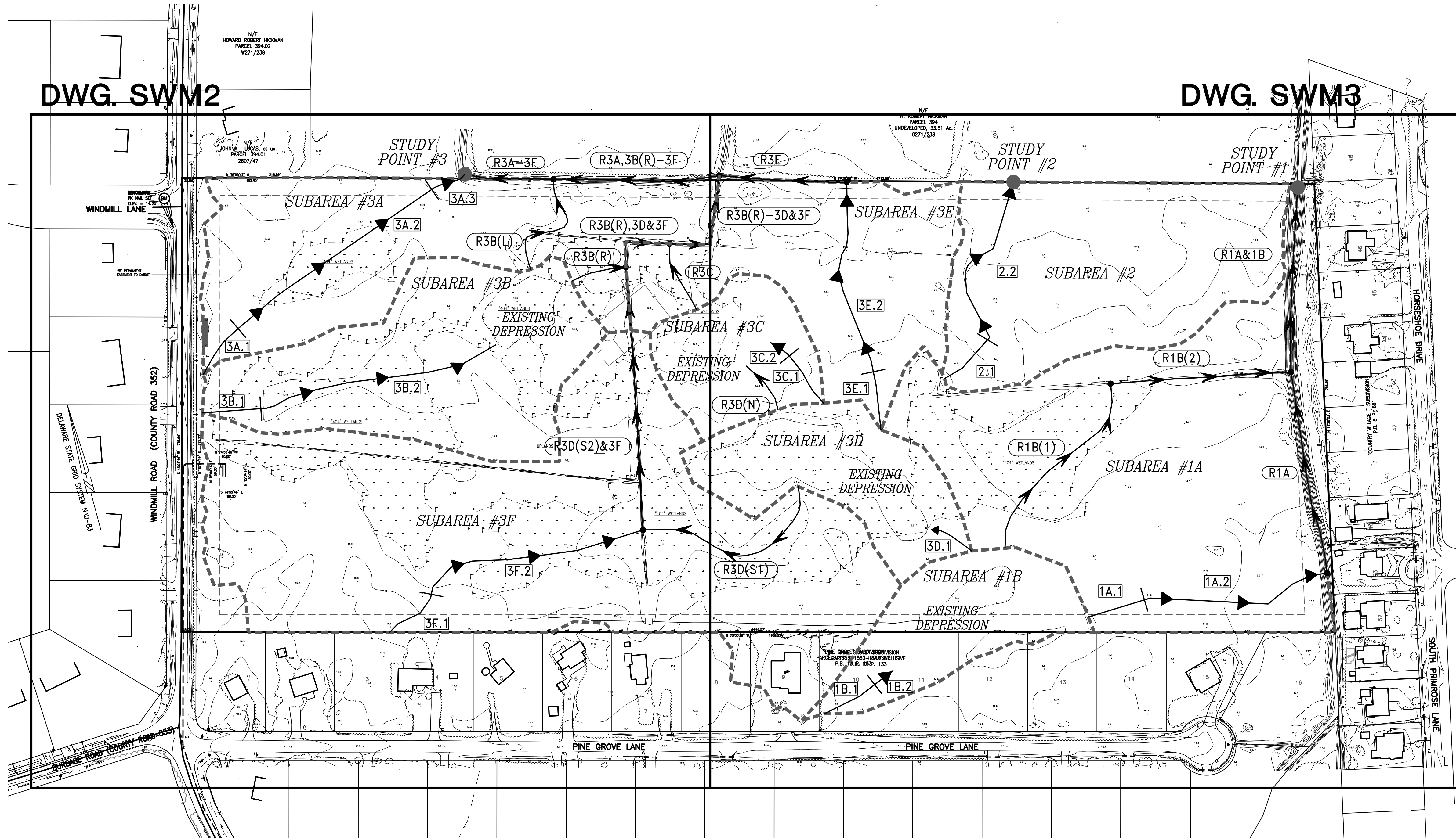
SALISBURY, MARYLAND (410) 543-9091

MILFORD, DELAWARE (302) 424-1441

**EROSION & SEDIMENT CONTROL DETAILS**



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PRE-DEVELOPMENT STORMWATER  
MANAGEMENT DATA

DRAINAGE AREA NUMBER	COVER DESCRIPTION	SOILS TYPE			TOTAL WATERSHED
		B SOILS	C SOILS	D SOILS	
1A	WOODS	5.24 ACRES	N/A	1.31 ACRES	6.55 ACRES
1B	OPEN SPACE WOODS	0.01 ACRES	N/A	N/A	0.01 ACRES
		1.54 ACRES	N/A	N/A	1.54 ACRES
2	WOODS	3.69 ACRES	N/A	N/A	3.69 ACRES
3A	WOODS	1.51 ACRES	2.38 ACRES	0.08 ACRES	3.97 ACRES
3B	WOODS	0.07 ACRES	3.32 ACRES	N/A	3.39 ACRES
3C	WOODS	0.92 ACRES	N/A	0.34 ACRES	1.26 ACRES
3D	WOODS	0.54 ACRES	N/A	1.21 ACRES	1.75 ACRES
3E	WOODS	2.70 ACRES	0.11 ACRES	0.23 ACRES	3.04 ACRES
3F	WOODS	3.71 ACRES	0.29 ACRES	2.32 ACRES	6.32 ACRES

SUMMARY OF TIME OF CONCENTRATION SEGMENTS		
SUBAREA	SEGMENT NO.	DESCRIPTION
1A	1	100 L.F. SHEET FLOW @ 0.0075
	2	328 L.F. SHALLOW CONC'D. FLOW @ 0.0023
1B	1	100 L.F. SHEET FLOW @ 0.0065
	2	39 L.F. SHALLOW CONC'D. FLOW @ 0.0065
2	1	100 L.F. SHEET FLOW @ 0.0185
	2	310 L.F. SHALLOW CONC'D. FLOW @ 0.0052
3A	1	100 L.F. SHEET FLOW @ 0.0067
	2	407 L.F. SHALLOW CONC'D. FLOW @ 0.0043
	3	63 L.F. SHALLOW CONC'D. FLOW @ 0.0159
3B	1	100 L.F. SHEET FLOW @ 0.0060
	2	420 L.F. SHALLOW CONC'D. FLOW @ 0.0021
3C	1	100 L.F. SHEET FLOW @ 0.0078
	2	40 L.F. SHALLOW CONC'D. FLOW @ 0.0078
3D	1	80 L.F. SHEET FLOW @ 0.0056
	2	100 L.F. SHEET FLOW @ 0.0037
3E	1	337 L.F. SHALLOW CONC'D. FLOW @ 0.0068
	2	100 L.F. SHEET FLOW @ 0.0103
3F	1	394 L.F. SHALLOW CONC'D. FLOW @ 0.0058
	2	

REACH LABEL	SUMMARY OF REACH INFORMATION					SIDE SLOPES LEFT   RIGHT		
	INVERTS		LENGTH (FEET)	BOTTOM OR TOP WIDTH				
	UPSTREAM	DOWNSTREAM						
R1A	7.25	7.15	349	0'	1.8:1	1.9:1		
R1B(1)	14.50	13.30	354	175'	P	P		
R1B(2)	12.71	11.00	308	0'	2.2:1	3.4:1		
R1A&1B	7.15	6.60	316	0'	1.8:1	1.9:1		
R3A,R3B(R)-3F	8.90	8.58	284	0'	2.0:1	2.3:1		
R3A-3F	8.58	8.33	152	0'	2.3:1	2.3:1		
R3B(L)	13.20	12.00	213	40.3'	P	P		
R3B(R)	13.30	11.68	96	85.09'	P	P		
R3B(R),3D&3F	11.10	10.51	119.1	0'	3.8:1	3.6:1		
R3B(R)-3D&3F	10.51	8.90	187.5	0'	6.5:1	3.2:1		
R3C	13.30	10.51	125	37.5'	P	P		
R3D(N)	14.10	13.30	94.3	37.1'	P	P		
R3D(S1)	14.10	13.10	351	93.3'	P	P		
R3D(S2)&3F	12.15	11.10	450	0'	2.0:1	2.0:1		
R3E	10.26	8.90	218	0'	1.8:1	2.0:1		

T - DENOTES A TRAPEZOIDAL CHANNEL  
P - DENOTES A PARABOLIC CHANNEL

STORMWATER MANAGEMENT LEGEND

- PRE-DEVELOPMENT DRAINAGE AREA BOUNDARY
- PRE-DEVELOPMENT TIME OF CONCENTRATION
- PRE-DEVELOPMENT TIME OF CONCENTRATION SEGMENT LABEL
- PRE-DEVELOPMENT REACH LENGTH
- PRE-DEVELOPMENT REACH LABEL
- SOIL CLASSIFICATION BOUNDARY
- EXISTING CONTOURS

SOIL CLASSIFICATIONS  
Fa FALLSINGTON SANDY LOAM  
Kl KLEJ LOAMY SAND  
Pm POCONOKE SANDY LOAM  
Wo WOODSTOWN SANDY LOAM

SOURCE: SOIL SURVEY - SUSSEX COUNTY, DELAWARE  
by U.S.D.A. SOIL CONSERVATION SERVICE



PRE-DEVELOPMENT STORMWATER  
MANAGEMENT DATA

ARCHITECTS ENGINEERS SURVEYORS  
SAUSBURY, MARYLAND (410) 943-9091  
MILFORD, DELAWARE (302) 424-1441

PRE-DEVELOPMENT S.W.M. KEY PLAN

WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

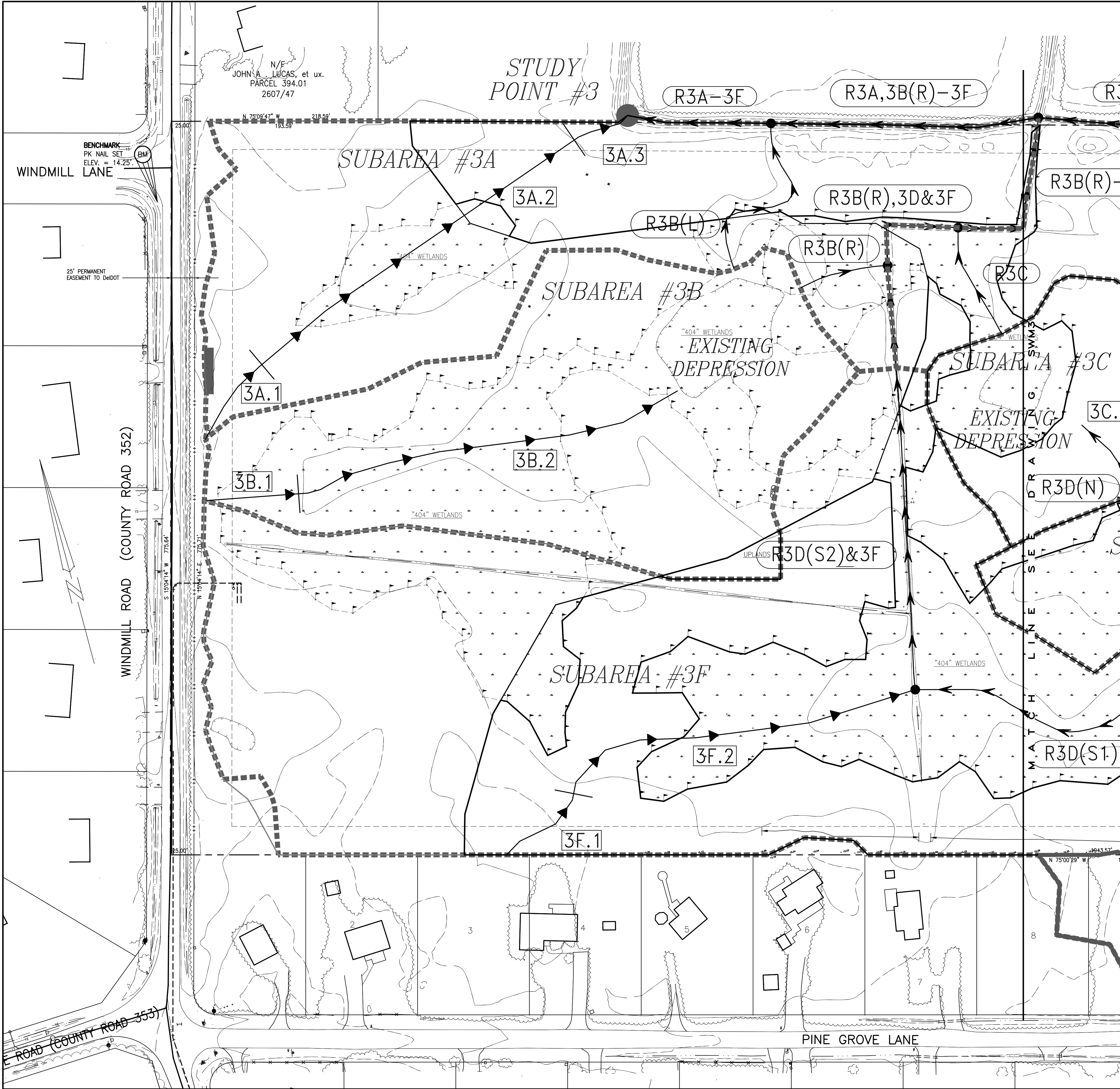
Revisions:

Date: JANUARY 2021  
Scale: 1" = 100'  
Dwn.By: LMD  
Proj.No.: 003E001.H  
Dwg.No.:

SWM1



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PRE-DEVELOPMENT STORMWATER  
MANAGEMENT DATA

DRAINAGE AREA NUMBER	COVER DESCRIPTION	SOILS TYPE			TOTAL WATERSHED
		B SOILS	C SOILS	D SOILS	
1A	WOODS	5.24 ACRES	N/A	1.31 ACRES	6.55 ACRES
1B	OPEN SPACE WOODS	0.01 ACRES	N/A	N/A	0.01 ACRES
		1.54 ACRES	N/A	N/A	1.54 ACRES
2	WOODS	3.69 ACRES	N/A	N/A	3.69 ACRES
3A	WOODS	1.51 ACRES	2.38 ACRES	0.08 ACRES	3.97 ACRES
3B	WOODS	0.07 ACRES	3.32 ACRES	N/A	3.39 ACRES
3C	WOODS	0.92 ACRES	N/A	0.34 ACRES	1.26 ACRES
3D	WOODS	0.54 ACRES	N/A	1.21 ACRES	1.75 ACRES
3E	WOODS	2.70 ACRES	0.11 ACRES	0.23 ACRES	3.04 ACRES
3F	WOODS	3.71 ACRES	0.29 ACRES	2.32 ACRES	6.32 ACRES

SUMMARY OF TIME OF CONCENTRATION SEGMENTS		
SUBAREA	SEGMENT NO.	DESCRIPTION
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3A	1	100 L.F. SHEET FLOW @ 0.0067
	2	407 L.F. SHALLOW CONC'D. FLOW @ 0.0043
	3	63 L.F. SHALLOW CONC'D. FLOW @ 0.0159
3B	1	100 L.F. SHEET FLOW @ 0.0060
	2	420 L.F. SHALLOW CONC'D. FLOW @ 0.0021
3C	1	100 L.F. SHEET FLOW @ 0.0078
	2	40 L.F. SHALLOW CONC'D. FLOW @ 0.0078
3D	1	80 L.F. SHEET FLOW @ 0.0056
	2	100 L.F. SHEET FLOW @ 0.0037
3E	1	337 L.F. SHALLOW CONC'D. FLOW @ 0.0068
	2	100 L.F. SHEET FLOW @ 0.0103
3F	1	394 L.F. SHALLOW CONC'D. FLOW @ 0.0058
	2	

REACH LABEL	SUMMARY OF REACH INFORMATION					SIDE SLOPES	
	INVERTS		LENGTH (FEET)	BOTTOM OR TOP WIDTH			
	UPSTREAM	DOWNSTREAM			LEFT	RIGHT	
R1A	7.25	7.15	349	0'	1.8:1	1.9:1	
R1B(1)	14.50	13.30	354	175'	P	P	
R1B(2)	12.71	11.00	308	0'	2.2:1	3.4:1	
R1A&1B	7.15	6.60	316	0'	1.8:1	1.9:1	
R3A,3B(R)-3F	8.90	8.58	284	0'	2.0:1	2.3:1	
R3A-3F	8.58	8.53	152	0'	2.3:1	2.3:1	
R3B(L)	13.20	12.00	213	40.3'	P	P	
R3B(R)	13.30	11.68	96	85.09'	P	P	
R3B(R),3D&3F	11.10	10.51	119.1	0'	3.8:1	3.6:1	
R3B(R)-3D&3F	10.51	8.90	187.5	0'	6.5:1	3.2:1	
R3C	13.30	10.51	125	37.5'	P	P	
R3D(N)	14.10	13.30	94.3	37.1'	P	P	
R3D(S1)	14.10	13.10	351	93.3'	P	P	
R3D(S2)&3F	12.15	11.10	450	0'	2.0:1	2.0:1	
R3E	10.26	8.90	218	0'	1.8:1	2.0:1	

T - DENOTES A TRAPEZOIDAL CHANNEL  
P - DENOTES A PARABOLIC CHANNEL

STORMWATER MANAGEMENT LEGEND

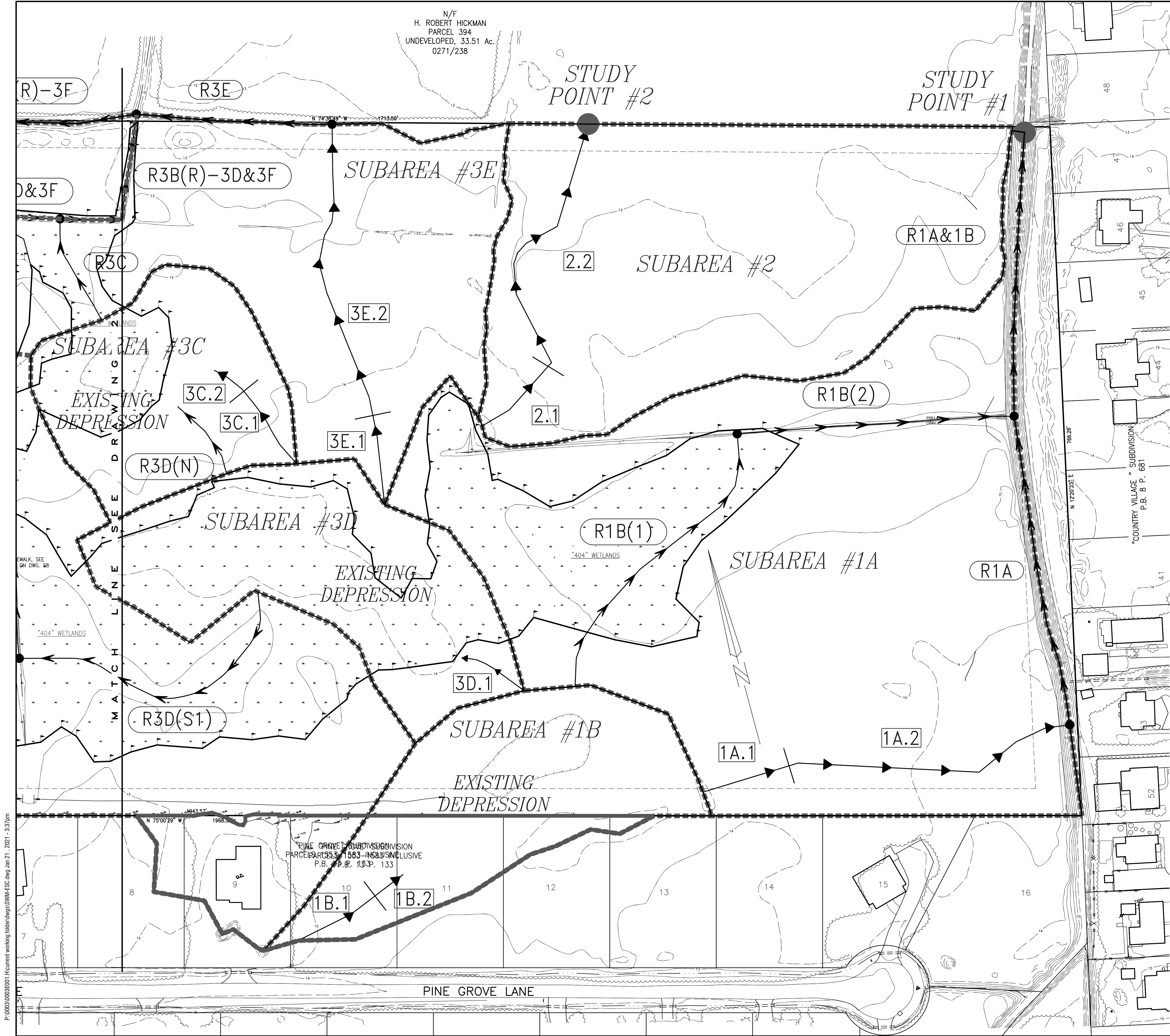
- PRE-DEVELOPMENT DRAINAGE AREA BOUNDARY
- PRE-DEVELOPMENT TIME OF CONCENTRATION
- PRE-DEVELOPMENT TIME OF CONCENTRATION SEGMENT LABEL
- PRE-DEVELOPMENT REACH LENGTH
- PRE-DEVELOPMENT REACH LABEL
- SOIL CLASSIFICATION BOUNDARY
- EXISTING CONTOURS

SOIL CLASSIFICATIONS	
Fa	FALLSINGTON SANDY LOAM
Kl	KLEJ LOAMY SAND
Pm	POCONOKE SANDY LOAM
Wo	WOODSTOWN SANDY LOAM

SOURCE: SOIL SURVEY - SUSSEX COUNTY, DELAWARE  
by U.S.D.A. SOIL CONSERVATION SERVICE







### PRE-DEVELOPMENT STORMWATER MANAGEMENT DATA

DRAINAGE AREA NUMBER	COVER DESCRIPTION	SOILS TYPE			TOTAL WATERSHED
		B SOILS	C SOILS	D SOILS	
1A	WOODS	5.24 ACRES	N/A	1.31 ACRES	6.55 ACRES
1B	OPEN SPACE	0.01 ACRES	N/A	N/A	0.01 ACRES
	WOODS	1.54 ACRES	N/A	N/A	1.54 ACRES
2	WOODS	3.69 ACRES	N/A	N/A	3.69 ACRES
3A	WOODS	1.51 ACRES	2.38 ACRES	0.08 ACRES	3.97 ACRES
3B	WOODS	0.07 ACRES	3.32 ACRES	N/A	3.39 ACRES
3C	WOODS	0.92 ACRES	N/A	0.34 ACRES	1.26 ACRES
3D	WOODS	0.54 ACRES	N/A	1.21 ACRES	1.75 ACRES
3E	WOODS	2.70 ACRES	0.11 ACRES	0.23 ACRES	3.04 ACRES
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#### SUMMARY OF TIME OF CONCENTRATION SEGMENTS

SUBAREA	SEGMENT NO.	DESCRIPTION
1A	1	100 L.F. SHEET FLOW @ 0.0075
	2	328 L.F. SHALLOW CONC'D. FLOW @ 0.0023
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3F	1	100 L.F. SHEET FLOW @ 0.0103
	2	394 L.F. SHALLOW CONC'D. FLOW @ 0.0058

#### SUMMARY OF REACH INFORMATION

REACH LABEL	INVERTS		LENGTH (FEET)	BOTTOM OR TOP WIDTH	SIDE SLOPES	
	UPSTREAM	DOWNSTREAM			LEFT	RIGHT
R1A	7.25	7.15	349	0'	1.8:1	1.9:1
R1B(1)	14.50	13.30	354	175'	P	P
R1B(2)	12.71	11.00	308	0'	2.2:1	3.4:1
R1A&1B	7.15	6.60	316	0'	1.8:1	1.9:1
R3A,3B(R)-3F	8.90	8.58	284	0'	2.0:1	2.3:1
R3A-3F	8.58	8.53	152	0'	2.3:1	2.3:1
R3B(L)	13.20	12.00	213	40.3'	P	P
R3B(R)	13.30	11.68	96	85.09'	P	P
R3B(R),3D&3F	11.10	10.51	119.1	0'	3.8:1	3.6:1
R3B(R)-3D&3F	10.51	8.90	187.5	0'	6.5:1	3.2:1
R3C	13.30	10.51	125	37.5'	P	P
R3D(N)	14.10	13.30	94.3	37.1'	P	P
R3D(S1)	14.10	13.10	351	93.3'	P	P
R3D(S2)&3F	12.15	11.10	450	0'	2.0:1	2.0:1
R3E	10.26	8.90	218	0'	1.8:1	2.0:1

T - DENOTES A TRAPEZOIDAL CHANNEL  
P - DENOTES A PARABOLIC CHANNEL

### STORMWATER MANAGEMENT LEGEND

- PRE-DEVELOPMENT DRAINAGE AREA BOUNDARY
- PRE-DEVELOPMENT TIME OF CONCENTRATION
- PRE-DEVELOPMENT TIME OF CONCENTRATION SEGMENT LABEL
- PRE-DEVELOPMENT REACH LENGTH
- PRE-DEVELOPMENT REACH LABEL
- SOIL CLASSIFICATION BOUNDARY
- EXISTING CONTOURS

#### SOIL CLASSIFICATIONS

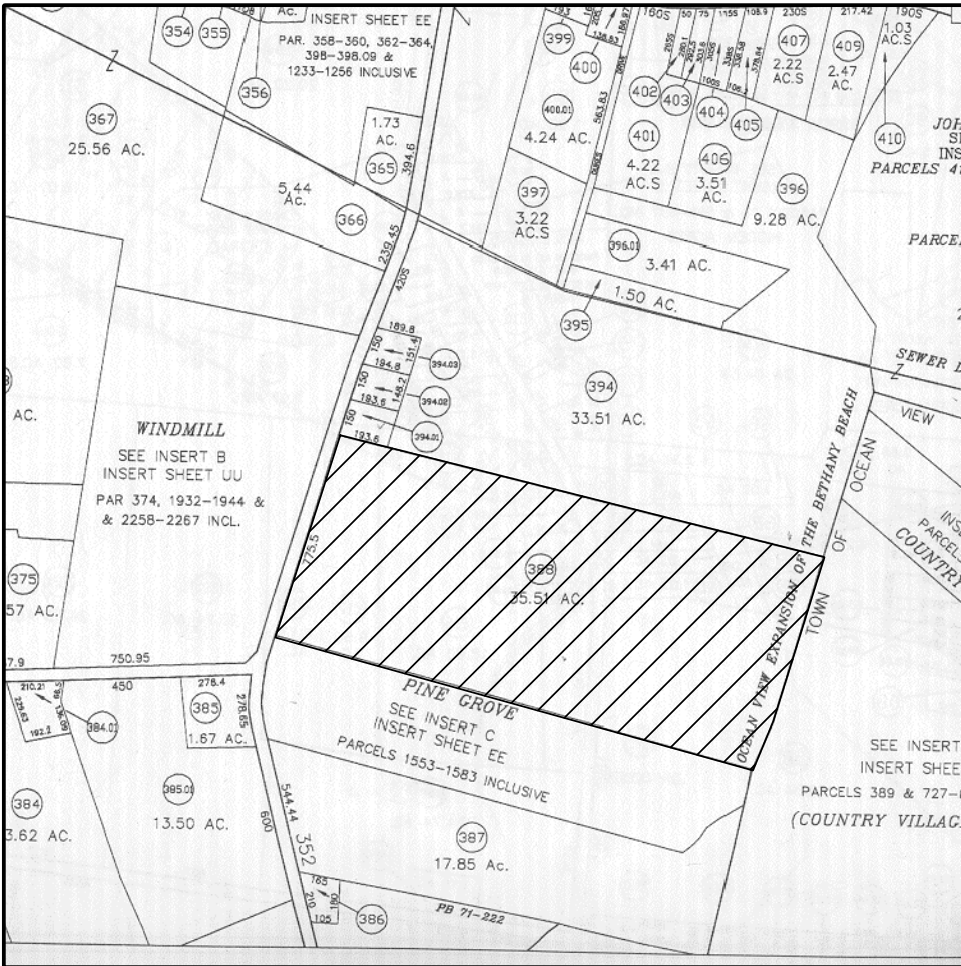
Fa FALLSINGTON SANDY LOAM  
Kl KLEJ LOAMY SAND  
Pm POCONOKE SANDY LOAM  
Wo WOODSTOWN SANDY LOAM

SOURCE: SOIL SURVEY - SUSSEX COUNTY, DELAWARE  
by U.S.D.A. SOIL CONSERVATION SERVICE

0' 50' 100' 150'

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TAX MAP SCALE: 1"=400'

### STORMWATER MANAGEMENT LEGEND

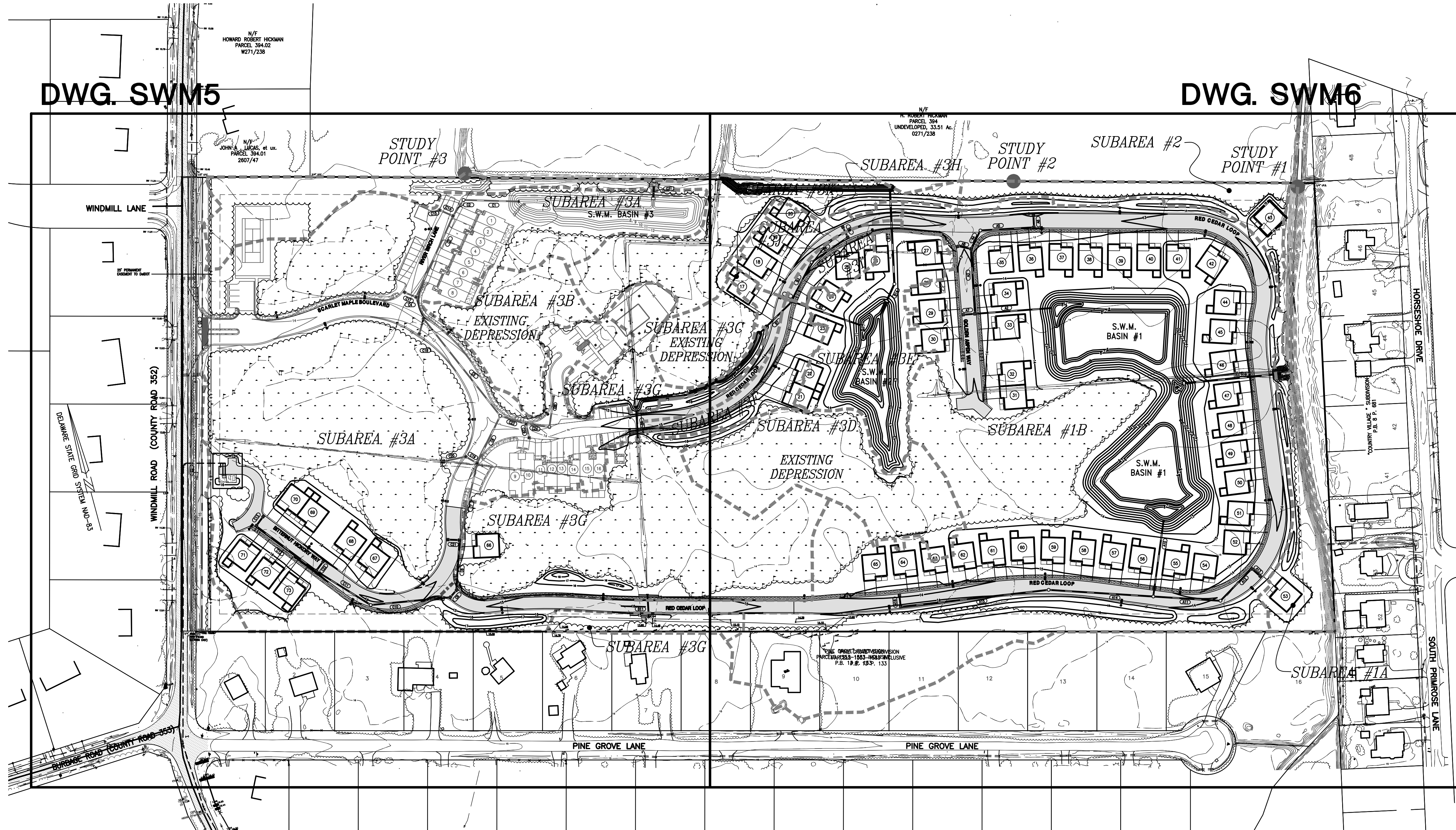
- POST-DEVELOPMENT DRAINAGE AREA BOUNDARY
- POST-DEVELOPMENT TIME OF CONCENTRATION
- POST-DEVELOPMENT TIME OF CONCENTRATION SEGMENT LABEL
- POST-DEVELOPMENT REACH LENGTH
- POST-DEVELOPMENT REACH LABEL
- SOIL CLASSIFICATION BOUNDARY
- EXISTING CONTOURS
- PROPOSED CONTOURS

### POST-DEVELOPMENT STORMWATER MANAGEMENT DATA

DRAINAGE AREA NUMBER	COVER DESCRIPTION	SOILS TYPE			TOTAL WATERSHED
		B SOILS	C SOILS	D SOILS	
1A	OPEN SPACE	0.01 ACRES	N/A	N/A	0.01 ACRES
	WOODS	0.65 ACRES	N/A	N/A	0.65 ACRES
1B	IMPERVIOUS OPEN SPACE	5.71 ACRES	N/A	N/A	5.71 ACRES
	WOODS	2.40 ACRES	N/A	N/A	2.40 ACRES
	1/2-ACRE LOTS	1.48 ACRES	N/A	1.50 ACRES	2.98 ACRES
		1.14 ACRES	N/A	N/A	1.14 ACRES
2	WOODS	0.63 ACRES	N/A	N/A	0.63 ACRES
3A	IMPERVIOUS OPEN SPACE	4.11 ACRES	N/A	N/A	4.11 ACRES
	WOODS	0.71 ACRES	0.71 ACRES	N/A	1.42 ACRES
		0.46 ACRES	3.76 ACRES	0.20 ACRES	4.42 ACRES
3B	WOODS	N/A	0.81 ACRES	N/A	0.81 ACRES
3C	OPEN SPACE	0.02 ACRES	N/A	N/A	0.02 ACRES
	WOODS	0.12 ACRES	N/A	0.34 ACRES	0.46 ACRES
3D	OPEN SPACE	0.06 ACRES	N/A	N/A	0.06 ACRES
	WOODS	0.21 ACRES	N/A	1.21 ACRES	1.42 ACRES
3E	IMPERVIOUS OPEN SPACE	0.42 ACRES	N/A	N/A	0.42 ACRES
	WOODS	0.54 ACRES	N/A	N/A	0.54 ACRES
		0.30 ACRES	N/A	0.01 ACRES	0.31 ACRES
3F	IMPERVIOUS OPEN SPACE	0.37 ACRES	N/A	N/A	0.37 ACRES
	WOODS	0.08 ACRES	N/A	N/A	0.08 ACRES
		0.02 ACRES	N/A	N/A	0.02 ACRES
3G	IMPERVIOUS OPEN SPACE	0.14 ACRES	N/A	N/A	0.14 ACRES
	WOODS	0.50 ACRES	0.06 ACRES	0.01 ACRES	0.57 ACRES
		0.55 ACRES	0.12 ACRES	2.09 ACRES	2.76 ACRES
3H	IMPERVIOUS OPEN SPACE	0.24 ACRES	N/A	N/A	0.24 ACRES
		0.02 ACRES	N/A	N/A	0.02 ACRES
3I	IMPERVIOUS OPEN SPACE	0.23 ACRES	N/A	N/A	0.23 ACRES
		0.03 ACRES	N/A	N/A	0.03 ACRES
3J	IMPERVIOUS OPEN SPACE	0.39 ACRES	N/A	N/A	0.39 ACRES
		0.05 ACRES	N/A	N/A	0.05 ACRES
3K	IMPERVIOUS OPEN SPACE	0.06 ACRES	N/A	N/A	0.06 ACRES
	WOODS	0.13 ACRES	0.18 ACRES	N/A	0.31 ACRES
		0.92 ACRES	0.37 ACRES	0.26 ACRES	1.55 ACRES

DWG. SWM5

DWG. SWM6



SUMMARY OF REACH INFORMATION						SUMMARY OF REACH INFORMATION (CONT'D.)						SUMMARY OF REACH INFORMATION (CONT'D.)								
REACH LABEL	INVERTS		LENGTH (FEET)	BOTTOM OR TOP WIDTH	SIDE SLOPES		REACH LABEL	INVERTS		LENGTH (FEET)	BOTTOM OR TOP WIDTH	SIDE SLOPES		REACH LABEL	INVERTS		LENGTH (FEET)	BOTTOM OR TOP WIDTH	SIDE SLOPES	
	UPSTREAM	DOWNSTREAM			LEFT	RIGHT		UPSTREAM	DOWNSTREAM			LEFT	RIGHT		UPSTREAM	DOWNSTREAM			LEFT	RIGHT
R1A	7.25	7.15	354	0'	1.8:1	1.9:1	R3B(R)-C	10.51	8.90	187.5	0'	6.5:1	3.2:1	R3D(S3)	11.79	11.69	54	0'	N/A	N/A
R1A&1B	7.15	6.60	325	0'	1.8:1	1.9:1	R3B-SJ	8.90	8.78	112	0'	2.0:1	2.3:1	R3E	9.50	8.90	300	0'	2.0:1	2.0:1
R3A-SJ	8.78	8.33	324	0'	2.3:1	2.3:1	R3C	13.30	10.51	125	37.5'	P	P							
R3B(R1)	13.30	11.68	96	85.09'	P	P	R3D(S1)	14.10	13.10	351	93.3'	P	P							
R3B(R2)	11.10	10.51	119.1	0'	3.8:1	3.6:1	R3D(S2)	12.15	11.79	156	0'	2.0:1	2.0:1							

T = DENOTES A TRAPEZOIDAL CHANNEL  
P = DENOTES A PARABOLIC CHANNEL  
- 10" RCP CULVERT

SOIL CLASSIFICATIONS	
Fa	FALLSINGTON SANDY LOAM
Kf	KLEJ LOAMY SAND
Pm	POCOMOKE SANDY LOAM
Wo	WOODSTOWN SANDY LOAM

SOURCE: SOIL SURVEY - SUSSEX COUNTY, DELAWARE by U.S.D.A. SOIL CONSERVATION SERVICE

SUMMARY OF TIME OF CONCENTRATION SEGMENTS		
SUBAREA	SEGMENT NO.	DESCRIPTION
1A	1	100 L.F. SHEET FLOW @ 0.0045
	2	49 L.F. SHALLOW CONC'D. FLOW @ 0.0045
	1	100 L.F. SHEET FLOW @ 0.0065
1B	2	194 L.F. SHALLOW CONC'D. FLOW @ 0.0044
	3	86 L.F. SHALLOW CONC'D. FLOW @ 0.0050
	4	254 L.F. PIPE FLOW @ 0.0026 (PIPE A15/A14)
	5	179 L.F. PIPE FLOW @ 0.0022 (PIPE A14/A10)
	6	132 L.F. PIPE FLOW @ 0.0027 (PIPE A10/A9)
2	1	100 L.F. SHEET FLOW @ 0.0185
	2	462 L.F. SHALLOW CONC'D. FLOW @ 0.0025
	1	100 L.F. SHEET FLOW @ 0.0060
3A	2	336 L.F. SHALLOW CONC'D. FLOW @ 0.0030
	3	78 L.F. SHALLOW CONC'D. FLOW @ 0.0050
	4	28 L.F. PIPE FLOW @ 0.0036 (PIPE C18/C4)
	5	39 L.F. PIPE FLOW @ 0.0026 (PIPE C4/C3)
	6	152 L.F. PIPE FLOW @ 0.0026 (PIPE C3/C2)
	7	30 L.F. PIPE FLOW @ 0.0033 (PIPE C2/C1)
	8	100 L.F. PIPE FLOW @ 0.0010 (PIPE C1/C0)
3B	1	91 L.F. SHEET FLOW @ 0.0022
3C	1	41 L.F. SHEET FLOW @ 0.0073
3D	1	58 L.F. SHEET FLOW @ 0.0017
3E	1	100 L.F. SHEET FLOW @ 0.0035
	2	66 L.F. SHALLOW CONC'D. FLOW @ 0.0152
3F	1	77 L.F. SHEET FLOW @ 0.0070
	2	25 L.F. SHEET FLOW @ 0.0200
	3	157 L.F. SHALLOW CONC'D. FLOW @ 0.0050
	1	100 L.F. SHEET FLOW @ 0.0040
3G	2	222 L.F. SHALLOW CONC'D. FLOW @ 0.0063
	3	156 L.F. CHANNEL FLOW @ 0.0023
	4	54 L.F. PIPE FLOW @ 0.0019 (PIPE B9/B8)
3H	1	9 L.F. SHEET FLOW @ 0.0025
	2	334 L.F. SHALLOW CONC'D. FLOW @ 0.0050
	1	20 L.F. SHEET FLOW @ 0.0200
3I	2	140 L.F. SHALLOW CONC'D. FLOW @ 0.0050
	3	DIRECT ENTRY, TO GET TO 6 MINUTE MINIMUM
3J	1	20 L.F. SHEET FLOW @ 0.0200
	2	27 L.F. SHEET FLOW @ 0.0200
	3	147 L.F. SHALLOW CONC'D. FLOW @ 0.0050
	4	DIRECT ENTRY, TO GET TO 6 MINUTE MINIMUM
3K	1	42 L.F. SHEET FLOW @ 0.0048
	2	10 L.F. SHEET FLOW @ 0.1466
	3	147 L.F. SHALLOW CONC'D. FLOW @ 0.0032
	4	390 L.F. SHALLOW CONC'D. FLOW @ 0.0077

ARCHITECTS ENGINEERS SURVEYORS  
SAUSBURY, MARYLAND (410) 943-9091  
MILFORD, DELAWARE (302) 424-1441

**DAVIS, BOWEN & FRIEDEL, INC.**

POST-DEVELOPMENT S.W.M. KEY PLAN

**WINDMILL WOODS**  
**WINDMILL ROAD**  
**SUSSEX COUNTY, DELAWARE**

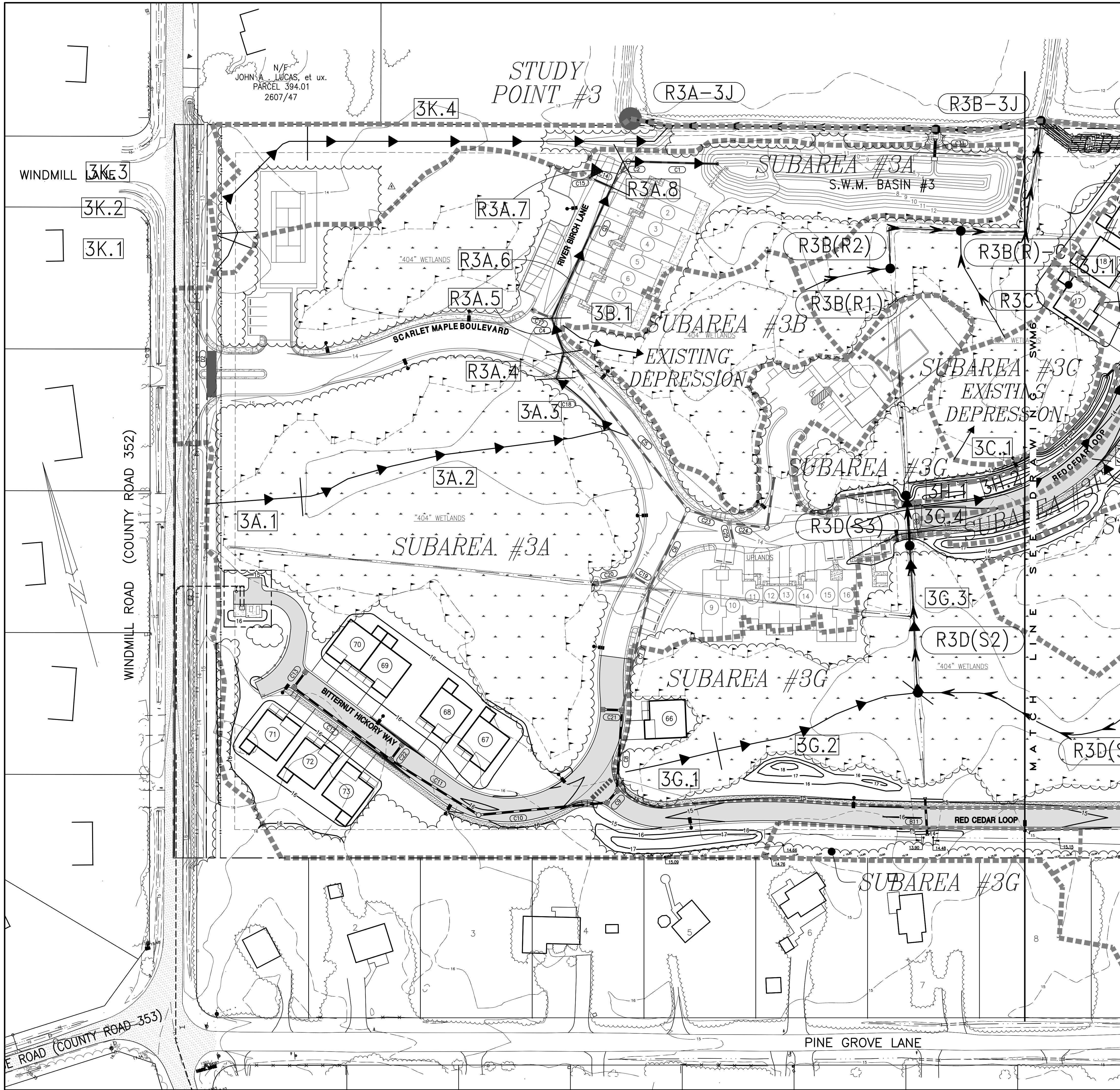
Revisions:

Date: JANUARY 2021  
Scale: 1" = 100'  
Dwn.By: LMD  
Proj.No.: 003E001.H  
Dwg.No.:

**SWM4**



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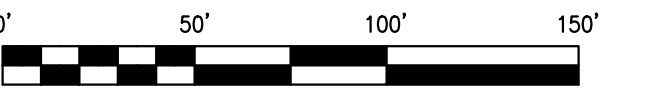


STORMWATER MANAGEMENT LEGEND

- POST-DEVELOPMENT DRAINAGE AREA BOUNDARY
- POST-DEVELOPMENT TIME OF CONCENTRATION
- POST-DEVELOPMENT TIME OF CONCENTRATION SEGMENT LABEL
- POST-DEVELOPMENT REACH LENGTH
- POST-DEVELOPMENT REACH LABEL
- SOIL CLASSIFICATION BOUNDARY
- EXISTING CONTOURS
- PROPOSED CONTOURS

SOIL CLASSIFICATIONS	
Fa	FALLSINGTON SANDY LOAM
Kl	KLEI LOAMY SAND
Pm	POCOMOKE SANDY LOAM
Wo	WOODSTOWN SANDY LOAM

SOURCE: SOIL SURVEY - SUSSEX COUNTY, DELAWARE  
by U.S.D.A. SOIL CONSERVATION SERVICE



WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

Revisions:  
SCD COMMENTS 08-23-2004  
SCD COMMENTS 10-06-2004  
02-01-05 REVIEW COMMENTS  
REPLACED TOWNHOUSE UNITS  
WITH TOWNHOUSES  
12/22/2020-REMOVAL OF BERM  
ADDITION OF SWALE

Date: JANUARY 2021  
Scale: 1" = 50'  
Dwn.By: LMD  
Proj.No.: 003E001.H  
Dwg.No.:

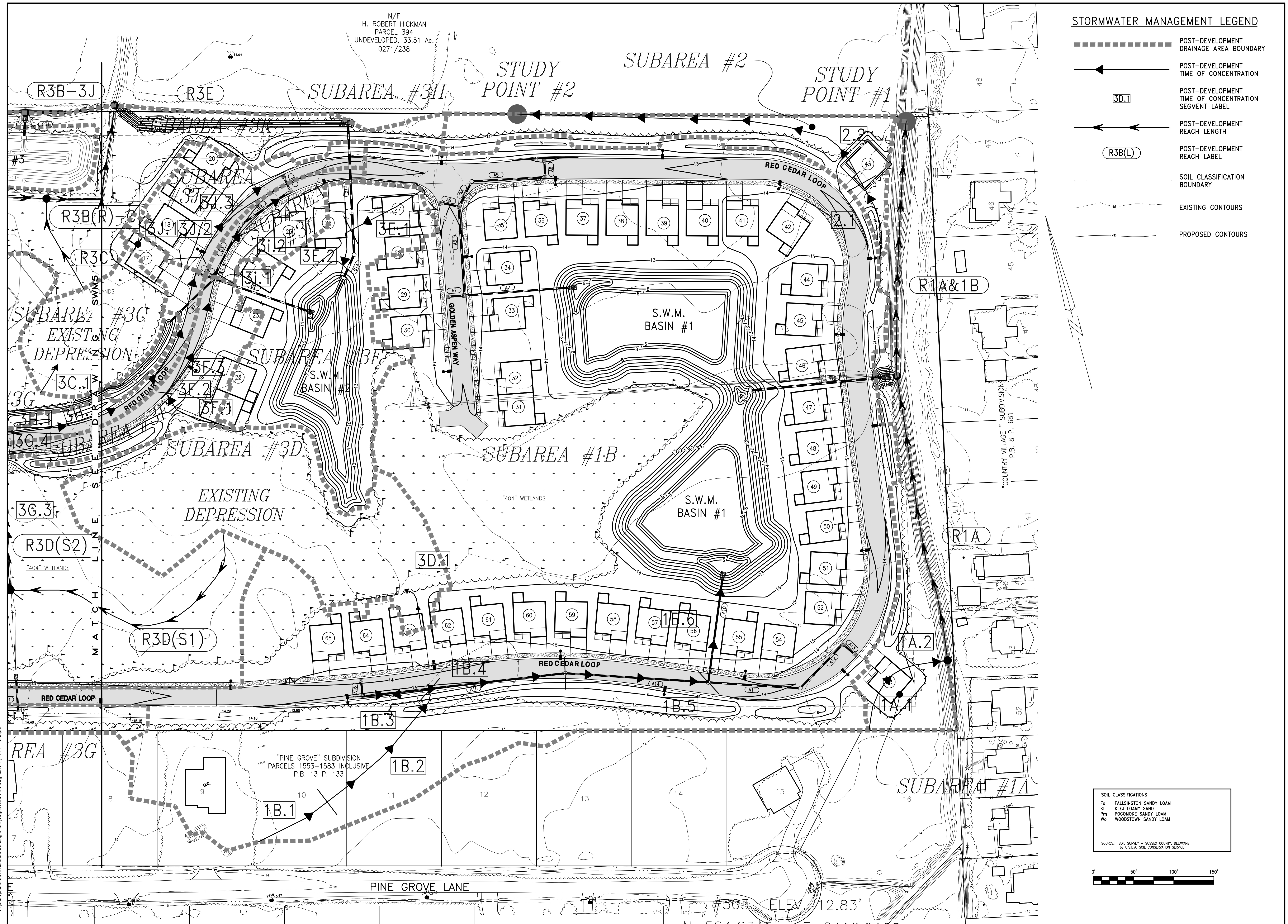
SWM5

ARCHITECTS ENGINEERS SURVEYORS  
SAUSBURY, MARYLAND (410) 943-9091  
MILFORD, DELAWARE (302) 424-1441

DAVIS, BOWEN & FRIEDEL, INC.

POST-DEVELOPMENT S.W.M. PLAN





**dbf** **DAVIS, BOWEN & FRIEDEL, INC.**  
ARCHITECTS ENGINEERS SURVIVORS  
SAUSBURY, MARYLAND (410) 543-9091  
MILFORD, DELAWARE (302) 424-1441

POST-DEVELOPMENT S.W.M. PLAN

**WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE**

Revisions:  
 1/22/2020-REMOVAL OF BERM  
 ADDITION OF SWALE

ate: JANUARY 2021

Scale: 1" = 50'

wn.By: LMD

proj.No.: 003E001.H

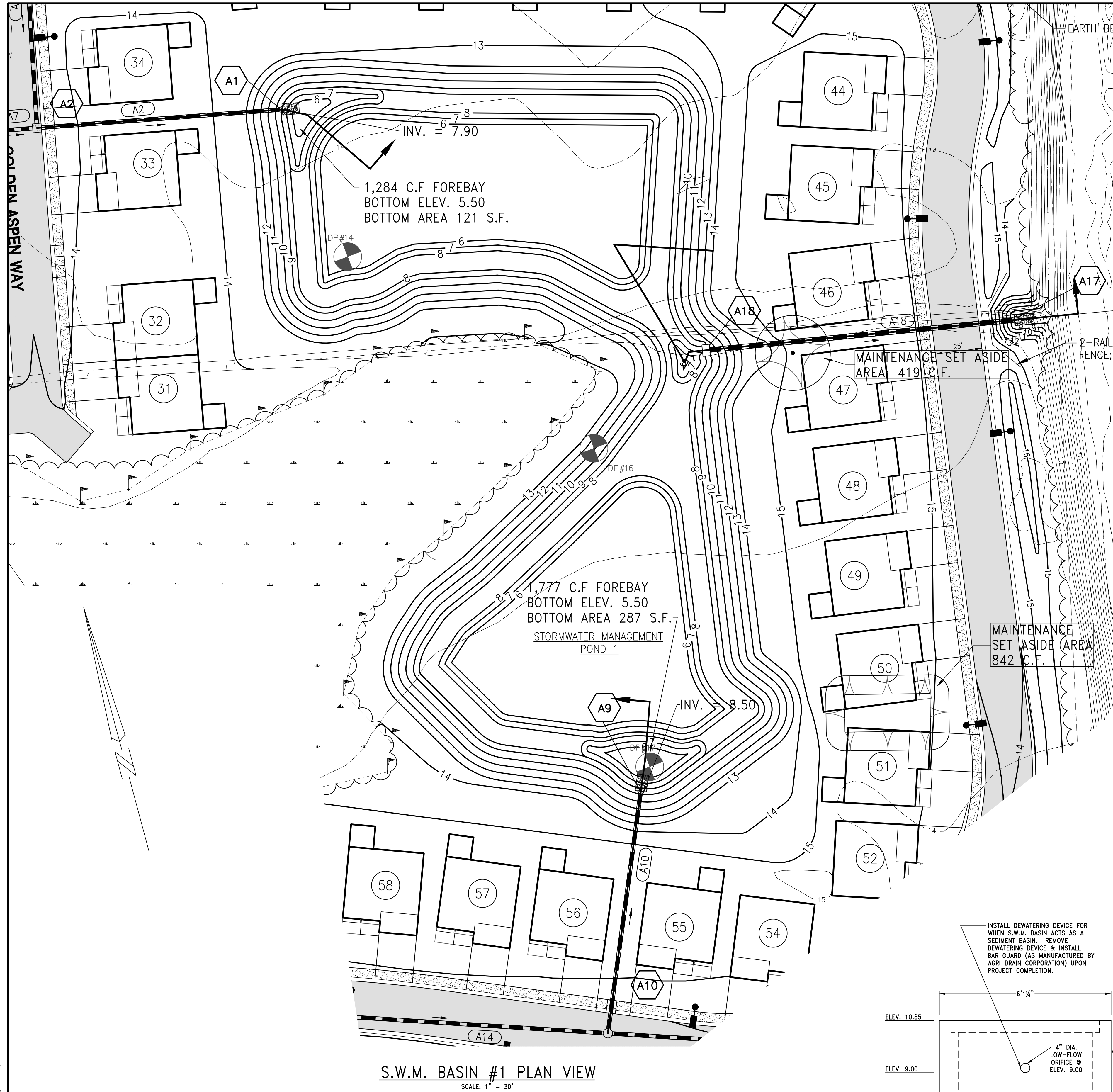
wg.No.:

**SWM6**

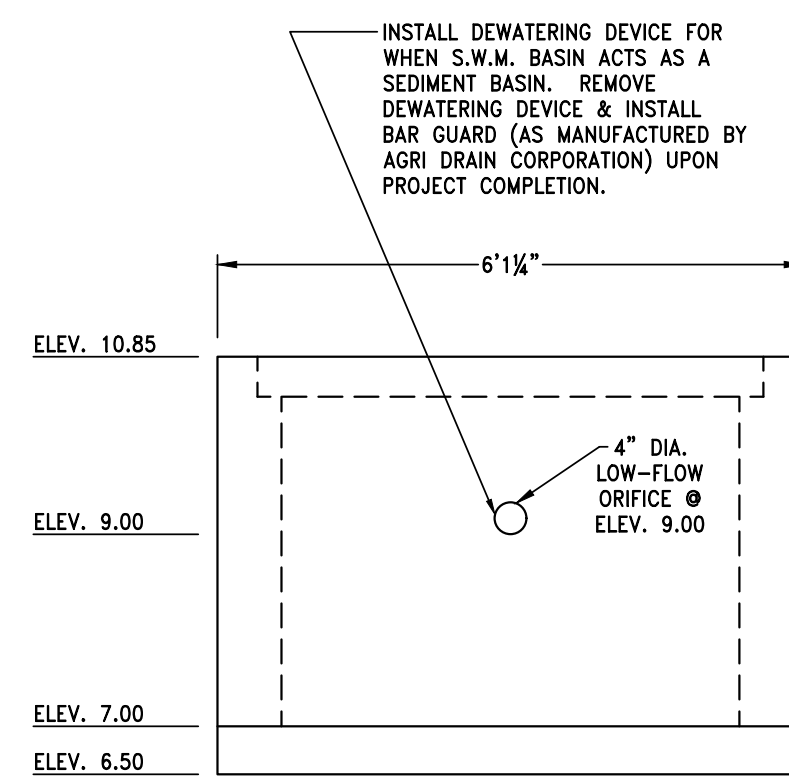
THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC. AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2021



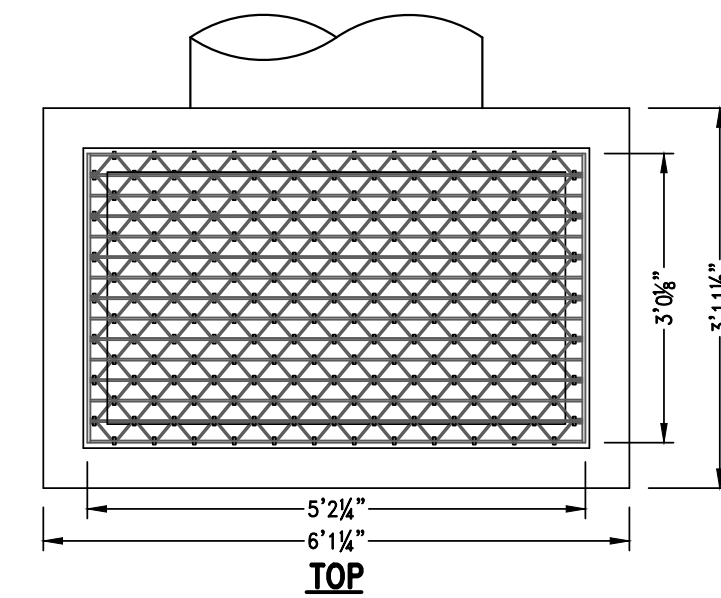
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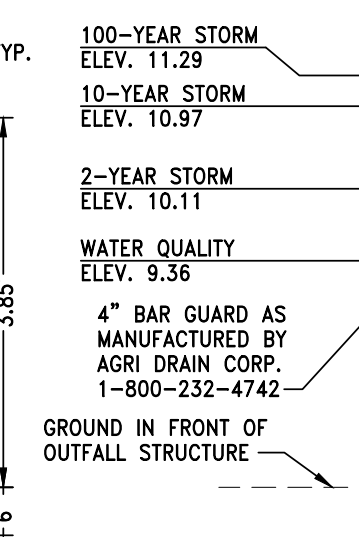
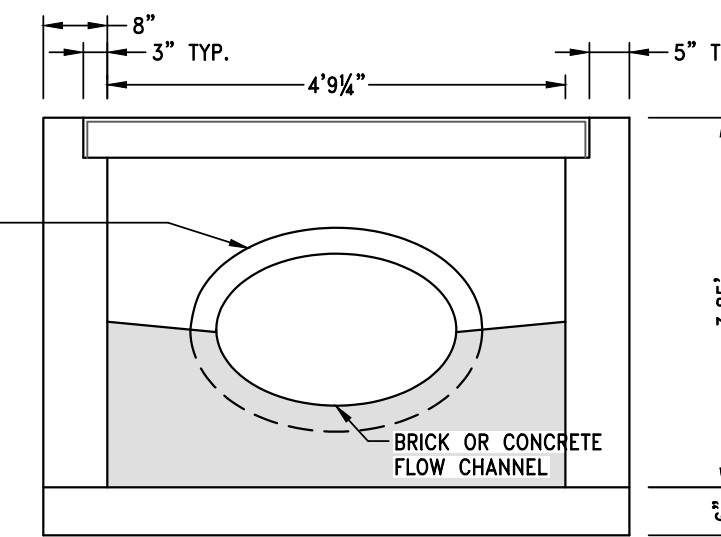
S.W.M. BASIN #1 PLAN VIEW  
SCALE: 1" = 30'



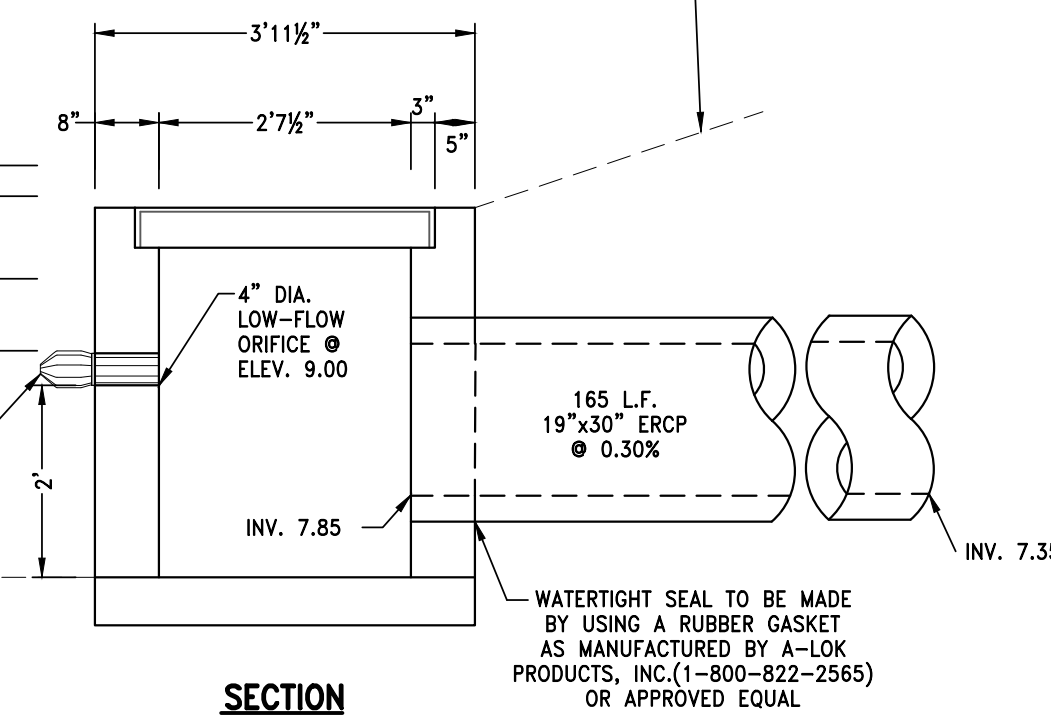
FRONT



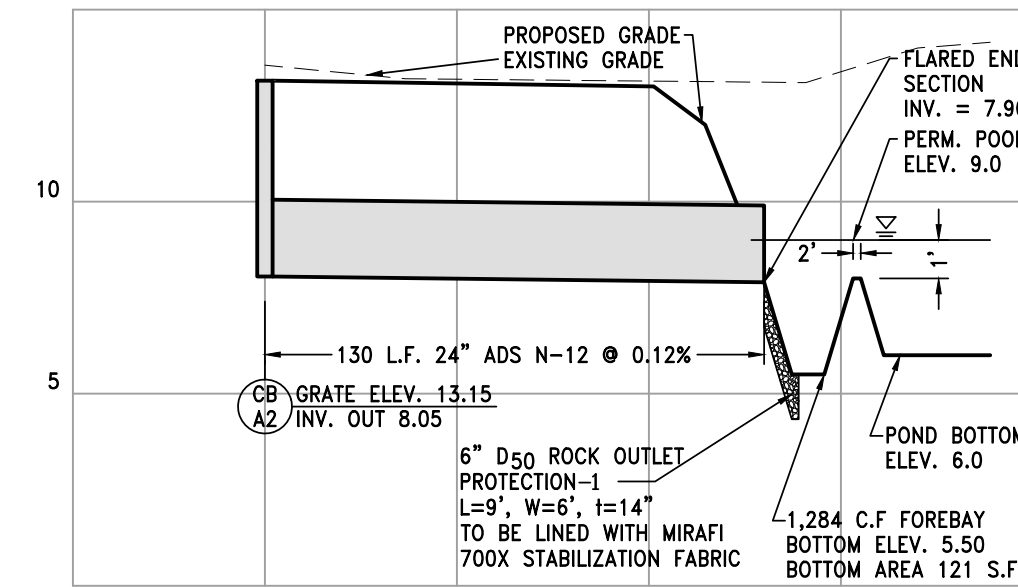
SECTION



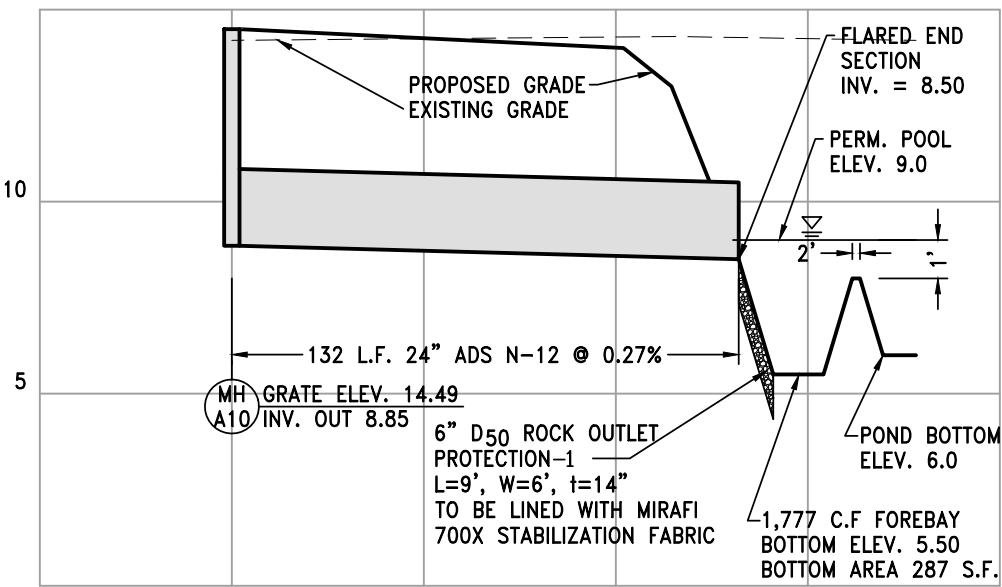
SECTION



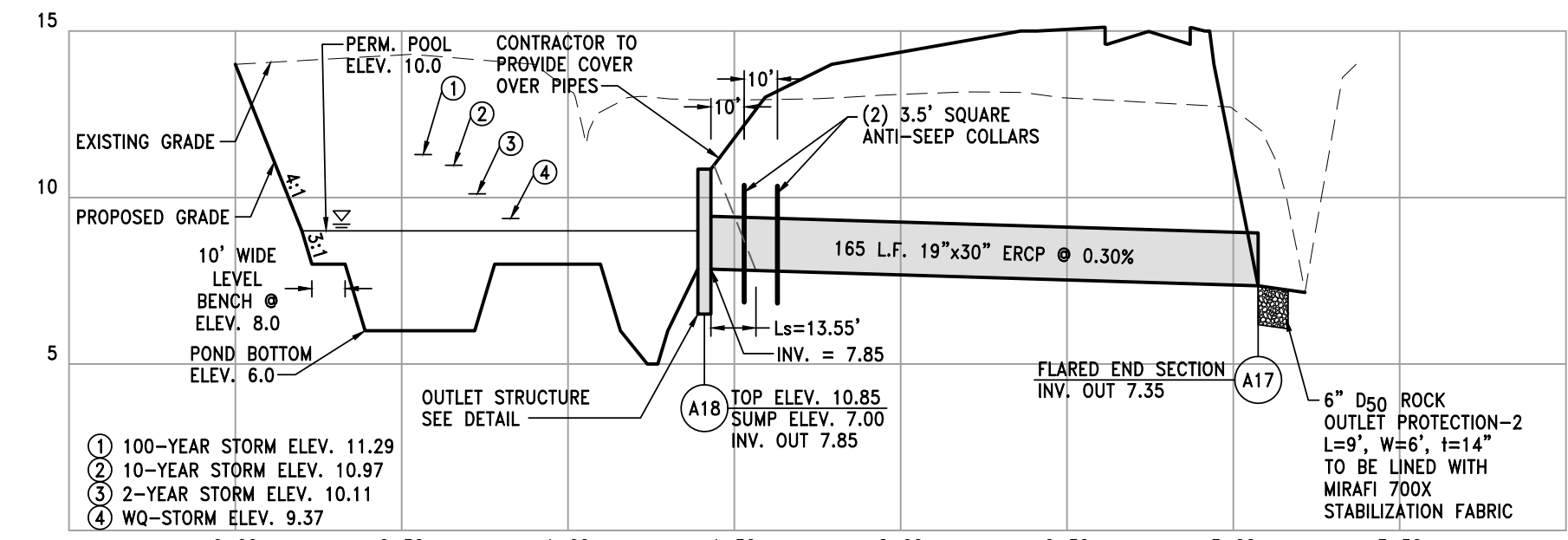
S.W.M. BASIN #1 OUTFALL STRUCTURE DETAIL  
SCALE: 1"=2'



A2/A1 PROFILE  
SCALE: 1" = 50' HORIZ.  
1" 5' VERT.



A10/A9 PROFILE  
SCALE: 1" = 50' HORIZ.  
1" 5' VERT.



S.W.M. BASIN #1 CROSS SECTION  
SCALE: 1" = 50' HORIZ.  
1" 5' VERT.

WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

Revisions:

Date: JANUARY 2021  
Scale: AS SHOWN  
Dwn.By: LMD  
Proj.No.: 003E001.H  
Dwg.No.:

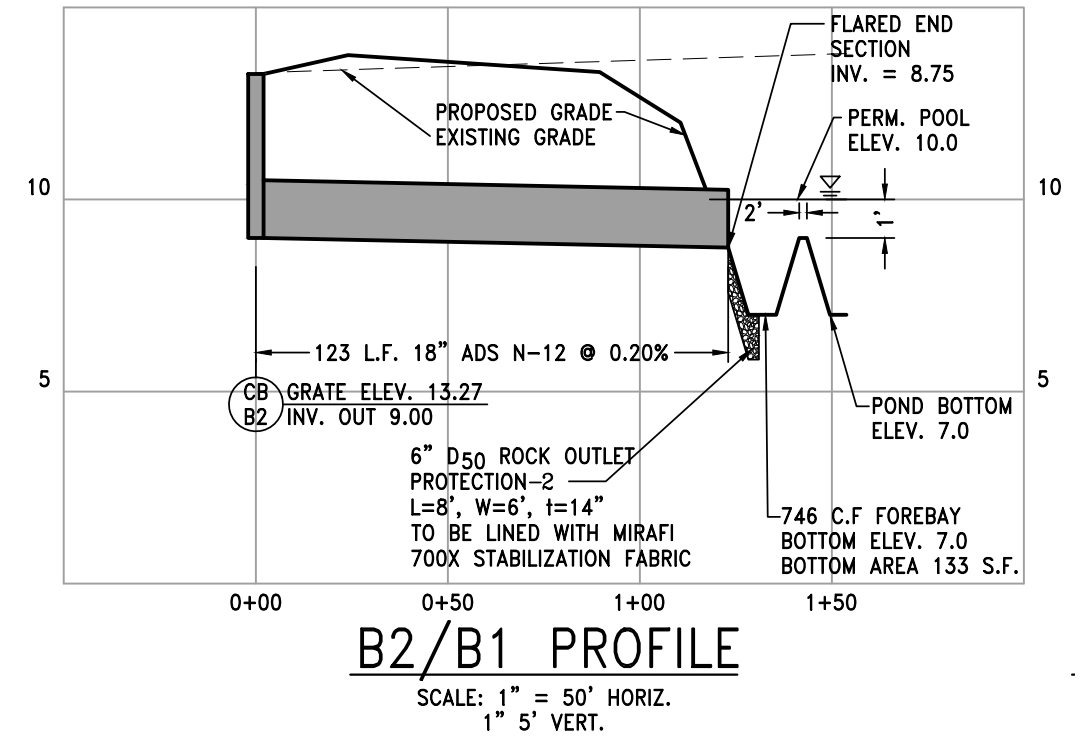
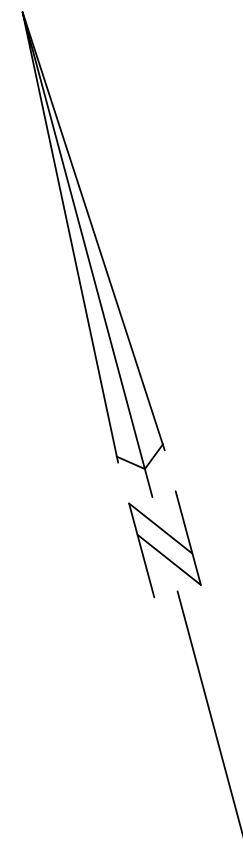
SWM7

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ARCHITECTS ENGINEERS SURVEYORS  
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MILFORD, DELAWARE (302) 424-1441

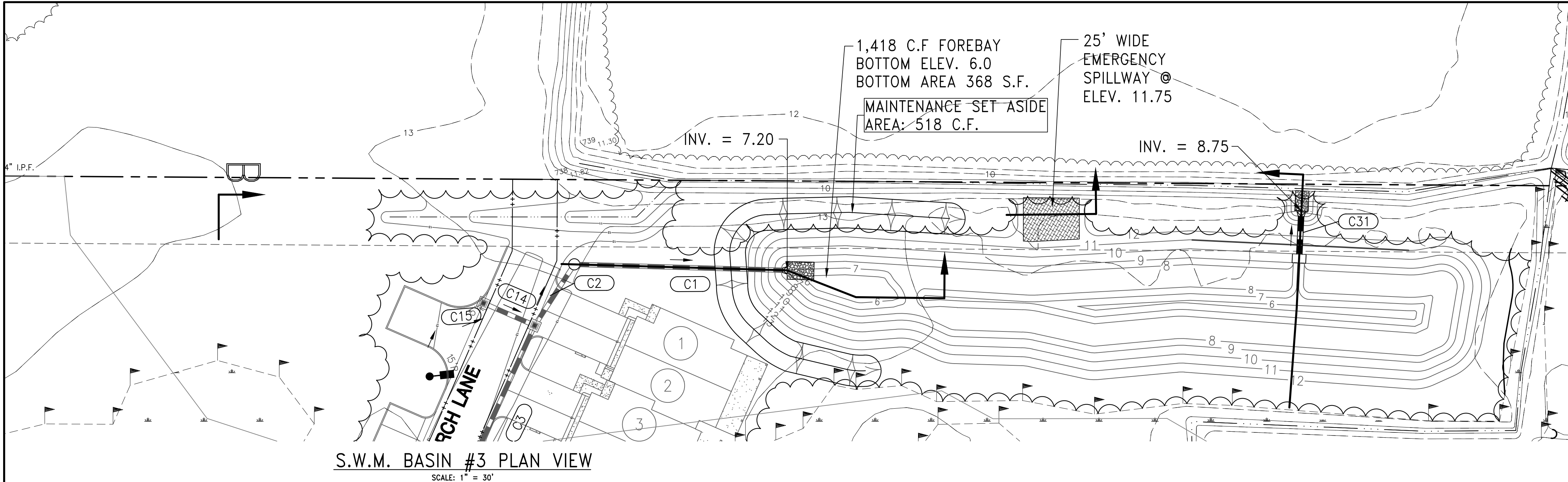
S.W.M. BASIN #1 PLAN & SECTIONS



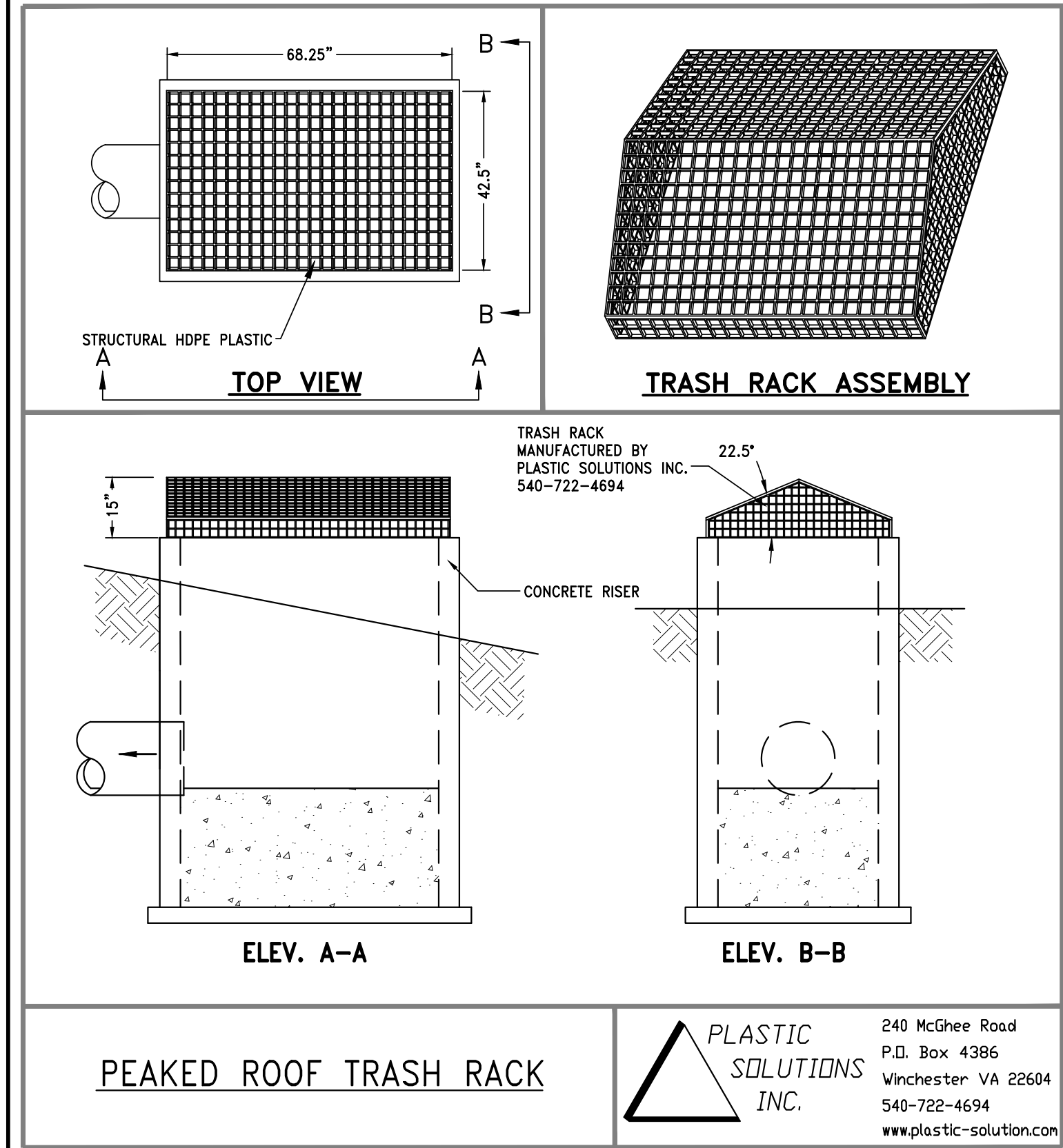




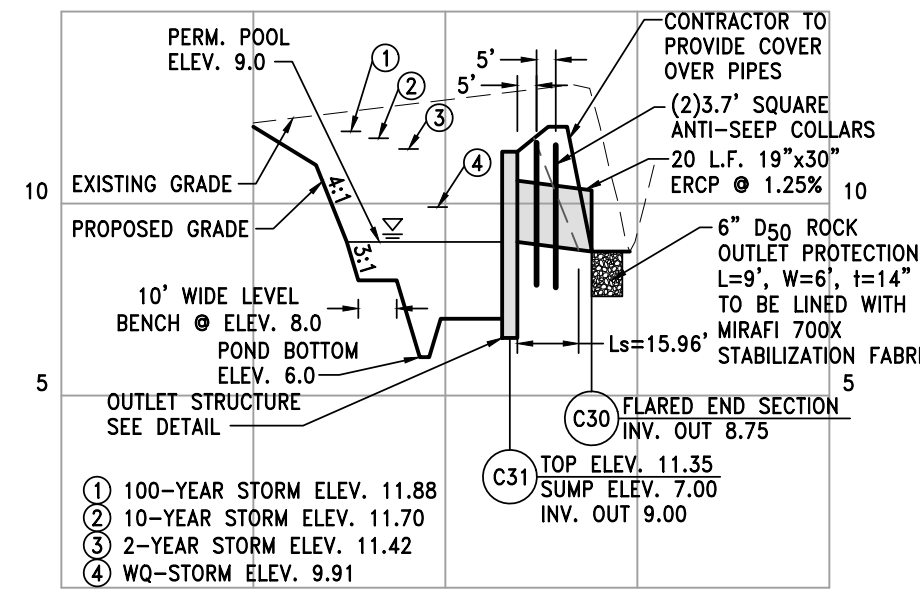
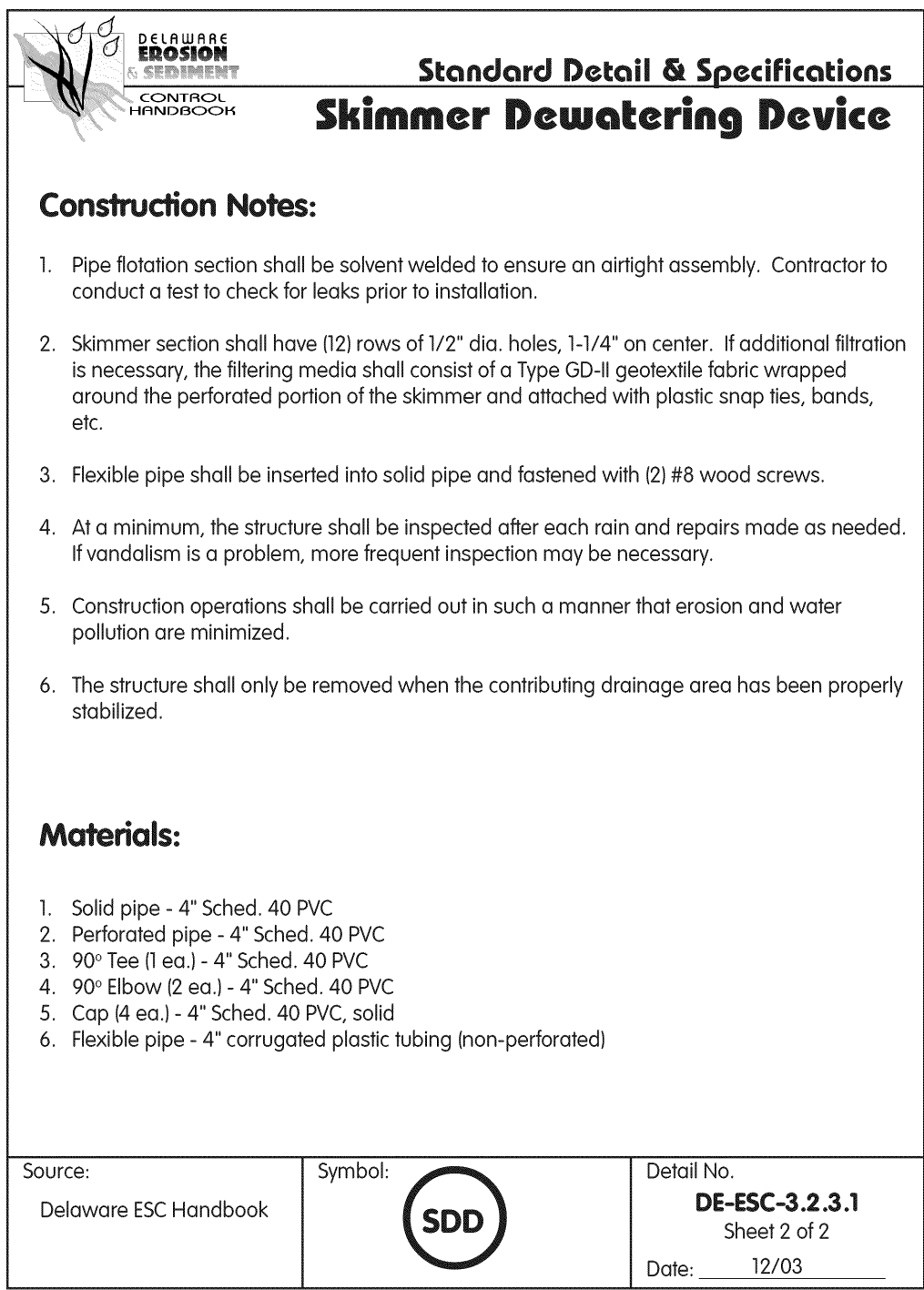
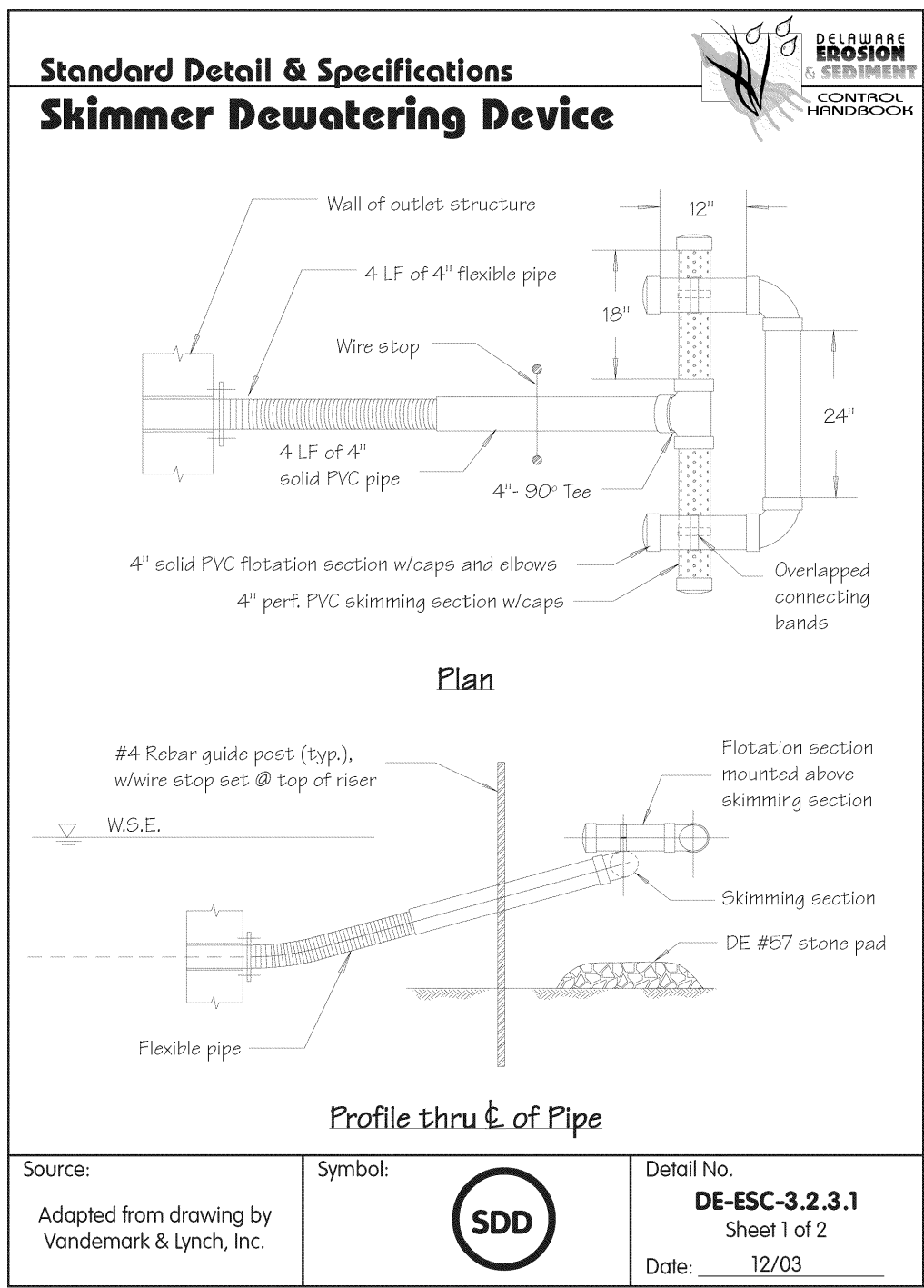
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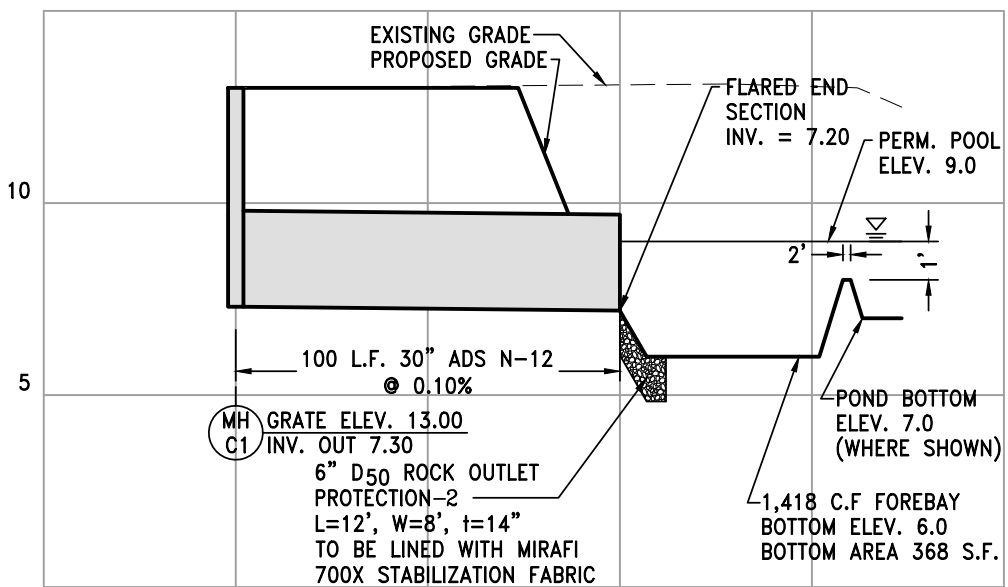
S.W.M. BASIN #3 PLAN VIEW  
SCALE: 1" = 30'



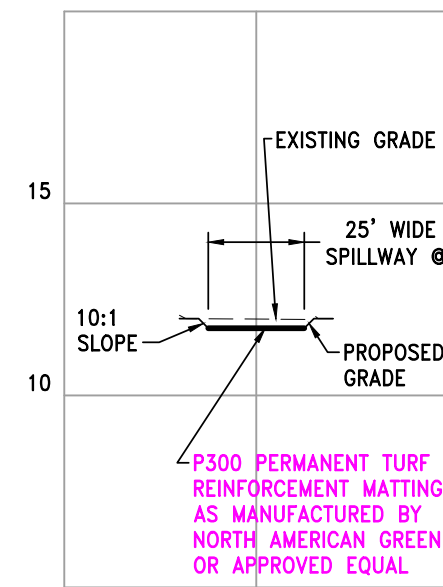
PLASTIC SOLUTIONS INC.  
240 McGhee Road  
P.O. Box 4386  
Winchester VA 22604  
540-722-4694  
www.plastic-solution.com



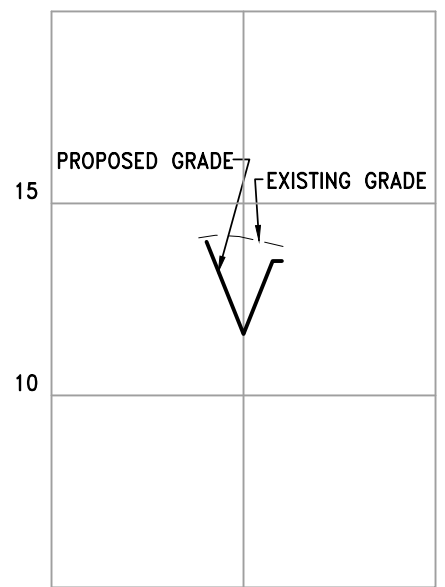
S.W.M. BASIN #3 CROSS SECTION  
SCALE: 1" = 50' HORIZ.  
1" = 5' VERT.



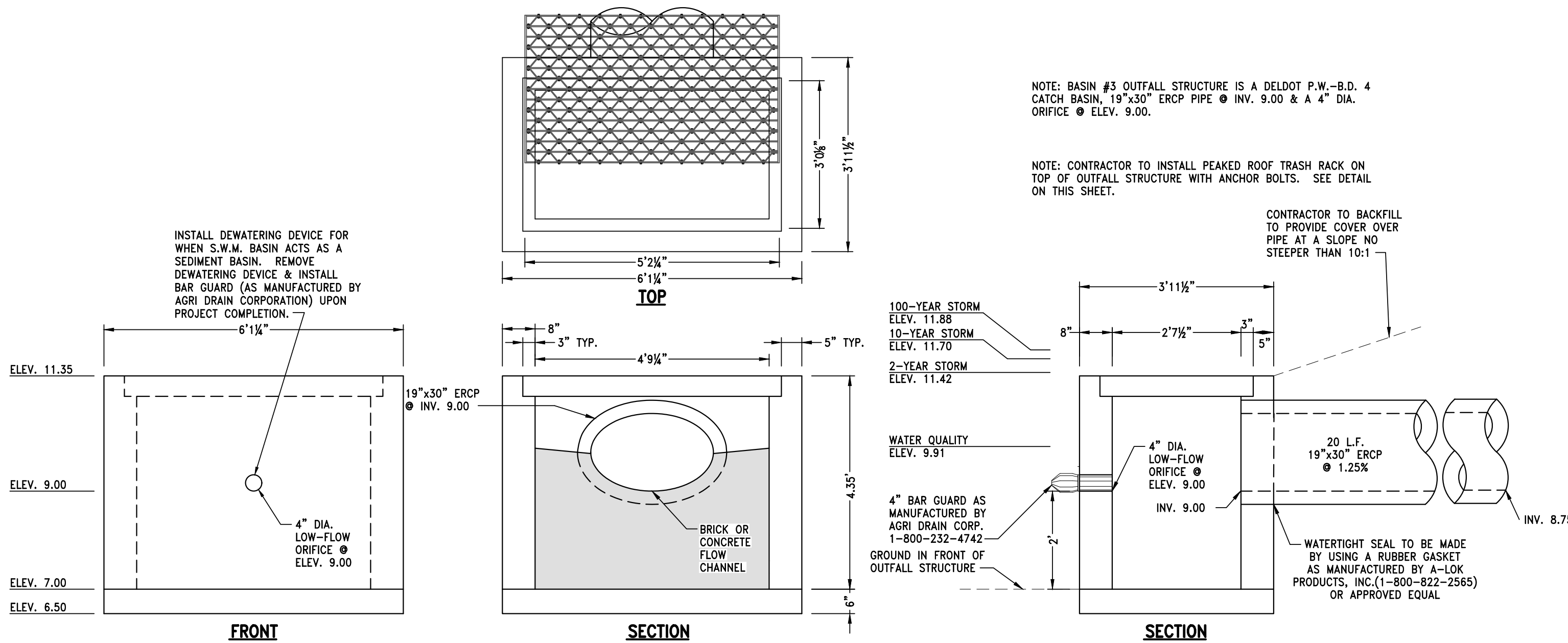
C1/C0 PROFILE  
SCALE: 1" = 50' HORIZ.  
1" = 5' VERT.



EMERGENCY SPILLWAY SECTION  
SCALE: 1"=50' HORIZ.  
1"=5' VERT.



DITCH SECTION B  
SCALE: 1"=50' HORIZ.  
1"=5' VERT.



S.W.M. BASIN #3 OUTFALL STRUCTURE DETAIL  
SCALE: 1"=2'

DAVIS, BOWEN & FRIEDEL, INC.  
ARCHITECTS ENGINEERS SURVEYORS  
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MILFORD, DELAWARE (302) 424-1441

S.W.M. BASIN #3 PLAN & SECTIONS

WINDMILL WOODS  
WINDMILL ROAD  
SUSSEX COUNTY, DELAWARE

Revisions:

Date: JANUARY 2021  
Scale: AS SHOWN  
Dwn.By: LMD  
Proj.No.: 003E001.H  
Dwg.No.:

SWM9



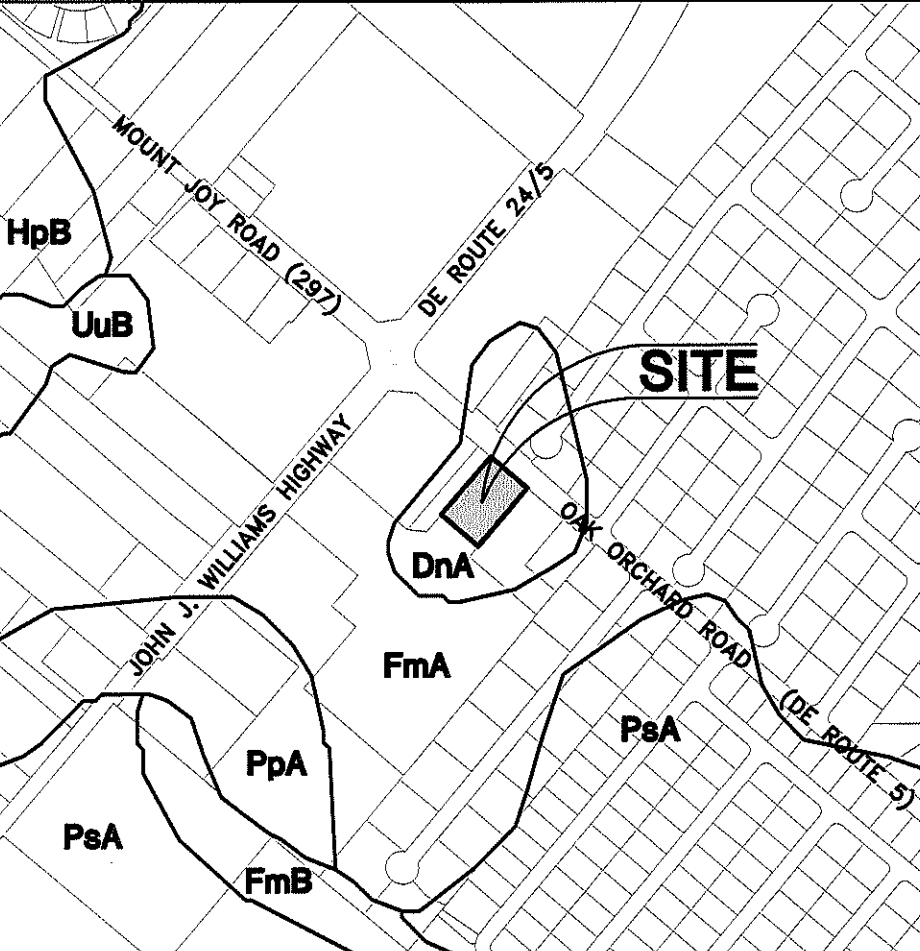
# BOYS & GIRLS CLUBS OF DELAWARE

## PRELIMINARY SITE PLAN OAK ORCHARD ROAD INDIAN RIVER HUNDRED SUSSEX COUNTY, DELAWARE DECEMBER, 2020 DBF PROJECT #3636A001

SHEET INDEX	
PRELIMINARY - TITLE SHEET	PL-01
PRELIMINARY - SITE PLAN	PL-02

LOCATION MAP

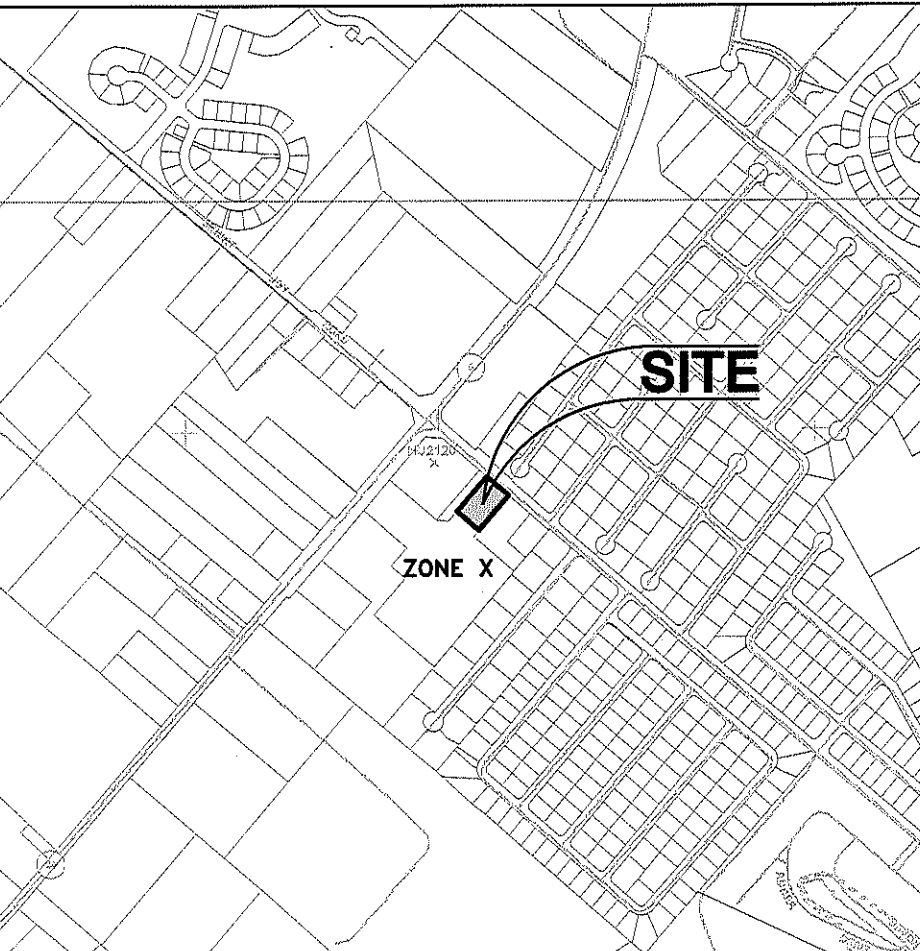
SCALE: 1" = 1000'



SOIL MAP

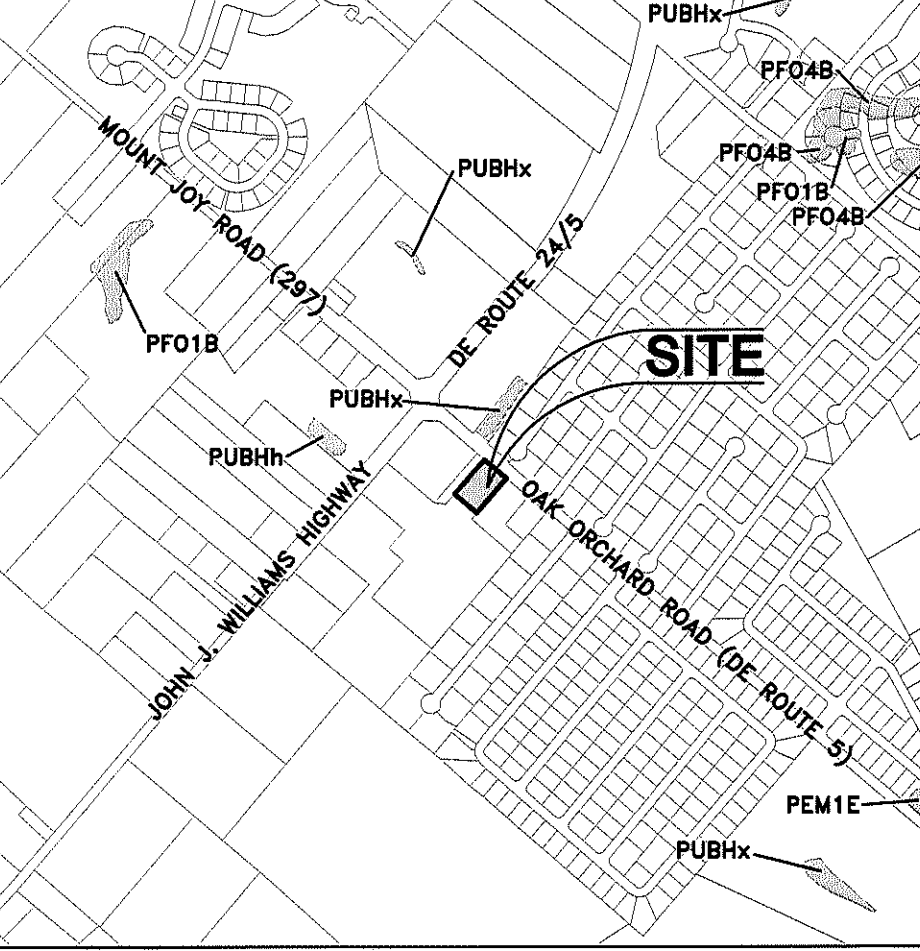
SCALE: 1" = 600'

DnA DOWNER LOAMY SAND, 0-2% SLOPES (A)



FLOODPLAIN MAP

FEMA PANEL #10005C0351K  
DATED: MARCH 16, 2015



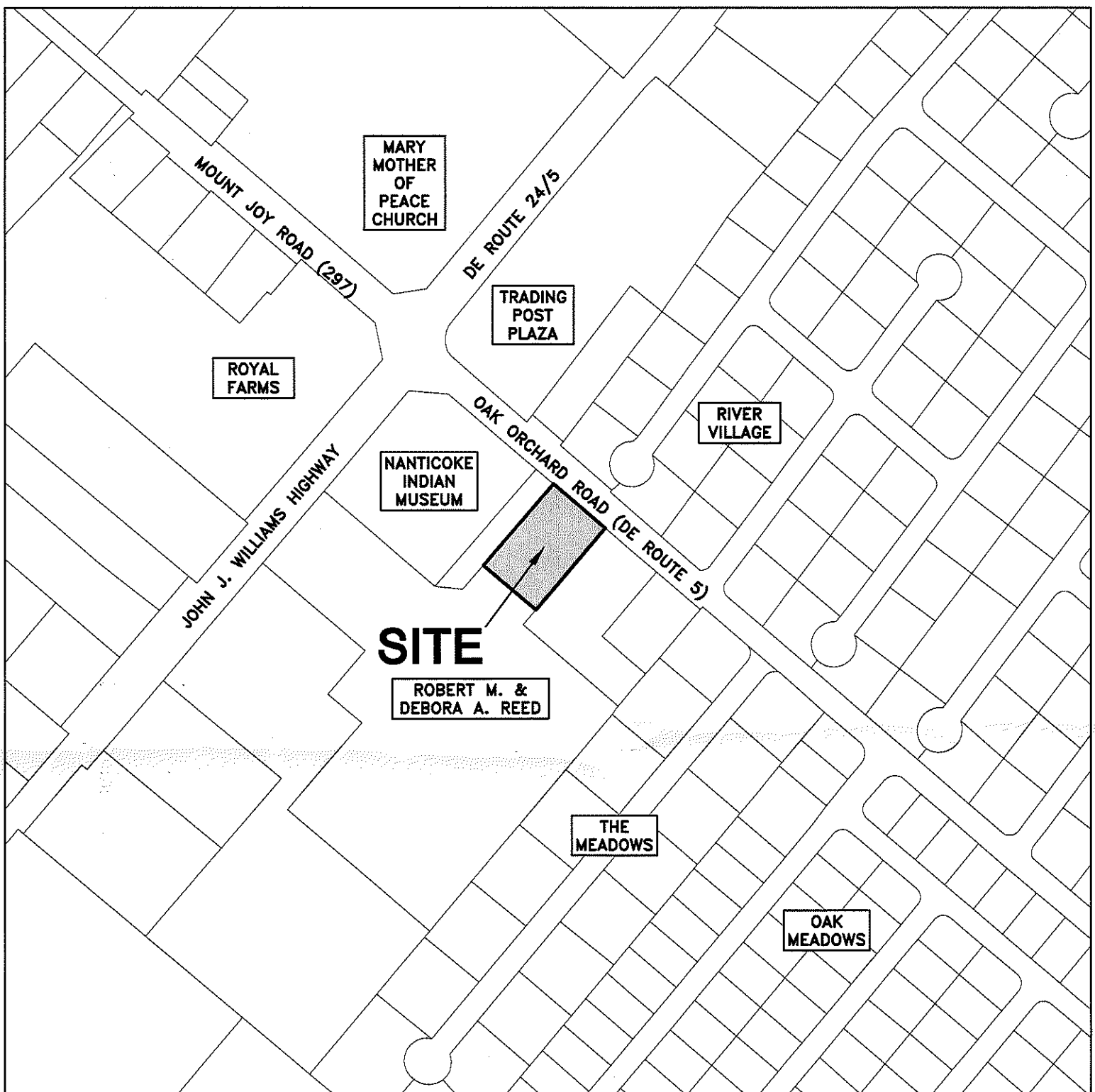
WETLAND MAP

SCALE: 1" = 1000'



### GENERAL NOTES:

- HORIZONTAL AND VERTICAL CONTROL SURVEY BY DAVIS, BOWEN & FRIEDEL, INC. OF MILFORD, DELAWARE. VERTICAL/HORIZONTAL DATUM - N.A.V.D. 88 / NAD 83 RESPECTIVELY.
- EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS, INCLUDING TELEPHONE, ELECTRIC, CABLE TV, GAS, TRAFFIC, SIGNAL, WATER, SEWER, FORCE MAINS AND STORM DRAINAGE ARE BASED UPON THE BEST AVAILABLE INFORMATION AND ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. NO GUARANTEE IS MADE OR IMPLIED REGARDING THE ACCURACY OR COMPLETENESS THEREOF. CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF THE LOCATION, DEPTH, SIZE AND MATERIAL OF ALL UNDERGROUND UTILITIES TO HIS OWN SATISFACTION BEFORE BEGINNING ANY EXCAVATION OR PIPE LAYING. THE COUNTY, OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION. IF THE CONTRACTOR RELIES ON SAID INFORMATION, HE DOES SO AT HIS OWN RISK. THE GIVING OF THE INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS TO SUPPORT AND PROTECT ALL SHOWN OR NOT SHOWN EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITIES BE DAMAGED BY THE CONTRACTOR, THEN THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE TOWN'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL MAKE HIS OWN INVESTIGATION AND TEST PIT EXISTING UTILITIES AS REQUIRED.
- CONTRACTOR SHALL NOTIFY "MISS UTILITY" (1-800-282-8555 IN DE) & (1-800-441-8355 OUTSIDE OF DE) AT LEAST 3 CONSECUTIVE WORKING DAYS PRIOR TO EXCAVATION TO HAVE EXISTING UNDERGROUND UTILITIES LOCATED AND MARKED.
- ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- USE ONLY SUITABLE AND APPROVED GRANULAR MATERIAL FOR BACK FILLING TRENCHES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC IN ALL WORK AREAS IN ACCORDANCE WITH TOWN REQUIREMENTS. ANY PAVEMENT MARKINGS OR PAINTED LINES DISTURBED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AFTER COMPLETION OF PAVEMENT RESTORATION.
- CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL RIGHT-OF-WAY LINES AND PROPERTY LINES TO HIS OWN SATISFACTION. ALL PROPOSED UTILITIES ARE TO BE CONSTRUCTED WITHIN THE STREET RIGHT-OF-WAY OR EASEMENT AREAS PROVIDED. ANY DISTURBED AREAS BEYOND THE RIGHT-OF-WAY OR EASEMENT LINES SHALL BE RESTORED IMMEDIATELY TO THEIR ORIGINAL CONDITION.
- CONTRACTOR SHALL PROVIDE STAKEOUT SURVEY NECESSARY FOR THE PARKING LOT CONSTRUCTION, THE INSTALLATION OF UTILITY WORK AND APPURTENANCES, AND DETERMINATION OF RIGHT-OF-WAY.
- CONTRACTOR SHALL EXERCISE CAUTION AND TAKE MEASURES NECESSARY TO PROTECT TREES DURING CONSTRUCTION ACTIVITIES. DAMAGED TREES TO BE REPLACED, IN KIND, AT THE CONTRACTOR'S EXPENSE.
- ALL ROADWAYS ARE TO BE SWEEP FREE OF SEDIMENT ON A DAILY BASIS.
- 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, OUTLETS, FENCES, OR OTHER NATURAL OR MAN-MADE OBSTRUCTIONS. TRAFFIC CONTROL, REGULATORY, WARNING, AND INFORMATIONAL SIGNS SHALL REMAIN FUNCTIONAL AND VISIBLE TO THE APPROPRIATE LANES OF TRAFFIC AT ALL TIMES, WITH THEIR RELOCATION KEPT TO A MINIMUM DISTANCE. THE COST SHALL BE INCLUDED IN THE COST OF ITEMS BID.
- ALL EXISTING REGULATORY AND WARNING TYPE TRAFFIC SIGNS, AND ALL STREET NAME SIGNS OCCURRING WITHIN THE PROPOSED PROJECT LIMITS SHALL BE REMOVED AND IMMEDIATELY REPLACED AS DIRECTED BY THE TOWN.
- CONTRACTOR SHALL GRADE, TOPSOIL, SEED AND MULCH ALL DISTURBED AREAS OF CONSTRUCTION, INCLUDING PIPE INSTALLATION OR DITCH CONSTRUCTION. EROSION CONTROL MATTING SHALL BE PROVIDED ON ALL SLOPES GREATER THAN 5:1.
- DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
- PARKING SPACES RESERVED FOR USE BY THE HANDICAPPED AND RELATED ACCESSIBLE ROUTES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE GUIDELINES ENTITLED "ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES" (REFERENCE: ANSI A117.1-1998).
- THE SITE IS NOT LOCATED IN AN AREA DESIGNATED AS AN EXCELLENT GROUNDWATER RECHARGE AREA.
- THE SITE IS WITHIN A WELLHEAD PROTECTION AREA; HOWEVER, IT IS NOT WITHIN AN AREA CLASSIFIED AS A SAFE ZONE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING TWO WEEKS PRIOR TO THE START OF CONSTRUCTION AND SHALL APPRAISE AND COORDINATE DURING ALL PHASES OF CONSTRUCTION:  
DAVIS, BOWEN & FRIEDEL, INC. - (302) 424-1441  
SUSSEX CONSERVATION DISTRICT - (302) 856-2105



INSET MAP

1" = 300'

### DATA COLUMN

TAX MAP NUMBER:	02-34-29.00-69.08	
DATUM:	NAV 88	
VERTICAL:	NAD 83 (DE STATE PLANE)	
HORIZONTAL:		
LOCAL LAND USE AGENCY:	SUSSEX COUNTY	
EXISTING ZONING:	AR-1	
PROPOSED ZONING:	AR-1	
EXISTING USE:	RECREATIONAL YOUTH CENTER	
PROPOSED USE:	RECREATIONAL YOUTH CENTER	
<u>AR-1 REQUIREMENTS</u>	<u>REQUIRED</u>	<u>PROPOSED</u>
MINIMUM LOT SIZE:	32,670 SQFT.	35,756 SQFT.
MINIMUM LOT FRONTAGE:	100 FT.	150 FT.
MINIMUM LOT DEPTH:	100 FT.	236 FT.
FRONT YARD SETBACK:	40 FT.	40 FT.
SIDE YARD SETBACK:	15 FT.	15 FT.
REAR YARD SETBACK:	20 FT.	20 FT.
MAXIMUM BUILDING HEIGHT:	42 FT.	LESS THAN 42
<u>PARKING</u>		
REQUIRED:		
- DAY NURSERIES, DAY-CARE CENTERS OR PRIVATE PRESCHOOLS OR KINDERGARTENS:		
1 PER 1,000 S.F. * 7,069 S.F. = 7 SPACES		
PLUS 1 PER EMPLOYEE * 10 = 10 SPACES		
TOTAL = 17 SPACES		
PROVIDED:	32 SPACES	
FLOOD HAZARD MAP:		
	THE SITE IS NOT LOCATED IN THE FEMA 100-YR FLOOD PLAIN PER FEMA MAP #10005C0477K, DATED 03/16/2015.	
WETLANDS:		
	WETLANDS DO NOT EXIST ON SITE	
EXISTING IMPERVIOUS AREA (TOTAL):	67.97%	
PROPOSED IMPERVIOUS AREA (TOTAL):	69.10%	
<u>UTILITIES:</u>		
SANITARY SEWER:	SUSSEX COUNTY	
WATER SUPPLY:	TIDEWATER UTILITIES, INC.	
POSTED SPEED LIMITS:	50 MPH	
OAK ORCHARD ROAD		
STATE STRATEGIES INVESTMENT LEVEL:	LEVEL 2	
PROXIMITY TO TRANSPORTATION IMPROVEMENT DISTRICT:	NONE	

THERE IS AN ACTIVE CONDITIONAL USE FOR THE OPERATIONS OF THIS CLUB. THIS IS CONDITIONAL USE NO. 1417 (BOYS & GIRLS CLUB OF DELAWARE) WHICH WAS ADOPTED BY THE COUNTY COUNCIL ON OCTOBER 16, 2001 THROUGH ORDINANCE NO. 1494.

#### THIS ORDINANCE WAS ADOPTED SUBJECT TO THE FOLLOWING CONDITIONS:

- FENCING OR A HEDGE SHALL BE PROVIDED ALONG THE ADJOINING PROPERTIES TO THE NORTH AND SOUTH TO SCREEN THE PARKING LOT.
- THE SITE PLAN SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE PLANNING AND ZONING COMMISSION.

### ENGINEER'S STATEMENT

I, RING W. LARDNER, 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.

DAVIS, BOWEN & FRIEDEL, INC.  
by RING W. LARDNER, P.E.

### OWNER'S STATEMENT

I, THE UNDERSIGNED, HEREBY STATE 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 MY ACT AND DESIRE THE PLAN TO BE CONSTRUCTED ACCORDING TO SUSSEX COUNTY CODE.

BOYS & GIRLS CLUBS OF DELAWARE L.L.C.

PRINT NAME

TITLE

BOYS & GIRLS CLUBS OF DELAWARE

OAK ORCHARD ROAD

INDIAN RIVER HUNDRED, SUSSEX COUNTY, DELAWARE

DAVIS, BOWEN & FRIEDEL, INC.  
ARCHITECTS ENGINEERS SURVEYORS  
SUSSEX COUNTY, DELAWARE  
(302) 424-1441  
FAX (302) 424-1441  
EASTON, MARYLAND  
(410) 770-1744

PRELIMINARY - TITLE SHEET

Revisions:  
2021-02-02  
P&Z COMMENTS

Date: DECEMBER, 2020

Scale: AS NOTED

Dwn.By: ACM

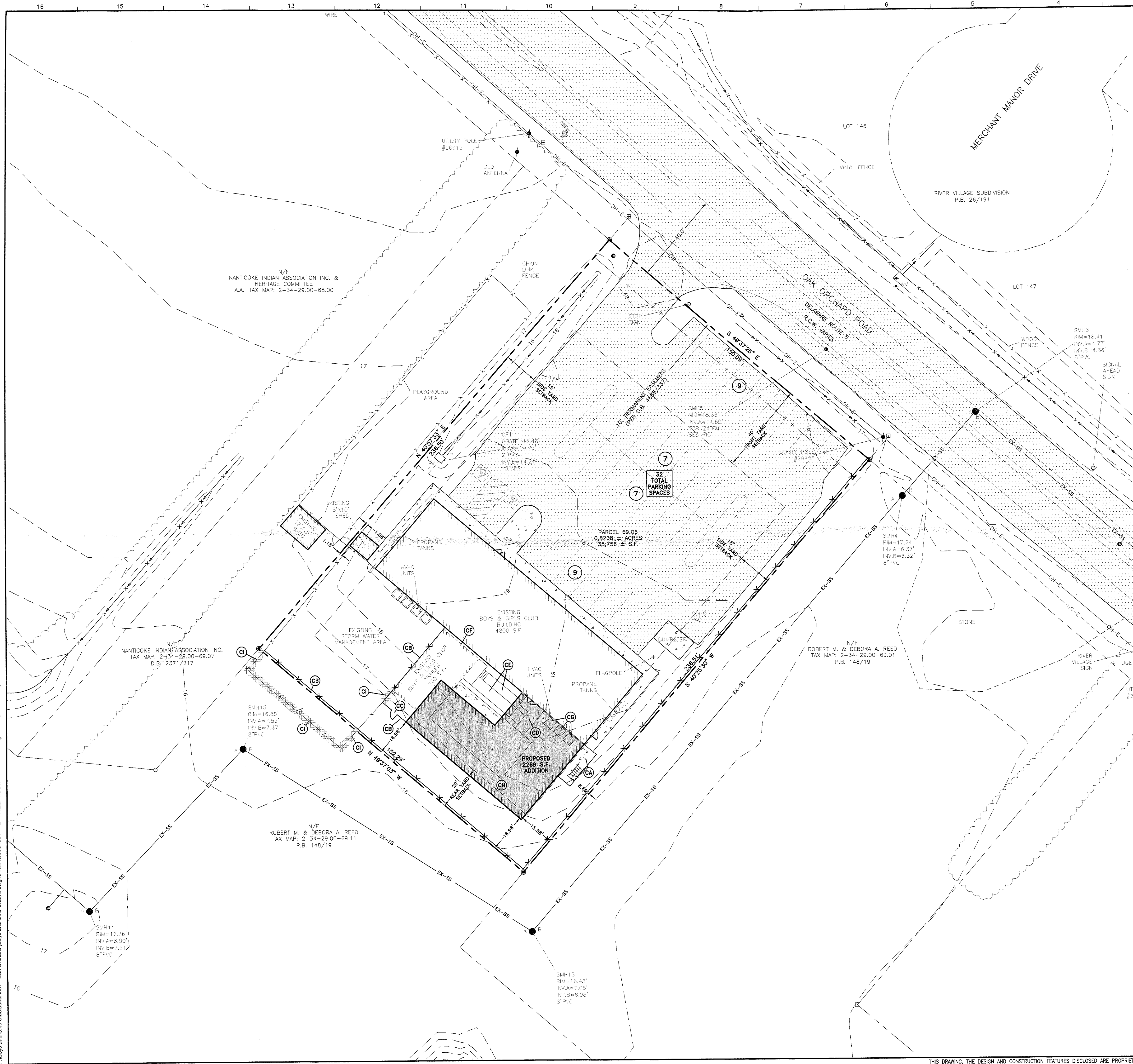
Proj.No.: 3636A001

Dwg.No.:

PL-01



P:\Boys and Girls Clubs\3636A001 - Oak Orchard (Boys and Girls Club)\Design\PL02\PL02.dwg, 02/02/2021, 5:08pm, mls



# LEGEND

EXISTING

BOUNDARY LINE	
ADJACENT PROPERTY OWNER	
CATCH BASIN, STORM PIPE	
UTILITY POLE	
SIGN	
TREE	
TREE LINE	
PAVEMENT	
CONCRETE PAD	
6" CHAIN LINK FENCE	
SWALE	

PROPOSED

6" CHAIN LINK FENCE	
BUILDING FOOTPRINT	
CONCRETE PAD	
DEMOLITION	

## KEY LEGEND

LABEL	DESCRIPTION
CA	PROPOSED CONCRETE PAD/SIDEWALK
CB	PROPOSED 6" CHAIN LINK FENCE
CC	PROPOSED CHAIN LINK FENCE GATE
CD	EXISTING CONCRETE SIDEWALK (TO BE REMOVED BY OWNER)
CE	EXISTING ADA RAMP, WOODEN WALKWAY (TO BE REMOVED BY OWNER)
CF	EXISTING TRAILER (TO BE REMOVED BY OWNER)
CG	EXISTING HVAC UNITS AND PADS (TO BE REMOVED BY OWNER)
CH	EXISTING PAVILION AND CONCRETE PAD (TO BE REMOVED BY OWNER)
CI	EXISTING 6" CHAIN LINK FENCE (TO BE REMOVED BY OWNER)



DAVIS, BOWEN & FRIEDEL, INC.  
ARCHITECTS ENGINEERS SURVEYORS  
SUSSEX COUNTY, DELAWARE  
EASTON, MARYLAND  
(301) 434-3600  
(301) 424-1441  
(410) 770-1744

PRELIMINARY - SITE PLAN

## BOYS & GIRLS CLUBS OF DELAWARE OAK ORCHARD ROAD INDIAN RIVER HUNDRED, SUSSEX COUNTY, DELAWARE

Revisions:  
2021-02-02  
P&Z COMMENTS

Date: DECEMBER, 2020

Scale: 1" = 20'

Dwn.By: ACM

Proj.No.: 3636A001

Dwg.No.:

PL-02





Sources: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Sussex County Government



February 5, 2021

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.

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

Attn: Mr. Chase Phillips

RE: Oak Orchard Boys & Girls Club  
Final Site Plan  
Tax Parcel No.: 234-29.00-69.06  
DBF #3636A001.B01

Dear Mr. Phillips,

On behalf of our client, Boys & Girls Club of Delaware, we are pleased to submit a revised preliminary site plan per your letter dated January 15, 2021. We offer the following item-by-item response:

Revised Final Site Plan

Chapter 89 – Source Water Protection

- a. *This site is not located in an area designated as an Excellent Groundwater Recharge Area. Please insert a note on sheet PL-01 that confirms this. **Note 16 of the General Notes addresses this item.***
- b. *This site is within a Wellhead Protection Area; however, it is not within an area classified as a safe zone. Please state this on sheet PL-01. **Note 17 of the General Notes addresses this item.***
- c. *Please list the existing and proposed percentage of the site that is impervious. **The existing and proposed impervious percentages have been added.***
- d. *It is assumed that the proposed impervious surface cover is between 35% and 60%. Given this threshold, an environmental assessment report that addresses pre-development and post-development recharge quantity will be required. **We will prepare and provide the report during the construction document preparation and plan approval process.***
- e. *If impervious surface cover is >60%, roof drains that guide discharge into permeable areas will need to be proposed. **We will prepare and provide the report during the***



**construction document preparation and plan approval process.**

- f. *Please note that the requirements of this chapter may be implemented by Sussex County, but the oversight of all stormwater management will be governed by the Sussex Conservation District (SCD). We will work with both Sussex County Engineering and Sussex Conservation District on compliance with this Chapter.*

*Chapter 115 – Zoning Code*

- a. *There is an active Conditional Use for the operations of this club. This is Conditional Use No. 1417 (Boys & Girls Club of Delaware) which was adopted by the County Council on October 16, 2001 through Ordinance No. 1494. Please list the Conditional Use number as well as all conditions of approval on the site plan. These conditions can be referenced in the Ordinance which is attached [enclosed e-mail attachment]. **The Conditional Use number and conditions have been placed on the plan.***
- b. *Condition “1” requires a fence or hedge to be placed around the northern and southern faces of the property in order to screen the parking lot. What is the current status of this fence or hedge? If one does not exist, where may they be proposed? **We have added a whit vinyl fence to be located along Parcel 2-34-29.00-69.00 and 69.11. The Club is discussing a fence with the Nanticoke Indians as each group uses the others property. If the Nanticoke Indians prefer not to have a fence we will request an amendment to the Conditional Use. Otherwise, a fence will be provided and shown on the final site plan.***
- c. *Please state the Case number with the variance. This is Case No. 12492. **The case number has been added to the plans.***
- d. *As regulated by Sussex County, the rear yard setback is 20.00 ft. rather than 15.00 ft. Please amend the Data Column. **The data column has been amended.***
- e. *Please list the proposed height of the addition, if applicable or known. If this attribute is unknown, no changes are needed. **The building height is unknown at this time and will be updated at time of final site plan approval.***
- f. *If the site is to be utilized at night, lighting in the parking lot must be proposed if it does not already exist. Please comment on how this requirement may or may not apply. **Parking lot lights currently do not exist. We will discuss lighting with the club and if the facility is used at night, lighting will be provided and shown on the final site plan.***
- g. *Due to the implementation of a variance, it is highly recommended that a second label showing the distance from the rear of the proposed addition to the property line is provided. This will ensure the addition does not exceed what was approved as part of Case No. 12492. This is a suggestion. **A second label has been provided.***



- h. The Site Plan is subject to the following agency approvals which will only be needed by time of final approval:*
- a. Delaware Department of Transportation (DelDOT) – Letter of No Objection*
  - b. Delaware Office of the State Fire Marshal (SFMO)*
  - c. Sussex Conservation District*

**Our office will obtain the above referenced approvals or Letters of No Objection.**

We request to be place on the February 25, 2021 agenda for preliminary site plan approval. If you have any questions regarding this submission, please contact me at (302) 424-1441 or via e-mail at [rw1@dbfinc.com](mailto:rw1@dbfinc.com).

Sincerely,  
*Davis, Bowen & Friedel, Inc.*



Ring W. Lardner, P.E.  
Principal



## 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  
JANELLE CORNWELL, AICP  
DIRECTOR

### PLANNING AND ZONING AND COUNTY COUNCIL INFORMATION SHEET

Planning Commission Public Hearing Date February 18<sup>th</sup>, 2021.

Application: (2019-24) Stratus Estates

Applicant: Fusco Properties, LP  
P.O. Box 665  
New Castle, DE 19720

Owner: Fusco Properties, LP  
P.O. Box 665  
New Castle, DE 19720

Site Location: Located on the northwest corner of Cool Spring Road (S.C.R. 290) and Stockley Road (S.C.R. 280).

Current Zoning: Agricultural Residential (AR-1) (w/ a portion of parcel 33.00 zoned General Residential (GR))

Proposed Use: 226 Single-Family Lots

Comprehensive Land  
Use Plan Reference: Low Density Area (w/ a portion of parcel 33.00 being Existing Development Area)

Councilmatic  
District: Mr. Burton

School District: Cape Henlopen School District

Fire District: Milton Fire District

Sewer: Private, On-Site

Water: Private, On-Site

Site Area: 187.93 acres +/-

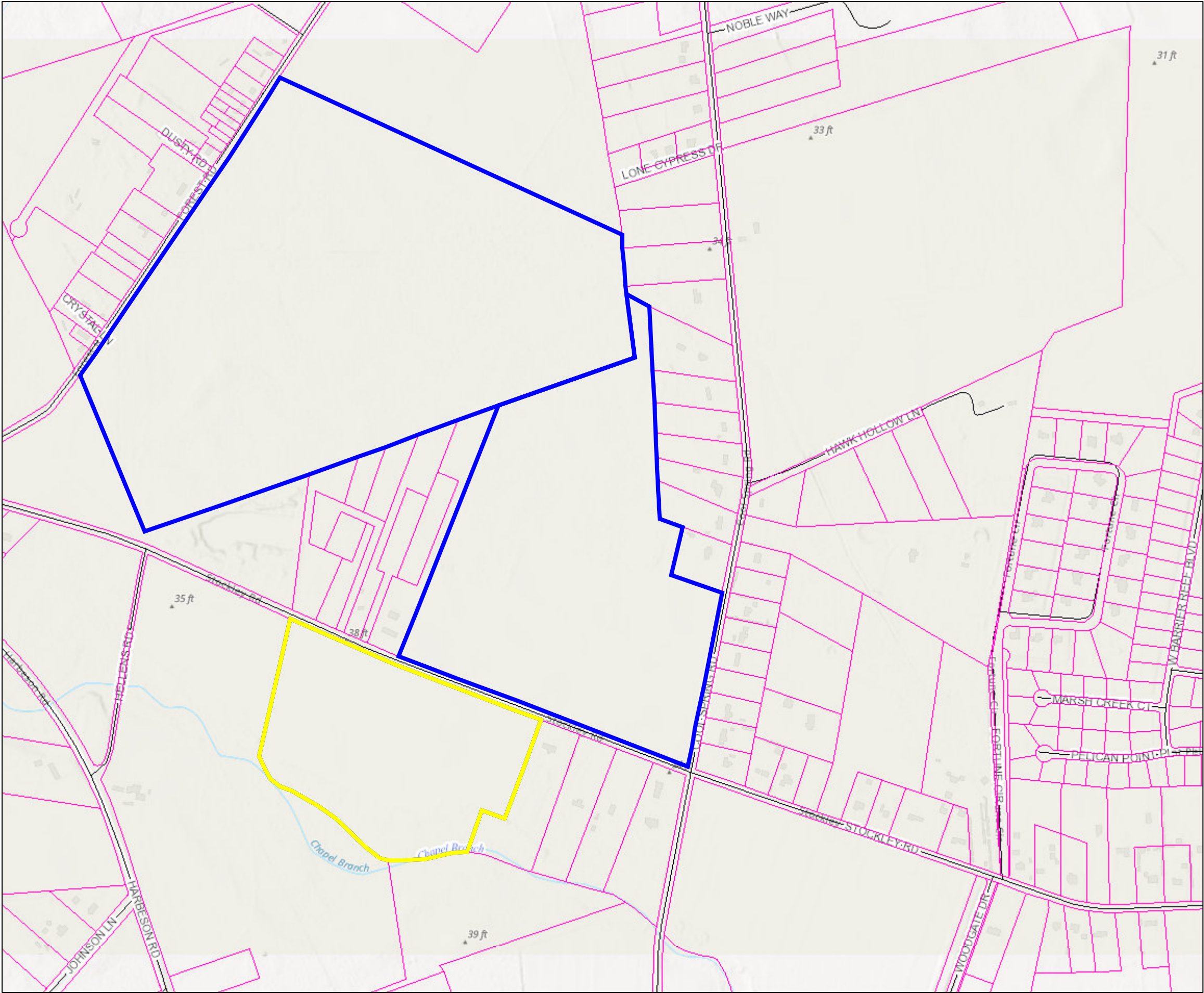
Tax Map ID.: 234-5.00-30.00 & 33.00







Sussex County



<b>PIN:</b>	234-5.00-30.00
<b>Owner Name</b>	FUSCO PROPERTIES LP
<b>Book</b>	3149
<b>Mailing Address</b>	200 AIRPORT RD
<b>City</b>	NEW CASTLE
<b>State</b>	DE
<b>Description</b>	NS/RT 280
<b>Description 2</b>	COR W/RT 290
<b>Description 3</b>	FX
<b>Land Code</b>	

- polygonLayer**

Override 1

**polygonLayer**

Override 1

  - Tax Parcels
  - Streets
  - County Boundaries

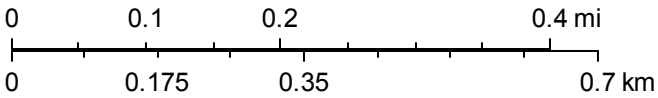
**Flood Zones 2018**

  - 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
  - A
  - AE
  - AO
  - OPEN WATER
  - VE

**Tax Ditch Segments**

  - Tax Ditch Channel
  - Pond Feature
  - Special Access ROW
  - Extent of Right-of-Way
  - Approx. Watershed Boundary
  - Major Rivers

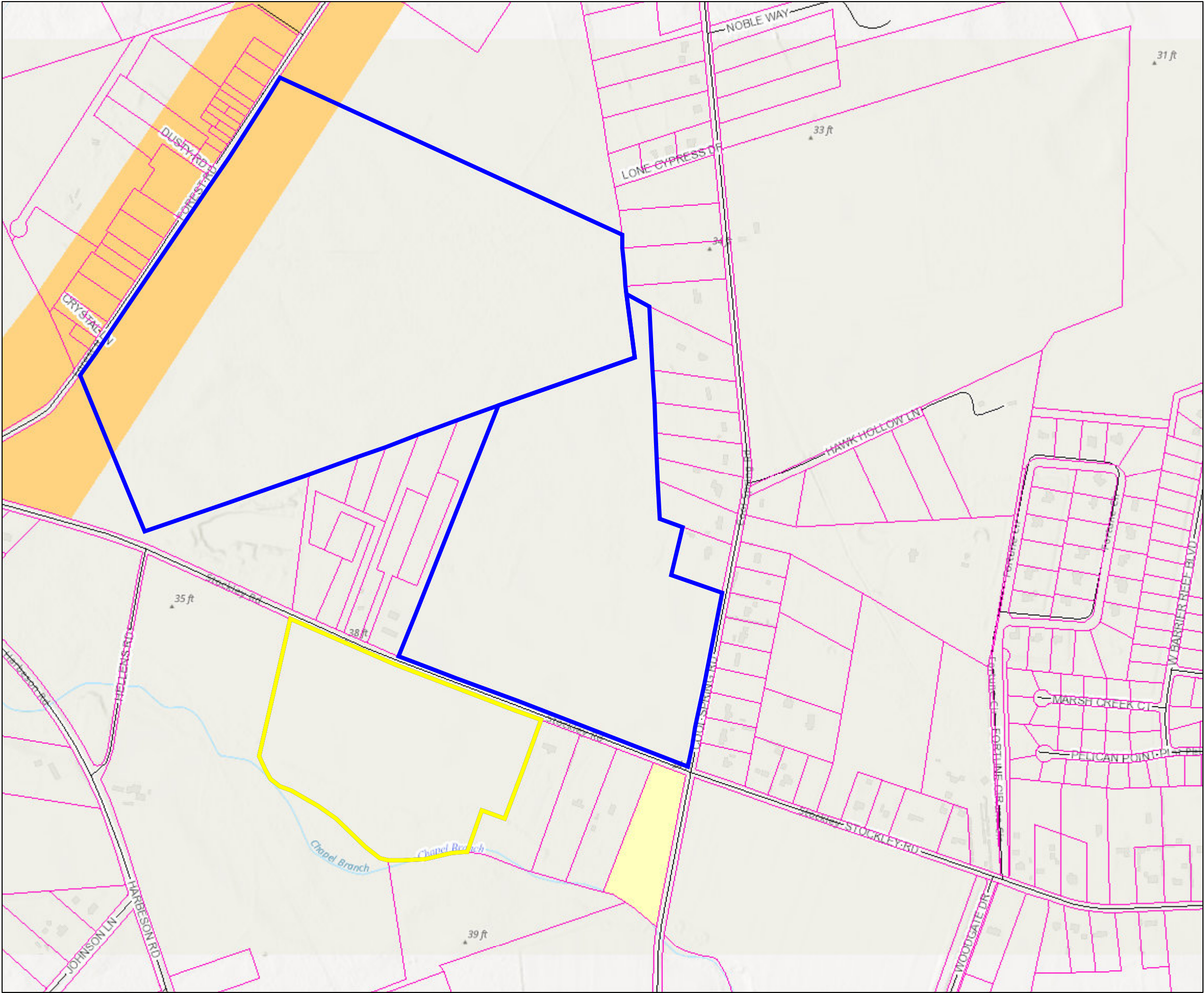
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Sussex County

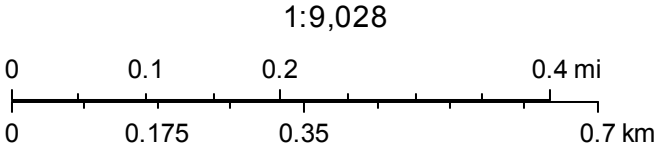


<b>PIN:</b>	234-5.00-30.00
<b>Owner Name</b>	FUSCO PROPERTIES LP
<b>Book</b>	3149
<b>Mailing Address</b>	200 AIRPORT RD
<b>City</b>	NEW CASTLE
<b>State</b>	DE
<b>Description</b>	NS/RT 280
<b>Description 2</b>	COR W/RT 290
<b>Description 3</b>	FX
<b>Land Code</b>	

- polygonLayer

Override 1
- polygonLayer

Override 1
- Tax Parcels
- Streets

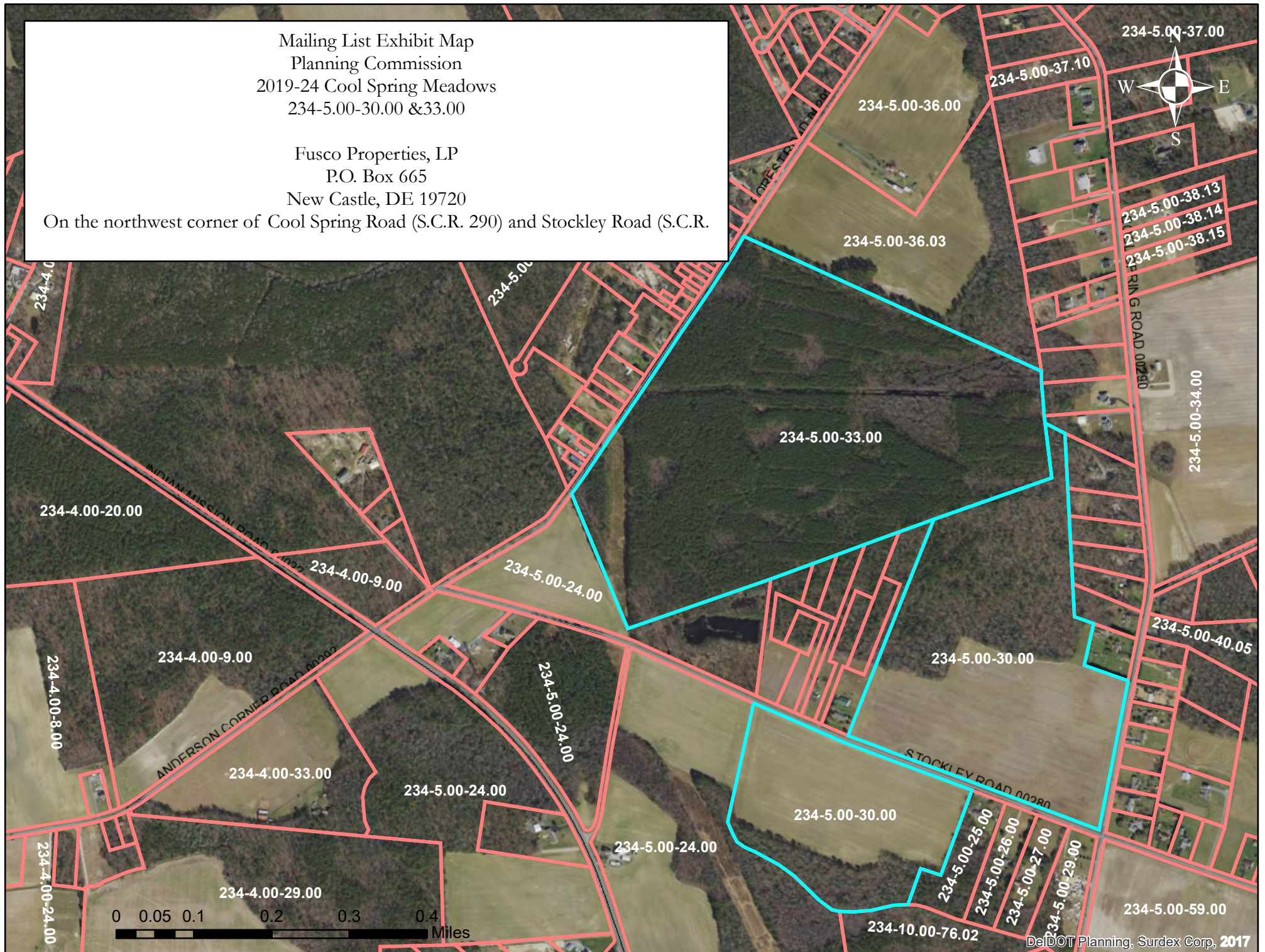




Mailing List Exhibit Map  
Planning Commission  
2019-24 Cool Spring Meadows  
234-5.00-30.00 & 33.00

Fusco Properties, LP  
P.O. Box 665  
New Castle, DE 19720

On the northwest corner of Cool Spring Road (S.C.R. 290) and Stockley Road (S.C.R.





Revised - updated 1/28/21

2019-24

File #: ~~2019-12~~

Pre-App Date: ~~2-1-2020~~

## 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

RECEIVED

JAN 28 2021

SUSSEX COUNTY  
PLANNING & ZONING

#### Type of Application: (please check applicable)

Standard: ☐

Cluster: ☒

Coastal Area: ☐

#### Location of Subdivision:

NW Corner of SCR 290 (Cool Spring Road) and SCR 280 (Stockley Road)

#### Proposed Name of Subdivision:

Stratus Estates (fina Cool Spring Meadows)

Tax Map #: 235-5.00-30.00 Total Acreage: 187.93

Zoning: AR-1 Density: 1.21 Minimum Lot Size: 7,500 Number of Lots: 226

Open Space Acres: 139.27

Water Provider: Artesian Sewer Provider: Artesian

#### Applicant Information

Applicant Name: Fusco Properties, LP

Applicant Address: PO Box 655

City: New Castle State: DE Zip Code: 19720

Phone #: (302) 328-6251 E-mail: frankie@fuscomanagement.com

#### Owner Information

Owner Name: Same as applicant

Owner Address:

City:  State:  Zip Code:

Phone #:  E-mail:

#### Agent/Attorney/Engineer Information

Agent/Attorney/Engineer Name: The Kercher Group, Inc.

Agent/Attorney/Engineer Address: 37385 Rehoboth Ave. Ext, Unit 11

City: Rehoboth Beach State: DE Zip Code: 19971

Phone #: (302) 854-9063 E-mail: kts@kerchergroup.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 my 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

David L. Hoff, Esq.

David L. Hoff, Esq.  
David L. Hoff, Esq.

Signature of Owner

Date: 1/28/2021

Date: \_\_\_\_\_

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: \_\_\_\_\_





STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF STATE PLANNING COORDINATION

August 21, 2019

RECEIVED

SEP 11 2019

SUSSEX COUNTY  
PLANNING & ZONING

Mr. John Murray  
The Kercher Group, Inc.  
37385 Rehoboth Ave. Unit #11  
Rehoboth Beach, DE 19971

RE: PLUS review 2019-07-04; Cool Spring Meadows

Dear Mr. Murray:

Thank you for meeting with State agency planners on July 24, 2019 to discuss the Cool Spring Meadows project. According to the information received you are seeking review of a 226 unit subdivision on 187.93 acres along Stockley Road in Level 4 in Sussex County.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.**

**Strategies for State Policies and Spending**

This project represents land development that will result in 226 residential units in an Investment Level 4 area according to the *2015 Strategies for State Policies and Spending*. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.



From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed will bring new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, 100% of school transportation and paratransit services, up to 80% of school construction costs, and 100% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.

Because the development is inconsistent with the *Strategies for State Policies and Spending*, the State does not support this proposed development.

**With that said, the comments in this letter are technical, and are not intended to suggest that the State supports this development proposal. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to build on this property, construct the development you indicate, or any subdivision thereof on these lands.**

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

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

- The site access on Stockley Road (Sussex Road 280) 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>.
- Pursuant to Section P.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request 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](https://www.deldot.gov/Business/subdivisions/pdfs/Meeting_Request_Form.pdf?08022017).
- Section P.5 of the Manual addresses fees that are assessed for the review of development proposals. DelDOT anticipates collecting the Initial Stage Fee when the record plan is submitted for review and the Construction Stage Fee when construction plans are submitted for review.
- Per Section 2.2.2.1 of the Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the PLUS application, the total daily trips are



estimated at 2,158 vehicle trip ends per day. DelDOT calculates a higher number, 2,201 vehicle trip ends per day, but regardless the warrant for a TIS is met.

In April 2006 (See attached letters.) DelDOT commented to the County on its review of a TIS for an earlier plan to develop these lands. The letter includes a numbered list of off-site improvements and contributions toward off-site improvements that DelDOT recommended be required of the development.

Some of the listed items apply to locations that would not be included in a TIS done today because DelDOT regulations have changed. Following is a list of off-site improvements and contributions toward off-site improvements that DelDOT finds should be required of the developer. If the County or the developer would prefer to restart the TIS process with current data, DelDOT would be amenable to that. Alternatively, DelDOT recommends that the following items be required:

- The developer should improve Stockley Road from Cool Spring Road (Sussex Road 290) to Forest Road (Sussex Road 292) in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
- The developer should improve Cool Spring Road from Stockley Road to the north limit of the site frontage in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
- The developer should enter into a traffic signal agreement with DelDOT for the intersection of Delaware Route 5 and Forest Road.
- 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 Stockley Road and Cool Spring Road. By this regulation, this dedication is to provide a minimum of 30 feet of right-of-way from the physical centerline along both roads. The following right-of-way dedication note is required, **"An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."**
- In accordance with Section 3.2.5.1.2 of the Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on Stockley Road and Cool Spring Road. The location of the easement shall be outside the



limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, **"A 15-foot wide permanent easement is hereby established for the State of Delaware, as per this plat."**

- 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 600 feet of the entrances on Stockley Road.
  - Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.
- Section 3.5 of the Manual provides DelDOT's requirements with regard to connectivity. The requirements in Sections 3.5.1 through 3.5.3 shall be followed for all development projects having access to state roads or proposing DelDOT maintained public streets for subdivisions. DelDOT recommends that Goldenrod Drive be extended to the property line as a stub street.
- Section 3.5.4.2 of the Manual addresses requirements for shared-use paths and sidewalks. For projects in Level 1 and 2 Investment Areas, installation of paths or sidewalks along the frontage on State-maintained roads is required. DelDOT anticipates requiring the developer to build Shared Use Paths along their frontage on both Stockley Road and Cool Spring Road.
- Section 3.5.4.4 of the Manual addresses access-ways, essentially shared-use paths connecting subdivision streets either to each other or to the road on which the property fronts. DelDOT anticipates requiring the developer to build one access-way from Goldenrod Drive to Stockley Road near Lot 16 and another from Monarch Avenue to Cool Spring Road near Lot 99.
- Referring to Section 3.5.5 of the Manual, existing and proposed transit stops and associated facilities as required by the Delaware Transit Corporation (DTC) or DelDOT shall be shown on the Record Plan.
- 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 Stockley Road and Cool Spring Road.
- 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>.

- In accordance with Section 5.14 of the Manual, all existing utilities must be shown on the plan and a utility relocation plan will be required for any utilities that need to be relocated.

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

**Wastewater Disposal**

- The DNREC Groundwater Discharge Large Systems Section will need to be notified where the developer intends to send the wastewater. The PLUS application states that a new community system will not be located on this site.

**Floodplain and Sea Level Rise**

- Chapel Branch runs through the southeast corner of the site. This site is situated upstream of the mapped floodplain for Chapel Branch,
- The unmapped floodplain area should be avoided, and floodplain analysis and mapping could be required.

**Water Quality**

- DNREC mapping indicates presence of wetlands and hydric soils (Hurlock) which encompass a large portion of the subject parcel.
- Increased impervious cover from development and removal of forest cover will increase the potential for future flooding concerns.
- Green-technology stormwater management is highly recommended. Efforts to mitigate for impervious cover (pervious pavers) should also be implemented where applicable.
- To protect the function and integrity of wetlands, a minimum 100-foot buffer should be left intact around the perimeter.
- Avoid disturbance and filling of wetlands.

**Forest Preservation**

- DNREC mapping indicates presence of forested wetlands which encompass a large portion of the subject parcel.



- The site plan should be designed to allow for the preservation of as much of this wooded area as feasible, with special consideration for preservation given to large, mature trees. Leaving a forest intact is usually more beneficial to the existing wildlife and is preferred to clearing.
- To reduce impacts to nesting birds and other wildlife species that utilize forests for breeding, we recommend that clearing not occur April 1st to July 31st.
- Low spillage lights (those that reflect light directly downward onto the illuminated area) should be used on roads and homes within 750 feet of the forested wetlands on site. Fluorescent and mercury vapor lighting should not be used.
- Contact the Division of Fish and Wildlife for assistance in identifying, preserving, and managing the existing forest on-site. For technical assistance or to schedule a site visit please contact Katie Kadlubar, [Kathryn.Kadlubar@delaware.gov](mailto:Kathryn.Kadlubar@delaware.gov).

**State Historic Preservation Office – Contact Carlton Hall 736-7404**

- The Delaware SHPO does not support development in a Level 4 area.
- There are no known archaeological sites or known National Register listed or eligible properties on the parcel. However, the soils are a mix of well-and poorly drained areas. Poorly drained areas could have been a source for plant and animal resources. There is moderate potential for archaeological resources to be present and our office recommends an archaeological survey of the project area. If there are any questions, inquiries, or concerns, feel free to contact the Delaware State Historic Preservation Office for assistance at 302-736-7400.
- 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). Prior to any demolition or ground-disturbing activities, the developer should hire an archaeological consultant to examine the parcel for archaeological resources, including unmarked human burials or human skeletal remains, to avoid those sites or areas.
- 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](http://www.achp.gov)



**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.
- The infrastructure for fire protection water shall be provided, including the size of water mains.

**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. Additionally, where trees are to be situated adjacent to travel roads in the subdivision, some forethought should be exercised regarding how future growth of the trees may affect fire department travel throughout 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, such as Point Lane and Bayberry Drive, shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

**Gas Piping and System Information:**

- Provide type of fuel proposed, and show locations of bulk containers on plan.

**Required Notes:**

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Name of Water Supplier
- Proposed Use



- National Fire Protection Association (NFPA) Construction Type Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads

**Sussex County – Contact Rob Davis 302-855-7820**

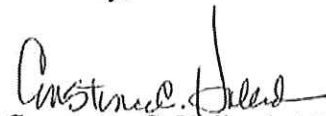
- Sussex County does not expect to provide sanitary sewer service within the area proposed for the 226-unit subdivision. The Sussex County Engineering Department recommends the project receive wastewater service from Artesian Utilities as proposed.

In addition to the comments above our office has received a letter from Brandy Nauman, Sussex County Housing Coordinator & Fair Housing Compliance Officer. A copy of that letter is enclosed with this letter.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



Constance C. Holland, AICP

Director, Office of State Planning Coordination

CC: Sussex County

Enclosure  
Attachment



BRANDY BENNETT NAUMAN  
HOUSING COORDINATOR &  
FAIR HOUSING COMPLIANCE OFFICER  
(302) 855-7777 T  
(302) 854-5397 F  
bnauman@sussexcountyde.gov



**Sussex County**  
DELAWARE  
sussexcountyde.gov

July 22, 2019

Mr. John Murray  
The Kercher Group, Inc.  
37385 Rehoboth Ave., Unit #11  
Rehoboth Beach, DE 19971

RE: Cool Spring Meadows – PLUS Review (PLUS 2019-07-04)

Dear Mr. Murray,

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](http://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,

Brandy B. Nauman  
*Housing Coordinator &  
Fair Housing Compliance Officer*



COUNTY ADMINISTRATIVE OFFICES WEST COMPLEX  
22215 DUPONT BOULEVARD | PO BOX 589  
GEORGETOWN, DELAWARE 19947





April 19, 2006

Mr. Todd J. Sammons  
Project Engineer  
DelDOT Division of Planning  
P.O. Box 778  
Dover, DE 19903

RE: Agreement No. 1294  
Traffic Impact Study Review Services  
**Task No. 91 – Cool Spring Meadows**

Dear Mr. Sammons,

McCormick Taylor has completed its review of the Traffic Impact Study (TIS) for the development of Cool Spring Meadows prepared by Orth-Rodgers and Associates, Inc., dated January 19, 2006. This review was assigned as Task Number 91. Orth-Rodgers and Associates, Inc. prepared the report in a manner generally consistent with DelDOT's *Rules and Regulations for Subdivision Streets*.

The TIS evaluates the impacts of the development of Cool Spring Meadows in Sussex County, Delaware. The proposed development would consist of 233 single-family detached houses. This development is located on the both sides of Stockley Road (Sussex Road 280), west of Cool Spring Road (Sussex Road 290). Two access points on Stockley Road are proposed to create a four-way intersection, and one access point is proposed on Cool Spring Road creating a t-intersection. Construction is expected to be complete by 2010.

There are currently no active DelDOT projects within the study area.

Based on our review, we have the following comments and recommendations:

One intersection exhibits level of service deficiencies without the implementation of physical roadway and/or traffic control improvements: the intersection of US Route 9 (Lewes-Georgetown Highway) and Cool Spring Road. This intersection is expected to exhibit level of service deficiencies in the 2010 afternoon and summer Saturday peak hours with and without the development, and in the 2010 morning peak hour with the development.

Should the County choose to approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan. All applicable agreements (i.e., letter agreements for off-site improvements and traffic signal agreements) should be executed prior to entrance plan approval for the proposed development.



1. The developer should improve Stockley Road from Forest Road (Sussex Road 292) to Cool Spring Road in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
2. The developer should improve Cool Spring Road from Stockley Road to Forest Road in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
3. The developer should enter into a traffic signal agreement with DelDOT for the intersection of US Route 9 and Cool Spring Road. The agreement should include pedestrian signals, crosswalks, and interconnection at DelDOT's discretion. Due to the fact that an active railroad line is aligned diagonally through the intersection, any traffic signal agreement should also include active railroad warning devices and railroad-highway traffic signal interconnection at DelDOT's discretion.
4. The following bicycle and pedestrian improvements should be included:
  - a) A minimum of a five-foot bicycle lane should be striped along the Stockley Road and Cool Spring Road site frontage (in addition to any required turn lanes) in order to facilitate safe and unimpeded bicycle travel.
  - b) A fifteen-foot wide permanent easement should be established across the property frontage for a future ten-foot wide multi-use path.
  - c) Regulatory/warning signage should be added to any forthcoming plans to this project in order to alert motorists to the presence of bicycle traffic.
  - d) Utility covers should be moved outside of the designated bicycle lane or be flush with the pavement.
  - e) Internal sidewalks to promote walking as a viable transportation alternative should be constructed.
  - f) An ADA compliant crosswalk should be considered at the opposing access points along Stockley Road.

Please note that this review generally focuses on capacity and level of service issues; additional safety and operational issues will be further addressed through DelDOT's subdivision review process.





Additional details on our review of the TIS are attached. Please contact me at (302) 738-0203 or through e-mail at [mluszcz@mtmail.biz](mailto:mluszcz@mtmail.biz) if you have any questions concerning this review.

Sincerely,

**McCormick Taylor, Inc.**

A handwritten signature in black ink that reads "Mark Luszcz".

Mark Luszcz, P.E., PTOE, AICP  
Associate

Enclosure



**General Information**

**Report date:** January 19, 2006

**Prepared by:** Orth-Rodgers & Associates, Inc.

**Prepared for:** Ocean Atlantic Agency

**Tax parcel:** 2-34-5.00-30.00, 2-34-5.00-33.00

**Generally consistent with DelDOT's Rules and Regulations for Subdivision Streets:** Yes

**Project Description and Background**

**Description:** Development of 233 single-family detached houses

**Location:** Site is located on either side of Stockley Road, west of Cool Spring Road in Sussex County, Delaware

**Amount of land to be developed:** approximately 207 acres

**Land use approval(s) needed:** Subdivision Review

**Proposed completion date:** 2010

**Proposed access locations:** Two access points on Stockley Road are proposed to create a four-way intersection, and one access point is proposed on Cool Spring Road creating a t-intersection.

**Livable Delaware**

*(Source: Delaware Strategies for State Policies and Spending, July 2004)*

**Location with respect to the Strategies for State Policies and Spending Map of Delaware:**

The proposed Cool Springs Meadow Development is located within Investment Level 4.

**Description of Investment Level 4:**

Areas located within Investment Level 4 are predominantly agricultural; contain agribusiness activities, farm complexes and small settlements that are often found at historic crossroads. These areas contain undeveloped natural areas, including forestland and recreational parks, however may have scattered single-family detached residential homes located within them.

Transportation facilities and services will be preserved by the state while they continue to manage the transportation system in a manner that will support the preservation of the natural environment. The state will limit its investments in water and wastewater systems to existing public health, safety and environmental risks and discourage accommodating further development. In addition, the state will limit continued development of areas within Investment Level 4 to those that enhance agriculture and protect water supplies, preserve critical habitat and maintain existing education and public safety services. Although residential development is not desirable in Investment Level 4, conservation design techniques (protecting large portions of existing open space and farmland while clustering development on a smaller portion of the parcel and using environmentally friendly design innovations) can be utilized in some cases to help ensure that developments are compatible with the rural character and natural resources present in the area. However, it is the state's general intent to discourage additional development in Investment Level 4 areas that are unrelated to the areas' needs by limiting infrastructure investment.



**Proposed Development's Compatibility with Livable Delaware:**

The proposed Cool Spring Meadows Development falls within Investment Level 4. Residential development is generally not desirable in Investment Level 4. Developments within Investment Level 4 areas should focus on protection of large portions of existing open space and farmland on a site while clustering development on a smaller portion of the parcel. This proposed development would be developed using the cluster option under that zoning and therefore would be compatible with Livable Delaware. However, it should be noted that conservation design techniques should be utilized to ensure that the development is compatible with the rural character and natural resources present in the area.

**Comprehensive Plans**

**Sussex County Comprehensive Plan:** (*Source: 2003 Sussex County Comprehensive Plan Update*) The Sussex County Comprehensive Plan indicates that the parcel of land for the proposed development is in a Low Density Area. The purpose of the Low Density Area is to provide for a full range of agricultural activities and to protect agricultural lands as one of the County's most valuable natural resources from the depreciating effect of objectionable, hazardous and unsightly uses. Although this area is intended primarily for agricultural use, low density residential development is permitted. Density guidelines state that the minimum lot size in a Low Density Area is 20,000 square feet (about 0.46 acres).

Public water and wastewater systems are not planned for low density areas therefore the proposed development will use on-site septic systems or private wastewater treatment systems. Improvements to local roads will be limited to safety considerations and emergency evacuation.

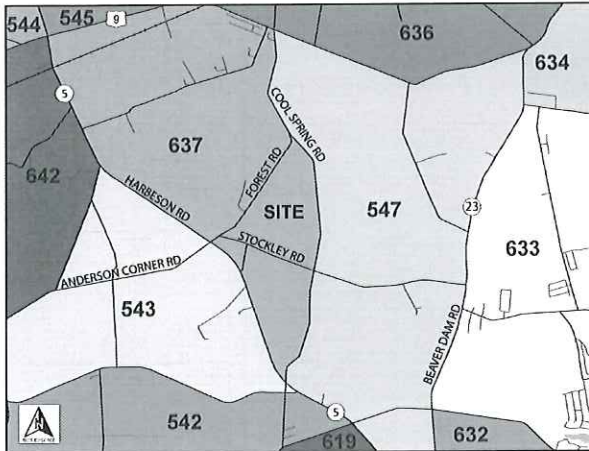
**Proposed Development's Compatibility with Comprehensive Plans:** Since the average density of this proposed development would be approximately 1.12 dwelling units/acre (close to an average 0.89 acre lots sizes), this development would most likely be compatible with the Sussex County Comprehensive Plan.



## Transportation Analysis Zone

Transportation Analysis Zones (TAZ) where development would be located:  
637 (Peninsula Code TAZ)

### TAZ Boundaries:



**Current employment estimate for TAZ:** 36 in 2005  
**Future employment estimate for TAZ:** 39 in 2010  
**Current population estimate for TAZ:** 841 in 2005  
**Future population estimate for TAZ:** 938 in 2010  
**Current household estimate for TAZ:** 351 in 2005  
**Future household estimate for TAZ:** 397 in 2010  
**Relevant committed developments in the**

**TAZ:** Beaver Creek (The Villages)

**Would the addition of committed developments to current estimates exceed future projections:** Yes

**Would the addition of committed developments and the proposed development to current estimates exceed future projections:** Yes

### Relevant Projects in the DelDOT Capital Transportation Program (2005-2010)

There are currently no active DelDOT projects within the study area.

### Trip Generation

Trip generation for the proposed development was computed using comparable land uses and equations contained in Trip Generation, Seventh Edition, published by the Institute of Transportation Engineers (ITE). The following land uses were utilized to estimate the amount of new traffic generated for this development:

- Single-Family Detached Houses (ITE Land Use Code 210)

Table 1.  
COOL SPRING MEADOWS TRIP GENERATION

Land Use	AM Peak Hour			PM Peak Hour			Saturday Mid-Day		
	In	Out	Total	In	Out	Total	In	Out	Total
233 Residential Single-Family Detached Houses	43	130	173	145	85	230	118	100	218
<b>TOTAL TRIPS</b>	<b>43</b>	<b>130</b>	<b>173</b>	<b>145</b>	<b>85</b>	<b>230</b>	<b>118</b>	<b>100</b>	<b>218</b>



## **Overview of TIS**

### **Intersections examined:**

- 1) Stockley Road (Sussex Road 280) & Site Access
- 2) Cool Spring Road (Sussex Road 290) & Site Access
- 3) Cool Spring Road & Stockley Road
- 4) Cool Spring Road & Forest Road (Sussex Road 292)
- 5) Forest Road & Stockley Road
- 6) Cool Spring Road & Delaware Route 5 (Sussex Road 22)\*
- 7) Cool Spring Road & US Route 9 (Sussex Road 18)\*
- 8) Forest Road/Anderson Corner Road (Sussex Road 292) & Delaware Route 5\*
- 9) Stockley Road & Beaver Dam Road (Sussex Road 23)\*

The asterisks (\*) indicate intersections for which Saturday conditions were analyzed.

### **Conditions examined:**

- 1) 2005 existing conditions
- 2) 2010 without Cool Spring Meadows Development
- 3) 2010 with Cool Spring Meadows Development

**Peak hours evaluated:** Weekday morning and evening peak hours, Saturday mid-day.

### **Committed developments considered:**

- 1) Heron Bay (352 Single Family Houses)
- 2) Beaver Creek
  - a. The Meadows (102 Single-Family Houses)
  - b. The Trails (170 Single-Family Houses)
  - c. The Villages (400 Single-Family Houses, 50 Condominiums, 50,000 Square Feet of General Retail)
- 3) Stonewater Creek
  - a. Phase 1-9 (712 Single-Family Houses)
  - b. Phase 10-13 (360 Single-Family Houses)
- 4) Oak Crest Pond (26 Single-Family Houses)
- 5) Oak Crest Farm (96 Single-Family Houses)

## **Intersection Descriptions**

### **1) Stockley Road & Site Access:**

**Type of Control:** Proposed two-way stop-controlled intersection

**Northbound approach:** (Site Access) stop-controlled shared left/through/right-turn lane

**Southbound approach:** (Site Access) stop-controlled shared left/through/right-turn lane

**Eastbound approach:** (Stockley Road) one shared left/through/right-turn lane

**Westbound approach:** (Stockley Road) one shared left/through/right-turn lane



**2) Cool Spring Road & Site Access:**

**Type of Control:** Proposed T-intersection

**Northbound approach:** (Cool Spring Road) one shared left-turn/through lane

**Southbound approach:** (Cool Spring Road) one shared through/right-turn lane

**Eastbound approach:** (Site Access) stop-controlled shared left/right-turn lane

**3) Cool Spring Road & Stockley Road:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Cool Spring Road) stop-controlled shared left/through/right-turn lane

**Southbound approach:** (Cool Spring Road) stop-controlled shared left/through/right-turn lane

**Eastbound approach:** (Stockley Road) one shared left/through/right-turn lane

**Westbound approach:** (Stockley Road) one shared left/through/right-turn lane

**4) Cool Spring Road & Forest Road:**

**Type of Control:** Stop-controlled T-intersection

**Northbound approach:** (Cool Spring Road) one shared left-turn/through lane

**Southbound approach:** (Cool Spring Road) one shared through/right-turn lane

**Eastbound approach:** (Forest Road) stop-controlled shared left/right-turn lane

**5) Forest Road & Stockley Road:**

**Type of Control:** Stop-controlled T-intersection

**Northbound approach:** (Stockley Road) stop-controlled shared left-turn/right-turn lane

**Eastbound approach:** (Forest Road) one shared through/right-turn lane

**Westbound approach:** (Forest Road) one shared through/left-turn lane

**6) Cool Spring Road & Delaware Route 5:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Southbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Eastbound approach:** (Cool Spring Road) stop controlled shared left-turn/through lane and one yield controlled channelized right-turn lane

**Westbound approach:** (Cool Spring Road) one stop controlled shared left-turn/through lane and one yield controlled channelized right-turn lane

**7) Cool Spring Road & US Route 9:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Cool Spring Road) stop-controlled shared left-turn/through/right-turn lane

**Southbound approach:** (Cool Spring Road) stop-controlled shared left-turn/through/right-turn lane

**Eastbound approach:** (US Route 9) one shared left-turn/through/right-turn lane

**Westbound approach:** (US Route 9) one shared left-turn/through/right-turn lane



**Note:** There is an active railroad line aligned diagonally through this intersection, as described below.

**8) Forest Road/Anderson Corner Road & Delaware Route 5:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Southbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Eastbound approach:** (Anderson Corner Road) stop-controlled shared left-turn/through/right-turn lane

**Westbound approach:** (Forest Road) stop-controlled shared left-turn/through/right-turn lane

**9) Stockley Road & Beaver Dam Road:**

**Type of Control:** Stop-controlled T-intersection

**Northbound approach:** (Beaver Dam Road) one shared left-turn/through lane

**Southbound approach:** (Beaver Dam Road) one shared through/right-turn lane

**Eastbound approach:** (Stockley Road) stop-controlled shared left/right-turn lane

**At-Grade Railroad Crossing Description**

**Location:** At the intersection of US Route 9 and Cool Spring Road:

**Rail Line:** This east-west active rail line is a Class III line called the Delaware Coastline line. It is owned by the Delaware Transit Corporation (DTC) and extends from Georgetown to Lewes, Delaware. Trains over the line are operated by the Delaware Coast Line Railroad.

**Northbound approach:** (Cool Spring Road) one shared left/through/right-turn lane with appropriate pavement markings and signage.

**Southbound approach:** (Cool Spring Road) one shared left/through/right-turn lane with appropriate pavement markings and signage.

**Eastbound approach:** (US Route 9) one through lane with appropriate pavement markings, signage and warning flashers

**Westbound approach:** (US Route 9) one through lane with appropriate pavement markings, signage and warning flashers

**Description:** This is an at-grade crossing of an active rail line that serves about 1 train/week of about 5 cars in length running through the intersection of US Route 9 and Cool Spring Road at a 35 degree angle. The trains along the rail line generally have a speed of approximately 15 MPH in this area. The crossing is currently equipped with pavement markings and railroad crossing signs at the stop signs on the northbound and southbound approaches of Cool Spring Road. On US Route 9, pavement markings, signing, and side-mounted warning flashers are present, but there are no gates. Traffic volumes at the intersection are expected to increase in the next few years due to the development in the area. Without improvements, the intersection is expected to operate at a level of service F in the AM, PM and Saturday peak hour with and without the development.



### **Transit, Pedestrian, and Bicycle Facilities**

**Existing transit service:** None.

**Planned transit service:** In an email from David Dooley from DelDOT dated March 8, 2006, he stated that no transit routes are proposed in the area. Pedestrian and bicycle mobility access should be enhanced so that should transit be expanded to serve these developments in the future, pedestrian access to the frontage road would make transit trips more viable.

**Existing bicycle and pedestrian facilities:** The *Delaware Kent and Sussex Counties Bicycle Touring Map* designates Delaware Route 5 as a bike route; therefore a five-foot minimum shoulder must be maintained along any property frontage.

**Planned bicycle and pedestrian facilities:** In a letter dated November 14, 2005, Anthony Aglio from DelDOT commented that Livable Delaware's updated State Strategies for Spending Map indicates the site is located in an Investment Level 4 area, where the existing transportation network should preserve the natural environment. Per Livable Delaware's recommendations residential developments such as this are not encouraged in Investment Level 4 areas. However, should the development be approved, he requested the following improvements be incorporated into the project to facilitate bicycle and pedestrian transportation:

- a) Striped five-foot bicycle lanes with five-foot shoulders (in addition to any required turn lanes) along the Stockley Road and Cool Spring Road site frontages.
- b) An ADA compliant crosswalk should be considered at the opposing access points along Stockley Road.
- c) Internal sidewalks to promote walking as a viable transportation alternative.

### **Previous Comments**

All comments from DelDOT's Scoping Letter dated May 27, 2005 were addressed in the Final TIS submission except for the following:

- In regards to compliance with DelDOT, AASHTO and MUTCD standards for geometry and traffic control devices, no evaluation was performed for the study intersections.
- In regards to compliance with DelDOT, AASHTO and MUTCD standards for geometry and traffic control devices, no evaluation was performed for Stockley Road from Delaware Route 23 to Forest Road, Cool Spring Road from Delaware Route 5 to US Route 9 and Forest Road from Delaware Route 5 to Cool Spring Road.
- No correspondence was present indicating that Mr. Mark Harbeson was contacted with regard to the Delaware Route 24 corridor project.

All comments from DelDOT's letter dated August 5, 2005 were addressed in the Final TIS submission.

All comments from DelDOT's Preliminary TIS Letter dated September 13, 2005 were addressed in the Final TIS submission.



**General HCS Analysis Comments**

*(see table footnotes on the following pages for specific comments)*

- 1) The TIS used the existing truck percentage for all approaches in all future cases. McCormick Taylor used the greater of either the existing truck percentage or 2% for all future cases.



Table 2  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>1</sup> Two-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2010 With Development				
Northbound Site Access	A (9.3)	A (9.8)	A (9.3)	A (9.8)
Southbound Site Access	A (9.7)	A (10.0)	A (9.7)	A (10.0)
Eastbound Stockley Road - Left	A (7.5)	A (7.5)	A (7.5)	A (7.5)
Westbound Stockley Road - Left	A (7.3)	A (7.5)	A (7.3)	A (7.5)

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<sup>1</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 3  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>2</sup> One-Way Stop Control	LOS per TIS		LOS per McCormick Taylor	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Cool Spring Road & Site Access				
2010 With Development				
Northbound Cool Spring Road - Left	A (7.3)	A (7.5)	A (7.3)	A (7.5)
Eastbound Site Access	A (9.3)	A (9.8)	A (9.3)	A (9.8)

<sup>2</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 4  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>3</sup> Two-Way Stop Control Stockley Road & Cool Spring Road	LOS per TIS		LOS per McCormick Taylor	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2005 Existing				
Northbound Cool Spring Road	A (9.3)	A (9.6)	A (9.3)	A (9.6)
Southbound Cool Spring Road	A (9.9)	A (10.0)	A (9.9)	A (10.0)
Eastbound Stockley Road - Left	A (7.5)	A (7.3)	A (7.5)	A (7.3)
Westbound Stockley Road - Left	A (7.3)	A (7.3)	A (7.3)	A (7.3)
2010 Without Development				
Northbound Cool Spring Road	A (9.6)	B (10.2)	A (9.6)	B (10.2)
Southbound Cool Spring Road	B (10.3)	B (10.7)	B (10.3)	B (10.7)
Eastbound Stockley Road - Left	A (7.6)	A (7.4)	A (7.6)	A (7.4)
Westbound Stockley Road - Left	A (7.3)	A (7.5)	A (7.3)	A (7.5)
2010 With Development				
Northbound Cool Spring Road	B (10.1)	B (10.9)	B (10.1)	B (10.9)
Southbound Cool Spring Road	B (11.0)	B (11.4)	B (11.0)	B (11.4)
Eastbound Stockley Road - Left	A (7.7)	A (7.5)	A (7.7)	A (7.5)
Westbound Stockley Road - Left	A (7.4)	A (7.5)	A (7.4)	A (7.5)

<sup>3</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 5  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>4</sup> One-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
<b>Forest Road &amp; Cool Spring Road</b>				
2005 Existing				
Northbound Cool Spring Road - Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
Eastbound Forest Road	A (9.2)	A (9.2)	A (9.2)	A (9.2)
2010 Without Development				
Northbound Cool Spring Road - Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
Eastbound Forest Road	A (9.3)	A (9.4)	A (9.3)	A (9.4)
2010 With Development				
Northbound Cool Spring Road - Left	A (7.5)	A (7.6)	A (7.5)	A (7.6)
Eastbound Forest Road	A (9.8)	B (10.2)	A (9.8)	B (10.2)

<sup>4</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 6  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>5</sup> One-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2005 Existing				
Northbound Stockley Road	A (9.2)	A (9.3)	A (9.2)	A (9.3)
Westbound Forest Road - Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
2010 Without Development				
Northbound Stockley Road	A (9.5)	A (9.6)	A (9.5)	A (9.6)
Westbound Forest Road - Left	A (7.4)	A (7.5)	A (7.4)	A (7.5)
2010 With Development				
Northbound Stockley Road	A (9.7)	A (10.0)	A (9.7)	A (10.0)
Westbound Forest Road - Left	A (7.5)	A (7.6)	A (7.5)	A (7.6)

<sup>5</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 7  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>6</sup> Two-Way Stop Control	LOS per TIS			LOS per McCormick Taylor		
	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2005 Existing						
Northbound Delaware Route 5 - Left	A (7.6)	A (7.6)	A (7.6)	A (7.6)	A (7.6)	A (7.6)
Southbound Delaware Route 5 - Left	A (7.7)	A (7.6)	A (7.6)	A (7.7)	A (7.6)	A (7.6)
Eastbound Cool Spring Road	B (10.9)	B (11.6)	B (11.3)	B (10.9)	B (11.6)	B (11.3)
Westbound Cool Spring Road	B (11.0)	B (11.2)	B (10.9)	B (11.0)	B (11.2)	B (10.9)
2010 Without Development						
Northbound Delaware Route 5 - Left	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (7.8)	A (7.9)	A (7.9)	A (7.8)	A (7.9)	A (7.9)
Eastbound Cool Spring Road	B (12.5)	B (13.9)	B (13.6)	B (12.5)	B (13.9)	B (13.6)
Westbound Cool Spring Road	B (12.4)	B (13.4)	B (13.6)	B (12.5)	B (13.4)	B (13.6)
2010 With Development						
Northbound Delaware Route 5 - Left	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (7.8)	A (7.9)	A (7.9)	A (7.8)	A (7.9)	A (7.9)
Eastbound Cool Spring Road	B (12.5)	B (14.1)	B (13.7)	B (12.5)	B (14.1)	B (13.7)
Westbound Cool Spring Road	B (12.6)	B (13.7)	B (13.8)	B (12.6)	B (13.7)	B (13.8)

<sup>6</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 8  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>7</sup> Two-Way Stop Control	LOS per TIS			LOS per McCormick Taylor <sup>8</sup>		
	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2005 Existing						
Northbound Cool Spring Road	B (13.5)	C (17.3)	C (24.9)	B (13.5)	C (17.3)	C (24.9)
Southbound Cool Spring Road	C (17.2)	C (20.4)	D (29.3)	C (17.2)	C (20.4)	D (29.3)
Eastbound US Route 9 - Left	A (8.1)	A (8.5)	A (9.1)	A (8.1)	A (8.5)	A (9.1)
Westbound US Route 9 - Left	A (8.3)	A (8.5)	A (9.2)	A (8.3)	A (8.5)	A (9.2)
2010 Without Development						
Northbound Cool Spring Road	D (30.4)	F (52.4)	F (375.5)	D (31.4)	F (56.2)	F (451.3)
Southbound Cool Spring Road	D (25.6)	D (34.0)	F (76.9)	D (25.9)	E (35.5)	F (90.6)
Eastbound US Route 9 - Left	A (8.5)	A (9.5)	B (10.4)	A (8.5)	A (9.5)	B (10.6)
Westbound US Route 9 - Left	A (9.0)	A (9.1)	B (10.9)	A (9.1)	A (9.2)	B (11.1)
2010 With Development						
Northbound Cool Spring Road	E (50.0)	F (128.0)	F (*)	F (53.0)	F (150.9)	F (1237)
Southbound Cool Spring Road	D (27.9)	E (45.4)	F (132.7)	D (28.5)	E (48.9)	F (159.7)
Eastbound US Route 9 - Left	A (8.5)	A (9.5)	B (10.4)	A (8.5)	A (9.5)	B (10.6)
Westbound US Route 9 - Left	A (9.1)	A (9.3)	B (11.4)	A (9.1)	A (9.5)	B (11.6)

Signalized Intersection <sup>7</sup> US Route 9 & Cool Spring Road	LOS per TIS			LOS per McCormick Taylor <sup>9</sup>		
	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2010 With Development	B (0.59)	B (0.76)	B (0.88)	B (0.60)	B (0.77)	C (0.93)

<sup>7</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

<sup>8</sup> The TIS used a minimum PHF of 0.92 on the eastbound and westbound US Route 9 approaches for all future cases. Because this is a rural Level 4 area, McCormick Taylor used a minimum PHF of 0.88 on US Route 9 for all future cases.

<sup>9</sup> McCormick Taylor used 6 seconds of yellow and red time; the TIS used 5 seconds of yellow and red time.



Table 9  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>10</sup> Two-Way Stop Control	LOS per TIS			LOS per McCormick Taylor		
	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
<b>Anderson Corner Road/ Forest Road &amp; Delaware Route 5</b>						
2005 Existing						
Northbound Delaware Route 5 - Left	A (7.5)	A (7.6)	A (7.5)	A (7.5)	A (7.6)	A (7.5)
Southbound Delaware Route 5 - Left	A (7.7)	A (7.8)	A (7.7)	A (7.7)	A (7.8)	A (7.7)
Eastbound Anderson Corner Rd	B (12.2)	B (13.3)	B (11.3)	B (12.2)	B (13.3)	B (11.3)
Westbound Forest Road	B (12.6)	B (13.6)	B (11.9)	B (12.6)	B (13.6)	B (11.9)
2010 Without Development						
Northbound Delaware Route 5 - Left	A (7.7)	A (7.8)	A (7.8)	A (7.7)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (8.0)	A (8.2)	A (8.1)	A (8.0)	A (8.2)	A (8.1)
Eastbound Anderson Corner Rd	C (15.1)	C (18.9)	C (16.3)	C (15.1)	C (19.0)	C (16.3)
Westbound Forest Road	B (14.2)	C (17.1)	B (14.3)	B (14.2)	C (17.1)	B (14.4)
2010 With Development						
Northbound Delaware Route 5 - Left	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (8.0)	A (8.2)	A (8.1)	A (8.0)	A (8.3)	A (8.1)
Eastbound Anderson Corner Rd	B (14.4)	C (18.3)	B (14.9)	B (14.4)	C (18.3)	B (15.0)
Westbound Forest Road	C (15.3)	C (20.9)	C (17.5)	C (15.3)	C (21.0)	C (17.5)

<sup>10</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 10  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>11</sup> One-Way Stop Control	LOS per TIS			LOS per McCormick Taylor		
	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
<b>Stockley Road &amp; Delaware Route 23</b>						
2005 Existing						
Northbound Delaware Route 23 - Left	A (7.5)	A (7.9)	A (7.7)	A (7.5)	A (7.9)	A (7.7)
Eastbound Stockley Road	B (11.4)	B (12.2)	B (11.6)	B (11.4)	B (12.2)	B (11.6)
2010 Without Development						
Northbound Delaware Route 23 - Left	A (8.0)	A (8.6)	A (8.2)	A (7.9)	A (8.6)	A (8.2)
Eastbound Stockley Road	C (16.8)	C (23.7)	C (20.1)	C (15.9)	C (23.7)	C (20.3)
2010 With Development						
Northbound Delaware Route 23 - Left	A (8.1)	A (8.7)	A (8.3)	A (8.0)	A (8.7)	A (8.3)
Eastbound Stockley Road	C (18.3)	D (30.6)	C (23.8)	C (17.2)	D (30.6)	C (24.1)

<sup>11</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



**SUSSEX COUNTY ENGINEERING DEPARTMENT  
UTILITY PLANNING & DESIGN REVIEW DIVISION  
C/U & C/Z COMMENTS**

TO: **Jamie Whitehouse**

REVIEWER: **Chris Calio**

DATE: **2/8/2021**

APPLICATION: **2019-24 Cool Spring Meadows**

APPLICANT: **Fusco Properties, LP**

FILE NO: **NCPA-5.03**

TAX MAP &  
PARCEL(S): **234-5.00-30.00 & 33.00**

LOCATION: **On the northwest corner of Cool Spring Road (SCR 290) and  
Stockley Road (SCR 280).**

NO. OF UNITS: **226 single family lots**

GROSS  
ACREAGE: **187.93**

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 3**

- (3). Is wastewater capacity available for the project? **N/A** If not, what capacity is available? **N/A**.

- (4). Is a Construction Agreement required? **No** If yes, contact Utility Engineering at (302) 855-7717.

- (5). Are there any System Connection Charge (SCC) credits for the project? **N/A** If yes, how many? **N/A**. Is it likely that additional SCCs will be required? **N/A** If yes, the current System Connection Charge Rate is **Unified \$6,360.00** per EDU. Please contact **N/A** at **302-855-7719** for additional information on charges.



- (6). Is the project capable of being annexed into a Sussex County sanitary sewer district? **No**
- ☐ 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? **No**
- (8). Comments: **The proposed subdivision is not in an area where the Sussex County Engineering Department has a schedule to provide sanitary sewer service.**
- (9). Is a Sewer System Concept Evaluation required? **No**
- (10). Is a Use of Existing Infrastructure Agreement Required? **No**

UTILITY PLANNING APPROVAL:



John J. Ashman  
Director of Utility Planning

Xc: Hans M. Medlarz, P.E.  
Lisa Walls  
No Permit Tech Assigned



Sussex County, Delaware  
Technical Advisory Committee

Comment Sheet

\*\*\*\*\*



DATE OF REVIEW: October 2, 2019

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  
Joseph Moran, CFI, Sr. Fire Protection Specialist  
Desiree B. McCall, CFI, Sr. Fire Protection Specialist

AGENCY PHONE NUMBERS: 302-856-5298, Fax: 302-856-5800

RE: COOL SPRING MEADOWS (2019-24)

*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)
- 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:**

➤

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 Stockley Rd 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. Bayberry and Point both exceed the 300 feet limit.
- 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](http://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***



## PLANNING & ZONING

JANELLE M. CORNWELL, AICP  
DIRECTOR

(302) 855-7878 T  
(302) 854-5079 F



# Sussex County

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SUSSEX COUNTY  
PLANNING & ZONING

## Memorandum

To: Sussex County Technical Advisory Committee  
From: Christin Headley, Planning Technician  
Date: September 25, 2019  
RE: Major Subdivision

The Sussex County Planning and Zoning Office has received one (1) application for a major subdivision that require review by the Sussex County Technical Advisory Committee. Please review the applications and provide comments back to the Planning and Zoning Office on or before **Wednesday, November 27, 2019**.

- 1.) **2019-24 – Cool Spring Meadows** - This is a cluster subdivision. The cluster subdivision is for the creation of two hundred twenty-six (226) single family lots. The property is located on the corner of Stockley Rd. and Cool Spring Rd. Tax Parcels: 234-5.00-30.00 & 234-5.00-33.00. Zoning: AR-1 (Agricultural Residential District). Owner: Fusco Properties, LP.

Please feel free to send your comments via e-mail. Please feel free to contact me with any questions at (302) 855-7878 during normal business hours 8:30am-4:30pm Monday through Friday or e-mail me at [christin.headley@sussexcountype.gov](mailto:christin.headley@sussexcountype.gov).



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









2019-24  
TM #234-5.00-30.00 & 234-5.00-33.00  
Cool Spring Meadows









2019-24  
TM #234-5.00-30.00 & 234-5.00-33.00  
Cool Spring Meadows









United States Department of Agriculture

Natural Resources  
Conservation Service

Georgetown  
Service Center

21315 Berlin Road  
Unit 3  
Georgetown, DE  
19947

Voice 302.856.3990  
Fax 855.306.8272

November 19, 2019

Janelle M. Cornwell, Director  
Sussex County Planning & Zoning  
Sussex County Courthouse  
Georgetown, DE 19947

**RE: Cool Spring Meadow  
Indian River Hundred  
226 Single Family Lots**

Dear Ms. Cornwell:

Soils within the delineated area on the enclosed map are:

DoA	Downer sandy loam, 0 to 2 percent slopes
FhA	Fort Mott-Henlopen complex, 0 to 2 percent slopes
HmA	Hammonton loamy sand, 0 to 2 percent slopes
HnA	Hammonton sandy loam, 0 to 2 percent slopes
HuA	Hurlock loamy sand, 0 to 2 percent slopes
HvA	Hurlock sandy loam, 0 to 2 percent slopes
IeA	Ingleside loamy sand, 0 to 2 percent slopes
KsA	Klej loamy sand, 0 to 2 percent slopes
LO	Longmarsh and Indiantown soils, frequently flooded
MmA	Mullica mucky sandy loam, 0 to 2 percent slopes
PsA	Pepperbox-Rosedale complex, 0 to 2 percent slopes
UdB	Udorthents, borrow area, 0 to 5 percent slopes

Soil Interpretation Guide

Soil Limitation Class

Buildings

Map Symbol	Urbanizing Subclass	With Basement	Without Basement	Septic Filter Fields
DoA	G1	Not limited	Not limited	Not limited
FhA	G1	Not limited	Not limited	Somewhat limited/not limited
HmA	Y2	Very limited	Somewhat limited	Very limited
HnA	Y2	Very limited	Somewhat limited	Very limited







HuA	R2	Very limited	Very limited	Very limited
HvA	R2	Very limited	Very limited	Very limited
IeA	Y2	Somewhat limited	Not limited	Very limited
KsA	R2	Very limited	Very limited	Very limited
LO	R3	Very limited	Very limited	Very limited
MmA	R2	Very limited	Very limited	Very limited
PsA	Y2	Very limited/Somewhat limited	Somewhat limited/not limited	Very limited
UbB	Ft	Very limited	Somewhat limited	Very limited

Definition of soil limitation ratings classes:

Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development.

**"Not limited"** indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.

**"Somewhat limited"** indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.

**"Very limited"** indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

#### **G1:**

These soils are on nearly level to strongly sloping (0-10% slopes), well drained, mostly permeable soils. As sites for large commercial, industrial, institutional, and residential developments, these soils have fewer limitations than any other soils in the state. Slopes are favorable, and grading can be done without difficulty. Foundation conditions are generally good. Grasses, trees, and do well. Principal soil limitations: No apparent soil limitations for conventional uses.

#### **R2:**

The soils in this classification are nearly or gently sloping, very poorly, poorly, and somewhat poorly drained. Seasonal high water tables, local ponding, and high potential frost action severely limit these soils for residential developments. The principal soil limitations are: 1) soil is highly susceptible to frost action, 2) excavations are likely to fill with water in late winter or early spring, 3) wet foundations or basements probable, and 4) hazard of temporary ponding of water in areas lacking outlets. Loose running sand commonly encountered in deep excavations.







**R3:**

These soils are alluvial soils that have a history of flooding. The hazard of potential flood damage and seasonal or fluctuating high water tables severely limits these soils for building use. The soil limitations are 1) soil is highly susceptible to frost action, 2) excavations are likely to fill with water in late winter or early spring, 3) delayed construction in spring - slow to dry out, 4) wet foundations or basements probable, and 5) potential flood damage.

**Y2:**

The soils in this classification are nearly level or gently sloping, moderately well drained or well drained with ground water between four to six feet from the surface, and are subject to seasonal high water tables. Seasonal wetness and seepage around foundations moderately limits these soils for residential use. The principal soil limitations are: 1) lateral seepage in subsoil causes concentration of water around foundations, 2) soil is highly susceptible to frost action, 3) excavations are likely to fill with water in late winter or early spring, and 4) wet basements or foundations are probable.

**Ft:**

Fill land - No interpretations - material too variable.

The soil interpretations above do not eliminate the need for detailed investigations at each proposed construction site. However, the interpretations can serve as a guide to planning more detailed investigations. No consideration was given in these interpretations regarding the size and shape of the soil area; nor to the pattern they form with other soils in the landscape. Also, because of the scale of the maps used, small areas of other kinds of soils may be included within some delineations of the soil map. Thus, an individual lot or building site could occupy a small area that would not fit the interpretations given for the soils symbol representing the entire delineation of the map. Interpretations apply to the soils in their natural state and not for areas that may have been altered through grading, compacting, and the like.

Sincerely,



Thelton D. Savage  
District Conservationist  
USDA, Natural Resources Conservation Service

TDS/bh



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SUSSEX COUNTY  
PLANNING & ZONING



## Christin Headley

---

**From:** Dickerson, Troy <TDickerson@delaware.coop>  
**Sent:** Thursday, October 3, 2019 3:33 PM  
**To:** Christin Headley  
**Subject:** RE: TAC Review 2019-24 Cool Spring Meadows

**Categories:** TAC Comments

Christin,

This property is located within DEC's service territory and we have facilities in the area to serve the proposed subdivision.

Thanks!

**Troy W. Dickerson, P.E.**  
Assistant V.P. of Engineering  
Voice: (302) 349-3125  
Cell: (302) 535-9048  
Fax: (302) 349-5891  
[tdickerson@delaware.coop](mailto:tdickerson@delaware.coop)



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**From:** Christin Headley <christin.headley@sussexcountysde.gov>  
**Sent:** Wednesday, September 25, 2019 1:55 PM  
**To:** Brad Hawkes <bhawkes@sussexcountysde.gov>; C. Daniel Parsons <dparsons@sussexcountysde.gov>; Dean Holden - Chesapeake Electric <dholden@chpk.com>; Duane T. Fox <Duane.Fox@state.de.us>; Eileen M. Butler <Eileen.Butler@state.de.us>; Jennifer Cinelli <jennifer.cinelli@state.de.us>; Jessica Watson - Sussex Conservation <Jessica.watson@state.de.us>; John J. Ashman <jashman@sussexcountysde.gov>; John Hayes - Groundwater Discharge <john.hayes@state.de.us>; John Kennel - DE Coastal Programs <john.kennel@state.de.us>; John Martin <jmartin@chpk.com>; John Martin - Watershed Stewardship <john.martin@state.de.us>; Kate Fleming - DNREC Fish & Wildlife <kate.fleming@state.de.us>; Kelley Gabbard <kgabbard@chpk.com>; Meghan Crystall - DNREC <Meghan.Crystall@state.de.us>; Michael Tholstrup - Energy & Climate <Michael.Tholstrup@state.de.us>; Mike Brady <MBRADY@sussexcountysde.gov>; Milton Melendez - Dept. of Ag <Milton.melendez@state.de.us>; Rob Davis <rdavis@sussexcountysde.gov>; Subdivision mailbox email - DelDOT <Subdivision@state.de.us>; Susan Isaacs <sisaacs@sussexcountysde.gov>; Susanne Laws - DelDOT <Susanne.Laws@state.de.us>; Terri Dukes <tdukes@sussexcountysde.gov>; Tiffany Giroux <tgiroux@chpk.com>; Dickerson, Troy <TDickerson@delaware.coop>; Vince Robertson <vrobertson@pgslegal.com>  
**Subject:** TAC Review 2019-24 Cool Spring Meadows

All,



Sussex County Planning Office has received one (1) application that requires TAC review. Attached is a memo regarding the application and a PDF of the plans submitted.

Please provide comments on or before Wednesday, November 25, 2019.

Please feel free to contact me with any questions.

Thanks,

*Christin Headley*

Christin Headley, Planning Technician  
Planning & Zoning Department  
2 The Circle  
PO Box 417  
Georgetown, DE 19947  
302-855-7878  
[christin.headley@sussexcountype.gov](mailto:christin.headley@sussexcountype.gov)





**STATE OF DELAWARE**

***DEPARTMENT OF TRANSPORTATION***

800 BAY ROAD  
P.O. BOX 778  
DOVER, DELAWARE 19903

JENNIFER COHAN  
SECRETARY

November 25, 2019

Christin Headley  
Planning Technician, Sussex County Planning & Zoning Department  
Sussex County Administration Building  
P.O. Box 417  
Georgetown, DE 19947

**SUBJECT: November T.A.C. MEETING**

Dear Christin:

The Department has reviewed the information for the above referenced meeting and offers these comments on the following site:

1. Subd. #2019-24, Cool Spring Meadows  
Tax Map #234-5.00-30.00 & 234-5.00-33.00 Review Mgr.: Susanne Laws, See attachment

As always, should you have any questions, please feel free to give me a call.

Sincerely,

John Andrescavage  
Sussex County Reviewer  
302-760-2512

Attachment

Cc: Gemez W. Norwood, South District Public Works Manager  
James Argo, District Plan Reviewer  
Susanne Laws, Sussex County Review Coordinator  
Brian Yates, Sussex County Plan Reviewer



DEPARTMENT OF TRANSPORTATION  
COMMENTS FOR  
T.A.C. MEETING  
OF November 2019

**Lands of Fusco Properties, LP**  
**Tax Map # 234-5.00-30.00 & 33.00**  
**SCR 280 (Stockley Road) & SCR 292 (Forest Road)**  
**Sussex County**

**#2019-24, Cool Spring Meadows**

1. Please refer to the “*Development Coordination Manual*” manual for the design of the subdivision streets and/or entrance. The website for the manual is the following;  
  
<http://www.deldot.gov/Business/subdivisions/index.shtml?dc=changes>
2. For all projects, any sub-station and/or wastewater facilities will be required to have access from the internal subdivision street with no direct access to the State maintained highway.
3. For all projects, a 20-foot wide buffer will be required from the edge of the stormwater management pond to the ultimate right-of-way of the County road. The ultimate right-of-way is based on the functional classification of the road.
4. Referring to the “*Development Coordination Manual*”, Chapter 3 – Record Plan Design, Section 3.2.5.1.2: Frontage Easements, a 15-foot wide permanent easement will need to be established across the property frontage. The location of the easement shall be outside the limits of the ultimate right-of-way for this road. The following note is required, “**A 15-foot wide permanent easement is hereby established for the State of Delaware, as per this plat.**”
5. Referring to the “*Development Coordination Manual*”, Chapter 3 – Record Plan Design, Section 3.2.5: Dedication of Right-Of-Way and Easements, Figure 3.2.5-a Minimum Standards for Total Roadway Right-Of-Way, the project shall be subject to dedicate right-of-way in accordance to the minimum standards.
6. Referring to the “*Development Coordination Manuals*”, Chapter 3 – Record Plan Design, Section 3.2.4.1: Subdivision Street Right-Of-Way Monuments, right-of-way monuments are recommended to be furnished and placed along the private subdivision street.
7. Referring to the “*Development Coordination Manual*”, Chapter 3 – Record Plan Design, Section 3.2.4.2: Frontage Road Right-of-Way Monumentation, concerning the right-of-way markers being placed to provide a permanent reference for re-establishing the right-



of-way and property corners along frontage roads. Due to the right-of-way dedication, show and note the property corners markers that will need to be installed.

8. Referring to the “*Development Coordination Manual*”, Chapter 3 – Record Plan Design, Section 3.5.5: Transit Facilities, transit facilities requirements shall be followed as required by DTC or DelDOT.
9. Referring to the “*Development Coordination Manual*”, under Chapter 3; Record Plan Design, Section 3.2.5.1.1 – Easements, if this development is proposing a neighborhood sign/structure, then a permanent easement shall be established at the entrance. The easement shall be located outside of any existing and/or proposed right-of-way. It will also need to be verified that the sign/structure does not pose a sight distance and/or safety hazard.
10. Metes and bounds and total areas need to be shown for any drainage easements. A minimum 20-foot wide drainage easement must be provided for storm drainage systems, open or closed, that fall outside the existing right-of-way or the drainage/utility easement. These easements shall be shown and noted on record plan.
11. Referring to the “*Development Coordination Manual*”, Chapter 3 – Record Plan Design, Section 3.5: Connectivity, connectivity requirements shall be followed for all development projects having access to state roads or proposing DelDOT maintained public road for subdivisions. Private or municipal streets should follow the local land use agency’s requirements for connectivity.
12. Referring to the “*Development Coordination Manual*”, Chapter 3 – Record Plan Design, Section 3.4.2.1: Record Plan Content, the traffic generation diagram is required. See Figure 3-4-2-a: Traffic Generation Diagram for what is required.
13. Referring to the “*Development Coordination Manual*”, Chapter 3 – Record Plan Design, Section 3.4.2: Record Plan Submittal Requirements, adjacent existing features are required to be shown in accordance with Figure 3.4.2-b.
14. It will need to be noted on the Record Plan the type of off-site improvements and when the off-site improvements are warranted for this project.
15. Referring to the “*Development Coordination Manual*”, Chapter 2 – Traffic Analysis and Improvements, it will need to be determined if a Traffic Impact Study (T.I.S.), Area-Wide Study Fee or a Traffic Operational Analysis (T.O.A.) will be required.
  - a. Per Preliminary Land Use Service Application (PLUS) review dated August 21, 2019 (PLUS Number 2019-07-04), Section 2.2.2.1 of the Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the PLUS application, the total daily trips are estimated at 2,158 vehicle trip ends per



day. DeIDOT calculates a higher number 2,201 vehicle trip ends per day, but regardless the warrant for a TIS is met.

16. Projects in all Level area that generate 2,000-trips or greater are required to install a path/sidewalk along the property frontage.
17. Referring to the “*Development Coordination Manual*” under Chapter 5; Design Elements, Section 5.2.5 – Subdivision and Commercial Entrance Design Guidelines – Intersection Corner Radii, a separate turning template plan shall be provided to verify vehicles can safely enter/exit the entrance. The entrance shall be designed for the largest vehicle using the entrance.
18. Please check to determine if any utilities will need to be relocated as part of this project.
19. Standard General Notes have been updated and posted to the DeIDOT Website. Please begin using the new versions and look for the revision date of March and September 2019. The notes can be found at the following website under the *Guidance* tab;  
<http://www.deldot.gov/Business/subdivisions/index.shtml>
20. All PLUS/TAC comments shall be addressed prior to submitting the plans for review.
  - a. Please refer to the PLUS state comments (PLUS Number 2019-07-04) dated August 21, 2019 and the PLUS state comments and developer response (PLUS Number 2005-07-13) dated August 18, 2005 for additional information. These documents has been attached to this memorandum.
21. Referring to the “*Development Coordination Manual*”, Chapter 6 – Construction Administration, Section 6.4.3: Commercial Entrances – Inspection and Acceptance, Figure 6.4.3-a: Construction Inspection Responsibilities, determine if the project is a Level 1 or Level 2 project and if an inspection agreement will be required.
22. The Auxiliary Lane Spreadsheet has been posted to the DeIDOT website. Use this spreadsheet to determine if auxiliary lanes are warranted. The Auxiliary Lane Spreadsheet can be found at the following website under the *Forms* tab;  
<http://www.deldot.gov/Business/subdivisions/index.shtml>
23. Referring to the “*Development Coordination Manual*” under Chapter 5; Design Elements, Section 5.4 – Sight Distance, a sight distance triangle is required. A spreadsheet has been developed to assist with this task and can be found on the following website under the *Forms* tab;  
<http://www.deldot.gov/Business/subdivisions/index.shtml>
24. Please refer to the “*Development Coordination Manual*” Chapter 3; Record Plan Design,



Section 3.4.1 Commercial or Major Residential Subdivisions – Record Plan Application Process, concerning if a pre-submittal meeting is required.

25. Effective August 1, 2015, all new and resubmittals shall be uploaded via the PDCA with any fees paid online via credit card or electronic check (ACH). The design firm making the submittal must create the project in the PDCA and upload all the required items to allow DelDOT to start the review process. Our website offers more detailed information, including links to guidance about creating PDCA submittals. This information can be found at the following website under the PDCA section;

<http://www.deldot.gov/Business/subdivisions/index.shtml>

26. Referring to the “*Development Coordination Manual*”, Chapter 3 – Record Plan Design, Section 3.4.2: Record Plan Submittal Requirements, an Initial Stage review fee shall be assessed to this project.

27. Referring to the “*Development Coordination Manual*”, Chapter 3 – Record Plan Design, Section 3.4: Commercial or Major Residential Subdivisions, a record plan shall be prepared prior to issuing “Letter of No Objection”. The Record plan submittal shall include the items listed on the Critical Items for Acceptance: Record Plan document that can be found at the following website under the *Guidance* tab;

<https://www.deldot.gov/Business/subdivisions/index.shtml>

28. Referring to the “*Development Coordination Manual*”, Chapter 4 – Construction Plans, Section 4.3: Subdivision Construction Plan Submittal Requirements, the Construction Stage review fee shall be assessed to this project.

29. Referring to the “*Development Coordination Manual*”, Chapter 4 – Construction Plans, a subdivision/entrance plan shall be prepared prior to issuing subdivision/entrance approval. The Entrance/Construction/Subdivision plan submittal shall include the items listed on the Critical Items for Acceptance: Entrance/Construction/Subdivision Set Plans document that can be found at the following website under the *Guidance* tab;

<https://www.deldot.gov/Business/subdivisions/index.shtml>





STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF STATE PLANNING COORDINATION

August 21, 2019

Mr. John Murray  
The Kercher Group, Inc.  
37385 Rehoboth Ave. Unit #11  
Rehoboth Beach, DE 19971

RE: PLUS review 2019-07-04; Cool Spring Meadows

Dear Mr. Murray:

Thank you for meeting with State agency planners on July 24, 2019 to discuss the Cool Spring Meadows project. According to the information received you are seeking review of a 226 unit subdivision on 187.93 acres along Stockley Road in Level 4 in Sussex County.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.**

**Strategies for State Policies and Spending**

This project represents land development that will result in 226 residential units in an Investment Level 4 area according to the *2015 Strategies for State Policies and Spending*. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.



From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed will bring new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, 100% of school transportation and paratransit services, up to 80% of school construction costs, and 100% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.

Because the development is inconsistent with the *Strategies for State Policies and Spending*, the State does not support this proposed development.

**With that said, the comments in this letter are technical, and are not intended to suggest that the State supports this development proposal. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to build on this property, construct the development you indicate, or any subdivision thereof on these lands.**

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

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

- The site access on Stockley Road (Sussex Road 280) 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>.
- Pursuant to Section P.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request 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](https://www.deldot.gov/Business/subdivisions/pdfs/Meeting_Request_Form.pdf?08022017).
- Section P.5 of the Manual addresses fees that are assessed for the review of development proposals. DelDOT anticipates collecting the Initial Stage Fee when the record plan is submitted for review and the Construction Stage Fee when construction plans are submitted for review.
- Per Section 2.2.2.1 of the Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the PLUS application, the total daily trips are



estimated at 2,158 vehicle trip ends per day. DelDOT calculates a higher number, 2,201 vehicle trip ends per day, but regardless the warrant for a TIS is met.

In April 2006 (See attached letters.) DelDOT commented to the County on its review of a TIS for an earlier plan to develop these lands. The letter includes a numbered list of off-site improvements and contributions toward off-site improvements that DelDOT recommended be required of the development.

Some of the listed items apply to locations that would not be included in a TIS done today because DelDOT regulations have changed. Following is a list of off-site improvements and contributions toward off-site improvements that DelDOT finds should be required of the developer. If the County or the developer would prefer to restart the TIS process with current data, DelDOT would be amenable to that. Alternatively, DelDOT recommends that the following items be required:

- The developer should improve Stockley Road from Cool Spring Road (Sussex Road 290) to Forest Road (Sussex Road 292) in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
- The developer should improve Cool Spring Road from Stockley Road to the north limit of the site frontage in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
- The developer should enter into a traffic signal agreement with DelDOT for the intersection of Delaware Route 5 and Forest Road.
- 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 Stockley Road and Cool Spring Road. By this regulation, this dedication is to provide a minimum of 30 feet of right-of-way from the physical centerline along both roads. The following right-of-way dedication note is required, **"An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."**
- In accordance with Section 3.2.5.1.2 of the Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on Stockley Road and Cool Spring Road. The location of the easement shall be outside the



limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, **“A 15-foot wide permanent easement is hereby established for the State of Delaware, as per this plat.”**

- 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 600 feet of the entrances on Stockley Road.
  - Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.
- Section 3.5 of the Manual provides DelDOT’s requirements with regard to connectivity. The requirements in Sections 3.5.1 through 3.5.3 shall be followed for all development projects having access to state roads or proposing DelDOT maintained public streets for subdivisions. DelDOT recommends that Goldenrod Drive be extended to the property line as a stub street.
- Section 3.5.4.2 of the Manual addresses requirements for shared-use paths and sidewalks. For projects in Level 1 and 2 Investment Areas, installation of paths or sidewalks along the frontage on State-maintained roads is required. DelDOT anticipates requiring the developer to build Shared Use Paths along their frontage on both Stockley Road and Cool Spring Road.
- Section 3.5.4.4 of the Manual addresses access-ways, essentially shared-use paths connecting subdivision streets either to each other or to the road on which the property fronts. DelDOT anticipates requiring the developer to build one access-way from Goldenrod Drive to Stockley Road near Lot 16 and another from Monarch Avenue to Cool Spring Road near Lot 99.
- Referring to Section 3.5.5 of the Manual, existing and proposed transit stops and associated facilities as required by the Delaware Transit Corporation (DTC) or DelDOT shall be shown on the Record Plan.
- 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 Stockley Road and Cool Spring Road.
- 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>.

- In accordance with Section 5.14 of the Manual, all existing utilities must be shown on the plan and a utility relocation plan will be required for any utilities that need to be relocated.

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

**Wastewater Disposal**

- The DNREC Groundwater Discharge Large Systems Section will need to be notified where the developer intends to send the wastewater. The PLUS application states that a new community system will not be located on this site.

**Floodplain and Sea Level Rise**

- Chapel Branch runs through the southeast corner of the site. This site is situated upstream of the mapped floodplain for Chapel Branch,
- The unmapped floodplain area should be avoided, and floodplain analysis and mapping could be required.

**Water Quality**

- DNREC mapping indicates presence of wetlands and hydric soils (Hurlock) which encompass a large portion of the subject parcel.
- Increased impervious cover from development and removal of forest cover will increase the potential for future flooding concerns.
- Green-technology stormwater management is highly recommended. Efforts to mitigate for impervious cover (pervious pavers) should also be implemented where applicable.
- To protect the function and integrity of wetlands, a minimum 100-foot buffer should be left intact around the perimeter.
- Avoid disturbance and filling of wetlands.

**Forest Preservation**

- DNREC mapping indicates presence of forested wetlands which encompass a large portion of the subject parcel.



- The site plan should be designed to allow for the preservation of as much of this wooded area as feasible, with special consideration for preservation given to large, mature trees. Leaving a forest intact is usually more beneficial to the existing wildlife and is preferred to clearing.
- To reduce impacts to nesting birds and other wildlife species that utilize forests for breeding, we recommend that clearing not occur April 1st to July 31st.
- Low spillage lights (those that reflect light directly downward onto the illuminated area) should be used on roads and homes within 750 feet of the forested wetlands on site. Fluorescent and mercury vapor lighting should not be used.
- Contact the Division of Fish and Wildlife for assistance in identifying, preserving, and managing the existing forest on-site. For technical assistance or to schedule a site visit please contact Katie Kadlubar, [Kathryn.Kadlubar@delaware.gov](mailto:Kathryn.Kadlubar@delaware.gov).

**State Historic Preservation Office – Contact Carlton Hall 736-7404**

- The Delaware SHPO does not support development in a Level 4 area.
- There are no known archaeological sites or known National Register listed or eligible properties on the parcel. However, the soils are a mix of well-and poorly drained areas. Poorly drained areas could have been a source for plant and animal resources. There is moderate potential for archaeological resources to be present and our office recommends an archaeological survey of the project area. If there are any questions, inquiries, or concerns, feel free to contact the Delaware State Historic Preservation Office for assistance at 302-736-7400.
- 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). Prior to any demolition or ground-disturbing activities, the developer should hire an archaeological consultant to examine the parcel for archaeological resources, including unmarked human burials or human skeletal remains, to avoid those sites or areas.
- 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](http://www.achp.gov)



**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.
- The infrastructure for fire protection water shall be provided, including the size of water mains.

**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. Additionally, where trees are to be situated adjacent to travel roads in the subdivision, some forethought should be exercised regarding how future growth of the trees may affect fire department travel throughout 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, such as Point Lane and Bayberry Drive, shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

**Gas Piping and System Information:**

- Provide type of fuel proposed, and show locations of bulk containers on plan.

**Required Notes:**

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Name of Water Supplier
- Proposed Use



- National Fire Protection Association (NFPA) Construction Type Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads

**Sussex County – Contact Rob Davis 302-855-7820**

- Sussex County does not expect to provide sanitary sewer service within the area proposed for the 226-unit subdivision. The Sussex County Engineering Department recommends the project receive wastewater service from Artesian Utilities as proposed.

In addition to the comments above our office has received a letter from Brandy Nauman, Sussex County Housing Coordinator & Fair Housing Compliance Officer. A copy of that letter is enclosed with this letter.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



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

CC: Sussex County

Enclosure  
Attachment



BRANDY BENNETT NAUMAN  
HOUSING COORDINATOR &  
FAIR HOUSING COMPLIANCE OFFICER  
(302) 855-7777 T  
(302) 854-5397 F  
bnauman@sussexcountype.gov



**Sussex County**  
DELAWARE  
sussexcountype.gov

July 22, 2019

Mr. John Murray  
The Kercher Group, Inc.  
37385 Rehoboth Ave., Unit #11  
Rehoboth Beach, DE 19971

RE: Cool Spring Meadows – PLUS Review (PLUS 2019-07-04)

Dear Mr. Murray,

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.sussexcountype.gov/affordable-and-fair-housing-resource-center](http://www.sussexcountype.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,

Brandy B. Nauman  
*Housing Coordinator &  
Fair Housing Compliance Officer*



COUNTY ADMINISTRATIVE OFFICES WEST COMPLEX  
22215 DUPONT BOULEVARD | PO BOX 589  
GEORGETOWN, DELAWARE 19947



April 19, 2006

Mr. Todd J. Sammons  
Project Engineer  
DelDOT Division of Planning  
P.O. Box 778  
Dover, DE 19903

RE: Agreement No. 1294  
Traffic Impact Study Review Services  
**Task No. 91 – Cool Spring Meadows**

Dear Mr. Sammons,

McCormick Taylor has completed its review of the Traffic Impact Study (TIS) for the development of Cool Spring Meadows prepared by Orth-Rodgers and Associates, Inc., dated January 19, 2006. This review was assigned as Task Number 91. Orth-Rodgers and Associates, Inc. prepared the report in a manner generally consistent with DelDOT's *Rules and Regulations for Subdivision Streets*.

The TIS evaluates the impacts of the development of Cool Spring Meadows in Sussex County, Delaware. The proposed development would consist of 233 single-family detached houses. This development is located on the both sides of Stockley Road (Sussex Road 280), west of Cool Spring Road (Sussex Road 290). Two access points on Stockley Road are proposed to create a four-way intersection, and one access point is proposed on Cool Spring Road creating a T-intersection. Construction is expected to be complete by 2010.

There are currently no active DelDOT projects within the study area.

Based on our review, we have the following comments and recommendations:

One intersection exhibits level of service deficiencies without the implementation of physical roadway and/or traffic control improvements: the intersection of US Route 9 (Lewes-Georgetown Highway) and Cool Spring Road. This intersection is expected to exhibit level of service deficiencies in the 2010 afternoon and summer Saturday peak hours with and without the development, and in the 2010 morning peak hour with the development.

Should the County choose to approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan. All applicable agreements (i.e., letter agreements for off-site improvements and traffic signal agreements) should be executed prior to entrance plan approval for the proposed development.

1. The developer should improve Stockley Road from Forest Road (Sussex Road 292) to Cool Spring Road in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
2. The developer should improve Cool Spring Road from Stockley Road to Forest Road in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
3. The developer should enter into a traffic signal agreement with DelDOT for the intersection of US Route 9 and Cool Spring Road. The agreement should include pedestrian signals, crosswalks, and interconnection at DelDOT's discretion. Due to the fact that an active railroad line is aligned diagonally through the intersection, any traffic signal agreement should also include active railroad warning devices and railroad-highway traffic signal interconnection at DelDOT's discretion.
4. The following bicycle and pedestrian improvements should be included:
  - a) A minimum of a five-foot bicycle lane should be striped along the Stockley Road and Cool Spring Road site frontage (in addition to any required turn lanes) in order to facilitate safe and unimpeded bicycle travel.
  - b) A fifteen-foot wide permanent easement should be established across the property frontage for a future ten-foot wide multi-use path.
  - c) Regulatory/warning signage should be added to any forthcoming plans to this project in order to alert motorists to the presence of bicycle traffic.
  - d) Utility covers should be moved outside of the designated bicycle lane or be flush with the pavement.
  - e) Internal sidewalks to promote walking as a viable transportation alternative should be constructed.
  - f) An ADA compliant crosswalk should be considered at the opposing access points along Stockley Road.

Please note that this review generally focuses on capacity and level of service issues; additional safety and operational issues will be further addressed through DelDOT's subdivision review process.



Additional details on our review of the TIS are attached. Please contact me at (302) 738-0203 or through e-mail at [mluszcz@mtmail.biz](mailto:mluszcz@mtmail.biz) if you have any questions concerning this review.

Sincerely,

**McCormick Taylor, Inc.**

A handwritten signature in black ink, appearing to read "Mark Luszcz", is written over a light gray rectangular background.

Mark Luszcz, P.E., PTOE, AICP  
Associate

Enclosure

## **General Information**

**Report date:** January 19, 2006

**Prepared by:** Orth-Rodgers & Associates, Inc.

**Prepared for:** Ocean Atlantic Agency

**Tax parcel:** 2-34-5.00-30.00, 2-34-5.00-33.00

**Generally consistent with DelDOT's Rules and Regulations for Subdivision Streets:** Yes

## **Project Description and Background**

**Description:** Development of 233 single-family detached houses

**Location:** Site is located on either side of Stockley Road, west of Cool Spring Road in Sussex County, Delaware

**Amount of land to be developed:** approximately 207 acres

**Land use approval(s) needed:** Subdivision Review

**Proposed completion date:** 2010

**Proposed access locations:** Two access points on Stockley Road are proposed to create a four-way intersection, and one access point is proposed on Cool Spring Road creating a t-intersection.

## **Livable Delaware**

*(Source: Delaware Strategies for State Policies and Spending, July 2004)*

### **Location with respect to the Strategies for State Policies and Spending Map of Delaware:**

The proposed Cool Springs Meadow Development is located within Investment Level 4.

### **Description of Investment Level 4:**

Areas located within Investment Level 4 are predominantly agricultural; contain agribusiness activities, farm complexes and small settlements that are often found at historic crossroads. These areas contain undeveloped natural areas, including forestland and recreational parks, however may have scattered single-family detached residential homes located within them.

Transportation facilities and services will be preserved by the state while they continue to manage the transportation system in a manner that will support the preservation of the natural environment. The state will limit its investments in water and wastewater systems to existing public health, safety and environmental risks and discourage accommodating further development. In addition, the state will limit continued development of areas within Investment Level 4 to those that enhance agriculture and protect water supplies, preserve critical habitat and maintain existing education and public safety services. Although residential development is not desirable in Investment Level 4, conservation design techniques (protecting large portions of existing open space and farmland while clustering development on a smaller portion of the parcel and using environmentally friendly design innovations) can be utilized in some cases to help ensure that developments are compatible with the rural character and natural resources present in the area. However, it is the state's general intent to discourage additional development in Investment Level 4 areas that are unrelated to the areas' needs by limiting infrastructure investment.



**Proposed Development's Compatibility with Livable Delaware:**

The proposed Cool Spring Meadows Development falls within Investment Level 4. Residential development is generally not desirable in Investment Level 4. Developments within Investment Level 4 areas should focus on protection of large portions of existing open space and farmland on a site while clustering development on a smaller portion of the parcel. This proposed development would be developed using the cluster option under that zoning and therefore would be compatible with Livable Delaware. However, it should be noted that conservation design techniques should be utilized to ensure that the development is compatible with the rural character and natural resources present in the area.

**Comprehensive Plans**

**Sussex County Comprehensive Plan:** *(Source: 2003 Sussex County Comprehensive Plan Update)* The Sussex County Comprehensive Plan indicates that the parcel of land for the proposed development is in a Low Density Area. The purpose of the Low Density Area is to provide for a full range of agricultural activities and to protect agricultural lands as one of the County's most valuable natural resources from the depreciating effect of objectionable, hazardous and unsightly uses. Although this area is intended primarily for agricultural use, low density residential development is permitted. Density guidelines state that the minimum lot size in a Low Density Area is 20,000 square feet (about 0.46 acres).

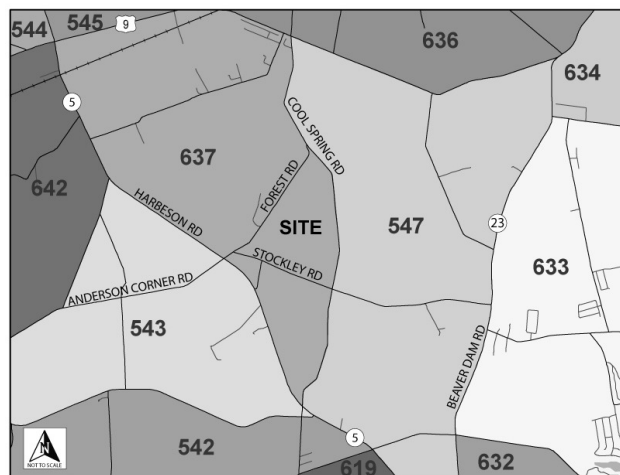
Public water and wastewater systems are not planned for low density areas therefore the proposed development will use on-site septic systems or private wastewater treatment systems. Improvements to local roads will be limited to safety considerations and emergency evacuation.

**Proposed Development's Compatibility with Comprehensive Plans:** Since the average density of this proposed development would be approximately 1.12 dwelling units/acre (close to an average 0.89 acre lots sizes), this development would most likely be compatible with the Sussex County Comprehensive Plan.

## Transportation Analysis Zone

**Transportation Analysis Zones (TAZ) where development would be located:**  
637 (Peninsula Code TAZ)

### **TAZ Boundaries:**



**Current employment estimate for TAZ:** 36  
in 2005

**Future employment estimate for TAZ:** 39  
in 2010

**Current population estimate for TAZ:** 841  
in 2005

**Future population estimate for TAZ:** 938  
in 2010

**Current household estimate for TAZ:** 351  
in 2005

**Future household estimate for TAZ:** 397 in  
2010

**Relevant committed developments in the**

**TAZ:** Beaver Creek (The Villages)

**Would the addition of committed developments to current estimates exceed future projections:** Yes

**Would the addition of committed developments and the proposed development to current estimates exceed future projections:** Yes

### Relevant Projects in the DelDOT Capital Transportation Program (2005-2010)

There are currently no active DelDOT projects within the study area.

### Trip Generation

Trip generation for the proposed development was computed using comparable land uses and equations contained in Trip Generation, Seventh Edition, published by the Institute of Transportation Engineers (ITE). The following land uses were utilized to estimate the amount of new traffic generated for this development:

- Single-Family Detached Houses (ITE Land Use Code 210)

Table 1.  
COOL SPRING MEADOWS TRIP GENERATION

Land Use	AM Peak Hour			PM Peak Hour			Saturday Mid-Day		
	In	Out	Total	In	Out	Total	In	Out	Total
233 Residential Single-Family Detached Houses	43	130	173	145	85	230	118	100	218
<b>TOTAL TRIPS</b>	<b>43</b>	<b>130</b>	<b>173</b>	<b>145</b>	<b>85</b>	<b>230</b>	<b>118</b>	<b>100</b>	<b>218</b>



## **Overview of TIS**

### **Intersections examined:**

- 1) Stockley Road (Sussex Road 280) & Site Access
- 2) Cool Spring Road (Sussex Road 290) & Site Access
- 3) Cool Spring Road & Stockley Road
- 4) Cool Spring Road & Forest Road (Sussex Road 292)
- 5) Forest Road & Stockley Road
- 6) Cool Spring Road & Delaware Route 5 (Sussex Road 22)\*
- 7) Cool Spring Road & US Route 9 (Sussex Road 18)\*
- 8) Forest Road/Anderson Corner Road (Sussex Road 292) & Delaware Route 5\*
- 9) Stockley Road & Beaver Dam Road (Sussex Road 23)\*

The asterisks (\*) indicate intersections for which Saturday conditions were analyzed.

### **Conditions examined:**

- 1) 2005 existing conditions
- 2) 2010 without Cool Spring Meadows Development
- 3) 2010 with Cool Spring Meadows Development

**Peak hours evaluated:** Weekday morning and evening peak hours, Saturday mid-day.

### **Committed developments considered:**

- 1) Heron Bay (352 Single Family Houses)
- 2) Beaver Creek
  - a. The Meadows (102 Single-Family Houses)
  - b. The Trails (170 Single-Family Houses)
  - c. The Villages (400 Single-Family Houses, 50 Condominiums, 50,000 Square Feet of General Retail)
- 3) Stonewater Creek
  - a. Phase 1-9 (712 Single-Family Houses)
  - b. Phase 10-13 (360 Single-Family Houses)
- 4) Oak Crest Pond (26 Single-Family Houses)
- 5) Oak Crest Farm (96 Single-Family Houses)

## **Intersection Descriptions**

### **1) Stockley Road & Site Access:**

**Type of Control:** Proposed two-way stop-controlled intersection

**Northbound approach:** (Site Access) stop-controlled shared left/through/right-turn lane

**Southbound approach:** (Site Access) stop-controlled shared left/through/right-turn lane

**Eastbound approach:** (Stockley Road) one shared left/through/right-turn lane

**Westbound approach:** (Stockley Road) one shared left/through/right-turn lane

**2) Cool Spring Road & Site Access:**

**Type of Control:** Proposed T-intersection

**Northbound approach:** (Cool Spring Road) one shared left-turn/through lane

**Southbound approach:** (Cool Spring Road) one shared through/right-turn lane

**Eastbound approach:** (Site Access) stop-controlled shared left/right-turn lane

**3) Cool Spring Road & Stockley Road:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Cool Spring Road) stop-controlled shared left/through/right-turn lane

**Southbound approach:** (Cool Spring Road) stop-controlled shared left/through/right-turn lane

**Eastbound approach:** (Stockley Road) one shared left/through/right-turn lane

**Westbound approach:** (Stockley Road) one shared left/through/right-turn lane

**4) Cool Spring Road & Forest Road:**

**Type of Control:** Stop-controlled T-intersection

**Northbound approach:** (Cool Spring Road) one shared left-turn/through lane

**Southbound approach:** (Cool Spring Road) one shared through/right-turn lane

**Eastbound approach:** (Forest Road) stop-controlled shared left/right-turn lane

**5) Forest Road & Stockley Road:**

**Type of Control:** Stop-controlled T-intersection

**Northbound approach:** (Stockley Road) stop-controlled shared left-turn/right-turn lane

**Eastbound approach:** (Forest Road) one shared through/right-turn lane

**Westbound approach:** (Forest Road) one shared through/left-turn lane

**6) Cool Spring Road & Delaware Route 5:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Southbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Eastbound approach:** (Cool Spring Road) stop controlled shared left-turn/through lane and one yield controlled channelized right-turn lane

**Westbound approach:** (Cool Spring Road) one stop controlled shared left-turn/through lane and one yield controlled channelized right-turn lane

**7) Cool Spring Road & US Route 9:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Cool Spring Road) stop-controlled shared left-turn/through/right-turn lane

**Southbound approach:** (Cool Spring Road) stop-controlled shared left-turn/through/right-turn lane

**Eastbound approach:** (US Route 9) one shared left-turn/through/right-turn lane

**Westbound approach:** (US Route 9) one shared left-turn/through/right-turn lane



**Note:** There is an active railroad line aligned diagonally through this intersection, as described below.

**8) Forest Road/Anderson Corner Road & Delaware Route 5:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Southbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Eastbound approach:** (Anderson Corner Road) stop-controlled shared left-turn/through/right-turn lane

**Westbound approach:** (Forest Road) stop-controlled shared left-turn/through/right-turn lane

**9) Stockley Road & Beaver Dam Road:**

**Type of Control:** Stop-controlled T-intersection

**Northbound approach:** (Beaver Dam Road) one shared left-turn/through lane

**Southbound approach:** (Beaver Dam Road) one shared through/right-turn lane

**Eastbound approach:** (Stockley Road) stop-controlled shared left/right-turn lane

**At-Grade Railroad Crossing Description**

**Location:** At the intersection of US Route 9 and Cool Spring Road:

**Rail Line:** This east-west active rail line is a Class III line called the Delaware Coastline line. It is owned by the Delaware Transit Corporation (DTC) and extends from Georgetown to Lewes, Delaware. Trains over the line are operated by the Delaware Coast Line Railroad.

**Northbound approach:** (Cool Spring Road) one shared left/through/right-turn lane with appropriate pavement markings and signage.

**Southbound approach:** (Cool Spring Road) one shared left/through/right-turn lane with appropriate pavement markings and signage.

**Eastbound approach:** (US Route 9) one through lane with appropriate pavement markings, signage and warning flashers

**Westbound approach:** (US Route 9) one through lane with appropriate pavement markings, signage and warning flashers

**Description:** This is an at-grade crossing of an active rail line that serves about 1 train/week of about 5 cars in length running through the intersection of US Route 9 and Cool Spring Road at a 35 degree angle. The trains along the rail line generally have a speed of approximately 15 MPH in this area. The crossing is currently equipped with pavement markings and railroad crossing signs at the stop signs on the northbound and southbound approaches of Cool Spring Road. On US Route 9, pavement markings, signing, and side-mounted warning flashers are present, but there are no gates. Traffic volumes at the intersection are expected to increase in the next few years due to the development in the area. Without improvements, the intersection is expected to operate at a level of service F in the AM, PM and Saturday peak hour with and without the development.

## **Transit, Pedestrian, and Bicycle Facilities**

**Existing transit service:** None.

**Planned transit service:** In an email from David Dooley from DelDOT dated March 8, 2006, he stated that no transit routes are proposed in the area. Pedestrian and bicycle mobility access should be enhanced so that should transit be expanded to serve these developments in the future, pedestrian access to the frontage road would make transit trips more viable.

**Existing bicycle and pedestrian facilities:** The *Delaware Kent and Sussex Counties Bicycle Touring Map* designates Delaware Route 5 as a bike route; therefore a five-foot minimum shoulder must be maintained along any property frontage.

**Planned bicycle and pedestrian facilities:** In a letter dated November 14, 2005, Anthony Aglio from DelDOT commented that Livable Delaware's updated State Strategies for Spending Map indicates the site is located in an Investment Level 4 area, where the existing transportation network should preserve the natural environment. Per Livable Delaware's recommendations residential developments such as this are not encouraged in Investment Level 4 areas. However, should the development be approved, he requested the following improvements be incorporated into the project to facilitate bicycle and pedestrian transportation:

- a) Striped five-foot bicycle lanes with five-foot shoulders (in addition to any required turn lanes) along the Stockley Road and Cool Spring Road site frontages.
- b) An ADA compliant crosswalk should be considered at the opposing access points along Stockley Road.
- c) Internal sidewalks to promote walking as a viable transportation alternative.

## **Previous Comments**

All comments from DelDOT's Scoping Letter dated May 27, 2005 were addressed in the Final TIS submission except for the following:

- In regards to compliance with DelDOT, AASHTO and MUTCD standards for geometry and traffic control devices, no evaluation was performed for the study intersections.
- In regards to compliance with DelDOT, AASHTO and MUTCD standards for geometry and traffic control devices, no evaluation was performed for Stockley Road from Delaware Route 23 to Forest Road, Cool Spring Road from Delaware Route 5 to US Route 9 and Forest Road from Delaware Route 5 to Cool Spring Road.
- No correspondence was present indicating that Mr. Mark Harbeson was contacted with regard to the Delaware Route 24 corridor project.

All comments from DelDOT's letter dated August 5, 2005 were addressed in the Final TIS submission.

All comments from DelDOT's Preliminary TIS Letter dated September 13, 2005 were addressed in the Final TIS submission.



**General HCS Analysis Comments**

*(see table footnotes on the following pages for specific comments)*

- 1) The TIS used the existing truck percentage for all approaches in all future cases. McCormick Taylor used the greater of either the existing truck percentage or 2% for all future cases.

Table 2  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>1</sup> Two-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2010 With Development				
Northbound Site Access	A (9.3)	A (9.8)	A (9.3)	A (9.8)
Southbound Site Access	A (9.7)	A (10.0)	A (9.7)	A (10.0)
Eastbound Stockley Road - Left	A (7.5)	A (7.5)	A (7.5)	A (7.5)
Westbound Stockley Road - Left	A (7.3)	A (7.5)	A (7.3)	A (7.5)

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<sup>1</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 3  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>2</sup> One-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
<b>Cool Spring Road &amp; Site Access</b>	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2010 With Development				
Northbound Cool Spring Road - Left	A (7.3)	A (7.5)	A (7.3)	A (7.5)
Eastbound Site Access	A (9.3)	A (9.8)	A (9.3)	A (9.8)

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<sup>2</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

Table 4  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>3</sup> Two-Way Stop Control Stockley Road & Cool Spring Road	LOS per TIS		LOS per McCormick Taylor	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2005 Existing				
Northbound Cool Spring Road	A (9.3)	A (9.6)	A (9.3)	A (9.6)
Southbound Cool Spring Road	A (9.9)	A (10.0)	A (9.9)	A (10.0)
Eastbound Stockley Road - Left	A (7.5)	A (7.3)	A (7.5)	A (7.3)
Westbound Stockley Road - Left	A (7.3)	A (7.3)	A (7.3)	A (7.3)
2010 Without Development				
Northbound Cool Spring Road	A (9.6)	B (10.2)	A (9.6)	B (10.2)
Southbound Cool Spring Road	B (10.3)	B (10.7)	B (10.3)	B (10.7)
Eastbound Stockley Road - Left	A (7.6)	A (7.4)	A (7.6)	A (7.4)
Westbound Stockley Road - Left	A (7.3)	A (7.5)	A (7.3)	A (7.5)
2010 With Development				
Northbound Cool Spring Road	B (10.1)	B (10.9)	B (10.1)	B (10.9)
Southbound Cool Spring Road	B (11.0)	B (11.4)	B (11.0)	B (11.4)
Eastbound Stockley Road - Left	A (7.7)	A (7.5)	A (7.7)	A (7.5)
Westbound Stockley Road - Left	A (7.4)	A (7.5)	A (7.4)	A (7.5)

<sup>3</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 5  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>4</sup> One-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2005 Existing				
Northbound Cool Spring Road - Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
Eastbound Forest Road	A (9.2)	A (9.2)	A (9.2)	A (9.2)
2010 Without Development				
Northbound Cool Spring Road - Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
Eastbound Forest Road	A (9.3)	A (9.4)	A (9.3)	A (9.4)
2010 With Development				
Northbound Cool Spring Road - Left	A (7.5)	A (7.6)	A (7.5)	A (7.6)
Eastbound Forest Road	A (9.8)	B (10.2)	A (9.8)	B (10.2)

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<sup>4</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

Table 6  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>5</sup> One-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
<b>Forest Road &amp; Stockley Road</b>				
2005 Existing				
Northbound Stockley Road	A (9.2)	A (9.3)	A (9.2)	A (9.3)
Westbound Forest Road - Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
2010 Without Development				
Northbound Stockley Road	A (9.5)	A (9.6)	A (9.5)	A (9.6)
Westbound Forest Road - Left	A (7.4)	A (7.5)	A (7.4)	A (7.5)
2010 With Development				
Northbound Stockley Road	A (9.7)	A (10.0)	A (9.7)	A (10.0)
Westbound Forest Road - Left	A (7.5)	A (7.6)	A (7.5)	A (7.6)

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<sup>5</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 7  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>6</sup> Two-Way Stop Control	LOS per TIS			LOS per McCormick Taylor		
	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2005 Existing						
Northbound Delaware Route 5 - Left	A (7.6)	A (7.6)	A (7.6)	A (7.6)	A (7.6)	A (7.6)
Southbound Delaware Route 5 - Left	A (7.7)	A (7.6)	A (7.6)	A (7.7)	A (7.6)	A (7.6)
Eastbound Cool Spring Road	B (10.9)	B (11.6)	B (11.3)	B (10.9)	B (11.6)	B (11.3)
Westbound Cool Spring Road	B (11.0)	B (11.2)	B (10.9)	B (11.0)	B (11.2)	B (10.9)
2010 Without Development						
Northbound Delaware Route 5 - Left	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (7.8)	A (7.9)	A (7.9)	A (7.8)	A (7.9)	A (7.9)
Eastbound Cool Spring Road	B (12.5)	B (13.9)	B (13.6)	B (12.5)	B (13.9)	B (13.6)
Westbound Cool Spring Road	B (12.4)	B (13.4)	B (13.6)	B (12.5)	B (13.4)	B (13.6)
2010 With Development						
Northbound Delaware Route 5 - Left	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (7.8)	A (7.9)	A (7.9)	A (7.8)	A (7.9)	A (7.9)
Eastbound Cool Spring Road	B (12.5)	B (14.1)	B (13.7)	B (12.5)	B (14.1)	B (13.7)
Westbound Cool Spring Road	B (12.6)	B (13.7)	B (13.8)	B (12.6)	B (13.7)	B (13.8)

<sup>6</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

Table 8  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>7</sup> Two-Way Stop Control	LOS per TIS			LOS per McCormick Taylor <sup>8</sup>		
US Route 9 & Cool Spring Road	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2005 Existing						
Northbound Cool Spring Road	B (13.5)	C (17.3)	C (24.9)	B (13.5)	C (17.3)	C (24.9)
Southbound Cool Spring Road	C (17.2)	C (20.4)	D (29.3)	C (17.2)	C (20.4)	D (29.3)
Eastbound US Route 9 - Left	A (8.1)	A (8.5)	A (9.1)	A (8.1)	A (8.5)	A (9.1)
Westbound US Route 9 - Left	A (8.3)	A (8.5)	A (9.2)	A (8.3)	A (8.5)	A (9.2)
2010 Without Development						
Northbound Cool Spring Road	D (30.4)	F (52.4)	F (375.5)	D (31.4)	F (56.2)	F (451.3)
Southbound Cool Spring Road	D (25.6)	D (34.0)	F (76.9)	D (25.9)	E (35.5)	F (90.6)
Eastbound US Route 9 - Left	A (8.5)	A (9.5)	B (10.4)	A (8.5)	A (9.5)	B (10.6)
Westbound US Route 9 - Left	A (9.0)	A (9.1)	B (10.9)	A (9.1)	A (9.2)	B (11.1)
2010 With Development						
Northbound Cool Spring Road	E (50.0)	F (128.0)	F (*)	F (53.0)	F (150.9)	F (1237)
Southbound Cool Spring Road	D (27.9)	E (45.4)	F (132.7)	D (28.5)	E (48.9)	F (159.7)
Eastbound US Route 9 - Left	A (8.5)	A (9.5)	B (10.4)	A (8.5)	A (9.5)	B (10.6)
Westbound US Route 9 - Left	A (9.1)	A (9.3)	B (11.4)	A (9.1)	A (9.5)	B (11.6)

Signalized Intersection <sup>7</sup>	LOS per TIS			LOS per McCormick Taylor <sup>9</sup>		
US Route 9 & Cool Spring Road	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2010 With Development	B (0.59)	B (0.76)	B (0.88)	B (0.60)	B (0.77)	C (0.93)

<sup>7</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

<sup>8</sup> The TIS used a minimum PHF of 0.92 on the eastbound and westbound US Route 9 approaches for all future cases. Because this is a rural Level 4 area, McCormick Taylor used a minimum PHF of 0.88 on US Route 9 for all future cases.

<sup>9</sup> McCormick Taylor used 6 seconds of yellow and red time; the TIS used 5 seconds of yellow and red time.



Table 9  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>10</sup> Two-Way Stop Control	LOS per TIS			LOS per McCormick Taylor		
Anderson Corner Road/ Forest Road & Delaware Route 5	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2005 Existing						
Northbound Delaware Route 5 - Left	A (7.5)	A (7.6)	A (7.5)	A (7.5)	A (7.6)	A (7.5)
Southbound Delaware Route 5 - Left	A (7.7)	A (7.8)	A (7.7)	A (7.7)	A (7.8)	A (7.7)
Eastbound Anderson Corner Rd	B (12.2)	B (13.3)	B (11.3)	B (12.2)	B (13.3)	B (11.3)
Westbound Forest Road	B (12.6)	B (13.6)	B (11.9)	B (12.6)	B (13.6)	B (11.9)
2010 Without Development						
Northbound Delaware Route 5 - Left	A (7.7)	A (7.8)	A (7.8)	A (7.7)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (8.0)	A (8.2)	A (8.1)	A (8.0)	A (8.2)	A (8.1)
Eastbound Anderson Corner Rd	C (15.1)	C (18.9)	C (16.3)	C (15.1)	C (19.0)	C (16.3)
Westbound Forest Road	B (14.2)	C (17.1)	B (14.3)	B (14.2)	C (17.1)	B (14.4)
2010 With Development						
Northbound Delaware Route 5 - Left	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (8.0)	A (8.2)	A (8.1)	A (8.0)	A (8.3)	A (8.1)
Eastbound Anderson Corner Rd	B (14.4)	C (18.3)	B (14.9)	B (14.4)	C (18.3)	B (15.0)
Westbound Forest Road	C (15.3)	C (20.9)	C (17.5)	C (15.3)	C (21.0)	C (17.5)

<sup>10</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

Table 10  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>11</sup> One-Way Stop Control</b>	<b>LOS per TIS</b>			<b>LOS per McCormick Taylor</b>		
<b>Stockley Road &amp; Delaware Route 23</b>	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2005 Existing						
Northbound Delaware Route 23 - Left	A (7.5)	A (7.9)	A (7.7)	A (7.5)	A (7.9)	A (7.7)
Eastbound Stockley Road	B (11.4)	B (12.2)	B (11.6)	B (11.4)	B (12.2)	B (11.6)
2010 Without Development						
Northbound Delaware Route 23 - Left	A (8.0)	A (8.6)	A (8.2)	A (7.9)	A (8.6)	A (8.2)
Eastbound Stockley Road	C (16.8)	C (23.7)	C (20.1)	C (15.9)	C (23.7)	C (20.3)
2010 With Development						
Northbound Delaware Route 23 - Left	A (8.1)	A (8.7)	A (8.3)	A (8.0)	A (8.7)	A (8.3)
Eastbound Stockley Road	C (18.3)	D (30.6)	C (23.8)	C (17.2)	D (30.6)	C (24.1)

<sup>11</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.





STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF  
STATE PLANNING COORDINATION

August 18, 2005

Mr. Chris Hudson  
Ocean Atlantic Associates  
4101 Highway One  
Rehoboth Beach, DE 19971

RE: PLUS review – PLUS 2005-07-13; Cool Spring Meadows

Dear Mr. Hudson:

Thank you for meeting with State agency planners on August 3, 2005 to discuss the proposed plans for the Cool Spring Meadows project to be located between the intersection of Forest Road and Stockley Road and Cool Spring Road and Stockley Road.

According to the information received, you are seeking site plan approval for a cluster development of 233 single family residential units on 215.23 acres located in Level 4.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the Sussex.

**Executive Summary**

The following section includes some site specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The full text of this letter represents the official state response to this project. ***Our office notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.***

### **State Strategies/Project Location**

- This project is proposed for an Investment Level 4 area according to the 2004 *Strategies for State Policies and Spending*. This project is also located outside of a designated growth area in relevant municipal and county certified Comprehensive Plans. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas.

### **Natural and Cultural Resources**

- This project impacts all three layers of the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61.
- As proposed, this project would remove and fragment forest that is part of a large contiguous forest tract and may reduce the habitat value of the entire forest stretch.

The following are a complete list of comments received by State agencies:

### **Office of State Planning Coordination – Contact: Ann Marie Townshend 739-3090**

This project represents a major land development that will result in 233 residential units in an Investment Level 4 area according to the 2004 *Strategies for State Policies and Spending*. This project is also located outside of a designated growth area in relevant municipal and county certified comprehensive plans. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed is likely to bring more than 580 new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, 100% of school transportation and paratransit services, up to 80% of school construction costs, and about 90% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.



Because the development is inconsistent with the *Strategies for State Policies and Spending*, the State is opposed to this proposed subdivision.

**Division of Historic and Cultural Affairs (DHCA)– Contact: Alice Guerrant 739-5685**

The DHCA does not approve of this development because it is in State Investment Level 4 and will result in a loss of the historic agricultural and silvicultural landscape in this area and probably in the loss of archaeological sites, as well as producing adverse noise and visual effects on nearby late-19<sup>th</sup>-century and early-20<sup>th</sup>-century farmsteads and houses.

There is nothing known within the parcel. There are two properties within sight of the open part of this parcel (S-2916 and S-2918). Beers Atlas of 1868 shows the C.S. Layton House and the S.P. Martin House (probably a tenant house) within the parcel possibly. The USGS maps from 1917 and 1918 for this area show no houses remaining in the parcel. There may be archaeological resources relating to these two houses. There are also areas of high and medium potential for prehistoric-period archaeological sites.

If this project proceeds, DHCA would appreciate the opportunity of checking the area to see if in fact any sites exist and to learn something about their location and character prior to any ground-disturbing activity.

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

Ocean Atlantic Associates, seeks to develop 233 single-family detached houses on an approximately 215.23-acre assemblage of parcels (Tax Parcels 2-34-5.00-30.00 and 2-34-5.00-33.00). The land is located on both sides of Stockley Road (Sussex Road 280), with frontage on Cool Spring Road (Sussex Road 290) and Forest Road (Sussex Road 292) north of Stockley Road. The land is zoned AR-1 and would be developed under the County's cluster development option. A traffic impact study is in progress

This development is proposed for an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies for State Policies and Spending* have deemed the type of development being proposed inappropriate for this area. As part of our commitment to support the *Strategies*, DelDOT refrains from participating in the cost of any road improvements needed to support this development and is opposed to any road improvements that will substantially increase the transportation system capacity in this area. DelDOT will only support taking the steps necessary to preserve the existing transportation infrastructure and make whatever safety and drainage related improvements are deemed appropriate and necessary. The intent is to preserve the open space, agricultural lands, natural habitats and forestlands that are typically found in Level 4 Areas while avoiding the creation of isolated development areas that cannot be served

effectively or efficiently by public transportation, emergency responders, and other public services.

DelDOT strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in approved Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

If this development proposal is approved, notwithstanding inconsistencies with the relevant plans and policies, DelDOT will provide technical review and comments.

**The Department of Natural Resources and Environmental Control – Contact:  
Kevin Coyle 739-9071**

This project is proposed for an Investment Level 4 area as defined by the *Strategies for State Policies and Spending* and is also located outside of a designated growth area in the relevant municipal and county certified comprehensive plans. According to the *Strategies* this project is inappropriate in this location. In Investment Level 4 areas, the State's investments and policies, from DNREC's perspective, should retain the rural landscape and preserve open spaces and farmlands. Open space investments should emphasize the protection of critical natural habitat and wildlife to support a diversity of species, and the protection of present and future water supplies. Open space investments should also provide for recreational activities, while helping to define growth areas. Additional state investments in water and wastewater systems should be limited to existing or imminent public health, safety or environmental risks only, with little provision for additional capacity to accommodate further development.

With continued development in Investment Level 4 areas, the State will have a difficult, if not impossible, time attaining water quality (e.g., TMDLs) and air quality (e.g., non-attainment areas for ozone and fine particulates) goals. Present and future investments in green infrastructure, as defined in Governor Minter's Executive Order No. 61, will be threatened. DNREC strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in certified Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

This particular development certainly compromises the integrity of the State Strategies and the preservation goals inherent in many of DNREC's programs. Of particular concern are: the project impacts all three layers of the Green Infrastructure map (cropland, forest, and natural resources), and loss/fragmentation of 45 out of 141 acres of forest. While mitigating measures such as conservation design, central wastewater systems instead of individual on-site septic systems, and other best management practices may help mitigate impacts from this project, not doing the project at all is the best avenue for avoiding negative impacts. As such, this project will receive no financial, technical or other support of any kind from DNREC. Any required permits or other authorizations for



this project shall be considered in light of the project's conflict with our State growth strategies.

### **Green Infrastructure**

Portions or all of the lands associated with this proposal are within the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61 that represents a network of ecologically important natural resource lands of special state conservation interest.

Green infrastructure is defined as Delaware's natural life support system of parks and preserves, woodlands and wildlife areas, wetlands and waterways, productive agricultural and forest land, greenways, cultural, historic and recreational sites and other natural areas all with conservation value. Preserving Delaware's Green Infrastructure network will support and enhance biodiversity and functional ecosystems, protect native plant and animal species, improve air and water quality, prevent flooding, lessen the disruption to natural landscapes, provide opportunities for profitable farming and forestry enterprises, limit invasive species, and foster ecotourism.

Voluntary stewardship by private landowners is essential to green infrastructure conservation in Delaware, since approximately 80 percent of the State's land base is in private hands. It is in that spirit of stewardship that the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.

### **Soils**

According to the soil survey update, over half of the soils on subject parcel are wetland associated (hydric) Hurlock or Mullica soils. These soils have severe limitations for development.

### **Wetlands**

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands on this parcel. Development activities should be avoided in the northeastern portion of the property as it holds majority of the wetlands on site.

These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex. The developer should note that both DNREC and Army Corps of Engineers discourage allowing lot lines to contain wetlands to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

### **Wetland Permitting Information**

Impacts to palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process.

Because there is strong evidence that federally regulated wetlands exist on site, a wetland delineation, in accordance with the methodology established by the Corps of Engineers Wetlands Delineation Manual, (Technical Report Y-87-1) should be conducted. Once complete, this delineation should be verified Corps of Engineers through the Jurisdictional Determination process.

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-4691 to schedule a meeting.

### **Impervious Cover**

Since residential development significantly increases the amount of impervious cover - leading to large volumes of contaminant-laden runoff which ultimately drain into streams or waterways - the applicant is strongly urged to pursue both natural and constructed Best Management Practices (BMPs) to reduce such impacts. Reducing the amount of impervious surfaces by planting more trees and/or the use of pervious paving surfaces ("pavers") in lieu of asphalt or concrete, are examples of ways to reduce such impacts. Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline.

### **ERES Waters**

This project is located adjacent to receiving waters of Inland Bays designated as waters having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State, and shall be protected and/ or restored, to the maximum extent practicable, to their natural condition. Provisions in Section 11.5 of Delaware's "Surface Water Quality Standards" (as amended August 11, 1999), specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of nutrient runoff through implementation of Best Management Practices (BMPs). Best Management Practices as defined in subsection 11.5(e) of this section, expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree practicable, or where attainable, a standard requiring no discharge of pollutants.



## **TMDLs**

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited water body” can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states develop and implement standards to support these desired use goals. This project is located in the low reduction area requiring a 40 percent reduction in both nitrogen and phosphorus.

## **Wastewater, Open Space and Compliance with TMDLs through the PCS**

Significant nitrogen and phosphorus loading reductions must be realized from all sources, including community onsite wastewater systems. The Department has developed performance standards for on-site wastewater treatment and disposal systems that have been presented as a part of the proposed Pollution Control Strategy (PCS). Upon promulgation of the proposed PCS regulation, new and existing wastewater disposal systems will be required to significantly reduce nitrogen and phosphorus loading in the Inland Bays watershed and meet “performance standards.” The standards would require (where applicable) nitrogen and phosphorus loading not exceed average annual discharge concentration levels of 5 and 2 mg/l for nitrogen and phosphorus, respectively.

The proposed Pollution Control Strategy would also require the completion of a nutrient budget for the proposed project in order to estimate how nutrient loads will change with the development of the parcel. The applicant should be made aware that the inclusion of stormwater management, wastewater treatment, buffers and wetlands as metrics for open space calculations, may understate the actual nutrient runoff as calculated from the nutrient budget.

Currently, we request that in order to verify your project’s compliance with specified TMDL loading rates, a full nutrient budget be calculated. Please contact Lyle Jones of Watershed Section at 739-4590 for the acceptable protocol.

## **Water Supply**

Should an on-site public well be needed, it must be located at least 150 feet from the outermost boundaries of the project. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

### **Sediment and Erosion Control/Stormwater Management**

A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through **Sussex Conservation District**. Contact Jessica Watson at (302) 856-7219 for details regarding submittal requirements and fees.

As of April 11, 2005, stormwater best management practices must also consider water quality as well as quantity in impaired water bodies.

### **Drainage**

The Drainage Section requests all existing ditches on the property be checked for function and cleaned if needed prior to the construction of homes. Wetland permits may be required before cleaning ditches.

The Drainage Section requests that all precautions 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.

The Drainage Section strongly recommends any drainage conveyance between two parcels within a subdivision be dedicated as a drainage easement and such easement be designated as passive open space, not owned by individual landowners. The easement should be of sufficient width to allow for future drainage maintenance as described below.

- Along an open ditch or swale, the Drainage Section recommends a maintenance equipment zone of 25 feet measured from the top of bank on the maintenance side, and a 10-foot setback zone measured from top of bank on the non-maintenance side. These zones should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance.



Grasses, forbs and sedges planted within these zones should be native species, selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be native species spaced to allow for drainage maintenance at maturity. Trees should not be planted within 5 feet of the top of ditch to avoid future blockages from roots.

- Along a stormwater pipe, the Drainage Section recommends a maintenance equipment zone of 15 feet on each side of the pipe as measured from the pipe centerline. This zone should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be spaced to allow for drainage maintenance at maturity.

The Drainage Section recommends any drainage/utility easement owned by a individual landowner should not have structures, decks, buildings, sheds, kennels, fences or trees within the drainage easement to allow for future drainage maintenance.

## **Forests**

According to 2002 aerial photos there is a large forested area within this parcel that is a component of a contiguous stretch of forest. Large contiguous stretches of forest like this not only provide important water and air quality benefits, but provide important habitat for many wildlife species that depend on interior forest. Clearing portions of the forest within the parcel may reduce the habitat value of the entire forest stretch. Invasive species such as Multiflora rose, Japanese honeysuckle or autumn olive can quickly inhabit edges and displace native species. Once established, invasive species are hard to eradicate. Furthermore, the Department discourages the removal of trees for stormwater and/or wastewater facilities.

Forested areas on-site set aside for conservation purposes should be placed into a permanent conservation easement or other binding protection. These areas should be clearly marked and delineated so that residents understand their importance and so that homeowner activities do not infringe upon these areas.

## **Open Space**

PLUS materials indicate that 88.15 acres are proposed for open space. In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off into surface water, air quality improvements, and require much less maintenance than traditional turf

grass, an important consideration if a homeowners association will take over responsibility for maintenance of community open spaces.

Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should also be demarked to avoid infringement by homeowners.

### **Rare Species**

Delaware Natural Heritage Program staff have not surveyed this parcel, so it is unknown if there are any state-rare or federally listed plants, animals or natural communities at or adjacent to this project site. Their program botanist and zoologist requests the opportunity to survey the forested and wetland resources which could potentially be impacted by the project. Their observations would allow the program to make more informed comments on this project and would allow the applicant the opportunity to reduce potential impacts to rare species. Please contact Bill McAvoy or Kitt Heckscher at (302) 653-2880 to set up a site visit.

### **Potential Hunting Issue**

Because the project parcel is part of a larger forest block, legal hunting activities may take place on adjacent properties. Hunting within 100 yards of a dwelling is prohibited and the applicant may want to contact adjacent landowners to determine if this is going to be an issue. In effect, the adjacent landowner will be losing 100 yards of their property for hunting if there is not a buffer between lot lines and the adjacent property line.

### **Nuisance Waterfowl**

Stormwater management ponds that remain in the site plan may attract waterfowl like resident Canada geese and mute swans. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species. We recommend native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (50 feet) around the perimeter. Waterfowl do not feel safe when they can not see the surrounding area for possible predators. These plantings should be completed as soon as possible as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, geese problems can be minimized.



## Solid Waste

Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average, each new house constructed generates an additional 10,000 pounds of construction waste. Due to Delaware's present rate of growth and the impact that growth will have on the state's existing landfill capacity, the applicant is requested to be aware of the impact this project will have on the State's limited landfill resources and, to the extent possible, take steps to minimize the amount of construction waste associated with this development.

## Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 17.9 tons (35,763.1 pounds) per year of VOC (volatile organic compounds), 14.8 tons (29,609.4 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 10.9 tons (21,846.4 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 1.0 ton (1,944.7 pounds) per year of fine particulates and 1,495.8 tons (2,991,535.1 pounds) per year of CO<sub>2</sub> (carbon dioxide).

***However if this project is in a level 4 area, mobile emission calculations should be increased by 118 pounds for VOC emissions for each mile outside the designated growth areas per household unit; by 154 pounds for NO<sub>x</sub>; and by 2 pounds for particulate emissions. A typical development of 100 units that is planned 10 miles outside the growth areas will have additional 59 tons per year of VOC emissions, 77 tons per year of NO<sub>x</sub> emissions and 1 ton per year of particulate emissions versus the same development built in a growth area (level 1,2 or 3).***

Emissions from area sources associated with this project are estimated to be 7.2 tons (14,424.9 pounds) per year of VOC (volatile organic compounds), 0.8 ton (1,587.2 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 0.7 ton (1,317.1 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 0.8 ton (1,699.7 pounds) per year of fine particulates and 29.2 tons (58,475.2 pounds) per year of CO<sub>2</sub> (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 2.9 tons (5,717.0 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 9.9 tons (19,885.2 pounds) per year of SO<sub>2</sub> (sulfur dioxide) and 1,466.5 tons (2,933,059.9 pounds) per year of CO<sub>2</sub> (carbon dioxide).

	VOC	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>
Mobile	17.9	14.8	10.9	1.0	1495.8
Residential	7.2	0.8	0.7	0.8	29.2
Electrical Power		2.9	9.9		1466.5
TOTAL	25.1	18.5	21.5	1.8	2991.5

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 2.9 tons of nitrogen oxides per year and 9.9 tons of sulfur dioxide per year.

A significant method to mitigate this impact would be to require the builder to construct Energy Star qualified homes. Every percentage of increased energy efficiency translates into a percent reduction in pollution. Quoting from their webpage, <http://www.energystar.gov/>:

“ENERGY STAR qualified homes are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than state energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of:

building envelope upgrades,  
high performance windows,  
controlled air infiltration,  
upgraded heating and air conditioning systems,  
tight duct systems and  
upgraded water-heating equipment.”

The DNREC energy office is in the process of training builders in making their structures more energy efficient. The Energy Star Program is excellent way to save on energy costs and reduce air pollution. We highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

It is also recommended that the home builders offer geothermal and photo voltaic energy options. Applicable vehicles should use retrofitted diesel engines during construction. The development should provide tie-ins to the nearest bike paths and links to mass transport system, and fund a lawnmower exchange program for their new occupants.

**State Fire Marshal's Office – Contact: Duane Fox 302-856-5298**

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. 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)
- 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 Sq. Ft. aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sq.ft., 3-stories of more or 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 Stockley Road and Cool Spring 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.delawarestatefiremarshal.com](http://www.delawarestatefiremarshal.com), technical services link, plan review, applications or brochures.

**Department of Agriculture - Contact: Milton Melendez 698-4500**

The proposed development is in an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies* and the Sussex County Comprehensive Plan do not support this type of isolated development in this area. The intent of these plans is to preserve the agricultural lands, forestlands, recreational uses, and open spaces that are preferred uses in Level 4 areas. The Department of Agriculture opposes the proposed development which conflicts with the preferred land uses, making it more difficult for agriculture and forestry to succeed, and increases the cost to the public for services and facilities.

The Department of Agriculture opposes this project because it negatively impacts those land uses that are the backbone of Delaware's resource industries - agriculture, forestry, horticulture - and the related industries they support. **The Department of Agriculture and the Department of Natural Resource and Environmental Control, along with other partners developed the State's "Green Infrastructure" Investment Strategy. This strategy identifies high-value cropland, forestland and natural resource lands for preservation and conservation. This proposed development site is designated as high value cropland, forestland and natural resource lands on the Green Infrastructure Investment Strategy. In other words, in addition to their location in a rural area, due to their soil quality and other significant factors, these lands have been further designated by the State for conservation and preservation.**



Furthermore, often new residents of developments like this one, with little understanding or appreciation for modern agriculture and forestry, find their own lifestyles in direct conflict with the demands of these industries. Often these conflicts result in compromised health and safety; one example being decreased highway safety with farm equipment and cars competing on rural roads. The crucial economic, environmental and open space benefits of agriculture and forestry are compromised by such development. We oppose the creation of isolated development areas that are inefficient in terms of the full range of public facilities and services funded with public dollars. Public investments in areas such as this are best directed to agricultural and forestry preservation.

The Delaware Department of Agriculture supports growth which expands and builds on existing urban areas and growth zones in approved State, county and local plans. Where additional land preservation can occur through the use of transfer of development rights, and other land use measures, we will support these efforts and work with developers to implement these measures. If this project is approved we will work with the developers to minimize impacts to the agricultural and forestry industries.

**Public Service Commission - Contact: Andrea Maucher 739-4247**

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

Application notes "Tidewater – CPCN request is in process." No Application for the subject parcels has been filed by Tidewater; however, Artesian has a CPCN Application pending before the Commission that includes parcel no, 234-5.00-30.00.

**Delaware State Housing Authority – Contact Karen Horton 739-4263**

This proposal is to develop 233 units on 215 acres located on both sides of Stockley Road, between Forrest Road and Cool Spring Road, east of Andersons Corner. According to the *State Strategies Map*, the proposal is located in an Investment Level 4. As a general planning practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as Investment Level 1 and 2 areas outlined in the *State Strategies Map*. The proposal is located in an area targeted for agricultural and natural resource protection, and therefore inconsistent with where the State would like to see new residential development.

**Sussex County – Contact: Richard Kautz 855-7878**

The application should note that within the site there is a 400 foot deep zone of General Residential fronting along Forest Road (Road 292). Concerning the site design, this is one of the first projects to locate all lots with direct access to open space.

This fiscal year Sussex County will be considering implementation of a Source Water Protection Program required by the State. Depending on the requirements adopted by the

County Council this project might be affected. Any well location should insure that the wellhead protection area is entirely on site.

Because this project is an AR-1 Cluster subdivision, the developer must include in the application a plan for the management of all open space. Also, the developer must document for the Planning and Zoning Commission how the proposed development: provides for a total environment and design which are superior to that which would be allowed under the standard lot option; preserves the natural environment and historic or archeological resources; and, will not have an adverse effect on any of the items included under Ordinance Number 1152 (County Code 99-9C). These issues can be addressed by including in the application an explanation of how the developer plans to mitigate the issues raised by the State agencies.

The Sussex County Engineer Comments:

The project proposes to develop using a private central community wastewater system. We recommend that the wastewater system be operated under a long-term contract with a capable wastewater utility that meets TMDL limits for Delaware's Inland Bays. In addition, we recommend they have a wastewater utility provider prior to approving the project. The proposed project is located outside of the Inland Bays Planning area where Sussex County expects to provide sewer service. Sussex County requires design and construction of the collection and transmission system to meet Sussex County sewer standards and specifications. A review and approval of the treatment and disposal system by the Sussex County Engineering Department is also required and plan review fees may apply. Disposal fields should not be counted as open space. Wastewater disposal fields should be clearly identified on recorded plots and separated from lot area.

If Sussex County ever provides sewer service, it is required that the treatment system be abandoned and a direct connection made to the County system at the developers and/or homeowners association expense.

Submission and approval of a sewer Concept Plan is not required.

For question regarding these comments, contact Rob Davis, Sussex County Engineering Department at (302) 855-7820.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**



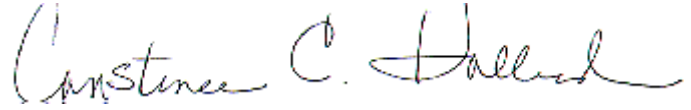
PLUS 2005-07-13

August 19, 2005

Page 17 of 17

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

A handwritten signature in dark ink, reading "Constance C. Holland". The signature is fluid and cursive, with the first name "Constance" being more prominent than the last name "Holland".

Constance C. Holland, AICP  
Director

CC: Sussex County



Constance C. Holland, AICP  
Director, Office of State Planning Coordination  
State of Delaware  
122 William Penn Street, Suite 302  
Haslet Building, Third Floor  
Dover, DE 19901

13 November 2006

Via: Email  
& U.S. Mail

RE: PLUS review – PLUS 2005-07-13; Cool Spring Meadows

Dear Ms. Holland,

In regard to the above referenced project and pursuant to your comment letter dated 18 August 05, please find the following point by point response in blue for your review.

#### Executive Summary

The following section includes some site specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The full text of this letter represents the official state response to this project. ***Our office notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.***

#### State Strategies/Project Location

- This project is proposed for an Investment Level 4 area according to the 2004 *Strategies for State Policies and Spending*. This project is also located outside of a designated growth area in relevant municipal and county certified Comprehensive Plans. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas.

#### ❖ Comments acknowledged.

#### Natural and Cultural Resources

- This project impacts all three layers of the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61.
- As proposed, this project would remove and fragment forest that is part of a large contiguous forest tract and may reduce the habitat value of the entire forest stretch.

- ❖ Over 2/3 of the proposed development occurs in the non- wooded areas. The remaining 1/3 is positioned in the southern most section of forested area (north of Stockley Road) where the designer will attempt to limit street and infrastructure grading so as to disturb as few trees as possible. The continuity of the remaining forested area should not be compromised.

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The following are a complete list of comments received by State agencies:

**Office of State Planning Coordination – Contact: Ann Marie Townshend 739-3090**

This project represents a major land development that will result in 233 residential units in an Investment Level 4 area according to the *2004 Strategies for State Policies and Spending*. This project is also located outside of a designated growth area in relevant municipal and county certified comprehensive plans. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed is likely to bring more than 580 new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, 100% of school transportation and paratransit services, up to 80% of school construction costs, and about 90% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.

Because the development is inconsistent with the *Strategies for State Policies and Spending*, the State is opposed to this proposed subdivision.

❖ **Comments acknowledged.**

**Division of Historic and Cultural Affairs (DHCA)– Contact: Alice Guerrant 739-5685**

The DHCA does not approve of this development because it is in State Investment Level 4 and will result in a loss of the historic agricultural and silvicultural landscape in this area and probably in the loss of archaeological sites, as well as producing adverse noise and visual effects on nearby late-19th-century and early-20th-century farmsteads and houses.

There is nothing known within the parcel. There are two properties within sight of the open part of this parcel (S-2916 and S-2918). Beers Atlas of 1868 shows the C.S. Layton House and the S.P. Martin House (probably a tenant house) within the parcel possibly. The USGS maps from 1917 and 1918 for this area show no houses remaining in the parcel. There may be archaeological resources relating to these two houses. There are also areas of high and medium potential for prehistoric-period archaeological sites.

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If this project proceeds, DHCA would appreciate the opportunity of checking the area to see if in fact any sites exist and to learn something about their location and character prior to any ground-disturbing activity.

❖ **Comments acknowledged.**

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

Ocean Atlantic Associates, seeks to develop 233 single-family detached houses on an approximately 215.23-acre assemblage of parcels (Tax Parcels 2-34-5.00-30.00 and 2-34-5.00-33.00). The land is located on both sides of Stockley Road (Sussex Road 280), with frontage on Cool Spring Road (Sussex Road 290) and Forest Road (Sussex Road 292) north of Stockley Road. The land is zoned AR-1 and would be developed under the County's cluster development option. A traffic impact study is in progress

This development is proposed for an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies for State Policies and Spending* have deemed the type of development being proposed inappropriate for this area. As part of our commitment to support the *Strategies*, DelDOT refrains from participating in the cost of any road improvements needed to support this development and is opposed to any road improvements that will substantially increase the transportation system capacity in this area. DelDOT will only support taking the steps necessary to preserve the existing transportation infrastructure and make whatever safety and drainage related improvements are deemed appropriate and necessary. The intent is to preserve the open space, agricultural lands, natural habitats and forestlands that are typically found in Level 4 Areas while avoiding the creation of isolated development areas that cannot be served effectively or efficiently by public transportation, emergency responders, and other public services.

DelDOT strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in approved Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

If this development proposal is approved, notwithstanding inconsistencies with the relevant plans and policies, DelDOT will provide technical review and comments.

❖ **Comments acknowledged.**

**The Department of Natural Resources and Environmental Control – Contact: Kevin Coyle 739-9071**

This project is proposed for an Investment Level 4 area as defined by the *Strategies for State Policies and Spending* and is also located outside of a designated growth area in the relevant municipal and county certified comprehensive plans. According to the

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*Strategies* this project is inappropriate in this location. In Investment Level 4 areas, the State's investments and policies, from DNREC's perspective, should retain the rural landscape and preserve open spaces and farmlands. Open space investments should emphasize the protection of critical natural habitat and wildlife to support a diversity of species, and the protection of present and future water supplies. Open space investments should also provide for recreational activities, while helping to define growth areas. Additional state investments in water and wastewater systems should be limited to existing or imminent public health, safety or environmental risks only, with little provision for additional capacity to accommodate further development. With continued development in Investment Level 4 areas, the State will have a difficult, if not impossible, time attaining water quality (e.g., TMDLs) and air quality (e.g., nonattainment areas for ozone and fine particulates) goals. Present and future investments in green infrastructure, as defined in Governor Minner's Executive Order No. 61, will be threatened. DNREC strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in certified Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

This particular development certainly compromises the integrity of the State Strategies and the preservation goals inherent in many of DNREC's programs. Of particular concern are: the project impacts all three layers of the Green Infrastructure map (cropland, forest, and natural resources), and loss/fragmentation of 45 out of 141 acres of forest. While mitigating measures such as conservation design, central wastewater systems instead of individual on-site septic systems, and other best management practices may help mitigate impacts from this project, not doing the project at all is the best avenue for avoiding negative impacts. As such, this project will receive no financial, technical or other support of any kind from DNREC. Any required permits or other authorizations for this project shall be considered in light of the project's conflict with our State growth strategies.

- ❖ **Comments acknowledged. The designer/developer has attempted to utilize the BMP's as outlined by DNREC – clusters of smaller lots, central wastewater, large wetland buffers and green technology BMP's for stormwater management.**

### **Green Infrastructure**

Portions or all of the lands associated with this proposal are within the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61 that represents a network of ecologically important natural resource lands of special state conservation interest.

Green infrastructure is defined as Delaware's natural life support system of parks and preserves, woodlands and wildlife areas, wetlands and waterways, productive agricultural and forest land, greenways, cultural, historic and recreational sites and other natural areas all with conservation value. Preserving Delaware's Green Infrastructure network will support and enhance biodiversity and functional ecosystems, protect native plant and

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animal species, improve air and water quality, prevent flooding, lessen the disruption to natural landscapes, provide opportunities for profitable farming and forestry enterprises, limit invasive species, and foster ecotourism.

Voluntary stewardship by private landowners is essential to green infrastructure conservation in Delaware, since approximately 80 percent of the State's land base is in private hands. It is in that spirit of stewardship that the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.

❖ **Comments acknowledged.**

### **Soils**

According to the soil survey update, over half of the soils on subject parcel are wetland associated (hydric) Hurlock or Mullica soils. These soils have severe limitations for development.

❖ **Comments acknowledged. The designer is working with an environmental and geotechnical consultant to evaluate the soils for use in wastewater treatment, stormwater management and structural support.**

### **Wetlands**

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands on this parcel. Development activities should be avoided in the northeastern portion of the property as it holds majority of the wetlands on site.

These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex. The developer should note that both DNREC and Army Corps of Engineers discourage allowing lot lines to contain wetlands to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

❖ **An environmental wetlands assessment has been performed. This site is being designed with a minimum 25' buffer zones from all potential jurisdictional wetlands. It is our intent to maximize the buffer zones where feasible.**

### **Wetland Permitting Information**

Impacts to palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water

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Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process.

Because there is strong evidence that federally regulated wetlands exist on site, a wetland delineation, in accordance with the methodology established by the Corps of Engineers Wetlands Delineation Manual, (Technical Report Y-87-1) should be conducted. Once complete, this delineation should be verified Corps of Engineers through the Jurisdictional Determination process.

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-4691 to schedule a meeting.

❖ **See comment above.**

### **Impervious Cover**

Since residential development significantly increases the amount of impervious cover - leading to large volumes of contaminant-laden runoff which ultimately drain into streams or waterways - the applicant is strongly urged to pursue both natural and constructed Best Management Practices (BMPs) to reduce such impacts. Reducing the amount of impervious surfaces by planting more trees and/or the use of pervious paving surfaces (“pavers”) in lieu of asphalt or concrete, are examples of ways to reduce such impacts. Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline.

❖ **Comment acknowledged. Supplemental planting and use of pavers for cul-de-sac’s and driveways are emphasized in the design process.**

### **ERES Waters**

This project is located adjacent to receiving waters of Inland Bays designated as waters having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State, and shall be protected and/ or restored, to the maximum extent practicable, to their natural condition. Provisions in Section 11.5 of Delaware’s “Surface Water Quality Standards” (as amended August 11, 1999), specify that all designated ERES waters and receiving tributaries develop a “pollution control strategy” to reduce non-point sources of nutrient runoff through implementation of Best Management Practices (BMPs). Best Management Practices as defined in subsection 11.5(e) of this section, expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree practicable, or where attainable, a standard requiring no discharge of pollutants.

❖ **Comments acknowledged.**

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## TMDLs

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited water body” can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states develop and implement standards to support these desired use goals. This project is located in the low reduction area requiring a 40 percent reduction in both nitrogen and phosphorus.

❖ **Mr. Lyle Jones will be contacted during the final design phase for information pertaining to the TMDLs.**

## Wastewater, Open Space and Compliance with TMDLs through the PCS

Significant nitrogen and phosphorus loading reductions must be realized from all sources, including community onsite wastewater systems. The Department has developed performance standards for on-site wastewater treatment and disposal systems that have been presented as a part of the proposed Pollution Control Strategy (PCS). Upon promulgation of the proposed PCS regulation, new and existing wastewater disposal systems will be required to significantly reduce nitrogen and phosphorus loading in the Inland Bays watershed and meet “performance standards.” The standards would require (where applicable) nitrogen and phosphorus loading not exceed average annual discharge concentration levels of 5 and 2 mg/l for nitrogen and phosphorus, respectively.

The proposed Pollution Control Strategy would also require the completion of a nutrient budget for the proposed project in order to estimate how nutrient loads will change with the development of the parcel. The applicant should be made aware that the inclusion of stormwater management, wastewater treatment, buffers and wetlands as metrics for open space calculations, may understate the actual nutrient runoff as calculated from the nutrient budget.

Currently, we request that in order to verify your project’s compliance with specified TMDL loading rates, a full nutrient budget be calculated. Please contact Lyle Jones of Watershed Section at 739-4590 for the acceptable protocol.

❖ **Mr. Lyle Jones will be contacted during the final design phase for information pertaining to the TMDLs.**

## Water Supply

Should an on-site public well be needed, it must be located at least 150 feet from the outermost boundaries of the project. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the

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Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising. Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

#### ❖ **Comments acknowledged.**

#### **Sediment and Erosion Control/Stormwater Management**

A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through **Sussex Conservation District**. Contact Jessica Watson at (302) 856-7219 for details regarding submittal requirements and fees.

As of April 11, 2005, stormwater best management practices must also consider water quality as well as quantity in impaired water bodies.

#### ❖ **All stormwater management practices will meet the requirements of the Sussex Conservation District (SCD) and DNREC. A detailed report with narrative will accompany the Stormwater Management and Erosion & Sediment Control Plans submitted to SCD. A meeting will be set up with SCD to discuss outfalls and predevelopment drainage areas.**

#### **Drainage**

The Drainage Section requests all existing ditches on the property be checked for function and cleaned if needed prior to the construction of homes. Wetland permits may be required before cleaning ditches.

The Drainage Section requests that all precautions 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.

The Drainage Section strongly recommends any drainage conveyance between two parcels within a subdivision be dedicated as a drainage easement and such easement be designated as passive open space, not owned by individual landowners. The easement should be of sufficient width to allow for future drainage maintenance as described

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below.

- Along an open ditch or swale, the Drainage Section recommends a maintenance equipment zone of 25 feet measured from the top of bank on the maintenance side, and a 10-foot setback zone measured from top of bank on the nonmaintenance side. These zones should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species, selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be native species spaced to allow for drainage maintenance at maturity. Trees should not be planted within 5 feet of the top of ditch to avoid future blockages from roots.
- Along a stormwater pipe, the Drainage Section recommends a maintenance equipment zone of 15 feet on each side of the pipe as measured from the pipe centerline. This zone should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be spaced to allow for drainage maintenance at maturity.

The Drainage Section recommends any drainage/utility easement owned by a individual landowner should not have structures, decks, buildings, sheds, kennels, fences or trees within the drainage easement to allow for future drainage maintenance.

❖ **Comments acknowledged. The designer will contact Brooks Cahall from the Drainage Division to verify if tax ditches exist on the site. If they do exist the appropriate measures will be taken at the direction of the Division.**

## Forests

According to 2002 aerial photos there is a large forested area within this parcel that is a component of a contiguous stretch of forest. Large contiguous stretches of forest like this not only provide important water and air quality benefits, but provide important habitat for many wildlife species that depend on interior forest. Clearing portions of the forest within the parcel may reduce the habitat value of the entire forest stretch. Invasive species such as Multiflora rose, Japanese honeysuckle or autumn olive can quickly inhabit edges and displace native species. Once established, invasive species are hard to eradicate. Furthermore, the Department discourages the removal of trees for stormwater and/or wastewater facilities.

Forested areas on-site set aside for conservation purposes should be placed into a permanent conservation easement or other binding protection. These areas should be clearly marked and delineated so that residents understand their importance and so that homeowner activities do not infringe upon these areas.

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- ❖ **Over 2/3 of the proposed development occurs in the non- wooded areas. The remaining 1/3 is positioned in the southern most section of forested area (north of Stockley Road) where the designer will attempt to limit street and infrastructure grading so as to disturb as few trees as possible. The continuity of the remaining forested area should not be compromised.**

### **Open Space**

PLUS materials indicate that 88.15 acres are proposed for open space. In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off into surface water, air quality improvements, and require much less maintenance than traditional turf grass, an important consideration if a homeowners association will take over responsibility for maintenance of community open spaces.

Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should also be demarked to avoid infringement by homeowners.

- ❖ **Comments acknowledged.**

### **Rare Species**

Delaware Natural Heritage Program staff have not surveyed this parcel, so it is unknown if there are any state-rare or federally listed plants, animals or natural communities at or adjacent to this project site. Their program botanist and zoologist requests the opportunity to survey the forested and wetland resources which could potentially be impacted by the project. Their observations would allow the program to make more informed comments on this project and would allow the applicant the opportunity to reduce potential impacts to rare species. Please contact Bill McAvoy or Kitt Heckscher at (302) 653-2880 to set up a site visit.

- ❖ **The designer/developer will initiate the appropriate visits with Department personnel during the final design phase of the project.**

### **Potential Hunting Issue**

Because the project parcel is part of a larger forest block, legal hunting activities may take place on adjacent properties. Hunting within 100 yards of a dwelling is prohibited and the applicant may want to contact adjacent landowners to determine if this is going to be an issue. In effect, the adjacent landowner will be losing 100 yards of their property for hunting if there is not a buffer between lot lines and the adjacent property line.

- ❖ **Comments acknowledged.**

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## Nuisance Waterfowl

Stormwater management ponds that remain in the site plan may attract waterfowl like resident Canada geese and mute swans. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species. We recommend native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (50 feet) around the perimeter. Waterfowl do not feel safe when they can not see the surrounding area for possible predators. These plantings should be completed as soon as possible as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, geese problems can be minimized.

❖ **Comments acknowledged.**

## Solid Waste

Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average, each new house constructed generates an additional 10,000 pounds of construction waste. Due to Delaware's present rate of growth and the impact that growth will have on the state's existing landfill capacity, the applicant is requested to be aware of the impact this project will have on the State's limited landfill resources and, to the extent possible, take steps to minimize the amount of construction waste associated with this development.

❖ **Comments acknowledged.**

## Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 17.9 tons (35,763.1 pounds) per year of VOC (volatile organic compounds), 14.8 tons (29,609.4 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 10.9 tons (21,846.4 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 1.0 ton (1,944.7 pounds) per year of fine particulates and 1,495.8 tons (2,991,535.1 pounds) per year of CO<sub>2</sub> (carbon dioxide).

***However if this project is in a level 4 area, mobile emission calculations should be increased by 118 pounds for VOC emissions for each mile outside the designated growth areas per household unit; by 154 pounds for NO<sub>x</sub>; and by 2 pounds for particulate emissions. A typical development of 100 units that is planned 10 miles outside the growth areas will have additional 59 tons per year of VOC emissions, 77 tons per year of NO<sub>x</sub> emissions and 1 ton per year of particulate emissions versus the***

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***same development built in a growth area (level 1,2 or 3).***

Emissions from area sources associated with this project are estimated to be 7.2 tons (14,424.9 pounds) per year of VOC (volatile organic compounds), 0.8 ton (1,587.2 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 0.7 ton (1,317.1 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 0.8 ton (1,699.7 pounds) per year of fine particulates and 29.2 tons (58,475.2 pounds) per year of CO<sub>2</sub> (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 2.9 tons (5,717.0 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 9.9 tons (19,885.2 pounds) per year of SO<sub>2</sub> (sulfur dioxide) and 1,466.5 tons (2,933,059.9 pounds) per year of CO<sub>2</sub> (carbon dioxide).

	VOC	NO <sub>x</sub>	SO <sub>2</sub>	PM2.5	CO <sub>2</sub>
Mobile	17.9	14.8	10.9	1.0	1495.8
Residential	7.2	0.8	0.7	0.8	29.2
Electrical Power		2.9	9.9		1466.5
TOTAL	25.1	18.5	21.5	1.8	
2991.5					

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 2.9 tons of nitrogen oxides per year and 9.9 tons of sulfur dioxide per year.

A significant method to mitigate this impact would be to require the builder to construct Energy Star qualified homes. Every percentage of increased energy efficiency translates into a percent reduction in pollution. Quoting from their webpage, <http://www.energystar.gov/>:

“ENERGY STAR qualified homes are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than state energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of:

building envelope upgrades,  
high performance windows,  
controlled air infiltration,  
upgraded heating and air conditioning systems,  
tight duct systems and  
upgraded water-heating equipment.”

The DNREC energy office is in the process of training builders in making their structures more energy efficient. The Energy Star Program is excellent way to save on energy costs and reduce air pollution. We highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

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It is also recommended that the home builders offer geothermal and photo voltaic energy options. Applicable vehicles should use retrofitted diesel engines during construction. The development should provide tie-ins to the nearest bike paths and links to mass transport system, and fund a lawnmower exchange program for their new occupants.

❖ **Comments acknowledged.**

**State Fire Marshal's Office – Contact: Duane Fox 302-856-5298**

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. 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)
- 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 Sq. Ft. aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sq.ft., 3-stories or more or 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 Stockley Road and Cool Spring 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.

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- 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.delawarestatefiremarshal.com](http://www.delawarestatefiremarshal.com), technical services link, plan review, applications or brochures.

❖ **Comments acknowledged.**

**Department of Agriculture - Contact: Milton Melendez 698-4500**

The proposed development is in an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies* and the Sussex County Comprehensive Plan do not support this type of isolated development in this area. The intent of these plans is to preserve the agricultural lands, forestlands, recreational uses, and open spaces that are

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preferred uses in Level 4 areas. The Department of Agriculture opposes the proposed development which conflicts with the preferred land uses, making it more difficult for agriculture and forestry to succeed, and increases the cost to the public for services and facilities. The Department of Agriculture opposes this project because it negatively impacts those land uses that are the backbone of Delaware's resource industries - agriculture, forestry, horticulture - and the related industries they support.

**The Department of Agriculture and the Department of Natural Resource and Environmental Control, along with other partners developed the State's "Green Infrastructure" Investment Strategy. This strategy identifies high-value cropland, forestland and natural resource lands for preservation and conservation. This proposed development site is designated as high value cropland, forestland and natural resource lands on the Green Infrastructure Investment Strategy. In other words, in addition to their location in a rural area, due to their soil quality and other significant factors, these lands have been further designated by the State for conservation and preservation.**

Furthermore, often new residents of developments like this one, with little understanding or appreciation for modern agriculture and forestry, find their own lifestyles in direct conflict with the demands of these industries. Often these conflicts result in compromised health and safety; one example being decreased highway safety with farm equipment and cars competing on rural roads. The crucial economic, environmental and open space benefits of agriculture and forestry are compromised by such development. We oppose the creation of isolated development areas that are inefficient in terms of the full range of public facilities and services funded with public dollars. Public investments in areas such as this are best directed to agricultural and forestry preservation.

The Delaware Department of Agriculture supports growth which expands and builds on existing urban areas and growth zones in approved State, county and local plans. Where additional land preservation can occur through the use of transfer of development rights, and other land use measures, we will support these efforts and work with developers to implement these measures. If this project is approved we will work with the developers to minimize impacts to the agricultural and forestry industries.

❖ **Comments acknowledged.**

**Public Service Commission - Contact: Andrea Maucher 739-4247**

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

Application notes "Tidewater – CPCN request is in process." No Application for the subject parcels has been filed by Tidewater; however, Artesian has a CPCN Application pending before the Commission that includes parcel no, 234-5.00-30.00.

❖ **The developer is coordinating with the two utilities listed above to determine the best source for wastewater treatment and water supply.**

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**Delaware State Housing Authority – Contact Karen Horton 739-4263**

This proposal is to develop 233 units on 215 acres located on both sides of Stockley Road, between Forrest Road and Cool Spring Road, east of Andersons Corner.

According to the *State Strategies Map*, the proposal is located in an Investment Level 4.

As a general planning practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as Investment Level 1 and 2 areas outlined in the State Strategies Map. The proposal is located in an area targeted for agricultural and natural resource protection, and therefore inconsistent with where the State would like to see new residential development.

❖ **Comments acknowledged.**

**Sussex County – Contact: Richard Kautz 855-7878**

The application should note that within the site there is a 400 foot deep zone of General Residential fronting along Forest Road (Road 292). Concerning the site design, this is one of the first projects to locate all lots with direct access to open space.

This fiscal year Sussex County will be considering implementation of a Source Water Protection Program required by the State. Depending on the requirements adopted by the County Council this project might be affected. Any well location should insure that the wellhead protection area is entirely on site.

Because this project is an AR-1 Cluster subdivision, the developer must include in the application a plan for the management of all open space. Also, the developer must document for the Planning and Zoning Commission how the proposed development: provides for a total environment and design which are superior to that which would be allowed under the standard lot option; preserves the natural environment and historic or archeological resources; and, will not have an adverse effect on any of the items included under Ordinance Number 1152 (County Code 99-9C). These issues can be addressed by including in the application an explanation of how the developer plans to mitigate the issues raised by the State agencies.

The Sussex County Engineer Comments:

The project proposes to develop using a private central community wastewater system. We recommend that the wastewater system be operated under a long-term contract with a capable wastewater utility that meets TMDL limits for Delaware's Inland Bays. In addition, we recommend they have a wastewater utility provider prior to approving the project. The proposed project is located outside of the Inland Bays Planning area where Sussex County expects to provide sewer service. Sussex County requires design and construction of the collection and transmission system to meet Sussex County sewer standards and specifications. A review and approval of the treatment and disposal system by the Sussex County Engineering Department is also required and plan review fees may apply. Disposal fields should not be counted as open space. Wastewater disposal fields should be clearly identified on recorded plots and separated from lot area.

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If Sussex County ever provides sewer service, it is required that the treatment system be abandoned and a direct connection made to the County system at the developers and/or homeowners association expense.

Submission and approval of a sewer Concept Plan is not required.

For question regarding these comments, contact Rob Davis, Sussex County Engineering Department at (302) 855-7820.

❖ **Comments acknowledged.**

Upon your review of the above, should you have any questions or require additional information, please do not hesitate to contact this office at 302.645.0777. Thank you.

Sincerely,  
Element Design Group

Douglas M. Warner, PE

Cc: Sussex County Council  
Mark Chura, OAA (w/enc.), File

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p 302.645.0777 f 302.645.0177 info@elementdg.com





**DELAWARE HEALTH AND SOCIAL SERVICES**  
**Division of Public Health**

Office of Engineering  
Phone: (302) 741-8640  
Fax: (302) 741-8641

October 1, 2019

Ms. Christin Headley  
Sussex County Planning & Zoning Commission  
PO Box 417  
Georgetown, DE 19947

**Re:** Sussex County Technical Advisory Committee

Dear Ms. Headley:

The Division of Public Health Office of Engineering is in receipt of the following application:

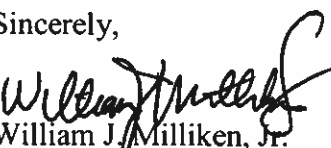
**1. Application:**      **2019-24-Cool Spring Meadows**

This application indicates central water will be supplied by Artesian Water Company, Inc. *This project requires an Approval to Construct and an Approval to Operate from the Office of Engineering when constructing a new water system or altering an existing water system.* In order to obtain an Approval to Construct, plans and specifications must be prepared by a registered Delaware professional engineer. Plans for the system, including water mains or extensions thereto, storage facilities, treatment works, and all related appurtenances, must be approved by the Office of Engineering prior to construction. 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 for this project, the Office of Engineering requires one set of as-built drawings, including profile markups, for all plans approved for construction. An Approval to Operate will be issued after all applicable requirements are met.

Please do not hesitate to contact me at 302-741-8646 with questions or comments.

Sincerely,

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

Planning & Zoning Commission  
2019-24

# STRATUS ESTATES - CLUSTER SUBDIVISION

David C. Hutt, Esq.  
Morris James LLP

Planning & Zoning Commission  
February 18, 2021



## TABLE OF CONTENTS

1. Executive Summary
2. Subdivision Application (2019-24) (with revised/updated application)
3. Residential Cluster Subdivision Plans
4. Legal Description of Revised Parcel
5. Maps/Imagery
  - a. Location Map (close up and greater area)
  - b. 2020 State Strategies Map
  - c. 2045 Future Land Use Map
  - d. Sussex County Zoning Map
  - e. Sussex County Surrounding Communities Map
  - f. 1992 Aerial Map
  - g. 2018 Aerial Map
  - h. Agricultural/Forest Preservation
  - i. Sussex County Sewer Tiers
  - j. Sussex County Water Districts
  - k. Ground Water Recharge Potential
  - l. Wellhead Protection Area
  - m. Flood Insurance Rate Map (FIRM) from FEMA
6. Sussex County Code Response (99-C and 115-25)
7. PLUS Response
8. DelDOT Pre-Submittal Meeting Minutes (Meeting: February 11, 2020)
9. Artesian Ability to Serve (Water and Sewer)
10. Isolated Wetlands (Lot 149) Report from Soil Scientist
11. Cool Spring Meadows Record Final Site Plan (Plot Book 181, Page 60)
12. Comparative Overlays of Cool Spring Meadows and Stratus Estates

## **STRATUS ESTATES (f/k/a Cool Spring Meadows) Project Information**

**Owner:** Fusco Properties, LP  
**Developer:** Fusco Properties, LP  
**Engineer:** The Kercher Group, Inc.

### **Project Description**

Physical Location: Located at the Northwest corner of SCR 290 (Cool Spring Road) and SCR 280 (Stockley Road)  
Tax Parcel #: 234-5.00-30.00  
Acreage: 187.93 Acres  
Current Zoning: AR-1  
Proposed: AR-1 (Cluster Development)  
Current Land Use: Agriculture  
Proposed Land Use: Residential Community

### **Proposed Units**

Single Family Lots: 226 Lots

### **AR-1 Proposed Zoning Requirements**

Front Yard Setback: 25 FT  
Corner: 15 FT  
Side Yard Setback: 10 FT  
Rear Yard Setback: 10 FT  
Minimum Lot Area: 7,500 SQFT.  
Minimum Lot Width: 60 FT  
Minimum Lot Depth: 100 FT  
Maximum Building Height: 42 FT

### **Proposed Land Use Areas**

Single Family Lots: 40.89 Acres (21.76%)  
Right of Way: 7.77 Acres (4.13%)  
Wetlands: 21.93 Acres (15.75%)  
Other SWM/Open Space: 117.34 Acres (58.36%)

### **Utility Provider**

Water: Artesian  
Sewer: Artesian



TAB “1”

## **EXECUTIVE SUMMARY**

### **1. Land Use & Zoning**

- A. Stratus Estates (f/k/a Cool Spring Meadows), a Cluster Subdivision.
- B. The property is located on the Northeast corner of Stockley Road and Cool Spring Road.
- C. The Owner of the property is Fusco Properties, LP.
- D. The property is currently zoned Agricultural Residential (AR-1).
- E. The proposed application is a request for a Cluster Subdivision.
- F. The property is located in the Level 4 Area of the 2015 & 2020 State Strategies Map.
- G. The property is located within the Low Density Area on the 2019 Comprehensive Plan.

### **2. Land Utilization**

- A. The total acreage of the property is 187.93 acres of land.
- B. The proposed community is designed for 226 single-family lots on 40.89 acres with 117.34 acres of stormwater management/open space, 7.77 acres of right-of-way and 21.93 acres of wetlands.
- C. The applicant requests a Cluster Subdivision.
- D. The number of units proposed is 226 single family lots with a site density of 1.20 units/acre.
- E. The access for the proposed community off Stockley Road.
- F. The property has 21.93 acres of wetlands located on site. The wetlands will remain undisturbed and be protected by a 50' buffer.
- G. As proposed, the community will have active and passive open space.
  - 1. North Side:
    - a. Pool;
    - b. Clubhouse;
    - c. Tot lot;



- d. Sidewalks (both sides of the streets);
- e. Walking trail in the woods ( ¼ mile to ½ mile); and
- f. Bus Stop.

2. South Side:

- a. Sidewalks (both sides of the streets); and
- b. Tot lot.

H. The project was presented to PLUS on July 24, 2019 and comments were received from the Office of State Planning on August 21, 2019. A response was filed to those comments on December 2, 2019.

3. Environmental

- A. The property contains 21.93 acres of wetlands.
- B. The property contains 126.37 acres of existing woods (8.24 acres on the south and 118.13 acres on the north). As proposed on the preliminary plan, none of the woods on the south will be disturbed and 14.33 acres on the north side of Stockley Road will be removed.
- C. The property is not located within a Wellhead Protection Area.
- D. The property is located in a Fair Groundwater Recharge Area.

4. Traffic

- A. The developer will make the improvements outlined in the PLUS report.
- B. The developer will work closely with DelDOT regarding the entrance on Stockley Road and will meet DelDOT road design standards for the entrance and DelDOT required improvements.

5. Civil Engineering

- A. The internal roads will be privately maintained and will meet Sussex County Design Standards.
- B. Drinking water and fire protection water will be provided by Artesian Water Company, Inc.
- C. Sanitary Sewer service will be provided by Artesian Water Company, Inc.

- D. The stormwater management system will meet all State, County and Conservation District requirements through a combination of Best Management Practice (BMP) and Best Available Technologies (BAT). The project consist of some infiltration practices as well as traditional wet detention ponds.
- E. The project is within the Cape Henlopen School District.
- F. Fire Protection will be provided by the Milton Fire Company.
- G. Electricity will be provided by Delaware Electric Co-operative.

6. County Code Compliance

- A. Preliminary Land Use Service Response Letter (December 2, 2019).
- B. Sussex County Code, Chapter 115, Article IV (Agricultural Residential Districts)
  - 1. Sussex County Code, Chapter 99-9C Summary Response.
  - 2. Sussex County Code, Chapter 115-25, E. Design Requirements for Cluster Development.
  - 3. Sussex County Code, Chapter 115-25, F. (3) Planning and Zoning Requirements.



TAB “2”

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:

NW Corner of SCR 290 (Cool Spring Road) and SCR 280 (Stockley Road)

#### Proposed Name of Subdivision:

Stratus Estates (fna Cool Spring Meadows)

Tax Map #: 235-5.00-30.00

Total Acreage: 187.93

Zoning: AR-1

Density: 1.21

Minimum Lot Size: 7,500

Number of Lots: 226

Open Space Acres: 139.27

Water Provider: Artesian

Sewer Provider: Artesian

#### Applicant Information

Applicant Name: Fusco Properties, LP

Applicant Address: PO Box 655

City: New Castle

State: DE

Zip Code: 19720

Phone #: (302) 328-6251

E-mail: frankie@fuscomanagement.com

#### Owner Information

Owner Name: Same as applicant

Owner Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Phone #: \_\_\_\_\_

E-mail: \_\_\_\_\_

#### Agent/Attorney/Engineer Information

Agent/Attorney/Engineer Name: The Kercher Group, Inc.

Agent/Attorney/Engineer Address: 37385 Rehoboth Ave. Ext, Unit 11

City: Rehoboth Beach

State: DE

Zip Code: 19971

Phone #: (302) 854-9063

E-mail: kts@kerchergroup.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 my 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

David C. Hunt, Esquire

Morgan James LLP

Signature of Owner

Date: 1/28/2021

Date: \_\_\_\_\_

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: \_\_\_\_\_

File #: 2019-24  
201910446  
201910448

## 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

RECEIVED

SEP 11 2019

SUSSEX COUNTY  
PLANNING & ZONING

#### Type of Application: (please check applicable)

Standard: ☐

Cluster: ☒

ESDDOZ: ☐

#### Location of Subdivision:

NW Corner of SCR 290 (Cool Spring Road) and SCR 280 (Stockley Road)

#### Proposed Name of Subdivision:

Cool Spring Meadows

Tax Map #: 234-5.00-30.0 & 33.0

Total Acreage: 187.93

Zoning: AR

Density: 1.2

Minimum Lot Size: 7,500

Number of Lots: 226

Open Space Acres: 106.81

Water Provider: Artesian

Sewer Provider: Artesian

#### Applicant Information

Applicant Name: Fusco Properties, LP

Applicant Address: P.O. Box 665

City: New Castle

State: DE

Zip Code: 19720

Phone #: 302.328.6251

E-mail: frankie@fuscomanagement.com

#### Owner Information

Owner Name: Fusco Properties, LP

Owner Address: P.O. Box 665

City: New Castle

State: DE

Zip Code: 19720

Phone #: 302.328.6251

E-mail: frankie@fuscomanagement.com

#### Agent/Attorney/Engineer Information

Agent/Attorney/Engineer Name: The Kercher Group, Inc.

Agent/Attorney/Engineer Address: 37385 Rehoboth Ave., Unit #11

City: Rehoboth Beach

State: DE

Zip Code: 19971

Phone #: 302.854.9063

E-mail: jom@kerchergroup.com





# Check List for Sussex County Major Subdivision Applications

The following shall be submitted with the application

- ☒ **Completed Application**
- ☒ **Provide fifteen (15) 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)
- ☐ **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 my 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:

Signature of Owner



Date:

For office use only:

Date Submitted: 9/11/19

Staff accepting application: CEA

Location of property: \_\_\_\_\_

Fee: \$500.00 Check #: 55-136

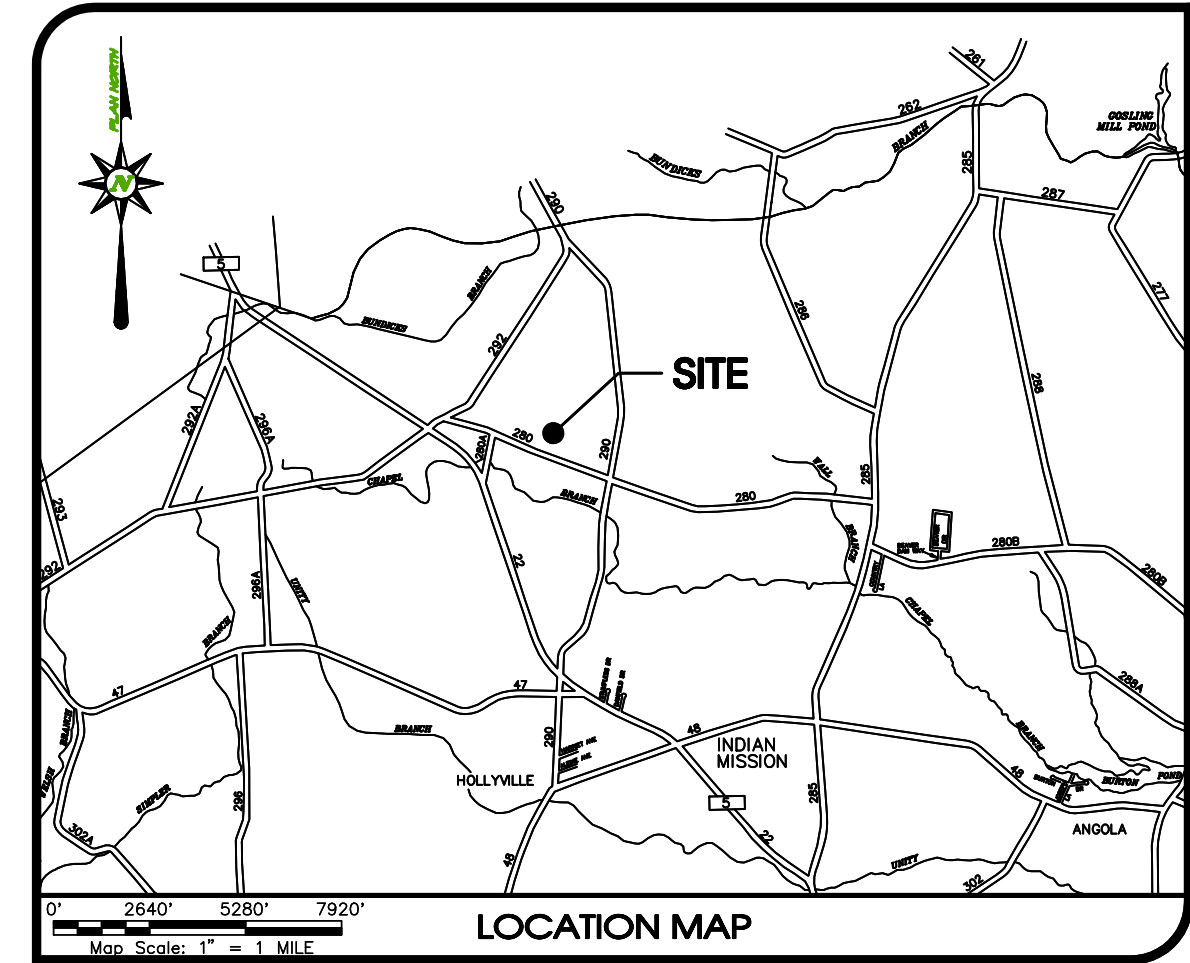
Application & Case #: 2019 10441 & 2019 10448

Date of PC Hearing: \_\_\_\_\_

Recommendation of PC Commission: \_\_\_\_\_

TAB “3”





PLAN LEGEND

- SUPPLEMENTAL CONTOUR (1' INTERVAL)
- INDEX CONTOUR (5' INTERVAL)
- EXISTING PROPERTY BOUNDARY
- EXISTING ADJACENT PROPERTY BOUNDARY
- EXISTING RIGHT-OF-WAY
- EXISTING WETLANDS LIMITS
- EXISTING TREE LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CENTERLINE
- EXISTING PAINT STRIPING
- EXISTING SOIL SERIES LIMITS
- EXISTING PERMANENT EASEMENT
- PROPOSED LOTLINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED CENTERLINE
- PROPOSED BUILDING RESTRICTION LINE
- PROPOSED UTILITY EASEMENT
- PROPOSED WETLAND BUFFER
- PROPOSED CONCRETE SIDEWALK
- PROPOSED P.C.C. CURB
- PROPOSED STREET LIGHT

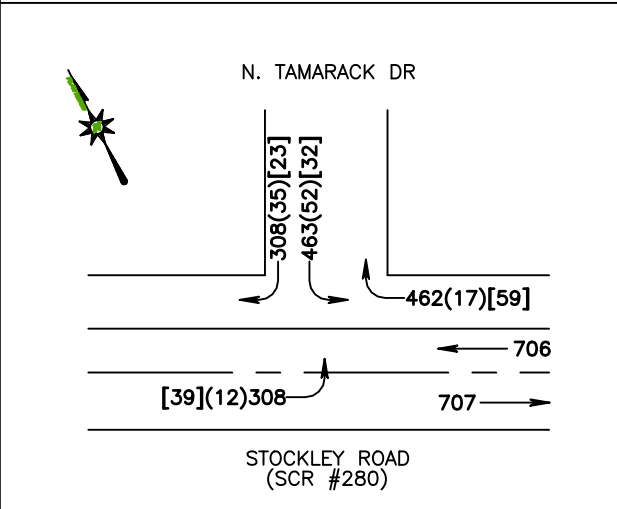
SITE DATA and ZONING SCHEDULE

TAX PARCEL NO.:	234-5.00-30.00	
PROPERTY ADDRESS:	STOCKLEY ROAD LEWES, DE 19958	
EXISTING SITE USE:	AGRICULTURE/WOODLANDS	
PROPOSED SITE USE:	226-LOT, SINGLE-FAMILY DWELLING CLUSTER SUBDIVISION	
ZONING DISTRICT:	AR-1 (AGRICULTURE/RESIDENTIAL)	
GROSS PROPERTY AREA:	187.93 Ac.	
DEDICATED R.O.W. AREA:	0.00 Ac.	
NET PROPERTY AREA:	187.93 Ac.	
INVESTMENT LEVEL AREA:	4	
PROPOSED DENSITY:	1.21 Units per Ac.	
EXISTING FORESTED AREA:	126.37 Ac.	
PROPOSED FORESTED AREA REMOVAL:	14.33 Ac.	
PROPOSED FORESTED AREA TO REMAIN:	112.04 Ac.	
<b>ORDINANCE ITEM</b>	<b>REQUIREMENT:</b>	<b>PROVIDED:</b>
MINIMUM LOT AREA	7,500 Sq. Ft.	7,625 Sq. Ft. (MIN.)
MINIMUM LOT WIDTH	60 Ft.	60 Ft.
MINIMUM LOT DEPTH	100 Ft.	125 Ft.
MINIMUM SETBACKS:		
FRONT	25 Ft.	25 Ft.
SIDE	10 Ft.	10 Ft.
REAR	10 Ft.	10 Ft.
CORNER	15 Ft.	15 Ft.
MAXIMUM BUILDING HEIGHT	42 Ft.	3 Stories (42 Ft.)
SEWER SERVICE	ARTESIAN	
WATER SERVICE	ARTESIAN	
PROPERTY OWNER		
FUSCO PROPERTIES P.O. BOX 665 NEW CASTLE, DE 19720 302.328.6251 302.328.6332		

PROPERTY AREA	
LOT AREA:	40.89 Ac. (21.76%)
RIGHT-OF-WAY AREA:	7.77 Ac. (4.13%)
OPEN SPACE AREA (INCLUDING WETLANDS, BUFFER):	139.27 Ac. (74.11%)
TOTAL AREA:	187.93 Ac.

OPEN SPACE BREAKDOWN	
PR. 30' LANDSCAPE/FORESTED BUFFER:	6.37 Ac. (4.57%)
PR. 50' WETLAND BUFFER:	10.40 Ac. (7.47%)
PR. 15' PERMANENT EASEMENT:	1.52 Ac. (1.09%)
PR. ACCESS EASEMENT:	0.06 Ac. (0.04%)
PR. PASSIVE OPEN SPACE (INCLUDING STORMWATER MANAGEMENT):	98.99 Ac. (71.08%)
EXISTING NON-TIDAL WETLANDS:	21.93 Ac. (15.73%)
TOTAL OPEN SPACE:	139.27 Ac.

TRIP GENERATION - STOCKLEY ROAD (SCR #280) - NORTH TAMARACK DRIVE (FULL MOVEMENT)



TRAFFIC GENERATION DIAGRAM

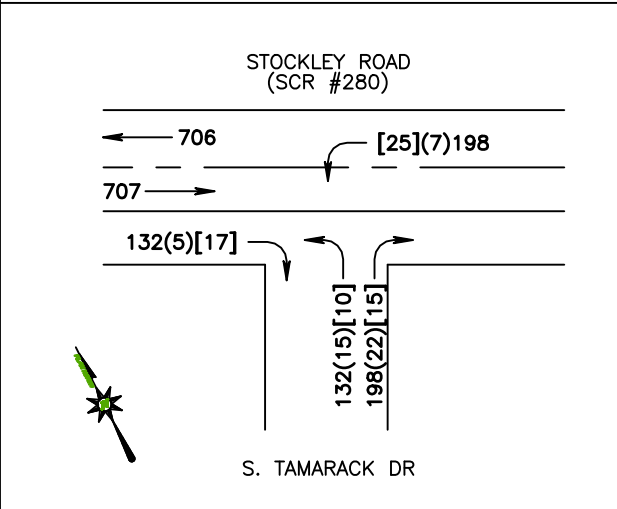
TRIPS PER DAY (VEHICLES IN A.M.) [P.M. PEAK HOUR]

**ROAD TRAFFIC DATA:**  
FUNCTIONAL CLASSIFICATION = S280 (STOCKLEY ROAD) - LOCAL  
POSTED SPEED LIMIT = 50 MPH  
ADT = 1,413 TRIPS (FROM 2018 DELDOT TRAFFIC SUMMARY)  
10-YR PROJECTED ADT = 1,639 TRIPS  
10-YR PROJECTED ADT + SITE ADT = 3,180 TRIPS  
TRAFFIC PATTERN GROUP = 7 (FROM 2018 DELDOT TRAFFIC SUMMARY)  
PEAK HOUR = 14% x 3,180 = 446 TRIPS

**SITE TRIPS GENERATED:**  
SOURCE: ITE TRIP GENERATION MANUAL 10th EDITION  
159 SINGLE FAMILY DETACHED UNITS (210)  
ONE ENTRANCE - FULL MOVEMENT (DESIGN VEHICLE: SU-30)  
WEEKDAY ADT = 1,541 TRIPS (770 IN/771 OUT)  
AM PEAK 7:00-9:00 = 118 TRIPS (29 IN/77 OUT)  
PM PEAK 4:00-6:00 = 155 TRIPS (68 IN/57 OUT)  
SATURDAY PEAK = 146 TRIPS (79 IN/67 OUT)  
SATURDAY ADT = 1,478 (739 IN/739 OUT)

TOTAL ADT FOR SUBDIVISION (WEEKDAY) = 1,541 TRIPS  
DIRECTIONAL DISTRIBUTION:  
40% TO AND FROM THE WEST: 616 TRIPS (47 A.M. PEAK) [62 P.M. PEAK]  
60% TO AND FROM THE EAST: 925 TRIPS (69 A.M. PEAK) [61 P.M. PEAK]  
5% TRUCKS & BUSES x 446 = 23

TRIP GENERATION - STOCKLEY ROAD (SCR #280) - SOUTH TAMARACK DRIVE (FULL MOVEMENT)



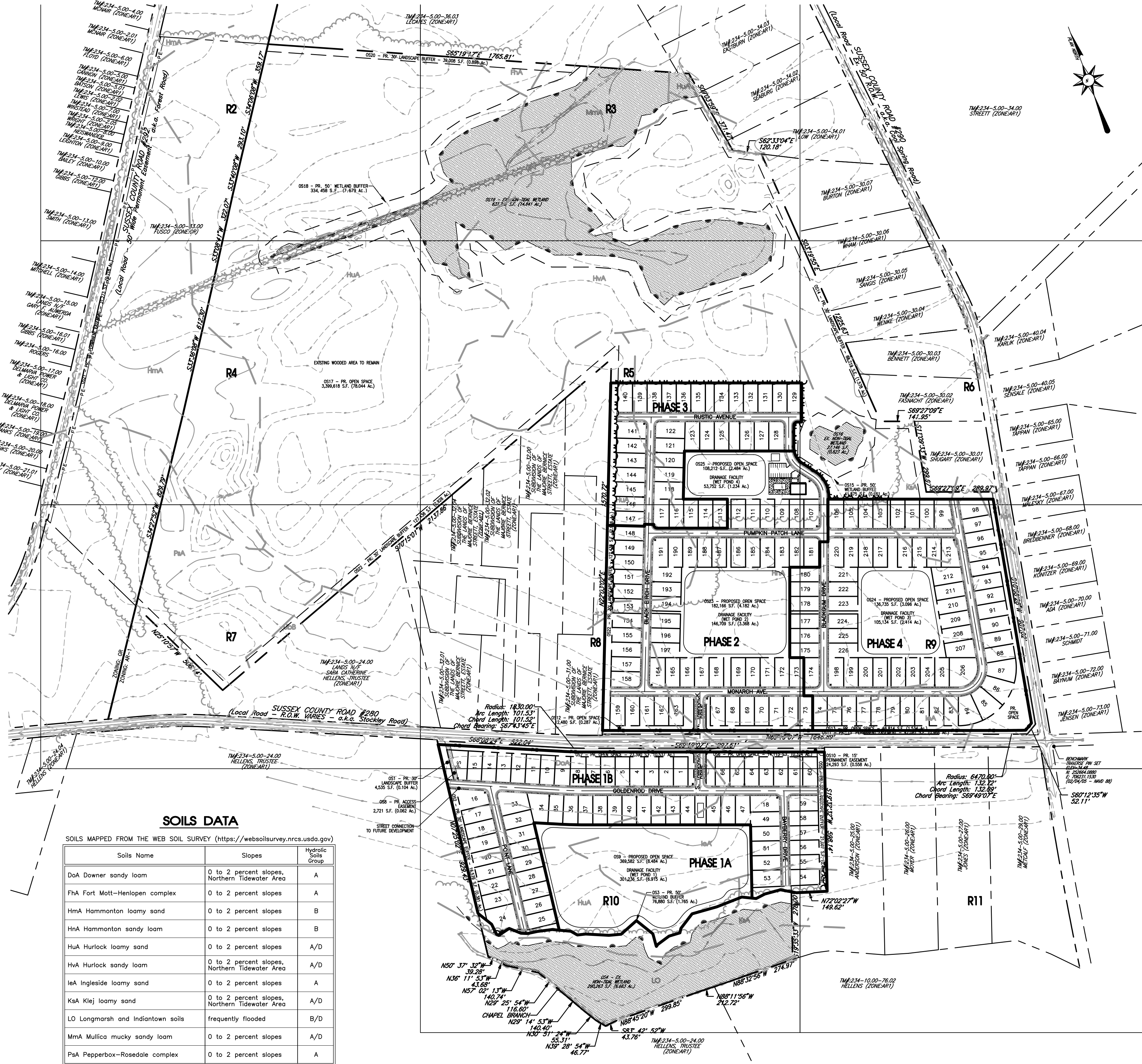
TRAFFIC GENERATION DIAGRAM

TRIPS PER DAY (VEHICLES IN A.M.) [P.M. PEAK HOUR]

**ROAD TRAFFIC DATA:**  
FUNCTIONAL CLASSIFICATION = S280 (STOCKLEY ROAD) - LOCAL  
POSTED SPEED LIMIT = 50 MPH  
ADT = 1,413 TRIPS (FROM 2018 DELDOT TRAFFIC SUMMARY)  
10-YR PROJECTED ADT = 1,639 TRIPS  
10-YR PROJECTED ADT + SITE ADT = 2,299 TRIPS  
TRAFFIC PATTERN GROUP = 7 (FROM 2018 DELDOT TRAFFIC SUMMARY)  
PEAK HOUR = 14% x 2,299 = 322 TRIPS

**SITE TRIPS GENERATED:**  
SOURCE: ITE TRIP GENERATION MANUAL 10th EDITION  
67 SINGLE FAMILY DETACHED UNITS (210)  
ONE ENTRANCE - FULL MOVEMENT (DESIGN VEHICLE: SU-30)  
WEEKDAY ADT = 660 TRIPS (330 IN/330 OUT)  
AM PEAK 7:00-9:00 = 49 TRIPS (12 IN/37 OUT)  
PM PEAK 4:00-6:00 = 67 TRIPS (12 IN/25 OUT)  
SATURDAY PEAK = 62 TRIPS (13 IN/29 OUT)  
SATURDAY ADT = 634 (317 IN/317 OUT)

TOTAL ADT FOR SUBDIVISION (WEEKDAY) = 660 TRIPS  
DIRECTIONAL DISTRIBUTION:  
40% TO AND FROM THE WEST: 264 TRIPS (20 A.M. PEAK) [27 P.M. PEAK]  
60% TO AND FROM THE EAST: 396 TRIPS (29 A.M. PEAK) [40 P.M. PEAK]  
5% TRUCKS & BUSES x 322 = 17



SOILS DATA

Soils Name	Slopes	Hydrologic Soil Group
DoA Downer sandy loam	0 to 2 percent slopes, Northern Tidewater Area	A
FhA Fort Mott-Henlopen complex	0 to 2 percent slopes	A
HmA Hammon ton loamy sand	0 to 2 percent slopes	B
HnA Hammon ton sandy loam	0 to 2 percent slopes	B
HuA Hurlock loamy sand	0 to 2 percent slopes	A/D
HvA Hurlock sandy loam	0 to 2 percent slopes, Northern Tidewater Area	A/D
IeA Ingleside loamy sand	0 to 2 percent slopes	A
KaA Kie loamy sand	0 to 2 percent slopes, Northern Tidewater Area	A/D
LO Longmarsh and Indiantown soils	frequently flooded	B/D
MmA Mullica mucky sandy loam	0 to 2 percent slopes	A/D
PaA Pepperbox-Rosedale complex	0 to 2 percent slopes	A

GENERAL NOTES

- THE PROJECT SITE IS KNOWN AS STRATUS ESTATES (FNA COOL SPRING MEADOWS), (T.P. 2-34-5, PARCELS 30), AND IS LOCATED AT THE NORTHWEST CORNER OF THE SUSSEX COUNTY ROAD 280 AND NEAR HARBESON CORSECTON NEAR HARBESON, DELAWARE.
- THE BOUNDARY AND EXISTING CONDITIONS SHOWN WERE OBTAINED FROM A SURVEY TITLED "BOUNDARY AND IMPROVEMENT LOCATION SURVEY PLAN FOR THE PROPERTY KNOWN AS 'LANDS OF GLATFELTER PULP WOOD COMPANY', TAX MAP PARCELS 2-34-5.00-30.00, PREPARED BY MERESTONE CONSULTANTS, INC., DATED MAY 19, 2005, DECEMBER 9, 2004 AND FROM A SURVEY TITLED "BOUNDARY AND TOPOGRAPHY PLAN FOR THE PROPERTY KNOWN AS 'LANDS OF FRANCIS HENRY PRETTYMAN', TAX MAP PARCEL 2-35-5.00-30.00, PREPARED BY MCCRONE, INC., DATED FEBRUARY 4, 2005.
- THE WETLAND DELINEATIONS SHOWN WERE OBTAINED FROM THE FOLLOWING SURVEYS:
  - "WETLAND DELINEATION PLAN" FOR THE PROPERTY KNOWN AS "LANDS OF GLATFELTER PULP WOOD COMPANY", TAX MAP PARCELS 2-34-5.00-30.00, PREPARED BY MERESTONE CONSULTANTS, INC., DATED MAY 19, 2005.
  - "WETLAND DELINEATION PLAN" FOR THE PROPERTY KNOWN AS "LANDS OF FRANCIS HENRY PRETTYMAN", TAX MAP PARCEL 2-34-5.00-30.00, PREPARED BY MERESTONE CONSULTANTS, INC., DATED MAY 19, 2005.
  - "BOUNDARY AND TOPOGRAPHY PLAN" FOR THE PROPERTY KNOWN AS "LANDS OF FRANCIS HENRY PRETTYMAN", TAX MAP PARCEL 2-34-5.00-30.00, PREPARED BY MCCRONE, INC., DATED FEBRUARY 4, 2005.
- INFORMATION SHOWN ON THESE SHEETS IS ONLY ACCURATE TO THE EXTENT OF THE SURVEYS PREPARED BY THE PROPERTY OWNERS WITHIN THIS SUBDIVISION OR BOTH. THE STATE ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF THESE STREETS.
- A BOUNDARY DISCREPANCY EXISTS BETWEEN THE VARIOUS SURVEYS USED TO CREATE THESE PLANS, THE KERCHER GROUP, INC. ASSUMES NO LIABILITY FOR THE ACCURACY OF THE OVERALL BOUNDARY, AS PREPARED BY THE ABOVE-MENTIONED ORGANIZATIONS.
- MAINTENANCE OF THE STREETS WITHIN THIS SUBDIVISION WILL BE THE RESPONSIBILITY OF THE DEVELOPER. THE PROPERTY OWNERS WITHIN THIS SUBDIVISION OR BOTH, THE STATE ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF THESE STREETS.
- ALL PROPOSED STORMWATER MANAGEMENT FACILITIES, BUFFERS AND OPEN SPACE ARE TO BE MAINTAINED BY THE DEVELOPER UNTIL SUCH TIME AS A HOMEOWNERS ASSOCIATION CAN PROVIDE FOR SAID MAINTENANCE.
- ALL LOTS SHALL HAVE ACCESS FROM THE INTERNAL SUBDIVISION STREETS AND DIRECT ACCESS TO SCR 280 ROAD AND PAVEMENT WILL NOT BE PERMITTED. EACH LOT WILL BE PERMITTED TO HAVE ONLY ONE ACCESS POINT TO SERVE THE ENTIRE PARCEL. HORSESHOE DRIVEWAYS WILL NOT BE PERMITTED.
- THIS PLAN DOES NOT VERIFY TO THE LOCATION AND/OR EXISTENCE OF EASEMENTS OR RIGHT-OF-WAYS CROSSING SUBJECT PROPERTY AS NO TITLE SEARCH WAS PROVIDED.
- THE CONTRACTOR SHALL ENSURE THAT ALL NECESSARY PERMITS AND APPROVALS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF ANY SITE CONSTRUCTION ACTIVITIES.
- ALL CONTRACTORS WORKING ON THIS PROJECT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT ARE PERFORMED IN ACCORDANCE WITH ALL O.S.H.A. (OCCUPATIONAL SAFETY AND HEALTH) ADMINISTRATION AND HURDLEMAN STANDARDS.
- ALL CONTRACTORS WORKING ON THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS OF THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
- CONSTRUCTION MATERIALS AND PROCEDURES SHALL FOLLOW SUSSEX COUNTY SPECIFICATIONS AND STANDARD DRAWINGS, LATEST EDITION.
- EXISTING SUBSURFACE UTILITY INFORMATION INDICATED IS BASED UPON VISUAL FIELD INSPECTION BY MERESTONE CONSULTANTS, INC. AND MCCRONE, INC. SUCH INFORMATION CONCERNING THE SIZE, LOCATION, DEPTH, QUANTITY, ETC. OF SUBSURFACE UTILITIES IS APPROXIMATE IN NATURE AND HAS BEEN OBTAINED AS AN AID IN THE PROJECT DESIGN. THE INFORMATION PROVIDED IS REPRESENTATIVE OF SUBSURFACE CONDITIONS ONLY AT LOCATIONS AND DEPTHS WHERE SUCH INFORMATION WAS OBTAINED. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT UTILITY SIZE, LOCATION, DEPTH, QUANTITY, ETC. AS SHOWN EXISTS BETWEEN EXPLORED LOCATIONS. ACCORDINGLY, UTILITY INFORMATION SHOWN SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. IT IS INCUMBENT UPON THE CONTRACTOR TO VERIFY THE SIZE, LOCATION, DEPTH, QUANTITY, ETC. OF ALL UTILITIES BEFORE EXCAVATION.
- BASED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) 100029 0330 J, MAP NUMBER 100503030J, DATED JANUARY 6, 2005, THIS PROPERTY IS IN A ZONE "X"-UNSHADED WHICH IS AN AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- ALL FIRE LANES, FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS.
- IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS PART V, CHAPTER 4, SECTION 4-1.1, THE DEVELOPER SHALL PROVIDE TO THE EMERGENCY DISPATCH CENTER HAVING JURISDICTION, A PLOT PLAN FOR THE PROJECT DESIGN. THE DEVELOPER SHALL ALSO ASSIGN MAINTENANCE TO ALL PROPERTIES IN A CONSECUTIVE MANOR AND HAVE PLACED THE ASSIGNED NUMBER IN A READILY VISIBLE LOCATION ON EACH HOME TO ELIMINATE CONFUSION IN THE EVENT THAT AN EMERGENCY VEHICLE IS NEEDED.
- ALL CUL-DE-SACS ARE TO HAVE A 38' PAVED RADIUS. NO PARKING PERMITTED ON CUL-DE-SACS.
- ALL SINGLE FAMILY HOMES TO BE OF WOOD FRAME CONSTRUCTION WITH A MAXIMUM BUILDING HEIGHT OF THREE STORIES, NOT TO EXCEED 42'.
- THIS 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 NOW OR IN THE FUTURE INVOLVE NOISE, DUST, MANURE AND OTHER ODORS, THE USE OF CHEMICALS AND NIGHTTIME FARM OPERATIONS. THE USE AND ENJOYMENT OF PROPERTY IS EXPRESSLY CONDITIONED ON ACCEPTANCE OF ANY ANNOYANCE OR INCONVENIENCE WHICH MAY RESULT FROM SUCH NORMAL AGRICULTURAL USES AND ACTIVITIES.
- MAINTENANCE OF THE MULTI-USE PATH SHALL BE THE RESPONSIBILITY OF THE DEVELOPER. THE PROPERTY OWNERS WITHIN THIS SUBDIVISION SHALL BE RESPONSIBLE FOR THE FUTURE MAINTENANCE OF THE MULTI-USE PATH. ARTESIAN RESOURCES AND ITS SUBSIDIARIES HEREBY HAS ACCESS TO MAINTAIN FACILITIES WITHIN THE MULTI-USE PATH.
- BLANKET EASEMENTS WITHIN ALL PRIVATE RIGHT-OF-WAYS TO BE DEDICATED TO ARTESIAN RESOURCES FOR THE MAINTENANCE AND INSPECTION OF ALL INSTALLED UTILITIES.
- THE INTERIOR STREET DESIGN SHALL BE IN ACCORDANCE WITH OR EXCEED SUSSEX COUNTY STREET DESIGN REQUIREMENTS. STREET DESIGN SHALL INCLUDE CURBS, SIDEWALK (AS DEPICTED ON THE CONSTRUCTION PLANS) AND STREETLIGHTS.
- STREET LIGHTS SHALL BE PROVIDED WITHIN THE SUBDIVISION, THE EXACT LOCATIONS WILL BE DETERMINED BY THE ELECTRICAL SUPPLIER.
- ALL PROPOSED LOT LINES SUBJECT TO EASEMENTS FOR UTILITY, STORMWATER CONSTRUCTION AND/OR MAINTENANCE, UNLESS OTHERWISE NOTED ON THE PLANS, EASEMENTS AS FOLLOWS:
  - FRONT LOT LINES - 10 FEET
  - SIDE LOT LINES - 5 FEET
  - REAR LOT LINES - 5 FEET
- ALL ENTRANCES SHALL CONFORM TO THE DELAWARE DEPARTMENT OF TRANSPORTATION'S (DELDOT'S) DEVELOPMENT COORDINATION MANUAL AND SHALL BE SUBJECT TO ITS APPROVAL.
- ALL PROPOSED LANDSCAPE BUFFERS ARE TO BE MAINTAINED BY THE OWNER/DEVELOPER UNTIL SUCH TIME AS A HOMEOWNERS ASSOCIATION CAN PROVIDE FOR SAID MAINTENANCE.
- 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.
- UPON COMPLETION OF THE CONSTRUCTION OF THE SIDEWALK OR SHARED-USE PATH ACROSS THIS PROJECT'S FRONTAGE AND PHYSICAL CONNECTION TO EXISTING FACILITIES, THE DEVELOPER, THE PROPERTY OWNERS OR BOTH ASSOCIATED WITH THIS PROJECT, SHALL BE RESPONSIBLE FOR REMOVING 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 ACCORDANCE WITH DELDOT'S "SHARED-USE PATH AND/OR SIDEWALK TERMINATION POLICY".
- THE PROJECT IS NOT LOCATED WITHIN A WELLHEAD PROTECTION AREA AS DEFINED WITHIN CHAPTER 89 "SOURCE WATER PROTECTION" OF THE SUSSEX COUNTY CODE.
- THE PROJECT IS LOCATED IN AN AREA OF "FAIR" GROUNDWATER RECHARGE POTENTIAL AND SHALL COMPLY WITH CHAPTER 89 "SOURCE WATER PROTECTION" OF THE SUSSEX COUNTY CODE.

SUSSEX CONSERVATION DISTRICT APPROVAL

PLANNING COMMISSION CERTIFICATE

RECOMMENDED FOR APPROVAL BY THE PLANNING COMMISSION OF SUSSEX COUNTY  
ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

SECRETARY (ATTEST)

RECOMMENDED FOR APPROVAL BY THE SUSSEX COUNTY COUNCIL  
ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

PRESIDENT

OWNER CERTIFICATE

I HEREBY CERTIFY THAT I AM THE EQUITABLE OWNER OF THE PROPERTY DESCRIBED AND 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

WETLANDS CERTIFICATION

THIS PROPERTY HAS BEEN EXAMINED BY LAUREL OAK LAND CONSULTING, LLC FOR THE PRESENCE OF WATERS OF THE UNITED STATES INCLUDING WETLANDS (SECTION 404 AND SECTION 10), STATE SUBAQUEOUS LANDS AND STATE TIDAL WETLANDS BASED ON THE CRITERIA SET FORTH BY THE REVIEWING AGENCIES IN THE FORM OF MANUALS, POLICIES AND PROCEDURES IN PLACE AT THE TIME INVESTIGATION WAS CONDUCTED. ANY OF THE ABOVE RESOURCES THAT WERE FOUND ON THE PROPERTY ARE CLEARLY MAPPED ON THIS PLAN IN ACCORDANCE WITH OUR FIELD INVESTIGATIONS AND DETAILED IN REPORTS BY LAUREL OAK LAND CONSULTING, LLC USING THEIR BEST PROFESSIONAL JUDGEMENT.

BRUCE B. BAGLEY, MS, CPSSC, CPAG, CPA  
LAUREL OAK LAND CONSULTING, LLC  
420 CORDEN ROAD  
P.O. BOX 295  
SILVER SPRING, MD 21158-0295  
410.708.3854 PHONE

REVISIONS

DESIGN PROFESSIONAL DATE

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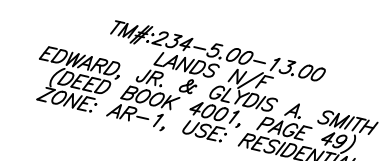
DESIGN PROFESSIONAL DATE

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DESIGN PROFESSIONAL DATE

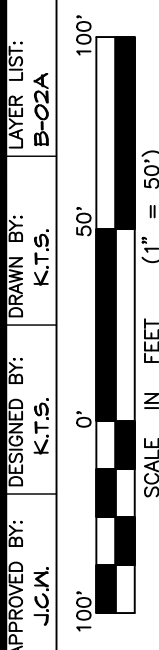
DESIGN PROFESSIONAL DATE



[illegible]

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE ORDINANCES OF SUSSEX COUNTY AND THE LAWS OF THE STATE OF DELAWARE.

DESIGN PROFESSIONAL	DATE
---------------------	------



ONLY PLANS INCORPORATING A RAISED PROFESSIONAL SEAL ARE CONSIDERED TO BE OFFICIAL AND RELIED UPON BY THE USER. THIS PLAN HAS BEEN PREPARED SPECIFICALLY FOR THE CLIENT AND PROJECT DESIGNED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT WRITTEN CONSENT OF THE KERCHER GROUP, INC. IS PROHIBITED BY LAW.

**CO PROPERTIES**  
P.O. BOX 665  
V CASTLE, DE 19720  
Phone: 302.328.6251  
Fax: 302.328.6332

OWNER/APPLICANT:	FL P
PARCEL INFORMATION:	C


PRELIMINARY PLAN (Not to be Recorded)

RECORD PLAN

***STRATUS ESTATES***

N. RIVER HUNDRED - SUSSEX COUNTY - DELAWARE

**THE KERCHER GROUP, INC.**  
**CONSULTING • SYSTEMS • ENGINEERING**  
37395 REDEBOTH AVE., UNIT 11 - REDEBOTH BEACH, DELAWARE 19871  
302.854.9062 (Voice)  
302.854.9062 (Fax)  
[www.kerchergroup.com](http://www.kerchergroup.com)

INDIA	
JOB No: 19-0602ES	
PLAN DATE: Dec. 13, 2019	
SHEET No.: R2	

STRATUS ESTATES Mon, Jan 25, 2021 (23:46)

















REVISIONS			
1	01/07/20	LOT LINE ADJUSTMENT (PARCEL 30.03 & 31.00)	K.T.S.
2	07/17/20	REVISIONS PER P2 STAFF REVIEW COMMENTS (DATED 01/07/20)	K.T.S.

DESIGN PROFESSIONAL: DATE:

APPROVED BY: LUCAS K.T.S. DRAWN BY: B-223 K.T.S. SCALE: 1" = 40'

OWNER/APPLICANT: FUSCO PROPERTIES NEW CASTLE, DE 19720 Parcel: 302.268.6332

PARCEL INFORMATION: T.P.: 234-5.00-30.00 GROSS AREA: 187.93 Acres NET AREA: 187.93 Acres

PRELIMINARY PLAN (Not to be Recorded) RECORD PLAT STRATUS ESTATES INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE

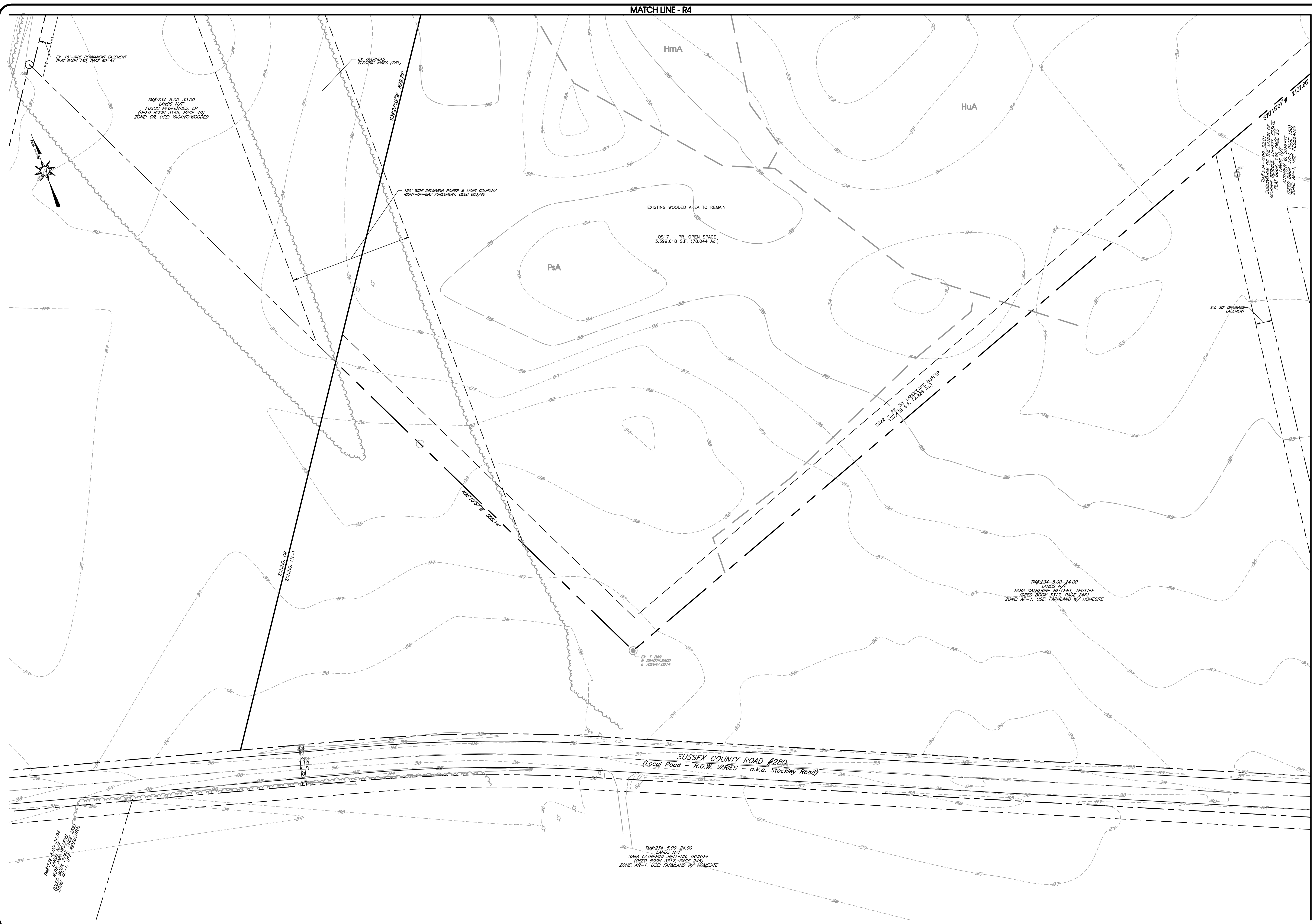
THE KERCHER GROUP, INC. CONSULTING • SYSTEMS • ENGINEERING 37589 REHOBOTH AVE. UNIT 11 - REHOBOTH BEACH, DELAWARE 19971 302.854.9062 (Voice) 302.854.9064 (Fax) www.kerchergroup.com

JOB No: 19-0602ES PLAN DATE: Dec. 13, 2019 SHEET No.: R6

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE ORDINANCES OF SUSSEX COUNTY AND THE LAWS OF THE STATE OF DELAWARE.

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REVISIONS

No.	DATE	DESCRIPTION
1	07/17/20	REVISIONS PER P2 STAFF REVIEW COMMENTS (DATED 07/07/20)
2	01/09/21	LOT LINE ADJUSTMENT (PARCEL 30.00 & 31.00)
3	01/09/21	LOT LINE ADJUSTMENT (PARCEL 30.00 & 31.00)

DESIGN PROFESSIONAL

DATE

APPROVED BY: [Signature]

DESIGNED BY: [Signature]

DRAWN BY: [Signature]

CHECKED BY: [Signature]

SCALE: 1" = 40'

SCALE: 1" = 40'

SCALE: 1" = 40'

OWNER/APPLICANT:

FUSCO PROPERTIES

NEW CASTLE, DE 19720

Parcel 30.00 & 31.00

Parcel Information:

TP: 234-5.00-30.00

GROSS AREA: 187.93 Acres

NET AREA: 187.93 Acres

PRELIMINARY PLAN (Not to be Recorded)

STRATUS ESTATES

INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE

THE KERCHER GROUP, INC.

CONSULTING • SYSTEMS • ENGINEERING

37385 RENOIR AVE. UNIT 11 - RENOIR BEACH, DELAWARE 19971

302.854.9062 (Voice) 302.854.9064 (Fax) www.kerchergroup.com

JOB No:

19-0602ES

PLAN DATE:

Dec. 13, 2019

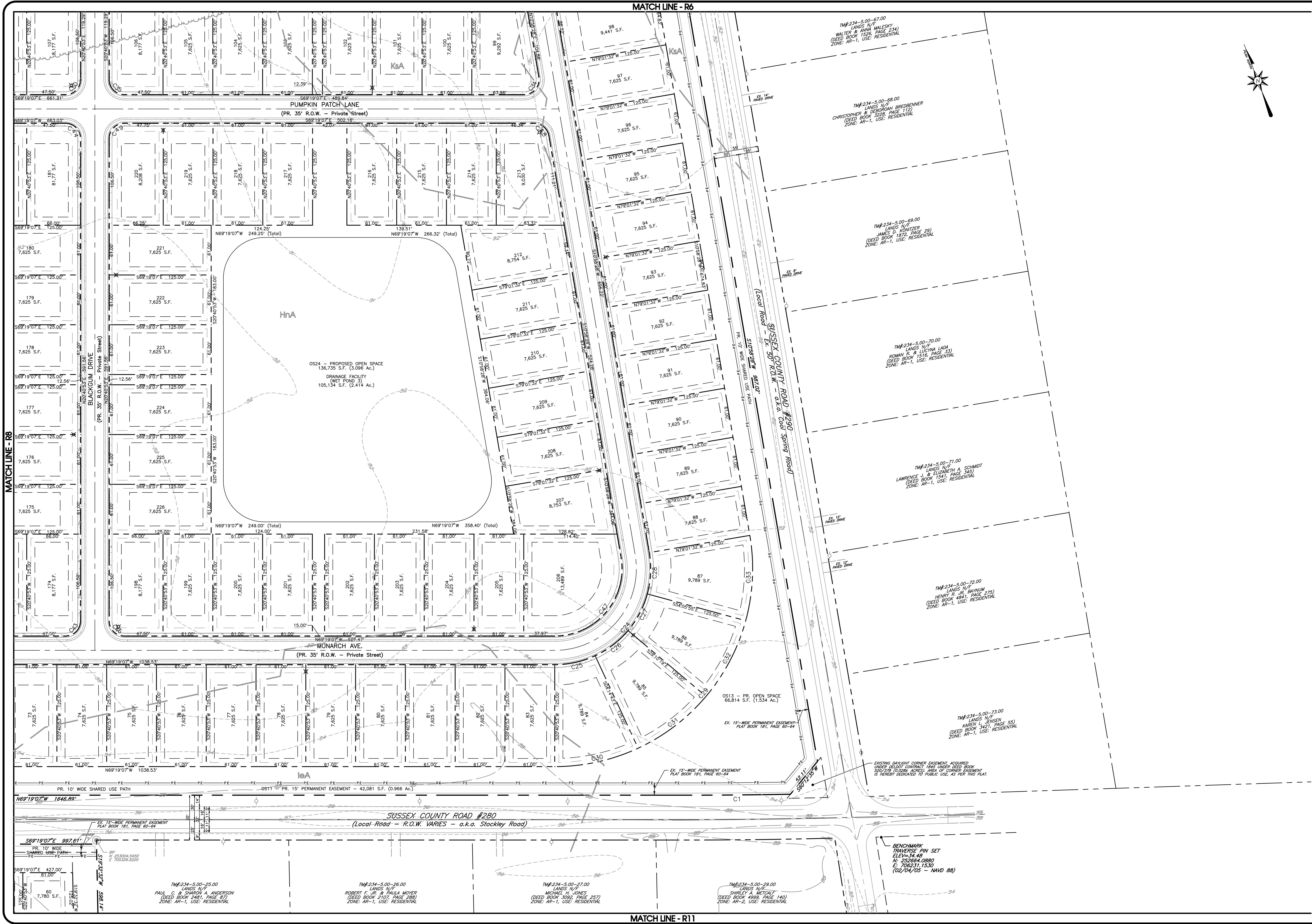
SHEET No.:

R7









REVISIONS	
No.	DATE
1	07/17/20
2	01/05/21
3	01/05/21

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE ORDINANCES OF SUSSEX COUNTY AND THE LAWS OF THE STATE OF DELAWARE.

DESIGN PROFESSIONAL: DATE:

APPROVED BY: DRAWN BY: CHECKED BY: SCALE: 1" = 40'

OWNER/APPLICANT: FUSCO PROPERTIES, INC. 19070 NEW CASTLE, DE 19720

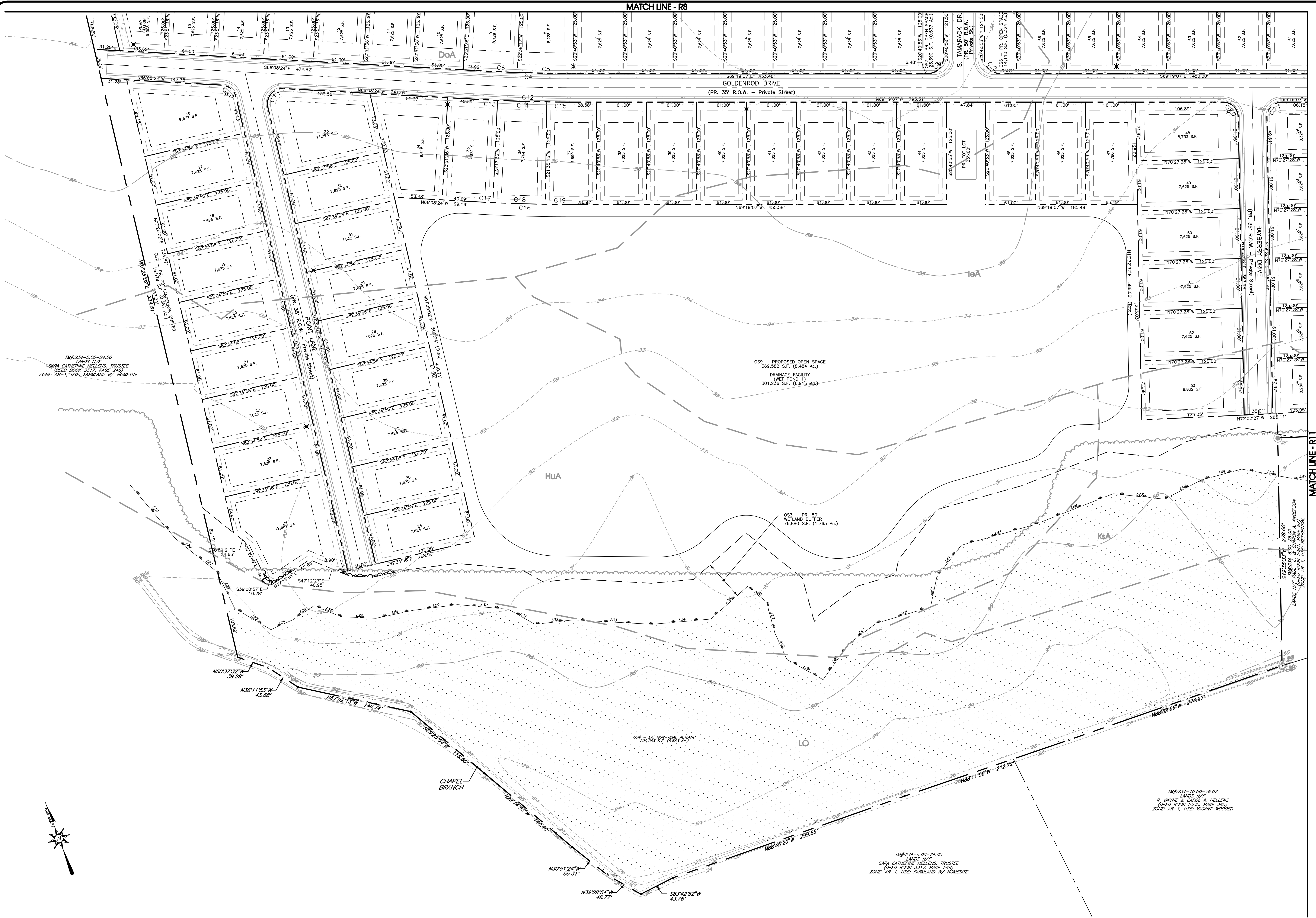
PARCEL INFORMATION: T.P.: 234-5.00-30.00 GROSS AREA: 187.93 Acres NET AREA: 187.93 Acres

PRELIMINARY PLAN (Not to be Recorded) RECORD PLAN STRATUS ESTATES INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE

THE KERCHER GROUP, INC. CONSULTING • SYSTEMS • ENGINEERING 37585 REHOBOTH AVE. UNIT 11 - REHOBOTH BEACH, DELAWARE 19971 302.854.9062 (Voice) 302.854.9064 (Fax) www.kerchergroup.com

JOB No: 19-0602ES PLAN DATE: Dec. 13, 2019 SHEET No.: R9





REVISIONS	
No.	DESCRIPTION
1	01/07/2010
2	01/07/2010
3	01/07/2010
4	01/07/2010
5	01/07/2010
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96	01/07/2010
97	01/07/2010
98	01/07/2010
99	01/07/2010
100	01/07/2010

DESIGN PROFESSIONAL	DATE

APPROVED BY:	DESIGNED BY:	DRAWN BY:	CHECKED BY:	DATE:

OWNER/APPLICANT:	OWNER LIST:
FUSCO PROPERTIES NEW CASTLE, DE 19720 Phone: 302.288.6332	APPLICANT: B-200 K.T.S.

PARCEL INFORMATION:
TP: 234-5.00-30.00 GROSS AREA: 187.93 Acres NET AREA: 187.93 Acres

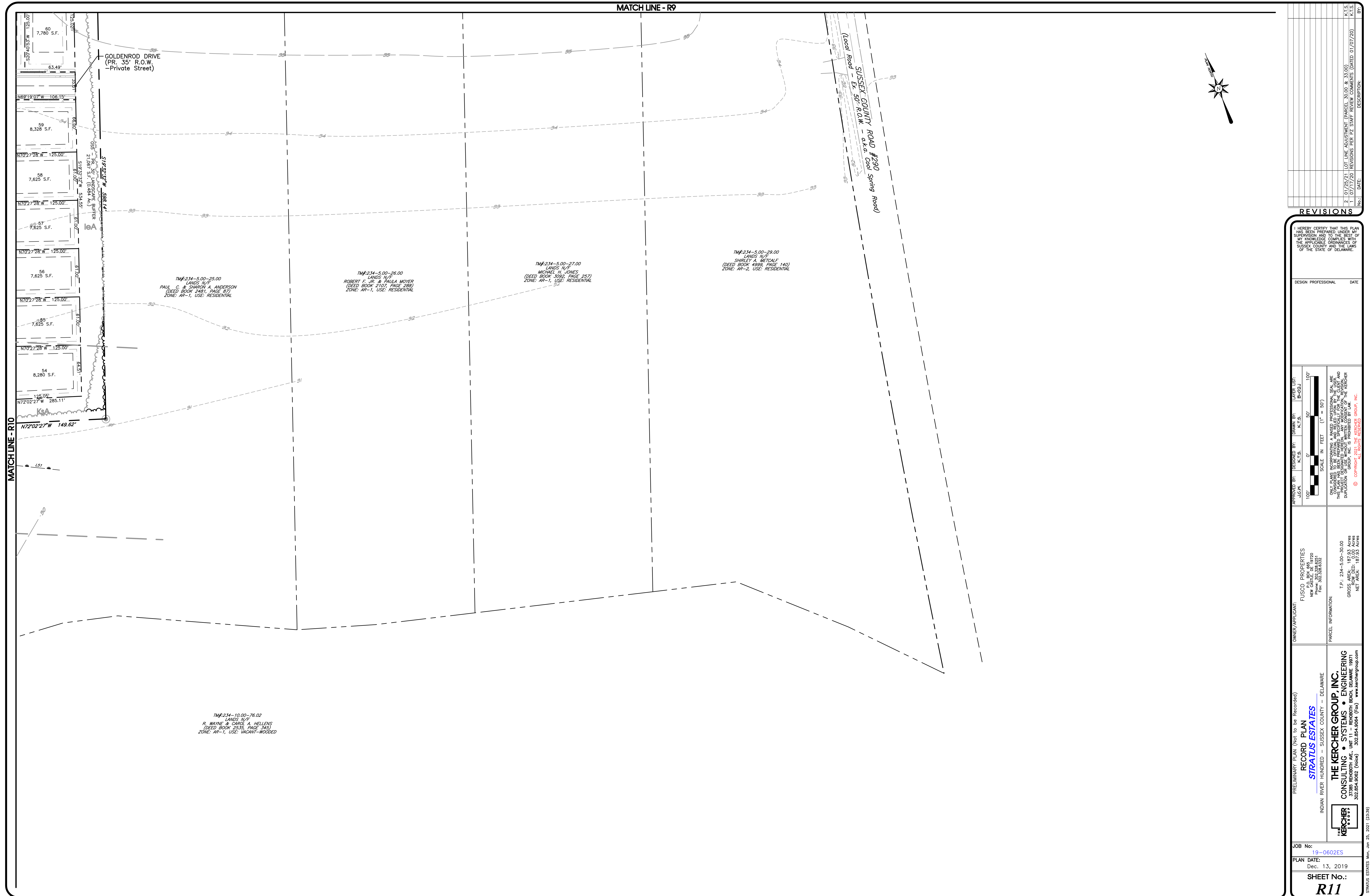
PRELIMINARY PLAN (Not to be Recorded)
INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE

RECORD PLAT
STRATUS ESTATES

THE KERCHER GROUP, INC.
CONSULTING • SYSTEMS • ENGINEERING 37385 REHOBOTH AVE. UNIT 11 - REHOBOTH BEACH, DELAWARE 19711 302.854.9062 (Voice) 302.854.9064 (Fax) www.kerchergroup.com

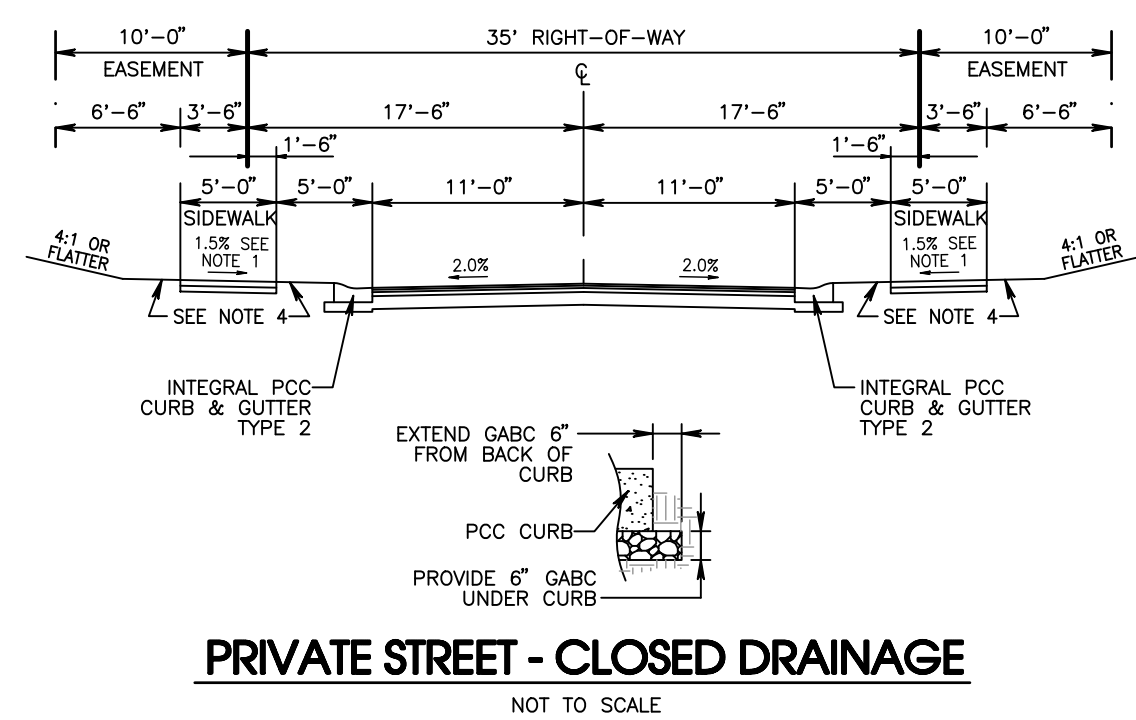
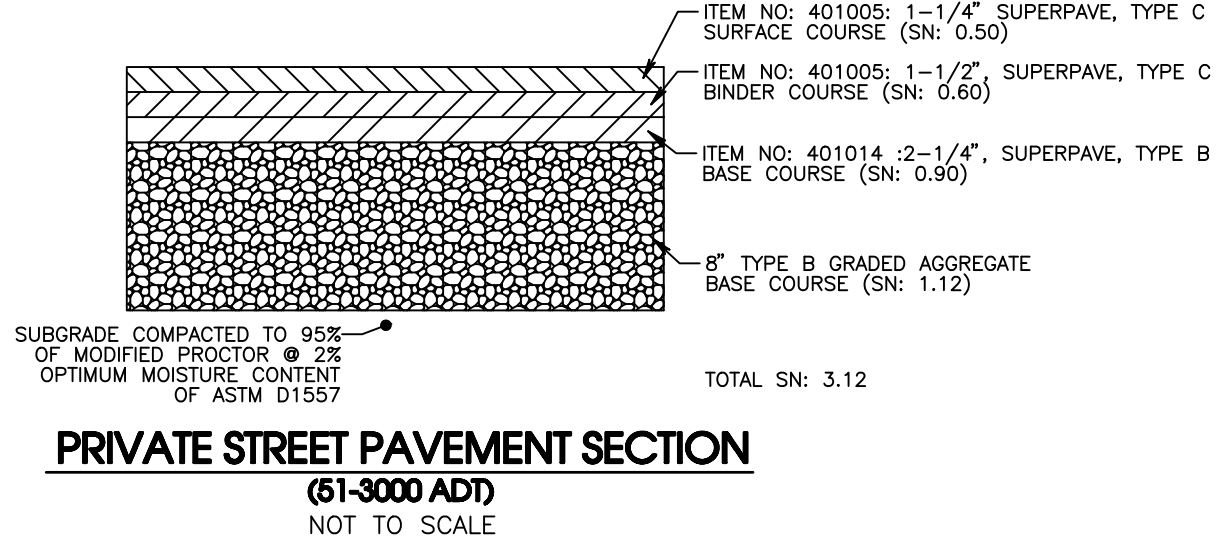
JOB No:	PLAN DATE:	SHEET No.:
19-0602ES	Dec. 13, 2019	R10





WETLAND TABLE		
SEGMENT	LENGTH	BEARING
L19	85.11'	S37° 31' 36" E
L20	33.57'	S30° 59' 21" E
L21	36° 11'	S30° 49' 1" E
L22	51.25'	S39° 00' 57" E
L23	29.20'	S69° 24' 51" E
L24	31.10'	N77° 24' 51" E
L25	35.37'	S47° 12' 27" E
L26	42.96'	S66° 24' 51" E
L27	46.58'	S81° 27' 37" E
L28	54.68'	S76° 02' 30" E
L29	62.71'	S65° 04' 55" E
L30	37.31'	S39° 54' 07" E
L31	47.20'	S65° 04' 55" E
L32	96.11'	S66° 04' 55" E
L33	72.05'	S74° 26' 51" E
L34	59.61'	N68° 24' 01" E
L35	29.82'	S30° 36' 09" E
L36	33.57'	S30° 36' 09" E
L37	35.64'	S3° 36' 43" E
L38	50.68'	S49° 10' 00" E
L39	54.18'	N56° 20' 38" E
L40	41.72'	N74° 04' 15" E
L41	68.99'	S85° 37' 36" E
L42	59.35'	N37° 26' 23" E
L43	48.96'	N58° 12' 09" E
L44	63.72'	N58° 03' 02" E
L45	102.76'	N89° 11' 30" E
L46	63.14'	S83° 16' 56" E
L47	50.36'	N85° 13' 36" E
L48	50.61'	S84° 28' 51" E
L49	68.83'	S36° 03' 03" E
L50	67.92'	S63° 16' 47" E
L51	39.39'	N69° 24' 52" W
L52	43.39'	N69° 24' 52" W
L53	46.31'	S51° 09' 02" W
L54	67.92'	S47° 54' 48" W
L55	45.63'	N40° 53' 09" E
L56	38.45'	N22° 03' 38" E
L57	126.00'	N36° 22' 42" W
L58	42.69'	S84° 34' 23" W
L59	46.04'	S87° 27' 36" W
L60	46.86'	S39° 45' 19" W
L61	30.02'	S59° 58' 05" W
L62	49.66'	S44° 58' 00" W
L63	40.49'	S55° 53' 48" E
L64	36.39'	S40° 00" W
L65	25.91'	N75° 43' 25" E
L66	24.73'	N79° 19' 46" E
L67	60.24'	S47° 09' 48" E
L68	28.84'	N78° 31' 56" E
L69	38.14'	S64° 28' 00" W
L70	80.93'	S72° 08' 18" W
L71	81.54'	N89° 19' 53" W
L72	137.57'	N87° 40' 45" W
L73	88.42'	S80° 52' 55" W
L74	110.58'	S87° 42' 08" W
L75	75.15'	S89° 44' 06" W
L76	76.68'	S76° 42' 28" W
L77	60.77'	S63° 38' 40" W
L78	76.28'	S4° 19' 13" W
L79	48.34'	S17° 15' 37" W
L80	66.34'	S60° 30' 30" W
L81	94.20'	S79° 28' 23" W
L82	110.87'	N85° 40' 00" W
L83	92.40'	N88° 52' 21" W
L84	64.67'	N88° 29' 41" W
L85	69.71'	N87° 57' 26" W
L86	84.00'	N89° 08' 00" W
L87	45.17'	N86° 58' 43" W
L88	62.61'	N87° 54' 45" W
L89	18.90'	N71° 30' 16" W
L90	29.10'	N67° 38' 57" W
L91	38.36'	S84° 56' 24" W
L92	29.88'	S65° 11' 12" W
L93	26.98'	S74° 26' 42" W
L94	67.05'	S82° 26' 39" E
L95	35.20'	N89° 08' 02" E
L96	14.58'	N76° 04' 08" E
L97	205.12'	S71° 30' 19" W
L98	21.44'	S88° 29' 45" W
L99	40.81'	S89° 39' 21" W
L100	80.28'	N89° 07' 23" W
L101	59.39'	N89° 07' 23" W
L102	69.93'	S89° 29' 24" W
L103	55.51'	N89° 19' 07" W
L104	64.88'	N89° 35' 03" W
L105	11.50'	S31° 40' 02" E
L106	4.00'	S0° 43' 36" E
L107	11.38'	S89° 29' 45" W
L108	64.85'	S89° 35' 03" E
L109	55.96'	S87° 16' 20" E
L110	63.63'	N89° 24' 02" E
L111	58.86'	S89° 36' 39" E
L112	44.86'	S89° 09' 36" E
L113	44.86'	S89° 09' 36" E
L114	62.58'	S89° 24' 54" E
L115	20.18'	N87° 18' 31" E
L116	58.84'	S89° 25' 48" E
L117	18.69'	S33° 14' 32" E
L118	76.20'	S11° 14' 32" E
L119	74.88'	S4° 04' 08" E
L120	59° 43' 29" E	
L121	51.73'	S55° 50' 31" E
L122	37.42'	S12° 23' 15" E
L123	40.32'	S11° 23' 15" E
L124	49.67'	S87° 42' 43" E
L125	50.07'	N11° 28' 09" E
L126	28.36'	N29° 33' 30" W
L127	144.35'	N14° 22' 30" E
L128	55.09'	S39° 49' 44" E
L129	65.05'	S68° 14' 24" E
L130	129.77'	S26° 35' 50" E
L131	93.57'	N85° 07' 09" E
L132	136.59'	S47° 49' 48" E
L133	102.67'	S69° 11' 13" E
L134	104.45'	S64° 59' 37" E
L135	77.45'	S59° 57' 58" E
L136	55.32'	S6° 47' 18" E
L137	91.28'	S1° 35' 17" E
L138	74.73'	S27° 07' 43" E
L139	41.17'	N65° 28' 52" E
L140	14.64'	N65° 19' 44" E
L141	12.01'	N65° 19' 44" E
L142	14.32'	S87° 31' 45" E
L143	268.33'	S86° 24' 02" E
L144	59.69'	S83° 25' 53" E
L145	95.35'	N74° 22' 47" E
L146	105.87'	N25° 25' 12" E
L147	57.47'	N8° 28' 11" W
L148	18.75'	S65° 24' 01" W
L149	119.57'	N60° 05' 26" W
L150	100.96'	N64° 55' 00" W
L151	76.72'	N76° 08' 30" W
L152	75.63'	N81° 58' 06" W
L153	106.22'	S85° 09' 49" W
L154	105.37'	S89° 09' 25" W
L155	76.49'	N44° 09' 41" W
L156	24.48'	N14° 15' 32" W
L157	70.10'	N81° 32' 26" W
L158	26.35'	N30° 54" W
L159	58.69'	N79° 39' 04" E
L160	81.94'	N17° 21' 25" W
L161	38.96'	N26° 51' 47" W
L162	99.62'	N11° 03' 29" E
L163	69.51'	S87° 45' 25" E
L164	102.75'	S84° 49' 21" E
L165	22.43'	S89° 30' 40" E
L166	64.91'	N70° 30' 09" E
L167	80.80'	N36° 59' 25" E
L168	52.67'	N73° 15' 31" E
L169	49.81'	N64° 08' 38" E
L170	68.89'	S86° 30' 18" E
L171	99.79'	S79° 35' 35" E

CURVE	RADIUS	DELTA	ARC
C1	6470.00'	1°10'11"	132.09'
C2	1830.00'	3°10'44"	101.53'
C3	18.50'	90°00'00"	29.06'
C4	1990.00'	3°10'44"	110.41'
C5	1990.00'	1°57'24"	67.98'
C6	1990.00'	1°13'20"	42.45'
C7	1865.00'	3°10'44"	103.47'
C8	1865.00'	1°57'24"	63.69'
C9	1865.00'	1°13'20"	39.78'
C10	18.50'	73°33'25"	23.75'
C11	18.50'	106°26'35"	34.37'
C12	2025.00'	3°10'44"	112.35'
C13	2025.00'	0°34'04"	20.07'
C14	2025.00'	1°42'18"	60.26'
C15	2025.00'	0°54'22"	32.02'
C16	2150.00'	3°10'44"	119.28'
C17	2150.00'	0°34'04"	21.31'
C18	2150.00'	1°42'18"	63.98'
C19	2150.00'	0°54'22"	34.00'
C20	18.50'	88°51'39"	28.69'
C21	18.50'	91°08'21"	29.43'
C22	18.50'	90°00'00"	29.06'
C23	18.50'	90°00'00"	29.06'
C24	117.50'	99°42'25"	204.47'
C25	117.50'	24°55'36"	51.12'
C26	117.50'	24°55'36"	51.12'
C27	117.50'	24°55'36"	51.12'
C28	117.50'	24°55'36"	51.12'
C29	242.50'	99°42'25"	422.00'
C30	242.50'	24°55'36"	105.50'
C31	242.50'	24°55'36"	105.50'
C32	242.50'	24°55'36"	105.50'
C33	242.50'	24°55'36"	105.50'
C34	18.50'	99°42'25"	32.19'
C35	18.50'	90°00'00"	29.06'
C36	117.50'	57°03'28"	117.01'
C37	82.50'	57°03'28"	82.16'
C38	18.50'	90°00'00"	29.06'
C39	18.50'	91°22'09"	29.50'
C40	18.50'	88°37'51"	28.62'
C41	18.50'	90°00'00"	29.06'
C42	18.50'	91°22'09"	29.50'
C43	18.50'	90°00'00"	29.06'
C44	18.50'	90°00'00"	29.06'
C45	18.50'	88°37'51"	28.62'
C46	18.50'	90°00'00"	29.06'
C47	82.50'	99°42'25"	143.57'
C48	18.50'	80°17'35"	25.93'
C49	18.50'	90°00'00"	29.06'
C50	18.50'	90°00'00"	29.06'
C51	82.50'	57°03'28"	82.16'
C52	117.50'	57°03'28"	117.01'
C53	117.50'	49°39'54"	101.85'
C54	117.50'	7°23'34"	15.16'
C55	18.50'	88°37'51"	28.62'
C56	18.50'	91°22'09"	29.50'
C57	18.50'	90°00'00"	29.06'



- NOTES:
1. 1.5% CROSS SLOPE PREFERRED. 2% MAXIMUM CROSS SLOPE, 1% MINIMUM ANY DIRECTION.
  2. PROVIDE 4\"/>
  3. SUBBASE AND SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D1557, MODIFIED PROCTOR METHOD.
  4. A 6:1 MAX. SLOPE IS REQUIRED FROM 2'-0\"/>
  5. MAINTAIN SIDEWALK CROSS SLOPE TO BACK OF CURB (TYP.).
  6. ALL CUL-DE-SACS SHALL HAVE A PAVED RADIUS OF 38'.

## REVISIONS

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE ORDINANCES OF SUSSEX COUNTY AND THE LAWS OF THE STATE OF DELAWARE.

DESIGN PROFESSIONAL DATE

APPROVED BY: DRAWN BY: DATE: 10/25/21

SCALE: 1\"/>

ONLY PLANS SUBMITTED FOR REVIEW SHALL BE CONSIDERED TO BE FINAL. ANY CHANGES TO THE PLAN SHALL BE MADE BY THE DESIGNER. THE DESIGNER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE PLAN. THE DESIGNER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE PLAN. THE DESIGNER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE PLAN.

© COPYRIGHT 2021 THE KERCHER GROUP, INC.

INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE



OWNER/APPLICANT: FUSCO PROPERTIES

NEW COULET DE 19720

Parcel Information:

LOCATE (3) ANCHOR STAKES 18\"/>

## PLANTING SCHEDULE

PLAN SYMBOL	QUANTITY	BOTANICAL NAME*	COMMON NAME*	MINIMUM PLANTING HEIGHT	PLANTING SPREAD	REMARKS
EVERGREEN TREES						
	24 (GA)	*TREES TO BE GIANT ARBORVITAE AND DOUGLAS FIR (OR SIMILAR, NATIVE EVERGREEN SPECIES). THE DEVELOPER SHALL DETERMINE WHAT SPECIES IS TO BE USED AND PROVIDE THAT INFORMATION TO THE SUSSEX COUNTY PLANNING AND ZONING DEPARTMENT PRIOR TO ANY PLANTING ACTIVITY. ALTERNATING SPECIES/TYPE (EVERGREEN/DECIDUOUS) RECOMMENDED.			4'	1ST ROW - 10' FROM PL
	23 (DF)					2ND ROW - 20' FROM PL
	TOTAL:47					2ND ROW - 20' FROM PL
DECIDUOUS TREES						
	35 (RW)	*TREES TO BE RED MAPLE, FLOWERING PEAR, AND WHITE ASH (OR SIMILAR, NATIVE DECIDUOUS SPECIES). THE DEVELOPER SHALL DETERMINE WHAT SPECIES IS TO BE USED AND PROVIDE THAT INFORMATION TO THE SUSSEX COUNTY PLANNING AND ZONING DEPARTMENT PRIOR TO ANY PLANTING ACTIVITY. ALTERNATING SPECIES/TYPE (EVERGREEN/DECIDUOUS) RECOMMENDED.			4'	1ST ROW - 10' FROM PL
	35 (FP)					2ND ROW - 20' FROM PL
	35 (WA)					
	TOTAL:105					2ND ROW - 20' FROM PL

JOB No: 19-0602ES

PLAN DATE: Dec. 13, 2019

SHEET No.: R12

INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE

OWNER/APPLICANT: FUSCO PROPERTIES

NEW COULET DE 19720

Parcel Information:

LOCATE (3) ANCHOR STAKES 18\"/>

INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE

OWNER/APPLICANT: FUSCO PROPERTIES

NEW COULET DE 19720

Parcel Information:

LOCATE (3) ANCHOR STAKES 18\"/>

INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE

OWNER/APPLICANT: FUSCO PROPERTIES

NEW COULET DE 19720

Parcel Information:

LOCATE (3) ANCHOR STAKES 18\"/>

INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE

OWNER/APPLICANT: FUSCO PROPERTIES



TAB “4”

LEGAL DESCRIPTION FOR LOT LINE ADJUSTMENT  
TAX PARCEL. NO. 234-5.00-30.00

All that certain tract, piece or parcel of land, situate in Indian River Hundred, Sussex County, Delaware as shown and described more particularly in accordance with the "Record Plan – Lot Line Adjustment" for property known as lands of Fusco Properties, LP prepared by The Kercher Group, Inc. dated January 24, 2021 and described more particularly as follows, to wit:

South side of Sussex County Road #280 (Stockley Road)

**Beginning** at a point on the southerly right of way of Sussex County Road #280 (Stockley Road) at the northwesterly property corner with lands of Paul C. Anderson; thence from said Point of Beginning and along the following eighteen courses and distances: (1) South 19°-32'-32" West, 598.14 feet to a point; (2) North 72°-02'-27" West, 149.62 feet to a point; (3) South 19°-35'-33" West, 278.00 feet to a point; (4) North 88°-32'-56" West, 274.97 feet to a point; (5) North 88°-11'-56" West, 212.72 feet to a point; (6) North 88°-45'-20" West, 299.85 feet to a point; (7) South 83°-42'-52" West, 43.76 feet to a point; (8) North 39°-28'-54" West, 46.77 feet to a point; (9) North 30°-51'-24" West, 55.31 feet to a point; (10) North 29°-14'-53" West, 140.40 feet to a point; (11) North 29°-25'-54" West, 116.60 feet to a point; (12) North 57°-02'-13" West, 140.74 feet to a point; (13) North 36°-11'-53" West, 43.68 feet to a point; (14) North 50°-37'-32" West, 39.28 feet to a point; (15) North 07°-25'-02" East, 929.43 feet to a point; (16) South 66°-08'-24" East, 522.04 feet to a point; (17) a curve with a radius of 1,830.00', an arc length of 101.53 feet, a chord bearing of South 67°-43'-45" East, with a chord length of 101.52 feet to a point; (18) South 69°-19'-07" East, 997.61 feet to a point; to the point and Place of Beginning. Containing within said bounds 33.70 acres of land more or less.

North side of Sussex County Road #280 (Stockley Road)

**Beginning** at a point on the northerly right of way of Sussex County Road #280 (Stockley Road) at the southeasterly property corner with lands of Majorie Bernice Streett, Estate; thence from said Point of Beginning and along the following nineteen courses and distances: (1) North 22°-03'-02" East, 1570.72 feet to a point; (2) South 72°-15'-01" West, 2137.86 feet to a point; (3) North 25°-10'-57" West, 506.14 feet to a point; (4) North 34°-27'-52" East, 829.79 feet to a point; (5) North 33°-36'-08" East, 612.30 feet to a point; (6) North 33°-08'-41" East, 322.07 feet to a point; (7) North 33°-40'-08" East, 293.10 feet to a point; (8) North 34°-06'-08" East, 359.17 feet to a point; (9) South 65°-19'-17" East, 1765.81 feet to a point; (10) South 09°-03'-59" East, 371.47 feet to a point; (11) South 62°-33'-04" East, 120.18 feet to a point; (12) South 03°-19'-55" East, 1225.63 feet to a point; (13) South 69°-27'-09" East, 141.95 feet to a point; (14) South 11°-09'-33" East, 299.97 feet to a point; (15) South 69°-27'-09" East, 289.97 feet to a point; (16) South 10°-58'-28" West, 987.02 feet to a point; (17) South 60°-12'-35" West, 52.11 feet to a point; (18) a curve with a radius of 6,470.00', an arc length of 132.72 feet, a chord bearing of South 69°-49'-07" East, with a chord length of 132.09 feet to a point; (19)

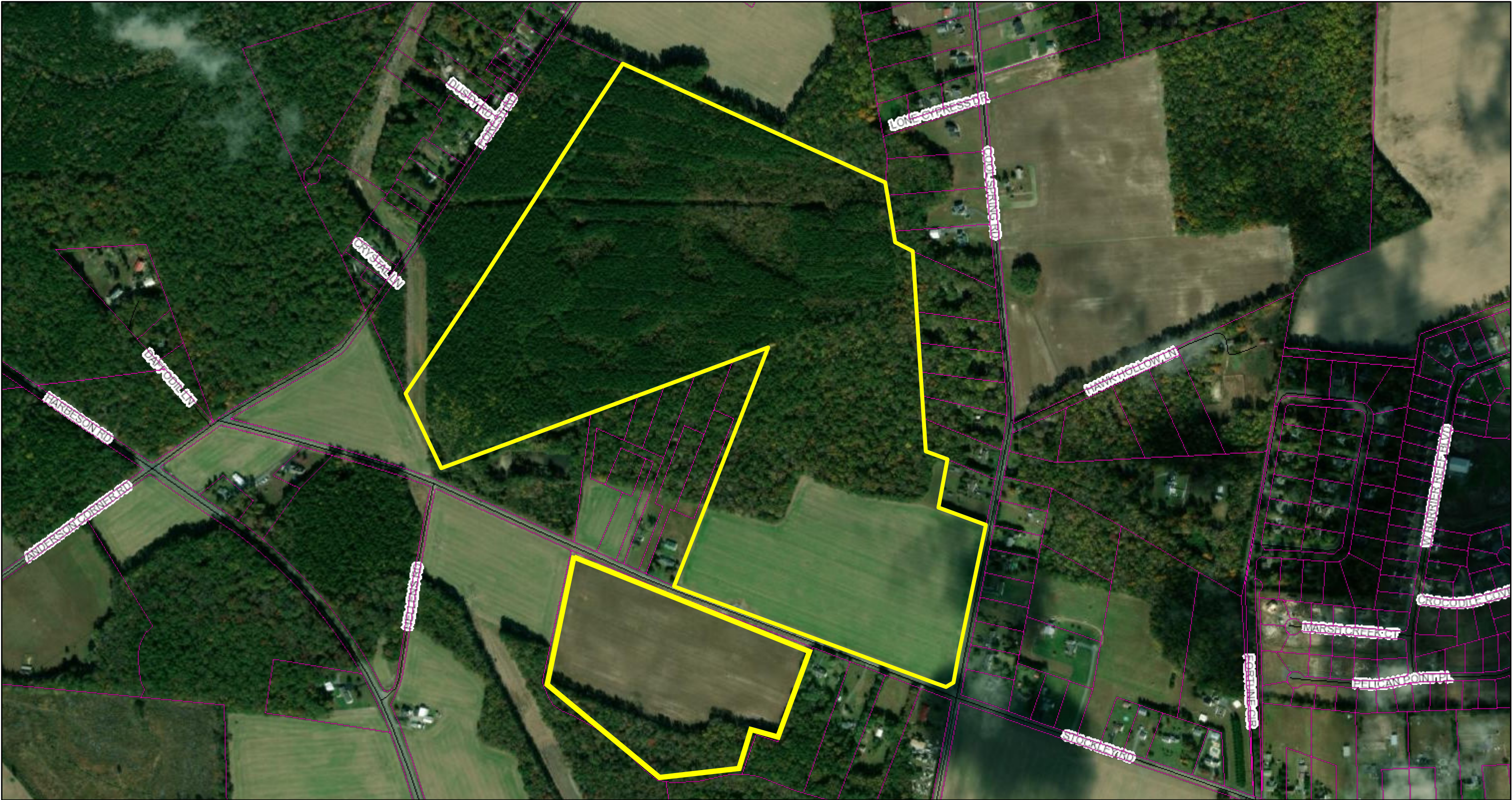


North 69°-19'-07" East, 1646.89 feet to a point; to the point and Place of Beginning.  
Containing within said bounds 154.23 acres of land more or less.






TAB “5”

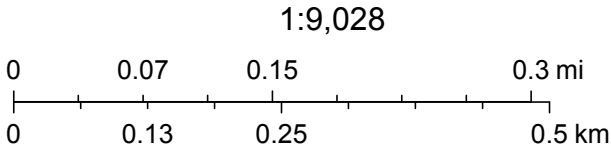


# Sussex County



February 4, 2021

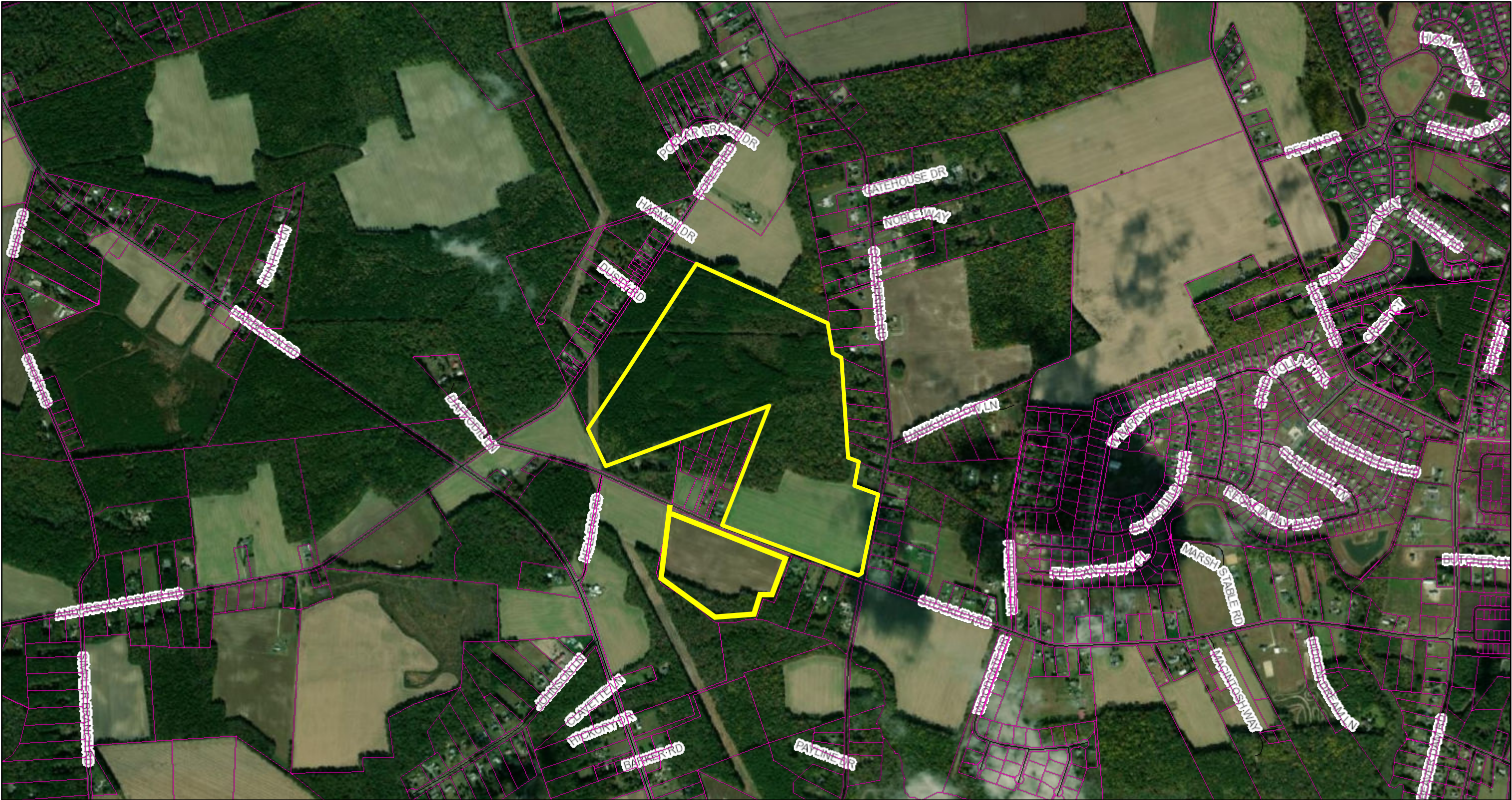
-  Override 1
-  Override 1
-  Tax Parcels
-  Streets
-  County Boundaries








Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Delaware Department of Education, Wetland mapping is supported with funding provided by the Environmental Protection Agency., Delaware Geological Survey, DNREC, Division of Watershed



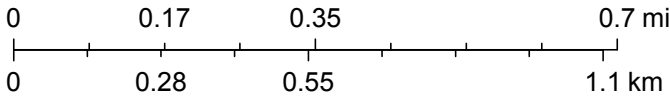
# Sussex County



February 4, 2021

-  Override 1
-  Override 1
-  Tax Parcels
-  Streets
-  County Boundaries

1:18,056



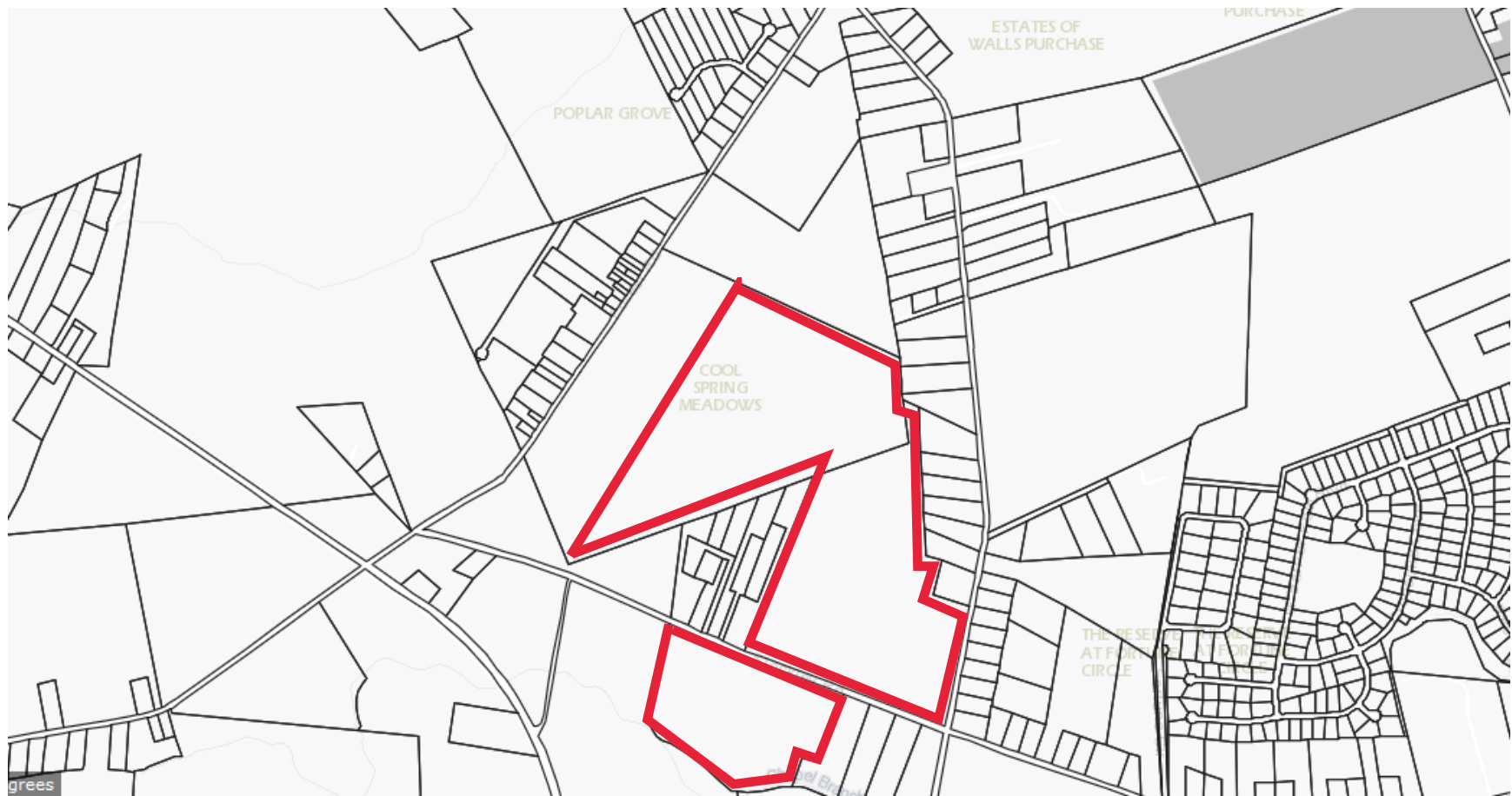
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Delaware Department of Education, Wetland mapping is supported with funding provided by the Environmental Protection Agency., Delaware Geological Survey, DNREC, Division of Watershed



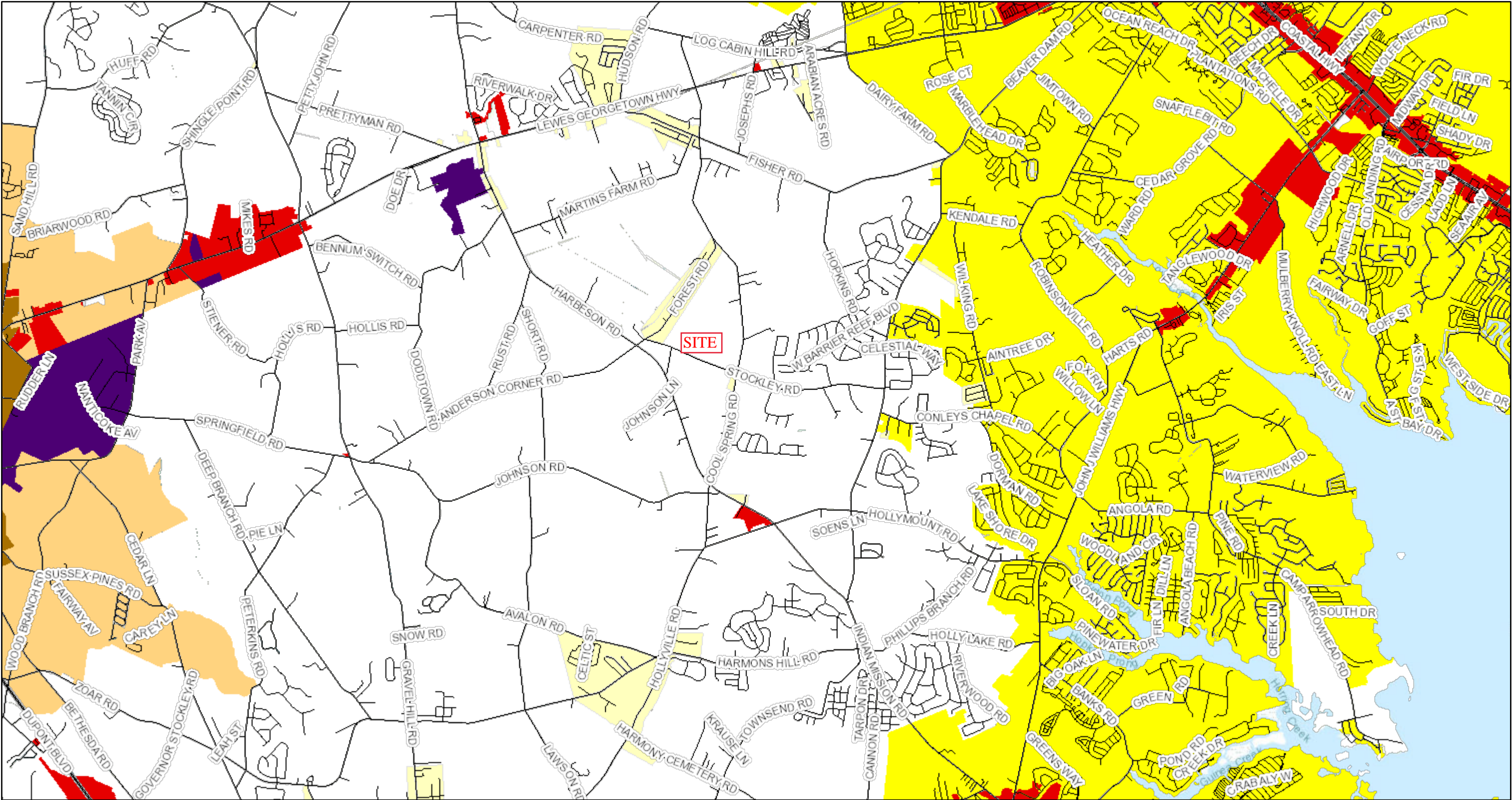
## Delaware State Strategies 2020

### 2020 State Strategies

- 1
- 2
- 3
- 4
- Out of Play



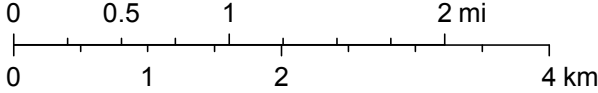
# Sussex County



February 4, 2021

1:72,224

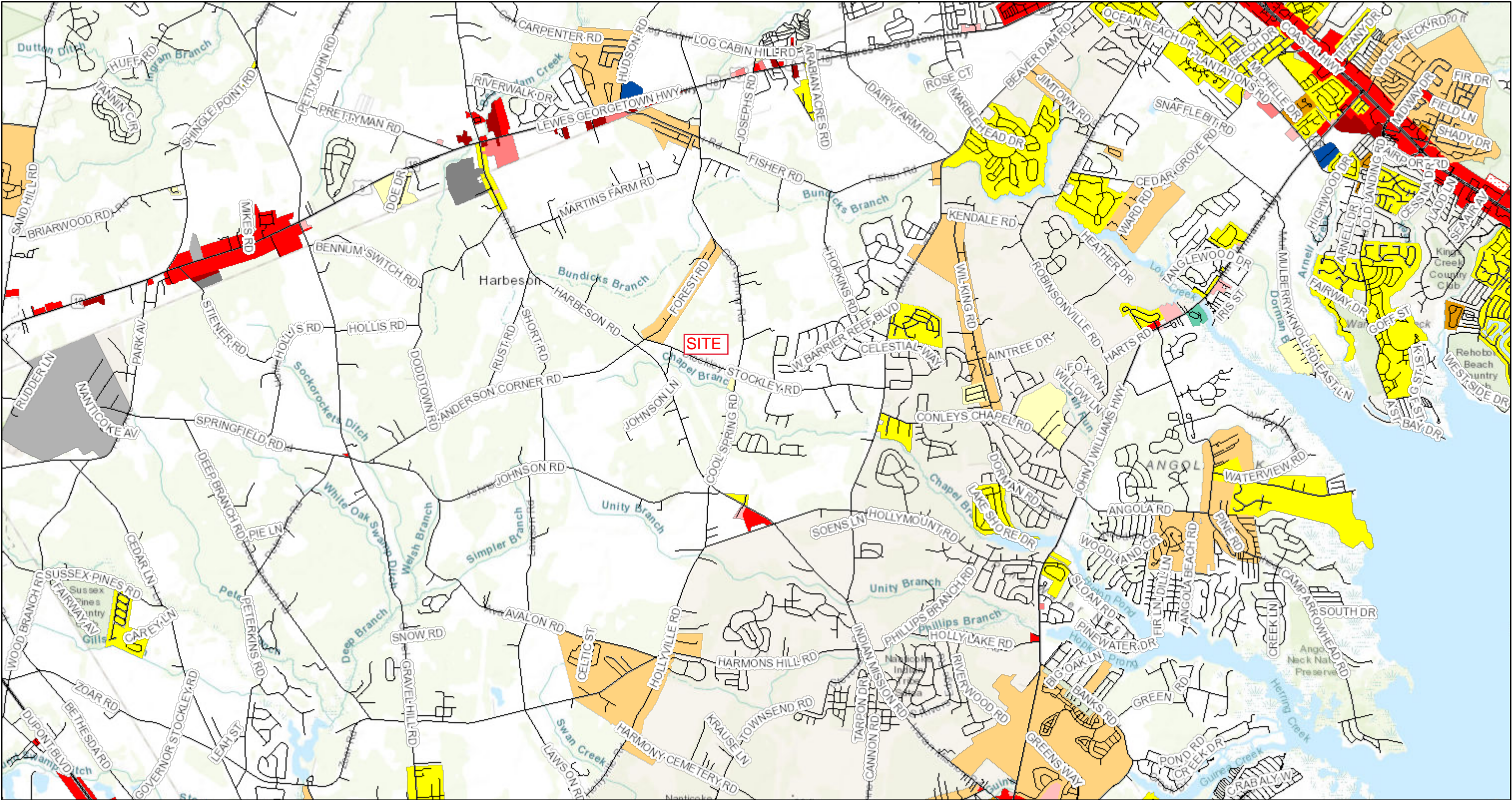
- |                      |                           |                |
|----------------------|---------------------------|----------------|
| Streets              | Coastal Area              | Industrial     |
| County Boundaries    | Commercial                | Municipalities |
| 2019 Future Land Use | Developing Area           | Town Center    |
| Low Density          | Existing Development Area |                |



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, Sussex County Government

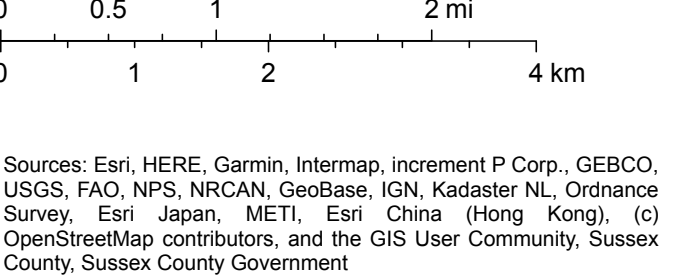


# Sussex County



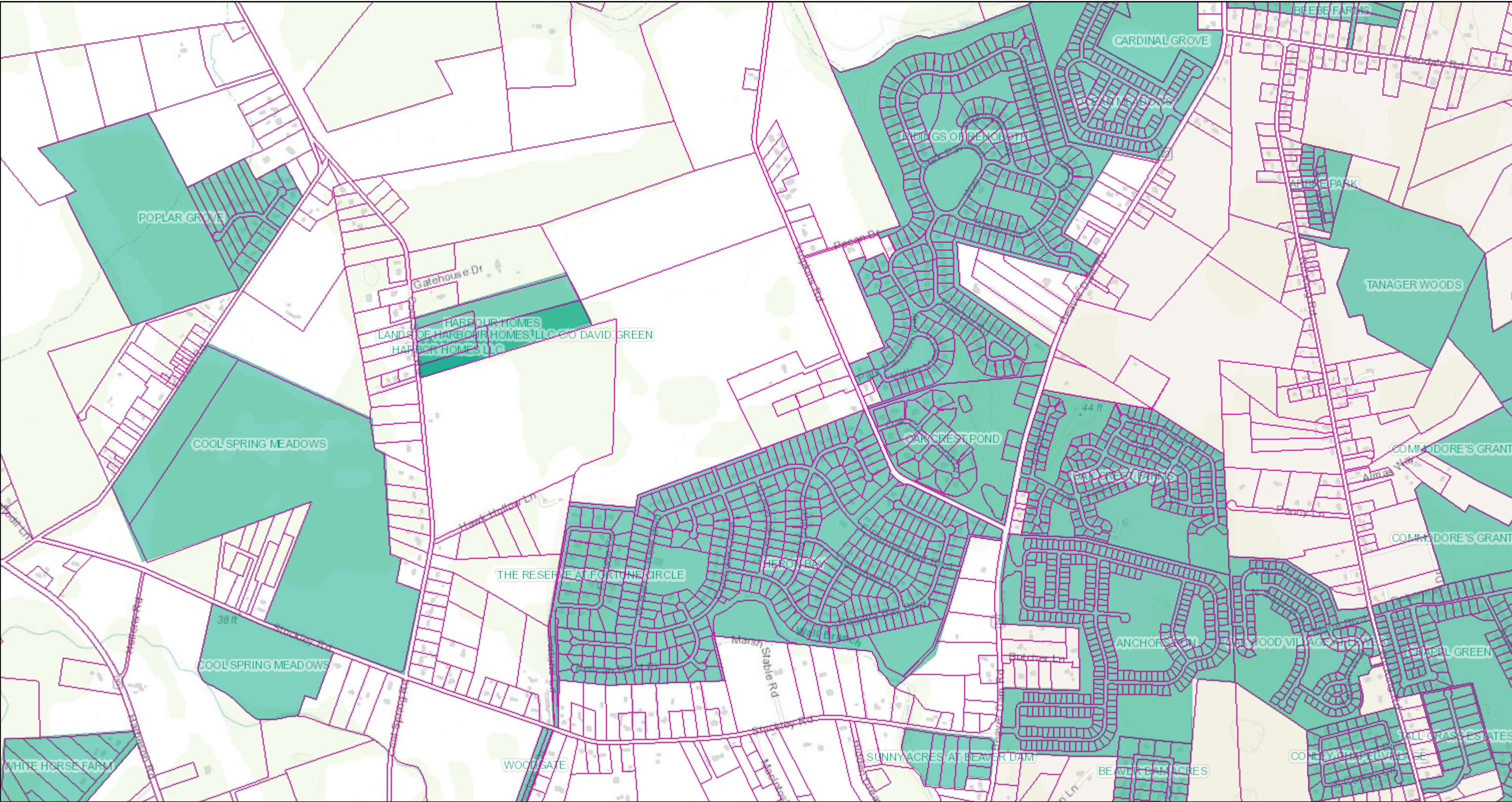
February 4, 2021

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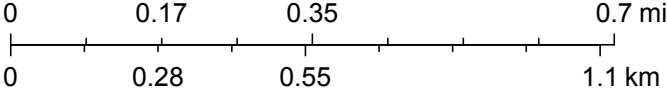
# Sussex County



February 4, 2021

1:18,056

-  Tax Parcels
-  County Boundaries
-  Subdivisions



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, Sussex County Government



3/1992



SITE

Image U.S. Geological Survey

Google Earth

Imagery Date: 3/23/1992 — 38°41'55.25" N 75°14'35.55" W elev 30 ft eye alt 11977 ft



6/2018



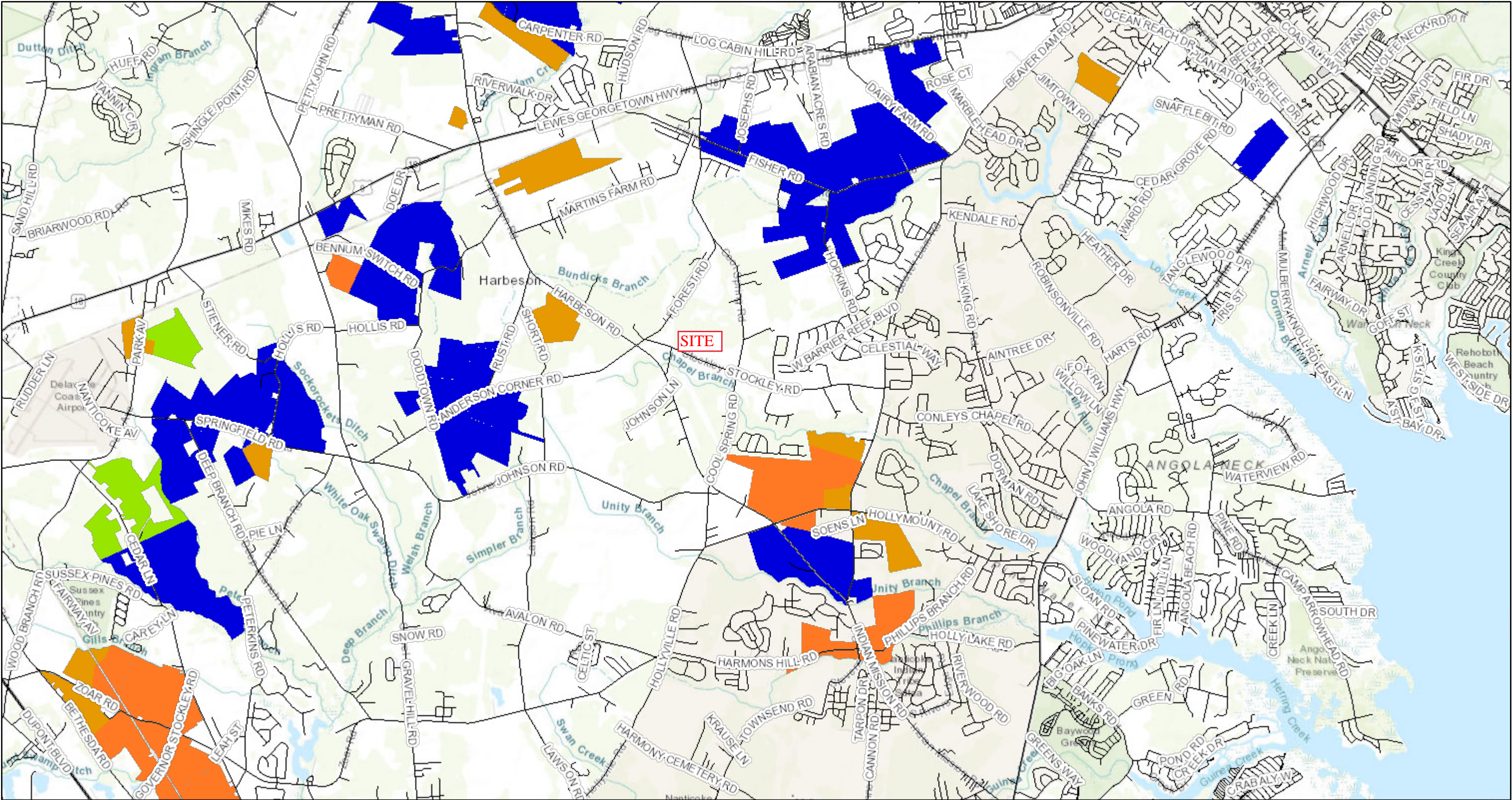
SITE

Google Earth

Imagery Date: 6/13/2018 38°41'55.25" N 75°14'35.55" W elev 30 ft eye alt 11977 ft



# Sussex County



February 4, 2021

1:72,224

- Streets

County Boundaries

Ag Preservation Districts

Agricultural Easement
- Agricultural District

Agricultural Expansion

Forest Land Preservation

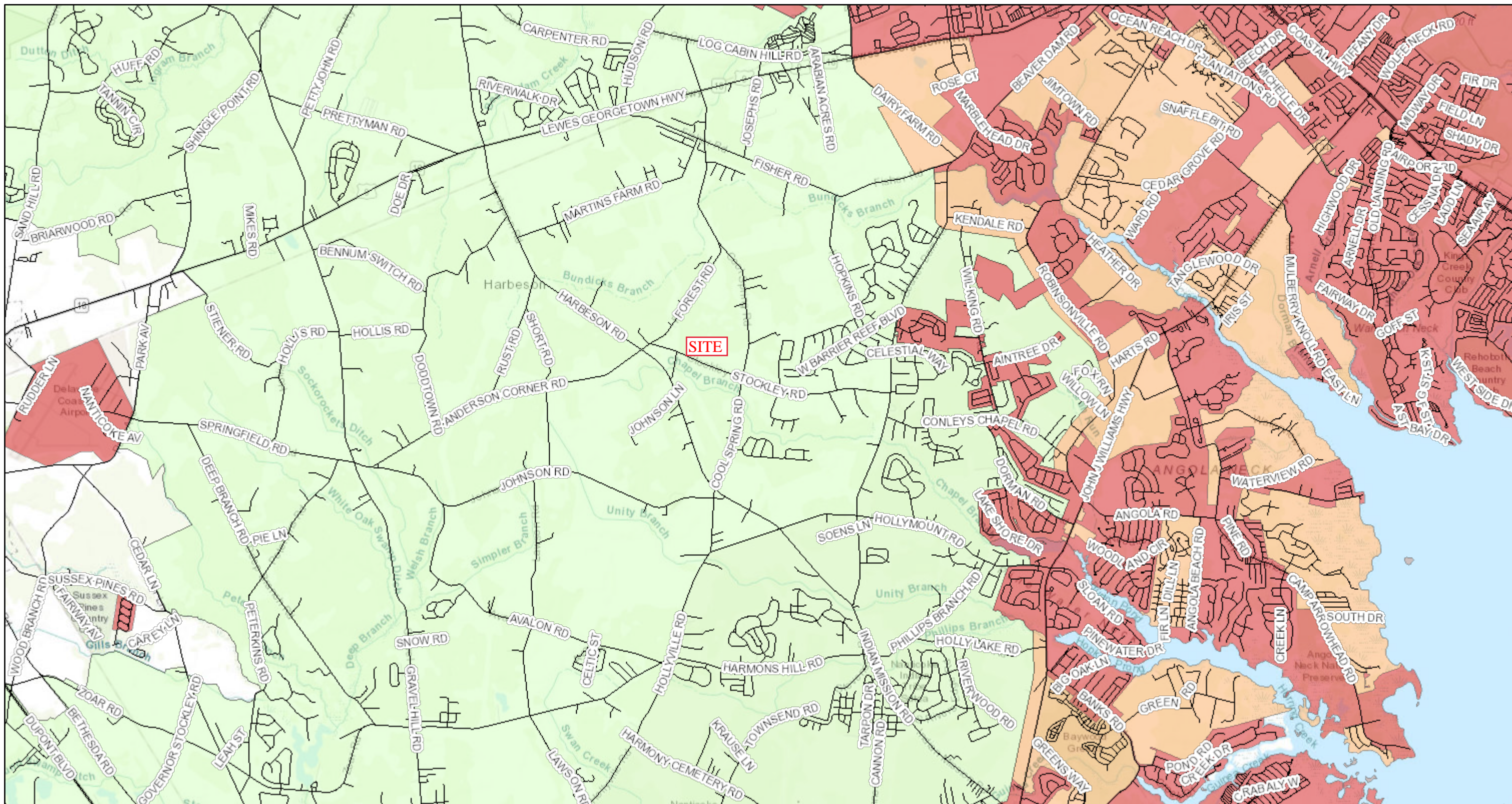
Forestland Preservation Area
- Forestland Preservation Easement



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, Sussex County Government



# Sussex County



February 4, 2021

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— Streets


 County Boundaries


## Sewer Tiers

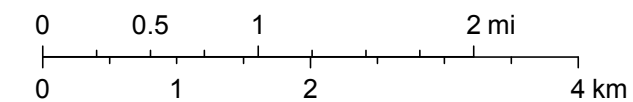
 Tier 1 - Sussex County Unified Sanitary Sewer District

 Tier 2 - Sussex County Planning Area

 Tier 3 - Coordinated CPCN Areas

 Tier 4 - System Optional Areas

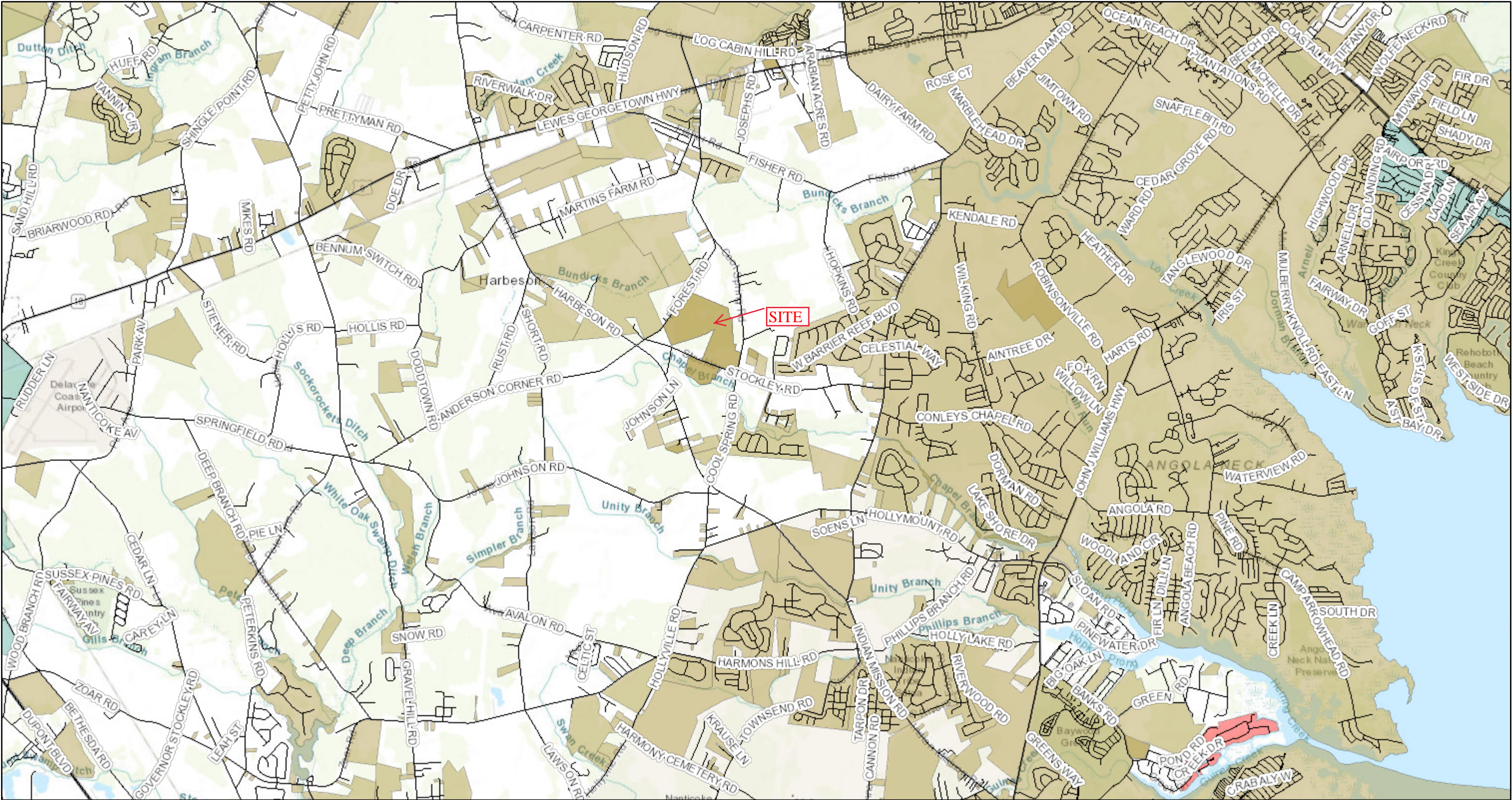
 Tier 5 - Regulated On-site Area



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, Sussex County Government



# Sussex County



February 4, 2021

1:72,224

— Streets

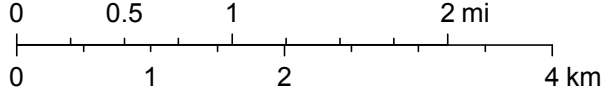
County Boundaries

Sussex County Water Districts

COUNTY

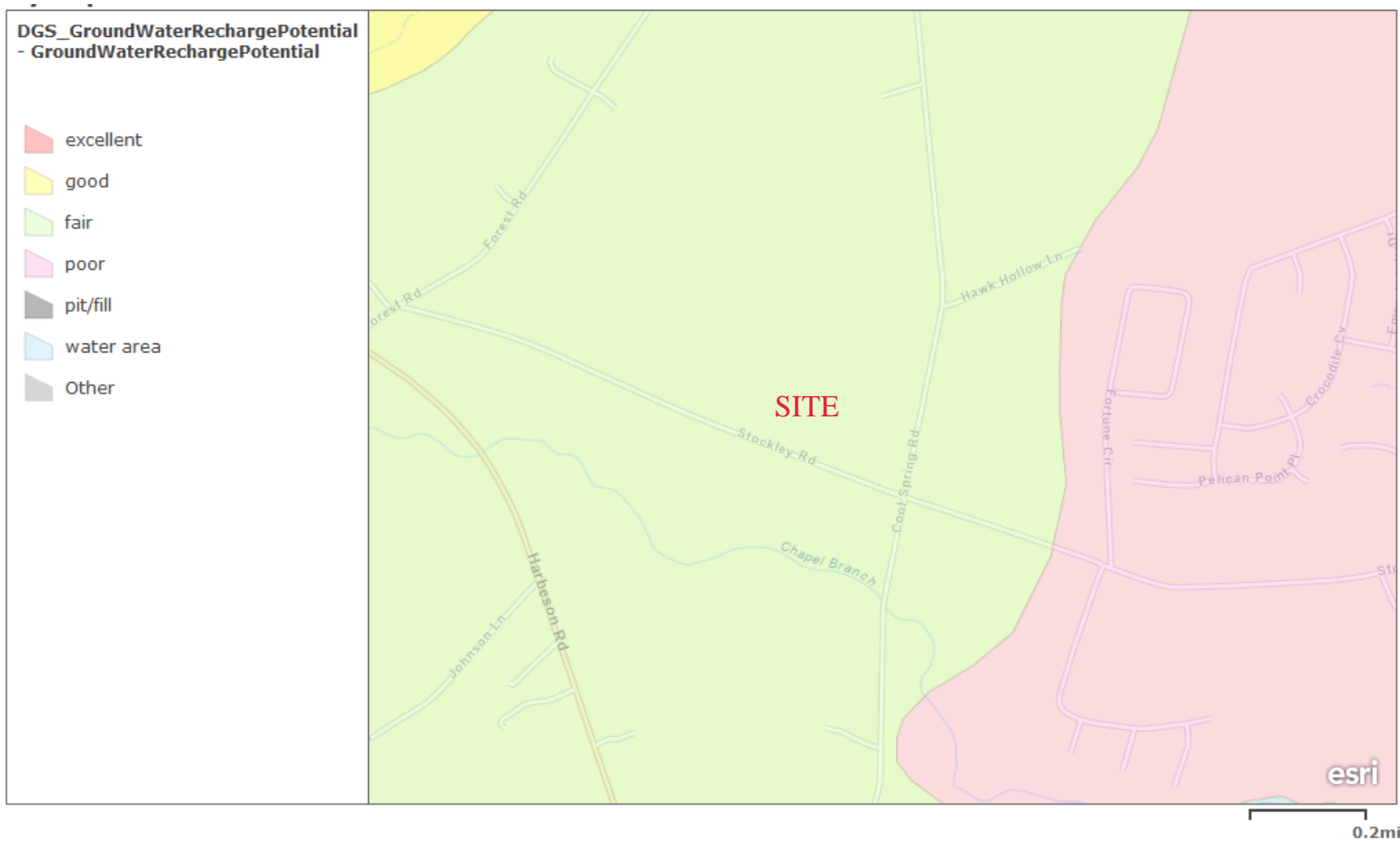
TOWN

PRIVATE



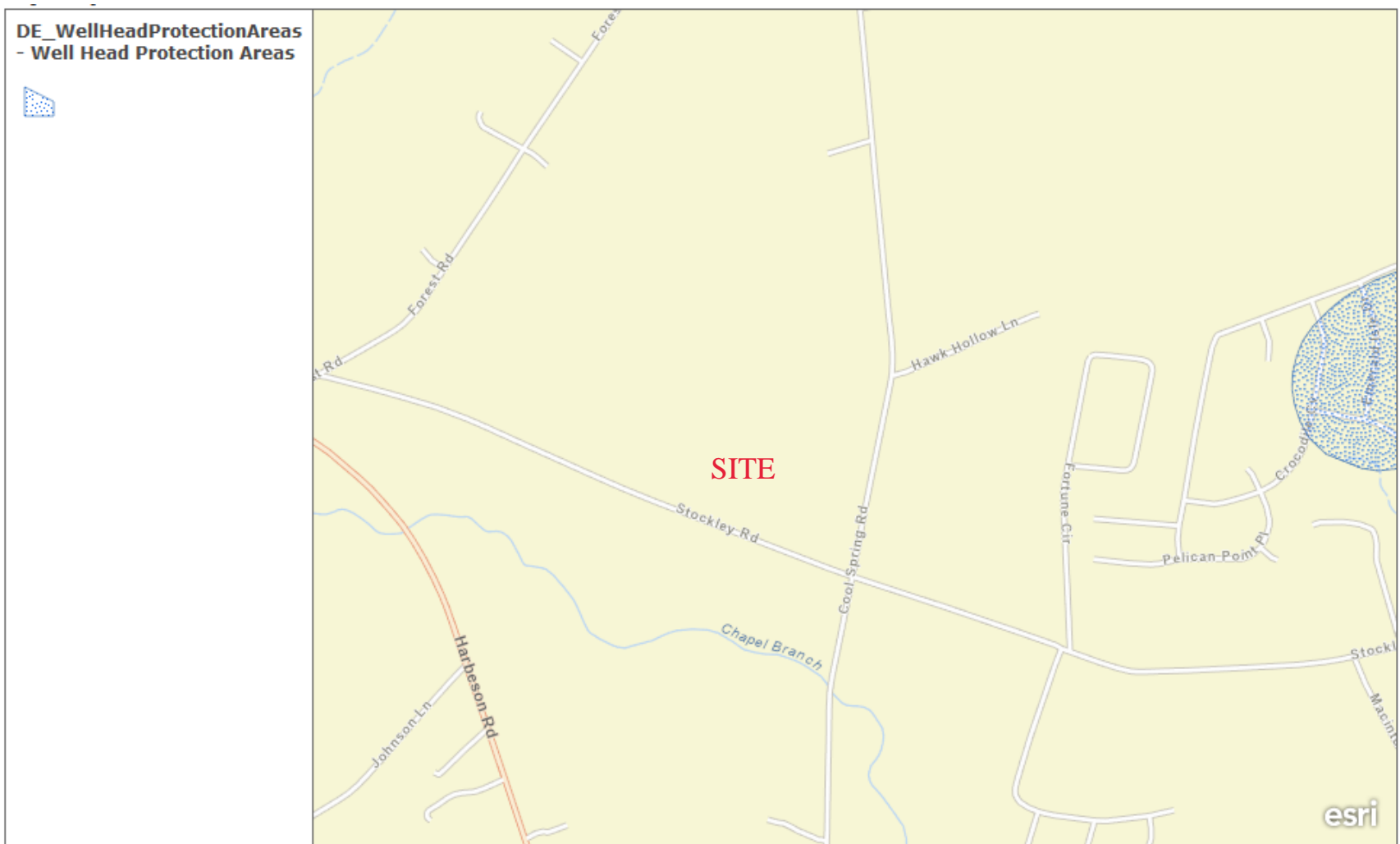
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, Sussex County Government





Esri Community Maps Contributors, County of Sussex, DE, Delaware FirstMap, VITA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA





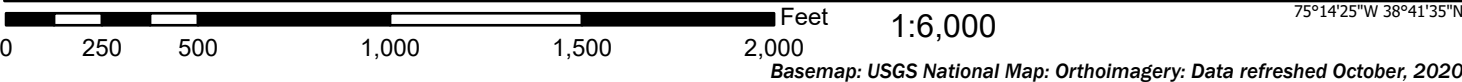
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Esri Community Maps Contributors, County of Sussex, DE, Delaware FirstMap, VITA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

# National Flood Hazard Layer FIRMMette



75°15'2"W 38°42'3"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/4/2021 at 7:22 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



TAB “6”

## Compliance with Applicable Regulations

### I. Compliance with AR-1 (Agricultural Residential District)

The project is located within the AR-1 zone and all lots being created will meet the requirements of an AR-1 Cluster Subdivision for lots using a central sewer system.

Density: The proposed subdivision is in conformity with the Zoning Ordinance which allows 2.0 dwelling units per acre based on the gross site area.

- The Gross Site Area is 187.93 acres which allows for a maximum density of 375.86 units.
- The proposed subdivision has only 226 units which results in a density of 1.20 units/acre.

Purpose: Stratus Estates conforms with the purpose of the AR-1 code in as much as it is a low density residential community that protects water resources, watersheds, forest area and scenic views. Specific design elements include:

- Recreation facilities including a pool and bathhouse.
- Sidewalks and a connection to the multi-modal path are provided.
- No meaningful wetlands are impacted.
- There are no wellhead protection areas on the property.
- The site is within the fair groundwater recharge area.

Permitted Uses: The AR-1 District allows the proposed single-family cluster development.

Permitted Signs: All proposed development signage will conform to the regulations provided in 115-159.2.

Height, Area and Bulk Requirements: The following is a summary of the lot dimensions and setbacks for Stratus Estates, all of which are in conformity with County requirements:

#### Single Family Lots -

- Minimum Lot Area = 7,500 S.F.
- Minimum Lot Width = 60'
- Front Yard = 25' (15' Corner Lot)
- Side Yard = 10'
- Rear Yard = 10'
- Maximum Building Height = 42'

The Open Space Requirements for the Cluster Development Option require a minimum of 30% open space. Stratus Estates has more than double the minimum requirement as the total open space is 139.27 acres or 74.11% of the site.



## **II. Statement of Compliance with Chapter 115-25, E. Design Requirements for Cluster Development**

*(1) All development shall be in accordance with the latest amendment to the community design standards.*

The proposed cluster subdivision complies with the Community Design section of the County's comprehensive plan.

*(2) Housing types in the low-density area, as shown on the Sussex County Comprehensive Plan, are limited to single-family detached dwellings and manufactured homes where permitted by ordinance.*

Only single-family detached home types are proposed within the cluster subdivision.

*(3) A forested buffer area with a minimum width of 30 feet shall be provided for lots abutting an agricultural area.*

Only one part of the site abuts agricultural uses and a 30' buffer is provided adjacent to that property. In addition, a 30' buffer is provided to all the adjacent properties, *i.e.*, along all property boundaries.

*(4) Dwellings located within 50 feet of an existing residential development shall provide adequate transition in density or shall provide a thirty-foot buffer meeting the standards below and maintained by a designated entity.*

There are lots used residentially adjacent to several of the property boundaries and a 30' buffer is provided for the entire boundary. In addition, a property owners association will be created to manage the open space and buffers and to govern and manage the community.

*(5) No lots shall have direct access to any state-maintained roads.*

No proposed lots have access to state-maintained roads.

*(6) All lots shall be configured to be contained completely outside of all wetlands.*

The proposed lots are not located within wetlands. There is a spot of "isolated wetlands" at the rear of Lot 149 that would not technically have to be qualified as wetlands. This area will be filled.

*(7) Any development using the option in Subsection B(2) shall have central water and wastewater systems operated and maintained by companies authorized by the State of Delaware to perform such services. Wastewater collection and treatment systems must be designed in accordance with the requirements of Sussex County ordinances and conform to the requirements for a central sewer system as defined in § 115-194A of the Sussex County Zoning Ordinance.*

The proposed community will be served by both central water and wastewater systems.



### **III. Statement of Compliance with Chapter 115-25, F. Review Procedures for Cluster Development**

- (1) The developer shall submit an application for a cluster development in accordance with Chapter 99, Subdivision of Land, of the Sussex County Code and which shall include, at a minimum, a sketch plan showing the location and uses of all open spaces, the extent of existing wooded areas and wetlands and the location of any historical or cultural resources. The Director of Planning and Zoning may waive this requirement when the proposed development does not contain significant natural features or resources.

*The appropriate application was filed.*

- (2) The information submitted shall include a plan for the management of all open space.

*All open space is labeled on the site plan and a property owners association is proposed to manage the open space areas.*

- (3) The Planning and Zoning Commission shall determine that the following requirements are met before approving any preliminary plan and such application shall be reviewed on an expedited basis.

- (a) The cluster development sketch plan and the preliminary plan of the cluster subdivision provides for a total environment and design which are superior, and the reasonable judgment of the Planning Commission, to that which would be allowed under the regulations for the standard option. For the purposes of this subsection a proposed cluster subdivision which provides for a total environment and design which are superior to that allowed under the standard option subdivision is one which, in the reasonable judgment of the Planning Commission meets all of the following criteria:

- [1] Homes shall be clustered on the environmentally suitable portions of the tract, specifically those portions of the tract least encumbered by sensitive environmental features, including but not limited to wetlands, mature woodlands, waterways and other water bodies. This does not inhibit the development of wooded parcels.

*The proposed lots and amenities are located within the environmentally suitable portions of the site. Specifically, wetlands and waterways are avoided. Clearing of the woods are limited to the amount required to develop the project.*

- [2] (Reserved)

[3] Required open space shall comply with the following criteria:

- [a] Required open space must meet the official definition of acceptable open space contained in §115-4.

*The required open space meets the definition of acceptable open space in Sussex County Code §115-4.*

- [b] Required open space must be designed to be beneficial to the residents or users of the open space. It shall not be constituted of fragmented lands with little open space value. Accordingly, 30% of all required open space shall be located on one contiguous tract of land, except that such open space may be separated by water bodies and a maximum of one street.

*The project contains 78 acres of open space that is one contiguous tract of land.*

- [c] If one of the following physical conditions exists adjacent to the proposed cluster development tract, at least 30% of all required open space must be adjacent to:

- [i] An existing or officially planned public park, land preserved by easement, or land preserved as open space and in municipal, County, state, or federal ownership.

*Not applicable.*

- [ii] Existing wetlands, waterways, wildlife corridors, or other ecology-sensitive land.

*The ecologically-sensitive lands are within the 78 acres of open space that is one contiguous tract of land.*

- [iii] Existing farmland and/or woodlands.

*The 78 acres of open space that is one contiguous tract of land is adjacent to existing woodlands.*

- [iv] If more than one of these physical features exist on adjacent properties, then one of these features will be identified and utilized to satisfy this requirement.



*See answers to [iii] and [iv].*

[v] If the open space is proposed to be dedicated to a municipality, a County, state, or federal agency or a homeowners' association, an agreement shall be provided, in advance, stipulating that such entity agrees in advance to accept that dedication and maintain that land for public recreation or as a nature preserve.

*Not applicable.*

[vi] Open space in a cluster development shall include a pedestrian trail system accessible to residents. This trail system shall connect to an adjacent trail, adjacent neighborhood, adjacent commercial area, or adjacent public open space, if any such areas exist adjacent to the proposed cluster development. Construction materials for the proposed trail shall be identified, and a typical construction detail for the proposed trail shall be shown. Trail construction materials shall be pervious in nature.

*The open space meets the requirements of the County Code. The required open space (30% of site) is 56.4 acres, 139.3 acres (74.11% of the site) have been provided. The largest open space tract is contains and surrounds the wetlands on the site. The sidewalk system is proposed to be connect to the DelDOT multi-modal system.*

- [4] A minimum of 25 feet of permanent setback must be maintained around the outer boundaries of all wetlands, except for tidal waters, tidal tributary streams and tidal wetlands and from the ordinary high water line of perennial nontidal rivers and nontidal streams as provided for in § 115-193B under Ordinance No. 774 where a fifty-foot permanent setback is required. No buildings or paving shall be placed within these setbacks.

*A minimum 50' buffer is provided around the existing non-tidal wetlands.*

- [5] Stormwater management shall be designed to promote groundwater recharge and protect groundwater quality. Natural drainage flows shall be maintained to the greatest extent possible. Drainage from rooftops shall be directed to vegetated areas or allow green technology. Stormwater detention and retention facilities should be designed to resemble natural ponds as referenced by DNREC in the National Resource Conservation Service's (NRCS) Pond Code 378,

Visual Resource Design.

*Stormwater management shall be provided per DNREC and Sussex Conservation District. Recharge or structurally equivalent BMPs shall be provided.*

- [6] Removal of healthy mature trees shall be limited.

*Tree removal shall be limited to the areas necessary to construct the project. The proposed project greatly reduces the amount of tree removal from the previously approved project.*

- [7] Scenic views that can be seen from within the tract should be preserved to the greatest extent possible.

*Scenic views to wetland and wooded areas are preserved for the homeowners and passersby by limiting back-to-back lots.*

- [8] The applicant for a cluster development shall illustrate that the following sequence and process was followed in the site design of the cluster project:

- [a] Identify lands that should be preserved. First, areas worthy of preservation should be mapped, including wetlands, wooded areas, waterways, other water bodies, and natural drainage areas. Then, other features that are important should be mapped, such as tree lines, scenic views, historic buildings, and prime farmland. The areas with the fewest important natural, scenic and historic features should be considered the “potential development area.”
- [b] Identify developable areas. Next, the most appropriate locations for development should be chosen to minimize the impact to the most important features mapped in the first step.
- [c] Locate roads and trails. After the developable areas are determined, a road system should be designed to serve those homes. A trail system that links homes to destinations outside of the tract should be designed.
- [d] Locate lot lines. The last step is to configure lot lines and make necessary adjustments to satisfy the various reviewing agencies’ comments.

*The plan was laid out to maximize the retention of wooded*



*areas and preserve and protect natural facilities (wetlands and woods). The lots were primarily placed in the existing upland and open areas of the site. After that, the road and sidewalk network was determined, including sidewalks on both sides of the street and connections to DelDOT's multi-modal path. Finally, lots were established with no lot backing up directly to another lot with existing grades and drainage areas considered in the lot layout.*

- [9] Sidewalks shall be required at least on one side of each street, subject to Planning and Zoning Commission approval.

*Sidewalks are provided on one side of each street.*

- (b) The cluster development plan will preserve the natural environment and any historic or archeological resources.

*The natural environment is preserved as part of the land plan. There are no historic or archeological resources on the property.*

- (c) All of the items in Ordinance Number 1152 (see § [99-9C](#)) have been addressed and approval of the cluster option for the proposed development will not have an adverse effect on any of the items to be considered. Section 99-C items are addressed herein.

- (d) The cluster development lies within a Town Center, a Developing Area or an Environmentally Sensitive Developing Area as described within the Land Use Element and as shown on the Future Land Use Plan of the adopted Sussex County Comprehensive Plan, and the proposed development complies with § [115-25B\(2\)](#), and does not exceed four dwelling units per gross acre, and the developer has proffered to Sussex County for the purpose of creating open space for preservation and/or active and/or passive recreation areas the development fee required by § [115-25B\(3\)](#). The Sussex County Council prior to the signing of a contract to purchase, shall approve all such land or conservation easement purchases which utilize monies paid to the County under the terms of this act. All such approvals by the Council shall be by a four-fifths majority vote. It is understood that the County shall control all monies and the Sussex County Land Trust will act as a recommending body and partner at the discretion of the County Council.

*This application does not seek the bonus density described in this section.*

- (4) The Sussex County Planning and Zoning Commission may add conditions to the approval of any cluster development to protect adjacent properties and the natural environment.

**IV. Statement of Compliance with Chapter 99, Sussex County Subdivision of Land Chapter 99-9 (C)**

The proposed development plan has taken into consideration all items listed within the Subdivision of Land - Chapter 99, Section C within the Sussex County Code and complies with it in the following manner:

***1. Integration of the proposed subdivision into existing terrain and surrounding landscape.***

- a. The Developer has taken great effort to utilize the additional land as open space preserving almost 3/4 of the site.
- b. Forested non-tidal wetlands have been preserved.
- c. A minimum 30' landscaped buffer has been provided adjacent to all surrounding property lines.

***2. Minimal use of wetlands and floodplains.***

- a. A minimum of 50' is provided between the proposed lots and wetlands.
- b. All of the proposed lots are located within flood Zone X (unshaded), areas determined to be outside the 0.2% annual chance floodplain.

***3. Preservation of natural and historic features.***

- a. The natural features (wetlands and woods) have been preserved in one contiguous block of open space.
- b. There are no known historic sites.

***4. Preservation of open space and scenic views.***

- a. A large tract of open space is being persevered including wooded areas, wetlands and buffers.
- b. Views of the existing wooded wetlands are preserved and are viewable from the lots.

***5. Minimization of tree, vegetation, and soil removal and grade changes.***

- a. Disturbance to the site will be limited to only those areas required for homes, roads, storm water management and utility installation. All undisturbed vegetation that is compatible with native vegetation shall remain.
- b. Grade changes to the site shall be limited to those necessary to provide positive drainage and proper cover over utilities.



**6. *Screening of objectionable features from neighboring properties and roadways.***

- a. Screening of objectionable features on the site from adjacent properties and roadways shall be provided utilizing the required 30' landscaped buffer around the perimeter of the site or existing forested areas and storm water management facilities where those exist.

**7. *Provision for water supply.***

- a. Artesian will provide potable water and fire protection for the development.

**8. *Provision for sewage disposal.***

- a. Artesian will provide wastewater service for the development.

**9. *Provision for solid waste disposal.***

- a. Arrangements will be made with a commercial trash hauler to provide trash collection for Stratus Estates.

**10. *Prevention of surface and groundwater pollution.***

- a. All runoff from the Stratus Estates site will be directed into a storm water management system consisting of Best Management Practices (BMP) for treatment and discharge. The storm water management facilities will be designed in accordance with Delaware / Sussex County standards.
- b. Ultimately, through post-development design, runoff will receive better treatment than during pre-development conditions. The project will meet the current storm water management regulations as required by DNREC.

**11. *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 recharge is maximized.***

- a. As stated above, stormwater management quality and quantity will be provided by a storm water management system consisting of Best Management Practices (BMP) for treatment and discharge. The BMP's will be designed per Delaware / Sussex County standards. The stormwater collection/treatment system will be adequately sized to prevent flooding.
- b. Erosion and sediment control will be provided by methods approved by the Sussex Conservation District. An erosion and sediment control plan will be prepared and submitted for review.

***12. Provision for safe vehicular and pedestrian movement within the site and to adjacent ways.***

- a. Entrance to the site shall be designed per current DelDOT standards.
- b. To promote pedestrian traffic within the development, sidewalks are provided along both sides of the community streets.
- c. All roads will be designed in accordance with Sussex County standards.

***13. Effect on area property values.***

- a. It is expected that the proposed Stratus Estates community will cause current property values to remain the same if not increase the value of the properties in the area. Great attention has been paid to the detail and aesthetic qualities of the plan, the livability of the community and amenities provided.

***14. Preservation and conservation of farmland.***

- a. The proposed subdivision will not adversely affect adjacent farmland due to landscaped buffers and other natural wooded areas and wetland that separate the community from farmland.

***15. Effect on schools, public buildings, and community facilities.***

- a. Stratus Estates will have not adversely effect schools, public buildings and community facilities.
- b. Community amenities will include a pool and bathhouse. In addition, Stratus Estates includes several open space areas for other active and passive uses.

***16. Effect on area roadways and public transportation.***

- a. A pre-submittal meeting was held with DelDOT officials concerning area roadway improvements related to Stratus Estates specifically with regard to off-site transportation improvements and frontage improvements. The entirety of Stockley Road from Forest Road to Cool Spring Road will be widened and Cool Spring Road will also be widened to Local Road Standards (11' travel lanes and 5' shoulders). In addition a 10' wide shared use path is required along the properties frontage on both Stockley Road and Cool Spring Road.

***17. Compatibility with Other Land Uses.***

- a. The project is in the vicinity of other residential cluster communities of Coastal Club, Ridings at Rehoboth, Ocean Meadows and Heron Bay, thus being compatible in density, home style and land use.



**18. *“Effect on Area Waterways.”***

- a. Runoff will be treated for water quality and quantity prior to discharge.

TAB “7”





STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF STATE PLANNING COORDINATION

August 21, 2019

Mr. John Murray  
The Kercher Group, Inc.  
37385 Rehoboth Ave. Unit #11  
Rehoboth Beach, DE 19971

RE: PLUS review 2019-07-04; Cool Spring Meadows

Dear Mr. Murray:

Thank you for meeting with State agency planners on July 24, 2019 to discuss the Cool Spring Meadows project. According to the information received you are seeking review of a 226 unit subdivision on 187.93 acres along Stockley Road in Level 4 in Sussex County.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.**

**Strategies for State Policies and Spending**

This project represents land development that will result in 226 residential units in an Investment Level 4 area according to the *2015 Strategies for State Policies and Spending*. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed will bring new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, 100% of school transportation and paratransit services, up to 80% of school construction costs, and 100% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.

Because the development is inconsistent with the *Strategies for State Policies and Spending*, the State does not support this proposed development.

With that said, **the comments in this letter are technical, and are not intended to suggest that the State supports this development proposal. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to build on this property, construct the development you indicate, or any subdivision thereof on these lands.**

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

#### **Department of Transportation - Contact BiJI Brockenbrough 760-2109**

- The site access on Stockley Road (Sussex Road 280) 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>.
- Pursuant to Section P.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request the meeting and guidance on what will be covered there and how to prepare for it is located at [http://www.deldot.gov/Business/subdivisions/pelfs/Meeting\\_Request\\_Form.pdf?08022011](http://www.deldot.gov/Business/subdivisions/pelfs/Meeting_Request_Form.pdf?08022011).
- Section P.5 of the Manual addresses fees that are assessed for the review of development proposals. DelDOT anticipates collecting the Initial Stage Fee when the record plan is submitted for review and the Construction Stage Fee when construction plans are submitted for review.
- Per Section 2.2.2.1 of the Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the PLUS application, the total daily trips are



estimated at 2,158 vehicle trip ends per day. DelDOT calculates a higher number, 2,201 vehicle trip ends per day, but regardless the warrant for a TIS is met.

In April 2006 (See attached letters.) DelDOT commented to the County on its review of a TIS for an earlier plan to develop these lands. The letter includes a numbered list of off-site improvements and contributions toward off-site improvements that DelDOT recommended be required of the development.

Some of the listed items apply to locations that would not be included in a TIS done today because DelDOT regulations have changed. Following is a list of off-site improvements and contributions toward off-site improvements that DelDOT finds should be required of the developer. If the County or the developer would prefer to restart the TIS process with current data, DelDOT would be amenable to that. Alternatively, DelDOT recommends that the following items be required:

- o The developer should improve Stockley Road from Cool Spring Road (Sussex Road 290) to Forest Road (Sussex Road 292) in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
- o The developer should improve Cool Spring Road from Stockley Road to the north limit of the site frontage in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
- o The developer should enter into a traffic signal agreement with DelDOT for the intersection of Delaware Route 5 and Forest Road.
- 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 Stockley Road and Cool Spring Road. By this regulation, this dedication is to provide a minimum of 30 feet of right-of-way from the physical centerline along both roads. The following right-of-way dedication note is required, **"An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."**
- In accordance with Section 3.2.5.1.2 of the Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on Stockley Road and Cool Spring Road. The location of the easement shall be outside the

limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, "**A 15-foot wide permanent easement is hereby established for the State of Delaware, as per this plat.**"

- Referring to Section 3.4.2.1 of the Manual, the following items, among other things, are required on the Record Plan:
  - o A Traffic Generation Diagram. See Figure 3.4.2-a for the required format and content.
  - o Depiction of all existing entrances within 600 feet of the entrances on Stockley Road.
  - o Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.
- Section 3.5 of the Manual provides DelDOT's requirements with regard to connectivity. The requirements in Sections 3.5.1 through 3.5.3 shall be followed for all development projects having access to state roads or proposing DelDOT maintained public streets for subdivisions. DelDOT recommends that Goldemod Drive be extended to the property line as a stub street.
- Section 3.5.4.2 of the Manual addresses requirements for shared-use paths and sidewalks. For projects in Level 1 and 2 Investment Areas, installation of paths or sidewalks along the frontage on State-maintained roads is required. DelDOT anticipates requiring the developer to build Shared Use Paths along their frontage on both Stockley Road and Cool Spring Road.
- Section 3.5.4.4 of the Manual addresses access-ways, essentially shared-use paths connecting subdivision streets either to each other or to the road on which the property fronts. DelDOT anticipates requiring the developer to build one access-way from Goldemod Drive to Stockley Road near Lot 16 and another from Monarch Avenue to Cool Spring Road near Lot 99.
- Referring to Section 3.5.5 of the Manual, existing and proposed transit stops and associated facilities as required by the Delaware Transit Corporation (DTC) or DelDOT shall be shown on the Record Plan.
- 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 Stockley Road and Cool Spring Road.
- 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.del.dot.gov/Business/subdivisions/index.shtml>.

- 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.

**If granted preliminary approval, a pre-submittal meeting is required by DELDOT. At this meeting, the above items will be discussed. The developer shall be required to make all required improvements.**

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

**Wastewater Disposal**

- The DNREC Groundwater Discharge Large Systems Section will need to be notified where the developer intends to send the wastewater. The PLUS application states that a new community system will not be located on this site.

**If granted preliminary approval, a central sewer system is proposed. A pump station shall be provided for this site and Artesian will maintain the system.**

**Floodplain and Sea Level Rise**

- Chapel Branch runs through the southeast corner of the site. This site is situated upstream of the mapped floodplain for Chapel Branch,
- The unmapped floodplain area should be avoided, and floodplain analysis and mapping could be required.

**If required, a floodplain analysis and mapping would be performed.**

**Water Quality**

- DNREC mapping indicates presence of wetlands and hydric soils (Hurlock) which encompass a large portion of the subject parcel.
- Increased impervious cover from development and removal of forest cover will increase the potential for future flooding concerns.
- Green-technology stormwater management is highly recommended. Efforts to mitigate for impervious cover (pervious pavers) should also be implemented where applicable.
- To protect the function and integrity of wetlands, a minimum 100-foot buffer should be left intact around the perimeter.
- Avoid disturbance and filling of wetlands.

**If granted preliminary approval, the project would be subject to approval from the Sussex Conservation District. The project will adhere to all state regulations.**

**Forest Preservation**

- DNREC mapping indicates presence of forested wetlands which encompass a large

portion of the subject parcel.

- The site plan should be designed to allow for the preservation of as much of this wooded area as feasible, with special consideration for preservation given to large, mature trees. Leaving a forest intact is usually more beneficial to the existing wildlife and is preferred to clearing.
- To reduce impacts to nesting birds and other wildlife species that utilize forests for breeding, we recommend that clearing not occur April 1st to July 31st.
- Low spillage lights (those that reflect light directly downward onto the illuminated area) should be used on roads and homes within 750 feet of the forested wetlands on site. Fluorescent and mercury vapor lighting should not be used.
- Contact the Division of Fish and Wildlife for assistance in identifying, preserving, and managing the existing forest on-site. For technical assistance or to schedule a site visit please contact Katie Kadlubar, [Kathryn.Kadlubar@delaware.gov](mailto:Kathryn.Kadlubar@delaware.gov).

**The preliminary plan shows a minimal amount to tree clearing. The original approved subdivision encompassed the entire property and required a significant portion of the trees to be removed. The revised plan reflects the developers efforts to conserve these natural resources. The developer may request clearing to occur as stated above. Most lighting to be installed by the developer would typically be downward facing.**

**State Historic Preservation Office - Contact Carlton Hall 736-7404**

- The Delaware SHPO does not support development in a Level 4 area.
- There are no known archaeological sites or known National Register listed or eligible properties on the parcel. However, the soils are a mix of well-and poorly drained areas. Poorly drained areas could have been a source for plant and animal resources. There is moderate potential for archaeological resources to be present and our office recommends an archaeological survey of the project area. If there are any questions, inquiries, or concerns, feel free to contact the Delaware State Historic Preservation Office for assistance at 302-736-7400.
- 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). Prior to any demolition or ground-disturbing activities, the developer should hire an archaeological consultant to examine the parcel for archaeological resources, including unmarked human burials or human skeletal remains, to avoid those sites or areas.
- 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](http://www.achp.gov)

**The developer would be open to allowing the State investigate the property for any**



**archaeological resources. It is noted that the developer shall hire an archaeological consultant to investigate potential unmarked burial site.**

**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.
- The infrastructure for fire protection water shall be provided, including the size of water mains.

**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. Additionally, where trees are to be situated adjacent to travel roads in the subdivision, some forethought should be exercised regarding how future growth of the trees may affect fire department travel throughout 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, such as Point Lane and Bayberry Drive, shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

**Gas Piping and System Information:**

- Provide type of fuel proposed, and show locations of bulk containers on plan.

**Required Notes:**

- Provide a note on the final plans submitted for review to read " All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations"
- Name of Water Supplier
- Proposed Use

- National Fire Protection Association (NFPA) Construction Type Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads

**If granted preliminary approval, the project will be required to submit to the OSFM for their approval. The project shall adhere to the State regulations.**

**Sussex County - Contact Rob Davis 302-855-7820**

- Sussex County does not expect to provide sanitary sewer service within the area proposed for the 226-unit subdivision. The Sussex County Engineering Department recommends the project receive wastewater service from Artesian Utilities as proposed.

**If granted preliminary approval, wastewater service shall be from Artesian Utilities.**

In addition to the comments above our office has received a letter from Brandy Nauman, Sussex County Housing Coordinator & Fair Housing Compliance Officer. A copy of that letter is enclosed with this letter.

**If granted preliminary approval, the developer may wish to contact the County regarding affordable housing.**

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

s 0: .k

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

CC: Sussex County

Enclosure  
Attachment



**BRANDY BENNETT NAUMAN**  
HOUSING COORDINATOR &  
FAIR HOUSING COMPLIANCE OFFICER  
(302) 855-7777 T  
(302) 854-5397 F  
bnauman@sussexcountyde.gov



**sussex <!County**  
**DELAWARE**  
sussexcountyde.gov

July 22, 2019

Mr. John Murray  
The Kercher Group, Inc.  
37385 Rehoboth Ave., Unit #11  
Rehoboth Beach, DE 19971

RE: Cool Spring Meadows-PLUS Review (PLUS 2019-07-04)

Dear Mr. Murray,

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](http://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,

Brandy B. Nauman  
*Housing Coordinator &  
Fair Housing Compliance Officer*



COUNTY ADMINISTRATIVE OFFICES WEST COMPLEX  
22215 DUPONT BOULEVARD | PO BOX 589  
GEORGETOWN, DELAWARE 19947

April 19, 2006

Mr. Todd J. Sammons  
Project Engineer  
DelDOT Division of Planning  
P.O. Box 778  
Dover, DE 19903

RE: Agreement No. 1294  
Traffic Impact Study Review Services  
**Task No. 91 – Cool Spring Meadows**

Dear Mr. Sammons,

McCormick Taylor has completed its review of the Traffic Impact Study (TIS) for the development of Cool Spring Meadows prepared by Orth-Rodgers and Associates, Inc., dated January 19, 2006. This review was assigned as Task Number 91. Orth-Rodgers and Associates, Inc. prepared the report in a manner generally consistent with DelDOT's *Rules and Regulations for Subdivision Streets*.

The TIS evaluates the impacts of the development of Cool Spring Meadows in Sussex County, Delaware. The proposed development would consist of 233 single-family detached houses. This development is located on the both sides of Stockley Road (Sussex Road 280), west of Cool Spring Road (Sussex Road 290). Two access points on Stockley Road are proposed to create a four-way intersection, and one access point is proposed on Cool Spring Road creating a t-intersection. Construction is expected to be complete by 2010.

There are currently no active DelDOT projects within the study area.

Based on our review, we have the following comments and recommendations:

One intersection exhibits level of service deficiencies without the implementation of physical roadway and/or traffic control improvements: the intersection of US Route 9 (Lewes–Georgetown Highway) and Cool Spring Road. This intersection is expected to exhibit level of service deficiencies in the 2010 afternoon and summer Saturday peak hours with and without the development, and in the 2010 morning peak hour with the development.

Should the County choose to approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan. All applicable agreements (i.e., letter agreements for off-site improvements and traffic signal agreements) should be executed prior to entrance plan approval for the proposed development.



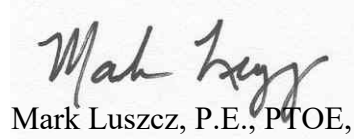
1. The developer should improve Stockley Road from Forest Road (Sussex Road 292) to Cool Spring Road in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
2. The developer should improve Cool Spring Road from Stockley Road to Forest Road in order to meet DelDOT local road standards as nearly as possible. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
3. The developer should enter into a traffic signal agreement with DelDOT for the intersection of US Route 9 and Cool Spring Road. The agreement should include pedestrian signals, crosswalks, and interconnection at DelDOT's discretion. Due to the fact that an active railroad line is aligned diagonally through the intersection, any traffic signal agreement should also include active railroad warning devices and railroad-highway traffic signal interconnection at DelDOT's discretion.
4. The following bicycle and pedestrian improvements should be included:
  - a) A minimum of a five-foot bicycle lane should be striped along the Stockley Road and Cool Spring Road site frontage (in addition to any required turn lanes) in order to facilitate safe and unimpeded bicycle travel.
  - b) A fifteen-foot wide permanent easement should be established across the property frontage for a future ten-foot wide multi-use path.
  - c) Regulatory/warning signage should be added to any forthcoming plans to this project in order to alert motorists to the presence of bicycle traffic.
  - d) Utility covers should be moved outside of the designated bicycle lane or be flush with the pavement.
  - e) Internal sidewalks to promote walking as a viable transportation alternative should be constructed.
  - f) An ADA compliant crosswalk should be considered at the opposing access points along Stockley Road.

Please note that this review generally focuses on capacity and level of service issues; additional safety and operational issues will be further addressed through DelDOT's subdivision review process.

Additional details on our review of the TIS are attached. Please contact me at (302) 738-0203 or through e-mail at [mluszcz@mtmail.biz](mailto:mluszcz@mtmail.biz) if you have any questions concerning this review.

Sincerely,

**McCormick Taylor, Inc.**

A handwritten signature in black ink, appearing to read "Mark Luszcz", is written over a light gray rectangular background.

Mark Luszcz, P.E., PTOE, AICP  
Associate

Enclosure



## **General Information**

**Report date:** January 19, 2006

**Prepared by:** Orth-Rodgers & Associates, Inc.

**Prepared for:** Ocean Atlantic Agency

**Tax parcel:** 2-34-5.00-30.00, 2-34-5.00-33.00

**Generally consistent with DelDOT's Rules and Regulations for Subdivision Streets:** Yes

## **Project Description and Background**

**Description:** Development of 233 single-family detached houses

**Location:** Site is located on either side of Stockley Road, west of Cool Spring Road in Sussex County, Delaware

**Amount of land to be developed:** approximately 207 acres

**Land use approval(s) needed:** Subdivision Review

**Proposed completion date:** 2010

**Proposed access locations:** Two access points on Stockley Road are proposed to create a four-way intersection, and one access point is proposed on Cool Spring Road creating a t-intersection.

## **Livable Delaware**

*(Source: Delaware Strategies for State Policies and Spending, July 2004)*

### **Location with respect to the Strategies for State Policies and Spending Map of Delaware:**

The proposed Cool Springs Meadow Development is located within Investment Level 4.

### **Description of Investment Level 4:**

Areas located within Investment Level 4 are predominantly agricultural; contain agribusiness activities, farm complexes and small settlements that are often found at historic crossroads. These areas contain undeveloped natural areas, including forestland and recreational parks, however may have scattered single-family detached residential homes located within them.

Transportation facilities and services will be preserved by the state while they continue to manage the transportation system in a manner that will support the preservation of the natural environment. The state will limit its investments in water and wastewater systems to existing public health, safety and environmental risks and discourage accommodating further development. In addition, the state will limit continued development of areas within Investment Level 4 to those that enhance agriculture and protect water supplies, preserve critical habitat and maintain existing education and public safety services. Although residential development is not desirable in Investment Level 4, conservation design techniques (protecting large portions of existing open space and farmland while clustering development on a smaller portion of the parcel and using environmentally friendly design innovations) can be utilized in some cases to help ensure that developments are compatible with the rural character and natural resources present in the area. However, it is the state's general intent to discourage additional development in Investment Level 4 areas that are unrelated to the areas' needs by limiting infrastructure investment.

**Proposed Development's Compatibility with Livable Delaware:**

The proposed Cool Spring Meadows Development falls within Investment Level 4. Residential development is generally not desirable in Investment Level 4. Developments within Investment Level 4 areas should focus on protection of large portions of existing open space and farmland on a site while clustering development on a smaller portion of the parcel. This proposed development would be developed using the cluster option under that zoning and therefore would be compatible with Livable Delaware. However, it should be noted that conservation design techniques should be utilized to ensure that the development is compatible with the rural character and natural resources present in the area.

**Comprehensive Plans**

**Sussex County Comprehensive Plan:** *(Source: 2003 Sussex County Comprehensive Plan Update)* The Sussex County Comprehensive Plan indicates that the parcel of land for the proposed development is in a Low Density Area. The purpose of the Low Density Area is to provide for a full range of agricultural activities and to protect agricultural lands as one of the County's most valuable natural resources from the depreciating effect of objectionable, hazardous and unsightly uses. Although this area is intended primarily for agricultural use, low density residential development is permitted. Density guidelines state that the minimum lot size in a Low Density Area is 20,000 square feet (about 0.46 acres).

Public water and wastewater systems are not planned for low density areas therefore the proposed development will use on-site septic systems or private wastewater treatment systems. Improvements to local roads will be limited to safety considerations and emergency evacuation.

**Proposed Development's Compatibility with Comprehensive Plans:** Since the average density of this proposed development would be approximately 1.12 dwelling units/acre (close to an average 0.89 acre lots sizes), this development would most likely be compatible with the Sussex County Comprehensive Plan.



## **Transportation Analysis Zone**

**Transportation Analysis Zones (TAZ) where development would be located:**  
637 (Peninsula Code TAZ)

### **TAZ Boundaries:**



**Current employment estimate for TAZ:** 36  
in 2005

**Future employment estimate for TAZ:** 39  
in 2010

**Current population estimate for TAZ:** 841  
in 2005

**Future population estimate for TAZ:** 938  
in 2010

**Current household estimate for TAZ:** 351  
in 2005

**Future household estimate for TAZ:** 397 in  
2010

**Relevant committed developments in the**

**TAZ:** Beaver Creek (The Villages)

**Would the addition of committed developments to current estimates exceed future  
projections:** Yes

**Would the addition of committed developments and the proposed development to current  
estimates exceed future projections:** Yes

### **Relevant Projects in the DelDOT Capital Transportation Program (2005-2010)**

There are currently no active DelDOT projects within the study area.

### **Trip Generation**

Trip generation for the proposed development was computed using comparable land uses and equations contained in Trip Generation, Seventh Edition, published by the Institute of Transportation Engineers (ITE). The following land uses were utilized to estimate the amount of new traffic generated for this development:

- Single-Family Detached Houses (ITE Land Use Code 210)

Table 1.  
COOL SPRING MEADOWS TRIP GENERATION

Land Use	AM Peak Hour			PM Peak Hour			Saturday Mid-Day		
	In	Out	Total	In	Out	Total	In	Out	Total
233 Residential Single-Family Detached Houses	43	130	173	145	85	230	118	100	218
<b>TOTAL TRIPS</b>	<b>43</b>	<b>130</b>	<b>173</b>	<b>145</b>	<b>85</b>	<b>230</b>	<b>118</b>	<b>100</b>	<b>218</b>

## **Overview of TIS**

### **Intersections examined:**

- 1) Stockley Road (Sussex Road 280) & Site Access
- 2) Cool Spring Road (Sussex Road 290) & Site Access
- 3) Cool Spring Road & Stockley Road
- 4) Cool Spring Road & Forest Road (Sussex Road 292)
- 5) Forest Road & Stockley Road
- 6) Cool Spring Road & Delaware Route 5 (Sussex Road 22)\*
- 7) Cool Spring Road & US Route 9 (Sussex Road 18)\*
- 8) Forest Road/Anderson Corner Road (Sussex Road 292) & Delaware Route 5\*
- 9) Stockley Road & Beaver Dam Road (Sussex Road 23)\*

The asterisks (\*) indicate intersections for which Saturday conditions were analyzed.

### **Conditions examined:**

- 1) 2005 existing conditions
- 2) 2010 without Cool Spring Meadows Development
- 3) 2010 with Cool Spring Meadows Development

**Peak hours evaluated:** Weekday morning and evening peak hours, Saturday mid-day.

### **Committed developments considered:**

- 1) Heron Bay (352 Single Family Houses)
- 2) Beaver Creek
  - a. The Meadows (102 Single-Family Houses)
  - b. The Trails (170 Single-Family Houses)
  - c. The Villages (400 Single-Family Houses, 50 Condominiums, 50,000 Square Feet of General Retail)
- 3) Stonewater Creek
  - a. Phase 1-9 (712 Single-Family Houses)
  - b. Phase 10-13 (360 Single-Family Houses)
- 4) Oak Crest Pond (26 Single-Family Houses)
- 5) Oak Crest Farm (96 Single-Family Houses)

## **Intersection Descriptions**

### **1) Stockley Road & Site Access:**

**Type of Control:** Proposed two-way stop-controlled intersection

**Northbound approach:** (Site Access) stop-controlled shared left/through/right-turn lane

**Southbound approach:** (Site Access) stop-controlled shared left/through/right-turn lane

**Eastbound approach:** (Stockley Road) one shared left/through/right-turn lane

**Westbound approach:** (Stockley Road) one shared left/through/right-turn lane



**2) Cool Spring Road & Site Access:**

**Type of Control:** Proposed T-intersection

**Northbound approach:** (Cool Spring Road) one shared left-turn/through lane

**Southbound approach:** (Cool Spring Road) one shared through/right-turn lane

**Eastbound approach:** (Site Access) stop-controlled shared left/right-turn lane

**3) Cool Spring Road & Stockley Road:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Cool Spring Road) stop-controlled shared left/through/right-turn lane

**Southbound approach:** (Cool Spring Road) stop-controlled shared left/through/right-turn lane

**Eastbound approach:** (Stockley Road) one shared left/through/right-turn lane

**Westbound approach:** (Stockley Road) one shared left/through/right-turn lane

**4) Cool Spring Road & Forest Road:**

**Type of Control:** Stop-controlled T-intersection

**Northbound approach:** (Cool Spring Road) one shared left-turn/through lane

**Southbound approach:** (Cool Spring Road) one shared through/right-turn lane

**Eastbound approach:** (Forest Road) stop-controlled shared left/right-turn lane

**5) Forest Road & Stockley Road:**

**Type of Control:** Stop-controlled T-intersection

**Northbound approach:** (Stockley Road) stop-controlled shared left-turn/right-turn lane

**Eastbound approach:** (Forest Road) one shared through/right-turn lane

**Westbound approach:** (Forest Road) one shared through/left-turn lane

**6) Cool Spring Road & Delaware Route 5:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Southbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Eastbound approach:** (Cool Spring Road) stop controlled shared left-turn/through lane and one yield controlled channelized right-turn lane

**Westbound approach:** (Cool Spring Road) one stop controlled shared left-turn/through lane and one yield controlled channelized right-turn lane

**7) Cool Spring Road & US Route 9:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Cool Spring Road) stop-controlled shared left-turn/through/right-turn lane

**Southbound approach:** (Cool Spring Road) stop-controlled shared left-turn/through/right-turn lane

**Eastbound approach:** (US Route 9) one shared left-turn/through/right-turn lane

**Westbound approach:** (US Route 9) one shared left-turn/through/right-turn lane

**Note:** There is an active railroad line aligned diagonally through this intersection, as described below.

**8) Forest Road/Anderson Corner Road & Delaware Route 5:**

**Type of Control:** Two-way stop-controlled intersection

**Northbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Southbound approach:** (Delaware Route 5) one shared left-turn/through/right-turn lane

**Eastbound approach:** (Anderson Corner Road) stop-controlled shared left-turn/through/right-turn lane

**Westbound approach:** (Forest Road) stop-controlled shared left-turn/through/right-turn lane

**9) Stockley Road & Beaver Dam Road:**

**Type of Control:** Stop-controlled T-intersection

**Northbound approach:** (Beaver Dam Road) one shared left-turn/through lane

**Southbound approach:** (Beaver Dam Road) one shared through/right-turn lane

**Eastbound approach:** (Stockley Road) stop-controlled shared left/right-turn lane

**At-Grade Railroad Crossing Description**

**Location:** At the intersection of US Route 9 and Cool Spring Road:

**Rail Line:** This east-west active rail line is a Class III line called the Delaware Coastline line. It is owned by the Delaware Transit Corporation (DTC) and extends from Georgetown to Lewes, Delaware. Trains over the line are operated by the Delaware Coast Line Railroad.

**Northbound approach:** (Cool Spring Road) one shared left/through/right-turn lane with appropriate pavement markings and signage.

**Southbound approach:** (Cool Spring Road) one shared left/through/right-turn lane with appropriate pavement markings and signage.

**Eastbound approach:** (US Route 9) one through lane with appropriate pavement markings, signage and warning flashers

**Westbound approach:** (US Route 9) one through lane with appropriate pavement markings, signage and warning flashers

**Description:** This is an at-grade crossing of an active rail line that serves about 1 train/week of about 5 cars in length running through the intersection of US Route 9 and Cool Spring Road at a 35 degree angle. The trains along the rail line generally have a speed of approximately 15 MPH in this area. The crossing is currently equipped with pavement markings and railroad crossing signs at the stop signs on the northbound and southbound approaches of Cool Spring Road. On US Route 9, pavement markings, signing, and side-mounted warning flashers are present, but there are no gates. Traffic volumes at the intersection are expected to increase in the next few years due to the development in the area. Without improvements, the intersection is expected to operate at a level of service F in the AM, PM and Saturday peak hour with and without the development.



### **Transit, Pedestrian, and Bicycle Facilities**

**Existing transit service:** None.

**Planned transit service:** In an email from David Dooley from DelDOT dated March 8, 2006, he stated that no transit routes are proposed in the area. Pedestrian and bicycle mobility access should be enhanced so that should transit be expanded to serve these developments in the future, pedestrian access to the frontage road would make transit trips more viable.

**Existing bicycle and pedestrian facilities:** The *Delaware Kent and Sussex Counties Bicycle Touring Map* designates Delaware Route 5 as a bike route; therefore a five-foot minimum shoulder must be maintained along any property frontage.

**Planned bicycle and pedestrian facilities:** In a letter dated November 14, 2005, Anthony Aglio from DelDOT commented that Livable Delaware's updated State Strategies for Spending Map indicates the site is located in an Investment Level 4 area, where the existing transportation network should preserve the natural environment. Per Livable Delaware's recommendations residential developments such as this are not encouraged in Investment Level 4 areas. However, should the development be approved, he requested the following improvements be incorporated into the project to facilitate bicycle and pedestrian transportation:

- a) Striped five-foot bicycle lanes with five-foot shoulders (in addition to any required turn lanes) along the Stockley Road and Cool Spring Road site frontages.
- b) An ADA compliant crosswalk should be considered at the opposing access points along Stockley Road.
- c) Internal sidewalks to promote walking as a viable transportation alternative.

### **Previous Comments**

All comments from DelDOT's Scoping Letter dated May 27, 2005 were addressed in the Final TIS submission except for the following:

- In regards to compliance with DelDOT, AASHTO and MUTCD standards for geometry and traffic control devices, no evaluation was performed for the study intersections.
- In regards to compliance with DelDOT, AASHTO and MUTCD standards for geometry and traffic control devices, no evaluation was performed for Stockley Road from Delaware Route 23 to Forest Road, Cool Spring Road from Delaware Route 5 to US Route 9 and Forest Road from Delaware Route 5 to Cool Spring Road.
- No correspondence was present indicating that Mr. Mark Harbeson was contacted with regard to the Delaware Route 24 corridor project.

All comments from DelDOT's letter dated August 5, 2005 were addressed in the Final TIS submission.

All comments from DelDOT's Preliminary TIS Letter dated September 13, 2005 were addressed in the Final TIS submission.

**General HCS Analysis Comments**

*(see table footnotes on the following pages for specific comments)*

- 1) The TIS used the existing truck percentage for all approaches in all future cases. McCormick Taylor used the greater of either the existing truck percentage or 2% for all future cases.



Table 2  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>1</sup> Two-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2010 With Development				
Northbound Site Access	A (9.3)	A (9.8)	A (9.3)	A (9.8)
Southbound Site Access	A (9.7)	A (10.0)	A (9.7)	A (10.0)
Eastbound Stockley Road - Left	A (7.5)	A (7.5)	A (7.5)	A (7.5)
Westbound Stockley Road - Left	A (7.3)	A (7.5)	A (7.3)	A (7.5)

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<sup>1</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

Table 3  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>2</sup> One-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
<b>Cool Spring Road &amp; Site Access</b>	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2010 With Development				
Northbound Cool Spring Road - Left	A (7.3)	A (7.5)	A (7.3)	A (7.5)
Eastbound Site Access	A (9.3)	A (9.8)	A (9.3)	A (9.8)

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<sup>2</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 4  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>3</sup> Two-Way Stop Control	LOS per TIS		LOS per McCormick Taylor	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2005 Existing				
Northbound Cool Spring Road	A (9.3)	A (9.6)	A (9.3)	A (9.6)
Southbound Cool Spring Road	A (9.9)	A (10.0)	A (9.9)	A (10.0)
Eastbound Stockley Road - Left	A (7.5)	A (7.3)	A (7.5)	A (7.3)
Westbound Stockley Road - Left	A (7.3)	A (7.3)	A (7.3)	A (7.3)
2010 Without Development				
Northbound Cool Spring Road	A (9.6)	B (10.2)	A (9.6)	B (10.2)
Southbound Cool Spring Road	B (10.3)	B (10.7)	B (10.3)	B (10.7)
Eastbound Stockley Road - Left	A (7.6)	A (7.4)	A (7.6)	A (7.4)
Westbound Stockley Road - Left	A (7.3)	A (7.5)	A (7.3)	A (7.5)
2010 With Development				
Northbound Cool Spring Road	B (10.1)	B (10.9)	B (10.1)	B (10.9)
Southbound Cool Spring Road	B (11.0)	B (11.4)	B (11.0)	B (11.4)
Eastbound Stockley Road - Left	A (7.7)	A (7.5)	A (7.7)	A (7.5)
Westbound Stockley Road - Left	A (7.4)	A (7.5)	A (7.4)	A (7.5)

<sup>3</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

Table 5  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection<sup>4</sup> One-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
<b>Forest Road &amp; Cool Spring Road</b>	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2005 Existing				
Northbound Cool Spring Road - Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
Eastbound Forest Road	A (9.2)	A (9.2)	A (9.2)	A (9.2)
2010 Without Development				
Northbound Cool Spring Road - Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
Eastbound Forest Road	A (9.3)	A (9.4)	A (9.3)	A (9.4)
2010 With Development				
Northbound Cool Spring Road - Left	A (7.5)	A (7.6)	A (7.5)	A (7.6)
Eastbound Forest Road	A (9.8)	B (10.2)	A (9.8)	B (10.2)

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<sup>4</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 6  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>5</sup> One-Way Stop Control</b>	<b>LOS per TIS</b>		<b>LOS per McCormick Taylor</b>	
<b>Forest Road &amp; Stockley Road</b>	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2005 Existing				
Northbound Stockley Road	A (9.2)	A (9.3)	A (9.2)	A (9.3)
Westbound Forest Road - Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
2010 Without Development				
Northbound Stockley Road	A (9.5)	A (9.6)	A (9.5)	A (9.6)
Westbound Forest Road - Left	A (7.4)	A (7.5)	A (7.4)	A (7.5)
2010 With Development				
Northbound Stockley Road	A (9.7)	A (10.0)	A (9.7)	A (10.0)
Westbound Forest Road - Left	A (7.5)	A (7.6)	A (7.5)	A (7.6)

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<sup>5</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

Table 7  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>6</sup> Two-Way Stop Control	LOS per TIS			LOS per McCormick Taylor		
Cool Spring Road & Delaware Route 5	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2005 Existing						
Northbound Delaware Route 5 - Left	A (7.6)	A (7.6)	A (7.6)	A (7.6)	A (7.6)	A (7.6)
Southbound Delaware Route 5 - Left	A (7.7)	A (7.6)	A (7.6)	A (7.7)	A (7.6)	A (7.6)
Eastbound Cool Spring Road	B (10.9)	B (11.6)	B (11.3)	B (10.9)	B (11.6)	B (11.3)
Westbound Cool Spring Road	B (11.0)	B (11.2)	B (10.9)	B (11.0)	B (11.2)	B (10.9)
2010 Without Development						
Northbound Delaware Route 5 - Left	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (7.8)	A (7.9)	A (7.9)	A (7.8)	A (7.9)	A (7.9)
Eastbound Cool Spring Road	B (12.5)	B (13.9)	B (13.6)	B (12.5)	B (13.9)	B (13.6)
Westbound Cool Spring Road	B (12.4)	B (13.4)	B (13.6)	B (12.5)	B (13.4)	B (13.6)
2010 With Development						
Northbound Delaware Route 5 - Left	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (7.8)	A (7.9)	A (7.9)	A (7.8)	A (7.9)	A (7.9)
Eastbound Cool Spring Road	B (12.5)	B (14.1)	B (13.7)	B (12.5)	B (14.1)	B (13.7)
Westbound Cool Spring Road	B (12.6)	B (13.7)	B (13.8)	B (12.6)	B (13.7)	B (13.8)

<sup>6</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 8  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>7</sup> Two-Way Stop Control	LOS per TIS			LOS per McCormick Taylor <sup>8</sup>		
US Route 9 & Cool Spring Road	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2005 Existing						
Northbound Cool Spring Road	B (13.5)	C (17.3)	C (24.9)	B (13.5)	C (17.3)	C (24.9)
Southbound Cool Spring Road	C (17.2)	C (20.4)	D (29.3)	C (17.2)	C (20.4)	D (29.3)
Eastbound US Route 9 - Left	A (8.1)	A (8.5)	A (9.1)	A (8.1)	A (8.5)	A (9.1)
Westbound US Route 9 - Left	A (8.3)	A (8.5)	A (9.2)	A (8.3)	A (8.5)	A (9.2)
2010 Without Development						
Northbound Cool Spring Road	D (30.4)	F (52.4)	F (375.5)	D (31.4)	F (56.2)	F (451.3)
Southbound Cool Spring Road	D (25.6)	D (34.0)	F (76.9)	D (25.9)	E (35.5)	F (90.6)
Eastbound US Route 9 - Left	A (8.5)	A (9.5)	B (10.4)	A (8.5)	A (9.5)	B (10.6)
Westbound US Route 9 - Left	A (9.0)	A (9.1)	B (10.9)	A (9.1)	A (9.2)	B (11.1)
2010 With Development						
Northbound Cool Spring Road	E (50.0)	F (128.0)	F (*)	F (53.0)	F (150.9)	F (1237)
Southbound Cool Spring Road	D (27.9)	E (45.4)	F (132.7)	D (28.5)	E (48.9)	F (159.7)
Eastbound US Route 9 - Left	A (8.5)	A (9.5)	B (10.4)	A (8.5)	A (9.5)	B (10.6)
Westbound US Route 9 - Left	A (9.1)	A (9.3)	B (11.4)	A (9.1)	A (9.5)	B (11.6)

Signalized Intersection <sup>7</sup>	LOS per TIS			LOS per McCormick Taylor <sup>9</sup>		
US Route 9 & Cool Spring Road	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2010 With Development	B (0.59)	B (0.76)	B (0.88)	B (0.60)	B (0.77)	C (0.93)

<sup>7</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

<sup>8</sup> The TIS used a minimum PHF of 0.92 on the eastbound and westbound US Route 9 approaches for all future cases. Because this is a rural Level 4 area, McCormick Taylor used a minimum PHF of 0.88 on US Route 9 for all future cases.

<sup>9</sup> McCormick Taylor used 6 seconds of yellow and red time; the TIS used 5 seconds of yellow and red time.

Table 9  
PEAK HOUR LEVELS OF SERVICE (LOS)  
based on Traffic Impact Study for Cool Spring Meadows Development  
Report dated January 19, 2006  
Prepared by Orth-Rodgers & Associates, Inc.

Unsignalized Intersection <sup>10</sup> Two-Way Stop Control	LOS per TIS			LOS per McCormick Taylor		
Anderson Corner Road/ Forest Road & Delaware Route 5	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2005 Existing						
Northbound Delaware Route 5 - Left	A (7.5)	A (7.6)	A (7.5)	A (7.5)	A (7.6)	A (7.5)
Southbound Delaware Route 5 - Left	A (7.7)	A (7.8)	A (7.7)	A (7.7)	A (7.8)	A (7.7)
Eastbound Anderson Corner Rd	B (12.2)	B (13.3)	B (11.3)	B (12.2)	B (13.3)	B (11.3)
Westbound Forest Road	B (12.6)	B (13.6)	B (11.9)	B (12.6)	B (13.6)	B (11.9)
2010 Without Development						
Northbound Delaware Route 5 - Left	A (7.7)	A (7.8)	A (7.8)	A (7.7)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (8.0)	A (8.2)	A (8.1)	A (8.0)	A (8.2)	A (8.1)
Eastbound Anderson Corner Rd	C (15.1)	C (18.9)	C (16.3)	C (15.1)	C (19.0)	C (16.3)
Westbound Forest Road	B (14.2)	C (17.1)	B (14.3)	B (14.2)	C (17.1)	B (14.4)
2010 With Development						
Northbound Delaware Route 5 - Left	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)	A (7.8)
Southbound Delaware Route 5 - Left	A (8.0)	A (8.2)	A (8.1)	A (8.0)	A (8.3)	A (8.1)
Eastbound Anderson Corner Rd	B (14.4)	C (18.3)	B (14.9)	B (14.4)	C (18.3)	B (15.0)
Westbound Forest Road	C (15.3)	C (20.9)	C (17.5)	C (15.3)	C (21.0)	C (17.5)

<sup>10</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.



Table 10  
PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on Traffic Impact Study for Cool Spring Meadows Development*  
*Report dated January 19, 2006*  
Prepared by Orth-Rodgers & Associates, Inc.

<b>Unsignalized Intersection <sup>11</sup> One-Way Stop Control</b>	<b>LOS per TIS</b>			<b>LOS per McCormick Taylor</b>		
<b>Stockley Road &amp; Delaware Route 23</b>	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2005 Existing						
Northbound Delaware Route 23 - Left	A (7.5)	A (7.9)	A (7.7)	A (7.5)	A (7.9)	A (7.7)
Eastbound Stockley Road	B (11.4)	B (12.2)	B (11.6)	B (11.4)	B (12.2)	B (11.6)
2010 Without Development						
Northbound Delaware Route 23 - Left	A (8.0)	A (8.6)	A (8.2)	A (7.9)	A (8.6)	A (8.2)
Eastbound Stockley Road	C (16.8)	C (23.7)	C (20.1)	C (15.9)	C (23.7)	C (20.3)
2010 With Development						
Northbound Delaware Route 23 - Left	A (8.1)	A (8.7)	A (8.3)	A (8.0)	A (8.7)	A (8.3)
Eastbound Stockley Road	C (18.3)	D (30.6)	C (23.8)	C (17.2)	D (30.6)	C (24.1)

<sup>11</sup> For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

TAB “8”



**From:** [Laws, Susanne K \(DelDOT\)](#)  
**To:** [Kevin Smith](#)  
**Cc:** [Yates, Brian K. \(DelDOT\)](#); [Brockenbrough, Thomas \(DelDOT\)](#)  
**Subject:** RE: RE: Cool Spring Meadows  
**Date:** Thursday, February 20, 2020 5:32:17 PM  
**Attachments:** [image003.png](#)  
[image001.png](#)

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Hi Kevin,  
Thanks for providing the notes and edits. They generally agree with my notes and recollection from the meeting.  
Thanks,  
Susanne

*Susanne K. Laws, P.E.*  
*Sussex County Review Coordinator*  
*Planning/Development Coordination*  
*Delaware Department of Transportation*  
*P.O. Box 778 – 800 Bay Road*  
*Dover, DE 19903*  
*(302) 760-2128 office*  
*(302) 760-2569 fax*



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**From:** Kevin Smith <kts@kerchergroup.com>  
**Sent:** Thursday, February 20, 2020 1:39 PM  
**To:** Laws, Susanne K (DelDOT) <Susanne.Laws@delaware.gov>  
**Cc:** Yates, Brian K. (DelDOT) <Brian.Yates@delaware.gov>; Brockenbrough, Thomas (DelDOT) <Thomas.Brockenbrough@delaware.gov>  
**Subject:** RE: RE: Cool Spring Meadows

**Susanne:**

**I have made the correction to the notation regarding The Kercher Group, Inc. contacting DNREC to inquire about their position of new impervious along Cool Spring Road. If there are no additional comments, please let me know if DELDOT finds these minutes satisfactory.**

#### **Pre-submittal Meeting - Minutes**

**Location:** Delaware Department of Transportation, 800 S. Bay Rd, Dover, DE 19901

**Prepared by:** Kevin T. Smith, The Kercher Group, Inc.

**Date:** February 11, 2020

**Project:** Cool Spring Meadows – Milton

Attendees:

Susanne Laws (DELDOT)  
James Argo (DELDOT) via Skype  
Brian Yates (DELDOT)  
Bill Brockenbrough (DELDOT)  
Kevin Smith (The Kercher Group, Inc.)

Items Discussed:

- Review of PLUS comments
- Requirements for design
- Site access located on Stockley Road (SCR 280) shall be designed per DELDOT

Coordination Manual

- This meeting meets the requirements of a Pre-submittal meeting, which is required prior to submittal of plans for review
- Noted that submittal fees are required for the LONOR (Initial Stage Fee) and for the Entrance Plans (Construction Stage Fee)
- Discussed DELDOT's TIS requirements on projects with over 500 daily trips
- Discussed right-of-way requirements. Local Road - requires 60' wide (30' from centerline).

- Requires a 15' Permanent Easement (PE) beyond the 10' R/W dedication
- Local road standards – 11' travelways, 5' shoulders for both Stockley Rd and Cool Spring Rd

Rd

- Discussed interconnectivity
- Level 4 area – requires 10' shared use path
- Discussed access ways to connect interior sidewalks to shared use paths
- Discussed transit stops
- Stormwater features to be at least 20' from the right-of-way
- Discussed design vehicles for entrances
- Discussed roadway improvement reductions required by DNREC for the originally approved layout
- All plans are to be submitted via the PDCA

Discussion Details:

- DNREC submitted a memorandum of understanding to DELDOT during the previous planning and approval stage, which stated that DNREC did not want any new impervious to be placed along Cool Spring Road due to lack of drainage. Plans were approved without new impervious being placed along Cool Spring Road. At the time of the meeting, DELDOT did not have access to this memorandum. Kercher shall contact DNREC to discuss any concerns they may have currently about the addition of new impervious along Cool Spring Road. Kercher, DELDOT, and DNREC will coordinate the improvement planning for both Cool Spring Road and Stockley Road.
- DELDOT's position is that the original approved TIS by Orth-Rodgers & Associates dated



January 19, 2006 meets their requirements. An updated TIS will not be required by DELDOT. This was noted in the PLUS comments and reinforced at the Pre-submittal meeting.

- DELDOT does not have improvements scheduled or funded for any intersections in the vicinity of this project. DELDOT and the developer previously entered into a signal agreement for the intersection of RT9 and Cool Spring Road. DELDOT received a check for \$22,000.00, which was placed in the Signal Agreement/Revolving Fund. It was discussed that a new signal agreement will be necessary for the intersection of RT5 and Forest Road. DELDOT shall discuss internally whether the funds they received for the RT9/Cool Spring Rd signal agreement can be transferred to the new location or whether a new separate fee will be required.
- DELDOT typically sends a liaison to Sussex County Public Hearings to answer any questions from the Commissions. The liaison varies depending of availability.
- Although this project is located outside of the Henlopen TID, it was discussed that Stockley Road was included in the conceptual planning for improvements located within the Henlopen TID. The recommendations included in the PLUS comments were part of that conceptual planning.
- As part of the PLUS comments, DELDOT requires the developer to meet DELDOT local road standards, as nearly as possible. Which is two 11' travel lanes and two 5' shoulders. This applies to both Stockley Road and Cool Spring Road.
- On the south side, DELDOT has requested an interconnection to tax parcel 234-5.00-24.00. Goldenrod Drive shall be extended to provide this interconnection.
- A pedestrian study shall be required due to the location of amenities on both sides of the road.
- Kercher Group shall contact DELDOT's Pavement Section to request pavement cores and a road widening pavement section recommendation.
- A SU-30 and a WB-40 vehicle shall be used for the entrance design. The vehicles shall be able to navigate the entrance without encroaching into the opposite lane of traffic.
- If vertical curbing is to be used in the right-of-way, 4" vertical curb shall be the maximum.
- At the intersection of Stockley Road and Cool Spring Road, the improvements shall extend past the intersection. Butt joints shall extend 60' beyond the end of the PT/PC of the radii.
- DELDOT shall require stop bars to be placed on Cool Spring Road, both north and south.
- At the time of submittal, separate Design Criteria forms shall be submitted. One for each road (Cool Spring Rd and Stockley Rd).
- For design grading, the shoulder is preferred to be designed at 2%, with a maximum of 4%.
- Access Ways shall be placed at Lot 16 and Lot 99 to provided interconnection with internal sidewalks and the shared use path.

**Kevin T. Smith**

37385 Rehoboth Ave. Ext, Unit #11, Rehoboth Beach, DE 19971

Direct [\(302\) 781-4346](tel:3027814346)

**THE KERCHER GROUP, INC.**

Strategic Infrastructure and Transportation Asset Management

Consulting | Systems | Engineering

TAB “9”





OVER 100 YEARS OF SUPERIOR SERVICE

Artesian Water Company



Artesian Wastewater Management



Artesian Utility Development



Artesian Water Pennsylvania



Artesian Water Maryland



Artesian Wastewater Maryland

January 21, 2020

FUSCO PROPERTIES, L.P.  
C/O Frank J. Vassallo IV  
200 AIRPORT ROAD  
NEW CASTLE, DE 19720

RE: Cool Spring Meadows Ability to Serve Letter

With reference to your request concerning Water and Wastewater Service (collectively, "Service") for the proposed Cool Spring Meadows Project, consisting of approximately 226 single family homes in Indian River Hundred, Sussex County, Delaware known as Tax Parcel Number 234-5.00-30.00, and 234-5.00-33.00 (the "Property"), please be advised as follows:

Subject to the following conditions, Artesian Water Company, Inc. and Artesian Wastewater Management, Inc. (collectively, "Artesian") are 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 existing water and wastewater Certificates of Public Convenience and Necessity ("CPCNs") from the Delaware Public Service Commission.

Based on current conditions and subject to the development entity and Artesian entering Water and Wastewater Service Agreements (collectively, "Agreements") 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.

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

Yours very truly,

**ARTESIAN WATER COMPANY, INC.**

A handwritten signature in blue ink, appearing to read "Adam Gould", written over a light blue circular stamp.

Adam Gould  
Manager of Systems Planning and Design

TAB “10”



**Bruce B. Bagley, CPSS  
420 Cosden Road  
Barclay, Maryland 21607  
(410) 708 3854**

February 11, 2020

Mr. Kevin T. Smith  
The Kercher Group, Inc.  
37385 Rehoboth Ave, Ext, Unit 11  
Rehoboth Beach, DE 19971

RE: Non-Tidal Wetland for Fusco Properties, 2-34-5.00-30.00 and 33.00, Sussex County,  
Delaware

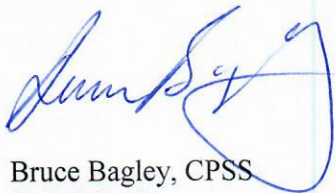
Dear Mr. Smith,

I have reviewed the information you have provided me regarding the isolation wetland area identified by me during a non tidal wetland delineation in 2004 on the above properties.

Based on current U. S. Army Corp of Engineers regulations, this area can be considered as isolated and possibly omitted as wetlands. If not, since the area is so small (2,336 s.f. – 0.05 ac.), that a permit could be obtained to fill in this particular wetland area.

If you should have any other questions regarding this matter, please do not hesitate to contact me at (410) 708-3854.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bruce Bagley", with a large, stylized flourish at the end.

Bruce Bagley, CPSS  
Soil Scientist

**From:** [Bruce Bagley](#)  
**To:** [Kevin Smith](#)  
**Subject:** Re: Wetlands - Sussex County, DE, Tax Parcel: 234-5.00-30.00 & 33.00 - Fusco Properties  
**Date:** Tuesday, January 7, 2020 3:22:58 PM

---

Kevin,  
It is probably ok to make that area disappear, Bruce

On Tue, Jan 7, 2020 at 2:22 PM Kevin Smith <[kts@kerchergroup.com](mailto:kts@kerchergroup.com)> wrote:

Mr. Bagley:

You had performed a wetland delineation on this property some time ago for a project with Ocean Atlantic and Fusco Properties. It received Final approval on December 6, 2012. The project has been idle since that time and the subdivision plan has sunset. We are in the process of attempting to get Preliminary approval again, with a Preliminary hearing set for January 23, 2020. The client requested that we redesign the project to take up less "space" and to attempt to preserve as much woods as possible. The new layout has done just that, however, one of the lots (149) has been designed in a small isolated wetland area along the property line with Parcel 31.00. We are asking whether, if under the current regulations, that this area can be considered as isolated and possibly omitted as wetlands. If not, since the area is so small (2,336 s.f. – 0.05 ac.), that a permit could be obtained to fill in this particular wetland area.

I've attached the revised subdivision plan for your use.

If you have any questions, please contact me.

Thanks.

**Kevin T. Smith**

37385 Rehoboth Ave. Ext, Unit #11, Rehoboth Beach, DE 19971

**Direct** [\(302\) 781-4346](tel:3027814346)

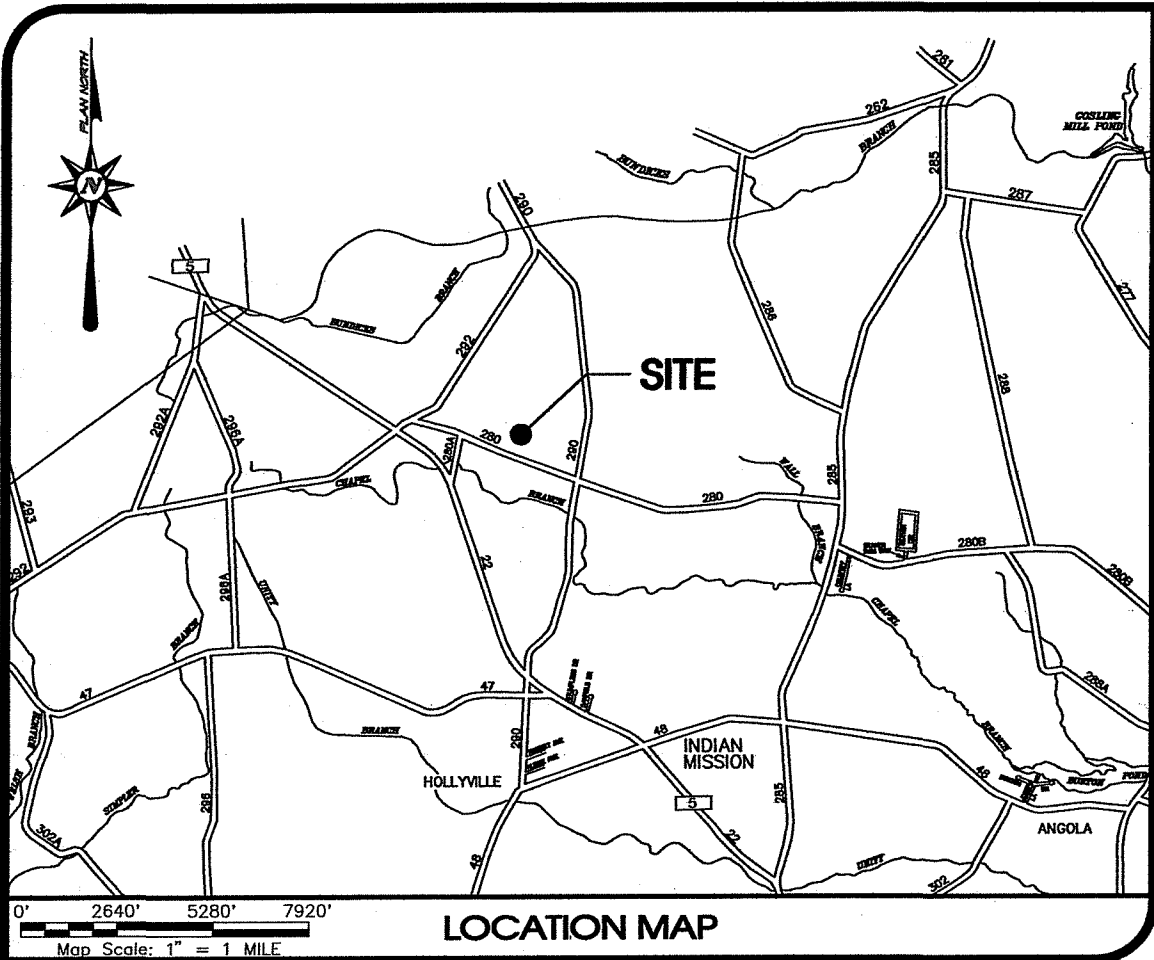
**THE KERCHER GROUP, INC.**

Strategic Infrastructure and Transportation Asset Management

Consulting | Systems | Engineering



TAB “11”



- PLAN LEGEND**
- SUPPLEMENTAL CONTOUR (1' INTERVAL)
  - INDEX CONTOUR (5' INTERVAL)
  - EXISTING STORM SEWER PIPING
  - EXISTING OVERHEAD UTILITY WIRES
  - EXISTING SOIL SERIES LIMITS
  - EXISTING TREE LINE
  - EXISTING WETLANDS LIMITS
  - EXISTING PROPERTY BOUNDARY
  - PROPOSED LOT LINE
  - PROPOSED EASEMENT/BUFFER
  - PROPOSED ROAD CENTERLINE

### GENERAL NOTES

- THE PROJECT SITE IS KNOWN AS COOL SPRING MEADOWS, (T.P.: 2-34-S, PARCELS 30 & 33), AND IS LOCATED AT THE NORTHWEST CORNER OF THE SUSSEX COUNTY ROAD 280 AND SUSSEX COUNTY ROAD 290 INTERSECTION NEAR HARBESON, DELAWARE.
- THE BOUNDARY AND EXISTING CONDITIONS SHOWN WERE OBTAINED FROM A SURVEY TITLED "BOUNDARY & IMPROVEMENT LOCATION SURVEY PLAN" FOR THE PROPERTY KNOWN AS "LANDS OF GLATFELTER PULP WOOD COMPANY", TAX MAP PARCEL 2-34-S-00-33.00, PREPARED BY MERESTONE CONSULTANTS, INC., DATED DECEMBER 9, 2004 AND FROM A SURVEY TITLED "BOUNDARY AND TOPOGRAPHY PLAN" FOR THE PROPERTY KNOWN AS "LANDS OF FRANCIS HENRY PRETTYMAN", TAX MAP PARCEL 2-34-S-00-30.00, PREPARED BY MCRONE, INC., DATED FEBRUARY 4, 2005.
- THE WETLAND DELINEATIONS SHOWN WERE OBTAINED FROM THE FOLLOWING SURVEYS:
  - "WETLAND DELINEATION PLAN" FOR THE PROPERTY KNOWN AS "LANDS OF GLATFELTER PULP WOOD COMPANY", TAX MAP PARCEL 2-34-S-00-33.00, PREPARED BY MERESTONE CONSULTANTS, INC., DATED MAY 19, 2005.
  - "WETLAND DELINEATION PLAN" FOR THE PROPERTY KNOWN AS "LANDS OF FRANCIS HENRY PRETTYMAN", TAX MAP PARCEL 2-34-S-00-30.00, PREPARED BY MERESTONE CONSULTANTS, INC., DATED MAY 19, 2005.
  - "BOUNDARY AND TOPOGRAPHY PLAN" FOR THE PROPERTY KNOWN AS "LANDS OF FRANCIS HENRY PRETTYMAN", TAX MAP PARCEL 2-34-S-00-30.00, PREPARED BY MCRONE, INC., DATED FEBRUARY 4, 2005.
- INFORMATION SHOWN ON THESE SHEETS IS ONLY ACCURATE TO THE EXTENT OF THE SURVEYS PREPARED BY THE ABOVE-MENTIONED ORGANIZATIONS.
- A BOUNDARY DISCREPANCY EXISTS BETWEEN THE VARIOUS SURVEYS USED TO CREATE THESE PLANS. KERCHER ENGINEERING, INC. ASSUMES NO LIABILITY FOR THE ACCURACY OF THE OVERALL BOUNDARY, AS PREPARED BY THE ABOVE-MENTIONED ORGANIZATIONS.
- MAINTENANCE OF THE STREETS WITHIN THIS SUBDIVISION WILL BE THE RESPONSIBILITY OF THE DEVELOPER, THE PROPERTY OWNERS WITHIN THIS SUBDIVISION OR BOTH. THE STATE ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF THESE STREETS.
- ALL PROPOSED STORMWATER MANAGEMENT FACILITIES, BUFFERS AND OPEN SPACE ARE TO BE MAINTAINED BY THE DEVELOPER UNTIL SUCH TIME AS A HOMEOWNERS ASSOCIATION CAN PROVIDE FOR SAID MAINTENANCE.
- ALL LOTS SHALL HAVE ACCESS FROM THE INTERNAL SUBDIVISION STREETS AND DIRECT ACCESS TO SCR 280, SCR 290 AND SCR 292 WILL NOT BE PERMITTED. EACH LOT WILL BE PERMITTED TO HAVE ONLY ONE ACCESS POINT TO SERVE THE ENTIRE PARCEL. HORSESHOE DRIVEWAYS WILL NOT BE PERMITTED.
- THIS PLAN DOES NOT VERIFY TO THE LOCATION AND/OR EXISTENCE OF EASEMENTS OR RIGHT-OF-WAYS CROSSING SUBJECT PROPERTY AS NO TITLE SEARCH WAS PROVIDED.
- THE CONTRACTOR SHALL ENSURE THAT ALL NECESSARY PERMITS AND APPROVALS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF ANY SITE CONSTRUCTION ACTIVITIES.
- ALL CONTRACTORS WORKING ON THIS PROJECT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT ARE PERFORMED IN ACCORDANCE WITH ALL O.S.H.A. (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION) STANDARDS AND REQUIREMENTS.
- ALL CONTRACTORS WORKING ON THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS OF THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, 1989 OR LATEST EDITION.
- CONSTRUCTION MATERIALS AND PROCEDURES SHALL FOLLOW SUSSEX COUNTY SPECIFICATIONS AND STANDARD DRAWINGS (LATEST EDITION).
- EXISTING SUBSURFACE UTILITY INFORMATION INDICATED IS BASED UPON VISUAL FIELD INSPECTION BY MERESTONE CONSULTANTS, INC. AND MCRONE, INC. SUCH INFORMATION CONCERNING THE SIZE, LOCATION, DEPTH, QUANTITY, ETC. OF SUBSURFACE UTILITIES IS APPROXIMATIVE OF NATURE AND HAS BEEN OBTAINED AS AN AID IN THE PROJECT DESIGN. THE INFORMATION PROVIDED IS REPRESENTATIVE OF SUBSURFACE CONDITIONS ONLY AT LOCATIONS AND DEPTHS WHERE SUCH INFORMATION WAS OBTAINED. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT UTILITY SIZE, LOCATION, DEPTH, QUANTITY, ETC. AS SHOWN EXISTS BETWEEN EXPLORED LOCATIONS. ACCORDINGLY, UTILITY INFORMATION SHOWN SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. IT IS INCUMBENT UPON THE CONTRACTOR TO VERIFY THE SIZE, LOCATION, DEPTH, QUANTITY, ETC. OF ALL UTILITIES BEFORE EXCAVATION.
- BASED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) 100029 0330 J, MAP NUMBER 1000SC0330J, DATED JANUARY 6, 2005, THIS PROPERTY IS IN A ZONE "X" UNSHADED WHICH IS AN AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- ALL FIRE LINES, FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS.
- IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS PART V, CHAPTER 4, SECTION 4-1.1, THE DEVELOPER SHALL PROVIDE, TO THE EMERGENCY DISPATCH CENTER HAVING JURISDICTION, A PLOT PLAN OF THE DEVELOPMENT SHOWING EACH LOT LOCATION. THE DEVELOPER SHALL ALSO ASSIGN NUMBERS TO ALL PROPERTIES IN A CONSECUTIVE MANNER IN THE ORDER OF THE ASSIGNED NUMBER IN A READILY VISIBLE LOCATION ON EACH HOME TO ELIMINATE CONFUSION IN THE EVENT THAT AN EMERGENCY VEHICLE IS NEEDED.
- ALL CUL-DE-SACS ARE TO HAVE A 38' PAVED RADIUS. NO PARKING PERMITTED ON CUL-DE-SACS.
- ALL SINGLE FAMILY HOMES TO BE OF WOOD FRAME CONSTRUCTION WITH A MAXIMUM BUILDING HEIGHT OF THREE STORIES, NOT TO EXCEED 42'.
- THIS 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 NOW OR IN THE FUTURE INVOLVE NOISE, DUST, MANURE AND OTHER ODOORS. THE USE OF AGRICULTURAL USES AND ACTIVITIES, THE USE AND ENJOYMENT OF PROPERTY IS EXPRESSLY CONDITIONED ON ACCEPTANCE OF ANY ANNOYANCE OR INCONVENIENCE WHICH MAY RESULT FROM SUCH NORMAL AGRICULTURAL USES AND ACTIVITIES.
- MAINTENANCE OF THE MULTI-USE PATH SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, THE PROPERTY OWNERS WITHIN THIS SUBDIVISION OR BOTH. THE STATE ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE OF THE MULTI-USE PATH. ARTESIAN RESOURCES AND ITS SUBSIDIARIES HEREBY HAS ACCESS TO MAINTAIN FACILITIES WITHIN THE MULTI-USE PATH.
- BLANKET EASEMENTS WITHIN ALL PRIVATE RIGHT-OF-WAYS TO BE DEDICATED TO ARTESIAN RESOURCES FOR THE MAINTENANCE AND INSPECTION OF ALL INSTALLED UTILITIES.
- A 20' WIDE EASEMENT, 10' ON EITHER SIDE OF CENTERLINE OF PIPE, IS HEREBY CREATED WHERE A SANITARY SEWER OR WATER LINE EXISTS THE LIMITS OF THE PRIVATE RIGHT-OF-WAY.
- ALL SUBDIVISION LOTS SHALL HAVE TEN-FOOT-WIDE EASEMENTS ALONG ALL LOT LINES FOR A TOTAL OF AT LEAST TWENTY (20) FEET ALONG A LOT LINE COMMON TO TWO LOTS FOR THE PLACEMENT AND PERPETUAL MAINTENANCE OF ANY UTILITY.
- THE INTERIOR STREET DESIGN SHALL BE IN ACCORDANCE WITH OR EXCEED SUSSEX COUNTY STREET DESIGN REQUIREMENTS. STREET DESIGN SHALL INCLUDE: PAVEMENT, SIDEWALKS (AS DETECTED ON THE CONSTRUCTION PLANS) AND STREET LIGHTS.
- STREET LIGHTS SHALL BE PROVIDED WITHIN THE SUBDIVISION, THE EXACT LOCATIONS WILL BE DETERMINED BY THE ELECTRICAL SUPPLIER.

### ROADWAY IMPROVEMENT NOTES

- THE OWNER AND/OR DEVELOPER OF COOL SPRING MEADOWS SHALL BE RESPONSIBLE FOR MAKING THE FOLLOWING OFF-SITE ROADWAY IMPROVEMENTS:
  - SUSSEX COUNTY ROAD 280 (STOCKLEY ROAD) SHALL BE IMPROVED TO HAVE AN OVERLAY ALONG THE EXISTING PAVEMENT WIDTH BEGINNING AT STATION 0+00 TO STATION 17+00.
  - SUSSEX COUNTY ROAD 280 (STOCKLEY ROAD) SHALL BE IMPROVED TO HAVE 11-FOOT WIDE TRAVEL LANES AND 5-FOOT WIDE SHOULDERS BEGINNING AT STATION 17+00 TO STATION 48+38.49.
  - SUSSEX COUNTY ROAD 290 (COOL SPRING ROAD) SHALL BE IMPROVED TO HAVE AN OVERLAY ALONG THE EXISTING PAVEMENT WIDTH BEGINNING AT STATION 1+28.93 TO STATION 15+50.49.
- UPON THE ISSUANCE OF THE ENTRANCE CONSTRUCTION PERMIT BY THE SOUTH DISTRICT PUBLIC WORKS OFFICE, THE ENTRANCE AND ROADWAY IMPROVEMENTS ALONG SCR 280 AND SCR 290 SHALL BEGIN CONSTRUCTION.
- PRIOR TO THE ISSUANCE OF THE 150th BUILDING PERMIT, THE ENTRANCE AND ROADWAY IMPROVEMENTS ALONG SCR 280 AND SCR 290 SHALL BE COMPLETELY CONSTRUCTED, INSPECTED AND ACCEPTED BY DELDOT. NO ADDITIONAL CERTIFICATE OCCUPANCIES SHALL BE ISSUED UNTIL THE ENTRANCE IMPROVEMENTS ARE COMPLETELY CONSTRUCTED, FINAL INSPECTED AND ACCEPTED BY DELDOT.
- THE OWNER AND/OR DEVELOPER OF COOL SPRING MEADOWS SHALL CONSTRUCT ALL OFF-SITE IMPROVEMENTS, AS PER THE APPROVED ENTRANCE AND ROADWAY CONSTRUCTION PLANS.
- IF ANY PHASE OF THIS DEVELOPMENT IS SOLD, IT SHALL BE THE RESPONSIBILITY OF THE NEW OWNER/DEVELOPER TO MAKE AND/OR COMPLETE THE NECESSARY IMPROVEMENTS ASSOCIATED WITH THIS DEVELOPMENT, AS OUTLINED IN THE FINAL ITS AND AS NOTED ON THE RECORD PLAN.



### SITE DATA and ZONING SCHEDULE

EXISTING SITE USE:	AGRICULTURAL FIELDS AND WOODLANDS	
PROPOSED SITE USE:	228-LOT, SINGLE-FAMILY DWELLING CLUSTER SUBDIVISION	
ZONING DISTRICT:	AR-1, AGRICULTURAL/RESIDENTIAL	
ORDINANCE ITEM	REQUIREMENT:	PROVIDED:
MINIMUM LOT AREA	7,500 Sq. Ft.	10,168 Sq. Ft. (MIN.)
MINIMUM LOT WIDTH	60 FL.	80 FL.
MINIMUM LOT DEPTH	100 FL.	130 FL.
MINIMUM SETBACKS:		
FRONT	25 FL.	25 FL.
SIDE	10 FL.	10 FL.
REAR	10 FL.	10 FL.
MAXIMUM BUILDING HEIGHT	3 Stories (42 Ft.)	3 Stories (42 Ft.)
SEWER SERVICE	CENTRAL	CENTRAL (PRIVATE)
WATER SERVICE	WELL (MIN.)	CENTRAL (PRIVATE)

GROSS PROPERTY AREA:	215.23 ACRES
LOT / R.O.W. AREA:	81.27 ACRES
WETLAND AREA:	21.98 ACRES
R.O.W. DEDICATION AREA:	4.31 ACRES
OPEN SPACE AREA:	107.67 ACRES (NON-INCLUSIVE OF WETLANDS)
OPEN SPACE %:	50 (NON-INCLUSIVE OF WETLANDS)

### TRAFFIC FLOW SCHEMATIC DELAWARE ROUTE 290 ENTRANCE

DE RT 290 SPEED LIMIT = 50 MPH  
ENTRANCE ADT = 1,086\*  
HIGHWAY AADT (2006) = 382  
REQUIRED CLEAR ZONE = 30' EACH SIDE  
CLASS "C" ENTRANCE

\* ENTRANCE ADT IS TAKEN FROM ORTH-RODGERS ASSOCIATES, INC., AMENDED TRAFFIC IMPACT STUDY ANALYSIS, DATED MAY 23, 2007

### TRAFFIC FLOW SCHEMATIC DELAWARE ROUTE 280 ENTRANCE

DE RT 280 SPEED LIMIT = 50 MPH  
ENTRANCE ADT = 1,178\*  
HIGHWAY AADT (2006) = 724  
REQUIRED CLEAR ZONE = 30' EACH SIDE  
CLASS "C" ENTRANCE

\* ENTRANCE ADT IS TAKEN FROM ORTH-RODGERS ASSOCIATES, INC., AMENDED TRAFFIC IMPACT STUDY ANALYSIS, DATED MAY 23, 2007

RECOMMENDED FOR APPROVAL BY THE PLANNING COMMISSION OF SUSSEX COUNTY  
ON THIS 16 DAY OF Dec 2012.

SECRETARY (ATTEST) *Shane Albright*

RECOMMENDED FOR APPROVAL BY THE SUSSEX COUNTY COUNCIL  
ON THIS 17 DAY OF Dec 2012.

PRESIDENT *Michael A. [Signature]*

### OWNER CERTIFICATE

I HEREBY CERTIFY THAT I AM THE EQUITABLE OWNER OF THE PROPERTY DESCRIBED AND 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 DEVELOPED AS SHOWN IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS

*mbar* 10/24/12  
DATE

FUSCO PROPERTIES  
P.O. BOX 668  
200 AIRPORT ROAD  
NEW CASTLE, DE 19720  
Phone: 302.328.6251  
Fax: 302.328.6332

### WETLANDS CERTIFICATION

THIS PROPERTY HAS BEEN EXAMINED BY LAUREL OAK LAND CONSULTING, LLC FOR THE PRESENCE OF WATERS OF THE UNITED STATES INCLUDING WETLANDS (SECTION 404 AND SECTION 101), STATE SUBSIDIOUS LANDS AND STATE TRIM WETLANDS BASED ON THE CRITERIA SET FORTH BY THE REVIEWING AGENCIES IN THE FORM OF MANUALS, POLICIES AND PROCEDURES. THE INVESTIGATION WAS CONDUCTED IN ACCORDANCE WITH THE ABOVE RESOURCES THAT WERE FOUND ON THE PROPERTY ARE CLEARLY MAPPED ON THIS PLAN IN ACCORDANCE WITH OUR FIELD INVESTIGATIONS AND DETAILED IN REPORTS BY LAUREL OAK LAND CONSULTING, LLC USING THEIR BEST PROFESSIONAL JUDGEMENT.

*Laurel Oak Land Consulting, LLC* 10/24/12  
DATE

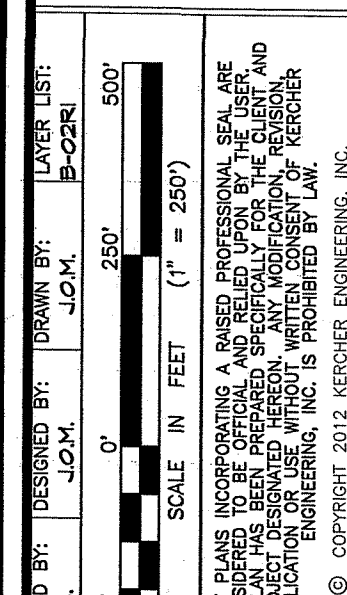
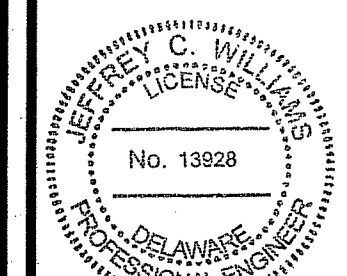
BRUCE B. BAGLEY, MS, CPESC, OAG, CCA  
LAUREL OAK LAND CONSULTING, LLC  
P.O. BOX 295  
SUDERSVILLE, MD 21688-0295  
410.708.3854 PHONE

### REVISIONS

1 10/15/12 REVISIONS PER SIDEWALK CONDITION UPDATE  
2 07/20/12 REVISIONS PER PAZ COMMENTS

APPROVED  
per set as a final  
12/12/12  
SUSSEX COUNTY  
PLANNING & ZONING COMMISSION  
5 Sheets

*[Signature]*  
10/22/12



ONLY PLANS INCORPORATING A BASED PROFESSIONAL SEAL ARE VALID. THIS SEAL IS NOT VALID FOR ANY OTHER PROJECT OR FOR ANY OTHER PURPOSE. THE SEAL IS THE PROPERTY OF THE ENGINEER AND SHALL BE RETURNED TO THE ENGINEER UPON COMPLETION OF THE PROJECT. © COPYRIGHT 2012 KERCHER ENGINEERING, INC. ALL RIGHTS RESERVED.

OWNER/APPLICANT: FUSCO PROPERTIES  
P.O. BOX 668  
200 AIRPORT ROAD  
NEW CASTLE, DE 19720  
Phone: 302.328.6251  
Fax: 302.328.6332

PARCEL INFORMATION:  
T.P.: 2-34-S, PARCELS 30 & 33  
GROSS AREA: 215.23 Acres  
NET AREA: 107.67 Acres

RECORD INDEX PLAN  
COOL SPRING MEADOWS

INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE

KERCHER ENGINEERING, INC.  
ENGINEERS • PLANNERS • SURVEYORS  
P.O. BOX 295  
SUDERSVILLE, MD 21688-0295  
410.708.3854 (Phone) 410.708.3854 (Fax) www.kercher.com

JOB NO: 07-0307EG

PLAN DATE: Apr. 5, 2007

SHEET NO.: 1



SEMI	LENGTH	BEARING
L19	85.71	S19° 31' 12"E
L20	31.22	S30° 11' 35"E
L21	30.75	S30° 11' 35"E
L22	50.13	S5° 25' 29"E
L23	51.25	S39° 00' 57"E
L24	29.82	N88° 01' 00"E
L25	31.10	N7° 15' 51"E
L26	35.37	S47° 12' 27"E
L27	42.88	S58° 38' 22"E
L28	46.56	S58° 38' 22"E
L29	54.66	S76° 34' 33"E
L30	62.41	S64° 02' 42"E
L31	33.11	S3° 31' 11"E
L32	47.05	S75° 58' 29"E
L33	96.31	S66° 04' 59"E
L34	72.95	S77° 00' 57"E
L35	59.61	N68° 54' 01"E
L36	24.82	S30° 35' 09"E
L37	24.82	S30° 35' 09"E
L38	35.64	S3° 36' 16"E
L39	50.66	S40° 10' 07"E
L40	54.16	N56° 20' 38"E
L41	41.72	N7° 15' 51"E
L42	68.99	S85° 27' 35"E
L43	37.35	N32° 26' 23"E
L44	48.96	N55° 03' 22"E
L45	93.75	S85° 03' 20"E
L46	102.76	N89° 11' 30"E
L47	63.47	S68° 03' 22"E
L48	50.96	N83° 13' 20"E
L49	50.61	S84° 26' 47"E
L50	69.33	S84° 26' 47"E
L51	67.92	S67° 16' 43"E
L52	99.58	N27° 02' 49"E
L53	66.79	S31° 09' 02"E
L54	46.31	S31° 09' 02"E
L55	87.82	S26° 34' 09"E
L56	43.63	N40° 53' 09"E
L57	40.49	N29° 02' 49"E
L58	126.80	N36° 22' 35"W
L59	42.69	S84° 34' 23"E
L60	48.49	S84° 34' 23"E
L61	48.06	S39° 45' 29"E
L62	30.81	S44° 34' 23"E
L63	40.32	S59° 58' 05"W
L64	49.66	S27° 06' 00"E
L65	36.92	S38° 40' 00"E
L66	23.97	S43° 23' 22"E
L67	74.23	N70° 42' 22"E
L68	60.23	S46° 09' 22"E
L69	28.34	N78° 51' 56"E
L70	38.14	S64° 34' 23"E
L71	80.93	S70° 08' 18"W
L72	81.54	N89° 19' 53"W
L73	132.75	N8° 18' 51"E
L74	88.42	N80° 52' 55"E
L75	110.58	S78° 42' 08"W
L76	77.17	S78° 42' 08"W
L77	76.88	S78° 42' 08"W
L78	80.77	S63° 38' 40"W
L79	76.28	S47° 12' 27"E
L80	45.35	S47° 12' 27"E
L81	66.23	S66° 30' 23"W
L82	94.20	S74° 26' 42"W
L83	118.47	N89° 01' 00"E
L84	92.40	N88° 52' 21"W
L85	64.67	N88° 52' 21"W
L86	63.92	N88° 52' 21"W
L87	84.00	N89° 05' 43"W
L88	43.77	N88° 58' 43"W
L89	67.89	N67° 15' 51"E
L90	18.90	N71° 30' 16"W
L91	29.10	N57° 38' 55"W
L92	34.84	S67° 16' 20"E
L93	29.82	S65° 11' 12"W
L94	26.98	S74° 26' 42"W
L95	67.02	S74° 26' 42"W
L96	82.02	N89° 08' 08"E
L97	14.58	N76° 04' 08"E
L98	295.12	S68° 29' 45"E
L99	21.48	S89° 07' 01"E
L100	40.81	S88° 29' 45"W
L101	80.28	S88° 29' 45"E
L102	58.35	N89° 07' 01"E
L103	62.73	S89° 26' 24"E
L104	55.81	N89° 19' 51"W
L105	64.67	N89° 01' 00"E
L106	11.50	S83° 15' 21"W
L107	4.00	S0° 43' 36"E
L108	11.48	S80° 16' 20"E
L109	64.85	S89° 35' 03"E
L110	55.96	S87° 16' 20"E
L111	63.67	S87° 16' 20"E
L112	38.68	S89° 36' 36"E
L113	74.86	S88° 55' 16"E
L114	44.89	S89° 08' 34"E
L115	80.18	S88° 29' 45"E
L116	82.56	S88° 29' 45"E
L117	38.84	S88° 23' 48"E
L118	18.93	S43° 03' 22"E
L119	76.20	S11° 14' 32"E
L120	74.88	S4° 04' 08"E
L121	59.77	S5° 25' 29"E
L122	51.73	S55° 50' 31"E
L123	37.42	S12° 23' 15"E
L124	40.00	S31° 09' 02"E
L1		

SEGMENT	LENGTH	RADIUS
P.C1	160.15'	6525.00'
P.C2	99.86'	1800.00'

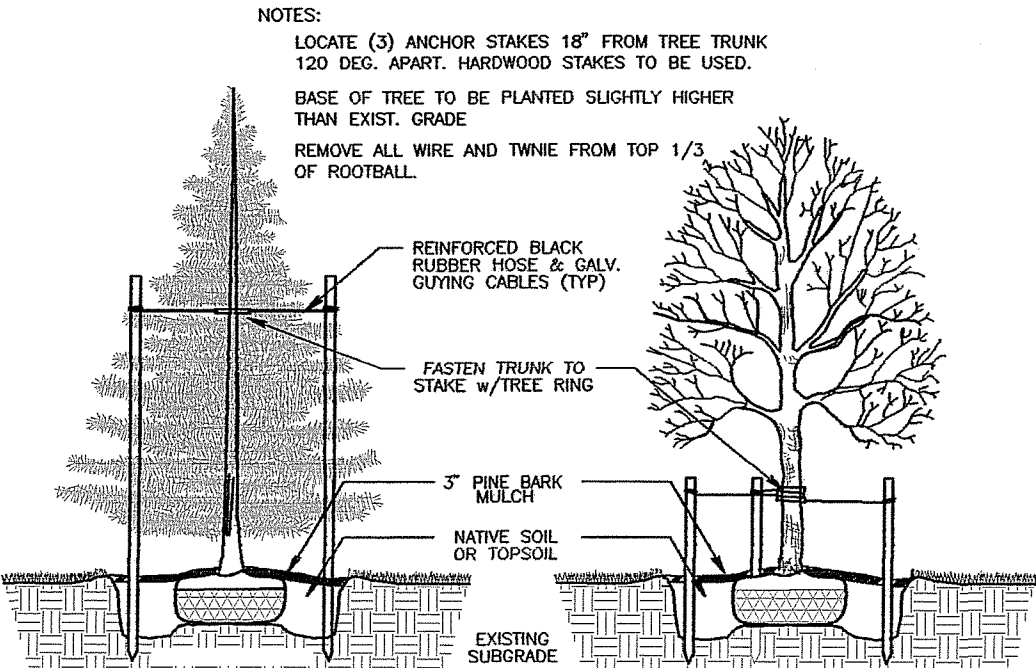
SEGMENT	LENGTH	RADIUS
E.C1	158.96'	6475.00'
E.C2	101.25'	1825.00'



LANDS N/OF  
MARJORIE BERNICE STREETT  
(DEED BOOK 444, PAGE 21)  
ZONE: ARI, USE: FARM W/ HOMESITE



FORESTED BUFFER  
2 ROWS - STAGGERED ALIGNMENT  
1ST ROW - 10' FROM PL  
2ND ROW - 20' FROM PL  
TREES SPACING - 14.25'  
HEIGHT (MIN) - 4'  
EVERGREEN - (21)  
DECIDUOUS - (48)

LANDS N/F OF  
WILLIAM VERNON JR. & BETTY STREET  
(DEED BOOK 710, PAGE 77 & BOOK 766, PAGE 144)  
ZONE: ARI, USE: RESIDENTIAL, SINGLE




**TREE PLANTING DETAIL**  
Not To Scale



PLAN SYMBOL	QUANTITY	BOTANICAL NAME*	COMMON NAME*	MINIMUM PLANTING HEIGHT	PLANTING SPREAD	REMARKS
EVERGREEN TREES						
	24 (GA) 23 (DF) TOTAL=47	*TREES TO BE GYANT ARBORVITAE AND DOUGLAS FIR (OR SIMILAR, NATIVE EVERGREEN SPECIES) THE DEVELOPER SHALL DETERMINE WHAT SPECIES IS TO BE USED AND PROVIDE THAT INFORMATION TO THE SUSSEX COUNTY PLANNING AND ZONING DEPARTMENT PRIOR TO ANY PLANTING ACTIVITY. ALTERNATING SPECIES/ TYPE (EVERGREEN/DECIDUOUS) RECOMMENDED.		4'	14-25'	1ST ROW - 10' FROM PL. 2ND ROW - 20' FROM PL.
DECIDUOUS TREES						
	35 (RM) 35 (PZ) 35 (WA) TOTAL=105	*TREES TO BE RED MAPLE, FLOWERING PEAR, AND WHITE ASH (OR SIMILAR, NATIVE DECIDUOUS SPECIES) THE DEVELOPER SHALL DETERMINE WHAT SPECIES IS TO BE USED AND PROVIDE THAT INFORMATION TO THE SUSSEX COUNTY PLANNING AND ZONING DEPARTMENT PRIOR TO ANY PLANTING ACTIVITY. ALTERNATING SPECIES/ TYPE (EVERGREEN/DECIDUOUS) RECOMMENDED.		4'	14-25'	1ST ROW - 10' FROM PL. 2ND ROW - 20' FROM PL.

REVISED	DATE	DESCRIPTION	BY
2	10/15/13	REVISIONS PER DEPARTMENT OF AGRICULTURE COMMENTS	K.T.S.
1	07/30/13	REVISIONS PER PAZ COMMENTS	K.T.S.

I HEREBY CERTIFY THAT THIS PLAN  
 HAS BEEN PREPARED UNDER MY  
 SUPERVISION AND TO THE BEST OF  
 MY KNOWLEDGE COMPLIES WITH  
 THE APPLICABLE ORDINANCES OF  
 SHERIDAN COUNTY AND THE LAWS OF  
 THE STATE OF DELAWARE.



CIVIL ENGINEER

No. 13928

DELAWARE  
 PROFESSIONAL ENGINEER  
 RE-NEWAL EXPIRATION

10/22/12

200' =  
 0' 100' 200'  
 SCALE IN FEET (1" = 100')

THESE PLANS REPRESENT A REVISED PROFESSIONAL SEAL AND  
 A REVISION TO THE ORIGINAL DESIGN. THE ORIGINAL DESIGN  
 WAS PREPARED FOR THE PURPOSE OF OBTAINING A PERMIT  
 FOR CONSTRUCTION OF THE PROJECT. THE REVISIONS TO THE  
 ORIGINAL DESIGN ARE FOR THE PURPOSE OF OBTAINING A  
 PERMIT FOR CONSTRUCTION OF THE PROJECT. THE REVISIONS  
 TO THE ORIGINAL DESIGN ARE FOR THE PURPOSE OF OBTAINING  
 A PERMIT FOR CONSTRUCTION OF THE PROJECT.

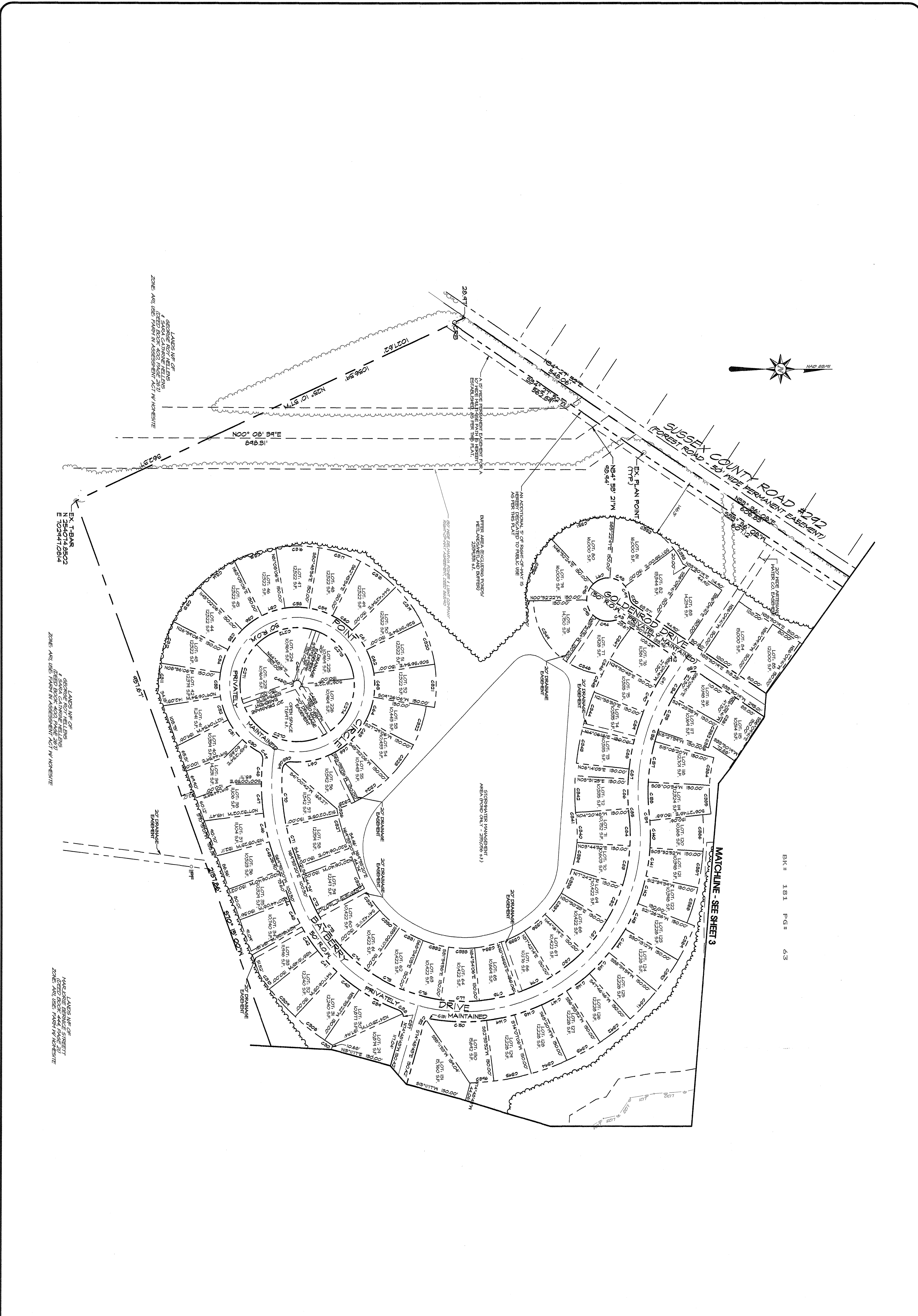
© COPYRIGHT 2012, KERSHNER ENGINEERING, INC.  
 ALL RIGHTS RESERVED

JOB No.:	07-0307EG	DATE:	Apr. 5, 2007	SHEET No.:	2	OWNER/APPLICANT:	FUSCO PROPERTIES P.O. BOX 469 205 WEST 10TH ST NEW CASTLE DE 19720 Tel: 410-326-6332 Fax: 410-326-6332	PARCEL INFORMATION:	T: 2-34-5, PARCELS 102 & 33 GPS: AREA, 216.23 Acres TROP: AREA, 216.23 Acres NET ACREAGE, 216.23 Acres NET ACREAGE, 216.23 Acres
PLAN	DATING:	Apr. 5, 2007	SHEET No.:	2	OWNER/APPLICANT:	FUSCO PROPERTIES P.O. BOX 469 205 WEST 10TH ST NEW CASTLE DE 19720 Tel: 410-326-6332 Fax: 410-326-6332	PARCEL INFORMATION:	T: 2-34-5, PARCELS 102 & 33 GPS: AREA, 216.23 Acres TROP: AREA, 216.23 Acres NET ACREAGE, 216.23 Acres NET ACREAGE, 216.23 Acres	T: 2-34-5, PARCELS 102 & 33 GPS: AREA, 216.23 Acres TROP: AREA, 216.23 Acres NET ACREAGE, 216.23 Acres NET ACREAGE, 216.23 Acres









<b>RECORD PLAN</b> <b>COOL SPRING MEADOWS</b> INDIAN RIVER HUNDRED - SUSSEX COUNTY - DELAWARE		OWNER/APPLICANT: FUSCO PROPERTIES P.O. BOX 685 200 AIRPORT ROAD NEW CASTLE, DE 19720 Phone: 302.328.6551 Fax: 302.328.6332		APPROVED BY: JOM. DESIGNED BY: JOM. DRAWN BY: B-02R4 LAYER LIST: 100' 0' 100' 200' SCALE IN FEET (1" = 100')		<b>JEFFREY C. WILSON</b> REGISTERED PROFESSIONAL ENGINEER NO. 13828 STATE OF DELAWARE		REVISIONS 1 01/30/12 REVISIONS PER P&Z COMMENTS DATE: DESCRIPTION: BY:	
JOB NO.: 07-0307EG PLAN DATE: Apr. 5, 2007 SHEET NO.: 4		PARCEL INFORMATION: T.P.: 2-34-5, PARCELS 30 & 33 GROSS AREA: 215.23 Acres ROW DED.: 4.31 Acres NET AREA: 210.92 Acres		ONLY PLANS INCORPORATING A RAISED PROFESSIONAL SEAL ARE CONSIDERED TO BE OFFICIAL AND RELIED UPON BY THE USER. THIS PLAN HAS BEEN PREPARED SPECIFICALLY FOR THE CLIENT AND PROJECT DESCRIBED HEREON. ANY MODIFICATION, REVISION, DULICATION OR USE WITHOUT WRITTEN CONSENT OF KERCHER ENGINEERING, INC. IS PROHIBITED BY LAW. © COPYRIGHT 2012 KERCHER ENGINEERING, INC. ALL RIGHTS RESERVED.					
<b>KERCHER ENGINEERING, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 413 EAST MARKET STREET - GEORGETOWN, DELAWARE 19347 302.854-9062 (Voice) 302.854-9064 (Fax) www.kercher.com									







TAB “12”











## PLANNING & ZONING COMMISSION

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



## Sussex County

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

### PLANNING AND ZONING AND COUNTY COUNCIL INFORMATION SHEET

Planning Commission Public Hearing Date February 18<sup>th</sup>, 2021.

Application: CU 2207 CBB Cedar Pines, LLC (Marlin Chase)

Applicant: CBB Cedar Pines, LLC  
9919 Stephen Decatur Hwy  
Ocean City, MD 21842

Owner: CBB Cedar Pines, LLC  
9919 Stephen Decatur Hwy  
Ocean City, MD 21842

Site Location: Lying on east side of Cedar Neck Rd. approximately 0.3 miles north of Hickman Rd.

Current Zoning: Medium Density Residential (MR)

Proposed Use: Single Family Condos (75 units)

Comprehensive Land  
Use Plan Reference: Coastal Area

Councilmatic  
District: Mr. Hudson

School District: Indian River School District

Fire District: Millville Fire District

Sewer: Sussex County Cedar Neck Expansion

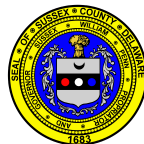
Water: Sussex Shores Water Company

Site Area: 29.34 acres +/-

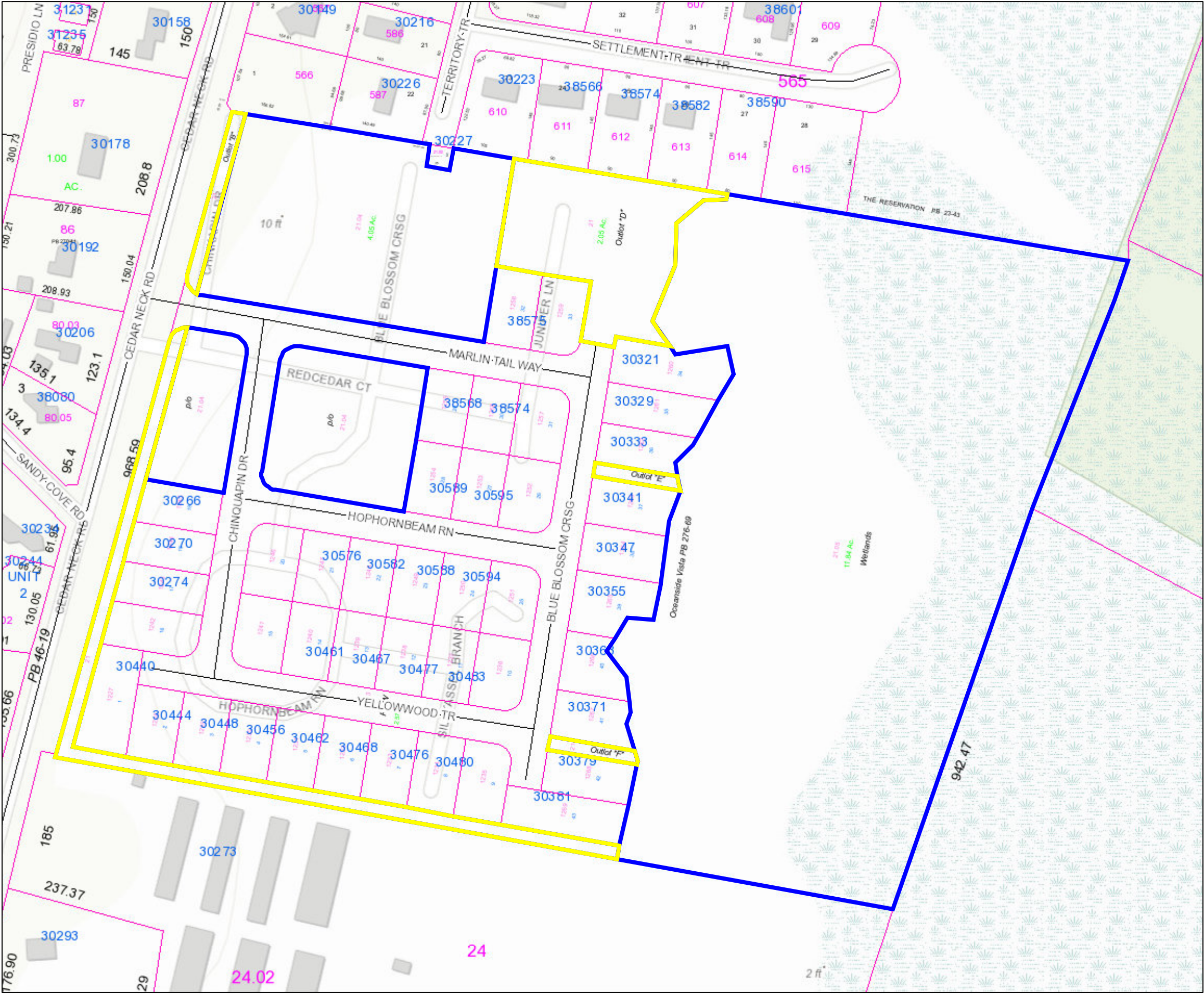
Tax Map ID.: 134-9.00-21.00, 21.03, 21.04, 21.05 & 1227.00-1269.00







Sussex County

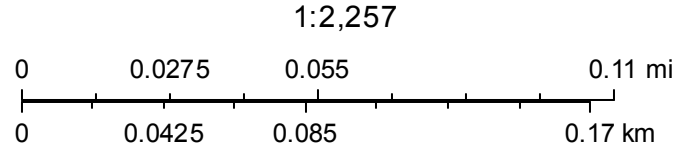


PIN:	134-9.00-21.00		
Owner Name	CBB	CEDAR	PINES
	LLC		
Book	4429		
Mailing Address	9919 STEPHEN DECATUR		
City	OCEAN CITY		
State	MD		
Description	OCEANSIDE VISTA		
Description 2	OUTLOST A-F		
Description 3	SWM OPEN SPACE		
Land Code			

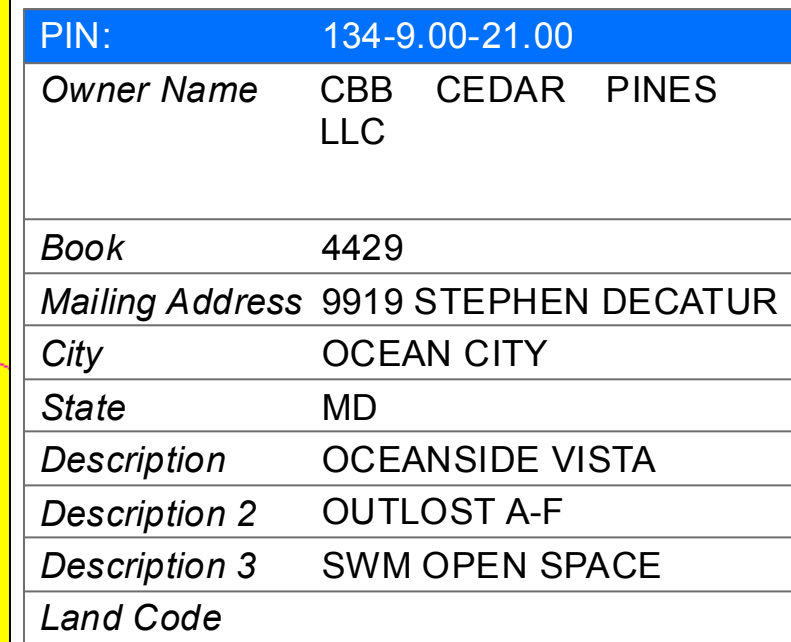
- polygonLayer

Override 1
- polygonLayer

Override 1
- Tax Parcels
- 911 Address
- Streets
- County Boundaries







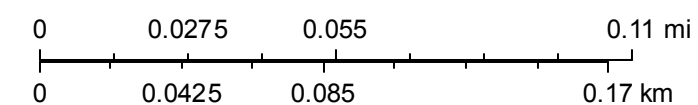
### Override 1

Override 1

911 Address

— Streets

1:2,257







Sussex County

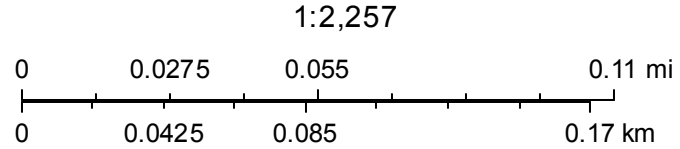


PIN:	134-9.00-21.00		
Owner Name	CBB	CEDAR	PINES LLC
Book	4429		
Mailing Address	9919 STEPHEN DECATUR		
City	OCEAN CITY		
State	MD		
Description	OCEANSIDE VISTA		
Description 2	OUTLOST A-F		
Description 3	SWM OPEN SPACE		
Land Code			

- polygonLayer

Override 1
- polygonLayer

Override 1
- Tax Parcels
- 911 Address
- Streets
- County Boundaries





JAMIE WHITEHOUSE, AICP MRTPI  
PLANNING & ZONING DIRECTOR  
(302) 855-7878 T  
(302) 854-5079 F  
jamie.whitehouse@sussexcountype.gov



**Sussex County**

DELAWARE  
sussexcountype.gov

## Memorandum

To: Sussex County Planning Commission Members  
From: Lauren DeVore, Planner III  
CC: Vince Robertson, Assistant County Attorney and applicant  
Date: January 22, 2021  
RE: Staff Analysis for CU 2207 CBB Cedar Pines, LLC (Marlin Run)

---

This memo is to provide background and analysis for the Planning Commission to consider as a part of application CU 2207 CBB Cedar Pines, LLC (Marlin Run) to be reviewed during the February 18, 2021 Planning Commission Meeting. This analysis should be included in the record of this application and is subject to comments and information that may be presented during the public hearing.

The request is for a Conditional Use for Tax Parcels 134-9.00-21.00 through 21.05 and 1227.00 through 1269.00 to allow for the establishment of 75 multifamily units for a proposed development known as "Marlin Run." It should be noted that the development also includes associated amenities including a dog park, tot lot, pool, pickleball courts, and community gardens. The parcels are lying on the east side of Cedar Neck Road (S.C.R. 357), approximately 0.3 mile north of Hickman Road. The parcels consist of 29.34 acres +/-.

It should be noted that there were four (4) previous Conditional Use applications on the site for multifamily dwellings. The most recent of the four (4) proposals, from the same applicant, CBB Cedar Pines, LLC, was for Conditional Use No. 2131 for 30 multifamily units. The Conditional Use application was approved by the Planning and Zoning Commission on June 14, 2018, by the Sussex County Council on July 24, 2018 and was adopted through Ordinance No. 2587.

The 2018 Sussex County Comprehensive Plan Update (Comprehensive Plan) provides a framework of how land is to be developed. As part of the Comprehensive Plan, a Future Land Use Map is included to help determine how land should be zoned to ensure responsible development. The Future Land Use map in the plan indicates that the parcels have a designation of "Coastal Area." The surrounding and adjacent properties located to the north, south, east and west of the subject properties also lie within the "Coastal Area" Future Land Use Map designation.

As outlined within the 2018 Sussex County Comprehensive Plan, Coastal Areas are areas that can accommodate development provided that special environmental concerns are addressed. A range of housing types should be permitted in Coastal Areas, including single-family homes, townhomes, and multi-family units. Retail and office uses are appropriate, but larger shopping centers and office parks should be confined to selected locations with access along arterial roads. Appropriate mixed-use development should also be allowed.

The subject properties are zoned Medium Density Residential (MR). The surrounding area features a number of differently zoned parcels including parcels that are zoned Medium Density Residential (MR), General Residential (GR), Marine (M), Commercial Residential (CR-1), Neighborhood





Business (B-1), and High Density Residential (HR-1). The adjoining parcels to the north, east and south are all zoned Medium Density Residential (MR). There is a single parcel located to the south that is zoned General Commercial (C-1). The properties on the opposite side of Cedar Neck Road (S.C.R. 357) are zoned General Residential (GR) with three parcels being zoned General Commercial (C-1).

Since 2011, there have been two (2) Conditional Use applications within a 2-mile radius of the application site. The first application was Conditional Use No. 2085 to allow for 19 multifamily dwelling structures to be located in a General Residential (GR) Zoning District. This application was approved by the Planning and Zoning Commission on July 27, 2017 and was approved by the Sussex County Council on July 25, 2017. This change was adopted through Ordinance No. 2519. The second application was Conditional Use No. 2239 to allow for a general contracting business to be located in a Neighborhood Business (B-1) Zoning District. This application was approved by the Planning and Zoning Commission on October 8, 2020 and was approved by the Sussex County Council on October 27, 2020. This change was adopted through Ordinance No. 2749.

Based on the analysis of the land use, surrounding zoning and uses, the Conditional use to allow for the establishment of 75 multifamily units, subject to considerations of scale and impact, could be considered as being consistent with the land use, area zoning and surrounding uses.

## Planning & Zoning Commission 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)**Conditional Use ☒

Zoning Map Amendment \_\_\_\_\_

**Site Address of Conditional Use/Zoning Map Amendment**

East side of Cedar Neck Road at Sandy Cove Road north of the Town of Ocean View

**Type of Conditional Use Requested:**

Single Family Condominium

**Tax Map #:** 1-34-9.00-21.00 thru 21.05; 1227.00 thru 1269.00 **Size of Parcel(s):** 29.34 Acres**Current Zoning:** MR **Proposed Zoning:** MR CU **Size of Building:** \_\_\_\_\_**Land Use Classification:** Residential Subdivision**Water Provider:** Sussex Shores Water Company**Sewer Provider:** Sussex County Cedar Neck Expansion**Applicant Information****Applicant Name:** CBB CEDAR PINES LLC**Applicant Address:** 9919 STEPHEN DECATUR HWY**City:** Ocean City **State:** MD **ZipCode:** 21842**Phone #:** (443) 880-8950 **E-mail:** clarmore@bsdc.com**Owner Information****Owner Name:** CBB CEDAR PINES LLC**Owner Address:** 9919 STEPHEN DECATUR HWY**City:** Ocean City **State:** MD **Zip Code:** 21842**Phone #:** (443) 880-8950 **E-mail:** clarmore@bsdc.com**Agent/Attorney/Engineer Information****Agent/Attorney/Engineer Name:** Davis, Bowen & Friedel, Inc. - W. Zachary Crouch, P.E.**Agent/Attorney/Engineer Address:** 1 Park Avenue**City:** Milford **State:** DE **Zip Code:** 19963**Phone #:** (302) 424-1441 **E-mail:** wzc@dbfinc.com



# Check List for Sussex County Planning & Zoning Applications

The following shall be submitted with the application

☒ Completed Application

☒ Provide eight (8) copies of the Site Plan or Survey of the property

- Survey shall show the location of existing or proposed building(s), building setbacks, parking area, proposed entrance location, etc.
- Provide a PDF of Plans (may be e-mailed to a staff member)
- Deed or Legal description

☒ Provide Fee \$500.00

☐ Optional - Additional information for the Commission/Council to consider (ex. architectural elevations, photos, exhibit books, etc.) If provided submit 8 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.

☒ DeIDOT Service Level Evaluation Request Response

☒ PLUS Response Letter (if required)

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 my behalf shall attend all public hearing before the Planning and Zoning Commission and the Sussex County Council 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: 1-6-2021

Signature of Owner

\_\_\_\_\_

Date: \_\_\_\_\_

For office use only:

Date Submitted: \_\_\_\_\_

Fee: \$500.00 Check #: \_\_\_\_\_

Staff accepting application: \_\_\_\_\_

Application & Case #: \_\_\_\_\_

Location of property: \_\_\_\_\_

Subdivision: \_\_\_\_\_

Date of PC Hearing: \_\_\_\_\_

Recommendation of PC Commission: \_\_\_\_\_

Date of CC Hearing: \_\_\_\_\_

Decision of CC: \_\_\_\_\_



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

January 14, 2021

Mr. Jamie Whitehouse, Director  
Sussex County Planning & Zoning  
P.O. Box 417  
Georgetown, DE 19947

Dear Mr. Whitehouse:

This letter is to revise and replace my letter of September 5, 2019, regarding the **CBB Cedar Pines, LLC** conditional use application, which we received on January 14, 2021. The applicant submitted a revised application to modify the proposed land uses from 50 single-family detached houses and 25 units of multi-family attached housing to 75 single-family detached houses. The letter is being revised to reflect the updated land use and the associated trip generation. A copy of our September 5, 2019, letter is enclosed.

This revised application is for an approximately 29.81-acre parcel (Tax Parcel: 134-9.00-21.00). The subject land is located on the east side of the intersection of Cedar Neck Road (Sussex Road 357) and Sandy Cove Road (Sussex Road 358). The subject land is currently zoned as MR (Medium-Density Residential) and the applicant is seeking a conditional use approval to develop 75 single-family detached houses.

Per the 2019 Delaware Vehicle Volume Summary, the annual average daily traffic volume along the segment of Cedar Neck Road where the subject land is located, which is from Hickman Road (Sussex Road 359) to the end of the road, is 918 vehicles per day.

Based on our review, we estimate that the proposed land use will generate more than 50 vehicle trips per peak hour or 500 vehicle trips per day, and would be considered to have a Minor impact to the local area roadways. In this instance, the Department considers a Minor impact to be when a proposed land use would generate more than either 50 vehicle trips per peak hour and / or 500 vehicle trips per day but fewer than 200 vehicle trips per a weekly peak hour and 2,000 vehicle trips per day. Because of this impact, we recommend that the applicant be required to perform a Traffic Impact Study (TIS) for the subject application. However, our Development Coordination Manual provides that where a TIS is required only because the volume warrants are met, and the projected trip generation will be fewer than 200 vehicle trips per a weekly peak hour and fewer than 2,000 vehicle trips per day, DeIDOT may permit the developer to pay an Area-Wide Study Fee of \$10 per daily trip in lieu of doing a TIS. For this application, if the County were agreeable, we would permit the developer to pay an Area-Wide Study Fee.





Mr. Jamie Whitehouse  
Page 2 of 2  
January 14, 2021

According to the Institute of Transportation Engineers (ITE) Trip Generation Manual, a development of 50 single-family detached houses and 25 units of multi-family attached houses would generate 798 vehicle trips per day, 58 vehicle trips during the morning peak hour, and 77 vehicle trips during the evening peak hour. As stated above, because this development would generate fewer than 2,000 vehicle trips per day and fewer than 200 vehicle trips during a weekly peak hour, the applicant has the option to pay the Area-Wide Study Fee in lieu of doing a TIS. The Area-Wide Study Fee for the proposed development would be \$7,980.00. Payment of the Area-Wide Study Fee does not preclude a developer from having to make or participate in off-site improvement, including completing a traffic operational analysis (TOA) if one is found to be necessary during the plan review process.

If the County approves this application, the applicant should be reminded that DeIDOT requires compliance with State regulations regarding plan approvals and entrance permits, whether or not a TIS is required.

Please contact Mr. Claudy Joinville, at (302) 760-2124, if you have questions concerning this correspondence.

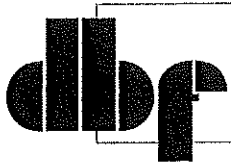
Sincerely,



T. William Brockenbrough, Jr.  
County Coordinator  
Development Coordination

TWB:cjm  
Enclosure

cc: CBB Cedar Pines, LLC, Applicant  
Russell Warrington, Sussex County Planning & Zoning  
Constance C. Holland, Coordinator, Cabinet Committee on State Planning Issues  
Todd Sammons, Assistant Director, Development Coordination  
Scott Rust, South District Public Works Manager, Maintenance & Operations  
Steve McCabe, Sussex County Review Coordinator, Development Coordination  
Derek Sapp, Subdivision Manager, Development Coordination  
Kevin Hickman, Subdivision Manager, Development Coordination  
Brian Yates, Subdivision Manager, Development Coordination  
John Andrescavage, Subdivision Manager, Development Coordination  
James Argo, South District Project Reviewer, Maintenance & Operations  
Troy Brestel, Project Engineer, Development Coordination  
Claudy Joinville, Project Engineer, Development Coordination  
Annmaria Fumato, Project Engineer, Development Coordination



DAVIS  
BOWEN &  
FRIEDEL, INC.

ARCHITECTS • ENGINEERS • PLANNERS • SURVEYORS

January 6, 2021

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

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

Attn: Mr. Jamie Whitehouse  
Director of Planning

RE: Marlin Run  
Tax Parcel No.: 1-34-9.00- 21.00 thru 21.05; 1227.00 thru 1269.00  
DBF #0818C045.A01

Dear Mr. Whitehouse:

On behalf of our clients, Ocean Atlantic Companies and CBB Cedar Pines, LLC, we are please to submit the revised plans and information for the above referenced project. Please find enclosed the following revised information:

- Two copies of the revised Preliminary Plan.
- PLUS response letter.
- Email from OSPC confirming no additional application is needed.
- Letter from the Owner changing the engineer of record.
- DelDOT Entrance Approval Letter and Permit.
- Revise application with engineer's information.
- Chapter 99-9c response letter.

Please substitute the above items to the original application. If you have any questions or require additional information, please contact me at (302) 424-1441.

Sincerely,  
DAVIS, BOWEN & FRIEDEL, INC.

W. Zachary Crouch, P.E.  
Principal

RECEIVED

JAN 07 2021

SUSSEX COUNTY  
PLANNING & ZONING





January 5, 2021

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

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

Attn: Mr. Jamie Whitehouse  
Director of Planning

RE: Marlin Run  
Chapter 99-9 C Response  
Tax Parcel No.: 1-34-9.00- 21.00 thru 21.05; 1227.00 thru 1269.00  
DBF #0818C045.A01

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 Marlin Run development includes a 50' tidal wetlands buffer and 20' non-tidal building setback.
- b. There will be a 20' 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 Back Creek Environmental Consulting. The investigation found both State and Federal Wetlands. Tidal wetlands will be protected by a 50' wetlands buffer. A building setback of 20' has been established along all non-tidal wetlands. The only possible impacts we anticipate would be small areas for discharge protection at stormwater outfalls.

- b. We anticipate applying for a Letter of Map Revision for Fill for areas currently in Flood Hazard Areas.

**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 50' wetlands buffer, while a 20' building setback has been provided along all non-tidal wetland.
- c. According to PLUS comments from the State Historic Preservation Office, this side 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 "zen garden" is located near the wooded wetlands and has a connection to the central open space.
- c. A 20 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 anticipate approximately 0.5 acres of the existing 6.3 acres of wooded areas could be cleared for home construction.

**6. Screening of objectionable features from neighboring properties and roadways.**

- a. There will be a 20' landscape buffer between the developed area and all adjoining properties.

**7. Provision for water supply.**

- a. Sussex Shores Water Company, 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 Sussex Shores Water Company.

**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 Sussex County Cedar Neck Expansion 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 one side 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. There has been no farming activity on this land for over a decade.

**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 the Indian River School system.

**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 Marlin Run community is compatible with its existing MR 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. Marlin Run is a short distance from many other residential neighborhoods, the Town of Ocean View, and the Bethany Beach area.

**17. Effect on area waterways.**

- a. The Marlin Run 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.

A handwritten signature in black ink, appearing to read "W. Zachary Crouch". The signature is fluid and cursive, with a long horizontal stroke at the end.

W. Zachary Crouch, P.E.  
Principal

January 14, 2021

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.

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: Marlin Run  
Environmental Assessment and Public Facility Evaluation Report  
Tax Parcel No.: 1-34-9.00- 21.00 thru 21.05; 1227.00 thru 1269.00  
DBF #0818C045.A01

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 Sussex Shores Water Company, Inc. franchise area and they hold the Certificate of Public Necessity (CPCN). A letter from Sussex Shores Water Company, 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 Sussex Shores Water Company, 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 Sussex County Cedar Neck Expansion of Bethany 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.*

**The non-tidal wetlands on this property are not subject to section “404” of the clean water act. A jurisdictional determination from the Army Corp. on January 24, 2018.**

- (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 west of the pond which will include a pool, tot lot, dog park, grill & fireplace, pickleball courts, as well as community gardens. A “zen garden” is located near the wooded wetlands and has a connection to the central open space.**

**A 20 ft voluntary buffer is provided from non-tidal wetlands to help preserve additional open space. A 20’ buffer is provided along the perimeter boundary.**

- (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 Sussex Shores Water Company, 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.*

**There are no known archaeological sites or National Register-listed property on this parcel.**

- (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.

A handwritten signature in black ink, appearing to read 'W. Zachary Crouch', written over a horizontal line.

W. Zachary Crouch, P.E.  
Principal





STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF STATE PLANNING COORDINATION

October 23, 2019

Jeff Clark, RLA  
Land Tech Land Planning, LLC  
Target Professional Center  
32895 South Coastal Highway  
Bethany Beach, DE 19930

RE: PLUS review 2019-09-03; Marlin Run

Dear Mr. Clark:

Thank you for meeting with State agency planners on September 25, 2019 to discuss the proposed plans for the Marlin Run project. According to the information received you are seeking review of a conditional use for a 75 unit residential development on 29.36 acres along Cedar Neck Road in Sussex County.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State, and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the county.**

**Strategies for State Policies and Spending**

This project is located in Investment Levels 3, 4, and Out of Play according to the Strategies for State Policies and Spending. 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 may support future growth in these areas, but may have priorities for the near future. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. Out of Play reflects lands that, at the time the State Strategies were developed, were not available for private development due to public ownership and / or preservation.

The Office State Planning does not support any building activities in Level 4 and ask that any buildings located in Level 4 be moved out of those areas. In addition, the State asks that the developer work with State agencies, specifically DNREC to ensure that the environmental features of this site are protected.

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

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

- The site access, on Cedar Neck Road (Sussex Road 357) 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>.
- The subject land, Tax Parcel 1-34-09.00-21.00, was previously proposed for development as The Preserve at Cedar Pines. A Letter of No Objection to Recordation was issued for that development on August 23, 2018, but the entrance was never constructed. With the proposed change in use, that plan approval will need to be revisited. In accordance with Section P.4.2 of the Manual the developer will need to obtain both a Letter of No Objection and an entrance plan approval specific to the current development proposal.
- Pursuant to Section P.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request 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](https://www.deldot.gov/Business/subdivisions/pdfs/Meeting_Request_Form.pdf?08022017).
- Section P.5 of the Manual addresses fees that are assessed for the review of development proposals. DelDOT anticipates collecting the Initial Stage Fee when the record plan is submitted for review and the Construction Stage Fee when construction plans are submitted for review.
- 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 728 vehicle trip ends per day. DelDOT calculates a value of 698 but regardless, the plan meets the warrants for a TIS.

Section 2.2.2.2 of the 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. If the County requires a TIS, DelDOT will support their requirement and will not accept the AWS Fee.

The purpose of a TIS is to identify offsite improvements that the developer should build or contribute toward. Regardless of whether a TIS is done for this development, DelDOT



anticipates requiring the developer improve Cedar Neck Road within the limits of their site frontage to meet DelDOT's Local Road standards, which include 11-foot lanes and 5-foot shoulders and to enter an agreement to fund a future signal at the intersection of Cedar Neck Road and Sandy Cove Road (Sussex Road 358). The AWS Fee, if paid, would not be counted toward those improvements. AWS Fees are used to fund traffic studies, not to build improvements.

- 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 Cedar Neck Road. By this regulation, this dedication is to provide a minimum of 30 feet of right-of-way from the physical centerline along both roads. The following right-of-way dedication note is required, **"An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."**
- In accordance with Section 3.2.5.1.2 of the Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on Cedar Neck Road. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, **"A 15-foot wide permanent easement is hereby established for the State of Delaware, as per this plat."**
- 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 entrance on Cedar Neck Road.
  - Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.
- Section 3.5.4.2 of the Manual addresses requirements for shared-use paths and sidewalks. For projects in Level 3 and 4 Investment Areas, installation of paths or sidewalks along the frontage on State-maintained roads may be required by DelDOT. DelDOT anticipates requiring the developer to build a Shared Use Path along their frontage on Cedar Neck Road.
- Referring to Section 3.5.5 of the Manual, existing and proposed transit stops and associated facilities as required by the Delaware Transit Corporation (DTC) or DelDOT shall be shown on the Record Plan.

- 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 Cedar Neck Road.
- 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>.
- In accordance with Section 5.14 of the Manual, all existing utilities must be shown on the plan and a utility relocation plan will be required for any utilities that need to be relocated.

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

**Sediment and Stormwater Management**

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact the Sussex Conservation District at (302) 856-7219 for details regarding submittal requirements and fees.
- According to information provided by the applicant in the PLUS application, both green-technology stormwater management and pervious pavers will be included in the final design of this project. These features are considered best management practices.

**State Historic Preservation Office – Contact Carlton Hall 736-7400**

- The Delaware SHPO does not recommend or support development in Level 4 areas.
- There are no known archaeological sites, or known National Register listed or eligible properties on the parcel. However, previous survey for the sewer expansion collected early eighteenth-century artifacts and suggests the existence of a potential early site in the vicinity. The National Register Wilgus site is on the property to the north, representing an important Native American resource. The majority of the subject property has not been surveyed and there is a high potential for Native American



archaeological remains, especially in the eastern half of the area to be developed. An early historic site may be located in the vicinity. Our office is recommending an archaeological survey prior to ground disturbance.

- 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).
- 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](http://www.achp.gov)

If there are any questions, inquiries, or concerns, feel free to contact the Delaware State Historic Preservation Office for assistance at 302-736-7400.

#### **Delaware State Fire Marshall's Office – Contact Duane Fox 259-7037**

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 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.
- For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan

#### **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. Where traffic circles (roundabouts) are located in the subdivision, they too are to be arranged in such a manner that they will not adversely affect quick and unimpeded travel of fire apparatus throughout the subdivision. Additionally, where trees are to be situated adjacent to travel roads in the subdivision, some forethought should be exercised regarding how future growth of the trees may affect fire department travel throughout 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.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

#### **Gas Piping and System Information:**

- Provide type of fuel proposed and show locations of bulk containers on plan.

#### **Required Notes:**

- Provide a note on the final plans submitted for review to read “All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- 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

### **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 Cedar Neck Road.
- The applicant should expect a requirement that all PLUS and Technical Advisory Committee (TAC) comments be addressed prior to submitting plans for review.
- Please be advised that 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 25, 2019. The notes can be found at



<https://www.deldot.gov/Business/subdivisions/>.

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

**Groundwater Discharges**

- A soil feasibility study should be completed and submitted to the Groundwater Discharges Section (GWDS) Small System Section, in Georgetown, for approval (Section 5.2.2 of the Regulations Governing the Design, Installation, and Operation of On-Site Wastewater Treatment and Disposal Systems).
- With wastewater disposal being provided by Sussex County, GWDS Large System might need to be notified, if the disposal capacity is changing from the existing permit. GWDS Large System can be contacted at (302) 739-9948.

**Flooding and Sea Level Rise**

- The majority of the site is located within the Special Flood Hazard Area (SFHA), zones AE6 and AE7.
- Proposed structures should be sited outside of the SFHA. If sited within the SFHA, all local floodplain codes and ordinances must be followed.
- The developer should incorporate higher standards into the design of structures, particularly since the majority of the site is situated in an area projected to be impacted by sea level rise.

**State Natural Area**

- A portion of the project is located within the Indian River Bay Natural Area. Impacts to this area should be avoided. A "natural area" as defined by the law is an area of land or water, or of both land and water, whether in public or private ownership, which either retains or has reestablished its natural character (although it need not be undisturbed), or has unusual flora or fauna, or has biotic, geological, scenic or archaeological features of scientific or educational value.
- The project is also adjacent to Fresh Pond, which is owned and managed by DNREC Division of Parks and Recreation (DPR).
- DPR would be interested in discussing the possible acquisition of the wetland areas on the eastern portion of the property via donation. Please note that tax incentives may be available.
- Please contact Jennifer Holmes with the DNREC Division of Parks and Recreation, Office of Nature Preserves: (302)739-9239 or [Jennifer.Holmes@delaware.gov](mailto:Jennifer.Holmes@delaware.gov).

### **Natural Habitat Protection**

DNREC statewide mapping indicates that this proposal may impact 10 acres of wetlands.

- The proposed site plan currently depicts disturbance adjacent to wetlands. To protect the function and integrity of wetlands, a minimum 100-foot buffer shall be left intact around the perimeter of any wetland habitats (either perennial or seasonal). Upland buffers serve as habitat for many terrestrial species that are dependent on wetland habitats for a portion of their annual life cycle. Buffers are an integral component of aquatic and wetland habitats that serve to reduce the amount of sediments, pollutants, and other non-point source material that may affect the function and integrity of habitat and the condition and survivability of aquatic organisms.
- Avoid diverting surface water from roadways and stormwater facilities into the wetlands on site. Water quality could be detrimentally affected by run-off which can contain oil and other pollutants (basically any substance a home owner may use on their lawn or driveway).
- Maintain inputs to natural wetlands at pre-construction levels. Avoid causing increases or decreases in water levels.
- Small animals, such as salamanders have difficulty climbing vertical curbs. We recommend designing the development to exclude curbs is best for these species but if road curbing is part of the design, curbing that allows small animals to climb out of the roadbed (such as Cape Cod curbing) is preferred over steep, vertical curbing.
- Avoid installing sewers with grates, which can create a hazard for amphibians and reptiles.
- Any culverts installed should be open bottom box culverts to allow for natural substrate to remain and in-water passage of aquatic life. Additionally, culverts should be left as wide as possible to ensure that salamanders can travel through them.
- Perc test holes act as pitfall traps, collecting large numbers of amphibians, turtles, and other animals that will be unable to escape and will ultimately die. As such, perc test holes should be refilled to grade.
- Low spillage lights (those that reflect light directly downward onto the area to be illuminated) should be used on roads and homes within 750 ft. of the forested wetlands on site. Fluorescent and mercury vapor lighting should not be used.

### **Wetland and Hydric Soils**

- The existing project design and state-wide mapping suggest that some of the proposed buildings in the project area are to be located within non-tidal wetlands.
- The applicant should remove those buildings from any wetlands and include a 100-foot wetland buffer from the landward edge of both non-tidal and tidal wetlands in the final project design.



### **Sustainable Development Recommendations**

- The applicant should consider the use of recycled, energy efficient materials, and renewable energy infrastructure.
- The Division of Climate, Coastal, & Energy offers incentives for clean transportation (Workplace EV Charging) and energy efficiency. These programs address climate change goals of reducing greenhouse gas emissions and improving overall air quality ([www.de.gov/greenenergy](http://www.de.gov/greenenergy), [www.de.gov/cleantransportation](http://www.de.gov/cleantransportation), [www.de.gov/eeif](http://www.de.gov/eeif)).

### **Nuisance Waterfowl Avoidance**

- Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance for community residents. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas, and can become aggressive during the nesting season. Short manicured lawns surrounding ponds provide attractive habitat for these species.
  - 1) To deter waterfowl from taking up residence in these ponds, we recommend planting the surrounding open space with a mix of native wildflower plantings (to be planted in accordance with the Sediment and Stormwater Plan approval agency requirements).
  - 2) It is best to mow the open space area surrounding the pond only once a year, either in February or March. If mowing must occur more often, it would be helpful to leave a minimum buffer of 15-30 ft. in width to be mowed annually. This area would be necessary to adequately deter the waterfowl from inhabiting the area (when the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond). In addition to deterring nuisance waterfowl, the native wildflower mix will also serve to attract bees, butterflies, and other pollinators, and reduce run-off, which can contain oil and other pollutants that homeowners may use on their lawns and driveways.
- For assistance in drafting a list of plants suitable for a stormwater management pond buffer, please contact DNREC's botanist, Bill McAvoy at (302) 735-8668 or [William.McAvoy@delaware.gov](mailto:William.McAvoy@delaware.gov).

### **Mosquito-Nuisance Avoidance**

- Mosquito control issues are increasing as developments infringe on wetland areas which often lead to increased demands by the public for mosquito control services. These services are often underfunded as local property taxes do not support the State's mosquito control services. As a result, Homeowner's Association (HOA) often inherit the burden of dealing with mosquito issues. DRNEC provides the following helpful recommendations (1) achieving good control in an environmentally compatible manner requires technical knowledge, (2) the HOA will need concurrence from all their homeowners/residents for if, how, when and where any treatments will be done, (3) controlling mosquitoes can be quite costly and an on-going problem, and (4) the HOA

should be aware that there can be liability issues that their treatment activities might cause, particularly in regard to any claims of chemical trespass, misapplications, or adverse impacts to human health or the environment from insecticide exposures. If the applicant has any questions regarding mosquito control issues, they can contact Dr. Bill Meredith, Mosquito Control Administrator at (302) 739-9917.

**Delaware State Fire Marshall's Office – Contact Duane Fox 259-7037**

- 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](http://www.statefiremarshal.delaware.gov), technical services link, plan review, applications or brochures.

**Sussex County – Contact Rob Davis 302-855-7820**

- The development is within Tier 1 - Sussex County Unified Sanitary Sewer District and sewer service is available. A sewer system concept evaluation must be requested to define a connection point for new areas that were not previously approved.
- A “Use of Existing Infrastructure Agreement” is required for new areas and must be approved prior to approval of construction plans. Sussex County Code, Chapter 110, requires that the Engineer and/or Developer request a Sewer System Concept Evaluation (SSCE) from the Utility Planning Department for new areas of the project not previously approved by providing the parcel(s) estimated equivalent dwelling units (EDU) for the project, along with payment of a \$1,000.00 fee for the evaluation. The fee is to be payable to Sussex County Council. The Utility Planning Department will review the parcel(s) and EDU, confirm capacity, provide the connection point and define any additional parcels that must be served as part of the project. Should it be determined that a pump station is required for the project, additional information may be requested. This information will be conveyed to the engineer and/or developer as well as the Sussex County Public Works department. The Public Works Division will use this information when reviewing construction drawings to verify that the correct connection point is used, and all required parcels are served.
- The proposed development will require a developer installed collection system in accordance with Sussex County standards and procedures.



- Onetime system connection charges will apply. Please contact the Utility Permits Division at 302 854-7719 for additional information on charges.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



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

CC: Sussex County Planning



DAVIS  
BOWEN &  
FRIEDEL, INC.

ARCHITECTS • ENGINEERS • PLANNERS • SURVEYORS

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

January 5, 2021

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

Attn: Mr. Jamie Whitehouse  
Director of Planning

RE: **Marlin Run**  
Response to PLUS Review-2019-09-03  
DBF # 0818C045.A01

Dear Mr. Whitehouse,

On behalf of the owner, CBB Cedar Pines LLC, we are pleased to submit a response to the comments provided during the PLUS Review of the Project on September 25, 2019 and sent from the Office of State Planning dated October 23, 2019 to Land Tech Land Planning, LLC. We have read all 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 3,4, and Out of Play according to the Strategies for State Policies and Spending. 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 may support future growth in these areas, but may have priorities for the near future. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. Out of Play reflects lands that, at the time the State Strategies were developed, were not available for private development due to public ownership and / or preservation.*

*The Office State Planning does not support any building activities in Level 4 and ask that any buildings located in Level 4 be moved out of those areas. In addition, the State asks that the developer work with State agencies, specifically DNREC to ensure that the environmental features of this site are protected.*



We recognize that the project is located within Investment Levels 3 & Level 4. The majority of the proposed homes will fall with level 3. With the growth in the area, we believe this project to be a good fit to the surrounding community. The project falls within the Counties' sanitary sewer planning areas and is in line with the Counties investment in infrastructure. The site will be designed with respect to the environmental features located on the parcel. Wetlands will be protected by a 20' buffer.

**Code Requirements/Agency Permitting Requirements**

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

- The site access, on Cedar Neck Road (Sussex Road 357) must be designed in accordance with DeIDOT's Development Coordination Manual, which is available at <http://www.deldot.gov/Business/subdivisions/index.shtml?dc=changes>.

**The site currently has an approved entrance plan and permit for construction.**

- The subject land, Tax Parcel 1-34-09.00-21.00, was previously proposed for development as The Preserve at Cedar Pines. A Letter of No Objection to Recordation was issued for that development on August 23, 2018, but the entrance was never constructed. With the proposed change in use, that plan approval will need to be revisited. In accordance with Section P.4.2 of the Manual the developer will need to obtain both a Letter of No Objection and an entrance plan approval specific to the current development proposal.

**We understand that the proposed site plan will require a new Letter of No Objection to Recordation specific to the current development proposal.**

- Pursuant to Section P.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request 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](https://www.deldot.gov/Business/subdivisions/pdfs/Meeting_Request_Form.pdf?08022017).
- Section P.5 of the Manual addresses fees that are assessed for the review of development proposals. DeIDOT 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.
- 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 728 vehicle trip ends per day. DeIDOT calculates a value of 698 but regardless, the plan meets the warrants for a TIS.

*Section 2.2.2.2 of the 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, DeIDOT may accept an Area Wide Study (AWS) Fee in lieu of the TIS if the local government does not require a TIS. If the County requires a TIS, DeIDOT will support their requirement and will not accept the AWS Fee.*

*The purpose of a TIS is to identify offsite improvements that the developer should build or contribute toward. Regardless of whether a TIS is done for this development, DeIDOT anticipates requiring the developer improve Cedar Neck Road within the limits of their site frontage to meet DeIDOT's Local Road standards, which include 11-foot lanes and 5-foot shoulders and to enter an agreement to fund a future signal at the intersection of Cedar Neck Road and Sandy cove Road (Sussex Road 358). The AWS Fee, if paid, would not be counted toward those improvements. AWS Fees are used to fund traffic studies, not to build improvements.*

- *As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Manual, DeIDOT will require dedication of right-of-way along the site's frontage on Cedar Neck Road. By this regulation, this dedication is to provide a minimum of 30 feet of right-of-way from the physical centerline along both roads. The following right-of-way dedication note is required, "An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."*
- *In accordance with Section 3.2.5.1.2 of the Manual, DeIDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on Cedar Neck Road. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, "A 15-foot wide permanent easement is hereby established for the State of Delaware, as per this plat."*
- *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 entrance on Cedar Neck*
  - *Road. Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.*
- *Section 3.5.4.2 of the Manual addresses requirements for shared-use paths and sidewalks. For projects in Level 3 and 4 Investment Areas, installation of paths or sidewalks along the frontage on State-maintained roads may be required by DeIDOT. DeIDOT anticipates requiring the developer to build a Shared Use Path along their frontage on Cedar Neck Road.*



- Referring to Section 3.5.5 of the Manual, existing and proposed transit stops and associated facilities as required by the Delaware Transit Corporation (DTC) or DeIDOT shall be shown on the Record Plan.
- 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 Cedar Neck Road.
- 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>.
- 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.

**The site now has an approved entrance plan and permit for construction. The current development proposal will be submitted to DeIDOT in accordance with their procedures to ensure the currently approved entrance plans and permits are applicable to the proposed development plan.**

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

#### ***Sediment and Stormwater Management***

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a preapplication meeting to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact the Sussex Conservation District at (302) 856-7219 for details regarding submittal requirements and fees.
- According to information provided by the applicant in the PLUS application, both green technology stormwater management and pervious pavers will be included in the final design of this project. These features are considered best management practices.

**The developer will work with the Sussex Conservation District to implement a Sediment & Stormwater Management Plan utilizing Best Management Practices.**

**State Historic Preservation Office - Contact Carlton Hall 736-7400**

- *The Delaware SHPO does not recommend or support development in Level 4 areas.*
- *There are no known archaeological sites, or known National Register listed or eligible properties on the parcel. However, previous survey for the sewer expansion collected early eighteenth-century artifacts and suggests the existence of a potential early site in the vicinity. The National Register Wilgus site is on the property to the north, representing an important Native American resource. The majority of the subject property has not been surveyed and there is a high potential for Native American archaeological remains, especially in the eastern half of the area to be developed. An early historic site may be located in the vicinity. Our office is recommending an archaeological survey prior to ground disturbance.*
- *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).*
- *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](http://www.achp.gov)*

**The majority of the proposed development is located in level 3 area. Thank you for the identification of the known archaeological sites located near the site. Should Human remains be found, the Developer will follow all State and Federal laws. We do not anticipate any federal funding. Army Corps will approve the wetland delineations. The Developer will follow the National Historic Preservation Act of 1966.**

**Delaware State Fire Marshall's - Contact Duane Fox 259-7037**

*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 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.*
- *For townhouse buildings, provide a section I detail and the UL design number of the 2-hour fire rated separation wall on the Site plan*

**Water will be provided by Sussex Shores Company and will meet or exceed**



**pressure and duration requirements. There are no longer townhouse buildings proposed for the site.**

***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. Where traffic circles (roundabouts) are located in the subdivision, they too are to be arranged in such a manner that they will not adversely affect quick and unimpeded travel of fire apparatus throughout the subdivision. Additionally, where trees are to be situated adjacent to travel roads in the subdivision, some forethought should be exercised regarding how future growth of the trees may affect fire department travel throughout 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.*
- *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 development will work with and meet all accessibility requirements the Fire Marshal's office may have.**

***Gas Piping and System Information:***

- *Provide type of fuel proposed and show locations of bulk containers on plan.*

**The type of fuel is unknown at this time. Should gas be proposed, locations will be shown on the plan.**

***Required Notes:***

- *Provide a note on the final plans submitted for review to read "All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations"*
- *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*

**All required notes will be shown on the final plans.**

**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 - 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 Cedar Neck Road.*

**Access to any substation and/or wastewater facility will be from an internal street or drive.**

- *The applicant should expect a requirement that all PLUS and Technical Advisory Committee (TAC) comments be addressed prior to submitting plans for review.*

**Plus comments are being addressed as part of TAC submission. TAC comments will be addressed prior to DeIDOT submission.**

- *Please be advised that the Standard General Notes have been updated and posted to the DeIDOT website. Please begin using the new versions and look for the revision dates of March 21, 2019 and March 25, 2019. The notes can be found at <https://www.deldot.gov/Business/subdivisions/>.*

**The latest Standard General Notes will be provided on the final plans.**

**Department of Natural Resources and Environmental Control - Contact Michael**

**Tholstrup 735-3352**

**Groundwater Discharges**

- *A soil feasibility study should be completed and submitted to the Groundwater Discharges Section (GWDS) Small System Section, in Georgetown, for approval (Section 5.2.2 of the Regulations Governing the Design, Installation, and Operation of On-Site Wastewater Treatment and Disposal Systems).*

**There are no on-site wastewater treatment and disposal systems proposed for this development.**

- *With wastewater disposal being provided by Sussex County, GWDS Large System might need to be notified, if the disposal capacity is changing from the existing permit. GWDS Large System can be contacted at (302) 139-9948.*

**GWDS Large System will be notified if the disposal capacity changes from the existing permit.**

**Flooding and Sea Level Rise**



- *The majority of the site is located within the Special Flood Hazard Area (SFHA), zones AE6 and AE7.*
- *Proposed structures should be sited outside of the SFHA. If sited within the SFHA, all local floodplain codes and ordinances must be followed.*
- *The developer should incorporate higher standards into the design of structures, particularly since the majority of the site is situated in an area projected to be impacted by sea level rise.*

**The development shall comply with all floodplain codes and ordinances.**

#### ***State Natural Area***

- *A portion of the project is located within the Indian River Bay Natural Area. Impacts to this area should be avoided. A "natural area" as defined by the law is an area of land or water, or of both land and water, whether in public or private ownership, which either retains or has reestablished its natural character (although it need not be undisturbed), or has unusual flora or fauna, or has biotic, geological, scenic or archaeological features of scientific or educational value.*
- *The project is also adjacent to Fresh Pond, which is owned and managed by DNREC Division of Parks and Recreation (DPR).*
- *DPR would be interested in discussing the possible acquisition of the wetland areas on the eastern portion of the property via donation. Please note that tax incentives may be available.*
- *Please contact Jennifer Holmes with the DNREC Division of Parks and Recreation, Office of Nature Preserves: (302)739-9239 or [Jennifer.Holmes@delaware.gov](mailto:Jennifer.Holmes@delaware.gov).*

**A voluntary 20 ft. buffer from section 404 wetlands is proposed. This also provides at a 100 ft. buffer from state wetlands.**

#### ***Natural Habitat Protection***

*DNREC statewide mapping indicates that this proposal may impact 10 acres of wetlands.*

- *The proposed site plan currently depicts disturbance adjacent to wetlands. To protect the function and integrity of wetlands, a minimum 100-foot buffer shall be left intact around the perimeter of any wetland habitats (either perennial or seasonal). Upland buffers serve as habitat for many terrestrial species that are dependent on wetland habitats for a portion of their annual life cycle. Buffers are an integral component of aquatic and wetland habitats that serve to reduce the amount of sediments, pollutants, and other non-point source material that may affect the function and integrity of habitat and the condition and survivability of aquatic organisms.*

**A voluntary 20 ft. buffer from section 404 wetlands is proposed. This also provides at a 100 ft. buffer from state wetlands.**

- *Avoid diverting surface water from roadways and stormwater facilities into the wetlands on site. Water quality could be detrimentally affected by run-off which can contain oil and other pollutants (basically any substance a home owner may use on their lawn or driveway).*

**Discharge to the wetlands would not be a diversion since stormwater naturally flowed to the on-site wetlands in pre-development conditions. Best Management Practices will be utilized to treat stormwater prior to any potential discharge to wetlands on site.**

- *Maintain inputs to natural wetlands at pre-construction levels. Avoid causing increases or decreases in water levels.*

**The development will be designed with the goal of maintaining inputs as described while complying with state stormwater regulations.**

- *Small animals, such as salamanders have difficulty climbing vertical curbs. We recommend designing the development to exclude curbs is best for these species but if road curbing is part of the design, curbing that allows small animals to climb out of the roadbed (such as Cape Cod curbing) is preferred over steep, vertical curbing.*

**The development will utilize "suburban rolled curb" (DelDOT integral pcc curb and gutter Type 2) which should facilitate small animals as described.**

- *Avoid installing sewers with grates, which can create a hazard for amphibians and reptiles.*

**Stormwater design for the development will prioritize avoiding sewers with grates.**

- *Any culverts installed should be open bottom box culverts to allow for natural substrate to remain and in-water passage of aquatic life. Additionally, culverts should be left as wide as possible to ensure that salamanders can travel through them.*

**If culverts are required on the site, designs with natural bottoms will be prioritized.**

- *Perc test holes act as pitfall traps, collecting large numbers of amphibians, turtles, and other animals that will be unable to escape and will ultimately die. As such, perc test holes should be refilled to grade.*

**The developer will notify contractors of any soil investigation to fill all test holes to grade upon completion of tests.**

- *Low spillage lights (those that reflect light directly downward onto the area to be illuminated) should be used on roads and homes within 750 ft. of the forested wetlands on site. Fluorescent and mercury vapor lighting should not be used.*

#### **Wetland and Hydric Soils**

- *The existing project design and state-wide mapping suggest that some of the proposed buildings in the project area are to be located within non-tidal wetlands.*
- *The applicant should remove those buildings from any wetlands and include a 100-foot wetland buffer from the landward edge of both non-tidal and tidal wetlands in the final project design.*

**A voluntary 20 ft. buffer from section 404 wetlands is proposed. This also provides at a 100 ft. buffer from state wetlands.**



### ***Sustainable Development Recommendations***

- *The applicant should consider the use of recycled, energy efficient materials, and renewable energy infrastructure.*
- *The Division of Climate, Coastal, & Energy offers incentives for clean transportation (Workplace EV Charging) and energy efficiency. These programs address climate change goals of reducing greenhouse gas emissions and improving overall air quality ([www.ae.gov/greenen](http://www.ae.gov/greenen) , [www.de.gov/cleantransportation](http://www.de.gov/cleantransportation), [www.de.gov/eeif](http://www.de.gov/eeif)).*

**We thank you for these suggestions which will be taken under consideration.**

### ***Nuisance Waterfowl Avoidance***

- *Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance for community residents. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas, and can become aggressive during the nesting season. Short manicured lawns surrounding ponds provide attractive habitat for these species.*
  - 1) *To deter waterfowl from taking up residence in these ponds, we recommend planting the surrounding open space with a mix of native wildflower plantings (to be planted in accordance with the Sediment and Stormwater Plan approval agency requirements).*
  - 2) *It is best to mow the open space area surrounding the pond only once a year, either in February or March. If mowing must occur more often, it would be helpful to leave a minimum buffer of 15-30 ft. in width to be mowed annually. This area would be necessary to adequately deter the waterfowl from inhabiting the area (when the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond). In addition to deterring nuisance waterfowl, the native wildflower mix will also serve to attract bees, butterflies, and other pollinators, and reduce run-off, which can contain oil and other pollutants that homeowners may use on their lawns and driveways.*
- *For assistance in drafting a list of plants suitable for a stormwater management pond buffer, please contact DNREC's botanist, Bill McAvoy at (302) 735-8668 or [William.McAvoy@delaware.gov](mailto:William.McAvoy@delaware.gov).*

**We thank you for these suggestions which will be taken under consideration.**

### ***Mosquito-Nuisance Avoidance***

- *Mosquito control issues are increasing as developments infringe on wetland areas which often lead to increased demands by the public for mosquito control services. These services are often underfunded as local property taxes do not support the State's mosquito control services. As a result, Homeowner's Association (HOA) often inherit the burden of dealing with mosquito issues. DRNEC provides the following helpful recommendations (1) achieving good control in an environmentally compatible manner requires technical knowledge, (2) the HOA will need concurrence from all their homeowners/residents for if,*

*how, when and where any treatments will be done, (3) controlling mosquitoes can be quite costly and an on-going problem, and (4) the HOA should be aware that there can be liability issues that their treatment activities might cause, particularly in regard to any claims of chemical trespass, misapplications, or adverse impacts to human health or the environment from insecticide exposures.*

- If the applicant has any questions regarding mosquito control issues, they can contact Dr. Bill Meredith, Mosquito Control Administrator at (302) 739-9917.*

**We thank you for these suggestions which will be taken under consideration.**

**Delaware State Marshall's Office - Contact Duane Fox 259-7037**

- 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](http://www.statefiremarshal.delaware.gov), technical services link, plan review, applications or brochures.*

**We thank you for these suggestions which will be taken under consideration.**

**Sussex County - Contact Rob Davis 302-855-7820**

- The development is within Tier 1 - Sussex County Unified Sanitary Sewer District and sewer service is available. A sewer system concept evaluation must be requested to define a connection point for new areas that were not previously approved.*
- A "Use of Existing Infrastructure Agreement" is required for new areas and must be approved prior to approval of construction plans. Sussex County Code, Chapter 110, requires that the Engineer and/or Developer request a Sewer System Concept Evaluation (SSCE) from the Utility Planning Department for new areas of the project not previously approved by providing the parcel(s) estimated equivalent dwelling units (EDU) for the project, along with payment of a \$1,000.00 fee for the evaluation. The fee is to be payable to Sussex County Council. The Utility Planning Department will review the parcel(s) and EDU, confirm capacity, provide the connection point and define any additional parcels that must be served as part of the project. Should it be determined that a pump station is required for the project, additional information may be requested. This information will be conveyed to the engineer and/or developer as well as the Sussex County Public Works department. The Public Works Division will use this information when reviewing construction drawings to verify that the correct connection point is used, and all required parcels are served.*



- *The proposed development will require a developer installed collection system in accordance with Sussex County standards and procedures.*
- *Onetime system connection charges will apply. Please contact the Utility Permits Division at 302 854-7719 for additional information on charges.*

**We will coordinate with Sussex County Engineering for all wastewater design and permitting.**

On behalf of the Developer, we thank the Office of State Planning and other State Departments for their comments. If Sussex County Planning and Zoning has any questions or requires additional information, please do not hesitate to contact me at (302) 424-1441, or via e-mail at [wzc@dbfinc.com](mailto:wzc@dbfinc.com).

Respectfully Submitted,  
*Davis, Bowen & Friedel, Inc.*



W. Zachary Crouch, P.E.  
Principal

*P:\Ocean Atlantic\0818C045 Marlin Run\Docs\PLUS\0818C045.A01 Marlin Run PLUS response.docx*

CC: Constance C. Holland, AICP, Office of State Planning  
Preston Schell, Ocean Atlantic Companies

## Zac Crouch

---

**From:** Bayer, Stephen G (OMB) <stephen.bayer@delaware.gov>  
**Sent:** Wednesday, December 30, 2020 8:38 AM  
**To:** Zac Crouch; Morris, Dorothy (OMB)  
**Subject:** Re: Marlin Run PLUS review 2019-09-03

Hi Zac,

OSPC is good with this project proceeding without an additional PLUS review.

Please let me know if you have any questions or if I can provide any additional information.

Thanks much,  
-Steve Bayer

---

**From:** Zac Crouch <wzc@dbfinc.com>  
**Sent:** Monday, December 28, 2020 3:19 PM  
**To:** Bayer, Stephen G (OMB) <stephen.bayer@delaware.gov>; Morris, Dorothy (OMB) <Dorothy.Morris@delaware.gov>  
**Cc:** 'Preston Schell' <preston@oacompanies.com>; Zac Crouch <wzc@dbfinc.com>  
**Subject:** Marlin Run PLUS review 2019-09-03

Dorothy and Steve,

On behalf of CBB Cedar Pines, LLC (owner) and the developer (Preston Schell), DBF is in the process of modifying the above application to submit to the County which will be heard on February 18<sup>th</sup>. I have attached the original PLUS application and the State comments in the first 2 pdfs. The Owner and Developer would like to revise the site plan before the public hearing on February 18<sup>th</sup> which is the 3<sup>rd</sup> attachment. The project will still have to go through the Conditional Use process per County requirements. The number of units are staying the same and the entrance is under construction today so no change in traffic. The one big change between the 2 plans is the revised plan includes both a 100' buffer from tidal wetlands and a 20' voluntary buffer from 404 wetlands. The previous plan (2019-09-03) that went through PLUS only showed a 100' buffer from tidal, no 404 buffer.

Based on the above and attached, these internal changes benefit the site and after reviewing the State's comments, we feel they still relate to the project. With that said, we are hoping that we do not have to go through the whole process from a timing perspective based the revised plan and no increase in units. If this is acceptable, we will respond to the State's comments based on the revised plan since the previous applicant has not responded yet. Please let us know if this is acceptable and if you need anything else please let me know.

Thanks again,

Zac



**W. Zachary Crouch, P.E. | Principal/Sr. Engineer | Davis, Bowen & Friedel Inc.**  
Email: [wzc@dbfinc.com](mailto:wzc@dbfinc.com) | Office: 302-424-1441 | Cell: 302-542-4461 | [www.dbfinc.com](http://www.dbfinc.com)







CBB Cedar Pines, LLC  
9919 Stephen Decatur Highway  
Ocean City, MD 21842  
(410) 213-1900

---

December 23, 2020

To Whom It May Concern:

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

Re: Marlin Run - Tax I.D. No. 134-9.00-21.00, 21.03, 21.04, 21.05 & 1227.00 - 1269.00

Dear Director Whitehouse:

Please accept this letter on behalf of CBB Cedar Pines, LLC informing you and the Sussex County Planning and Zoning Commission that the engineer of record for the Marlin Run project has been changed from Land Tech Land Planning, LLC to Davis, Bowen & Friedel, Inc, c/o Mr. Zac Crouch.

Thank You,

---

Todd E. Burbage, General Manager  
CBB Cedar Pines, LLC

**SUSSEX COUNTY ENGINEERING DEPARTMENT  
UTILITY PLANNING & DESIGN REVIEW DIVISION  
C/U & C/Z COMMENTS**

TO: **Jamie Whitehouse**

REVIEWER: **Chris Calio**

DATE: **2/8/2021**

APPLICATION: **CU 2207 CBB Cedar Pines LLC**

APPLICANT: **CCB Cedar Pines LLC**

FILE NO: **CN-1.05**

TAX MAP &  
PARCEL(S): **134-9.00-21.00, 21.03, 21.04, 21.05, 1227.00-1269.00**

LOCATION: **On the east side of Cedar Neck Road, approximately 0.3 miles north of Hickman Road.**

NO. OF UNITS: **75 single-family condos**

GROSS  
ACREAGE: **29.34**

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 \$6,360.00** per EDU. Please contact **Denise Burns** 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 302-855-1299 to apply**

(10). Is a Use of Existing Infrastructure Agreement Required? **Yes**

UTILITY PLANNING APPROVAL:



---

John J. Ashman  
Director of Utility Planning

Xc: Hans M. Medlarz, P.E.  
Lisa Walls  
Denise Burns



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
PHILADELPHIA DISTRICT CORPS OF ENGINEERS  
WANAMAKER BUILDING, 100 PENN SQUARE EAST  
PHILADELPHIA, PENNSYLVANIA 19107-3390

JAN 24 2018

Regulatory Branch  
Application Section I

SUBJECT: CENAP-OP-R-2011-902-85 (Preliminary JD)  
Project Name: Oceanside Vista SX  
Latitude and Longitude: 38.570217°N/-75.078244°W

Kelly Pierson  
Back Creek Environmental  
Post Office Box 23  
Gaithersburg, Maryland 20877

Dear Mr. Pierson:

This letter is written with regard to your request for verification of a preliminary jurisdictional determination. The property associated with your request is located on Cedar Neck Road at Tax Map Parcels 134-9.00-21.00 and 24.00, Ocean View, Sussex County, Delaware.

Pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, a Department of the Army permit is required for work or structures in navigable waters of the United States and the discharge of dredged and/or fill material into waters of the United States, including adjacent wetlands. Any proposal to perform the above activities within any waters of the United States, including wetlands, requires the prior approval of this office.

The plans identified on the following page depict all delineated waters and wetlands on the subject site that may be jurisdictional under Section 10 of the Rivers and Harbor Act and/or Section 404 of the Clean Water Act. This preliminary determination has been conducted to identify the location(s) of waters and wetlands that may be waters of the United States for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participating in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

This preliminary jurisdictional determination is non-binding and indicates that there may be waters of the United States, including wetlands, on the parcel. Preliminary JDs are advisory in nature and may not be appealed (See attached Notification of Appeal Form (Enclosure 1)); however, the applicant retains the right to request an approved Jurisdictional Determination, which may be appealed, for the site. Also enclosed (Enclosure 2) is a copy of the Preliminary Jurisdictional Determination Form signed by the applicant or his agent agreeing to accept a preliminary jurisdictional determination. Please be aware that for purposes of computation of

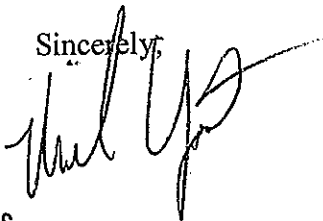


impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S.

This letter is valid for a period of five (5) years. This preliminary jurisdictional determination is issued in accordance with current Federal regulations and is based upon the existing site conditions and information provided by you in your application. This office reserves the right to reevaluate and modify the preliminary jurisdictional determination at any time should existing site conditions or Federal regulations 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 Mr. Michael D. Yost at (267) 240-5278, by email at michael.d.yost@usace.army.mil or write to the above address.

Sincerely,



EDR

Edward E. Bonner  
Chief, Regulatory Branch

\*\*\*\*\*  
SUBJECT PROPERTY: Oceanside Vista, Tax Map Parcels 134-9.00-21.00 and 134-9.00-24.00, Ocean View, Sussex County, Delaware.

\*\*\*\*\*  
SURVEY DESCRIPTION: Plan prepared by True North Surveying, Inc., dated July 18, 2011, revised August 24, 2011, entitled: *Wetlands Delineation Plat for Bluewater Development Corporation*, one sheet.

\*\*\*\*\*  
COMMENTS: This determination is based on a report prepared by Back Creek Environmental prepared on January 10, 2017; no site inspection was performed by this office. Back Creek reconfirmed the wetland delineation on October 10, 2017. This determination applies only to the specific project site referenced above.

\*\*\*\*\*

Enclosures

## MAPPING & ADDRESSING

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



# Sussex County

DELAWARE  
sussexcountype.gov

January 6, 2021

Ocean Atlantic Companies

Attn: Ben Gordy

**RE: Change of Sub Division Name(s)/Formally known as:**

**MARLIN RUN**

I have received your request to change the subdivision previously approved as **Marlin Run**, which is located in **Ocean View** (134-9.00-21.00). The name change has been approved and will now be known as:

**MARLIN CHASE**

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



COUNTY ADMINISTRATIVE OFFICES  
2 THE CIRCLE | PO BOX 589  
GEORGETOWN, DELAWARE 19947



# Sussex County 911 Addressing and GIS Services

Sussex County West Complex Administrative Offices  
22215 DuPont Blvd 3<sup>rd</sup> Floor  
P.O. Box 589  
Georgetown, DE 19947



Phone: (302) 855-1176  
Fax: (302) 853-5889

July 23, 2015

Land Tech, LLC.  
Attn: Jeffrey Clark  
118 Atlantic Av  
Ocean View, DE 19970

RE: **Street Names**

I have received proposed street names for Oceanside Vista located in Ocean View. In reviewing the proposed street name(s) the following have been approved:

<b>Marlin Tail Way</b>	<b>Chinquapin Dr</b>	<b>Blue Blossom Crsg</b>
<b>Yellowwood Tr</b>	<b>Hophornbeam Rn</b>	

Use only approved road names that you have written confirmation for or you will be required to rerecord.

Upon final approval, 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,

Lindsey D. Stubbs  
Addressing Department

CC: Janelle Cornwell  
Planning & Zoning

# PERMIT FOR ENTRANCE CONSTRUCTION

PERMIT NO.: SC-0002-19CM



DISTRICT Sussex AREA \_\_\_\_\_ PERMIT NO. SC-0002-19CM DATE 01/04/2019

Type Of Access : **Commercial**

Maintenance Road No.: SCR 358 Delaware Grid Coordinate : \_\_\_\_\_

Issue To : CBB Cedar Pines, LLC Phone No.: 410-213-1900  
(Owner)

Address : 9919 Stephen Decatur Highway , Ocean City, MD 21842

Type Of Security Furnished : Letter of Credit Amount : \$304,223.00

(150% of cost)

Estimated Construction Cost : \$202,815.00 Expiration Date : 01/04/2020

PARCEL ID NO. 134-9.00-21.00

STATE OF DELAWARE  
DEPARTMENT OF  
TRANSPORTATION

DIVISION OF  
MAINTENANCE &  
OPERATIONS

23697 Dupont Blvd  
Georgetown, DE 19947

## DESCRIPTION OF CONSTRUCTION

### Construction Access Permit

Permit to construct the permanent entrance and road improvements for the project known as **Oceanside Vista**, Tax Parcel Number **134-9.00-21.00** located on **SCR 357 (Cedar Neck Rd)** as per the plan approved by Steve Sisson, Sussex County Subdivision Engineer dated **December 31, 2015**. Letter of Credit number **86647890-F6** in the amount of \$ **304,223.00** issued from **Calvin B. Taylor Banking Co.** has been posted and upon successful completion and acceptance of work in conformance with approved plan, the bond will be released. As a property owner granted a permit to construct a commercial entrance that accesses State right-of-way, it is your responsibility to construct that entrance according to your stamped, approved plans and State Specifications. To avoid problems the District requires that any changes in the plans have prior approval from the Section Supervisor. Prior notification must be given to the Section Supervisor when work will occur on permit. Failure to give adequate notification will result in loss of permit and possible legal ramifications. **Please contact James Argo at (302) 853-1343 to give 72 hours notice prior to construction of the entrance.**

A final inspection will be held when work on the permit is complete. Any corrections, additions, alterations, etc. will be done before the permit is accepted. These items in no way eliminate guarantees set forth by the permit. The owner/developer must obtain a Utility Construction Permit, separate from the entrance permit, for any utility work to be done within State right-of-way.

It is hereby agreed by the owner of the property affected, and all heirs, assigns, and/or successors in interest, that all construction covered by this permit shall be performed in accordance with the approved construction plan and the current Standard Specifications published by the Department of Transportation. The plan and specifications are incorporated herein by reference, and made part of this permit. Work is to begin within 90 days of the date of this permit, and it is to be completed on or before the above completion date. Requests for an extension of this permit shall be submitted in writing to the Permit Section 30 days prior to expiration.

The Owner agrees not to sell, lease, or change the use of the property to significantly alter the flow and/or volume of traffic and/or drainage as determined within the sole discretion of the Division, and/or transfer his/her interest in the property without obtaining a new permit from the Division of Maintenance & Operations. Such failure automatically voids this permit.

The holder of this permit shall indemnify and save harmless the Division of Maintenance & Operations and its officers, employees, and/or agents from suits and damages arising from, or on account of the above described construction herein permitted on State rights-of-way, or the Division's acceptance thereof consistent with Section 107.14 of the Standard Specifications and all amendments thereto, incorporated herein by reference.

Traffic Control and utility alterations shall be in accordance with current The Division of Maintenance & Operations "Traffic Controls for Streets and Highway Construction Manual" and the "Utilities Policy and Procedure Manual," incorporated herein by reference.

Permittee shall call the Division of Maintenance & Operations Permit Section, (Canal District: 326-4679, Central District: 760-2433, South District: 853-1342) and Miss Utility (1-800-282-8555) prior to any construction on State rights-of-way.

The Division of Maintenance & Operations may require revisions to the approved plans as required by field conditions.

The permittee shall request the Division of Maintenance & Operations make final inspection of the construction when work is completed, and all work must be completed to the satisfaction of said Division of Maintenance & Operations.

This permit shall be wholly conditional upon the satisfactory completion of all provisions set forth herein. If, upon expiration of this permit, work is incomplete or not performed according to the aforesaid plan and specifications, and no extension is applied for and issued, this permit shall become null and void for all legal purposes and the entrance shall be considered illegal with reference to 17 Del C §146.

James Argo

Authorized Representative of Division of Maintenance &  
Operations

CBB Cedar Pines, LLC

Property Owner

Property Owner Signature





Spring 2017  
Aerial Photo

Sources:  
Tax Parcels per Sussex County



## Surrounding Communities Map

### Marlin Run

Sussex County, Delaware

0 800 1,600  
Feet







Denison  
Landscaping  
Inc.  
8911 Oxon Hill Rd  
Ft. Washington, Md  
20744



# MARLIN RUN

## Landscaping Plan

© Contents copyright 2021  
Denison Landscaping Inc.

No.	Revision	Date

Date:  
February 3, 2021

Drawn By:  
A. Davis

Sheet Title:

Landscape Plan

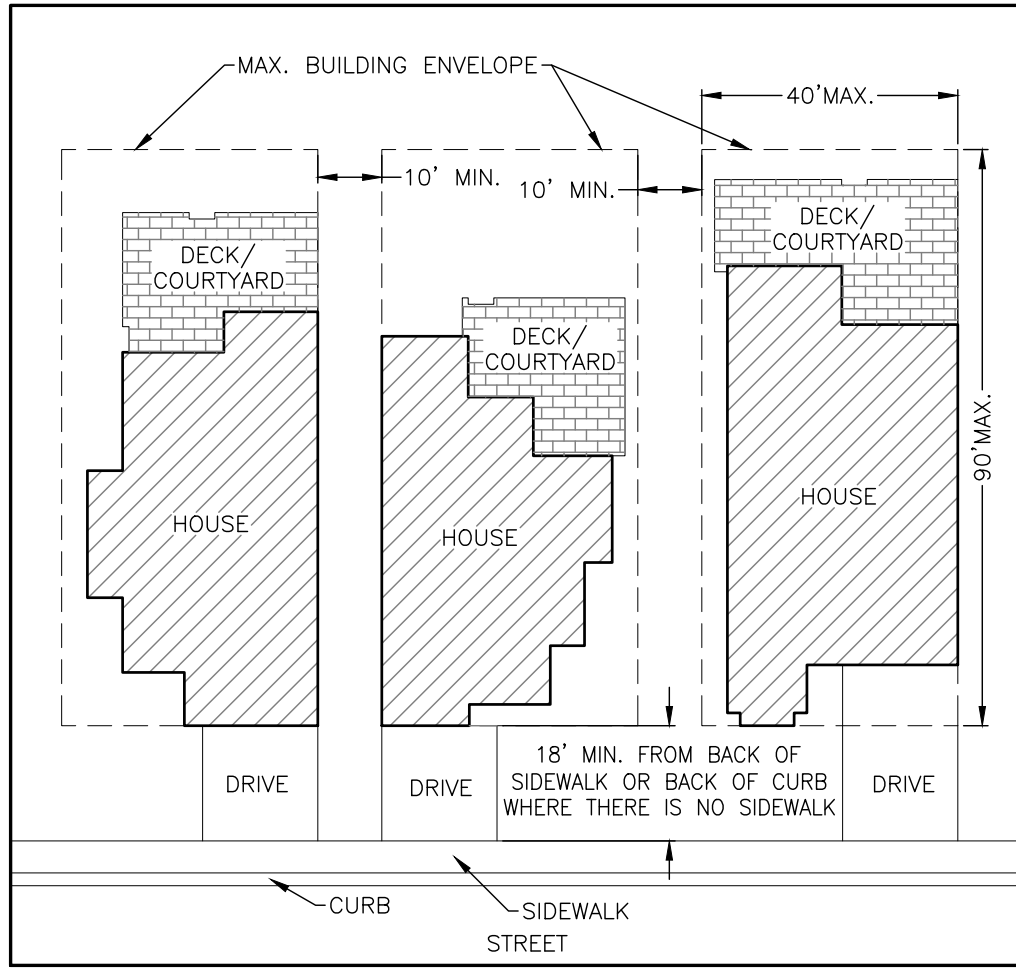
Sheet page:

L-1  
Construction  
Documents



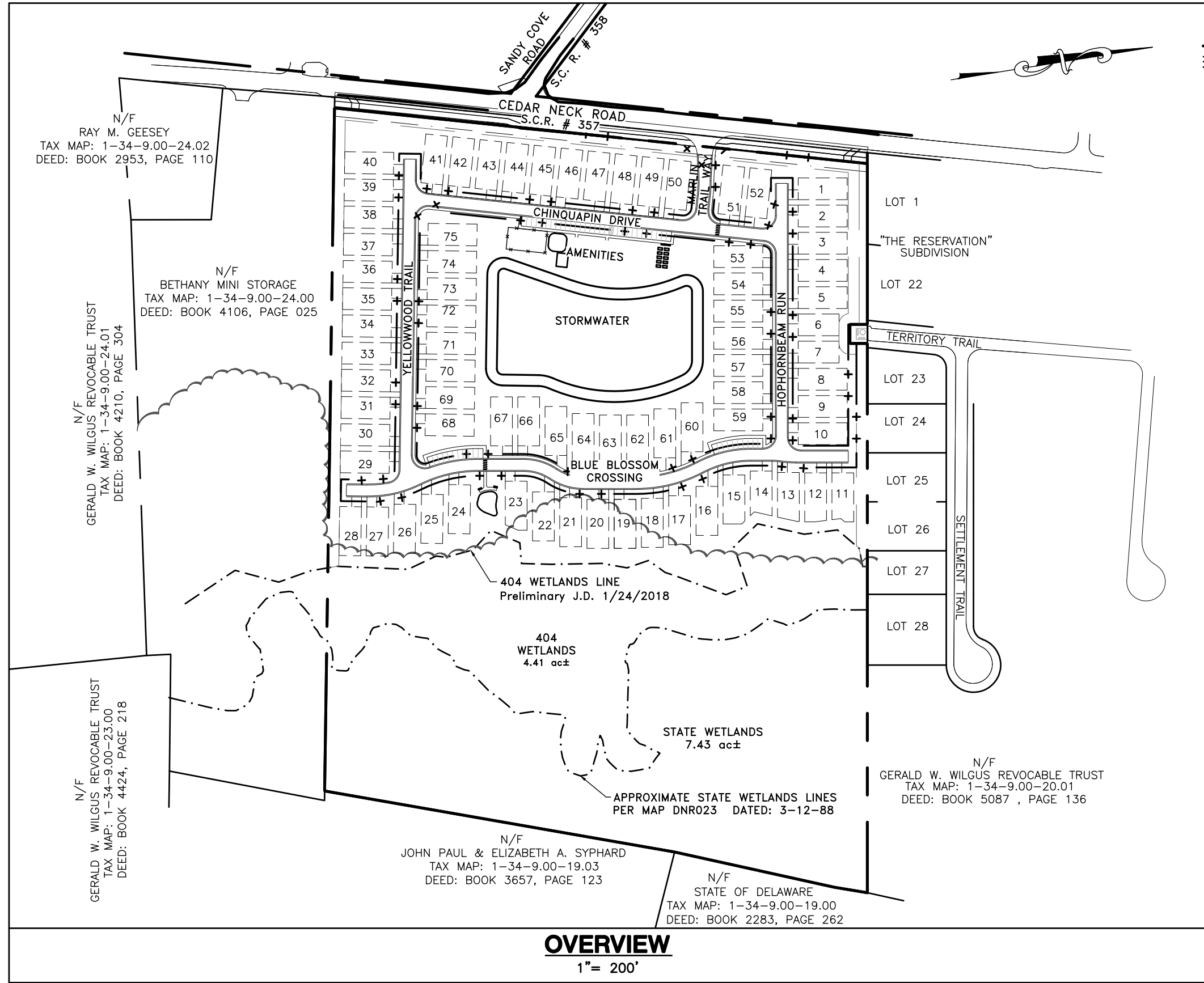
GENERAL NOTES:

- STREETS, STORMWATER MANAGEMENT FACILITIES 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.
- 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.
- 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.
- 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.
- 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".
- BASED UPON FLOOD INSURANCE RATE MAP (FIRM) NUMBER 10005C0504K, DATED MARCH 16, 2015; PORTIONS OF THIS PROPERTY ARE LOCATED WITHIN AREAS DESIGNATED AS ZONE "X" (UNSHADED) - (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) & ZONE AE BFE 6 FEET & 7 FEET - (AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD).
- THE BOUNDARY INFORMATION SHOWN ON THESE PLANS IS BASED UPON THE PLAT RECORDED IN THE SUSSEX COUNTY RECORDER OF DEEDS BOOK 276 PAGE 69. TOPOGRAPHIC INFORMATION IS BASED IN PART UPON PLANS BY LAND TECH LLC DATED 08/06/19 AS WELL AS CONTOURS ACQUIRED FROM NOAA DIGITAL COAST LIDAR DATA.
- THIS PLAN DOES NOT VERIFY TO THE LOCATION AND/OR EXISTENCE OF EASEMENTS OR RIGHT-OF-WAYS CROSSING SUBJECT PROPERTY AS NO TITLE SEARCH WAS PROVIDED.
- 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.
- UNLESS OTHERWISE DESIGNATED BY OWNER, OR ITS SUCCESSORS AND ASSIGNS, FROM TIME TO TIME BY AN INSTRUMENT IN WRITING, STORM DRAIN EASEMENTS DEPICTED HEREON REPRESENTS 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.
- WETLANDS EXIST ON THESE PARCELS.
- NO BOUNDARY TREATMENT/FENCING IS PROPOSED.
- 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.



EXAMPLE BUILDING PLACEMENT DETAIL  
1"= 30'

# MARLIN RUN RESIDENTIAL COMMUNITY PRELIMINARY SITE PLAN BALTIMORE HUNDRED SUSSEX COUNTY, DELAWARE DBF #0818C045.A01 JANUARY 5, 2021



OVERVIEW  
1"= 200'

INDEX OF SHEETS

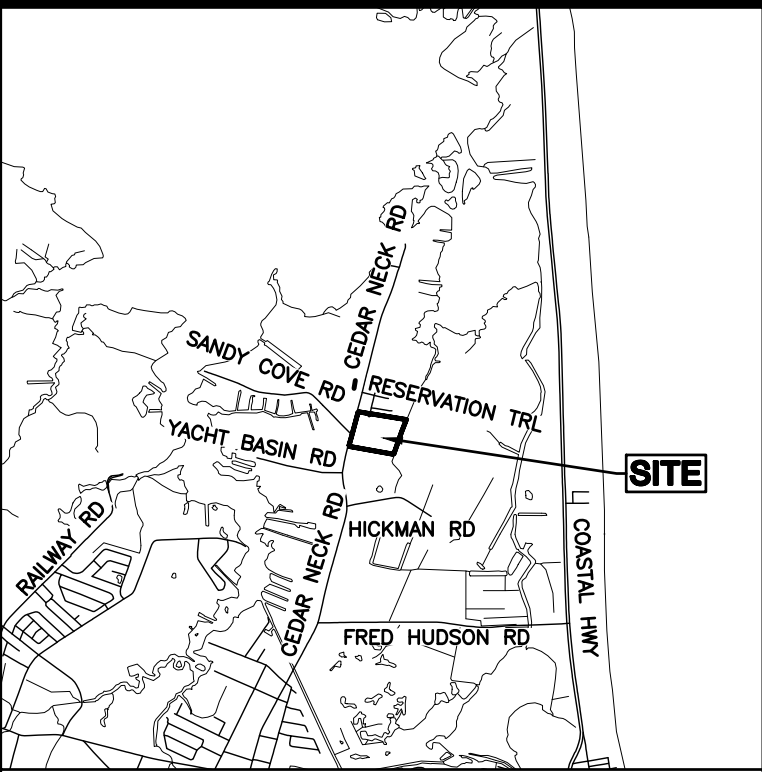
PL-01	PRELIMINARY TITLE
PL-02	PRELIMINARY SITE PLAN

DATA COLUMN

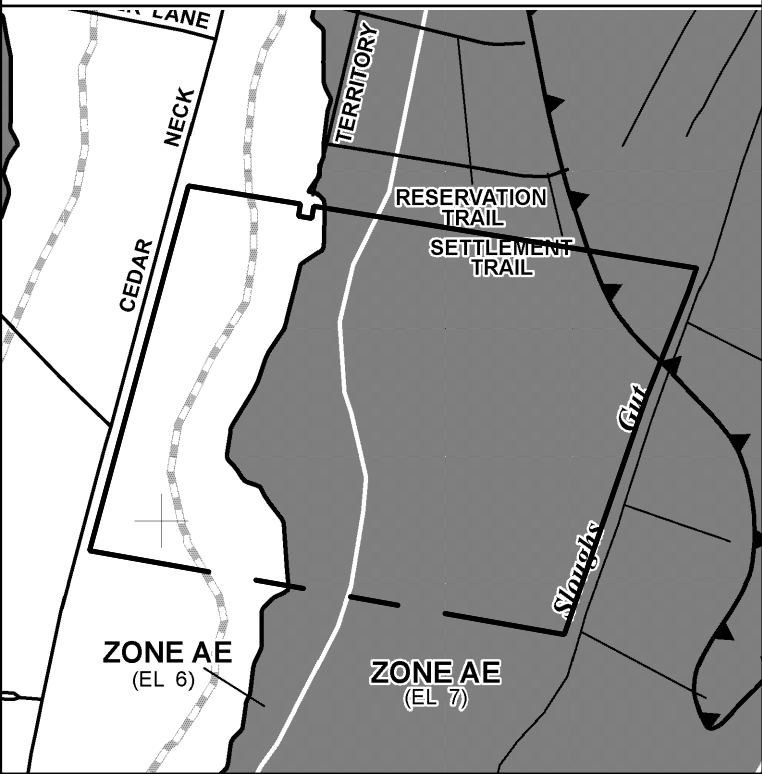
TAX MAP ID:	1-34-9.00-21.00; 1227.00 THRU 1269.00
DEED REF:	D 4429/21
EXISTING ZONING:	MR, MR-RPC
PROPOSED ZONING:	MR-CU
EXISTING USE:	VACANT, APPROVED FOR 75 DWELLING UNITS
PROPOSED USE:	75 SINGLE FAMILY DWELLINGS
PROPOSED CONSTRUCTION:	WOOD/CONCRETE BLOCK
FLOOD HAZARD MAP:	THE PROPERTY IS IMPACTED BY THE 100 YEAR FLOODPLAIN AS DETERMINED BY FEMA MAP 10005C0504K (DATED MARCH 16, 2015).
WETLANDS:	THE PROPERTY AS SHOWN DOES CONTAIN STATE(TIDAL) & FEDERALLY (404 NON-TIDAL) REGULATED WETLANDS.
COASTAL AREA:	PROJECT LIES WITHIN THE COASTAL AREA.
SOURCE WATER PROTECTION:	PROJECT IS NOT WITHIN A WELLHEAD PROTECTION AREA. PROJECT IS WITHIN THE "GOOD", "FAIR" AND "POOR" GROUNDWATER RECHARGE AREAS.
EXISTING SITE AREA:	29.34 ACRES±
PROPOSED SITE AREA:	29.34 ACRES±
STATE WETLANDS AREA:	7.43 ACRES±
NET DEVELOPMENT AREA:	21.91 ACRES±
ALLOWABLE RESIDENTIAL DENSITY:	21.91 ACRES±/10,000 SF PER D.U.=95 UNITS
404 WETLANDS AREA:	4.41 ACRES±
TOTAL WETLANDS AREA:	11.84 ACRES±
PROPOSED UNITS:	75 SINGLE FAMILY DWELLINGS
SETBACK REQUIREMENTS	
FRONT YARD:	30 FT.
SIDE YARD:	10 FT.
REAR YARD:	10 FT.
VOLUNTARY NON-TIDAL WETLANDS BUFFER:	20 FT.
PROPOSED MAXIMUM BUILDING HEIGHT:	42 FT. (3-½ STORIES)
SANITARY SEWER:	SUSSEX COUNTY (CEDAR NECK EXPANSION SSD)
WATER SUPPLY:	SUSSEX SHORES WATER COMPANY
DATUM	
VERTICAL:	NAVD 88
HORIZONTAL:	NAD 83 (DE STATE PLANE)
DEVELOPER:	OCEAN ATLANTIC COMPANIES 18949 COASTAL HWY, UNIT 301 REHOBOTH BEACH, DE 19971 PHONE: 302-227-3573 FAX: 302-227-2326
OWNER:	CBB CEDAR PINES LLC 9919 STEPHEN DECATUR HWY OCEAN CITY, MD 21842
PREPARED BY:	DAVIS, BOWEN & FRIEDEL, INC. 1 PARK AVE. MILFORD, DE 19963 PHONE: 302-424-1441 FAX: 302-424-0430

LEGEND

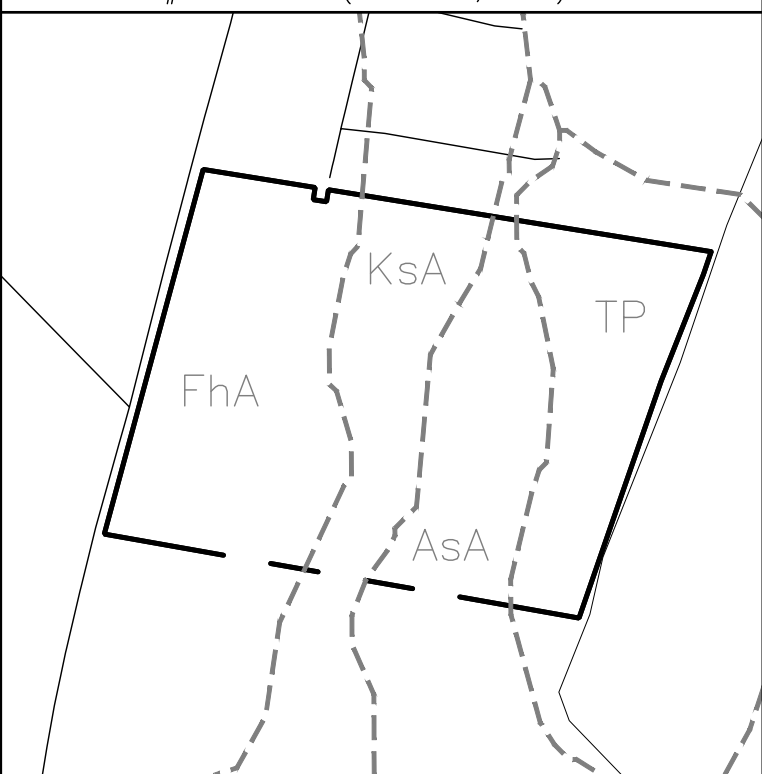
_____	Property/Right of way
_____	Setback Line
_____	404 Wetlands Line
_____	State Wetlands Line
_____	Adjacent Property Line
_____	Easement Line
●	Concrete Marker
○	Iron Rod Cap to be Set



LOCATION MAP  
1"= 1 MILE



FEMA FLOOD MAP  
PANEL#10005C0504K(MARCH 16, 2015) 1"=500'



SOILS MAP  
1"=500'

SOILS DATA

LABEL	MAP UNIT NAME
AsA	Askeckay loamy sand, 0 to 2 percent slopes
FhA	Fort Mott-Henlopen complex, 0 to 2 percent slopes
KsA	Klej loamy sand, 0 to 2 percent slopes
TP	Transquaking and Mispillion soils, very frequently flooded, tidal

SUSSEX COUNTY PLANNING  
& ZONING APPROVAL

SUSSEX COUNTY PLANNING & ZONING STAFF	DATE
SUSSEX COUNTY COUNCIL PRESIDENT	DATE

OWNER'S 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. PERPETUAL MAINTENANCE OF STREETS AND COMMON AREAS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/OWNER AND/OR HOMEOWNERS ASSOCIATION.

CBB CEDAR PINES LLC  
9919 STEPHEN DECATUR HWY  
OCEAN CITY, MD 21842  
DATE

WETLANDS STATEMENT

This property has been examined by Kelly Pierson for the presence of Waters of the United States including wetlands (Section 404 and Section 10), State Subaqueous Lands and State Tidal Wetlands based on the criteria set forth by the reviewing agencies in the form of manuals, policies and procedures in place at the time that the investigation was conducted. Any of the above resources that were found on the property are clearly mapped on this plan in accordance with our field investigations and detailed in reports prepared by Back Creek Environmental using best professional judgement.

Kelly Pierson, Environmental Scientist  
Back Creek Environmental  
DATE

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.

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

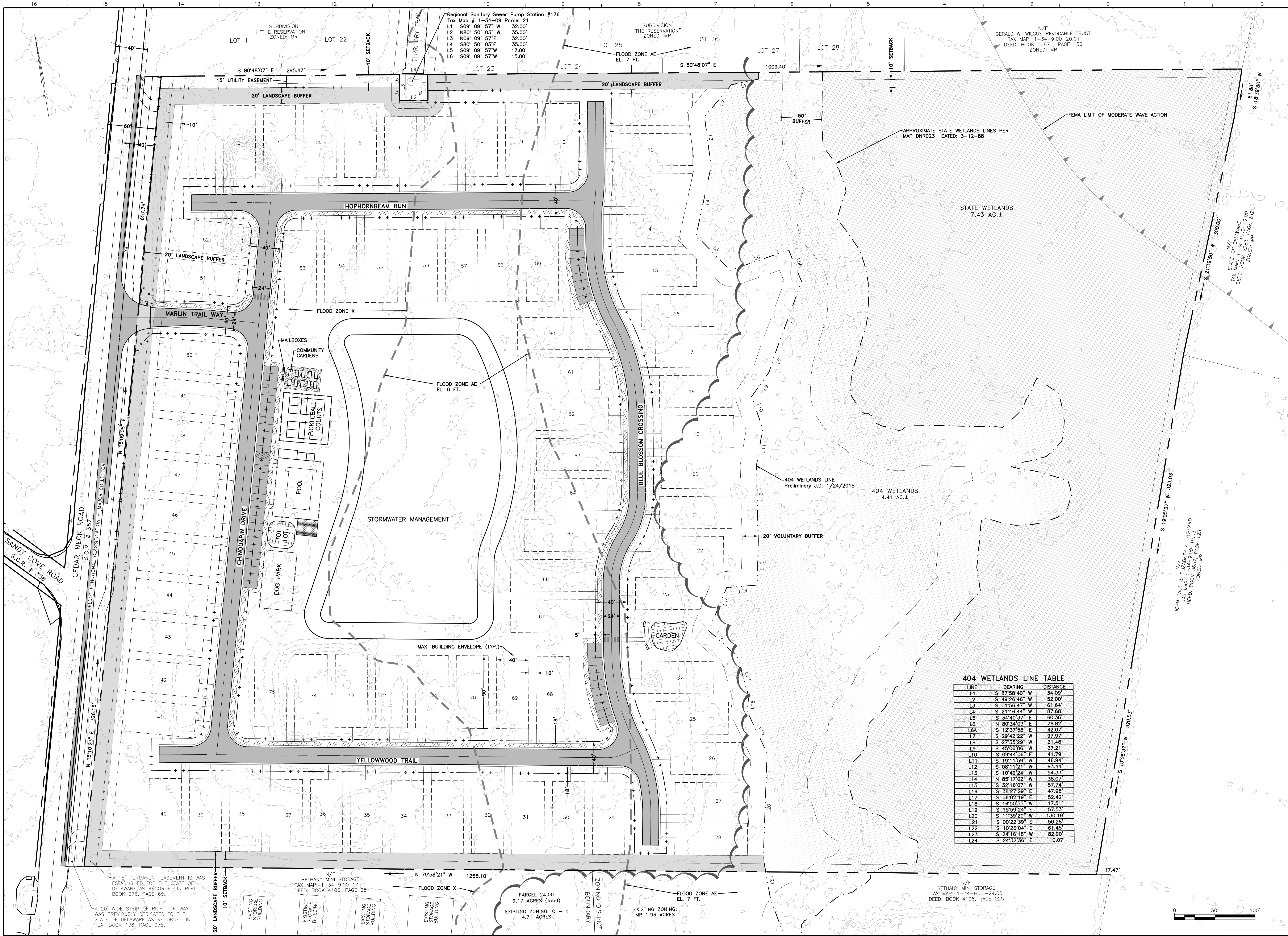


DAVIS, BOWEN & FRIEDEL, INC.  
ARCHITECTS, ENGINEERS & SURVEYORS

MILFORD, DELAWARE (302) 424-1441



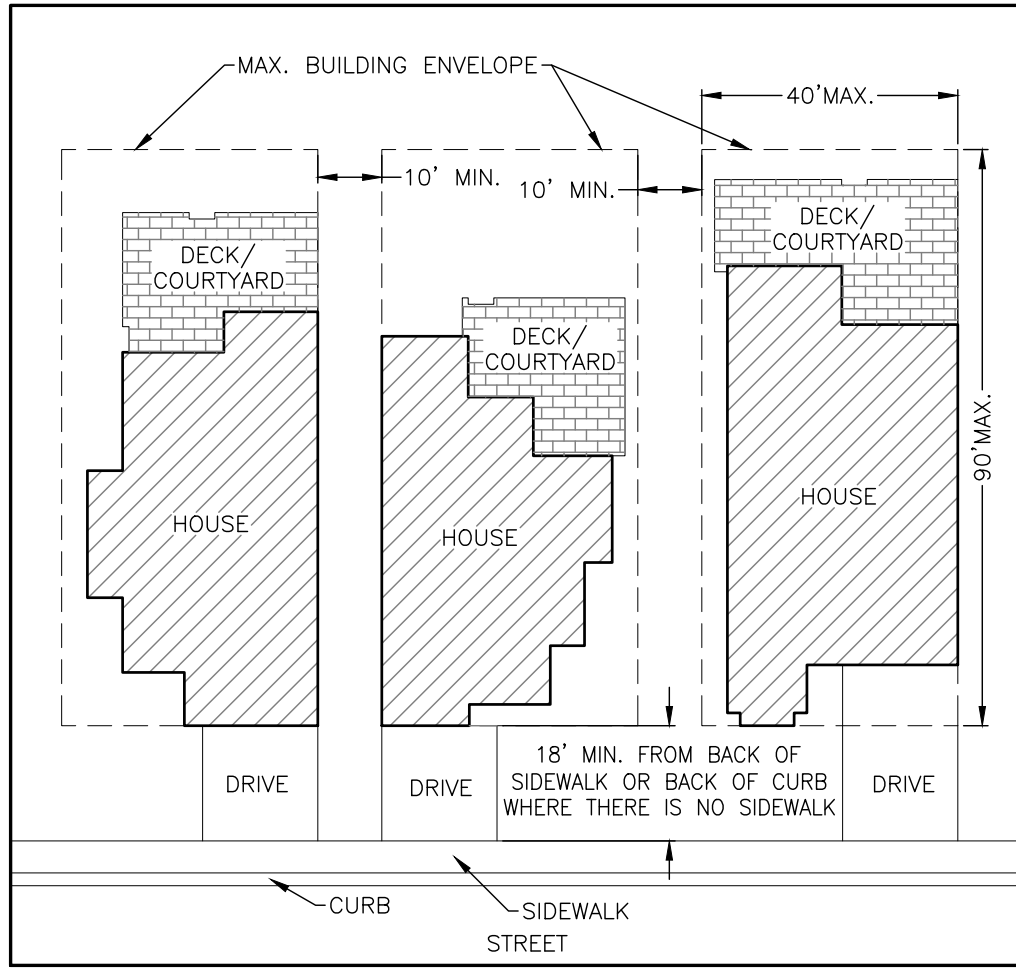
P:\Ocean Atlantic\0818C045 Marlin Run\Design\0818C045 MARLIN RUN PRELIM SITE PLAN.dwg, Jan 05, 2021 - 8:44am scst





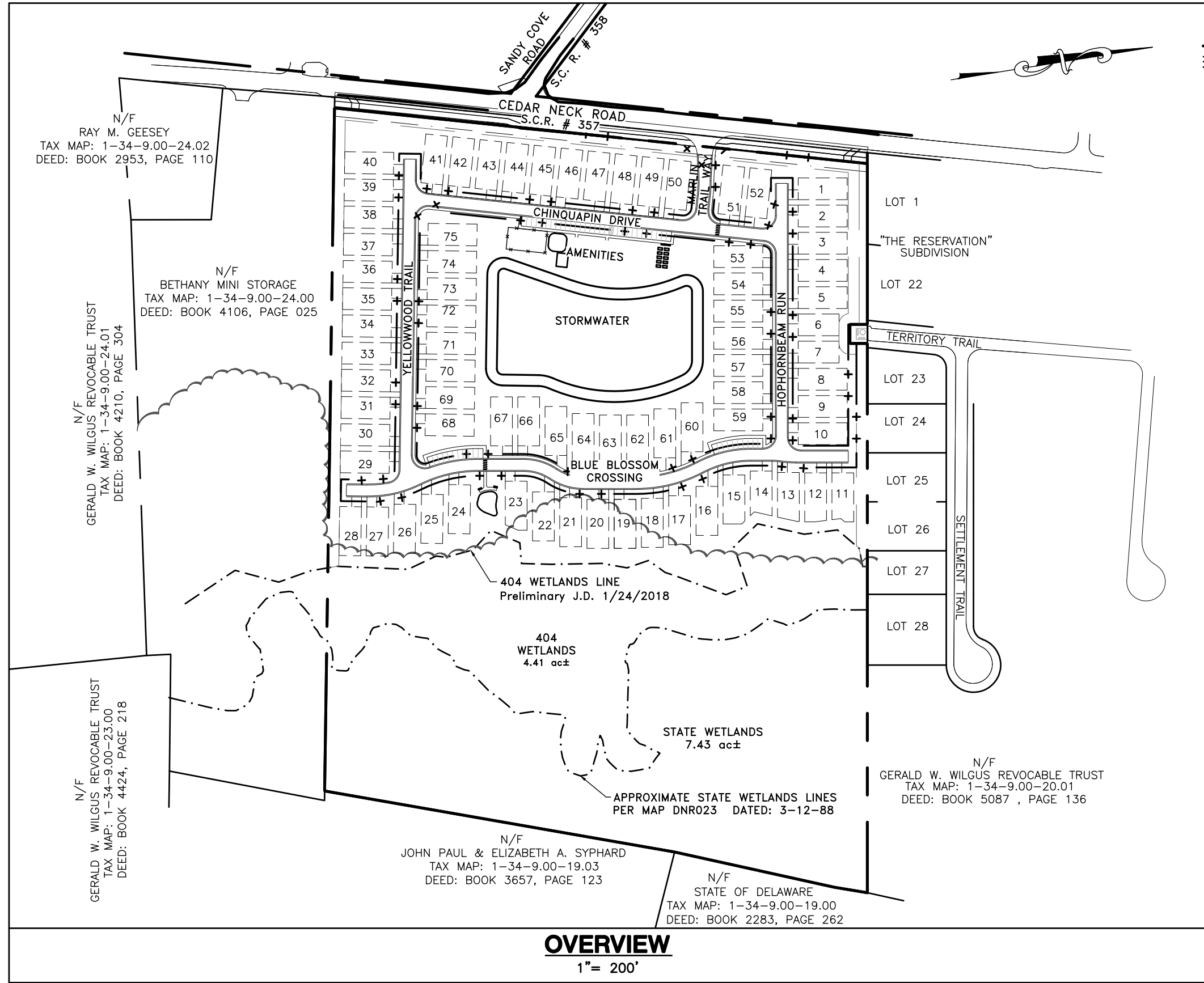
GENERAL NOTES:

- STREETS, STORMWATER MANAGEMENT FACILITIES 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.
- 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.
- 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.
- 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.
- 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".
- BASED UPON FLOOD INSURANCE RATE MAP (FIRM) NUMBER 10005C0504K, DATED MARCH 16, 2015; PORTIONS OF THIS PROPERTY ARE LOCATED WITHIN AREAS DESIGNATED AS ZONE "X" (UNSHADED) - (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) & ZONE AE BFE 6 FEET & 7 FEET - (AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD).
- THE BOUNDARY INFORMATION SHOWN ON THESE PLANS IS BASED UPON THE PLAT RECORDED IN THE SUSSEX COUNTY RECORDER OF DEEDS BOOK 276 PAGE 69. TOPOGRAPHIC INFORMATION IS BASED IN PART UPON PLANS BY LAND TECH LLC DATED 08/06/19 AS WELL AS CONTOURS ACQUIRED FROM NOAA DIGITAL COAST LIDAR DATA.
- THIS PLAN DOES NOT VERIFY TO THE LOCATION AND/OR EXISTENCE OF EASEMENTS OR RIGHT-OF-WAYS CROSSING SUBJECT PROPERTY AS NO TITLE SEARCH WAS PROVIDED.
- 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.
- UNLESS OTHERWISE DESIGNATED BY OWNER, OR ITS SUCCESSORS AND ASSIGNS, FROM TIME TO TIME BY AN INSTRUMENT IN WRITING, STORM DRAIN EASEMENTS DEPICTED HEREON REPRESENTS 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.
- WETLANDS EXIST ON THESE PARCELS.
- NO BOUNDARY TREATMENT/FENCING IS PROPOSED.
- 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.



EXAMPLE BUILDING PLACEMENT DETAIL  
1"= 30'

# MARLIN RUN RESIDENTIAL COMMUNITY PRELIMINARY SITE PLAN BALTIMORE HUNDRED SUSSEX COUNTY, DELAWARE DBF #0818C045.A01 JANUARY 5, 2021



OVERVIEW  
1"= 200'

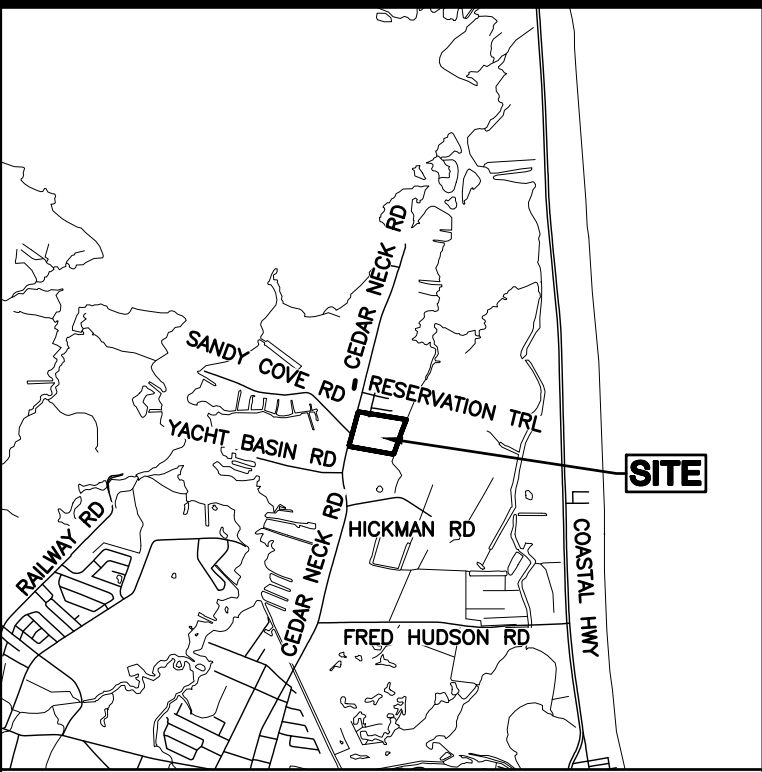
INDEX OF SHEETS	
PL-01	PRELIMINARY TITLE
PL-02	PRELIMINARY SITE PLAN

## DATA COLUMN

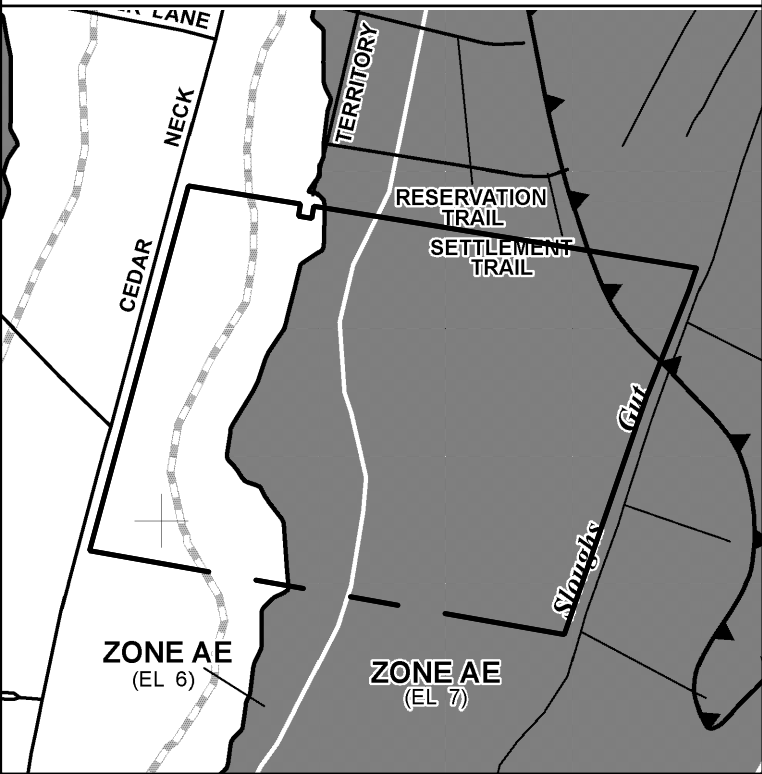
TAX MAP ID:	1-34-9.00-21.00; 1227.00 THRU 1269.00
DEED REF:	D 4429/21
EXISTING ZONING:	MR, MR-RPC
PROPOSED ZONING:	MR-CU
EXISTING USE:	VACANT, APPROVED FOR 75 DWELLING UNITS
PROPOSED USE:	75 SINGLE FAMILY DWELLINGS
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## LEGEND

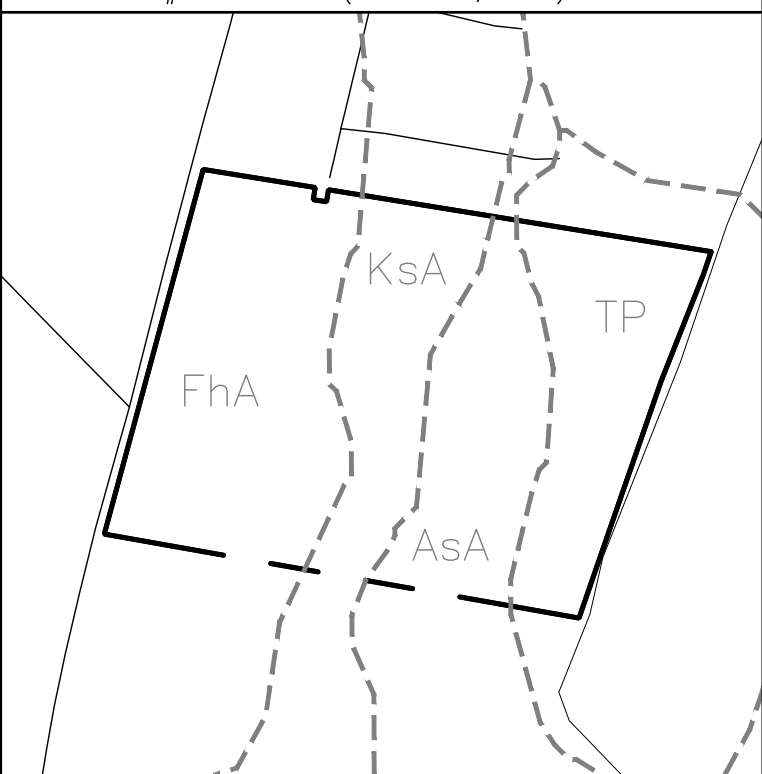
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SOILS MAP  
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## SUSSEX COUNTY PLANNING & ZONING APPROVAL

SUSSEX COUNTY PLANNING & ZONING STAFF	DATE
SUSSEX COUNTY COUNCIL PRESIDENT	DATE

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Back Creek Environmental  
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1 PARK AVENUE  
MILFORD, DELAWARE, 19963  
DATE



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MILFORD, DELAWARE (302) 424-1441