



TECHNICAL STAFF REPORT

Crawford & O’Keefe Properties

Lots 1 – 23 and Non-Buildable Preservation Parcels ‘A’ – ‘G’

Planning Board Hearing of July 7, 2016

File No./Petitioner: PB-417/Elm Street Development

Project Name: Crawford & O’Keefe Properties

DPZ Planner: Julia Boone, Planning Specialist II
(410) 313-4342, jboone@howardcountymd.gov

Request: For the Planning Board to approve a preliminary equivalent sketch plan (SP-15-015) for 23 buildable cluster lots and seven non-buildable preservation parcels in the RR-DEO (Rural Residential – Density Exchange Option) zoning district in accordance with State Senate Bill 236, “The Sustainable Growth and Agricultural Preservation Act of 2012.”

Recommendation: The Department of Planning and Zoning recommends approval of the preliminary equivalent sketch plan (SP-15-015) in accordance with the Subdivision Review Committee comments, Senate Bill 236, and subject to any conditions imposed by the Planning Board.

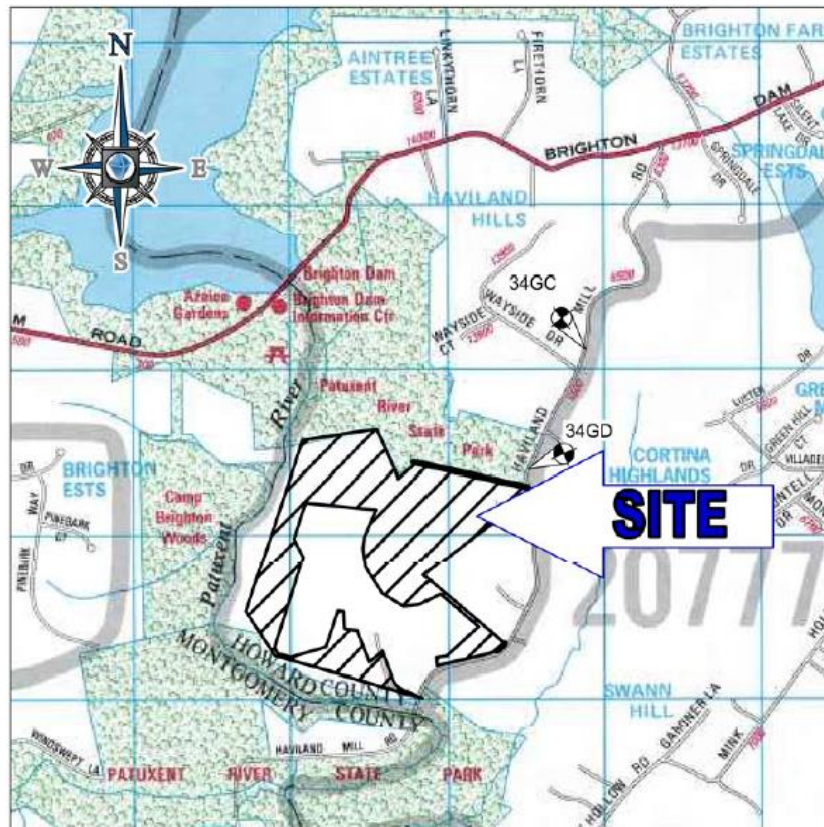
Location: **Crawford Property** – 6780 Haviland Mill Road, Clarksville, Maryland 21029. The property consists of 29.52 acres of land located on Tax Map 34, Parcel 52.

O’Keefe Property – 6950 Haviland Mill Road, Clarksville, Maryland 21029. 69.55 acres of the 123.86 acre O’Keefe Property, located on Tax Map 39, Parcel 1, will be part of the major cluster subdivision.

Vicinal Properties: **Crawford Property** – The Crawford Property is surrounded by the Department of Natural Resources Tier IV property to the north, Haviland Mill Road to the East, RR-DEO residential Tier III lots to the south, and the O’Keefe Property to the west.

O’Keefe Property – The O’Keefe Property is surrounded by the Department of Natural Resources Tier IV property to the north and west (adjacent to the Patuxent River), RR-DEO residential Tier III lots to the east (includes the Crawford Property), and Haviland Mill Road to the south.

Vicinity Map:



Legal Notice:

The subject property was properly posted with one official Planning Board poster; verified by an on-site inspection by staff of the Department of Planning and Zoning. Certification of legal advertisements are on file with this case verifying that it case was advertised in two local newspapers a minimum of 30 days prior to the hearing date.

Regulatory Compliance:

This project is subject to the Amended Fifth Edition of the Subdivision and Land Development Regulations, the 2013 Howard County Zoning Regulations (effective October 6, 2013), the Howard County Design Manual, the Adequate Public Facilities Ordinance, the Forest Conservation Manual, and the Landscape Manual.

Plan History:

Pre-Submission Community Meeting – A pre-submission community meeting was held on November 18, 2014 at the Dayton Oaks Elementary School and a second meeting was held on June 30, 2015.

Environmental Concept Plan #15-051 – The Environmental Concept Plan received signature approval for conceptual stormwater management design on September 28, 2015.

Waiver Petition #15-122 – A waiver petition to the Subdivision and Land Development Regulations was conditionally approved by the Department of Planning and Zoning on December 2, 2015 and January 13, 2016 to allow:

1. A portion of the O’Keefe Property (69.55 acres) to be transferred and merged with the Crawford Property via an Adjoiner Deed, instead of a final record plat.
2. The removal of 16 of the 43 specimen trees on site.

Design Manual Waiver – A waiver to Design Manual Volume III was approved by the Department of Planning and Zoning and Department of Public Works to allow the cul-de-sac to exceed 1,200 feet in length. The proposed cul-de-sac length is 1,750 feet.

Scenic Road Inventory – Haviland Mill Road was recently added to the scenic roads inventory by Council Resolution No. 28-2016 adopted on March 7, 2016. Since this subdivision received Subdivision Review Committee approval prior to the adoption of the Resolution, this subdivision was not reviewed nor subject to the scenic road requirements. However, the plan does adhere to the requirements for scenic roads by providing a natural planting landscaped buffer within non-buildable preservation parcels located between the scenic road the proposed residential lots, with the nearest proposed dwelling about 200 feet or greater from the scenic road.

Site Information:

ACREAGE	
Gross Acreage of Properties.....	99.07 ac.
Crawford Property.....	29.52 ac.
O’Keefe Property.....	69.55 ac.
Area of 100-year Floodplain.....	15.84 ac.
Area of 25% or Greater Steep Slopes.....	7.74 ac.
Net Tract Area.....	75.49 ac.
DENSITY – Cluster Subdivision	
Total No. of Lots Allowed By Right (Base Density).....	23 lots
(1 dwelling unit per 4.25 gross acres)	
Maximum No. of Lots Allowed using Density Exchange Option.....	37 lots
(1 dwelling unit per 2 net acres)	
Total Number of Lots Proposed.....	23 lots
DENSITY – Non-Cluster Subdivision*	
Total No. of Lots Allowed by Right.....	33 lots
(1 dwelling unit per 3 gross acres)	
*Non-Cluster density totals shown for informational purposes. This subdivision utilizes the cluster subdivision regulations.	

Site Proposal:

The proposed major subdivision consists of 23 buildable cluster lots and 7 non-buildable preservation parcels on 99.07 acres. Public access from Haviland Mill Road is proposed at the current location of the driveway to the Crawford Property. The public road will run with the ridge on the property and end in a cul-de-sac. All 23 cluster lots, totaling 26.1 acres, will have frontage on the public road. The remaining 69.9 acres will be placed into non-buildable preservation parcels. The majority of the preserved land is within two contiguous preservation parcels north and west of the cluster lots. Preservation Parcel ‘F’, approximately 54.6 acres, will be owned and farmed by the O’Keefe’s, and Preservation Parcel ‘B’,

approximately 4.2 acres, will be dedicated to the Department of Recreation and Parks for environmental preservation and to access the adjoining Department of Natural Resources property. The remaining preservation parcels are located along Haviland Mill Road between the cluster lots. These preservation parcels provide a landscape buffer from Haviland Mill Road and/or contain storm water management facilities.

Planning Board Review:

“The Sustainable Growth and Agricultural Act of 2012” (Senate Bill 236) requires all proposed residential major subdivisions within Growth Tier III areas to be presented before the Planning Board at a public hearing. Approval of the major subdivision may only be approved if the Planning Board has reviewed and recommended approval based upon the below Planning Board criteria.

Planning Board Criteria:

In accordance with State Senate Bill 236, the review of a residential major subdivision by the Planning Board shall include:

1. The cost of providing local government services to the residential major subdivision unless a local jurisdiction’s adequate public facilities ordinance already requires a review of government services.

Howard County has adopted an Adequate Public Facilities Ordinance. The purpose of the Ordinance is to provide a predictable planning environment for adequate public road facilities and adequate public school facilities by requiring residential and nonresidential projects to pass certain tests as conditions of subdivision or site development plan approval.

The test for adequate public road facilities was conducted and approved by the Department of Public Works and Department of Planning and Zoning with the review of the preliminary equivalent sketch plan.

The test for adequate housing unit allocations and the test for adequate public schools will be conducted upon approval of the Decision and Order of the Planning Board.

2. The potential environmental issues or a natural resource inventory related to the proposed residential major subdivision.

The Natural Resource Inventory indicates five (5) stream systems and three (3) wetland systems.

- *Stream System ‘A’ is an unnamed perennial tributary that flows along the northern property boundary of the Crawford Property west through the O’Keefe Property to the Patuxent River.*
- *Wetland System ‘B’ is also located along the northern property boundary of the Crawford Property and drains into Stream System ‘A’.*
- *Wetland System ‘C’ is just west of Wetland System ‘B’ and also drains into Stream System ‘A’.*
- *Stream System ‘D’ is a headwater tributary to the Patuxent River that parallels the northern property boundary of the O’Keefe Property. Wetland System ‘E’ is the outer edge of a large emergent wetland in the*

Patuxent River floodplain that touches onto the far western edge of the O'Keefe Property.

- *Stream System 'F' is a small headwater seep that forms a headwater, intermittent stream as it flows west through the center of the O'Keefe Property. It eventually converges with Stream System 'G' and discharges into an extensive wetland within and adjacent to the Patuxent River floodplain.*
- *Stream System 'G' is a headwater tributary that forms on the eastern side of the O'Keefe Property and flows west into Stream System 'F'.*
- *Stream System 'H' is a headwater tributary located in the far southeastern portion of the O'Keefe Property.*

The Natural Resource Inventory also indicates 43 specimen trees and four distinct forest stands that encompass approximately 39.7 acres of the project site.

- *Forest Stand #1 occupies approximately 11.5 acres, located entirely within the western and northern portions of the Crawford Property.*
- *Forest Stand #2 occupies approximately 24.6 acres, located within the northern portion of the O'Keefe adjacent to Forest Stand #1.*
- *Forest Stand #3 occupies approximately 1.5 acres, located within the 100-year floodplain of the Patuxent River.*
- *Forest Stand #4 occupies approximately 2.1 acres, located adjacent to Stream Systems 'G' and 'H' in the southeastern portion of the O'Keefe Property.*

The Natural Resource Inventory and Floodplain report indicates floodplain along the Patuxent River and Stream System 'A'. The plan also indicates 7.74 acres of steep slopes located within the project site.


The plan does not propose any disturbance to the above referenced streams, wetlands, their buffers, floodplain, or steep slopes. These features are encompassed and protected within the non-buildable preservation parcels. The plan does propose removing 10.2 acres of forest and 16 specimen trees. This has been determined to be necessary in order to accommodate a public road cul-de-sac, utilities, stormwater management devices, houses, driveways and private septic systems.

SRC Action:

The Subdivision Review Committee has recommended approval.

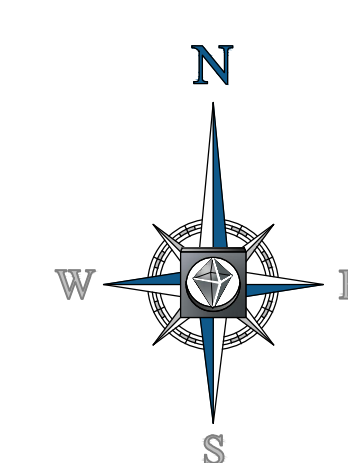
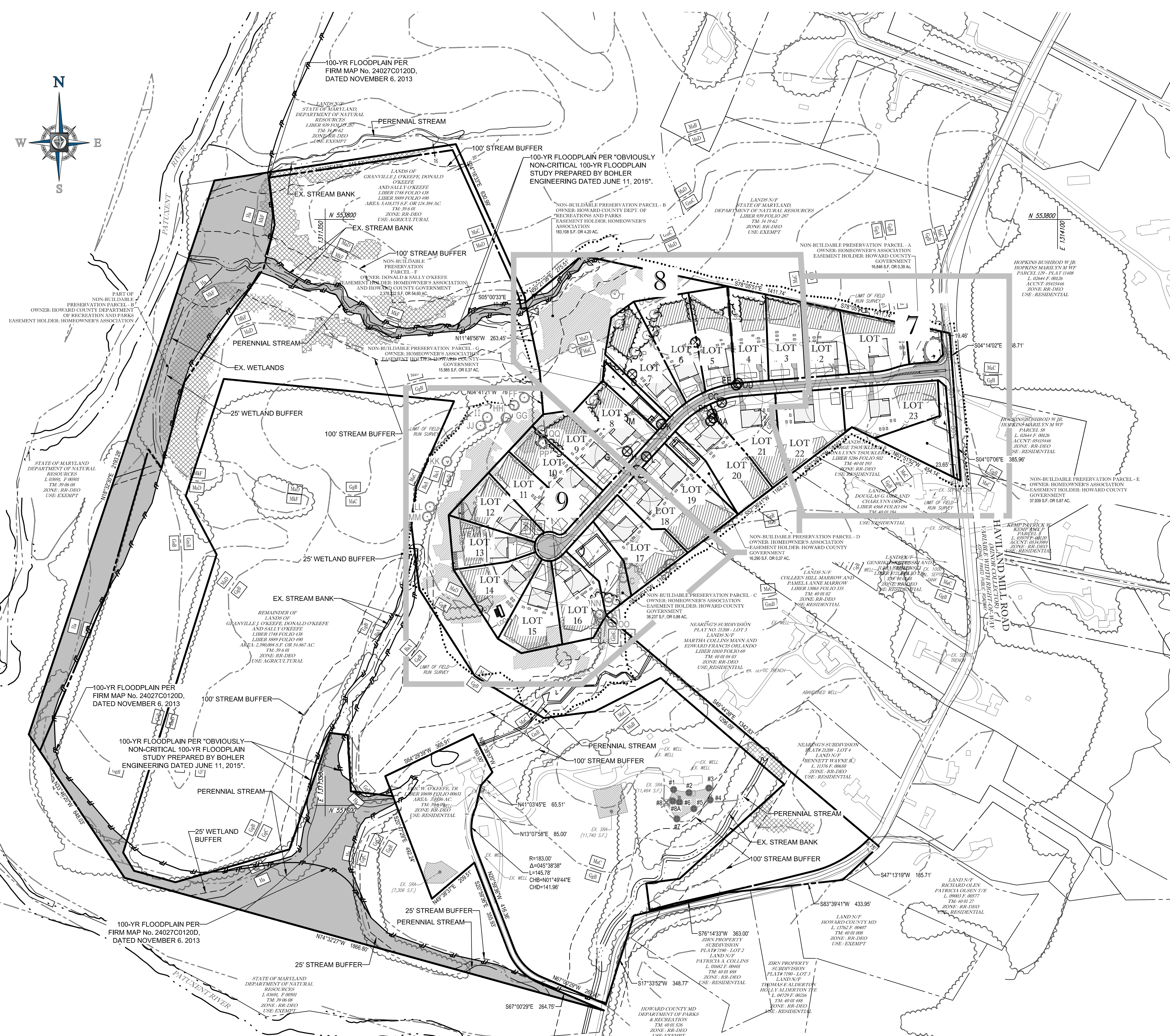
Recommendation:

The Department of Planning and Zoning recommends approval of the preliminary equivalent sketch plan (SP-15-015) in accordance with the Subdivision Review Committee comments, Senate Bill 236, and subject to any conditions imposed by the Planning Board.


Valdis Lazdins, Director
Department of Planning and Zoning

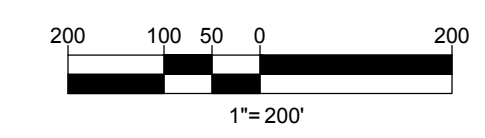
4/19/16
Date

Please note that this file is available for public review at the Department of Planning and Zoning's public service counter, Monday – Thursday, 8:00 a.m. to 5:00 p.m. and Friday, 8:00 a.m. to 3:00 p.m.



LEGEND

	PRIVATE SEWAGE DISPOSAL AREA (SEE GENERAL NOTE 8)
	EXISTING SEPTIC FIELD
	PROPOSED WELL BOX 1,500 S.F.
	FOREST CONSERVATION AREA
	15-25% STEEP SLOPES
	25% STEEP SLOPES OR GREATER
	SOIL DELINEATION
	STREAM
	WETLANDS
	100' STREAM AND WETLANDS BUFFER
	PROPOSED HOUSE
	EXISTING WELL



APPROVED PLANNING BOARD OF HOWARD COUNTY	
DATE _____	
TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY	
PLANNING DIRECTOR _____	DATE _____

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS	
HEALTH OFFICER, HOWARD COUNTY HEALTH DEPARTMENT _____	DATE _____

OWNER:	
MARJORIE F. CRAWFORD STEPHEN C. CRAWFORD 19612 ISLANDER ST. CLAYNE, MD 21032 TEL.: (240) 330-2199	DONALD O'KEEFE SALLY O'KEEFE 6950 HAVILAND MILL ROAD CLARKSVILLE, MD 21029 TEL.: (410) 599-6941
DEVELOPER:	
ELM STREET DEVELOPMENT 5074 DORSEY HALL ROAD, SUITE 205 COLUMBIA, MD 21042 CONTACT: JASON VAN KIRK PHONE: (410) 720-3021	

SUBDIVISION NAME: SECTIONAREA, N/A DEED # 08867/00532 & 05889/00490	TAX MAP: 34 & 39 GRID: 19 & 6 ZONED: RR-DEO PARCEL: 52 & 1
PREVIOUS FILE NO.: ECP-15-051 WP-15-22	5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
PROFESSIONAL CERTIFICATION I, BRANDON R. ROWE, HEREBY CERTIFY 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 MARYLAND, LICENSE NO. 40088, EXPIRATION DATE: 7/3/2015	

BOHLER ENGINEERING

CORPORATE OFFICE:
WARREN, NJ

CIVIL & CONSULTING ENGINEERS

OFFICES:
SOUTHBRIDGE, MA
ALBANY, NY
CHAMONT, PA
FORT LAUDERDALE, FL

PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

REGISTERED PROFESSIONAL ENGINEERS IN THE STATES OF MARYLAND AND VIRGINIA

REVISIONS			
REV	DATE	COMMENT	BY

NOT APPROVED FOR CONSTRUCTION

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL: 811
(VA) 1-800-345-4545 (PA) 1-800-242-1776 (DC) 1-800-257-7777 (MD) 1-800-552-7911 (DE) 1-800-257-7777

PROJECT No.:	MD142038
AVG:	JMA
CHECKED BY:	1/20/16
DATE:	1" = 200'
SCALE:	SSD
CAD I.D.:	

PRELIMINARY EQUIVALENT SKETCH PLAN

FOR
CRAWFORD & O'KEEFE PROPERTIES
PROPOSED LOTS 1-23 & NONBUILDABLE PRESERVATION PARCELS A-G
LOCATION OF SITE
6780 HAVILAND MILL ROAD
CLARKSVILLE, HOWARD COUNTY, MD

BOHLER ENGINEERING

901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
www.BohlerEngineering.com

B.R. ROWE

PROFESSIONAL ENGINEER
MARYLAND LICENSE NO. 40088

OVERALL SITE PLAN

SHEET NUMBER:
6 of 25

H:\2015\142038\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD142038.DWG PRINTED BY: ROWEN 3/23/16 @ 9:54 AM LAST SAID BY: ROWEN

LEGEND

	ONSITE PROPERTY LINE / R.O.W. LINE		STEEP SLOPES (25% OR GREATER)
	NEIGHBORING PROPERTY LINE / INTERIOR PARCEL LINE		STEEP SLOPES (10%-25%)
	EASEMENT LINE		EX. WETLANDS
	SOILS LINE		LIMIT OF FOREST STAND DELINEATION
	WETLAND BUFFER		SPECIMEN TREE
	STREAM BUFFER		FLOODPLAIN
	TREELINE		AREA OF FLOODPLAIN ON SUBJECT PROPERTY
	PERENNIAL STREAM		STREAM BANK
	INTERMITTENT STREAM		STAND BOUNDARY
	CONTOUR LINE		FOREST LIMITS

Forest Stand Descriptions

Key	Community Type	Acres	Dominant Vegetation	General Condition	Priority 1 Acres
F1	Mixed oak/poplar	11.8 ac ± (11.3 ac NTA)	Liquidambar styraciflua, Quercus rubra, Quercus macrocarpa, Liriodendron tulipifera, Fraxinus americana, Nyctaginia flexilis, Rhus glabra, Rhus typhina, Thuja occidentalis	Fair	1.3 ac ± buffers/steep slopes
F2	Tulip poplar/hickory	24.6 ac ± (24.1 ac NTA)	Liquidambar styraciflua, Quercus rubra, Quercus macrocarpa, Liriodendron tulipifera, Fraxinus americana, Nyctaginia flexilis, Rhus glabra, Rhus typhina, Thuja occidentalis	Fair	24.6 ac ± structure steep/buffer
F3	Tulip poplar	1.6 ac ± (0.9 ac NTA)	Liquidambar styraciflua, Quercus rubra, Quercus macrocarpa, Liriodendron tulipifera, Fraxinus americana, Nyctaginia flexilis, Rhus glabra, Rhus typhina, Thuja occidentalis	F. good	1.6 ac ± floodplain
F4	Mixed oak/poplar	2.1 ac ±	Liquidambar styraciflua, Quercus rubra, Quercus macrocarpa, Liriodendron tulipifera, Fraxinus americana, Nyctaginia flexilis, Rhus glabra, Rhus typhina, Thuja occidentalis	Poor	2.1 ac ± buffer

See report for complete stand descriptions

SOILS NOTES

- Soils and historic soils are identified as a hydric soil. Unsettled soils have the potential for hydric soils inclusion.
- Classy loam, 0-2% slopes, Gleysol loam, 2-3% slopes, and Manor loam, 2-5% slopes, are identified as Prime Farmland. Gleysol loam, 5-10% slopes, Gleysol loam, 5-10% slopes, Manor loam, 5-15% slopes, and Manor loam, 5-15% slopes, are identified as National Wetlands of Importance.

SOILS TABLE

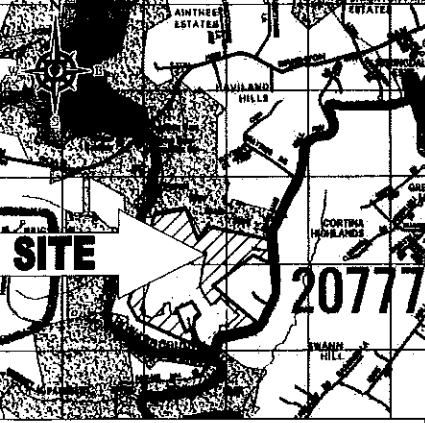
SOILS NAME	SOILS DESCRIPTION	HYDROLOGIC SOILS GROUP	HIGHLY ERODIBLE SOIL	K FACTOR	AREA - AC.
BAA	BAILE SALT LOAM, 0 TO 3 PERCENT SLOPES	G/D	YES	0.37	3.90
Co	COODERS HONORABLE LOAM, 8 TO 10 PERCENT SLOPES	C	NO	0.32	
GAc	GLEYSOL, 10 TO 15 PERCENT SLOPES	B	YES	0.85	0.40
GpA	GLEYSOL, 0 TO 3 PERCENT SLOPES	B	NO	0.28	
GpB	GLEYSOL, 3 TO 8 PERCENT SLOPES	B	NO	0.28	
GpC	GLEYSOL, 8 TO 15 PERCENT SLOPES	B	NO	0.28	
GpD	GLEYSOL, 15 TO 18 PERCENT SLOPES	C	YES	0.43	3.40
GmC	GLEYSOL, 18 TO 30 PERCENT SLOPES	C	YES	0.43	1.90
De	GLEYSOL, 30 TO 35 PERCENT SLOPES	C	YES	0.43	1.90
GdA	GLEYSOL, 0 TO 3 PERCENT SLOPES	C	YES	0.43	11.20
Ha	HAYWOOD-COODERS SALT LOAM, 8 TO 10 PERCENT SLOPES	RD	YES	0.37	10.90
MdB	MANOR LOAM, 2 TO 3 PERCENT SLOPES	B	NO	0.28	
MdC	MANOR LOAM, 3 TO 5 PERCENT SLOPES	B	NO	0.28	
MdD	MANOR LOAM, 5 TO 10 PERCENT SLOPES	B	NO	0.28	
MdE	MANOR LOAM, 10 TO 15 PERCENT SLOPES	B	NO	0.28	
MdF	MANOR LOAM, 15 TO 20 PERCENT SLOPES	B	NO	0.32	

SPECIMEN TREES

KEY	SPECIES NAME	SIZE	CONDITION
A	TULIP POPLAR	36"	GOOD
B	TULIP POPLAR	38"	GOOD
C	TULIP POPLAR	32"	POOR
D	TULIP POPLAR	33"	GOOD
E	TULIP POPLAR	61"	POOR
F	BLACK OAK	34"	FAIR
G	BLACK OAK	47"	F. GOOD
H	SCARLET OAK	31"	POOR
I	TULIP POPLAR	32"	GOOD
J	TULIP POPLAR	33"	GOOD
K	TULIP POPLAR	32"	GOOD
L	TULIP POPLAR	32"	GOOD
M	BLACK OAK	35"	F. GOOD
N	RED OAK	42"	GOOD
O	TULIP POPLAR	30"	F. GOOD
P	TULIP POPLAR	31"	F. GOOD
Q	TULIP POPLAR	35"	POOR
R	TULIP POPLAR	34"	F. GOOD
S	WHITE OAK	36"	GOOD
T	RED OAK	37"	F. GOOD
U	WHITE OAK	41"	V. POOR
V	WHITE OAK	31"	V. POOR
W	WHITE OAK	30"	GOOD
X	SCARLET OAK	31"	F. GOOD
Y	TULIP POPLAR	34"	GOOD
Z	TULIP POPLAR	32"	GOOD
AA	TULIP POPLAR	43"	FAIR
BB	TULIP POPLAR	30"	GOOD
CC	TULIP POPLAR	34"	GOOD
DD	TULIP POPLAR	33"	GOOD
EE	TULIP POPLAR	30"	GOOD

SPECIMEN TREES

KEY	SPECIES NAME	SIZE	CONDITION
FF	TULIP POPLAR	32"	FAIR
GG	TULIP POPLAR	33"	F. GOOD
HH	AM. SYCAMORE	35"	F. GOOD
II	TULIP POPLAR	32"	GOOD
JJ	AM. SYCAMORE	30"	FAIR
KK	AM. SYCAMORE	52"	GOOD
LL	AM. SYCAMORE	31"	F. GOOD
MM	AM. SYCAMORE	34"	F. GOOD
NN	TULIP POPLAR	55"	F. GOOD
OO	TULIP POPLAR	31"	FAIR
PP	TULIP POPLAR	34"	FAIR
QQ	BLACK OAK	31"	FAIR



GENERAL NOTES

- THE SUBJECT PROPERTY IS ZONED RR-DEO.
- THE PROPERTY BOUNDARY AND ON-SITE EXISTING TOPOGRAPHY IS BASED ON A BOUNDARY & TOPOGRAPHIC SURVEY BY BOHLER ENGINEERING, TITLED "BOUNDARY & TOPOGRAPHIC SURVEY, CRAWFORD PROPERTY, 8780 HAVILAND MILL ROAD, 6TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND, FILE NO. SD 142038, DATED 01-15-15.
- EXISTING OFFSITE TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY GIS.
- CRAWFORD PARCEL AREA = 1,285,032 SQUARE FEET OR 29,521 ACRES (84) O'KEEFE PARCEL AREA = 5,418,126 SQUARE FEET OR 124,384 ACRES (84)
- WETLANDS EXIST ON SITE BASED UPON A WETLAND DELINEATION REPORT BY ECO-SCIENCE PROFESSIONALS, INC. DATED 2/27/15. FIELD WORK WAS PERFORMED ON 10/14 AND 12/01/14.
- AN OBVIOUSLY NON-CRITICAL FLOODPLAIN STUDY WAS COMPLETED FOR THIS PROJECT BY BOHLER ENGINEERING DATED FEBRUARY 28, 2016.
- ALL ENVIRONMENTALLY SENSITIVE AREAS SHALL REMAIN UNDISTURBED WITH THE EXCEPTION OF APPROXIMATELY 8.8 AC. OF (15-20%) STEEP SLOPES LOCATED NEAR THE CENTER OF THE SITE.
- THERE ARE NO CEMETERIES OR HISTORICAL FEATURES KNOWN ON-SITE.
- THERE ARE NO PREVIOUS DPZ FILES FOR THIS SITE.
- ALL DAMAGE AREAS GREATER THAN 2.0 ACRES WILL BE REQUIRED TO PROVIDE TEMPORARY STORMWATER MANAGEMENT DURING CONSTRUCTION.
- THE SITE IS NOT LOCATED WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER WILL BE PROVIDED BY PRIVATE, ON-SITE FACILITIES.
- WAVYER REQUEST WP-15-122 FOR THE FOLLOWING:
 - SECTION 15.103 (A)(7): REQUEST THE REMOVAL OF FIFTEEN (15) SPECIMEN TREES (F, G, H, I, J, K, L, M, N, O, Y, AA, BB, CC, DD, E, EE) AS IDENTIFIED ON THIS ENVIRONMENTAL CONCEPT PLAN.
 - WETLANDS AND SPECIMEN TREES WERE DELINEATED BY ECO-SCIENCE PROFESSIONALS, INC., CONSULTING ECOLOGIST.

Wetland Descriptions

WETLAND SYSTEM	DOWNSTREAM SYMBOL	DOMINANT VEGETATION
A	RUR01	Not applicable
B	PEM0C	Spotted lantern fly, Polydora parvica, Pilea pumila, Peltis heterophylla
C	PEM1F	Carex sp., Sphagnum sp., Juncus sp., Rorippa sp., Typha latifolia
D	RUR01	Not applicable
E	PEM1F	Juncus sp., Sphagnum sp., Typha latifolia, Carex sp., Rorippa sp., Peltis heterophylla
F	PEM1F/AR01	Sphagnum sp., Juncus sp., Typha latifolia, Carex sp., Rorippa sp., Peltis heterophylla
G	RUR01	Not applicable
H	RUR01	Not applicable

OWNER

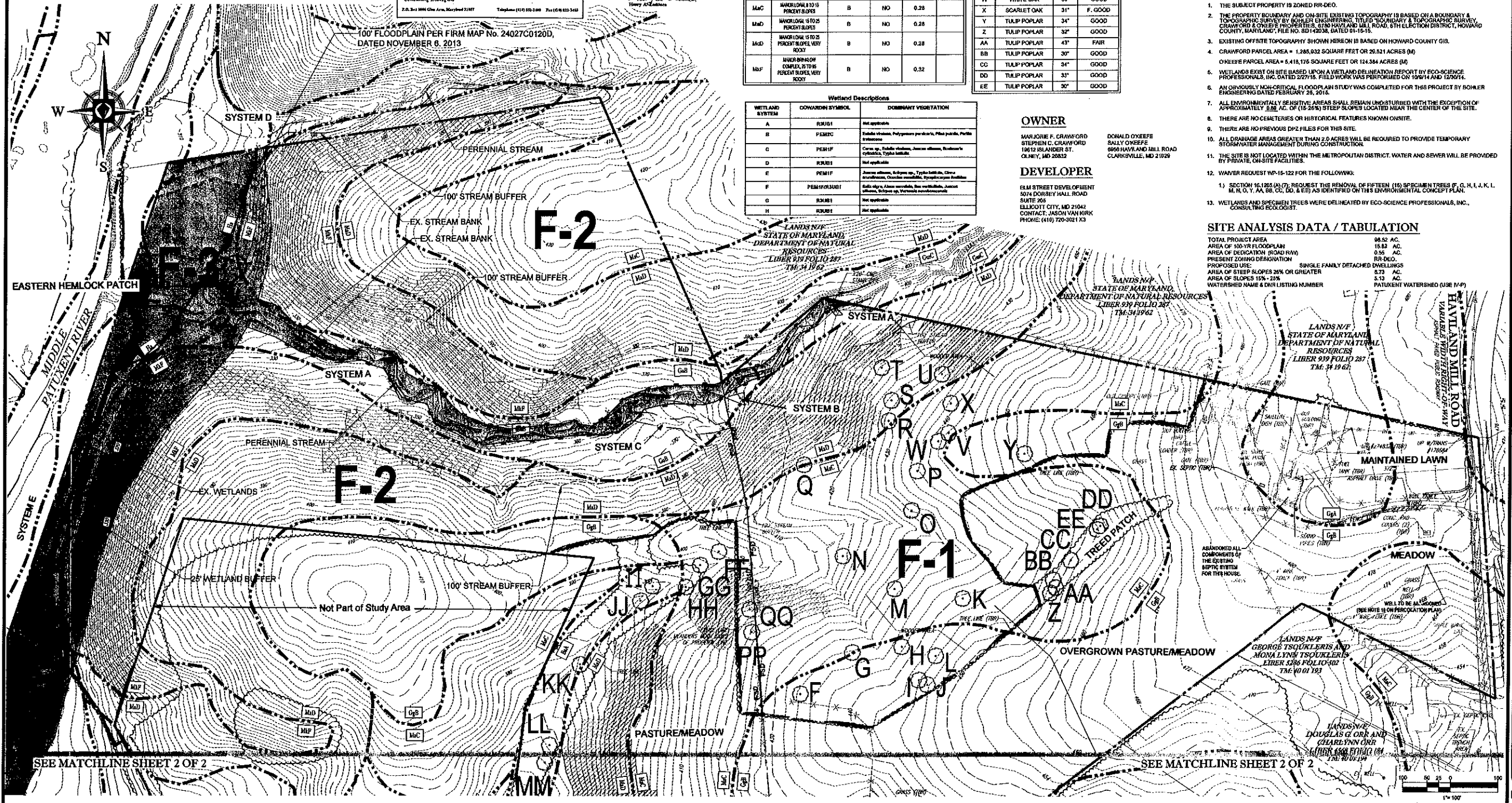
MARJORIE F. CRAWFORD
STEPHEN C. CRAWFORD
10612 ISLANDER ST.
OLNEY, MD 20832

DEVELOPER

ELM STREET DEVELOPMENT
5074 DORSEY HALL ROAD
SUITE 205
ELLCOTT CITY, MD 21042
CONTACT: JASON VAN RYK
PHONE: (410) 700-9213

SITE ANALYSIS DATA / TABULATION

TOTAL PROJECT AREA	98.52 AC.
AREA OF 100-YR FLOODPLAIN	15.82 AC.
AREA OF DEDICATION (ROAD ROW)	0.55 AC.
PRESENT CORING DEGRADATION	0.00 AC.
PROPOSED USE:	SINGLE FAMILY DETACHED DWELLINGS
AREA OF STEEP SLOPES 25% OR GREATER	5.73 AC.
AREA OF SLOPES 15% - 25%	5.13 AC.
WATERSHED NAME & DIST. EXISTING NUMBER	WATKINET WATERSHED (USE M-9)



BOHLER ENGINEERING

BOHLER ENGINEERING
1001 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

REVISIONS

REV.	DATE	COMMENT	BY

NOT APPROVED FOR CONSTRUCTION

PROJECT NO.: MD142038
DRAWN BY: AVS
CHECKED BY: BRR
DATE: 06/15
SCALE: AS SHOWN
CAD ID.: F824

CRAWFORD PROPERTY

FOR
ELM STREET DEVELOPMENT

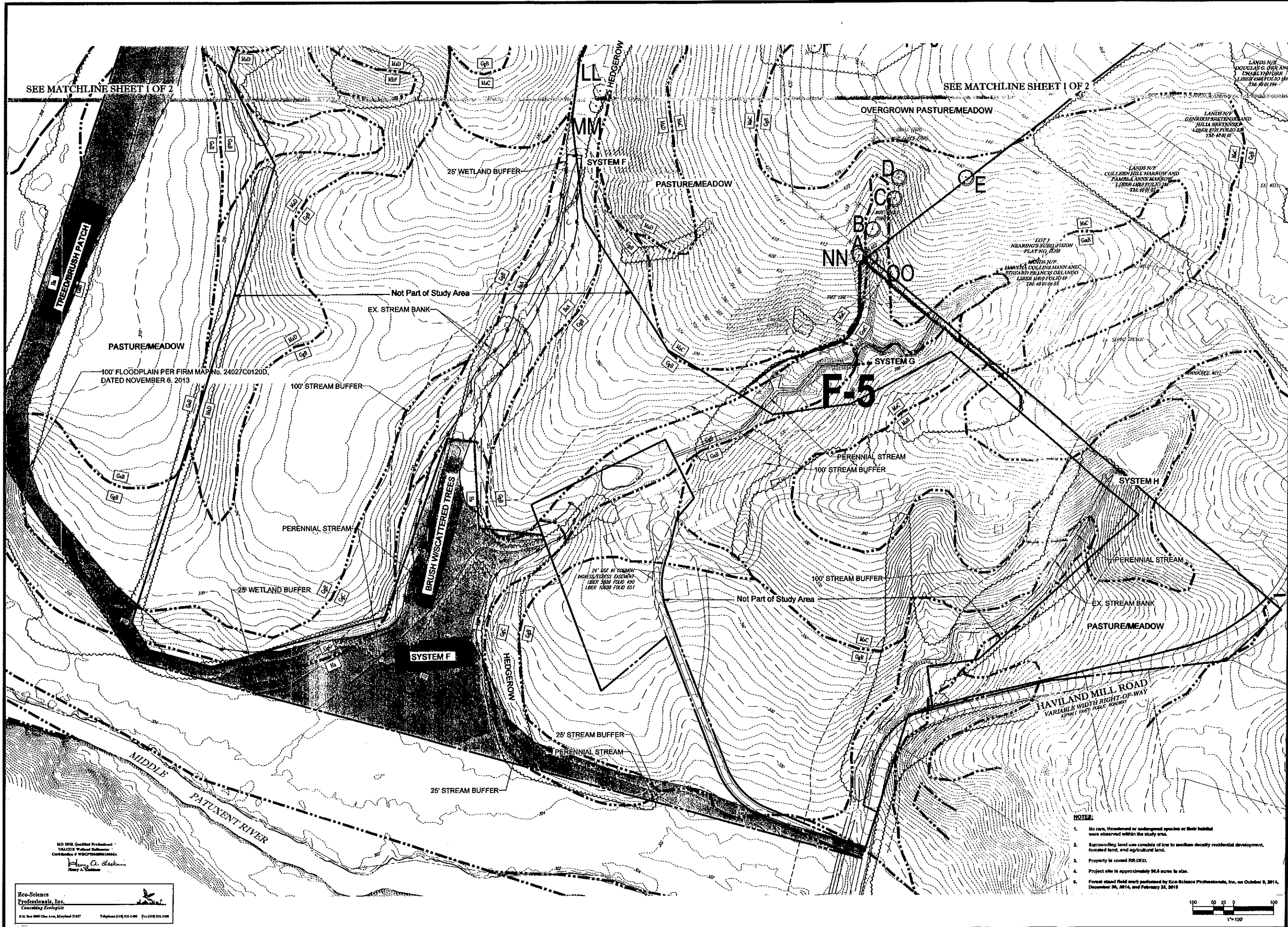
LOCATION OF SITE
8780 HAVILAND MILL ROAD
CLARKSVILLE,
HOWARD COUNTY, MD

BOHLER ENGINEERING

1001 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

SHEET TITLE:
FOREST STAND DELINEATION PLAN

SHEET NUMBER:
1 OF 2



SEE MATCHLINE SHEET 1 OF 2

SEE MATCHLINE SHEET 1 OF 2

100' FLOODPLAIN PER FIRM MAP No. 24027C0120D, DATED NOVEMBER 6, 2013

- NOTES:**
1. No rare, threatened or endangered species or their habitat were observed within the study area.
 2. Surrounding land use consists of low to medium density residential development, forested land, and agricultural land.
 3. Property is zoned RR-DEO.
 4. Project site is approximately 96.6 acres in size.
 5. Forest stand field work performed by Eco-Science Professionals, Inc. on October 8, 2014, December 26, 2014, and February 22, 2015.

BOHLER ENGINEERING

CITY, CIVIL, LAND CONSTRUCTION, ENVIRONMENTAL, LANDSCAPE ARCHITECTURE, LAND SURVEYING, PROGRAM MANAGEMENT, TRANSPORTATION SERVICES, SUSTAINABLE DESIGN, PERMITTING SERVICES

• BALTIMORE, MD
 • BOSTON, MA
 • CHARLOTTE, NC
 • CHICAGO, IL
 • COLUMBIA, SC
 • DALLAS, TX
 • DENVER, CO
 • HOUSTON, TX
 • LOS ANGELES, CA
 • MEMPHIS, TN
 • MIAMI, FL
 • MINNEAPOLIS, MN
 • NEW YORK, NY
 • PHOENIX, AZ
 • RICHMOND, VA
 • TAMPA, FL
 • WASHINGTON, DC

REVISIONS

REV	DATE	COMMENT	BY

NOT APPROVED FOR CONSTRUCTION

THE FOLLOWING STATES REQUIRE NOTIFICATION BY REGULATORS, DESIGNER, OR ANY PERSON PREPARING TO OBTAIN THE EXISTING SERVICE CONTRACTS IN THE STATE OF MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DELAWARE CALL: 811 (TOLL FREE 24 HOURS) OR 1-800-345-1776 (DC 1-800-387-7277) (VA 1-800-662-7000) (MD 1-800-827-7777) (DE 1-800-393-8649)

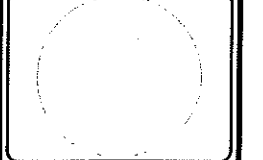
PROJECT: CRAWFORD PROPERTY

FOR: ELM STREET DEVELOPMENT

LOCATION OF SITE
6780 HAVILAND MILL ROAD
CLARKSVILLE,
HOWARD COUNTY, MD

BOHLER ENGINEERING

801 DULANEY VALLEY ROAD, SUITE 601
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com



SHEET TITLE: FOREST STAND DELINEATION PLAN

SHEET NUMBER: 2 OF 2

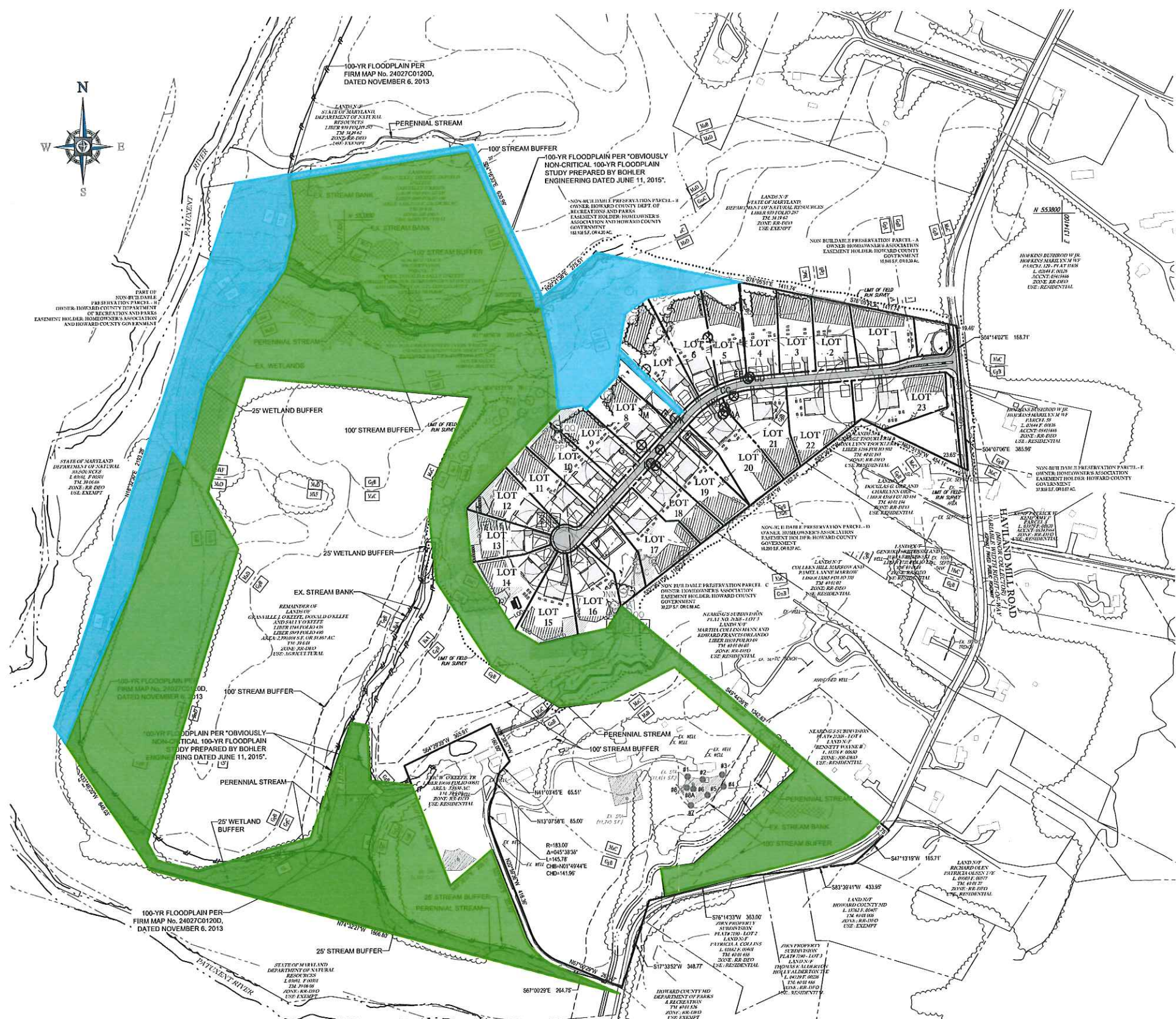
M.D. 12036, Qualified Professional
VIA CCRS, Wetland Delineator
Certificate # WDC7700001000000

Henry A. Beckman
Henry A. Beckman

Eco-Science Professionals, Inc.
Consulting Ecologists

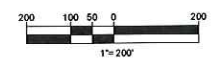
P.O. Box 3888, Clarksville, Maryland 21117 Telephone: (410) 822-1088 Fax: (410) 822-1088





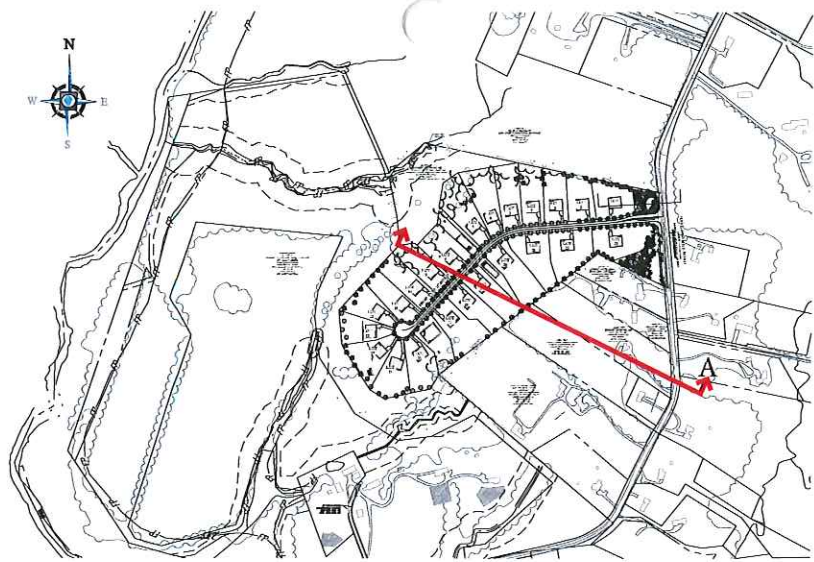
LEGEND

- PRESERVATION PARCEL TO BE OWNED BY HOWARD COUNTY
- PRESERVATION PARCEL TO BE OWNED BY O'KEEFE FAMILY

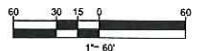


**CRAWFORD & O'KEEFE PROPERTIES
PRESERVATION PARCEL OWNERSHIP IDENTIFICATION EXHIBIT**

2/4/16



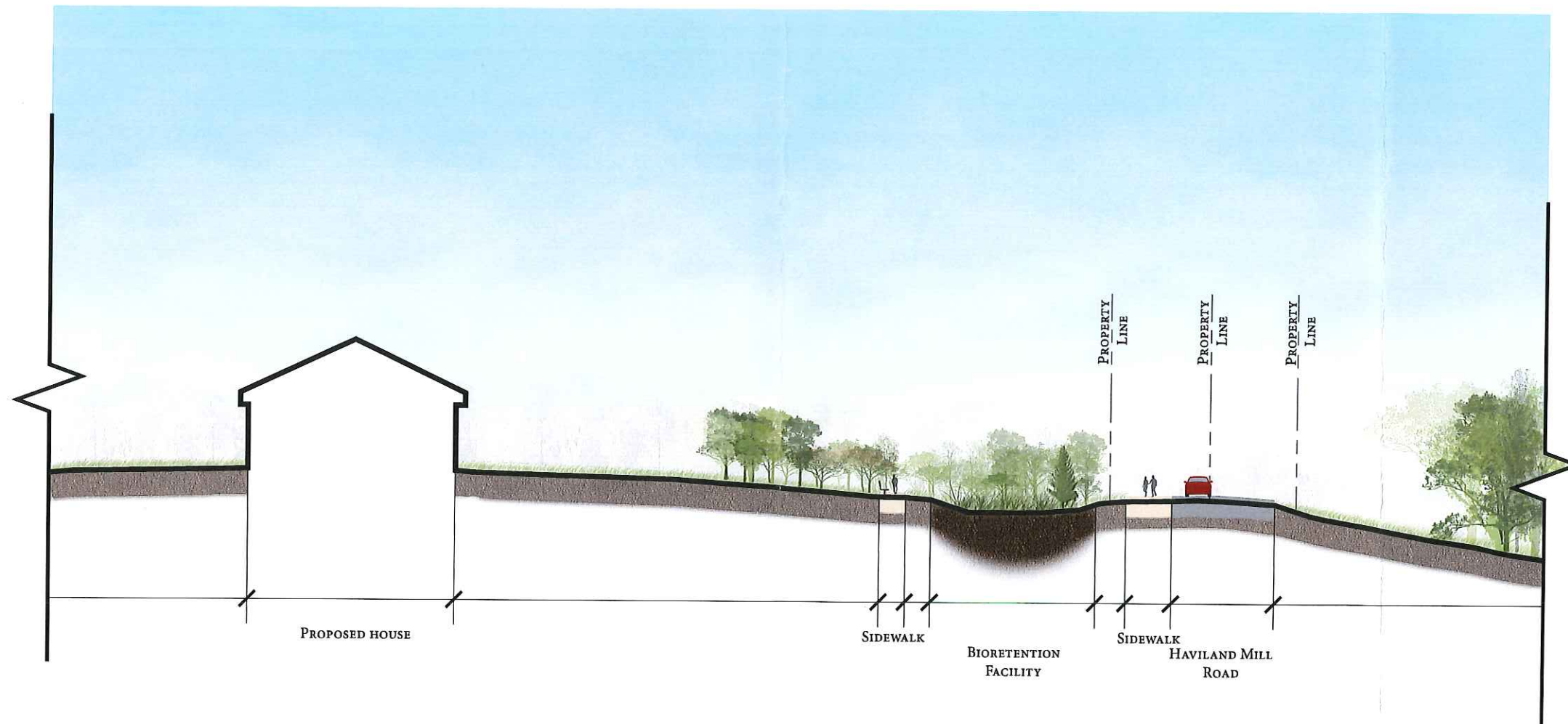
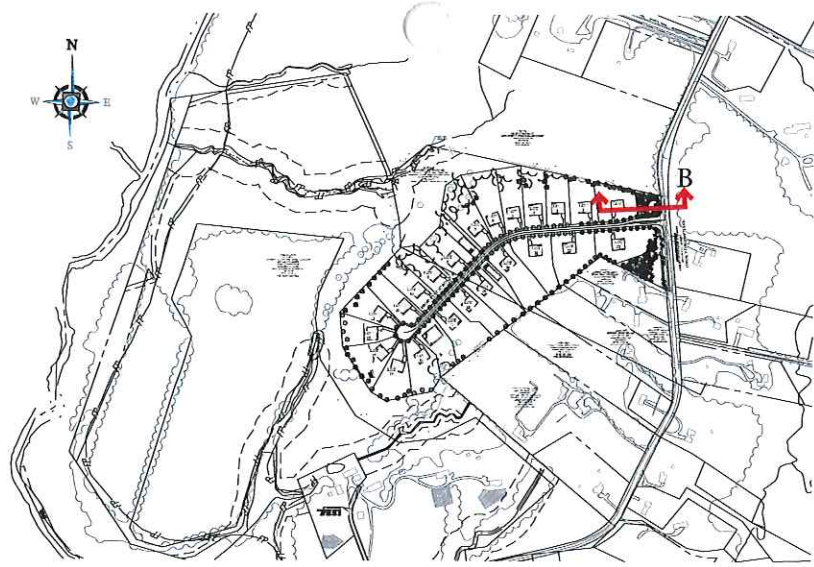
02/09/2016



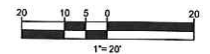
ILLUSTRATIVE CROSS SECTION "A"

CRAWFORD PROPERTY, HOWARD COUNTY, MARYLAND





02/09/2016



ILLUSTRATIVE CROSS SECTION "B"

CRAWFORD PROPERTY, HOWARD COUNTY, MARYLAND

