

ESD NARRATIVE

- NO DISTURBANCE TO THE ON-SITE FLOODPLAIN, STREAMS, WETLANDS, OR THEIR ASSOCIATED BUFFERS LOCATED WITHIN PARCEL 48 IS PROPOSED AS PART OF THIS PROJECT. THE ON-SITE FLOODPLAIN, STREAMS, WETLANDS AND THEIR ASSOCIATED BUFFERS ARE LOCATED WITHIN BUILDABLE BULK PARCEL 'C' AND NOT WITHIN THE AREA OF LOT DEVELOPMENT (LOD). THE PROPOSED NON-STRUCTURAL PRACTICES, MICRO-BIORETENTION FACILITIES, AND PERVIOUS SURFACES WILL PROVIDE STORMWATER QUALITY TREATMENT FOR THE NEW DEVELOPMENT, WHICH WILL BE AN IMPROVEMENT OVER EXISTING CONDITIONS.
- THE IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE. NO IMPACT IS PROPOSED THAT WOULD ALTER ANY NATURAL FLOW PATTERNS.
- THE USE OF NON-STRUCTURAL PRACTICES (ROOFTOP AND NON-ROOFTOP DISCONNECTION) WAS EXPLORED AND USED TO THE MAXIMUM EXTENT PRACTICAL.
- THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE LATEST MDE STANDARDS AND SPECIFICATIONS UTILIZING SILT FENCES AND SUPER SILT FENCES. AREAS OF CONCENTRATED FLOW WILL BE MITIGATED THROUGH THE USE OF CHECK DAMS (TEMPORARY).
- TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WAS UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS BY UTILIZING NON-STRUCTURAL PRACTICES WHERE REASONABLE AND MINIMIZING DISTURBANCE TO EXISTING FOREST, AND HAVING NO DISTURBANCE IN THE STREAM, WETLAND, FLOODPLAIN, OR THEIR ASSOCIATED BUFFERS.
- IN DESIGNING THIS PROJECT, AND AFTER WE PLAN THE PROJECT TO MINIMIZE IMPERVIOUS AREAS, WE UTILIZED ESD MEASURES IN THE FOLLOWING ORDER OF PREFERENCE:
 - ROOFTOP DISCONNECTION (N-1)
 - NON-ROOFTOP DISCONNECTION (N-2)
 - MICRO-SCALE PRACTICES (A-2 AND M-6)

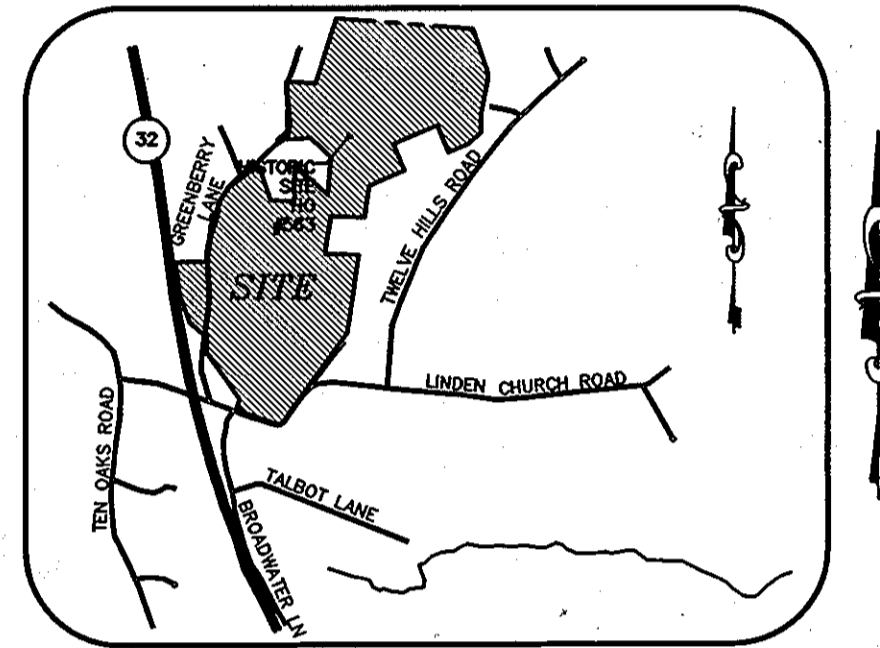
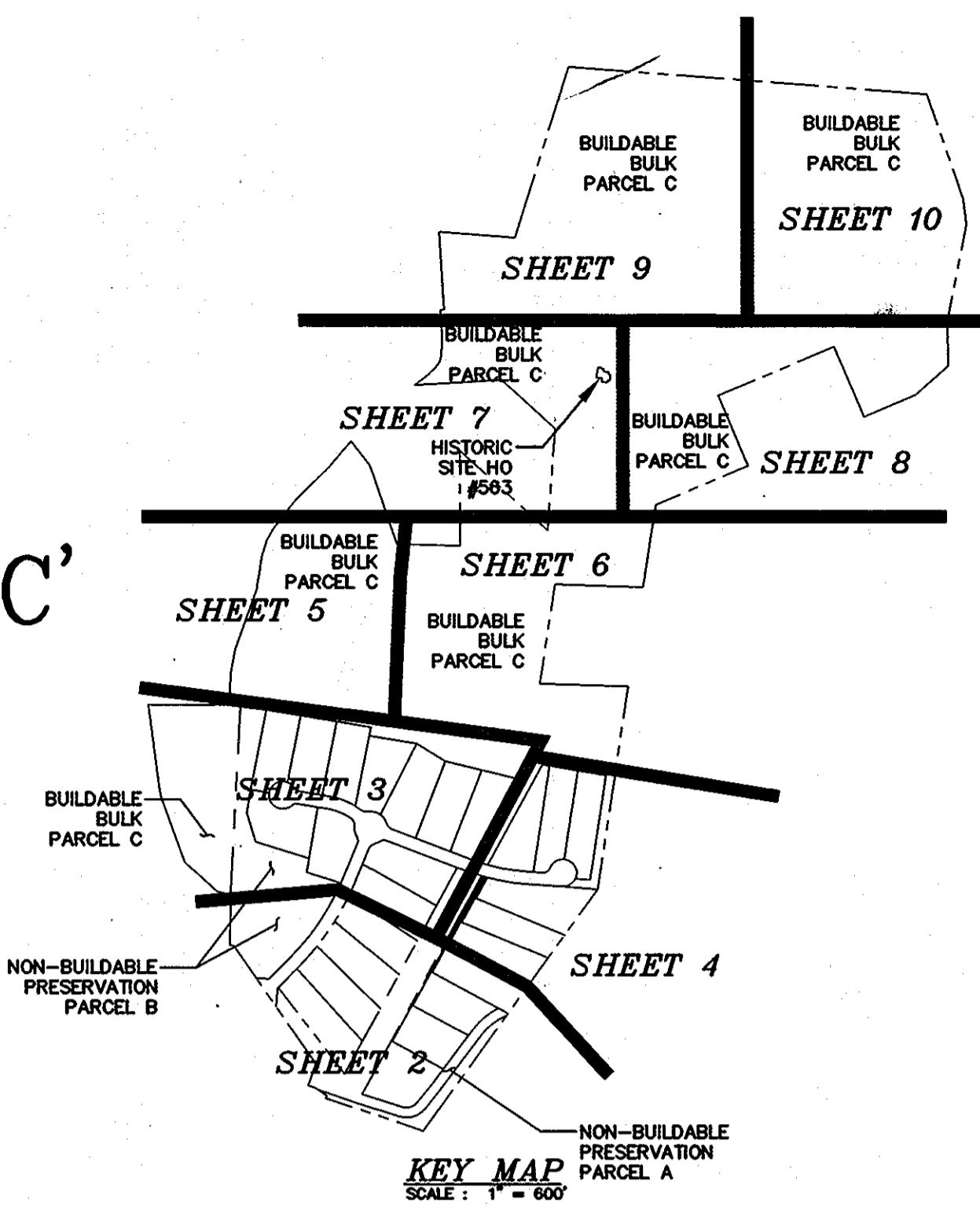
ENVIRONMENTAL CONCEPT PLAN

GREENBERRY

LOTS 1 THRU 25, NON-BUILDABLE PRESERVATION PARCELS 'A' AND 'B' AND BUILDABLE BULK PARCEL 'C'

FIFTH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



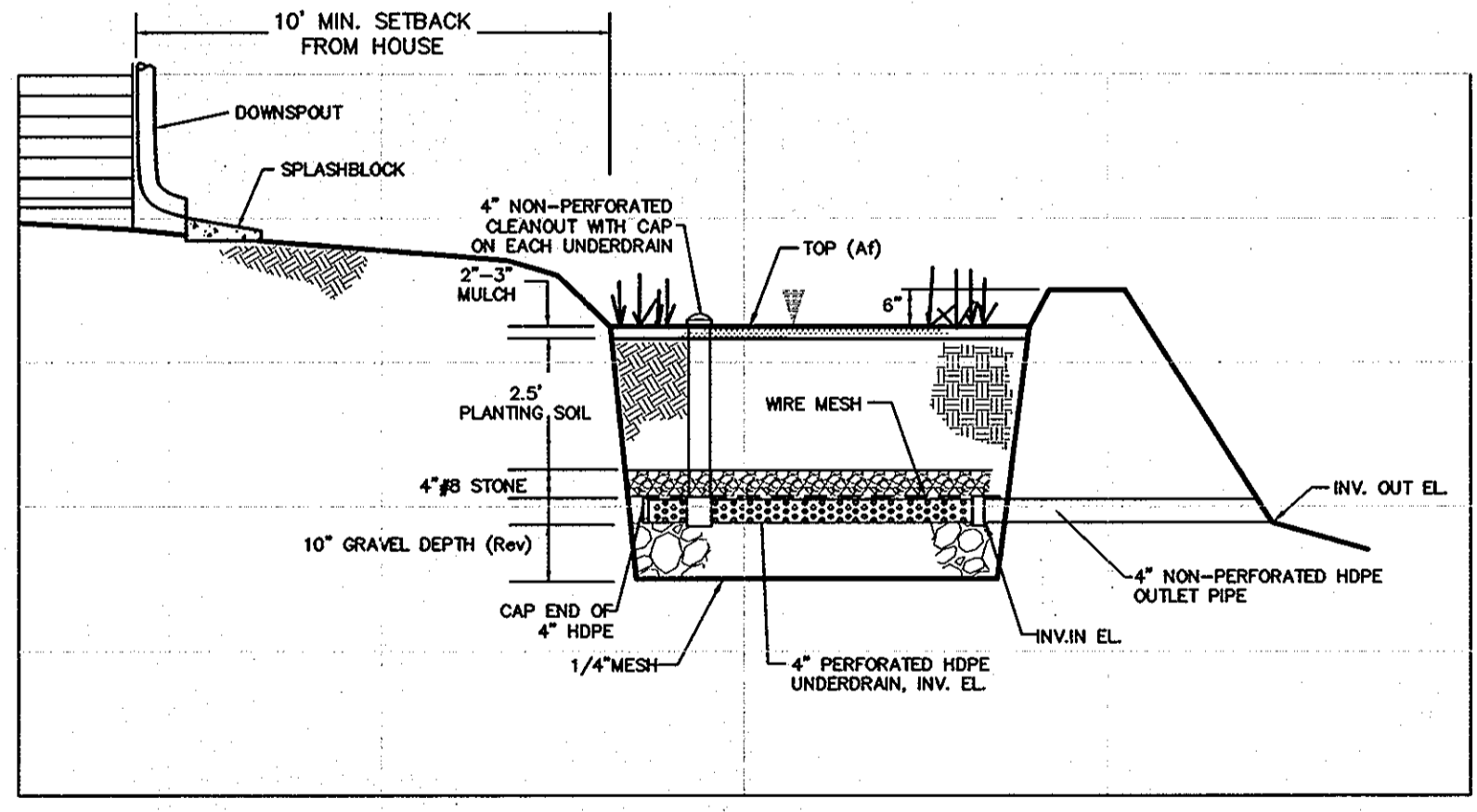
AREA	ESD METHOD	TREATED AREA TYPE	ESDV (REQ)	(PROVIDED)
LOT 1	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	732 CF	
LOT 2	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	718 CF	
LOT 3	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	753 CF	
LOT 4	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	642 CF	
LOT 5	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	698 CF	
LOT 6	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	559 CF	
LOT 7	PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	515 CF	
LOT 8	PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	909 CF	
LOT 9	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	527 CF	
LOT 10	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	583 CF	
LOT 11	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	630 CF	
LOT 12	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	595 CF	
LOT 13	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	641 CF	
LOT 14	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	611 CF	
LOT 15	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	932 CF	
LOT 16	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	562 CF	
LOT 17	ROOFTOP DISC. (N-1), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	766 CF	
LOT 18	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	556 CF	
LOT 19	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	803 CF	
LOT 20	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	629 CF	
LOT 21	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	587 CF	
LOT 22	ROOFTOP DISC. (N-1), NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	661 CF	
LOT 23	NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	625 CF	
LOT 24	NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	623 CF	
LOT 25	NON-ROOFTOP DISC. (N-2), PERMEABLE PAVEMENT (A-2)	HOUSE, DRIVEWAY (PERVIOUS & IMPERVIOUS)	650 CF	
ROAD A	NON-ROOFTOP DISC. (N-2)	ROADWAY (IMPERVIOUS)	1961 CF	
ROAD B	NON-ROOFTOP DISC. (N-2)	ROADWAY (IMPERVIOUS)	407 CF	
ROAD C	NON-ROOFTOP DISC. (N-2)	ROADWAY (IMPERVIOUS)	1111 CF	
USE-IN-COMMON DW	NON-ROOFTOP DISC. (N-2)	ROADWAY (IMPERVIOUS)	905 CF	
ROUNDABOUT ABC	NON-ROOFTOP DISC. (N-2), MICRO-BIORETENTION (M-6)	ROADWAY (IMPERVIOUS)	774 CF	
CUL DE SAC ROAD B	NON-ROOFTOP DISC. (N-2), MICRO-BIORETENTION (M-6)	ROADWAY (IMPERVIOUS)	668 CF	
CUL DE SAC ROAD C	NON-ROOFTOP DISC. (N-2), MICRO-BIORETENTION (M-6)	ROADWAY (IMPERVIOUS)	668 CF	
TOTAL			20,814 CF	22,803 CF

VICINITY MAP
SCALE: 1" = 2000'
ADC MAP 4933 GRID E 2-4, F 2-4

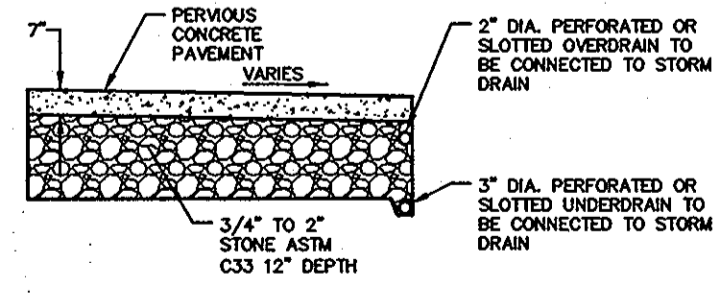
SHEET NO.	TITLE
1	COVER SHEET
2	ENVIRONMENTAL CONCEPT PLAN
3	ENVIRONMENTAL CONCEPT PLAN
4	ENVIRONMENTAL CONCEPT PLAN
5	ENVIRONMENTAL CONCEPT PLAN
6	ENVIRONMENTAL CONCEPT PLAN
7	ENVIRONMENTAL CONCEPT PLAN
8	ENVIRONMENTAL CONCEPT PLAN
9	ENVIRONMENTAL CONCEPT PLAN
10	ENVIRONMENTAL CONCEPT PLAN

NOTES:

- SITE ANALYSIS DATA:
 - LOCATION: TAX MAP: 28 GRID: 9 PARCEL: 48
 - ELECTION DISTRICT: FIFTH
 - ZONING: RR-DCO
 - TOTAL AREA: 133.6 AC±
 - LIMIT OF DISTURBED AREA: 20.7 AC±
 - PROPOSED USE FOR SITE: RESIDENTIAL
 - TOTAL NUMBER OF UNITS: 26 (1 EXISTING, 25 PROPOSED)
 - TYPE OF PROPOSED UNIT: SFD
 - DEED REFERENCE: 5891 / 307
 - PREVIOUS DP2 FILE #S: HISTORIC SITE HO-#563
 - BA-05-046C - REQUEST FOR AGE RESTRICTED HOUSING - DENIED 4/20/06.
- HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 28EA & 28EB.
 - STA. No. 28EA N 572,158.9652 E 1,319,400.6816 EL. 485.012
 - STA. No. 28EB N 569,357.3657 E 1,322,113.5747 EL. 536.733
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003). DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION OR BUILDING/GRADING PERMIT.
- PROJECT BOUNDARY IS BASED ON HOWARD COUNTY GIS
- TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY GIS.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WILL BE FULFILLED BY ON-SITE FOREST CONSERVATION (RETENTION AND AFForestation).
- THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT. HOWEVER, THE SITE CONTAINS HOWARD COUNTY HISTORICAL SITE HO #563 ("THE WILLIAMS HOUSE").
- FOREST STAND DELINEATION WAS PERFORMED BY ECO-SCIENCE, INC. IN OCTOBER, 2012.
- PER SECTION 16.115 (d) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THE 100-YEAR FLOODPLAIN HAS NOT BEEN DELINEATED ON THE PLAN SINCE THE PROJECT IS LOCATED IN A RURAL CLUSTER SUBDIVISION AND THE FLOODPLAIN IS OBVIOUSLY NOT CRITICAL TO THE PROPOSED DEVELOPMENT.
- PER SECTION 16.116(a)(4) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, WETLANDS HAVE NOT BEEN DELINEATED ON THE PLAN SINCE THE WETLANDS AND BUFFERS WILL NOT BE IMPACTED BY THE PROPOSED LOTS OR POTENTIAL DEVELOPMENT.
- NO FOREST CONSERVATION AREAS CURRENTLY EXIST ON SITE.
- HORIZONTAL GEOMETRY OF THE MICRO-BIORETENTION FACILITIES MAY BE MODIFIED WHILE MAINTAINING SURFACE AREA.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN.
- REVIEW OF THIS PROJECT AGAINST THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN STAGE. THEREFORE, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- NO GRADING OR DISTURBANCE IS ALLOWED IN THE STREAM, WETLANDS, OR THEIR BUFFER OR FLOODPLAIN AREA UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.



MICRO-BIORETENTION (M-6) DETAIL
NOT TO SCALE



PERVIOUS CONCRETE DRIVEWAY (A-2) DETAIL
NOT TO SCALE

LEGEND

- IMPERVIOUS AREA TREATED BY A-2 PERVIOUS PAVEMENT (ALSO INCLUDES AREAS OF PERVIOUS PAVEMENT). THIS SHADING ALSO DELINEATES THE DRAINAGE AREAS TO THE PERVIOUS PAVEMENT.
- IMPERVIOUS AREA TREATED BY M-6, MICRO-BIORETENTION
- IMPERVIOUS AREA TREATED BY N-1, ROOFTOP DISCONNECTION
- IMPERVIOUS AREA TREATED BY N-2, NON-ROOFTOP DISCONNECTION
- ROOFTOP DISCONNECTION (N-1) FLOW PATH WITH DISTANCE AND SLOPE
- TREATMENT AREA OF NON-ROOFTOP DISCONNECTION (N-2)
- DRAINAGE AREA TO MICRO-BIORETENTION (M-6)
- LOD - LIMIT OF DISTURBANCE
- SCE - STABILIZED CONSTRUCTION ENTRANCE
- SSF - SUPER SILT FENCE
- SF - SILT FENCE
- EXISTING TREELINE
- PROPOSED TREELINE
- ROOF DRAIN LEADER
- APPROXIMATE LIMITS OF EXISTING WETLANDS
- LIMIT OF 100-YEAR FLOODPLAIN

SITE ANALYSIS DATA:

- AREA OF THE SITE = 133.6 AC±
- LIMIT OF DISTURBANCE (LOD) = 20.7 AC±
- AREA OF WETLANDS AND ITS BUFFERS (WITHIN LOD) = 0
- AREA OF FLOODPLAIN (WITHIN LOD) = 0
- AREA OF 35' ENVIRONMENTAL SETBACK (FLOODPLAIN, WITHIN LOD) = 0
- AREA OF STREAM BUFFER (WITHIN LOD) = 0
- AREA OF STEEP SLOPES (15% OR GREATER WITHIN LOD FOR A VERTICAL DISTANCE OF 10 FEET OR MORE) = 0
- AREA OF FOREST (WITHIN LOD) = 0.53 AC ±
- TOTAL ENVIRONMENTAL SENSITIVE AREA (WITHIN LOD)* = 0
- THIS SITE CONTAINS GLENVILLE SILT LOAM WHICH IS CONSIDERED A HIGHLY ERODIBLE SOIL. GLENVILLE SILT LOAM IS CONSIDERED HIGHLY ERODIBLE ONLY WHEN EXCAVATED TO A DEPTH OF 10 TO 30 INCHES.
- TWENTY-FIVE (25) DETACHED SINGLE-FAMILY RESIDENTIAL UNITS ARE PROPOSED

SOILS DESCRIPTION (DEVELOPMENT AREA ONLY)

SYMBOL	GROUP	HYDROLOGICAL DESCRIPTION
G6a	B	GLENVILLE LOAM, 0 TO 3% SLOPE
G6b	B	GLENVILLE LOAM, 3 TO 8% SLOPE
G6c	B	GLENVILLE LOAM, 8 TO 15% SLOPE
G6d	C	GLENVILLE SILT LOAM, 3 TO 8% SLOPE

OWNER
ROBERT B. WILLIAMS
C/O MILDENBERG, BOENDER AND ASSOC.
6800 DEERPATH ROAD
SUITE 150
ELKRIDGE, MARYLAND 21075
(410)997-0296

APPROVED: DEPARTMENT OF PLANNING AND ZONING

DATE: 3/18/13
DATE: 3/18/13



I 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. 40091, EXP DATE 2/13/15
JEFFREY L. SLOMAN, P.E. 2/18/13 DATE

project	12-022	date	FEB 2013
illustration	JLS	engineering	JLS
scale	1"=60'	approval	RH

no.	description	date
	revisions	

GREENBERRY
 LOTS 1 THRU 25, NON-BUILDABLE PRESERVATION PARCELS 'A' AND 'B' AND BUILDABLE BULK PARCEL 'C'
 1310 GREENBERRY LANE, CLARKSVILLE, MD 21029, TAX MAP 28, PARCEL 48
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
COVER SHEET

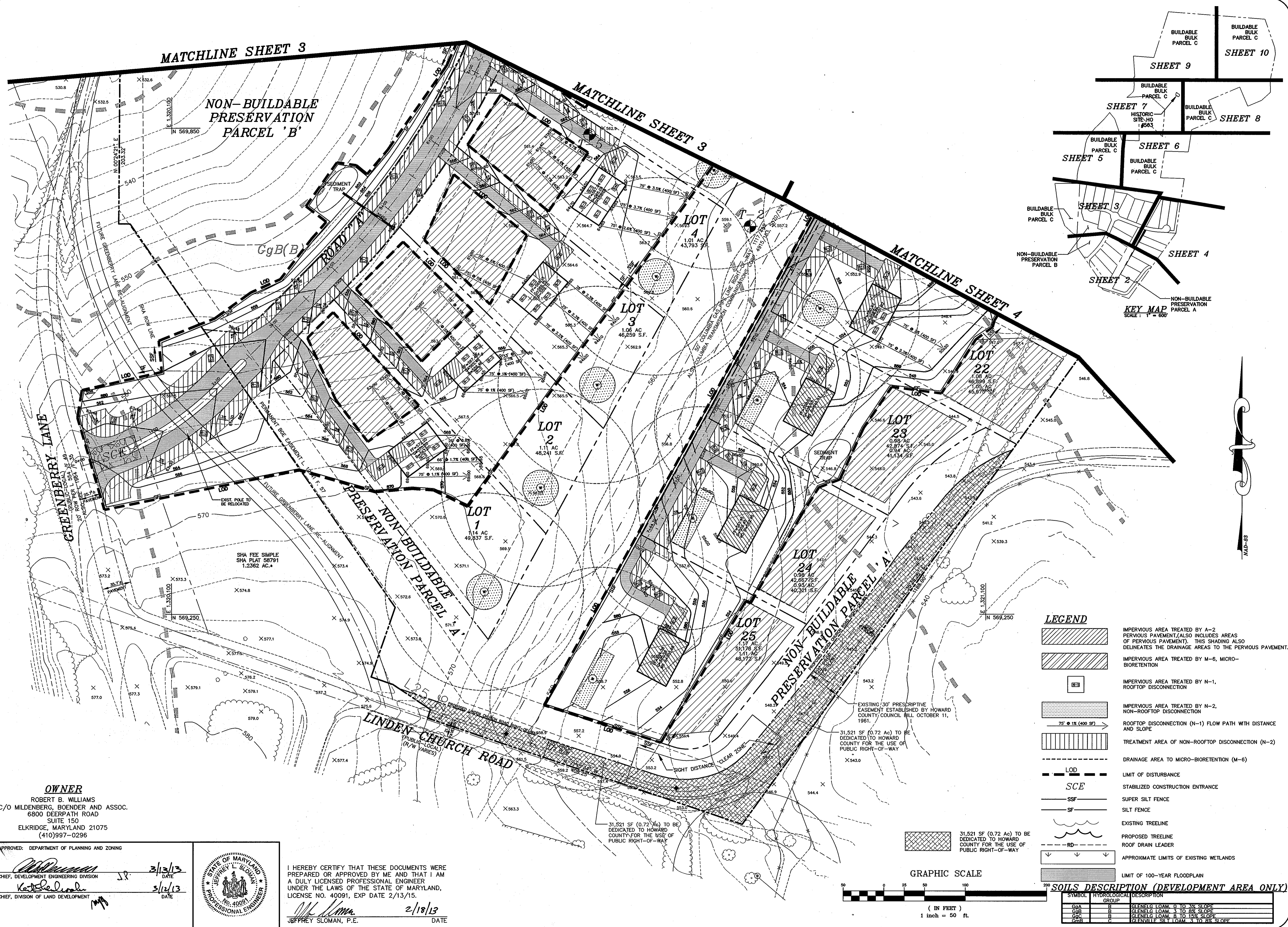
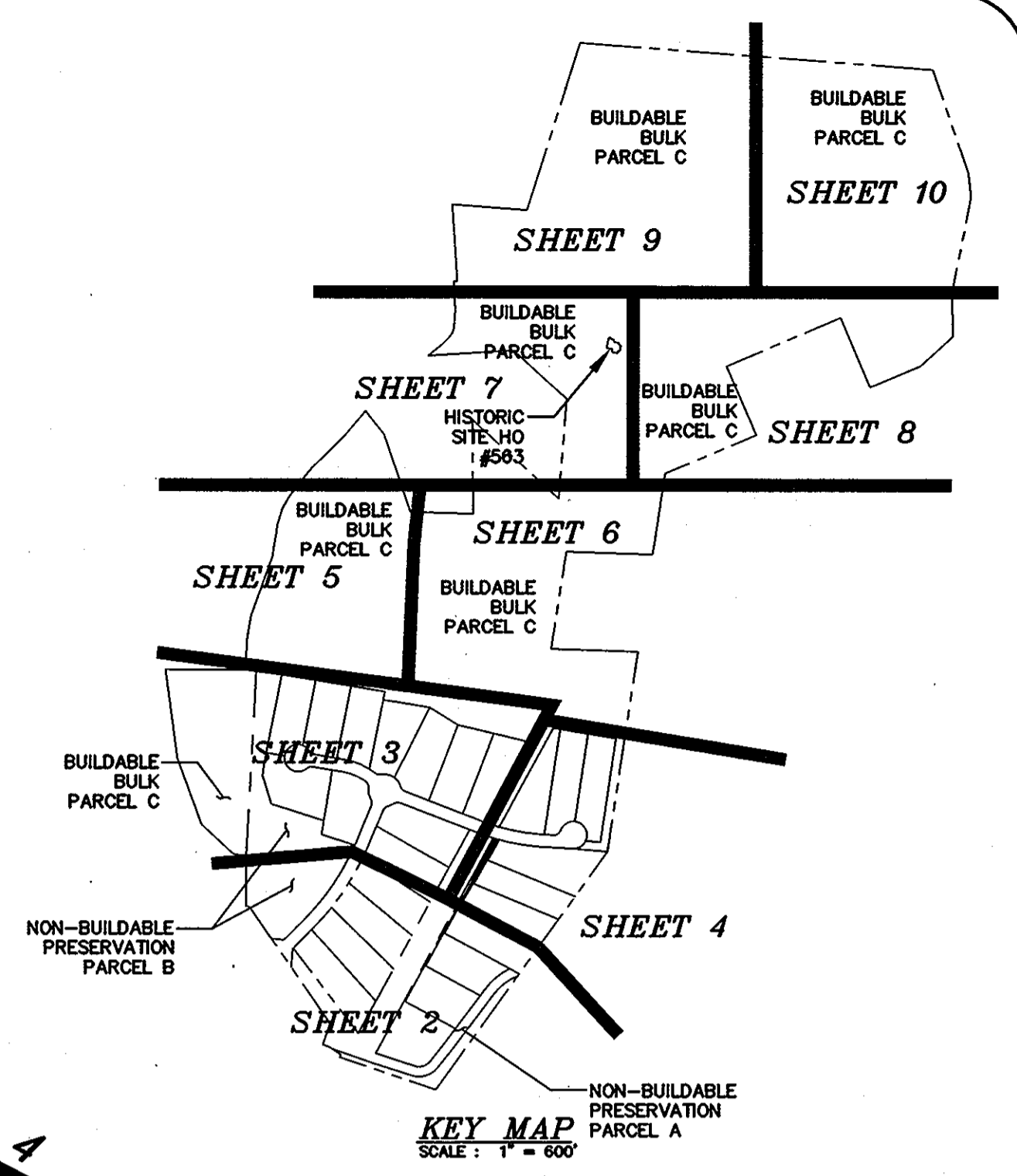
MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 6800 Deerpath Road, Suite 150, Elkridge, Maryland 21075
 (410) 997-0296 Fax (410) 997-0298

Project	12-022	date	FEB 2013
Illustration	JLS	engineering	JLS
scale	1"=50'	approval	RH

no.	description	date

GREENBERRY
 ENVIRONMENTAL CONCEPT PLAN
 LOTS 1 THRU 25, NON-BUILDABLE PRESERVATION PARCELS 'A' AND 'B', AND BUILDABLE BULK PARCEL 'C'
 1310 GREENBERRY LANE, CLARKSVILLE, MD 21029, TAX MAP 26, PARCEL 46
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 6800 Deerpath Road, Suite 150, Ellicott City, Maryland 21115
 (410) 997-0296 Fax
 (410) 997-0296 Batt.



LEGEND

- [Hatched pattern] IMPERVIOUS AREA TREATED BY A-2 PERVIOUS PAVEMENT (ALSO INCLUDES AREAS OF PERVIOUS PAVEMENT). THIS SHADING ALSO DELINEATES THE DRAINAGE AREAS TO THE PERVIOUS PAVEMENT.
- [Hatched pattern] IMPERVIOUS AREA TREATED BY M-6, MICRO-BIORETENTION
- [Hatched pattern] IMPERVIOUS AREA TREATED BY N-1, ROOFTOP DISCONNECTION
- [Hatched pattern] IMPERVIOUS AREA TREATED BY N-2, NON-ROOFTOP DISCONNECTION
- [Hatched pattern] ROOFTOP DISCONNECTION (N-1) FLOW PATH WITH DISTANCE AND SLOPE
- [Hatched pattern] TREATMENT AREA OF NON-ROOFTOP DISCONNECTION (N-2)
- [Hatched pattern] DRAINAGE AREA TO MICRO-BIORETENTION (M-6)
- [Dashed line] LIMIT OF DISTURBANCE
- [Line with 'SCE'] STABILIZED CONSTRUCTION ENTRANCE
- [Line with 'SSF'] SUPER SILT FENCE
- [Line with 'SF'] SILT FENCE
- [Wavy line] EXISTING TREELINE
- [Wavy line] PROPOSED TREELINE
- [Line with 'RD'] ROOF DRAIN LEADER
- [Dotted area] APPROXIMATE LIMITS OF EXISTING WETLANDS
- [Hatched pattern] LIMIT OF 100-YEAR FLOODPLAIN

SOILS DESCRIPTION (DEVELOPMENT AREA ONLY)

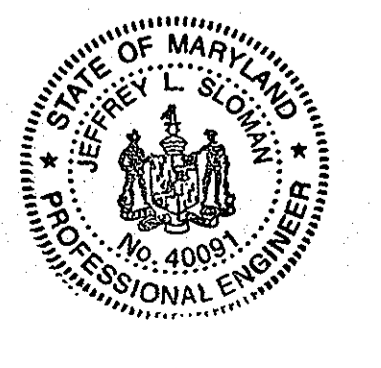
SYMBOL	HYDROLOGICAL GROUP	DESCRIPTION
GSA	A	GLENNELG LOAM, 0 TO 3% SLOPE
GBB	B	GLENNELG LOAM, 3 TO 8% SLOPE
GCC	C	GLENNELG LOAM, 8 TO 15% SLOPE
GDD	D	GLENNELG SILT LOAM, 3 TO 8% SLOPE

GRAPHIC SCALE
 (IN FEET)
 1 inch = 50 ft

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APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/13/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 5/12/13
 CHIEF, DIVISION OF LAND DEVELOPMENT



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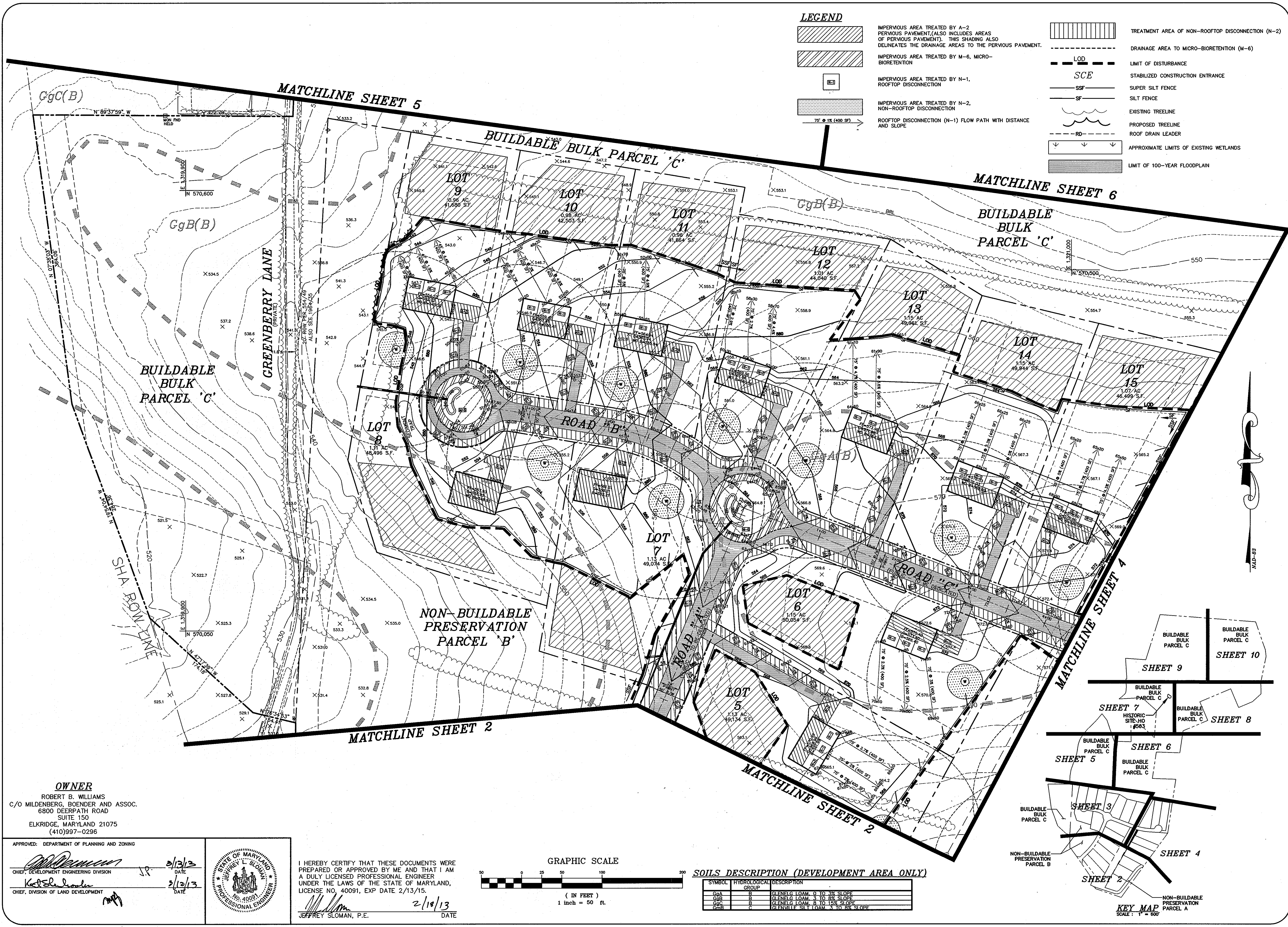
[Signature] 2/18/13
 JEFFREY SLOMAN, P.E. DATE

Project	12-022	date	FEB 2013
Illustration	JLS	engineering	JLS
scale	1"=50'	approval	RH

no.	description	date
	revisions	

GREENERY
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 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
ENVIRONMENTAL CONCEPT PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 6800 Deerpath Road, Suite 150, Ellicott City, Maryland 21075
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- APPROXIMATE LIMITS OF EXISTING WETLANDS
- LIMIT OF 100-YEAR FLOODPLAIN

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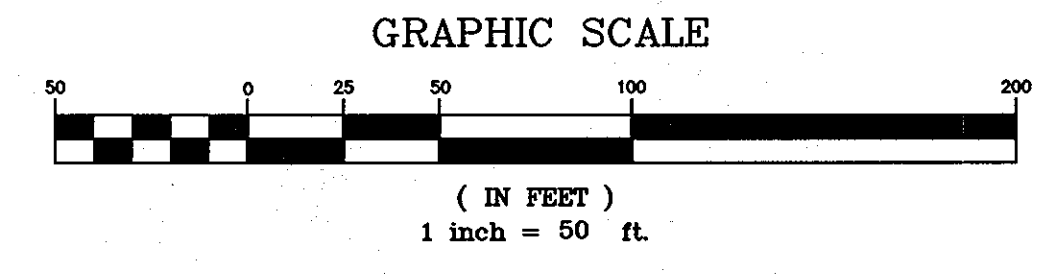
CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE 2/13/13

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE 2/13/13



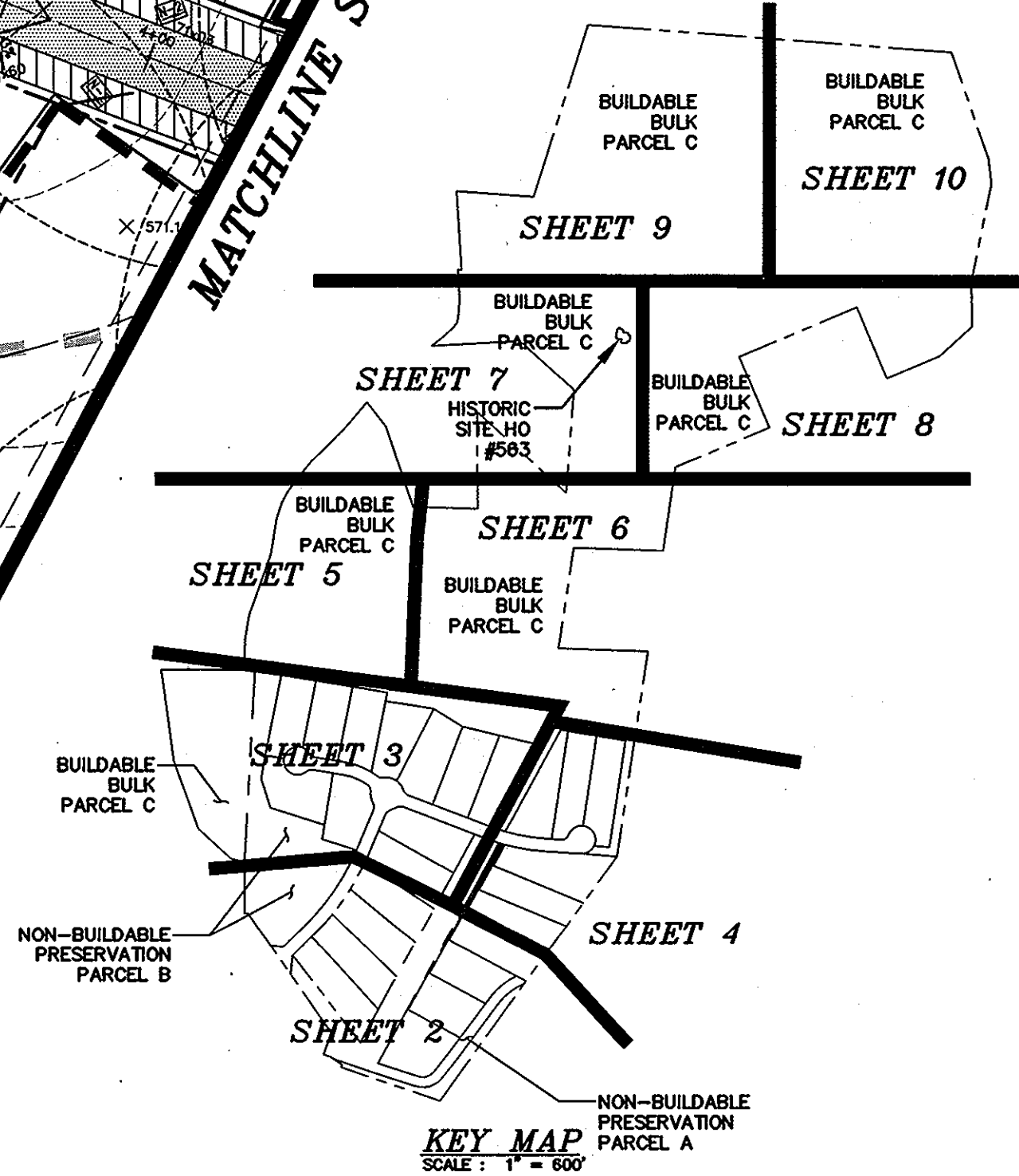
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JEFFREY SLOMAN, P.E.
 DATE 2/10/13



SOILS DESCRIPTION (DEVELOPMENT AREA ONLY)

SYMBOL	HYDROLOGICAL GROUP	DESCRIPTION
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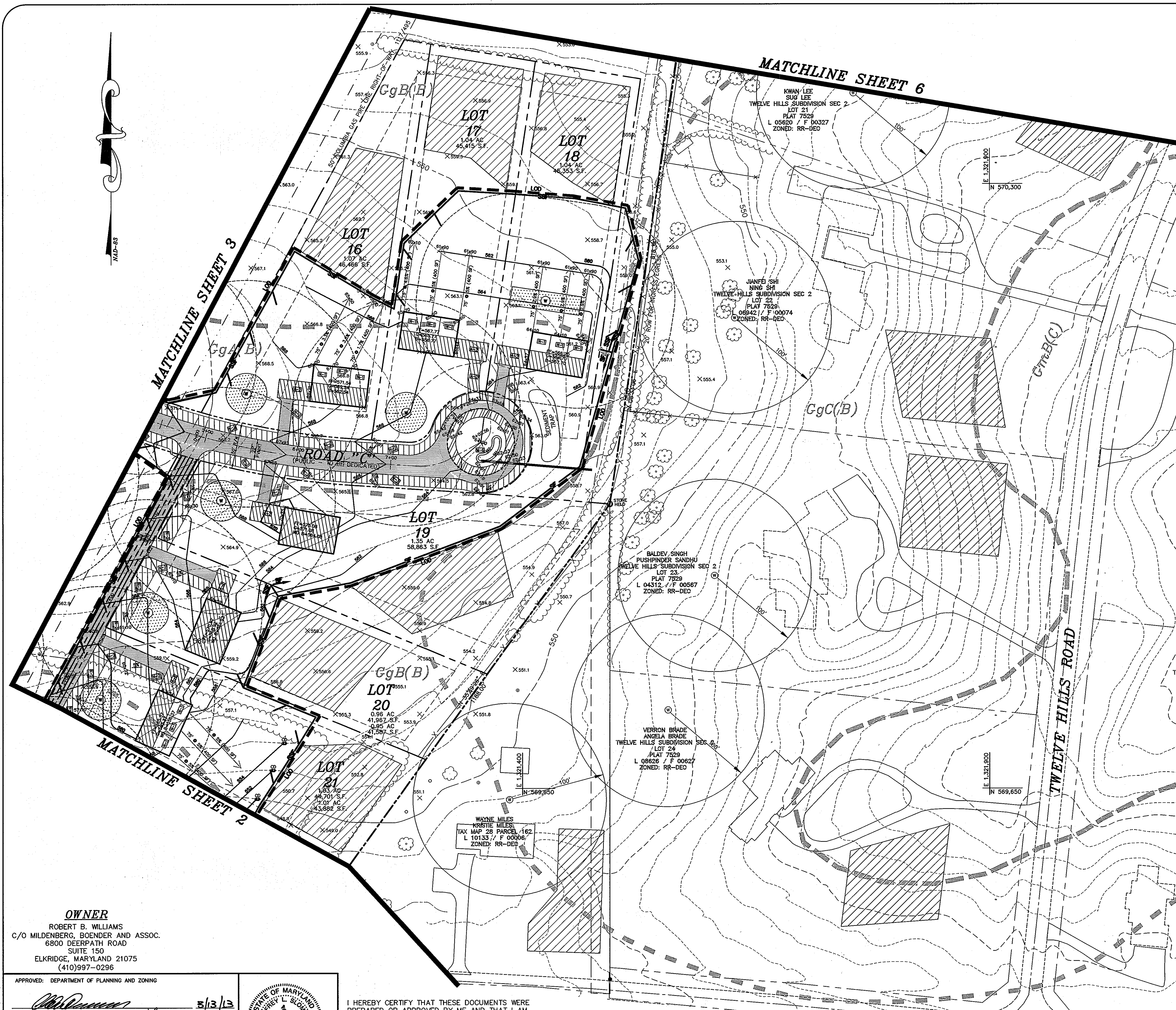
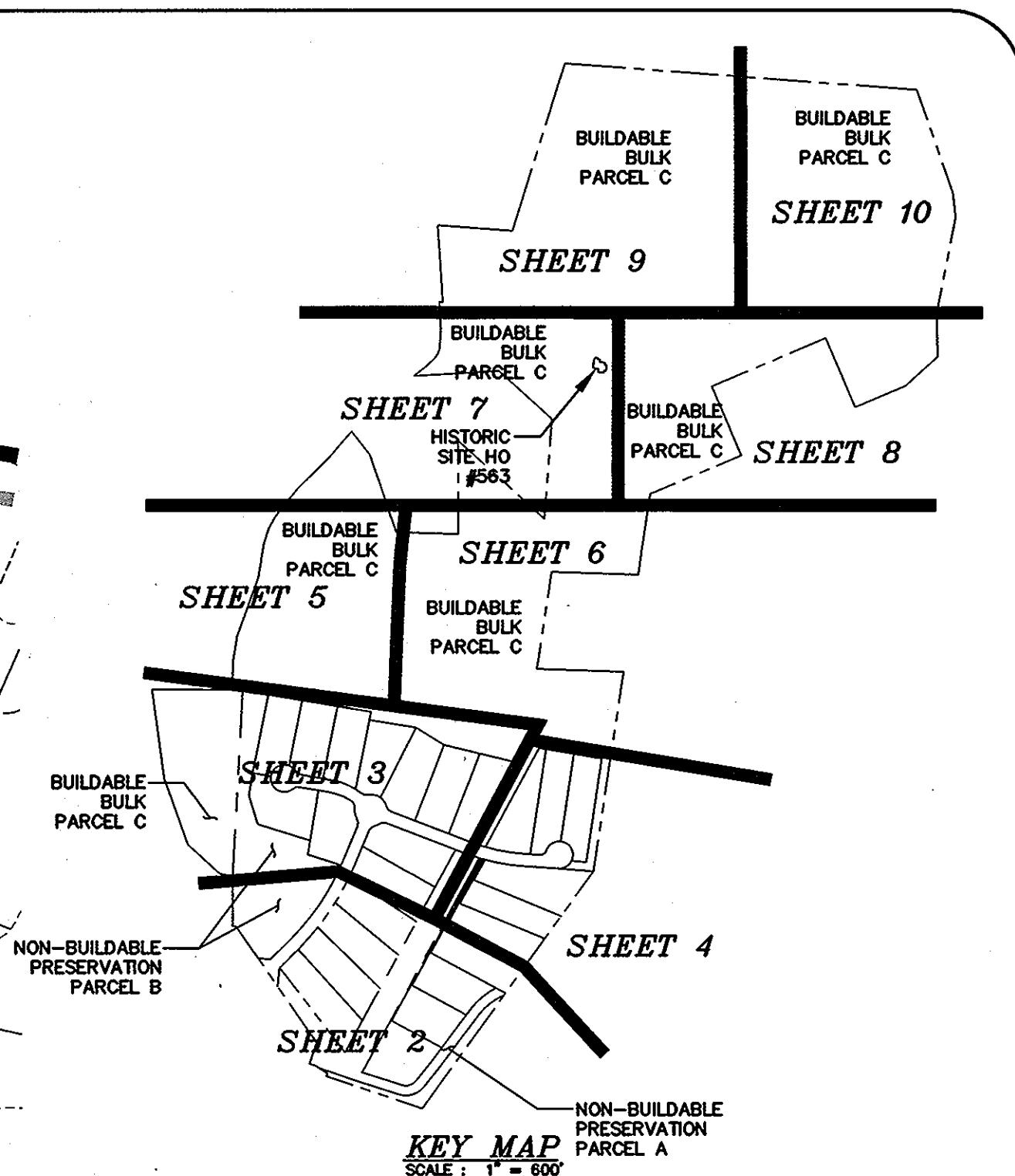


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 HOWARD COUNTY, MARYLAND
ENVIRONMENTAL CONCEPT PLAN

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 (410) 997-0236 Balt. (410) 997-0298 Fax



LEGEND

- [Diagonal hatching] IMPERVIOUS AREA TREATED BY A-2 PERVIOUS PAVEMENT (ALSO INCLUDES AREAS OF PERVIOUS PAVEMENT). THIS SHADING ALSO DELINEATES THE DRAINAGE AREAS TO THE PERVIOUS PAVEMENT.
- [Cross-hatching] IMPERVIOUS AREA TREATED BY M-6, MICRO-BIOTRETION
- [Box with 'N-1'] IMPERVIOUS AREA TREATED BY N-1, ROOFTOP DISCONNECTION
- [Box with 'N-2'] IMPERVIOUS AREA TREATED BY N-2, NON-ROOFTOP DISCONNECTION
- [Arrow with '75' @ 1% (400 SF)'] ROOFTOP DISCONNECTION (N-1) FLOW PATH WITH DISTANCE AND SLOPE
- [Horizontal lines] TREATMENT AREA OF NON-ROOFTOP DISCONNECTION (N-2)
- [Dashed line] DRAINAGE AREA TO MICRO-BIOTRETION (M-6)
- [Dashed line with 'TWEL'] LIMIT OF DISTURBANCE
- [Dashed line with 'SCE'] STABILIZED CONSTRUCTION ENTRANCE
- [Dashed line with 'SF'] SUPER SILT FENCE
- [Dashed line with 'S'] SILT FENCE
- [Wavy line] EXISTING TREELINE
- [Dashed line with 'P'] PROPOSED TREELINE
- [Dashed line with 'R'] ROOF DRAIN LEADER
- [Dotted area] APPROXIMATE LIMITS OF EXISTING WETLANDS
- [Shaded area] LIMIT OF 100-YEAR FLOODPLAIN

SOILS DESCRIPTION (DEVELOPMENT AREA ONLY)

SYMBOL	HYDROLOGICAL DESCRIPTION
GaA	GLAENELG LOAM, 0 TO 3% SLOPE
GaB	GLAENELG LOAM, 3 TO 8% SLOPE
GaC	GLAENELG LOAM, 8 TO 15% SLOPE
GaD	GLAENELG SILT LOAM, 3 TO 8% SLOPE

OWNER
 ROBERT B. WILLIAMS
 C/O MILDENBERG, BOENDER AND ASSOC.
 6800 DEERPATH ROAD
 SUITE 150
 ELKRIDGE, MARYLAND 21075
 (410)997-0296

APPROVED: DEPARTMENT OF PLANNING AND ZONING

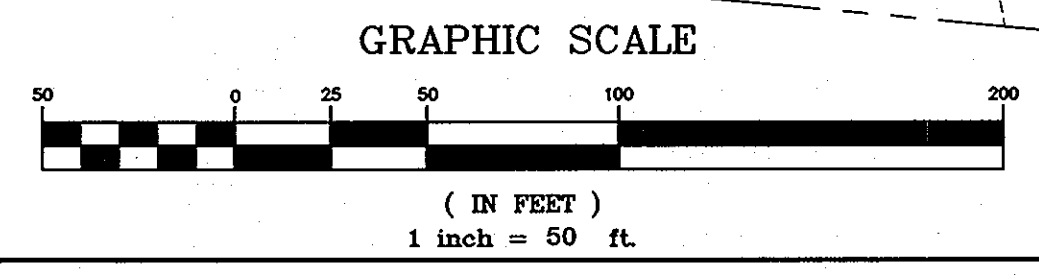
CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT

3/13/13
 DATE
 3/12/13
 DATE

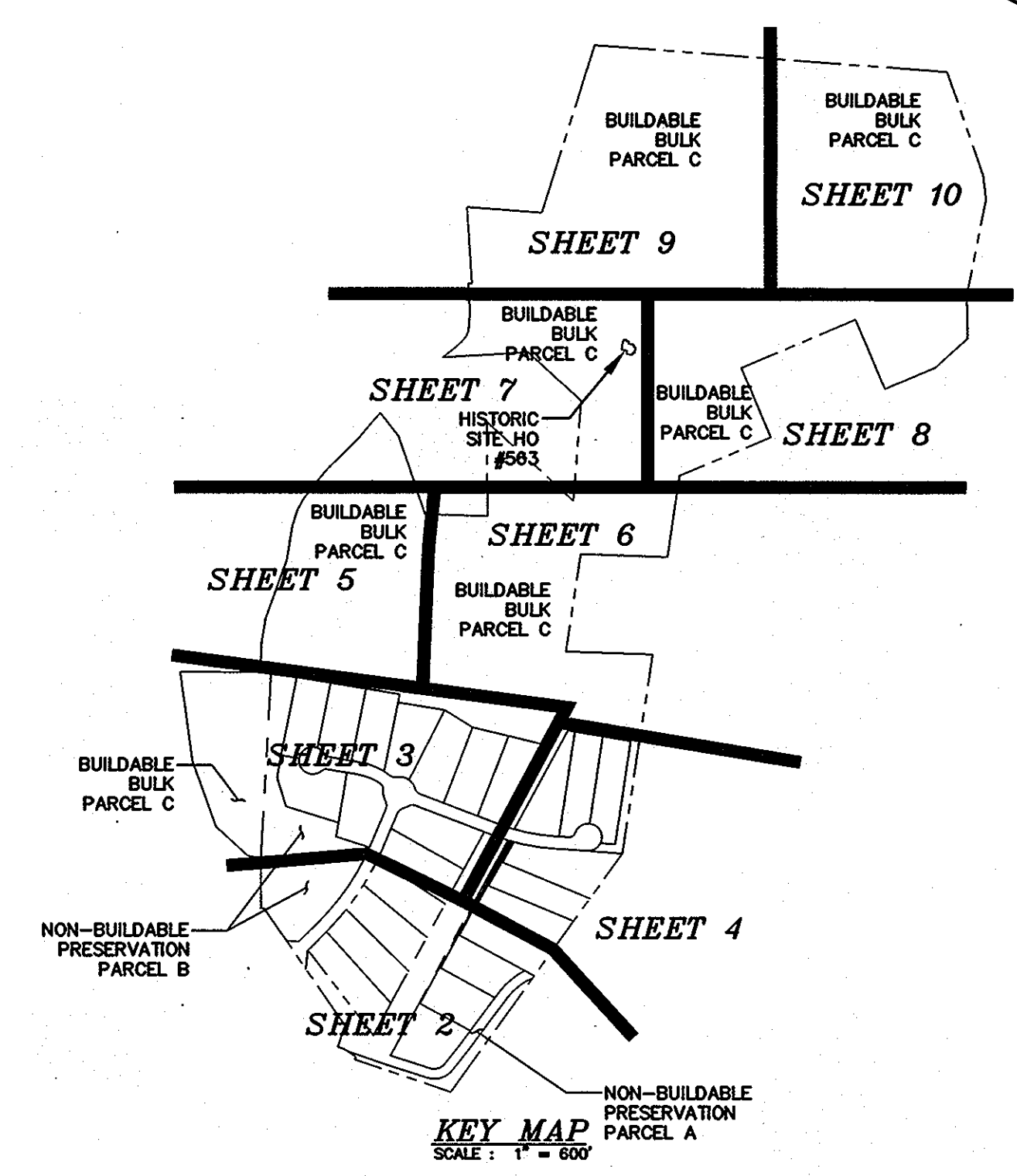
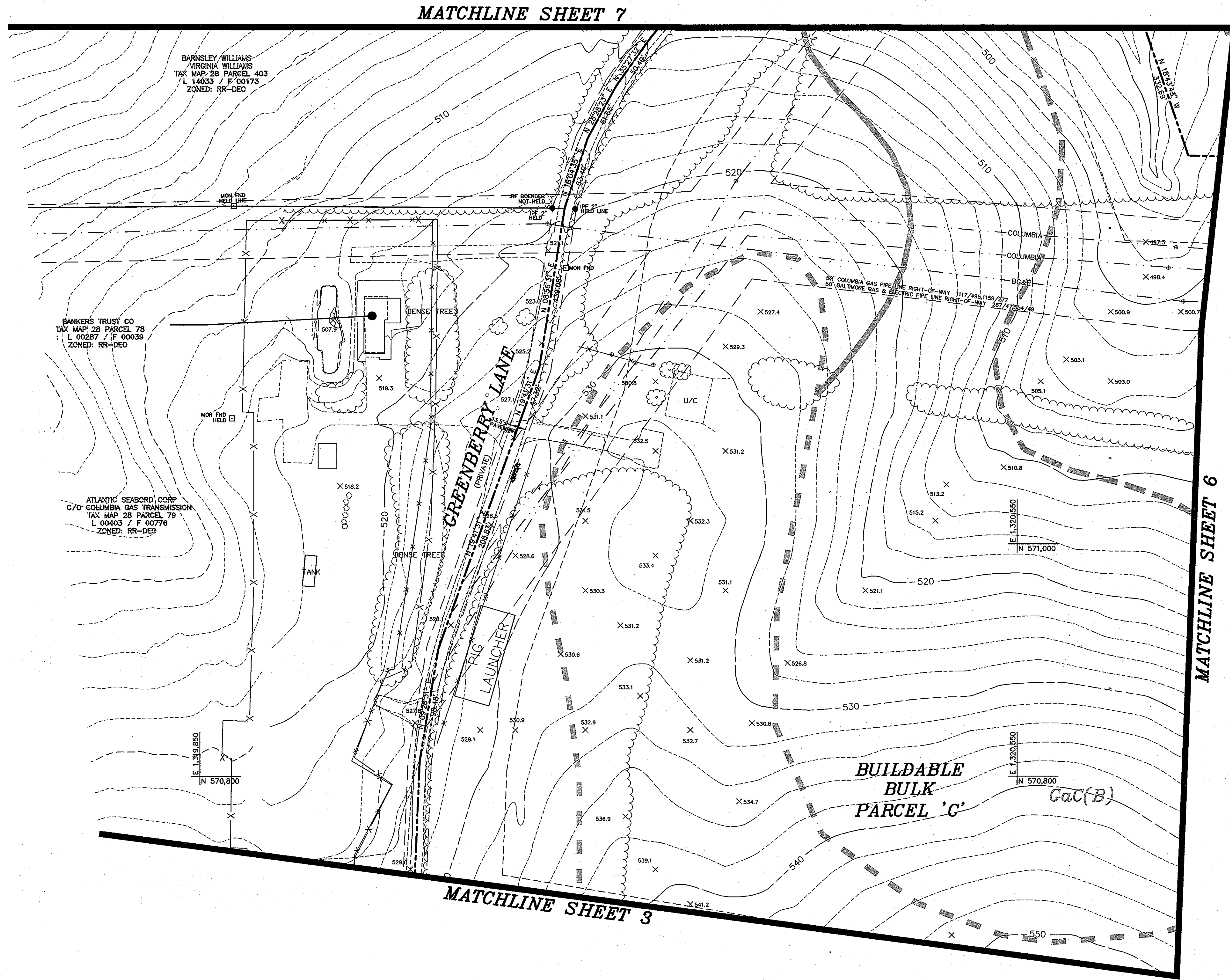


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JEFFREY SLOMAN, P.E.
 2/18/13
 DATE



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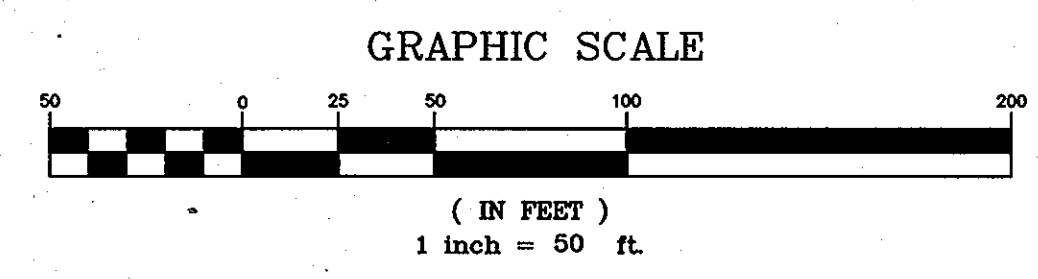


LEGEND

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	IMPERVIOUS AREA TREATED BY N-1, ROOFTOP DISCONNECTION
	IMPERVIOUS AREA TREATED BY N-2, NON-ROOFTOP DISCONNECTION
	ROOFTOP DISCONNECTION (N-1) FLOW PATH WITH DISTANCE AND SLOPE
	TREATMENT AREA OF NON-ROOFTOP DISCONNECTION (N-2)
	DRAINAGE AREA TO MICRO-BIORETENTION (M-6)
	LIMIT OF DISTURBANCE
	STABILIZED CONSTRUCTION ENTRANCE
	SUPER SILT FENCE
	SILT FENCE
	EXISTING TREELINE
	PROPOSED TREELINE
	ROOF DRAIN LEADER
	APPROXIMATE LIMITS OF EXISTING WETLANDS
	LIMIT OF 100-YEAR FLOODPLAIN

SOILS DESCRIPTION (DEVELOPMENT AREA ONLY)

SYMBOL	HYDROLOGICAL DESCRIPTION
GaA	GENEALG LOAM, 0 TO 3% SLOPE
GaB	GENEALG LOAM, 3 TO 8% SLOPE
GaC	GENEALG LOAM, 8 TO 15% SLOPE
GaD	GENEALG LOAM, 15 TO 3% SLOPE

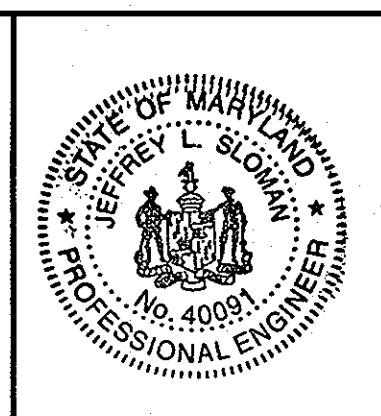


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 ROBERT B. WILLIAMS
 C/O MILDENBERG, BOENDER AND ASSOC.
 6800 DEERPATH ROAD
 SUITE 150
 ELKRIDGE, MARYLAND 21075
 (410)997-0296

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/13/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

[Signature] 2/12/13
 CHIEF, DIVISION OF LAND DEVELOPMENT
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 JEFFREY SLOMAN, P.E. DATE

Project	12-022	date	FEB 2013
Illustration	JLS	engineering	JLS
scale	1"=50'	approval	RH

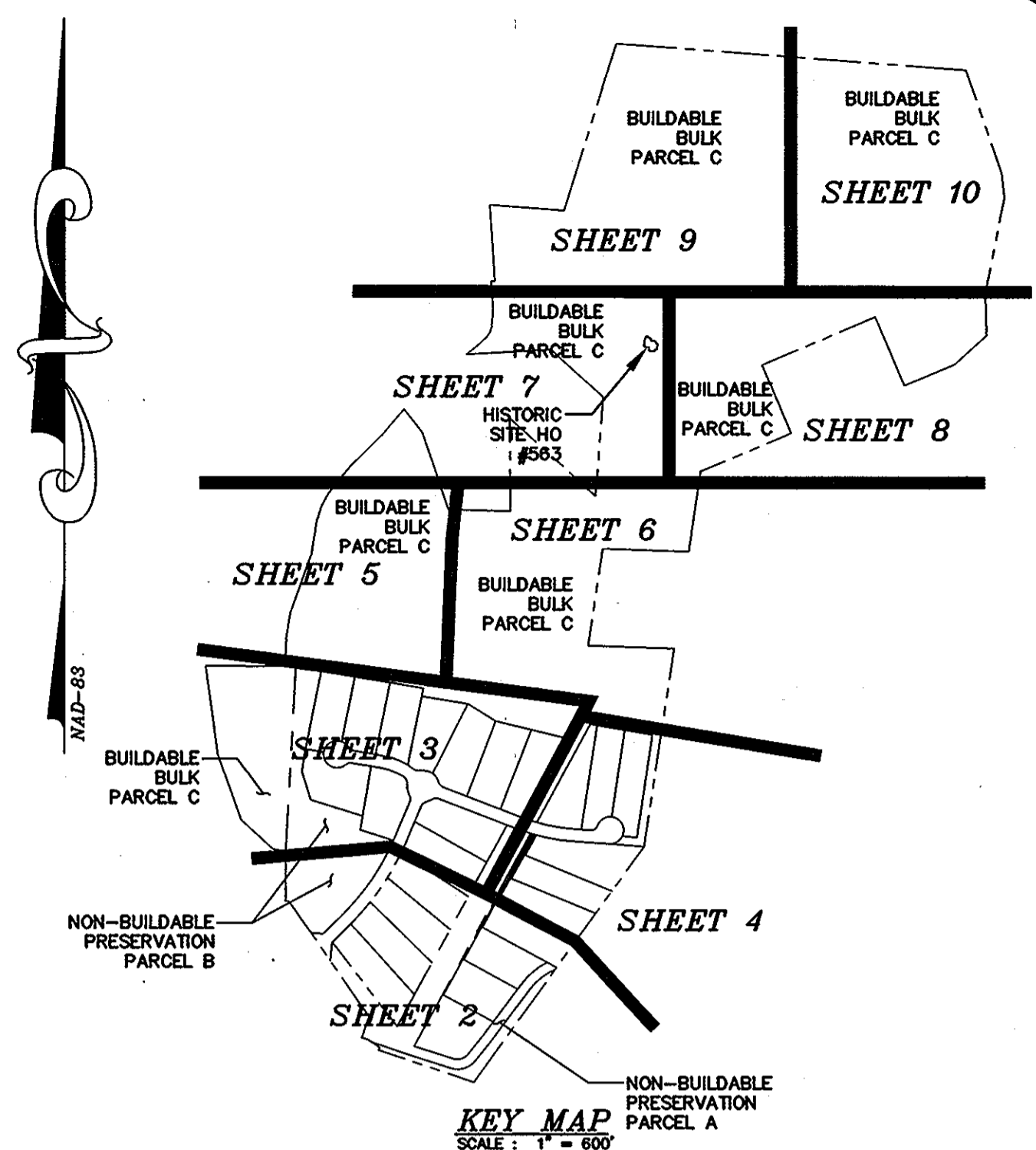
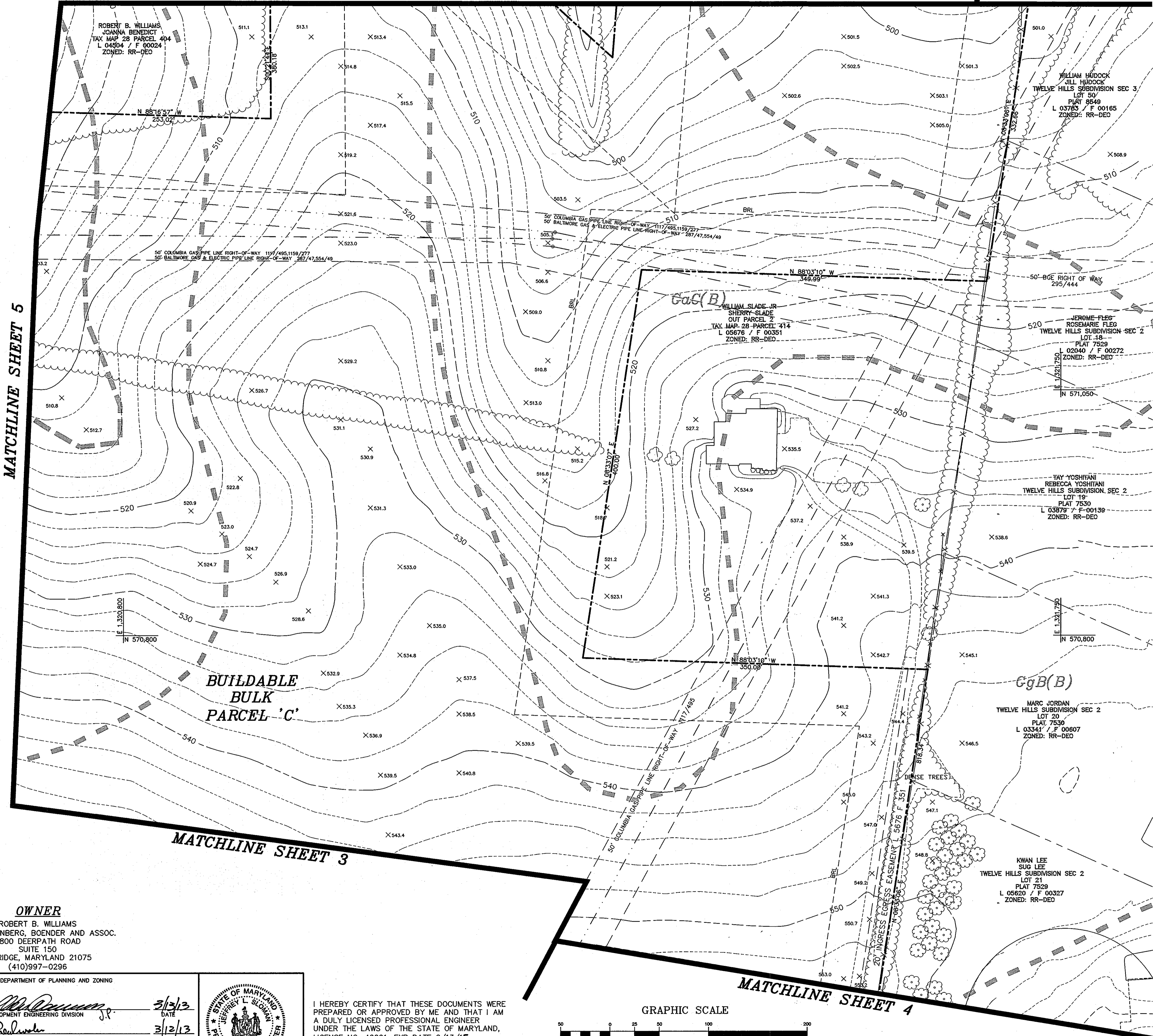
no.	description	revisions	date

GREENBERRY
 ENVIRONMENTAL CONCEPT PLAN
 LOTS 1 THRU 25, NON-BUILDABLE PRESERVATION PARCELS 'A' AND 'B', AND BUILDABLE BULK PARCEL 'C'
 1310 GREENBERRY LANE, CLARKSVILLE, MD 21029, TAX MAP 26, PARCEL 46
 HOWARD COUNTY, MARYLAND
 FIFTH ELECTION DISTRICT

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 6800 Deerpath Road, Suite 150, Elkridge, Maryland 21075
 (410) 997-0296 Fax: (410) 997-0298 Fax

MATCHLINE SHEET 7

MATCHLINE SHEET 8



LEGEND

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- DRAINAGE AREA TO MICRO-BIORETENTION (M-6)
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- SILT FENCE
- EXISTING TREELINE
- PROPOSED TREELINE
- ROOF DRAIN LEADER
- APPROXIMATE LIMITS OF EXISTING WETLANDS
- LIMIT OF 100-YEAR FLOODPLAIN

SOILS DESCRIPTION (DEVELOPMENT AREA ONLY)

SYMBOL	HYDROLOGICAL DESCRIPTION
GaA	GLIENELG LOAM, 0 TO 3% SLOPE
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GaC	GLIENELG LOAM, 8 TO 15% SLOPE
GaD	GLIENELG SILT LOAM, 3 TO 8% SLOPE

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APPROVED: DEPARTMENT OF PLANNING AND ZONING

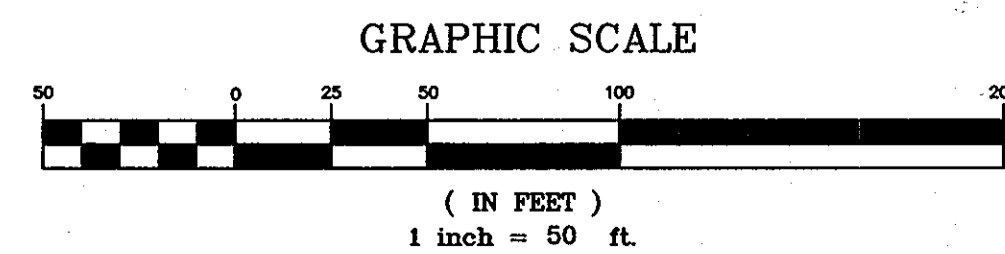
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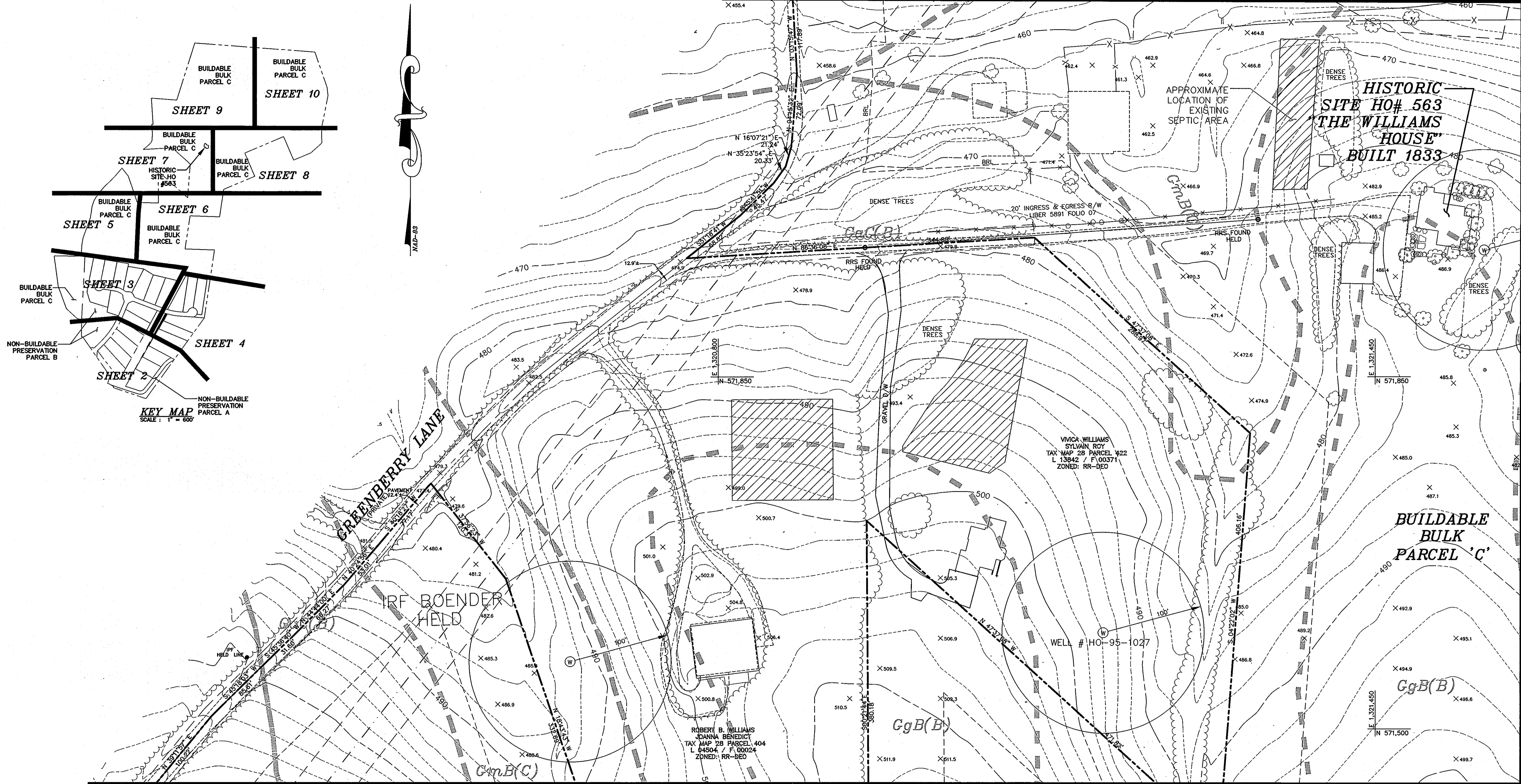


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illustration	JLS	engineering	JLS
scale	1"=50'	approval	RH

no.	description	revisions	date

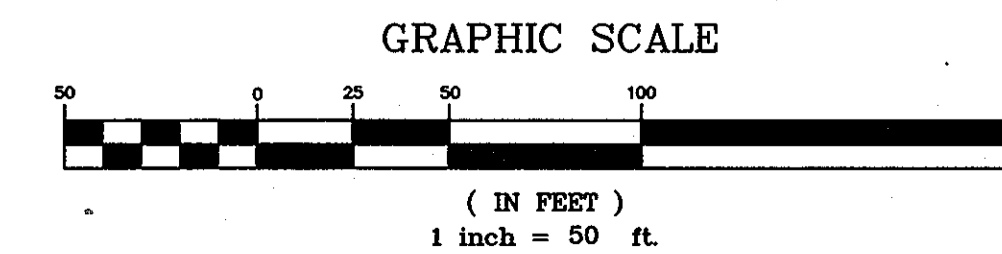
GREENERBERRY
 ENVIRONMENTAL CONCEPT PLAN
 LOTS 1 THRU 25, NON-BUILDABLE PRESERVATION PARCELS 'A' AND 'B', AND BUILDABLE BULK PARCEL 'C'
 1310 GREENERBERRY LANE, CLARKSVILLE, MD 21029, TAX MAP 28, PARCEL 48
 HOWARD COUNTY, MARYLAND
 FIFTH ELECTION DISTRICT

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LEGEND

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	IMPERVIOUS AREA TREATED BY M-6, MICRO-BIORETENTION		LIMIT OF 100-YEAR FLOODPLAIN
	IMPERVIOUS AREA TREATED BY N-1, ROOFTOP DISCONNECTION		
	IMPERVIOUS AREA TREATED BY N-2, NON-ROOFTOP DISCONNECTION		
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	TREATMENT AREA OF NON-ROOFTOP DISCONNECTION (N-2)		
	DRAINAGE AREA TO MICRO-BIORETENTION (M-6)		
	LOD LIMIT OF DISTURBANCE		
	SCE STABILIZED CONSTRUCTION ENTRANCE		
	SSF SUPER SILT FENCE		
	SF SILT FENCE		
	EXISTING TREELINE		
	PROPOSED TREELINE		
	RD ROOF DRAIN LEADER		



SOILS DESCRIPTION (DEVELOPMENT AREA ONLY)

SYMBOL	HYDROLOGICAL GROUP	DESCRIPTION
GaA	B	GLENNELG LOAM, 0 TO 3% SLOPE
GaB	B	GLENNELG LOAM, 3 TO 8% SLOPE
GaC	B	GLENNELG LOAM, 8 TO 15% SLOPE
GaD	C	GLENNELG SILT LOAM, 3 TO 8% SLOPE

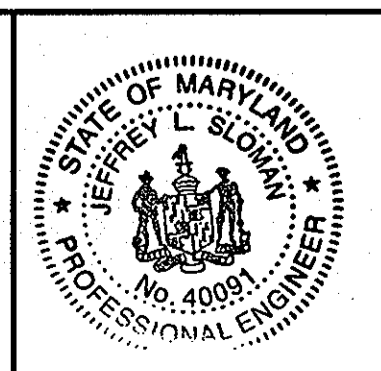
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project	12-022	date	FEB 2013
illustration	JLS	engineering	JLS
scale	1"=50'	approval	RH

no.	description	date

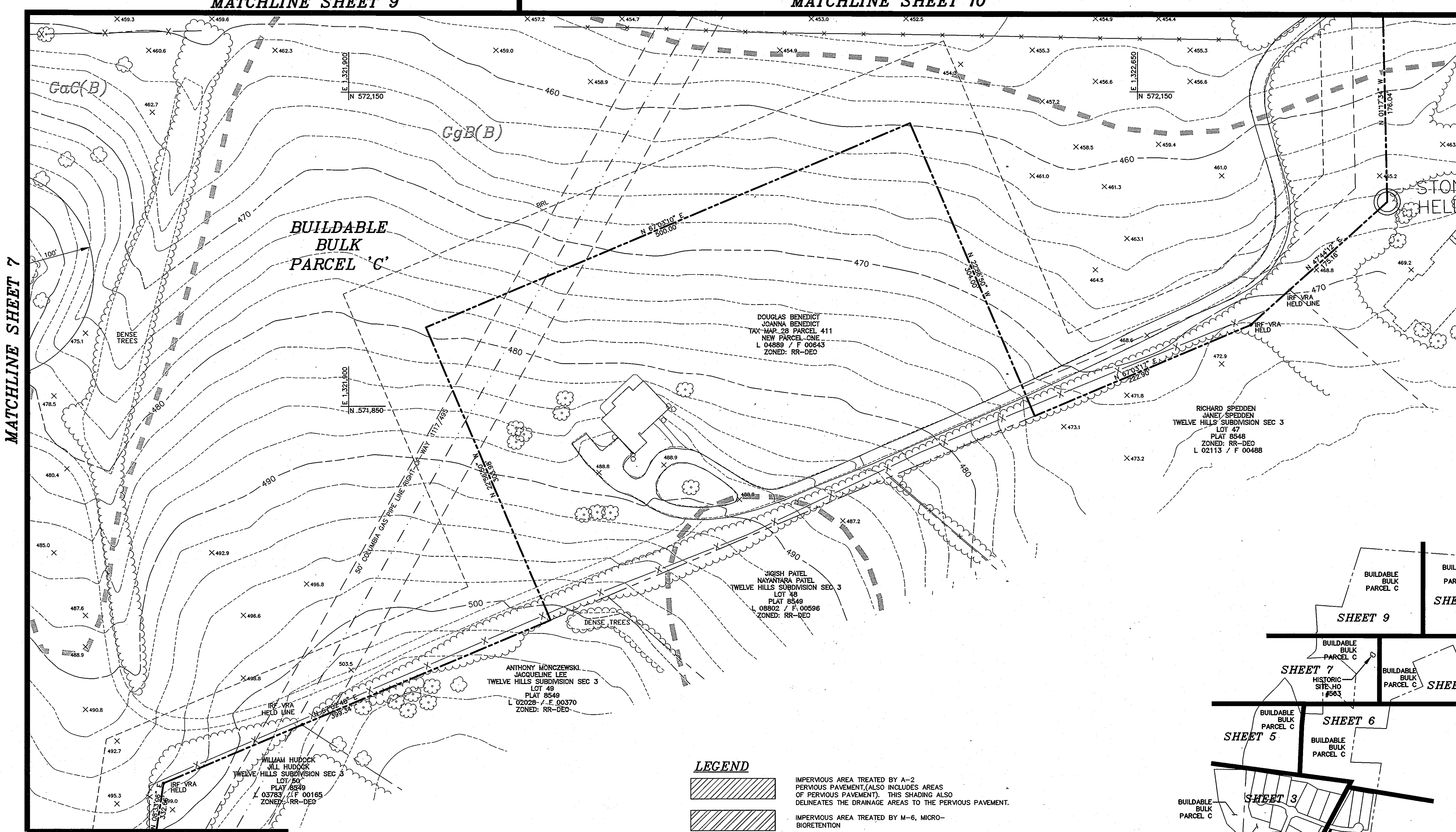
GREENBERRY
 ENVIRONMENTAL CONCEPT PLAN
 LOTS 1 THRU 25, NON-BUILDABLE PRESERVATION PARCELS 'A' AND 'B', AND BUILDABLE BULK PARCEL 'C'
 1310 GREENBERRY LANE, CLARKSVILLE, MD 21029, TAX MAP 28, PARCEL 48
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

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MATCHLINE SHEET 9

MATCHLINE SHEET 10

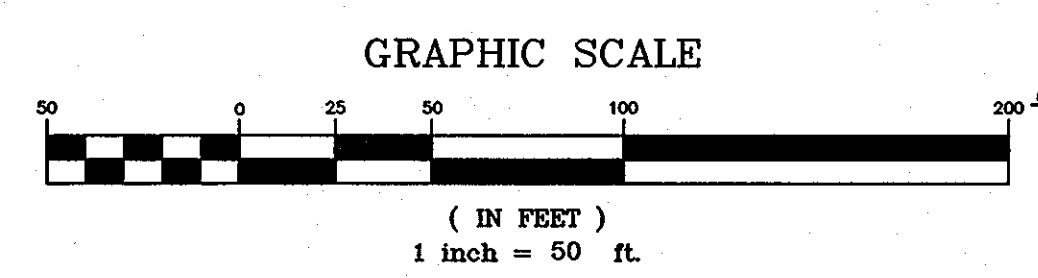
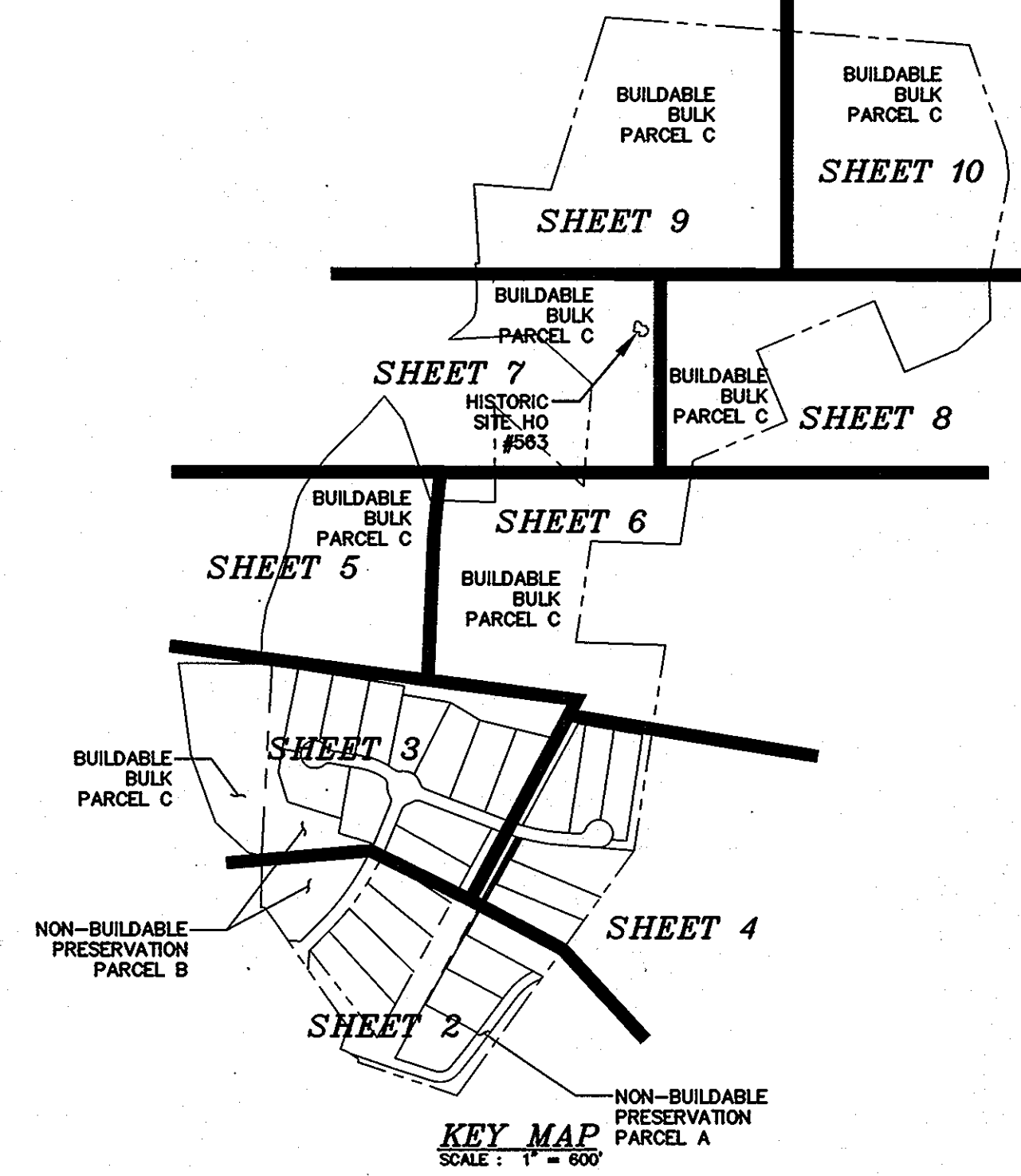
MATCHLINE SHEET 7



MATCHLINE SHEET 6

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- APPROXIMATE LIMITS OF EXISTING WETLANDS
- LIMIT OF 100-YEAR FLOODPLAIN



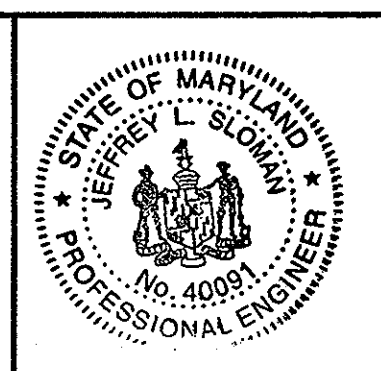
SOILS DESCRIPTION (DEVELOPMENT AREA ONLY)

SYMBOL	HYDROLOGICAL DESCRIPTION
G0A	GROUP 0 (GENEALG LOAM, 0 TO 3% SLOPE)
G0B	GROUP 0 (GENEALG LOAM, 3 TO 8% SLOPE)
G0C	GROUP 0 (GENEALG LOAM, 8 TO 15% SLOPE)
G0D	GROUP 0 (GENEALG SILT LOAM, 3 TO 8% SLOPE)

OWNER
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APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/13/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
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 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



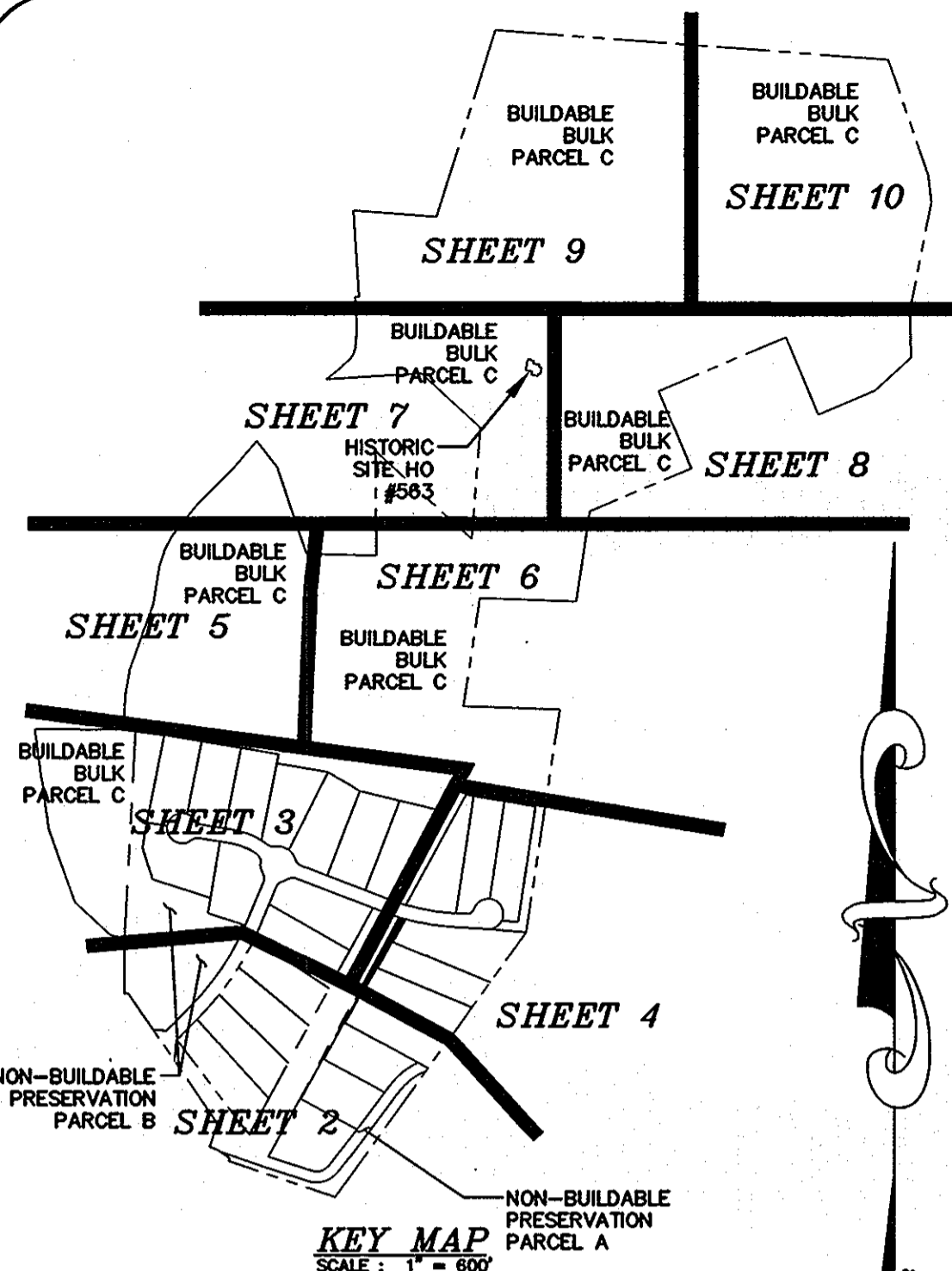
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[Signature] 2/18/13
 JEFFREY SLOMAN, P.E. DATE

Project	date	approval
12-022	FEB 2013	JLS
illustration	engineering	RH
JLS	scale	1"=50'

no.	description	date
	revisions	

GREENBERRY
 ENVIRONMENTAL CONCEPT PLAN
 LOTS 1 THRU 25, NON-BUILDABLE PRESERVATION PARCELS 'A' AND 'B', AND BUILDABLE BULK PARCEL 'C'
 1310 GREENBERRY LANE, CLARKSVILLE, MD 21029, TAX MAP 26, PARCEL 48
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

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 Engineers Planners Surveyors
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- LEGEND**
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 - TREATMENT AREA OF NON-ROOFTOP DISCONNECTION (N-2)
 - DRAINAGE AREA TO MICRO-BIORETENTION (M-6)
 - LIMIT OF DISTURBANCE
 - STABILIZED CONSTRUCTION ENTRANCE
 - SUPER SILT FENCE
 - SILT FENCE
 - EXISTING TREELINE
 - PROPOSED TREELINE
 - ROOF DRAIN LEADER
 - APPROXIMATE LIMITS OF EXISTING WETLANDS
 - LIMIT OF 100-YEAR FLOODPLAIN

EXISTING FARM POND SHALL BE INVESTIGATED DURING THE 'F' PLAN STAGE AND BROUGHT UP MD-378 STANDARDS AS NECESSARY

OWNER
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APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 3/13/13

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 2/12/13



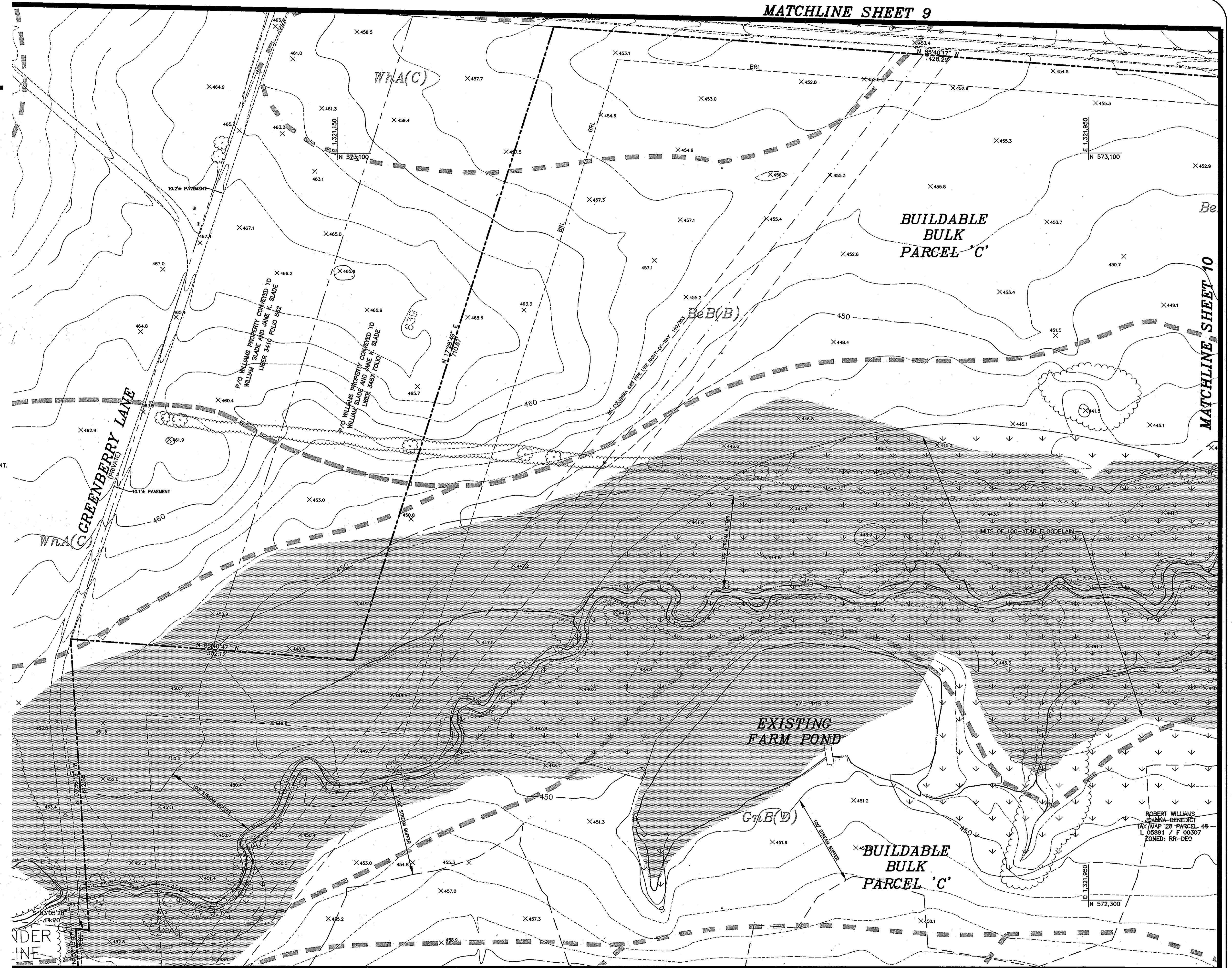
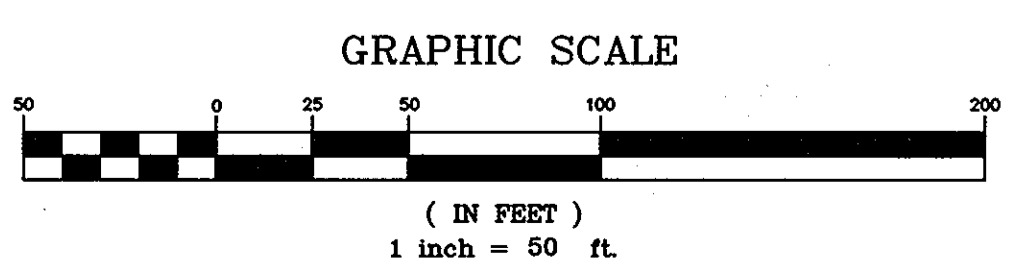
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JEFFREY SLOMAN, P.E.
 DATE: 2/18/13

MATCHLINE SHEET 7

SOILS DESCRIPTION (DEVELOPMENT AREA ONLY)

SYMBOL	HYDROLOGICAL GROUP	DESCRIPTION
G ₁ A	B	GLENNELG LOAM, 0 TO 3% SLOPE
G ₂ B	B	GLENNELG LOAM, 3 TO 8% SLOPE
G ₃ C	B	GLENNELG LOAM, 8 TO 15% SLOPE
G ₄ D	C	GLENNELG SILT LOAM, 3 TO 8% SLOPE

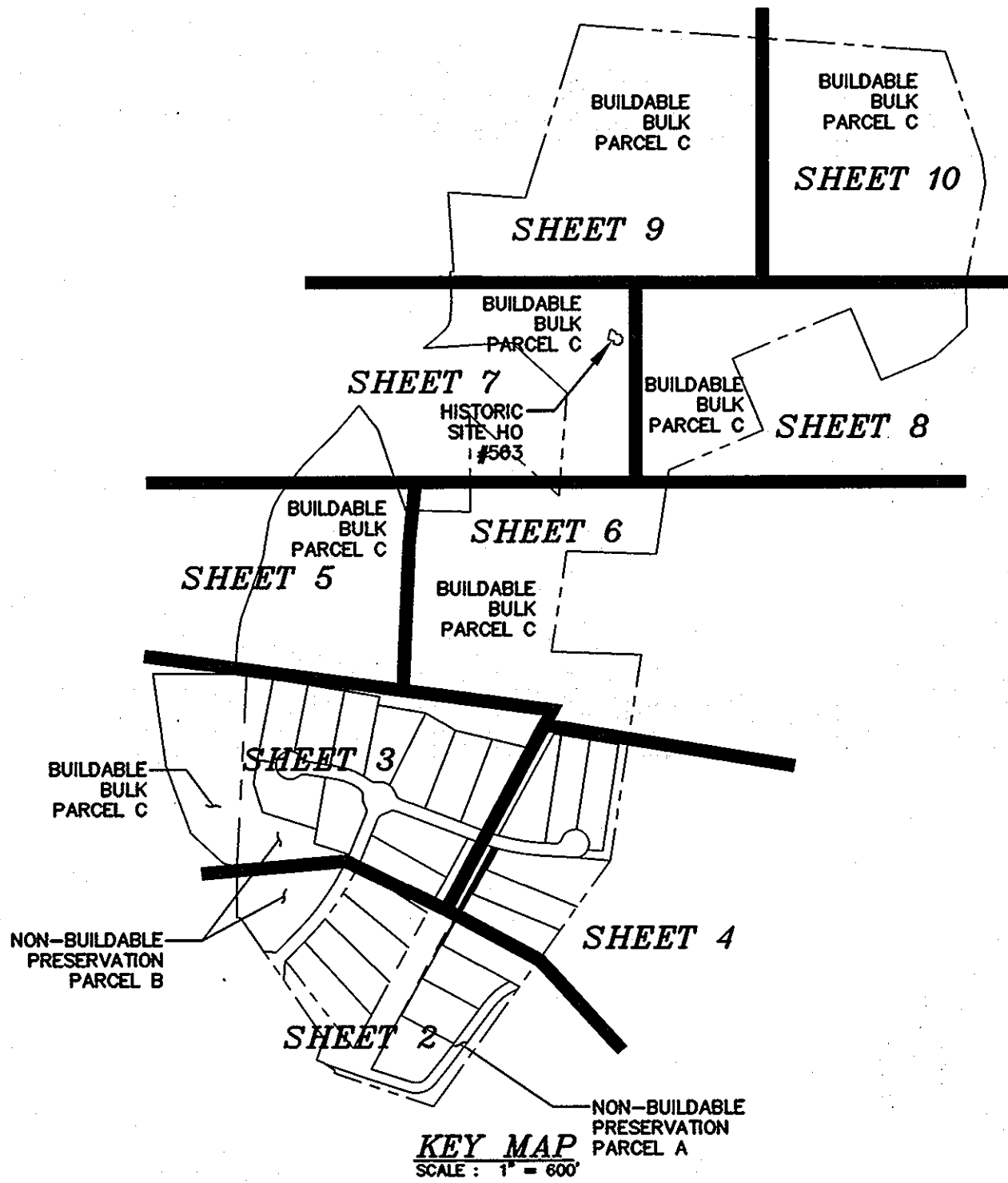


Project	date	approval
12-022	FEB 2013	JLS
illustration	engineering	JLS
scale	1" = 50'	RH

no.	description	date

GREENBERRY
 LOTS 1 THRU 25, NON-BUILDABLE PRESERVATION PARCELS 'A' AND 'B', AND BUILDABLE BULK PARCEL 'C'
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 FIFTH ELECTION DISTRICT
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- APPROXIMATE LIMITS OF EXISTING WETLANDS
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OWNER

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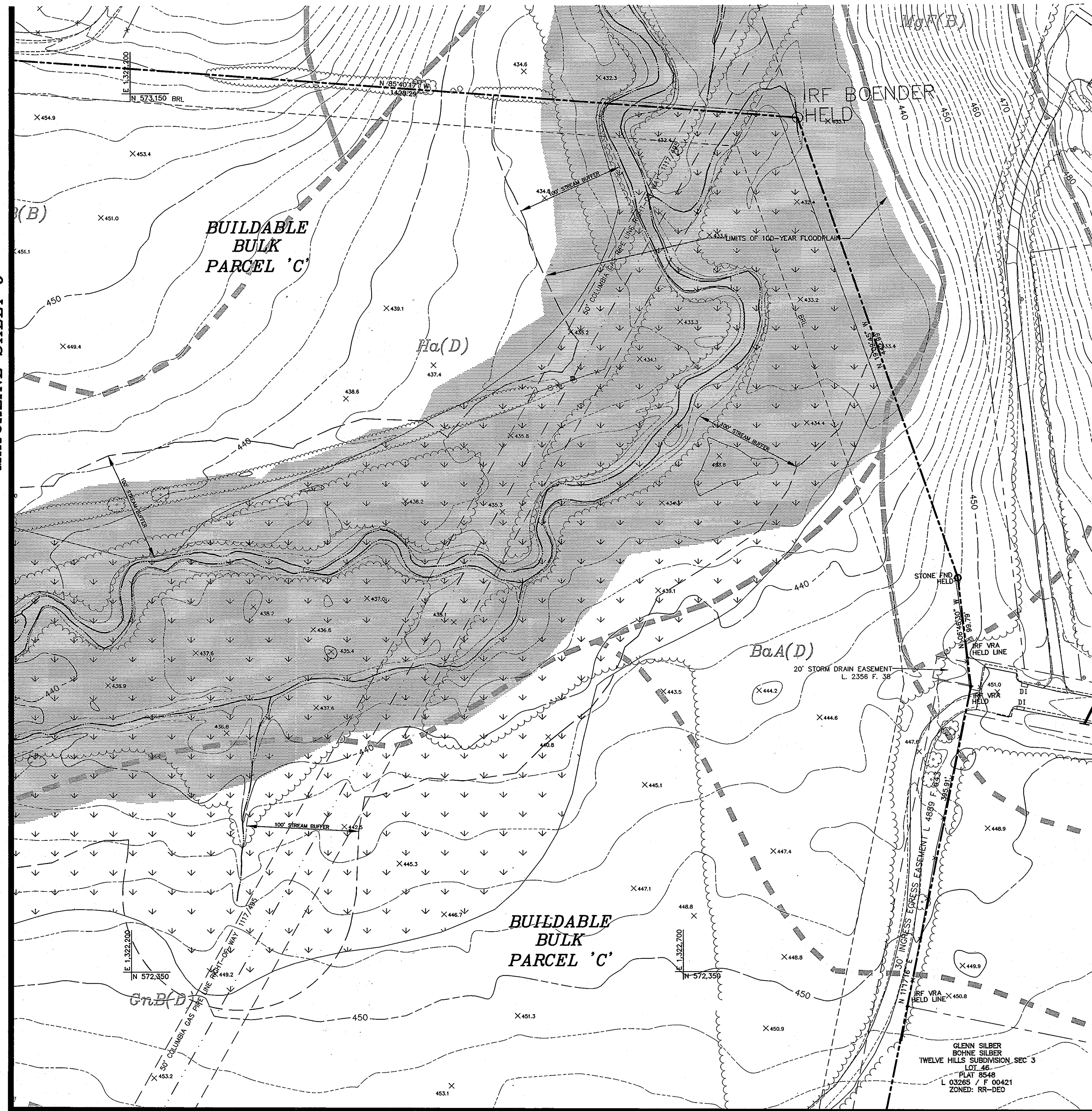


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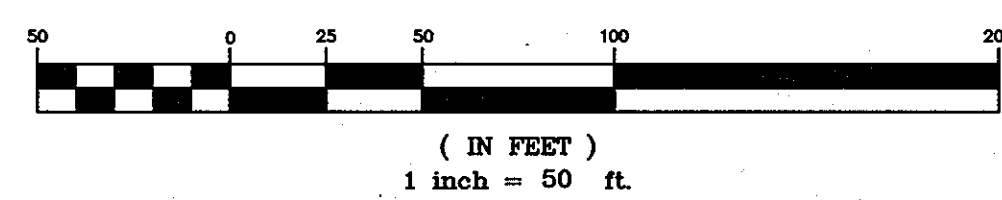
SYMBOL	HYDROLOGICAL GROUP	DESCRIPTION
Ga	A	GLENNVILLE LOAM, 0 TO 3% SLOPE
Gb	B	GLENNVILLE LOAM, 3 TO 8% SLOPE
Gc	C	GLENNVILLE LOAM, 8 TO 15% SLOPE
Gm	C	GLENNVILLE SILT LOAM, 3 TO 8% SLOPE

MATCHLINE SHEET 9



MATCHLINE SHEET 8

GRAPHIC SCALE



project	12-022	date	FEB 2013
illustration	JLS	engineering	JLS
scale	1"=50'	approval	RJH

no.	description	date

GREENBERRY
 LOTS 1 THRU 25, NON-BUILDABLE PRESERVATION PARCELS 'A' AND 'B', AND BUILDABLE BULK PARCEL 'C'
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 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
ENVIRONMENTAL CONCEPT PLAN

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