

SHEET INDEX	
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2	ENVIRONMENTAL CONCEPT PLAN & DETAILS
3	PRELIMINARY SEDIMENT AND EROSION CONTROL PLAN

ENVIRONMENTAL CONCEPT PLAN JETT PROPERTY

ZONED: R-20

TAX MAP No. 17 GRID No. 15 P/O PARCEL No. 35 LOT No. 3

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN NARRATIVE

Introduction:
This report will demonstrate how the criteria set forth in the Maryland Stormwater Design Manual, Volumes I and II (effective October 2000, revised May 2009) will be satisfied on this project. The goal of creating hydrology similar to that of 'woods in Good Condition' will be accomplished through the use of the practices contained within Chapter 5 of said manual. The achievement of this goal will remove the requirement of providing Channel Protection Volume.

General Site Conditions:
The Jett Property is zoned R-20 and is located on Tax Map 17, Grid 15, P/O Parcel No. 35, Lot 3 of the Howard County, Maryland Tax Map Database System. The property consists of two proposed lots that combine to create a site of approximately 0.92 acre. The property is located in the Ellicott City area of Howard County in the North Branch of the Patapsco River watershed (02130906). This property is somewhat square in shape and slopes from the south to northeast at a minimal grade to an existing drainage ditch on the west side of McKenzie Road. An existing house and garage are located along the southern property line along Old Frederick Road. The existing house and garage are proposed to be removed and two new single family detached houses will be constructed on the two proposed lots which access McKenzie Road via a common driveway. According to a field inspection conducted by Eco-Science Professionals (ESP) in September, 2013, no forest, wetlands, streams, or buffers exist on-site. The Web Soil Survey shows soils on the site area consist of Genesis-Urban Land Complex (GUL) Type 'U' soils. The site drains to the existing ditch, through a proposed culvert pipe, and then to the existing storm drain system in McKenzie Road.

- Natural Resource Protection:**
No environmentally sensitive areas (stream, wetlands, their buffer, steep slopes, or floodplain) exist on-site, no special protection of natural resources is required.
- Maintenance of Natural Flow Patterns:**
It is the intent of the proposed design to discharge runoff similar to the characteristics and direction of this site prior to any of the proposed improvements.
- Reduction of Impervious Areas through better site design, alternative surfaces and Nonstructural Practices:**
The design of this project utilizes a use-in-common driveway, allowing a reduction in the necessary paving needed to access to the proposed buildings. Non-Structural practices as permitted in Chapter 5, two (2) Micro-Bioretenion Areas (M-6) will be used to address E50 to the MEP requirements. Alternative surfaces were not incorporated into this design.
- Integration of Erosion and Sediment Controls into Stormwater Strategy:**
Since small drainage areas are proposed under this plan, silt fence, super silt fence, and cleanwater earth dike will be utilized for erosion & sediment control. There is no direct discharge of runoff to a stream. All site runoff will discharge to existing ground via existing outfalls and eventually to the Patapsco River. No drainage easements will be required. It is anticipated that all cut will be utilized on-site for construction at time of SDP.
- Implementation of E50 Planning Techniques and practices to the Maximum Extent Practicable (MEP)**
The full required E50 volume is being provided.
- Request for Design Manual Waiver:**
No waivers related to stormwater management are being requested in this project.

SITE ANALYSIS DATA CHART

- A. TOTAL AREA OF THIS SUBMISSION = 0.92 Ac.±
- B. LIMIT OF DISTURBED AREA = 40,163 SqFt, or 0.92 Ac.±
- C. PRESENT ZONING DESIGNATION = R-20 (PER 10/06/2013 COMPREHENSIVE ZONING PLAN).
- D. PROPOSED USE: RESIDENTIAL
- E. OPEN SPACE ON SITE: N/A
- F. RECREATIONAL AREA PROVIDED: N/A
- G. PREVIOUS HOWARD COUNTY FILES: F-95-30, F-95-86, **SDP-07-001**
- H. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE: 0.00 Ac.
- I. TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.00 Ac.
- J. NET TRACT AREA = 0.92 Ac.± (TOTAL SITE AREA - FLOODPLAIN - STEEP SLOPES AREA)
- K. TOTAL AREA OF WETLANDS (INCLUDING BUFFERS) = 0.00 Ac.±
- L. TOTAL AREA OF FOREST = 0.00 Ac.±
- M. TOTAL GREEN OPEN AREA = 0.72 Ac.±
- N. TOTAL IMPERVIOUS AREA = 0.20 Ac.±
- O. AREA OF ERODIBLE SOILS = 0.00 Ac.±



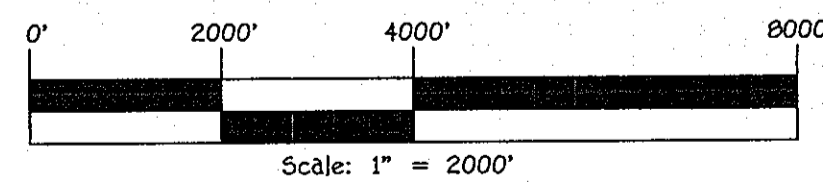
VICINITY MAP

SCALE: 1" = 2000'

BENCHMARK INFORMATION

HOWARD COUNTY CONTROL STATION #170A - HORIZONTAL - (NAD '83)
N 995,410.8266
E 1,351,641.1076
ELEVATION = 481.244 - VERTICAL - (NAVD '88)

HOWARD COUNTY CONTROL STATION #170B - HORIZONTAL - (NAD '83)
N 994,929.5268
E 1,352,722.5920
ELEVATION = 475.217 - VERTICAL - (NAVD '88)

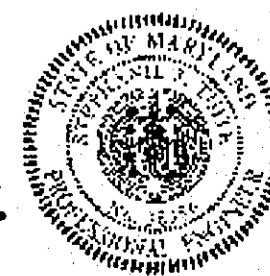


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(410) 461-2292

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 1/12/2016.

Stephanie J. Tuttle 2/14/14
STEPHANIE J. TUTTLE, R.L.A., P.E. DATE



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning
Victor Salcedo
Chief, Division of Land Development
Chad Edman
Chief, Development Engineering Division NY

2/27/14
2-28-14

DEVELOPER/OWNER

CYNTHIA G. JETT
484 CALHOUN ROAD
EVERETT, PENNSYLVANIA 15537-4230
CONTACT: JAMES JETT
443-257-2796

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development Date

Chief, Development Engineering Division Date

PROJECT		SECTION	PARCEL/LOT NO.
JETT PROPERTY			35/03
PLAT	BLOCK NO.	ZONE	TAX/ZONE
	15	R-20	17
ELEC. DIST.		CENSUS TR.	
SECOND		6021.00	
WATER CODE		SEWER CODE	

TITLE SHEET

JETT PROPERTY

RESUBDIVISION OF JETT PROPERTY, LOTS 3-5, PLAT #11859
9602 OLD FREDERICK ROAD, ELLICOTT CITY, MD 21042
ZONED: R-20 TAX MAP NO.: 17 GRID NO.: 15
P/O PARCEL NO.: 35 LOT NO.: 3
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: FEBRUARY, 2014
SHEET 1 OF 3

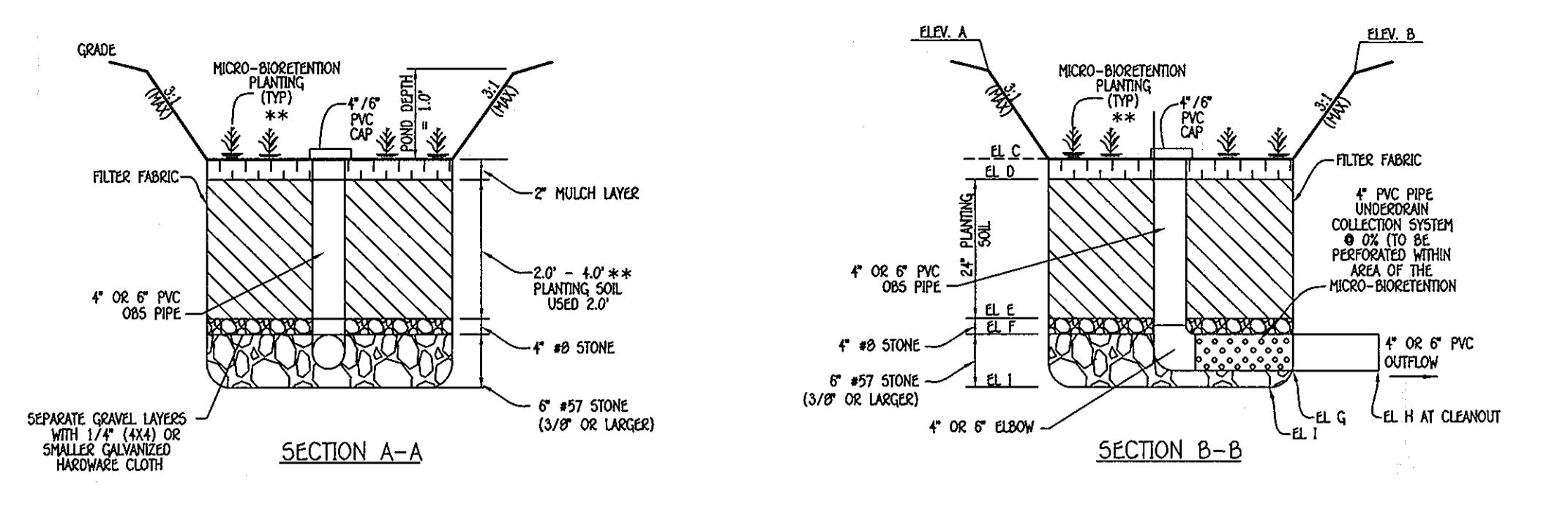
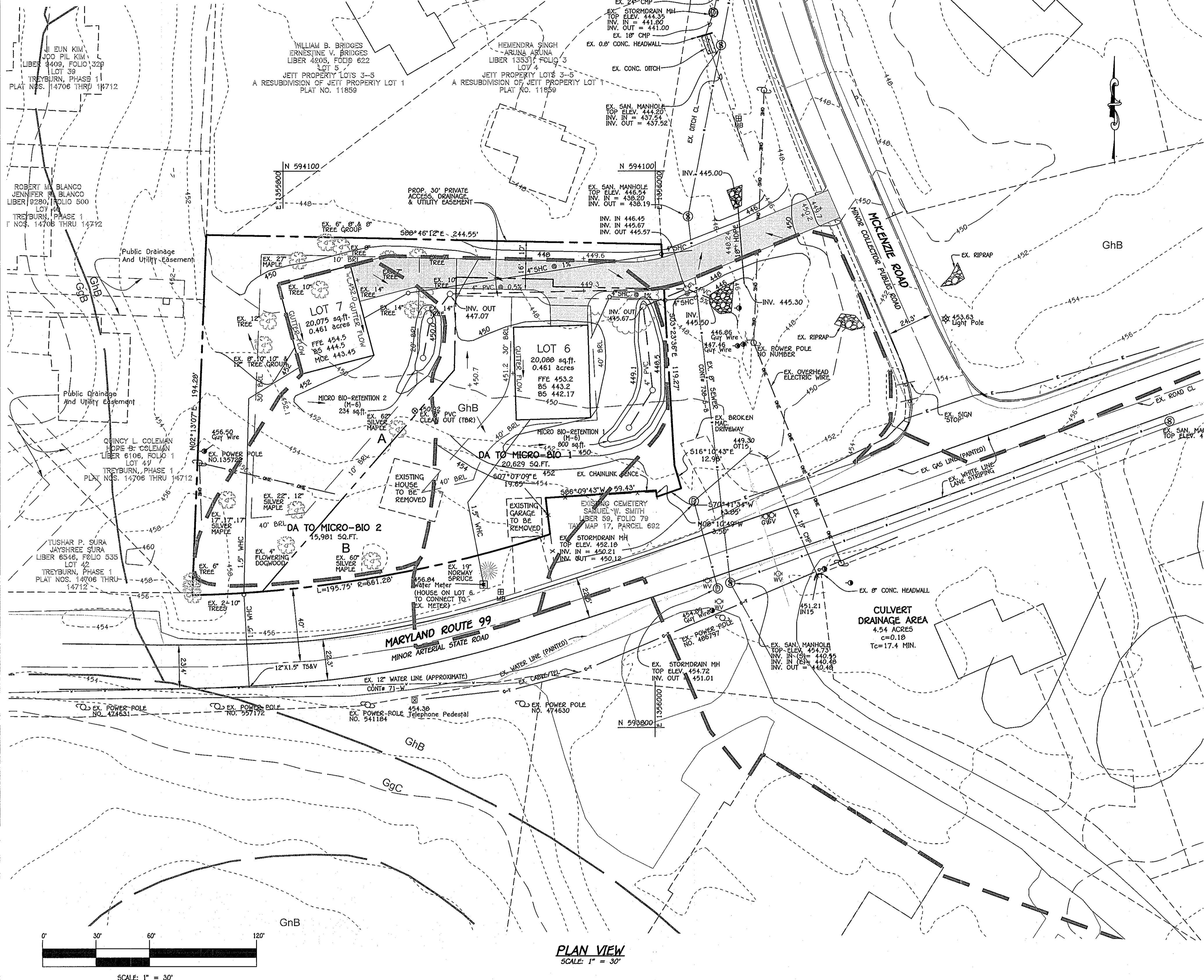
ECP-14-019

GENERAL NOTES

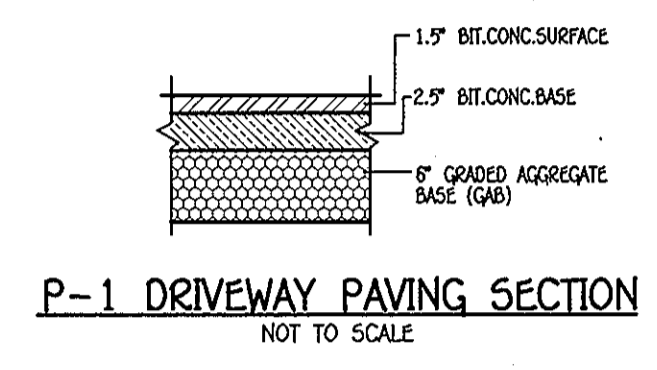
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY (MISS UTILITY) AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE SUBJECT PROPERTY IS ZONED R-20 (PER 10/06/2013 COMPREHENSIVE ZONING PLAN).
- EXISTING TOPOGRAPHY SHOWN IS FROM HOWARD COUNTY GIS TOPOGRAPHY SHOWN AT 2' CONTOUR INTERVAL.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 170A AND 170B WERE USED FOR THIS PROJECT.
- STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE H.C.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. WE ARE PROVIDING STORM WATER MANAGEMENT BY THE USE OF TWO (2) M-6 MICRO BIO-RETENTION FACILITIES.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED FOR THIS PROJECT.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
- LANDSCAPING SHOWN IS CONCEPTUAL.
- FOREST CONSERVATION WILL BE ADDRESSED AT THE FINAL PLAN STAGE OF THIS PROJECT BY PAYMENT OF A FEE-IN-LIEU.
- REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SITE PLAN STAGES. THEREFORE, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES.
- SOIL BORING INFORMATION WILL BE PROVIDED AT THE FINAL PLAN STAGE OF THIS PROJECT.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT OR ASSOCIATED SUBDIVISION OR SITE DEVELOPMENT PLANS OR RED-LINE REVISIONS. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN, SITE DEVELOPMENT PLAN, OR RED-LINE REVISION PROCESSES. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THE PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- THIS SITE CONTAINS NO 100 YEAR FLOODPLAIN, WETLANDS, STREAMS, OR STEEP SLOPES.
- NO CEHETERIES OR HISTORIC STRUCTURES EXIST ON THE PROPERTY. HOWEVER, A CEMETERY IS ADJACENT TO THE PROPERTY.
- A WETLAND AND FOREST STAND LETTER WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JULY 25, 2013.

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
GhB	Glencol-Urban Land Complex, 0 to 8 percent slopes	B	0.20

SPECIMEN TREE TABLE			
KEY	SPECIES	SIZE (DBH)	COMMENTS
A	SILVER MAPLE	62"	GOOD HEALTH, LEANING TO NORTHEAST
B	SILVER MAPLE	60"	EXTREMELY POOR CONDITION, TRUNK ROT & FAILURE



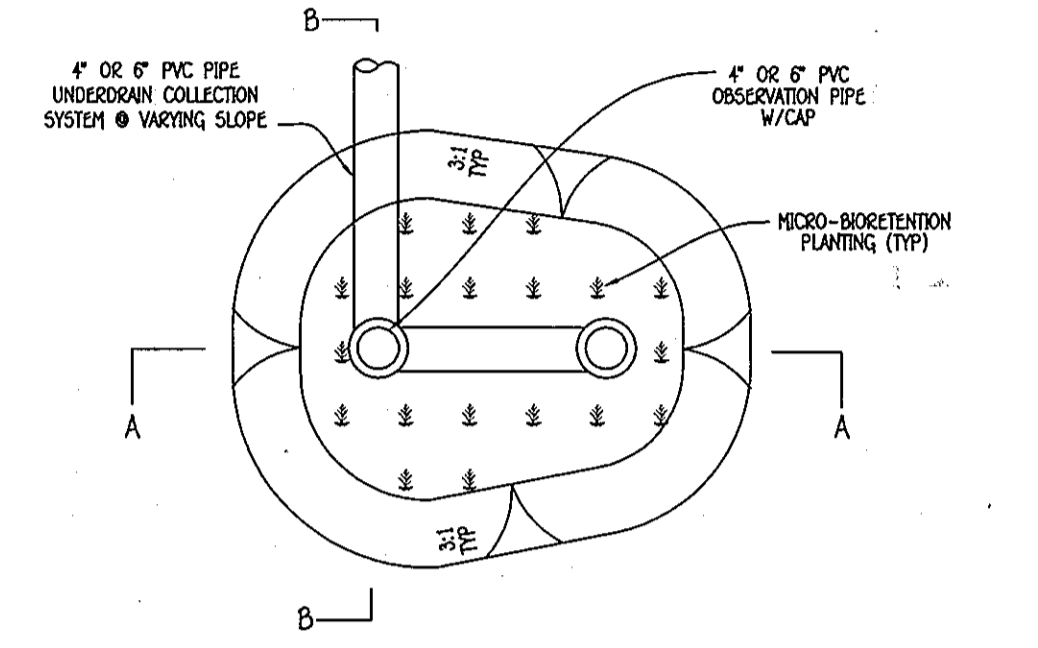
MICRO-BIORETENTION DETAIL (M-6)
NOT TO SCALE



P-1 DRIVEWAY PAVING SECTION
NOT TO SCALE

OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 HANDBOOK STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL. TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



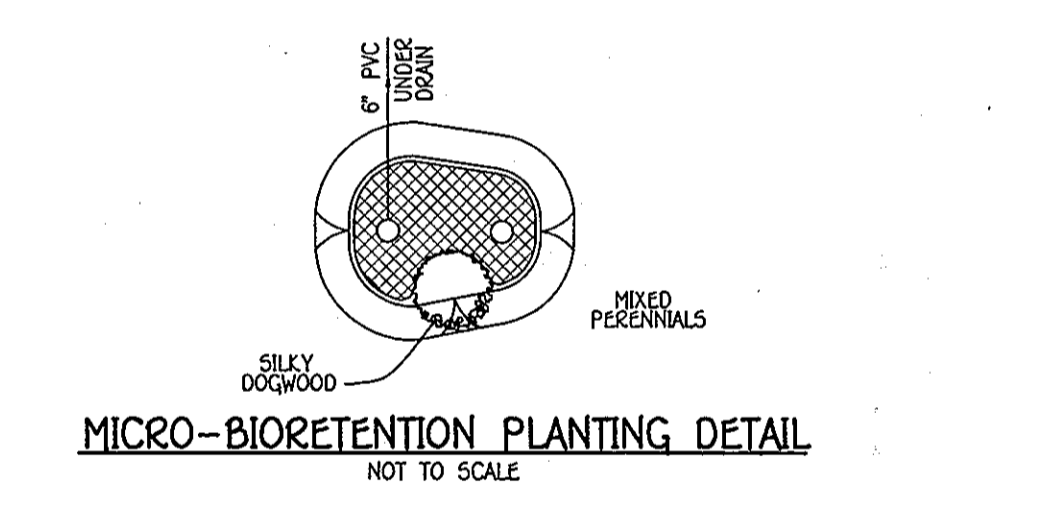
PLAN
NOT TO SCALE

MICRO-BIORETENTION									
BIORETENTION FILTER	A	B	C	D	E	F	G	H	I
1 (LOT 6)	449.10	449.10	448.50	448.33	446.33	445.00	445.67	445.67	445.50
2 (LOT 7)	451.00	451.00	450.00	449.83	447.83	447.50	447.17	447.17	447.00

STORMWATER MANAGEMENT SUMMARY CHART

AREA = 0.92 ACRES
RCN = 55
TARGET PE = 1.6"

AREA ID	SWM TREATMENT PROVIDED
LOT 6	MICRO-BIORETENTION (M-6)
LOT 7	MICRO-BIORETENTION (M-6)



MICRO-BIORETENTION PLANTING DETAIL
NOT TO SCALE

LEGEND	
SYMBOL	DESCRIPTION
-----	EXISTING STORM DRAIN LINE
-x-x-x-	EXISTING FENCE
----	BOUNDARY/RIGHT OF WAY LINE
-B.R.L.-	BUILDING RESTRICTION LINE
☀	EXISTING STREET LIGHT
-C-T-	EXISTING CABLE LINE
-S-	EXISTING SEWER
-OHE-	EXISTING OVERHEAD ELECTRIC
-W-	EXISTING WATER
----	PROPOSED UNDERDRAIN PIPE
----	PROPOSED L.O.D.
----	EXISTING / PROPOSED RIPRAP
----	PROPOSED PAVING

- MIXED PERENNIALS
 - CUT-LEAF CONEFLOWER (1.5' SP.)
 - BEEBAM (1.5' SP.)
 - JOE-PYE-WEED (3' SP.)
 - SILKY DOGWOOD
- NOTE:
PLANT MATERIAL MUST COVER AT LEAST 50% OF THE SURFACE AREA OF THE MICRO-BIORETENTION

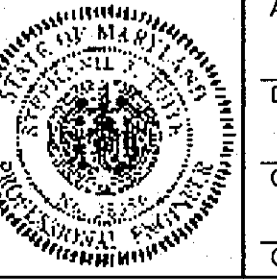
MICRO-BIORETENTION PLANT MATERIAL		
QUANTITY	NAME	MAXIMUM SPACING (FT.)
12	MIXED PERENNIALS	1.5 TO 3.0 FT.
1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION

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Stephanie J. Turle 2/14/14
STEPHANIE J. TURLE, R.L.A., P.E. DATE



DATE	DESCRIPTION
	REVISION BLOCK
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
Director - Department of Planning and Zoning	Date
<i>Ketzel</i>	2/27/14
Chief, Division of Land Development	Date
<i>Chad</i>	2-28-14
Chief, Development Engineering Division	Date

DEVELOPER/OWNER
CYNTHIA G. JETT
484 CALHOUN ROAD
EVERETT, PENNSYLVANIA 15537-4230
CONTACT: JAMES JETT
443-257-2796

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING			
PROJECT	SECTION	PARCEL/LOT NO.	
JETT PROPERTY		35/03	
PLAT	BLOCK NO.	ZONE	TAX/ZONE
	15	R-20	17
			ELEC. DIST.
			SECOND
			6021.00
WATER CODE	SEWER CODE		

ENVIRONMENTAL CONCEPT PLAN & DETAILS

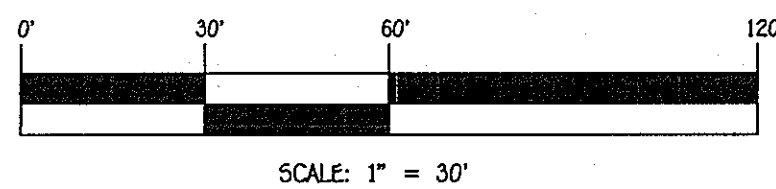
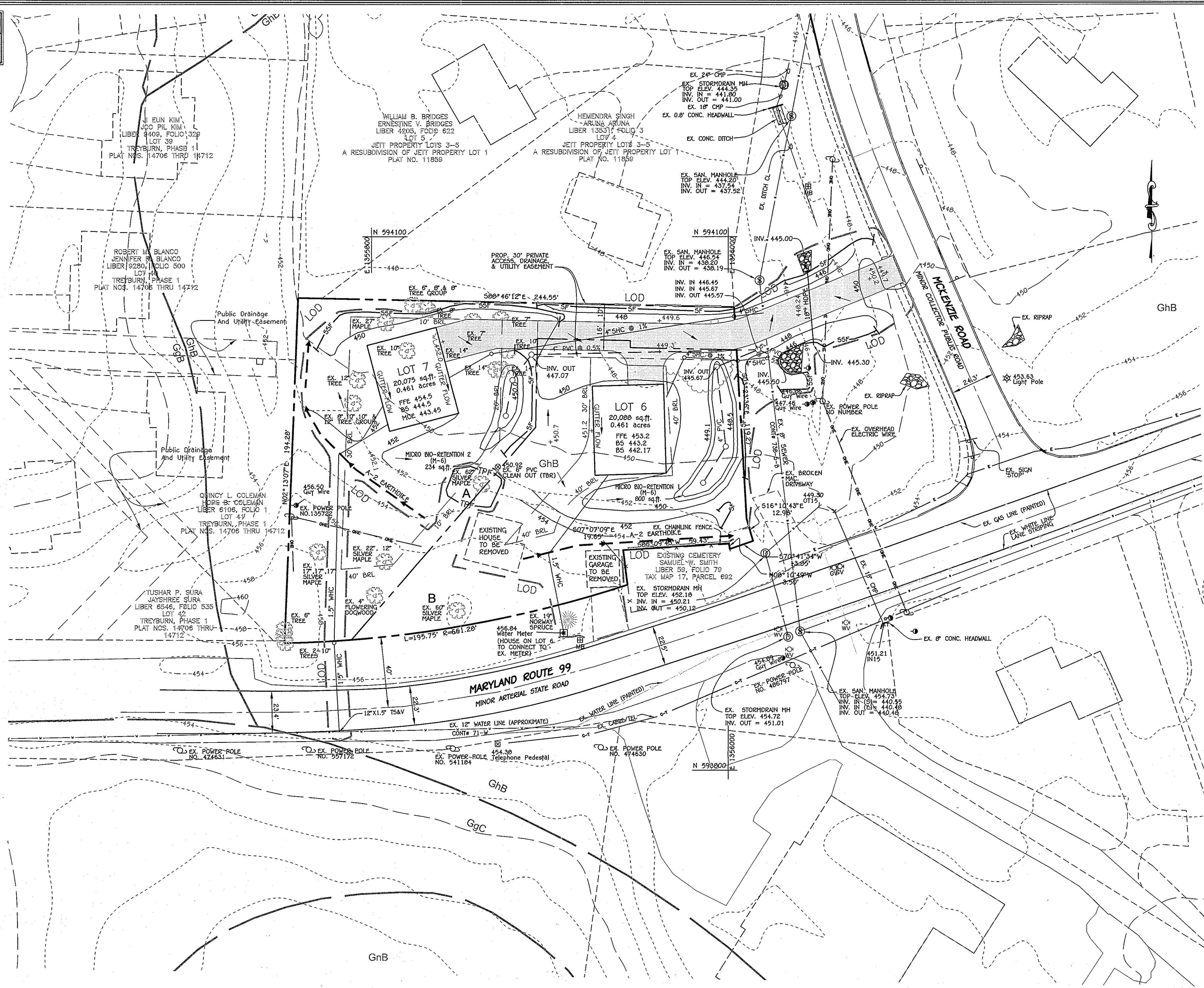
JETT PROPERTY
RESUBDIVISION OF JETT PROPERTY, LOTS 3-5, PLAT #11859
9602 OLD FREDERICK ROAD, ELLICOTT CITY, MD 21042
ZONED: R-20 TAX MAP NO.: 17 GRID NO.: 15
P/O PARCEL NO.: 35 LOT NO.: 3
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: FEBRUARY, 2014
SHEET 2 OF 3

SOILS LEGEND

SOIL	NAME	CLASS	K FACTOR
GhB	Glenelg-Urban Land Complex, 0 to 8 percent slopes	B	0.20

LEGEND

SYMBOL	DESCRIPTION
-----	EXISTING STORM DRAIN LINE
-x-x-x-	EXISTING FENCE
-----	BOUNDARY/RIGHT OF WAY LINE
-B.R.L.-	BUILDING RESTRICTION LINE
☆	EXISTING STREET LIGHT
-C-T-	EXISTING CABLE LINE
-S-S-	EXISTING SEWER
-OHE-	EXISTING OVERHEAD ELECTRIC
-W-W-	EXISTING WATER
---	PROPOSED UNDERDRAIN PIPE
---	PROPOSED L.O.D.
-----	EXISTING / PROPOSED RIPRAP
-----	PROPOSED PAVING
-SF-	SILT FENCE
-SSF-	SUPER SILT FENCE



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 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
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 (410) 461 - 2292

NO.	REVISION	DATE

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Anthony J. Turte 2/14/14
 REPHARIE J. TURTE, R.L.A., P.E. DATE

DATE _____ DESCRIPTION _____

REVISION BLOCK _____

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Dir. _____ Date _____
Kate... 2/28/14
 Chief, Division of Land Development
Chad... 2-28-14
 Chief, Development Engineering Division N.Y. DATE

DEVELOPER/OWNER

CYNTHIA G. JETT
 484 CALHOUN ROAD
 EVERETT, PENNSYLVANIA 15537-4230
 CONTACT: JAMES JETT
 443-257-2796

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development _____ Date _____

Chief, Development Engineering Division _____ Date _____

PROJECT: JETT PROPERTY SECTION: _____ PARCEL/LOT NO.: 35/03

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
---	15	R-20	17	SECOND	6021.00

WATER CODE _____ SEWER CODE _____

PRELIMINARY SEDIMENT AND EROSION CONTROL PLAN

JETT PROPERTY

RESUBDIVISION OF JETT PROPERTY, LOTS 3-5, PLAT #11859

9602 OLD FREDERICK ROAD, ELLICOTT CITY, MD 21042
 ZONED: R-20 TAX MAP NO.: 17 GRID NO.: 15
 P/O PARCEL NO.: 35 LOT NO.: 3
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: FEBRUARY, 2014
 SHEET 3 OF 3

ECP-14-019

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