

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ENVIRONMENTAL CONCEPT PLAN

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
BrD	Brinklow channery loam, 15 to 25 percent slopes	B	0.20
Co	Codorus and Hatboro silt loams, 0 to 3 percent slopes	C	0.37
GgA	Glenelg loam, 0 to 3 percent slopes	B	0.20
GgB	Glenelg loam, 3 to 8 percent slopes	B	0.20
GgC	Glenelg loam, 8 to 15 percent slopes	B	0.20
Gmb	Glenville silt loam, 3 to 8 percent slopes	C	0.37

# ENVIRONMENTAL CONCEPT PLAN

## OLIVA SUBDIVISION, LOTS 3 THRU 5

TAX MAP No. 13 GRID No. 1 PARCEL NOs. 202 LOT NO. 2  
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

LEGEND	
	EXISTING 2' CONTOURS
	EXISTING 10' CONTOURS
	EXISTING TREE LINE
	SOIL LINES AND TYPES
	DENOTES PROPOSED WELL
	DENOTES FAILED PERC
	DENOTES PASSED PERC
	DENOTES PROPOSED SEPTIC EASEMENT
	DENOTES EXISTING SEPTIC EASEMENTS
	DENOTES 15% TO 25% SLOPES
	DENOTES 25% AND GREATER SLOPE
	DENOTES 1500 Sq.Ft. ALTERNATE WELL SITE
	DENOTES EXISTING PERCS FROM 5/6/92

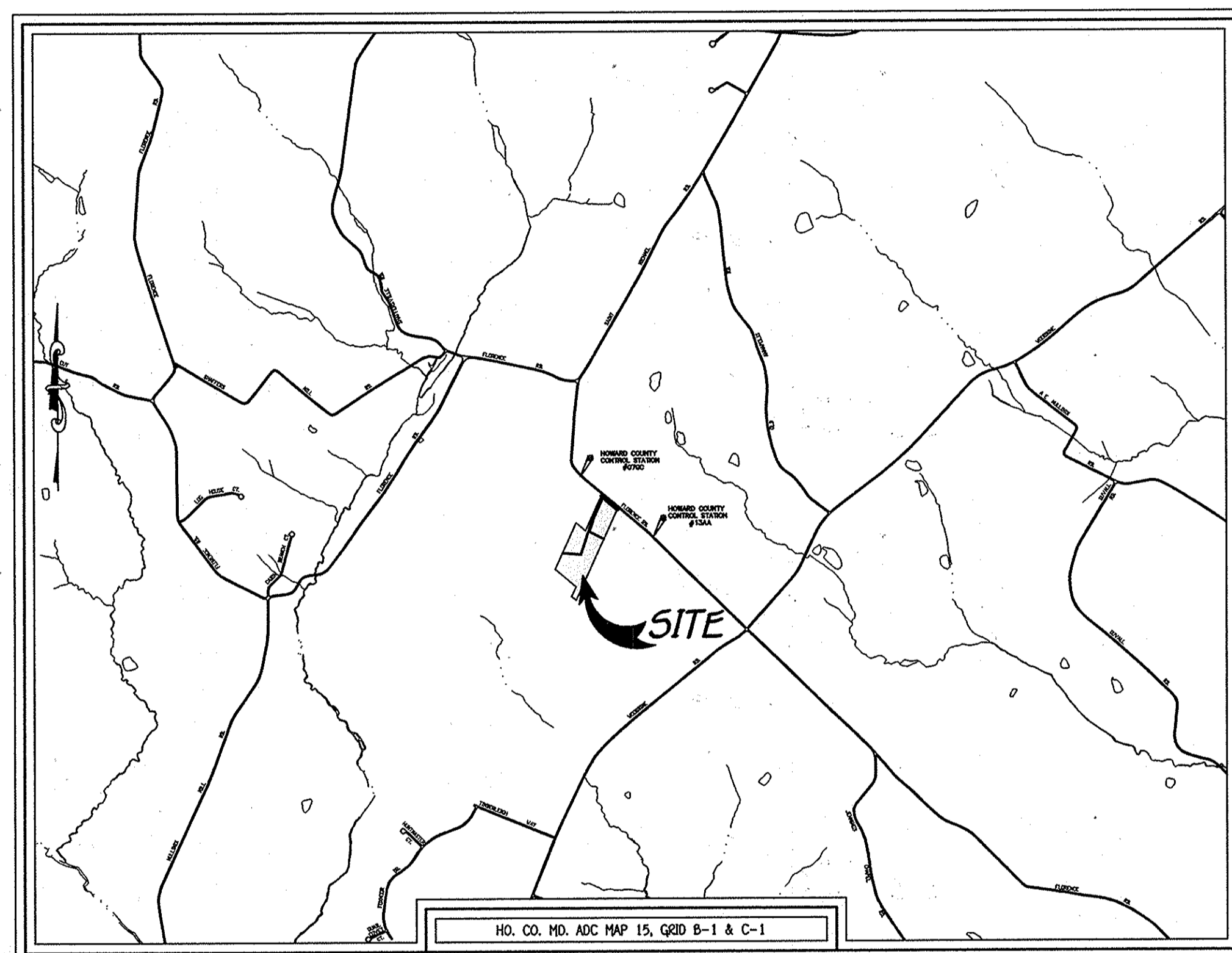
### DESIGN NARRATIVE

**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:**  
Oliva Subdivision is zoned RC-DEO and is located on Tax Map 13, Parcel No. 202 of the Howard County, Maryland Tax Map Database System. The property consists of 16.49 acres (7.44 acres - Lots 3 and 5) of which approximately 2.38 acres is forested on proposed Lot 4 containing the existing house. This is a re-subdivision of Lot 2 to create two long and narrow lots with access on a common driveway. The proposed lots will be served by private well and septic systems already approved by the Health Department. This subdivision is subject to forest conservation requirements of the Howard County Code and Forest Conservation Manual. All on-site forest is proposed to be retained. Per the Howard County Soil Survey, soils on-site consist of "GgA", "GgB", & "GgC" Glenelg loam and "BrD" Brinklow channery loam, Type "B" soils and "Co" Codorus and Hatboro silt loams, Type "C" soils. Only Type B soils will be within the limits of disturbance. The Type C soils are located in the vicinity of the stream in the southern portion of the site. There is a ridge running approximately 100 feet into the property off of Florence Road in the northern most part of the site with majority of runoff draining from north to south toward the stream, wetland, and floodplain area. None of proposed lots 3 and 5 contains forest. All forest is located on Lot 4 containing the existing house. The proposed lots drain toward the on-site stream, wetland, and floodplain area, which eventually flows to an off-site tributary of Cattail Creek within Patuxent River Sub-basin (02131108). Rooftop Disconnection (N-1) will be utilized for the proposed houses and Non-Rooftop Disconnection (N-2) will be utilized for the proposed individual and widening for a common driveway.

- I. Natural Resource Protection:**  
The site is located within the Cattail Creek Watershed within the Patuxent River Sub-basin. Environmentally sensitive features such as steep slopes, wetlands & wetland buffers, floodplain, and stream & stream buffers exist on-site. All of which are located on Lot 4. To ensure the protection of natural resources located on this site, all buffers will be honored.
- II. 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.
- III. Reduction of Impervious areas through better site design, alternative surfaces and Nonstructural Practices:**  
A proposed common driveway will serve the proposed three (3) lots. Non-Structural practices as permitted in Chapter 5, Rooftop Disconnection (N-1) & Non-Rooftop Disconnection (N-2) will be used to address ESD to the MEP requirements.
- IV. Integration of Erosion and Sediment Controls into Stormwater Strategy:**  
It is anticipated that silt fence and super silt fence will be provided and that the use of sediment traps will not be necessary. There is no direct discharge of runoff to a stream. A proposed floodplain, drainage & utility easement will be required. It is anticipated that all cut will be utilized on-site for construction at time of Grading Plan.
- V. Implementation of ESD Planning Techniques and practices to the Maximum Extent Practicable (MEP):**  
ESD planning techniques will be utilized to the maximum extent practicable to satisfy the SWM requirements put forth in Chapter 5 of the Maryland Department of the Environment's SWM Design Manual. Although the full required ESD volume is not being provided, all impervious surfaces are being treated. Non-structural practices are being utilized to treat impervious runoff.
- VI. Request for a Design Manual Waiver:**  
No design manual waivers will be required.

**Note:** Individual Lot owners will be responsible for maintenance of on-lot ESD practices. All Lot owners will be responsible for maintenance of ESD practices located within the common driveway easement.



**VICINITY MAP**  
SCALE: 1" = 2000'

BENCHMARK INFORMATION	
B.M.#1 - HOWARD COUNTY CONTROL STATION #07GC - HORIZONTAL - NAD '83	N 601,284.450 E 1,278,726.494 ELEVATION = 740.612 - VERTICAL - (NAVD '88)
B.M.#2 - HOWARD COUNTY CONTROL STATION #13AA - HORIZONTAL - (NAD '83)	N 600,247.057 E 1,279,969.743 ELEVATION = 690.904 - VERTICAL - (NAVD '88)

### GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
2. THE CONTRACTOR SHALL NOTIFY (MISS UTILITY) AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
3. BOUNDARY SHOWN HEREON IS BASED ON PLAT #7060. TOPOGRAPHY SHOWN IS BASED HOWARD COUNTY Q5 TOPOGRAPHY AT 5' CONTOUR INTERVAL INTERPOLATED FOR 2' CONTOUR INTERVAL.
4. 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. 07GC AND 13AA WERE USED FOR THIS PROJECT.
5. PREVIOUS DPE FILE NUMBERS: F-87-80, VP-86-123, VP-86-123AL.
6. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE H.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH CHAPTER 5 ARE BEING UTILIZED.
7. THIS PROPERTY IS LOCATED OUTSIDE THE METROPOLITAN DISTRICT.
8. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
9. THE SUBJECT PROPERTY IS ZONED RC-DEO (PER DATE 10/08/2013).
10. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICES SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
11. STEEP SLOPES, WETLANDS, STREAM, THEIR BUFFERS, AND FLOODPLAIN EXIST ON-SITE.
12. NO CLEARING, GRADING, REMOVAL OF VEGETATIVE COVERS OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.
13. LANDSCAPING WILL BE PROVIDED AT THE FINAL PLAN STAGE OF THIS PROJECT.
14. FOREST CONSERVATION OBLIGATIONS WILL BE ADDRESSED AT FINAL PLAN STAGE. IT IS ANTICIPATED THAT LOT 4 WILL BE DEDUCTED DUE TO ITS AGRICULTURAL USE AND LOT 5 BY DECLARATION OF INTENT FOR INTRAFAMILY TRANSFER AND REMAINING OBLIGATION FOR LOT 3 WILL UTILIZE RETENTION OF EXISTING OFF-SITE FOREST TO MEET THE AFFORESTATION OBLIGATION.
15. NO SOIL BORINGS ARE REQUIRED FOR THIS PROJECT. ROOFTOP AND NON-ROOFTOP DISCONNECTIONS ARE PROPOSED.
16. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. 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/PLAT AND/OR SITE DEVELOPMENT PLAN STAGES AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
17. SOILS ARE BASED ON THE NRCS WEBSOIL SURVEY AND HOWARD COUNTY SOIL MAPS 2 AND 9.
18. A WETLAND DELINEATION & FOREST STAND DELINEATION REPORT FOR THIS PROJECT DATED JULY 2014 WAS PREPARED BY ECO-SCIENCE PROFESSIONALS.

### SITE ANALYSIS DATA CHART

- A. TOTAL AREA OF THIS SUBMISSION = 16.49 AC.\*
- B. LIMIT OF DISTURBED AREA = 2.23 AC.\*
- C. PRESENT ZONING DESIGNATION = RC-DEO (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
- D. PROPOSED USE: RESIDENTIAL
- E. PREVIOUS HOWARD COUNTY FILES: F-87-80, VP-86-123, VP-86-123AL.
- F. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE = 0.09 AC\*
- G. TOTAL AREA OF SLOPES IN EXCESS OF 15% (ON LOT 4) = 1.23 AC\* (0.18 AC\* OF 25% OR GREATER SLOPES)
- H. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.20 AC.\* (LOCATED WITHIN FORESTED AREA ON LOT 4)
- I. TOTAL AREA OF EXISTING FOREST = 2.38 AC\* (ON LOT 4)
- J. TOTAL GREEN OPEN AREA = 15.78 AC\*
- K. TOTAL IMPERVIOUS AREA = 0.71 AC\*
- L. AREA OF LOTS 3 THRU 5 = 16.49 AC\* (INCLUDES LOT 4)
- M. AREA OF LOT 4 = 2.04 AC\* (CONTAINS EXISTING HOUSE, CURRENTLY IN AGRICULTURAL USE)
- N. AREA OF ROAD DEDICATION = 0 AC. (40 FOOT HALF ROW DEDICATED WITH F-87-080).
- O. AREA OF ERODIBLE SOILS = 0.18 AC.

NO.	REVISION	DATE	X

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELKTON CITY, MARYLAND 21842  
(410) 461-2995

**PROFESSIONAL CERTIFICATION**

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. 38396, EXPIRATION DATE: 01/12/2016.

*Stephanie Tuite* 10/28/14  
Signature of Professional Engineer DATE

**OWNER**  
MARILYN P. OLIVA  
2850 FLORENCE RD  
WOODBINE, MARYLAND 21797  
C/O DEBBIE DIBENEDETTO (301) 775-1706

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING					
<i>Kathleen O'Neil</i> Chief, Division of Land Development			4-17-14 Date		
<i>D. Chab</i> Chief, Development Engineering Division			11-17-14 Date		
PROJECT	SECTION	PARCEL NO.			
OLIVA SUBDIVISION, LOTS 3 THRU 5	-	202			
DEED	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
3823/64	1	RC-DEO	13	FOURTH	6040.01

**TITLE SHEET**

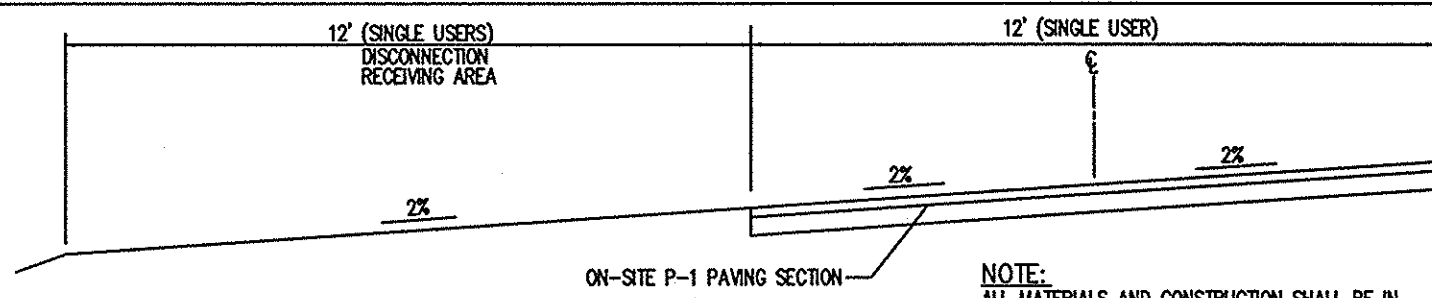
**OLIVA SUBDIVISION,  
LOTS 3 THRU 5**

ZONED RC-DEO  
TAX MAP NO.: 13 GRID NO.: 1 PARCEL NO: 202 LOT NO.: 2  
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

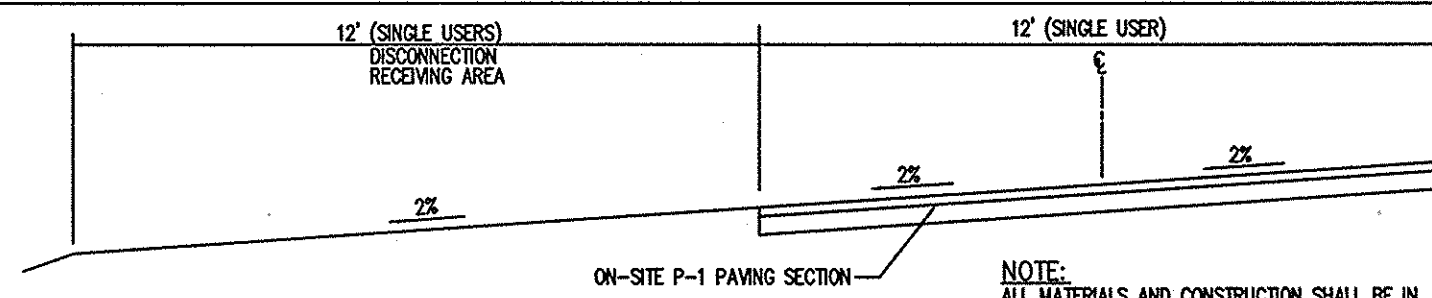
SCALE: AS SHOWN DATE: OCTOBER, 2014  
SHEET 1 OF 2

ECP-14-079

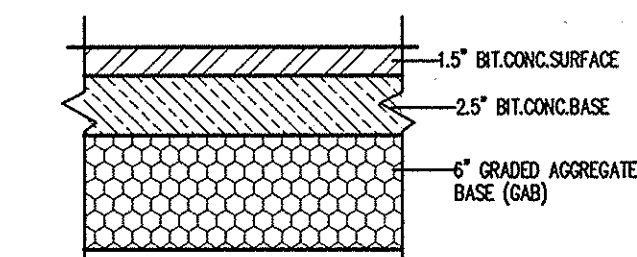




TYPICAL PRIVATE COMMON DRIVE CROSS SLOPE SECTION  
NOT TO SCALE



TYPICAL PRIVATE INDIVIDUAL DRIVE CROSS SLOPE SECTION  
NOT TO SCALE

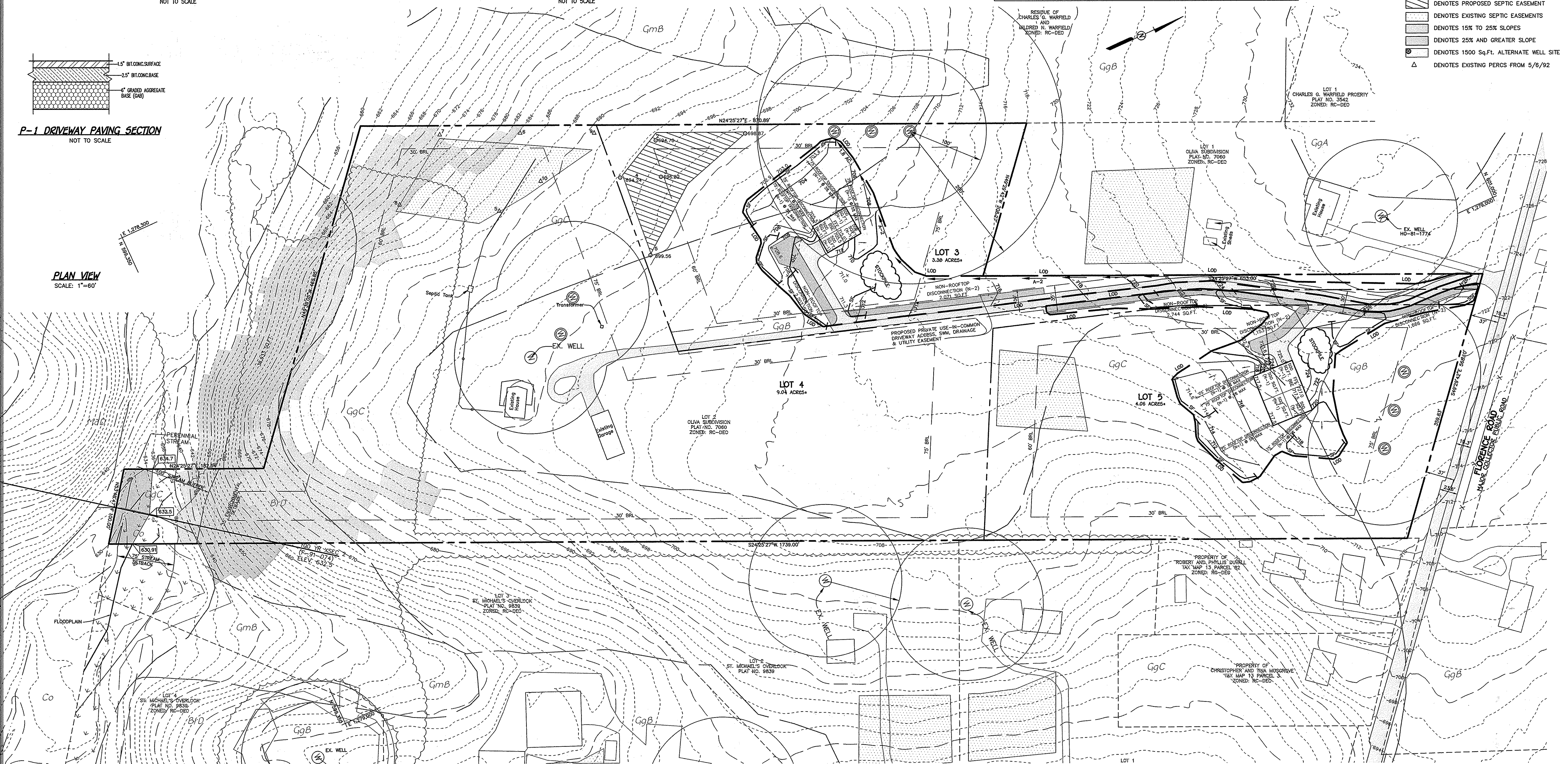


P-1 DRIVEWAY PAVING SECTION  
NOT TO SCALE

PLAN VIEW  
SCALE: 1"=60'

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
BrD	Brinklow channery loam, 15 to 25 percent slopes	B	0.20
Co	Codorus and Haysboro silt loams, 0 to 3 percent slopes	C	0.37
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  - - - EXISTING TREE LINE
  - GgB, GgC SOIL LINES AND TYPES
  - ⊙ DENOTES PROPOSED WELL
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  - ▨ DENOTES EXISTING SEPTIC EASEMENTS
  - ▨ DENOTES 15% TO 25% SLOPES
  - ▨ DENOTES 25% AND GREATER SLOPE
  - ⊙ DENOTES 1500 Sq.Ft. ALTERNATE WELL SITE
  - △ DENOTES EXISTING PERCS FROM 5/6/92



1:2013\11\30\37\dwg\13037 ECP Plan.dwg, 10/28/2014 10:23:18 AM, 1:1

<b>FISHER, COLLINS &amp; CARTER, INC.</b> CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELKLOTT CITY, MARYLAND 21142 (410) 461-2995	NO.	REVISION	DATE

0' 60' 120' 180'  
Scale: 1" = 60'

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*Stephanie Jantz* 10/28/14  
 Signature Of Professional Engineer DATE

**OWNER**

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 WOODBINE, MARYLAND 21797  
 c/o DEBBIE DIBENEDETTO (301) 775-7106

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Veronica Omb* 11-17-14  
 Chief, Division of Land Development Date

*Chad Child* 11-17-14  
 Chief, Development Engineering Division Date

PROJECT	SECTION	PARCEL NO.
OLIVA SUBDIVISION, LOTS 3 THRU 5	9	202
DEED	BLOCK NO.	ZONE
3823/64	1	RC-DEO
TAX/ZONE	ELEC. DIST.	CENSUS TR.
13	FOURTH	6040.01

**ENVIRONMENTAL CONCEPT PLAN**

**OLIVA SUBDIVISION,  
 LOTS 3 THRU 5**  
 ZONED RC-DEO  
 TAX MAP NO.: 13 GRID NO.: 1 PARCEL NO.: 202 LOT NO.: 2  
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: OCTOBER, 2014  
 SHEET 2 OF 2

ECP-14-079