	SOILS LEGEND		
SOIL	NAME	CLA55	K FACTOR
ChB	Chillum-Russett loam, 2 to 5 percent slopes	В	0.37
ChC	Chillum-Russett loams, 5 to 10 percent slopes	В	0.37
5aC	Sassafras loam, 5 to 10 percent slopes	8	0.24

ENVIRONMENTAL CONCEPT PLAN TURLEY'S OVERLOOK LOTS 1 THRU 3

TAX MAP No. 0031 GRID No. 0016 PARCEL NO. 739 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

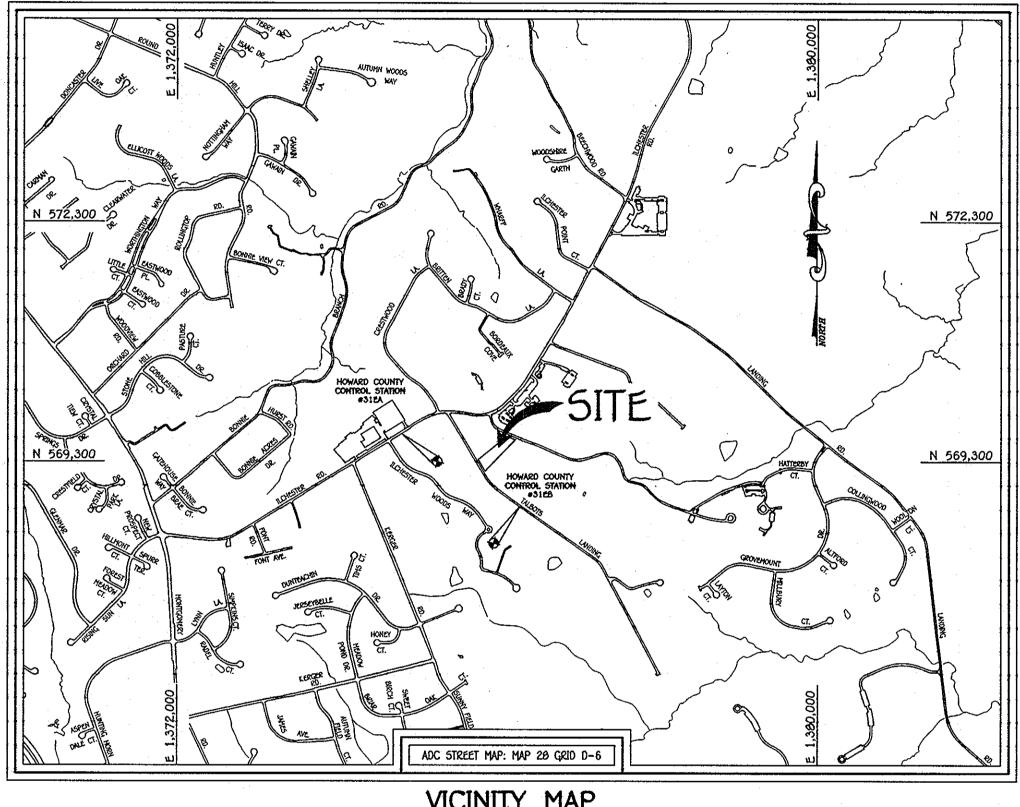
LOT NUMBER	ADDRE55	DISCONNECTION OF ROOFTOP RUN-OFF N-1 (NUMBER)	DISCONNECTION OF NON-ROOFTOP RUN-OFF N-2 (Y/N)	DRY WELLS M-5 (NUMBER)	MICRO- BIO-RETENTION M-6 (NUMBER)	5WALES M-Ø (NUMBER)
1	TALBOTS LANDING	Y	Y (COMMON DRIVE)	N/A	N/A	Y
2	TALBOTS LANDING	Y	N/A	N/A	1	Y
3	TALBOTS LANDING	Y	N/A	N/A	1	Y

DESIGN NARRATIVE

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:
Turley's Overlook is zoned R-20 and is located on Tax Map 31, Grid 16, Parcel No. 739 (Turley's Meadow, Non-Buildable Bulk Parcel B) of the Howard County, Maryland Tax Map Database System. The property consists of three lots that combine to create a site of approximately 1.546 acres. The property is located in the Ellicott City area of Howard County in the Patapsco River wateshed (02130906). This property is rectangular in shape as part of a subdivision in process and slopes to the south at a minimal grade. There are no existing houses located on the property. Property has frontage on Talbot's Landing Road. Per field inspection conducted by Eco-Science Professionals (ESP) in September of 2012 for Turley's Meadow, the forest was identified as follows, "The forest community is best described as a mixed oak forest community. The forest is basically limited to the subject property, with just a minimal amount of forest extended onto adjacent lots. No wetlands, streams, or buffers are present on site". The Web Soil Survey shows soils on the site area consist of Chillum-Russett and Sassafras loams (ChB & Sac) Type "B" soils. A portion of the site (part of Lot 1) drains to an existing storm drain system outfalling on the west side of Talbot's Landing Road while the rest of the site drains to the proposed non-buildable bulk parcel and then to an existing inlet on the Talbots Woods I, Phase 1, Open Space Lot 11 to the south.

- I. Natural Resource Protection: No environmentally sensitive areas exist on-site, no special protection of natural resources is
- 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 The design of this project utilizes an 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, Rooftop Disconnection (N-1) with three (3) Infiltration Berms (M-4). Non-Rooftop Disconnection (N-2), two (2) Micro-Bioretention Areas (M-6), and two (2) Grass Swales (M-8) will be used to address ESD to the MEP requirements.
- IV. Integration of Erosion and Sediment Controls into Stormwater Strategy: Since small drainage areas are proposed under this plan, silt fence, super silt fence, inlet protection, and erosion control matting 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 5DP.
- V. Implementation of ESD Planning Techniques and practices to the Maximum Extent Practicable The full required ESD volume is being provided.
- VI. Request for a Waiver to Forest Conservation: No Waivers related to stormwater management are being requested in this project.



VICINITY MAP

BENCHMARK INFORMATION

B.M.#1 - HOWARD COUNTY CONTROL STATION #31EA - HORIZONTAL - NAD '83)
(LOCATED ALONG THE SOUTH SIDE OF ILLCHESTER ROAD, APPROX. 2' BEHIND EDGE OF WALK, 20.7' NORTH OF WIRE FENCE ALONG TRANSMISSION LINE RIGHT-OF-WAY) N 569.641.1675

ELEVATION = 460.042 - VERTICAL - (NAVD '80)

B.M.#2 - HOWARD COUNTY CONTROL STATION #31EB - HORIZONTAL - (NAD '03)
(LOCATED ALONG THE SOUTH SIDE OF TALBOT LANDING, APPROX. 19' FROM CENTERLINE OF ROAD & APRROX. 196' WEST OF DRIVE WAY ENTRANCE #5160) N 560,731.0273 E 1,376,273.5589 ELEVATION = 452.620 - VERTICAL - (NAVD '80)

GENERAL NOTES

- 1. -THE CONTRACTOR SHALL NOTIFY THE DEPIRTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION . 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- CARTER, INC. DATED MARCH 2011.
- 4. THE COORDINATES SHOWN HEREON ARE 8 ISED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 31EA AND 31EB WERE USED FOR THIS PROJECT.
- 5. STORMWATER MANAGEMENT REQUIREMENTS FOR LOTS 1 THRU 3 WILL BE MET USING ENVIRONMENTAL SITE DESIGN TO THE MAXIMUM EXTENT POSSIBLE IN ACCORDANCE WITH THE MARYLAND STORMWATER DESIGN MANUAL.

 VOLUMES I & II, EFFECTIVE IN MAY OF 20:0. THE PROPOSED PRACTICES WILL BE LOCATED ON THE INDIVIDUAL LOTS AS FOLLOWS: 5. DPZ FILE NUMBERS: F-13-004.
- ROOFTOP DISCONNECTION (N-:) FOR THE PROPOSED HOUSE AND GRASS SWALE (M-8) FOR THE PROPOSED DRIVEWAY.
- FOR THE PROPOSED DRIVEWAY.
- These practices shall be privately owned and maintained in accordance with individual declarations of covenants
- THIS PROPERTY IS LOCATED WITHIN 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 R-20 (PER THE 2/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP-LITE ZONING
- 10. THERE ARE NO ENVIRONMENTAL FEATURES LOCATED ON-SITE.
- 11. LANDSCAPING WILL BE PROVIDED AT THE HITE DEVELOPMENT STAGE OF THIS PROJECT 2. FOREST CONSERVATION OBLIGATIONS WILL SE MET BY PAYMENT TO A FOREST BANK AT THE FINAL STAGE OF THIS PROJECT.
- 13. SOIL BORINGS WILL BE PERFORMED AT FILAL STAGE OF THIS PROJECT.

 14. 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 5ubdivision 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 FEVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) A THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.

SITE ANALYSIS DATA CHART

- A. TOTAL AREA OF THIS SUBMISSION = 67,334 59Ft. or 1.546 AC.±.

 B. LIMIT OF DISTURBED AREA = 65,993 59Ft. or 1.50 AC± PRESENT ZONING DESIGNATION = R-20
- (PER 02/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP-LITE ZONING AMENDMENTS DATED 7/28/06) PROPOSED USE: RESIDENTIAL BUILDING COVERAGE OF SITE: N/A
- PREVIOUS HOWARD COUNTY FILES: N/A TOTAL AREA OF FLOODPLAIN LOCATED ON SITE 0.00 AC+ TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.00 AC+
- TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0.00 AC* NET TRACT AREA = 1.546 AC. (TOTAL SITE AREA - FLOODPLAIN - STEEP SLOPES AREA)
- Q. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0 AC. * R. TOTAL AREA OF FOREST = 0 AC. RETAINED 5. TOTAL GREEN OPEN AREA = 50,395 sq. ft. or 1.16 AC±
 T. TOTAL IMPERVIOUS AREA = 16,939 sq. ft or 0.39 AC±
 U. TOTAL AREA OF ERODIBLE SOILS = 0.61 AC.±

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2" INTERVAL
	PROPOSED CONTOUR 2" INTERVAL
5F 5F	SILT FENCE
-555-555-	SUPER SILT FENCE
LOD	LIMIT OF DISTURBANCE
x	EXISTING FENCE LINE
mmi	EX. LIMIT OF TREES AND FOREST
0	PROPOSED CONCEPTUAL LANDSCAPING
₩	EXISTING TREES
	PROPOSED RIPRAP
2	EXISTING CONCRETE WALK
Ħ	PROPOSED CONCRETE WALK
	Impervious area
	DISCONNECTION RECEIVING AREA
************	DRAINAGE AREA

LEGEND

			╫	
			 	* *
FISHER, COLLINS & CARTER, INC.				
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS			<u> </u>	
88 4 7 9 9 7 1 1 2 5 1 2 3 2 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3			!	
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE				
ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2055				
# (410) 401 - 2077				
	NO.	REVISION	DATE	
	INO.	KLYDIOIY	DATE	

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

DEVELOPER TW LAND, LLC 8415 HORSESHOE ROAD ELLICOTT CITY, MARYLAND 21043 443-974-8021 ATTN: WALT WEISE

OWNER

ALFRED P. TURLEY & SUSAN M. TURLEY

10.27.13 SECTION PARCEL NO. TURLEY'S OVERLOOK PARCEL 739 ZONE TAX/ZONE | ELEC. DIST. | CENSUS TR. BLOCK NO. 1532 / 513 0016 R-20 0031 FIRST 601101 WATER CODE SEWER CODE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

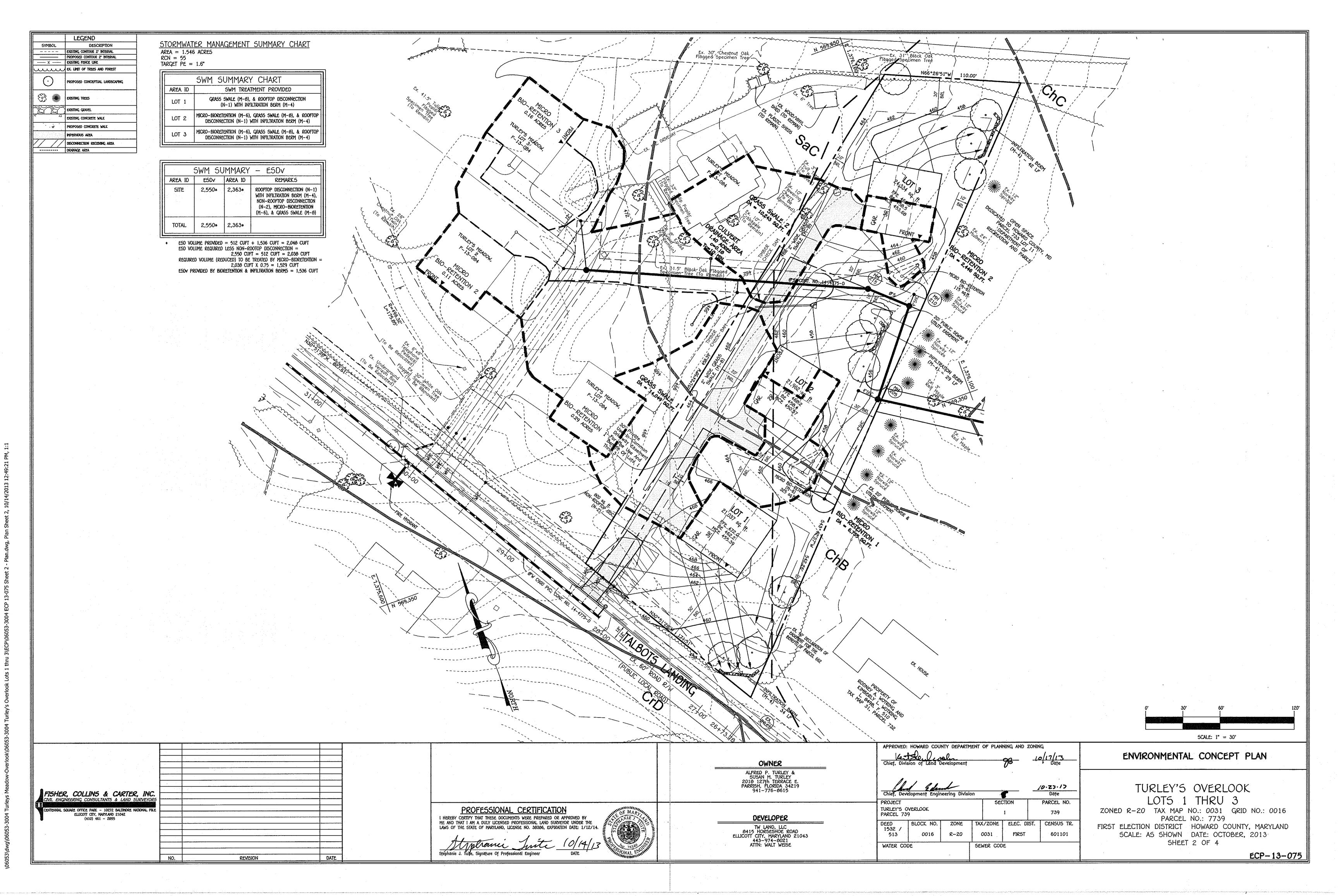
TITLE SHEET

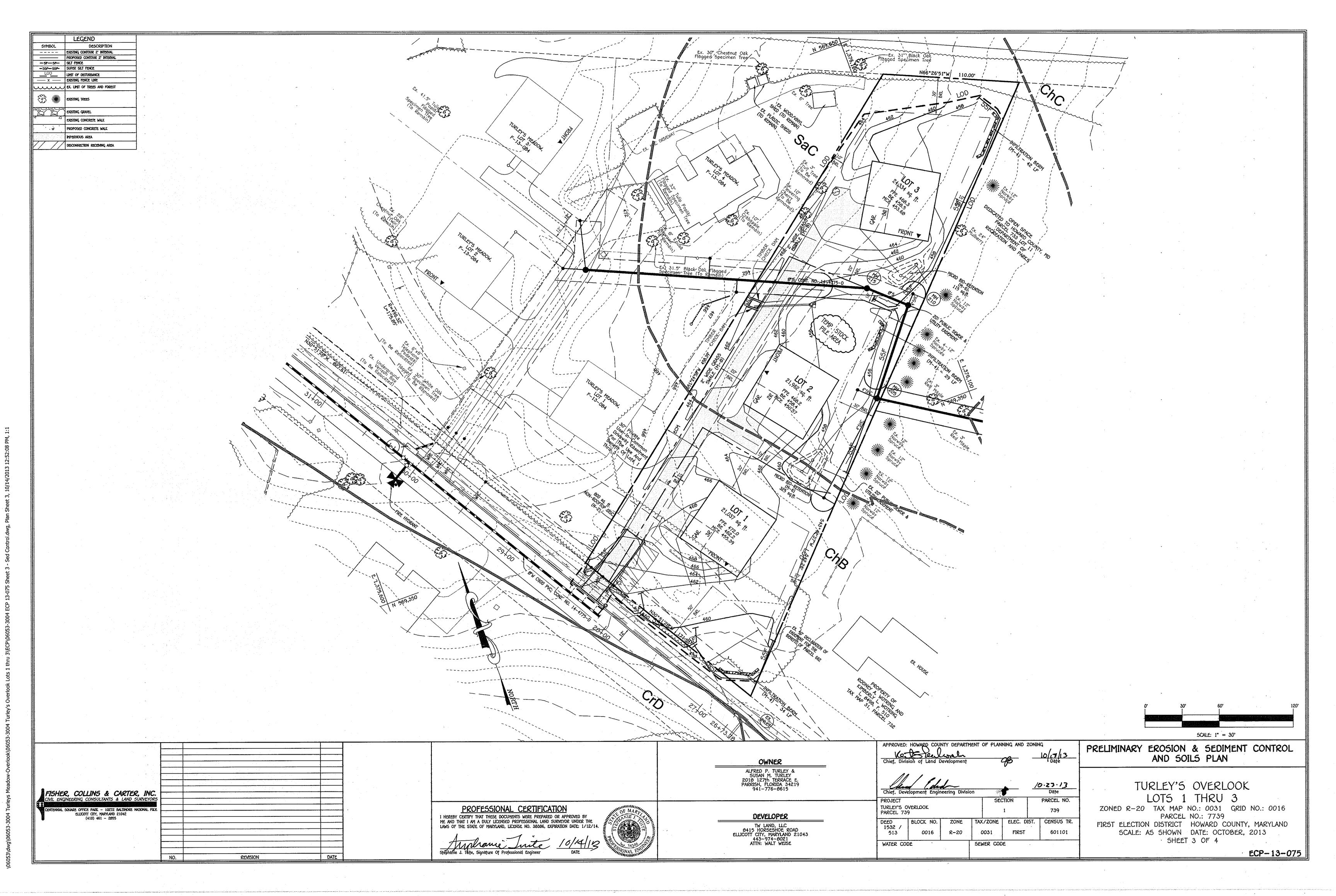
TURLEY'S OVERLOOK LOTS 1 THRU 3

ZONED R-20 TAX MAP NO.: 0031 GRID NO.: 0016

PARCEL NO.: 7739 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: OCTOBER, 2013 SHEET 1 OF 4

ECP-13-075





GUTTER DRAIN FILTER DETAIL

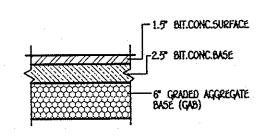
STORMWATER MANAGEMENT NOTES

1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.

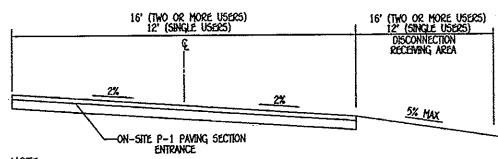
2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.

3. DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5%. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.

4. FINAL GRADING IS SHOWN ON THE SITE DEVELOPMENT PLAN.



P-1 DRIVEWAY PAVING SECTION
NOT TO SCALE

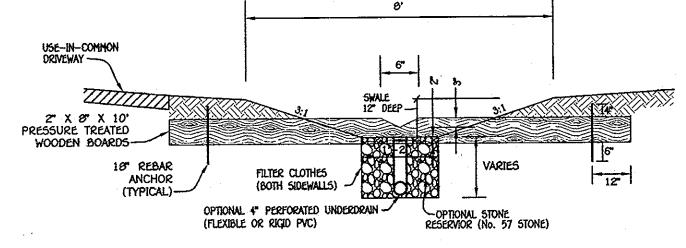


NOTE:
ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

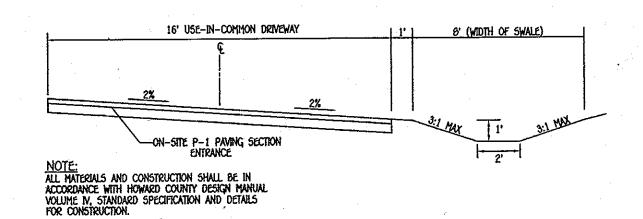
TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED, DISCONNECTION OF NONROOFTOP RUNOFF (N-2)

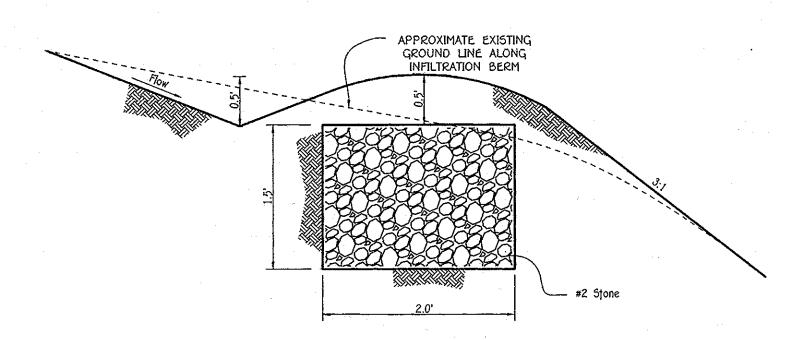
1. MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVILOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.



GRASS SWALE & TIMBER CHECK DAM DETAIL
SECTION "A-A"
NOT TO SCALE



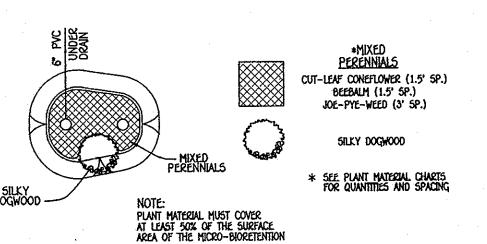
USE-IN-COMMON DRIVEWAY & SWALE CROSS SLOPE SECTION
NOT TO SCALE



INFILTRATON BERM

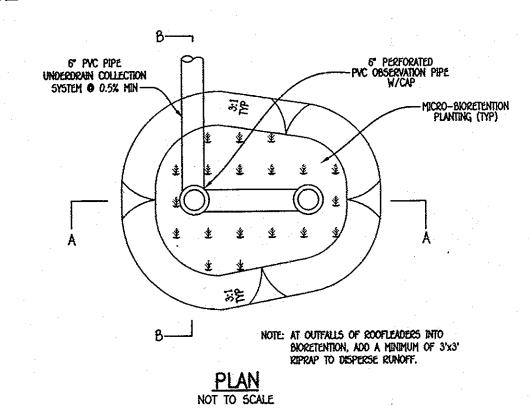
NOT TO SCALE

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



MICRO-BIORETENTION PLANTING DETAIL

NOT TO SCALE



COLLECTION SYSTEM @ 0% (TO

BE PERFORATED WITHIN AREA

OF THE MICRO-BIORETENTION AND WRAPPED WITH 1/4" MESH

- (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED OPEN CHANNEL SYSTEMS -GRASS SWALES, (M-8)

- 1. THE OPEN CHANNEL SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS.
 INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
- 2. THE OPEN CHANNEL SHALL BE MOWED A MINIMUM OF AS NEEDED OURING THE GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 6 INCHES.

 3. OPERES AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.

 4. VISIBLE SIGNS OF EROSION IN THE OPEN CHANNEL SYSTEM SHALL BE REPAIRED AS
- 4. VISIBLE SIGNS OF EXCERN IN THE OPEN CHANNEL SISTEM SHALL BE REPARED AS SOON AS IT IS NOTICED.

 5. REMOVE SILT IN THE OPEN CHANNEL SYSTEM WHEN IT EXCEEDS 25% OF THE ORIGINAL DAY.
- W.CV.

 6. INSPECT CHECK DAMS TWICE A YEAR FOR STRUCTURAL INTEGRITY. RESTORE CHECK DAMS TO ORIGINAL CONDITION AS APPLICABLE.

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

A. 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 MARYLAND STORMWATER DESKIN MANUAL VOLUME II, TABLE A.4.1 AND 2.

B. 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.

 C. 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.
- D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

FTSHER, COLLINS & CARTER, INC.
CAVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
SOCITIONIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PICE
ELICOTT CITY, MARCHAND 21042
(410) 461 - 2895

NO. REVISION DATE

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. 36386, EXPIRATION DATE: 1/12/14.

Stephanie / Tuite, Signature Of Professional Engineer

DATE

OWNER

ALFRED P. TURLEY &
SUSAN M. TURLEY
2010 127th TERRACE E.
PARRISH, FLORIDA 34219
941-776-0615

DEVELOPER

TW LAND, LLC
0415 HORSESHOE ROAD
ELLICOTT CITY, MARYLAND 21043
443-974-8021
ATTN: WALT WEISE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 10.27.13 Date PARCEL NO. PROJECT **SECTION** TURLEY'S OVERLOOK 739 PARCEL 739 CENSUS TR. TAX/ZONE | ELEC. DIST. DEED BLOCK NO. ZONE 1532 / 601101 R-20 0031 FIR5T 513 WATER CODE SEWER CODE

STORMWATER MANAGEMENT DETAILS & NOTES

TURLEY'S OVERLOOK

LOTS 1 THRU 3

ZONED R-20 TAX MAP NO.: 0031 GRID NO.: 0016

PARCEL NO.: 7739

FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: OCTOBER, 2013

SHEET 4 OF 4

ECP-13-075