

**CONSTRUCTION PERIOD PROTECTION PROGRAM**

**A. Forest Protection Techniques**

**1. Soil Protection Area (Critical Root Zone)**

The soil protection area, or critical root zone, of a tree is that portion of the soil column where most of its roots may be found. The majority of roots responsible for water and nutrient uptake are located just below the soil surface. Temporary fencing shall be placed around the critical root zone of the forest areas where the forest limits occur within 25 feet of the limit of disturbance.

**2. Fencing and Signage**

Existing forest limits occurring within 25 feet of the limits of disturbance shall be protected using temporary protective fencing. Permanent signage shall be placed around the afforestation area prior to plant installation, as shown on the plan.

**B. Pre-Construction Meeting**

Upon staking of limits of disturbance a pre-construction meeting will be held between the developer, contractor and appropriate County Inspector. The purpose of the meeting will be to verify that all equipment control is in order, and to notify the contractor of possible penalties for non-compliance with the FCP.

**C. Storage Facilities/Equipment Cleaning**

All equipment storage, parking, sanitary facilities, material stockpiling, etc. associated with construction of the project will be restricted to those areas outside of the proposed Forest Conservation Easement. Cleaning of equipment will be limited to areas within the LOD of the proposed homesteads. Wastewater resulting from equipment cleaning will be controlled to prevent runoff into environmentally sensitive areas.

**D. Sequence of Construction**

The following timetable represents the proposed timetable for development of the subject property. The items outlined in the Forest Conservation Plan will be enacted within two (2) years of subdivision approval.

**Below find a proposed sequence of construction.**

1. Install all signage and sediment control devices.
2. Hold pre-construction meeting between developer, contractor and County Inspector.
3. Build access roads, install water and sewer, and construct houses. Stabilize all disturbed areas accordingly.
4. Remove sediment control.
5. Hold post-construction meeting with County Inspectors to assure compliance with FCP. Submit Certification of Retention.

**E. Construction Monitoring**

Eco-Science Professionals, or another qualified professional designated by the developer, will monitor construction of the project to ensure that all activities are in compliance with the Forest Conservation Plan.

**F. Post-Construction Meeting**

Upon completion of construction, Eco-Science Professionals, or another qualified professional designated by the developer, will notify the County that construction has been completed and arrange for a post-construction meeting to review the project site. The meeting will allow the County Inspector to verify that forest retention requirements have been met.

**POST-CONSTRUCTION MANAGEMENT PLAN**

Howard County requires a two year post-construction management plan be prepared as part of the Forest Conservation Plan. This plan goes into effect upon acceptance of the construction certification of completion by the County. Eco-Science Professionals, or another qualified professional designated by the developer, will be responsible for implementation of the post-construction management plan.

The following items will be incorporated into the plan for the subject property:

**A. Fencing and Signage**

Permanent signage indicating the limits of the retention/planting area shall be maintained.

**B. General Site Inspections**

Site inspections will be performed to insure that retention of the forest is met in accordance with this plan and that the forest edge remains healthy and stable.

**C. Education**

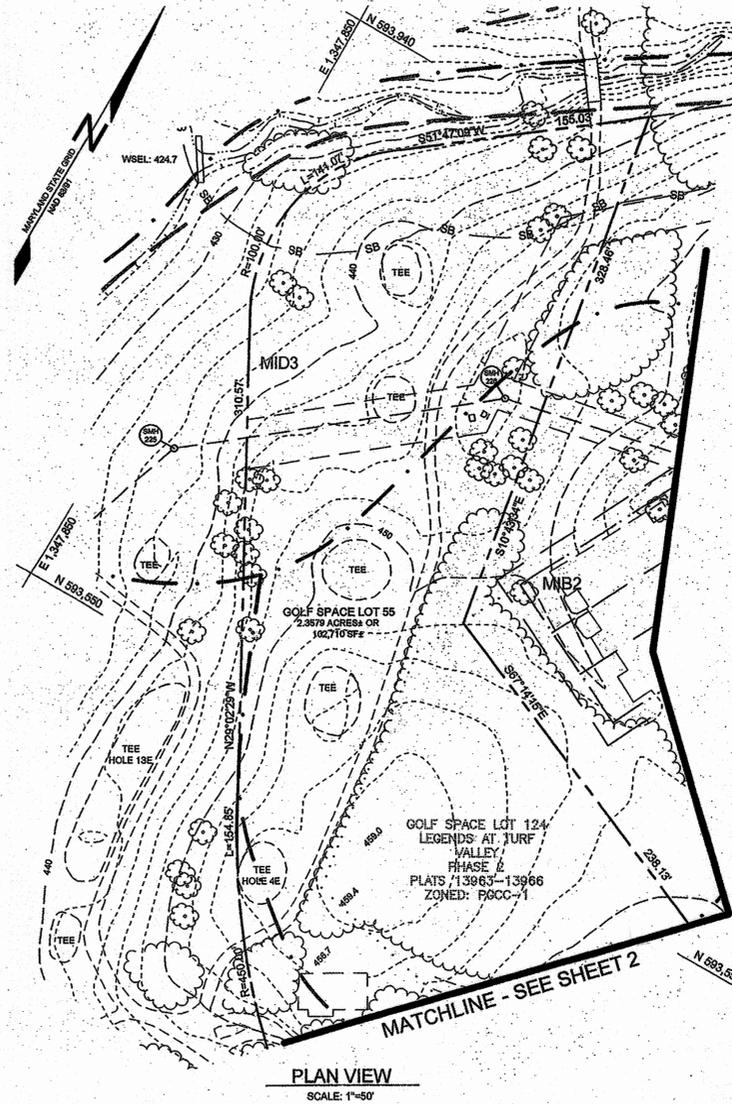
The developer will provide appropriate materials to property owners informing them of the location and purpose of the forest conservation easement. Materials may include site plans and information explaining the intent of the forest conservation plan.

**D. Final Inspection**

At the end of the two year post-construction management period, Eco-Science Professionals, or another qualified professional, will submit to the administrator of the Howard County Forest Conservation Program certification that all retention/afforestation requirements have been met. Upon acceptance of this certification, the County will release the developer from all future obligations and release the developer's bond.

**FOREST CONSERVATION EASEMENTS**

Easements are a legal means of providing permanent protection of forests, farmland and open space. In accordance with the criteria outlined in the Howard County Forest Conservation Manual, a forest conservation easement will be recorded for the retention areas on the subject property. Submission of the easements for recording will occur prior to commencement of construction activities.



PLAN VIEW  
SCALE: 1"=50'



PLAN VIEW  
SCALE: 1"=50'

**FOREST CONSERVATION WORKSHEET**  
Version 1.0

Project: Fairways at Turf Valley  
Date: January 12, 2010

NET TRACT AREA	Acres
A. Total tract area	93.3
B. Area within 100 year floodplain - future phases of development	80.5
C. Area within limits of previous site plan - SDP-89-47	4.6
D. Net Tract Area	8.2

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)

ARA	MDR	IDA	HDR	MPD	CIA	X
E. Afforestation Threshold (percentage)	0.16	1.2				
F. Conservation Threshold (percentage)	0.16	1.2				

EXISTING FOREST COVER:

G. Existing forest cover (excluding floodplain)	5.2
H. Area of forest above afforestation threshold	4.0
I. Area of forest above conservation threshold	4.0

BREAK EVEN POINT:

J. Forest retention above threshold with no mitigation	0.8
K. Clearing permitted without mitigation	2.0
	3.2

PROPOSED FOREST CLEARING

L. Total area of forest to be Cleared or Retained Outside FCE	4.9
M. Total area of forest to be Retained in FCE	0.3

PLANTING REQUIREMENTS

N. Reforestation for clearing above Conservation Threshold	1.0
P. Reforestation for clearing below Conservation Threshold	1.8
Q. Credit for retention above conservation threshold	0
R. Total reforestation required	2.8
S. Total afforestation required	0
T. Total reforestation and afforestation required	2.8

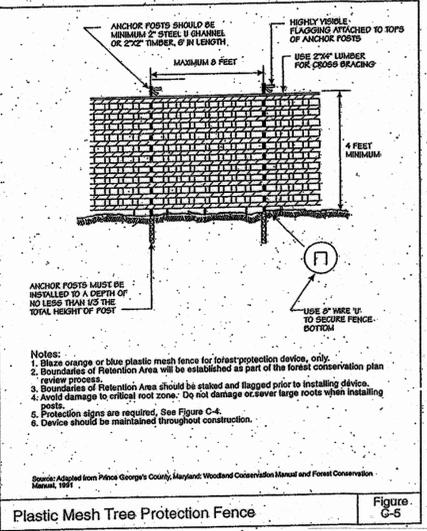
- FCP NOTES**
1. The forest resources have been reported in the forest stand delineation for the Fairways at Turf Valley, Phase III (SP-08-005)
  2. Forested areas occurring outside of the FCE shall not be considered part of the FCE and shall not be subject to protective land covenants.
  3. Limits of disturbance (LOD) shown on this plan represent the limits of this phase of the project. Future phases of the project will be addressed as they are proposed.
  4. There shall be no clearing, grading, construction or disturbance of vegetation in the Forest Conservation Easement, except as permitted by Howard County DPZ.
  5. Temporary fencing shall be used to protect forest resources during construction. Fencing shall be installed along the approved limits of disturbance occurring within 50 feet of the approved FCE limits.
  6. Permanent signage will be posted at 50-100 foot intervals along all approved FCE limits.
  7. The Forest Conservation Act requirements for FAIRWAYS AT TURF VALLEY will be met through a combination of onsite retention of 0.3 acres and offsite reforestation of 2.8 acres. The reforestation obligation will be met with 1.76 acres of "offsite" forest retention on exempt portions of Turf Valley and 1.04 acres of offsite reforestation. The "offsite" retention is credited at a 0.5:1 ratio. The Forest Conservation Easements have been defined on the Plat of Revision for Turf Valley Parcel D FCE # 1-5.

**FCA Exemption Note**

The proposed development of Fairways of Turf Valley will occur on portions of Parcels 8 and 706 (tax map 19). The development occurring on Parcel 8 is exempt from the Forest Conservation Act regulations. Portions of Parcel 706 that occur outside the limits of disturbance for this phase of the project are not included as part of the project for the purpose of the Forest Conservation Act.

**FCA Waiver Petition Note**

A waiver petition (WP-09-048) was approved November 24, 2008 to Section 16.1202(a)(1) of the Howard County Code to allow for the temporary deferral of the on- and off-site Forest Conservation Easement for the development of Turf Valley 4<sup>th</sup> Amended CSP, Parcel 706. The entire FCA obligation for Parcel 706 must be provided with the processing and recording of the last phase of development located on Parcel 706. The project must meet all applicable deadline and milestone dates in accordance with section 16.144 and 16.156 of the Howard County Code.



**Forest Conservation Easement**

Unauthorized disturbances of vegetation is prohibited. Violators are subject to fines as imposed by the Howard County Forest Conservation Act of 1992.

*Trees for Your Future!*

No.	BY:	DATE	REVISION
1	BEI	1.26.2013	REVISE NOTE 7 TO ELIMINATE LAST SENTENCE ABOUT FCE CREDIT

**OWNER/DEVELOPER**  
MANGIONE ENTERPRISES OF TURF VALLEY, LP  
1205 YORK ROAD, PENTHOUSE  
LUTHERVILLE, MARYLAND 21048  
410.825.9400

**FOREST CONSERVATION PLAN**  
**FAIRWAYS AT TURF VALLEY**

PHASE I, SECTION I:  
RESORT ROAD AND GOLF SPACE LOT 50 & 51  
PODS 'F' AND PART OF 'H' SECTION IV - RESIDENTIAL PHASE IV D  
A SUBDIVISION OF P/O PARCELS 8 & 706  
PART OF PARCELS 8 AND 706  
2ND ELECTION DISTRICT

TAX MAP 16 GRID 16  
PART OF PARCELS 8 AND 706  
HOWARD COUNTY, MARYLAND

**Sill · Adcock & Associates · LLC**  
Engineers · Surveyors · Planners  
3300 North Ridge Road, Suite 160  
Ellicott City, Maryland 21043  
Phone: 443.325.7682 Fax: 443.325.7685  
Email: info@silladcock.com

DESIGN BY: PSMIRM  
DRAWN BY: PSMIRM  
CHECKED BY: PS  
SCALE: AS SHOWN  
DATE: 5/27/16  
PROJECT #: 09-025  
SHEET #: 1 of 4

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
Karl Adcock  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 5-31-16

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DATE: 5-27-16  
CHIEF, BUREAU OF HIGHWAYS

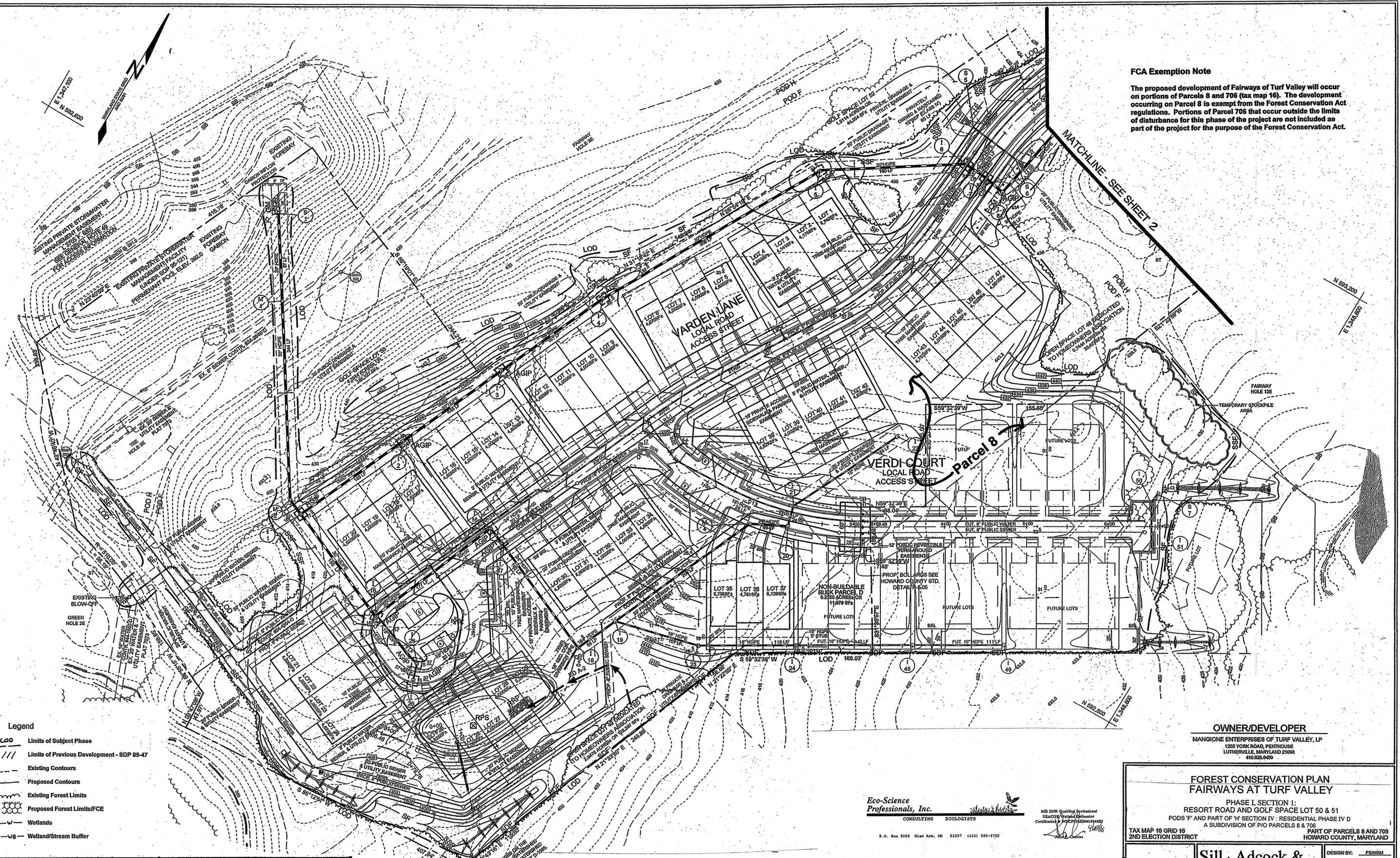
**Eco-Science Professionals, Inc.**  
CONSULTING ECOLOGISTS  
P.O. Box 5006 Glen Arden, MD 21057 (410) 592-6752

MD DNR Qualified Professional  
USACOE Working Professional  
Certification # WPCMD04910443

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. 32023, EXPIRATION DATE, JUNE 30, 2011



**FCA Exemption Note**  
 The proposed development of Fairways of Turf Valley will occur on portions of Parcels 8 and 706 (tax map 16). The development occurring on Parcel 8 is exempt from the Forest Conservation Act regulations. Portions of Parcel 706 that occur outside the limits of disturbance for this phase of the project are not included as part of the project for the purpose of the Forest Conservation Act.



- Legend**
- Limits of Subject Phase
  - Limits of Previous Development - SDP 89-47
  - - - Existing Contours
  - - - Proposed Contours
  - Existing Forest Limits
  - Proposed Forest Limits/FCE
  - w- Wetlands
  - w- Wetland/Stream Buffer

**OWNER/DEVELOPER**  
 MANGIONE ENTERPRISES OF TURF VALLEY, LP  
 1205 YORK ROAD, PENTHOUSE  
 LUTHERVILLE, MARYLAND 21093  
 410.825.6400

**Eco-Science Professionals, Inc.**  
 CONSULTING ECOLOGISTS  
 P.O. Box 5006 Glen Arm, MD 21057 (410) 592-6752

MD DNR Qualified Professional  
 USACO/Vetified Estimator  
 Certificates # 107227 and #107443  
 [Signature]

**FOREST CONSERVATION PLAN  
 FAIRWAYS AT TURF VALLEY**

PHASE I, SECTION 1:  
 RESORT ROAD AND GOLF SPACE LOT 50 & 51  
 PODS 'F' AND PART OF 'H' SECTION IV - RESIDENTIAL PHASE IV D  
 A SUBDIVISION OF P/O PARCELS 8 & 706

TAX MAP 16 GRID 16 PART OF PARCELS 8 AND 706  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**Sill · Adcock & Associates · LLC**  
 Engineers · Surveyors · Planners  
 3300 North Ridge Road, Suite 160  
 Ellicott City, Maryland 21043  
 Phone: 443.325.7662 Fax: 443.325.7685  
 Email: info@silladcock.com

DESIGN BY: PSM/ML  
 DRAWN BY: PSM/ML  
 CHECKED BY: PS  
 SCALE: 1" = 60'  
 DATE:  
 PROJECT #: 08-026  
 SHEET #: 2 of 4

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 5.31.16  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 [Signature] 5.22.16  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38025, EXPIRATION DATE: JUNE 20, 2014

