

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ENVIRONMENTAL CONCEPT PLAN
3	PRELIMINARY SEDIMENT AND EROSION CONTROL PLAN

ENVIRONMENTAL CONCEPT PLAN

W.F. WILSON & SONS, INC.

PARCEL 'A'

ZONED: M-1

TAX MAP No. 37 GRID No. 22 PARCEL No. 652

FIRST 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:

This property is located on Tax Map 37, Parcel No. 652 on the Howard County, Maryland Tax Map Database System and consists of 7.65 acres of land. This site possesses approximately 150' of road frontage on Maryland Route 103 (Meadowridge Road), which creates a pin handle of the same width running in a westerly direction for approximately 500' to a larger wooded portion of the site. This wooded portion, where the bulk of the improvements are being proposed is estimated to be 6+ acres in size. An elevation of 210 located in the area of the road frontage is lowest point of the site. The elevations increase from Maryland Route 103 to the west at a slope averaging 6% to a maximum elevation of 294 feet. There is a gravel area of approximately 44,905 sqft. located on the eastern portion of the site. The adjoining property to the south contains a large warehouse and is part of the Meadowridge Business Park. To the north are several smaller formerly residential properties, which are now zoned M-1. There is also a portion of the northern boundary that is adjoined by the right-of-way of Interstate 95.

I. Natural Resource Protection:

The nature of this site and needs of the future owner's business necessitate the need for the bulk of the improvements to be located outside of the pin handle area of the property. Limited by these constraints this design only allows for a small portion of the existing trees to be retained. It should be noted that the topography is favorable to allowing the Micro-Bioretenation facilities to be located near the perimeter of the property allowing additional buffering to the surrounding properties.

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. Originally the site flows from west to east on a gradual slope, creating sheet flow towards existing parcels 370 and 335. This existing flow accumulates in an existing SWM facility located on the east side of Parcel 370, then proceeds through a culvert to cross Meadowridge Road. The proposed drainage on this site is designed to be diverted through a series of M-6 micro-bioretenation, F-6 bioretention, as well as A-2 permeable paving facilities then piped through a storm drain system to a proposed structure located on the upstream side of the previous mentioned culvert, which has been shown to be replaced. Although the rear of the existing parcels will see a reduction of drainage, resulting in a possible improvement in the quality in these parcels, the overall flow patterns of this area will be maintained.

III. Reduction of Impervious Areas through better site design, alternative surfaces, and Nonstructural Practices:

A-2 permeable paving has been utilized. It should also be noted that only the areas necessary to meet County requirements and provide a safe and effective work environment for this type of construction contractor are being paved. Although the impervious areas have increased, the entirety of them are treated and the full ESDv is met through use of chapter 5 and chapter 3 storm water management practices.

IV. Integration of Erosion and Sediment Controls into Stormwater Strategy:

This site will utilize earth dikes to divert water to the proposed Sediment Basin. Portions of these proposed dikes will be converted to berms during final grading, which will divert drainage to the Bio-Retention facilities as well as to proposed storm drain inlets.

V. Implementation of ESD Planning Techniques and practices to the Maximum Extent Practicable (MEP):

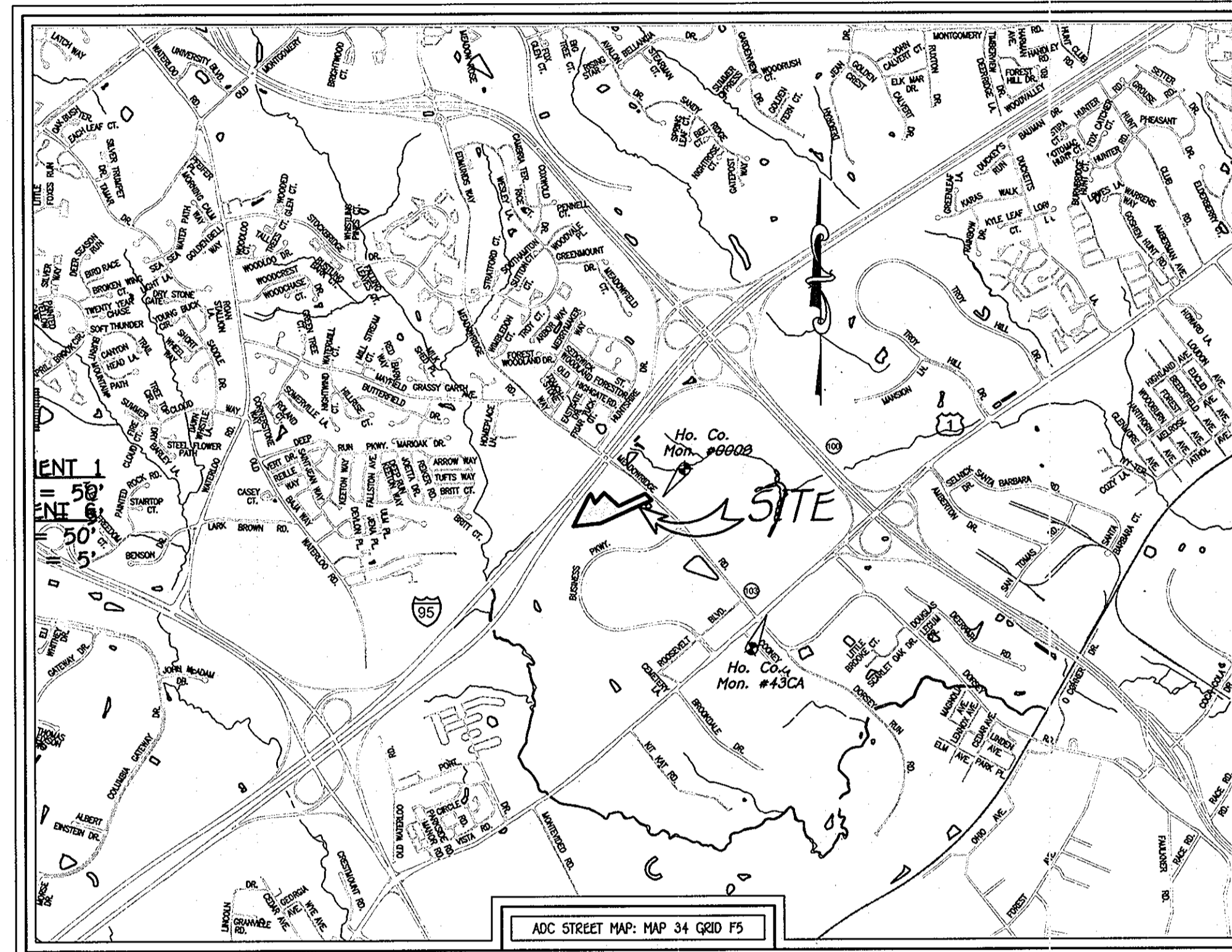
Several M-6 Micro Bio-retention, F-6 Bio-retention, A-2 permeable paving facilities and an area of N-2 Non-Rooftop Disconnection Credit have been used to treat all proposed impervious areas. This type of commercial use requires a large unnumbered storage area which creates drainage areas of exceeding the 1/2 acre limit of the M-6 micro-bioretenation facilities. Where these scenarios are encountered, F-6 Bio-Retention facilities have been provided. In all cases the full required ESD volume is being provided.

VI. Request for Design Manual Waiver:

No waivers are being requested at this time.

SITE ANALYSIS DATA CHART

- A. TOTAL AREA OF THIS SUBMISSION = 7.64 ac.±
- B. LIMIT OF DISTURBED AREA = 343,630 Sq.Ft. or 7.89 Ac.±
- C. PRESENT ZONING DESIGNATION = M-1
(PER 02/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP-LITE ZONING AMENDMENTS DATED 07/28/08)
- D. PROPOSED USE: CONTRACTOR'S OFFICE, OUTDOOR AND INDOOR STORAGE FACILITY
- E. OPEN SPACE ON SITE: N/A
- F. RECREATIONAL AREA PROVIDED: N/A
- G. BUILDING COVERAGE OF SITE: 16,040 SQ.FT. OR 0.37 Ac.±
- H. PREVIOUS HOWARD COUNTY FILES: WP-80-32, F-80-156
- I. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE: 0.00 AC.
- J. TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.00 AC.
- K. NET TRACT AREA = 7.64 AC.
- L. TOTAL SITE AREA - FLOODPLAIN - STEEP SLOPES AREA
- M. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC.
- N. TOTAL AREA OF FOREST = 6.0 AC.±
- O. TOTAL GREEN OPEN AREA = 1.64 AC.±
- P. TOTAL IMPERVIOUS AREA = 4.09 AC.±
- Q. AREA OF ERODIBLE SOILS = 7.64 AC.±



VICINITY MAP
SCALE: 1" = 2000'

BENCHMARK INFORMATION

HOWARD COUNTY CONTROL STATION #0000 - HORIZONTAL - NAD '83
N 554,701.8067
E 1,377,647.6025
ELEVATION = 215.333 - VERTICAL - (NAVD '88)

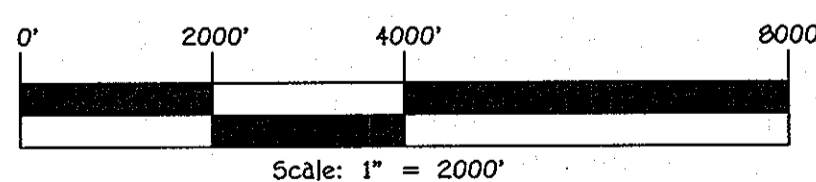
HOWARD COUNTY CONTROL STATION #43CA - HORIZONTAL - (NAD '83)
N 552,686.1301
E 1,379,388.3764
ELEVATION = 191.601 - VERTICAL - (NAVD '88)

GENERAL NOTES

1. 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.
2. THE CONTRACTOR SHALL NOTIFY (PSS UTILTY) AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
3. THE SUBJECT PROPERTY IS ZONED M-1 (PER 02/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP-LITE ZONING AMENDMENTS DATED 07/28/08)
4. EXISTING TOPOGRAPHY SHOWN IS FROM HOWARD COUNTY GIS TOPOGRAPHY SHOWN AT 2' CONTOUR INTERVAL.
5. 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. 0000B AND 43CA WERE USED FOR THIS PROJECT.
6. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE H.O.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. WE ARE PROVIDING STORM WATER MANAGEMENT BY THE USE OF TEN (10) M-6 MICRO BIO-RETENTION FACILITIES AND ONE (1) N-2 NON-ROOFTOP DISCONNECTION AREA.
7. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED FOR THIS PROJECT.
8. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
9. 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.
10. LANDSCAPING WILL BE PROVIDED AT THE SITE DEVELOPMENT STAGE OF THIS PROJECT.
11. FOREST CONSERVATION WILL BE ADDRESSED AT THE SITE DEVELOPMENT STAGE OF THIS PROJECT.
12. OFF-SITE GRADING PERMISSION LETTER WILL BE PROVIDED AT THE SITE DEVELOPMENT STAGE OF THIS PROJECT.
13. 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.
14. SOIL BORING INFORMATION WILL BE PROVIDED AT THE SDP STAGE OF THIS PROJECT.
15. 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.
16. A LETTER REGARDING THE USE BY FORMER OWNER MEADOWRIDGE CEMETERY, WILL BE PROVIDED AT THE SDP STAGE OF THIS PROJECT.
17. THIS SITE CONTAINS NO 100 YEAR FLOODPLAIN OR STEEP SLOPES, ALSO AS DETERMINED BY AN ENVIRONMENTAL STUDY CONDUCTED BY ECOTONE, INC. DATED MARCH 2013. NO STREAMS OR WETLANDS.
18. A REQUEST TO WAIVE TO THE FIFTH PARAGRAPH OF THE DESIGN MANUAL, VOLUME III SECTION 2.9 C, STATING "THE PAVING SECTION OF PARKING LOTS SHALL BE IN ACCORDANCE WITH THE STANDARD DETAILS, VOLUME IV ALLOWING THE USE OF A GRAVEL LOT TO SATISFY THE NEEDS OF THIS TYPE OF CONTRACTOR WILL BE PROVIDED AT THE SDP STAGE OF THIS PROJECT."

Stormwater Management Summary Table

AREA ID	ESDV Summary Table			Remarks
	ESDV Req. Cu.Ft.	ESDV Pvd. Cu.Ft.	% Impervious	
A	3702	3790	70%	Bioretention F-6 (1)
B	4394	4531	87%	Bioretention F-6 (4)
C	4619	4638	82%	Bioretention F-6 (2)
D	605	985	-	Permeable Paving A-2 (3)
E	307	605	-	Permeable Paving A-2 (2)
F	319	617	-	Permeable Paving A-2 (1)
G	828	870	87%	Micro-Bioretenation M-6 (1)
H	1629	1677	45%	Bioretention F-6 (3)
Totals	16,403	18,938		



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FIC
ELLSWORTH CITY, MARYLAND 21042
(410) 461 - 2895



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. 21476, EXPIRATION DATE: 7/14/15.

Frank John Manalansan 7/16/13
FRANK JOHN MANALANSAN E DATE

OWNER & DEVELOPER

J.E.H. PROPERTIES II, LLC
6506 MEADOWRIDGE ROAD
ELK RIDGE, MARYLAND 21075-6115
(443)-755-8720

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

W.F. Wilson 7/26/13
Chief, Division of Land Development
W.F. Wilson 7/26/13
Chief, Development Engineering Division

PROJECT		SECTION	PARCEL NO.
MEADOWRIDGE MEMORIAL PARK		-	652
PLAT	BLOCK NO.	ZONE	TAX/ZONE
7657	22	M-1	2
ELEC. DIST.		CENSUS TR.	
FIRST		6012.02	
WATER CODE		SEWER CODE	
N/A		N/A	

TITLE SHEET

W.F. WILSON & SONS, INC
PARCEL 'A'

ZONED: M-1 TAX MAP NO.: 37 GRID NO.: 22
PARCEL NO.: 652

FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

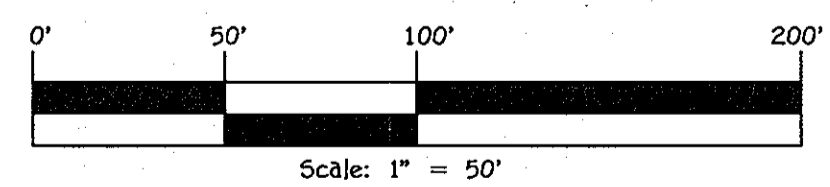
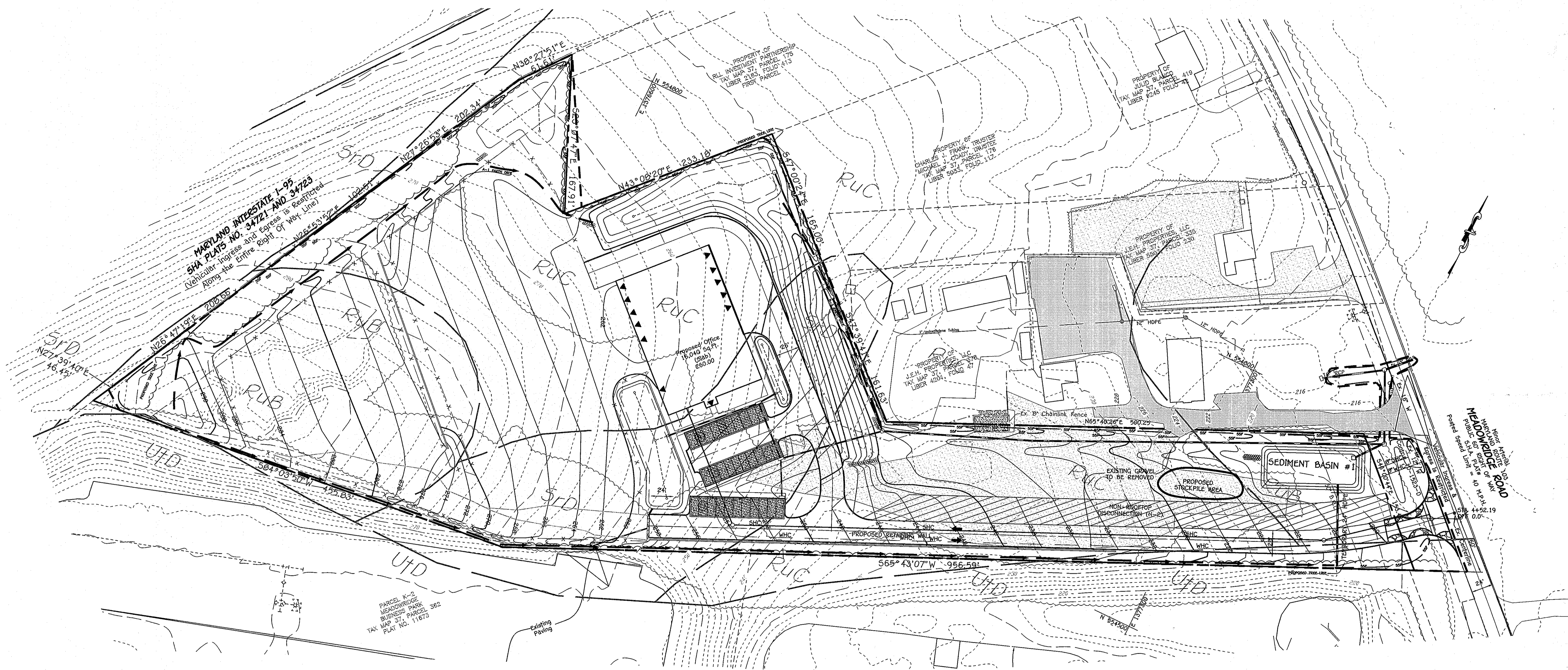
SCALE: AS SHOWN DATE: JULY 8, 2013
SHEET 1 OF 3

ECP-13-064

SOILS LEGEND

SOIL	NAME	CLASS	Kw
RuB	Russett and Bettsville soils, 2 to 5 percent slopes	C	0.29
RuC	Russett and Bettsville soils, 5 to 10 percent slopes	C	0.32
SrD	Sassafras and Croom soils, 10 to 15 percent slopes	C	0.33
UHD	Urban land-Udorhents complex, 0 to 15 percent slopes	A	0.20

SOIL TYPES TAKEN FROM MAP 19 OF THE SOIL SURVEY OF HOWARD COUNTY, MARYLAND, FOUND ON THE HSCD WEBSITE.



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELKLOTT CITY, MARYLAND 21042
 (410) 461-3999



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. 21476, EXPIRATION DATE: 7/14/15.

Frank John Manalansan II 7/16/13
 FRANK JOHN MANALANSAN II DATE

OWNER & DEVELOPER

J.E.H. PROPERTIES II, LLC
 6586 MEADOWRIDGE ROAD
 ELKBRIDGE, MARYLAND 21075-6115
 (443)-795-8720

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Verd Schuler 7/25/13
 Chief, Division of Land Development Date
William Wilson 7/26/13
 Chief, Development Engineering Division Date

PROJECT	SECTION	PARCEL NO.
MEADOWRIDGE MEMORIAL PARK	-	652
PLAT	BLOCK NO.	ZONE
7857	22	M-1
TAX/ZONE	ELEC. DIST.	CENSUS TR.
2	FIRST	6012.02
WATER CODE	SEWER CODE	
N/A	N/A	

PRELIMINARY SEDIMENT AND EROSION CONTROL PLAN

W.F. WILSON & SONS, INC
 PARCEL 'A'

ZONED: M-1 TAX MAP NO.: 37 GRID NO.: 22
 PARCEL NO.: 652
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: = 50' DATE: JULY 8, 2013
 SHEET 3 OF 3