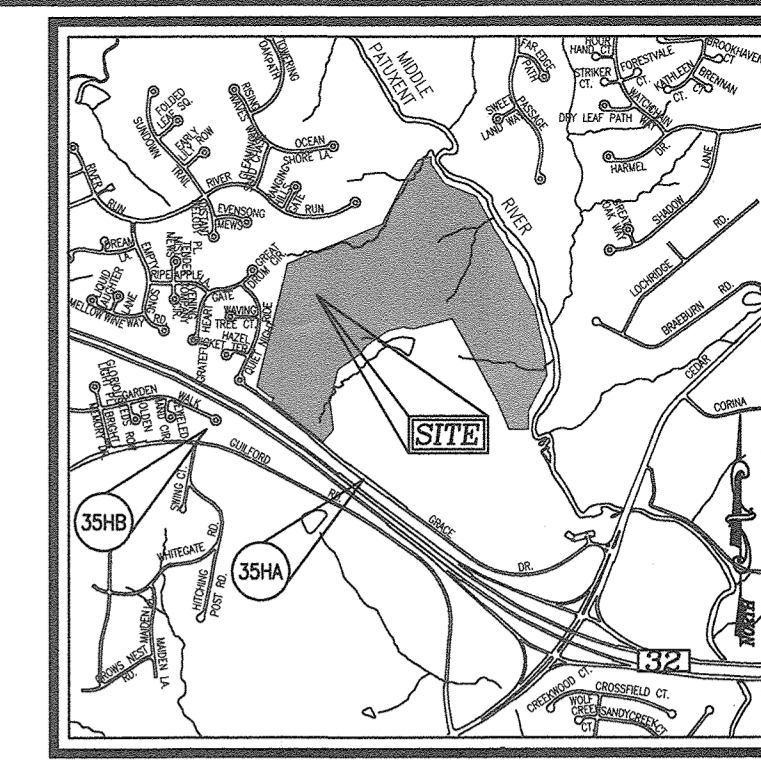


SITE DEVELOPMENT PLAN
CEDAR CREEK - PHASE 1

PLAT NOS.
SFD LOTS 3 - 46 AND SFA LOTS 52-129
HOWARD COUNTY, MARYLAND

SIMPSON OAKS APFO PHASING table with columns: PHASE, ALLOCATION, TOTAL NO. OF ALLOCATIONS

BENCHMARKS table with columns: BENCHMARK, NAD 83 (44) 07, NAVD 88, ELEV. DATA



SCALE: 1"=2000'
ADC MAP COORDINATE: 32
GRID B-3, C-3, B-4 & C-4

GENERAL NOTES

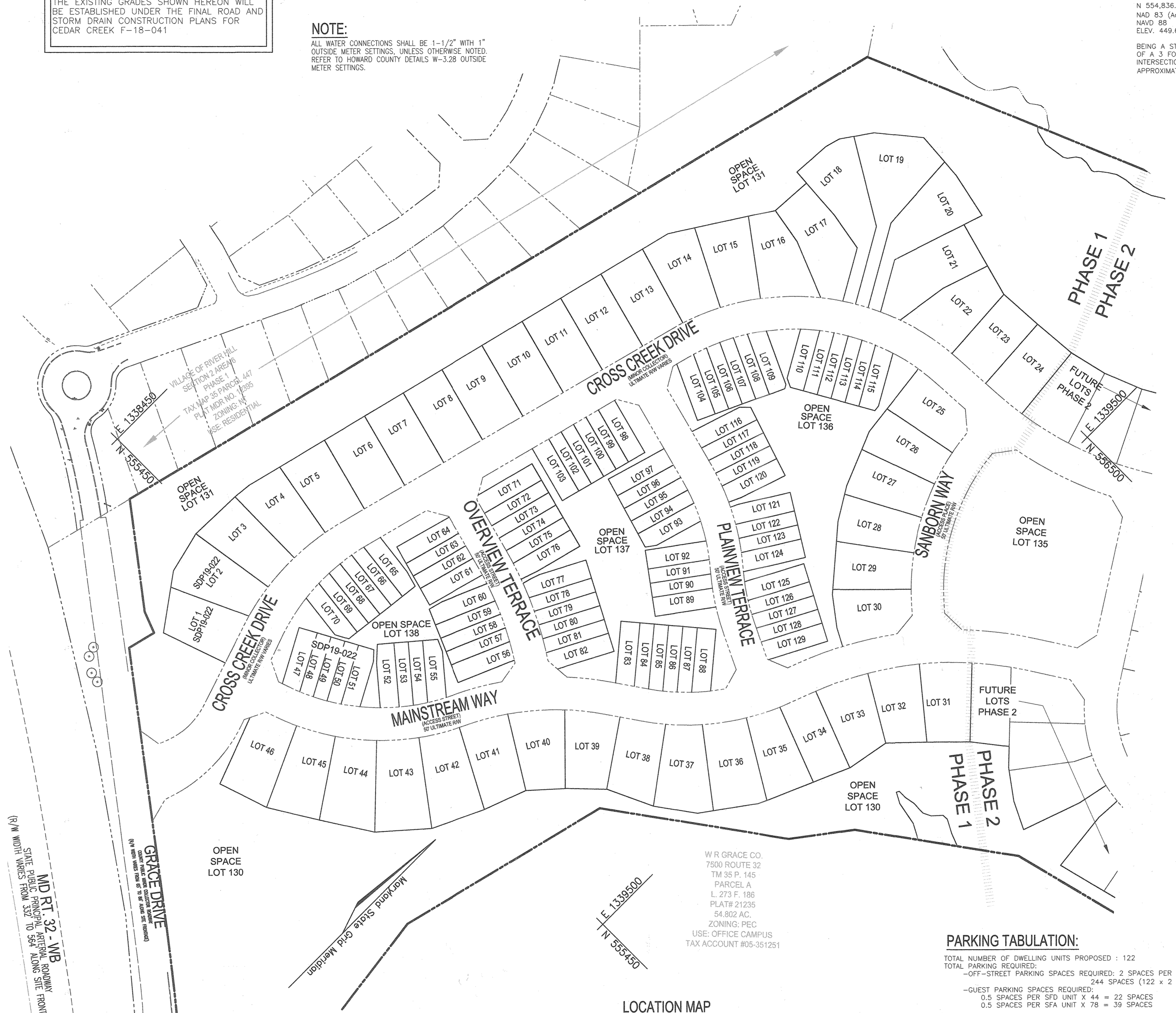
- 1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK...
2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK...
3. ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS ALTERNATIVE COMPLIANCES HAVE BEEN APPROVED...
4. THE SUBJECT PROPERTY IS ZONED "CEF-R" PER ZONING BOARD DECISION AND ORDER CASE ZB1104M, APPROVED ON APRIL 6, 2015 AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003...

NOTE

THE EXISTING GRADES SHOWN HEREON WILL BE ESTABLISHED UNDER THE FINAL GRADING AND STORM DRAIN CONSTRUCTION PLANS FOR CEDAR CREEK F-18-041

NOTE:

ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-328 OUTSIDE METER SETTINGS.



SITE ANALYSIS DATA table with columns: ITEM, DESCRIPTION, VALUE

SHEET INDEX table with columns: DESCRIPTION, SHEET NO.

STORMWATER MANAGEMENT NOTE:

REFER TO SHEET 2 FOR THE STORMWATER MANAGEMENT PRACTICE CHARTS WHICH DETAIL THE TYPES OF FACILITIES REQUIRED FOR EACH RESIDENTIAL AND OPEN SPACE LOT

MIHU AGREEMENT

IN ACCORDANCE WITH SECTION 121.0 OF THE 10/05/13 COMPREHENSIVE ZONING REGULATIONS, AND THE BULK REGULATIONS APPROVED UNDER HOWARD COUNTY ZONING BOARD CASE ZB-1104-M BULK REGULATIONS, THIS SUBDIVISION IS SUBJECT TO MODERATE INCOME HOUSING UNITS. SEE NOTE 47, SHEET 2

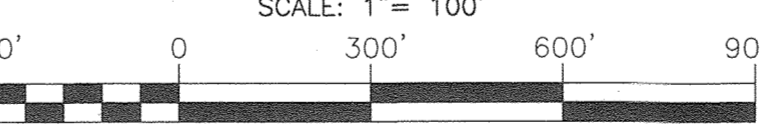
MODERATE INCOME HOUSING UNITS (MIHU) ALLOCATION EXEMPTIONS TRACKING table with columns: CATEGORY, QUANTITY

OWNER / DEVELOPER and BUILDER information table

PARKING TABULATION:

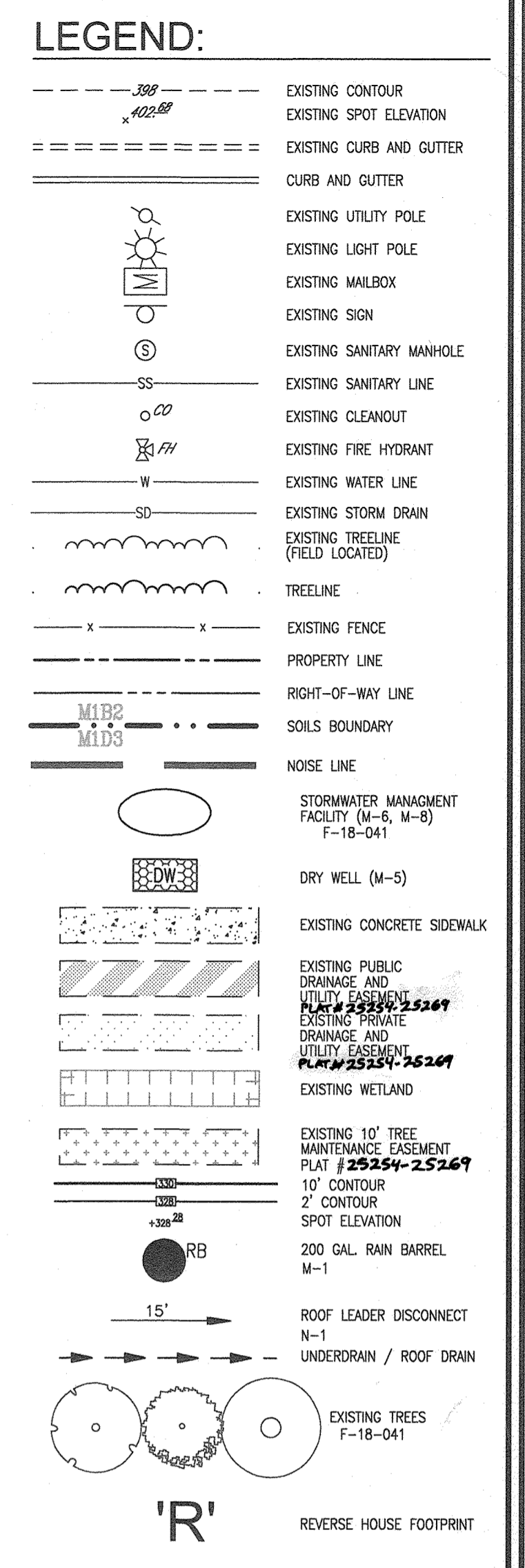
TOTAL NUMBER OF DWELLING UNITS PROPOSED : 122
TOTAL PARKING REQUIRED: 2 SPACES PER UNIT
- OFF-STREET PARKING SPACES REQUIRED: 244 SPACES (122 x 2 = 244)
- GUEST PARKING SPACES REQUIRED: 0.5 SPACES PER SFD UNIT x 44 = 22 SPACES
0.5 SPACES PER SFA UNIT x 78 = 39 SPACES

LOCATION MAP



Vogel Engineering logo, site title CEDAR CREEK - PHASE 1, permit information chart, and professional certificate information.

Approval and signature blocks for Planning and Zoning, Public Water, and Health Department.



NOTE:

1. GENERIC HOUSE BOXES ARE SHOWN IN ACCORDANCE WITH HOWARD COUNTY GUIDELINES AND DO NOT LIMIT MODEL TYPES AND OPTIONS THAT MAY FIT ON ANY INDIVIDUAL LOT.
2. TYPICAL DRIVEWAY WIDTH SHOWN HEREON IS 16 FEET WIDE FOR THE PROPOSED 2 CAR GARAGE. WIDTH SUBJECT TO CHANGE WITH BUILDER RESITE.
3. DRIVEWAYS: THE SHOWN DRIVEWAY LOCATION CANNOT CHANGE UNLESS NOTED ON THIS SDP. CONFIRMING THAT THE GRADING AND DRIVEWAY SLOPES WILL REMAIN THE SAME WHETHER THE DRIVEWAY IS ON THE RIGHT OR LEFT SIDE OF THE HOUSE. ONLY ONE DRIVEWAY ORIENTATION CAN BE SHOWN FOR CORNER LOTS.

NOTES:

1. ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-328 OUTSIDE METER SETTINGS.

NOTES:

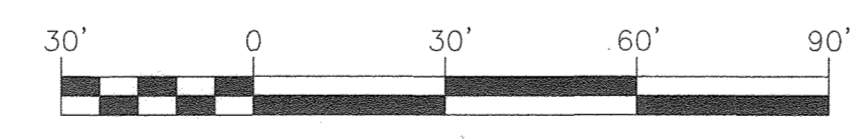
1. REFER TO SHEET 16 FOR DRYWELL (DW) SIZE, NOTES & DETAILS
2. REFER TO SHEET 16 FOR RAIN BARREL NOTES & DETAILS
3. REFER TO SHEET 16 FOR ROOFTOP DISCONNECT CRITERIA. DOWNSPOUTS SHALL BE LOCATED WHERE SHOWN HEREON AT MINIMUM AND DIRECTED AT THE GROUND SURFACE TO FLOW IN THE DIRECTION SHOWN

OWNER / DEVELOPER
T.M. 35 - P 145 (PARCEL B-1)
SIMPSON OAKS CRPS, LLC
4750 OWINGS MILLS BOULEVARD
OWINGS MILLS, MARYLAND 21117
(410) 356-9900

BUILDER
NVR HOMES
9720 PATRICK WOODS DRIVE
COLUMBIA, MD 21046
(410) 379-5956

NO.	REVISION	DATE
13	REVISE THE HOUSE TYPE AND GRADING ON LOT 22, AMEND LOT LINE BETWEEN LOT 52 AND LOT 53 AND ADD A PRIVATE DRAINAGE AND UTILITY EASEMENT	5-11-22
9	REVISE THE PLAN TO REVISE THE HOUSE TYPE AND GRADING ON LOTS 19, 30, 31, 43 AND THE GRADING ON LOT 22, AND THE DRAINAGE INFORMATION ON THE HOUSE TYPE SHEET	9-23-21
4	REVISE THE PLAN TO SHOW REVISED HOUSE TYPE AND GRADING FOR LOT 40	4-1-21
3	REVISE THE PLAN TO SHOW REVISED HOUSE TYPE AND GRADING FOR LOTS 42, 44 & 45	3-5-21
NO.	REVISION	DATE

LAYOUT PLAN
SCALE: 1"=30'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 1-2-20

[Signature]
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 1-3-20

[Signature]
DIRECTOR
DATE: 1-3-20

SITE DEVELOPMENT PLAN
LAYOUT PLAN

CEDAR CREEK - PHASE 1

PLAT NOS. 2525V-2526V
SFD LOTS 3 - 46 AND SFA LOTS 52-129

TAX MAP 35 GRID 21 ZONED: CEF-R P/O PARCEL 145
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

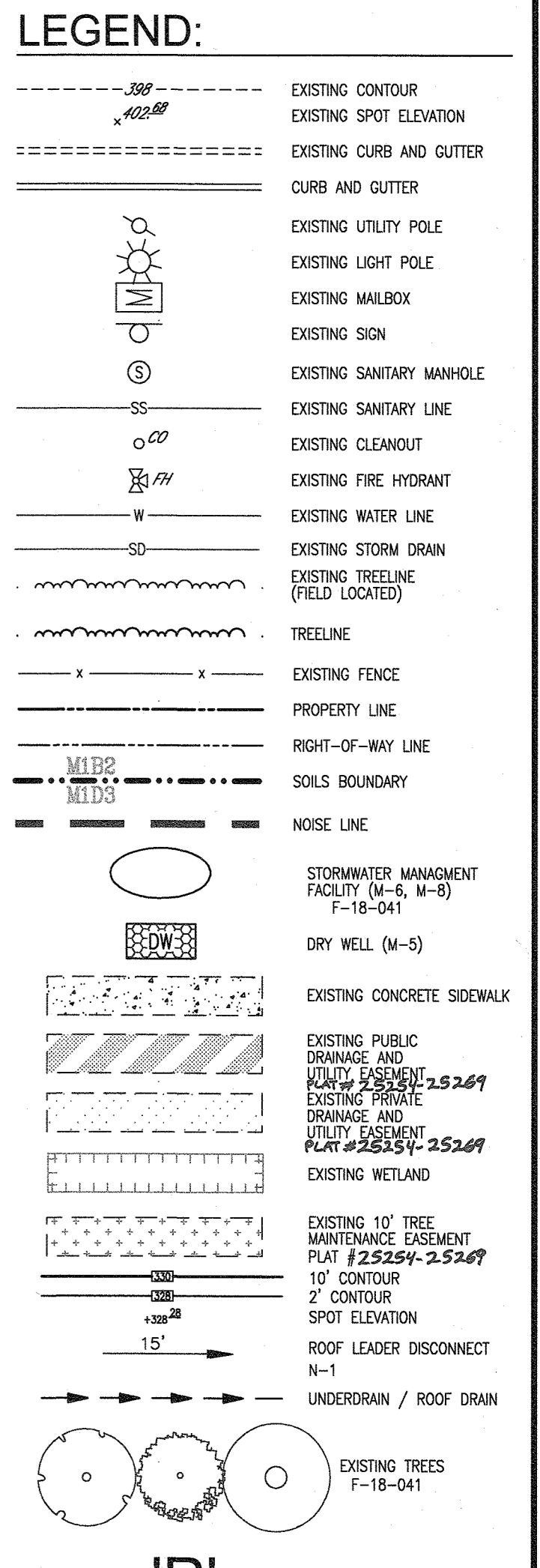
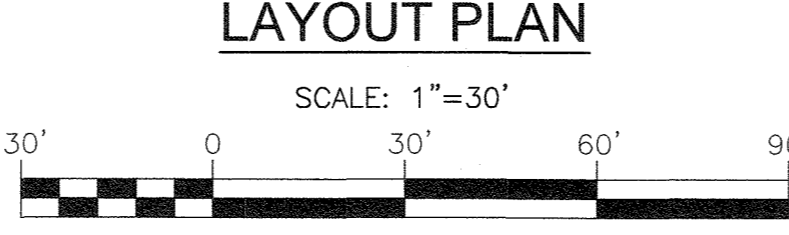
VOGEL ENGINEERING
+
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
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. 18193, EXPIRATION DATE: 09-27-2020

DESIGN BY: VE+TG
DRAWN BY: VE+TG
CHECKED BY: RHY
DATE: DECEMBER 2019
SCALE: AS SHOWN
W.O. NO.: 15-55

3 SHEET OF 17

ROBERT H. VOGEL, PE No.18193



- NOTE:**
- GENERIC HOUSE BOXES ARE SHOWN IN ACCORDANCE WITH HOWARD COUNTY GUIDELINES AND DO NOT LIMIT MODEL TYPES AND OPTIONS THAT MAY FIT ON ANY INDIVIDUAL LOT.
 - TYPICAL DRIVEWAY WIDTH SHOWN HEREON IS 16 FEET WIDE FOR THE PROPOSED 2 CAR GARAGE. WIDTH SUBJECT TO CHANGE WITH BUILDER RESISTE.
 - DRIVEWAYS: THE SHOWN DRIVEWAY LOCATION CANNOT CHANGE UNLESS NOTED ON THIS SDP. CONFIRMING THAT THE GRADING AND DRIVEWAY SLOPES WILL REMAIN THE SAME WHETHER THE DRIVEWAY IS ON THE RIGHT OR LEFT SIDE OF THE HOUSE. ONLY ONE DRIVEWAY ORIENTATION CAN BE SHOWN FOR CORNER LOTS.
- NOTES:**
- ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

OWNER / DEVELOPER
T.M. 35 - P 145 (PARCEL B-1)
SIMPSON OAKS CRP3, LLC
4750 OWINGS MILLS BOULEVARD
OWINGS MILLS, MARYLAND 21117
410-356-9900

BUILDER
NVR HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
(410) 379-5956

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
LAYOUT PLAN
CEDAR CREEK - PHASE 1
PLAT NOS. 25254-25261
SFD LOTS 3 - 46 AND SFA LOTS 52-129

TAX MAP 35 GRID 21 ZONED: CEF-R P/O PARCEL 145
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

STATE OF MARYLAND
ROBERT HARRIS VOGEL
REGISTERED PROFESSIONAL ENGINEER
12/12/2019

DESIGN BY: VE+TG
DRAWN BY: VE+TG
CHECKED BY: RHY
DATE: DECEMBER 2019
SCALE: AS SHOWN
W.O. NO.: 15-55

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. 16193, EXPIRATION DATE: 09-27-2020

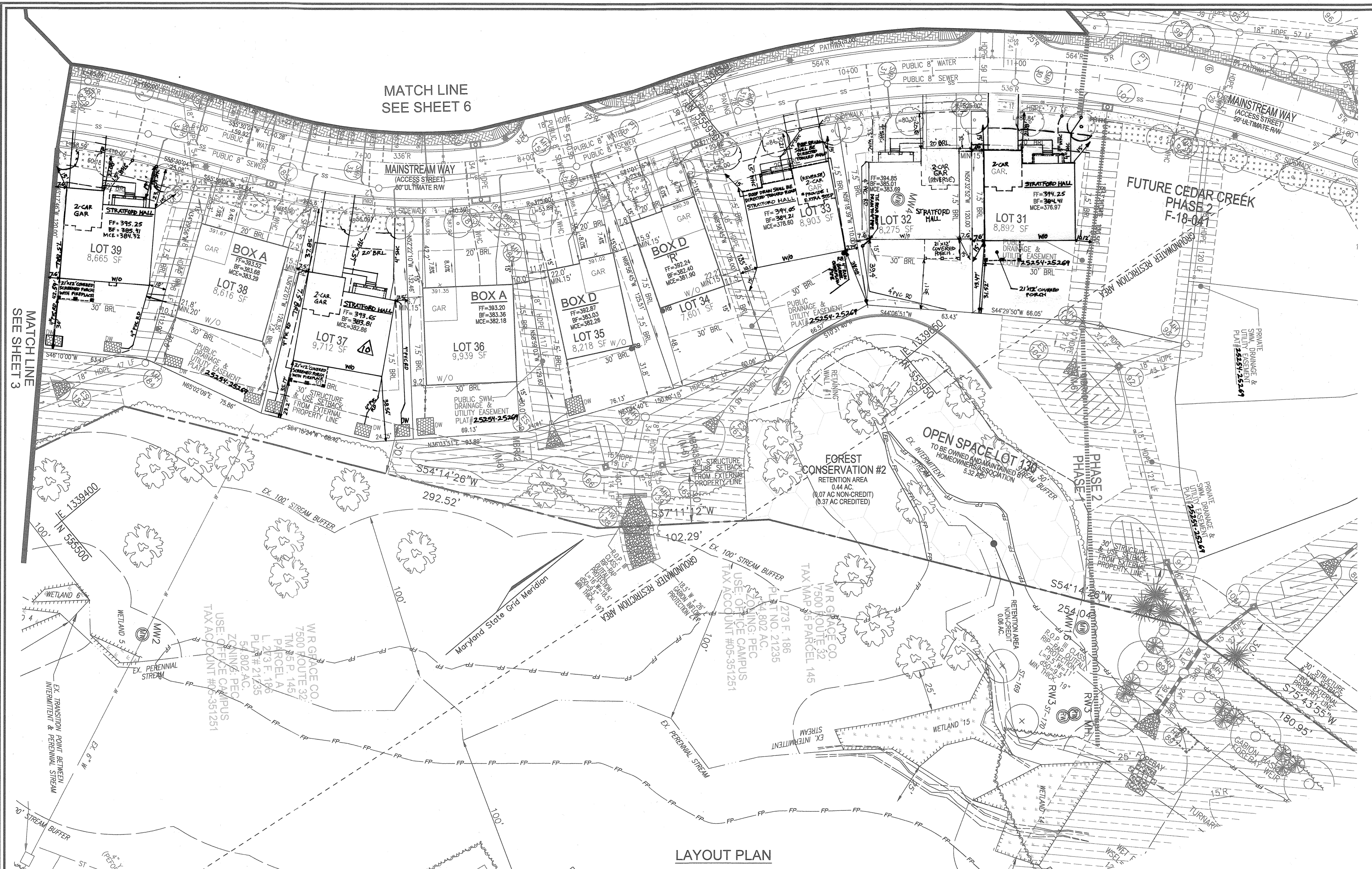
4 SHEET OF 17

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1-3-20
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1-3-20
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 1-3-20
DIRECTOR DATE



LEGEND:

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEAVOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING STORM DRAIN
- EXISTING TREE LINE (FIELD LOCATED)
- TREE LINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- STORMWATER MANAGEMENT FACILITY (M-6, M-8) F-15-041
- DRY WELL (M-5)
- EXISTING CONCRETE SIDEWALK
- EXISTING PUBLIC DRAINAGE AND UTILITY EASEMENT PLAT # 25254-25261
- EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT PLAT # 25254-25261
- EXISTING WETLAND
- EXISTING 10' TREE MAINTENANCE EASEMENT PLAT # 25254-25261
- 10' CONTOUR
- 2' CONTOUR
- SPOT ELEVATION
- 200 GAL. RAIN BARREL M-1
- 15'
- ROOF LEADER DISCONNECT N-1
- UNDERDRAIN / ROOF DRAIN
- EXISTING TREES F-18-041
- 'R' REVERSE HOUSE FOOTPRINT

NOTE:

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NOTES:

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2. REFER TO SHEET 16 FOR RAIN BARREL NOTES & DETAILS
3. REFER TO SHEET 16 FOR ROOFTOP DISCONNECT CRITERIA. DOWNSPOUTS SHALL BE LOCATED WHERE SHOWN HEREON AT MINIMUM AND DIRECTED AT THE GROUND SURFACE TO FLOW IN THE DIRECTION SHOWN

NOTES:

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1-2-20
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1-3-20
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 1-3-20
 DIRECTOR DATE

NO.	REVISION	DATE
11	REVISE THE GRADING ON LOTS 32, 33, 34 AND OPEN SPACE LOT 130	1-13-22
9	REVISE THE HOUSE TYPE AND GRADING ON LOT 37 AND THE GRADING ON LOTS 36 AND 38	1-5-22
7	REVISE THE PLAN TO REVISE THE HOUSE TYPE AND GRADING ON LOTS 19, 20, 31, 43 AND THE GRADING ON LOT 20, AND THE DRIVEWAY INFORMATION ON THE HOUSE TYPE SHEET	9-23-21
6	REVISE THE HOUSE TYPE AND GRADING ON LOT 39 AND THE GRADING ON LOTS 31, 32 AND 34	7-9-21
5	REVISE THE HOUSE TYPE AND GRADING ON LOTS 16 AND 18 AND THE GRADING ON LOTS 15, 17, 31 AND 33	6/3/21
4	REVISE THE HOUSE TYPE AND GRADING ON LOT 37	5-6-21

SITE DEVELOPMENT PLAN
LAYOUT PLAN
CEDAR CREEK - PHASE 1
 PLAT NOS. 25254-25261
 SFD LOTS 3 - 46 AND SFA LOTS 52-129

TAX MAP 35, GRID 21 ZONED: CE-F-R P/O PARCEL 145
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

STATE OF MARYLAND
 ROBERT H. VOGEL
 REGISTERED PROFESSIONAL ENGINEER
 NO. 18193
 EXPIRES 12/31/25

DESIGN BY: VE+TG
 DRAWN BY: VE+TG
 CHECKED BY: RHY
 DATE: DECEMBER 2019
 SCALE: AS SHOWN
 W.O. NO.: 15-55

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. 18193, EXPIRATION DATE: 09-27-2020

5 SHEET OF 17

NOTES:
 1. ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

LEGEND:

	EXISTING CONTOUR
	EXISTING SPOT ELEVATION
	EXISTING CURB AND GUTTER
	CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEWANT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING STORM DRAIN
	EXISTING TREELINE (FIELD LOCATED)
	TREELINE
	EXISTING FENCE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	SOILS BOUNDARY
	STORMWATER MANAGEMENT FACILITY (M-S, M-B) F-18-041
	DRY WELL (M-S)
	EXISTING CONCRETE SIDEWALK
	EXISTING PUBLIC DRAINAGE AND UTILITY EASEMENT PLAT #25264-25269
	EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT PLAT #25264-25269
	EXISTING WETLAND
	EXISTING 10' TREE MAINTENANCE EASEMENT PLAT #25264-25269
	10' CONTOUR
	2' CONTOUR
	SPOT ELEVATION
	ROOF LEADER DISCONNECT
	N-1 UNDERDRAIN / ROOF DRAIN
	EXISTING TREES F-18-041
	'R' REVERSE HOUSE FOOTPRINT
	PROPOSED LANDSCAPING

NOTE:
 1. GENERIC HOUSE BOXES ARE SHOWN IN ACCORDANCE WITH HOWARD COUNTY GUIDELINES AND DO NOT LIMIT MODEL TYPES AND OPTIONS THAT MAY FIT ON ANY INDIVIDUAL LOT.
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OWNER / DEVELOPER
 T.M. 35 - P. 145 (PARCEL B-1)
 SIMPSON OAKS CRP3, LLC
 4750 OWINGS MILLS BOULEVARD
 OWINGS MILLS, MARYLAND 21117
 410-356-9900

BUILDER
 NVR HOMES
 9720 PATRIOT WOODS DRIVE
 COLUMBIA, MD 21045
 (410) 379-9956

9	REVISE THE PLAN TO REVISE THE HOUSE TYPES AND GRADING ON LOTS 19, 30, 31, 43 AND THE GRADING ON LOT 20 AND THE DANNAME INFORMATION ON THE HOUSE TYPES SHEET	9-23-21
NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
 LAYOUT & LANDSCAPE PLAN
CEDAR CREEK - PHASE 1
 PLAT NOS. 25264-25269
 SFD LOTS 3 - 46 AND SFA LOTS 52-129

TAX MAP 35, GRID 21 ZONED: CEF-R P/O PARCEL 145 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
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 EXPIRATION DATE: 09-27-2020

DESIGN BY: VE+TG
 DRAWN BY: VE+TG
 CHECKED BY: RHV
 DATE: DECEMBER 2019
 SCALE: AS SHOWN
 W.O. NO.: 15-55

6 SHEET OF 17



NOTES:
 1. REFER TO SHEET 16 FOR DRYWELL (DW) SIZE, NOTES & DETAILS
 2. REFER TO SHEET 16 FOR RAIN BARREL NOTES & DETAILS
 3. REFER TO SHEET 16 FOR ROOFTOP DISCONNECTION CRITERIA. DOWNSPOUTS SHALL BE LOCATED WHERE SHOWN HEREON AT MINIMUM AND DIRECTED AT THE GROUND SURFACE TO FLOW IN THE DIRECTION SHOWN

LANDSCAPE GENERAL NOTES:
 1. PUBLIC STREET TREES AND PERIMETER LANDSCAPING WAS PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 18.124(e)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL UNDER F-18-041.
 2. THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, PLANT MATERIALS, BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
 3. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS LISTED HEREWIT AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
 4. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. SINGLE FAMILY DETACHED LOTS REQUIRE TYPE B SIDE YARD LANDSCAPE BUFFER (LANDSCAPE MANUAL - PAGE 18).
 5. PLANTINGS SHOWN HEREON ARE THE RESPONSIBILITY OF THE BUILDER TO INSTALL DURING THE CONSTRUCTION OF THE HOMES.

SCHEDULE A: PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS	TOTAL
PERIMETER/FRONTAGE DESIGNATION	1 2	
LANDSCAPE TYPE	B B	
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	95' 86'	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) DESCRIBE BELOW IF NEEDED)	NO NO	
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) DESCRIBE BELOW IF NEEDED)	NO NO	
NUMBER OF PLANTS REQUIRED (IF REMAINING)	95' 86'	4
SHADE TREES	1:50 2	1:50 2
EVERGREEN TREES	1:40 3	1:40 2
NUMBER OF PLANTS PROVIDED		
SHADE TREES	1 4	1 4
EVERGREEN TREES	1 4	1 4
OTHER TREES (2:1 SUBSTITUTION)	1 4	1 4
SHRUBS (10:1 SUBSTITUTION)	1 4	1 4
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)		

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1.2.20
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

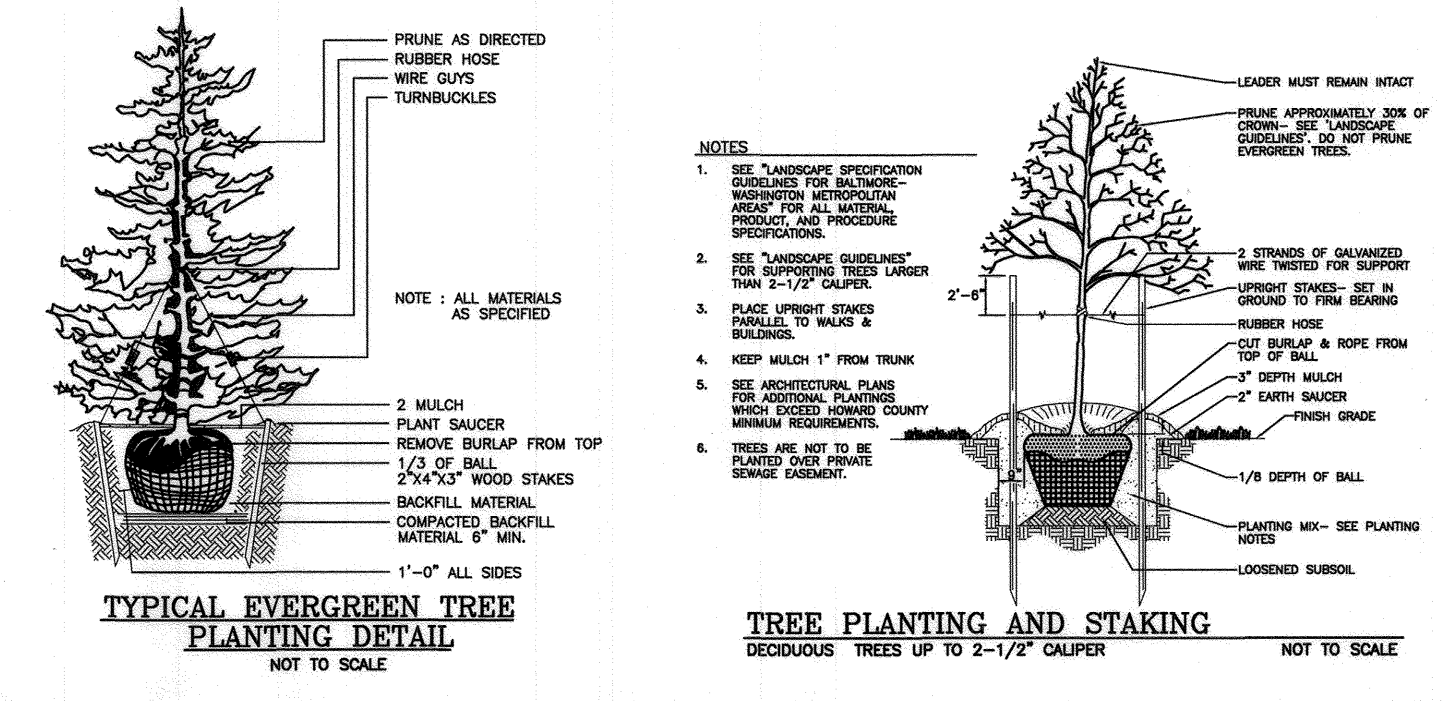
[Signature] 1.3.20
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 1.3.20
 DIRECTOR DATE

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

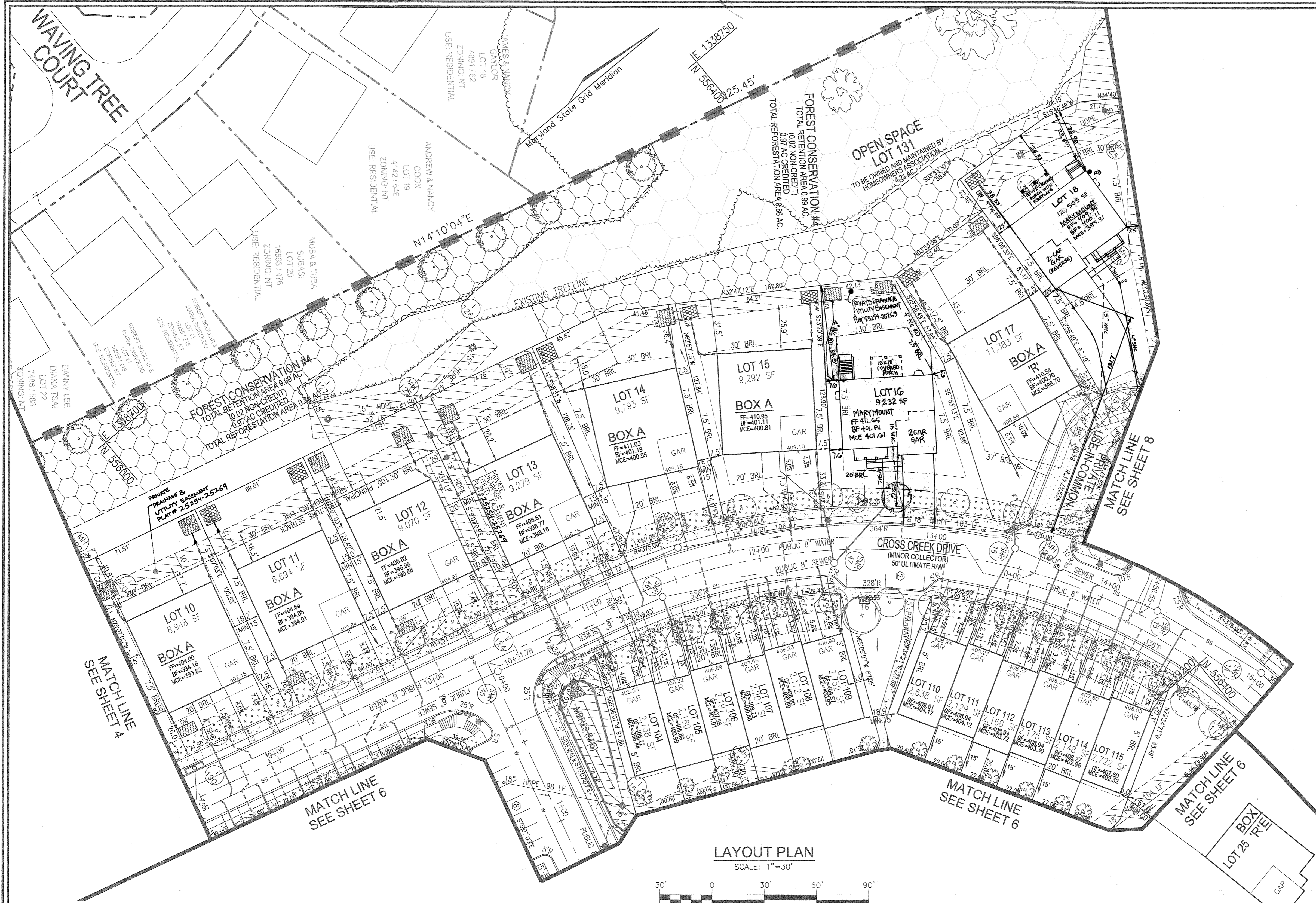
[Signature] *[Signature]*
 SIGNATURE OF DEVELOPER DATE



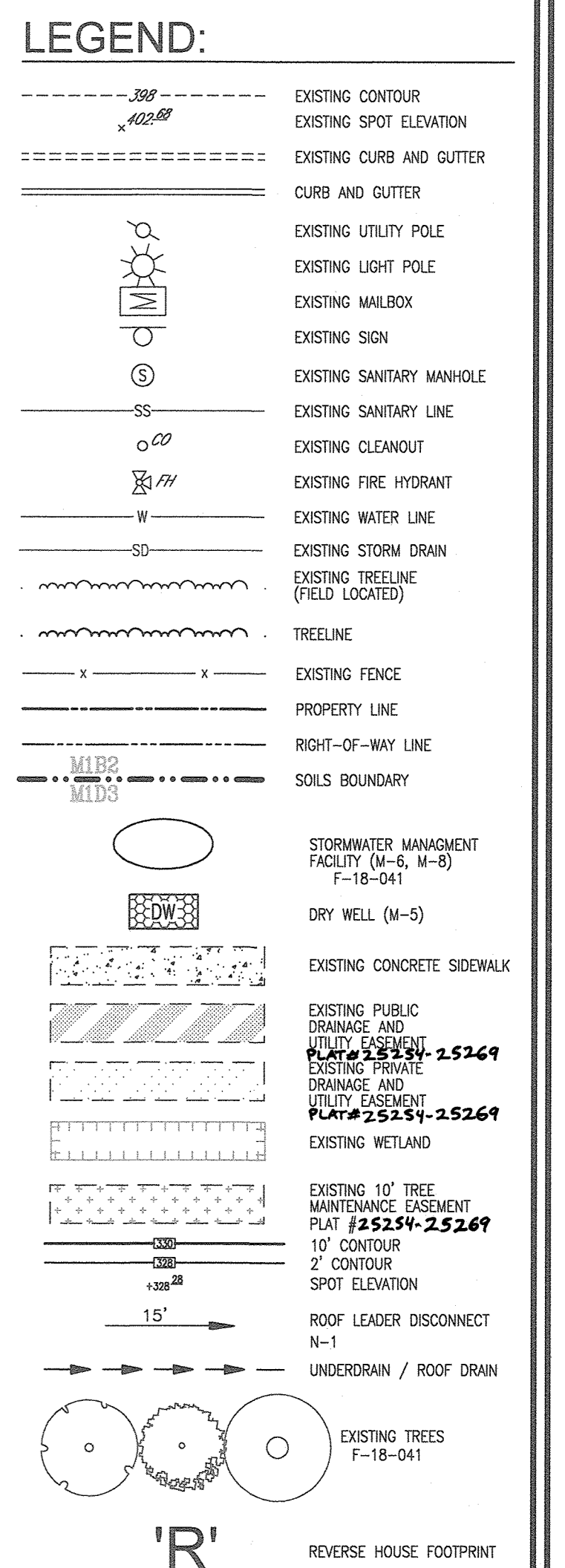
LOT 25 & 30 - LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	REMARKS
CK	8	CORNUS KOUSA KOUSA DOGWOOD	6'-8" HT.	B & B
NS	5	PICEA ABIES NORWAY SPRUCE	6'-8" HT.	B & B

—SEE GENERAL NOTE 38, SHEET 1 FOR THE TOTAL PROJECT REQUIREMENT AND SURETY.
LANDSCAPE SCHEDULE NOTE:
 —ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT ANN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HRP PLANTING SPECIFICATIONS.
 —CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
 —FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
 —CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.



LAYOUT PLAN
SCALE: 1"=30'



NOTE:

1. GENERIC HOUSE BOXES ARE SHOWN IN ACCORDANCE WITH HOWARD COUNTY GUIDELINES AND DO NOT LIMIT MODEL TYPES AND OPTIONS THAT MAY FIT ON ANY INDIVIDUAL LOT.
2. TYPICAL DRIVEWAY WIDTH SHOWN HEREON IS 16 FEET WIDE FOR THE PROPOSED 2 CAR GARAGE. WIDTH SUBJECT TO CHANGE WITH BUILDER RESISTE.
3. DRIVEWAYS: THE SHOWN DRIVEWAY LOCATION CANNOT CHANGE UNLESS NOTED ON THIS SDP CONFIRMING THAT THE GRADING AND DRIVEWAY SLOPES WILL REMAIN THE SAME WHETHER THE DRIVEWAY IS ON THE RIGHT OR LEFT SIDE OF THE HOUSE. ONLY ONE DRIVEWAY ORIENTATION CAN BE SHOWN FOR CORNER LOTS.

NOTES:

1. ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

NOTES:

1. REFER TO SHEET 16 FOR DRYWELL (DW) SIZE, NOTES & DETAILS.
2. REFER TO SHEET 16 FOR RAIN BARREL NOTES & DETAILS.
3. REFER TO SHEET 16 FOR ROOFPOUT DISCONNECTION CRITERIA. DOWNSPOUTS SHALL BE LOCATED WHERE SHOWN HEREON AT MINIMUM AND DIRECTED AT THE GROUND SURFACE TO FLOW IN THE DIRECTION SHOWN.

OWNER / DEVELOPER
T.M. 35 - P. 145 (PARCEL B-1)
SIMPSON OAKS CRP3, LLC
4750 OWINGS MILLS BOULEVARD
OWINGS MILLS, MARYLAND 21117
410-356-9900

BUILDER
NVR HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21048
(410) 378-5556

NO.	REVISION	DATE
5	REVISE THE HOUSE TYPE AND GRADING ON LOT 18 AND GRADING ON LOT 17	8-18-21
6	REVISE THE HOUSE TYPE AND GRADING ON LOTS 16 AND 20 AND THE GRADING ON LOTS 15, 17, 21, AND 25	8/3/21

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1-2-20
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1-3-20
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 1-3-20
DIRECTOR DATE

SITE DEVELOPMENT PLAN

LAYOUT PLAN

CEDAR CREEK - PHASE 1

PLAT NOS. 25254-25269
SFD LOTS 3 - 46 AND SFA LOTS 52-129

TAX MAP 35 GRID 21 ZONED: CEF-R P/O PARCEL 145
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8981 www.timmons.com

DESIGN BY: VE+TG
DRAWN BY: VE+TG
CHECKED BY: RHV
DATE: DECEMBER 2019
SCALE: AS SHOWN
W.O. NO.: 15-55

PROFESSIONAL CERTIFICATE
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. 216183 EXPIRATION DATE: 08-27-2020

7 SHEET OF 17

ROBERT H. VOGEL, PE No.16183

LEGEND:

- - - - - EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- CURB AND GUTTER
- ⊙ EXISTING UTILITY POLE
- ⊙ EXISTING LIGHT POLE
- ⊙ EXISTING MAILBOX
- ⊙ EXISTING SIGN
- ⊙ EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- ⊙ EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING STORM DRAIN
- EXISTING TREELINE (FIELD LOCATED)
- TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- STORMWATER MANAGEMENT FACILITY (M-6, M-8) F-18-041
- ⊙ DRY WELL (M-5)
- EXISTING CONCRETE SIDEWALK
- EXISTING PUBLIC DRAINAGE AND UTILITY EASEMENT PLAT # 25254-25269
- EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT PLAT # 25254-25269
- EXISTING WETLAND
- EXISTING 10' TREE MAINTENANCE EASEMENT PLAT # 25254-25269
- 10' CONTOUR
- SPOT ELEVATION
- ROOF LEADER DISCONNECT
- UNDERDRAIN / ROOF DRAIN
- ⊙ EXISTING TREES F-18-041
- 'R' REVERSE HOUSE FOOTPRINT

NOTE:

- GENERIC HOUSE BOXES ARE SHOWN IN ACCORDANCE WITH HOWARD COUNTY GUIDELINES AND DO NOT LIMIT MODEL TYPES AND OPTIONS THAT MAY FIT ON ANY INDIVIDUAL LOT.
- TYPICAL DRIVEWAY WIDTH SHOWN HEREON IS 16 FEET WIDE FOR THE PROPOSED 2 CAR GARAGE. WIDTH SUBJECT TO CHANGE WITH BUILDER RESISTE.
- DRIVEWAYS: THE SHOWN DRIVEWAY LOCATION CANNOT CHANGE UNLESS NOTED ON THIS SDP CONFIRMING THAT THE GRADING AND DRIVEWAY SLOPES WILL REMAIN THE SAME WHETHER THE DRIVEWAY IS ON THE RIGHT OR LEFT SIDE OF THE HOUSE. ONLY ONE DRIVEWAY ORIENTATION CAN BE SHOWN FOR CORNER LOTS.

NOTES:

- REFER TO SHEET 16 FOR DRYWELL (DW) SIZE, NOTES & DETAILS
- REFER TO SHEET 16 FOR RAIN BARREL NOTES & DETAILS
- REFER TO SHEET 16 FOR ROOFTOP DISCONNECT CRITERIA. DOWNSPOUTS SHALL BE LOCATED WHERE SHOWN HEREON AT MINIMUM AND DIRECTED AT THE GROUND SURFACE TO FLOW IN THE DIRECTION SHOWN

NOTES:

- ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

OWNER / DEVELOPER
T.M. 35 - P.145 (PARCEL B-1)
SIMPSON OAKS CRP3, LLC
4750 OWINGS MILLS BOULEVARD
OWINGS MILLS, MARYLAND 21117
410-356-9900

BUILDER
NVR HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
(410) 379-5956

NO.	REVISION	DATE
1/3	REVISE THE HOUSE TYPE AND GRADING ON LOT 22, AMEND LOT LINE BETWEEN LOT 22 AND OS LOT 130 AND ADD A PRIVATE DRAINAGE AND UTILITY EASEMENT	5-11-22
1/2	REVISE THE HOUSE TYPE AND GRADING ON LOT 20	5-3-22
2	REVISE THE PLAN TO REVISE THE HOUSE TYPE AND GRADING ON LOTS 19, 20, 21, 22 AND THE GRADING ON LOT 20, AND THE DRAINAGE INFORMATION ON LOTS 19, 20, 21, 22	7-23-21
9	REVISE THE PLAN TO SHOW THE REVISED WATER AND SEWER EASEMENTS	12-11-20

SITE DEVELOPMENT PLAN
LAYOUT PLAN
CEDAR CREEK - PHASE 1
PLAT NOS. 25254-25269
SFD LOTS 3 - 46 AND SFA LOTS 52-129

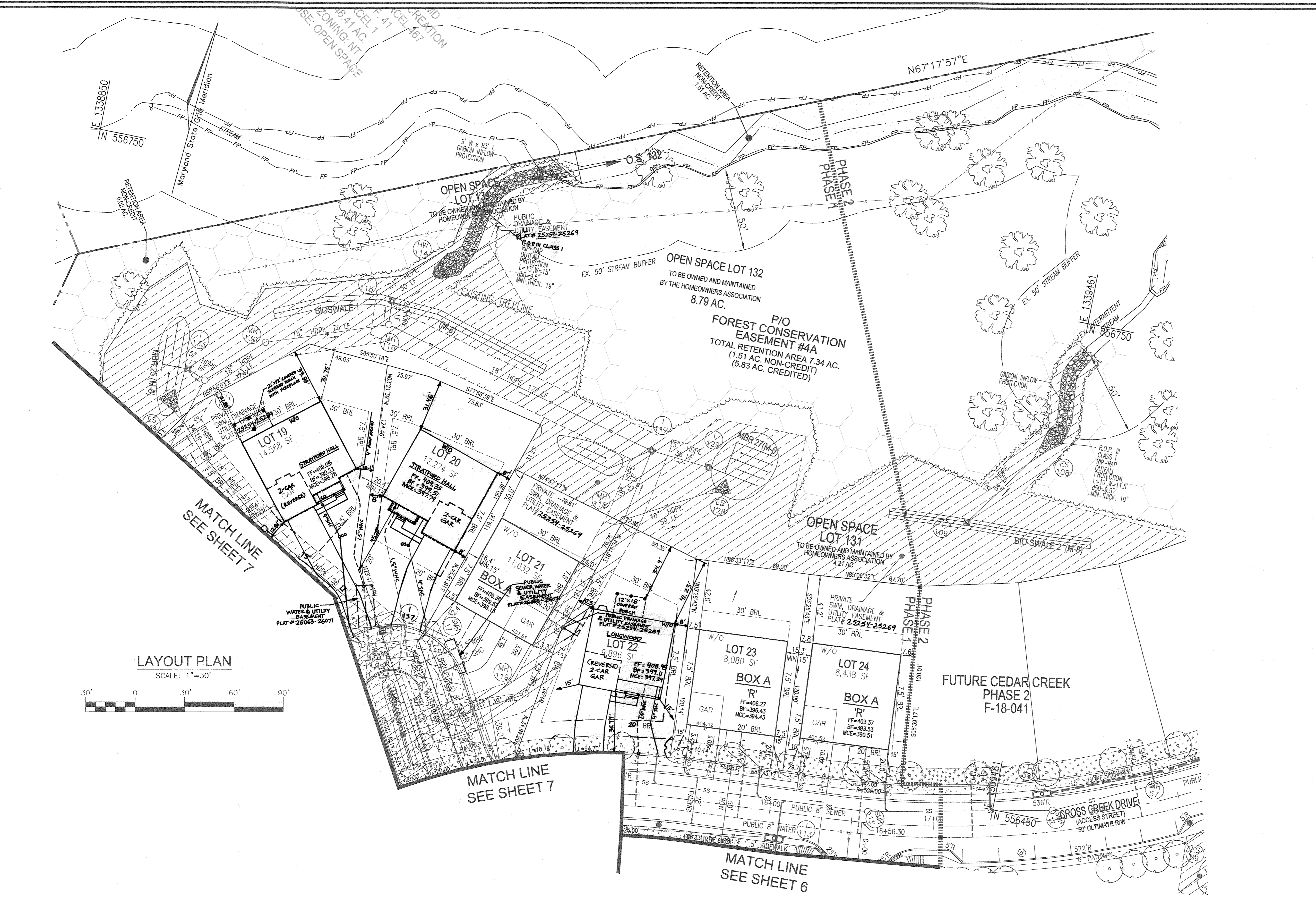
TAX MAP 35 GRID 21 ----- ZONED: CEF-R ----- P/O PARCEL 145
5TH ELECTION DISTRICT ----- HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
+
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A EXISTING LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2020

DESIGN BY: VE+TG
DRAWN BY: VE+TG
CHECKED BY: RHY
DATE: DECEMBER 2019
SCALE: AS SHOWN
W.O. NO.: 15-55

8 SHEET OF 17



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1-2-20
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1-3-20
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 1-3-20
DIRECTOR DATE

NOTE:

1. GENERIC HOUSE BOXES ARE SHOWN IN ACCORDANCE WITH HOWARD COUNTY GUIDELINES AND DO NOT LIMIT MODEL TYPES AND OPTIONS THAT MAY FIT ON ANY INDIVIDUAL LOT.
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3. DRIVEWAYS: THE SHOWN DRIVEWAY LOCATION CANNOT CHANGE UNLESS NOTED ON THIS SDP. CONFIRMING THAT THE GRADING AND DRIVEWAY SLOPES WILL REMAIN THE SAME WHETHER THE DRIVEWAY IS ON THE RIGHT OR LEFT SIDE OF THE HOUSE. ONLY ONE DRIVEWAY ORIENTATION CAN BE SHOWN FOR CORNER LOTS.

NOTE:

NOISE WALL CONSTRUCTION SHALL OCCUR UNDER F-18-041 AS APPROVED MARCH 21, 2019.

NOTES:

1. ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

LEGEND:

- 2.00' --- EXISTING CONTOUR
- 4.00' --- EXISTING SPOT ELEVATION
- 1.00' --- EXISTING CURB AND GUTTER
- --- CURB AND GUTTER
- ○ ○ ○ ○ EXISTING UTILITY POLE
- ○ ○ ○ ○ EXISTING LIGHT POLE
- ○ ○ ○ ○ EXISTING MAILBOX
- ○ ○ ○ ○ EXISTING SIGN
- ○ ○ ○ ○ EXISTING SANITARY MANHOLE
- --- EXISTING SANITARY LINE
- --- EXISTING CLEANOUT
- --- EXISTING FIRE HYDRANT
- --- EXISTING WATER LINE
- --- EXISTING STORM DRAIN
- --- EXISTING TREETRINE (FIELD LOCATED)
- --- TREETRINE
- --- EXISTING FENCE
- --- PROPERTY LINE
- --- RIGHT-OF-WAY LINE
- --- SOILS BOUNDARY
- --- NOISE LINE
- ○ ○ ○ ○ STORMWATER MANAGEMENT FACILITY (M-6, M-8)
- ○ ○ ○ ○ F-18-041
- ○ ○ ○ ○ DRY WELL (M-5)
- --- EXISTING CONCRETE SIDEWALK
- --- EXISTING PUBLIC DRAINAGE AND UTILITY EASEMENT
- --- EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT
- --- EXISTING WETLAND
- --- EXISTING 10' TREE MAINTENANCE EASEMENT
- --- EXISTING 10' CONTOUR
- --- EXISTING 2' CONTOUR
- ○ ○ ○ ○ SPOT ELEVATION
- ○ ○ ○ ○ 200 GAL. RAIN BARREL
- --- M-1
- --- ROOF LEADER DISCONNECT
- --- N-1
- --- UNDERDRAIN / ROOF DRAIN
- ○ ○ ○ ○ EXISTING TREES
- --- F-18-041
- ○ ○ ○ ○ 'R'
- --- REVERSE HOUSE FOOTPRINT

NOTES:

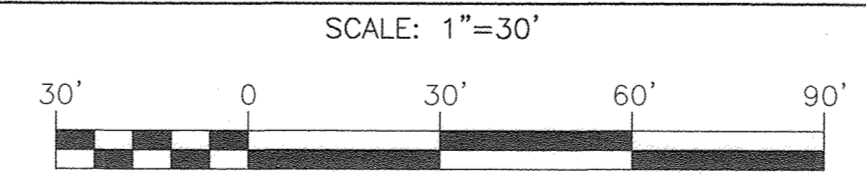
1. REFER TO SHEET 16 FOR DRYWELL (DW) SIZE, NOTES & DETAILS
2. REFER TO SHEET 16 FOR RAIN BARREL NOTES & DETAILS
3. REFER TO SHEET 16 FOR ROOF DISCONNECTION CRITERIA. DOWNSPOUTS SHALL BE LOCATED WHERE SHOWN HEREON AT MINIMUM AND DIRECTED AT THE GROUND SURFACE TO FLOW IN THE DIRECTION SHOWN

OWNER / DEVELOPER
T.M. 35 - P. 145 (PARCEL B-1)
SIMPSON OAKS CRP3, LLC
4750 OWINGS MILLS BOULEVARD
COLUMBIA, MD 21046
410-356-9900

BUILDER
NVR HOMES
9720 PATIENANT WOODS DRIVE
COLUMBIA, MD 21046
(410) 379-5556

NO.	REVISION	DATE
13	REVISE THE HOUSE TYPE AND GRADING ON LOT 22, AROUND LOT LINE BETWEEN LOT 22 AND LOT 13B AND ADD A PRIVATE DRAINAGE AND UTILITY EASEMENT	5-11-22
9	REVISE THE PLAN TO REVISE THE HOUSE TYPE AND GRADING ON LOTS 19, 30, 31, 43 AND THE GRADING ON LOT 20, AND THE DRIVEWAY INFORMATION ON THE HOUSE TYPES SHEET	9-23-21
4	REVISE THE PLAN TO SHOW REVISED HOUSE TYPE AND GRADING FOR LOT 40	4-1-21
3	REVISE THE PLAN TO SHOW REVISED HOUSE TYPES AND GRADING FOR LOTS 42, 44 & 45	3-5-21
NO.	REVISION	DATE

GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN



SOIL EROSION & SEDIMENT CONTROL PLAN NOTES

1. REFER TO SHEET 15 FOR SEQUENCE OF CONSTRUCTION
2. REFER TO SHEETS 15 FOR STANDARD DETAILS AND STABILIZATION NOTES
3. IF REQUIRED BY SEDIMENT CONTROL INSPECTOR, SUPER SILT FENCE SHALL REPLACE STANDARD SILT FENCE WHERE FENCING INTERCEPTS CONCENTRATED FLOWS.

NOTES

1. ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY.
2. IMBRICATE SF/SSF IN 35' SEGMENTS AS REQUIRED UP HILL BY 2' IN ELEVATION.

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	TOXIC INTRUSIONS	K FACTOR	PERCENT FERTILE	PERCENT AERATED
BsA	BRN. SILT LOAM, 0 TO 3 PERCENT SLOPES	D	NO	NO	0.32	NO	NO
GsA	GLN. SILT LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GmB	GLN. SILT LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO
GmC	GLN. SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	NO
GmD	GLN. SILT LOAM, 3 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIALLY
MmC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT
*BALE COMPONENT OF GmB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

NOTE: LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. ANY STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

NOTE: STOCKPILING WILL BE PERMITTED ON EACH LOT ONLY.

NOTE: EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

NOTE: - SUPER SILT FENCE MAY BE REPLACED WITH STANDARD SILT FENCE WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR.
- SILT FENCE SHALL BE CURLED UP HILL. NO MORE THAN 35 FEET APART
- DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 1-2-20

Director
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 1-3-20

Director
DIRECTOR
DATE: 1-3-20

OWNER/DEVELOPER CERTIFICATION:
I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR FENCING ON THE EVALUATION AT HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

Robert H. Vogel
OWNER/DEVELOPER SIGNATURE
DATE: 12/21/19
PRINTED NAME & TITLE: Robert H. Vogel, Regional Land Development Manager

DESIGN CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Robert H. Vogel
DESIGNER'S SIGNATURE
DATE: 12/21/19
PRINTED NAME: ROBERT H. VOGEL
NO. REGISTRATION NO. 18193
P.E. R.L.S. OR R.L.A. (circle one)

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John D. Robinson
HOWARD S.C.D.
DATE: 12/21/19

SITE DEVELOPMENT PLAN
GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN
CEDAR CREEK - PHASE 1
PLAT NOS. 25254-25269
SFD LOTS 3 - 46 AND SFA LOTS 52-129

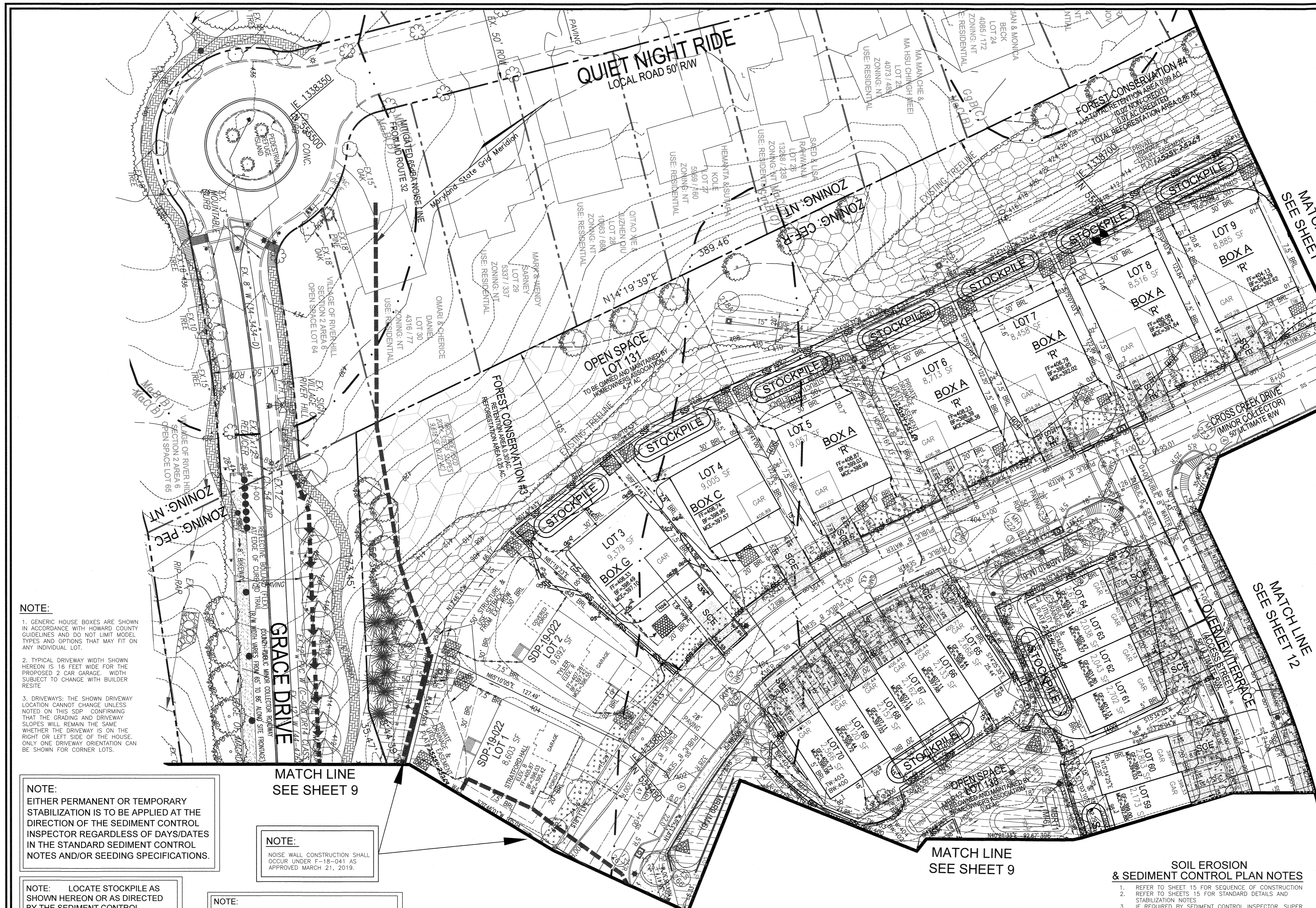
TAX MAP 35 GRID 21 ZONED: CE-F-R P/O PARCEL 145 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410-461.7666 F: 410-461.8961 www.timmons.com

DESIGN BY: VE+TG
DRAWN BY: VE+TG
CHECKED BY: RHV
DATE: DECEMBER 2019
SCALE: AS SHOWN
W.O. NO.: 15-55

PROFESSIONAL CERTIFICATE
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. 18193 EXPIRATION DATE: 09-27-2020

9 SHEET OF 17



LEGEND:

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING STORM DRAIN
- EXISTING TREE LINE (FIELD LOCATED)
- TREE LINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- NOISE LINE
- STORMWATER MANAGEMENT FACILITY (M-6, M-8)
- DRY WELL (M-5)
- EXISTING CONCRETE SIDEWALK
- EXISTING PUBLIC DRAINAGE AND UTILITY EASEMENT (PL-1)
- EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT (PL-2)
- EXISTING WETLAND
- EXISTING 10' TREE MAINTENANCE EASEMENT (PL-3)
- 10' CONTOUR SPOT ELEVATION
- 200 GAL. RAIN BARREL (M-1)
- ROOF LEADER DISCONNECT (N-1)
- UNDERDRAIN / ROOF DRAIN
- EXISTING TREES (F-18-041)
- REVERSE HOUSE FOOTPRINT ('R')

NOTES:

- REFER TO SHEET 16 FOR DRYWELL (DW) SIZE, NOTES & DETAILS
- REFER TO SHEET 16 FOR RAIN BARREL NOTES & DETAILS
- REFER TO SHEET 16 FOR ROOFTOP DISCONNECTION CRITERIA. DOWNSPROUTS SHALL BE LOCATED WHERE SHOWN HEREON AT MINIMUM AND DIRECTED AT THE GROUND SURFACE TO FLOW IN THE DIRECTION SHOWN

NOTES:

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SIMPSON OAKS CRPS, LLC
4750 OWINGS MILLS BOULEVARD
OWINGS MILLS, MARYLAND 21117
410-356-9900

BUILDER
NVR HOMES
9720 PATVIEW WOODS DRIVE
COLUMBIA, MD 21046
(410) 379-9556

NO.	REVISION	DATE
1	REVISE THE PLAN TO REPLACE THE PREVIOUS GENERIC BOX ON LOT 3 WITH ANOTHER GENERIC BOX AND ADD ARCHITECTURAL MODELS	7-29-20

SITE DEVELOPMENT PLAN
GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN
CEDAR CREEK - PHASE 1
PLAT NOS. 5254-25269
SFD LOTS 3 - 46 AND SFA LOTS 52-129

TAX MAP 35 GRID 21 ZONED: CEF-R P/O PARCEL 145 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
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. 16193 EXPIRATION DATE: 09-27-2020

DESIGN BY: VE+TG
DRAWN BY: VE+TG
CHECKED BY: RHY
DATE: DECEMBER 2019
SCALE: AS SHOWN
W.O. NO.: 15-55

10 SHEET OF 17

NOTE:

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- DRIVEWAYS: THE SHOWN DRIVEWAY LOCATION CANNOT CHANGE UNLESS NOTED ON THIS SDP CONFIRMING THAT THE GRADING AND DRIVEWAY SLOPES WILL REMAIN THE SAME WHETHER THE DRIVEWAY IS ON THE RIGHT OR LEFT SIDE OF THE HOUSE. ONLY ONE DRIVEWAY ORIENTATION CAN BE SHOWN FOR CORNER LOTS.

NOTE:

EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

NOTE:

LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. ANY STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

NOTE:

STOCKPILING WILL BE PERMITTED ON EACH LOT ONLY.

NOTE:

NOISE WALL CONSTRUCTION SHALL OCCUR UNDER F-18-041 AS APPROVED MARCH 21, 2019.

NOTE:

- SUPER SILT FENCE MAY BE REPLACED WITH STANDARD SILT FENCE WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR.
- SILT FENCE SHALL BE CURLED UPHILL NO MORE THAN 35 FEET APART
- DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1.3.20
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1.3.20
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 1.3.20
DIRECTOR DATE

OWNER/DEVELOPER CERTIFICATION:
I HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

[Signature] 12/26/19
OWNER/DEVELOPER SIGNATURE DATE

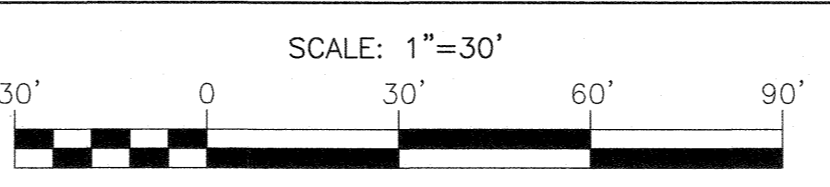
[Signature] 12/26/19
DESIGNER'S SIGNATURE DATE

MD REGISTRATION NO. 16193
R.H.S., OR R.L.A. (circle one)

DESIGN CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 12/26/19
DESIGNER'S SIGNATURE DATE

[Signature] 12/26/19
HOWARD S.C.D. DATE



SOIL EROSION & SEDIMENT CONTROL PLAN NOTES

- REFER TO SHEET 15 FOR SEQUENCE OF CONSTRUCTION
- REFER TO SHEETS 15 FOR STANDARD DETAILS AND STABILIZATION NOTES
- IF REQUIRED BY SEDIMENT CONTROL INSPECTOR, SUPER SILT FENCE SHALL REPLACE STANDARD SILT FENCE WHERE FENCING INTERCEPTS CONCENTRATED FLOWS.

NOTES:

- ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY.
- IMBRICATE 5F/SSF IN 35' SEGMENTS AS REQUIRED UPHILL BY 2' IN ELEVATION.

MAPPED SOILS TYPES - CLARKSWEB SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	ERODIBLE	K FACTOR	FAK	CSF	SLOPE
GaA BLUE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	YES	NO
GaB GLENHOLM LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO
GaB GLENHOLM LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	YES	NO
GaB GLENHOLM SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES	NO
GaB GLENHOLM-SILT SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL	NO
GaC MANDOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO	NO

TAKEN FROM: UNDR, SCS-WEB SOIL SURVEY, HOWARD COUNTY

NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF GaB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC



LEGEND:

	EXISTING CONTOUR
	EXISTING SPOT ELEVATION
	EXISTING CURB AND GUTTER
	CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING STORM DRAIN
	EXISTING TREE LINE (FIELD LOCATED)
	TREE LINE
	EXISTING FENCE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	SOILS BOUNDARY
	STORMWATER MANAGEMENT FACILITY (M-4, M-8) F-18-041
	DRY WELL (M-5)
	EXISTING CONCRETE SIDEWALK
	EXISTING PUBLIC DRAINAGE AND UTILITY EASEMENT PLAT #25269
	EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT PLAT #25257, 25261
	EXISTING WETLAND
	EXISTING 10' TREE MAINTENANCE EASEMENT PLAT #25254, 25269
	10' CONTOUR
	2' CONTOUR
	SPOT ELEVATION
	ROOF LEADER DISCONNECT N-1
	UNDERDRAIN / ROOF DRAIN
	EXISTING TREES F-18-041
	REVERSE HOUSE FOOTPRINT 'R'

- NOTES:**
- REFER TO SHEET 16 FOR DRYWELL (DW) SIZE, NOTES & DETAILS
 - REFER TO SHEET 16 FOR RAIN BARREL NOTES & DETAILS
 - REFER TO SHEET 16 FOR ROOFTOP DISCONNECTION CRITERIA. DOWNSPOUTS SHALL BE LOCATED WHERE SHOWN HEREON AT MINIMUM AND DIRECTED AT THE GROUND SURFACE TO FLOW IN THE DIRECTION SHOWN

NOTE: LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. ANY STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

NOTE: STOCKPILING WILL BE PERMITTED ON EACH LOT ONLY.

NOTE: EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

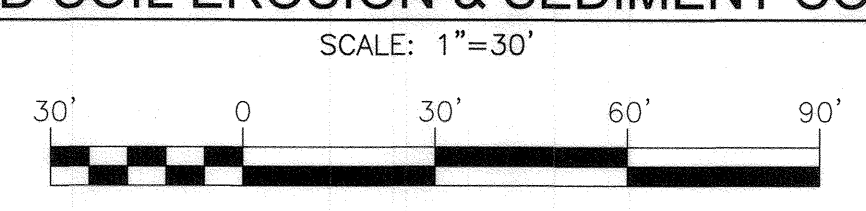
NOTE: SUPER SILT FENCE MAY BE REPLACED WITH STANDARD SILT FENCE WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR. SILT FENCE SHALL BE CURLED UPHILL. NO MORE THAN 35 FEET APART. DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

- NOTE:**
- GENERIC HOUSE BOXES ARE SHOWN IN ACCORDANCE WITH HOWARD COUNTY GUIDELINES AND DO NOT LIMIT MODEL TYPES AND OPTIONS THAT MAY FIT ON ANY INDIVIDUAL LOT.
 - TYPICAL DRIVEWAY WIDTH SHOWN HEREON IS 16 FEET WIDE FOR THE PROPOSED 2 CAR GARAGE. WIDTH SUBJECT TO CHANGE WITH BUILDER RESITE.
 - DRIVEWAYS: THE SHOWN DRIVEWAY LOCATION CANNOT CHANGE UNLESS NOTED ON THIS SDP CONFIRMING THAT THE GRADING AND DRIVEWAY SLOPES WILL REMAIN THE SAME WHETHER THE DRIVEWAY IS ON THE RIGHT OR LEFT SIDE OF THE HOUSE. ONLY ONE DRIVEWAY ORIENTATION CAN BE SHOWN FOR CORNER LOTS.

- NOTES:**
- ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

SOIL EROSION & SEDIMENT CONTROL PLAN NOTES

- REFER TO SHEET 15 FOR SEQUENCE OF CONSTRUCTION
 - REFER TO SHEETS 15 FOR STANDARD DETAILS AND STABILIZATION NOTES
 - IF REQUIRED BY SEDIMENT CONTROL INSPECTOR, SUPER SILT FENCE SHALL REPLACE STANDARD SILT FENCE WHERE FENCING INTERCEPTS CONCENTRATED FLOWS.
- NOTES**
- ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY.
 - IMBRICATE SF/SSF IN 35' SEGMENTS AS REQUIRED UPHILL BY 2" IN ELEVATION.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1-2-20
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1-3-20
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 1-3-20
DIRECTOR DATE

OWNER/DEVELOPER CERTIFICATION:

I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

[Signature] DATE
OWNER/DEVELOPER SIGNATURE DATE

ROBERT H. VOGEL 16193
PRINTED NAME & TITLE (circle one)

DESIGN CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS AND STANDARDS THAT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] DATE
DESIGNER'S SIGNATURE DATE

ROBERT H. VOGEL 16193
PRINTED NAME (circle one)

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] DATE
HOWARD S.C.D. DATE

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	HYDROPHOBIC	K FACTOR	PERCENT SAND	PERCENT CLAY	PERCENT SILT
BaA	BALE SILT LOAM, 6 TO 3 PERCENT SLOPES	D	YES	YES	0.32	YES	NO	NO
BaB	GLENNLE LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO
GaB	GLENNLE LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO
GmB	GLENNLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES	YES
GpB	GLENNLE-SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY	0.37	NO	PARTIAL	NO
MdC	MARBLE LOAM, 0 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO	NO

TAKEN FROM: USDA, SCS-WE8 SOIL SURVEY, HOWARD COUNTY

NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF GmB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

OWNER / DEVELOPER
T.M. 35 - P. 145 (PARCEL B-1)
SIMPSON OAKS GRP3, LLC
4750 OWINGS MILLS BOULEVARD
OWINGS MILLS, MARYLAND 21117
410-558-9900

BUILDER
NVR HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
(410) 379-9556

NO.	REVISION	DATE
9	REVISE THE PLAN TO REVISE THE HOUSE TYPE AND GRADING ON LOTS 19, 30, 31, 43 AND THE GRADING ON LOT 20 AND THE DANVILLE INFORMATION ON THE HOUSE TYPES SHEET	9-23-21

SITE DEVELOPMENT PLAN

GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN

CEDAR CREEK - PHASE 1

PLAT NOS. 25254-25269
SFD LOTS 3 - 46 AND SFA LOTS 52-129

TAX MAP 35 GRID 21 ZONED: CE1-R P/O PARCEL 145 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

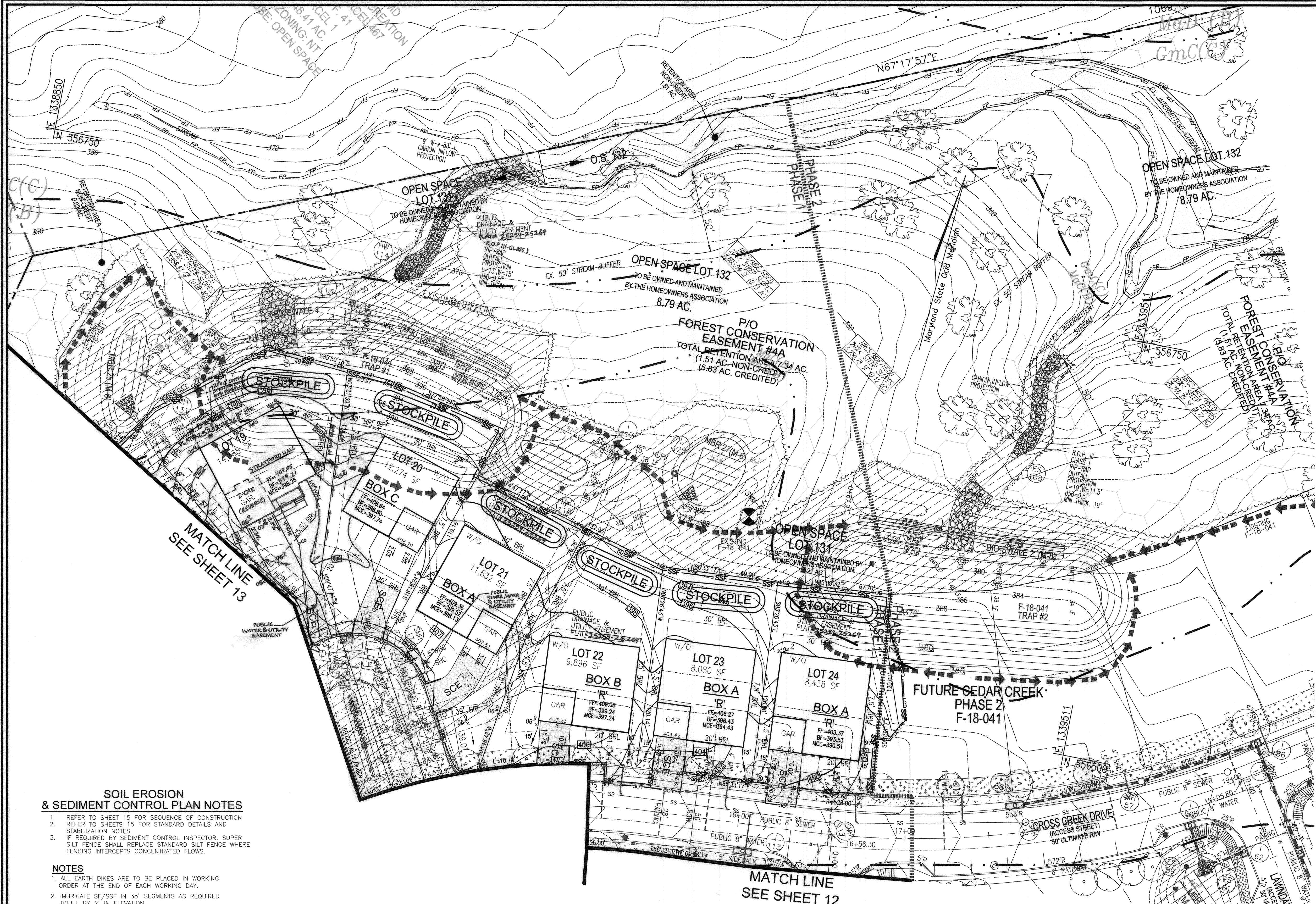
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

DESIGN BY: VE+TG
DRAWN BY: VE+TG
CHECKED BY: RHV
DATE: DECEMBER 2019
SCALE: AS SHOWN
W.O. NO.: 15-55

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. 16193 EXPIRATION DATE: 09-27-2020

[Signature] 12 SHEET OF 17
ROBERT H. VOGEL, P.E. No. 16193



LEGEND:

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING STORM DRAIN
- EXISTING TREE LINE (FIELD LOCATED)
- TREE LINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- STORMWATER MANAGEMENT FACILITY (M-6, M-8) F-18-041
- DRY WELL (M-5)
- EXISTING CONCRETE SIDEWALK
- EXISTING PUBLIC DRAINAGE AND UTILITY EASEMENT PLAT # 25254-25269
- EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT PLAT # 25254-25269
- EXISTING WETLAND
- EXISTING 10' TREE MAINTENANCE EASEMENT PLAT # 25254-25269
- 10' CONTOUR
- 2' CONTOUR
- SPOT ELEVATION
- ROOF LEADER DISCONNECT
- UNDERDRAIN / ROOF DRAIN
- EXISTING TREES F-18-041
- 'R' REVERSE HOUSE FOOTPRINT

NOTES:

1. REFER TO SHEET 16 FOR DRYWELL (DW) SIZE, NOTES & DETAILS
2. REFER TO SHEET 16 FOR RAIN BARREL NOTES & DETAILS
3. REFER TO SHEET 16 FOR ROOFTOP DISCONNECT CRITERIA. DOWNSPOUTS SHALL BE LOCATED WHERE SHOWN HEREIN AT MINIMUM AND DIRECTED AT THE GROUND SURFACE TO FLOW IN THE DIRECTION SHOWN

NOTE:

1. GENERIC HOUSE BOXES ARE SHOWN IN ACCORDANCE WITH HOWARD COUNTY GUIDELINES AND DO NOT LIMIT MODEL TYPES AND OPTIONS THAT MAY FIT ON ANY INDIVIDUAL LOT.
2. TYPICAL DRIVEWAY WIDTH SHOWN HEREON IS 16 FEET WIDE FOR THE PROPOSED 2 CAR GARAGE. WIDTH SUBJECT TO CHANGE WITH BUILDER RESITE.
3. DRIVEWAYS: THE SHOWN DRIVEWAY LOCATION CANNOT CHANGE UNLESS NOTED ON THIS SDP CONFIRMING THAT THE GRADING AND DRIVEWAY SLOPES WILL REMAIN THE SAME WHETHER THE DRIVEWAY IS ON THE RIGHT OR LEFT SIDE OF THE HOUSE. ONLY ONE DRIVEWAY ORIENTATION CAN BE SHOWN FOR CORNER LOTS.

NOTES:

1. ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-328 OUTSIDE METER SETTINGS.

OWNER / DEVELOPER
T.M. 35 - P. 145 (PARCEL B-1)
 SIMPSON OAKS CRP3, LLC
 4750 OWINGS MILLS BOULEVARD
 OWINGS MILLS, MARYLAND 21117
 410-356-9800

BUILDER
 NVR HOMES
 9720 PATUXENT WOODS DRIVE
 COLUMBIA, MD 21046
 (410) 378-5856

SOIL EROSION & SEDIMENT CONTROL PLAN NOTES

1. REFER TO SHEET 15 FOR SEQUENCE OF CONSTRUCTION
2. REFER TO SHEETS 15 FOR STANDARD DETAILS AND STABILIZATION NOTES
3. IF REQUIRED BY SEDIMENT CONTROL INSPECTOR, SUPER SILT FENCE SHALL REPLACE STANDARD SILT FENCE WHERE FENCING INTERCEPTS CONCENTRATED FLOWS.

- NOTES**
1. ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY.
 2. IMBRICATE SF/SSF IN 35' SEGMENTS AS REQUIRED UPHILL BY 2" IN ELEVATION.

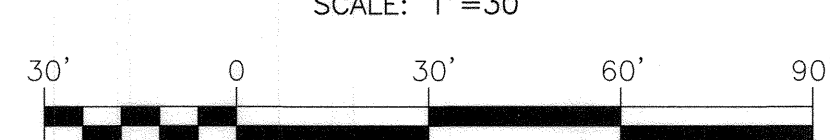
NOTE: LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. ANY STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

NOTE: EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

NOTE:
 - SUPER SILT FENCE MAY BE REPLACED WITH STANDARD SILT FENCE WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR.
 - SILT FENCE SHALL BE CURLED UPHILL NO MORE THAN 35 FEET APART
 - DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

NOTE: STOCKPILING WILL BE PERMITTED ON EACH LOT ONLY.

GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 1.3.20

[Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 1.3.20

[Signature]
 DIRECTOR
 DATE: 1.3.20

OWNER/DEVELOPER CERTIFICATION:
 I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDC.

[Signature]
 OWNER/DEVELOPER SIGNATURE
 DATE: 1/23/19

[Signature]
 DESIGNER'S SIGNATURE
 DATE: 1/23/19

MD REGISTRATION NO. 16193
 R.L.S., OR R.L.A. (circle one)

DESIGN CERTIFICATION:
 I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature]
 DESIGNER'S SIGNATURE
 DATE: 1/23/19

MD REGISTRATION NO. 16193
 R.L.S., OR R.L.A. (circle one)

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature]
 HOWARD S.C.D.
 DATE: 1/23/19

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT EROSION	K FACTOR	PERCENT FLOODING	PERCENT FIVE YEAR FLOODING
GbA	BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	0.32	NO	NO	YES
Ga	GLENNLE LOAM, 0 TO 3 PERCENT SLOPES	B	NO	0.20	NO	NO	NO
GbB	GLENNLE LOAM, 3 TO 8 PERCENT SLOPES	C	NO	0.20	NO	NO	NO
GmB	GLENNLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	0.37	NO	NO	YES
GmB	GLENNLE-SILT SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	0.37	NO	NO	PARTIAL
MbC	MAJOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	0.24	NO	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY

NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF GbB, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

NO.	REVISION	DATE
1	REVISE THE PLAN TO SHOW THE REVISED WATER AND SEWER EASEMENTS	12-11-20
2	REVISE THE PLAN TO REVISE THE HOUSE TYPE AND GRADING ON LOTS 19, 20, 21, 22 AND THE GRADING ON LOT 20 AND THE DRIVEWAY INFORMATION ON THE HOUSE TYPE SHEET	9-23-21

SITE DEVELOPMENT PLAN
GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN
CEDAR CREEK - PHASE 1
 PLAT NOS. 25254-25269
 SFD LOTS 3 - 46 AND SFA LOTS 52-129

TAX MAP 35 GRID 21 ZONED: CEF-R P/O PARCEL 145
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
 +
TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

DESIGN BY: VE+TG
 DRAWN BY: VE+TG
 CHECKED BY: RHV
 DATE: DECEMBER 2019
 SCALE: AS SHOWN
 W.O. NO.: 15-55

[Signature]
 ROBERT H. VOGEL, PE, N.16193

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. 16193, EXPIRATION DATE: 09-30-2020

14 SHEET OF 17



LEGEND:

- EXISTING CONTOUR
- EXISTING CURB AND GUTTER
- CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING STORM DRAIN
- EXISTING TREE LINE (FIELD LOCATED)
- TREE LINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- STORMWATER MANAGEMENT FACILITY (M-6, M-8)
- DRY WELL (M-5)
- EXISTING CONCRETE SIDEWALK
- EXISTING PUBLIC DRAINAGE AND UTILITY EASEMENT (PLAT # 25254-25269)
- EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT (PLAT # 25254-25269)
- EXISTING WETLAND
- EXISTING 10' TREE MAINTENANCE EASEMENT (PLAT # 25254-25269)
- 10' CONTOUR SPOT ELEVATION
- 200 GAL. RAIN BARREL (M-1)
- ROOF LEADER DISCONNECT (N-1)
- UNDERDRAIN / ROOF DRAIN
- EXISTING TREES (F-18-041)
- REVERSE HOUSE FOOTPRINT

- NOTES:**
- REFER TO SHEET 16 FOR DRYWELL (DW) SIZE, NOTES & DETAILS.
 - REFER TO SHEET 16 FOR RAIN BARREL NOTES & DETAILS.
 - REFER TO SHEET 16 FOR ROOFTOP DISCONNECTION CRITERIA. DOWNSPOUTS SHALL BE LOCATED WHERE SHOWN HEREON AT MINIMUM AND DIRECTED AT THE GROUND SURFACE TO FLOW IN THE DIRECTION SHOWN.

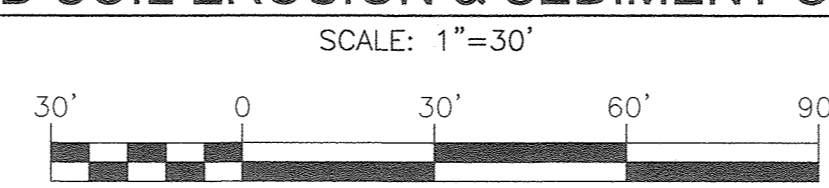
- NOTE:**
- GENERIC HOUSE BOXES ARE SHOWN IN ACCORDANCE WITH HOWARD COUNTY GUIDELINES AND DO NOT LIMIT MODEL TYPES AND OPTIONS THAT MAY FIT ON ANY INDIVIDUAL LOT.
 - TYPICAL DRIVEWAY WIDTH SHOWN HEREON IS 16 FEET WIDE FOR THE PROPOSED 2 CAR GARAGE. WIDTH SUBJECT TO CHANGE WITH BUILDER RESITE.
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- NOTES:**
- ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

OWNER / DEVELOPER
T.M. 35 - P. 145 (PARCEL B-1)
SIMPSON OAKS CRP, LLC
4750 OWINGS MILLS BOULEVARD
OWINGS MILLS, MARYLAND 21117
410-356-9900

BUILDER
NVR HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
(410) 379-5556

GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN



SOIL EROSION & SEDIMENT CONTROL PLAN NOTES

- REFER TO SHEET 15 FOR SEQUENCE OF CONSTRUCTION
 - REFER TO SHEETS 15 FOR STANDARD DETAILS AND STABILIZATION NOTES
 - IF REQUIRED BY SEDIMENT CONTROL INSPECTOR, SUPER SILT FENCE SHALL REPLACE STANDARD SILT FENCE WHERE FENCING INTERCEPTS CONCENTRATED FLOWS.
- NOTES**
- ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY.
 - IMBRICATE SF/SSF IN 35' SEGMENTS AS REQUIRED UPHILL BY 2" IN ELEVATION.

NOTE: LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. ANY STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

NOTE: EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

NOTE: - SUPER SILT FENCE MAY BE REPLACED WITH STANDARD SILT FENCE WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR.
- SILT FENCE SHALL BE CURLED UPHILL NO MORE THAN 35 FEET APART
- DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

NOTE: STOCKPILING WILL BE PERMITTED ON EACH LOT ONLY.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 1.2.20

[Signature]
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 1.3.20

[Signature]
DIRECTOR
DATE: 1-3-20

OWNER/DEVELOPER CERTIFICATION:
I HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

[Signature]
OWNER/DEVELOPER SIGNATURE
DATE: 12/19/19

[Signature]
PRINTED NAME & TITLE: Robert H. Vogel

DESIGN CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature]
DESIGNER'S SIGNATURE
DATE: 12/19/19

[Signature]
ROBERT H. VOGEL
PRINTED NAME

NO. REGISTRATION NO. 18193
R.L.S., OR R.L.A. (circle one)

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature]
DATE: 12/23/19

HOWARD S.C.D.

MAPPED SOILS TYPES - CLARKSVILLE SE MAP #23

SYMBOL NAME / DESCRIPTION	GROUP	HYDRIC	PERCENT	K FACTOR	PERCENT	PERCENT	PERCENT
Ba1 BARE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	YES	YES	0.32	NO	NO	NO
Ga GLENLEIG LOAM, 0 TO 3 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO
GbB GLENLEIG LOAM, 3 TO 8 PERCENT SLOPES	B	NO	NO	0.20	YES	NO	NO
GmbB GLENLEIG SILT LOAM, 3 TO 8 PERCENT SLOPES	C	NO	NO	0.37	YES	YES	NO
GmbB GLENLEIG-SALE SILT LOAM, 0 TO 8 PERCENT SLOPES	C	PARTIALLY	PARTIALLY*	0.37	NO	PARTIAL	NO
Mac MACROR LOAM, 0 TO 15 PERCENT SLOPES	B	NO	NO	0.24	YES	NO	NO

TAKEN FROM: USDA, SCS-WEBER SOIL SURVEY, HOWARD COUNTY

NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

*BALE COMPONENT OF Gmb, ERODIBILITY FACTOR IS 0.32 AND IS CONSIDERED HYDRIC

8	REVISE THE HOUSE TYPE AND GRADING ON LOT 18 AND GRADING ON LOT 17	8-18-21
6	REVISE THE HOUSE TYPE AND GRADING ON LOTS 16 AND 17 AND THE GRADING ON LOTS 15, 16, 17 AND 18	6/7/21
NO.	REVISION	DATE

SITE DEVELOPMENT PLAN

GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN

CEDAR CREEK - PHASE 1

PLAT NOS. 25254-25269
SFD LOTS 3 - 46 AND SFA LOTS 52-129

TAX MAP 35 GRID 21 ZONED: CEF-R P/O PARCEL 145
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

DESIGN BY: VE+TG
DRAWN BY: VE+TG
CHECKED BY: RHV
DATE: DECEMBER 2019
SCALE: AS SHOWN
W.O. NO.: 15-55

PROFESSIONAL CERTIFICATE
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. 16193 EXPIRATION DATE: 09-27-2020

[Signature]
ROBERT H. VOGEL, PE No. 16193

13 SHEET OF 17

**HOWARD SOIL CONSERVATION DISTRICT
STANDARD SEDIMENT CONTROL NOTES**

- A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOT AND PROPOSED AREAS ARE MARKED CLEARLY ON THE FIELD. THE MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
 - PRIOR TO THE START OF EARTH DISTURBANCE.
 - UPON COMPLETION OF THE INSTALLATION OF PERMANENT EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
 - PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT.
 - PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

- OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
 - FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF THE DISTURBED AREAS. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SLOPES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 4-2 - CRITICAL AREA PLANTING.
 - FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
 - FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3-1/2 POUNDS PER 1000 SQUARE FEET (50 POUNDS PER ACRE) AT THE TIME OF SEEDING TO ADJUST TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
 - SOIL TESTS ARE REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 - SOIL PH BETWEEN 6.0 AND 7.0.
 - SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
 - SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE, AN EXCEPTION: F LOESSMAY NOT BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
 - SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 - SOILS CONTAINING SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 - APPLICABLE OF ANCHORMENTS OR TORSION IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
 - GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
 - APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
 - SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. PRACTICE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A TOWEL CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDING.
 - PREPARATION TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH TRACKS RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRESH. SEEDING LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

11. REGARDING PROJECT DISTURBANCE IS NO LONGER A REQUIREMENT OF THE STATE OF MARYLAND, HOWEVER REMAINS A REQUIREMENT OF HOWARD COUNTY.

**B-4-5 STANDARDS AND SPECIFICATIONS
FOR
PERMANENT STABILIZATION**

DEFINITION
TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE
TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA

- GENERAL USE
 - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON PLAN B.2. ENTER SELECTED MIXTURES, APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SLOPES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 4-2 - CRITICAL AREA PLANTING.
 - FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
 - FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3-1/2 POUNDS PER 1000 SQUARE FEET (50 POUNDS PER ACRE) AT THE TIME OF SEEDING TO ADJUST TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
- TURFGRASS MIXTURES
 - WHEN TURFGRASS MIXTURES ARE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
 - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE MEDIUM TO INTENSIVE MANAGEMENT CRITERIA. APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - IF BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED PERENNIAL GRASS CULTIVARS/ SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - IF KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED PERENNIAL GRASS CULTIVARS/ SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - IF TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED CERTIFIED PERENNIAL GRASS CULTIVARS/ SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - IF TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED CERTIFIED PERENNIAL GRASS CULTIVARS/ SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - IF KENTUCKY BLUEGRASS/FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADY TO INTERMEDIATE LIGHTING FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS: 30 TO 40 PERCENT AND CERTIFIED TALL FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET.

12. TURFGRASS MIXTURES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY, THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.
- CRITERIA**
- IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES
 - WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 10 TO OCTOBER 1 (HARDNESS ZONES: 5B, 6A)
 - CENTRAL MD: MARCH 15 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONE: 6B)
 - SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONES: 7A, 7B)
 - TILL AREAS TO BE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES. LEVEL AND LEAD THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1/4 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE SOWING OF GRASSES WILL PROCEED UNPROBLEMATICALLY.
 - IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER PLANT GROWTH (1/2 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDENT ON SOIL TEXTURE) UNTIL THEY ARE FULLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ANABNOMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

13. STANDARD SIZE SECTIONS OF 500 MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SPUNDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
14. 500 MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT (ESPECIALLY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
15. 500 MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. 500 NOT TRANSPORTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.
17. EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

18. FOR ALTERNATES, REFER TO THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL - PAGES B.26 - B.32

PERMANENT SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)			LIME RATE
					N	P ₂ O ₅	K ₂ O	
9	COOL SEASON TALL FESCUE, KENTUCKY BLUEGRASS, PERENNIAL RYE OR EQUAL	T.F. 60 LB / AC K.B. 40 LB / AC P.R. 20 LB / AC	MAR 1 TO MAY 15 MAY 15 TO OCT 15	1/4"-1/2"	45 LB/AC (1 LB PER 1000 SF)	90 LB/AC (2 LB PER 1000 SF)	90 LB/AC (2 LB PER 1000 SF)	2 TONS/AC (90 LB PER 1000 SF)
4	WARM SEASON GRASS MIXTURES: CENTRAL PENINSULA GRASS, PENNSYLVANIA BLUEGRASS, COMMON WHEAT OR EQUAL	DT 15 LB / AC CPR 20 LB / AC CWP 5 LB / AC	MAR 1 TO MAY 15 MAY 15 TO OCT 15	1/4"-1/2"	45 LB/AC (1 LB PER 1000 SF)	90 LB/AC (2 LB PER 1000 SF)	90 LB/AC (2 LB PER 1000 SF)	2 TONS/AC (90 LB PER 1000 SF)

FOR ALTERNATES, REFER TO THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL - PAGES B.26 - B.32

**R-4-2 STANDARDS AND SPECIFICATIONS
FOR
SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS**

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES
WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA

- SOIL PREPARATION
 - TEMPORARY STABILIZATION
 - SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS, OR DISKS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE UNWORKED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
 - APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 - INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 - PERMANENT STABILIZATION
 - SOIL TESTS ARE REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 - SOIL PH BETWEEN 6.0 AND 7.0.
 - SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
 - SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE, AN EXCEPTION: F LOESSMAY NOT BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
 - SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 - SOILS CONTAINING SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 - APPLICABLE OF ANCHORMENTS OR TORSION IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
 - GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
 - APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
 - SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. PRACTICE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A TOWEL CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDING.
 - PREPARATION TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH TRACKS RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRESH. SEEDING LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.
- TOPSOILING
 - TOPSOILING IS LIMITED TO AREAS HAVING A SOIL PROFILE SECTION BY USDA-NRCS.
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - IF THE MATERIAL IS SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FLURISH CONTAINING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS, THE PRACTICE IS TO BE USED TO VEGETATE CONTACT MATERIAL TO PLANT GROWTH. D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
 - AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND APPROVAL.
 - TOPSOILING SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST FOLLOW THE FOLLOWING CRITERIA:
 - TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED.
 - IF THE APPROPRIATE AUTHORITY, TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURES AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CONES, STONES, SLAG, CONCRETE FRAGMENTS, GRASS, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1/8 INCHES IN DIAMETER.
 - TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BENDINA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - SOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
 - EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
 - UNIFORMITY: DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SOILING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 - TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
- SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
 - SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
 - FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FINE FLOWING AND SUITABLE FOR AERIAL APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PROOF FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LABEL AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
 - LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING WHICH CONTAINS AT LEAST 50 PERCENT FREE LIME). LIME MUST BE UNIFORM IN COMPOSITION AND GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #200 MESH SIEVE.
 - LIME AND FERTILIZER ARE TO BE EXACTLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 - IF THE SUBSOIL IS EITHER HEAVY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

**B-4-3 STANDARDS AND SPECIFICATIONS
FOR
SEEDING AND MULCHING**

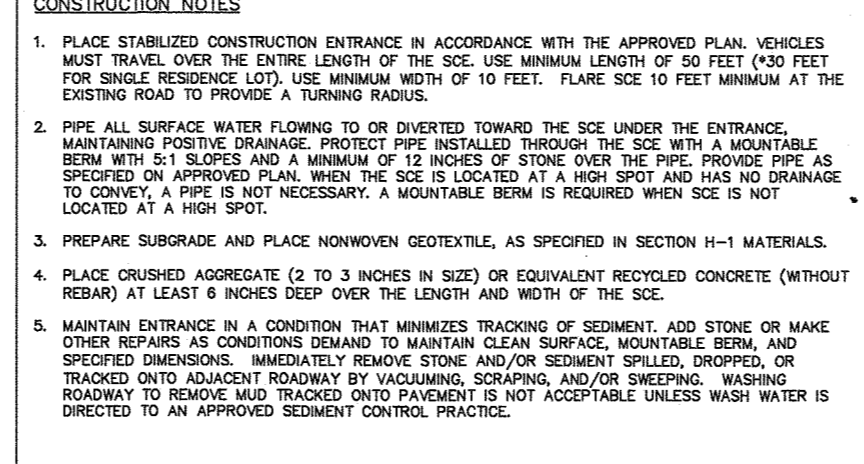
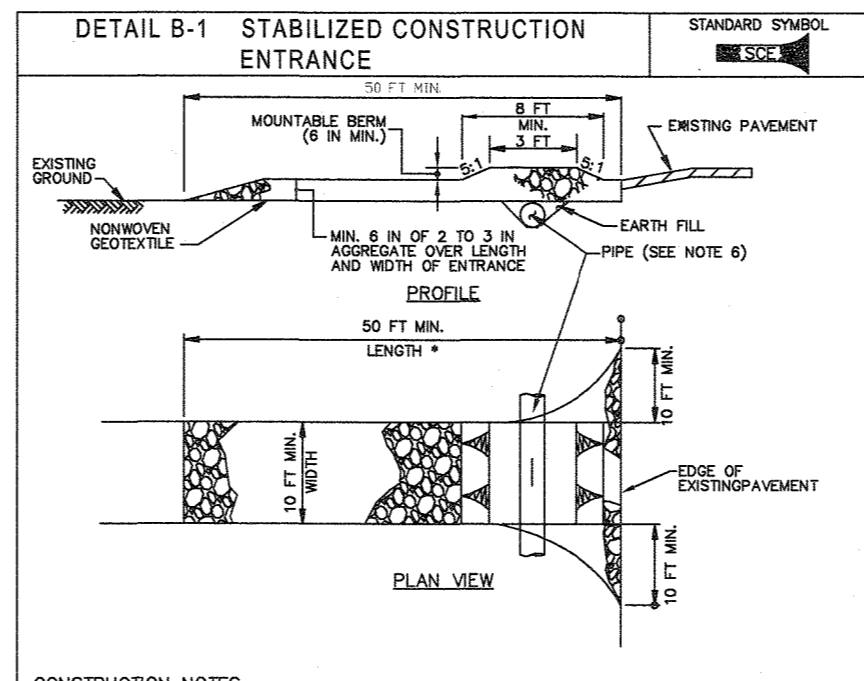
DEFINITION
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

PURPOSE
TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES
TO THE SURFACE OF ALL PERMITTER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA

- SEEDING
 - ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW AND SEED MUST BE TESTED TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. THESE TESTS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
 - MULCH ALONE MAY BE APPLIED TO PROTECT THE SOIL FROM EROSION ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAW.
 - INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN KILL BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
 - SO OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL. SUCH TREATMENT HAS ELAPSED (14 DAYS MIN) TO PERMIT DESSICATION OF PHITO-TOXIC MATERIALS.
 - APPROVAL:
 - DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDS AFTER WITH A WEIGHTED ROLLER TO PROVIDE GOOD CONTACT.
 - DRILL OR OUTRIGGER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL. SEEDING RATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN, AT LEAST 1/4 INCH OF SOIL COVERING, SEEDBED MUST BE FIRM AFTER PLANTING.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
 - F FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
 - IF USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE) MAY BE APPLIED (BY HYDROSEEDING), NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
 - IF MULCH IS TO BE APPLIED ON SITE AND PREPARED IMMEDIATELY WITHOUT INTERFERENCE, WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.
- MULCHING
 - MULCH MATERIALS (IN ORDER OF PREFERENCE)
 - STRAW CONSISTING OF THOROUGHLY FRESHED WHEAT, LIME, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOULDY, CAVED, DEGRADED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
 - WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 - IF WCFM IS TO BE DIED GREEN OR CONTAIN A GREEN LIME IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPUNDED SLURRY.
 - WCFM INCLUDES ANY OTHER ADDITIVE TO PROMOTE GROWTH INHIBITING FACTORS.
 - WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN UNIFORM IN DISPERSION UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MUST FORM A BUTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHERING THE GROWTH OF THE GRASS SEEDLINGS.
 - WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MAXIMUM.
 - APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
 - WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED, WHEN USING WOOD ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
 - WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - ANCHORING:
 - MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MUST BE DONE BY ONE OF THE FOLLOWING METHODS LISTED BY PREFERENCE, DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
 - IF THE SUBSOIL IS EITHER HEAVY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.
 - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - SYNTHETIC BINDERS SUCH AS ACRYLIC LAC (ACRO-TACK), DCA-70, PETROSEAL, TERMA TAC 1, TERMA TACK 40 OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS SHOULD BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
 - LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011. MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION.

**B-4-3 STANDARDS AND SPECIFICATIONS
FOR
SEEDING AND MULCHING**

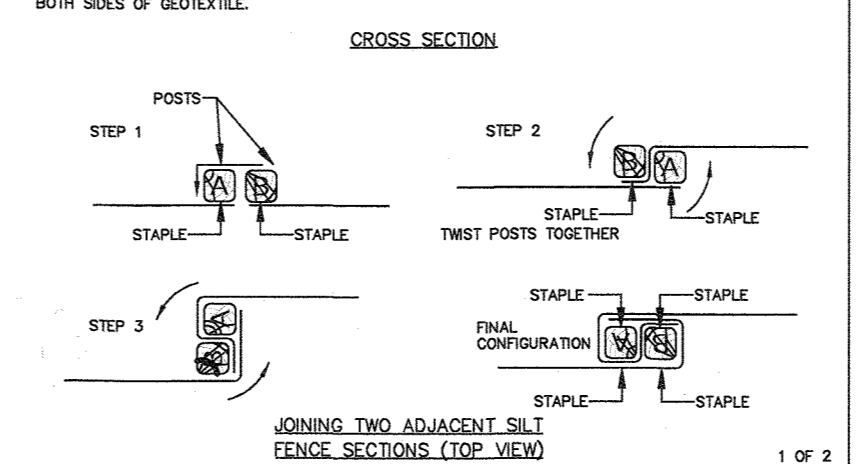
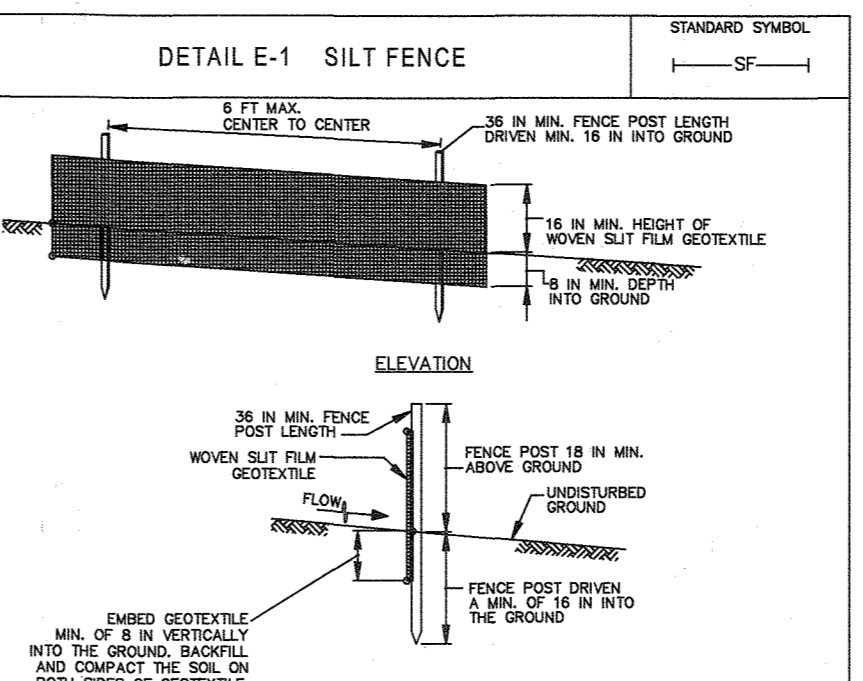
DEFINITION
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

PURPOSE
TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES
TO THE SURFACE OF ALL PERMITTER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA

- SEEDING
 - ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW AND SEED MUST BE TESTED TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. THESE TESTS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
 - MULCH ALONE MAY BE APPLIED TO PROTECT THE SOIL FROM EROSION ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAW.
 - INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN KILL BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
 - SO OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL. SUCH TREATMENT HAS ELAPSED (14 DAYS MIN) TO PERMIT DESSICATION OF PHITO-TOXIC MATERIALS.
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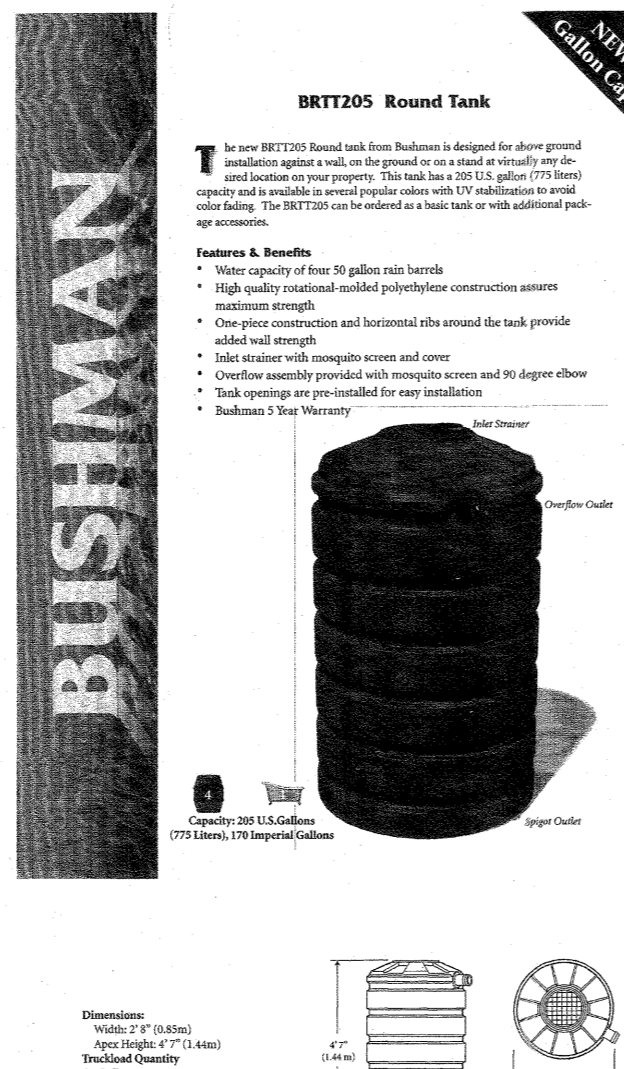


ON-LOT STORMWATER MANAGEMENT PRACTICES						
Lot Number	Address	Project Phase	M-5 Drywell	M-1 Rain Barrel	N-1 Rooftop Disconnect	
Lot 1	7603 CROSS CREEK DRIVE	PHASE 1	2	-	2	
Lot 2	7607 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 3	7611 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 4	7615 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 5	7619 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 6	7623 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 7	7627 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 8	7631 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 9	7635 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 10	7639 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 11	7643 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 12	7647 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 13	7651 CROSS CREEK DRIVE	PHASE 1	3	-	1	
Lot 14	7655 CROSS CREEK DRIVE	PHASE 1	2	-	-	
Lot 15	7659 CROSS CREEK DRIVE	PHASE 1	2	-	-	
Lot 16	7663 CROSS CREEK DRIVE	PHASE 1	2	-	-	
Lot 17	7667 CROSS CREEK DRIVE	PHASE 1	2	-	-	
Lot 18	7671 CROSS CREEK DRIVE	PHASE 1	2	-	-	
Lot 19	7675 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 20	7679 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 21	7683 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 22	7687 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 23	7691 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 24	7695 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 25	7703 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 26	7707 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 27	7711 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 28	7715 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 29	7719 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 30	7723 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 31	7727 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 32	7731 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 33	7735 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 34	7739 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 35	7743 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 36	7747 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 37	7751 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 38	7755 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 39	7759 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 40	7763 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 41	7767 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 42	7771 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 43	7775 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 44	7779 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 45	7783 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 46	7787 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 47	7791 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 48	7795 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 49	7799 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 50	7803 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 51	7807 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 52	7811 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 53	7815 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 54	7819 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 55	7823 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 56	7827 CROSS CREEK DRIVE	PHASE 1	1	1	-	
Lot 57	7831 CROSS CREEK DRIVE	PHASE 1	1	1	-	

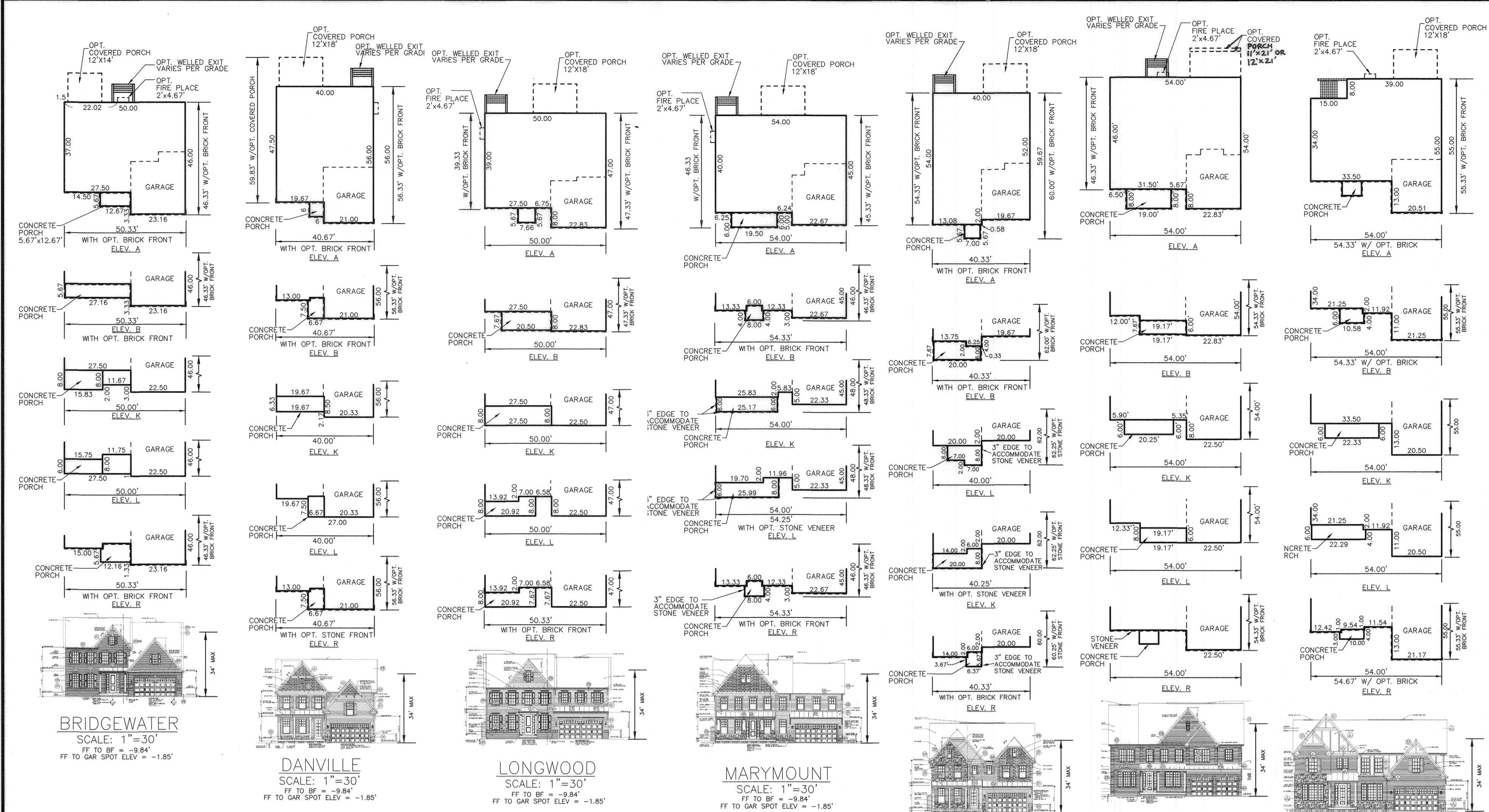
ON-LOT STORMWATER MANAGEMENT PRACTICES						
Lot Number	Address	Project Phase	M-5 Drywell	M-1 Rain Barrel	N-1 Rooftop Disconnect	
Lot 58	7516 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 59	7524 OVERVIEW TERRACE	PHASE 1	-	-	1	
Lot 60	7512 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 61	7508 OVERVIEW TERRACE	PHASE 1	-	-	1	
Lot 62	7506 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 63	7504 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 64	7502 OVERVIEW TERRACE	PHASE 1	-	-	1	
Lot 65	7518 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 66	7520 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 67	7514 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 68	7510 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 69	7506 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 70	7502 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 71	7500 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 72	7505 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 73	7507 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 74	7509 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 75	7511 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 76	7513 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 77	7517 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 78	7519 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 79	7521 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 80	7523 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 81	7525 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 82	7527 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 83	7529 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 84	7531 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 85	7533 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 86	7535 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 87	7537 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 88	7539 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 89	7541 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 90	7543 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 91	7545 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 92	7547 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 93	7549 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 94	7551 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 95	7553 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 96	7555 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 97	7557 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 98	7559 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 99	7561 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 100	7563 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 101	7565 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 102	7567 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 103	7569 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 104	7571 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 105	7573 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 106	7575 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 107	7577 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 108	7579 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 109	7581 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 110	7583 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 111	7585 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 112	7587 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 113	7589 OVERVIEW TERRACE	PHASE 1	-	-	2	
Lot 114	7591 OVERVIEW TERRACE	PHASE 1	-	-	2	

ON-LOT STORMWATER MANAGEMENT PRACTICES						
Lot Number	Address	Project Phase	M-5 Drywell	M-1 Rain Barrel	N-1 Rooftop Disconnect	
Lot 115	7682 CROSS CREEK DRIVE	PHASE 1	-	-	1	
Lot 116	7686 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 117	7690 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 118	7694 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 119	7698 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 120	7702 CROSS CREEK DRIVE	PHASE 1	-	-	1	
Lot 121	7706 CROSS CREEK DRIVE	PHASE 1	-	-	1	
Lot 122	7710 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 123	7714 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 124	7718 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 125	7722 CROSS CREEK DRIVE	PHASE 1	-	-	1	
Lot 126	7726 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 127	7730 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 128	7734 CROSS CREEK DRIVE	PHASE 1	-	-	2	
Lot 129	7738 CROSS CREEK DRIVE	PHASE 1	-	-	2	

DETAIL OF BUSHMAN RAIN HARVESTING SYSTEM OR EQUIVALENT 200 GALLON RAIN BARREL NOT TO SCALE

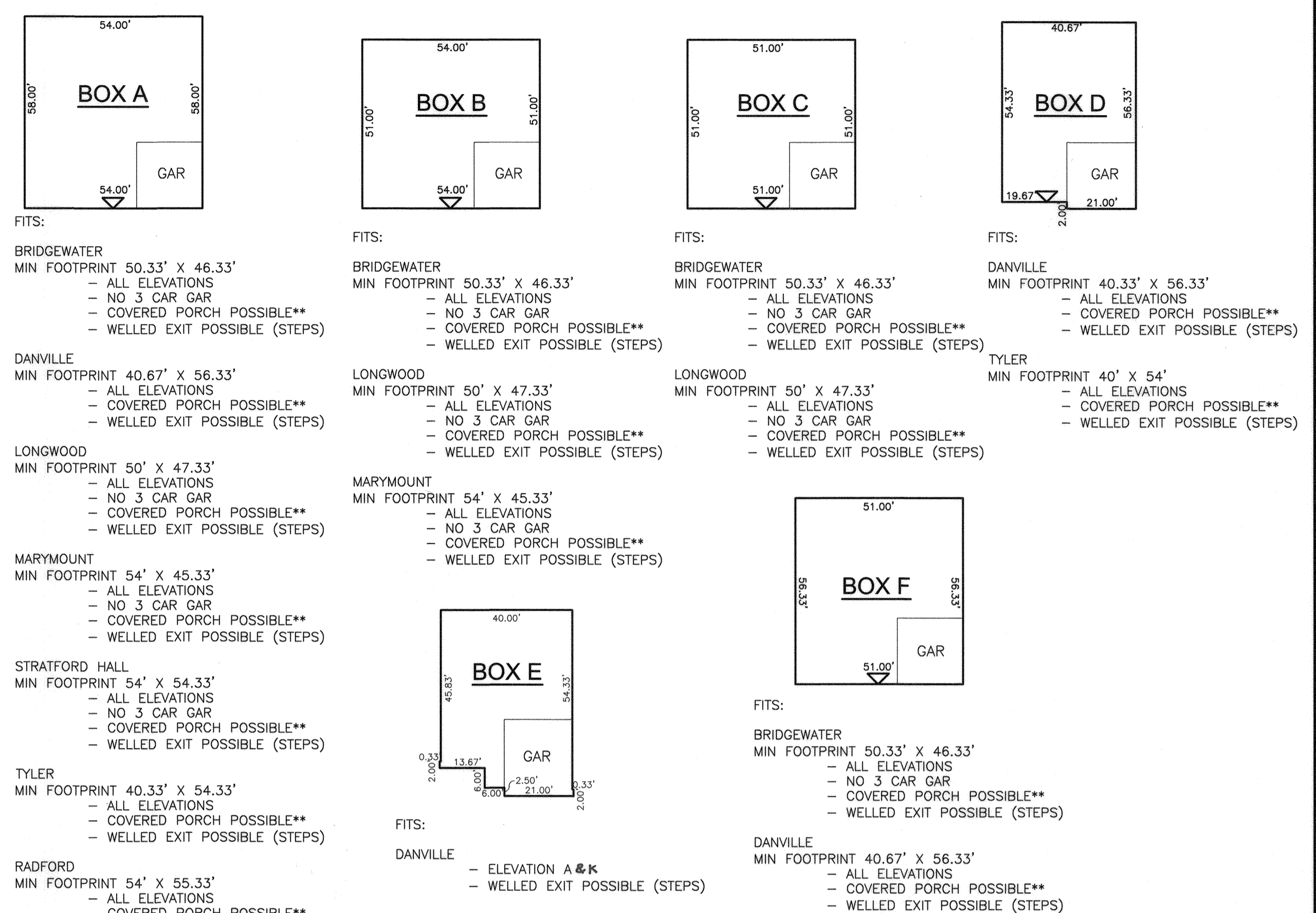


STORMWATER MANAGEMENT TEST PIT DATA															
Table No. 1 - Subsurface Exploration Summary															
Simpson Oaks, S.W.M. Facilities															
Job No. 080972x5															
Exploration No.	Approximate Existing Ground Surface Elevation* (ft. MSL)	Approximate Proposed Ground Surface Elevation* (ft. MSL)	Proposed Cut/In (ft.)	Boring Depth (ft.)	Approximate Termination Elevation (ft. MSL)	Approximate Cave-in Depth Observation* (ft. MSL)	Groundwater Observations				One Day to Two Weeks After Drilling	Depth to Highly Weathered Rock	Surficial Material Thickness* (ft.)		
							Encountered During Drilling	Completion of Drilling	Depth (ft.)	EL (ft. MSL)					
Borings Performed in February of 2015															
SWM-1	387.1	382	4.9	15	372.1	7.2	379.9	Dry	<372	Dry	<372	Dry	<372	-	3(T)
SWM-2	421.7	404	17.7	25	396.1	11.3	410.4	Dry	<397	Dry	<397	Dry	<397	7	2(T)
SWM-3	398	391	7	15	373.3	4.3	383.7	Dry	<381	Dry	<381	Dry	<381	7	2(T)
SWM-4	367.8	368	0.2	15	352.8	7.8	360.2	Dry	<354	Dry	<354	Dry	<354	7.6	360.2
SWM-5	396	384	12	15	371.1	6	380	Dry	<371	Dry	<371	Dry	<371	12	371
SWM-6	384.1	385	-0.9	30	354.4	10.6	373.5	Dry	<354	Dry	<354	Dry	<354	17	367.1
SWM-7	349.2	356	6.8	15	334.2	5	344.2	Dry	<334	Dry	<334	Dry	<334	7	342.2
SWM-8	352.6	354	1.4	15	337.6	6.3	346.3	Dry	<338	Dry	<338	Dry	<338	-	4
Borings Performed in August of 2015															
B-1 (2015)	354	-	-	20	334	Pipe	-	19	<334	14	340	-	-	-	7 (A) (S)
B-2 (2015)	355	-	-	20	335	Pipe	-	20	<335	-	-	-	-	-	7 (A) (S)
B-3 (2015)	356	-	-	20	336	Pipe	-	20	<336	-	-	-	-	-	3 (T)
Borings Performed in December of 2016 and January of 2017															
B-1	342	352	10	20	322	Pipe	-	13.5	328	Dry	<322	7.2	335	-	8 (T)
B-2	345	342	-3	15	330	Pipe	-	13	332	Dry	<330	9.2	336	-	7 (T)
B-3	345.5	350	4.5	15	334	4.3	344	Dry	<344	Dry	<344	5	344	8	8 (T)
B-4	350	345	-5	20	330	Pipe	-	18	<332	19	311	8.3	342	-	6 (T)
B-5	407	402	-5	15	392	Pipe	-	19	<392	Dry	<392	12	395	6	8 (T)
B-6	405	404	-1	12	394	Pipe	-	19	<394	Dry	<394	13	393	-	4 (T)
B-7	405	402	-3	13	392	6.9	398	Dry	<398	Dry	<398	Dry	<398	-	5 (T)
B-8	412	402	-10	20	392	4.6	407	Dry	<407	Dry	<407	7	410	-	6 (T)
B-9	414	402	-12	22	392	6.5	408	Dry	<408	Dry	<408	Dry	<408	-	4 (T)
B-10	423.5	403	-20	33	393	18.3	425	Dry	<399	Dry	<399	Dry	<399	-	7 (T)
B-11	423	403	-20	33	393	18.3	425	Dry	<399	Dry	<399	Dry	<399	-	8 (T)
B-12	410	402	-8	18	392	6.2	408	Dry	<408	Dry	<408	Dry	<408	-	6 (T)
B-13	408	404	-4	12	394	Pipe	-	19	<394	Dry	<394	Dry	<394	-	7 (T)
B-14	408	404	-4	12	394	Pipe	-	19	<394	Dry	<394	Dry	<394	-	7 (T)
B-15	415	407	-8	20	395	11.3	404	Dry	<404	Dry	<404	D			



NOTE:
 GENERIC HOUSE BOXES ARE SHOWN IN ACCORDANCE WITH HOWARD COUNTY GUIDELINES AND DO NOT LIMIT MODEL TYPES AND OPTIONS THAT MAY FIT ON ANY INDIVIDUAL LOT.

****GENERIC HOUSE BOX OPTIONS:**
 THE GENERIC HOUSE BOXES DO NOT NEED TO SHOW AVAILABLE OPTIONS (CHIMNEYS, BAY WINDOWS, EAVES, DECKS, PORCHES, ETC. AND CERTAIN SUNROOMS AND ROOM EXTENSIONS FOR THE R-ED AND R-20 ZONING DISTRICT LOTS USING THE R-ED REGULATIONS) THAT ARE PERMITTED TO ENCRUCH INTO THE SIDE OR REAR YARD BR/S PROVIDED THE SETBACK ENCROACHMENTS COMPLY WITH THE REQUIREMENTS OF SECTION 128.0 OF THE ZONING REGULATIONS.



- NOTES:**
- ADDITIONAL HOUSE TYPES AND OPTIONS MAY FIT ON ANY GIVEN LOT.
 - THE STAKING OF FOUNDATIONS PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH REGULATORY BUILDING RESTRICTION LINES IS RECOMMENDED.
 - A MINIMUM OF 10 FEET SHALL BE PROVIDED BETWEEN THE CHOSEN HOME MODEL AND AN ON-LOT DRYWELL.
 - MODEL ELEVATION SHALL NOT EXCEED 34' MAX HEIGHT AS ALLOWED BY CEF-R ZONE.
 - IN ACCORDANCE WITH SECTION 128.0.A OF THE HOWARD COUNTY ZONING REGULATIONS:
 - MAX ENCROACHMENT INTO SETBACK FOR CORNICES, EAVES AND CANTILEVERED BUILDING FEATURES WHICH DO NOT CONTAIN ANY FLOOR AREA OR EXTENSION OF INTERIOR LIVING SPACE IS: 3 FEET INTO ANY SETBACK.
 - MAX ENCROACHMENT INTO SETBACK FOR BAY WINDOWS, WINDOW WELLS, ORIELS, VESTIBULES, BALCONIES AND CHIMNEYS IS: 4 FEET INTO ANY SETBACK OR A REQUIRED DISTANCE BETWEEN BUILDINGS, PROVIDED THE FEATURE HAS A MAXIMUM WIDTH OF 16 FEET AS MEASURED HORIZONTALLY ALONG THE WALL FROM WHICH THE FEATURE EXTENDS.
 - MAX ENCROACHMENT INTO SETBACK FOR EXTERIOR STAIRWAYS OR RAMPS, ABOVE OR BELOW GROUND LEVEL EXCLUDING THOSE ATTACHED TO A PORCH OR DECK (SEE E): 10 FEET INTO A FRONT SETBACK OR A SETBACK FROM A PROJECT BOUNDARY OR DIFFERENT ZONING DISTRICT; 16 FEET INTO A REAR SETBACK; 4 FEET INTO A SIDE SETBACK OR A REQUIRED DISTANCE BETWEEN BUILDINGS.
 - MAX ENCROACHMENT INTO SETBACK FOR OPEN OR ENCLOSED PORCHES AND DECKS, AND THE STAIRWAYS OR RAMPS ATTACHED THERETO IS: 10 FEET INTO A FRONT OR REAR SETBACK, A SETBACK FROM A PROJECT BOUNDARY, A SETBACK FROM A DIFFERENT ZONING DISTRICT, OR A REQUIRED DISTANCE BETWEEN BUILDINGS.

SINGLE FAMILY ATTACHED



SINGLE FAMILY DETACHED

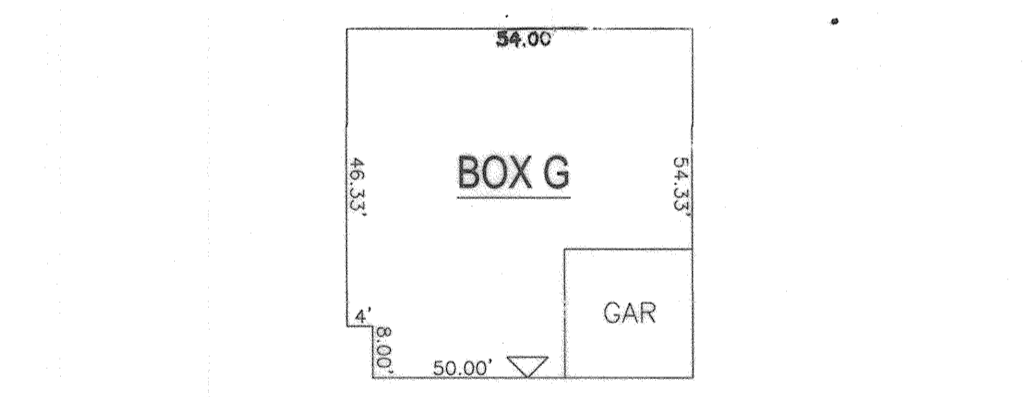


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: *[Signature]* 1-2-20
 Chief, Division of Land Development: *[Signature]* 1-3-20
 Director: *[Signature]* 1-2-20

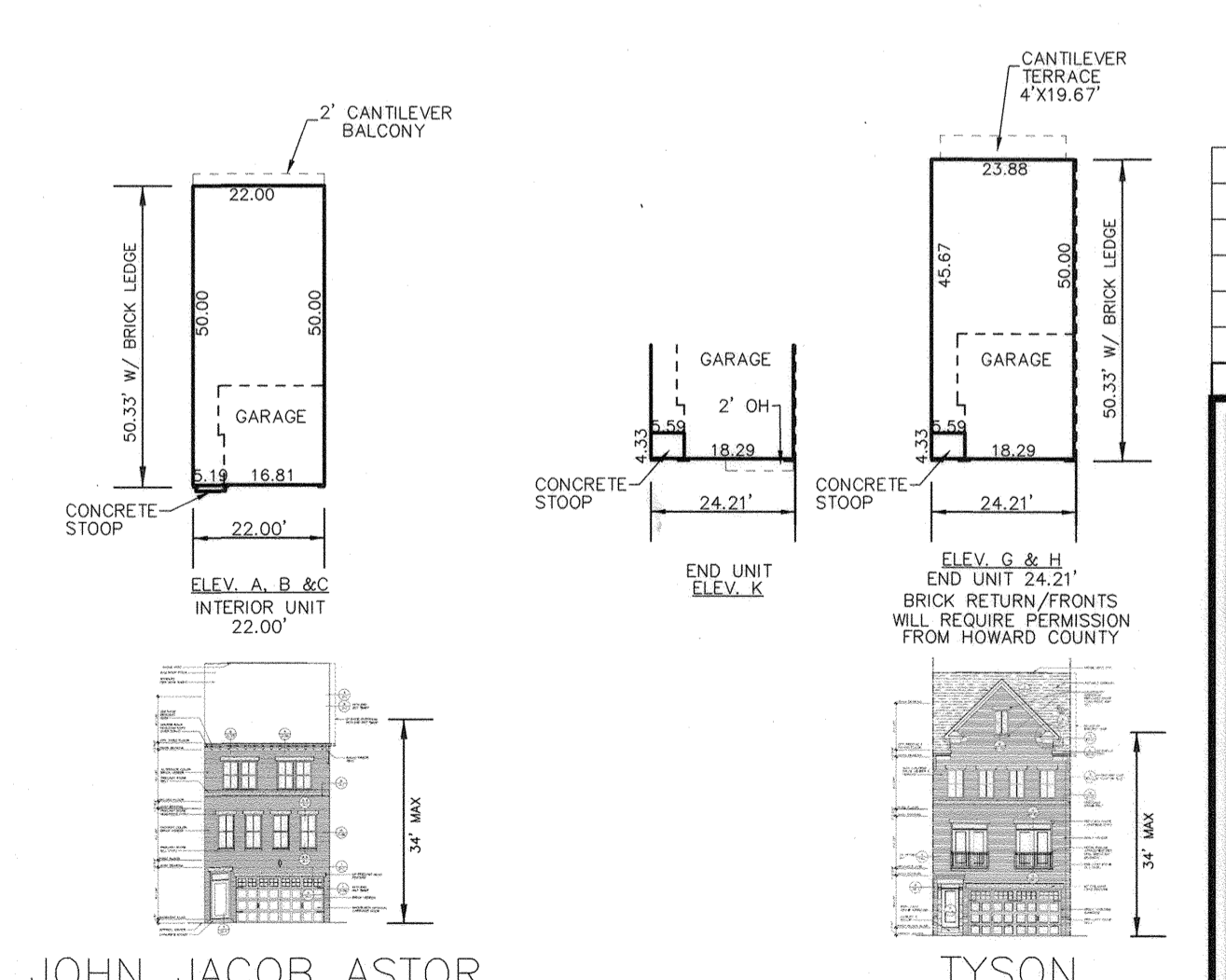
STRATFORD HALL
 SCALE: 1"=30'
 FF TO BF = -9.84' (9' FOUNDATION)
 FF TO GF = -8.86' (8' FOUNDATION)
 FF TO GAR SPOT ELEV = -1.85'

RADFORD
 SCALE: 1"=30'
 FF TO BF = -9.84' (9' FOUNDATION)
 FF TO GF = -8.86' (8' FOUNDATION)
 FF TO GAR SPOT ELEV = -1.85'



- BRIDGEWATER**
 MIN FOOTPRINT 50.33' X 46.33'
 - ALL ELEVATIONS
 - NO 3 CAR GAR
 - COVERED PORCH POSSIBLE**
 - WELLED EXIT POSSIBLE (STEPS)
- LONGWOOD**
 MIN FOOTPRINT 50' X 47.33'
 - ALL ELEVATIONS
 - NO 3 CAR GAR
 - COVERED PORCH POSSIBLE**
 - WELLED EXIT POSSIBLE (STEPS)
- MARYMOUNT**
 MIN FOOTPRINT 54' X 45.33'
 - ALL ELEVATIONS
 - NO 3 CAR GAR
 - COVERED PORCH POSSIBLE**
 - WELLED EXIT POSSIBLE (STEPS)
- STRATFORD HALL**
 MIN FOOTPRINT 54' X 54.33'
 - ALL ELEVATIONS
 - NO 3 CAR GAR
 - COVERED PORCH POSSIBLE**
 - WELLED EXIT POSSIBLE (STEPS)
- TYLER**
 MIN FOOTPRINT 40.33' X 54.33'
 - ALL ELEVATIONS
 - NO 3 CAR GAR
 - COVERED PORCH POSSIBLE**
 - WELLED EXIT POSSIBLE (STEPS)

"R" REVERSE HOUSE BOX



JOHN JACOB ASTOR
 SCALE: 1"=30'
 FF TO BF = -9.84' (9' FOUNDATION)
 FF TO GF = -8.86' (8' FOUNDATION)
 FF TO GAR SPOT ELEV = -1.85'

TYSON
 SCALE: 1"=30'
 FF TO BF = -9.84' (9' FOUNDATION)
 FF TO GF = -8.86' (8' FOUNDATION)
 FF TO GAR SPOT ELEV = -1.85'

- NOTES:**
- BRICK SIDES WILL FIT ON LOTS 52, 55, 56, 60, 61, 64, 65, 70, 71, 76, 77, 82, 83, 88, 89, 92, 93, 97, 98, 103, 104, 109, 110, 115, 116, 120, 121, 124, 125, AND 129. BRICK RETURN / FRONT WILL REQUIRE PERMISSION FROM HOWARD COUNTY.
 - ELEV G&H OFFER NO FRONT OVERHANG. ELEV K W/ FRONT OVERHANG DOES NOT FIT ON LOTS 52, 55, 56, 60, 61, 64, 65, 70, 71, 76, 77, 82, 83, 88, 89, 92, 93, 97, 98, 103, 104, 109, 110, 115, 116, 120, 121, 124, 125, AND 129.

NO.	REVISION	DATE
9	REVISE THE PLAN TO REVISE THE HOUSE TYPE AND GRADING ON LOTS 19, 30, 31, 43 AND THE GRADING ON LOT 20 AND THE DANVILLE INFORMATION ON THE HOUSE TYPES SHEET	9-23-21
1	REVISE THE PLAN TO REPLACE THE PREVIOUS GENERIC BOX ON LOT 3 WITH ANOTHER GENERIC BOX AND ADD ARCHITECTURAL MODELS	7-29-20

SITE DEVELOPMENT PLAN
HOUSE TYPES & HOUSE BOX MATRIX PLAN
CEDAR CREEK - PHASE 1
 SFD LOTS 3 - 46 AND SFA LOTS 52-129

TAX MAP 35 GRID 21 ZONED: CEF-R P/O PARCEL 145
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

DESIGN BY: VE+TG
 DRAWN BY: VE+TG
 CHECKED BY: RHV
 DATE: DECEMBER 2019
 SCALE: AS SHOWN
 W.O. NO.: 15-55

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. 18193 EXPIRATION DATE: 09-27-2020

17 SHEET OF 17