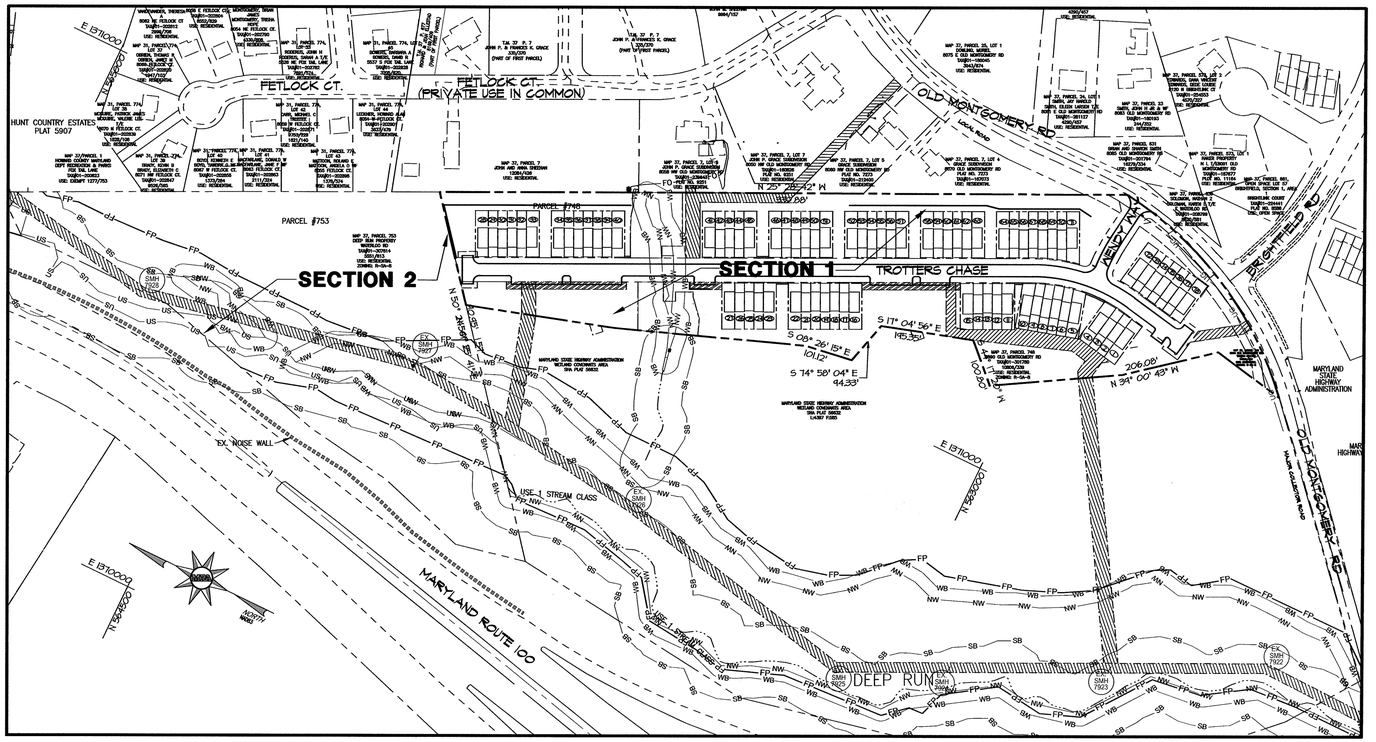
SITE DEVELOPMENT PLAN
TROTTER'S KNOLL - SECTION I
SINGLE FAMILY ATTACHED
LOTS 1-78
PLAT # 24699-24704

GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410)313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
4. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
5. THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN SURVEY WITH 2 FOOT CONTOUR INTERVALS PREPARED BY A.B. CONSULTANTS, INC. DATED OCTOBER 2007 AND FROM THE PROPOSED GRADES OF THE APPROVED FINAL ROAD CONSTRUCTION PLANS DATED 2/6/2018.
6. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 37B4 AND 37R2 WERE USED FOR THIS PROJECT.
7. BOUNDARY INFORMATION SHOWN HEREON IS BASED ON SHA PLAT NO. 56632.
8. THE OFFSITE FLOODPLAIN SHOWN IS PER SHA PLAT NO. 54587.
9. THE SUBJECT PROPERTY IS ZONED R-SA-8 PER THE 10/6/2013 COMPREHENSIVE ZONING PLAN.
10. NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON-SITE.
11. EXISTING UTILITIES ARE BASED ON WATER CONTRACT AND SEWER CONTRACT #14-4938-D.
12. A FOREST STAND DELINEATION WAS PERFORMED BY GEO-TECHNOLOGY ASSOCIATES, INC, IN 2007 AND RECONFIRMED/REVISITED BY FIELD INVESTIGATION IN OCTOBER 2014.
13. A TRAFFIC STUDY WAS PREPARED BY TRAFFIC GROUP, ENTITLED "TRAFFIC IMPACT ANALYSIS", IN MARCH 2015.
14. A NOISE STUDY WAS PREPARED BY PHOENIX NOISE AND VIBRATION, LLC, ENTITLED " TROTTER'S KNOLL PHASE 1 NOISE ANALYSIS", IN MARCH 2015.
15. WETLANDS AND WATERS OF U.S. SHOWN HEREON WERE DELINEATED AND GPS LOCATED BY GEO-TECHNOLOGY ASSOCIATES, INC ON DECEMBER 17, 2007, RECONFIRMED ON AUGUST 24, 2011, PERMITTED ON FEBRUARY 12, 2016, AND EXPIRES ON FEBRUARY 12, 2019.
16. THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY GEO-TECHNOLOGY ASSOCIATES, INC., DATED JUNE 17, 2014, AUGUST 25, 2016, AND MAY 22, 2018.
17. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
18. LOTS 1-78 WERE APPROVED ON 2/8/2018 ON FINAL PLAN F-17-027.
19. PRIOR DPZ CASES: ECP-15-020, WP-15-042, WP-15-085, WP-16-061, SP-16-002, 14-4938-D, F-17-027.
20. ON 10/16/2014 AN ALTERNATIVE COMPLIANCE, WP-15-042, TO SECTION 16.116(a)(1) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WAS APPROVED TO ALLOW DISTURBANCE IN THE WETLANDS AND WETLAND BUFFERS FOR CONSTRUCTION OF A PUBLIC ROAD. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS: (1) THE DISTURBANCE TO THE WETLAND AND WETLAND BUFFER SHOULD BE LIMITED TO WHAT IS REQUIRED FOR THE CONSTRUCTION OF THE PUBLIC ROADWAY. ALL DISTURBED AREAS MUST BE STABILIZED, AS APPROPRIATE; (2) THE APPLICANT MUST CONTACT MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) FOR ANY NECESSARY PERMITS FOR DISTURBANCES TO THE ENVIRONMENTAL FEATURES. THE MDE TRACKING PERMIT NUMBER MUST BE REFERENCED ON ALL PLAN SUBMISSIONS; (3) APPROVAL OF THIS ALTERNATIVE COMPLIANCE IS CONTINGENT UPON SUBMISSION OF THE APPROPRIATE DEVELOPMENT PLANS TO THE DEPARTMENT OF PLANNING AND ZONING BASED ON THE PROPOSED LAYOUT AS SHOWN ON THE ALTERNATIVE COMPLIANCE EXHIBIT. IF THE PLAN SHOULD DRASTICALLY CHANGE, A NEW ALTERNATIVE MAY BE WARRANTED IN ORDER TO RE-EVALUATE THE ENVIRONMENTAL ENCROACHMENT. ALSO, ON ALL FUTURE SUBDIVISION PLANS, SITE PLANS AND BUILDING PERMIT PLANS PROVIDE A GENERAL NOTE THAT GIVES A BRIEF DESCRIPTION OF THE ALTERNATIVE COMPLIANCE REQUEST, SECTION OF THE REGULATIONS WAIVED, DATE OF APPROVAL AND ANY CONDITIONS OF APPROVAL.
21. ON 02/18/15 AN ALTERNATIVE COMPLIANCE, WP-15-085, TO SECTION 16.1205(a)(7)&(10) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WAS APPROVED TO REMOVE SPECIMEN TREE #4, BUT DENIED THE REQUEST TO REMOVE SPECIMEN TREE #5. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS: (1) SPECIMEN TREE #5 MUST BE SAVED, PROTECTED AND MAINTAINED AS SHOWN ON THE REVISED ENVIRONMENTAL CONCEPT PLAN UNLOADED TO PROJECTDOX. IN ORDER TO FURTHER PROTECT DISTURBANCE TO THE CRITICAL ROOT ZONE FOR SPECIMEN TREE #5, DPZ RECOMMENDS THE APPLICANT MOVE UNITS 95 & 96 AND RELOCATED THEM NEXT TO UNIT 27. THIS EXCHANGE SHOULD BE CONSIDERED AND EVALUATED DURING THE DESIGN AND REVIEW OF THE SUBDIVISION PLAN; (2) IN ACCORDANCE WITH THE DEPARTMENT OF RECREATION AND PARKS COMMENTS DATED JANUARY 21, 2015 - SPECIMEN TREE #5 SHOULD BE PROTECTED DURING CONSTRUCTION. A REGISTERED ARBORIST MUST INSPECT THE TREE AND IMPLEMENT RECOMMENDATIONS FOR PROFESSIONAL PRUNING OF ROOTS AND FOLIAGE ALL PRUNING MUST BE PERFORMED BY A MARYLAND LICENSED TREE EXPERT. TREE PROTECTION FENCING MUST BE INSTALLED AROUND THE TREES PERIMETER TO PREVENT ROOT AND FOLIAGE DAMAGE DURING CONSTRUCTION AND ALTERNATIVE DESIGNS OF THE SITE LAYOUT MUST BE CONDUCTED BY THE CONSULTANT IN ORDER TO MINIMIZE ROOT DAMAGE; (3) EFFORTS SHOULD BE MADE TO SAVE AND PROTECT SPECIMEN TREE #4 DURING CONSTRUCTION. HOWEVER SHOULD GROUND DISTURBANCES OCCUR WITHIN THE DRIP LINE PROHIBIT THE SAVING OF THIS SPECIMEN TREE, THE REMOVAL OF SPECIMEN TREE #4 IS APPROVED UNDER THIS WAIVER REQUEST. THE REMOVAL OF SPECIMEN TREE #4 WILL REQUIRE MITIGATION OF ONE 3" - 4" CALIPER TREE. THE MITIGATED TREE SHALL BE OF SIMILAR SPECIES AS THE REMOVED TREE, BE SHOWN AS PART OF THE LANDSCAPE PLAN, AND SHALL BE BONDED WITH THE LANDSCAPE OBLIGATION.
22. ON 12/16/15 AN ALTERNATIVE COMPLIANCE, WP-16-061, TO SECTION 16.134(a)(1) & SECTION 16.134(c) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WAS APPROVED TO ALLOW PARTIAL RELIEF FROM SIDEWALK FRONTAGE IMPROVEMENT. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS: (1) AS SHOWN ON THE ALTERNATIVE COMPLIANCE EXHIBIT, THE DEVELOPER SHALL CONSTRUCT A PORTION OF THE SIDEWALK ALONG THE PROPERTY FRONTAGE AS NECESSARY TO PROVIDE A CONNECTION TO THE EXISTING SIDEWALK AT THE INTERSECTION OF OLD MONTGOMERY ROAD AND BRIGHTFIELD ROAD. (2) THE DEVELOPER SHALL PAY A FEE-IN-LIEU OF SIDEWALK, ROAD FRONTAGE AND STREET LIGHTS IMPROVEMENTS FOR THE UNIMPROVED PORTION OF THE PROPERTY FRONTAGE IN COMPLIANCE WITH THE ATTACHED DEVELOPMENT ENGINEERING DIVISION COMMENTS DATED DECEMBER 7, 2015. A COST ESTIMATE FOR THE ADDITIONAL IMPROVEMENTS SHALL BE FORWARDED TO THE DEPARTMENT OF PLANNING AND ZONING, DEVELOPMENT ENGINEERING DIVISION. THE FEE-IN-LIEU MUST BE PAID PRIOR TO THE SUBDIVISION PLAT RECORDATION. (3) APPROVAL OF THIS ALTERNATIVE COMPLIANCE IS SUBJECT TO THE REVIEW AND APPROVAL SP-16-002 AND ALL SUBSEQUENT DEVELOPMENT PLANS.
23. ON NOVEMBER 3, 2015 THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING PLANNING DIRECTOR APPROVED THE REQUEST FOR AN INCREASED BUILDING LENGTH PER SECTION 111.0.D.1(E) OF THE ZONING REGULATION SUBJECT TO THE FOLLOWING CONDITIONS:
    - EACH TOWNHOUSE UNIT SHALL HAVE THE 2' JOG BETWEEN THE BUILDING FACADES OF EACH UNIT AND ADJACENT UNITS AS PROPOSED BY THE APPLICANT.
    - EACH UNIT SHALL HAVE THE DIFFERENT ARCHITECTURAL CHARACTER AS PROPOSED BY THE APPLICANT TO INCLUDE BUILDING MATERIALS, COLOR PALETTE AND/OR ARCHITECTURAL FEATURES. ADDITIONALLY, THE APPLICANT SHALL VARY THE ARCHITECTURAL CHARACTER OF THE ROOF DESIGN TO INCLUDE VARYING HEIGHTS, SHINGLE COLOR, DORMERS, ETC.
    - A FINAL DETERMINATION OF THE BUILDING ARCHITECTURAL DESIGN AND VISUAL IMPACT OF THE BUILDING LENGTH SHALL BE FURTHER EVALUATED BY THIS OFFICE WITH THE REVIEW AND APPROVAL OF THE SITE DEVELOPMENT PLAN.
24. A PRE-SUBMISSION COMMUNITY MEETING FOR THIS PROJECT WAS HELD ON JUNE 2, 2015. A SECOND COMMUNITY MEETING WAS HELD JANUARY 12, 2016.
25. WETLAND PERMIT, #15-NT-0329/201561582, HAS BEEN JOINTLY AUTHORIZED BY THE U.S ARMY CORPS OF ENGINEERS AND MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR THE PROPOSED DISTURBANCE TO THE ON-SITE WETLANDS, WETLAND BUFFERS, 100 YEAR FLOODPLAIN, ROAD CROSSING, AND SEWER TIE-IN.
26. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF $63,150 FOR 146 SHADE TREES, 129 EVERGREEN TREES AND HAS BEEN POSTED WITH THE DEVELOPER'S AGREEMENT. LANDSCAPING ADDRESSED UNDER PLAN #F-17-027.
27. THIS PLAN IS IN COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL 45-2003 AND THE 10/6/13 COMPREHENSIVE ZONING PLAN. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN.
28. ALL STORMWATER MANAGEMENT CONTROL DEVICES AND ASSOCIATING PIPES WILL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION. STORMWATER MANAGEMENT IS ACHIEVED BY USING ESD WITH BMP'S. SEE APPROVED FINAL PLAN F-17-027.
29. SHC ELEVATIONS SHOWN ARE LOCATED AT THE UTILITY EASEMENT.
30. FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.01.
31. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
    WIDTH- 12' (16' SERVING MORE THAN ONE RESIDENCE)
    SURFACE- 6" OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1 ½" MIN)
    GEOMETRY- MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS
    STRUCTURE (CULVERTS/BRIDGES)- CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING)
    DRAINAGE ELEMENTS- SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
    MAINTENANCE- SUFFICIENT TO INSURE ALL WEATHER USE
32. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS WITHOUT AN APPROVED ALTERNATIVE COMPLIANCE REQUEST.
33. PROJECT SHALL BE DEVELOPED AS TWO PHASES, SECTION ONE AND SECTION TWO. THIS PLAN SET IS FOR SECTION ONE ONLY.
34. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED. FOREST CONSERVATION IS ADDRESSED UNDER PLAN #F-17-027.
35. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY A COMBINATION OF ON-SITE AFFORESTATION AND AN OFF-SITE FOREST MITIGATION BANK. THE ON-SITE AFFORESTATION SHALL TOTAL 0.56 AC. A SURETY IN THE AMOUNT OF $12,197.00 FOR THE ON-SITE AFFORESTATION HAS BEEN POSTED WITH THE DEVELOPER'S AGREEMENT. THE REMAINING 1.14 AC. IS ADDRESSED WITH 1.14 AC. OF OFF-SITE FOREST RETENTION AREA LOCATED WITHIN THE FOREST MITIGATION BANK KNOWN AS AFS FARM, SDP-16-029, LOCATED AT 15685 OLD FREDERICK ROAD, WOODBINE, MD 21797. FOREST CONSERVATION IS ADDRESSED UNDER PLAN #F-17-027.
36. IN ACCORDANCE WITH SECTION 128.0 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES, OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
37. THE 65DBA NOISE LINE ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPT OF HOUSING AND URBAN DEVELOPMENT.
38. ALL PARKING SPACES PROVIDED ON SITE SHALL BE MAINTAINED BY THE H.O.A.
39. ALL MIHU REQUIREMENTS FOR THIS PROJECT ARE BEING PROVIDED BY UNITS ON-SITE AS SHOWN ON THE MIHU ALLOCATION EXEMPTIONS TRACKING CHART, THIS PAGE.
40. ALL REFUSE ON SITE WILL BE COLLECTED FROM INDIVIDUAL HOMEOWNERS BY HOWARD COUNTY. THERE IS A REFUSE COLLECTION CHARGE LEVIED ANNUALLY ON ALL RESIDENTIAL PROPERTY FOR WHICH THE COUNTY PROVIDES REFUSE COLLECTION SERVICE.



LOCATION PLAN
SCALE: 1" = 150'

150 0 150 300 450
Scale 1" = 150'

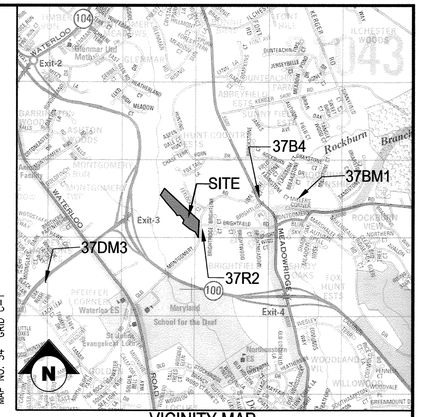
BENCH MARKS

37BM1
N 563,400.0583 E 1,374,319.8700
NAD 83 (Adj 07)
NAVD 88

37DM3
N 561,077.4764 E 1,367,289.7870
NAD 83 (Adj 07)
NAVD 88

37B4
N 563,928.5542 E 1,373,109.1044
ELEV. 401.41'
NAD 83/91
NAVD 88

37R2
N 562,611.4210 E 1,371,554.4972
ELEV. 399.73'
NAD 83/91
NAVD 88



©ADC THE MAP PEOPLE PERMISSION PLN 21006237
MAP NO. 34 GRID C-1

VICINITY MAP
SCALE: 1" = 2,000'

SITE ANALYSIS DATA

1.	ZONING:	R-SA-8
2.	GROSS AREA:	11.54 AC.
3.	ONE-HUNDRED YEAR FLOODPLAIN	0.00 AC.
4.	STEEP SLOPES (ONLY 25%+)	0.00 AC.
5.	NET AREA:	11.54 AC.
6.	PROPOSED LIMITS OF DISTURBANCE	4.10 AC.
7.	TOTAL AREA OF PROPOSED LOTS:	3.94 AC.
8.	AREA OF PROPOSED OPEN SPACE:	5.40 AC.
9.	RIGHT-OF-WAY DEDICATION:	0.19 AC.
10.	WETLAND AREA:	0.13 AC.
11.	PROPOSED USE:	RESIDENTIAL (SINGLE FAMILY ATTACHED)
12.	NO. OF UNITS ALLOWED:	92 (8 DWELLING UNITS/NET ACRE)
13.	NO. OF UNITS PROPOSED:	78
14.	NO. OF LOTS PROPOSED:	84
	RESIDENTIAL LOTS: 78	
	OPEN SPACE LOTS: 6	
15.	OPEN SPACE LOTS 79, 81, 82, AND 84 TO BE OWNED AND MAINTAINED BY HOA. OPEN SPACE LOTS 80 AND 83 TO BE DEDICATED TO HOWARD COUNTY REFORESTATION AND PARKS.	
16.	PROPOSED WATER AND SEWER SHALL BE PUBLIC.	
17.	PROPOSED LIMITS OF DISTURBANCE:	3.94 AC
17.	REQUIRED OPEN SPACE	25% (2.89 AC.)
18.	PROVIDED OPEN SPACE:	47% (5.40 AC.)
19.	REQUIRED RECREATIONAL OPEN SPACE:	31,200 SF (400 SF/SFA UNIT)
20.	PROVIDED RECREATIONAL OPEN SPACE:	31,279 SF
21.	MAX. LOT COVERAGE PERMITTED:	60%
22.	MIHU'S REQUIRED/PROVIDED	8 REQUIRED/8 PROVIDED
23.	DPZ FILE REFERENCES/PRIOR DPZ CASES	ECP-15-020, WP-15-042, WP-15-085, WP-16-061, SP-16-002, 14-4938-D, F-17-027.

24. PARKING REQUIREMENTS

REQUIRED PARKING (78 SINGLE-FAMILY ATTACHED):	
RESIDENTIAL UNITS (2 SPACES PER DWELLING UNIT)	156 SPACES
VISITOR PARKING (0.5 PER DWELLING UNIT)	39 SPACES
TOTAL REQUIRED SPACES	195 SPACES TOTAL
PROVIDED PARKING:	
SINGLE FAMILY ATTACHED 1 CAR GARAGE UNIT (43 TOTAL): (1 GARAGE SPACE AND 1 DRIVEWAY SPACE)	86 SPACES
SINGLE FAMILY ATTACHED 2 CAR GARAGE UNIT (20 TOTAL): (1 GARAGE SPACE AND 1 DRIVEWAY SPACE)	40 SPACES
SINGLE FAMILY ATTACHED UNIT WITHOUT GARAGES (15 TOTAL): (2 SPACE PER UNIT DRIVEWAY SPACES)	30 SPACES
ON STREET HEAD-IN GUEST PARKING SPACES:	40 SPACES
TOTAL PROVIDED SPACES	196 SPACES TOTAL
REQUIRED HANDICAP PARKING:	0 SPACES
PROVIDED HANDICAP PARKING:	0 SPACES

MODERATE INCOME HOUSING UNITS (MIHU) ALLOCATION EXEMPTIONS TRACKING

TOTAL NUMBER OF LOTS/UNITS PROPOSED	78
NUMBER OF MIHU REQUIRED	8
NUMBER OF MIHU PROVIDED ONSITE (EXEMPT FROM APFO ALLOCATIONS)	8 PROVIDED PER MIHU AGREEMENT EXECUTED 5-16-18
NUMBER OF APFO ALLOCATIONS REQUIRED (REMAINING LOTS/UNITS)	78 REQUIRED / 77 PROVIDED IN 2018, 1 PROVIDED IN 2020
MIHU FEE-IN-LIEU (INDICATE LOT/UNIT NUMBERS)	NOT APPLICABLE REQUIREMENTS MET ON SITE

PERMIT INFORMATION CHART

SUBDIVISION NAME					PARCEL NO.
TROTTERS KNOLL -SECTION I					PARCEL 748
PLAT NO. OR L/F SHA PLAT NO. 24699-24704	GRID # 2	ZONING R-SA-8	TAX MAP NO. 37	ELECT. DIST. 1	CENSUS TRACT 6011.05

SHEET INDEX

ADDRESS CHART

LOT NO.	STREET ADDRESS	LOT NO.	STREET ADDRESS	LOT NO.	STREET ADDRESS
1	8015 TROTTERS CHASE	27	8091 TROTTERS CHASE	53	8066 TROTTERS CHASE
2	8017 TROTTERS CHASE	28	8128 TROTTERS CHASE	54	8064 TROTTERS CHASE
3	8019 TROTTERS CHASE	29	8126 TROTTERS CHASE	55	8062 TROTTERS CHASE
4	8021 TROTTERS CHASE	30	8124 TROTTERS CHASE	56	8060 TROTTERS CHASE
5	8027 TROTTERS CHASE	31	8122 TROTTERS CHASE	57	8058 TROTTERS CHASE
6	8029 TROTTERS CHASE	32	8120 TROTTERS CHASE	58	8054 TROTTERS CHASE
7	8031 TROTTERS CHASE	33	8118 TROTTERS CHASE	59	8052 TROTTERS CHASE
8	8033 TROTTERS CHASE	34	8114 TROTTERS CHASE	60	8050 TROTTERS CHASE
9	8035 TROTTERS CHASE	35	8112 TROTTERS CHASE	61	8048 TROTTERS CHASE
10	8037 TROTTERS CHASE	36	8110 TROTTERS CHASE	62	8046 TROTTERS CHASE
11	8041 TROTTERS CHASE	37	8108 TROTTERS CHASE	63	8044 TROTTERS CHASE
12	8043 TROTTERS CHASE	38	8106 TROTTERS CHASE	64	8040 TROTTERS CHASE
13	8045 TROTTERS CHASE	39	8104 TROTTERS CHASE	65	8038 TROTTERS CHASE
14	8047 TROTTERS CHASE	40	8102 TROTTERS CHASE	66	8036 TROTTERS CHASE
15	8049 TROTTERS CHASE	41	8094 TROTTERS CHASE	67	8034 TROTTERS CHASE
16	8067 TROTTERS CHASE	42	8092 TROTTERS CHASE	68	8032 TROTTERS CHASE
17	8069 TROTTERS CHASE	43	8090 TROTTERS CHASE	69	8030 TROTTERS CHASE
18	8071 TROTTERS CHASE	44	8088 TROTTERS CHASE	70	8028 TROTTERS CHASE
19	8073 TROTTERS CHASE	45	8086 TROTTERS CHASE	71	8026 TROTTERS CHASE
20	8075 TROTTERS CHASE	46	8082 TROTTERS CHASE	72	8022 TROTTERS CHASE
21	8077 TROTTERS CHASE	47	8080 TROTTERS CHASE	73	8020 TROTTERS CHASE
22	8079 TROTTERS CHASE	48	8078 TROTTERS CHASE	74	8018 TROTTERS CHASE
23	8083 TROTTERS CHASE	49	8076 TROTTERS CHASE	75	8016 TROTTERS CHASE
24	8085 TROTTERS CHASE	50	8074 TROTTERS CHASE	76	8014 TROTTERS CHASE
25	8087 TROTTERS CHASE	51	8072 TROTTERS CHASE	77	8012 TROTTERS CHASE
26	8089 TROTTERS CHASE	52	8068 TROTTERS CHASE	78	8010 TROTTERS CHASE

LEGEND

PR. LOT LINE	EX. ELECTRIC CONDUIT
PR. BUILDING FOOTPRINT	EX. LIGHT POLES
PR. BUILDING SETBACK	EX. GAS LINE
PR. CURB AND GUTTER	EX. STORM DRAIN
PR. SIDEWALK	EX. CONDUIT
PR. RETAINING WALL	EX. FIBER OPTIC
EX. PROPERTY LINE	EX. TV LINE
EX. ADJACENT PROPERTY LINE	EX. ELECTRIC MANHOLE
EX. RIGHT OF WAY	EX. TELEPHONE MANHOLE
EX. EASEMENT	EX. BORING LOCATION
EX. ZONING LINE	EX. NON TIDAL WETLANDS
EX. BUILDING	EX. NON TIDAL WETLANDS
EX. CONCRETE	EX. 25' WETLAND BUFFER
EX. PAVEMENT	EX. FLOODPLAIN
EX. ROAD CENTERLINE	EX. WATERS OF THE US
EX. FENCE	EX. STREAM BUFFER
EX. OVERHEAD LINE	EX. PUBLIC UTILITY EASEMENT
EX. WATER LINE	
EX. SEWER LINE	
EX. STREAM	
EX. TREE LINE	
EX. GUARD RAIL	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1.4.19

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1-07-19

DIRECTOR OF PLANNING AND ZONING — DATE 1-7-19

OWNER / DEVELOPER:
CALATLANTIC GROUP, INC.
ADDRESS: 7035 ALBERT EINSTEIN DRIVE, SUITE 200 COLUMBIA, MD 21046
CONTACT: RYAN HOUCK, DIVISION PRESIDENT
PHONE: 410-997-5522
EMAIL: Ryan.Houck@lennar.com

BUILDER:
LENNAR
ADDRESS: 7035 ALBERT EINSTEIN DRIVE, SUITE 200 COLUMBIA, MD 21046
PHONE: 410-997-5522

STATE OF MARYLAND — DANIEL JACOBSON — No. 19916 — PROFESSIONAL ENGINEER — 12.10.18

MD PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19916, EXPIRATION DATE: 01/14/2019.

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
14280 PARK CENTER DRIVE
LAUREL, MD 20707
(410) 792-9792 / (301) 776-1690
FAX: (410) 792-7395
MRAGTA.COM

SITE DEVELOPMENT PLAN
TROTTER'S KNOLL - SECTION I
TROTTERS CHASE, ELLICOTT CITY MARYLAND
COVER SHEET
SINGLE FAMILY ATTACHED HOMES
TAX MAP 37 GRIDS 2 PARCEL 748 ZONED: R-SA-8
PLAT #24699-24704, 1ST ELECTION DISTRICT
HOWARD COUNTY, MD 21043

DATE	REVISIONS		
01/11/2019	1 REVISED DRIVEWAYS AND ENTRY SIGN	JOB NO.:	15368 x 05
		SCALE:	AS SHOWN
		DATE:	12/7/18
		DRAWN BY:	JG
		DESIGN BY:	JG
		REVIEW BY:	DJ
		SHEET:	1 OF 7

SDP-18-065

P:\PROJ\15368 TROTTERS KNOLL\PLANS\DES\SEC 1 SDP\Plat\Plan Sets\SDP\15368-SDP-01-COVER SHEET.dwg: 12/7/2018 10:02:59 AM: mflorino

LEGEND

EX. LOT LINE
EX. BUILDING FOOTPRINT
EX. BUILDING SETBACK
EX. SIDEWALK
EX. RETAINING WALL
EX. STREET LIGHT (LED-100 COLONIAL)
EX. STREET LIGHT (LED-150 COLONIAL)
EX. UTILITY EASEMENT
EX.TEMPORARY ROADWAY EASEMENT
EX. GRADING EASEMENT
EX. PUBLIC STREET TREE & SIDEWALK MAINTENANCE EASEMENT
EX. PUBLIC STREET TREE EASEMENT
EX. PRIVATE SURFACE DRAINAGE ESMT.
PR. DRIVEWAY PAVEMENT
EX. SURFACE DRAINAGE EASEMENT

LANDSCAPE LEGEND

EX. STREET SHADE TREE
EX. PARKING SHADE TREE
EX. BUFFER SHADE TREE
EX. BUFFER EVERGREEN TREE
EX. RESIDENTIAL SHADE TREE
EX. RESIDENTIAL ORNAMENTAL TREE
SPECIMEN MITIGATION SHADE TREE PLANTING
EX. SWM SHRUB
EX. SWM PERENNIAL
EX. PARCEL 631 EVERGREEN TREE
EX. PARCEL 631 SHRUB

LEGEND

EX. 8" SEWER LINE
EX. 8" WATER LINE
EX. WATER HOUSE CONNECTION
EX. SEWER HOUSE CONNECTION
EX. STORM DRAIN MANHOLE
EX. STORM DRAIN
EX. STORM DRAIN INLET
EX. TWIN WATER METER
EX. SINGLE WATER METER
EX. FIRE HYDRANT

PLAN

SCALE: 1"=30'

30 0 30 60 90

Scale 1" = 30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[illegible]	1.4.19
CHIEF, DEVELOPMENT ENGINEERING DIVISION NY	DATE
[illegible]	1-07-19
CHIEF, DIVISION OF LAND DEVELOPMENT JJ	DATE
[illegible]	1-7-19
DIRECTOR OF PLANNING AND ZONING	DATE

OWNER / DEVELOPER:
CALATLANTIC GROUP, INC.
ADDRESS: 7035 ALBERT EINSTEIN DRIVE, SUITE 200 COLUMBIA, MD 21046
CONTACT: RYAN HOUCK DIVISION PRESIDENT
PHONE: 410-997-5522
EMAIL: Ryan.Houck@lennar.com

BUILDER:
LENNAR
ADDRESS: 7035 ALBERT EINSTEIN DRIVE, SUITE 200 COLUMBIA, MD 21046
PHONE: 410-997-5522

STATE OF MARYLAND
DANIEL JACKSON
No. 19916
PROFESSIONAL ENGINEER
12.19.18

MD PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19916, EXPIRATION DATE: 01/14/2019.

MORRIS & RITCHIE ASSOCIATES, INC.
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SITE DEVELOPMENT PLAN

TROTTER'S KNOLL - SECTION I

TROTTERS CHASE, ELLICOTT CITY MARYLAND

LAYOUT PLAN - LOTS 1-15, 52-78

TAX MAP 37 GRIDS 2 PARCEL 748 ZONED: R-SA-8
PLAT #24699-24704, 1ST ELECTION DISTRICT
HOWARD COUNTY, MD 21043

DATE	REVISIONS		
01/11/2019	1 REVISED DRIVEWAYS AND ENTRY SIGN	JOB NO.:	15368 x 05
8/31/2020	2 REVISED DECKS	SCALE:	1" = 30'
		DATE:	12/7/18
		DRAWN BY:	MR
		DESIGN BY:	MM
		REVIEW BY:	TCN
		SHEET:	2 OF 7

SDP-18-065

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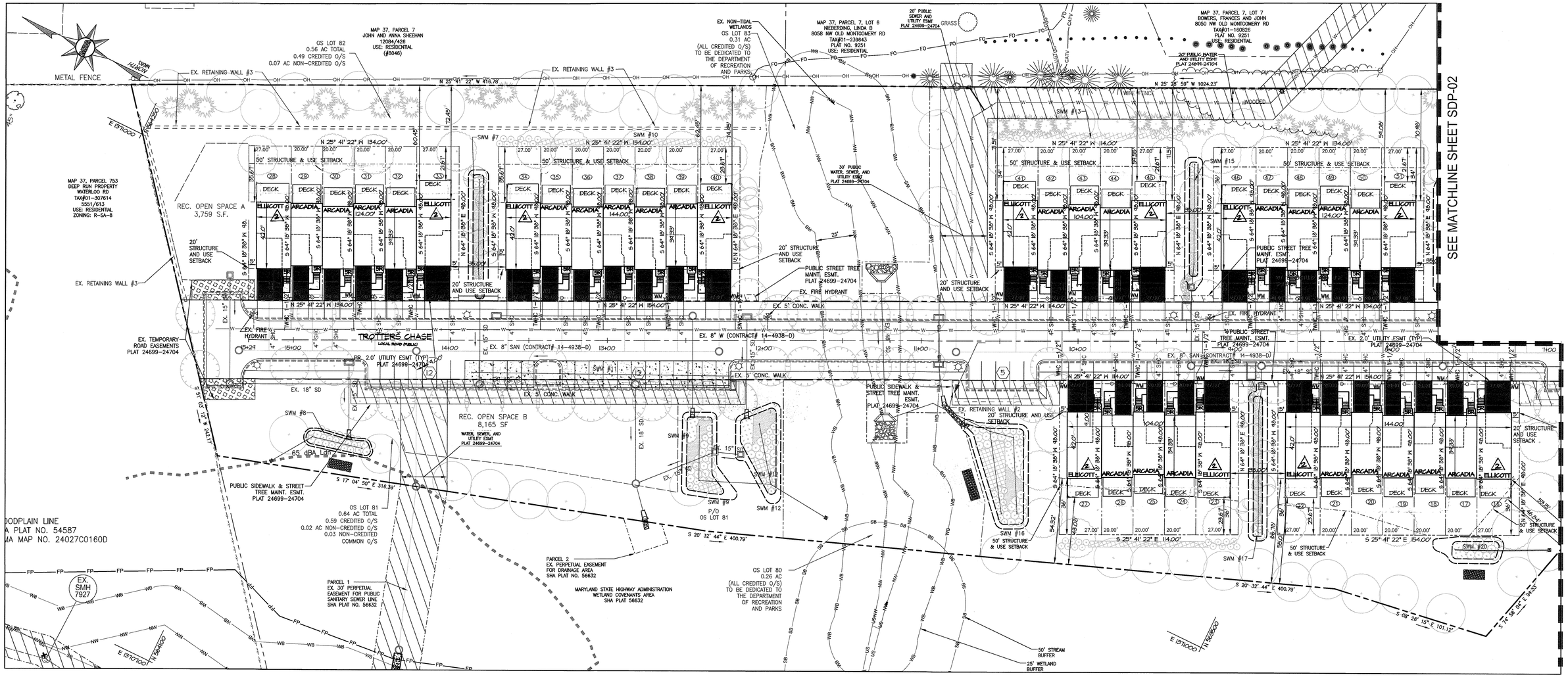

LEGEND

- EX. LOT LINE
- EX. BUILDING FOOTPRINT
- EX. BUILDING SETBACK
- EX. SIDEWALK
- EX. RETAINING WALL
- EX. STREET LIGHT (LED-100 COLONIAL)
- EX. STREET LIGHT (LED-150 COLONIAL)
- EX. UTILITY EASEMENT
- EX.TEMPORARY ROADWAY EASEMENT
- EX. GRADING EASEMENT
- EX. PUBLIC STREET TREE & SIDEWALK MAINTENANCE EASEMENT
- EX. PUBLIC STREET TREE EASEMENT
- EX. PRIVATE SURFACE DRAINAGE ESMT.
- PR. DRIVEWAY PAVEMENT
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LEGEND

- EX. 8" SEWER LINE
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- EX. WATER HOUSE CONNECTION
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LANDSCAPE LEGEND

- EX. STREET SHADE TREE
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PLAN
SCALE: 1"=30'

30 0 30 60 90
Scale 1" = 30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	MK	DATE 1-4-19
CHIEF, DIVISION OF LAND DEVELOPMENT	JT	DATE 1-07-19
DIRECTOR OF PLANNING AND ZONING		DATE 1-7-19

OWNER / DEVELOPER:
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STATE OF MARYLAND · DANIEL JACKSON · No. 19916 · PROFESSIONAL ENGINEER
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SITE DEVELOPMENT PLAN

TROTTER'S KNOLL - SECTION I

TROTTERS CHASE, ELLICOTT CITY MARYLAND

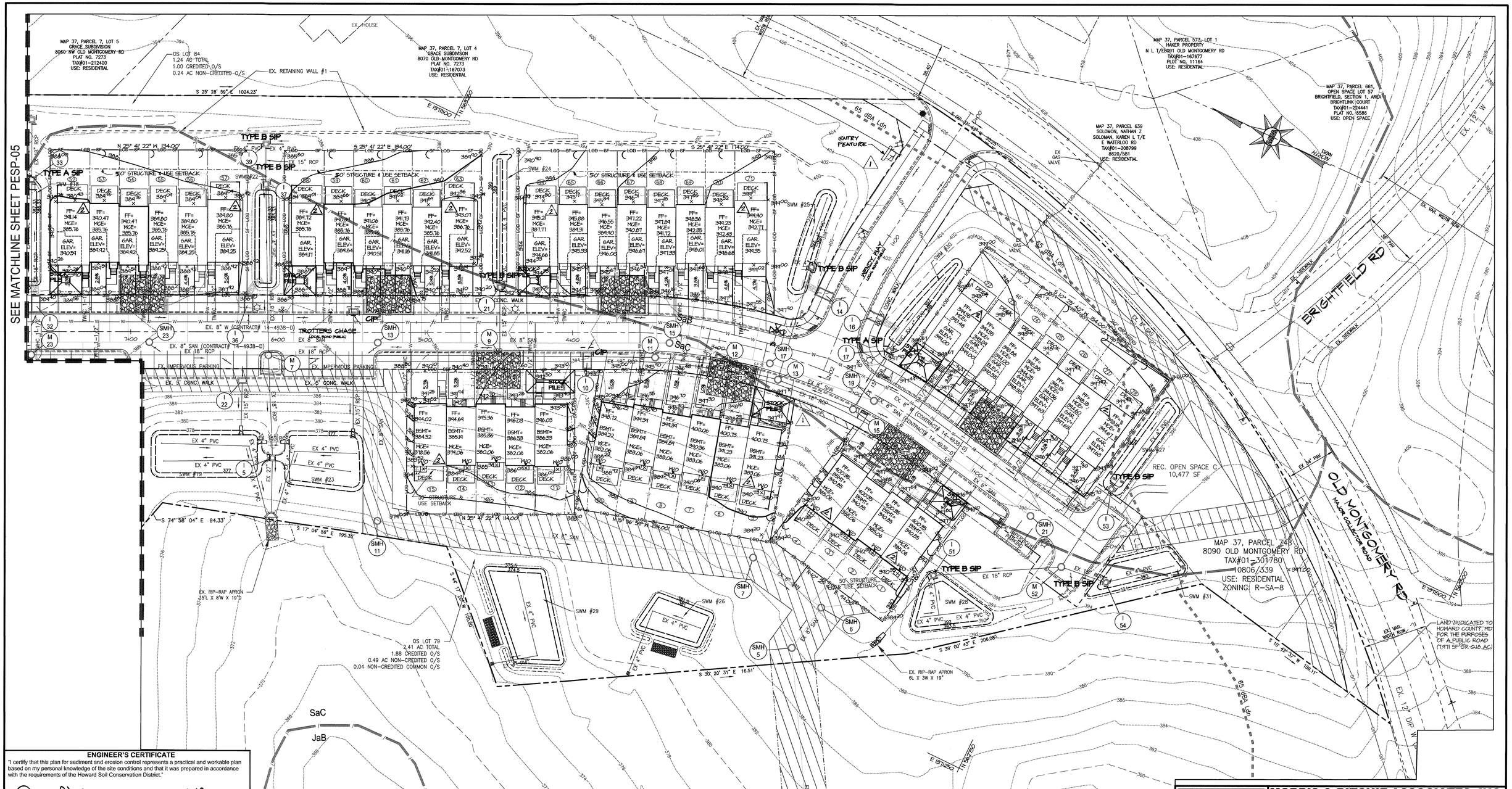
LAYOUT PLAN - LOTS 16-51

TAX MAP 37 GRIDS 2 PARCEL 748 ZONED: R-SA-8
PLAT #24699-24704, 1ST ELECTION DISTRICT
HOWARD COUNTY, MD 21043

DATE	REVISIONS		
8-31-20	2 REVISED DECKS	JOB NO.:	15368 x 05
		SCALE:	1" = 30'
		DATE:	12/7/18
		DRAWN BY:	MR
		DESIGN BY:	MM
		REVIEW BY:	TCN
		SHEET:	3 OF 7

SDP-18-065

SEE MATCHLINE SHEET PESP-05



ENGINEER'S CERTIFICATE

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer (Daul Jackson) — Date 12.19.18

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer (CalAtlantic Group, Inc.) — Date 12.18.18

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 12/20/18

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1.4.19

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1-07-19

DIRECTOR OF PLANNING AND ZONING — DATE 1-7-19

PLAN
SCALE: 1"=30'

Scale 1" = 30'

SOILS LEGEND			
SYMBOL	NAME/DESCRIPTION	SOIL TYPE	'K' VALUE
ChC	CHILLUM-RUSSET LOAMS, 5-10% SLOPES	B	0.10-0.37
CrD	CROOM AND EVESBORO SOILS, 10-15% SLOPES	C	0.15-0.37
Fa	FALLSINGTON SANDY LOAM, 0-2% SLOPES	D	0.02-0.24
Ha	HATBORO-CORDORUS SILT LOAMS, 0-3% LOAMS	D	0.20-0.37
JaB	JACKLAND SILT LOAM, 3-8%	D	0.15-0.55
LaC	LEGORE SILT LOAM, 8-15% SLOPES	B	0.02-0.43
SaB	SASSAFRAS LOAM, 2-5% SLOPES	B	0.17-0.37
SaC	SASSAFRAS LOAM, 5-10% SLOPES	B	0.17-0.32
UsB	URBAN LAND-FALLSINGTON COMPLEX, 0-2% SLOPES	D	0.17-0.37

HOWARD COUNTY SOIL CONSERVATION DISTRICT MAP NUMBER 14-036

OWNER / DEVELOPER:

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SITE DEVELOPMENT PLAN

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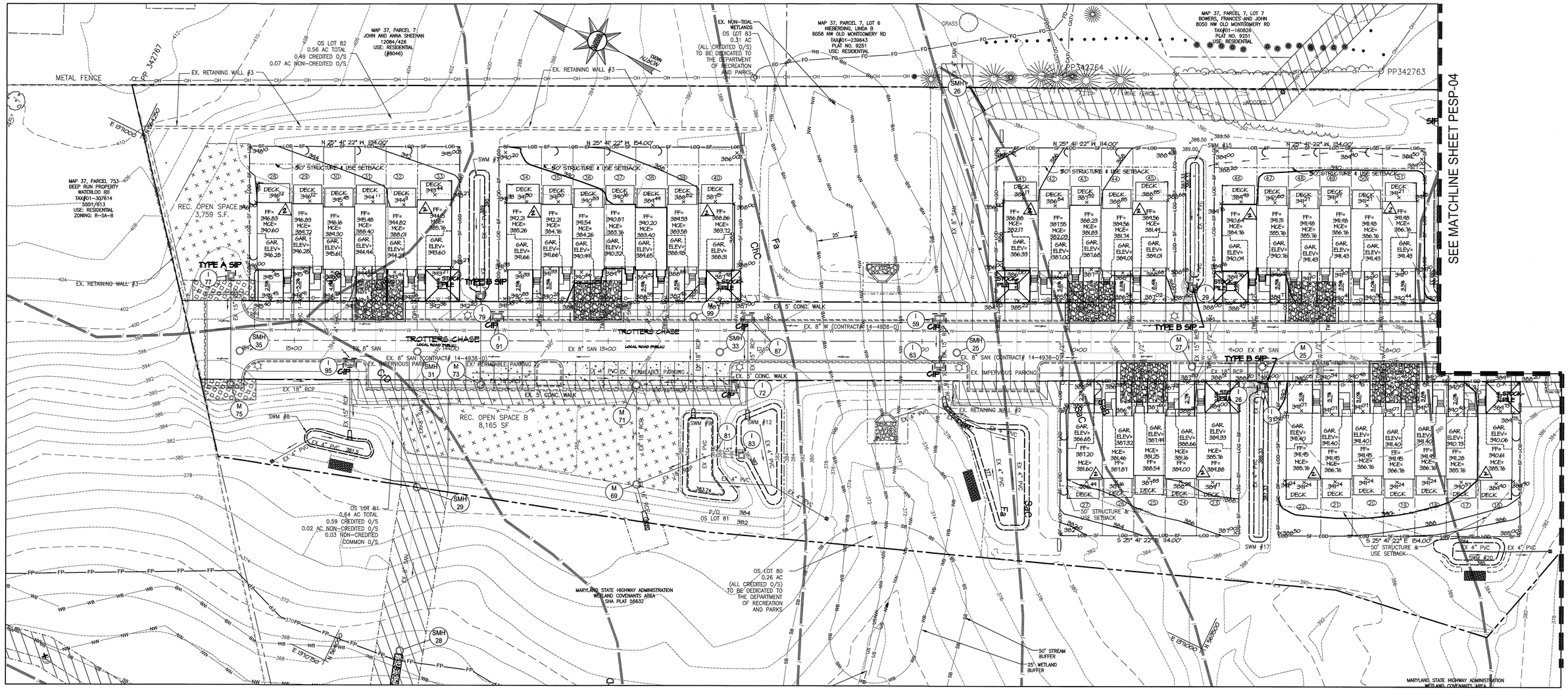
TROTTERS CHASE, ELLICOTT CITY MARYLAND

GRADING, SOILS, SEDIMENT AND EROSION CONTROL PLAN - LOTS 1-15, 52-78

TAX MAP 37 GRIDS 2 PARCEL 748 ZONED: R-SA-8
PLAT #24699-24704, 1ST ELECTION DISTRICT
HOWARD COUNTY, MD 21043

DATE	REVISIONS		JOB NO.:	15368 x 05
01/11/2019	1	REVISED DRIVEWAYS AND ENTRY SIGN	SCALE:	AS SHOWN
8.31.20	2	REVISED DECKS	DATE:	12/7/18
			DRAWN BY:	MR
			DESIGN BY:	MR
			REVIEW BY:	MAM
			SHEET:	4 OF 7

SDP-18-065



PLAN
SCALE: 1"=30'

Scale 1" = 30'

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ENGINEER'S CERTIFICATE

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer (Dan Jackson) — Date 12.19.18

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer (CalAtlantic Group, Inc.) — Date 12.18.18

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1.4.19

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1-07-19

DIRECTOR OF PLANNING AND ZONING — DATE 1-7-19

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SITE DEVELOPMENT PLAN

TROTTER'S KNOLL - SECTION I

TROTTERS CHASE, ELLICOTT CITY MARYLAND

GRADING, SOILS, SEDIMENT AND EROSION CONTROL PLAN - LOTS 16-51

TAX MAP 37 GRIDS 2 PARCEL 748 ZONED: R-SA-8
PLAT #24699-24704, 1ST ELECTION DISTRICT
HOWARD COUNTY, MD 21043

DATE	REVISIONS		
8-31-20	4 REVISED DECKS	JOB NO.:	15368 x 05
	5	SCALE:	AS SHOWN
		DATE:	12/7/18
		DRAWN BY:	MR
		DESIGN BY:	MR
		REVIEW BY:	MAM
		SHEET:	5 OF 7

SDP-18-065

B-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

A. Soil Preparation

1. Temporary Stabilization
   a. 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 rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
   b. Apply fertilizer and lime as prescribed on the plans.
   c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
2. Permanent Stabilization
   a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
      i. Soil pH between 6.0 and 7.0.
      ii. Soluble salts less than 500 parts per million (ppm).
      iii. 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: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
      iv. Soil contains 1.5 percent minimum organic matter by weight.
      v. Soil contains sufficient pore space to permit adequate root penetration.
   b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
   c. 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.
   d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
   e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake 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 heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

B. Topsoiling

1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
   a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
   b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
   c. The original soil to be vegetated contains material toxic to plant growth.
   d. The soil is so acidic that treatment with limestone is not feasible.
4. Areas having slopes steeper than 2:1 require special consideration and design.
5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
   a. 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 by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½ inches in diameter.
   b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
   c. Topsoil 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.
6. Topsoil Application
   a. Erosion and sediment control practices must be maintained when applying topsoil.
   b. Uniformly 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 sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
   c. 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.

C. Soil Amendments (Fertilizer and Lime Specifications)

1. 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.
2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be 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 #20 mesh sieve.
4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
5. Where the subsoil is either highly 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 perimeter controls, slopes, and any disturbed area not under active grading.

Criteria

A. Seeding

1. Specifications
   a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject 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. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
   b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
   c. 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 weaken bacteria and make the inoculant less effective.
   d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.
2. Application
   a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
      i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.
      ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.
   b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
      i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
      ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
   c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).
      i. If 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; P_2O_5 (phosphorous), 200 pounds per acre; K_2O (potassium), 200 pounds per acre.
      ii. Lime: 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.
      iii. Mix seed and fertilizer on site and seed immediately and without interruption.
      iv. When hydroseeding do not incorporate seed into the soil.

B. Mulching

1. Mulch Materials (in order of preference)
   a. Straw consisting of thoroughly threshed wheat, rye, 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, moldy, caked, decayed, or excessively dusty. **Note: Use only sterile straw mulch in areas where one species of grass is desired.**
   b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
      i. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
      ii. WCFM, including dye, must contain no germination or growth inhibiting factors.
      iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
      iv. WCFM material must not contain elements or compounds at concentration levels that will be phyto-toxic.
      v. 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 minimum.
2. Application
   a. Apply mulch to all seeded areas immediately after seeding.
   b. 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 a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
   c. 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.
3. Anchoring
   a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
      i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
      ii. 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.
      iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to 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.**
      iv. 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.

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD 12/20/18 Date

ENGINEER'S CERTIFICATE

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer (Dan Jackson) 12·10·18 Date

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer (CalAtlantic Group, Inc.) 12-10-18 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION 1.4.19 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 1-07-19 DATE

DIRECTOR OF PLANNING AND ZONING 1-7-19 DATE

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

A. Seed Mixtures

1. General Use
   a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
   b. Additional planting specifications for exceptional sites such as shorelines, 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 342 - Critical Area Planting.
   c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
   d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
2. Turfgrass Mixtures
   a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
   b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
      i. Kentucky 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 Kentucky Bluegrass 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.
      ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where

B.21

rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture 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.
      iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
      iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1½ to 3 pounds per 1000 square feet.

      Notes:
      Select turfgrass varieties 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
   c. Ideal Times of Seeding for Turf Grass Mixtures

      Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

      Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

      Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)
   d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.
   e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Permanent Seeding Summary

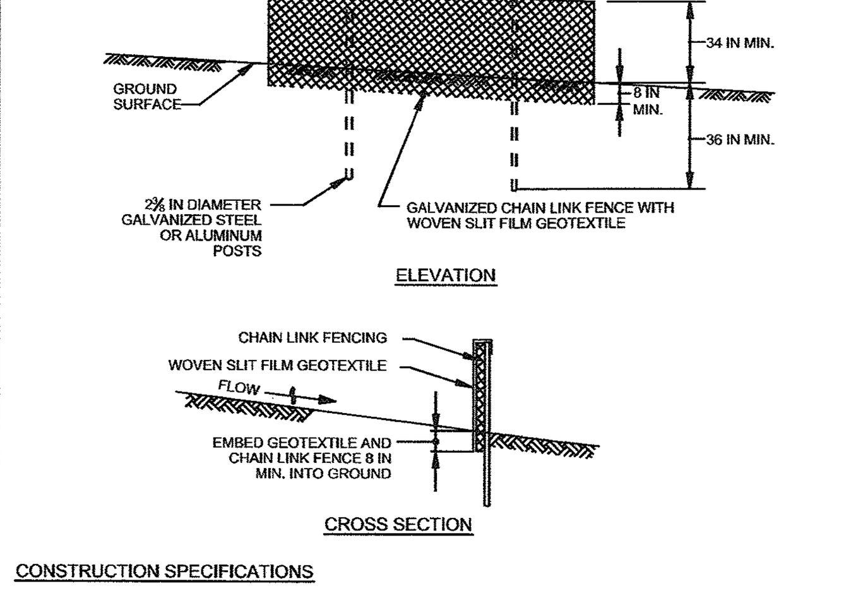
Hardiness Zone (from Figure B.3): 6B Seed Mixture (from Table B.3): 9					Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P_2O_5	K_20	
1	T. FESC.	60	3/1-5/15	¼- ½ in	3.48 pounds per acre (1.0 lb/ 1000 sf)	90 lb/ac (2 lb/ 1000 sf)	90 lb/ac (2 lb/ 1000 sf)	2 tons/ac (90 lb/ 1000 sf)
2	K. BLUE.	40	3/1-5/15	¼- ½ in				
				¼- ½ in				

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

1. General Specifications
   a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.
   b. Sod must be machine cut at a uniform soil thickness of ¾ inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable.
   c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
   d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
   e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.
2. Sod Installation
   a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
   b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
   c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
   d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.
3. Sod Maintenance
   a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.
   b. After the first week, sod watering is required as necessary to maintain adequate moisture content.
   c. Do not mow until the sod is firmly rooted. No more than ⅓ of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

B.24

DETAIL E-3 SUPER SILT FENCE — STANDARD SYMBOL: SSF



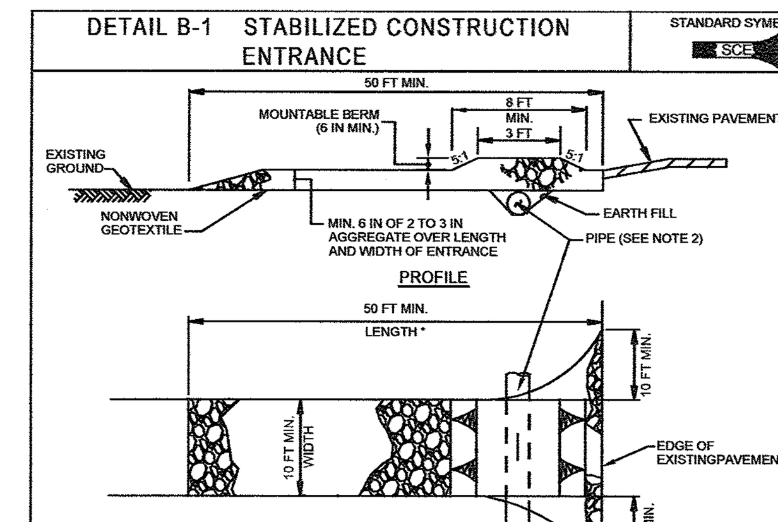
CONSTRUCTION SPECIFICATIONS

1. INSTALL 2 3/8 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 3/8 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE — STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

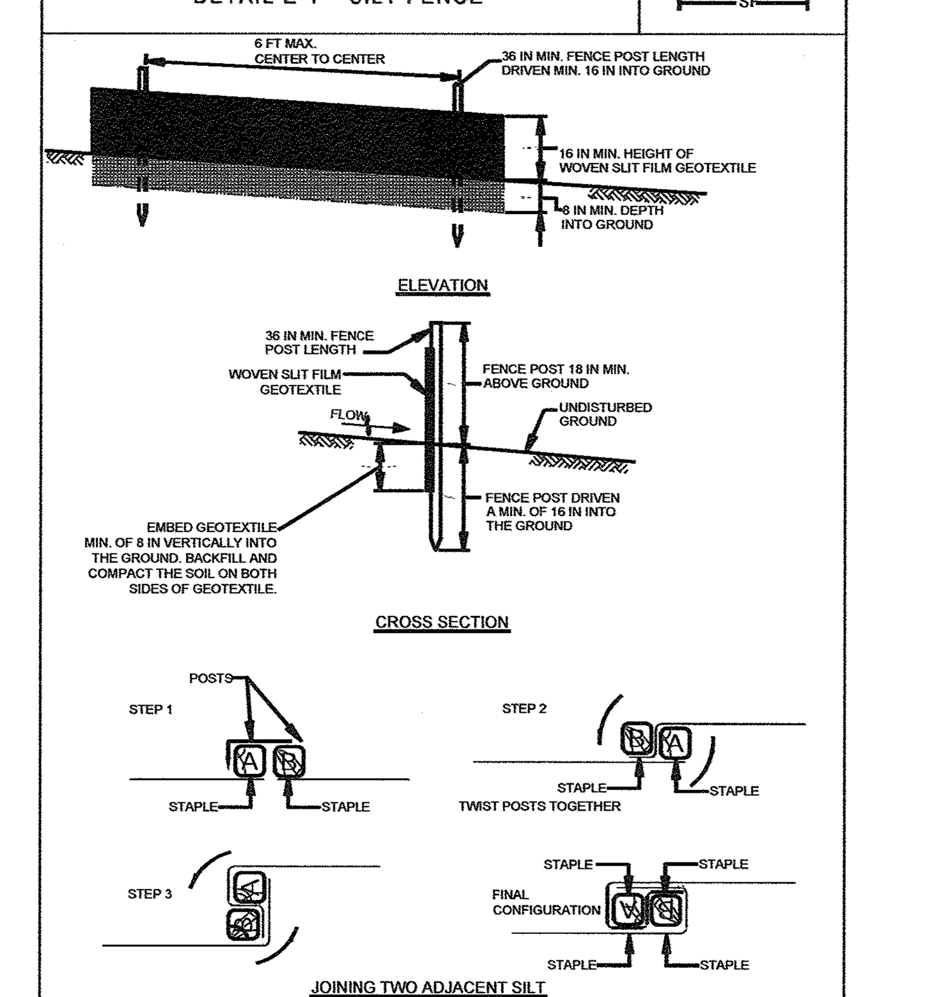
HOWARD SOIL CONSERVATION DISTRICT (HSCD)
STANDARD SEDIMENT CONTROL NOTES

1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages:
   a. Prior to the start of earth disturbance,
   b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading,
   c. Prior to the start of another phase of construction or opening of another grading unit,
   d. 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.
2. 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 thereto.
3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.
4. All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for topsoil (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. B-4-1) specifications shall be enforced in areas with >15' of cut and/or fill. Stockpiles (Sec. B-4-8) in excess of 20 ft. must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).
5. All sediment control structures are to remain in place, and are to be maintained in operative condition until permission for their removal has been obtained from the CID.
6. Site Analysis:
   - Total Area of Site: 11.5 Acres
   - Area Disturbed: 4.1 Acres
   - Area to be roofed or paved: 2.2 Acres
   - Area to be vegetatively stabilized: 1.9 Acres
   - Total Cut: 2,818 Cu. Yds.
   - Total Fill: 0 Cu. Yds.
   - Offsite waste/borrow area location: TO BE DETERMINED
7. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
8. Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly; and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:
   - Inspection date
   - Inspection type (routine, pre-storm event, during rain event)
   - Name and title of inspector
   - Weather information (current conditions as well as time and amount of last recorded precipitation)
   - Brief description of project's status (e.g., percent complete) and/or current activities
   - Evidence of sediment discharges
   - Identification of plan deficiencies
   - Identification of sediment controls that require maintenance
   - Identification of missing or improperly installed sediment controls
   - Compliance status regarding the sequence of construction and stabilization requirements
   - Photographs
   - Monitoring/sampling
   - Maintenance and/or corrective action performed
   - Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, MDE).
9. Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be back-filled and stabilized by the end of each workday, whichever is shorter.
10. Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by the HSCD prior to proceeding with construction. Minor revisions may allowed by the CID per the list of HSCD-approved field changes.
11. Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the CID. Unless otherwise specified and approved by the HSCD, no more than 30 acres cumulatively may be disturbed at a given time.
12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.
13. Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade.
14. All Silt Fence and Super Silt Fence shall be placed on-the-contour, and be imbricated at 25' minimum intervals, with lower ends curled uphill by 2' in elevation.
15. Stream channels must not be disturbed during the following restricted time periods (inclusive):
    - Use I and IP March 1 - June 15
    - Use III and IIIP October 1 - April 30
    - Use IV March 1 - May 31
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.

Rev. 8.2016

DETAIL E-1 SILT FENCE — STANDARD SYMBOL: SF



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE — STANDARD SYMBOL: SF

CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1¾ X 1¾ ± ⅟₁₆ INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

B-4-4 STANDARDS AND SPECIFICATIONS

FOR

TEMPORARY STABILIZATION

Definition

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

Criteria

1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Temporary Seeding Summary

Hardiness Zone (from Figure B.3): 6B Seed Mixture (from Table B.1): 6					Fertilizer Rate (10-20-20)	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths		
	FOX. MILL.	30	5/16-7/31	0.5"	436 lb/ac (10 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)

B.18

B-4 STANDARDS AND SPECIFICATIONS

FOR

VEGETATIVE STABILIZATION

Definition

Using vegetation as cover to protect exposed soil from erosion.

Purpose

To promote the establishment of vegetation on exposed soil.

Conditions Where Practice Applies

On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization; and permanent stabilization.

Effects on Water Quality and Quantity

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

Adequate Vegetative Establishment

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

1. Adequate vegetative stabilization requires 95 percent groundcover.
2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding.
3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates originally specified.
4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

SEQUENCE OF CONSTRUCTION

1. THE LIMITS OF DISTURBANCE MUST BE FIELD MARKED PRIOR TO GRADING, INSTALLATION OF SEDIMENT CONTROL MEASURES, CONSTRUCTION, OR OTHER LAND DISTURBING ACTIVITIES.
2. CONDUCT A PRE-CONSTRUCTION MEETING. WORK MAY NOT COMMENCE UNTIL THE PERMITTEE OR THE RESPONSIBLE PERSONNEL HAVE MET ON SITE WITH THE SEDIMENT & EROSION CONTROL INSPECTOR TO REVIEW THE APPROVED PLANS.

   EXISTING TOPOGRAPHY MUST BE FIELD VERIFIED FOR THE SEDIMENT CONTROL INSPECTOR PRIOR TO COMMENCING WORK.
3. OBTAIN GRADING PERMIT
4. NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS, LICENSES AND PERMITS (410-313-2455) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
5. INSTALL SEDIMENT CONTROL MEASURES AS SHOWN ON PLAN IN ACCORDANCE WITH DETAILS. — 5 DAYS
6. AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED, STAKEOUT AND ROUGH GRADE SITE. — 2 DAYS
7. INSTALL FOUNDATIONS AND BACKFILL, CONSTRUCT HOUSES, DRIVEWAYS, LEAD WALKS. STABILIZE LOT AREAS WITH SEED AND MULCH AND/OR SOD. THE FIRST FLOOR ELEVATIONS CANNOT BE MORE THAN 1' HIGHER OR 0.2' LOWER THAN THE ELEVATIONS SHOWN ON THIS PLAN. — 4 MONTHS TO 2 YEARS
8. UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES. — 2 DAYS

NOTES

DURING GRADING AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN HEREON.
FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANT OR TEMPORARY STABILIZATION SHALL BE COMPLIED WITH:
A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMETN CONTROL STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.

OWNER / DEVELOPER:
CALATLANTIC GROUP, INC.
ADDRESS: 7035 ALBERT EINSTEIN DRIVE, SUITE 200 COLUMBIA, MD 21046
CONTACT: RYAN HOUCK, DIVISION PRESIDENT
PHONE: 410-997-5522
EMAIL: Ryan.Houck@lennar.com

BUILDER:
LENNAR
ADDRESS: 7035 ALBERT EINSTEIN DRIVE, SUITE 200 COLUMBIA, MD 21046
PHONE: 410-997-5522

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
14280 PARK CENTER DRIVE
LAUREL, MD 20707
(410) 792-9792 / (301) 776-1690
FAX: (410) 792-7395
MRAGTA.COM

STATE OF MARYLAND — DANIEL JACKSON — No. 19916 — PROFESSIONAL ENGINEER — 12-19-18

MD PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19916, EXPIRATION DATE: 01/14/2019.

SITE DEVELOPMENT PLAN

TROTTER'S KNOLL - SECTION I

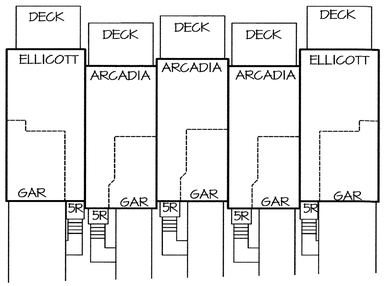
TROTTERS CHASE, ELLICOTT CITY MARYLAND

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

TAX MAP 37 GRIDS 2 PARCEL 748 ZONED: R-SA-8
PLAT #24699-24704, 1ST ELECTION DISTRICT
HOWARD COUNTY, MD 21043

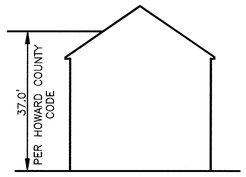
DATE	REVISIONS		
		JOB NO.:	15368 x 05
		SCALE:	AS-SHOWN
		DATE:	12/7/18
		DRAWN BY:	MBF
		DESIGN BY:	MBF
		REVIEW BY:	MM
		SHEET:	6 OF 7

SDP-18-065



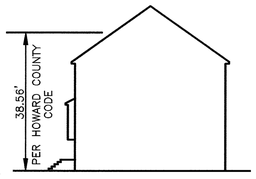
TYPICAL TOWNHOUSE STRING

1"=20'



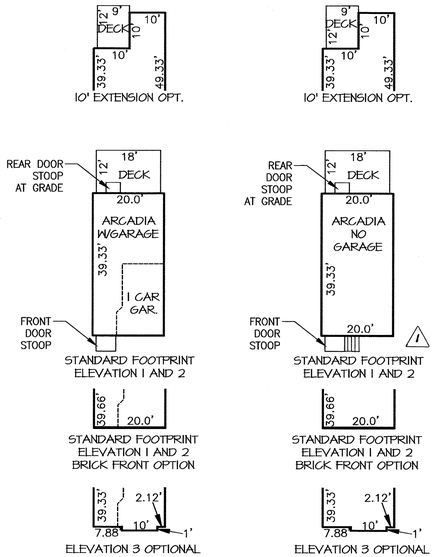
TYPICAL ARCADIA HOUSE ELEV.

SCALE: 1"=20'



TYPICAL ELLICOTT HOUSE ELEV.

SCALE: 1"=20'



NOTE: OTHER ELEVATIONS VARY BY GARAGE DOOR LOCATION ONLY ON GROUND FLOOR, ELEVATION 3 HAS A BAY WINDOW ON THE SECOND FLOOR.

NOTE: BUILDING DECKS TO BE BUILT AT 10' DEPTH IF LOCATED ON A LOT CONSTRAINED BY STRUCTURE AND USE SETBACKS OR OTHER SITE CONSTRAINTS ARE PRESENT.

ARCADIA HOUSE TYPE

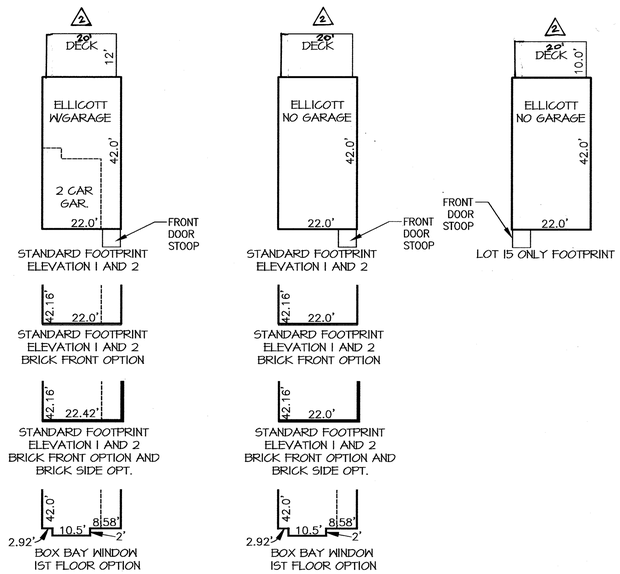
SCALE: 1"=20'

NOTE: STEPS BUILT PARALLEL TO ARCADIA NO GARAGE HOUSE FRONT ONLY APPLICABLE TO LOTS 2, 3, 6, 7, 8, 9, 12, 13, AND 14. ⚠1

20 0 20 40 60

Scale 1" = 20'

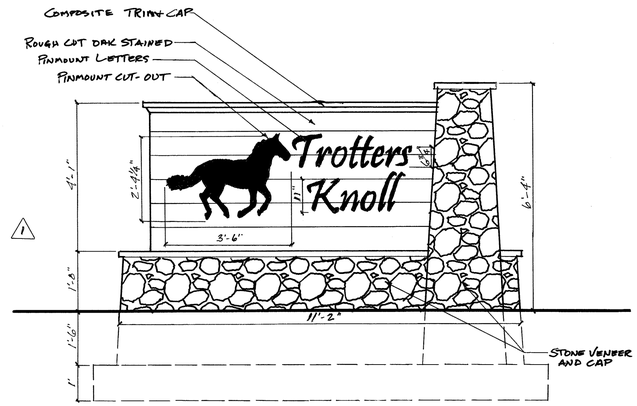
⚠2 NOTE: LOTS 10 AND 11 WILL BE LIMITED TO AN 18' WIDE DECK DUE TO PROXIMITY TO THE EXISTING PRIVATE STORM DRAIN EASEMENT.



NOTE: BUILDING DECKS TO BE BUILT AT 10' DEPTH IF LOCATED ON A LOT CONSTRAINED BY STRUCTURE AND USE SETBACKS OR OTHER SITE CONSTRAINTS ARE PRESENT.

ELLICOTT HOUSE TYPE

SCALE: 1"=20'



⚠1

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 1.4.19
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 1-07-19
DIRECTOR OF PLANNING AND ZONING	DATE 1-7-19

OWNER / DEVELOPER:

CALATLANTIC GROUP, INC.
ADDRESS: 7035 ALBERT EINSTEIN DRIVE, SUITE 200 COLUMBIA, MD 21046
CONTACT: RYAN HOUCK DIVISION PRESIDENT
PHONE: 410-997-5522
EMAIL: Ryan.Houck@lennar.com

BUILDER:

LENNAR
ADDRESS: 7035 ALBERT EINSTEIN DRIVE, SUITE 200 COLUMBIA, MD 21046
PHONE: 410-997-5522

MD. PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19916, EXPIRATION DATE: 01/14/2019.

STATE OF MARYLAND · DANIEL J. JACKSON · No. 19916 · PROFESSIONAL ENGINEER · 12.19.18

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
14280 PARK CENTER DRIVE
LAUREL, MD 20707
(410) 792-9792 / (301) 776-1690
FAX: (410) 792-7395

MRAGTA.COM

SITE DEVELOPMENT PLAN

TROTTER'S KNOLL - SECTION I

TROTTERS CHASE, ELLICOTT CITY MARYLAND

HOUSE TYPES

TAX MAP 37 GRIDS 2 PARCEL 748 ZONED: R-SA-8
PLAT #24699-24704, 1ST ELECTION DISTRICT
HOWARD COUNTY, MD 21043

DATE	REVISIONS		
01/11/2019	⚠1 REVISED DRIVEWAYS AND ENTRY SIGN	JOB NO.:	15368 x 05
8.31.20	⚠2 REVISED DECKS	SCALE:	1" = 50'
		DATE:	12/7/18
		DRAWN BY:	MAM
		DESIGN BY:	MAM
		REVIEW BY:	MM
		SHEET:	7 OF 7

SDP-18-065