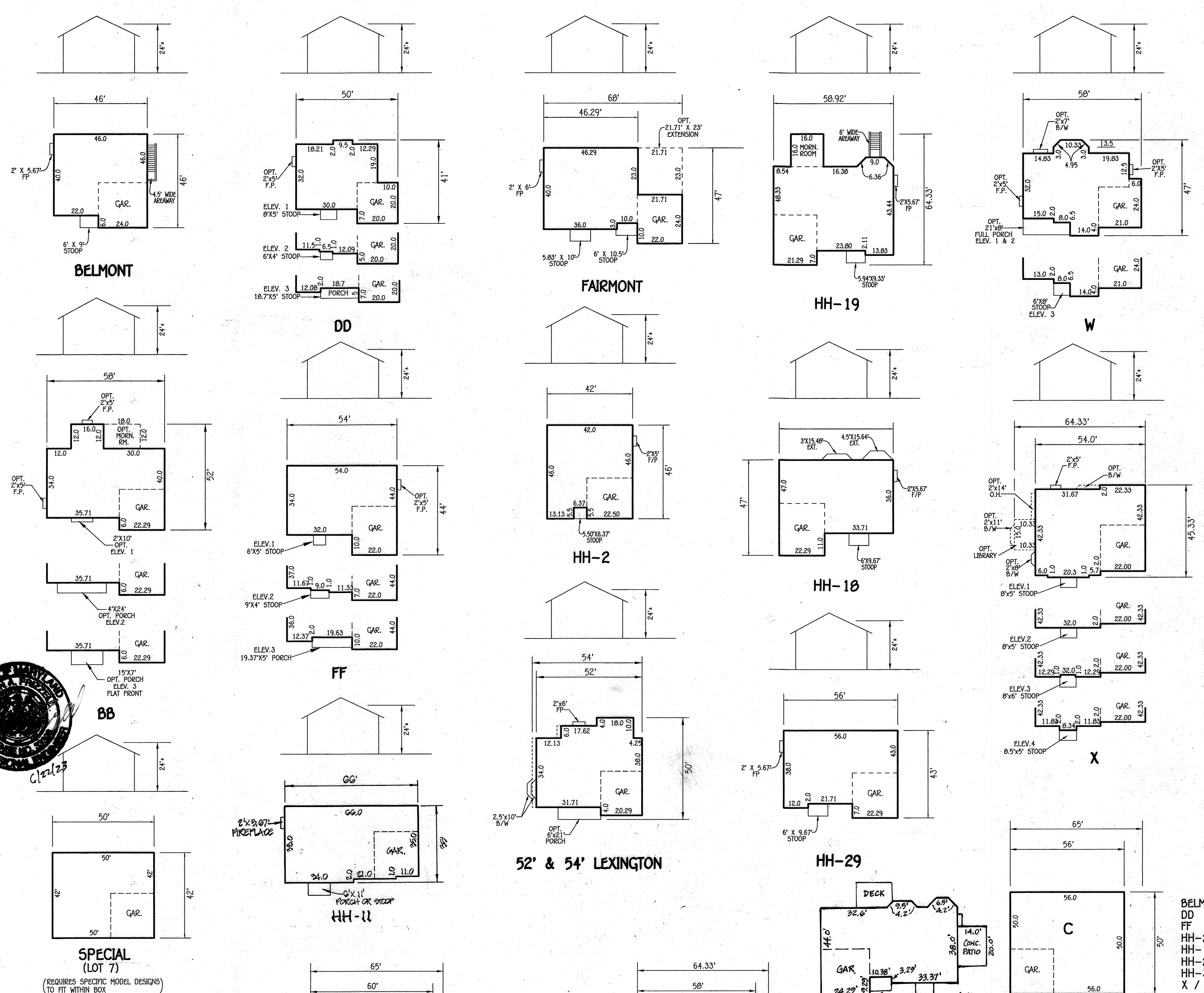
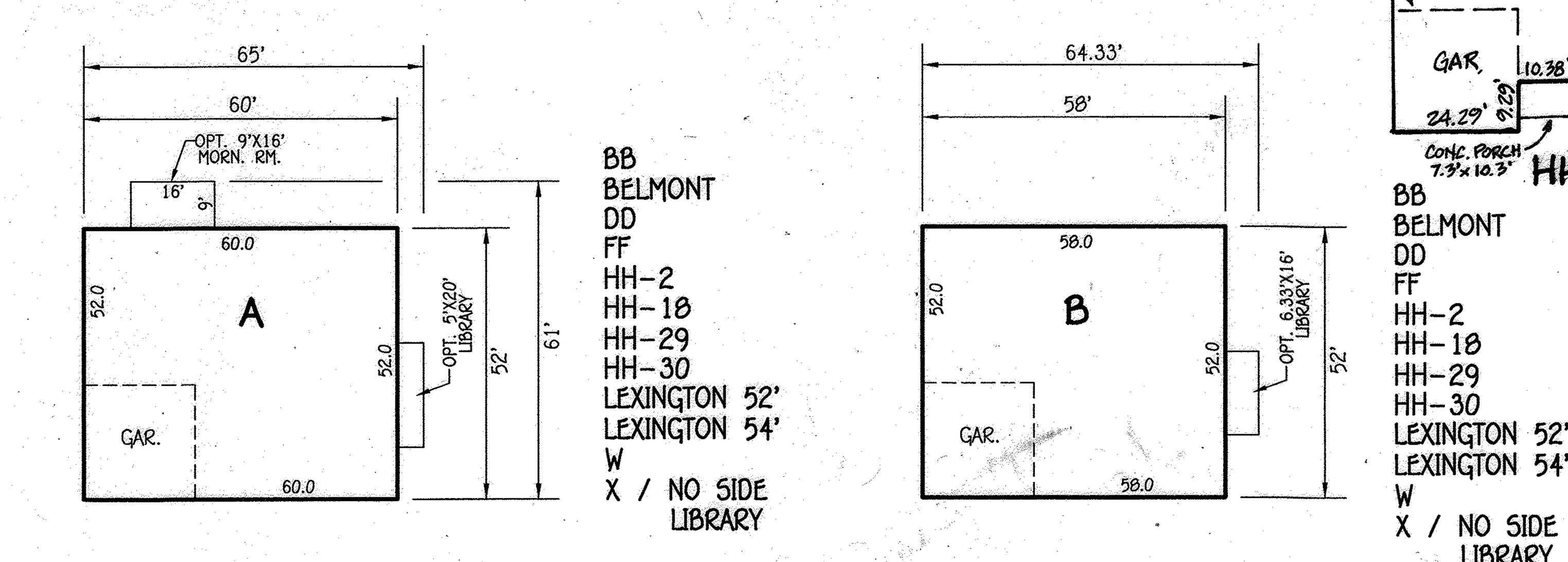
GENERAL NOTES

1. SUBJECT PROPERTY ZONED R-20 PER 2/02/04 COMPREHENSIVE ZONING PLAN AND COMP LITE ZONING REGULATIONS EFFECTIVE 7/28/06.
2. COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 18R3 AND NO. 18R4.
   STATION NO. 18R3 NORTH 596747.870 EAST 1367360.555
   STATION NO. 18R4 NORTH 595543.252 EAST 1366800.879
3. THIS PLAT IS BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT FEBRUARY 24, 2005, BY ROBERT VOGEL AND ASSOCIATES.
4. B.R.L. DENOTES BUILDING RESTRICTION LINE.
5. FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF FLAG OR PIPE STEM AND THE ROAD RIGHT-OF-WAY LINE ONLY AND NOT TO THE FLAG OR PIPE STEM LOT DRIVEWAY.
6. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
   A) WIDTH – 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE);
   B) SURFACE – SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING. (1 -1/2" MINIMUM);
   C) GEOMETRY – MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
   D) STRUCTURES (CULVERTS/BRIDGES) – CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING);
   E) DRAINAGE ELEMENTS – CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER SURFACE;
   F) MAINTENANCE – SUFFICIENT TO ENSURE ALL WEATHER USE.
7. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
8. ALL LOT AREAS ARE MORE OR LESS (±).
9. DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND NOT REDUCED TO NAD '83 GRID MEASUREMENT.
10. STORMWATER MANAGEMENT (SWM) FOR THIS SITE DEVELOPMENT PLAN (SDP) WAS DESIGNED USING THE MDE 2000 SWM CRITERIA FOR WHICH AN ADMINISTRATIVE WAIVER (AA) HAS BEEN SUBMITTED FOR GRANDFATHERING UNDER THOSE CRITERIA. JUSTIFICATION FOR THIS REQUEST IS BASED UPON THE FACT THAT PROJECT RECEIVED APPROVAL UNDER F-06-050 AND THE SAME METHODS, WITH MINOR CHANGES, ARE BEING USED UNDER THIS SDP. IT IS OUR UNDERSTANDING THAT SHOULD THIS AA BE APPROVED THAT THE GRANDFATHERING WILL EXPIRE ON MAY 4, 2013 IF THE DEVELOPER DOES NOT RECEIVE SDP APPROVAL AND CONTINUE TO CONSTRUCTION COMPLETION. IN ADDITION, THE AA WILL BE SO CONDITIONED THAT THE DEVELOPER WILL BE REQUIRED TO MAKE TIMELY CONSTRUCTION PROGRESS AND COMPLETE THE PROJECT BY MAY 4, 2017. SWM WILL BE PROVIDED ON THE INDIVIDUAL LOTS AS FOLLOWS:
    LOTS 2 THRU 7 AND THE FRONT PORTIONS OF LOTS 16-25 WILL DRAIN TO WET EXTENSION POND NO. 1 PREVIOUSLY CONSTRUCTED UNDER F-06-050.
    LOTS 8 THRU 10 HAVE NO CHANNEL PROTECTION VOLUME REQUIREMENTS AND WATER QUALITY VOLUME IS TO BE PROVIDED USING THE SHEET FLOW TO BUFFER CREDIT WITH LEVEL SPREADERS. IN ADDITION, THE PROPOSED PRIVATE USE-IN COMMON DRIVEWAY WILL HAVE A 2-FOOT WIDE SWALE THAT WILL PROVIDE PART OF THE OVERALL PROJECT GROUNDWATER RECHARGE VOLUME REQUIREMENT.
    LOTS 11 THRU 15 AND THE REAR PORTIONS OF LOTS 16 THRU 23 HAVE THE SAME REQUIREMENTS AS LOTS 8 THRU 10.
    WHERE APPLICABLE, ALL OF THE SWM PRACTICES ON THE INDIVIDUAL LOTS WILL BE PRIVATELY OWNED AND MAINTAINED UNDER INDIVIDUAL DECLARATIONS OF COVENANTS.
11. TRAFFIC STUDY WAS PREPARED BY THE TRAFFIC GROUP DATED SEPTEMBER, 2000 AND WAS APPROVED UNDER SP-01-06.
12. NO CEMETERIES EXISTS ON THIS SITE BASED ON A BY VISUAL SITE VISIT AND BASED ON A EXAMINATION OF THE HOWARD COUNTY CEMETERY INVENTORY MAP.
13. WETLAND AND STREAM DELINEATION WAS TAKEN FROM REPORTS PREPARED BY ENVIRONMENTAL SYSTEMS ANALYSIS, INC. DATED DECEMBER, 1999 AND VOGEL & ASSOCIATES DATED NOVEMBER, 2000 AND WAS APPROVED UNDER SP-01-06.
14. DANIELS ROAD IS A SCENIC ROAD. NO LANDSCAPING SHALL BE PLACED ALONG DANIELS ROAD WHICH WILL OBSTRUCT SIGHT LINES FROM THE INTERSECTION OF DANIELS ROAD AND THE FUTURE RIGHT-OF-WAY.
15. PRELIMINARY FOREST STAND AND PRELIMINARY FOREST CONSERVATION PLAN WAS PREPARED BY ENVIRONMENTAL SYSTEMS ANALYSIS, INC. DATED JANUARY, 2000 AND VOGEL & ASSOCIATES, INC. DATED NOVEMBER, 2000 AND WAS APPROVED UNDER SP-01-06.
16. 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.
17. THE FOREST CONSERVATION REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WILL BE FULFILLED BY PROVIDING 3.87 ACRES OF ON-SITE FOREST RETENTION, 1.31 OF ON-SITE PLANTING AND THE BALANCE OF 2.48 ACRES OF REFORESTATION OBLIGATION WILL BE PROVIDED IN AN OFF-SITE FOREST CONSERVATION EASEMENT ON "SCRIVENER PROPERTY, TAX MAP 29, PARCEL 19. THE SURETY AMOUNT FOR THE ON-SITE FORESTATION OBILIGATION IS 1.31 AC. PLANTING @ $0.50/SQ.FT. = $28,531.80 AND RETENTION OF 3.87 AC. @ $0.20/SQ.FT. = $33,715.44. THE SURETY AMOUNT FOR THE OFF-SITE FORESTATION OBILIGATION IS 2.48 AC. PLANTING @ $0.50/SQ.FT. = $54,014.40. THE TOTAL FORESTATION SURETY AMOUNT FOR THE REQUIRED 7.66 AC. IS $116,261.64, PER F-06-050.
18. LANDSCAPING FOR THESE LOTS 2 THRU 25 WAS PROVIDED UNDER F-06-050 IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
19. A LANDSCAPE SURETY FOR 83 SHADE TREES AND 38 EVERGREEN TREES IN THE AMOUNT OF $30,600.00 IS PROVIDED AS PART OF THE DEVELOPER'S AGREEMENT, PER F-06-050.
20. OPEN SPACE LOTS 45 AND 46 SHOWN ON THIS PLAT ARE HEREBY DEDICATED TO A HOMEOWNER'S ASSOCIATION FOR THE RESIDENTS OF THIS SUBDIVISION AND THE RECORDING REFERENCES OF THE ARTICLES OF INCORPORATION FOR THE HOA WAS RECORDED WITH THE STATE DEPARTMENT OF ASSESSMENTS AND TAXATION ON 10/26/06 AS RECEIPT NO. D11581261.
21. SINCE THIS SUBDIVISION HAD A SIGNATURE APPROVED PRELIMINARY EQUIVALENT SKETCH PLAN SP-01-06, SIGNED ON 6-25-01, THIS SUBDIVISION IS GRANDFATHERED TO THE FOURTH EDITION OF THE SUBDIVISION REGULATIONS. 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, WAIVER PETITION APPLICATION, OR BUILDING AND GRADING PERMITS.
22. NO 100 YEAR FLOOD PLAIN EXISTS ON SITE.
23. PREVIOUS DEPARTMENT OF PLANNING AND ZONING FILE NUMBERS: SP-01-06, F-84-195, F-06-050, F-88-267, SDP-09-038, S-00-07, W & S CONT. NO. 14-4307-D.
24. WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122B OF THE HOWARD COUNTY CODE.
25. PUBLIC WATER AND SEWAGE ALLOCATIONS WILL BE GRANTED AT TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
26. OPEN SPACE LOTS 44 AND 45 SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
27. OPEN SPACE LOTS 46 AND 47 SHALL BE OWNED AND MAINTAINED BY HOWARD COUNTY, MARYLAND
28. STORMWATER MANAGEMENT FACILITY LOCATED ON OPEN SPACE LOT 46 SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE H.O.A.
29. APPROVAL OF A SITE DEVELOPMENT PLAN IS REQUIRED FOR THE DEVELOPMENT OF ALL RESIDENTIAL LOTS WITHIN THIS SUBDIVISION PRIOR TO ISSUANCE OF ANY GRADING OR BUILDING PERMITS FOR NEW HOUSE CONSTRUCTION IN ACCORDANCE WITH SECTION 16.155 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
30. THE USE-IN-COMMON DRIVEWAY MAINTENANCE AGREEMENTS FOR LOTS 8 THRU 12, HAVE BEEN RECORDED IN THE HOWARD COUNTY LAND RECORDS OFFICE WITH RECORDING OF PLAT NUMBERS 19884 THRU 19888.
31. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, STREAMS OF THEIR BUFFERS AND THE FOREST CONSERVATION EASEMENTS, EXCEPT AS PERMITTED AS AN ESSENTIAL DISTURBANCE FOR UPGRADING IMPROVEMENTS TO THE EXISTING POND FACILITY PER SOIL CONSERVATION DISTRICT AND DPZ IN ACCORDANCE WITH SECTION 16.116(C) OF THE SUBDIVISION REGULATIONS UNDER SP-01-06.
32. THE PROPOSED DISTURBANCE TO THE 25% OR GREATER STEEP SLOPES AREA WITHIN LOTS 24 AND 25 HAS BEEN DETERMINED NECESSARY BY DPZ FOR THE CONSTRUCTION OF THE MILLER'S WAY DRIVE EXTENSION IN ACCORDANCE WITH SECTION 16.116(C) OF THE SUBDIVISION REGULATIONS UNDER SP-01-06.
33. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III, SECTION 5.5.A. A MINIMUM OF 20 FEET SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
34. A PRIVATE RANGE OF ADDRESS SIGN SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430FOR DETAILS AND COST ESTIMATE. A PRIVATE ROAD STREET NAME SIGN SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430 FOR DETAILS AND COST ESTIMATES.
35. TRAFFIC CONTROL DEVICES: A) THE R1-1 (STOP) SIGNS AND THE STREET NAME SIGN (SNS) ASSEMBLIES FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED. B) THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410)-313-2430 PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES. C) ALL TRAFFIC CONTROL DEVICES AND HEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MDMUTCD). D) ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH"), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) – 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
36. 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 WORK.
37. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
38. TOPOGRAPHIC INFORMATION ESTABLISHED AT TWO FOOT INTERVALS BASED ON AERIAL TOPOGRAPHY PREPARED BY AIR SURVEY CORPORATION DATED APRIL, 2000.
39. EXISTING UTILITIES SHOWN HEREON ARE TAKEN FROM CURRENT HOWARD COUNTY CONTRACT DRAWINGS.
    A. EXISTING WATER CONTRACT NO. 14-4307-D DRAINAGE AREA: PATAPSCO
    B. EXISTING SEWER CONTRACT NO. 14-4307-D DRAINAGE AREA: PATAPSCO
40. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
41. SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
42. Landscaping is provided in accordance with Section 16.124 of the Howard County Code and Landscape Manual. Financial Surety in the amount of $1350.00 for 3 shade trees and 3 evergreen trees shall be posted at the time of issuance of the Builder's Grading Permit for Lot 2.





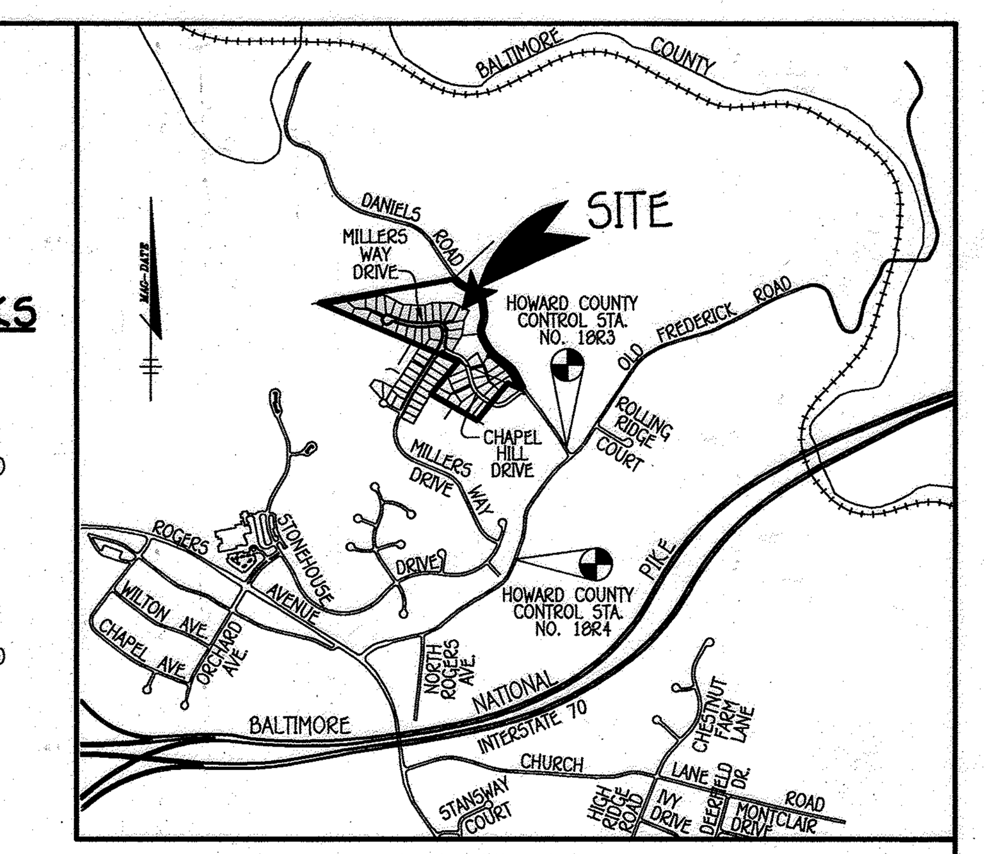
LEGEND

SYMBOL	DESCRIPTION
- - - - - -	EXISTING CONTOUR 2' INTERVAL
———	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
—SSF—SSF—	SUPER SILT FENCE
ED A-1	EARTH DIKE
LOD	LIMIT OF DISTURBANCE
	EXISTING STREET TREES TAKEN FROM F-06-50
	PERIMETER TREES TAKEN FROM F-06-50

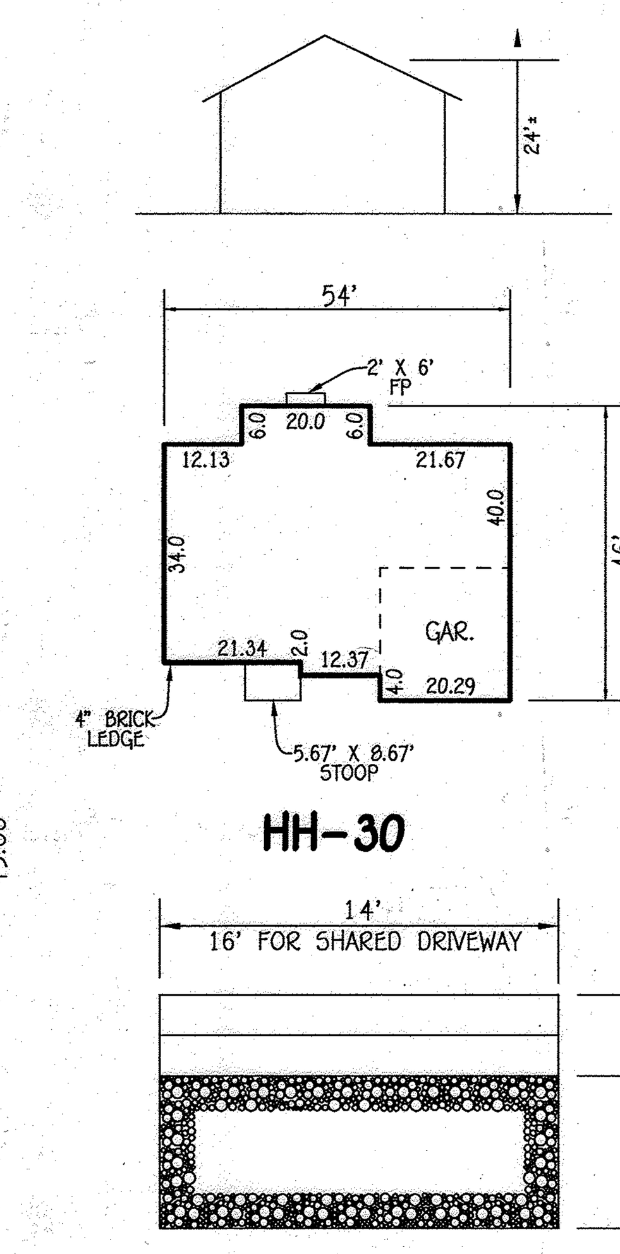
BENCH MARKS

T.P. 18R3 ELEV 459.68
N. 596,747.870
E. 1,367,360.555
LOC. NEAR INTERSECTION OF OLD FREDERICK ROAD & DANIELS ROAD

T.P. 18R4 ELEV. 475.95
N. 595,543.252
E. 1,366,800.879
LOC. NEAR INTERSECTION OF OLD FREDERICK ROAD & MD. RTE 99



VICINITY MAP
SCALE: 1" = 2000'



COMMON DRIVEWAY DETAIL
NOT TO SCALE

ADDRESS CHART

LOT NO.	STREET ADDRESS
2	2845 MILLERS WAY DRIVE
3	2855 MILLERS WAY DRIVE
4	2865 MILLERS WAY DRIVE
5	2869 MILLERS WAY DRIVE
6	2873 MILLERS WAY DRIVE
7	2877 MILLERS WAY DRIVE
8	2883 MILLERS WAY DRIVE
9	2889 MILLERS WAY DRIVE
10	2895 MILLERS WAY DRIVE
11	2896 MILLERS WAY DRIVE
12	2892 MILLERS WAY DRIVE
13	2888 MILLERS WAY DRIVE
14	2884 MILLERS WAY DRIVE
15	2880 MILLERS WAY DRIVE
16	2876 MILLERS WAY DRIVE
17	2872 MILLERS WAY DRIVE
18	2868 MILLERS WAY DRIVE
19	2864 MILLERS WAY DRIVE
20	2860 MILLERS WAY DRIVE
21	2856 MILLERS WAY DRIVE
22	2852 MILLERS WAY DRIVE
23	2848 MILLERS WAY DRIVE
24	2844 MILLERS WAY DRIVE
25	2840 MILLERS WAY DRIVE

MINIMUM LOT SIZE CHART

LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
9	20,824 SQ.FT. ±	793 SQ.FT. ±	20,032 SQ.FT. ±
10	26,162 SQ.FT. ±	1,874 SQ.FT. ±	24,288 SQ.FT. ±
11	15,852 SQ.FT. ±	1,207 SQ.FT. ±	14,644 SQ.FT. ±
12	15,056 SQ.FT. ±	540 SQ.FT. ±	14,516 SQ.FT. ±

INDEX CHART

SHEET	DESCRIPTION
SHEET 1	TITLE SHEET, HOUSE TYPES, TEMPLATES & NOTES
SHEET 2	SITE DEVELOPMENT PLAN, LOTS 2,3,4 & 18 THRU 25
SHEET 3	SITE DEVELOPMENT PLAN, LOTS 5 THRU 17
SHEET 4	SEDIMENT/EROSION CONTROL PLAN, LOTS 2,3,4 & 18 THRU 25
SHEET 5	SEDIMENT/EROSION CONTROL PLAN, LOTS 5 THRU 17
SHEET 6	SEDIMENT/EROSION CONTROL NOTES & DETAILS AND STORMWATER MANAGEMENT NOTES & DETAILS
SHEET 7	RETAINING WALL PLAN, PROFILE & DETAILS, LOT 21

SITE ANALSIS DATA CHART

A. TOTAL PROJECT AREA: 8.947 ACRES OR 389,731 SQUARE FEET.
B. AREA OF SUBMISSION: 8.947 ACRES OR 389,731 SQUARE FEET.
C. LIMITS OF DISTURBANCE: 6.423 ACRES OR 279,750 SQUARE FEET.
D. PRESENT ZONING DESIGNATION: R-20.
E. PROPOSED USES FOR SITE: RESIDENTIAL-24 SFD UNITS
F. APPICABLE DPZ FILE REFERENCES: F-84-195, F-88-267, F-06-050, S-00-07, SP-01-06, SDP-09-038 AND W & S (CONTRACT NO. 14-4307-D).

BUILDER/DEVELOPER'S/CERTIFICATE

I/WE CERTIFY THAT THE REQUIRED LANDSCAPING WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

B. JAMES GREENFIELD — DATE 1-29-13

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. 9753, EXPIRATION DATE: 2/28/14.

EARL D. COLLINS — DATE 1.29.13

0' 30' 60' 120'
SCALE: 1" = 30'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

NO.	REVISION	DATE
15	REV. LOT 21. ADD R. WALL, REV. LEVEL SPRDRS, ADD SHT 7	6/22/23
2	REV. LOT 10 TO SHOW HH-10 HOUSETYPE	5/1/15
1	REVISE FOOTPRINT OF HOUSE FOR LOT 11 (HH-11)	8/1/13

STATE OF MARYLAND — EARL D. COLLINS — No. 9753 — PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment 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 — EARL D. COLLINS — Date 1.29.13

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 any 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 — B. JAMES GREENFIELD — Date 1-29-13

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

Howard SCD — Date 2/5/13

OWNER/DEVELOPER

MID-ATLANTIC LAND DEVELOPMENT COMPANY
C/O B. JAMES GREENFIELD
6420 AUTUMN SKY WAY
COLUMBIA, MARYLAND 21044
410-730-3939

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 3/04/13
Chief, Development Engineering Division — Date 2/27/13
for Marsha McLaughlin — Director – Department of Planning and Zoning — Date 3-12-13

PROJECT			SECTION		LOTS NO.
HOLLIFIELD HILLS			N/A		2 THRU 25
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
19884-19888	6 & 12	R-20	17	SECOND	602100
WATER CODE			SEWER CODE		
F-04			1450000		

SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED

HOLLIFIELD HILLS

LOTS 2 THRU 25

ZONED: R-20

TAX MAP NO.: 17 PARCEL NO'S.: 42 & 43 GRID NO'S.: 6 & 12
SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: DECEMBER, 2012

SDP-13-017

SOILS LEGEND

SOIL	NAME	CLASS
GlB2	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
GlC2	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	C
GlD2	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	C
* GNB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
MId3	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY REODED	B
MnF	MANOR VERY STONY LOAM, 25 TO 60 PERCENT SLOPES	B
MnD	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES	B
MgC2	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B

NOTES:

* HYDRIC SOILS AND/OR CONTAINS HYDRIC INCLUSIONS
** MAY CONTAIN HYDRIC INCLUSIONS
† GENERALLY ONLY WITHIN 100-YEAR FLOODPLAIN AREAS

LANDSCAPING PLANT LIST

Qty.	Key	Name	Size
3		Quercus coccinea/ Scarlet Oak	2½"-3 Cal.
3		Cuppresocyparis leylandi/ Leyland Cypress	5'-6' Hgt.

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CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
15	REV. LOT 21. ADD R.WALL, REV. LEVEL SPRDRS. ADD SHT. 7	6/22/23
14	REV. FINAL HOUSE HH-24 & GRADING FOR LOT 24	10/16/18
13	REV. LOTS 21 & 22 TO HH-21 & HH-22	05/12/16
12	REV. LOT 25 PER ASBUILT GRADING	04/27/16
11	REV. LOT 24 TO HH-24	03/01/16
10	REV. LOT 25 TO AN HH-25 HOUSE & REV. ASSOC. GRADING	07/10/15
9	REV. LOT 20 TO A NEW HH-20 HOUSE	05/22/15
8	REV. LOT 20 TO NEW HH-20 HOUSE & REVISE LEVEL SPREADERS	03/09/15
7	REV. LOT 20 TO HH-20 & LEVEL SPREADER LOCATION	01/05/14
6	REV. HSE. & ELEVATIONS FOR LOT 2 PER AS-BUILT	10/4/13
5	REV. HSE. & GRD., LOT 3, FROM GEN. BOX 'C' TO HH-3	8/14/13
4	REV. HSE. & GRD., LOT 4, FROM GEN. BOX 'C' TO HH-4	8/9/13
3	REV. HSE. & GRD., LOT 23, FROM GEN. BOX 'B' TO HH-23	6/7/13
2	LOT 19, REVISED HOUSE TYPE TO FIT ON LOT	11/15/12
1	LOT 18, MOVED HOUSE BACK 7' PER CLIENT REQUEST	10/26/12

STATE OF MARYLAND
EARL D. COLLINS
No. 9753
PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment 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."

EARL D. COLLINS 1-29-13

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 any 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 B. JAMES GREENFIELD 1-29-13 Date

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. 9753, EXPIRATION DATE: 2/28/14.

EARL D. COLLINS 1-29-13 DATE

OWNER/DEVELOPER

MID-ATLANTIC LAND DEVELOPMENT COMPANY
C/O B. JAMES GREENFIELD
6420 AUTUMN SKY WAY
COLUMBIA, MARYLAND 21044
410-730-3939

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development 3/04/13 Date

Chief, Development Engineering Division 2/27/13 Date

Director - Department of Planning and Zoning 3-12-13 Date

PROJECT			SECTION	LOTS NO.
HOLLIFIELD HILLS			N/A	2 THRU 25

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
19884-19888	6 & 12	R-20	17	SECOND	602100

WATER CODE	SEWER CODE
F-04	1450000

SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED

HOLLIFIELD HILLS

LOTS 2 THRU 25

ZONED: R-20

TAX MAP NO.: 17 PARCEL NO'S.: 42 & 43 GRID NO'S.: 6 & 12
SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: DECEMBER, 2012

SDP-13-017

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

NO.	REVISION	DATE
15	REV. LOT 21, ADD R-WALL, REV. LEVEL SPRDRS, ADD SHT. 7	6/22/23
14	REV. LOT 10 TO SHOW ASBUILT GRADING & REV. LEVEL SPREADERS	4/22/16
13	REV. LOT 10 TO SHOW HH-10 HOUSETYPE & ASSOC. GRADING	5/1/15
12	REV. LOT 5 TO SHOW AS-BUILT HOUSE & GRADING	4/28/15
11	REV. LOT 14 TO HH-14, ASSOC. GRADING, & LEVEL SPREADER LOCATIONS	7/09/14
10	REV. HSE & GRD, LOTS 5,6,7,& 8 TO HH-5, HH-6, HH-7 & HH-8	6/16/14
9	REV. HSE. & GRD. LOT 13, FROM GEN. BOX TO HH-13	6/9/14
8	REV. HSE. & GRD. LOT 8, FROM GEN. BOX TO HH-8	6/9/14
7	REV. HSE. & GRD. FROM GEN. BOX 'A' TO HH-12, LOT 12	5/29/14
6	REV. LOT 11 TO SHOW ASBUILT CONDITIONS	05/16/14
5	REV. LOT 16 TO HH-16 & REVISE LEVEL SPREADERS	02/10/14
4	REV. LOT 15 TO FAIRMONT & REV. LEVEL SPREADERS	01/05/14
3	REV. HSE. & GRD. LOT 9, FROM GEN. BOX 'A' TO HH-9	8/26/13
2	REVISE HOUSE & GRADING LOT 11	8/1/13
1	Rev. hse. & grd. Lot 17	7.5.13

STATE OF MARYLAND
EARL D. COLLINS
No. 9753
PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment 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 — EARL D. COLLINS — Date: 1.29.13

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 any 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 — B. JAMES GREENFIELD — Date: 1-29-13

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. 9753, EXPIRATION DATE: 2/28/14.

EARL D. COLLINS — DATE: 1.29.13

OWNER/DEVELOPER

MID-ATLANTIC LAND DEVELOPMENT COMPANY
C/O B. JAMES GREENFIELD
6420 AUTUMN SKY WAY
COLUMBIA, MARYLAND 21044
410-730-3939

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date: 3/04/13

Chief, Development Engineering Division — Date: 2/27/13

Director – Department of Planning and Zoning — for Marsha McLaughlin — Date: 3.12.13

PROJECT			SECTION		LOTS NO.
HOLLIFIELD HILLS			N/A		2 THRU 25
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
19884-19888	6 & 12	R-20	17	SECOND	602100
WATER CODE			SEWER CODE		
F-04			1450000		

SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED

HOLLIFIELD HILLS

LOTS 2 THRU 25

ZONED: R-20

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STATE OF MARYLAND — EARL D. COLLINS — No. 9753 — PROFESSIONAL ENGINEER

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Signature of Developer — B. JAMES GREENFIELD — Date 1-29-13

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

Howard SCD — Date 2/5/13

OWNER/DEVELOPER

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SEDIMENT/EROSION CONTROL PLAN

SINGLE FAMILY DETACHED

HOLLIFIELD HILLS

LOTS 2 THRU 25

ZONED: R-20

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SEDIMENT/EROSION CONTROL PLAN

SINGLE FAMILY DETACHED

HOLLIFIELD HILLS

LOTS 2 THRU 25

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SHEET 5 OF 7

SDP-13-017

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION DEFINITION

Using vegetation as cover for barren soil to protect it from forces that cause erosion.

PURPOSE

Vegetative stabilization specifications 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 run-off to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration O(up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

EFFECTS ON WATER QUALITY AND QUANTITY

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. Vegetation, over time, 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 devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 – VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. Site Preparation
  i. Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
  ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
  iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

B. Soil Amendments (Fertilizer and Lime Specifications)
  i. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
  ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.
  iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98–100% will pass through a #20 mesh sieve.
  iv. Incorporate lime and fertilizer into the top 3–5" of soil by disking or other suitable means.

C. Seedbed Preparation
  i. Temporary Seeding
    a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" 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 should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
    b. Apply fertilizer and lime as prescribed on the plans.
    c. In corporate lime and fertilizer into the top 3–5" of soil by disking or other suitable means.
  ii. Permanent Seeding
    a. Minimum soil conditions required for permanent vegetative establishment:
      1. Soil pH shall be between 6.0 and 7.0.
      2. Soluble salts shall be less than 500 parts per million (ppm).
      3. The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
      4. Soil shall contain 1.5% minimum organic matter by weight.
      5. Soil must contain sufficient pore space to permit adequate root penetration.
      6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
    b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3–5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
    c. Apply soil amendments as per soil test or as included on the plans.
    d. Mix soil amendments into the top 3–5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1–3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. Seed Specifications
  i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.
  Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.
  ii. Inoculant – The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on 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°–80° F. can weaken bacteria and make the inoculant less effective.

E. Methods of Seeding
  i. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.
    a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous); 200 lbs/ac; K20 (potassium): 200 lbs/ac.
    b. 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.
    c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
  ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
    a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
    b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
  iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
    a. 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.
    b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

F. Mulch Specifications (In order of preference)
  i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
  ii. Wood Cellulose Fiber Mulch (WCFM)
    a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
    b. WCFM shall 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.
    c. WCFM, including dye, shall contain no germination or growth inhibiting factors.
    d. WCFM materials shall 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 shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
    e. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.
    f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm. , diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.
Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

G. Mulching Seeded Areas – Mulch shall be applied to all seeded areas immediately after seeding.
  i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
  ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
  iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

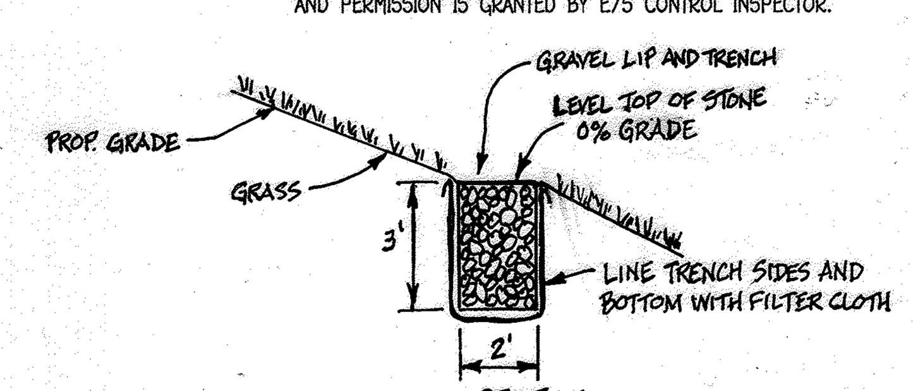
H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:
  i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (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 be used on the contour if possible.
  ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
  iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders – such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
  iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

I. Incremental Stabilization – Cut Slopes
  i. All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
  ii. Construction sequence (Refer to Figure 3 below):
    a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
    b. Perform Phase 1 excavation, dress, and stabilize.
    c. Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as necessary.
    d. Perform final phase excavation, dress and stabilize. Overseed previously seeded areas as necessary.
Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization.

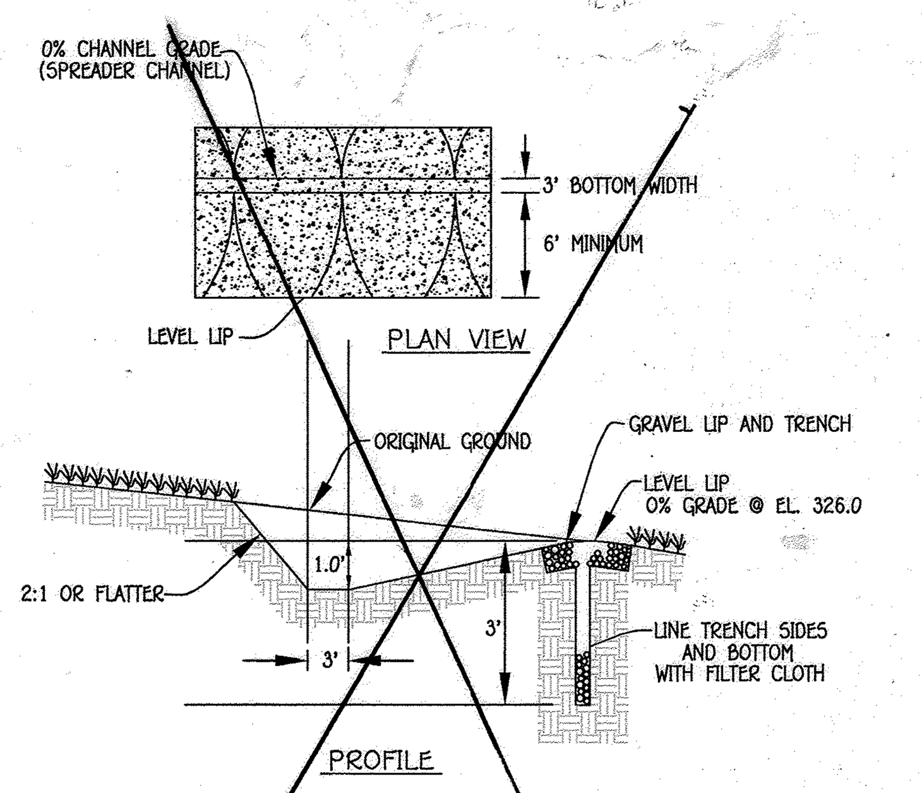
J. Incremental Stabilization of Embankments – Fill Slopes
  i. Embankments shall be constructed in lifts as prescribed on the plans.
  ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15", or when the grading operation ceases as prescribed in the plans.
  iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
  iv. Construction sequence: Refer to Figure 4 (below).
    a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slope silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.
    b. Place Phase 1 embankment, dress and stabilize.
    c. Place Phase 2 embankment, dress and stabilize.
    d. Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.
Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of and placement of topsoil (if required) grading and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT	7 DAYS
2. INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN	7 DAYS
3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE	4 DAYS
4. INSTALL TEMPORARY SEEDING	2 DAYS
5. CONSTRUCT BUILDINGS	60 DAYS
6. FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE	14 DAYS
7. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.	7 DAYS



PROFILE
LEVEL SPREADER – NOT TO SCALE



(B.M.P. FACILITY No. 7)
LEVEL SPREADER
NOT TO SCALE

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.
Seedbed Preparation : Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
Soil Amendments : Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).
Seeding : For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.
Mulching : Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
Seedbed Preparation : Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
Soil Amendments : In lieu of soil test recommendations, use one of the following schedules :
1) Preferred – Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.).
2) Acceptable – Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.
Seeding : For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options:
1) 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.
2) Use sod.
3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.
Mulching : Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.
Maintenance : Inspect all seeded areas and make needed repairs, replacements and reseedings.

LEVEL SPEADER CRITERIA

For impervious surface runoff applications:
The capacity for the level spreader is determined in the design of the filter strip to which it discharges.

The spreader shall run linearly along the entire width of the filter strip to which it discharges. In most cases, the spreader will be the same width as the contributing impervious surface. The ends of the spreader shall be tied into higher ground to prevent flow around the spreader.
The minimum depth shall be 6 inches and the minimum width shall be 6 feet for the lower side slope. Side slopes shall be 2:1 (horizontal to vertical) or flatter.

The grade of the spreader shall be 0%.

The outlet discharge area must be generally smooth and well vegetated with a maximum slope of 10%.

For all applications:
The spreader lip shall be constructed to a uniform height and zero grade over the length of the spreader. For design flows of 4 cfs or greater, a rigid lip of non-erodible material, such as pressure-treated timbers or concrete curbing, shall be used. For flows less than 4 cfs, a vegetated lip may be used. The spreader lip shall be constructed on undisturbed soil.

When using a vegetated lip it shall be protected with an erosion control blanket to prevent erosion and allow the vegetation to become established. The blanket shall be a minimum of 4 feet wide extending a minimum of 1 foot downstream over the level lip. The blanket shall be secured with heavy-duty staples and the downstream and upstream edges shall be buried at least 6 inches deep in a vertical trench.

When using a rigid lip it shall be entrenched at least 4 inches below existing ground and securely anchored to prevent displacement. An apron of Class I rip-rap shall be placed to the top of the rigid lip and extend downslope at least 3 feet. A filter fabric shall be placed under the coarse aggregate.

Immediately after level spreader construction, seed and mulch the entire disturbed area of the spreader in accordance with the Standards and Specifications for Vegetative Stabilization.

CONSIDERATIONS

The level spreader is a relatively low-cost structure to:

1. Disperse impervious surface runoff uniformly to a filter strip or
2. Release small volumes of concentrated flow from diversions when conditions are suitable.

To accomplish these purposes, particular care must be taken to construct the spreader lip completely level. Any depressions in the lip will concentrate the flow, resulting in a loss of pollutant filtering effectiveness and/or erosion. Evaluate the outlet system to be sure that flow does not concentrate below the outlet.

For filter strip applications, the determination of whether a level spreader is needed should be based on how the runoff is entering the filter strip. If the runoff is concentrated by curb cuts, and particularly if a large area of impervious surface drains to one point, a level spreader is essential to achieve effective pollutant removal in the filter strip. A level spreader also is important if the filter strip is relatively steep in order to avoid erosion from concentrated runoff discharge. If the runoff is evenly distributed over the width of the impervious surface (e.g., a curbless, even-sloped road or parking lot), a level spreader may not be necessary.

When the level spreader is used as an outlet for temporary or permanent diversions and diversion dikes, runoff containing high sediment loads must be treated in an approved sediment trapping device.

OPERATION AND MAINTENANCE

Inspect level spreaders after every rainfall until vegetation is established, and promptly make needed repairs. After the area has been stabilized, make periodic inspections and maintain vegetation in a healthy, vigorous condition.

Verify that the level spreader is distributing flow evenly. If problems are noted, make appropriate modifications to ensure even flow distribution.

SEDIMENT CONTROL NOTES

1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
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 MOST CURRENT 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 SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6) 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 HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7) SITE ANALYSIS:

TOTAL AREA OF SITE	8.947 ACRES
AREA DISTURBED	6.423 ACRES
AREA TO BE ROOFED OR PAVED	2.234 ACRES
AREA TO BE VEGETATIVELY STABILIZED	4.189 ACRES
TOTAL CUT	0 CU.YDS.
TOTAL FILL	0 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A

8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose

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.

Conditions Where Practice Applies

1. This practice 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.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

I. Topsoil salvaged from the existing site may be used provided that 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-SCS in cooperation with Maryland Agricultural Experimental Station.

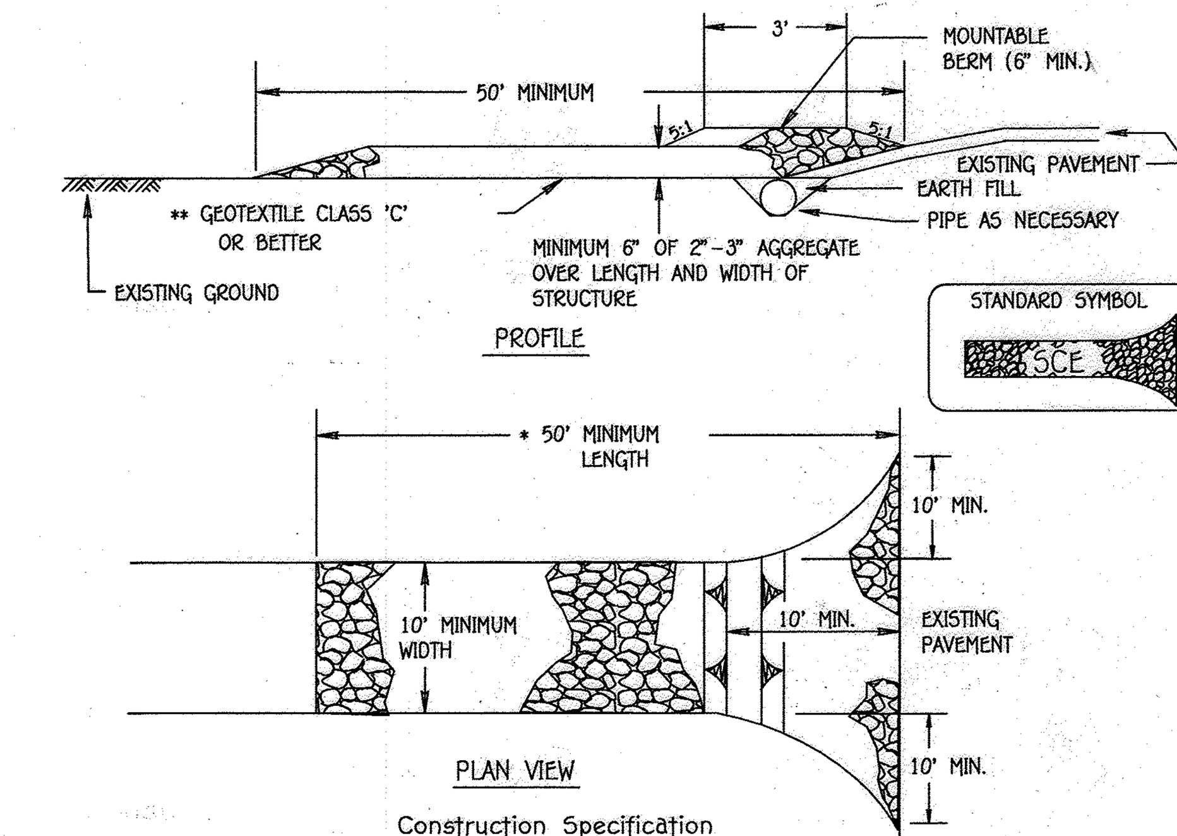
II. Topsoil Specifications – Soil to be used as topsoil must meet the following:
  i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 11/2" in diameter.
  ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
  iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites havinc, disturbed areas under 5 acres:
  i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

III. For sites having disturbed areas over 5 acres:
  i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
    a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be perscribed to raise the pH to 6.5 or higher.
    b. Organic content of topsoil shall be not less than 1.5 percent by weight.
    c. Topsoil havina soluble salt content greater than 500 parts per million shall not be used.
    d. No sod or seed shall 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.
  Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appopriate approval authority, may be used in lieu of natural topsoil.
  ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

V. Topsoil Application
  i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
  ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" – 8" higher in elevation.
  iii. Topsoil shall be uniformly distributed in a 4" – 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seedine can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
  iv. Topsoil shall not be placed while 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.

VI. Alternative for Permanent Seeding – Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
  i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
    a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
    b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
    c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
  iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.
  References: Guideline Specifications, Soil Preparation and Sodding,. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.



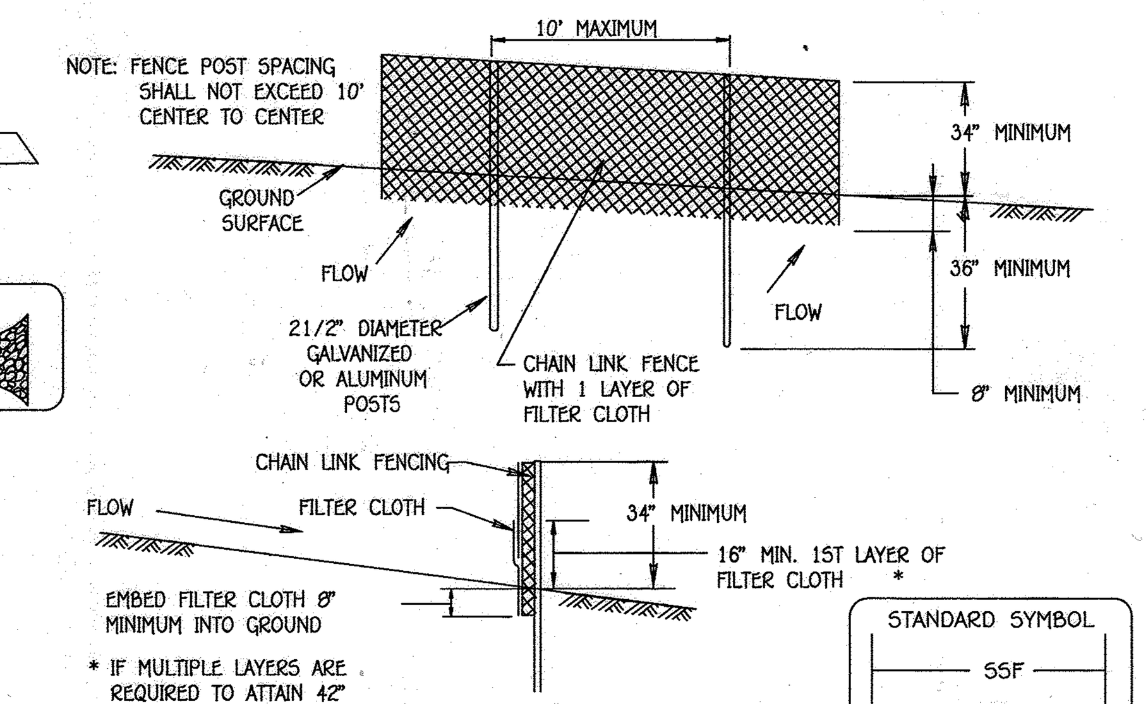
Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).
2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
4. Stone – crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water – all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

Location – A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

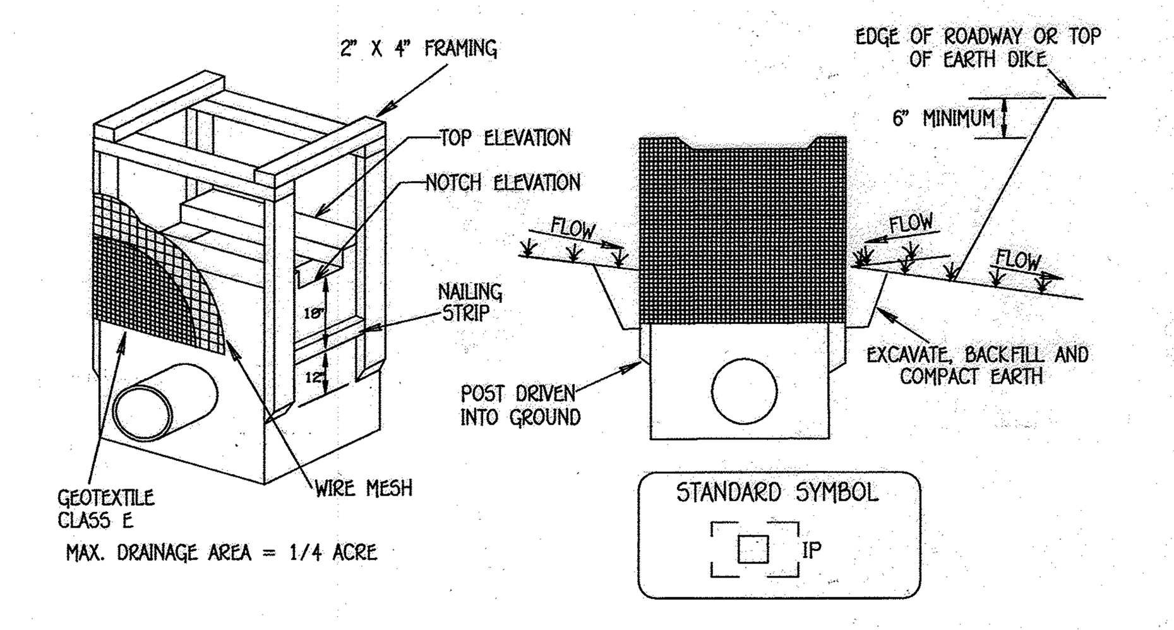
Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft² /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 – 10%	0 – 10:1	Unlimited	Unlimited
10 – 20%	10:1 – 5:1	200 feet	1,500 feet
20 – 33%	5:1 – 3:1	100 feet	1,000 feet
33 – 50%	3:1 – 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

SUPER SILT FENCE

NOT TO SCALE

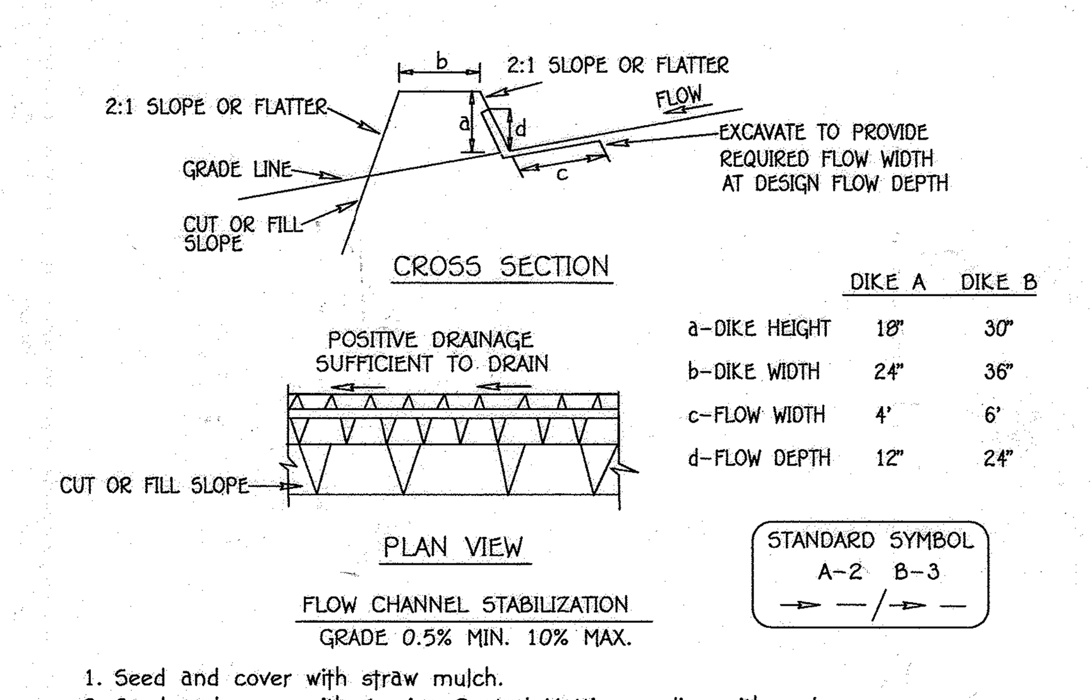


Construction Specifications

1. Excavate completely around the inlet to a depth of 18" below the notch elevation.
2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (weir) must be 6" below adjacent roadways where flooding and safety issues may arise.
3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.
4. Stretch the Geotextile Class E tightly over the wire mesh with the geotixtile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.
5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and top elevation on the sides.
6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be at least 6" higher than the top of the frame.
7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

STANDARD INLET PROTECTION

NOT TO SCALE



	DIKE A	DIKE B
a-DIKE HEIGHT	18"	30"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	12"	24"

FLOW CHANNEL STABILIZATION
GRADE 0.5% MIN. 10% MAX.

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" – 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

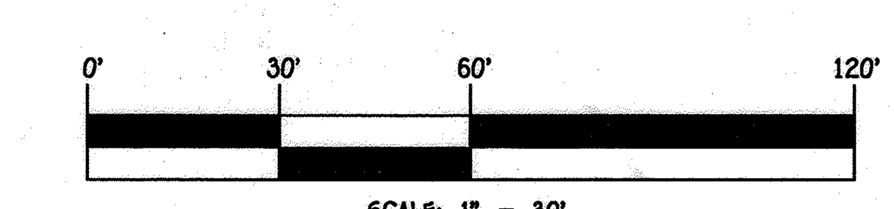
Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than%1
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
8. Inspection and maintenance must be provided periodically and after each rain event.

EARTH DIKE

NOT TO SCALE

6/22/23



SCALE: 1" = 30'

NO.	REVISION	DATE
15	REV. LOT 21. ADD R. WALL, REV. LEVEL SPRDRS, ADD SHT. 7.	6/22/23
1	REVISE LEVEL SPREADER DETAIL	12/14/16

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

STATE OF MARYLAND · EARL D. COLLINS · No. 9753 · PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment 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 — EARL D. COLLINS — 1-29-13 — 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 any 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 — B. JAMES GREENFIELD — 1-29-13 — Date

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

Howard SCD — 2/5/13 — Date

OWNER/DEVELOPER

MID-ATLANTIC LAND DEVELOPMENT COMPANY
C/O B. JAMES GREENFIELD
6420 AUTUMN SKY WAY
COLUMBIA, MARYLAND 21044
410-730-3939

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 3/04/13 — Date
Chief, Development Engineering Division NY — 2/27/13 — Date
Director – Department of Planning and Zoning — 3-12-13 — Date

PROJECT			SECTION		LOTS NO.
HOLLIFIELD HILLS			N/A		2 THRU 25

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
19884-19888	6 & 12	R-20	17	SECOND	602100

WATER CODE	SEWER CODE
F-04	1450000

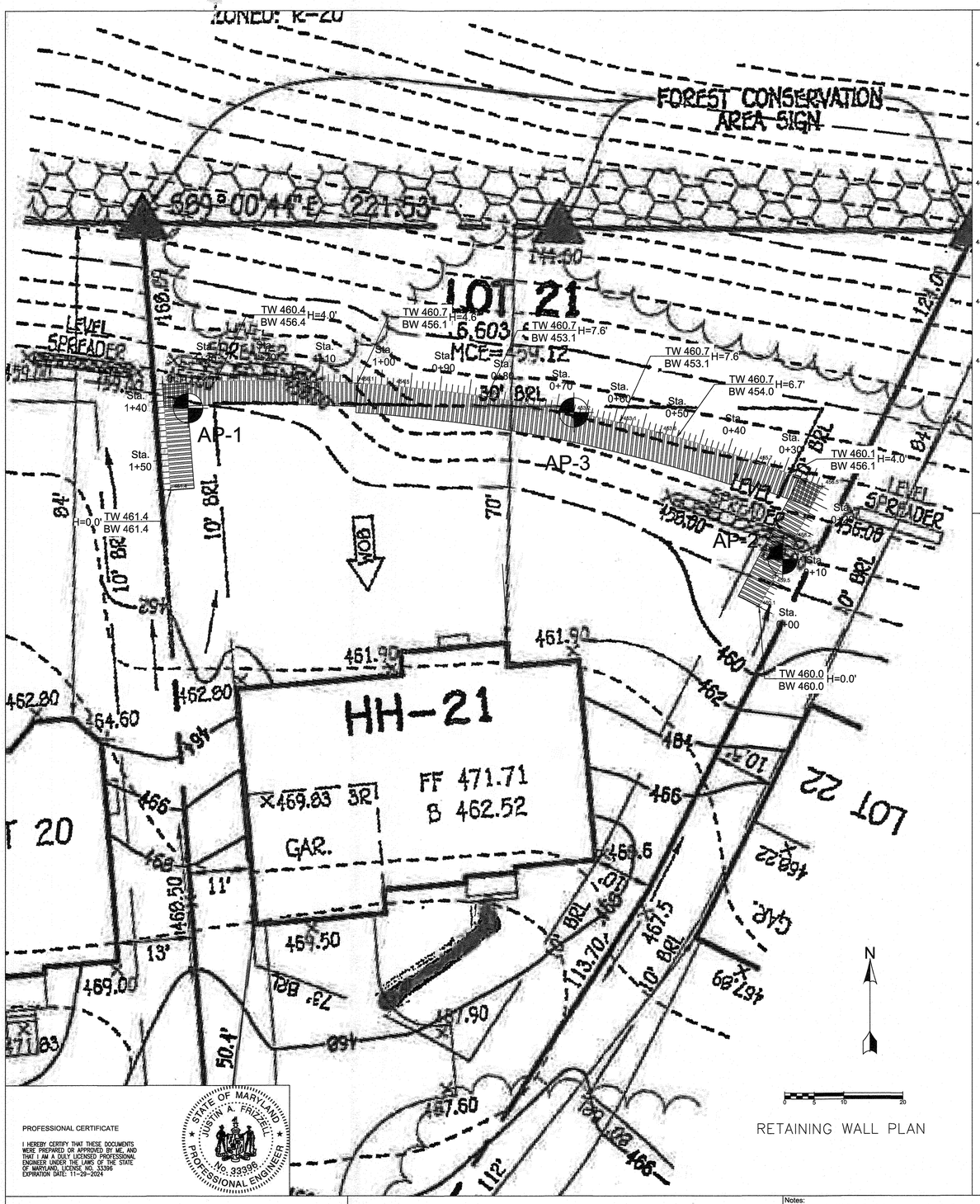
SEDIMENT/EROSION CONTROL & STORMWATER MANAGEMENT NOTES & DETAILS

SINGLE FAMILY DETACHED

HOLLIFIELD HILLS

LOTS 2 THRU 25
ZONED: R-20
TAX MAP NO.: 17 PARCEL NO'S.: 42 & 43 GRID NO'S.: 6 & 12
SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: DECEMBER, 2012

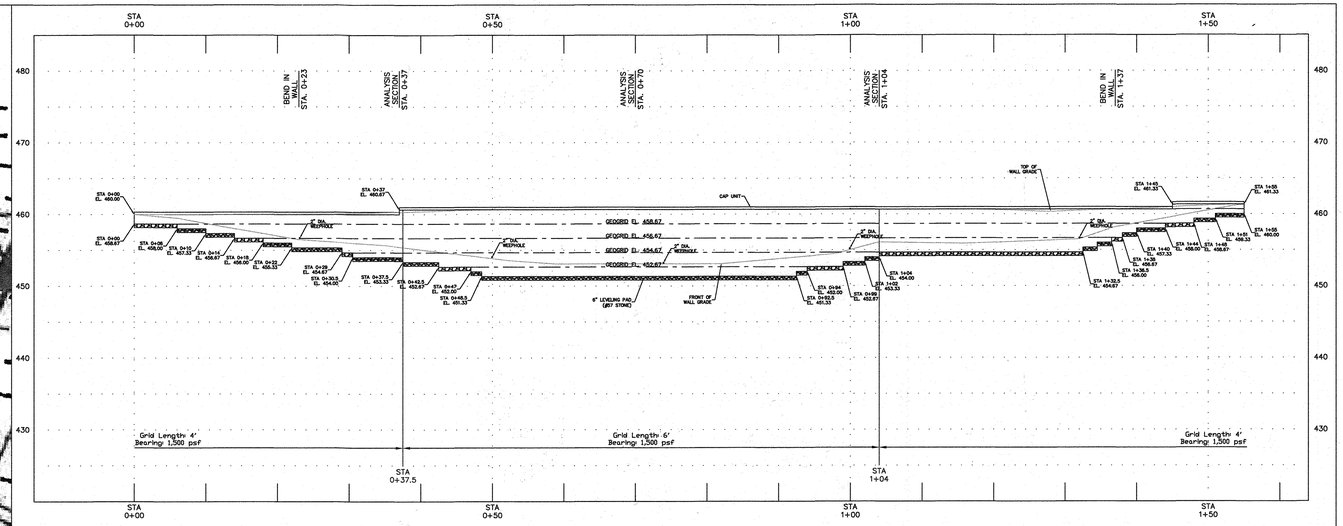
SDP-13-017



PROFESSIONAL CERTIFICATE

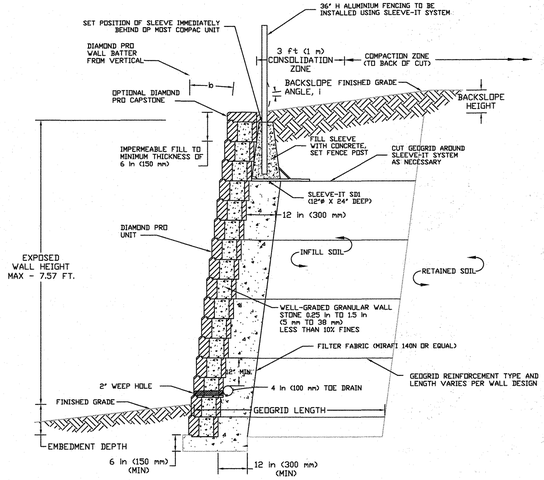
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33396 EXPIRATION DATE: 11-29-2024

STATE OF MARYLAND · JUSTIN A. FRIZZELL · No. 33396 · PROFESSIONAL ENGINEER

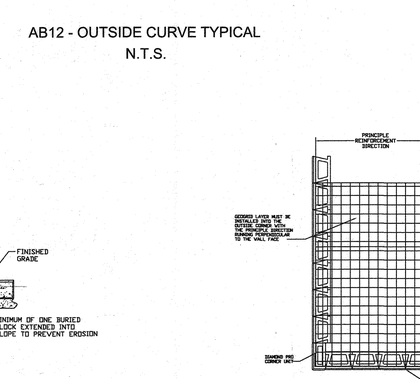


RETAINING WALL PROFILE

GRID TYPE – MIRAFI 3XT OR EQUIV. GRID LENGTH – AS SHOWN

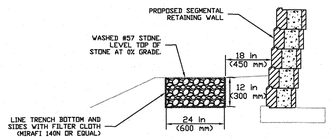


AB01 - GEOGRID WALL TYPICAL
N.T.S.

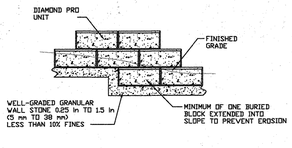


AB12 - OUTSIDE CURVE TYPICAL
N.T.S.

STATE OF MARYLAND · JUSTIN A. FRIZZELL · LICENSE NO. 33396 · PROFESSIONAL ENGINEER
6/22/23



LEVEL SPREADER DETAIL
N.T.S.



AB13 - STEP UP TYPICAL
N.T.S.

AB10 - OUTSIDE CORNER TYPICAL
N.T.S.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/14/23

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 8/18/23

DIRECTOR — DATE 8/22/23

No.	Date	Revision	By

Notes:
- Retaining Wall shall only be constructed under the observation of a Registered Professional Engineer and a certified (NICET, WACEL, or equivalent) soils technician.
- The required bearing pressure beneath the footing of the wall shall be verified in the field by a certified soils technician using the Dynamic Cone Penetrometer test (ASTM STP-399). Testing documentation must be provided to the Howard County Inspector prior to the start of construction.
- The suitability of the fill material shall be confirmed by the on-site soils technician. Each 8-inch lift must be compacted to a minimum of 95% Standard Proctor Density, and the testing report should be made available to the Howard County Inspector upon completion of construction.

OWNER / DEVELOPER

LANDART ASSOCIATES, LLC
PO BOX 921 PASADENA, MD 21123

HARDIN-KIGHT ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS
7524 WB&A ROAD, SUITE 100
GLEN BURNIE, MARYLAND
(410) 553-0802
(410) 553-0808

Designed By: JFD
Checked By: JAF
Scale: 1" = 10'

Title: Retaining Wall Plan, Profile, and Details
Purpose: REVISED SITE DEVELOPMENT PLAN. THIS SHEET HAS BEEN ADDED TO SHOW A PROPOSED SEGMENTAL RETAINING WALL AND REVISED LEVEL SPREADERS FOR LOT 21.

Project: BUENTE RETAINING WALL
HOLLIFIELD HILLS
TAX MAP #25 TAX MAP PARCEL #64
2nd ELECTION DISTRICT
2856 MILLERS WAY DRIVE HOWARD COUNTY, MARYLAND

Date: 6/22/2023
Project No: 22159
Drawing No: 7 of 7
SDP-13-017