

SITE DEVELOPMENT PLAN

THE LEGENDS AT TURF VALLEY

2nd ELECTION DISTRICT

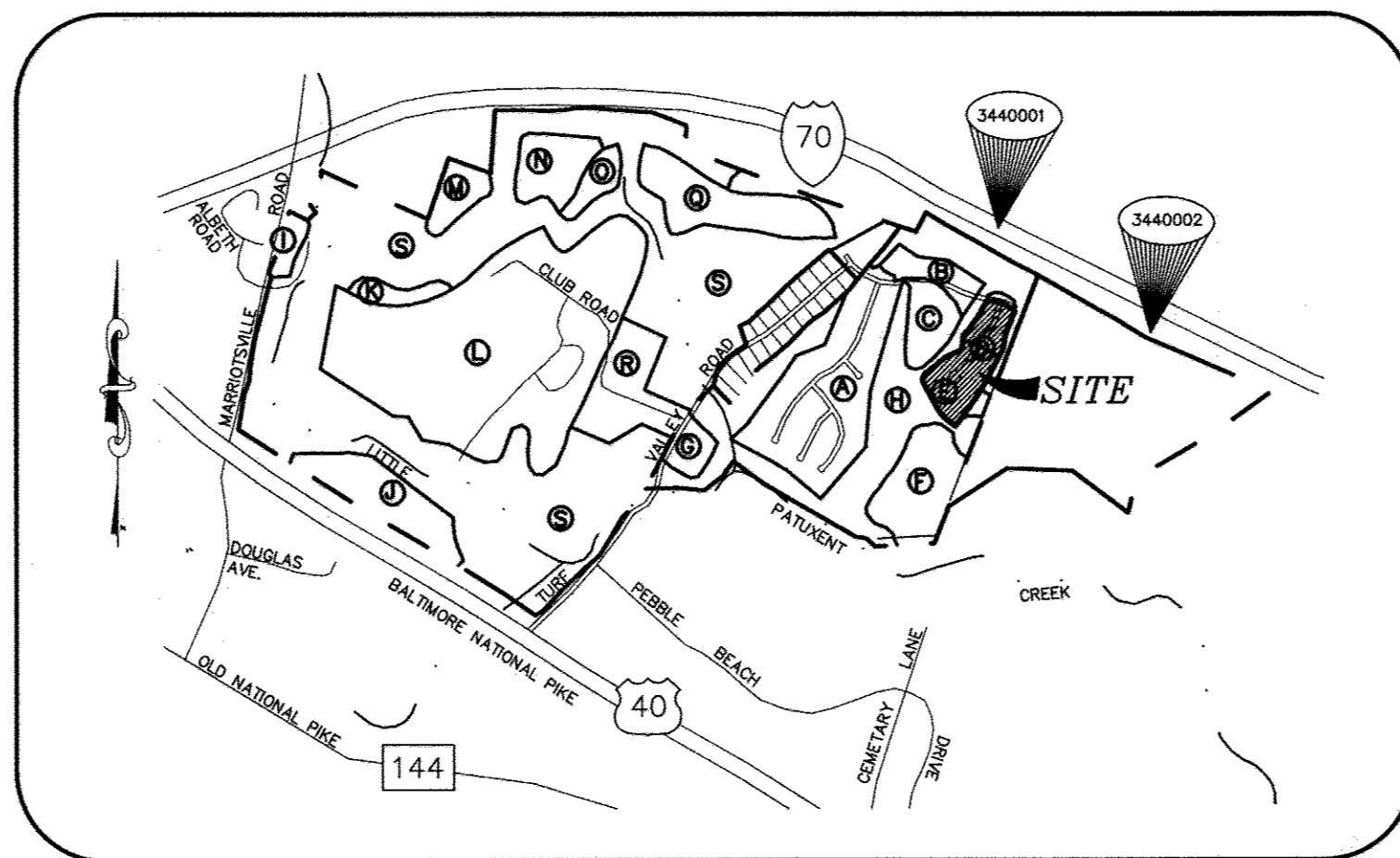
HOWARD COUNTY, MARYLAND

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SHEET	TITLE
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2 OF 6	SITE DEVELOPMENT PLAN
3 OF 6	SITE DEVELOPMENT PLAN
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5 OF 6	SITE DEVELOPMENT PLAN - LOTS 86-88
6 OF 6	SEDIMENT NOTES & DETAILS - LOTS 86-88

ADDRESS CHART		ADDRESS CHART	
LOT NO.	STREET ADDRESS	LOT NO.	STREET ADDRESS
60	2602 LEGENDS WAY	93	2640 LEGENDS WAY
61	2604 LEGENDS WAY	94	2642 LEGENDS WAY
62	2606 LEGENDS WAY	95	2644 LEGENDS WAY
63	2608 LEGENDS WAY	96	2646 LEGENDS WAY
64	2610 LEGENDS WAY	97	2648 LEGENDS WAY
65	2614 LEGENDS WAY	98	2650 LEGENDS WAY
66	2616 LEGENDS WAY	99	2654 LEGENDS WAY
67	2618 LEGENDS WAY	100	2656 LEGENDS WAY
68	2622 LEGENDS WAY	101	2658 LEGENDS WAY
69	2624 LEGENDS WAY	102	2660 LEGENDS WAY
70	2626 LEGENDS WAY	103	2662 LEGENDS WAY
71	2628 LEGENDS WAY	104	2677 LEGENDS WAY
72	2630 LEGENDS WAY	105	2675 LEGENDS WAY
73	2632 LEGENDS WAY	106	2673 LEGENDS WAY
74	2635 LEGENDS WAY	107	2671 LEGENDS WAY
75	2633 LEGENDS WAY	108	2669 LEGENDS WAY
76	2631 LEGENDS WAY	109	2667 LEGENDS WAY
77	2629 LEGENDS WAY	110	2665 LEGENDS WAY
78	2627 LEGENDS WAY	111	2663 LEGENDS WAY
79	2625 LEGENDS WAY	112	2661 LEGENDS WAY
80	2621 LEGENDS WAY	113	2659 LEGENDS WAY
81	2619 LEGENDS WAY	114	2657 LEGENDS WAY
82	2617 LEGENDS WAY	115	2653 LEGENDS WAY
83	2615 LEGENDS WAY	116	2651 LEGENDS WAY
84	2613 LEGENDS WAY	117	2649 LEGENDS WAY
85	2611 LEGENDS WAY	118	2645 LEGENDS WAY
86	2607 LEGENDS WAY	119	2643 LEGENDS WAY
87	2605 LEGENDS WAY	120	2641 LEGENDS WAY
88	2603 LEGENDS WAY	121	2639 LEGENDS WAY
92	2638 LEGENDS WAY		

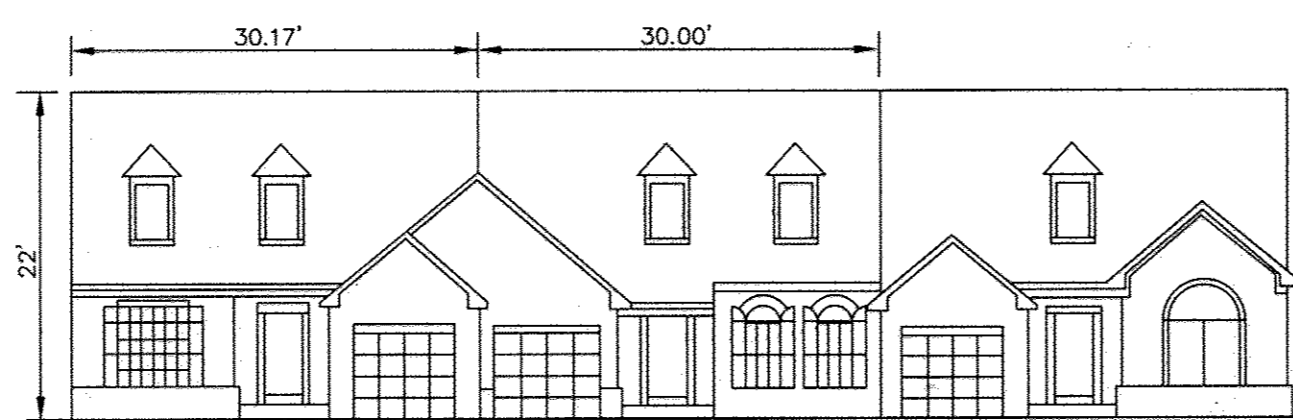
2nd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 200'

LOT	MIN. BSMT.	LOT	MIN. BSMT.
60	462.85	93	450.14
61	462.44	94	449.73
62	462.18	95	448.85
63	462.04	96	447.95
64	461.77	97	447.39
65	461.50	98	446.61
66	461.06	99	446.07
67	460.90	100	445.14
68	459.60	101	446.22
69	458.75	102	446.25
70	458.17	103	445.78
71	457.27	104	445.55
72	456.65	105	445.96
73	454.36	106	446.58
74	455.75	107	447.28
75	457.37	108	447.29
76	457.87	109	447.21
77	458.87	110	447.24
78	459.37	111	446.50
79	460.12	112	446.60
80	461.20	113	446.96
81	461.27	114	447.09
82	461.37	115	447.57
83	461.58	116	447.40
84	461.72	117	447.78
85	461.98	118	448.35
86	462.18	119	448.64
87	462.40	120	448.88
88	462.79	121	449.16
92	451.42		



ELEVATIONS

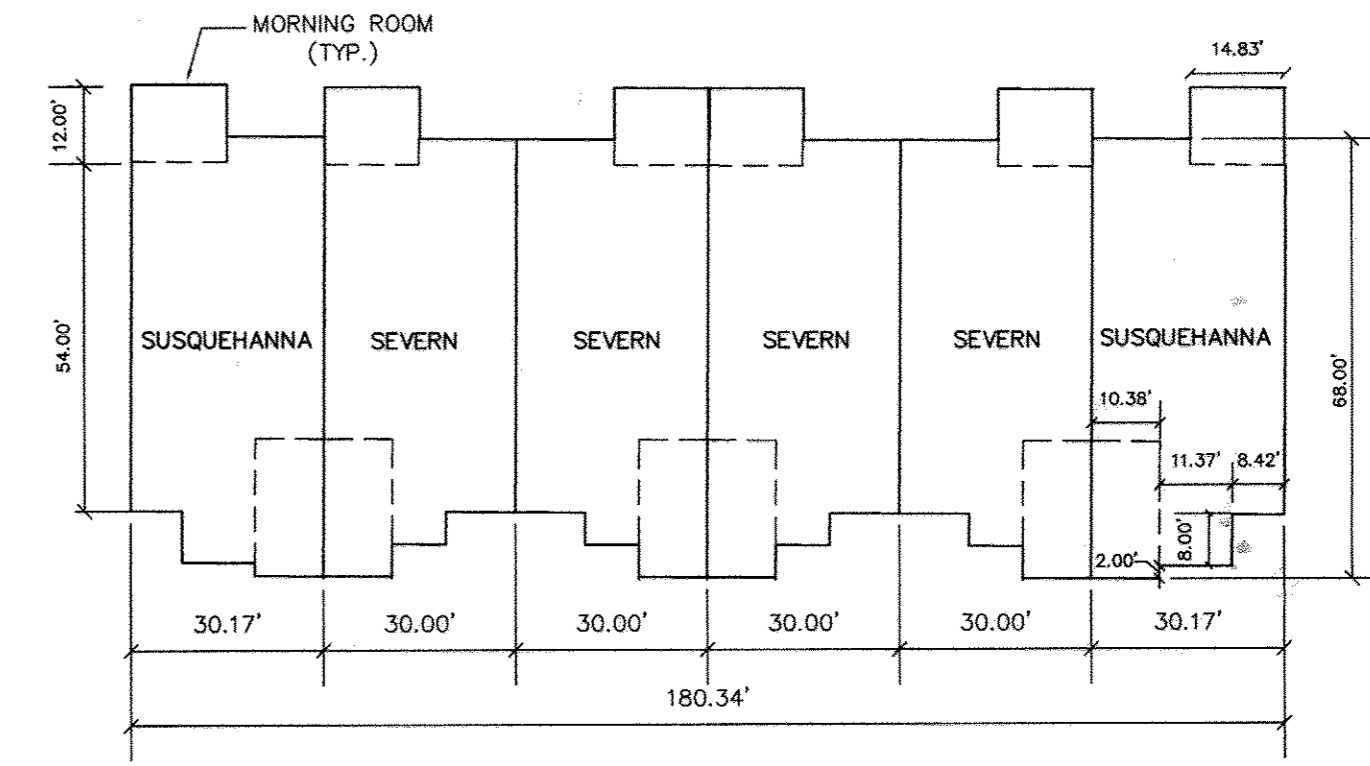
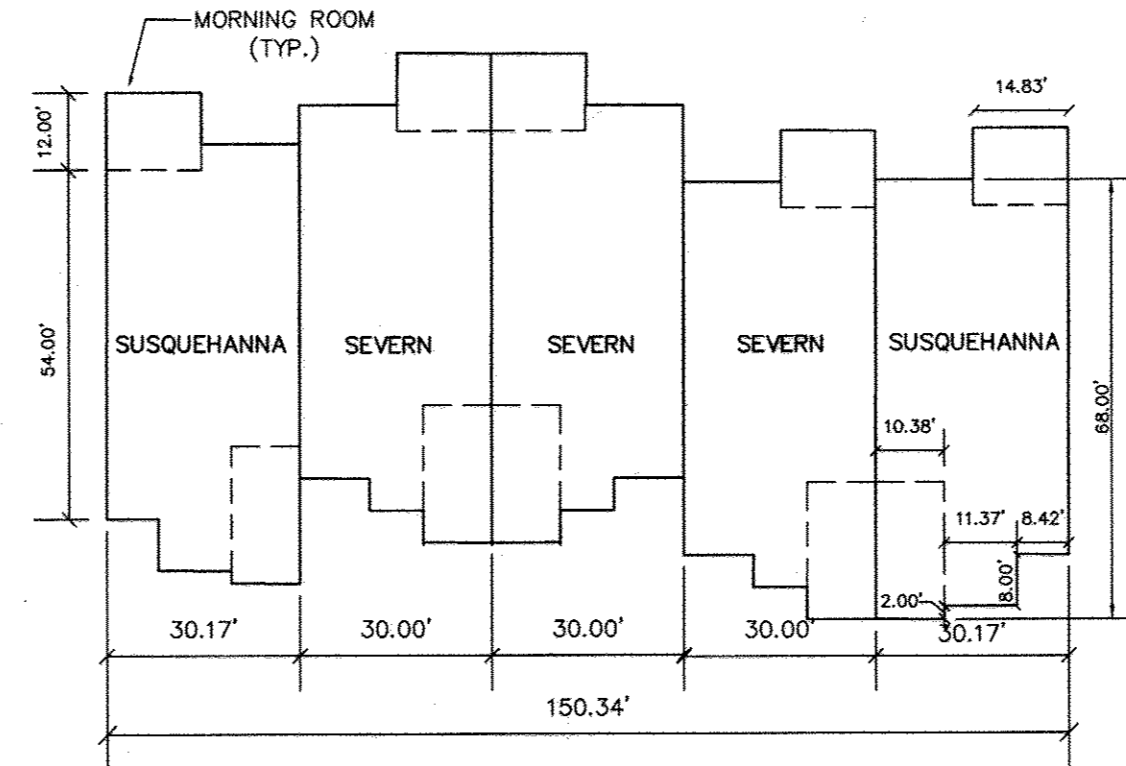
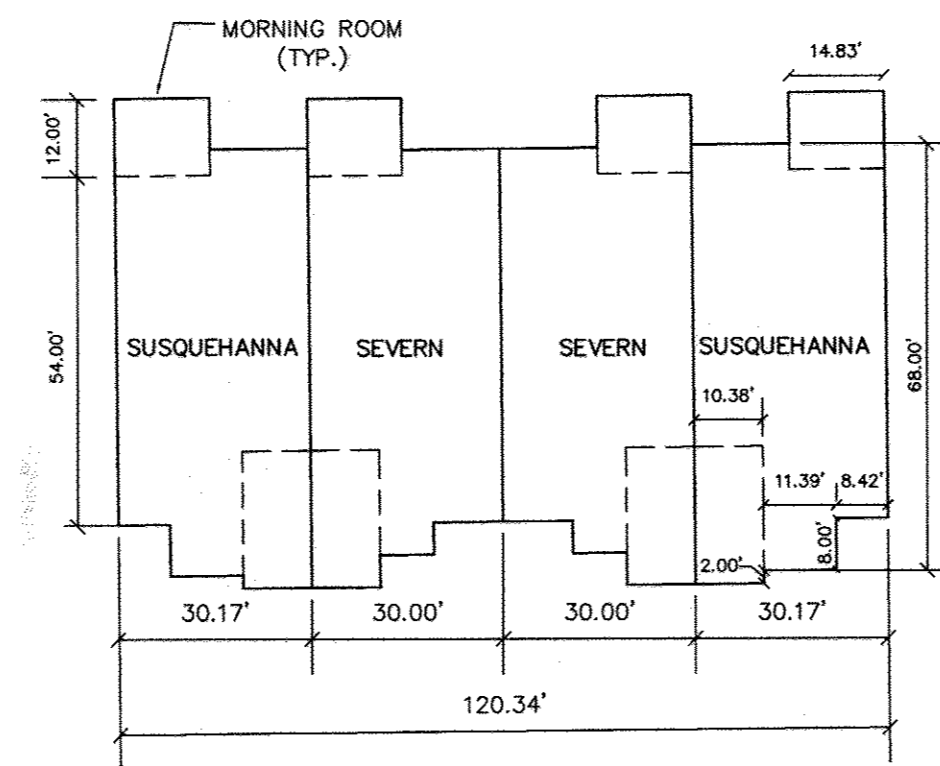
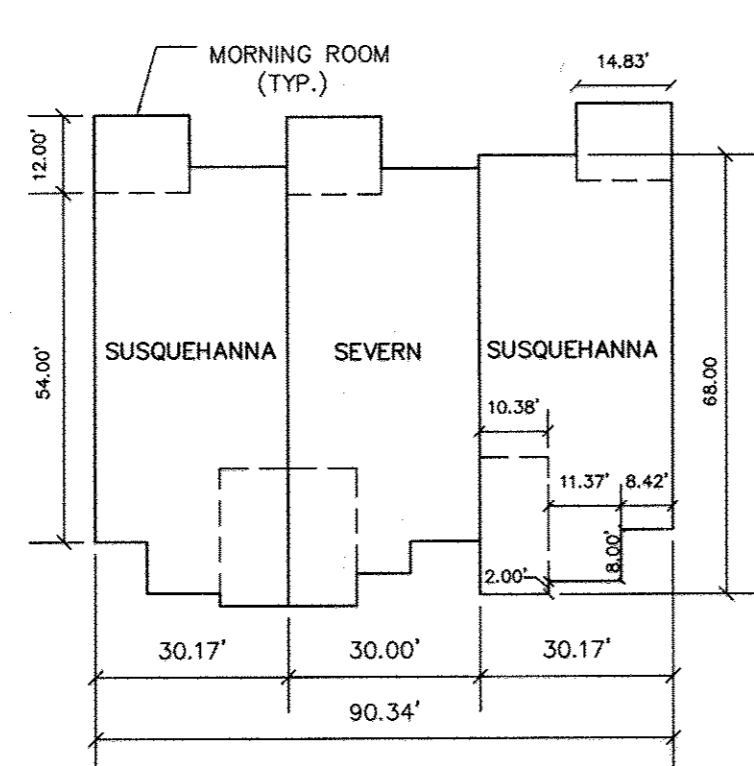
APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 1/13/2000

27. The driveways in front of Lots 115-121 are resolved solely for the owners of each respective lot, for parking purposes. Refer also to HDA Declaration of Covenants, which are to be recorded in the Land Records of Howard County.

OWNER
MANGIONE ENTERPRISES OF TURF VALLEY, L.P.
1205 YORK ROAD, PENTHOUSE
LUTHERVILLE, MARYLAND 21093
(410) 825-8400

MIN LOT SIZE TABULATION

MODEL TYPE	AREA OF BUILDING (SQ.FT.)	MIN. LOT SIZE (AREA/0.6)
SUSQUEHANNA WITHOUT OPTIONAL MORNING ROOM	1898	3164
SUSQUEHANNA WITH OPTIONAL MORNING ROOM	2076	3460
SEVERN WITHOUT OPTIONAL MORNING ROOM	1830	3050
SEVERN WITH OPTIONAL MORNING ROOM	2007	3345



PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #			
THE LEGENDS AT TURF VALLEY	PHASE 1 AND 2	60-88 AND 92-121			
PLAT # OR L/F	BLOCK #	ZONE	TAX MAP	ELEC. DIST.	CENSUS TRACT
13963-13966	17	PGCC	16	2ND	6022
WATER CODE	H07	SEWER CODE	5992000		
PROPOSED IMPROVEMENTS:	SFA				

DEVELOPERS CERTIFICATE

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, 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 NATURAL SERVICE.

Signature: [Signature] Date: 2/10/00

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL IS A PRACTICAL AND WORKABLE PLAN BASED ON THE PRESENT AND FORESEEN CONDITIONS AND THAT IT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MARYLAND.

Signature: [Signature] Date: 2/10/00

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Signature: [Signature] Date: 2/10/00

USDA - NATURAL RESOURCE CONSERVATION SERVICE

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

Signature: [Signature] Date: 2/10/00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: [Signature] Date: 2/29/00

Signature: [Signature] Date: 3/3/00

GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:
 - MISS UTILITY 1-800-257-7777
 - C&P TELEPHONE COMPANY (410) 725-9976
 - HOWARD COUNTY BUREAU OF UTILITIES (410) 313-4900
 - AT&T CABLE LOCATION DIVISION (410) 393-3533
 - BALTIMORE GAS & ELECTRIC (410) 685-0123
 - STATE HIGHWAY ADMINISTRATION (410) 531-5533
 - HOWARD COUNTY DEPT. OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION (410) 313-1880
 - PROJECT BACKGROUND:
 - LOCATION: 2ND ELECTION DISTRICT, TAX MAP 16, BLOCK 17, P/O PARCEL B.
 - ZONING: PGCC
 - TOTAL TRACT AREA: 13.33 Ac.±
 - LIMIT OF DISTURBED AREA: 5.78 Ac.±
 - PROPOSED USE: SFA
 - TOTAL NO. OF UNITS ALLOWED: 59
 - TOTAL NO. OF UNITS PROPOSED: 56
 - DATE PREVIOUS PLANS APPROVED AND DPZ REFERENCE # :
 - PB-181, AMENDED S-86-13 (P.B. 294), FDP-PGCC, FDP-RESIDENTIAL SUBDISTRICT, PB-6/23/94, F-94-06 (RESORT ROAD), SDP-95-121 (REGIONAL SWM POND), S-94-45, 2ND AMENDED S-86-13 (P.B. 300), SP-95-14, F-96-107, F-96-150, F-96-151, SP-97-12, F-99-107, F-98-91
 - DEED REFERENCE: L0920 F.250
 - TOPOGRAPHY SHOWN HEREON IS BASED ON AERIAL PHOTOGRAPHIC MAPPING PREPARED BY MAPPING ASSOCIATES DATED OCTOBER 1986, AND FIELD TOPOGRAPHY BY MILDENBERG, BOENDER AND ASSOC., INC. ON NOVEMBER 1997.
 - COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS No. 1861 AND 2422.
 - STA. No. 3440001 N 534,735.478 E 836,286.297 EL. 486.341
 - STA. No. 3440002 N 533,593.800 E 837,983.249 EL. 462.306
 - WATER AND SEWER ARE PUBLIC, CONNECTED TO PROJECT # 24-3548 & 24-3549.
 - WATER METERS SHALL BE LOCATED INSIDE BUILDINGS.
 - NO FLOODPLAIN EXISTS ON-SITE.
 - NO BURIAL GROUNDS OR CEMETERY SITES EXIST ON-SITE.
 - THIS SUBDIVISION IS IN THE METROPOLITAN DISTRICT.
 - NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLANDS AND STREAM BUFFERS, EXCEPT AS SHOWN ON APPROVED PLANS.
 - FUTURE ADDITIONS MAY BE PROHIBITED ON LOTS 83 AND 84 DUE TO MAXIMUM BUILDING COVERAGE OF 60%.
 - NO MORNING ROOM ALLOWED ON LOTS: 72, 73 AND 92-98 AND 101-102.
 - SETBACKS, BULK CRITERIA, AND SUPPLEMENTAL REGULATIONS ARE CONTAINED IN FDP-PGCC (RESIDENTIAL SUBDISTRICT) PLAT NO. 3054A-1611
 - CONVERSION OF THE GARAGE AREA INTO LIVABLE SPACE IS PROHIBITED FOR ALL UNITS.
 - TOTAL PARKING SPACES REQUIRED: 112
TOTAL PARKING SPACES PROVIDED: 130
 - STORM WATER MANAGEMENT WILL BE MET BY THE REGIONAL POND PREVIOUSLY SUBMITTED UNDER SDP-95-121.
 - SURETY FOR REQUIRED PLANTINGS, IN THE AMOUNT OF \$ 8,100.00, WILL BE POSTED WITH THE GRADING PERMIT.
 - USE RESIDENTIAL DRIVEWAY ENTRANCE HOWARD COUNTY STD. R-6.03 UNLESS OTHERWISE NOTED.
 - NO STRUCTURE SHALL BE CONSTRUCTED WITHIN THE EXISTING 20' DRAINAGE EASEMENT BEHIND LOTS 92-103.
 - SNOW REMOVAL FOR PRIVATE ROAD (LOTS 115-121) WILL BE THE RESPONSIBILITY OF THE H.O.A.
 - USE 2 CLUSTER MAILBOXES ON SLABS FOR ALL LOTS.
 - TRASH COLLECTION FOR LOTS 115 THROUGH 121 WILL BE AT RIGHT-OF-WAY OF LEGENDS WAY.
26. The Howard County Planning Board approved this site development plan on January 13, 2000. The approval included allowing the building length to exceed the 120' maximum up to 180.34' for buildings with 6 units, and to allow the following lots to exceed the 60% maximum lot coverage:
 Lot 115 (41.8%), Lot 116 (70.0%), Lot 117 (61.8%), Lot 118 (61.2%), Lot 119 (69.4%), Lot 120 (69.4%), and Lot 121 (61.2%).

Project: 96076
Date: FEB 2000
Illustration: MPP
Scale: 3/16" = 1'-0"
Revision: 1
Description: REVISION SHEET INDEX AND SHEET NUMBERS
Date: 12-7-2017

THE LEGENDS AT TURF VALLEY
TAX MAP 16 - P/O PARCEL 8 - BLOCK 17
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COVER SHEET

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 987-0286 Fax (301) 621-5521 Wash. (410) 997-0288 Fax

1 OF 6

LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
27		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
TOTAL				
27 TREES				

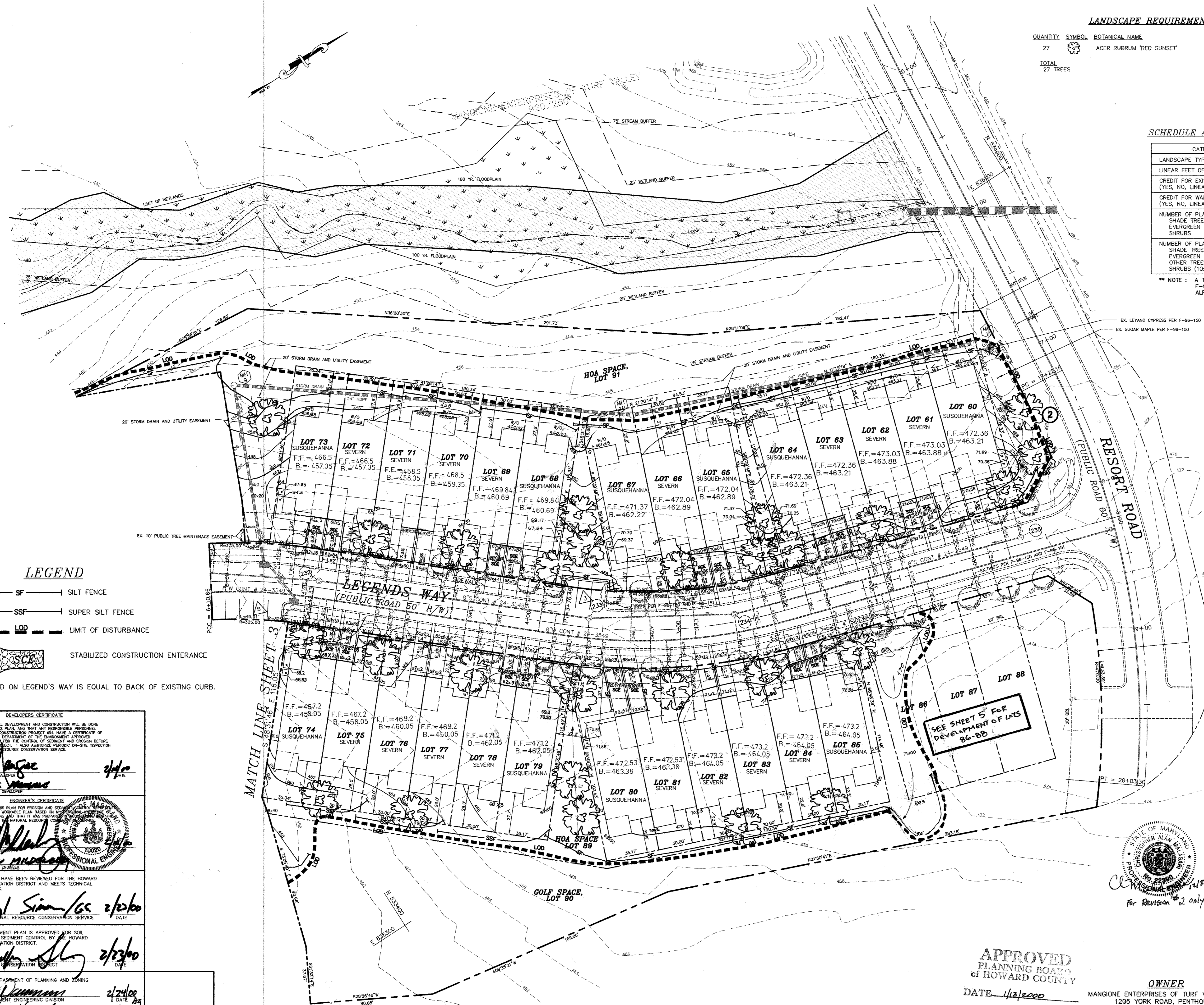
SCHEDULE A : PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO ROADWAYS
LANDSCAPE TYPE	C (PERIMETER 2)
LINEAR FEET OF PERIMETER	116 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, 2 SHADE TREES & 3 EVERGREENS PER F-96-150
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO
NUMBER OF PLANTS REQUIRED	
SHADE TREES	1 SHADE TREE
EVERGREEN TREES	0 EVERGREEN TREES
SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED	
SHADE TREES	1 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES
OTHER TREES (2-1 SUBSTITUTION)	0 SUBSTITUTION TREES
SHRUBS (10-1 SUBSTITUTION)	0 SHRUBS

** NOTE : A TYPE B BUFFER WAS PROVIDED ALONG LOT 60 UNDER F-96-150. 2 SHADE TREES AND 3 EVERGREENS WERE ALREADY PROVIDED.

SCHEDULE C : RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS	26
NUMBER OF TREES REQUIRED (1.0U SFA; 1.3 DU APTS)	26
NUMBER OF TREES PROVIDED	
SHADE TREES	26
OTHER TREES (2:1 SUBSTITUTION)	



DEVELOPER'S CERTIFICATE

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, 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 NATURAL RESOURCE CONSERVATION SERVICE.

[Signature] DATE: 2/12/00

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL IS A PRACTICAL WORKABLE PLAN BASED ON THE PRESENT SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

[Signature] DATE: 2/12/00

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature] DATE: 2/23/00

USDA - NATURAL RESOURCE CONSERVATION SERVICE

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

[Signature] DATE: 2/23/00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] DATE: 2/24/00

[Signature] DATE: 2/23/00

[Signature] DATE: 2/23/00

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 1/12/2000

OWNER
MANGIONE ENTERPRISES OF TURF VALLEY, L.P.
1205 YORK ROAD, PENTHOUSE
LUTHERVILLE, MARYLAND 21093
(410) 825-8400

DATE	FEB. 2000
PROJECT	98076
ILLUSTRATION	MMP
SCALE	1" = 80'

DATE	12-7-2017
REVISION	2
DESCRIPTION	REVISE SHEET NUMBERS AND NOTE ON LOTS 86-88
DATE	8/22/00
DESCRIPTION	REVISE FLOOR ELEVATIONS
DATE	
DESCRIPTION	

THE LEGENDS AT TURF VALLEY
TAX MAP 16 - P/O PARCEL 8 - BLOCK 17
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SITE DEVELOPMENT PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Fax: (301) 621-5521 Wash. (410) 997-0298 Fax.

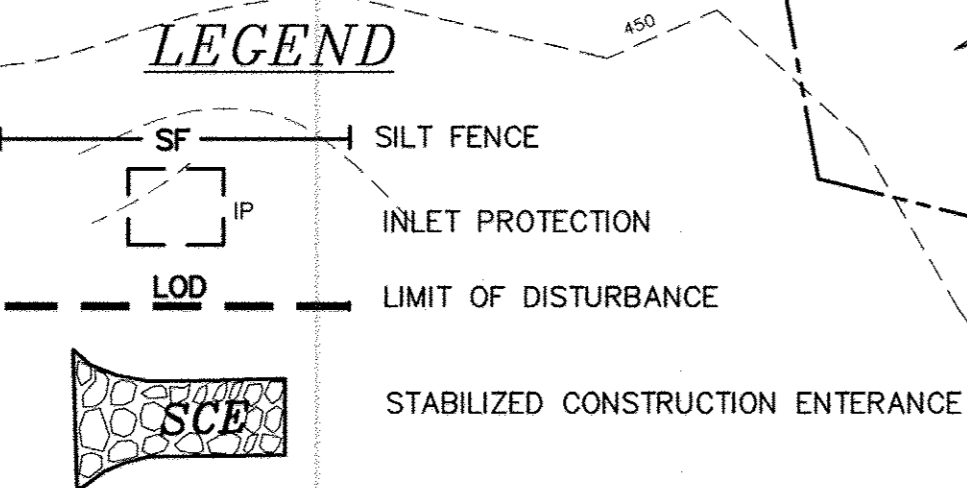
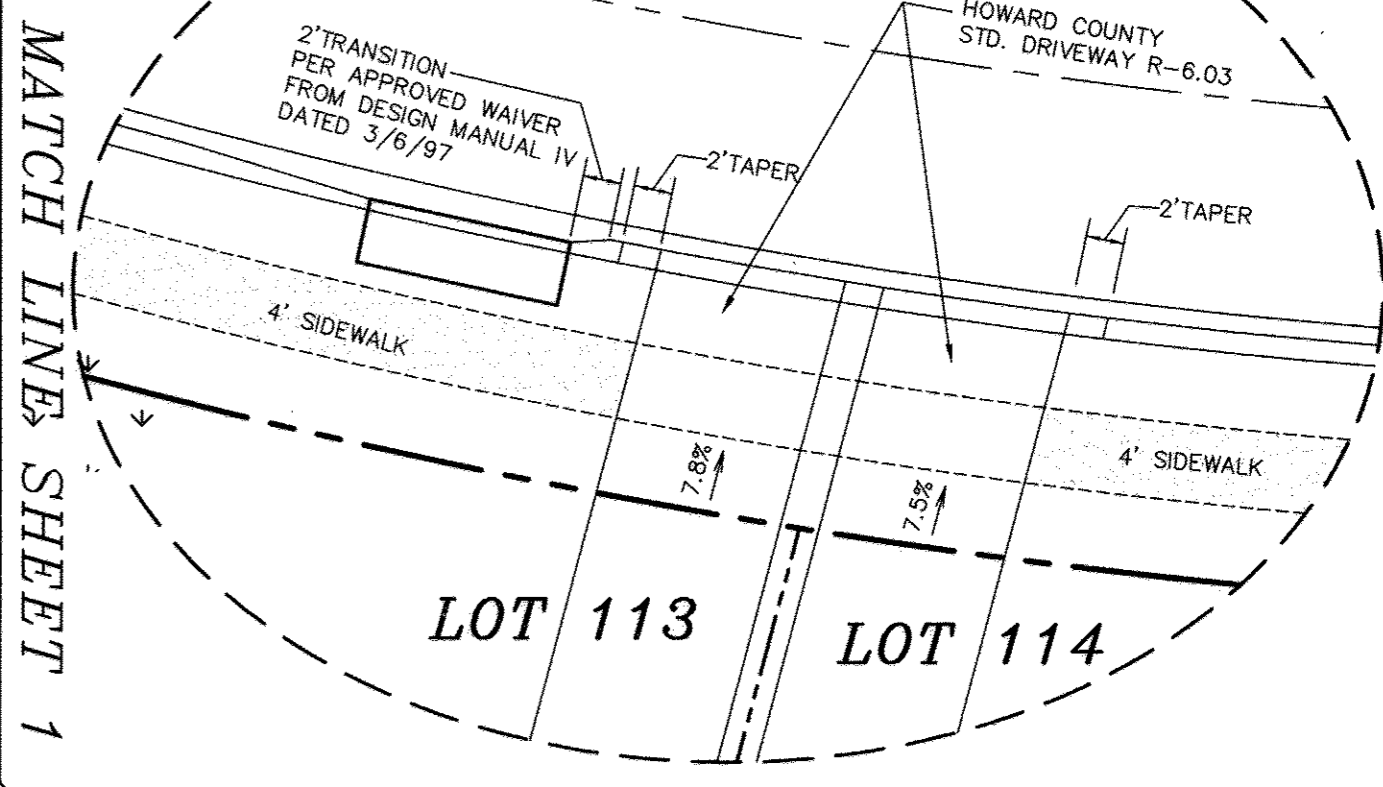
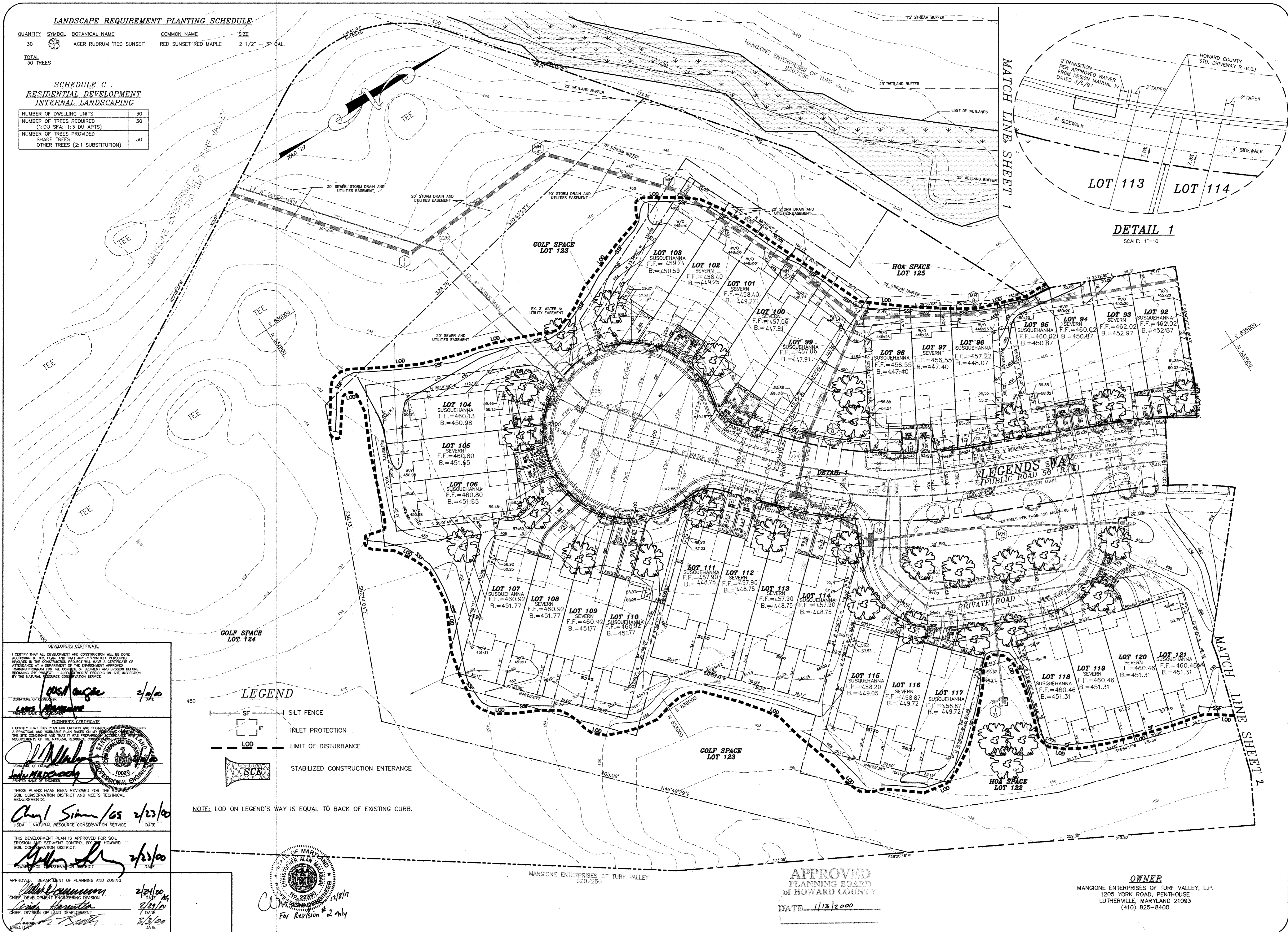
LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
30		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.

TOTAL
30 TREES

**SCHEDULE C:
RESIDENTIAL DEVELOPMENT
INTERNAL LANDSCAPING**

NUMBER OF DWELLING UNITS	30
NUMBER OF TREES REQUIRED (1:1 DU SFA; 1:3 DU APTS)	30
NUMBER OF TREES PROVIDED SHADE TREES	30
OTHER TREES (2:1 SUBSTITUTION)	30



NOTE: LOD ON LEGEND'S WAY IS EQUAL TO BACK OF EXISTING CURB.

DEVELOPER'S CERTIFICATE

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, 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 NATURAL RESOURCE CONSERVATION SERVICE.

Signature: *[Signature]* Date: 2/10/00
 Printed Name: *[Name]*

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY EXAMINATION OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

Signature: *[Signature]* Date: 2/10/00
 Printed Name: *[Name]*

THESE PLANS HAVE BEEN REVIEWED FOR THE SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Signature: *[Signature]* Date: 2/23/00
 USA - NATURAL RESOURCE CONSERVATION SERVICE

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

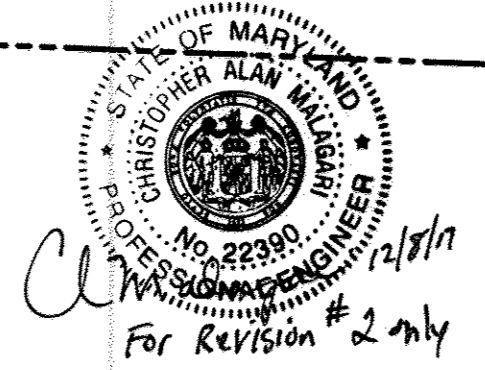
Signature: *[Signature]* Date: 2/23/00
 HOWARD COUNTY SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* Date: 2/24/00
 CHIEF DEVELOPMENT ENGINEERING DIVISION

Signature: *[Signature]* Date: 2/24/00
 CHIEF DIVISION OF LAND DEVELOPMENT

Signature: *[Signature]* Date: 3/3/00
 DIRECTOR



For Revision # 2 only

MANGIONE ENTERPRISES OF TURF VALLEY
820/250

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 1/13/2000

OWNER
MANGIONE ENTERPRISES OF TURF VALLEY, L.P.
1205 YORK ROAD, PENTHOUSE
LUTHERVILLE, MARYLAND 21093
(410) 825-8400

PROJECT	DATE	DESCRIPTION
98076	FEB. 2000	engineering
MMP	MMP	MMP
MMP	MMP	MMP

NO.	REVISION	DATE
1	REVISE FLOOR ELEVATIONS	8/22/00
2	REVISE SHEET NUMBER	12-7-2007

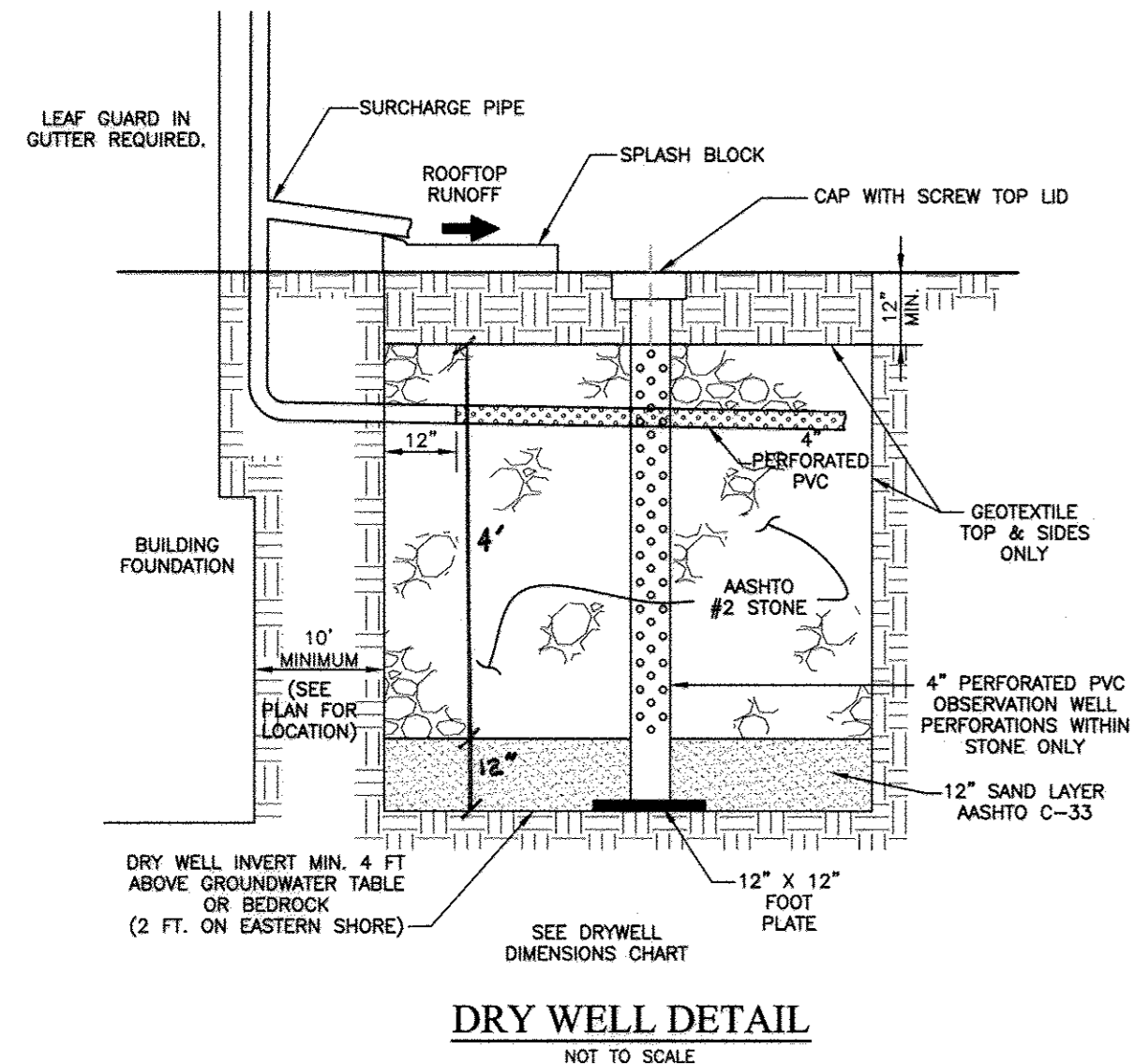
THE LEGENDS AT TURF VALLEY
 TAX MAP 16 - P/O PARCEL 8 - BLOCK 17
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SITE DEVELOPMENT PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Bait. (301) 621-5521 Wash. (410) 997-0298 Fax.

GENERAL NOTES

1. TOPOGRAPHY SHOWN IS BASED ON FIELD RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. ON AUGUST 16, 2017.
2. THERE ARE NO WETLANDS, WETLANDS BUFFER, STREAMS, 100-YR FLOODPLAIN OR 25% OR GREATER STEEP SLOPES WITH MORE THAN 20,000 SF OF CONTIGUOUS AREA LOCATED ON THESE LOTS.
3. THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS UNDER SECTION 16.1202(b) OF THE COUNTY CODE.
4. THE DRY WELLS LOCATED IN THE FRONT OF THE LOTS SHALL BE LINED WITH A PLASTIC LINER SINCE THEY ARE LOCATED CLOSER THAN 10 FEET TO THE HOUSE FOUNDATION.

MATERIALS & SPECIFICATIONS FOR DRY WELLS			
MATERIAL	SPECIFICATION	SIZE	NOTES:
GEOTEXTILE (CLASS "C")	N/A		PE TYPE 1 NONWOVEN
GRAVEL	AASHTO M 43	1 1/2" TO 2 1/2"	
UNDERDRAIN PIPING	F758, TYPE PS28 OR AASHTO M-278	4" TO 6" RIGID SCH.40 PVC, SDR35 OR HDPE	3/8" PERF. @ 6" O/C, 4 HOLES PER ROW; MINIMUM OF 2" OF GRAVEL OVER PIPES.
SAND	AASHTO M-6 OR ASTM-C-33	.02" TO .04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NT ROCK DUST CAN BE USED FOR SAND.



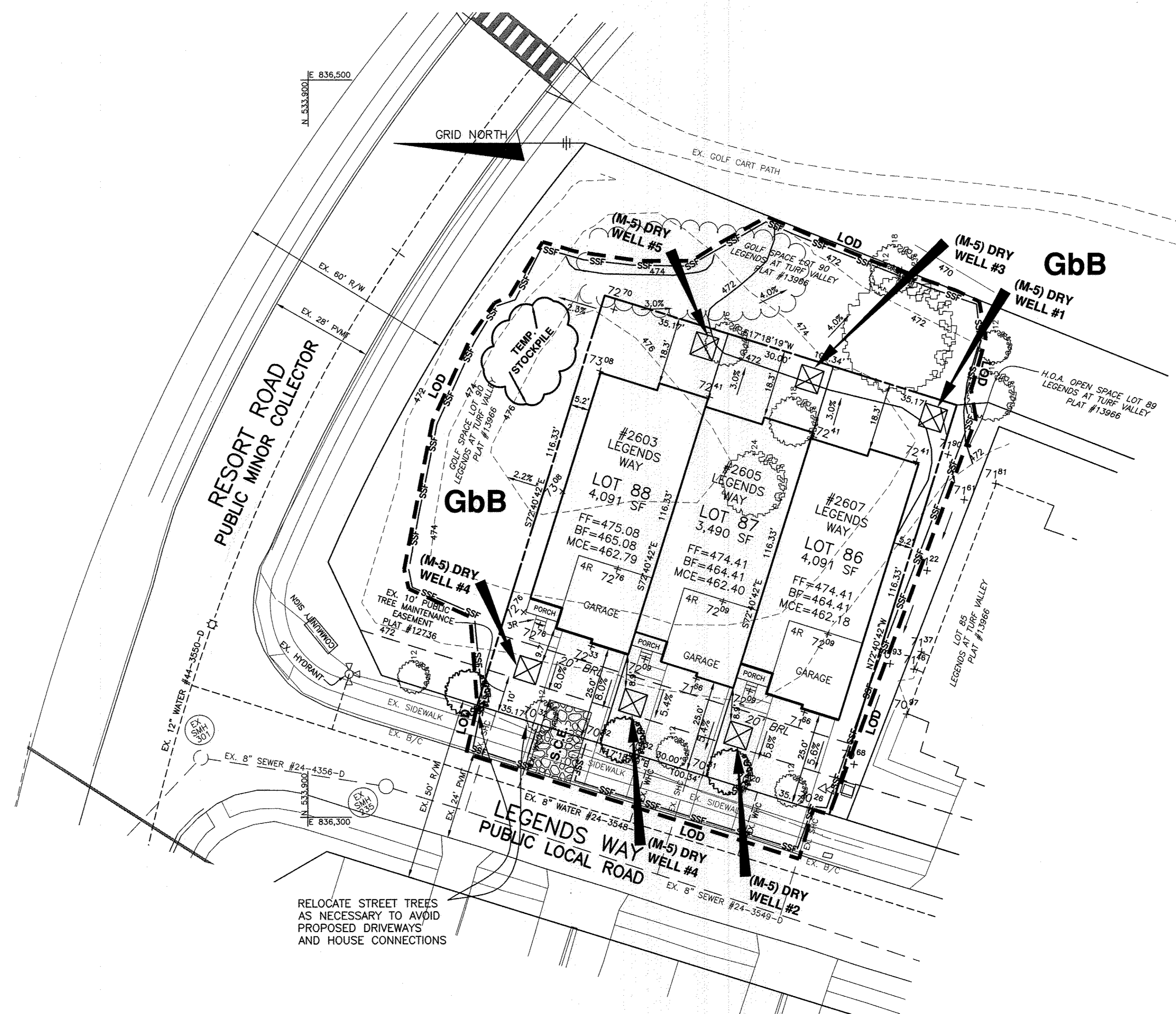
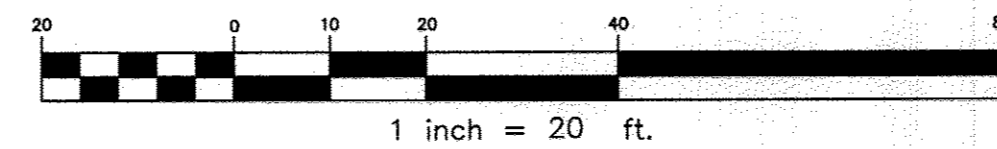
Dry Well Dimension Chart						
Dry Well	Lot	Length (ft)	Width (ft)	Depth of Stone (Ft)	Bottom of Stone Elevation	Bottom of Sand Elevation
#1	Lot 86	6.3	6.3	4.0	466.80	465.80
#2	Lot 86	6.3	6.3	4.0	466.25	465.25
#3	Lot 87	6.3	6.3	4.0	467.00	466.00
#4	Lot 87	6.3	6.3	4.0	466.25	465.25
#5	Lot 88	6.3	6.3	4.0	467.20	466.20
#6	Lot 88	6.3	6.3	4.0	466.50	465.50

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED (M-5) DRY WELLS

1. The monitoring wells and structures shall be inspected on a quarterly basis and after every large storm event.
2. Water levels and sediment build up in the monitoring wells shall be recorded over a period of several days to insure trench drainage.
3. A log book shall be maintained to determine the rate at which the facility drains
4. When the facility becomes clogged so that it does not drain down within the 72 hour time period, corrective action shall be taken.
5. The maintenance log book shall be available to Howard County for inspection to insure compliance with operation and maintenance criteria.
6. Once the performance characteristics of the infiltration facility have been verified, the monitoring schedule can be reduced to an annual basis unless the performance data indicates that a more frequent schedule is required.

LEGEND

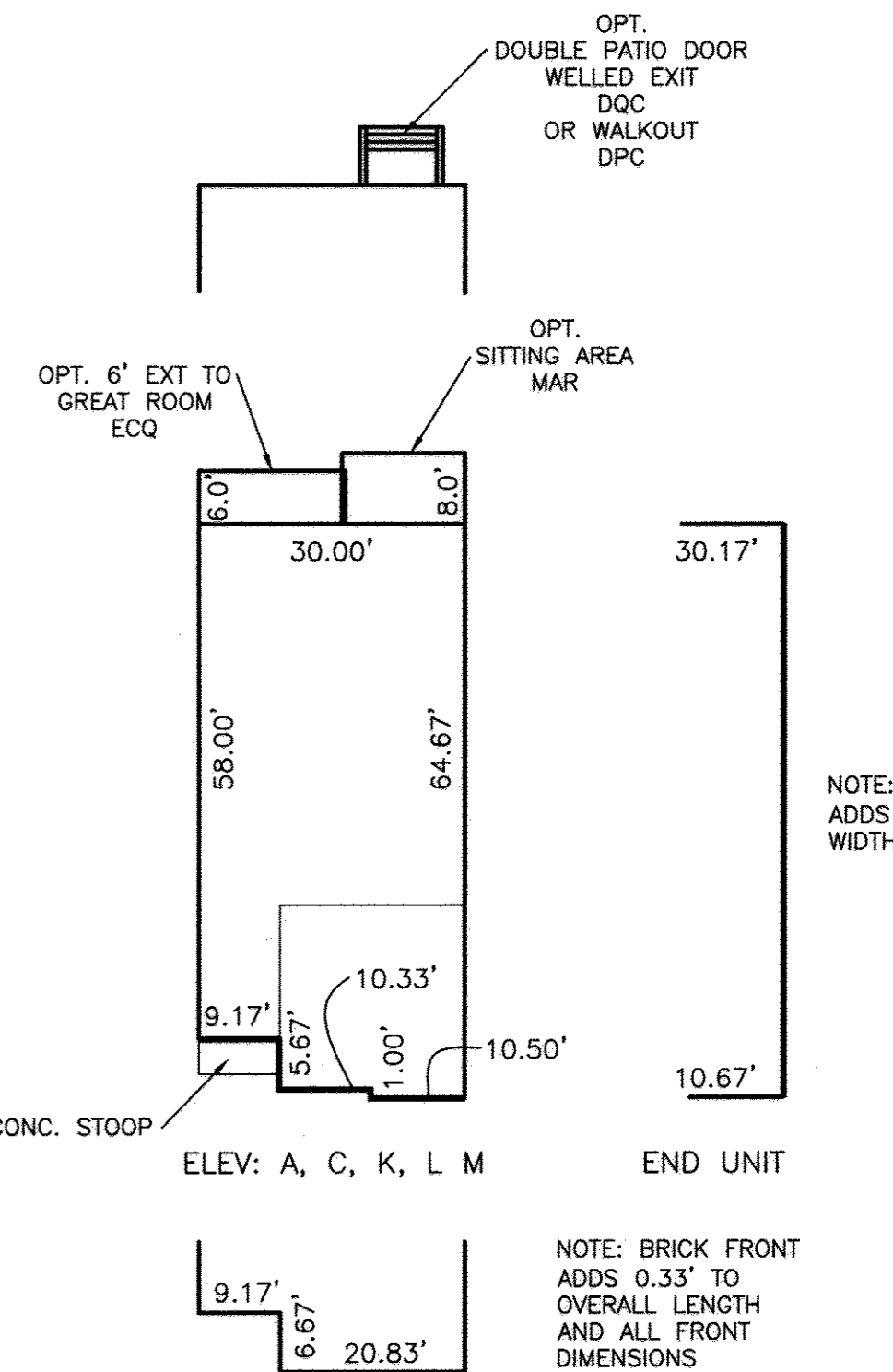
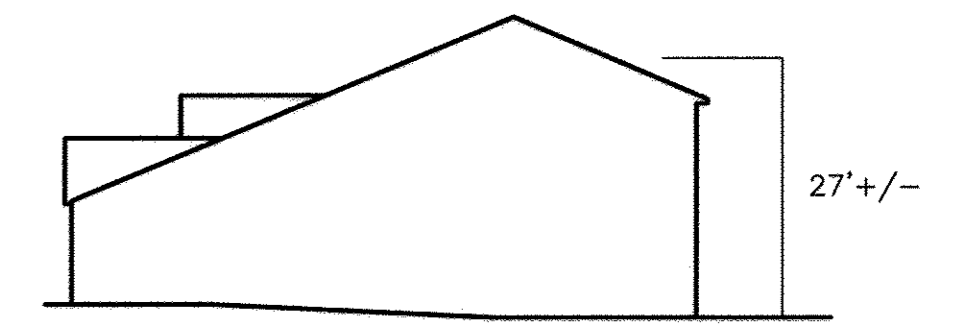
- EXISTING CONTOURS
- EXISTING TREE
- SSF SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- ☒ DRY WELL



NRCS SOILS CHART			
SYMBOL	HYDRIC	GROUP	Kw
GbB		B	0.28

ESD STORMWATER MANAGEMENT SUMMARY TABLE													
Lot	Street Address	Practice	DA to practice (sf)	Imp Area to practice (sf)	Pe	Size			ESDv			Ownership	
						Length	Width	Depth	Required	Provided	Pe Provided		
Lot 86	2607 Legends Way	(M-5) Drywell	#1	1,000	1,000	1.0	6.3	6.3	5.0	79	79	1.0	Private
Lot 86	2607 Legends Way	(M-5) Drywell	#2	1,000	1,000	1.0	6.3	6.3	5.0	79	79	1.0	Private
Lot 87	2605 Legends Way	(M-5) Drywell	#3	1,000	1,000	1.0	6.3	6.3	5.0	79	79	1.0	Private
Lot 87	2605 Legends Way	(M-5) Drywell	#4	1,000	1,000	1.0	6.3	6.3	5.0	79	79	1.0	Private
Lot 88	2603 Legends Way	(M-5) Drywell	#5	1,000	1,000	1.0	6.3	6.3	5.0	79	79	1.0	Private
Lot 88	2603 Legends Way	(M-5) Drywell	#6	1,000	1,000	1.0	6.3	6.3	5.0	79	79	1.0	Private
Total Treated			→	6,000	6,000					475	476		
Total per LOD			→	7,743	1.8					1277			

1. ESD is designed based on a Pe of 1.0 since these lots are already treated via regional facility constructed under SDP-95-121.
2. The 1,743 of new impervious not treated is the area of the driveways.
3. These lots can be considered treated to the Maximum Extent Practical.



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.

C. Malaga 12-8-17
ENGINEER 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.

C. Malaga 12/2/17
DEVELOPER DATE

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

John R. Robertson 12/19/17
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Ch. Phelan 1-3-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

West 1-9-18
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

N. J. J. J. 1-9-18
DIRECTOR DATE

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE SUITE 315 ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6444
WWW.BE-CIVILENGINEERING.COM

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. 12017. Expiration Date: 6-30-2019.

OWNER:
MANGIONE ENTERPRISES OF TURF VALLEY LIMITED PARTNERSHIP
1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093
410-825-8400

DEVELOPER:
MV HOMES, INC.
9720 PATENT WOODS DRIVE COLUMBIA, MARYLAND 21046
410-825-8400

THE LEGENDS AT TURF VALLEY

TAX MAP: 16 - GRID: 17 - PARCEL: P/O 8
ZONED: PGCC (RESIDENTIAL SUBDISTRICT)
ELECTION DISTRICT NO. 2 - HOWARD COUNTY, MARYLAND

SITE DEVELOPMENT PLAN
LOTS 86-88

DATE: DECEMBER 7, 2017 BEI PROJECT NO. 2853
SCALE: AS SHOWN SHEET 5 OF 6

DESIGN: DBT DRAFT: DBT

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 application 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.
Adequate Vegetative Establishment	Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and replantings within the planting season.
Criteria	1. Adequate vegetative stabilization requires 95 percent groundcover. 2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for time, 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.

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."

Cl. Malagan 12-5-17
ENGINEER 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."

John R. Blumenthal 12/19/17
DEVELOPER DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
William J. ... 1-9-18
DIRECTOR DATE

John ... 1-3-18
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John ... 1-3-18
CHIEF, DIVISION OF ENGINEERING DATE

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	<p>A. Soil Preparation</p> <ol style="list-style-type: none"> 1. Temporary Stabilization <ol style="list-style-type: none"> Soil 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 allowed to settle or compacted. The soil must be smoothed and then the roughened contour. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope. Apply fertilizer and lime as prescribed on the plans. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means. 2. Permanent Stabilization <ol style="list-style-type: none"> A soil test is required for any earth disturbance of 5 acres or more. The minimum soil test results are as follows: <ol style="list-style-type: none"> Soil pH between 6.0 and 7.0. Soluble salts less than 500 parts per million (ppm). Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: If lowgrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable. Soil contains 1.5 percent minimum organic matter by weight. Soil contains sufficient pore space to permit adequate root penetration. Application of amendments or topsoil is required if on-site soils do not meet the above conditions. Graded areas must be scarified in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test. 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 to the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas. <p>B. Topsoiling</p> <ol style="list-style-type: none"> Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The topsoil must be of 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. 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. Topsoiling is limited to areas having 2:1 or flatter slopes where: <ol style="list-style-type: none"> The texture of the exposed subsoil material is not adequate to produce vegetative growth. 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. The original soil to be vegetated contains material toxic to plant growth. The soil is so acidic that treatment with limestone is not feasible. Areas having slopes steeper than 2:1 require special consideration and design. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria: <ol style="list-style-type: none"> 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 a qualified 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 1 1/2 inches in diameter. 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. 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. Topsoil Application <ol style="list-style-type: none"> Erosion and sediment control practices must be maintained when applying topsoil. 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. 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. <p>Soil Amendments (Fertilizer and Lime Specifications)</p> <ol style="list-style-type: none"> Soil tests must be performed to determine the exact rates 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 analysis. Fertilizers must be uniform in composition 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. 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. 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. 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.

Permanent Seeding Summary

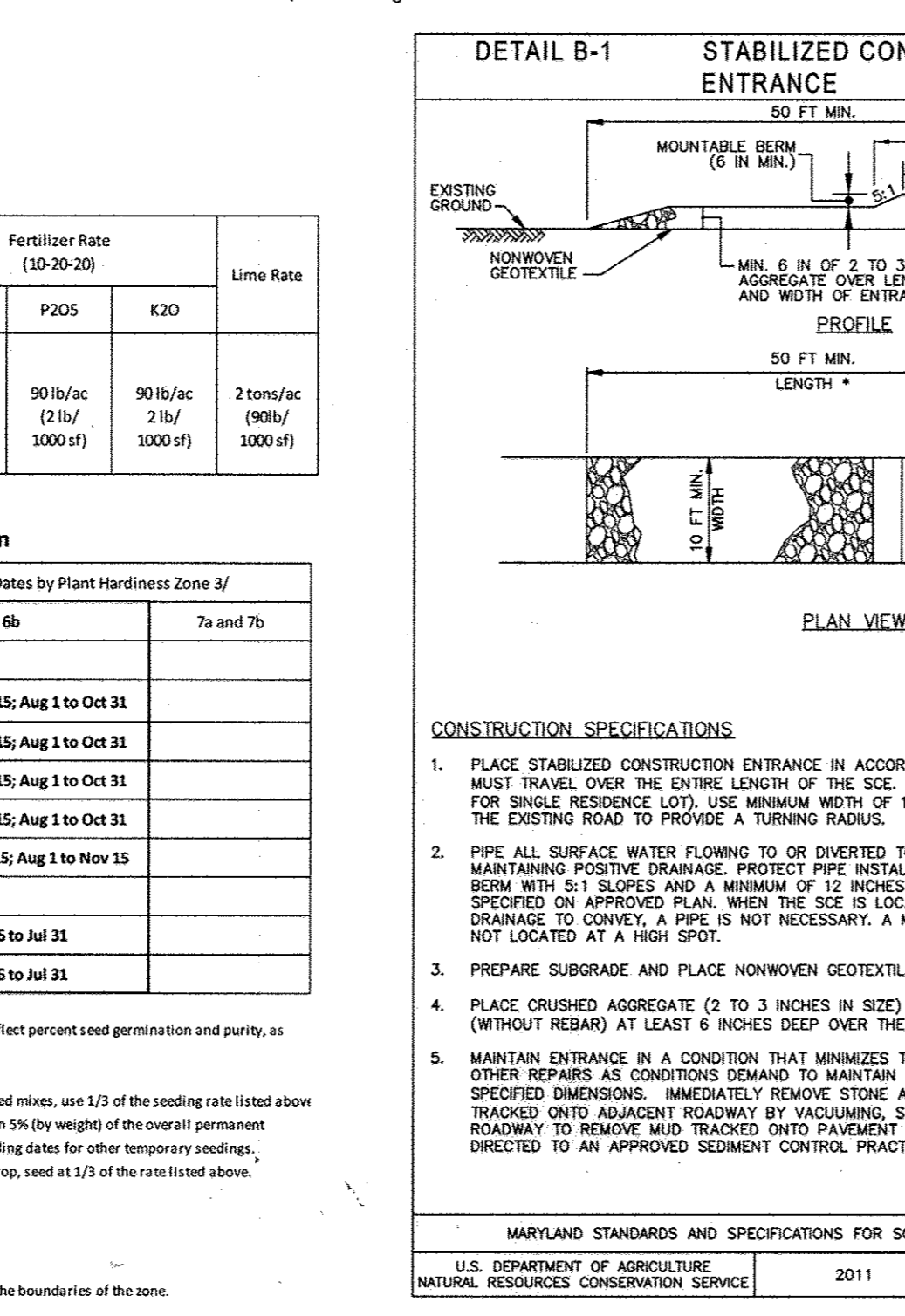
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depth	N	Fertilizer Rate (10-20-20)			Lime Rate
						P205	K20		
9	Fescue, Kentucky	40	Mar 1 to May 15 Aug 1 to Oct 15	1/4 - 1/2 in	45 pounds per acre (1.0 lb/100 sf)	90 lb/ac (21b/1000 sf)	90 lb/ac (21b/1000 sf)	2 tons/ac (90b/1000 sf)	

Table B.1: Temporary Seeding for Site Stabilization

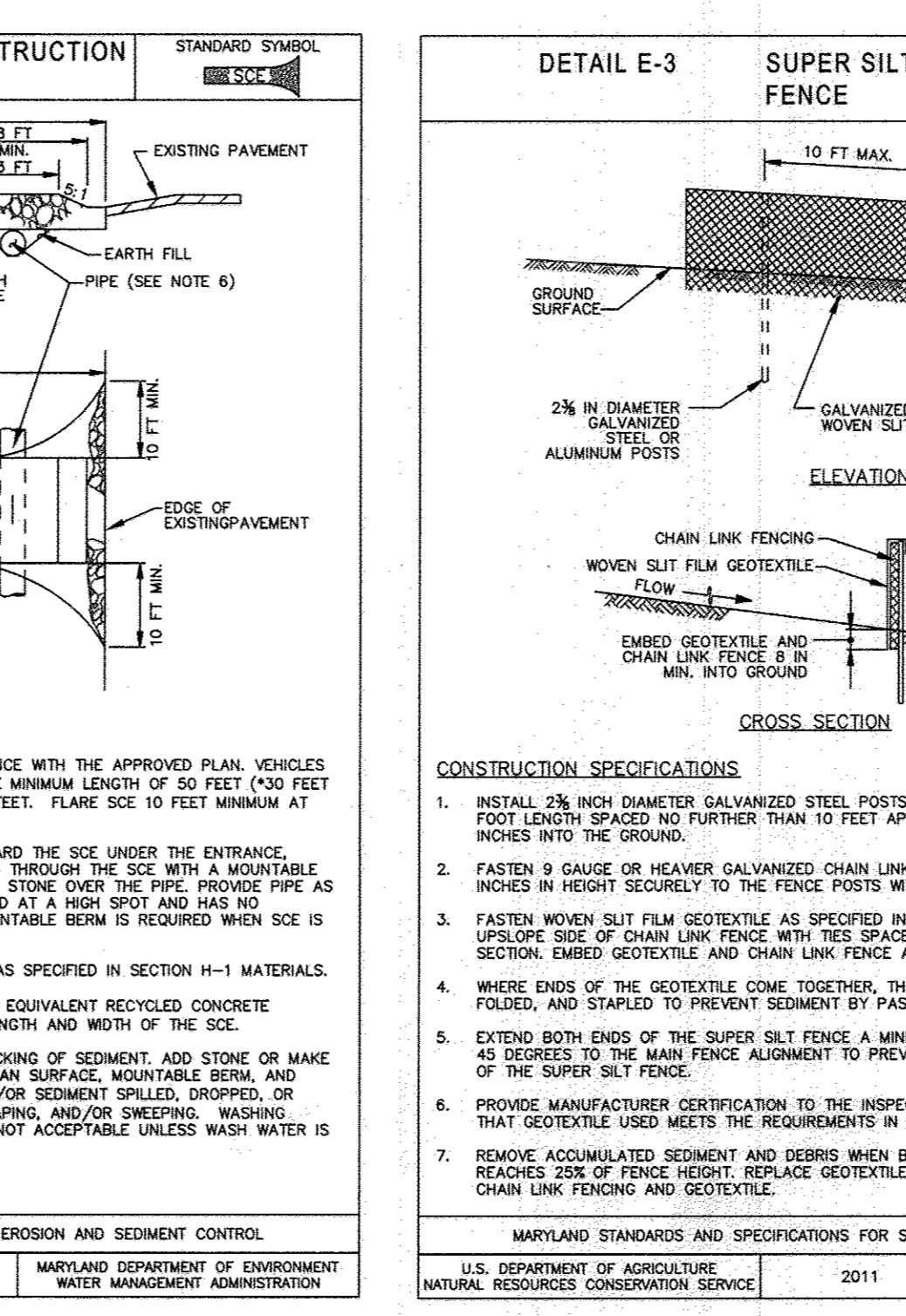
Plant Species	Seeding Rate 1/		Seeding Depth 2/ (inches)	Recommended Seeding Dates by Plant Hardiness Zone 3/		
	lb/ac	lb/1000 ft ²		5b and 6a	6b	7a and 7b
Cool-Season Grasses						
Annual Ryegrass (<i>Lolium perenne</i> ssp. <i>Multiflorum</i>)	40	1.0	0.5	Mar 1 to May 15; Aug 1 to Oct 31		
Barley (<i>Hordeum vulgare</i>)	96	2.2	1.0	Mar 1 to May 15; Aug 1 to Oct 31		
Oats (<i>Avena sativa</i>)	72	1.7	1.0	Mar 1 to May 15; Aug 1 to Oct 31		
Wheat (<i>Triticum aestivum</i>)	120	2.8	1.0	Mar 1 to May 15; Aug 1 to Oct 31		
Cereal Rye (<i>Secale cereale</i>)	112	2.8	1.0	Mar 1 to May 15; Aug 1 to Nov 15		
Warm-Season Grasses						
Foxtail Millet (<i>Setaria italica</i>)	30	0.7	0.5	May 16 to Jul 31		
Pearl Millet (<i>Pennisetum glaucum</i>)	20	0.5	0.5	May 16 to Jul 31		

Notes:
1/ Seeding rates for the warm season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, as tested. Adjustments are usually not needed for the cool-season grasses.
2/ For sandy soils, plant seeds at twice the depth listed above.
3/ The planting dates listed are averages for each zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone.

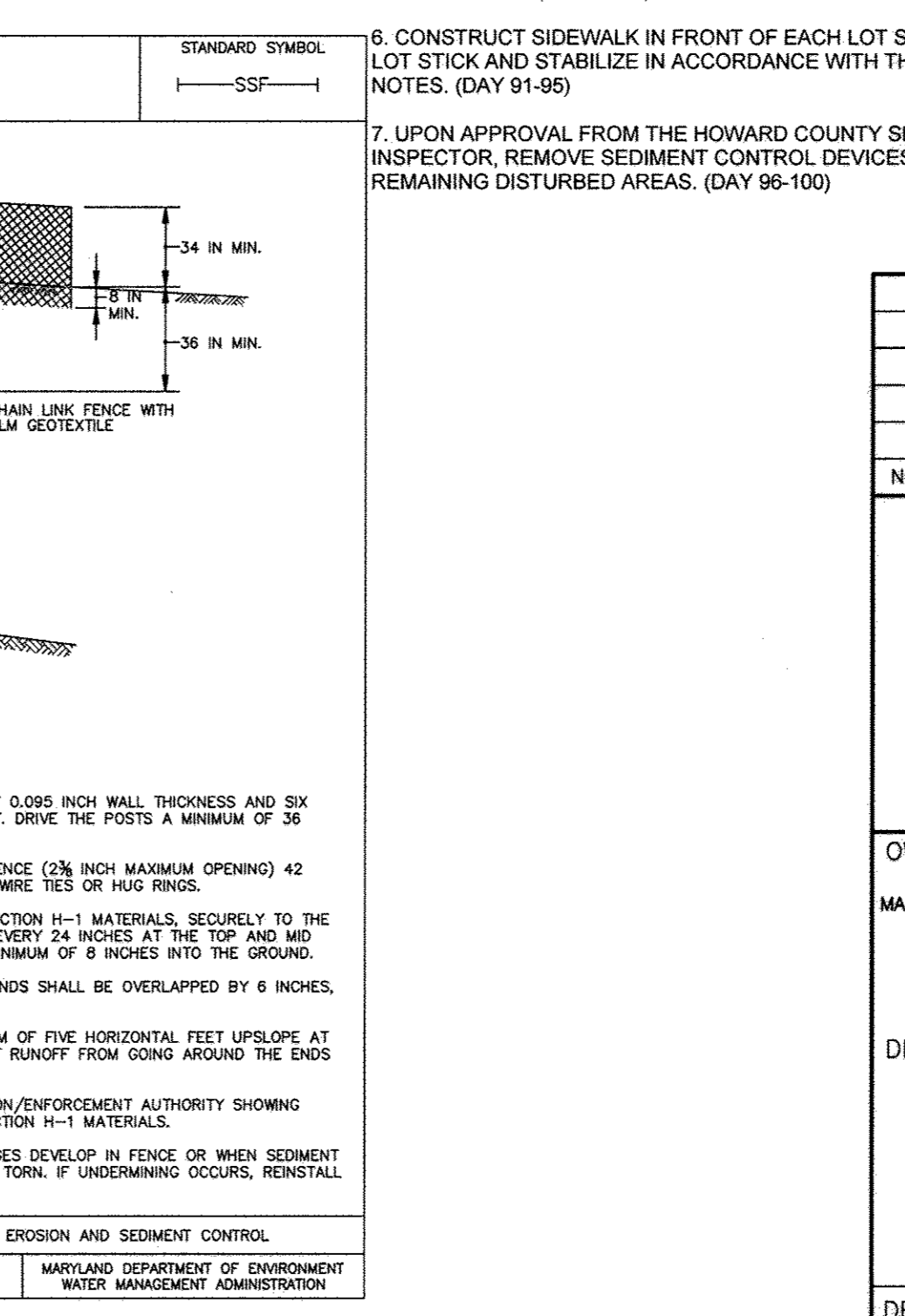
B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING	
Definition	The application of seed and mulch to establish vegetative cover.
Purpose	To protect disturbed soils from erosion during and after the end of construction.
Conditions Where Practice Applies	To the surface of all perimeter contours, slopes, and any disturbed area not under active grading.
Criteria	<p>A. Seeding</p> <ol style="list-style-type: none"> 1. Specifications <ol style="list-style-type: none"> 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. Much 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. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria specific 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. Soil or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control within the past 14 days (14 days min) to permit dissipation of phytotoxic materials. 2. Application <ol style="list-style-type: none"> Dry Seeding: This includes use of conventional drop or broadcast spreaders. <ol style="list-style-type: none"> 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. 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. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. <ol style="list-style-type: none"> Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil coverage. Seedbed must be firm after planting. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer). <ol style="list-style-type: none"> If fertilizer is being applied at the time of seeding, the application rates should not exceed the following ratios per acre total of soluble nitrogen, P205 (phosphorus), 200 ppm; K2O (potassium), 200 ppm per acre. 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. Mix seed and fertilizer on site and seed immediately and without interruption. When hydroseeding do not incorporate seed into the soil. B. Mulching <ol style="list-style-type: none"> Mulch Materials (in order of preference) <ol style="list-style-type: none"> 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 moist, moldy, caked, decayed, or excessively dusty. Use only sterile straw mulch in the case of grass seed. Wood Cellulose Fiber Mulch (WCFFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state. <ol style="list-style-type: none"> WCFFM 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. WCFFM, including dye, must contain no germination or growth inhibiting factors. WCFFM 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 seeds, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a batter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in place with the soil without inhibiting the growth of the grass seedlings. WCFFM material must not contain elements or compounds at concentrations that are phytotoxic. WCFFM 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. 3. Anchoring <ol style="list-style-type: none"> Apply mulch to all seeded areas immediately after seeding. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 60 pounds of wood cellulose fiber per 100 gallons of water. 4. Anchoring <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 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 lands, this practice is not recommended. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. Synthetic binders such as acrylic (LAR (Ago-Tack), DCA-7), Paralox, Terra Tack 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 erosion is most likely to occur, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 foot long.



B-4-4 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 a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.
Criteria	<p>A. Seed Mixtures</p> <ol style="list-style-type: none"> 1. General Use <ol style="list-style-type: none"> 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. 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 Planning. For sites having disturbed areas of 5 acres, use and show the rates recommended by the soil testing agency. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary. 2. Turfgrass Mixtures <ol style="list-style-type: none"> Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will require a medium to high level of maintenance. 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. <ol style="list-style-type: none"> 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 Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with such ranging from 10 to 35 percent of the total mixture by weight. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with such ranging from 10 to 35 percent of the total mixture by weight. 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 6 pounds per 1000 square feet. 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: 1 to 2 pounds mixture per 1000 square feet. <ol style="list-style-type: none"> Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultural Recommendations for Maryland" Choose certified material. Certified material is the best guarantee of grass quality. 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. 2. Ideal Times of Seeding for Turf Grass Mixtures <ol style="list-style-type: none"> Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a) (Hardiness Zones: 7a, 7b) 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) 3. Turfgrass Maintenance <ol style="list-style-type: none"> 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 1 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowings of grasses will not be difficult. If soil moisture is deficient, supply new seedlings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is not especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites. <p>B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).</p> <ol style="list-style-type: none"> 1. General Specifications <ol style="list-style-type: none"> Class of turfgrass must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector. Sod must be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurements for thickness must exclude top growth and that broken parts and torn or uneven ends will not be acceptable. 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. Sod must not be harvested or transported when moisture content (excessively dry or wet) may adversely affect its survival. 2. Sod Installation <ol style="list-style-type: none"> During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the sods immediately prior to laying the sod. Lay the first row of sod in a straight line on 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 the joints which would cause air drying of the roots. 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. Water the sod immediately following rolling and tamping until the underside of the net 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 <ol style="list-style-type: none"> 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 if necessary to prevent wilting. After the first week, soil watering is required as necessary to maintain adequate moisture content. Do not mow until the soil is firmly rooted. No more than 1/3 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-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	<p>A. Seed Mixtures</p> <ol style="list-style-type: none"> 1. General Use <ol style="list-style-type: none"> 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 time rates must be put on the plan. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.1.1 and maintain until the next seeding season. 2. Turfgrass Mixtures <ol style="list-style-type: none"> Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will require a medium to high level of maintenance. 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. <ol style="list-style-type: none"> 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 Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with such ranging from 10 to 35 percent of the total mixture by weight. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with such ranging from 10 to 35 percent of the total mixture by weight. 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 6 pounds per 1000 square feet. 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: 1 to 2 pounds mixture per 1000 square feet. <ol style="list-style-type: none"> Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultural Recommendations for Maryland" Choose certified material. Certified material is the best guarantee of grass quality. 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. 2. Ideal Times of Seeding for Turf Grass Mixtures <ol style="list-style-type: none"> Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a) (Hardiness Zones: 7a, 7b) 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) 3. Turfgrass Maintenance <ol style="list-style-type: none"> 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 1 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowings of grasses will not be difficult. If soil moisture is deficient, supply new seedlings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is not especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites. <p>B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).</p> <ol style="list-style-type: none"> 1. General Specifications <ol style="list-style-type: none"> Class of turfgrass must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector. Sod must be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurements for thickness must exclude top growth and that broken parts and torn or uneven ends will not be acceptable. 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. Sod must not be harvested or transported when moisture content (excessively dry or wet) may adversely affect its survival. 2. Sod Installation <ol style="list-style-type: none"> During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the sods immediately prior to laying the sod. Lay the first row of sod in a straight line on 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 the joints which would cause air drying of the roots. 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. Water the sod immediately following rolling and tamping until the underside of the net 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 <ol style="list-style-type: none"> 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 if necessary to prevent wilting. After the first week, soil watering is required as necessary to maintain adequate moisture content. Do not mow until the soil is firmly rooted. No more than 1/3 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.



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), 410-3133-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hours notice to CID must be given at the following stages: <ol style="list-style-type: none"> P	