GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
3. THE TOPOGRAPHY SHOWN HEREON IS BASED ON AN AERIAL TOPOGRAPHIC SURVEY PREPARED BY POTOMAC AERIAL SURVEYS, DATED JANUARY 2004.
4. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 38AA AND 38BA WERE USED FOR THIS PROJECT.
5. STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED UNDER F-10-028, A MICROPOOL POND (P-1) (SWM POND 1) AND A POCKET POND (P-5) (SWM POND 2), TO PROVIDE THE REQUIRED WQv AND CPv, AND A BIORETENTION FACILITY (F-6) TO PROVIDE WQv AND REv. SWMF 1 AND 2 ARE TO BE PRIVATELY OWNED BY THE H.O.A., AND JOINTLY MAINTAINED BY THE H.O.A. AND HOWARD COUNTY. BIO-RETENTION FACILITY 3 IS TO BE PRIVATELY OWNED AND MAINTAINED BY THE H.O.A.
6. EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
7. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
8. SHC ELEVATIONS ARE LOCATED AT THE PROPERTY LINE.
9. FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.03.
10. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
    A) WIDTH – 12 FEET (16 FEET IF SERVING MORE THAN ONE RESIDENCE)
    B) SURFACE – 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.)
    C) GEOMETRY – MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 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 EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
    F) STRUCTURE CLEARANCES – MINIMUM 12 FEET
    G) MAINTENANCE – SUFFICIENT TO INSURE ALL WEATHER USE
11. THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

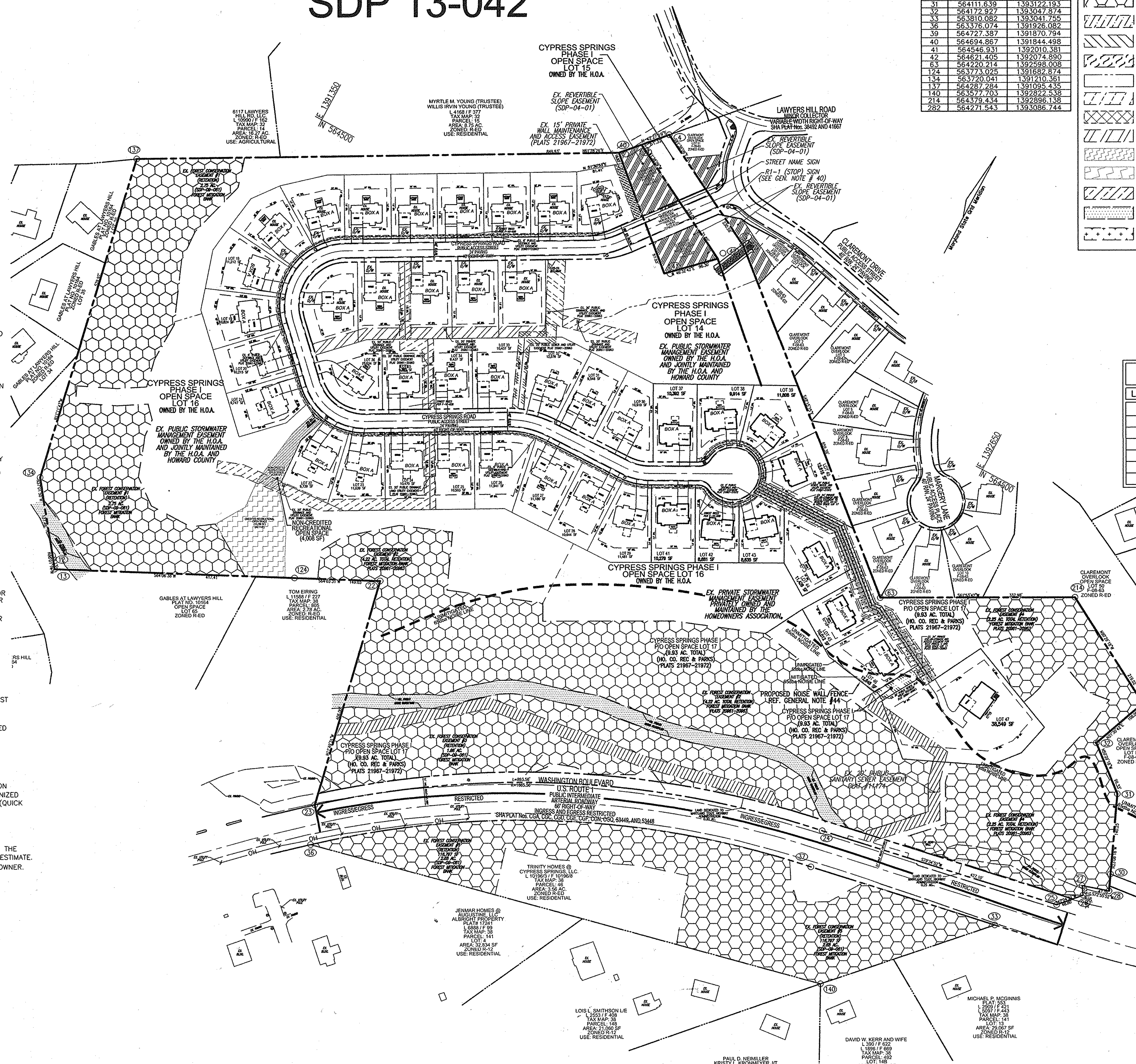
MISS UTILITY	1-800-257-7777
BELL ATLANTIC TELEPHONE CO:	725-9976
HOWARD COUNTY BUREAU OF UTILITIES:	313-2366
VERIZON CABLE LOCATION DIVISION:	393-3553
B.G.&E. CO. CONTRACTOR SERVICES:	850-4620
B.G.&E. CO. UNDERGROUND DAMAGE CONTROL:	787-4620
STATE HIGHWAY ADMINISTRATION:	531-5533

12. THE SUBJECT PROPERTY IS ZONED R-ED PER THE 02/02/2004 COMPREHENSIVE ZONING PLAN, AND THE COMPREHENSIVE LITE ZONING AMENDMENTS 07/28/2006.
13. THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED APRIL 2004.
14. THIS SITE IS LOCATED IN LAWYERS HILL NATIONAL REGISTER DISTRICT.
15. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
16. TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL/CEMETERY LOCATIONS ON SITE.
17. INGRESS AND EGRESS IS RESTRICTED ALONG WASHINGTON BOULEVARD (U.S. ROUTE 1).
18. A TRAFFIC STUDY IS NOT REQUIRED FOR THIS SITE.
19. WATER AND SEWER FOR THIS PROJECT WILL BE PUBLIC.
20. AN "OBVIOUSLY NOT CRITICAL" FLOODPLAIN STUDY WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING INC., DATED JANUARY 2005.
21. STREAMS AND WETLANDS SHOWN HEREON WERE DELINEATED BY JOHN CANOLES, ECO-SCIENCE PROFESSIONALS, INC., DATED SEPTEMBER 2004. A 25' WETLAND BUFFER HAS BEEN ESTABLISHED, PER SECTION 16.116(a)(1) OF THE SUBDIVISION REGULATIONS.
22. A FOREST STAND DELINEATION PLAN WAS PREPARED BY JOHN CANOLES, ECO-SCIENCE PROFESSIONALS, DATED SEPTEMBER 2004.
23. FOREST CONSERVATION REQUIREMENTS ARE PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL. FOREST CONSERVATION OBLIGATIONS HAVE BEEN FULFILLED BY THE ON-SITE RETENTION OF 9.00 ACRES, LOCATED IN OPEN SPACE LOTS 16 AND 17. FINANCIAL SURETY FOR THIS REQUIRED FOREST CONSERVATION HAS BEEN POSTED UNDER SDP-09-061 (FOREST RETENTION BANK, TRINITY HOMES AT CYPRESS SPRINGS LLC).
24. NO GRADING, REMOVAL OF VEGETATIVE COVER, OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, EXCEPT WHERE ESSENTIAL DISTURBANCE IS GRANTED. ESSENTIAL DISTURBANCE OCCURS AT THE OUTFALL OF STORMWATER MANAGEMENT FACILITY NUMBER TWO, AND THE CULVERT REMOVAL ALONG THE NORTHEAST BOUNDARY.
25. PERIMETER, SWM LANDSCAPING AND STREET TREES IN ACCORDANCE WITH SECTION 16.124 OF THE LANDSCAPE MANUAL SHALL BE INSTALLED IN ACCORDANCE WITH THE ROAD CONSTRUCTION DRAWINGS FOR F-10-028.
26. A NOISE STUDY WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING INC., DATED SEPTEMBER 2004.
27. THE 65 dBA NOISE CONTOUR LINE DRAWN ON THIS SUBDIVISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 dBA NOISE EXPOSURE. THE 65 dBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS, AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
28. TREE PROTECTION FENCING WILL BE PROVIDED AT THE LIMITS OF DISTURBANCE WHERE GRADING IS PROPOSED ADJACENT TO ENVIRONMENTAL AREAS.
29. OPEN SPACE LOTS 14-16 ARE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION. OPEN SPACE LOT 17 OWNED BY HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS.
30. THIS SUBDIVISION COMPLIES WITH THE AMENDED 5TH EDITION OF THE SUBDIVISION AND ZONING REGULATIONS (CB-45-2003) AND THE ZONING REGULATIONS, AS AMENDED BY COUNCIL BILL 75-2003.
31. THIS PROJECT IS SUBJECT TO PLANNING BOARD CASE NO. 374, WHICH WAS APPROVED ON MAY 11, 2006.
32. THIS PLAN HAS BEEN REVIEWED AND APPROVED BY THE MARYLAND AVIATION ADMINISTRATION.
33. THIS PLAN IS SUBJECT TO A DESIGN MANUAL WAIVER TO VOLUME IV, DETAIL R-1.02, TO ALLOW A 40' RIGHT-OF-WAY INSTEAD OF THE REQUIRED 50' RIGHT-OF-WAY, AND TO ALLOW 20' OF PAVEMENT INSTEAD OF 24' PAVEMENT. WAIVER APPROVAL DATED JANUARY 4, 2010 IS SUBJECT TO PROVIDING 24' PAVING AND 5' EASEMENT ON BOTH SIDES OF THE RIGHT-OF-WAY TO ACCOMMODATE REQUIRED SIDEWALKS, UTILITIES AND STREET TREES.
34. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
35. THE DEPARTMENT OF RECREATION AND PARKS WILL NOT BE RESPONSIBLE FOR MAINTENANCE OF THE SHARED DRIVEWAY OR EASEMENT FOR LOTS 44 TO 47.
36. IN ACCORDANCE WITH SECTION 103.A.193 OF THE ZONING REGULATIONS, NOISE WALLS ARE EXEMPT FROM SETBACK REQUIREMENTS.
37. THE OLD GRACE CHURCH RECTORY WHICH WAS LOCATED ON LOT 47 (CURRENT) WAS DESTROYED BY FIRE.
38. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III, SECTION5.5.A. A MINIMUM 20 FEET SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
39. 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 410-313-2430 FOR DETAILS AND COST ESTIMATE.
40. TRAFFIC CONTROL DEVICES:
    a) THE R1-1 (STOP) SIGNS AND THE STREET NAME SIGNS (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 (410-346-2430) PRIOR TO INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
    c) ALL TRAFFIC CONTROL DEVICES AND THEIR 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 2-½" 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.
41. SURETY IN THE AMOUNT OF $150.00 WILL BE POSTED AT GRADING PERMIT FOR THE 5 SHRUBS USED TO SCREEN THE CONCRETE TRASH PAD AT THE INTERSECTION OF CYPRESS SPRINGS ROAD AND THE USE-IN-COMMON DRIVEWAY FOR LOTS 44-47 AND POSSIBLE FUTURE RESUBDIVISION OF LOT 47.
42. A PRIVATE RANGE OF ADDRESS SIGH SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFICE DIVISION AT 410-313-2430 FOR DETAILS AND COST ESTIMATE.
43. MAINTENANCE AND UPKEEP OF THE NOISE WALL/FENCE LOCATED ON LOT 46 SHALL BE THE RESPONSIBILITY OF THE LOT OWNER.
44. REFERENCE WAIVER PETITION WP-13-167 APPROVED 05/28/13 SUBJECT TO THE FOLLOWING:
    1. SECTION 16.120(b)(5)(i) – ALLOW THE 65 dBA NOISE LINE TO BE LOCATED ON LOT 47. ANY FURTHER SUBDIVISION OF LOT 47 WILL REQUIRE NOISE MITIGATION. THE PROPOSED HOUSE ON LOT 47 CANNOT BE LOCATED WITHIN THE 65 dBA UNMITIGATED NOISE LINE.
    2. SECTION 16.120(b)(5)(ii) – ALLOW NOISE MITIGATION WALL/FENCE TO BE LOCATED ON LOT 46 WITHOUT A WALL/FENCE MAINTENANCE EASEMENT.
    3. THE NOISE WALL/FENCE TO BE CONSTRUCTED ON LOT 46 SHALL BE DETAILED ON THE ROAD CONSTRUCTION PLANS (REDLINE).
    4. 180 DAY EXTENSION TO SUBMIT THE FINAL PLAT FOR F-13-037. NEW DEADLINE IS ON OR BEFORE NOVEMBER 29, 2013.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edmondson (signature)	12.16.13
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
Kent Sheubrooks (signature)	1-22-14
CHIEF, DIVISION OF LAND DEVELOPMENT (BB)	DATE
Marsha McLaughlin (signature)	1/28/14
DIRECTOR	DATE

SITE DEVELOPMENT PLAN
CYPRESS SPRINGS - PHASE 3
LOTS 37-47
SDP 13-042



LOCATION: TAX MAP 38, GRID 3, PARCELS 42, 44, 45 & 46
1ST ELECTION DISTRICT
EXISTING ZONING: R-ED
TOTAL AREA OF PROJECT: 33.10 AC
TOTAL AREA OF PLAN SUBMISSION: AREA OF LOTS 3.07 AC
NUMBER OF LOTS/ PARCELS PROPOSED: 11 BUILDABLE LOTS
PROPOSED USE: SINGLE FAMILY DETACHED
LIMIT OF DISTURBED AREA: 2.80 AC±

LOCATION MAP
SCALE: 1"=100'

OPEN SPACE AREA TABULATION CHART

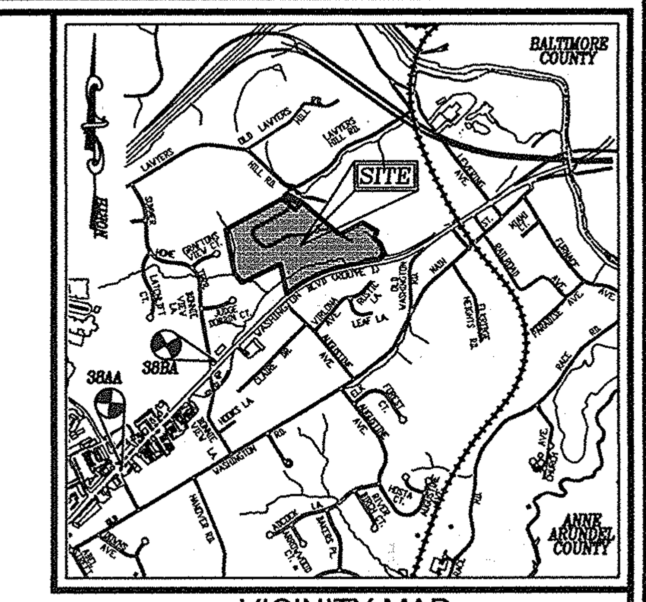
AREA OF OPEN SPACE REQUIRED: 50% X 33.10 AC = 16.55 AC
AREA OF OPEN SPACE PROVIDED: 60% = 19.83 AC
AREA OF RECREATIONAL OPEN SPACE REQUIRED: 300SF X 43 LOTS = 12,900 SF
AREA OF RECREATIONAL OPEN SPACE PROVIDED: 13,298 SF (ACTIVE)

COORDINATE TABLE

NO.	NORTHING	EASTING
3	564650.602	1392098.446
4	564760.135	1391895.566
12	563610.281	1391293.164
13	563590.766	1391307.352
22	563838.216	1391816.884
23	563440.833	1391900.085
24	563814.360	1392700.058
25	563891.597	1393120.116
26	563927.816	1393152.821
27	563941.564	1393143.697
28	563955.454	1393188.934
30	563982.670	1393177.304
31	564111.639	1393122.193
32	564172.927	1393047.874
33	563810.082	1393041.755
36	563376.074	1391926.082
39	564727.387	1391870.794
40	564694.867	1391844.498
41	564546.931	1392010.381
42	564621.405	1392074.890
63	564220.214	1392598.008
124	563773.025	1391682.874
134	563720.041	1391210.361
137	564287.284	1391095.435
140	563577.703	1392822.538
214	564379.434	1392896.138
282	564271.543	1393086.744

LEGEND

RIGHT-OF-WAY
BOUNDARY LINE
ADJACENT BOUNDARY LINE
EXISTING CENTERLINE STREAM
EXISTING STREAM BANK BUFFER
EXISTING WETLANDS BUFFER
EXISTING WETLANDS
EXISTING REVERTIBLE SLOPE EASEMENT (SDP-04-01)
EX. FOREST CONSERVATION EASEMENT (RETENTION)(PLATS 20961-20963)
EX. VARIABLE WIDTH PUBLIC WATER AND UTILITY EASEMENT (L 3240 / F 418) TO BE ABANDONED
EX. PUBLIC SANITARY SEWER EASEMENT (PLAT #11174)
PROP. 15' PRIVATE WALL MAINTENANCE AND ACCESS EASEMENT
PROP. PUBLIC STORMWATER MANAGEMENT EASEMENT
PROP. PUBLIC DRAINAGE AND UTILITY EASEMENT
PROP. PUBLIC SIDEWALK AND UTILITY EASEMENT
PROP. PRIVATE DRAINAGE AND UTILITY EASEMENT
PROP. NON-CREDITED RECREATIONAL OPEN SPACE
PROP. CREDITED RECREATIONAL OPEN SPACE
PROP. PUBLIC SEWER, WATER, AND UTILITY EASEMENT
EX. PUBLIC 100YR FLOODPLAIN
PROP. PRIVATE USE-IN-COMMON AND ACCESS EASEMENT



VICINITY MAP
SCALE: 1"=2000'
ADC MAP COORDINATE: PAGE 4937 GRID E6+F6
(PUBLICATION DATE: 2008)

BENCHMARKS

NO.	NORTHING	EASTING	ELEVATION
38AA	561,158.819	1,389,726.332	220.05'
38BA	562,553.315	1,390,967.862	166.18'

38AA – CONCRETE MONUMENT LOCATED NORTH OF THE INTERSECTION OF MONGOMERY RD. AND U.S. ROUTE 1. 3.2' FROM THE NORTH BOUND LANE OF U.S. ROUTE 1.
38BA – CONCRETE MONUMENT LOCATED 0.3 MILES NORTH OF THE INTERSECTION OF MONGOMERY RD. AND U.S. ROUTE 1. 9.5' FROM THE SOUTH BOUND LANE OF U.S. ROUTE 1.

SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1
LAYOUT PLAN AND TRASH PAD LANDSCAPING	2
GRADING, SOILS, SEDIMENT AND EROSION CONTROL PLAN	3
GRADING, SEDIMENT, AND EROSION CONTROL NOTES AND DETAILS	4
HCSCD/MAA NOTES & DETAILS	5

ADDRESS CHART

LOT NO	STREET ADDRESS	LOT NO	STREET ADDRESS
37	5991 CYPRESS SPRINGS ROAD	44	6004 CYPRESS SPRINGS ROAD
38	5995 CYPRESS SPRINGS ROAD	45	6008 CYPRESS SPRINGS ROAD
39	5999 CYPRESS SPRINGS ROAD	46	6012 CYPRESS SPRINGS ROAD
40	6003 CYPRESS SPRINGS ROAD	47	6016 CYPRESS SPRINGS ROAD
41	5992 CYPRESS SPRINGS ROAD		
42	5996 CYPRESS SPRINGS ROAD		
43	6000 CYPRESS SPRINGS ROAD		

MILESTONE CHART

THE DEPARTMENT OF PLANNING AND ZONING'S SP-05-06 LETTER DATED 07/10/09 GRANTED TENTATIVE ALLOCATIONS FOR THIS SUBDIVISION IN ACCORDANCE WITH THE FOLLOWING ALLOCATION SCHEDULE AND MILESTONES:

SUBDIVISION PHASE	NO. HOUSING UNITS/LOTS	ALLOCATION YEAR
PHASE I	9 LOTS	2012
PHASE II	6 LOTS	2013
PHASE III	24 LOTS	2014
TOTAL:	39 LOTS	

DENSITY CALCULATIONS: R-ED ZONING, 2 DWELLING UNITS PER ACRE
(2 x 21.52 ACRES = 43 UNITS/LOTS)

PERMIT INFORMATION CHART

SUBDIVISION NAME					SECTION/ AREA
CYPRESS SPRINGS					PHASE 3
LOT/ PARCELS 42, 44, 45 & 46					
PLAT REF. #	BLOCK NO	ZONE	TAX MAP	ELECT DIST.	CENSUS TR.
22642 & 22643 F-13-037	3	R-ED	38	1	6012.01

NO.	REVISION	DATE
1	REVISE ADDRESS CHART	1/29/15

OWNER / DEVELOPER / CONTRACT PURCHASER
TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.
3675 PARK AVENUE, SUITE 301
ELLICOTT CITY, MARYLAND 21043
(410) 480-0023

SITE DEVELOPMENT PLAN
COVER SHEET
CYPRESS SPRINGS - PHASE 3
LOTS 37-47
SDP 13-042

1ST ELECTION DISTRICT
DPZ REFERENCES: SP-05-06, PB CASE 374, WP-05-38, SDP-09-061, F-10-028, L 386/F 658, L 8232/F 574, L 8344/F 670, L 4518/F 458, #14-3208, #10-3391, F-12-081, F-13-037, WP-13-167

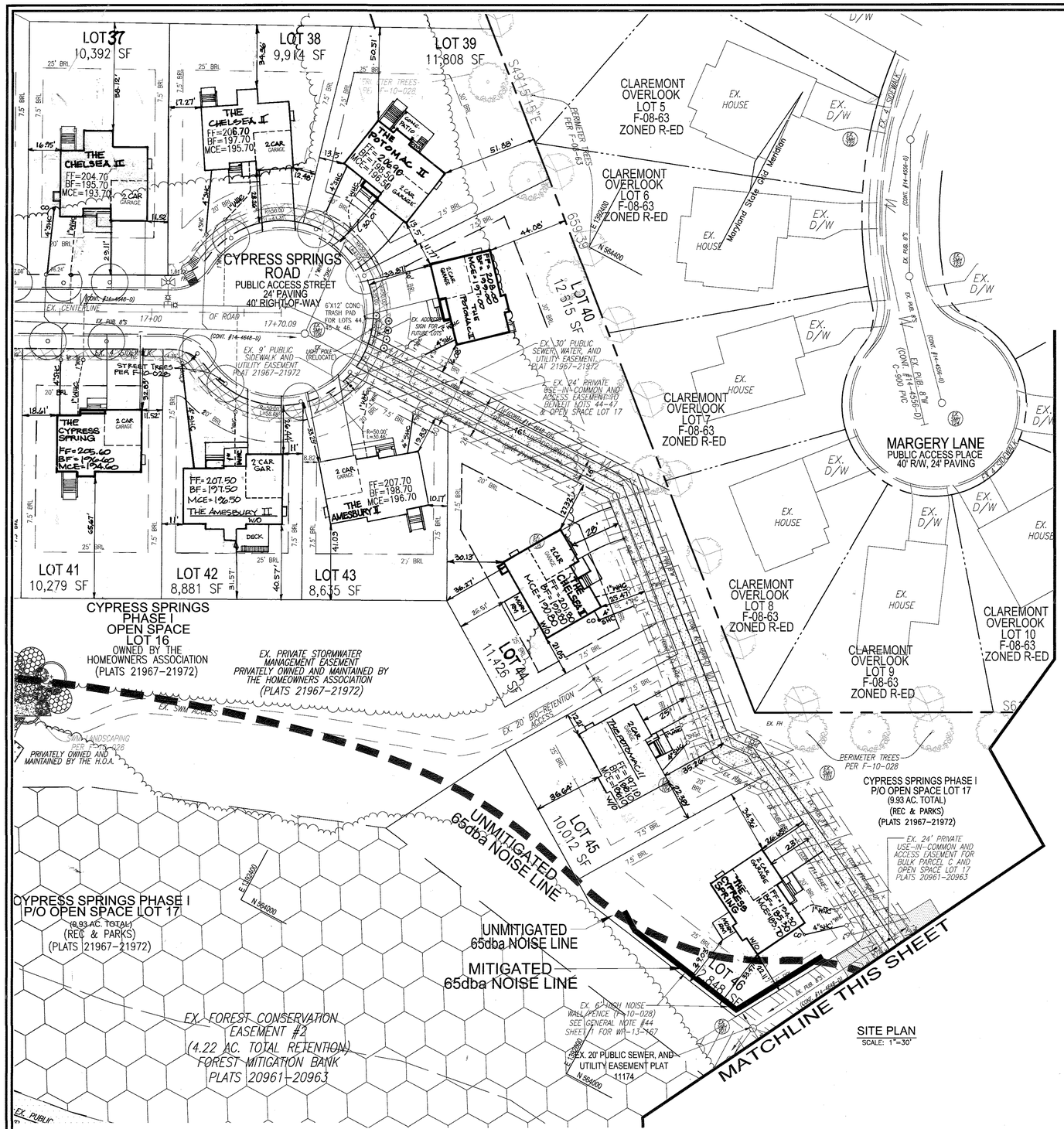
TAX MAP 38 BLOCK 3
PARCELS 42, 44, 45 AND 46
HOWARD COUNTY, MARYLAND
ZONED: R-ED

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

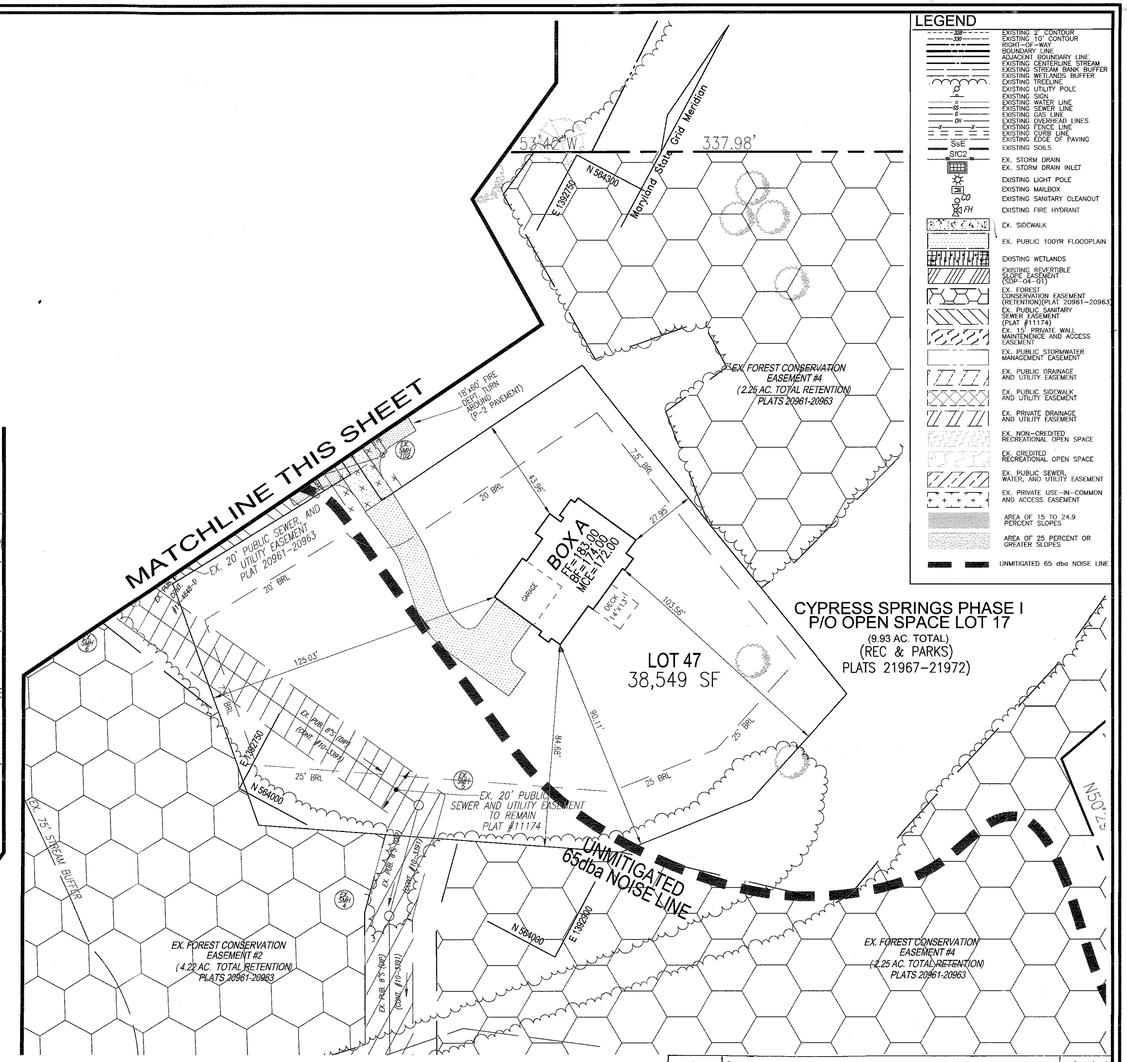
STATE OF MARYLAND — ROBERT HARRIS VOGEL — No. 16193 — PROFESSIONAL ENGINEER
ROBERT H. VOGEL, PE No. 16193

DESIGN BY:	JTD
DRAWN BY:	JER
CHECKED BY:	RHV
DATE:	NOVEMBER, 2013
SCALE:	AS SHOWN
W.O. NO.:	04-30

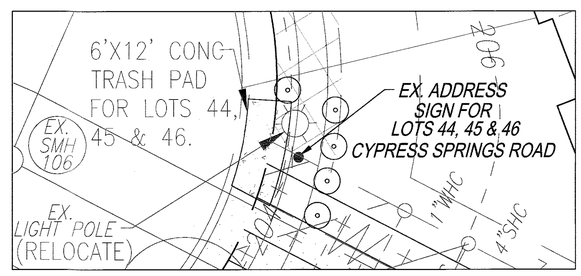
PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2014



SITE PLAN
SCALE: 1"=30'



SITE PLAN
SCALE: 1"=30'



TRASH PAD LANDSCAPING
SCALE: 1"=10'

TRASH PAD LANDSCAPING SCHEDULE				
SYM.	QTY.	DESCRIPTION	SIZE	REM.
⊙	5	JUNIPERUS CHINESIS 'PFITZERIANA COMPACTA'/ COMPACT PFITZER JUNIPER	2 1/2' HT	B & B

A SURETY OF $150.00 WILL BE POSTED FOR THE LANDSCAPE SCREENING OF THE PROPOSED TRASH PAD FOR LOTS 44 THRU 47.

30' 0 30' 60' 90'

LEGEND

EXISTING 2' CONTOUR
EXISTING 10' CONTOUR
RIGHT-OF-WAY
BOUNDARY LINE
ADJACENT BOUNDARY LINE
EXISTING CENTERLINE STREAM
EXISTING STREAM BANK BUFFER
EXISTING WETLANDS BUFFER
EXISTING TREELINE
EXISTING UTILITY POLE
EXISTING SIGN
EXISTING WATER LINE
EXISTING SEWER LINE
EXISTING GAS LINE
EXISTING OVERHEAD LINES
EXISTING FENCE LINE
EXISTING CURB LINE
EXISTING EDGE OF PAVING
EXISTING SOILS
EX. STORM DRAIN
EX. STORM DRAIN INLET
EXISTING LIGHT POLE
EXISTING MAILBOX
EXISTING SANITARY CLEANOUT
EXISTING FIRE HYDRANT
EX. SIDEWALK
EX. PUBLIC 100YR FLOODPLAIN
EXISTING WETLANDS
EXISTING REVERTIBLE SLOPE EASEMENT (SDP-04-91)
EX. FOREST CONSERVATION EASEMENT (RETENTION)(PLAT 20961-20963)
EX. PUBLIC SANITARY SEWER EASEMENT (PLAT #11174)
EX. 15' PRIVATE WALL MAINTENENCE AND ACCESS EASEMENT
EX. PUBLIC STORMWATER MANAGEMENT EASEMENT
EX. PUBLIC DRAINAGE AND UTILITY EASEMENT
EX. PUBLIC SIDEWALK AND UTILITY EASEMENT
EX. PRIVATE DRAINAGE AND UTILITY EASEMENT
EX. NON-CREDITED RECREATIONAL OPEN SPACE
EX. CREDITED RECREATIONAL OPEN SPACE
EX. PUBLIC SEWER, WATER, AND UTILITY EASEMENT
EX. PRIVATE USE-IN-COMMON AND ACCESS EASEMENT
AREA OF 15 TO 24.9 PERCENT SLOPES
AREA OF 25 PERCENT OR GREATER SLOPES
UNMITIGATED 65 dba NOISE LINE

NO.	REVISION	DATE
9	REVISE FIRST FLOOR ELEV. LOT 39	8/17/16
8	REVISE HOUSE TYPE AND GRADING LOT 45; ADD MORN. RM TO LOT 44 & 46	5/24/16
7	REVISE HOUSE TYPE AND GRADING LOTS 44 & 46	03/17/16
6	REVISE HOUSE TYPE AND GRADING LOT 37	02/10/16
5	REVISE HOUSE TYPE ON LOT 39 AND GRADING ON LOT 38 & 39.	11/17/15
4	REVISE HOUSE TYPE & GRADING, LOTS 40 & 41	09/03/15
3	REVISE HOUSE TYPE AND GRADING LOT 42.	07/30/15
2	REVISE HOUSE TYPE AND GRADING LOT 38	06/24/15
1	REVISE HOUSE TYPE AND GRADING ON LOT 37 & 43, ADD CYPRESS SPRING MODEL SHT 4	12/10/14

SITE DEVELOPMENT PLAN

LAYOUT PLAN AND TRASH PAD LANDSCAPING

CYPRESS SPRINGS - PHASE 3

LOTS 37-47

SDP 13-042

1ST ELECTION DISTRICT
DPZ REFERENCES: SP-05-06, PB CASE 374, WP-05-38, SDP-09-061, F-10-028, L 386/F 658, L 8232/F 574, L 8344/F 670, L 4518/F 458, #14-3208, #10-3391, F-12-081, F-13-037, WP-13-167

TAX MAP 38 BLOCK 3
PARCELS 42, 44, 45 AND 46
HOWARD COUNTY, MARYLAND
ZONED: R-ED

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
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FAX: 410.461.8961

STATE OF MARYLAND ROBERT HARRIS VOGEL No. 16193 PROFESSIONAL ENGINEER

ROBERT H. VOGEL, PE No. 16193

DESIGN BY: JTD
DRAWN BY: JER
CHECKED BY: RHV
DATE: NOVEMBER, 2013
SCALE: AS SHOWN
W.O. NO.: 04-30

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2014

SHEET 2 OF 5

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

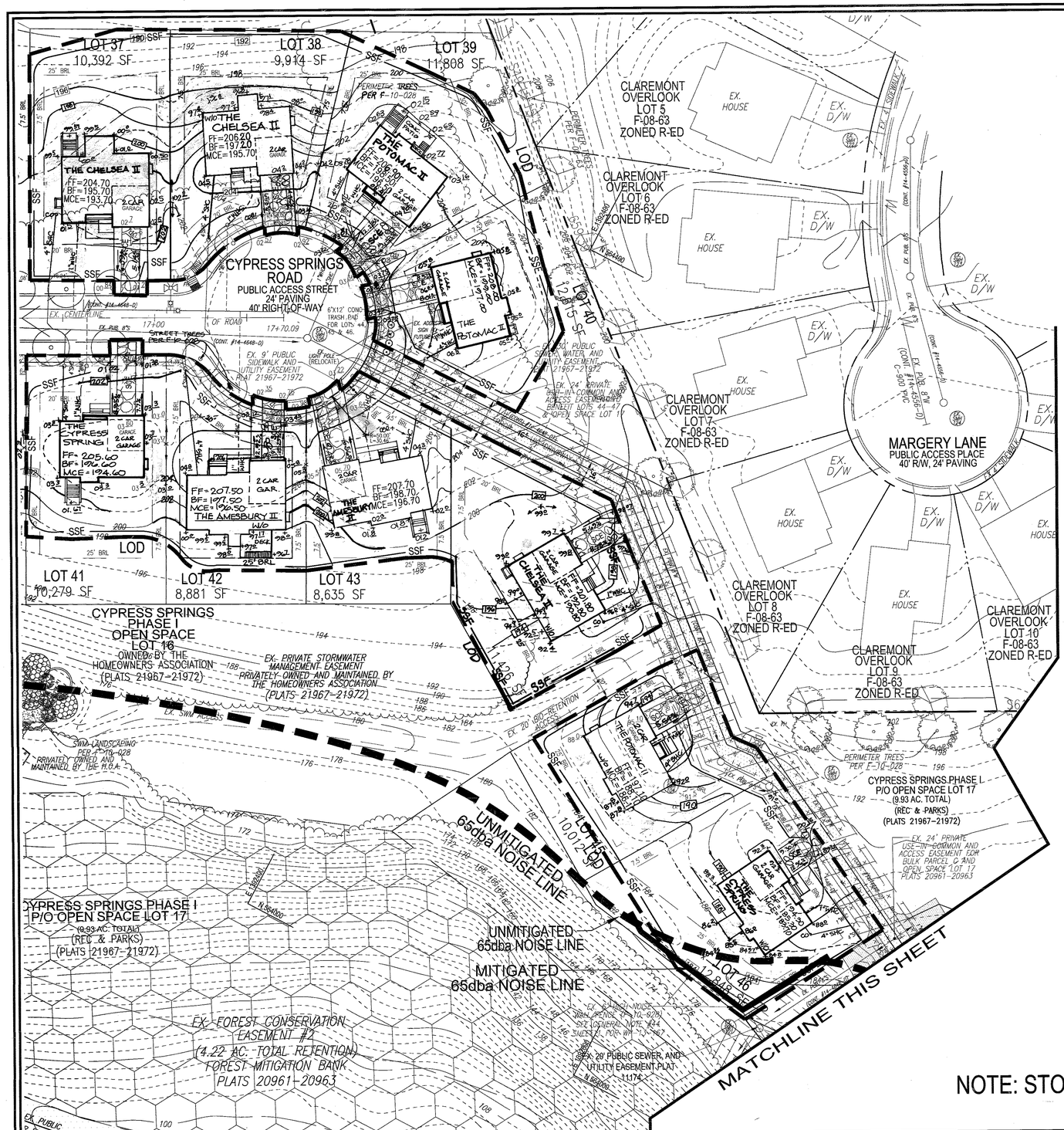
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 12-16-13
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 1-28-14
DIRECTOR	DATE 1/28/14

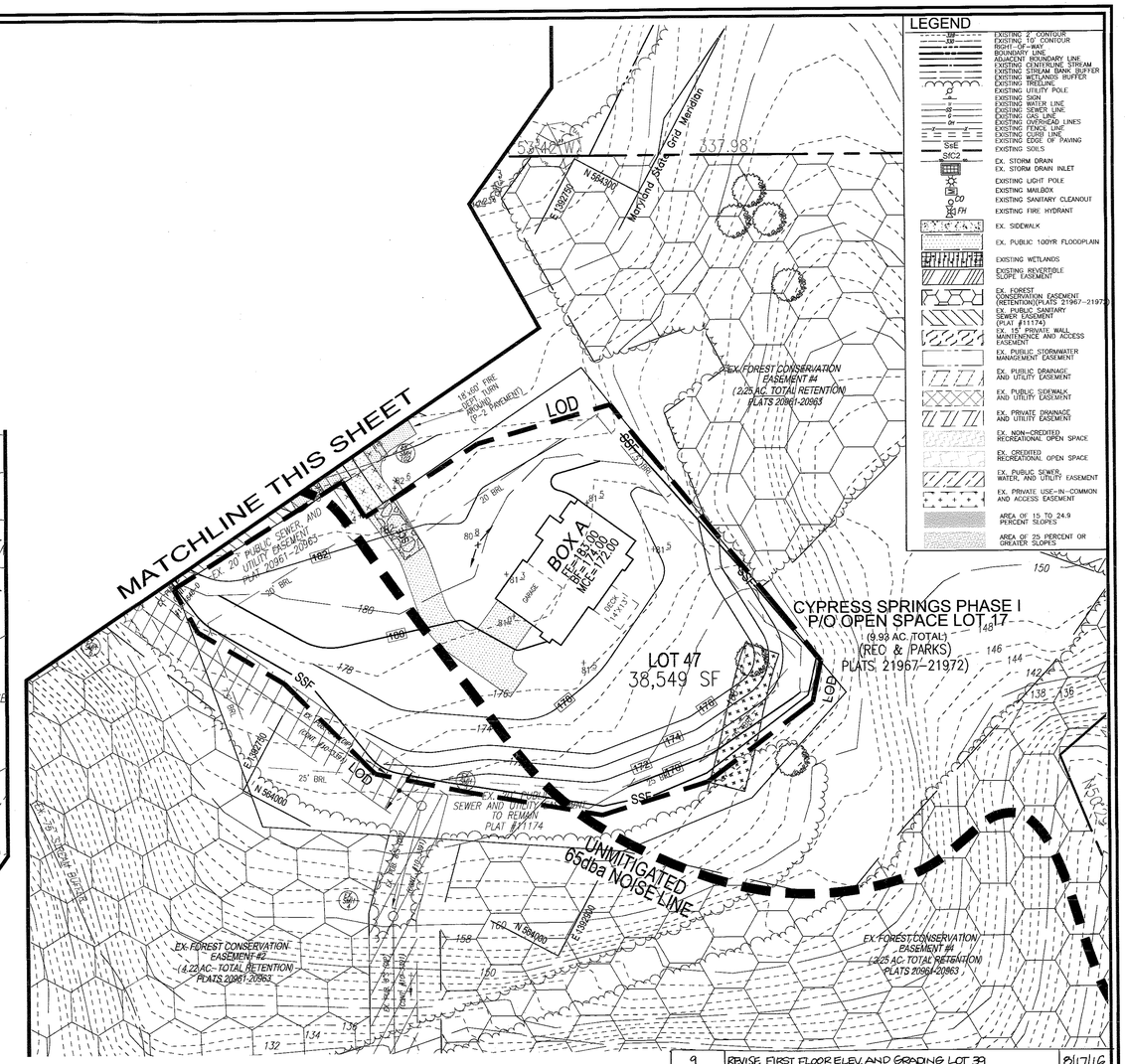
BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE OF DEVELOPER — DATE 11/25/13

OWNER / DEVELOPER / CONTRACT PURCHASER
TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.
3675 PARK AVENUE, SUITE 301
ELLICOTT CITY, MARYLAND 21043
(410) 480-0023





SITE PLAN
SCALE: 1"=30'

LEGEND

200	EXISTING 2' CONTOUR
	EXISTING 10' CONTOUR
	RIGHT-OF-WAY
	BOUNDARY LINE
	ADJACENT BOUNDARY LINE
	EXISTING CENTERLINE STREAM
	EXISTING STREAM BANK BUFFER
	EXISTING WETLANDS BUFFER
	EXISTING TREE
	EXISTING UTILITY POLE
	EXISTING WALL
W	EXISTING WATER LINE
S	EXISTING SEWER LINE
G	EXISTING GAS LINE
OH	EXISTING OVERHEAD LINES
	EXISTING FENCE LINE
	EXISTING CURB LINE
	EXISTING EDGE OF PAVING
SoE	EXISTING SOILS
SoG2	
	EX. STORM DRAIN
	EX. STORM DRAIN INLET
	EXISTING LIGHT POLE
MB	EXISTING MAILBOX
CO	EXISTING SANITARY CLEANOUT
FH	EXISTING FIRE HYDRANT
	EX. SIDEWALK
	EX. PUBLIC 100YR FLOODPLAIN
	EXISTING WETLANDS
	EXISTING REVERTIBLE SLOPE EASEMENT
	EX. FOREST CONSERVATION EASEMENT (RETENTION)(PLATS 21967-21972)
	EX. PUBLIC SANITARY SEWER EASEMENT (PLAT #11174)
	EX. 15' PRIVATE WALL MAINTENENCE AND ACCESS EASEMENT
	EX. PUBLIC STORMWATER MANAGEMENT EASEMENT
	EX. PUBLIC DRAINAGE AND UTILITY EASEMENT
	EX. PUBLIC SIDEWALK AND UTILITY EASEMENT
	EX. PRIVATE DRAINAGE AND UTILITY EASEMENT
	EX. NON-CREDITED RECREATIONAL OPEN SPACE
	EX. CREDITED RECREATIONAL OPEN SPACE
	EX. PUBLIC SEWER, WATER, AND UTILITY EASEMENT
	EX. PRIVATE USE-IN-COMMON AND ACCESS EASEMENT
	AREA OF 15.TO 24.9 PERCENT SLOPES
	AREA OF 25 PERCENT OR GREATER SLOPES

NO.	REVISION	DATE
9	REVISE FIRST FLOOR ELEV. AND GRADING LOT 39	8/17/16
8	REVISE HOUSE TYPE AND GRADING LOT 45; ADD MORNING ROOM LOT 44 & 46	5/24/16
7	REVISE HOUSE TYPE AND GRADING ON LOT 44 + 46	03/17/16
6	REVISE HOUSE TYPE AND GRADING LOT 37	02/10/16
5	REVISE HOUSE TYPE ON LOT 39 AND GRADING ON LOT 38 & 39.	11/17/15
4	REVISE HOUSE TYPE & GRADING, LOT 40 & 41	09/03/15
3	REVISE HOUSE TYPE AND GRADING, LOT 42	07/30/15
2	REVISE HOUSE TYPE AND GRADING, LOT 38	06/24/15
1	REVISE HOUSE TYPE & GRADING LOT + 37&43. ADD CYPRESS SPRING MODEL HOUSE. SHEET 4	12/10/14

SITE DEVELOPMENT PLAN

GRADING PLAN

CYPRESS SPRINGS - PHASE 3

LOTS 37-47

SDP 13-042

1ST ELECTION DISTRICT
DPZ REFERENCES: SP-05-06, PB CASE 374, WP-05-38, SDP-09-061, F-10-028, L 386/F 658, L 8232/F 574, L 8344/F 670, L 4518/F 458, #14-3208, #10-3391, F-12-081, F-13-057, WP-13-167

TAX MAP 38 BLOCK 3
PARCELS 42, 44, 45 AND 48
HOWARD COUNTY, MARYLAND
ZONED: R-ED

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.5961

STATE OF MARYLAND — ROBERT HARRIS VOGEL — No. 16193 — PROFESSIONAL ENGINEER
ROBERT H. VOGEL, PE No. 16193

DESIGN BY:	JTD
DRAWN BY:	JER
CHECKED BY:	RHV
DATE:	NOVEMBER, 2013
SCALE:	AS SHOWN
W.O. NO.:	04-30

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2014

SHEET 3 OF 5

NOTE: STOCKPILING IS NOT PERMITTED ON SITE.

30' 0 30' 60' 90'

OWNER / DEVELOPER / CONTRACT PURCHASER
TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.
3675 PARK AVENUE, SUITE 301
ELLICOTT CITY, MARYLAND 21043
(410) 480-0023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 12-16-13
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 1-28-14
DIRECTOR	DATE 1/28/14

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

HOWARD S.C.D. — DATE 11/26/13

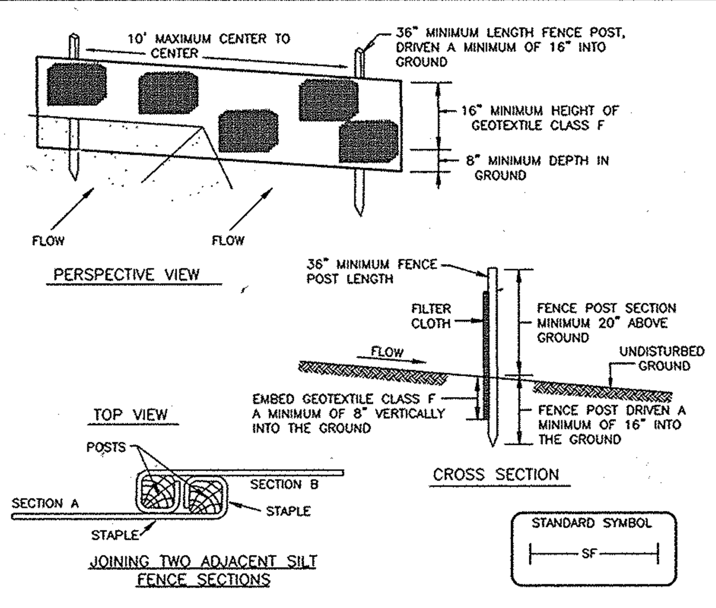
BY THE DEVELOPER:
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 11/25/13

BY THE ENGINEER:
"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 — DATE 11/25/13

DETAIL 22 - SILT FENCE



CONSTRUCTION SPECIFICATIONS

1. FENCE POSTS SHALL BE A MINIMUM OF 36" LONG, DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE (MINIMUM) CUT, OR 1 3/4" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS WILL BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
2. GEOTEXTILE 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:

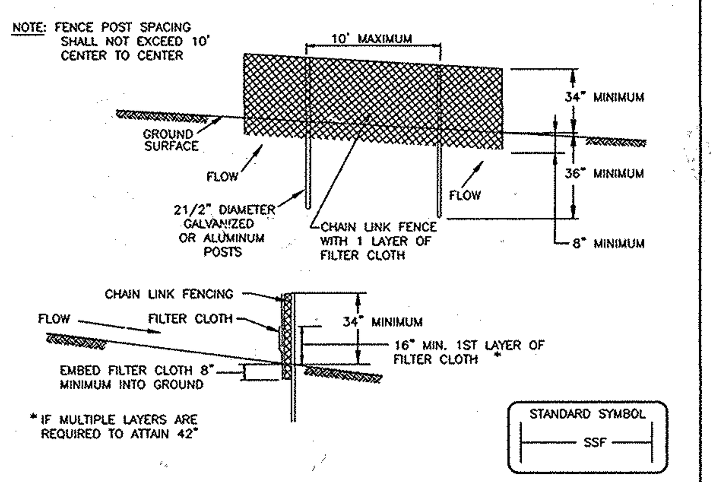
TENSILE STRENGTH	50 LBS/IN (MIN.)	TEST: MSMT 509
TENSILE MODULUS	20 LBS/IN (MIN.)	TEST: MSMT 509
FLOW RATE	0.3 GAL FT /MINUTE (MAX.)	TEST: MSMT 322
FILTERING EGGECIENCY	75% (MIN.)	TEST: MSMT 322

3. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
4. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHES 50% OF THE FABRIC HEIGHT.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 15 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE

NOTE: FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER



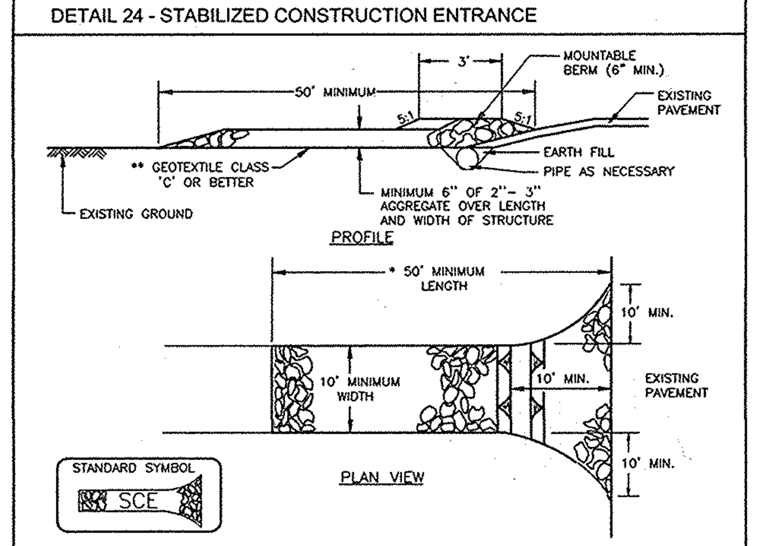
CONSTRUCTION SPECIFICATIONS

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/FT /MINUTE (MAX.)	TEST: MSMT 322
FILTERING EFFICIENCY	75% (MIN.)	TEST: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

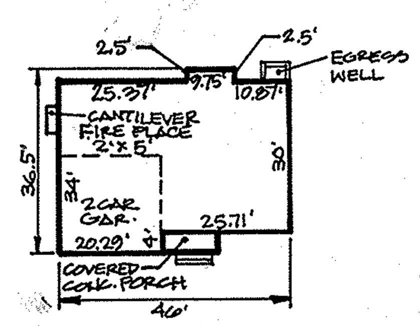
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



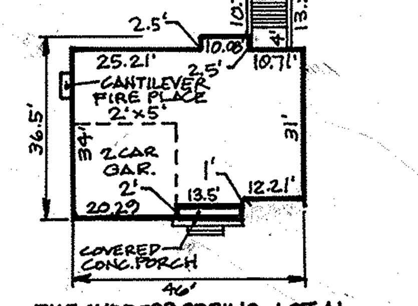
CONSTRUCTION SPECIFICATION

1. LENGTH – MINIMUM OF 50' (* 30' FOR A 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 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.
6. 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 17 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



THE POTOMAC II - LOT 40
W/ SIDING VENEER
SCALE: 1"=30'



THE CYPRESS SPRING - LOT 41
W/ CULT. STONE & SIDING VENEER
SCALE: 1"=30'

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 ft²		5b and 6a	6b	7a and 7b
Cool-Season Grasses						
Annual Ryegrass (*Lolium perenne ssp. multiflorum*)	40	1.0	0.5	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Barley (*Hordeum vulgare*)	96	2.2	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Oats (*Avena sativa*)	72	1.7	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Wheat (*Triticum aestivum*)	120	2.8	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Cereal Rye (*Secale cereale*)	112	2.8	1.0	Mar 15 to May 31; Aug 1 to Oct 31	Mar 1 to May 15; Aug 1 to Nov 15	Feb 15 to Apr 30; Aug 15 to Dec 15
Warm-Season Grasses						
Foxtail Millet (*Setaria italica*)	30	0.7	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14
Pearl Millet (*Pennisetum glaucum*)	20	0.5	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14

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.

Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permanent seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur in very late fall beyond the seeding dates for other temporary seedings. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

Oats are the recommended nurse crop for warm-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.

SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPT. OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES GREATER 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 7, 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, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL 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	3.34 AC.
AREA DISTURBED	2.64 AC.
AREA TO BE ROOFED OR PAVED	0.64 AC.
AREA TO BE VEGETATIVELY STABILIZED	2.00 AC.
TOTAL CUT	2,708 CY
TOTAL FILL	2,708 CY
OFFSITE WASTE/BORROW AREA LOCATION	*

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 LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

* TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT

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:

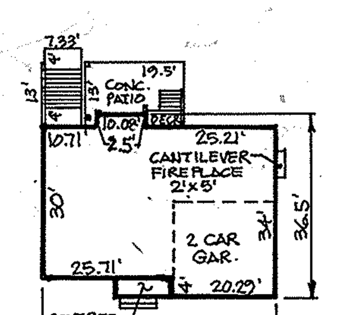
I. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAT 1 AND 1/2" IN DIAMETER.

II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

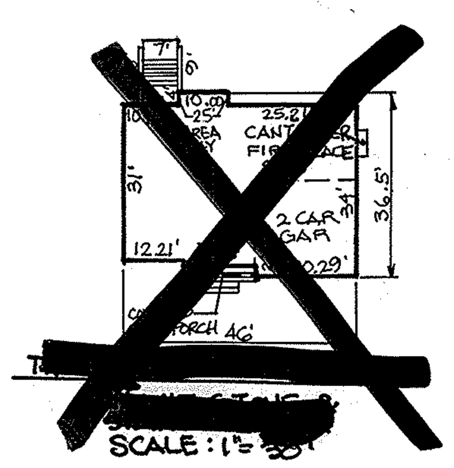
III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

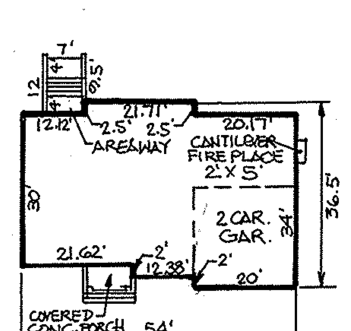
II. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION – SECTION I – VEGETATIVE STABILIZATION METHODS AND MATERIALS.



THE POTOMAC II - LOT 39
W/ SIDING VENEER
SCALE: 1"=30'





THE AMESBURY II - LOT 47
W/ CULT. STONE & SIDING VENEER
SCALE: 1"=30'

21.0 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 VEGETABLE 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

I. 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.

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 PRESCRIBED 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 HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

D. NO SOD OR SEED SHALL BE PLACED ON SOIL 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 APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

II. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION–SECTION I–VEGETATIVE STABILIZATION METHODS AND MATERIALS.

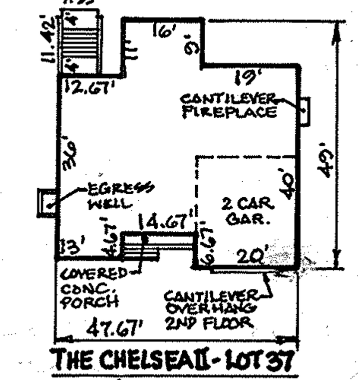
V. TOPSOIL APPLICATION

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 SEEDING 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 PLACE 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.



THE CHELSEA II - LOT 37
W/ CULT. STONE & SIDING VENEER
SCALE: 1"=30'

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410-313-1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
3. INSTALL SEDIMENT CONTROL MEASURES AS SHOWN ON PLAN AND IN ACCORDANCE WITH DETAILS. (5 DAYS)
4. AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED, ROUGH GRADE SITE. (2 WEEKS)
5. INSPECT SEDIMENT CONTROL MEASURES FROM F-10-028 TO REMAIN PER SDP. REPAIR AS NEEDED. (1 DAY)
6. CONSTRUCT HOUSES. THE FIRST FLOOR ELEVATIONS CANNOT BE MORE THAN 1' HIGHER OR 0.2' LOWER THAN THE ELEVATIONS SHOWN ON THIS PLAN. (6 MONTHS)
7. UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES. (2 DAYS)

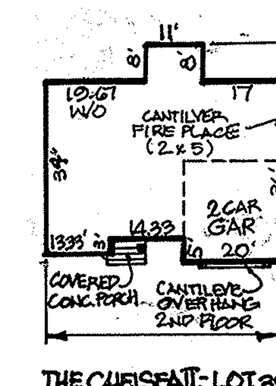
NOTES

DURING GRADING AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE THE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN HEREON.

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLIED WITH:

A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES SLOPES AND ALL SLOPES GREATER THAN 3:1.

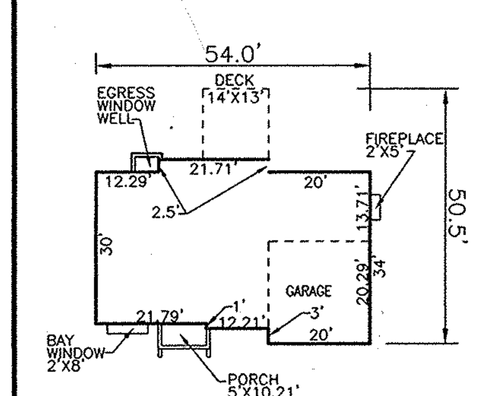
B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.



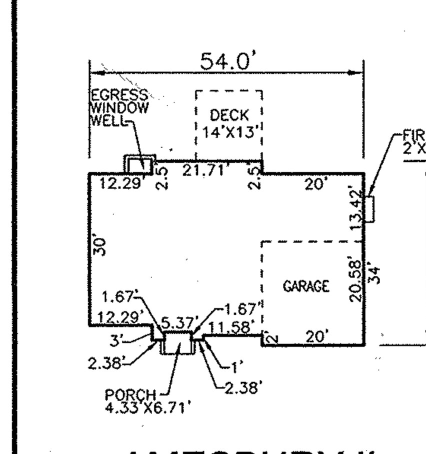
THE CHELSEA II - LOT 38
W/ SIDING VENEER
SCALE: 1"=30'

SOIL PROTECTION ZONE NOTES

1. THE SOIL PROTECTION ZONE INCLUDE ALL AREAS CONTAINED INSIDE THE LIMIT OF DISTURBANCE.
2. WHERE POSSIBLE, THE SOIL PROTECTION ZONE SHALL EXTEND TO THE DRIP LINE OF SPECIMEN TREES. FOR OTHER GROUPS OF TREES, THE ZONE SHALL BE THE DRIP LINE OF 40% OF THE HEIGHT OF THE TREE, WHICHEVER IS GREATER.
3. NO CONSTRUCTION ACTIVITY IS PERMITTED WITHIN THE SOIL PROTECTION ZONE.
4. IF SOIL HAS BEEN COMPACTED OR GRADING HAS TAKEN PLACE IN THE VICINITY OF THE SOIL PROTECTION ZONE, ROOT PRUNING SHALL BE IMPLEMENTED PER ROOT PRUNING DETAIL, SHOWN ON THIS PLAN.
5. ROOT PRUNING SHALL OCCUR PRIOR TO THE BEGINNING OF CONSTRUCTION.
6. WHERE THE SOIL PROTECTION ZONE MUST ENCROACH INSIDE THE CRITICAL ROOT ZONE OF A TREE, SOIL DISTURBANCE SHALL BE MITIGATED WITH VERTICAL MULCHING, OR RADIAL TRENCHING.
7. PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE SHALL BE MARKED AND THE DETERMINE WHICH TREES WILL NEED PREVENTATIVE TREATMENT OF REMOVAL.
8. TREE MAINTENANCE AND REMOVAL SHALL BE UNDERTAKEN BY A QUALIFIED MD TREE EXPERT TO ENSURE DAMAGE TO SURROUNDING TREES IS MINIMIZED.
9. BRUSH AND LIMBS REMOVED FOR CONSTRUCTION SHALL BE CHIPPED AND SPREAD AT THE EDGE OF THE SOIL PROTECTION ZONE TO A DEPTH OF 6 INCHES. THIS SHALL OCCUR OUTSIDE THE SOIL PROTECTION ZONE WHERE COMPACTION COULD IMPACT OTHERWISE UNPROTECTED CRITICAL ROOT ZONE.



AMESBURY
SCALE: 1"=30'



AMESBURY II
SCALE: 1"=30'

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/ 100 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS./ 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT THE TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ.FT.)

2) ACCEPTABLE-APPLY 2 TONS PER ACRE DOLOMATIC LIMESTONE (92 LBS/ 1000 SQ.FT.) AND APPLY 1000 LBS. PER ACRE 10-10-10- FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS/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 (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. STRAW ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

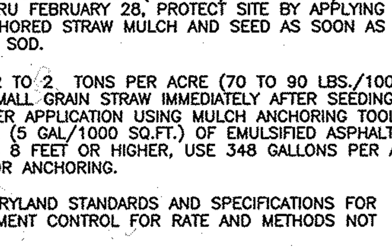
SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT).

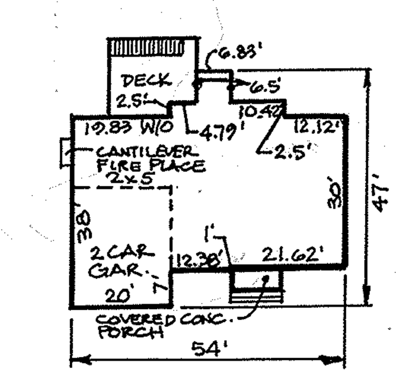
SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28, 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./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

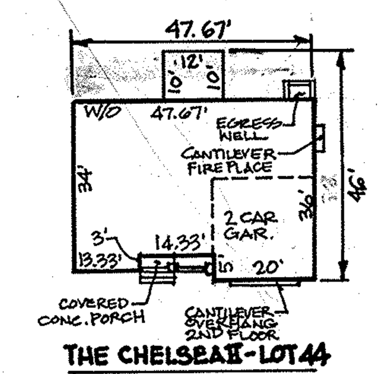
REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT



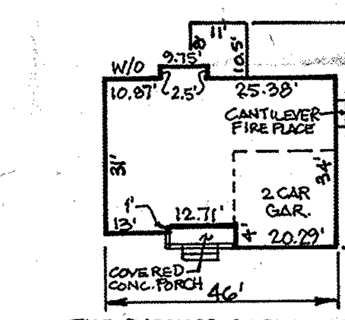
THE POTOMAC II - LOT 45
W/ SIDING VENEER
SCALE 1"=30'



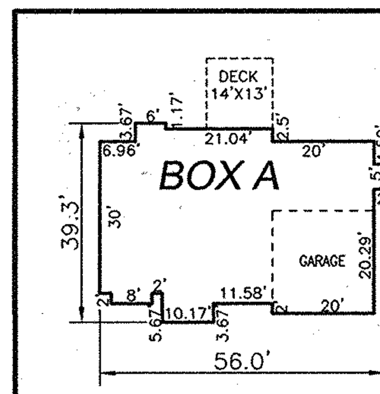
THE AMESBURY II - LOT 42
W/ SIDING VENEER
SCALE: 1"=30'



THE CHELSEA II - LOT 44
W/ SIDING VENEER
SCALE: 1"=30'

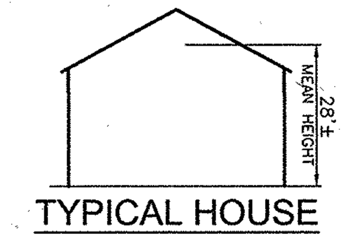


THE CYPRESS SPRING - LOT 46
W/ SIDING VENEER
SCALE: 1"=30'



BOX A

BOX 'A' DOES NOT INCLUDE THE YORKSHIRE MANOR



TYPICAL HOUSE MODEL ELEVATION DETAIL
SCALE: 1"=30'

NO.	REVISION	DATE
8	REVISE HOUSE TYPE AND GRADING LOT 45; ADD MORNING ROOM LOT 44 & 46	5/24/16
7	REVISE HOUSE TYPE GRADING ON LOTS 44 & 46.	03/17/16
6	REVISE HOUSE TYPE AND GRADING LOT 37	02/10/16
5	REVISE HOUSE TYPE ON LOT 39 AND GRADING ON LOT 38 & 39.	11/17/15
4	REVISE HOUSE TYPE & GRADING, LOTS 40 & 41	09/03/15
3	REVISE HOUSE TYPE AND GRADING LOT 42	07/30/15
2	REVISE HOUSE TYPE AND GRADING LOT 38	06/24/14
1	REVISE HOUSE TYPE & GRADING ON LOT 37 & 43. ADD THE ~~CYPRESS SPRING MODEL HOUSE TO SHEET 4~~	12/10/14

SITE DEVELOPMENT PLAN
SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
CYPRESS SPRINGS - PHASE 3

LOTS 37-47

SDP 13-042

1ST ELECTION DISTRICT
DPZ REFERENCES: SP-05-06, PB CASE 374, WP-05-38, SDP-09-061, F-10-028, L 386/F 658, L 8232/F 574, L 8344/F 670, L 4518/F 458, #14-3208, #10-3391, F-12-081, F-13-037, WP-13-167

TAX MAP 38 BLOCK 3
PARCELS 42, 44, 45 AND 46
HOWARD COUNTY, MARYLAND
ZONED: R-ED

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

STATE OF MARYLAND ROBERT HARRIS VOGEL No. 16193 PROFESSIONAL ENGINEER

ROBERT H. VOGEL, PE No. 16193

DESIGN BY:	JTD
DRAWN BY:	JER
CHECKED BY:	RHV
DATE:	NOVEMBER, 2013
SCALE:	AS SHOWN
W.O. NO.:	04-30

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2014

OWNER / DEVELOPER / CONTRACT PURCHASER

TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.
3675 PARK AVENUE, SUITE 301
ELLICOTT CITY, MARYLAND 21043
(410) 480-0023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 12-16-13

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1-28-14

DIRECTOR — DATE 1/28/14

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

HOWARD S.C.D. — DATE 11/26/13

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 11/25/13

BY THE ENGINEER:

"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 — DATE 11/25/13

SDP-13-042

HCSCD/MAA VEGETATIVE ESTABLISHMENT DETAILS AND SPECIFICATIONS FOR THE PROJECT WITHIN 4 MILES OF BWI AIRPORT

AASCD / MAA
VEGETATIVE ESTABLISHMENT
DETAILS AND SPECIFICATIONS FOR PROJECTS WITHIN
4 MILES OF THE BWI AIRPORT
July 1, 2004

References to ITEM #s noted below are found in Maryland Aviation Administration's manual entitled Specifications for Performing Landscaping Activities for the Maryland Aviation Administration dated May 2001

SOIL TESTS

1. Following initial soil disturbances or re-disturbance, permanent or temporary stabilization shall be completed within seven calendar days for the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and fourteen days for all other disturbed or graded areas on the project site.
2. Occurrence of acid sulfate soils (grayish black color) will require covering with a minimum of 12 inches of clean soil with 6 inches minimum capping of top soil. No stockpiling of material is allowed. If seeded, soil tests should be done before and after a 6-week incubation period to allow oxidation of sulfates.
3. **The minimum soil conditions required for permanent vegetative establishment are:**
   a. **Soil pH shall be between 6.0 and 7.0.**
   b. **Soluble salts shall be less than 500 parts per million (ppm).**
   c. **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.**
   d. **Soil shall contain 1.5% minimum organic matter by weight.**
   e. **Soil must contain sufficient pore space to permit adequate root penetration.**
   f. **If these conditions cannot be met by soils on site, adding topsoil is required in accordance ITEM 901 or amendments made as recommended by a certified agronomist.**

SEEDING

ITEM 903 SEEDING

DESCRIPTION

903-1.1 GENERAL. This item provides specifications for seeding of areas as designated on plans or as directed by the MAA Engineer. The species, mixtures, and methods of application provided in this item have been designed to reduce the attractiveness of airport grounds to wildlife. Only MAA-approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. All activities associated with seeding including soil preparation, seed application, fertilization, and maintenance shall also conform to these approved standards.

MATERIALS

903-2.1 SEED. All seed shall comply with the Maryland Seed Law (Agricultural Article of the Annotated Code of Maryland). Only MAA-approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. Seed will be sampled and tested by an inspector from the Turf and Seed Section, Maryland Department of Agriculture (MDA), Annapolis, Maryland. All lawn and turf seed and mixtures shall be free from the following state-listed restricted noxious weeds:

corn cockle (*Agrostemma githago*),
bentgrass (*Agrostis spp.*)[1],
redtop (*Agrostis gigantea*)[1]
wild onion (*Allium canadense*),
wild garlic (*Allium vineale*),
bindweed (*Calistegia spp.*),
dodder (*Cuscuta spp.*),
Bermuda grass (*Cynodon dactylon*),
orchardgrass (*Dactylis glomerata*)[1]
tall fescue (*Festuca arundinacea*)[1]
meadow fescue (*Festuca pratensis*)[1],
velvetgrass (*Holcus lanatus*),
annual bluegrass (*Poa annua*),
rough bluegrass (*Poa trivialis*)[1],
timothy (*Phleum pratense*), and
Johnson grass (*Sorgum halepense*).

Restricted noxious-weed seed may not exceed 0.5 percent by weight of any seed mixture. In addition, all seeds sold in Maryland shall be free from the following listed prohibited

[1] These species may be included as a labeled component of a mixture when each is present in excess of five percent of the mixture by weight.

noxious weeds: balloonvine (*Cardiospermum halicacabum*), quackgrass (*Elytrigia repens*), sicklepod (*Senna obtusifolia*), sorghum (*Sorghum spp.*), Canada thistle (*Cirsium arvense*), plumeless thistle (*Carduus spp.*-includes musk thistle and curled thistle), and serrated tussock (*Nassella trichotoma*).

903-2.1.1 APPROVED SPECIES. The following table contains species that are approved by MAA for use in seed mixtures. Purity requirements and germination requirements are also provided.

APPROVED PLANT SPECIES

MAA SEED MIXTURES	Purity[2] Not Less than %	Minimum % Germination[3]	Pure Live Seed Factor
Certified Turf-Type Tall Fescue (*Festuca arundinacea*)	98	90	1.13
Certified Kentucky Bluegrass (*Poa pratensis*)	90	80	1.39
Hard Fescue (*Festuca longifolia*)	98	90	1.13
Chewings Red Fescue (*Festuca rubra commutata*)	98	90	1.13
Annual Ryegrass (*Lolium multiflorum*)	95	85	1.24
Perennial Ryegrass (*Lolium perenne*)	90	80	1.39
Fowl Meadow Grass (*Poa palustris*)	90	80	1.39
Little Bluestem (*Andropogon scoparius*)	62	94	1.71

[2] The percentage weight of pure seed present shall be free of any agriculture seeds, inert matter, and other seeds distinguishable by their appearance.
[3] The percentage of germination shall be actual sprouts and shall not include hard seeds unless specifically permitted by the MAA Engineer.

903-2.1.2 PURITY. All seed shall be free of all state-designated noxious weeds listed in Paragraph 2.1.1 and conform to MAA specifications. To ensure compliance, MAA requires sampling and testing of seed by the Turf and Seed Section, Maryland Department of Agriculture (MDA). The Contractor shall furnish the MAA Engineer with duplicate signed copies of a statement by the Turf and Seed Section certifying that each lot of seed has been laboratory tested within six months of date of delivery. This statement shall include the following information:

- name and address of laboratory,
- date of test,
- lot number,
- the results of tests as to name, percentages of purity and of germination,
- percentage of weed content for the seed furnished,
- and, in the case of a mixture, the proportions of each kind of seed.

Seed shall be furnished in standard containers with the seed name, lot number, net weight, percentages of purity, germination rate and hard seed, and percentage of maximum weed seed content clearly marked. All seed containers shall be tagged with a MDA supervised mix program seed tag.

903-2.1.3 MIXTURES AND APPLICATION RATES. Only seed mixtures and application rates described in this item may be used unless otherwise approved by the MAA Engineer. Seed mixtures shall meet criteria detailed in Paragraph 903-2.1.2. Seed mixtures have been formulated to minimize the attractiveness of areas to wildlife of common landscape scenarios. The appropriate seed mixture for application will be designated based on environmental conditions and may vary from site to site. All planting rates listed are in pounds of Pure Live Seed (PLS) per acre.

Seed mixtures, application scenarios, and rates *for permanent cool-season grasses* are as follows:

a. Seed Mixture No. 1 - relatively flat areas (grade less than 4:1) subject to normal
   conditions and regular mowing (Application rate = 234 lbs PLS/acre);
b. Seed Mixture No. 2 - sloped areas (grade greater than 4:1) not subject to regular
   mowing (Application rate = 115 lbs PLS/acre); and
c. Seed Mixture No. 3 - wetlands and their associated buffer zones (Application rate =
   131 lbs PLS/acre).

Seed Mixture No. 1: Relatively flat areas regularly mowed and exposed to normal conditions (Application rate = 234 lbs PLS/acre)

Seed	Rate of Application (lbs of LS/acre)
85% Certified Turf-Type Tall Fescue	192
10% Certified Kentucky Bluegrass	28
5% Perennial Ryegrass	14
Supplemental Seed	
Annual Ryegrass	25

Seed Mixture No. 2: Sloped areas not subject to regular mowing (Application rate = 115 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
75% Hard Fescue	85
20% Chewings Fescue	23
5% Kentucky Bluegrass	7
Supplemental Seed	
Redtop	3

Seed Mixture No. 3 - Wetland areas and their associated buffer zones (Application rate = 131 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
60% Fowl Meadow Grass	83
30% Chewings Fescue	34
10% Perennial Ryegrass	14
Supplemental Seed	
Redtop	3

903-2.1.4 SEEDING SEASONS. Application of seed and seed mixtures shall occur within a specified seeding season unless otherwise approved by the MAA Engineer. No seed or seed mixtures are to be applied on frozen ground or when the temperature is at or below 35 degrees Farenheit (7.2 degrees Centigrade). Under these conditions, a layer of mulch should be applied in accordance with Item 905, Mulching, to stabilize the site, and permanent seeding should occur in the subsequent seeding season. Seed application may occur during the seeding season dates listed below. Seeding performed after October 20 should be a temporary cover of annual ryegrass and followed by overseeding of the appropriate seed mixture during the spring seeding season.

SEEDING SEASONS	
Permanent Cool-Season Grasses	March 1 to April 20 and August 1 to October 20, inclusive
Temporary Cover of Annual Rye/Redtop	March 1 to April 30 and August 1 to November 30, inclusive
[1]Temporary Cover of Warm-Season Grasses *(Little Bluestem only)*	May 1 to July 31, inclusive. Rate of application should be 13.6 lbs. PLS per acre.

Seeding seasons are based on typical years and can be subject to variation, which may be modified by the MAA Engineer based on seasonal trends.

If the time required to complete any of the operations necessary under this item, within the specified planting season or any authorized extensions thereof, extends beyond the Contract period, then such time will be charged against the Contract time, and liquidated damages will be enforced with respect to this portion of work.

903-2.2 LIME. Lime shall consist of ground limestone and contain at least 85 percent total carbonates. Lime shall be ground to a fineness so that at least 90 percent will pass through a No. 20 mesh sieve and 50 percent will pass through a No. 100 mesh sieve. Dolomitic lime or a high magnesium lime shall contain at least 10 percent magnesium oxide. Lime shall be applied by approved methods detailed in Section 903-3.3 of this item. The rate of application will be based on results of soil tests.

903-2.3 FERTILIZER. Fertilizer shall be standard commercial fertilizer (supplied separately or in mixtures) and meet the requirements of applicable state and federal laws (O-F-241) as well as standards of the Association of Official Agricultural Chemists. Nitrogen-Phosphorus-Potassium (N-P-K) concentrations shall be determined from analysis of soil samples. ***(Approved fertilizer rate: 2[pounds of 10-10-10 per 1,000 square feet.)*** Methods of fertilizer application shall conform to standards described in Section 903-3.3 of this item. Fertilizer shall be furnished in standard containers that are clearly labeled with name, weight, and guaranteed analysis of the contents (percentage of total nitrogen, available phosphoric acid, and water-soluble potash). Mixed fertilizers shall not contain any hydrated lime or cyanamide compounds. Fertilizers failing to meet the specified analysis may be approved by the MAA Engineer, providing sufficient materials are applied to conform with the specified nutrients per unit of measure without additional cost to MAA.

The fertilizers may be supplied in the following forms:

a. A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;

b. A finely ground fertilizer soluble in water, suitable for application by power sprayers; or

c. A granular or pellet form suitable for application by blower equipment.

The rate of application will be based on results of soil tests performed by the University of Maryland Soil Testing Laboratory. By law, persons applying fertilizer to State-owned land shall follow the recommendations of the University of Maryland as set forth in the "Plant Nutrient Recommendations Based on Soil Tests for Turf Maintenance" and the "Plant Nutrient Recommendations Based on Soil Tests for Sod Production" (see Appendix B). Application of the fertilizer shall be in a manner that is consistent with the recommendations of the University of Maryland Cooperative Extension.

CONSTRUCTION METHODS AND EQUIPMENT

903-3.1 GENERAL. This section provides approved methods for the application of and includes standards for seedbed preparation, methods of application, and equipment to be used during the process. Lime and fertilizer shall be applied to seeded areas before the seed is spread. The mixture of seed will be determined for sites based on environmental conditions as described in Paragraph 903-2.1.3.

903-3.2 ADVANCE PREPARATION. Areas designated for seeding shall be properly prepared in advance of seed application. The area shall be tilled and graded prior to application of lime and fertilizer, and the surface area shall be cleared of any stones larger than 1 inch in diameter, sticks, stumps, and other debris that might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. Damage caused by erosion or other forces that occur after the completion of grading shall be repaired prior to the application of fertilizer and lime. The Contractor will repair such damage, which may include filling gullies, smoothing irregularities, and repairing other incidental damage before beginning the application of fertilizer and ground limestone.

If an area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, all grass and weeds shall first be cut or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches (125 mm). Clods shall be broken and the top 3 inches (75 mm) of soil shall be worked into a satisfactory condition by discing or by use of cultipackers, rollers, drags, harrows, or other appropriate means.

An area to be seeded shall be considered a satisfactory seedbed (without requiring additional treatment) if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches; the top 3 inches of soil is loose, friable, and is reasonably free from large clods, rocks, large roots, or other undesirable matter; appropriate amounts of fertilizer and lime have been added; and, if it has been shaped to the required grade immediately prior to seeding. For slope areas steeper than 3:1 (three horizontal to one vertical), the subsoil shall be loose to a depth of 1 inch.

After completion of tilling and grading, lime and fertilizer shall be applied within 48 hours according to the specified rate (Paragraphs 903-2.2 and 2.3) and methods

(Paragraphs 903-3.3.1 and 903-3.3.2) approved by MAA. The seeding mixture shall be applied within 48 hours after application of lime and fertilizer. To firm the seeded areas, cultipacking shall occur immediately after seeding.

903-3.3 METHODS OF APPLICATION. Lime, fertilizer, and seed mixes shall be applied by either the dry or wet application methods that have been approved by MAA and are detailed below.

903-3.3.1 DRY APPLICATION METHOD

a. Liming. If soil test results indicate that lime is needed, the following procedures will be used: following advance preparation of the seedbed, lime shall be applied prior to the application of any fertilizer or seed and only on seedbeds that have been prepared as described in paragraph 903-3.2. The lime shall be uniformly spread and worked into the top 2 inches of soil, after which the seedbed shall be properly graded again.

b. Fertilizing. Following advance preparations (and liming if necessary), fertilizer shall be spread uniformly at the specified rate to provide no less than the minimum quantity stated in Paragraph 903-2.3.

c. Seeding. Seed mixtures shall be sown immediately after fertilization of the seedbed. The fertilizer and seed shall be lightly raked to a depth of 1 inch for newly graded and disturbed areas.

d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted using a cultipacker or an approved lawnroller.

903-3.3.2 WET APPLICATION METHOD/HYDROSEEDING

a. General. The Contractor may elect to apply seed and fertilizer as per Paragraphs c and d of this section in the form of an aqueous mixture by spraying over the previously prepared seedbed using methods and equipment approved by MAA. The rates of application shall be as specified in Paragraphs 903-2.1 through 903-2.3.

b. Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge capable of reading increments of 50 gallons or less over the entire range of the tank capacity. The liquid level gauge shall be mounted so as to be visible to the nozzle operator at all times. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The spraying equipment shall also include a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square inch. The

pressure pump assemblage shall be configured to allow the mixture to flow through the tank when not being sprayed from the nozzle. All pump passages and pipelines shall be capable of providing clearance for 5/8-inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. A pressure gauge shall be connected to and mounted immediately behind the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture to be supplied so that mixtures may be properly sprayed over a distance varying from 20 feet to 100 feet. One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For ease of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings. In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.

c. Mixtures. Lime shall be applied separately in the quantity specified, prior to the fertilizing and seeding operations. Lime should be added to and mixed with water at a concentration not to exceed 220 pounds of lime for every 100 gallons of water. After lime has been applied, the tank should be emptied and rinsed with fresh water. Seed and fertilizer shall be mixed together in the relative proportions specified, but the resulting concentration should not exceed 220 pounds of mixture per 100 gallons of water and should be applied within 30 minutes to prevent fertilizer burn of the seeds.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Brackish water shall not be used at any time. The Contractor shall identify all sources of water to the MAA Engineer at least two weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 30 minutes from the time they were mixed or they shall be wasted and disposed of at a location acceptable to the Engineer.

d. Spraying. Lime shall be sprayed upon previously prepared seedbeds on which the lime, if required, shall have been worked in already. The mixtures

shall be applied using a high-pressure spray which shall always be directed upward into the air so that the mixtures will fall to the ground in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner that might produce erosion or runoff. Particular care shall be exercised to ensure that the application is made uniformly, at the prescribed rate, and to guard against misses and overlapped areas. Predetermined quantities of the mixture shall be used in accordance with specifications to cover specified sections of known areas. To checks the rate and uniformity of application, the applicator will observe the degree of wetting of the ground or distribute test sheets of paper or pans over the area at intervals and observe the quantity of material deposited thereon.

On surfaces that are to be mulched as indicated by the plans or designated by the MAA Engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

903-3.4 MAINTENANCE OF SEEDED AREAS. The contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work performed out of season, the Contractor will be required to establish a good stand of grass of uniform color and density to the satisfaction of the Engineer. If at the time when the contract has been otherwise completed it is not possible to make an adequate determination of the color, density, and uniformity of such stand of grass, payment for the unaccepted portions of the areas seeded out of season will be withheld until such time as these requirements have been met.

MULCHING

Mulch shall be applied to all seeded areas immediately after seeding. During the time periods when seeding is not permitted, mulch shall be applied immediately after grading.

Mulch shall be applied as per ITEM 905.

TEMPORARY SEEDING

Lime:	100 pounds of dolomitic limestone per 1,000 square feet.
Fertilizer:	15 pounds of 10-10-10 per 1,000 square feet.
Seed:	Per ITEM 903
Mulch:	Mulch shall be applied as per ITEM 905.

FILL

No fills may be placed on frozen ground. All fill to be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. All fill in roadways and parking areas is to be classified Type 2 as per Anne Arundel County Code – Article 21, Section 2-308, and compacted to 90% density; compaction to be determined by ASTM D-1557-66T (Modified Proctor). Any fill within the building area is to be compacted to a minimum of 95% density as determined by methods previously mentioned. Fills for pond embankments shall be compacted as per MD-378 Construction Specifications. All other fills shall be compacted sufficiently so as to be stable and prevent erosion and slippage.

SODDING

Installation of sod should follow permanent seeding dates. Seedbed preparation for sod shall be as noted above. Lime and fertilizer per permanent seeding specifications and lightly irrigate soil prior to laying sod. Sod is to be laid on the contour with all ends tightly abutting. Joints are to be staggered between rows. Water and roll or tamp sod to insure positive root contact with the soil. All slopes steeper than 3:1, as shown, are to be permanently sodded or protected with an approved erosion control netting. Additional watering for establishment may be required. Sod is not to be installed on frozen ground. Sod shall not be transplanted when moisture content (dry or wet) and/or extreme temperature may adversely affect its survival. In the absence of adequate rainfall, irrigation should be performed to ensure establishment of sod.

Install sod as per ITEM 904.

MINING OPERATIONS

Sediment control plans for mining operations must include the following seeding dates and mixtures:
For seeding dates of: February 1 through April 30 and August 15 through October 31, use seed mixture of tall fescue at the rate of 2 pounds per 1,000 square feet and red top at the minimum rate of 0.5 pounds per 1,000 square feet.

NOTE: Use of this information does not preclude meeting all of the requirements of the current Maryland Standards and Specifications for Soil Erosion and Sediment Control.

HCSCD/MAA NOTES

THE PROPOSED PROJECT IS LOCATED IN HOWARD COUNTY, MARYLAND ON TAX MAP 38, BLOCK 3, PARCEL 42,44,45 & 46. THE PROPOSED PROJECT IS LOCATED NEAR THE BALTIMORE /WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT (BWI), APPROXIMATELY 14,000 FEET NORTH OF RUNWAY 15R-33L.

1. SEDIMENT BASINS AND TRAPS ARE PROPOSED FOR SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION.
2. SEDIMENT TRAPS AND BASINS MUST BE DRAINED COMPLETELY THROUGH A FILTERING DEVICE TO A CLEAR WATER OUTFALL WITHIN 24 HOURS FOLLOWING ANY RAINFALL EVENT.
3. LANDSCAPING & STORM WATER POND LANDSCAPING ON SITE:

   ANY DEVIATION TO PLANT SPECIES AND VEGETATION USED ON THESE PLANS NEED APPROVAL FROM HCSCD/MAA. THE PLANT SPECIES USED ON THIS SITE ARE TO AVOID ITS POTENTIAL TO ATTRACT WILDLIFE THAT COULD POSE STRIKE HAZARD TO AIRCRAFT.
4. BWI AIRPORT NOISE ZONE:

   THE SITE FOR THIS PROJECT IS LOCATED OUTSIDE THE BOUNDARIES OF THE AIRPORT NOISE ZONE.
5. THE ALLOWABLE HEIGHT FOR ANY PERMANENT OR TEMPORARY STRUCTURES TALLER THAN 277 FEET ABOVE MEAN SEA LEVEL NEED OBSTRUCTION ANALYSIS REVIEW AND PERMIT FOR THE AIRPORT ZONE.
6. THE STORM WATER MANAGEMENT FACILITIES WITHIN 10,000 FEET OF ACTIVE RUNWAYS OR WITHIN 5 MILES OF AN APPROACH SURFACE MUST DRAIN WITHIN 24 HOURS FOLLOWING . THE 1 OR 2 YEAR STORM EVENTS AND WITHIN 48 HOURS FOLLOWING. THE 10 OR 100 YEAR STORM

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 12-16-13
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 1-22-14
DIRECTOR	DATE 1/24/14

OWNER / DEVELOPER / CONTRACT PURCHASER
TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.
3675 PARK AVENUE, SUITE 301
ELLICOTT CITY, MARYLAND 21043
(410) 480-0023

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
HCSCD/MAA NOTES & DETAILS
CYPRESS SPRINGS - PHASE 3
LOTS 37-47
SDP 13-042

1ST ELECTION DISTRICT
DPZ REFERENCES: SP-05-06, PB CASE 374, WP-05-38, SDP-09-081, F-10-028, L 366/F 658, L 8232/F 574, L 8344/F 670, L 4518/F 458, #14-3208, #10-3391, F-12-081, F-13-037, WP-13-167

TAX MAP 38 BLOCK 3
PARCELS 42, 44, 45 AND 46
HOWARD COUNTY, MARYLAND
ZONED: R-ED

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

STATE OF MARYLAND ROBERT HARRIS VOGEL No. 16193 PROFESSIONAL ENGINEER
ROBERT H. VOGEL, PE No. 16193

DESIGN BY:	JTD
DRAWN BY:	JEB
CHECKED BY:	RHV
DATE:	NOVEMBER, 2013
SCALE:	AS SHOWN
W.O. NO.:	04-30

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2014

SHEET 5 OF 5

SDP-13-042