

GENERAL NOTES

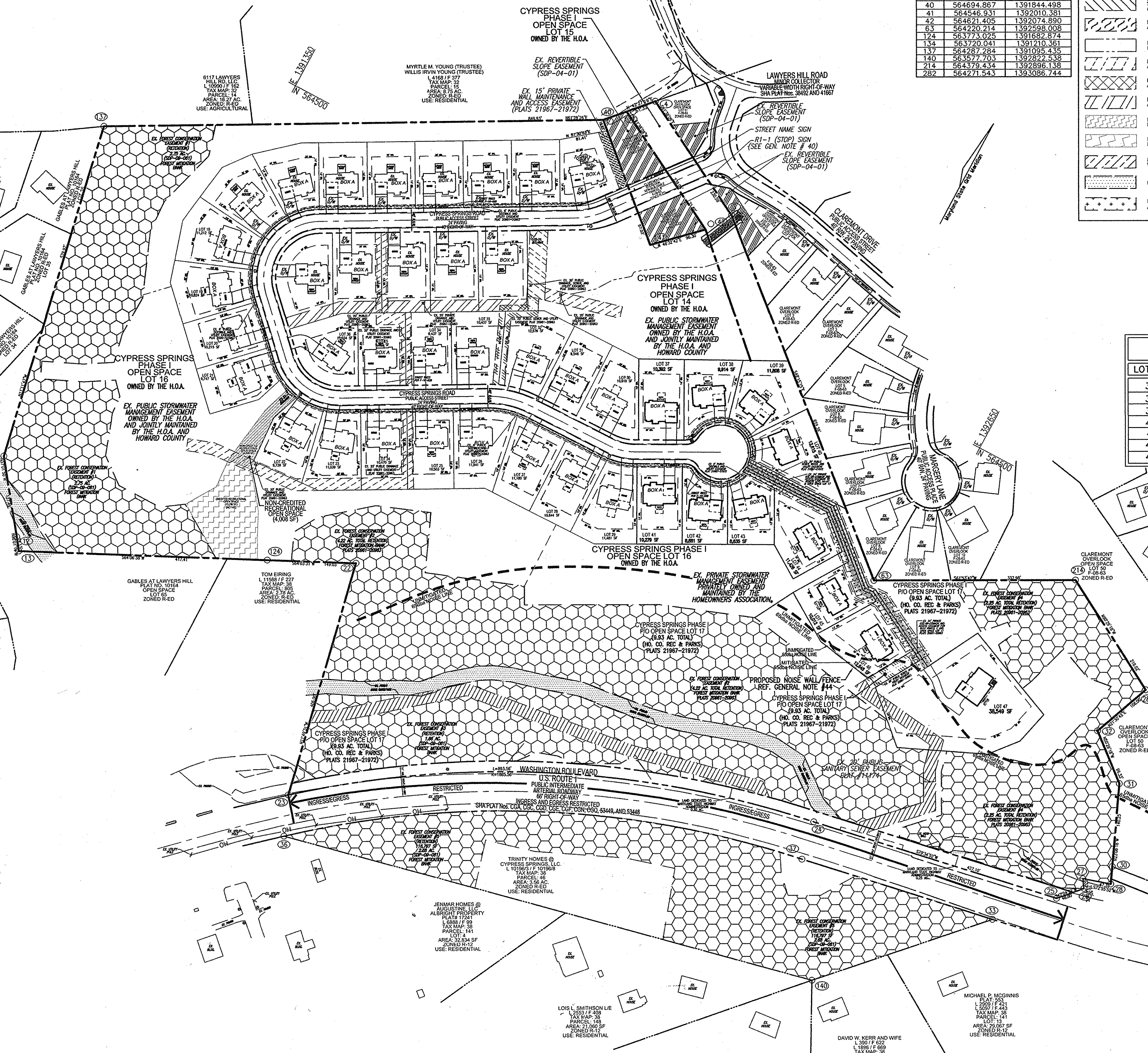
- 1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
2. THE CONTRACTOR SHALL NOTIFY 'MISS UTILITY' AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
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 MICROPOUND POND (P-1) (SWM POND 1) AND A POCKET POND (P-5) (SWM POND 2), TO PROVIDE THE REQUIRED WOV AND CPV, AND A BIORETENTION FACILITY (F-6) TO PROVIDE WOV AND RE- SWM 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 CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE THEREON.
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 RADII
D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (425 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:
MESS UTILITY 1-800-257-7777
BELL ATLANTIC TELEPHONE CO. HOWARD COUNTY BUREAU OF UTILITIES: 313-2366
VERIZON WIRELESS LOCATION DIVISION: 393-4650
B.G.S.E. CO. CONTRACTOR SERVICES: 787-4620
B.G.S.E. CO. UNDERGROUND DAMAGE CONTROL: 787-4620
STATE HIGHWAY ADMINISTRATION: 313-2366
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 PROJECT 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(c)(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 LLC) 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, STREAMS, 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 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 103A.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, SECTIONS 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 (MUTCD).
d) ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED (QUICK PUNCH) SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE)-3" LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO (2) PUNCH HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
41. SURETY IN THE AMOUNT OF \$150,000 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 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.
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.

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

COORDINATE TABLE with columns: NO., NORTHING, EASTING. Contains coordinate data for the site.

LEGEND with various symbols and line styles corresponding to boundary lines, easements, and utility lines.

SCALE MAP showing the project location within Baltimore County and the surrounding area.



BENCHMARKS table with columns: NO., NORTHING, EASTING, ELEVATION. Lists benchmark points and their elevations.

SHEET INDEX table with columns: COVER SHEET, DESCRIPTION, SHEET NO. Lists sheets for layout, grading, and details.

ADDRESS CHART table with columns: LOT NO, STREET ADDRESS. Lists addresses for lots 37 through 43.

MILESTONE CHART table with columns: PHASE, NO. HOUSING UNITS/LOTS, ALLOCATION YEAR. Shows project phases and housing allocation.

PERMIT INFORMATION CHART table with columns: SUBDIVISION NAME, SECTION/AREA, LOT/PARCELS, PLAT REF. #, BLOCK NO, ZONE, TAX MAP, ELECT. DIST., CENSUS TR.

REVISE ADDRESS CHART table with columns: NO., REVISION, DATE. Shows address revisions.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Includes signatures and dates for Chief and Director.

OPEN SPACE AREA TABULATION CHART table with columns: AREA OF OPEN SPACE REQUIRED, AREA OF OPEN SPACE PROVIDED, AREA OF RECREATIONAL OPEN SPACE REQUIRED, AREA OF RECREATIONAL OPEN SPACE PROVIDED.

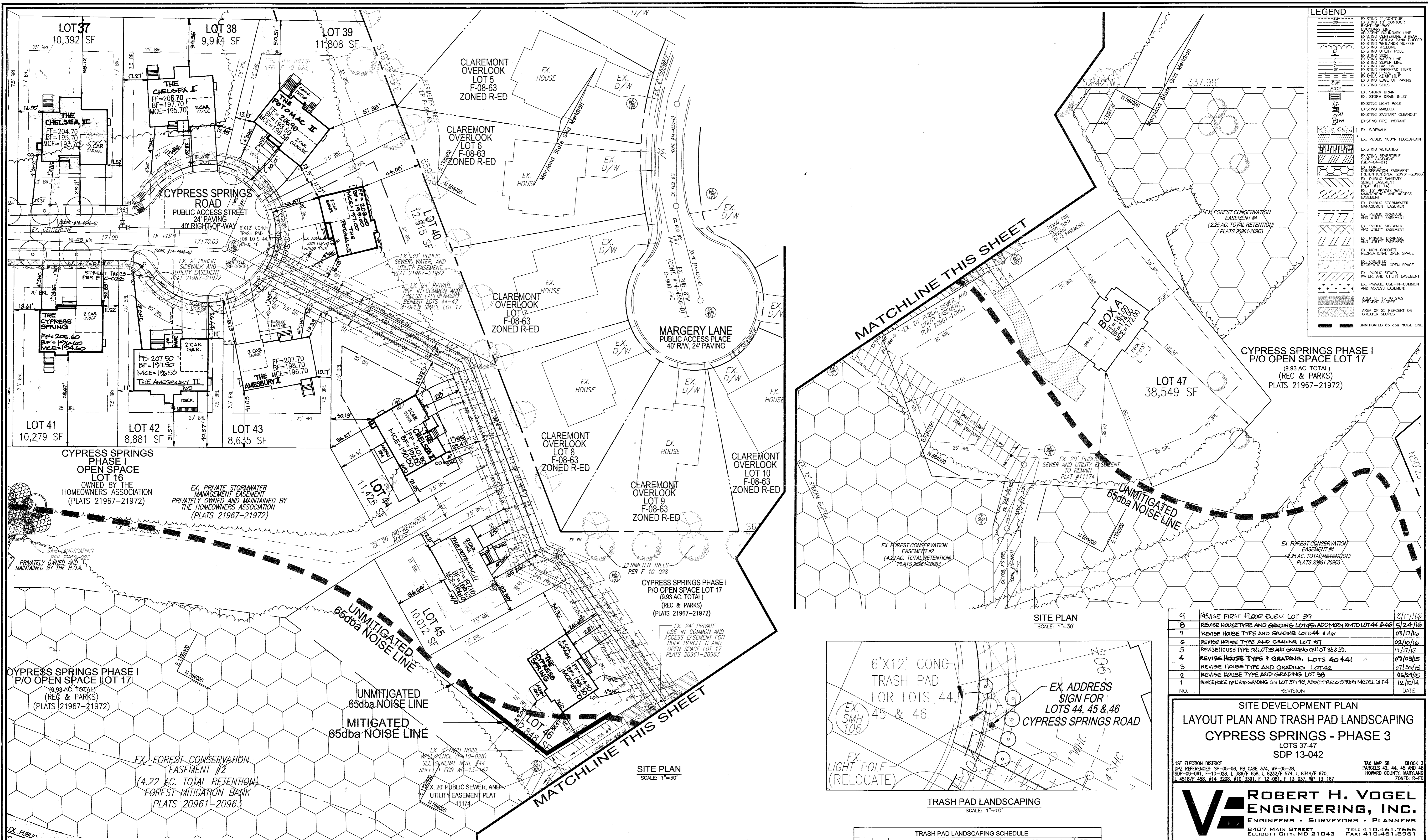
LOCATION: TAX MAP 38, GRID 3, PARCELS 42, 44, 45 & 46. 1ST ELECTION DISTRICT. EXISTING ZONING: R-ED. TOTAL AREA OF PROJECT: 33.10 AC.

LOCATION MAP SCALE: 1"=100'

OWNER / DEVELOPER / CONTRACT PURCHASER: TRINITY HOMES AT CYPRESS SPRINGS, L.L.C. (410) 480-0023

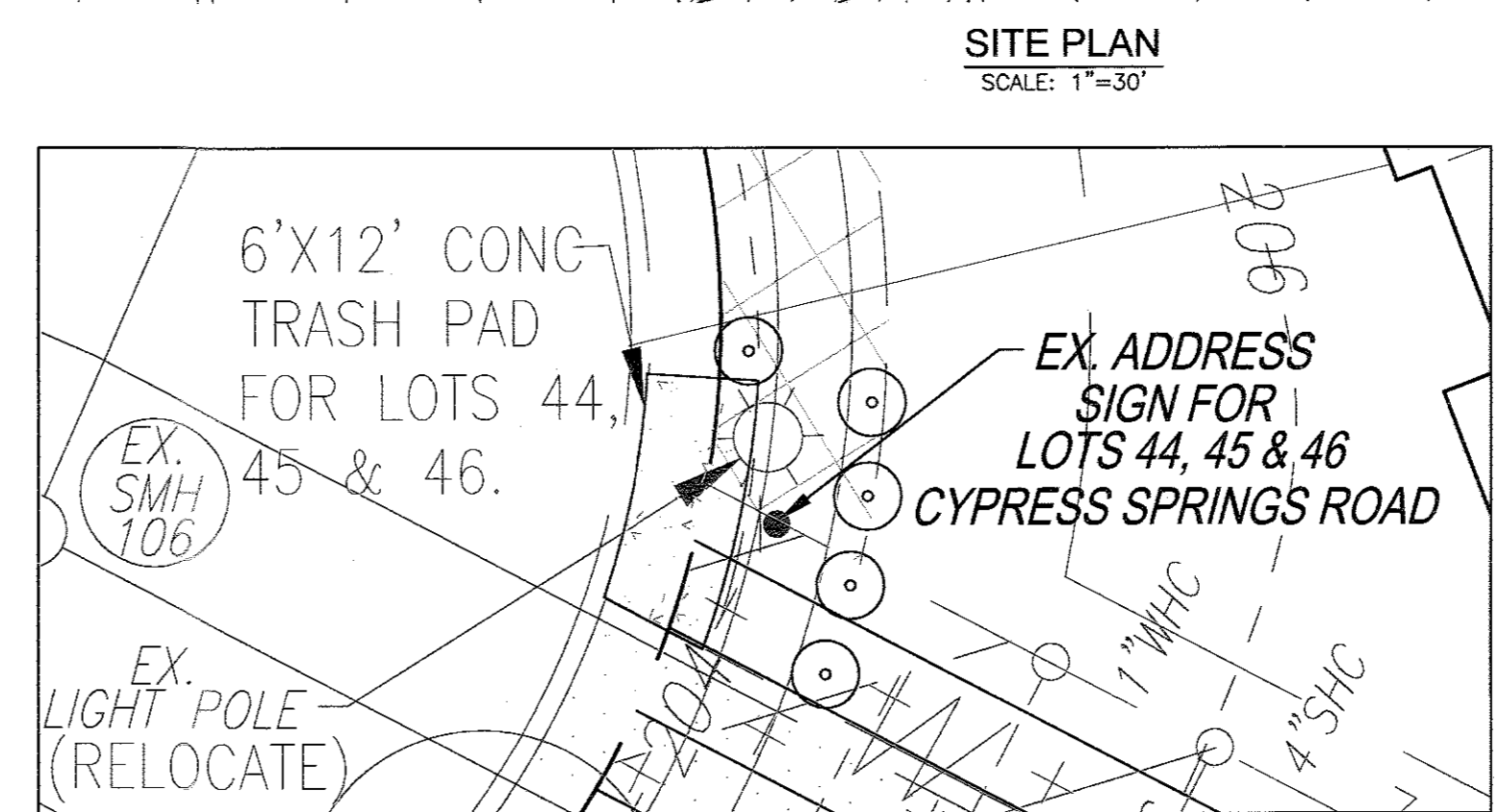
SITE DEVELOPMENT PLAN COVER SHEET CYPRESS SPRINGS - PHASE 3 LOTS 37-47 SDP 13-042

Professional information including Robert H. Vogel Engineering, Inc. logo, contact details, and professional certificate information.



LEGEND

- EXISTING 2' CONTOUR
- EXISTING TO CONTOUR
- BOUNDARY LINE
- ADJACENT BOUNDARY LINE
- EXISTING STREAM BANK BUFFER
- EXISTING UTILITY BUFFER
- EXISTING TREELINE
- EXISTING UTILITY POLE
- EXISTING SCHEDULE
- 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
- EXISTING FOREST CONSERVATION EASEMENT (SDP-04-31)
- EXISTING FOREST CONSERVATION EASEMENT (PLAT 20961-20963)
- EXISTING FOREST CONSERVATION EASEMENT #4 (2.25 AC. TOTAL RETENTION) PLATS 20961-20963
- EX. PUBLIC SANITARY SEWER EASEMENT (PLAT #11174)
- EX. PRIVATE SIDEWALK MAINTENANCE AND ACCESS EASEMENT
- EX. PUBLIC STORMWATER MANAGEMENT EASEMENT
- EX. PUBLIC STORMWATER AND UTILITY EASEMENT
- EX. PUBLIC SIDEWALK AND UTILITY EASEMENT
- EX. PRIVATE SIDEWALK 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

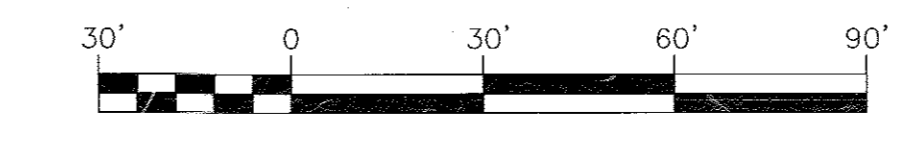


TRASH PAD LANDSCAPING
SCALE: 1"=10'

TRASH PAD LANDSCAPING SCHEDULE

SYM.	QTY.	DESCRIPTION	SIZE	REM.
○	5	JUNIPERUS CHINENSIS '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.



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
9	REVISE FIRST FLOOR ELEV. LOT 39	8/17/16
8	REVISE HOUSE TYPE AND GRADING LOTS 44 & 46	5/24/16
7	REVISE HOUSE TYPE AND GRADING LOTS 44 & 46	03/17/16
6	REVISE HOUSE TYPE AND GRADING LOT 47	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	07/09/15
3	REVISE HOUSE TYPE AND GRADING, LOT 42	07/30/15
2	REVISE HOUSE TYPE AND GRADING LOT 26	06/24/15
1	REVISE HOUSE TYPE AND GRADING ON LOT 37 + 43, ADD CYPRESS SPRING MODEL 3HT-4	12/10/14

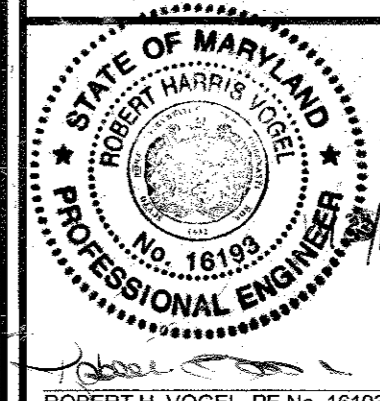
**SITE DEVELOPMENT PLAN
LAYOUT PLAN AND TRASH PAD LANDSCAPING
CYPRESS SPRINGS - PHASE 3
LOTS 37-47
SDP 13-042**

1ST ELECTION DISTRICT
DPZ REFERENCES: SP-05-06, PB CASE 374, WP-05-38,
SDP-09-061, F-10-028, L 306/F 658, L 8232/F 574, L 8344/F 670,
L 4516/F 458, F14-3008, F10-3391, F-12-081, F-13-037, WP-13-187

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

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

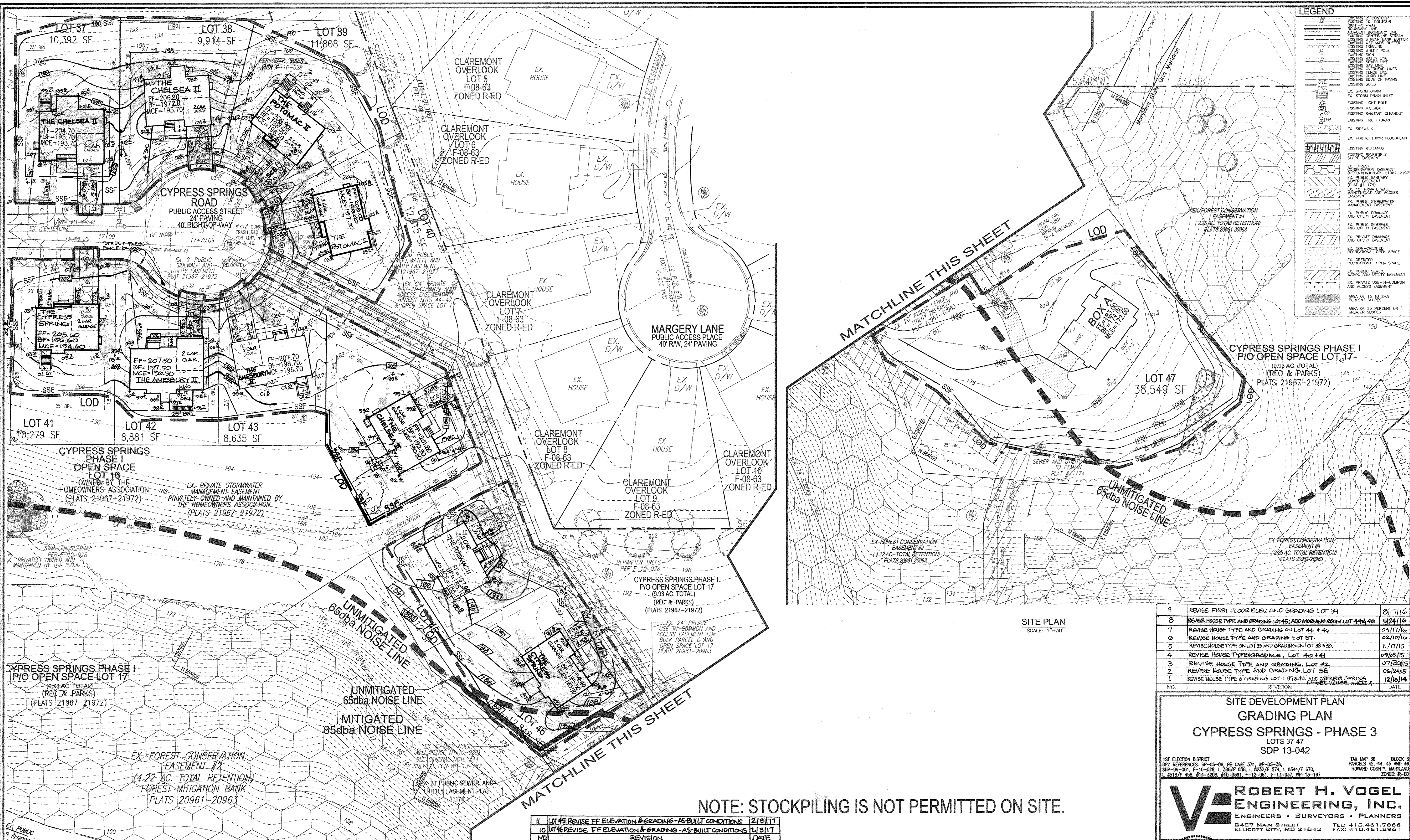
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
Chad Edwards 12.16.13
Chief, Division of Land Development
Mark A. Hight 1/28/14
Director

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.

Michael Pflum 11/25/13
SIGNATURE OF DEVELOPER DATE



LEGEND

- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- RIGHT-OF-WAY
- ADJACENT BOUNDARY LINE
- EXISTING CENTERLINE STREAM
- EXISTING STREAM BANK BUFFER
- EXISTING ISLAND BUFFER
- EXISTING TRENCH
- EXISTING UTILITY POLE
- EXISTING SIGN
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING GAS/BIG LINES
- EXISTING FENCE LINE
- EXISTING CURB LINE
- EXISTING EDGE OF PAVING
- EXISTING SCOLE
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN INLET
- EXISTING LIGHT POLE
- EXISTING MANHOLE
- EXISTING SANITARY CLEANDOUT
- EXISTING FIRE HYDRANT
- EXIST. SIDEWALK
- EXIST. PUBLIC 100' R.F. FLOORPLAN
- EXISTING WETLANDS
- EXISTING REVERTIBLE
- EXISTING UTILITY EASEMENT
- EX. FOREST CONSERVATION EASEMENT (RETENTION) (PLATS 21967-21972)
- EX. PUBLIC SANITARY (PLAT 21974)
- EX. 15' PRIVATE WALL
- EX. 15' PRIVATE WALL AND ACCESS EASEMENT
- EX. PUBLIC STORMWATER MANAGEMENT EASEMENT
- EX. PUBLIC DRAINAGE AND UTILITY EASEMENT
- EX. PUBLIC SEWER 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 SLOPE
- AREA OF 25 PERCENT OR GREATER SLOPE

NO.	REVISION	DATE
9	REVISE FIRST FLOOR ELEV. AND GRADING LOT 39	01/17/16
8	REVISE HOUSE TYPE AND GRADING LOTS 45, ADD MORNING ROOM LOT 44 & 46	05/24/16
7	REVISE HOUSE TYPE AND GRADING ON LOT 44 & 46	03/17/16
6	REVISE HOUSE TYPE AND GRADING LOT 57	02/10/16
5	REVISE HOUSE TYPE ON LOTS 9 AND GRADING ON LOTS 38 & 39	11/17/15
4	REVISE HOUSE TYPE AND 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 AND GRADING LOT 37 & 43, ADD CYPRESS SPRINGS MODEL HOUSE SHEET 4	12/16/14

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

1ST ELECTION DISTRICT
DPZ REFERENCES: SP-05-08, PB CASE 374, WP-05-38,
SDP-09-061, F-10-028, L-3868, GSE, L-8292/F-574, L-8344/F-670,
L-4518/F-458, F14-3208, F10-3391, F-12-081, F-13-037, 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
ELLCOTT CITY, MD 21043

TEL: 410.461.7656
FAX: 410.461.8961

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

3 SHEET OF **5**

NOTE: STOCKPILING IS NOT PERMITTED ON SITE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edson 12.16.13
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Mark McLay 1/28/14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark McLay 1/28/14
DIRECTOR DATE

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

John Blawie 1/26/13
HOWARD S.C.D. DATE

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."

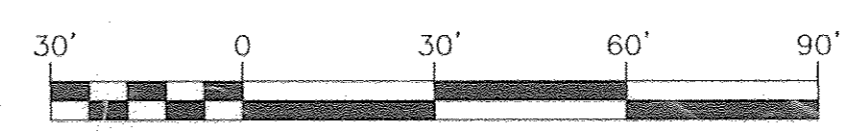
Michael How 1/25/13
SIGNATURE OF DEVELOPER DATE

BY THE ENGINEER:

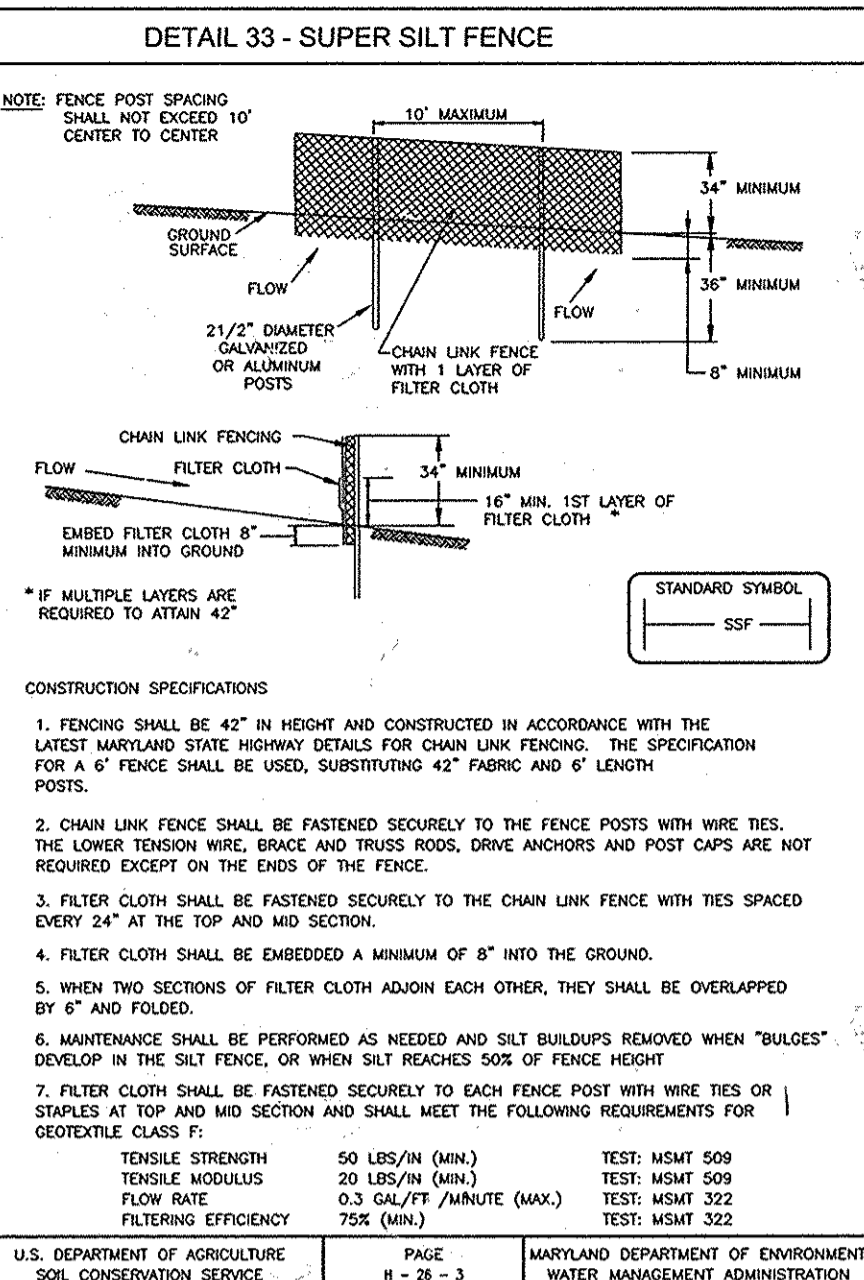
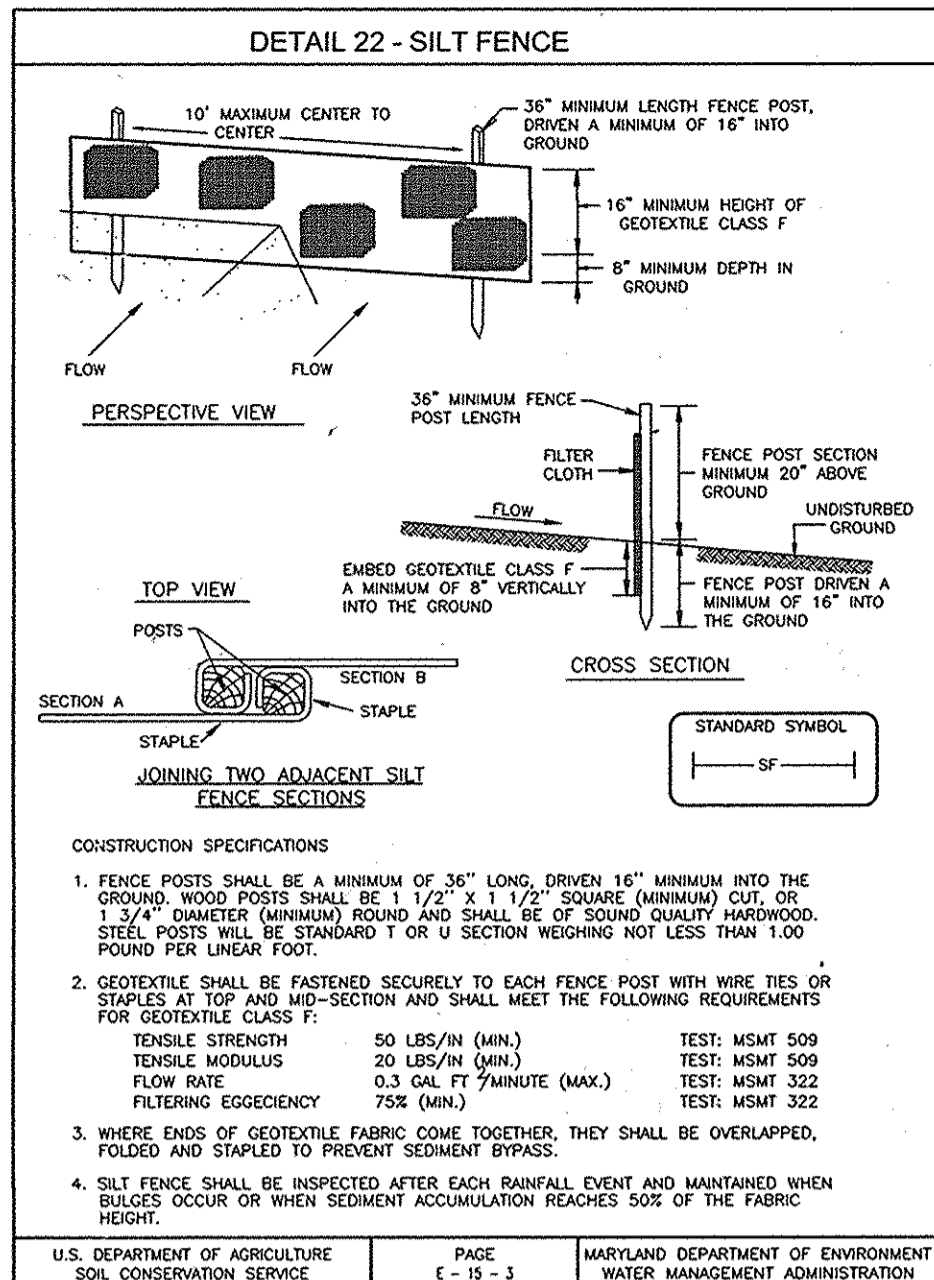
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 1/25/13
SIGNATURE OF ENGINEER DATE

11	LOT 45 REVISE FF ELEVATION & GRADING - AS-BUILT CONDITIONS	2/3/17
10	LOT 46 REVISE FF ELEVATION & GRADING - AS-BUILT CONDITIONS	1/31/17
NO.	REVISION	DATE



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



SEDIMENT CONTROL NOTES

- 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).
- 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.
- 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.
- 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.
- 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, SOIL, TEMPORARY SEEDING, AND MULCHING (SEC. C). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SOIL ANALYSIS:

TOTAL AREA	3.34 AC.
AREA DISTURBED	2.64 AC.
AREA TO BE MULCHED OR PAVED	0.64 AC.
AREA TO BE PERMANENTLY STABILIZED	2.00 AC.
TOTAL CUT	2,708 CY.
TOTAL FILL	2,708 CY.
- CONSTRUCTION SPECIFICATIONS:
 - 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 4" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6" LENGTH POSTS.
 - CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES. THE LOWER TENSION WIRE BRACE AND TRUSS ROOFS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.
 - FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACING EVERY 24" AT THE TOP AND MID SECTION.
 - FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BUZZES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT.
 - 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
TENSILE ELONGATION	0.2 CAL. FT. 7/16" (MAX.)	TEST: MSMT 322
FILTERING EFFICIENCY	75% (MIN.)	TEST: MSMT 322
 - WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEEDING ENTRAPMENT.
 - SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHES 50% OF THE FABRIC HEIGHT.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 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.
- 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.

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

DEFINITION
PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

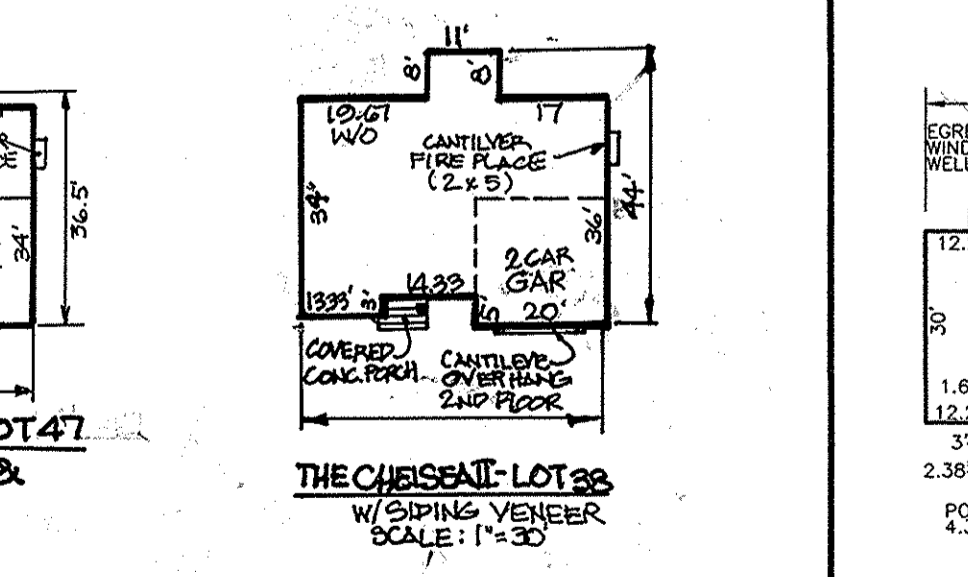
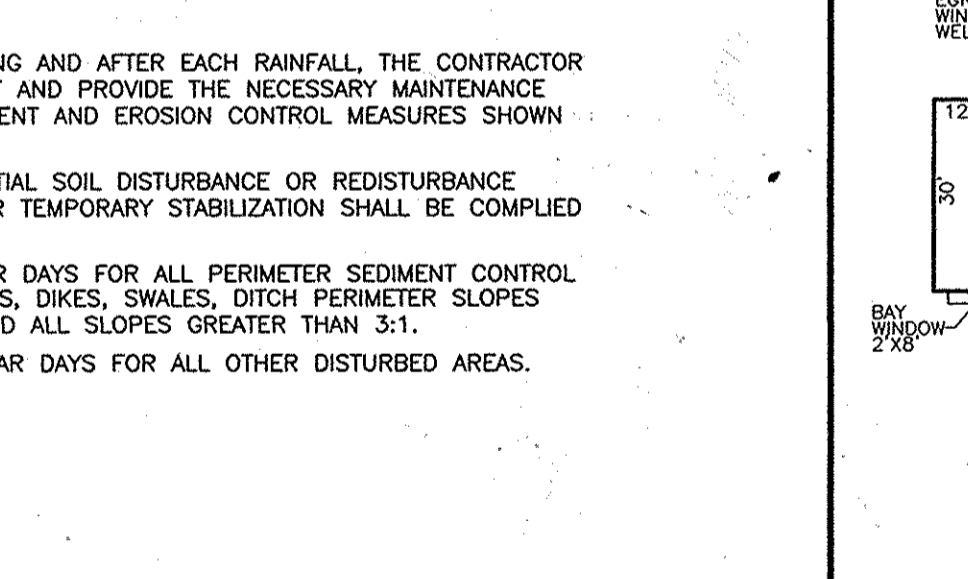
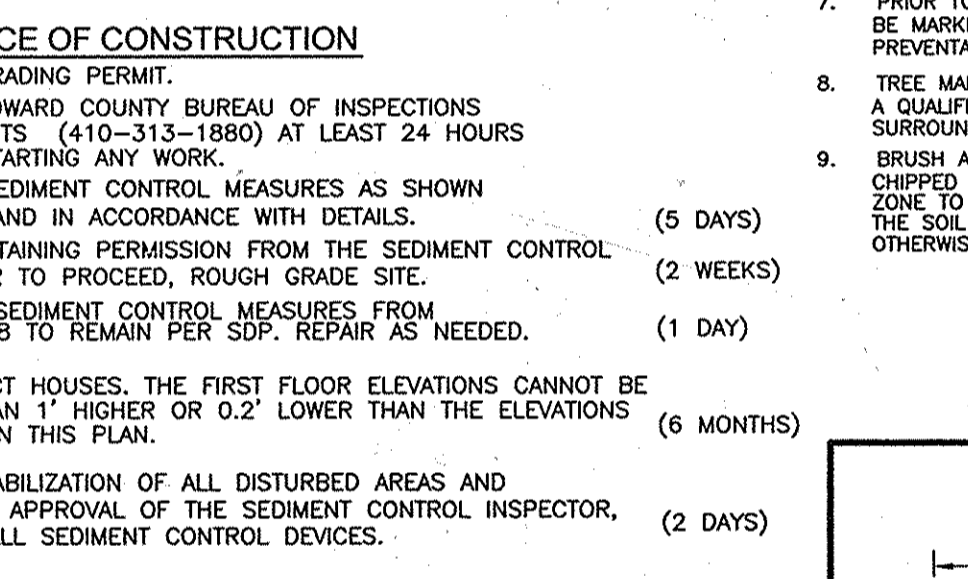
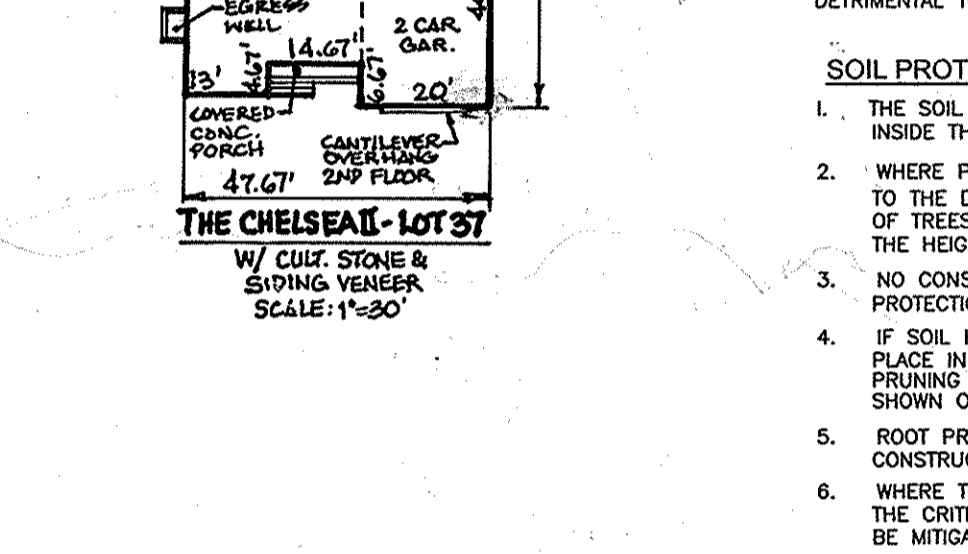
PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT 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 CONTINUOUS 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.
- 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.
- THE SOILS TO BE VEGETATED MUST BE UNIFORMELY 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.
- TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

SOIL PROTECTION ZONE NOTES

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



PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LEIVED 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:

- 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 UREAPFORM FERTILIZER (9 LBS./1000 SQ.FT.)
- ACCEPTABLE-APPLY 2 TONS PER ACRE DOLOMITIC 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 (0.5 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 SOIL. OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW MULCH IMMEDIATELY AFTER SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

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 216 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 (0.7 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 SOIL.

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 216 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 SPECIFIED IN THIS PLAN.

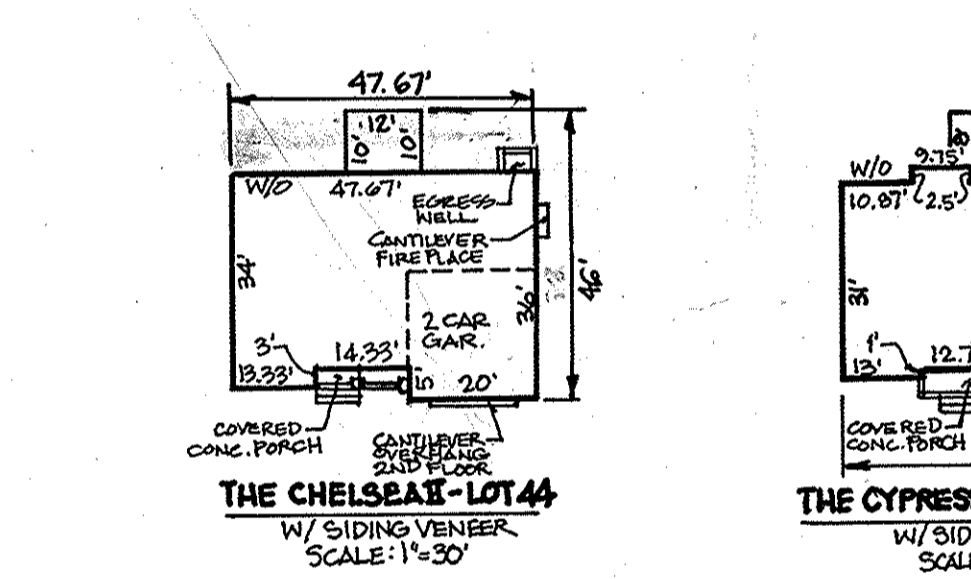
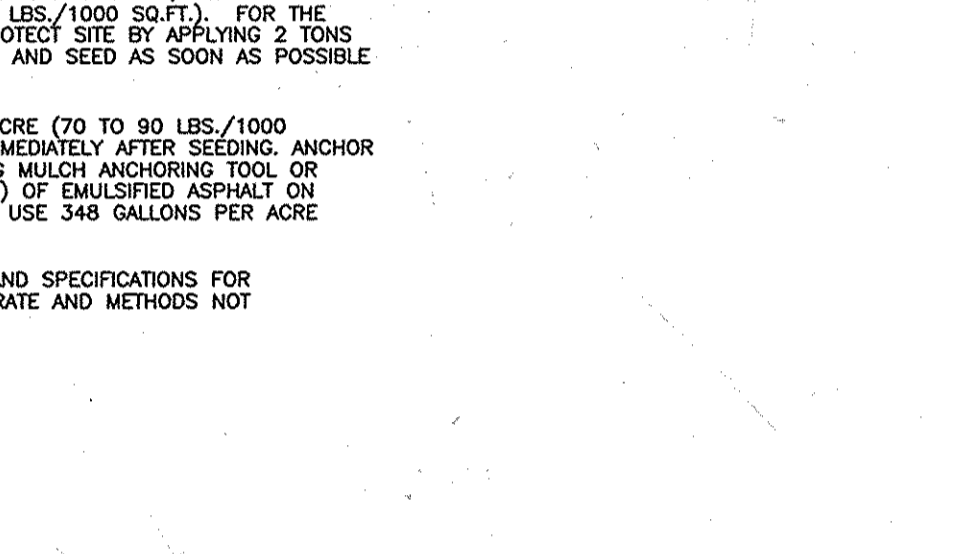
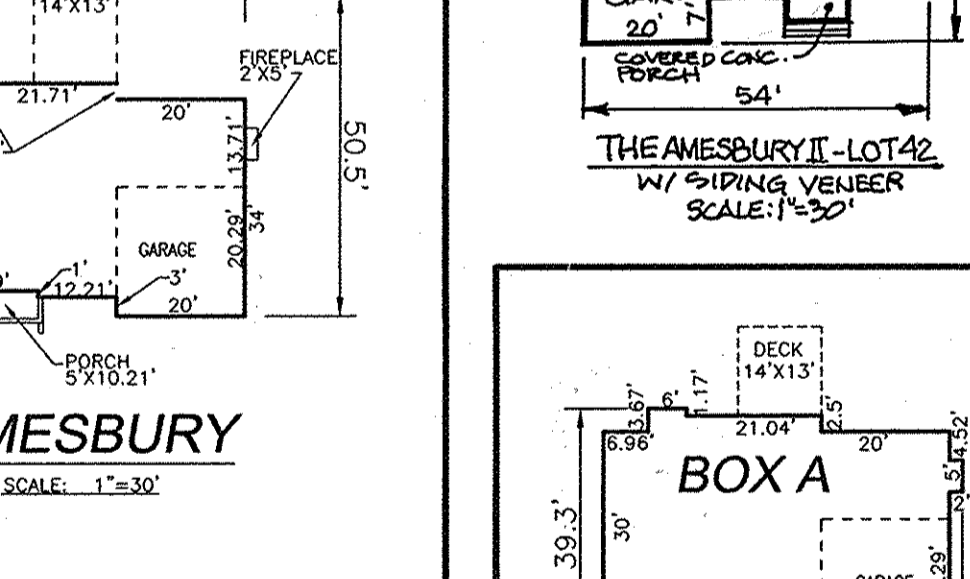
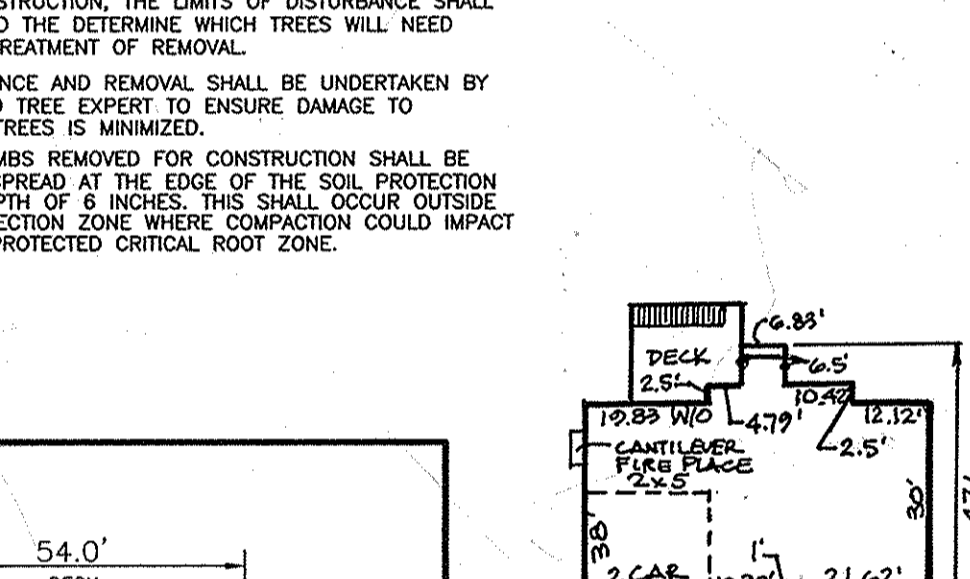
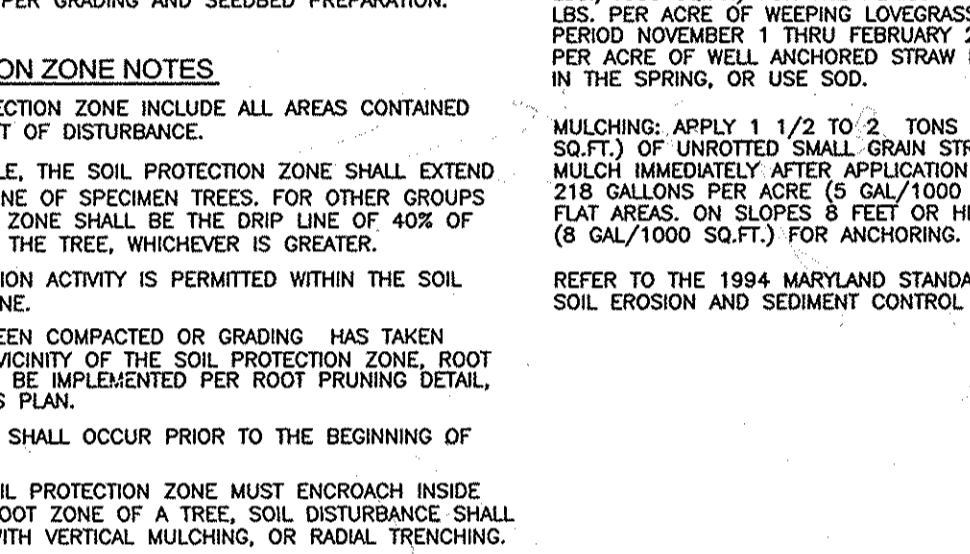
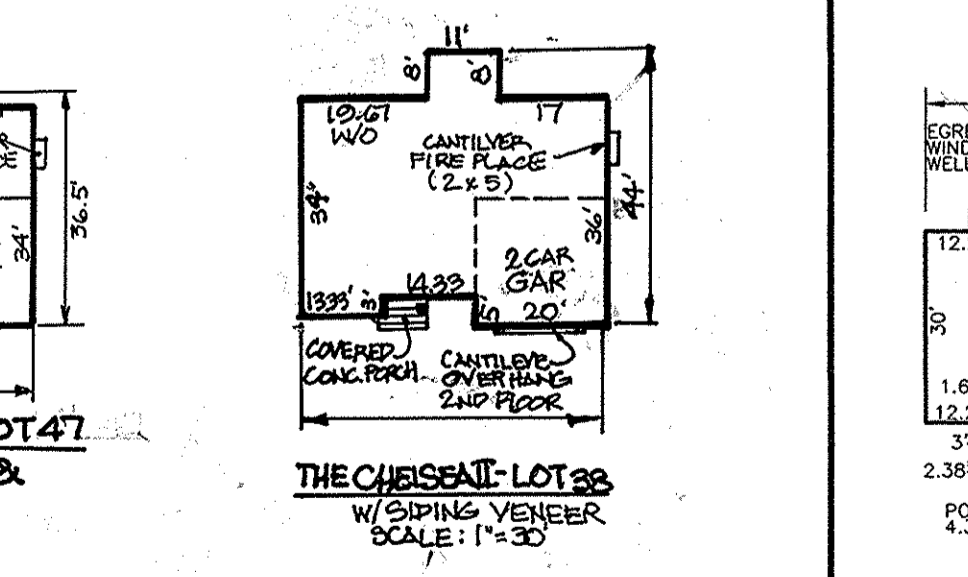
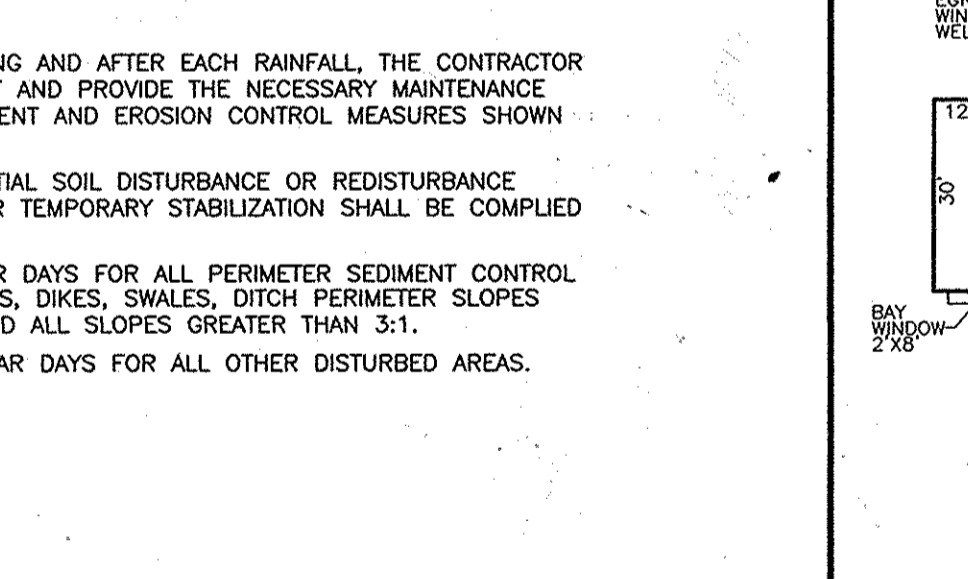
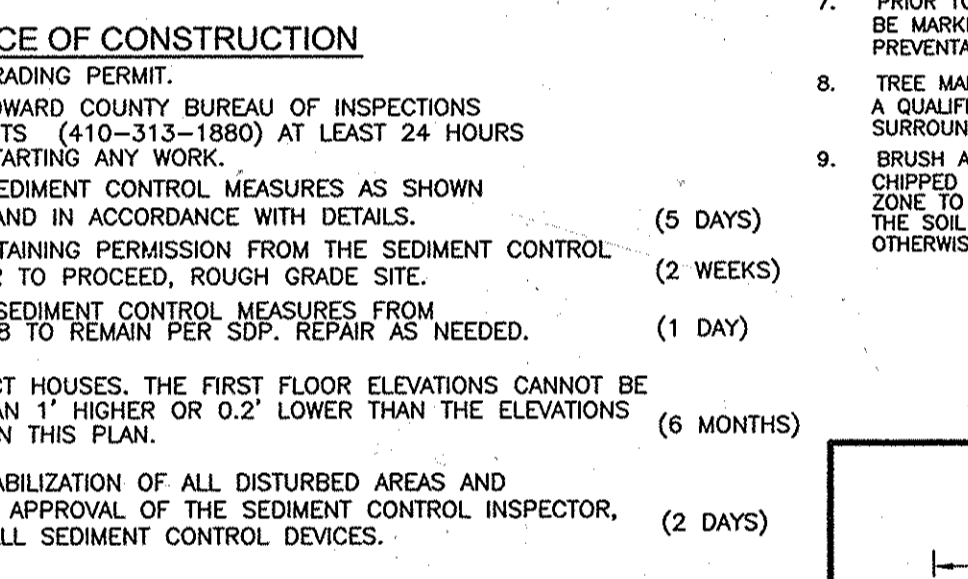
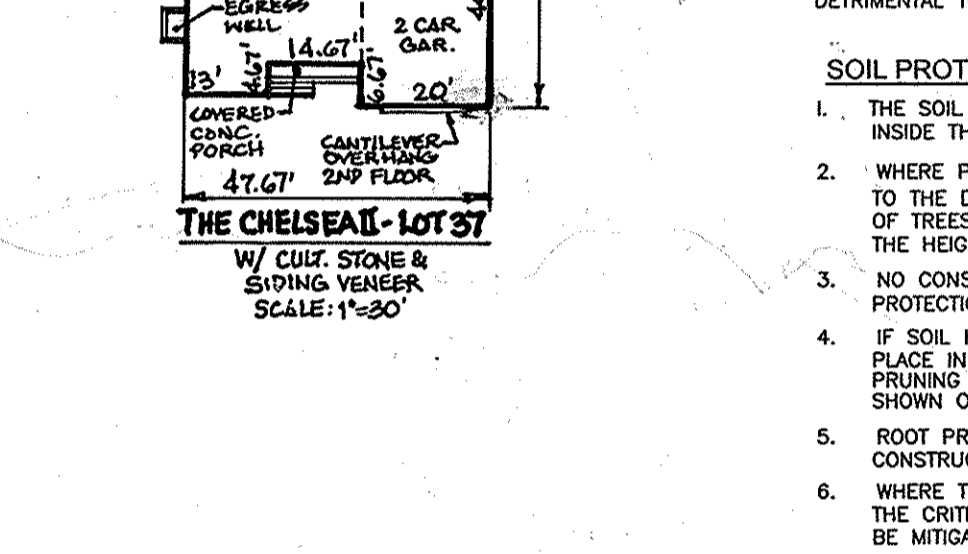
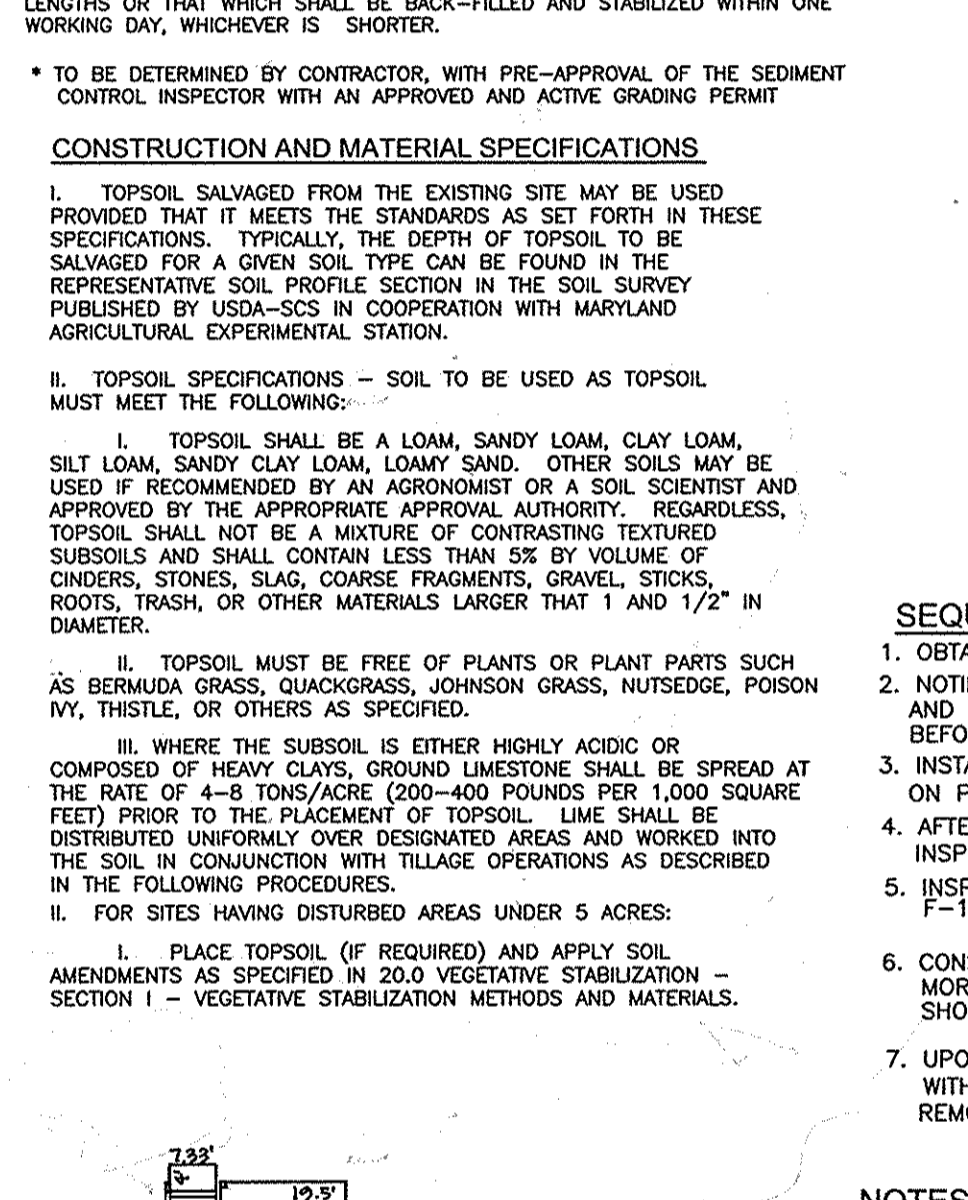
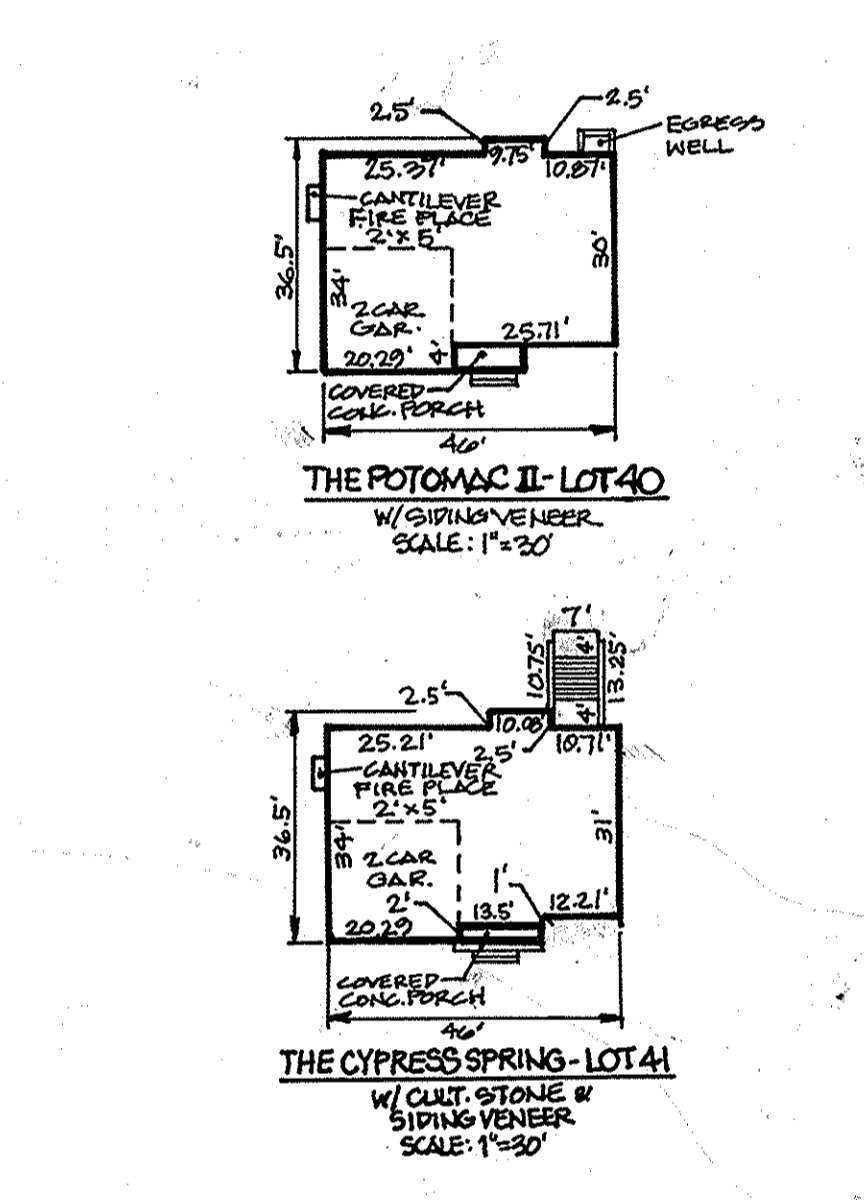
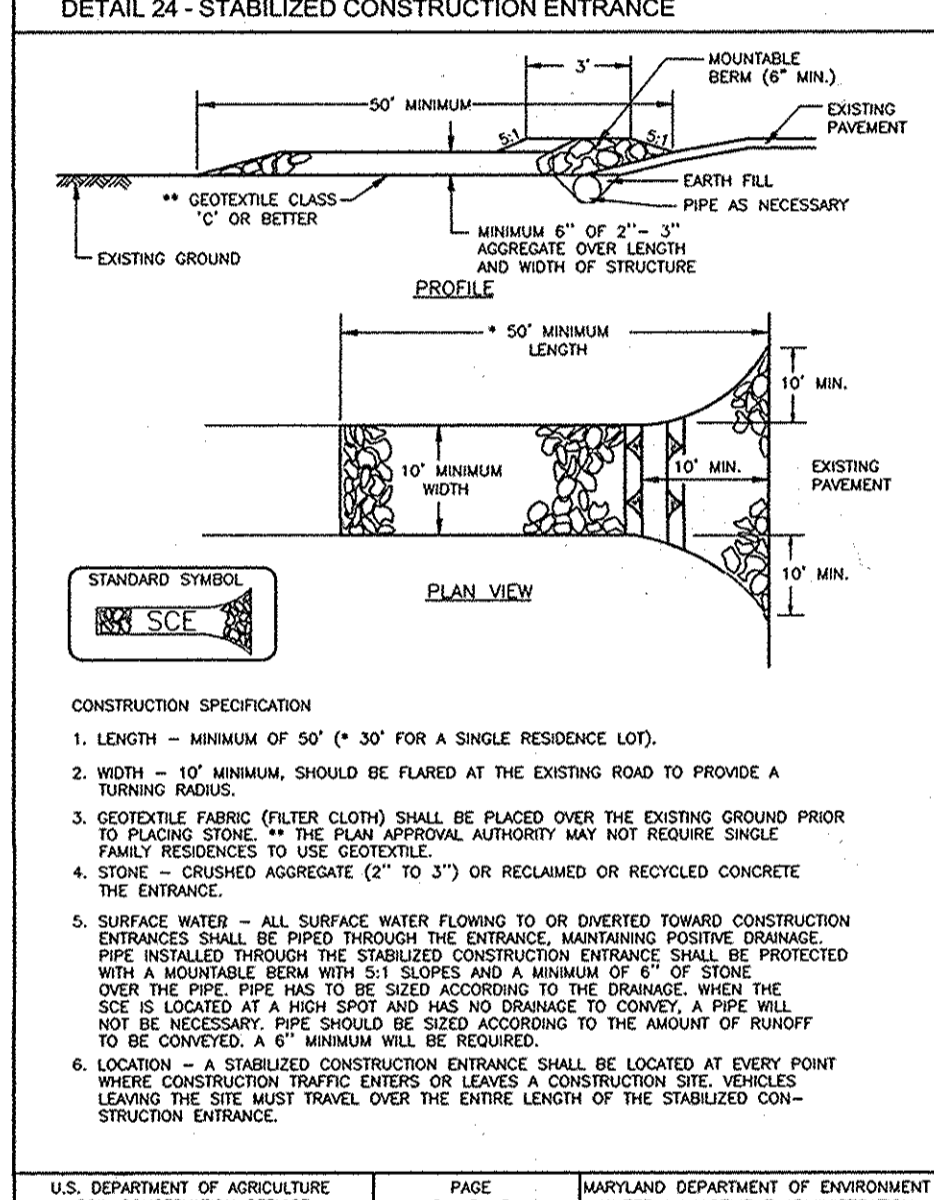
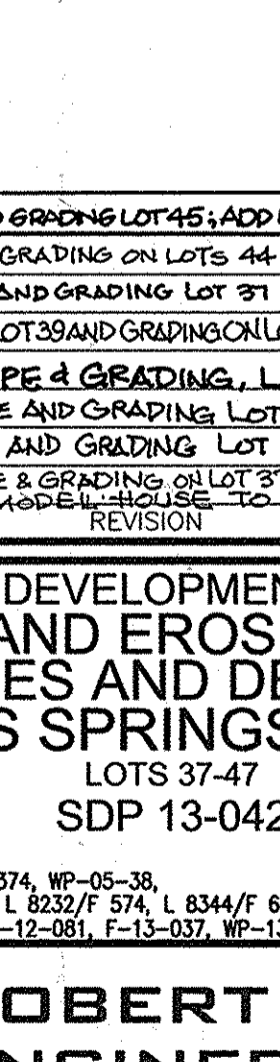
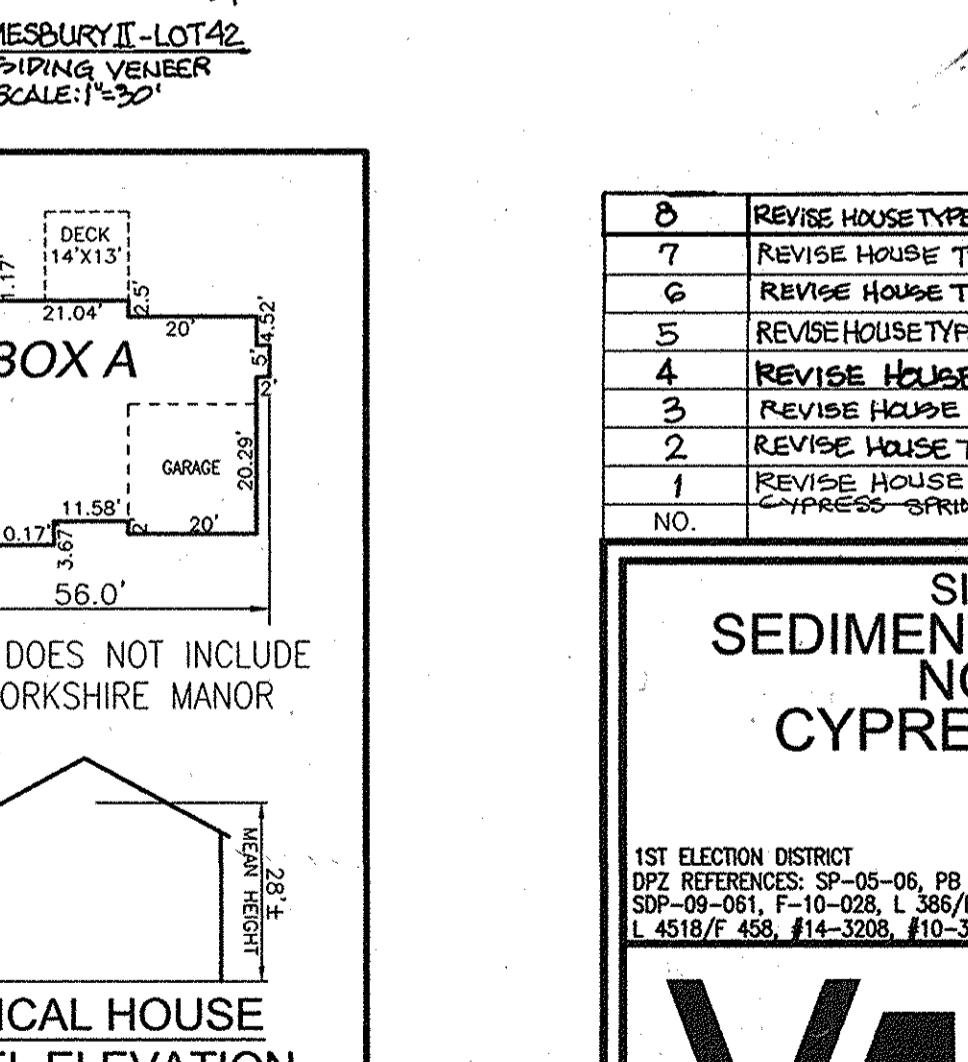
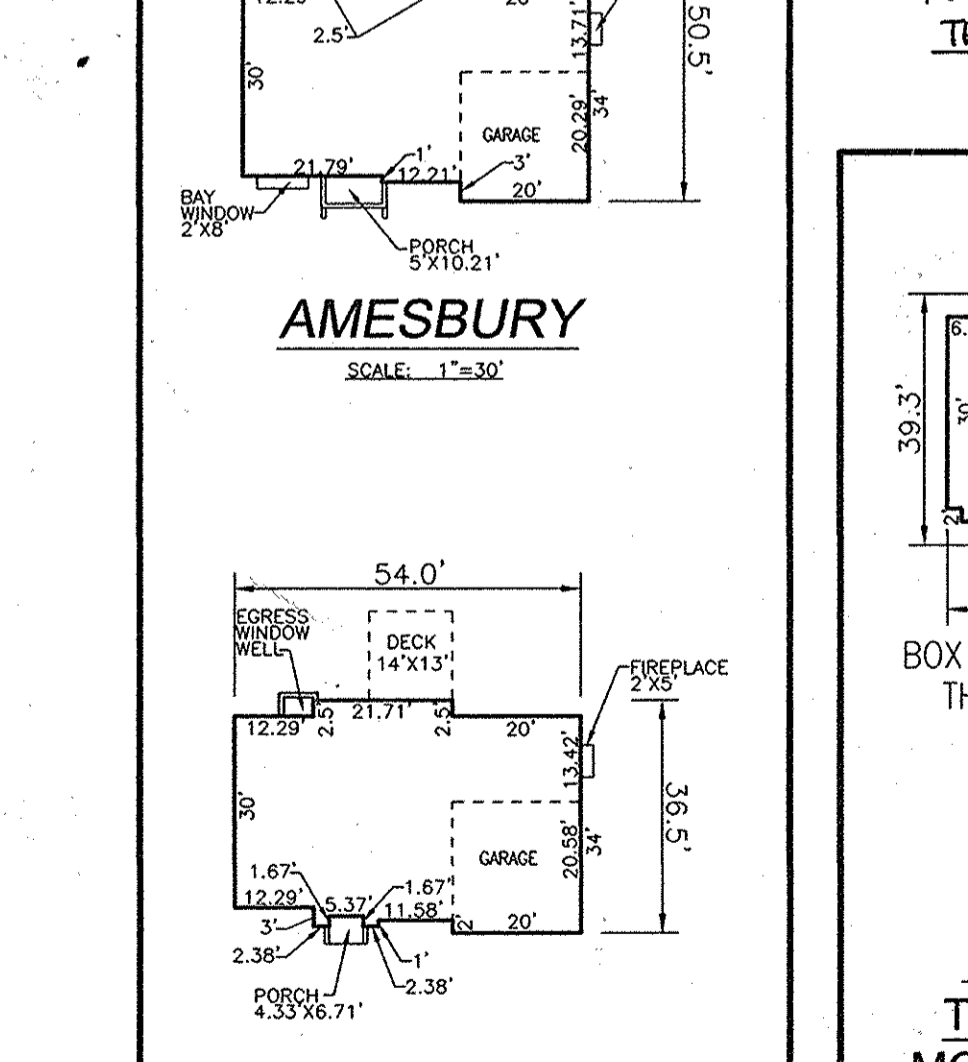
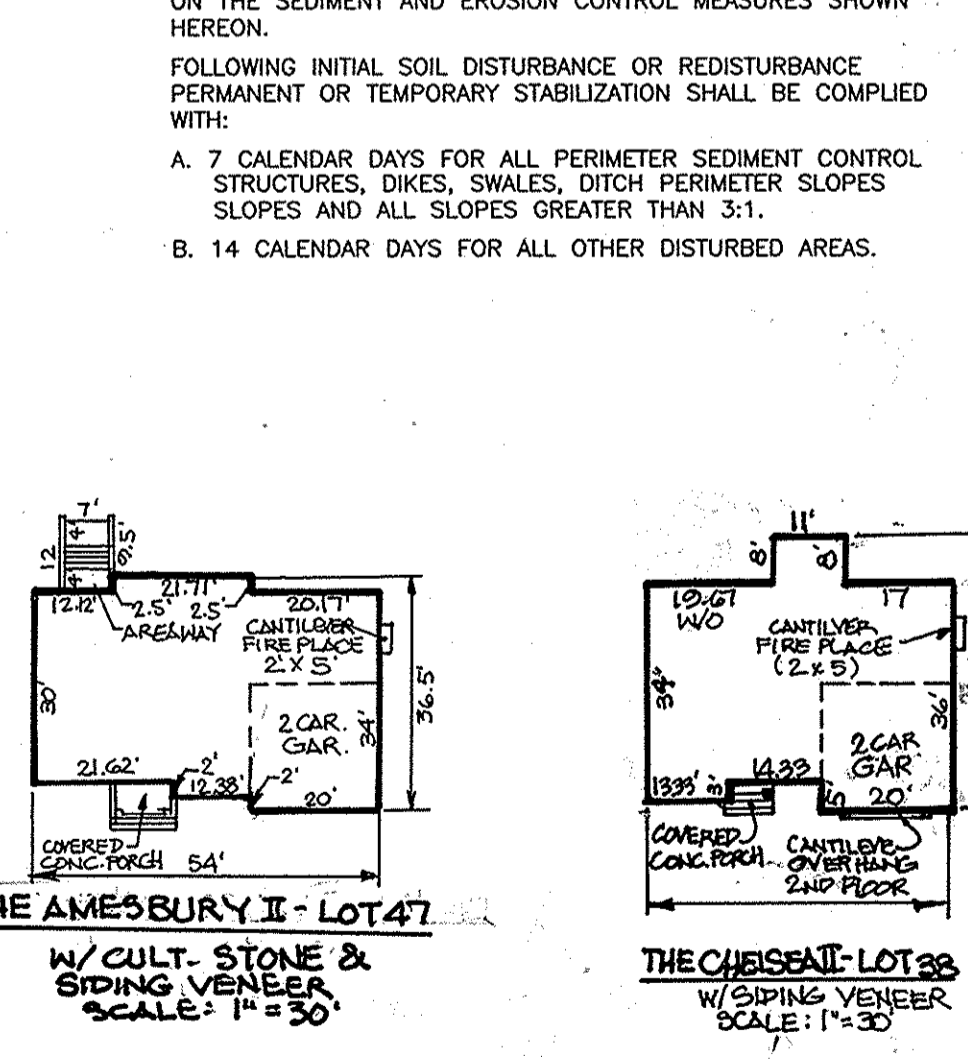
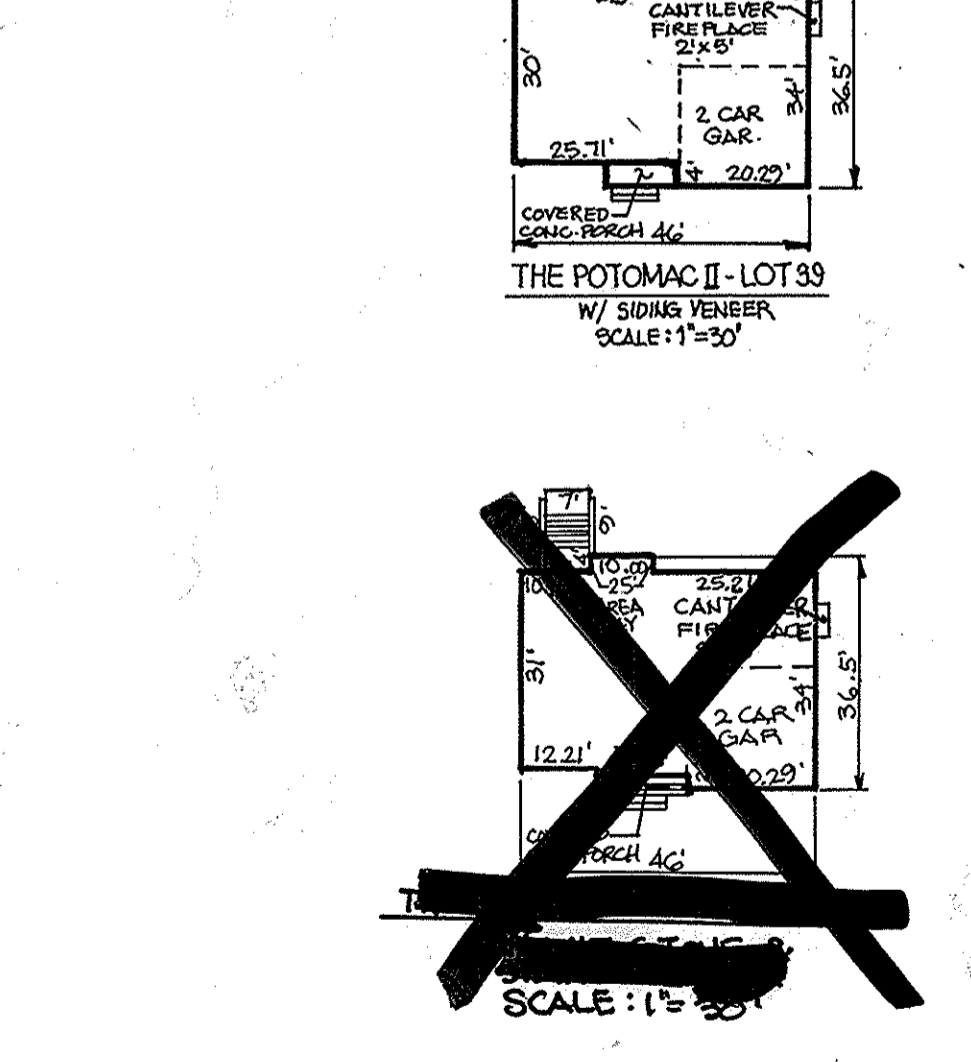


Table B.1: Temporary Seeding for Site Stabilization

Plant Species	Seeding Rate ^a		Seeding Depth (inches)	Recommended Seeding Dates by Plant Hardiness Zone ^b		
	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 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
Darley (<i>Lolium perenne</i>)	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
Orchard (<i>Lolium perenne</i>)	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
Wharf (<i>Lolium perenne</i>)	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
Cherry (<i>Lolium perenne</i>)	112	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
Warm-Season Grasses						
Proctor Millet (<i>Setaria italica</i>)	30	0.7	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14
Pearl Millet (<i>Pennisetum glaucum</i>)	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.
2. 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 small-seeded grasses (annual ryegrass, proctor millet, setaria italica), do not exceed more than 25% dry weight of the overall permanent seed mix rate. Seed mixtures should be tested for seed viability and adjusted accordingly. For other temporary seedings, consult the manufacturer's recommendations.
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.
4. Data are the recommended nurse crop for warm-season grasses.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
12/16/13

Chief, Division of Land Development
1-28-14

Director
1/2/14

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

BY THE DEVELOPER:
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THE PERMITS AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE COURSE OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING CONSTRUCTION. I HAVE BEEN PRESENT AT ON-SITE INSPECTION BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Signature: Michael P. Row
Date: 11/25/13

BY THE ENGINEER:
I HEREBY 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 COUNTY DEPARTMENT OF PLANNING AND ZONING.

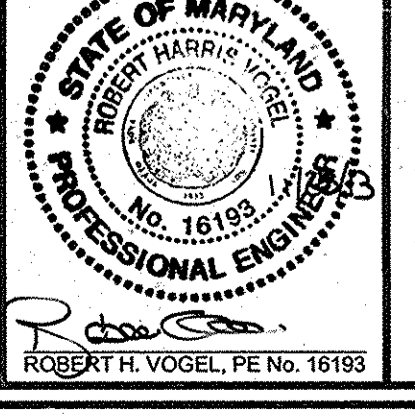
Signature: Robert H. Vogel
Date: 11/25/13

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

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

DESIGN BY: JTO
DRAWN BY: JER
CHECKED BY: RMV
DATE: NOVEMBER 2013
SCALE: AS SHOWN
W.O. NO.: 04-30

4 SHEET OF 5



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

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*),
- henbit (*Genista sp.*)
- redtop (*Agrostis gigantea*)
- wild onion (*Allium canadense*)
- wild garlic (*Allium vineale*),
- bindweed (*Calystegia sp.*),
- codder (*Cuscuta sp.*),
- Bermuda grass (*Cynodon dactylon*),
- orchardgrass (*Dactylis glomerata*),
- tall fescue (*Festuca arundinacea*)
- meadow fescue (*Festuca pratensis*)
- velvetgrass (*Holcus lanatus*),
- annual bluegrass (*Poa annua*),
- rough bluegrass (*Poa trivialis*)
- timothy (*Phleum pratense*), and
- Johnson grass (*Sorghum 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 species:

*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 sp.*), Canada thistle (*Cirsium arvense*), plantain thistle (*Carduus sp.*), includes musk thistle and cutleaf 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.

MAA SEED MIXTURES	APPROVED PLANT SPECIES		
	Purity* Not Less Than %	Minimum % Germination*	Pure Live Seed Factor
Certified Turf-Type Tall Fescue (<i>Festuca arundinacea</i>)	98	90	1.13
Certified Kentucky Bluegrass (<i>Poa pratensis</i>)	90	80	1.39
Hard Fescue (<i>Festuca longifolia</i>)	98	90	1.13
Chewings Red Fescue (<i>Festuca rubra commutata</i>)	98	90	1.13
Perennial Ryegrass (<i>Lolium perenne</i>)	95	85	1.24
Perennial Ryegrass (<i>Lolium multiflorum</i>)	90	80	1.39
Fowl Meadow Grass (<i>Poa pulchra</i>)	90	80	1.39
Lime Bluestem (<i>Hydrocotyle repens</i>)	62	94	1.71

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, percentage of purity, germination rate and 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 - wetland areas 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 PLS/acre)
85% Certified Turf-Type Tall Fescue	192
10% Certified Kentucky Bluegrass	24
5% Perennial Ryegrass	18
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 Fahrenheit (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.

TEMPORARY SEEDING

Lime:	100 pounds of dolomite 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-278 Construction Specifications. All other fills shall be compacted sufficiently so as to be stable and prevent erosion and slippage.

SODDING

Installation of sod shall 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 setting. 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.

HCSO/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.

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

ANY DEVIATION TO PLANT SPECIES AND VEGETATION USED ON THESE PLANS NEED APPROVAL FROM HCSO. PLANT SPECIES USED ON THIS SITE ARE TO AVOID ITS POTENTIAL TO ATTRACT WILDLIFE THAT COULD POSE STRIKE HAZARD TO AIRCRAFT.

- BWI AIRPORT NOISE ZONE:
THE SITE FOR THIS PROJECT IS LOCATED OUTSIDE THE BOUNDARIES OF THE AIRPORT NOISE ZONE.
- THE ALLOWABLE HEIGHT FOR ANY PERMANENT OR TEMPORARY STRUCTURES TALLER THAN 277 FEET ABOVE MEAN SEA LEVEL NEED OBSTRUCTION ANALYSIS REVIEW AND PERMIT FROM THE AIRPORT ZONE.
- 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.

OWNER / DEVELOPER / CONTRACT PURCHASER
TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.
2675 PARK AVENUE, SUITE 301
ELLCOTT CITY, MARYLAND 21043
(410) 480-0023

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN

HCSO/MAA NOTES & DETAILS

CYPRESS SPRINGS - PHASE 3

LOTS 37-47
SDP 13-042

1ST ELECTION DISTRICT
REFERENCES: SDP-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
ELLCOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

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.

5 SHEET OF 5

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Paul Phelan 12.16.13
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Keith Schuler 1-28-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark A. Vogel 1/28/14
DIRECTOR DATE