

**GENERAL NOTES**

- 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.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON AN AERIAL TOPOGRAPHIC SURVEY PREPARED BY POTOMAC AERIAL SURVEYS, DATED JANUARY 2004.
- 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.
- 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. 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.
- 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 WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE TO ALL UTILITIES.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- SHC ELEVATIONS ARE LOCATED AT THE PROPERTY LINE.
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.03.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - WIDTH - 12 FEET (16 FEET IF SERVING MORE THAN ONE RESIDENCE)
  - SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TACK AND CHIP COATINGS (1-1/2" MIN.)
  - GEOMETRY - MAXIMUM 4% GRADE CHANGE, AND MAXIMUM 45 FOOT TURNING RADIUS
  - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING)
  - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
  - STRUCTURE CLEARANCES - MINIMUM 12 FEET
- MAINTENANCE SURFACES TO INSURE ALL WEATHER USE
- 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
  - ATLANTIC TELEPHONE CO. 1-800-257-7777
  - HOWARD COUNTY BUREAU OF UTILITIES 313-2366
  - VEHICLE INSURANCE CO. 850-4620
  - B.G.S.E. CO. CONTRACTOR SERVICES 850-4620
  - B.G.S.E. CO. UNDERGROUND DAMAGE CONTROL 787-4920
  - HIGHWAY ADMINISTRATION 313-2366
- THE SUBJECT PROPERTY IS ZONED R-ED PER THE 02/02/2004 COMPREHENSIVE ZONING PLAN, AND THE COMPREHENSIVE LITE ZONING AMENDMENTS 07/28/2006.
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED APRIL 2004.
- THIS SITE IS LOCATED IN THE LAWYERS HILL NATIONAL REGISTER DISTRICT.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL/CEMETERY LOCATIONS ON SITE.
- INGRESS AND EGRESS IS RESTRICTED ALONG WASHINGTON BOULEVARD (U.S. ROUTE 1).
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS SITE.
- WATER AND SEWER FOR THIS PROJECT WILL BE PUBLIC.
- AN "OBVIOUSLY NOT CRITICAL" FLOODPLAIN STUDY WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING INC., DATED JANUARY 2003.
- 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.
- A FOREST STAND DELINEATION PLAN WAS PREPARED BY JOHN CANOLES, ECO-SCIENCE PROFESSIONALS, DATED SEPTEMBER 2004.
- 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-09-081 (FOREST RETENTION BANK, TRINITY HOMES AT CYPRESS SPRINGS LLC).
- 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. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$19,200.00 FOR THE REQUIRED 51 SHADE TREES AND 26 EVERGREEN TREES, AND APPROVED UNDER F-10-028.
- PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(c)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$34,875.00 HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THE REQUIRED 93 STREET TREES, AND APPROVED UNDER F-10-028.
- A NOISE STUDY WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING INC., DATED SEPTEMBER 2004.
- 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.
- TREE PROTECTION FENCING WILL BE PROVIDED AT THE LIMITS OF DISTURBANCE WHERE GRADING IS PROPOSED ADJACENT TO ENVIRONMENTAL AREAS.
- 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.
- 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.
- THIS PROJECT IS SUBJECT TO PLANNING BOARD CASE NO. 374, WHICH WAS APPROVED ON MAY 11, 2006.
- PHASE II CONTAINS NINETEEN LOTS. ALL NINETEEN LOTS ARE ALLOCATED UNDER PHASE II.
- NON-BUILDABLE BULK PARCELS E-F WILL BE RE-SUBDIVIDED INTO BUILDABLE LOTS AND WHICH SHALL BE INCLUDED AS PART OF THE NEXT PHASE (PHASE III).
- THIS PLAN HAS BEEN REVIEWED AND APPROVED BY THE MARYLAND AVIATION ADMINISTRATION.
- AN MDE WETLAND PERMIT IS REQUIRED FOR THE DISTURBANCE SHOWN ON THIS PLAN.
- MDE TRACKING #201060035. NO IN-STREAM CONSTRUCTION MAY OCCUR FROM 03/01 TO 06/15.
- 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.
- 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.

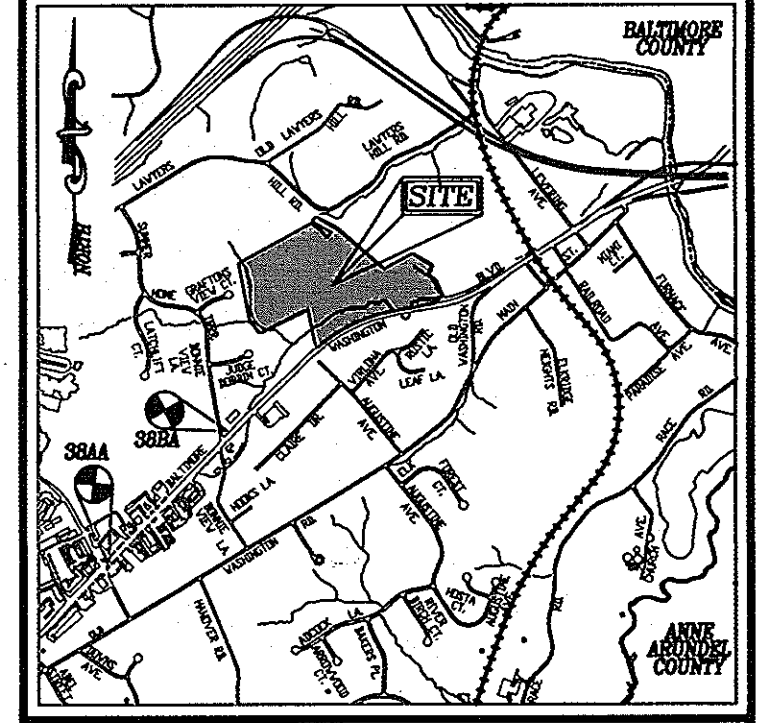
# SITE DEVELOPMENT PLAN CYPRESS SPRINGS - PHASE 2 LOTS 18-36

**COORDINATE TABLE**

NO.	NORTHING	EASTING
3	564760.135	1392088.448
4	564760.135	1391895.566
12	563610.281	1391793.164
13	563590.786	1391707.352
22	563535.216	1391816.884
23	563440.835	1391500.085
24	563414.360	1392700.058
25	563391.587	1393120.116
26	563227.816	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	1393041.874
33	563810.082	1393041.750
36	563376.074	1391926.082
39	564727.387	1391870.794
40	564694.867	1391844.488
41	564548.931	1392010.381
42	564621.405	1392074.890
63	564720.714	1392988.008
74	563775.025	1391882.874
134	563720.041	1391710.361
135	564282.244	1391768.435
140	563577.703	1392822.538
214	564379.434	1392986.138
262	564271.543	1393006.744

**LEGEND**

- RIGHT-OF-WAY BOUNDARY LINE
- ADJACENT BOUNDARY LINE
- EXISTING CENTERLINE STREAM
- EXISTING STREAM BANK BUFFER
- EXISTING WETLANDS BUFFER
- EXISTING WETLANDS
- EXISTING REVERSIBLE SLOPE EASEMENT (SDP-04-01)
- EX. FOREST CONSERVATION EASEMENT (RETENTION/SDP-09-081)
- EX. VARIABLE WIDTH PUBLIC WATER AND UTILITY EASEMENT (L 3200 / F 410)
- EX. PUBLIC SANITARY PLAT #11174
- PROP. 15' PRIVATE WALL MAINTENANCE AND ACCESS EASEMENT (PLAT #11174)
- PROP. PUBLIC STORMWATER MANAGEMENT EASEMENT
- PROP. PUBLIC DRAINAGE 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

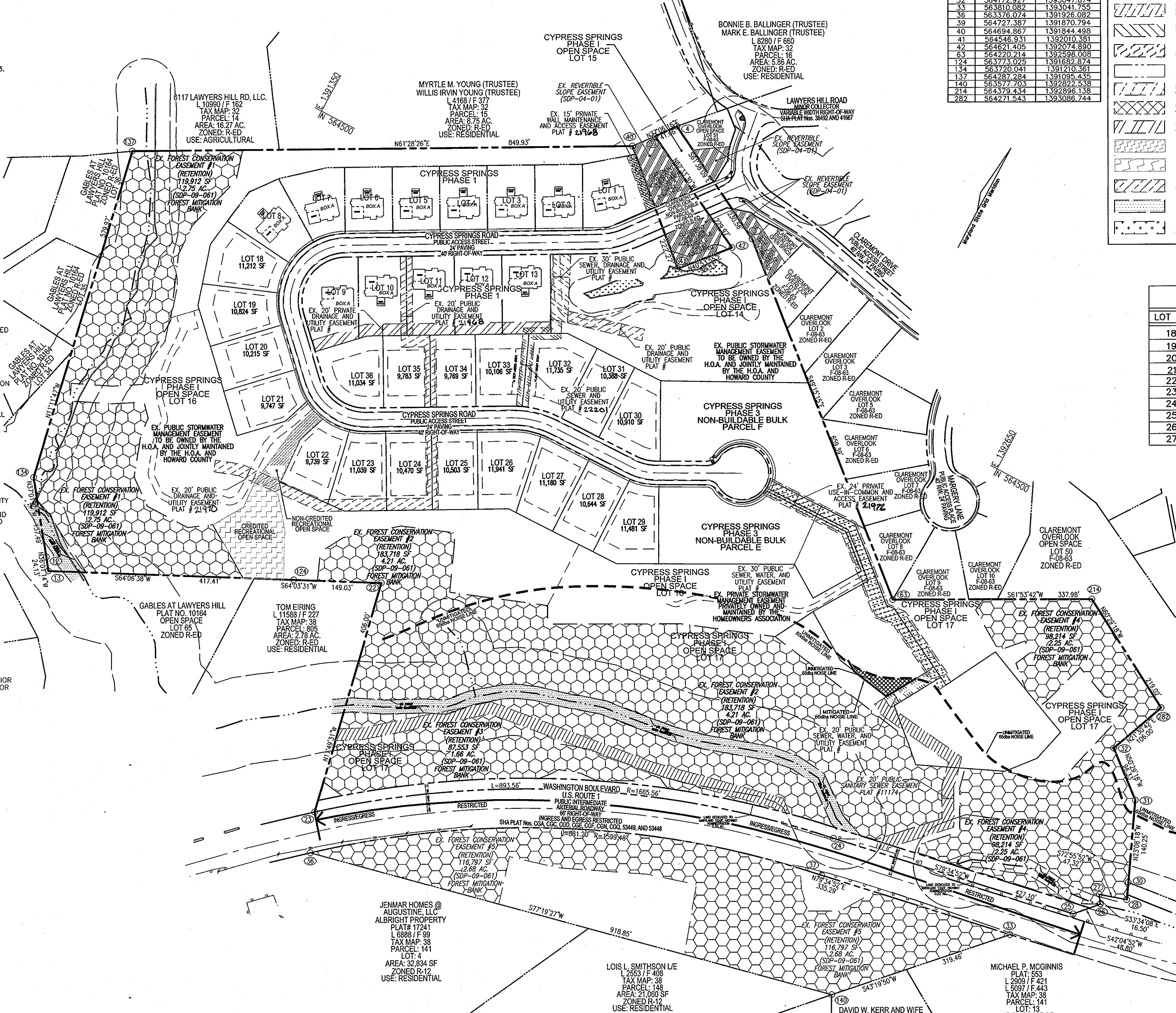


**VICINITY MAP**  
SCALE: 1"=2000'  
ADC MAP COORDINATE: PAGE 4937 E6+F6

**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 MONTGOMERY 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 MONTGOMERY RD. AND U.S. ROUTE 1, 9.5' FROM THE SOUTH BOUND LANE OF U.S. ROUTE 1.



**ADDRESS CHART**

LOT NO.	STREET ADDRESS	LOT NO.	STREET ADDRESS
18	5940 CYPRESS SPRINGS ROAD	28	5984 CYPRESS SPRINGS ROAD
19	5944 CYPRESS SPRINGS ROAD	29	5988 CYPRESS SPRINGS ROAD
20	5948 CYPRESS SPRINGS ROAD	30	5992 CYPRESS SPRINGS ROAD
21	5952 CYPRESS SPRINGS ROAD	31	5996 CYPRESS SPRINGS ROAD
22	5956 CYPRESS SPRINGS ROAD	32	5974 CYPRESS SPRINGS ROAD
23	5960 CYPRESS SPRINGS ROAD	33	5978 CYPRESS SPRINGS ROAD
24	5964 CYPRESS SPRINGS ROAD	34	5972 CYPRESS SPRINGS ROAD
25	5972 CYPRESS SPRINGS ROAD	35	5976 CYPRESS SPRINGS ROAD
26	5976 CYPRESS SPRINGS ROAD	36	5980 CYPRESS SPRINGS ROAD
27	5980 CYPRESS SPRINGS ROAD		

**SHEET INDEX**

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

**PERMIT INFORMATION CHART**

SUBDIVISION NAME	SECTION/ AREA
CYPRESS SPRINGS	PHASE II
LOT/ PARCELS	42, 44, 45 & 46
PLAT REF. #	2.2.2.01 - 2.2.2.03
BLOCK NO.	3
ZONE	R-ED
TAX MAP	38
ELECT. DIST.	1
CENSUS TR.	6012.01

**SITE DEVELOPMENT PLAN  
COVER SHEET  
CYPRESS SPRINGS - PHASE 2  
LOTS 18-36**

1ST ELECTION DISTRICT  
DPZ REFERENCES: SP-05-06, PB CASE 374, WP-05-38,  
SDP-09-081, F-10-028, L 3867/F 688, L 8232/F 574,  
L 8344/F 670, L 4518/F 458, L 14-3205, L 10-3391, L 12-081.

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  
840 MAIN STREET, SUITE 21043 TEL: 410-461-7666  
ELICOTT CITY, MD 21043 FAX: 410-461-8961

DESIGN BY: JTD  
DRAWN BY: KGC  
CHECKED BY: RHV  
DATE: AUGUST 2012  
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. 21438  
EXPIRATION DATE: 12-16-2012

1 SHEET OF 5

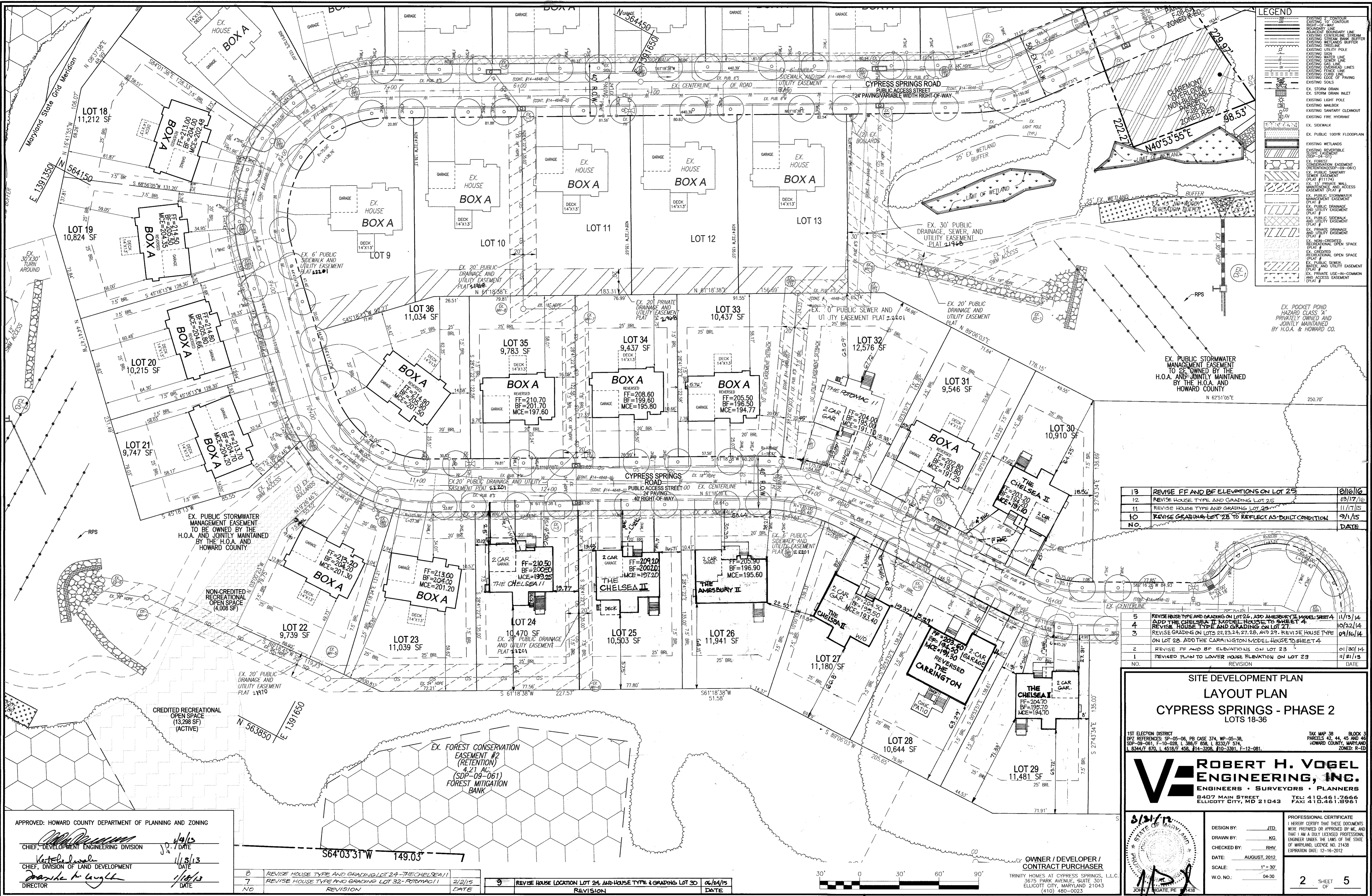
**APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING**

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* 1/4/13  
CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* 1/18/13  
DIRECTOR: *[Signature]* 1/16/13

**SITE DATA**

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  
AREA OF BUILDABLE LOTS: AREA OF LOTS 4.65 AC  
NUMBER OF LOTS/ PARCELS PROPOSED: 19 BUILDABLE LOTS  
PROPOSED USE: SINGLE FAMILY DETACHED  
LIMIT OF DISTURBED AREA: 4.00 AC

**LOCATION MAP**  
SCALE: 1"=100'



**LEGEND**

- EXISTING 2" CONTOUR
- EXISTING 10' CONTOUR
- EXISTING ADJACENT BOUNDARY LINE
- EXISTING ADJACENT STREAM
- EXISTING STREAM BANK BUFFER
- EXISTING TREELINE
- EXISTING UTILITY POLE
- EXISTING SIGN
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING OVERHEAD LINES
- EXISTING FENCE LINE
- EXISTING CURB LINE
- EXISTING SIDEWALK
- EXISTING SOILS
- EX. STORM DRAIN
- EX. STORM DRAIN INLET
- EXISTING LIGHT POLE
- EXISTING MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING FIRE HYDRANT
- EX. SIDEWALK
- EX. PUBLIC 100YR FLOODPLAIN
- EXISTING WETLANDS
- EXISTING REVERTIBLE (SDP-04-01)
- EX. FOREST CONSERVATION EASEMENT (RETENTION) (SDP-09-061)
- EX. PUBLIC SANITARY SEWER EASEMENT (PLAT #11174)
- EX. 15' PRIVATE WALL MAINTENANCE AND ACCESS EASEMENT (PLAT #)
- EX. PUBLIC STORMWATER MANAGEMENT EASEMENT (PLAT #)
- EX. PUBLIC DRAINAGE AND UTILITY EASEMENT (PLAT #)
- EX. PUBLIC SIDEWALK AND UTILITY EASEMENT (PLAT #)
- EX. PRIVATE DRIVEWAY AND UTILITY EASEMENT (PLAT #)
- EX. NON-CREDITED RECREATIONAL OPEN SPACE (PLAT #)
- EX. PUBLIC SEWER WATER AND UTILITY EASEMENT (PLAT #)
- EX. PRIVATE USE-IN-COMMON AND ACCESS EASEMENT (PLAT #)
- EX. POCKET POND, HAZARD CLASS A, PRIVATELY OWNED AND JOINTLY MAINTAINED BY H.O.A. & HOWARD CO.
- EX. PUBLIC STORMWATER MANAGEMENT EASEMENT TO BE OWNED BY THE H.O.A. AND JOINTLY MAINTAINED BY THE H.O.A. AND HOWARD COUNTY

NO.	REVISION	DATE
13	REVISE FF AND BF ELEVATIONS ON LOT 25	01/16/16
12	REVISE HOUSE TYPE AND GRADING LOT 25	03/17/16
11	REVISE HOUSE TYPE AND GRADING LOT 25	11/17/15
10	REVISE GRADING LOT 28 TO REFLECT AS-BUILT CONDITION	9/1/15

NO.	REVISION	DATE
5	REVISE HOUSE TYPE AND GRADING ON LOT 26, ADD AMESBURY II MODEL SHEET 4	11/13/14
4	ADD THE CHELSEA II MODEL HOUSE TO SHEET 4	10/22/14
3	REVISE HOUSE TYPE AND GRADING LOT 27	09/16/14
2	REVISE GRADING ON LOTS 24, 25, 27, 28, AND 29. REVISE HOUSE TYPE ON LOT 28. ADD THE CARRINGTON MODEL HOUSE TO SHEET 4	01/30/14
1	REVISED PLAN TO LOWER HOUSE ELEVATION ON LOT 23	11/21/13

**SITE DEVELOPMENT PLAN  
LAYOUT PLAN  
CYPRESS SPRINGS - PHASE 2  
LOTS 18-36**

1ST ELECTION DISTRICT: 092  
 092 REFERENCES: SP-05-06, PB CASE 374, WP-05-38, SDP-09-061, F-10-028, L-3023/F 374, L-8344/F 670, L-4518/F 458, H-4-3308, H-10-3381, F-12-081.

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

**ROBERT H. VOGEL  
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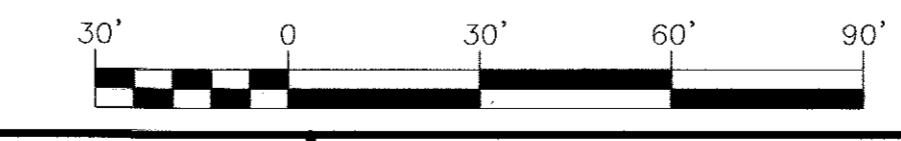
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 4/4/15  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 1/15/13  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 1/16/13  
 DIRECTOR DATE

NO.	REVISION	DATE
8	REVISE HOUSE TYPE AND GRADING LOT 24 - THE CHELSEA II	2/2/15
7	REVISE HOUSE TYPE AND GRADING LOT 32 - ROTOMAC II	2/2/15
9	REVISE HOUSE LOCATION LOT 24, AND HOUSE TYPE & GRADING LOT 30	06/04/15



OWNER / DEVELOPER / CONTRACT PURCHASER  
 TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.  
 3675 PARK AVENUE, SUITE 301  
 ELLICOTT CITY, MARYLAND 21043  
 (410) 468-0923

8/21/12

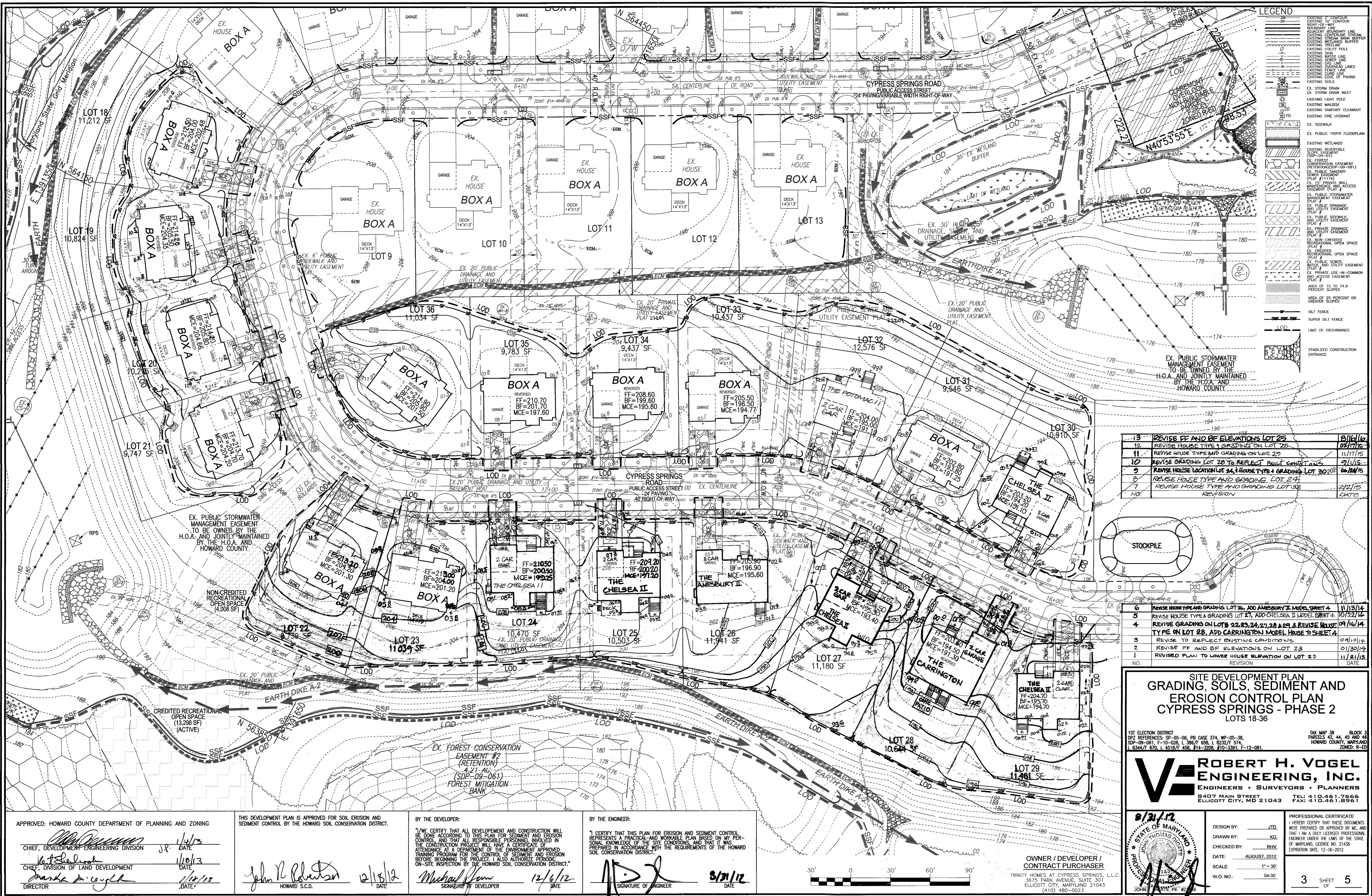
*[Professional Seal]*

DESIGN BY: JTD  
 DRAWN BY: JTD  
 CHECKED BY: RHV  
 DATE: AUGUST 2012  
 SCALE: 1" = 30'  
 W.O. NO.: 04-30

PROFESSIONAL CERTIFICATE  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21438 EXPIRATION DATE: 12-16-2012

2 SHEET OF 5

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**LEGEND**

- EXISTING 3" CONTOUR
- EXISTING 10' CONTOUR
- EXISTING 20' CONTOUR
- EXISTING 30' CONTOUR
- EXISTING 40' CONTOUR
- EXISTING 50' CONTOUR
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- EXISTING 80' CONTOUR
- EXISTING 90' CONTOUR
- EXISTING 100' CONTOUR
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- EXISTING 120' CONTOUR
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- EXISTING 920' CONTOUR
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- EXISTING 950' CONTOUR
- EXISTING 960' CONTOUR
- EXISTING 970' CONTOUR
- EXISTING 980' CONTOUR
- EXISTING 990' CONTOUR
- EXISTING 1000' CONTOUR

13	REVISE FF AND BF ELEVATIONS LOT 25	8/16/12
12	REVISE HOUSE TYPE & GRADING ON LOT 25	05/17/12
11	REVISE HOUSE TYPE AND GRADING ON LOT 29	11/17/11
10	REVISE GRADING LOT 24 TO REFLECT BUILT CONDITIONS	9/11/11
9	REVISE HOUSE LOCATION LOT 24, HOUSE TYPE & GRADING LOT 30	06/14/11
8	REVISE HOUSE TYPE AND GRADING LOT 24	01/11/11
7	REVISE HOUSE TYPE AND GRADING LOT 32	12/21/10
6	REVISION	
NO.	REVISION	DATE

6	REVISE HOUSE TYPE AND GRADING LOT 21, ADD AMESBURY II MODEL SHEET 4	11/13/12
5	REVISE HOUSE TYPE & GRADING LOT 21, ADD CHELSEA II MODEL SHEET 4	10/22/12
4	REVISE GRADING ON LOTS 22, 23, 24, 27, 28 & 29. REVISE HOUSE TYPE ON LOT 28, ADD CARRINGTON MODEL HOUSE TO SHEET 4	09/16/12
3	REVISE TO REFLECT EXISTING CONDITIONS	04/10/12
2	REVISE FF AND BF ELEVATIONS ON LOT 23	01/30/12
1	REVISED PLAN TO LOWER HOUSE ELEVATION ON LOT 23	11/21/11
NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN  
GRADING, SOILS, SEDIMENT AND  
EROSION CONTROL PLAN  
CYPRESS SPRINGS - PHASE 2  
LOTS 18-36**

1ST ELECTION DISTRICT  
DPZ REFERENCES: SP-05-06, PB CASE 374, WP-05-38,  
SP-05-01, F-10-028, L-10-028, L-10-028, L-10-028, L-10-028,  
L-8344/F 870, L-4518/F 458, F-14-3208, F-12-081.

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: 410.461.7866  
FAX: 410.461.8961

8/21/12

STATE OF MARYLAND  
JOHN W. YEMME, REGISTERED PROFESSIONAL ENGINEER  
NO. 11117

DESIGN BY: JTD  
DRAWN BY: KG  
CHECKED BY: RHV  
DATE: AUGUST 2012  
SCALE: 1" = 30'  
W.O. NO.: 04-30

PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS  
WERE PREPARED OR APPROVED BY ME, AND  
THAT I AM A FULLY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF THE STATE  
OF MARYLAND, LICENSE NO. 21438  
EXPIRATION DATE: 12-16-2012

3 SHEET OF 5

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
1/4/12  
10/1/12  
1/16/13

CHIEF, DIVISION OF LAND DEVELOPMENT  
1/16/13

DIRECTOR

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

HOWARD S.C.D.  
12/18/12

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.

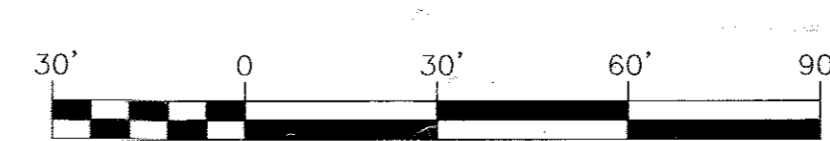
Michael Vow  
12/6/12

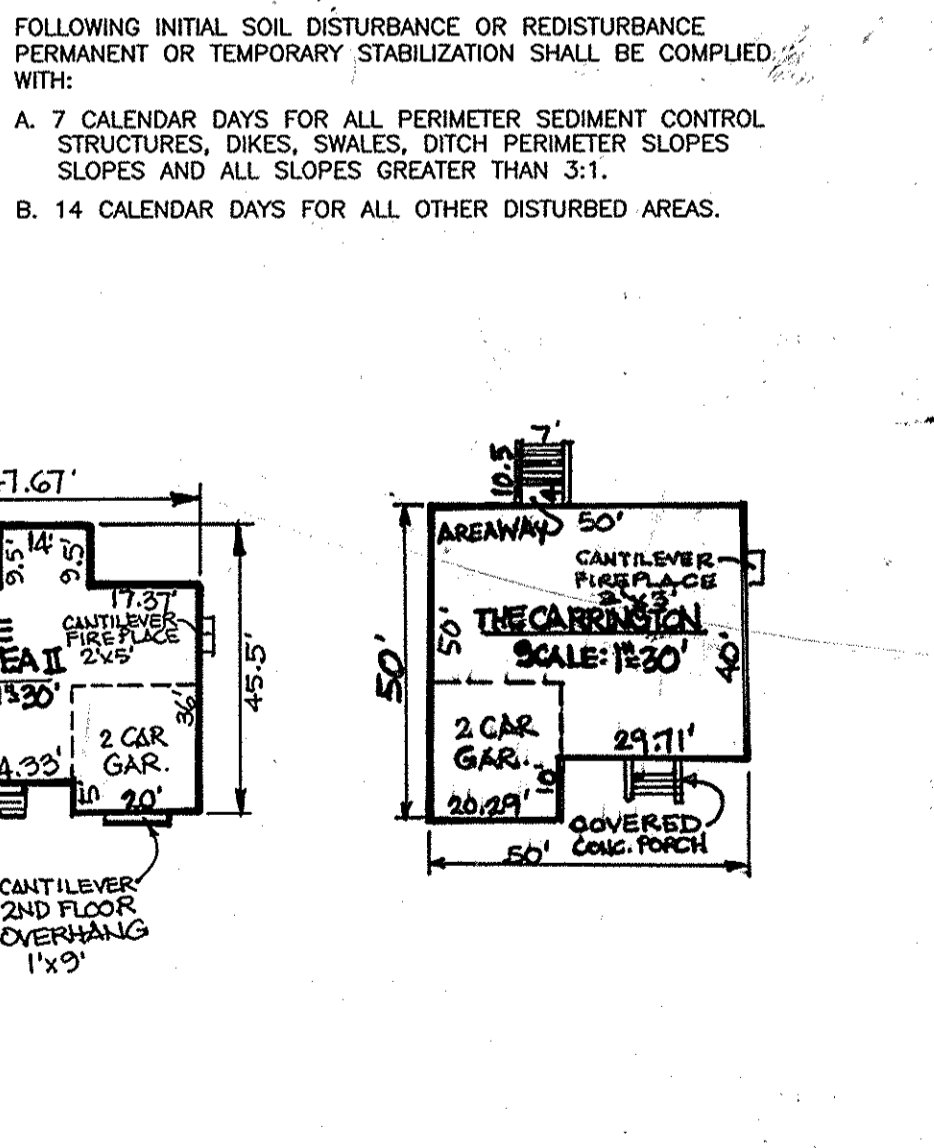
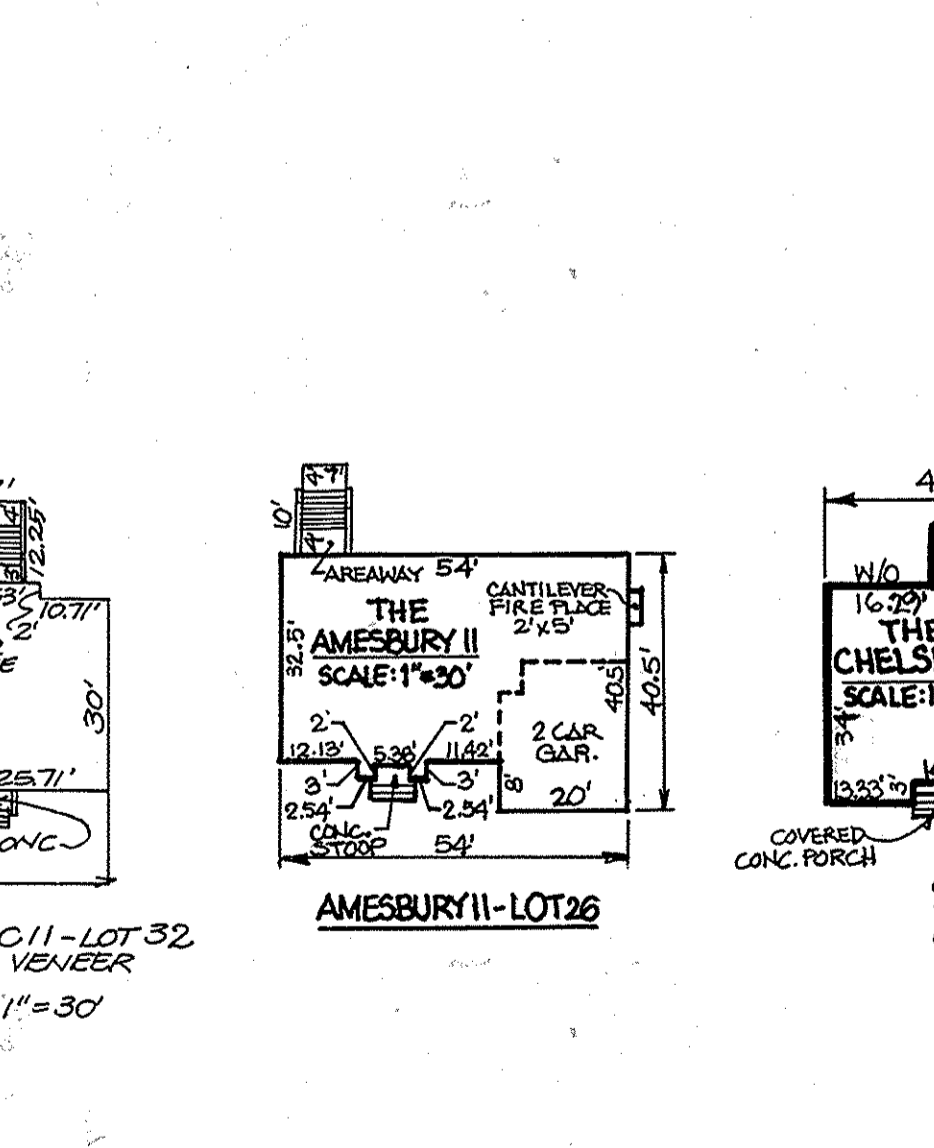
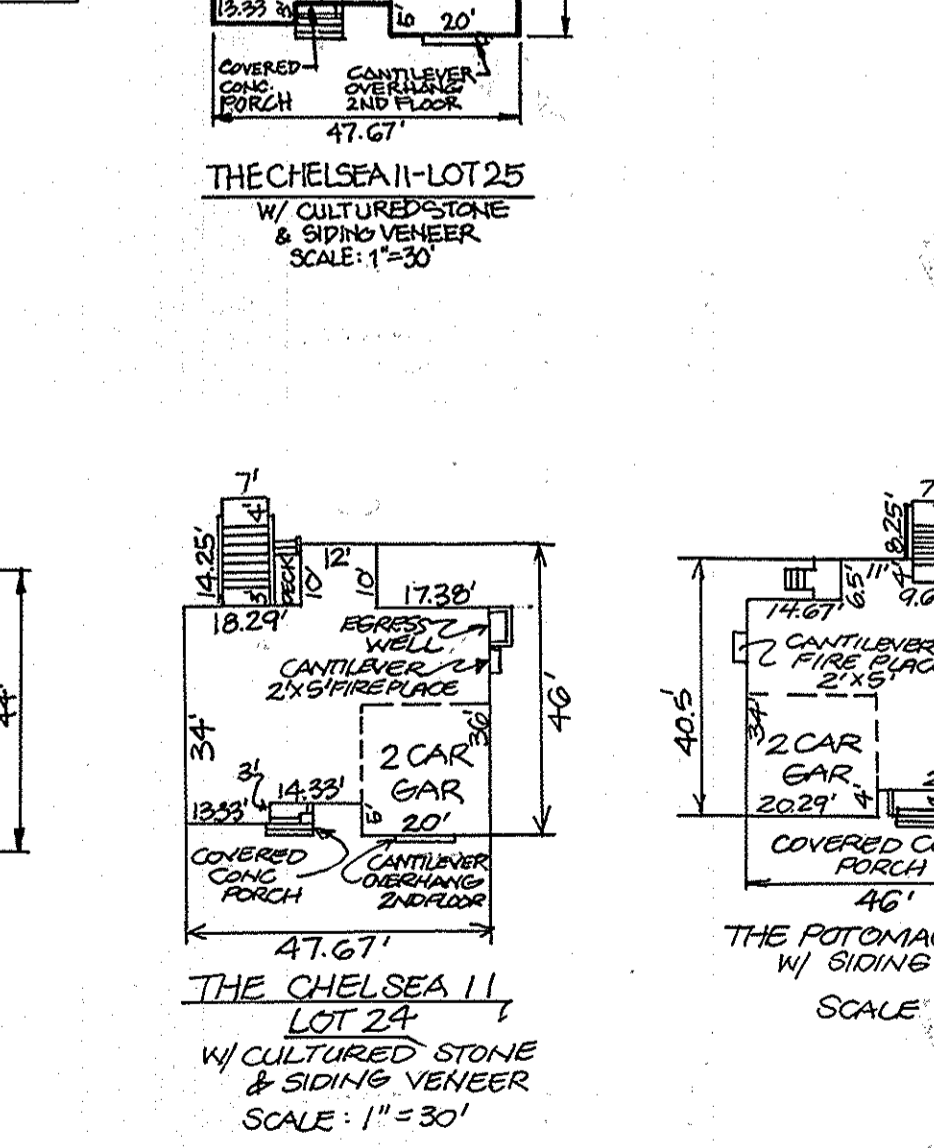
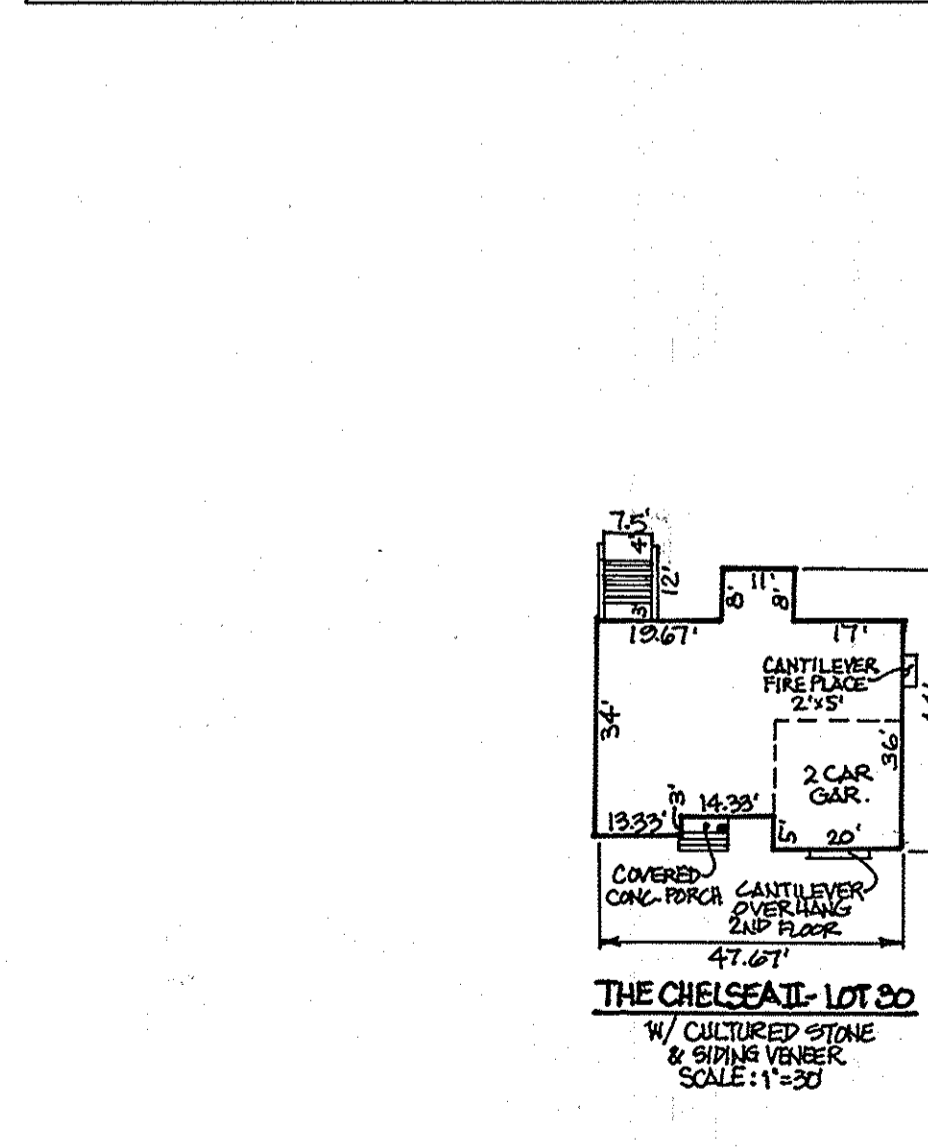
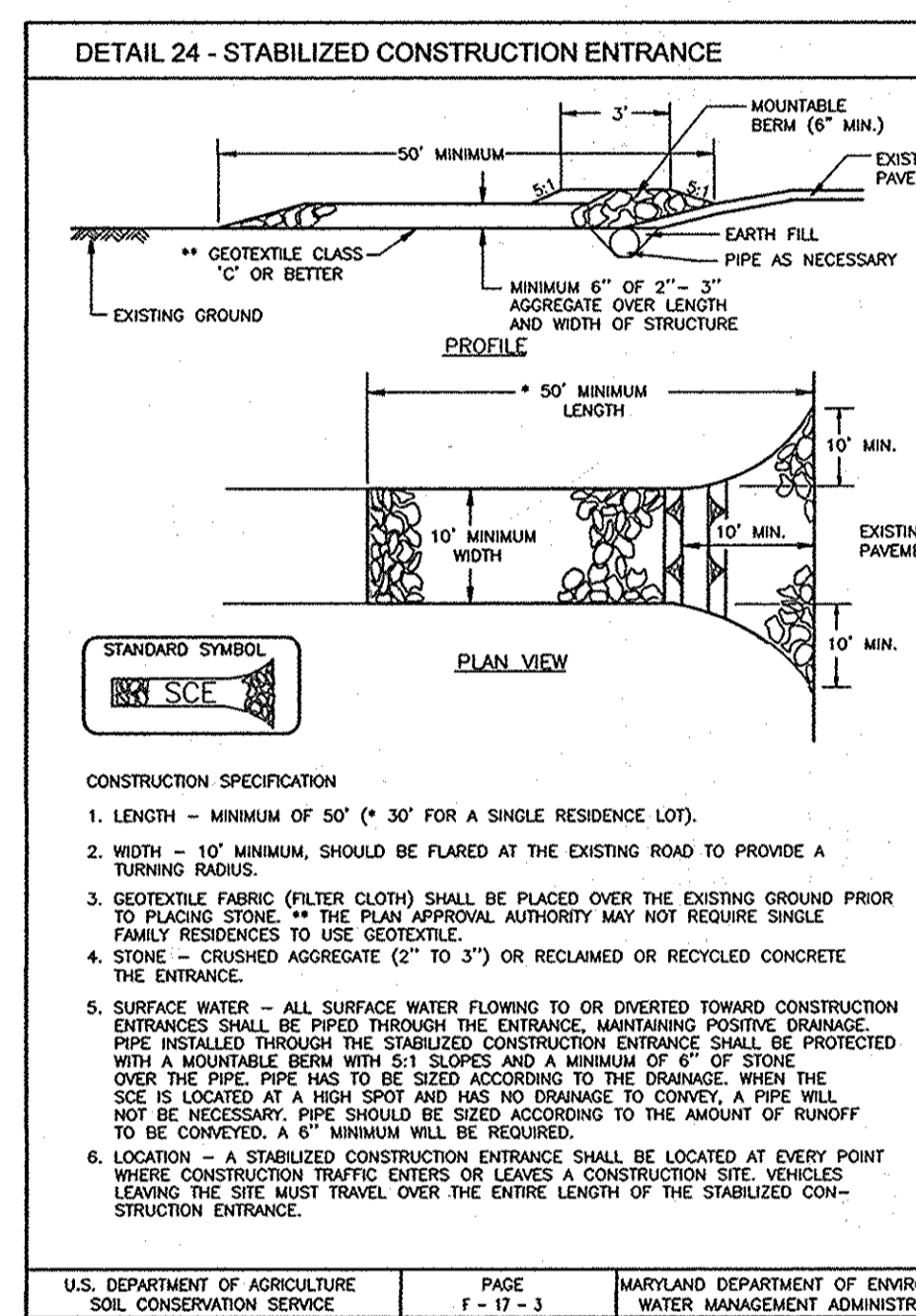
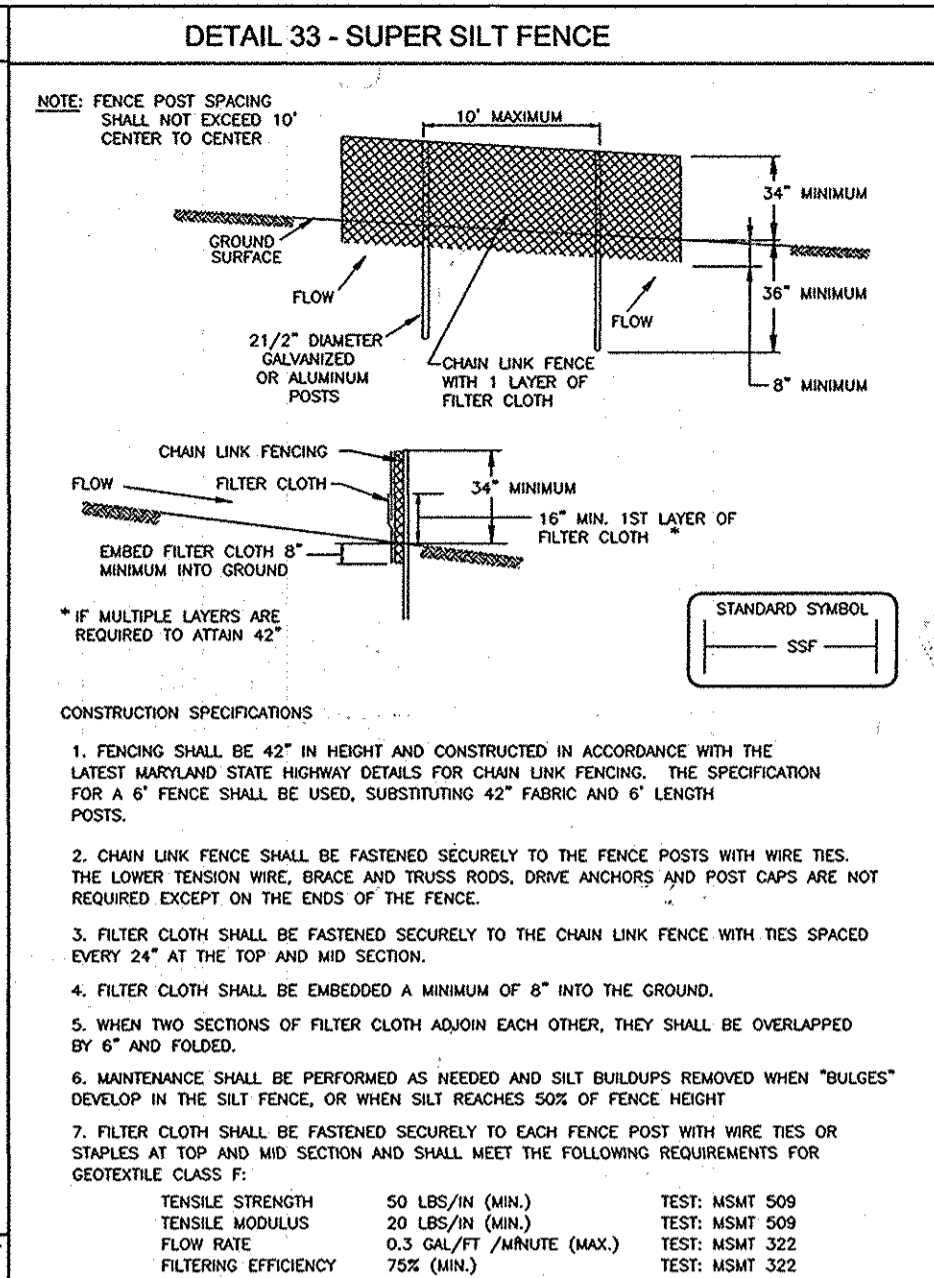
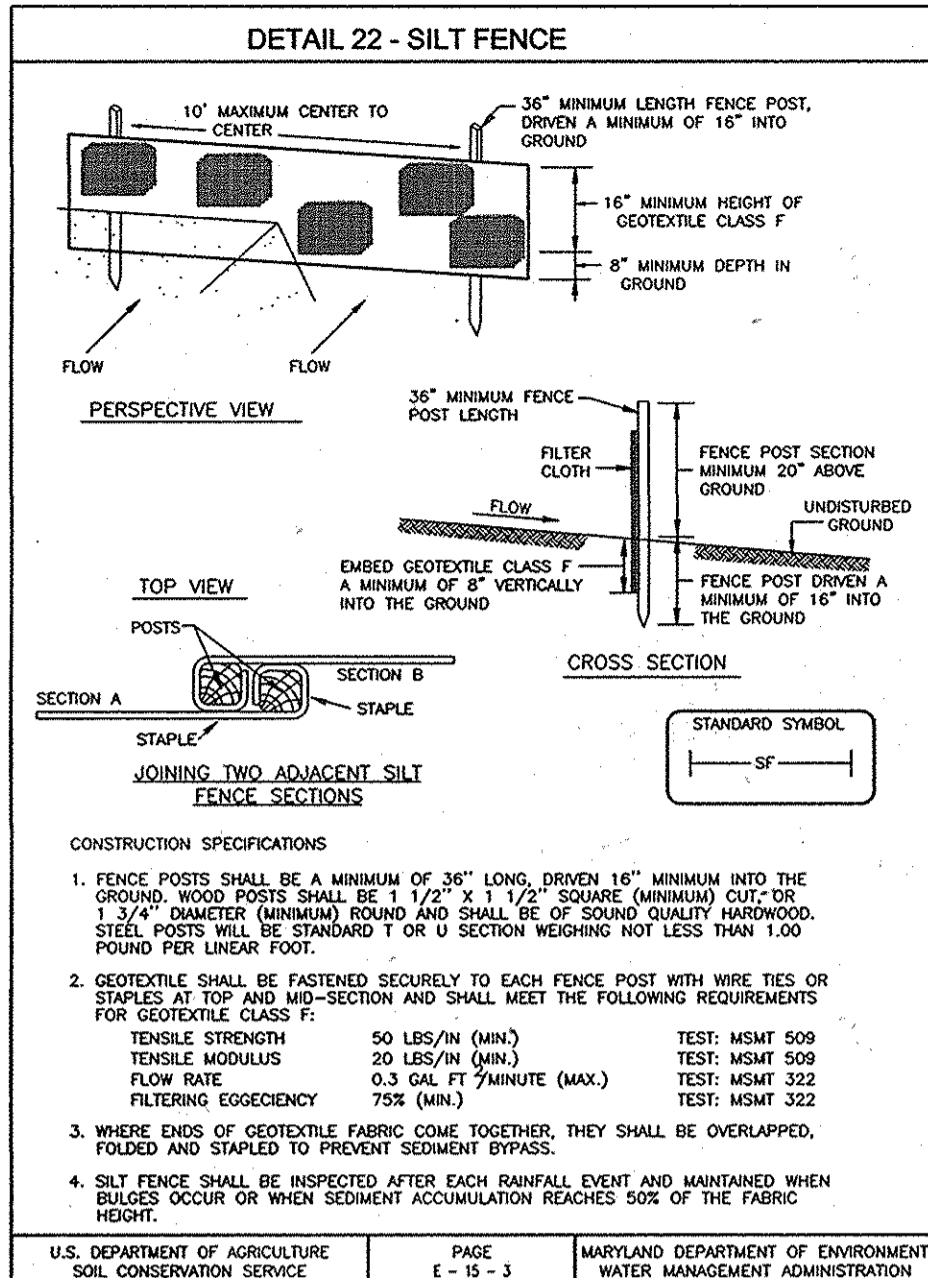
BY THE ENGINEER:

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.

8/21/12

OWNER / DEVELOPER / CONTRACT PURCHASER  
TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.  
3675 PARK AVENUE, SUITE 301  
ELLICOTT 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 DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (31-1855).
- 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.
- 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.
- 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. 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.
- SITE ANALYSIS:
 

TOTAL AREA	4.65 AC.
AREA DISTURBED	4.00 AC.
AREA TO BE ROOFED OR PAVED	1.10 AC.
AREA TO BE VEGETATIVELY STABILIZED	2.90 AC.
TOTAL CUT	1,850 CY
TOTAL FILL	4,850 CY
OFFSITE WASTE/BORROW AREA LOCATION	
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- 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

**CONSTRUCTION AND MATERIAL SPECIFICATIONS**

- 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.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
  - 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 CONCRETES, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 AND 1/2" IN DIAMETER.
  - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
  - 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.
- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
I">
  - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

**SEQUENCE OF CONSTRUCTION**

- OBTAIN GRADING PERMIT.
- NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410-313-1850) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
- INSTALL SEDIMENT CONTROL MEASURES AS SHOWN ON PLAN AND IN ACCORDANCE WITH DETAILS. (5 DAYS)
- AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED, ROUGH GRADE SITE. (2 WEEKS)
- INSPECT SEDIMENT CONTROL MEASURES FROM F-10-028 TO REMAIN PER FLOOR, REPAIR AS NEEDED. (1 DAY)
- 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)
- 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 COMPLETED WITHIN:
- 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SHALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
  - 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.

**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 CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
    - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO SOIL GROWTH.
    - THE SOIL IS SO ACHIDIC 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.
  - GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
  - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 6" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SOODING 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 WOODY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
  - TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR WOODY 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**

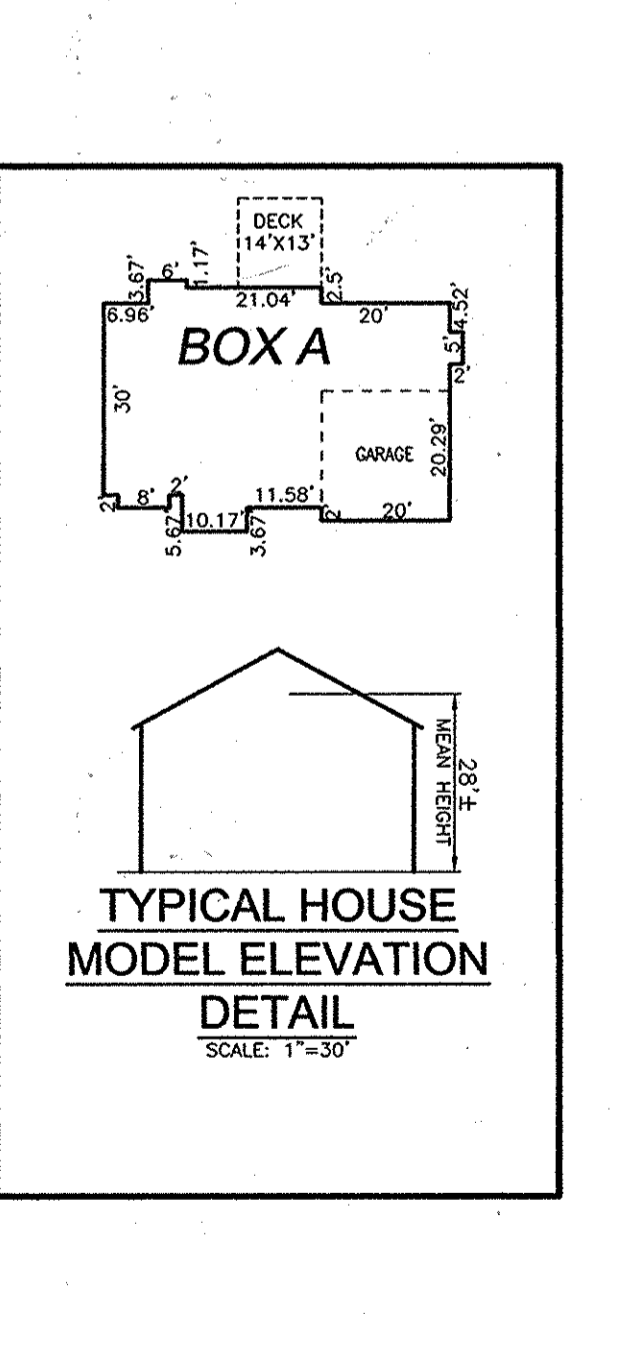
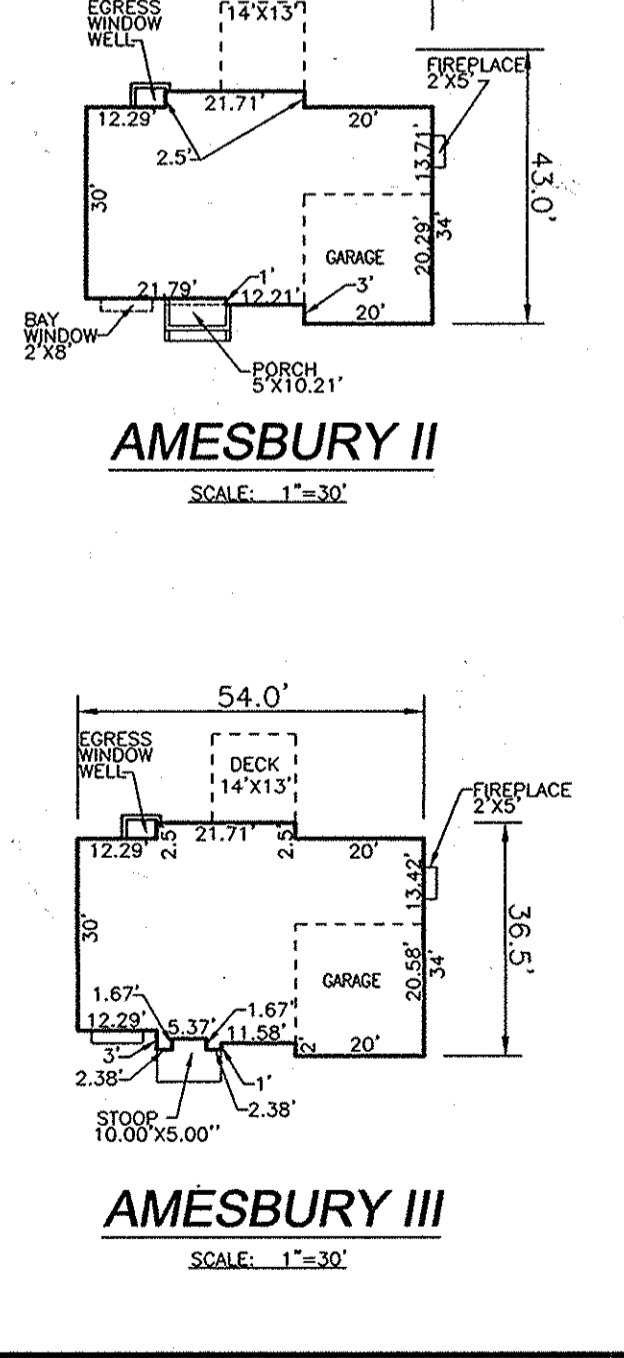
- THE SOIL PROTECTION ZONE INCLUDE ALL AREAS CONTAINED INSIDE THE LIMIT OF DISTURBANCE.
- WHERE POSSIBLE, THE SOIL PROTECTION ZONE SHALL EXTEND TO THE DRIP LINE OF SPECIFIC TREES FOR OTHER GROUPS OF TREES, THE ZONE SHALL BE THE DRIP LINE OF 40% OF THE HEIGHT OF THE TREE, WHICHEVER IS GREATER.
- NO CONSTRUCTION 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 PRUNING 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 ENCRUCH 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 6 INCHES. THIS SHALL OCCUR OUTSIDE THE SOIL PROTECTION ZONE WHERE COMPACTION 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-LIVED VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING 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/1000 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.)
  - 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 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 15 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.
- MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROOTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. STRAW 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, DISING 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 (32 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 SOIL.
- MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROOTED 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 SHOWN ON THIS PLAN.



NO.	REVISION	DATE
12	REVISE HOUSE TYPE & GRADING ON LOT 25	03/17/16
9	REVISE HOUSE LOCATION ON LOT 24 & HOUSE TYPE & GRADING, LOT 30	06/24/15
8	ADD THE CHELSEA II HOUSE MODEL - LOT 24	2/2/15
7	ADD THE POTOMAC II HOUSE MODEL - LOT 32	2/2/15
3	REVISE HOUSE TYPE AND GRADING LOT 26. ADD AMESBURY II MODEL SHT. A.	11/13/14
2	ADD CHELSEA II MODEL HOUSE TO SHEET 4.	10/22/14
1	REVISE GRADING ON LOTS 22, 23, 24, 27, 28, AND 29. REVISE HOUSE TYPE ON LOT 28. ADD THE CARRINGTON MODEL HOUSE TO SHEET 4.	09/16/14

**SITE DEVELOPMENT PLAN  
SEDIMENT AND EROSION CONTROL  
NOTES AND DETAILS  
CYPRESS SPRINGS - PHASE 2  
LOTS 18-36**

1ST ELECTION DISTRICT  
REFERENCES: SD-05-06, PB CASE 374, WP-05-38,  
SDP-09-051, 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.

TAX MAP 35, BLOCK 3  
SDP-09-051, F-10-028, L 386/F 658, L 8232/F 574,  
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: 410.461.8966

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*K. S. [Signature]* 11/13/13  
DATE

CHIEF, DIVISION OF LAND DEVELOPMENT  
*Paula L. Long* 11/13/13  
DATE

DIRECTOR

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

BY THE DEVELOPER:  
*John R. Robertson* 12/15/12  
DATE

BY THE ENGINEER:  
*Michael Row* 12/6/12  
DATE

I, *Michael Row*, CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THE EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING ANY CONSTRUCTION. I HAVE BEEN ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE ENGINEER:  
*[Signature]* 11/13/13  
DATE

I, *[Signature]*, 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.

OWNER / DEVELOPER / CONTRACT PURCHASER  
TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.  
3675 PARK AVENUE, SUITE 301  
ELLICOTT 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. 21438, EXPIRATION DATE: 12-16-2012.

DESIGN BY: JTD  
DRAWN BY: KS  
CHECKED BY: RHV  
DATE: AUGUST, 2012  
SCALE: AS SHOWN  
W.O. NO.: 04-20

4 SHEET OF 5

SDP-12-067

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

SEEDING

ITEM 903 SEEDING

903-1.1 GENERAL. This item provides specifications for seeding of areas as designated on plans or as directed by the MAA Engineer.

903-1.2 SEED. All seed shall comply with the Maryland Seed Law (Agricultural Article of the Annotated Code of Maryland).

- 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 0.07% but enough fine grained material (> 200 sieve) to provide the capacity to hold a moderate amount of water.

Remotely located seed may not exceed 0.5 percent by weight of any seed mixture.

July 1, 2004

noxious weeds: halimololcus (Carduus arvensis), quackgrass (Elymus repens), wild radish (Raphanus sativus), scirpus (Sorghum spp.), Canada thistle (Cirsium arvense), plantain (Plantago spp.), and other weeds.

903-2.1.1 APPROVED SPECIES. The following table contains species that are approved by MAA for use as seed mixtures.

Table with columns: MAA SEED MIXTURES, Purity, Minimum % Germination, Pure Live Seed Factor. Lists various grasses like Certified Turf-Type Tall Fescue, Kentucky Bluegrass, etc.

903-2.1.2 PIRITY. All seed shall be free of all state-designated noxious weeds listed in Paragraph 2.1.1 and conform to MAA specifications.

- name and address of laboratory,
- date of test,
- or analysis,
- the results of tests as to name, percentages of purity and of germination,

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Seed shall be furnished in standard containers with the seed name, lot number, net weight, percentage of purity, germination rate and seed count, and percentage of maximum weed seed content clearly marked.

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.

- a. Seed Mixture No. 1 - relatively flat areas (grade less than 4:1) subject to normal conditions and regular mowing.
b. Seed Mixture No. 2 - sloped areas (grade greater than 4:1) not subject to regular mowing.
c. Seed Mixture No. 3 - wetlands and their associated buffer zones.

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

Table with columns: Seed, Rate of Application (lbs of FLS/acre). Lists items like 85% Certified Turf-Type Tall Fescue, 10% Kentucky Bluegrass, etc.

Supplemental Seed Annual Ryegrass

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

Table with columns: Seed, Rate of Application (lbs of FLS/acre). Lists items like 75% Hard Fescue, 20% Chewings Fescue, 5% Kentucky Bluegrass, etc.

Seed Mixture No. 3 - Wetland areas and their associated buffer zones (Application rate = 111 lbs FLS/acre)

Table with columns: Seed, Rate of Application (lbs of FLS/acre). Lists items like 60% Fowl Meadow Grass, 30% Chewings Fescue, 10% Perennial Ryegrass, etc.

Supplemental Seed Ryegrass

Table with columns: Seed, Rate of Application (lbs of FLS/acre). Lists items like 90% Certified Turf-Type Tall Fescue, 10% Kentucky Bluegrass, etc.

Supplemental Seed Annual Ryegrass

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TEMPORARY SEEDING

Linear: 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.

SODDING

Installation of sod should follow permanent seedbed. Sodded preparation for sod shall be as noted above. Lines and fertilizer per permanent seeding specifications and highly irrigate soil prior to laying sod.

Initial sod as per ITEM 904.

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SEEDING SEASONS

Table with columns: Permanent Cool Season Grasses, Temporary Cover of Annual Ryegrass, Temporary Cover of Warm Season Grasses (Bermuda spp.).

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 extension thereof, extends beyond the Contract period, then each time will be charged against the Contract time, and liquidated damages will be enforced with respect to this portion of work.

903-2.2 LIMES. Lime shall consist of ground limestone and contain at least 85 percent total carbonate. Lime shall be ground to a fineness so that at least 90 percent will pass through a No. 20 mesh sieve.

903-2.3 FERTILIZER. Fertilizer shall be standard commercial fertilizer (supplied separately in its mixture) and meet the requirements of applicable state and federal laws.

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

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MINING OPERATIONS

Sediment control plans for mining operations must include the following seeding rates 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.

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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-35L.

- 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

Table with columns: NO., REVISION, DATE. Contains revision information.

SITE DEVELOPMENT PLAN HCSCD/MAA NOTES & DETAILS CYPRESS SPRINGS - PHASE 2 LOTS 18-36. Includes Robert H. Vogel Engineering, Inc. logo, contact info, and professional seal.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Chief, Development Engineering Division: [Signature] 1/4/13. Chief, Division of Land Development: [Signature] 1/8/13. Director: [Signature] 1/10/13.

OWNER / DEVELOPER / CONTRACT PURCHASER: TRINITY HOMES AT CYPRESS SPRINGS, L.L.C. 3675 PARK AVENUE, SUITE 301 ELLICOTT CITY, MARYLAND 21043 (410) 430-0223