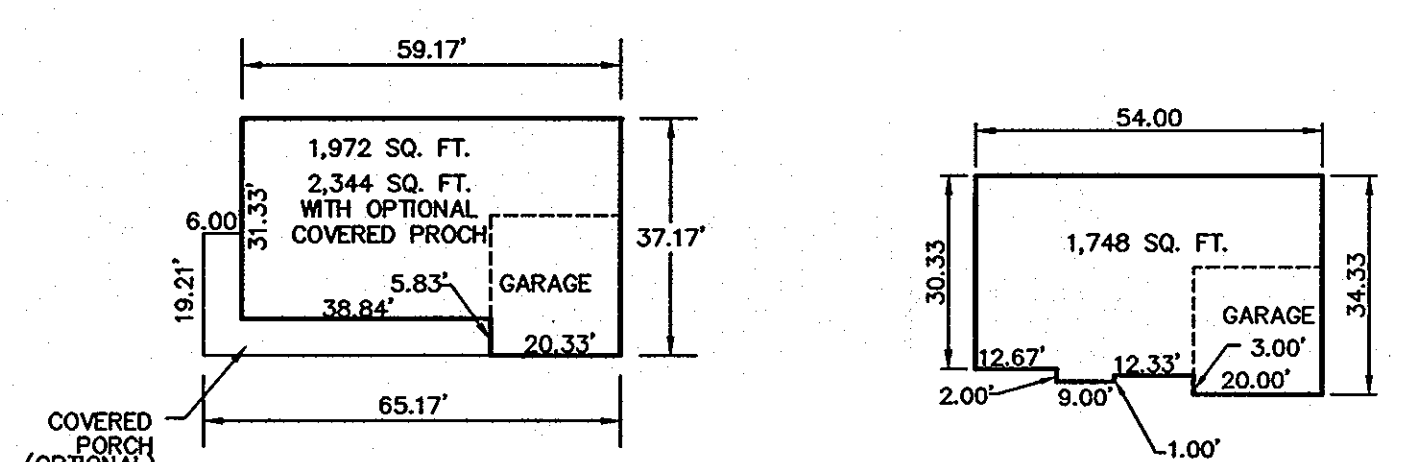
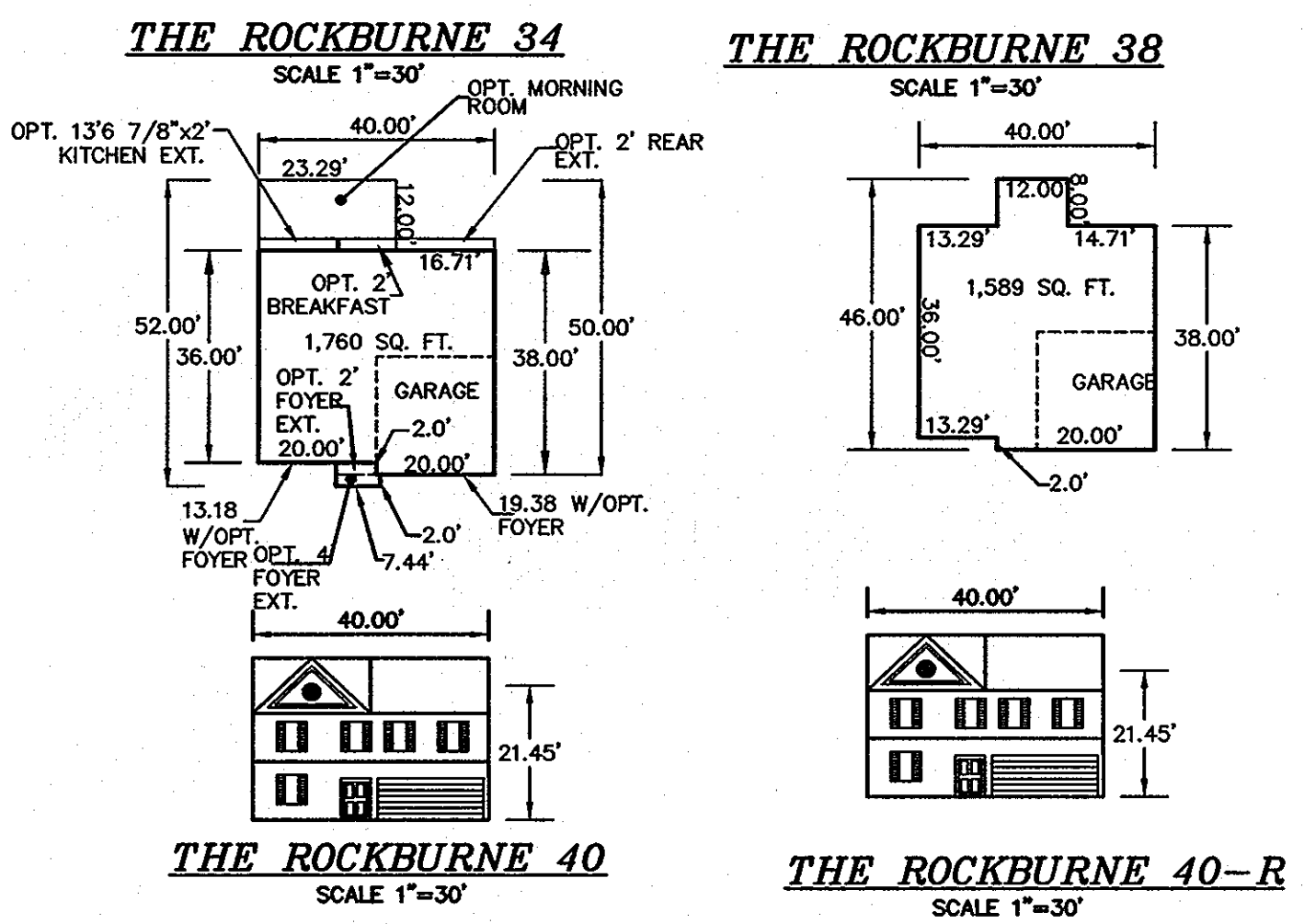
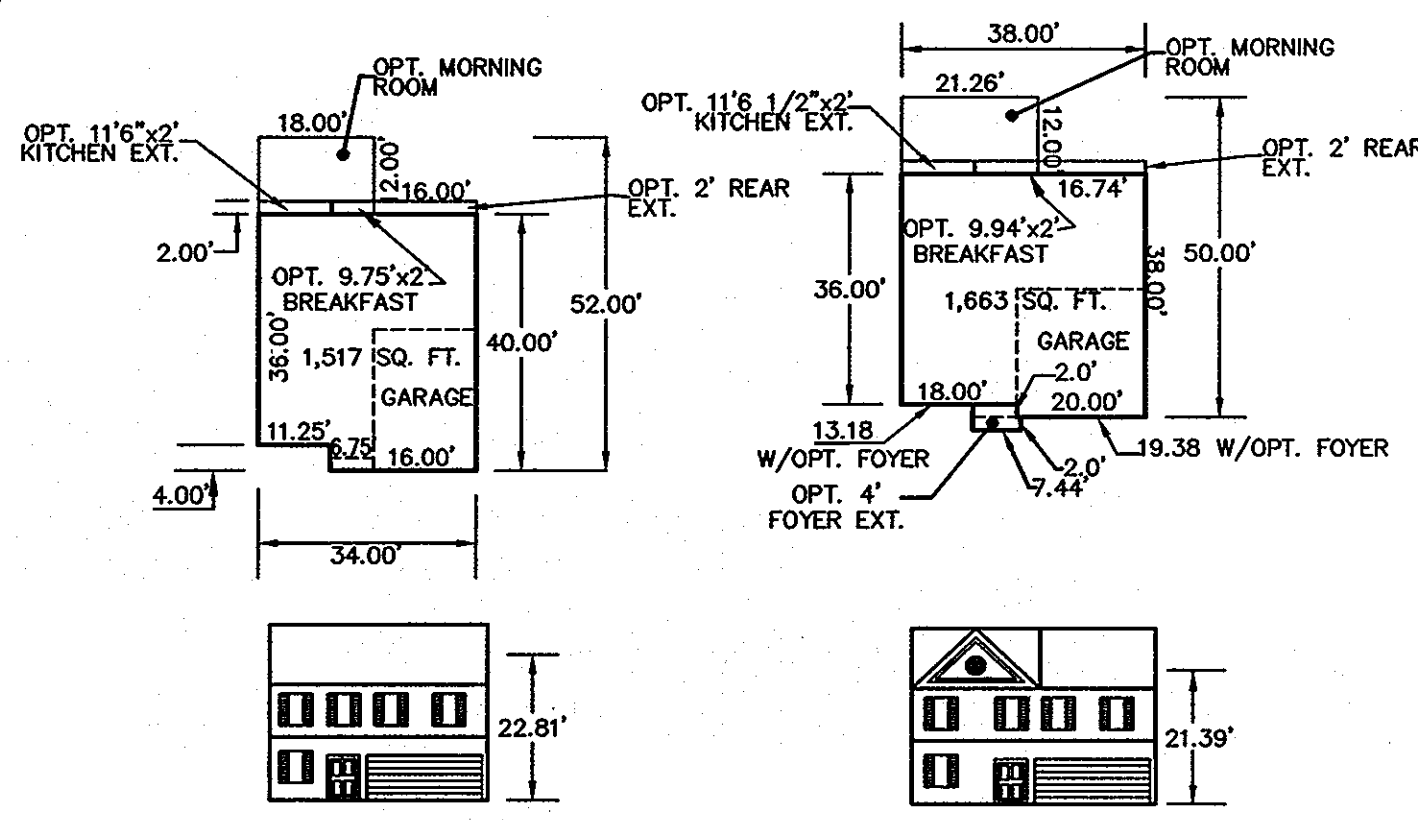


# SITE DEVELOPMENT PLAN KOERBER PROPERTY LOTS 11 THRU 13 2nd ELECTION DISTRICT



NOTE: ADDITIONAL STORMWATER MANAGEMENT IS REQUIRED FOR THE OPTIONAL COVERED PORCH FOR AN INCREASE IN ROOFTOP BY 144 SQ. FT.

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

Signature: Christopher Brown  
Date: 3/27/12

**OWNER/DEVELOPER**  
HARMONY BUILDERS  
4228 COLUMBIA ROAD  
ELLCOTT CITY, MARYLAND 21042  
410-461-0833

**ENGINEER'S CERTIFICATE**  
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

Signature: R. Jacob Hikmat  
Date: 3/27/12

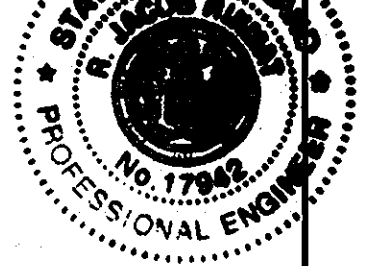
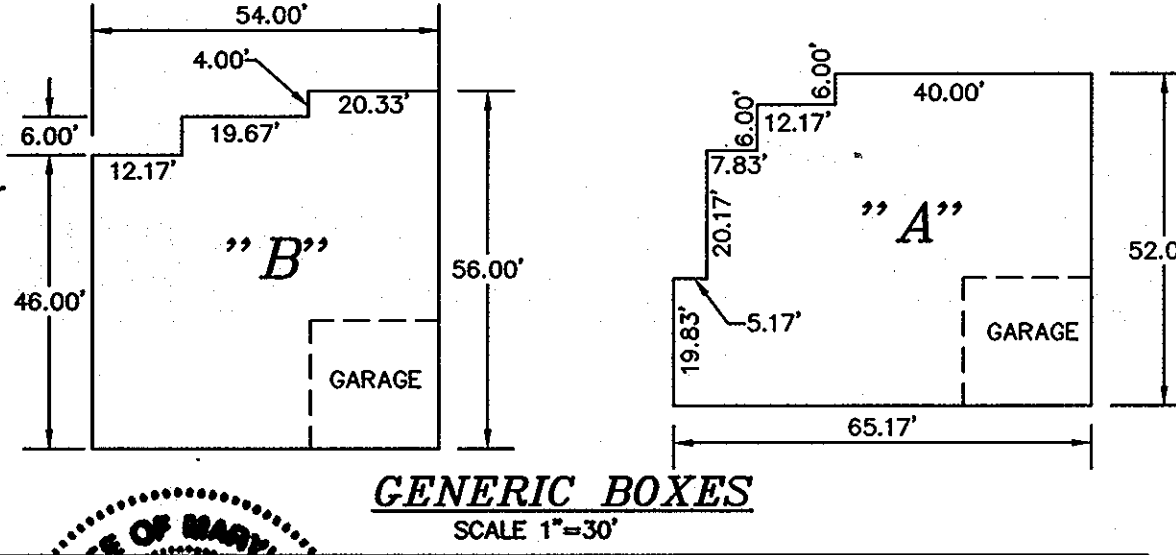
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.

Signature: John P. ...  
Date: 5/3/12

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Signature: ...  
Date: 5/9/12

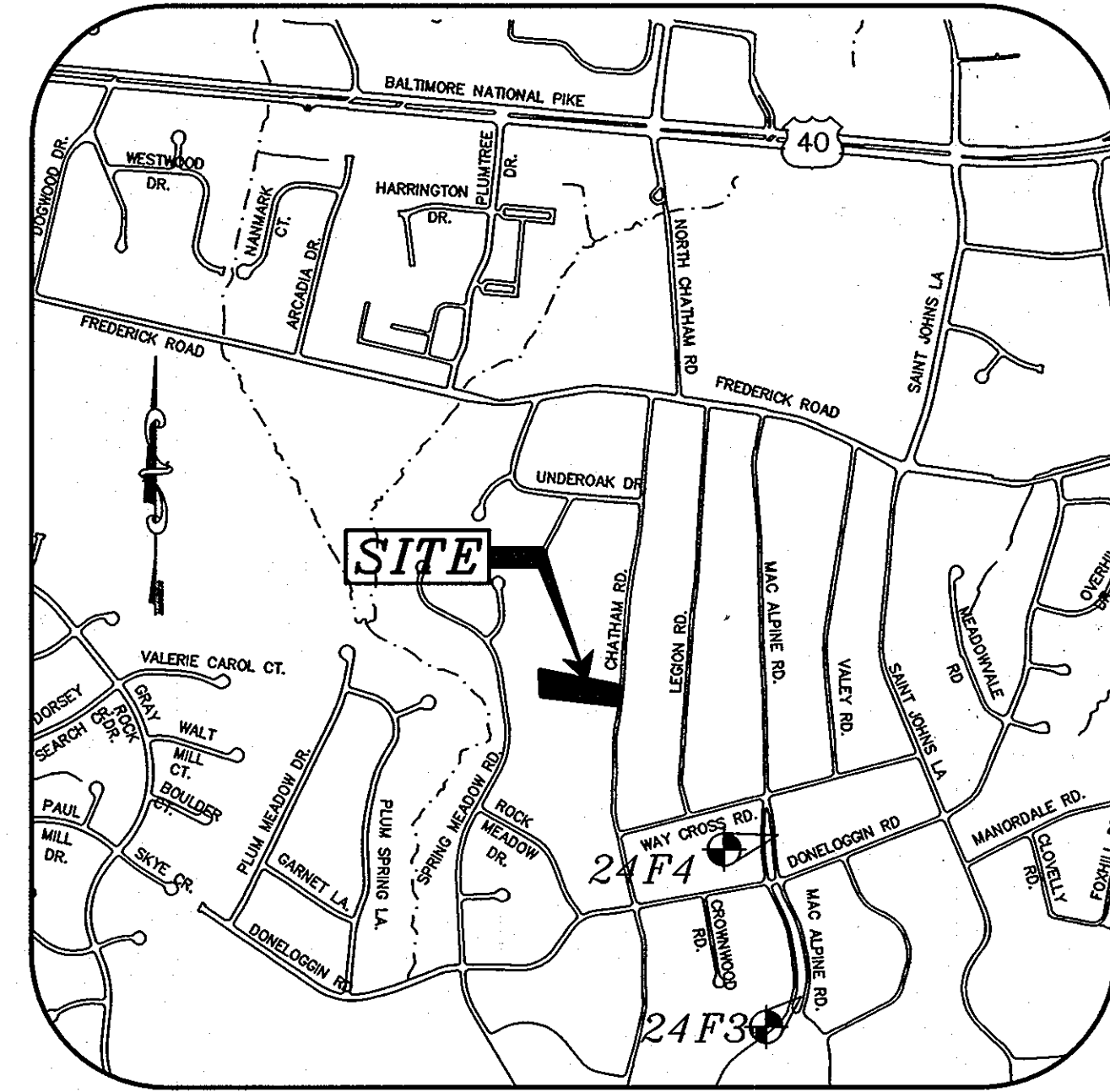
Signature: ...  
Date: 5/15/12

Signature: ...  
Date: 5/15/12

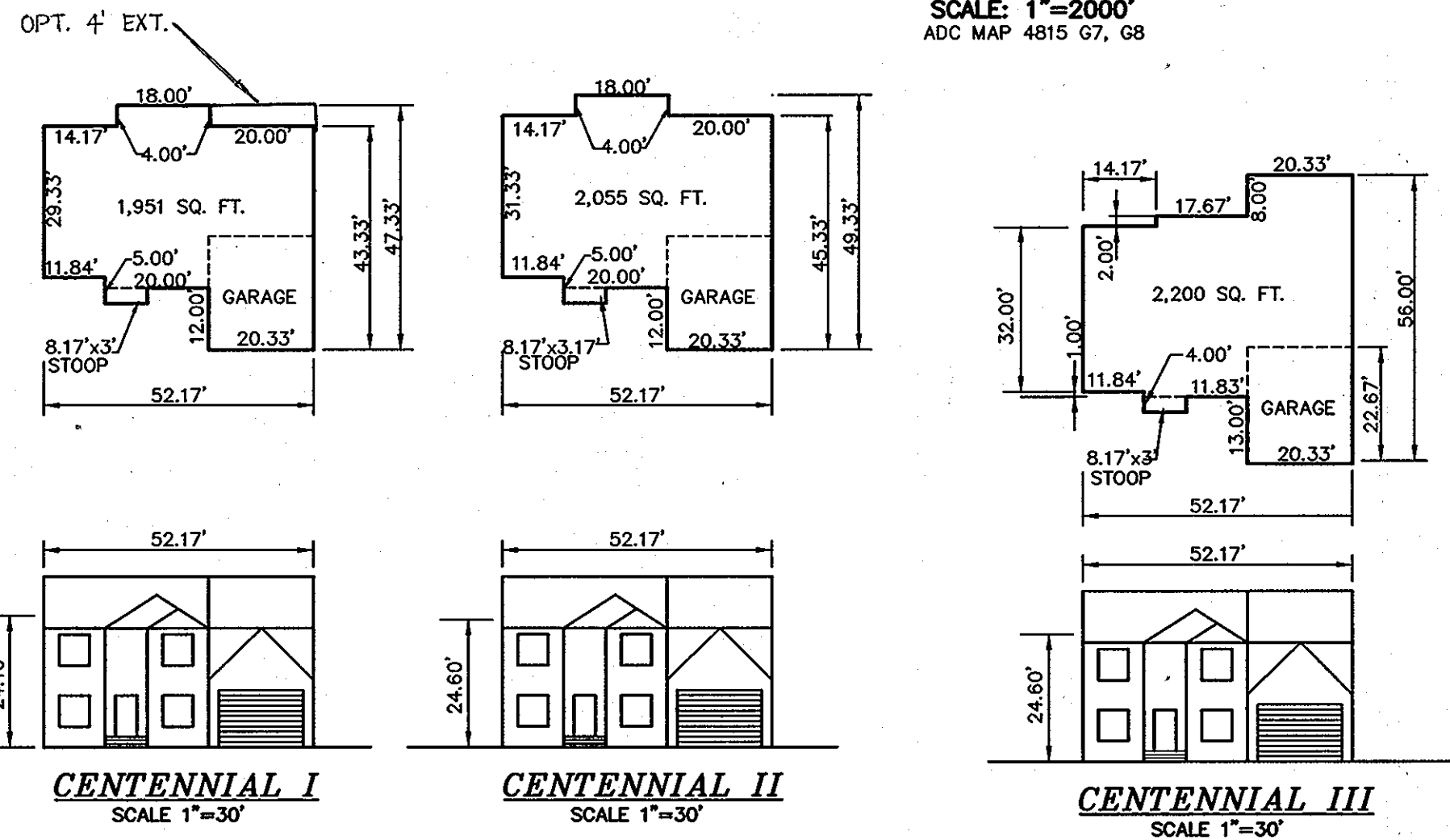


I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP. DATE 9/03/12.

Signature: R. Jacob Hikmat  
Date: 3/27/12



**VICINITY MAP**  
SCALE: 1"=2000'  
ADC MAP 4815 G7, G8



NO.	DESCRIPTION
1	COVER SHEET
2	SITE DEVELOPMENT PLAN
3	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

LOT/PARCEL NO.	STREET ADDRESS
LOT 11	3716 CHATHAM ROAD
LOT 12	3716 CHATHAM ROAD
LOT 13	3714 CHATHAM ROAD

LOT #	GREEN ROOF	PERMEABLE PAVEMENTS	REINFORCED TURF	DISCONNECTION OF ROOFTOP RUNOFF	DISCONNECTION OF NON-ROOFTOP RUNOFF	SHEETFLOW TO CONSERVATION AREAS	RAINWATER HARVESTING	SUBMERGED GRAVEL WETLANDS	LANDSCAPE INFILTRATION	INFILTRATION BERMS	DRY WELLS	MICRO-BIORETENTION	RAIN GARDENS	SWALES	ENHANCED FILTERS
	A-1 (Y/N)	A-2 (Y/N)	A-3 (Y/N)	N-1 (NUMBER)	N-2 (Y/N)	N-3 (Y/N)	M-1 (NUMBER)	M-2 (NUMBER)	M-3 (NUMBER)	M-4 (NUMBER)	M-5 (NUMBER)	M-6 (NUMBER)	M-7 (NUMBER)	M-8 (NUMBER)	M-9 (NUMBER)
11				3	Y										2
12				2	Y										1
13					Y										1

GENERIC BOX	CENTENNIAL I	CENTENNIAL II	CENTENNIAL III	FULTON I	ROCKBURNE 34	ROCKBURNE 38	ROCKBURNE 40	ROCKBURNE 40-R	YORKSHIRE
"A"	ALL OPT.	ALL OPT.	DOES NOT FIT	ALL OPT.	ALL OPT.	ALL OPT.	ALL OPT.	ALL OPT.	ALL OPT.
"B"	ALL OPT.	ALL OPT.	ALL OPT.	DOES NOT FIT	ALL OPT.	ALL OPT.	ALL OPT.	ALL OPT.	ALL OPT.

- GENERAL NOTES:**
- THE SUBJECT PROPERTY IS ZONED R-20 PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND COMP LITE ZONING AMENDMENTS EFFECTIVE 7/28/06.
  - ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS.
  - SITE ANALYSIS DATA:  
LOCATION: TAX MAP 24 PARCEL: 427 LOTS: 11, 12 AND 13 BLOCK: 10  
ELECTION DISTRICT: SECOND  
ZONING: R-20  
TOTAL AREA: 1.57 AC.  
LIMIT OF DISTURBED AREA: 1.34 AC.  
PROPOSED USE FOR SITE: RESIDENTIAL  
TOTAL NUMBER OF UNITS: 3  
TYPE OF PROPOSED UNIT: SFD  
DEED REFERENCE: 11388/289
  - 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. 24F3 AND 24F4 WERE USED FOR THIS PROJECT.  
STA. No. 24F3 N 581299.879 E 1360713.706 EL. 365.33  
STA. No. 24F4 N 582298.696 E 136090.949 EL. 368.11
  - EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY MILDENBERG, BOENDER AND ASSOCIATES IN JUNE OF 2010.
  - NO CEMETERIES EXIST ON SITE.
  - NO HISTORIC STRUCTURE EXIST ON SITE.
  - NO STREAMS OR FLOODPLAINS EXIST ON SITE.
  - NO FOREST STAND OR WETLAND EXISTS ON SITE AS CERTIFIED BY ECO SCIENCE IN WETLAND CERTIFICATION LETTER DATED NOVEMBER, 2010.
  - NO STEEP SLOPES MORE THAN 20.00% SO. FT. EXIST ON SITE.
  - PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED UNDER CONTRACT # 129-S AND 10-W.
  - A USE-IN-COMMON MAINTENANCE AGREEMENT FOR LOTS 11 THRU 13 HAS BEEN RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, MARYLAND, LIBER 13744 FOLIO 349-351.
  - DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:  
A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).  
B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.  
C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.  
D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (125,000 LBS).  
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.  
F) STRUCTURE CLEARANCES - MINIMUM 12 FEET.  
G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
  - FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAS BEEN FULFILLED BY PAYMENT OF A FEE-IN-LIEU OF 0.4 ACRES (10,454 SQ. FT.) OF AFFORESTATION IN THE AMOUNT OF \$7,840.80 TO THE FOREST CONSERVATION FUND UNDER F-11-089.
  - THIS PLAN IS IN COMPLIANCE WITH SECTION 16.124 OF HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED WITH THE GRADING PERMIT FOR 11 SHADE TREES IN THE AMOUNT OF \$3,500.00 AS PART OF THE BUILDER'S GRADING PERMIT.
  - NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPED EDGE FOR WHICH CREDIT IS BEING TAKEN. HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED.
  - SHOULD ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH LANDSCAPING CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD, AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 2 1/2 TO 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL.
  - DRIVEWAY ENTRANCE IS PER HOWARD COUNTY STANDARD DETAIL R-6.06.
  - FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM LOT AND ROAD RIGHT OF WAY LINE AND NOT TO THE PIPESTEM LOT DRIVEWAY.
  - STORMWATER MANAGEMENT IS PROVIDED VIA ROOFTOP, NON-ROOFTOP DISCONNECTION AND USE OF MICROSCALE PRACTICES (RAIN GARDENS) IN ACCORDANCE WITH THE 2007 ADE STORMWATER DESIGN MANUAL UNDER F-11-089. STORMWATER MANAGEMENT FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
  - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, FOREST CONSERVATION ESSENTIAL AREAS AND 100 YEAR FLOODPLAIN UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING OR OTHER APPLICABLE REGULATORY AGENCY.
  - THE OPEN SPACE REQUIREMENT, BASED ON CREATION OF 3 NEW LOTS, HAS BEEN SATISFIED BY PAYMENT OF A FEE-IN-LIEU UNDER F-11-089.
  - NO STRUCTURES EXIST ON SITE.
  - THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MILDENBERG, BOENDER AND ASSOC., DATED JULY 22, 2011 UNDER F-11-089.
  - THIS PLAN IS SUBJECT TO WAIVER PETITION WP-11-207 SECTIONS 16.132(a)(2)(i), 16.134(c)(1)(i), 16.135(c) AND 16.136, WHICH REQUIRES ROAD, SIDEWALK, STREET LIGHT AND STREET TREES TO BE PROVIDED ALONG THE FRONTAGE OF CHATHAM ROAD, WHICH WAS APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING ON JULY 28, 2011.  
THE APPROVAL/DENIAL DECISION OF THE WAIVER REQUEST IS SUBJECT TO THE FOLLOWING:  
1. PAYMENT OF THE FEE-IN-LIEU SHALL BE PROVIDED AND PLACED IN AN APPROPRIATE ACCOUNT DESIGNATED BY THE DEVELOPMENT ENGINEERING DIVISION WITH THE PROCESSING OF F-11-089.  
2. COMPLIANCE WITH COMMENTS ISSUED FOR THE FINAL PLAN, F-11-089.
  - IN ACCORDANCE WITH THE CONDITIONS OF APPROVAL OF WP-11-207, THE DEVELOPER HAS PAID A FEE-IN-LIEU OF PROVIDING ROAD IMPROVEMENTS ALONG THE FRONTAGE OF CHATHAM ROAD.
  - THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES, AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
  - AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWIT LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
  - IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, PAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 16 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
  - WATER AND SEWER SERVICE TO THESE LOTS WILL BE PROVIDED IN ACCORDANCE WITH SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND SEWAGE ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE.
  - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
  - ANY DAMAGE TO THE COUNTY RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
  - SEWER HOUSE CONNECTIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
  - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK:  
MISS UTILITY 1-800-257-7777  
VERIZON TELEPHONE COMPANY (410) 725-9976  
HOWARD COUNTY BUREAU OF UTILITIES (410) 313-4900  
AT&T CABLE LOCATION DIVISION (410) 393-3533  
BALTIMORE GAS & ELECTRIC (410) 685-0123  
STATE HIGHWAY ADMINISTRATION (410) 531-5533
  - ENVIRONMENTAL CONCEPT PLAN (ECP 11-036) FOR THIS PROJECT WAS APPROVED ON MAY 10, 2011.
  - A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.
  - WP-12-157 WAS REQUESTED TO WAIVE SECTION 16.1205(c)(1) AND WAS APPROVED ON APRIL 26, 2012 GRANTING APPROVAL FOR THE REMOVAL OF A SPECIMEN TREE ON LOT 11.

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
KOERBER PROPERTY	N/A	LOTS 11, 12, 13
PLAT # OR L/F BLOCK #	ZONE	TAX MAP
21818	10	R-20
		24
		SECOND
		602306

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 6800 Deepwater Road, Suite 150, Ellicott City, Maryland 21075  
 (410) 997-0296 Fax (410) 997-0296 Batt.

**KOERBER PROPERTY, LOTS 11-13**  
 SINGLE FAMILY DWELLINGS  
 TAX MAP 24, GRID 10, PARCEL 427, LOT 6  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 COVER SHEET

Project date: MAR 2012  
 Illustration: MAM  
 Scale: AS SHOWN  
 Approval: MAM

Date: 5/15/12  
 Description: SDP-12-023

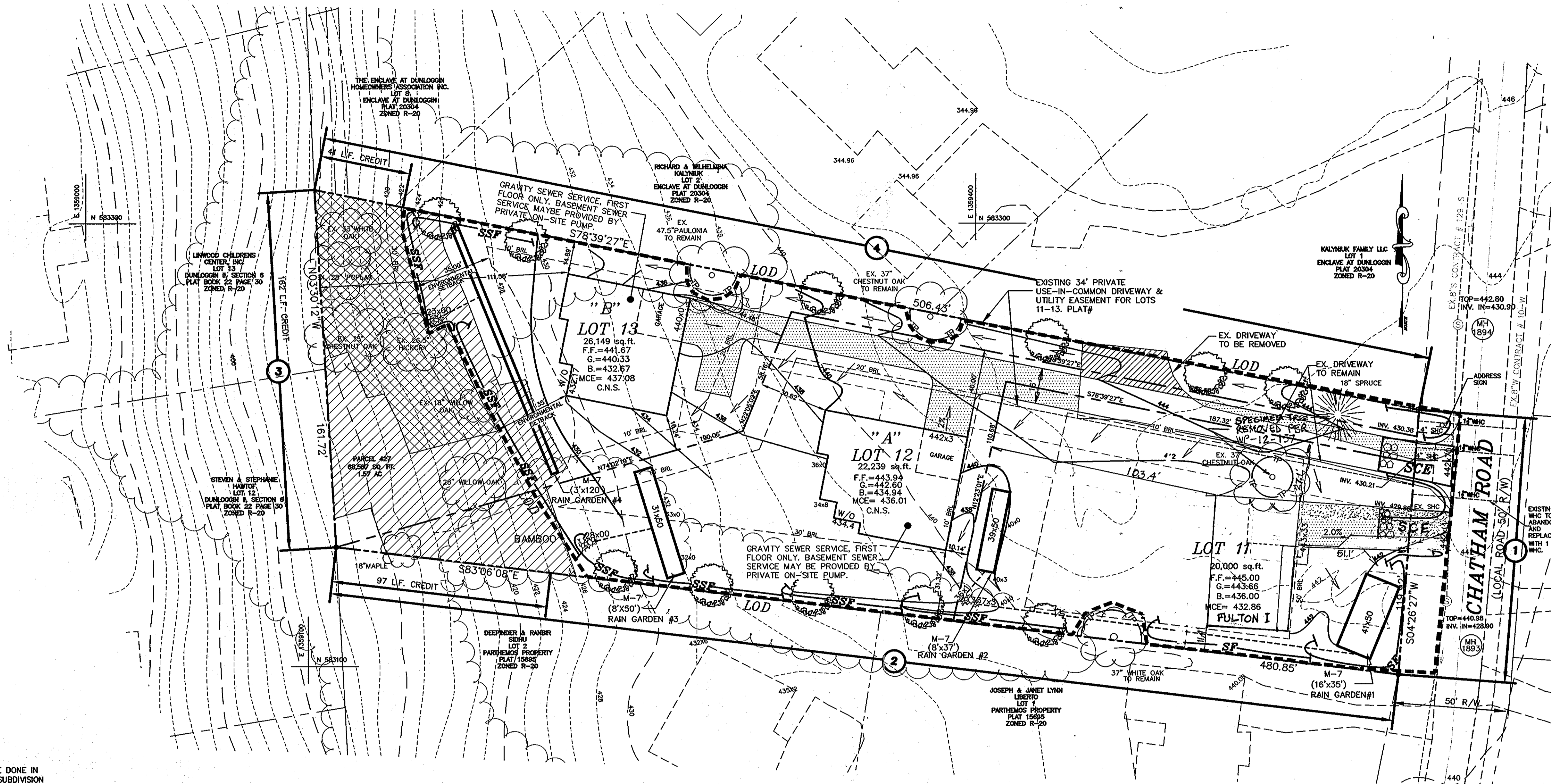
Revision: 2  
 Description: ADD 4' EXT OPTION TO CENTENNIAL I APPROVED BY THE BOARD OF ZONING ADJUDICATORS

**SOILS CHART**

LoB (E) LEGORE-MONTALTO-URBAN LAND COMPLEX, 0-8% SLOPES

**LEGEND**

- M-7, RAINGARDEN
- LOD
- LIMIT OF DISTURBANCE
- AREA OF 25% SLOPE OR GREATER
- AREA OF 15%-24.9% SLOPES
- ROOFTOP DISCONNECTION
- EX. DRIVEWAY TO BE REMOVED
- TREE PROTECTION FENCE
- PROPOSED DRIVEWAY
- PROPOSED TREELINE
- EX. TREELINE
- SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE



**DEVELOPER'S/OWNER'S CERTIFICATE**

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

*Christopher Brown* 3/27/12  
 NAME DATE

**DEVELOPER'S CERTIFICATE**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT.  
*Christopher Brown* 3/27/12  
 SIGNATURE OF DEVELOPER DATE

**ENGINEER'S CERTIFICATE**  
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.  
*R. Jacob Hikmat* 3/27/12  
 SIGNATURE OF ENGINEER DATE

**OWNER/DEVELOPER**  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.  
*John R. Roberts* 5/3/12  
 HOWARD COUNTY CONSERVATION DISTRICT DATE

**OWNER/DEVELOPER**

HARMONY BUILDERS  
 4228 COLUMBIA ROAD  
 ELLICOTT CITY, MARYLAND 21042  
 410-461-0833



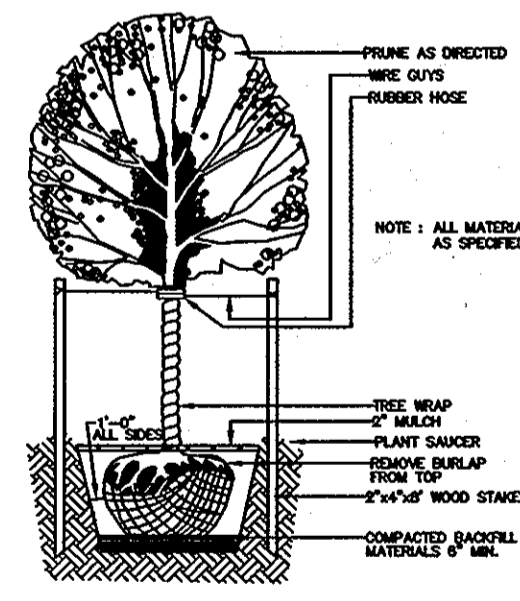
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*R. Jacob Hikmat* 3/27/12  
 DATE

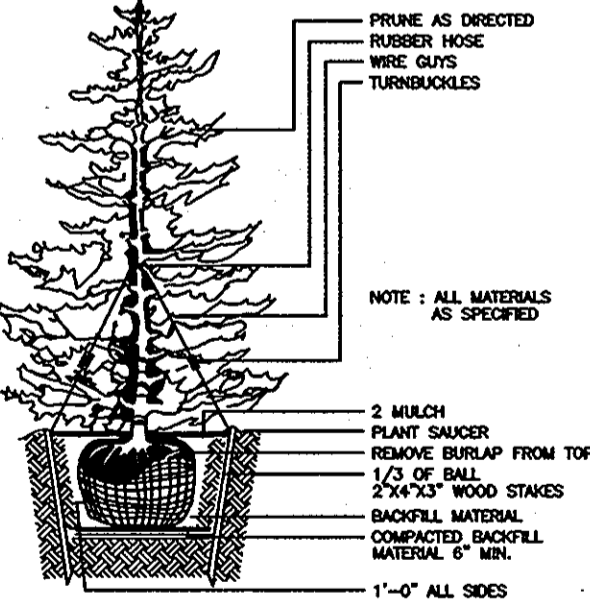
**LANDSCAPE REQUIREMENT PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
11		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
TOTAL		11 TREES (11 SHADE TREES)		

**TYPICAL DECIDUOUS TREE PLANTING DETAIL**  
 NOT TO SCALE



**TYPICAL EVERGREEN TREE PLANTING DETAIL**  
 NOT TO SCALE

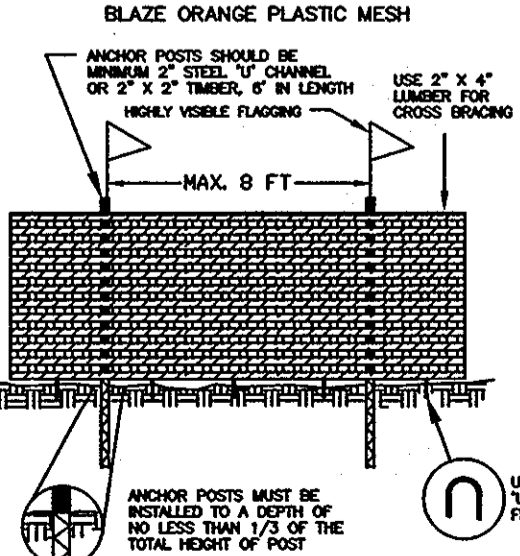


**SCHEDULE A: PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES		TOTAL
	N/A (PERIMETER 1)	A (PERIMETER 2)*	A (PERIMETER 3)	A (PERIMETER 4)**	
LANDSCAPE TYPE	120 LF	481 LF	162 LF	507 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	97 LF LANDSCAPING TO BE PROVIDED FOR 364 LF	162 LF	41 LF LANDSCAPING TO BE PROVIDED FOR 466 LF	
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	NO	
NUMBER OF PLANTS REQUIRED	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	8 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREE 0 EVERGREEN TREES 0 SHRUBS	8 SHADE TREE 0 EVERGREEN TREES 0 SHRUBS	19 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS PROVIDED	0 SHADE TREES 0 EVERGREEN TREES 0 OTHER TREES (2:1 SUBSTITUTION) 0 SHRUBS (10:1 SUBSTITUTION)	5 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	0 SHADE TREE 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	8 SHADE TREE 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	11 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS

\*PERIMETER 2 - CREDIT TAKEN FOR EXISTING 37' WHITE OAK AND 24' SPRUCE  
 \*\*PERIMETER 4 - CREDIT TAKEN FOR EXISTING 47.5' PAULONIA & 35' CHESTNUT

**PROTECTIVE FENCE DETAIL**



ANCHOR POSTS SHOULD BE INSTALLED TO A DEPTH OF NO LESS THAN 1' IN LENGTH. TOTAL HEIGHT OF POST SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

project	date	description	revision
10-018	MAR. 2012	engineering	
MMM	MMM	MMM	
MMM	MMM	MMM	
MMM	MMM	MMM	

no.	description	date
1	SHOW SPEC. TREE TO BE REPLACED PER WP-12-157 AND FULTON I TO LOT 11, ASSOCIATED GRADING	5/11/12

**KOERBER PROPERTY, LOTS: 11-13**  
 SINGLE FAMILY DWELLINGS  
 TAX MAP 24, GRID 10, PARCEL 427, LOT 6  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SITE DEVELOPMENT PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 6800 Deepwater Road, Suite 150, Ellicott City, Maryland 21075  
 (410) 997-0296 Fax (410) 997-0298 Fax

HOWARD SOIL CONSERVATION DISTRICT

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, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 500 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.).
2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK 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 14 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) - USE SOD. OPTION (3) - SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (9 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING 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 OCTOBER 15, SEED WITH 2-1/2 BUSHELS 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 PERENNIAL RYEGRASS (0.7 LBS./1000 SQ.FT.) FOR THE PERIOD NOVEMBER 15 THRU NOVEMBER 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (9 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

- 1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION, (313-1855).
2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT 'MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL', AND REVISIONS THERETO.
3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC.51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC.52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

- 6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7) SITE ANALYSIS:
TOTAL AREA OF SITE: 1.57 ACRES
AREA DISTURBED: 1.34 ACRES
AREA TO BE ROOFED OR PAVED: 0.52 ACRES
AREA TO BE VEGETATIVELY STABILIZED: 1.02 ACRES
TOTAL CUT: 800 CU. YDS.
TOTAL FILL: 800 CU. YDS.
TOTAL WASTE/BORROW AREA LOCATION: N/A

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.

OWNER/DEVELOPER

HARMONY BUILDERS
4228 COLUMBIA ROAD
ELLCOTT CITY, MARYLAND 21042
410-461-0833

DEVELOPERS CERTIFICATE

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

Signature of Developer: Christopher Brown
DATE: 3/27/12

CHRISTOPHER BROWN
PRINTED NAME OF DEVELOPER

ENGINEER'S CERTIFICATE

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

Signature of Engineer: R. Jacob Hikmat
DATE: 3/27/12

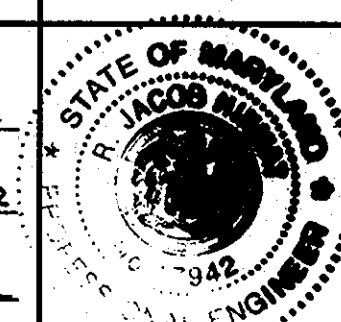
R. JACOB HIKMAT
PRINTED NAME OF ENGINEER

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

Signature of District Director: Mark D. Gagliardi
DATE: 4/3/12

HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Signature of Chief, Development Engineering Division: Keith DeLuca
DATE: 5/15/12
Signature of Chief, Division of Land Development: Mark D. Gagliardi
DATE: 5/15/12



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. 17942, EXP. DATE 8/03/12.
R. JACOB HIKMAT
DATE: 3/27/12

- 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL. 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.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

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

CONDITIONS WHERE PRACTICE APPLIES: THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

- a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

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.

TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

- I. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4 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.
IV. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

- V. TOPSOIL APPLICATION:
I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" - 8" HIGHER IN ELEVATION.
III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

VI. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

- I. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
b. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0 IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
II. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTION. REVISED 1973.

TEMPORARY DUST CONTROL MEASURES

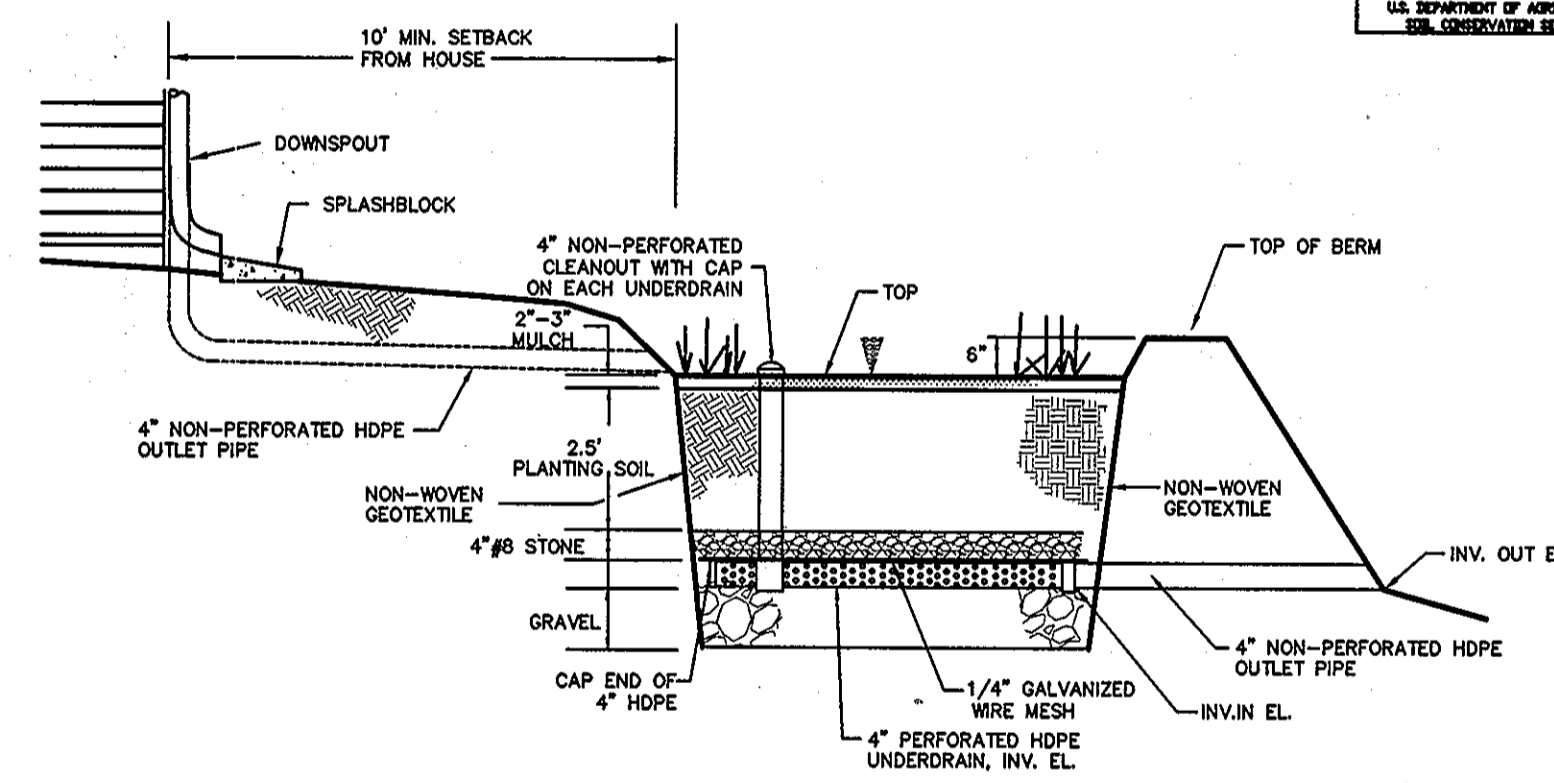
- 1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.
2. VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS APCED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
4. IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
5. BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
6. CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT (1 DAY).
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN (1 DAY).
3. CONSTRUCT SILT FENCES AND SUPER SILT FENCES (2 DAYS).
4. CONSTRUCT SITE TO GRADES INDICATED WITH PERMISSION FROM INSPECTOR BEFORE PROCEEDING (10 DAYS).
5. CONSTRUCT HOUSES (90 - 180 DAYS).
6. COMPLETE FINE GRADING OF SITE TO GRADES INDICATED (2 DAYS).
7. SEED AND MULCH ALL REMAINING DISTURBED AREAS (1 DAY).
8. WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED, AND WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS (ONE DAY).

RAINGARDENS SCHEDULE

Table with 4 columns: NO, TOP EL., TOP OF BERM, INV. IN, INV. OUT. Rows 1-4 showing elevation data for rain garden construction.



TYPICAL RAIN GARDEN PROFILE NTS

EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY VOLUME IV DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SEDIMENT CONTROL IN DEVELOPING AREAS.
2. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF BUSINESS.
3. ALL EXCAVATED MATERIALS SHALL BE STOCKPILED ON THE UPGRADE SIDE OF THE MAIN TRENCH.
4. EXCAVATION AND BACKFILL SHALL BE LIMITED TO THAT WHICH CAN BE STABILIZED WITHIN ONE WORKING DAY.
5. IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER TRENCH, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
6. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO ENSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
7. ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

OPERATION AND MAINTENANCE SCHEDULE FOR RAINGARDENS (M-7)

- A. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
B. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WHELPS.
C. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
D. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

Technical drawings for SUPER SILT FENCE, SILT FENCE, and STABILIZED CONSTRUCTION ENTRANCE. Includes details 23, 22, and 24 with construction specifications and material requirements.

Project information table: date (MAR 2012), illustration (MMM), scale (1"=30'), approval (RJJ).

REVISIONS table with columns for description, date, and revision number.

Project location and details: KOERBER PROPERTY, LOTS: 11-13, TAX MAP 24, GRID 10, PARCEL 427, LOT 6, HOWARD COUNTY, MARYLAND. SECOND ELECTION DISTRICT. EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

Engineers, Planners, Surveyors: MILDENBERG, BOENDER & ASSOC., INC. 6800 Deepwater Road, Suite 150, Elkridge, Maryland 21075. (410) 997-0236 Fax.