

**PROJECT INFO**

THIS PROJECT IS LOCATED AT LOT 1-3 OF WEI LU PROPERTY SUBDIVISION ( F-04-160) IN THE FIRST ELECTION DISTRICT OF HOWARD COUNTY, MD. EACH LOT IS APPROX. 0.41 ACRES. ALL THREE LOTS ARE CURRENTLY UNDEVELOPED AND ARE COVERED BY MATURE HARD WOOD TREES. A NEW SINGLE FAMILY HOME IS PROPOSED TO BE BUILT ON EACH LOT. EACH NEW HOME WILL BE SERVED BY HOWARD COUNTY PUBLIC WATER AND PUBLIC SEWER SYSTEM.

**GENERAL NOTE**

1. THE SUBJECT PROPERTY IS ZONE R-ED PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN
2. 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.
3. 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 EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
4. 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:  
WIDTH - 12' ( 16' SERVING MORE THAN ONE RESIDENCE);  
SURFACE - 6" OF COMPACTED CRUSHER RUN BASE W/ TAR AND CHIP COATING ( 1-1/2" MIN)  
GEOMETRY- MAX. 15% GRADE, MAX. 110% GRADE CHANGE AND MIN. 45' TURNING RADIUS;  
STRUCTURES (CULVERTY/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING);  
DRAINAGE ELEMENTS- CAPABLE OF SAFELY PASSING 100 -YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE;  
MAINTENANCE- SUFFICIENT TO INSURE ALL WEATHER USE.
5. NO NON-TIDAL WETLANDS AREA ARE LOCATED WITHIN THIS SUBDIVISION PER PLAT #20777
6. NO 100 YR FLOODPLAIN AREAS ARE LOCATED WITHIN THIS SUBDIVISION PER PLAT # 20777
7. A NOISE STUDY IS NOT REQUIRED DUE TO CONSTRUCTION A MD STATE HIGHWAY-ADMINISTRATION SOUND BARRIER UNDER CONTRACT # H04885126.
8. ALL OVERHEAD UTILITIES SHALL BE PLACED UNDERGROUND.
9. Landscaping for this subdivision was prepared in accordance with a certified Landscape Plan in accordance with Section 16.124 of the Howard County Code and the Landscape Manual under SDP-16-014. The landscaping surety for the four shade trees in the amount of \$1,200.00 will be posted as part of the grading permit for Lots 1-3.
10. Stormwater management for Lots 1-3 will be met via Rain Gardens.

**GENERAL NOTE CONT.**

11. Water and sewer service to these lots will be granted under the provisions of Section 18.122.B of the Howard County Code.
12. Public water and sewage allocation will be granted at the time of issuance of the building permit if capacity is available at that time.
13. The forest conservation obligation for this project was addressed under F-04-160 with the payment of a fee-in-lieu in the amount of \$9,475.00 for a 0.29 acre afforestation obligation.
14. The proposed lot size are less than the required 20,000 square foot minimum as a consequence of section 16.120(b)(2)(ii) which allows a 10% lot size reduction based on the right-of-way dedication for this minor subdivision.
15. This plot is subject to the Amended Fifth Edition of the Subdivision and Land Development Regulations per Council Bill No. 45-2003. Development or construction of these lots must comply with setback and buffer regulations in effect at the time of submission of the site development plan, waiver petition application, or building/grading permit.
16. The subject property will be developed pursuant to the "R-20" Zoning Regulations in accordance with Section 107.01.1 of the Howard County Zoning Regulations.
17. Open Space for this subdivision was addressed under F-04-160 with the payment of a fee-in-lieu in the amount of \$3,000.00 for the two (2) additional lots.
18. The subject property is NOT located within the Elkridge Historic District, and does not contain any historic structures or cemeteries.
19. A Design Manual Waiver to allow Stopping Sight Distance in lieu of Intersection Sight Distance for the proposed private driveways was submitted to the Development Engineering Division and approved by the Chief of the Development Engineering Division on March 16, 2005.
20. A site development plan is required prior to issuance of any grading or building permits in accordance with Section 16.155(a)(2)(ii) of the Subdivision and Land Development Regulations.
21. This plan is subject to WP-05-062. On January 10th, 2005 the Planning Director approved the request to waive Section 16.144(a)(3) for a waiver to reactivate the final plan, F-04-160 to active plan processing status and for an extension to resubmit revised subdivision plans.
22. The contractor shall notify the Department of Public Works /Bureau of Engineering/ Construction Inspection Division at (410) 313-1880 at least (5) working days prior to the start of work.
23. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
24. The existing topography is taken from field run survey with maximum two foot contour intervals prepared by LDE dated January, 2004.
25. These Coordinates are based on NAD'83, Maryland State Plane Coordinate System, as projected from Howard County control stations 38A4 & 37C3.
26. Stormwater management for Lots 1-3 will be met via Bioretention Facilities, which is approved under Plan # F-04-160 and Simplified ECP-16-014.
27. Existing utilities are base on existing public water per contract # 44-4280 and existing public sewer per contract # 10-1216.
28. Any damage to the County's right of way shall be corrected at the developer's expense.
29. Sewer house connection (SHC) elevations shown are located at the property line.
30. For driveway details refer to the Howard County Design Manual, Volume IV, Standard Detail R-6.06.

**SEQUENCE OF CONSTRUCTION**

1. PRIOR TO ANY CLEARING, INSTALLING SEDIMENT CONTROL MEASURES, OR GRADING, A PRECONSTRUCTION MEETING MUST BE CONDUCTED ON-SITE WITH HOWARD COUNTY DEPARTMENT OF PERMITTING SERVICES SEDIMENT CONTROL INSPECTOR (48 HOURS OF NOTICE), THE OWNER'S REPRESENTATIVE, AND THE SITE ENGINEER.
  2. THE LIMITS OF DISTURBING MUST BE FIELD MARKED PRIOR TO THE INSTALLATION OF SEDIMENT CONTROL MEASURES, CONSTRUCTION, OR OTHER LAND DISTURBING ACTIVITIES.
  3. CLEAR AND GRADE FOR INSTALLATION OF SEDIMENT CONTROL DEVICES.
  4. INSTALL SEDIMENT CONTROL DEVICES.
  5. ONCE THE SEDIMENT CONTROL DEVICES ARE INSTALLED, THE PERMITTEE MUST OBTAIN WRITTEN APPROVAL FROM THE HOWARD COUNTY INSPECTOR BEFORE PROCEEDING WITH ANY ADDITIONAL CLEARING OR GRADING.
  6. CONSTRUCT THE PROPOSED SINGLE-FAMILY HOUSE PER ARCHITECTURAL PLANS.
  7. AFTER STABILIZING ALL AREAS, INSTALLING DRYWELL MICRO-BIO RETENSION PER SWM PLAN, AND OBTAINING A WRITTEN APPROVAL FROM THE HOWARD COUNTY INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES.
  8. STABILIZE ALL SMALL AREAS DISTURBED BY THE PREVIOUS ITEM.
- 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.  
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.

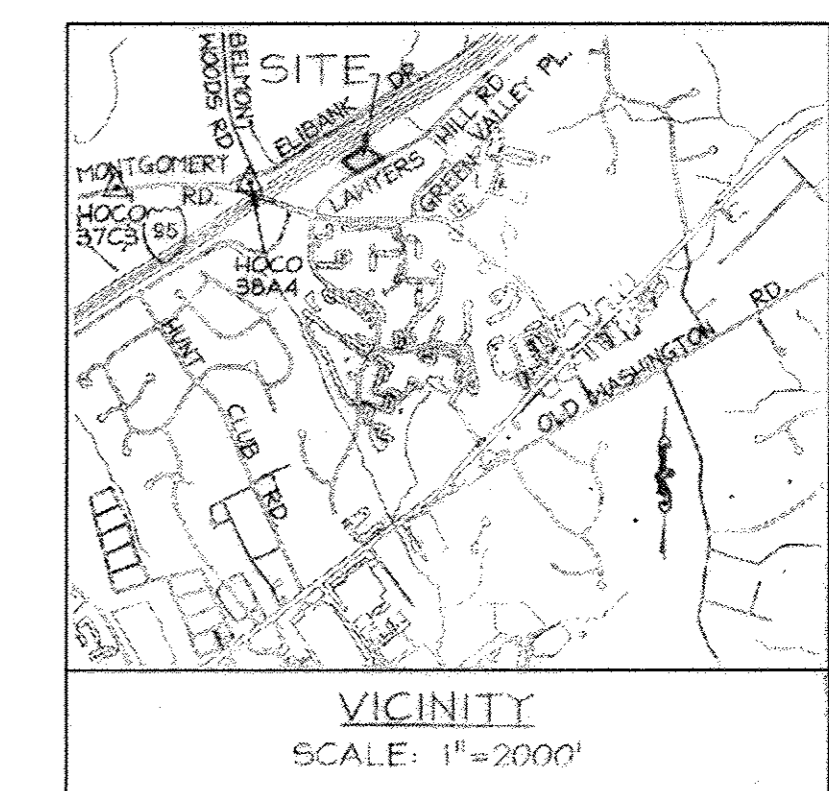
CONSTRUCTION AND MATERIAL SPECIFICATIONS  
TOPSOIL SALVAGED FROM EXISTING SITE MAY BE USED, PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS.

- TOPSOIL SPECIFICATIONS  
SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
1. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOILS SCIENTIST, AND APPROVED BY HOWARD SCD. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5
  2. THE TOPSOIL SHALL BE TILLED TO A MINIMUM DEPTH OF 6 INCHES BEFORE PLACEMENT OF TOPSOIL.
  3. WHERE THE TOPSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAY, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 LBS PER 1000 SQ. FT.) PRIOR TO THE PLACEMENT OF THE TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL.
  4. TOPSOIL SHALL BE TESTED AND AMENDED AS PER SOIL TEST RECOMMENDATIONS.  
TOPSOIL APPLICATION  
a. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES.  
b. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4-TO-8 INCH LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4 INCHES. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSING OR WATER POCKETS.  
c. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL 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 SEEDING PREPARATION.

9. STOCKPILE FOR LOT 1 SHALL BE PLACED ON CLEARED AREA OF LOT 2. STOCKPILE FOR LOT 2 SHALL BE PLACED ON CLEARED AREA OF LOT 3. STOCKPILE FOR LOT 3 SHALL BE PLACED IN THE CLEARED AREA AT THE BACKYARD OF LOT 3.

**MAINTENANCE PROGRAM**  
ALL MEASURES ARE TO BE INSPECTED DAILY BY THE SITE SUPERINTENDENT. ANY DAMAGED MECHANICAL DEVICES SHALL BE REPLACED BY THE CLOSE OF THE DAY. NO CONTROLS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE SITE INSPECTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR PENALTIES CAUSED BY HIS FAILURE TO COMPLY WITH THE EROSION AND SEDIMENT CONTROL PROGRAM OR THE DIRECTION OF THE SITE INSPECTOR. THE DESIGN ENGINEER SHALL BE NOTIFIED OF ANY CHANGES TO THIS PROGRAM.

THE SILT FENCE WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT DEPOSITION REACHES HALFWAY TO THE TOP OF THE BARRIER.  
THE SEEDING AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND OF GRASS IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDING AS NEEDED.



**SITE ANALYSIS DATA CHART**

- A. TOTAL PROJECT AREA: 1.2479 AC +/- ( 54,347 SF)
- B. LIMIT OF DISTURBED AREA: 0.87 AC +/- ( 37,761SF)
- C. PRESENT ZONING DESIGNATION: R-ED
- D. THREE DETACHED SINGLE-FAMILY HOMES ARE PROPOSED FOR THIS SUBDIVISION
- E. TOTAL NUMBER OF UNITS ALLOWED FOR PROJECT AS SHOWN ON FINAL PLAT: 3
- F. TOTAL NUMBER OF UNITS PROPOSED ON SUBMISSION: 3
- G. OPEN SPACE ON SITE: 0.000 AC, AND 0% OF GROSS AREA
- H. BUILDING COVERAGE OF SITE: 0.24 AC, AND 19.2% OF GROSS AREA
- I. THERE ARE NO FLOOD PLAINS ON THE SUBJECT PROPERTY AS DESIGNATED BY THE FEDERAL INSURANCE ADMINISTRATION OR THE UNITED STATES GEOLOGICAL SURVEY.
- J. EXISTING PUBLIC SEWER AND WATER FACILITY AVAILABLE ON LAWYERS HILL ROAD
- K. PLAT # IS F-04-160 AND APPROVED ECP# IS ECP-16-014.

**HOWARD SCD SIGNATURE BLOCK:**

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.  
*John R. Rhoads* 1/25/17  
Howard Soil Conservation District Date

**OWNERS/DEVELOPER CERTIFICATION:**

" I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right of entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."  
*Wen Yu* 11/1/2016  
Owner's/Developer's Signature Date  
Wen Yu, CFO  
Printed Name & Title

**DESIGN CERTIFICATION:**

" I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."  
*Chiwen K. Liang* 11/1/2016  
Designer's Signature Date  
Chiwen K. Liang  
Printed Name  
(P.E., R.L.S., or R.L.A. (circle one))

**PROFESSIONAL CERTIFICATION:**

I hereby certify 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. 19850, Expiration Date: 11/13/2016

**ADDITIONAL CONSTRUCTION NOTES**

1. ALL DEBRIS TO BE REMOVED FROM THE SITE.
2. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO MUD, DIRT, OR OTHER DEBRIS IS CARRIED OFF-SITE AND ONTO PUBLIC WAYS.
3. ALLEY AND/OR STREETS SHALL BE SWEEP CLEAN AT ALL TIMES DURING EXCAVATION AND
4. IF ANY CATCH BASIN OR DRAIN BECOMES CLOGGED AS A RESULT OF EXCAVATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS CLEANING.
5. BACKFILL IS TO BE DONE ACCORDING TO CURRENT REGULATIONS AND FOLLOWING RECOMMENDATIONS FROM GEOTECHNICAL AND STRUCTURAL ENGINEERS.
6. ANY STOCKPILING, REGARDLESS OF LOCATION ON THE SITE, SHALL BE STABILIZED WITHIN 10 DAYS AFTER ITS ESTABLISHMENT, AND FOR THE DURATION OF THE PROJECT. STOCKPILE AREAS ARE SHOWN ON SHEET SDP-2 FOR LOT 1-3.
7. REPAIRS TO UTILITIES OR TO PRIVATE PROPERTY DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT HIS OWN EXPENSE.
8. ALL GRADED AND DISTURBED GROUND WILL BE SEEDING AND MULCHED.

**APPROVED: FOR PUBLIC WATER & PUBLIC SEWAGE SYSTEMS**

\_\_\_\_\_  
COUNTY HEALTH OFFICER DATE  
HOWARD COUNTY HEALTH DEPARTMENT

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

*Ken Stashenko* 3-01-17  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
*Paul Edmund* 2-16-17  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE NY  
*Nadine J. Jai* 3-1-17  
DIRECTOR, DEPARTMENT OF PLANING AND ZONING DATE

**DRAWING INDEX**

- SDP-1. GENERAL NOTES AND DRAWING INDEX
- SDP-2. SITE DEVELOPMENT PLAN
- SDP-3. DETAILS
- SDP-4. SPECIFICATION FOR PERMANT/TEMPORARY STABILIZATION

PROJECT	SECTION	PARCEL NO.			
WEI LU PROPERTY	N/A	933			
PLAT# OR L/F	GRID NO.	ZONE	TAX MAP #	ELEC. DIST	CENSUS TR.
5596/390	1	R-ED	38	1	601201
WATER CODE	SEWER CODE				
44-4280	10-1216				

**WEI LU PROPERTY**  
LOT 1-3  
SITE DEVELOPMENT PLAN # : SDP-16-014  
THREE SINGLE FAMILY HOMES WILL BE CONSTRUCTED IN THIS SUBDIVISION

TAX MAP NO. 38 - GRID NO. 1 - PARCEL 933  
ZONED: R-ED  
1st ELECTION DISTRICT - HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN; DATE: 7/7/2016; SHEET: 1 OF 4

LOT/PARCEL #	STREET ADDRESS
LOT 1	6520 LAWYERS HILL ROAD ELKRIDGE, MD
LOT 2	6510 LAWYERS HILL ROAD ELKRIDGE, MD
LOT 3	6500 LAWYERS HILL ROAD ELKRIDGE, MD

**OWNER:** CLY L HOLDINGS, LLC  
12407 KAHNS ROAD  
MANASSAS, VA 20112  
ATTN: DAVID LU  
TEL: 703 598-6283  
EMAIL: DWELU@CANAAN-HOMES.COM

**DEVELOPER:** CANAAN HOMES, LLC  
3038 GOLANSKY BLVD, SUITE 201  
WOODBRIIDGE, VA 22192  
ATTN: LANI YU  
TEL: 703 851-0368  
EMAIL: LANI@CANAAN-HOMES.COM

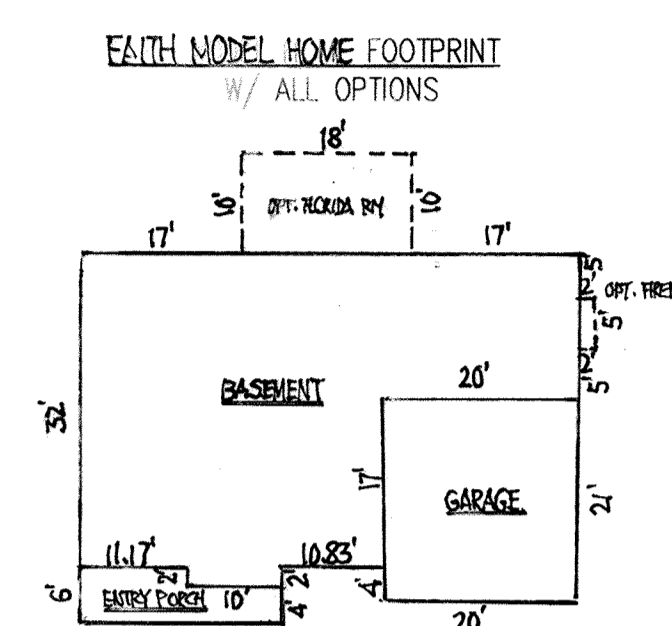
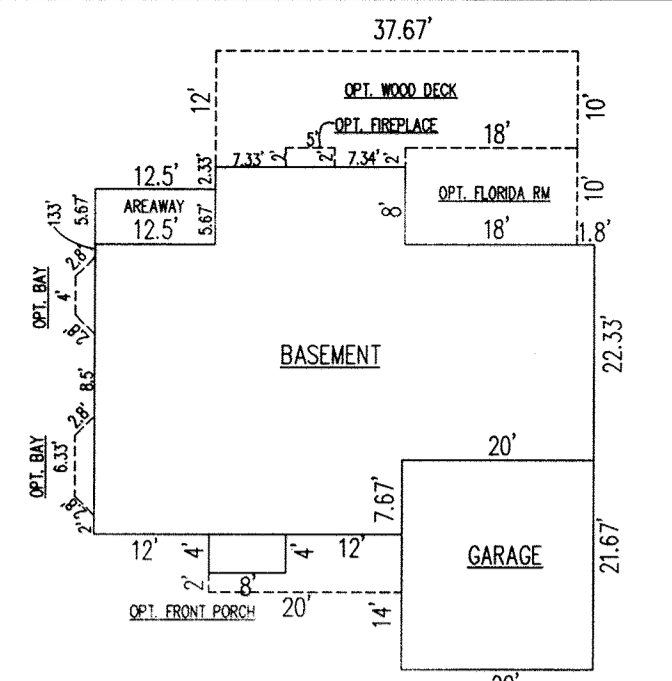
**CANAAN HOMES**  
3038 GOLANSKY BLVD, SUITE 201, WOODBRIDGE, VA 22192  
PH: 703 851-0368 | WWW.CANAAN-HOMES.COM



**GENERAL NOTES AND DRAWING INDEX**  
WEI LU PROPERTY - SDP-16-014

REV No.	DATE
1	1/25/2016
2	1/14/2016
3	7/7/2016
4	9/12/2016
5	11/1/2016

FILE NAME: SDP-1  
SHEET NUMBER: SDP-1 OF 4



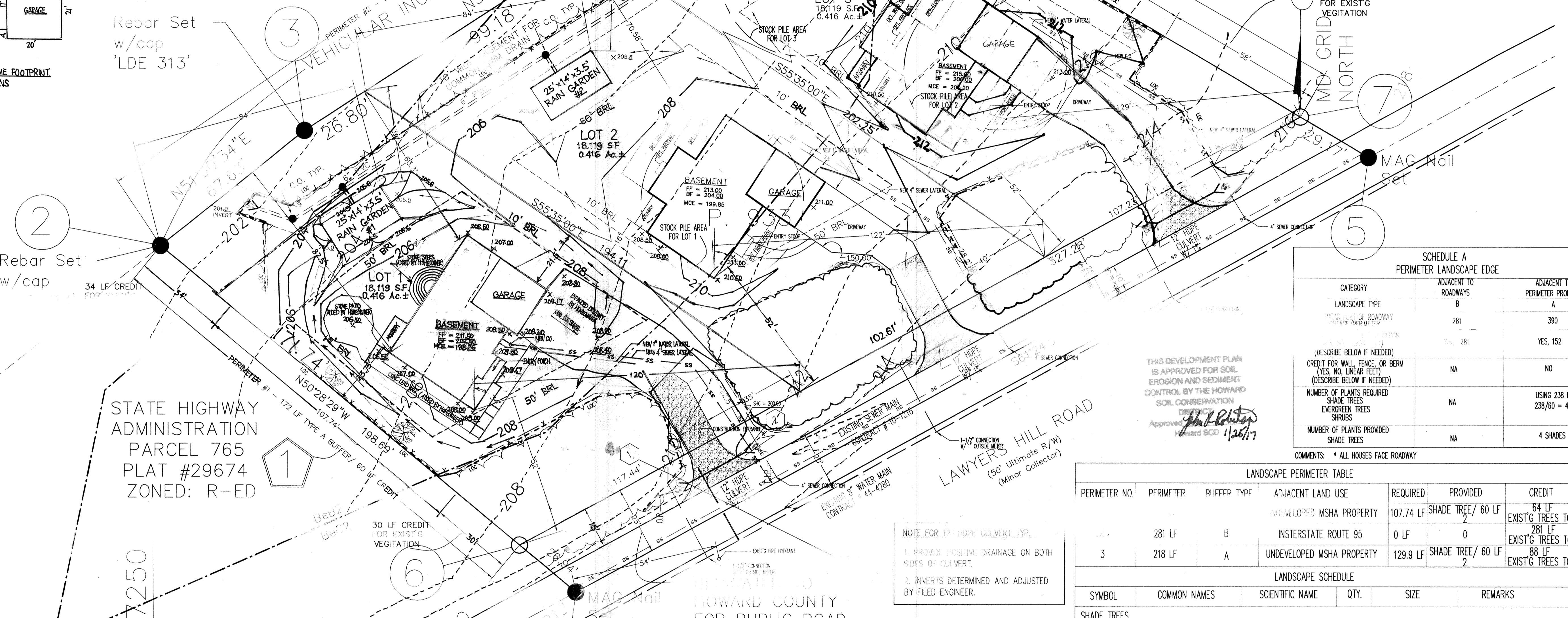
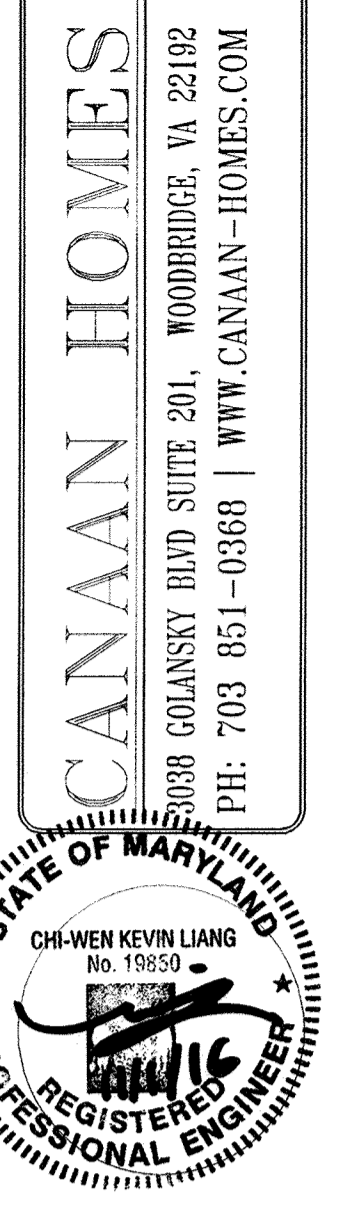
E 1387250 N 563400

N 563400 E 1387700

INTERSTATE ROUTE 95  
(150' 1/2 R/W)  
(Principal Arterial)  
SHA PLAT #32154

STATE ROADS  
COMMISSION OF  
MARYLAND  
PARCEL 18  
LIBER 455 FOLIO 384  
ZONED: R-ED

APPROVED: HOWARD COUNTY DEPT OF PLANNING AND ZONING  
3-9-17  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE  
JY 2017  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE  
DIRECTOR, DEPT OF PLANNING AND ZONING DATE



STATE HIGHWAY  
ADMINISTRATION  
PARCEL 765  
PLAT #29674  
ZONED: R-ED

**SITE DEVELOPMENT PLAN**

SCALE: 1" = 20'

	LOT 1	LOT 2	LOT 3
NEW DRIVEWAY AREA	2,320 SF	1,232 SF	1,213 SF
FRONT YARD AREA	6,523 SF	6,055 SF	6,213 SF
DRIVEWAY AREA / FRONT YARD AREA RATIO	35.6%	20.2%	19.5%
PREDEVELOPMENT IMPERVIOUS AREA	0 SF	0 SF	0 SF
POSTDEVELOPMENT IMPERVIOUS AREA	5,041 SF	3,606 SF	3,517 SF
PREDEVELOPMENT TREE CANOPY	18,119 SF	18,119 SF	18,119 SF
POSTDEVELOPMENT TREE CANOPY	5517.1 SF	4,895 SF	4,905 SF
TOTAL DISTURBED AREA	12,103 SF	12,930 SF	12,798 SF

GRADING PLAN LEGEND

EXISTING CONTOUR	—
PROPOSED CONTOUR	— 300 —
EXISTING SPOT ELEVATION	90.5
PROPOSED SPOT ELEVATION	× 90.5
PROPOSED SILT FENCE	— · — · — · — · — · — · — · — ·
LIMIT OF CLEARING	— · — · — · — · — · — · — · — ·
SEWER LATERAL	— SS — SS — SS —
WATER SERVICE LINE	— — — — —
EXISTING TREE LINE	— (tree symbol) —

NOTE:  
Landscaping for this subdivision was prepared in accordance with a certified Landscape Plan in accordance with Section 16.124 of the Howard County Code and the Landscape Manual under SDP-16-014. The landscaping surety for the four shade trees in the amount of \$1,200.00 will be posted as part of the grading permit for Lots 1-3.  
REVISED ON 3/12/2019 TO REFLECT WIDENED DRIVEWAY, EXTENDED SIDEWALK, STONE PATIO, AND CIRCULAR STEPS IN LOT 1 ADDED BY HOMEOWNER

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A
PERIMETER LENGTH (LINEAR FEET)	281	390
PERIMETER AREA (SQUARE FEET)	281	152
CREDIT FOR WALL, FENCE, OR BERM (YES/NO LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	NO
NUMBER OF PLANTS REQUIRED	NA	USING 238 LF
EVERGREEN TREES	NA	238/60 = 4
SHRUBS	NA	4 SHADES
NUMBER OF PLANTS PROVIDED	NA	4 SHADES

COMMENTS: \* ALL HOUSES FACE ROADWAY

LANDSCAPE PERIMETER TABLE

PERIMETER NO.	PERIMETER	BUFFER TYPE	ADJACENT LAND USE	REQUIRED	PROVIDED	CREDIT
1	281 LF	B	DEVELOPED MSHA PROPERTY	107.74 LF	SHADE TREE / 60 LF	64 LF EXIST'G TREES TO REMAIN
2	218 LF	A	INTERSTATE ROUTE 95	0 LF	0	281 LF EXIST'G TREES TO REMAIN
3	218 LF	A	UNDEVELOPED MSHA PROPERTY	129.9 LF	SHADE TREE / 60 LF	88 LF EXIST'G TREES TO REMAIN

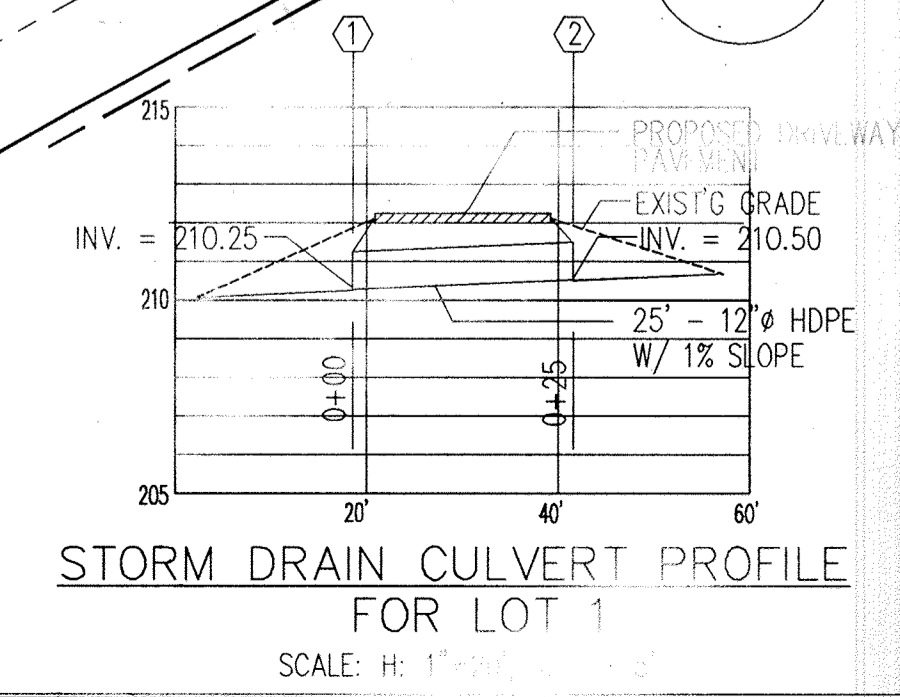
LANDSCAPE SCHEDULE

SYMBOL	COMMON NAMES	SCIENTIFIC NAME	QTY.	SIZE	REMARKS
(tree symbol)	RED MAPLE OCTOBER GLORY	ACER RUBRUM	4	2-1/2"-3" CALIPER	B&B

**DEVELOPER'S CERTIFICATE**

I 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 further certify that upon completion a Certificate of Landscape Installation, accompanied by an executed One Year Guarantee of Plant Materials will be submitted to the Department of Planning and Zoning.

Signature of Developer/Builder: Wen Yu  
Date: 11/1/2016



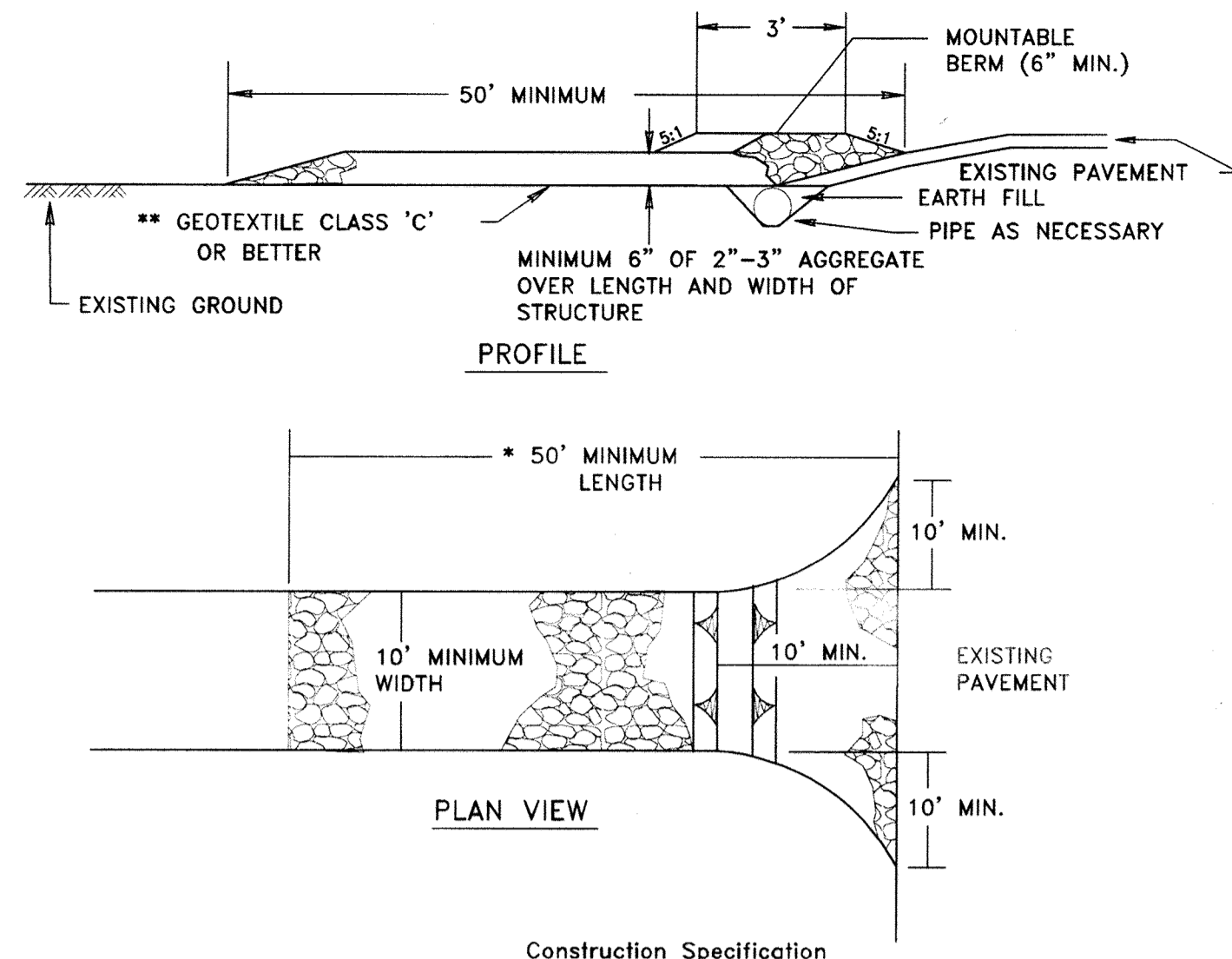
SHEET TITLE: **SITE DEVELOPMENT PLAN**  
 CLIENT INFORMATION: **WEI LU PROPERTY - SDP-16-014**

REVISIONS

REV No.	DATE
1	1/8/2016
2	1/14/2016
3	7/7/2016
4	9/12/2016
5	11/4/2016
6	3/12/2019

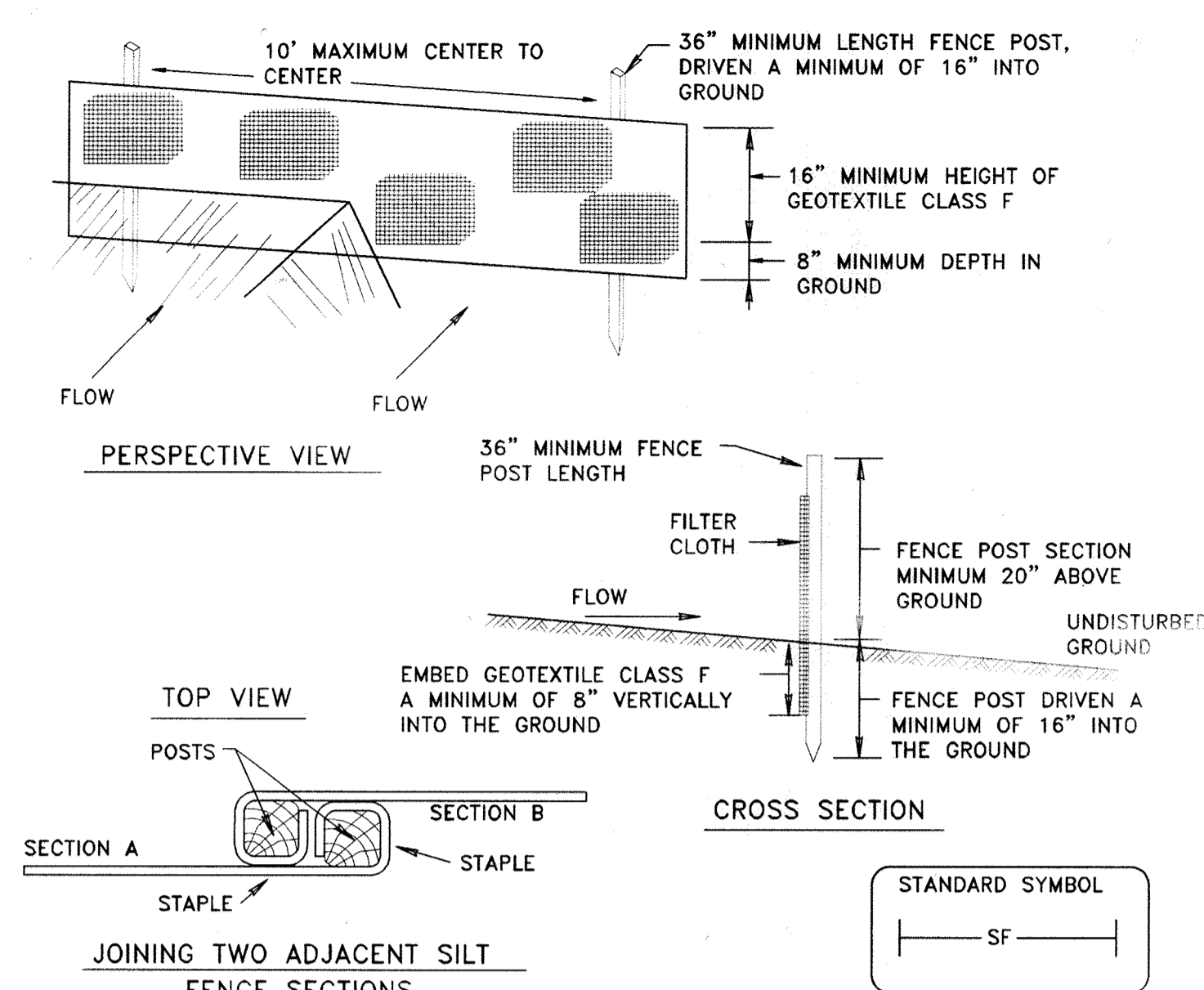
FILE NAME: SDP-2  
SHEET NUMBER: **SDP-2**  
OF 4

**DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE**



- Construction Specification**
- Length - minimum of 50' (\*30' for single residence lot).
  - Width - 10' minimum, should be flared at the existing road to provide a turning radius.
  - Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. \*\*The plan approval authority may not require single family residences to use geotextile.
  - Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete aggregate shall be placed at least 6" deep over the length and width of the entrance.
  - Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mounded berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
  - Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

**DETAIL 22 - SILT FENCE**



- Construction Specifications**
- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard E or H section, exhibiting not less than 100 pound per linear foot.
  - Geotextile shall be fastened to the ground with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:  
 Tensile Strength 50 lbs/in (min.) Test: MSMT 509  
 Tensile Modulus 20 lbs/in (min.) Test: MSMT 509  
 Flow Rate 0.3 gal ft / minute (max.) Test: MSMT 322  
 Filtering Efficiency 75% (min.) Test: MSMT 322
  - Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
  - Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

**STORMWATER MANAGEMENT DESIGN COMPUTATIONS**

THREE SAME SIZE (25'X14'X3') RAIN GARDENS ARE PROPOSED FOR THIS PROJECT THE ENTIRE SITE IS HSG = C  
 DETERMINE THE PROPOSED IMPERVIOUSNESS (% I)  
 LOT 1 = 5,041/18,119 = 27.82%  
 LOT 2 = 3,606/18,119 = 19.90%  
 LOT 3 = 3,517/18,119 = 19.41%

FROM TABLE 5.3  
 PE = 1.2"  
 QE = PE x Rv  
 Rv = 0.05 + (0.009)(I)  
 Rv = 0.05 + (0.009) x 19.85 = 0.300 FOR LOT 1  
 Rv = 0.05 + (0.009) x 19.90 = 0.229 FOR LOT 2  
 Rv = 0.05 + (0.009) x 19.41 = 0.225 FOR LOT 3

ESD REQUIRED = QE x AREA = PE x Rv x AREA = 1.2' /12 x 0.229 x 18,119 = 725 CF FOR LOT 1  
 ESD REQUIRED = QE x AREA = PE x Rv x AREA = 1.2' /12 x 0.229 x 18,119 = 415 CF FOR LOT 2  
 ESD REQUIRED = QE x AREA = PE x Rv x AREA = 1.2' /12 x 0.225 x 18,119 = 408 CF FOR LOT 3

25X14X3 RAINGARDEN PROVIDES FOLLOW:  
 PLANTING SOIL IS 2 FEET DEEP  
 25'X14'X2'X0.4 (VOID RATIO) = 280 CF

6" PONDING AREA PROVIDES 12"/12X25'X14' = 350 CF  
 (996 + 25x14) / 2 x 1.1 = 740 CF

TOTAL 280 + 350 = 630 CF PROVIDED (OK)      TOTAL FOR LOT 1: 280 + 740 = 1020 CF (<0.K)

	RAINGARDEN #1	RAINGARDEN #2	RAINGARDEN #3
LENGTH	25 FT	25 FT	25 FT
WIDTH	14 FT	14 FT	14 FT
DEPTH	3.5 FT	3.5 FT	3.5 FT
REQUIRED VOLUME	725 CF	415 CF	408 CF
PROVIDED VOLUME	1020 CF	630 CF	630 CF

**EROSION AND SEDIMENT CONTROL NARRATIVE**

**PROJECT DESCRIPTION**  
 THE PROPOSED HOUSE GRADING PLAN IS FOR THE CONSTRUCTION OF A NEW SINGLE-FAMILY DETACHED DWELLING ON EACH LOT.  
 TOTAL SITE AREA IS 1.437 ACRES AND THE TOTAL DISTURBED AREA IS 0.87 ACRES. CLEARING AND GRADING IS TO BE MINIMIZED AS MUCH AS POSSIBLE AS SHOWN ON THE PLAN. ACCESS TO THE SITE IS FROM LAWYER HILL ROAD.

**EXISTING CONDITIONS**  
 THE OVERALL SITE IS MOSTLY COVERED WITH TREES AND SLIGHTLY SLOPING TOWARD THE REAR OF THE LOT.

**ADJACENT AREAS**  
 THE LOT IS LOCATED ON LAWYERS HILL ROAD. IT IS FRONTING THE LAWYERS HILL ROAD ON THE EAST SIDE AND IS SURROUNDED BY R-ED ZONED LOTS ON NORTH AND SOUTH SIDE AND I-95 ON THE WEST SIDE.

**OFFSITE AREAS**  
 THERE IS OFF-SITE DISTURBING ACTIVITIES TO CONNECT DRIVEWAY OF EACH LOT TO LAWYERS HILL ROAD.

**SOILS**  
 PLEASE REFERENCE GEOTECHNICAL REPORT FOR THE SOILS IN THE AREA TO BE DISTURBED.

**CRITICAL AREAS**  
 SILT FENCE WILL BE USED TO PROTECT THE ADJACENT UNDISTURBED AREAS. CARE MUST BE TAKEN TO MINIMIZE LAND DISTURBANCE OUTSIDE OF THE LIMITS OF CLEARING AND GRADING AND ALL SEDIMENT MUST BE TRAPPED ON-SITE.

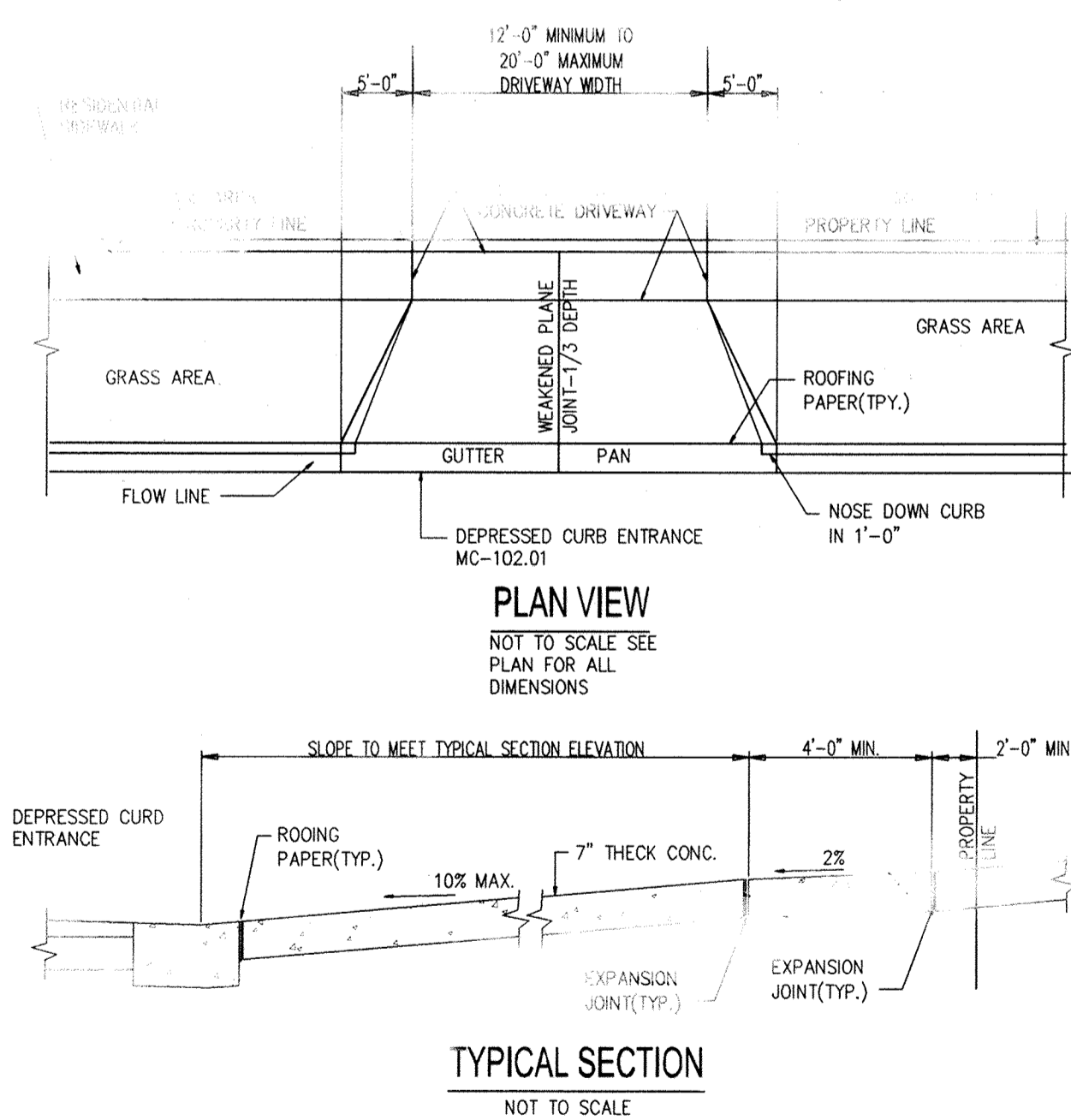
**EROSION AND SEDIMENT CONTROL MEASURES**  
 UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATION OF THE 2011 MD STAND. & SPECS FOR EROSION AND SEDIMENT CONTROL.

**STRUCTURAL PRACTICES**

- SILT FENCE BARRIER - SILT FENCE WILL BE INSTALLED AS SHOWN TO FILTER SEDIMENT LADEN RUNOFF SHEET FLOW
- TEMPORARY CONSTRUCTION ENTRANCE - A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SHOWN ON PLAN.
- ALL PERIMETER CONTROLS SHALL BE STABILIZED WITHIN THREE (3) CALENDAR DAYS AND PERMANENT SOIL STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS.

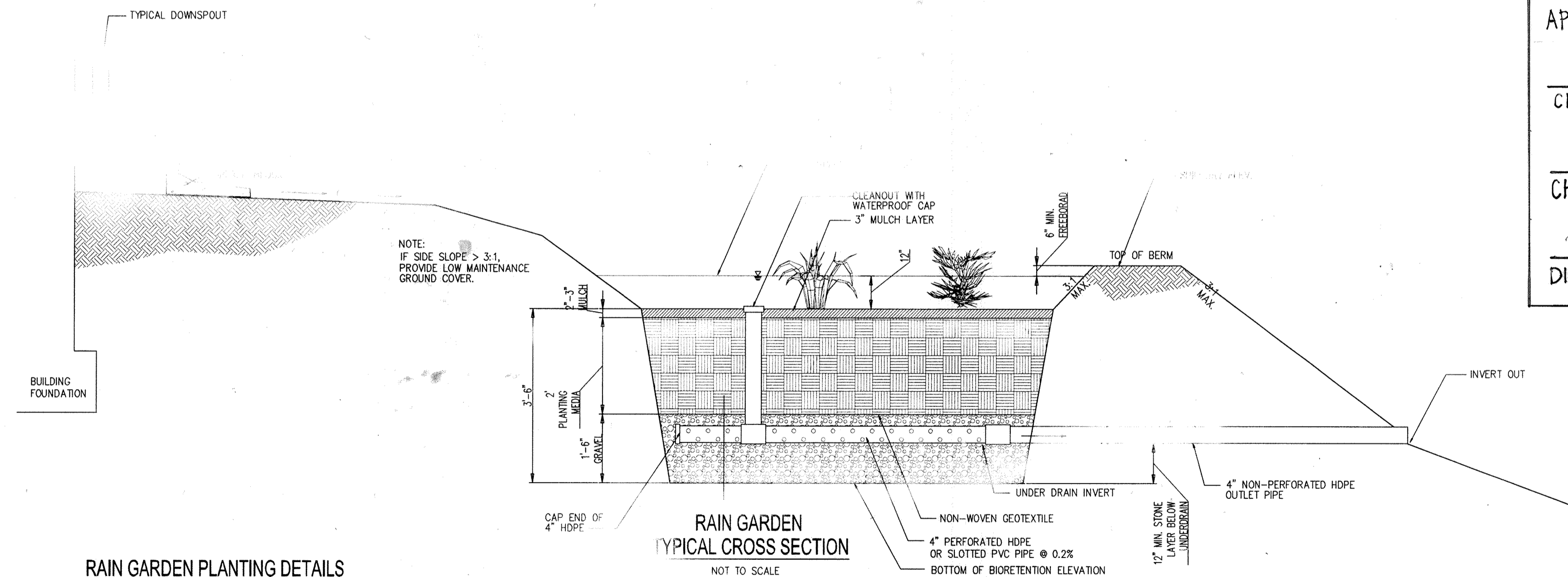
**STABILIZATION PROGRAM**  
 PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADING IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS, EXCEPT FOR THAT PORTION OF THE SITE ON WHICH WORK WILL BE CONTINUOUS BEYOND FOURTEEN (14) DAYS. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN SIX (6) MONTHS. FOR WINTER STABILIZATION, ANY AREA DENUDED FOR MORE THAN FOURTEEN (14) DAYS AFTER NOVEMBER 1 AND BEFORE MARCH 1 SHALL BE MULCHED AND SEEDED APPROPRIATE TO THE SEASON AND SITE CONDITIONS.

**DETAIL 12 - DRIVEWAY DETAILS**

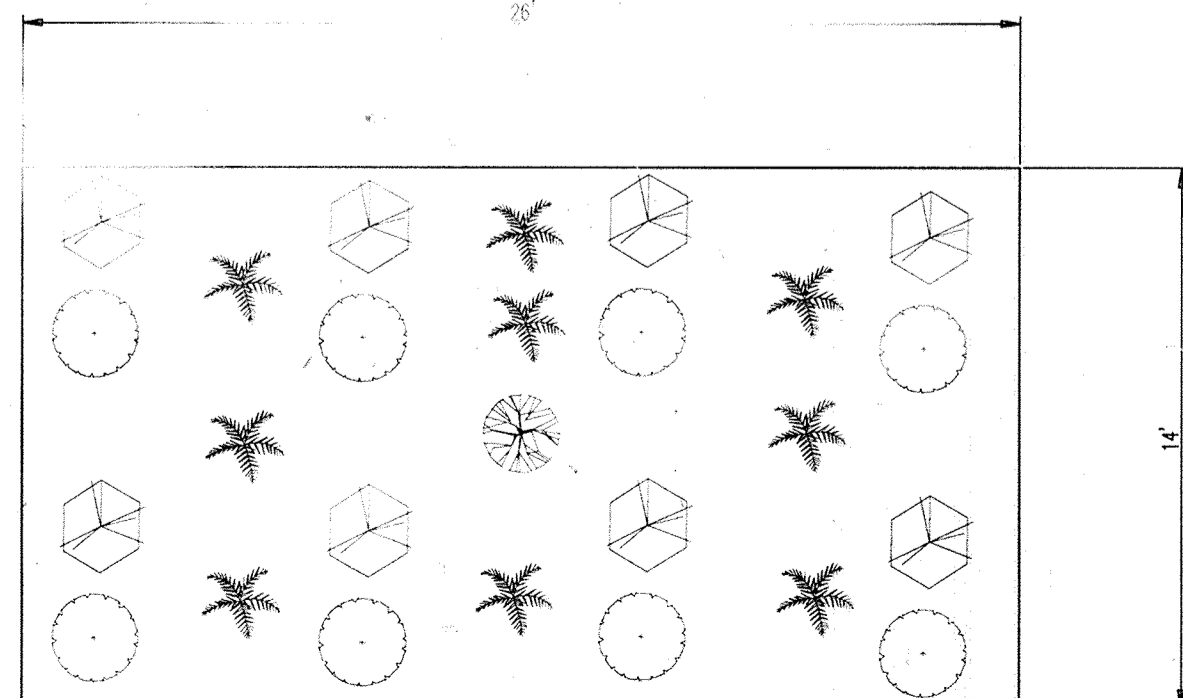


- GENERAL NOTES:**
- REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
  - DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
  - PROVIDE WEAKENED PLANE JOINTS AT MAXIMUM INTERVALS OF 15'
  - THE EXPANSION JOINTS SHALL BE PLACED AT LOCATION SHOWN.
  - EXPANSION JOINT MATERIAL SHALL BE 1/2" PREFORMED CORK, TRIMMED AND SEALED W/NON STAINING TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING W/ASTM-S-00227

**DETAIL 10 - RAIN GARDEN DETAILS**



**RAIN GARDEN PLANTING DETAILS N.T.S.**



SHUBS PER EACH RAIN GARDEN					
SYMBOL	QNTY	COMMON NAME	SCIENTIFIC NAME	SIZE	REMARKS
	8	AZALEA	AZALEA SP.	18-24" HIGH	CONTAINER 3' O.C.
	8	INKBERRY	IIE X GLABRA	18-24" HIGH	CONTAINER 3' O.C.
	9	ARROWWOOD	VIBURNUM RECOGNITUM	18-24" HIGH	CONTAINER 3' O.C.
	1	RED MAPLE	ACER RUBRUM	48" HIGH	2"-2-1/2" CALIPER B&B
	276 SF	SWITCHGRASS	PANICUM VIRGATUM	---	SEED MIXTURE

APPROVED: HOWARD COUNTY DEPT OF PLANING AND ZONING

*West De... 3-21-17*  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*NY 3-16-17*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*3-1-17*  
 DIRECTOR, DEPARTMENT OF PLANING AND ZONING DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. APPROVED: *[Signature]* 1/25/17

**WEI LU PROPERTY**  
 LOT 1-3  
 SITE DEVELOPMENT PLAN # : SDP-16-014  
 THREE SINGLE FAMILY HOMES WILL BE CONSTRUCTED IN THIS SUBDIVISION

TAX MAP NO. 38 - GRID NO. 1 - PARCEL 933  
 ZONED: R-ED  
 1st ELECTION DISTRICT - HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN; DATE: 7/7/2016; SHEET: 3 OF 4

CANAAN HOMES  
 3038 GOLANSKY BLVD SUITE 201, WOODBRIDGE, VA 22192  
 PTE: 703 851-0368 | WWW.CANAAN-HOMES.COM



DETAILS  
 CLIENT INFORMATION  
**WEI LU PROPER**

REV. NO.	DATE
1	1/8/2016
2	1/14/2016
3	7/7/2016
4	9/12/2016
5	11/4/2016
6	3/2/2017

FILE NAME: SDP-3  
 SHEET NUMBER: SDP-3  
 OF 4

1. A pre-construction meeting must occur with the Howard County Department of Public Works Construction Inspection Division (CID), 410-313-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages:

- Prior to the start of earth disturbance,
- Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading,
- Prior to the start of another phase of construction or opening of another grading unit,
- Prior to the removal or modification of sediment control practices. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made. Other related state and federal permits shall be referenced, to ensure coordination and to avoid conflicts with this plan.

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 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.

3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.

4. All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for topsoil (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. B-4-1) specifications shall be enforced in areas with >15' of cut and/or fill. Stockpiles (Sec. B-4-8) in excess of 20 ft. must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).

5. 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 CID.

6. Site Analysis:

Total Area of Site: 1.25 Acres  
 Area Disturbed: 0.87 Acres  
 Area to be roofed or paved: 0.24 Acres  
 Area to be vegetatively stabilized: 0.63 Acres  
 Total Cut: 1030 Cu. Yds.  
 Total Fill: 1030 Cu. Yds.  
 Offsite waste/borrow area location: NA

APPROVED: HOWARD COUNTY DEPT OF PLANNING AND ZONING  
 3-01-17  
 CHIEF, DIV OF LAND DEVELOPMENT  
 NY 2-16-17  
 CHIEF, DEVELOPMENT ENGINEER DIV DATE  
 3-7-17  
 DIRECTOR, DEPT OF PLANNING AND ZONING

7. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

8. Additional sediment control must be provided if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly, and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:

- Inspection date
- Inspection type (routine, pre-storm event, during rain event)
- Name and title of inspector
- Weather information (current conditions as well as time and amount of last recorded precipitation)
- Brief description of project's status (e.g., percent complete) and/or current activities
- Evidence of sediment discharges
- Identification of plan deficiencies
- Identification of sediment controls that require maintenance
- Identification of missing or improperly installed sediment controls
- Compliance status regarding the sequence of construction and stabilization requirements
- Photographs
- Monitoring/sampling
- Maintenance and/or corrective action performed
- Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, MDE).

9. Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be back-filled and stabilized by the end of each workday, whichever is shorter.

10. Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by the HSCD prior to proceeding with construction. Minor revisions may be allowed by the CID per the list of HSCD-approved field changes.

11. Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the CID. Unless otherwise specified and approved by the HSCD, no more than 30 acres cumulatively may be disturbed at a given time.

12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.

13. Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade.

14. All Silt Fence and Super Silt Fence shall be placed on-the-contour, and be imbricated at 25' minimum intervals, with lower ends curled uphill by 2' in elevation.

15. Stream channels must not be disturbed during the following restricted time periods (inclusive):

- Use I and IP March 1-June 15
- Use III and IIP October - April 30
- Use IV March 1- May 31

16. A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and associated permits shall be on-site and available when the site is active.

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Where vegetative stabilization is to be established.  
 Criteria

A. Soil Preparation

1. Temporary Stabilization

a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plan.

c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.

2. Permanent Stabilization

a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:

- Soil pH between 6.0 and 7.0.
- Soluble salts less than 500 parts per million (ppm).
- Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
- Soil contains 1.5 percent minimum organic matter by weight.
- Soil contains sufficient pore space to permit adequate root penetration.

b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.

c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

B. Topsoiling

1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is 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.

2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.

3. Topsoiling 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 plant growth.
- The soil is so acidic that treatment with limestone is not feasible.

4. Areas having slopes steeper than 2:1 require special consideration and design.

5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:

a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.

b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.

c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

6. Topsoil Application

a. Erosion and sediment control practices must be maintained when applying topsoil.

b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.

c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

Definition

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

Criteria

1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.

2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.

3. When stabilization is required outside of a seeding season, apply seed and straw mulch alone as prescribed in Section B-4-3A.1.b and maintain until the next seeding season.

Temporary Seeding Summary

Hardiness Zone (from Figure B.3): <u>7a</u>		Seed Mixture (from Table B.1): <u>Annual Ryegrass</u>			Fertilizer Rate (10-20-20)	Lime Rate
No.	Species	Application Rate (lb/Ac)	Seeding Dates	Seeding Depth		
1	Annual Ryegrass (Lolium perenne ssp. multiflorum)	40	Feb 15 to Apr 30; Aug 15 to Nov 30	0.5"	436 lb/ac 10 lb/1000 sf	2 tons/ac 90 lb/1000 sf

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

Definition

To stabilize disturbed soils with permanent vegetation.

Purpose

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for 6 months or more.

Criteria

A. Seed Mixtures

1. General Use

a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant

Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342- Critical Area Planting.

c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.

d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.

2. Turfgrass Mixtures

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.

i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade.

Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.

iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture in cludes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.

Notes:

Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland". Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Lawn Section, provides a reliable means of consumer protection and assures a pure genetic seed.

c. Ideal Seeding Dates for Turf Grass Mixtures

Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)  
 Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)  
 Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.

e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Permanent Seeding Summary

Hardiness Zone (from Figure B.3): <u>7a</u>		Seed Mixture (from Table B.3): <u>8</u>			Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/Ac)	Seeding Dates	Seeding Depth	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	
1	Tall Fescue (Lolium Arundinaceum)	100	Feb 15 to Apr 30; Aug 15 to Nov 30	0.5"	45 lb/AC; 1.0 lb/1000 sf	90 lb/AC; 2 lb/1000 sf	90 lb/AC; 2 lb/1000 sf	2 tons/ac 90 lb/1000 sf

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF SOIL CONSERVATION  
 Approved: [Signature] 1/25/17

SDP-16-014

CANAAN HOMES  
 3008 GOLANSKY BLVD SUITE 201, WOODBRIDGE, VA 22192  
 PH: 703 851-0368 | WWW.CANAAN-HOMES.COM



SPEC FOR TEMP. AND PERM. STABILIZATION  
 CLIENT INFORMATION  
 WEILU PROPERTY - SDP-16-014

REV. No.	DATE
1	1/20/15
2	1/14/2016
3	7/7/2016
4	9/12/2016
5	11/4/2016

FILE NAME: SDP-4  
 SHEET NUMBER  
 SDP-4  
 4