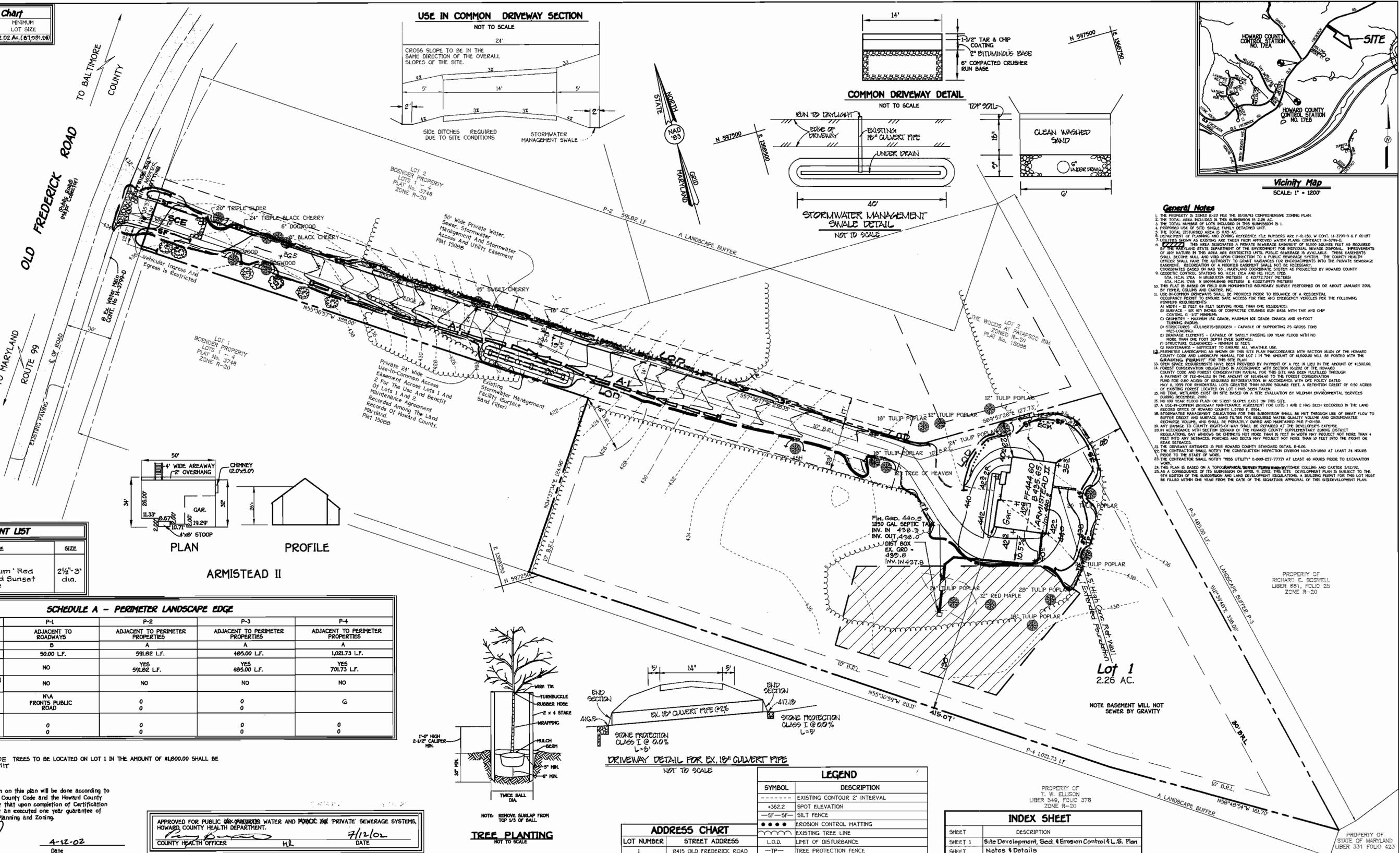


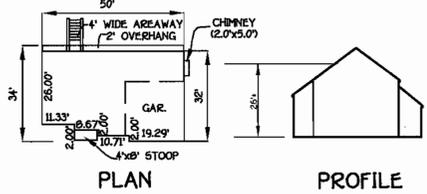
Minimum Lot Size Chart			
LOT No.	GROSS AREA	FLAG OR PIFESTEM AREA	MINIMUM LOT SIZE
1	2.26 Ac.	10,665 sq. ft.	2.02 Ac. (87,091 sq. ft.)



- General Notes**
1. THE PROPERTY IS ZONED R-20 PER THE 10/18/93 COMPREHENSIVE ZONING PLAN.
  2. THE TOTAL AREA INCLUDED IN THIS SUBDIVISION IS 2.26 AC.
  3. THE TOTAL NUMBER OF LOTS INCLUDED IN THIS SUBDIVISION IS 1.
  4. PROPOSED USE OF SITE: SINGLE FAMILY DETACHED UNIT.
  5. THE TOTAL DISTURBED AREA IS 5,000 SQ. FT.
  6. DEPARTMENT OF PLANNING AND ZONING REFERENCE: FILL METHODS ARE F-100, W. CONT. 11-3799-A & F. 01-107.
  7. UTILITIES SHOWN AS EXISTING ARE TAKEN FROM APPROVED WATER PLANS, CONTRACT 14-3799-01.
  8. THIS AREA DESIGNATES A PRIVATE SEWERAGE SYSTEM OF 10,000 SQUARE FEET AS REQUIRED BY THE HEALTH DEPARTMENT OF THE ENVIRONMENT FOR RESIDENTIAL SEWERAGE. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE IMPROVEMENTS SHALL BECOME FULLY OPERATIONAL UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE SYSTEM. RECORDATION OF A POWER OF ATTORNEY SHALL NOT BE NECESSARY.
  9. COORDINATE SYSTEM: 83° MERIDIAN COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY.
  10. GEODIC CONTROL STATIONS: NO. H.C.H. 1524 AND NO. H.C.H. 1525.
  11. H.C.H. 1524: STA. H.C.H. 1524 N 890948480 (RETROD) E. 43527247 (RETROD).
  12. STA. H.C.H. 1525: STA. H.C.H. 1525 N 890948480 (RETROD) E. 43527247 (RETROD).
  13. THE PLAT IS BASED UPON A BOUNDARY SURVEY PERFORMED ON OR ABOUT JANUARY 2000, BY FISHER, COLLINS & CARTER, INC.
  14. USE-IN-COMMON DRIVEWAY: THE PROVIDER PRIOR TO ISSUANCE OF A RESIDENTIAL OCCUPANCY PERMIT TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
    - A) WIDTH - 12 FEET IN FEET SERVING MORE THAN ONE RESIDENCE;
    - B) SURFACE - 30" MINIMUM OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING @ 1/2" MINIMUM;
    - C) GEOMETRY - 10' MINIMUM RADIUS WITH 10' CLEARANCE AND 45-FOOT TURNING RADIUS;
    - D) STRUCTURE - UNLIMITEED - CAPABLE OF SUPPORTING 25,000 LBS. (25-TONS);
    - E) DESIGN ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN ONE FOOT DEPTH OVER SURFACE;
    - F) STRUCTURE CLEARANCES - MINIMUM 12 FEET;
    - G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
  15. PERMIT LANDSCAPING AS SHOWN ON THIS SITE PLAN IN ACCORDANCE WITH SECTION 16.00 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL FOR LOT 1 IN THE AMOUNT OF \$10,000 WILL BE POSTED WITH THE GRADING PERMIT FOR THIS SITE PLAN.
  16. OPEN SPACE REQUIREMENTS HAVE BEEN PROVIDED BY PAYMENT OF A FEE IN LIEU IN THE AMOUNT OF \$10,000.00. A PAYMENT OF \$10,000.00 IN THE AMOUNT OF \$10,000.00 TO THE FOREST CONSERVATION FUND FOR 100 ACRES OF FOREST RESTORATION IN ACCORDANCE WITH USE POLICY DATED MAY 11, 1998 FOR PROPERTIES WITH GREATER THAN 10,000 SQUARE FEET. A RETENTION ORDER OF 0.50 ACRES OF EXISTING FOREST LOCATED ON LOT 1 HAS BEEN TAKEN.
  17. NO TOTAL WELLS EXIST ON SITE BASED ON A SITE EVALUATION BY WILDMAN ENVIRONMENTAL SERVICES DURING DECEMBER, 2000.
  18. NO 100 YEAR FLOOD PLAYS OR STEEP SLOPES EXIST ON THIS SITE.
  19. A USE-IN-COMMON DRIVEWAY MAINTENANCE AGREEMENT FOR LOTS 1 AND 2 HAS BEEN RECORDED IN THE LAND RECORDS OFFICE OF HOWARD COUNTY 1/27/01.
  20. STORMWATER MANAGEMENT CALCULATIONS FOR THIS SUBDIVISION SHALL BE MET THROUGH USE OF SWEET FLOW TO BUFFER CREDIT AND SURFACE SAND FILTERS FOR REQUIRED WATER QUALITY VOLUME AND SEDIMENTATION. RECHARGE VOLUME, AND SHALL BE PRIVATELY OWNED AND MAINTAINED PER F-100.
  21. ANY DAMAGE TO COUNTY RIGHTS-OF-WAY SHALL BE REPAIRED AT THE DEVELOPER'S EXPENSE.
  22. IN ACCORDANCE WITH SECTION 16.00(A) OF THE HOWARD COUNTY SUPPLEMENTARY ZONING DISTRICT REGULATIONS, ANY WINDOWS OR CORNERS NOT MORE THAN 12 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES AND DECKS MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR SETBACKS.
  23. THE DRIVEWAY ENTRANCE IS PER HOWARD COUNTY STANDARD DETAIL R-106.
  24. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION 480-333-0000 AT LEAST 24 HOURS PRIOR TO THE START OF WORK.
  25. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO EXCAVATION WORK.
  26. THIS PLAN IS BASED ON A TOPOGRAPHICAL SURVEY PERFORMED BY FISHER, COLLINS & CARTER 3/10/02.
  27. AS A CONSEQUENCE OF THIS SUBDIVISION ON APRIL 9, 2002, THIS SITE DEVELOPMENT PLAN IS SUBJECT TO THE 5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. A BUILDING PERMIT FOR THIS LOT MUST BE FILLED WITHIN ONE YEAR FROM THE DATE OF THE SIGNATURE APPROVAL OF THIS SUBDIVISION PLAN.

**LANDSCAPING PLANT LIST**

QTY.	KEY	NAME	SIZE
6		Acre rubrum 'Red Sunset / Red Sunset Red Maple	2 1/2" - 3" dia.



**SCHEDULE A - PERIMETER LANDSCAPE EDGE**

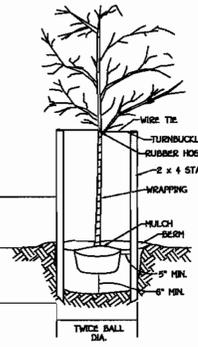
PERIMETER CATEGORY	P-1 ADJACENT TO ROADWAYS	P-2 ADJACENT TO PERIMETER PROPERTIES	P-3 ADJACENT TO PERIMETER PROPERTIES	P-4 ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A	A	A
LINEAR FEET OF PERIMETER	50.00 LF.	591.82 LF.	495.00 LF.	1,021.73 LF.
CREDIT FOR EXISTING VEGETATION (NO, YES AND X)	NO	YES 591.82 LF.	YES 495.00 LF.	YES 707.73 LF.
CREDIT FOR WALL, FENCE OR BERT (NO, YES, AND X)	NO	NO	NO	NO
NUMBER OF TREES REQUIRED SHADE TREES	N/A FRONTS PUBLIC ROAD	0	0	G
NUMBER OF TREES PROVIDED SHADE TREES	0	0	0	0
NUMBER OF TREES PROVIDED EVERGREEN TREES	0	0	0	0

SURETY FOR G PERIMETER SHADE TREES TO BE LOCATED ON LOT 1 IN THE AMOUNT OF \$10,000.00 SHALL BE POSTED WITH THE GRADING PERMIT.

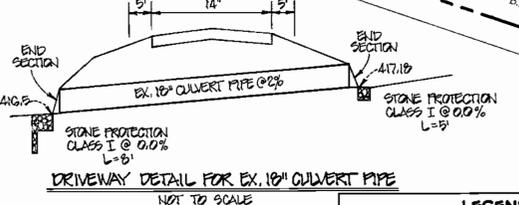
**Developer's/Builder's Certificate**  
 I/We certify that the landscaping shown on this plan will be done according to this plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion of Certification of Landscape Installation we will submit an executed one year guarantee of plant materials to the Department of Planning and Zoning.

Signature: *Mark Kovach*  
 Date: 4-12-02

APPROVED FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
 COUNTY HEALTH OFFICER: *H.L.* DATE: 7/12/02



**TREE PLANTING**  
NOT TO SCALE



**DRIVEWAY DETAIL FOR EX. 18\"/>**

**LEGEND**

SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
+362.2	SPOT ELEVATION
SF-5F	SILT FENCE
•••••	EROSION CONTROL MATTING
---	EXISTING TREE LINE
L.O.D.	LIMIT OF DISTURBANCE
-TP-	TREE PROTECTION FENCE

**ADDRESS CHART**

LOT NUMBER	STREET ADDRESS
1	8415 OLD FREDERICK ROAD

**INDEX SHEET**

SHEET	DESCRIPTION
SHEET 1	Site Development, Sediment Control & L.S. Plan
SHEET 2	Notes & Details

**REVISIONS**

NO.	REVISION	DATE
2	Rev. h.s. & grad. to show Ex. Conditions	1-3-02
1	ADD SWM DETAILS	01/30/02
1		

**ENGINEER'S CERTIFICATE**  
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.  
 Signature of Engineer: *Charles A. Grovo, Sr.* DATE: 4/12/02  
**BUILDER/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 any 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: *Mark Kovach* DATE: 4-12-02

Reviewed for HOWARD SCD and meets Technical Requirements.  
 Signature: *John Mayne* DATE: 6/17/02  
 Signature: *John R. Kuntz* DATE: 6/17/02  
**OWNER/DEVELOPER/BUILDER**  
 MARK KOVACH  
 4877 MONTGOMERY ROAD  
 ELLICOTT CITY, MARYLAND 21043

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Chief, Department of Planning and Zoning: *Andy Frank* DATE: 7/18/02  
 Chief, Development Engineering Division: *[Signature]* DATE: 6/20/02  
 Director, Department of Planning and Zoning: *[Signature]* DATE: 7/23/02

PROJECT	SECTION	LOT NO.
THE WOODS AT PATAPSCO RIM		1

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
15008	7	R-20	18	SECOND	6121.00

WATER CODE	SEWER CODE
F01	PRIVATE

**SITE DEVELOPMENT, SEDIMENT EROSION CONTROL & LANDSCAPE PLAN**  
**THE WOODS AT PATAPSCO RIM**  
 LOT 1  
 TAX MAP No: 18 PARCEL: 349  
 SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 SCALE: 1" = 30' DATE: APRIL, 2002  
 SHEET 1 OF 2



## 20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION DEFINITION

Using vegetation as cover for barren soil to protect it from forces that cause erosion.

### PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas, and improving wildlife habitat and visual resources.

### CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding. Examples of applicable areas for Temporary Seeding are Temporary Seeding, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dunes, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

### EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration exfiltration, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seeded preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

### SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

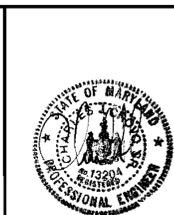
- A. Site Preparation
  - i. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
  - ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
  - iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres.
- B. Soil Amendments (Fertilizer and Lime Specification)
  - i. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the APPROVED USE OF MARILAND STATE LABORATORY. Soil samples taken for engineering purposes may also be used for chemical analyses.
  - ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Fertilizer may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall be delivered to the site fully bagged according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and accordance to the applicable state fertilizer laws.
  - iii. Lime materials shall be ground limestone (hydrated or burnt lime) may be substituted which contains at least 50% total oxides calcium oxide plus magnesium oxide. Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 85-100% will pass through a #20 mesh sieve.
  - iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
- C. Seeded Preparation
  - i. Temporary Seeding
    - a. Seeded preparation shall consist of loosening soil to a depth of 3" to 5" 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 should not be rolled or dragged smooth, but left in the rough condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
    - b. Apply fertilizer and lime as prescribed on the plans.
    - c. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
  - ii. Permanent Seeding
    - a. Minimum soil conditions required for permanent vegetative establishment:
      1. Soluble salts shall be less than 500 parts per million (ppm).
      2. The soil shall contain less than 40% clay, but enough fine grained material (30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or sericea lespedeza is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
      3. Soil must contain sufficient pore space to permit adequate root penetration.
      4. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
    - b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
    - c. Apply soil amendments as per soil test or as included on the plans.
    - d. Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seeded preparation, loose surface soil by disking with a heavy chain or other equipment to roughen the surface. Steep slopes (greater than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-2" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.

- D. Seed Specifications
  - i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on the job.
  - ii. Seed tags shall be made available to the inspector to verify type and rate of seed used.
  - iii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75-80° F. can weaken bacteria and make the inoculant less effective.
- E. Methods of Seeding
  - i. Hydroseeding - Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.
    - a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: Nitrogen maximum of 100 lbs. per acre total of soluble nitrogen P205 (phosphorous), 200 lbs/acre; K2O (potassium), 200 lbs/acre.
    - b. Lime - use one ground agricultural limestone, 60 to 3 tons per acre may be applied by hydroseeding. Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
    - c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
  - ii. Dry Seeding - This includes use of conventional drop or broadcast spreaders.
    - a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 255 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
    - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
  - iii. Drill or Cultipacker Seeding - Mechanized seeders that apply and cover seed with soil.
    - a. Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seeded matting must be firm after planting.
    - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- F. Mulch Specifications (In order of preference)
  - i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be moist, moldy, alkali, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
  - ii. Wood Cellulose Fiber Mulch (WCFM)
    - a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
    - b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniform spread slurry.
    - c. WCFM including dye, shall contain no germination or growth inhibiting factors.
    - d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall hold and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
    - e. WCFM material shall contain no elements or compounds at concentrations levels that will be phytotoxic.
    - f. WCFM must conform to the following physical requirements: fiber length to approximately 500 mm. diameter approximately 1 mm, pH range of 4.0 to 6.5, ash content of 16% maximum and water holding capacity of 90% minimum.

- iii. One straw mulch should be used in areas where one species of grass is desired.

### STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



### ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer: *Charles J. Crovo, Sr.*  
 Date: *4/12/02*

### BUILDER/DEVELOPER'S CERTIFICATE

"We certify that all development and construction will be done according to this plan, for sediment and erosion control and that any 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: *Mark Kovach*  
 Date: *4-12-02*

### SEDIMENT CONTROL NOTES

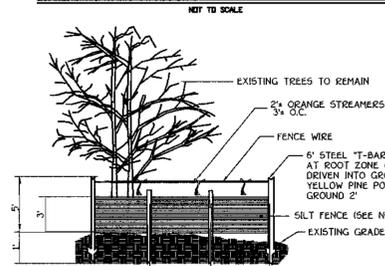
1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (03-9955).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DICES, PERIMETER SLOPES AND ALL SLOPE STEPS SHALL BE 31; 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 IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 50, 500 (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 50). 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	2.26 ACRES
AREA TO BE ROOFED OR PAVED	0.65 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.18 ACRES
TOTAL CUT	182 CU.YDS.
TOTAL FILL	345 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A CU.YDS.
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DESIRED, NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. TENDENCIES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHOEVER IS SHORTER.

### SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT. 1 WEEK
2. INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN. 2 DAYS
3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE AND MASS GRADE TO SUB-BASE. 4 DAYS
4. INSTALL TEMPORARY SEEDING. 2 DAYS
5. CONSTRUCT DRIVEWAY. 7 DAYS
6. FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE.
7. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.

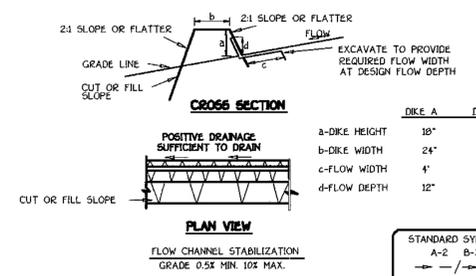
### SILT FENCE AND TREE PROTECTION



1. Silt Fence to be heeled into the soil.
2. Wire, snow fence, etc. for tree protection only.
3. Boundaries of Retention Area will be established as part of the forest conservation plan review process.
4. Boundaries of Retention Area should be staked and flagged prior to installing device.
5. Avoid root damage when placing anchor posts.
6. Device should be properly maintained throughout construction.
7. Protection signs are also required, see figure C-4.
8. Locate fence outside the Critical Root Zone.

### EARTH DIKE

NOT TO SCALE



1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum.

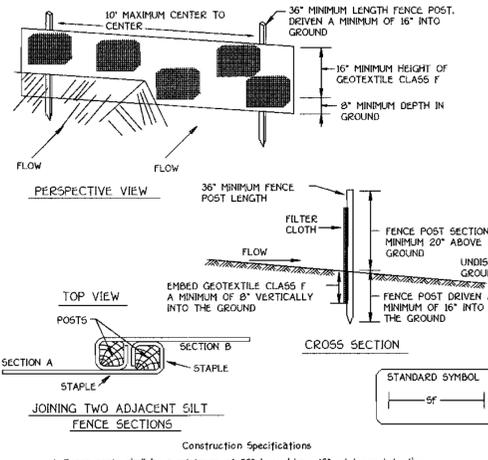
1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
8. Inspection and maintenance must be provided periodically and after each rain event.

### CONSTRUCTION SPECIFICATIONS

1. Length - minimum of 50' (+30' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the size 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.

### SILT FENCE

NOT TO SCALE



1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 100 pound per linear foot.
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
 

Tensile Strength	50 lbs/in (min)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min)	Test: MSMT 322
Flow Rate	0.3 gal (1/7" minute (max))	Test: MSMT 322
Filtering Efficiency	75% (min)	Test: MSMT 322
3. Where ends of geotextile fabric come together, they shall be overlapped.
4. Silt Fence shall be inspected after each rainfall event and maintained when judges occur or when sediment accumulation reached 50% of the fabric height.

Silt Fence Design Criteria	
Slope Steepness	(Maximum) Slope Length
Flatter than 50:1	unlimited
50:1 to 10:1	125 feet
10:1 to 5:1	100 feet
5:1 to 3:1	60 feet
3:1 to 2:1	40 feet
2:1 and steeper	20 feet

Note: In areas of less than 2% slope and sandy soils USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

1. Perform seeded grading and stabilize the site (2 days).
2. After the site is stabilized and permission is granted from the appropriate approval authority, the remaining sediment controls shall be installed.
3. Apply to graded or cleared areas likely to be re-disturbed.
4. SEEDING PREPARATION:
  - a. Seeding preparation shall consist of loosening soil to a depth of 3" to 5" 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 should not be rolled or dragged smooth, but left in the rough condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
  - b. Apply fertilizer and lime as prescribed on the plans.
  - c. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
5. SEEDING:
  - a. The periods March 1 through April 30, and August 1 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - b. For the periods April 30 through August 31, and October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - c. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - d. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - e. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - f. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - g. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - h. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - i. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - j. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - k. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - l. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - m. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - n. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - o. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - p. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - q. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - r. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - s. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - t. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - u. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - v. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - w. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - x. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - y. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - z. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - aa. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - ab. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ac. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ad. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - ae. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - af. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - ag. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ah. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ai. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - aj. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ak. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - al. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - am. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - an. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - ao. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ap. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - aq. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ar. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - as. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - at. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - au. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - av. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - aw. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ax. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - ay. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - az. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - ba. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bb. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bc. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - bd. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - be. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - bf. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bg. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bh. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - bi. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bj. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - bk. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bl. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bm. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - bn. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bo. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - bp. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bq. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - br. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - bs. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bt. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - bu. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bv. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - bw. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - bx. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - by. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - bz. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ca. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cb. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - cc. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cd. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - ce. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cf. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cg. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - ch. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ci. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - cj. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ck. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cl. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - cm. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cn. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - co. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cp. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cq. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - cr. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cs. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - ct. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cu. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cv. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - cw. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cx. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - cy. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cz. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ca. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - cb. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cc. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - cd. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ce. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cf. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - cg. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ch. For the periods October 15 through November 15, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - ci. For the periods November 15 through February 28, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - cj. For the periods February 29 through April 30, shall be used for Permanent Seeding. (32 lbs/1000 sq. ft.)
  - ck. For the periods April 30 through August 31, shall be used for Temporary Seeding. (15 lbs/1000 sq. ft.)
  - cl. For the periods August 31 through October 15, shall be used for Permanent Seeding. (32 lbs/1