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 RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER 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 1994 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	0.486 ACRES
AREA DISTURBED	0.244 ACRES
AREA TO BE ROOFED OR PAVED	0.061 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.183 ACRES
TOTAL CUT	380 CU.YDS.
TOTAL FILL	245 CU.YDS.

OFFSITE WASTE/BORROW AREA LOCATION IS TO BE DETERMINED. AREAS WILL HAVE ACTIVE GRADING PERMITS AND APPROVED EROSION CONTROL PLANS.
NO STOCKPILE IS PERMITTED OUTSIDE OF THE LIMIT OF DISTURBANCE.

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 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 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) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

SEQUENCE OF CONSTRUCTION
1. OBTAIN GRADING PERMIT.
2. INSTALL SEDIMENT CONTROLS AS SHOWN ON PLAN. (1 day)
3. PERFORM NECESSARY GRADING AND STABILIZE THE SITE. (2 days)
4. CONSTRUCT DWELLING ON SITE. (90 days)
5. AFTER THE SITE IS STABILIZED AND PERMISSION IS GRANTED FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROLS AND STABILIZE ANY REMAINING DISTURBED AREAS.

SOIL TESTS
1. FOLLOWING INITIAL SOIL DISTURBANCES OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN SEVEN CALENDAR DAYS FOR THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND FOURTEEN DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
2. OCCURRENCE OF ACID SULFATE SOILS (GRAYISH BLACK COLOR) WILL REQUIRE COVERING WITH A MINIMUM OF 12 INCHES OF CLEAN SOIL WITH 6 INCHES MINIMUM CAPPING OF TOP SOIL. NO STOCKPILING OF MATERIAL IS ALLOWED. IF NEEDED, SOIL TESTS SHOULD BE DONE BEFORE AND AFTER A 6-WEEK INCUBATION PERIOD TO ALLOW OXIDATION OF SULFATES.
3. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
   A. SOIL PH SHALL BE BETWEEN 6.0 AND 7.0.
   B. SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM).
   C. THE SOIL SHALL CONTAIN LESS THAN 40% CLAY BUT ENOUGH FINE GRAINED MATERIAL (> 30% SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE.
   D. SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT.
   E. SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
   F. IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE ITEM 901 OR AMENDMENTS MADE AS RECOMMENDED BY A CERTIFIED AGRONOMIST.

SEEDING NOTES:

MATERIALS:
GENERAL:
THIS ITEM PROVIDES SPECIFICATIONS FOR SEEDING OF AREAS AS DESIGNATED ON PLANS OR AS DIRECTED BY THE MAA ENGINEER. THE SPECIES, MIXTURES, AND METHODS OF APPLICATION PROVIDED IN THIS ITEM HAVE BEEN DESIGNED TO REDUCE THE ATTRACTIVENESS OF AIRPORT GROUNDS TO WILDLIFE. ONLY MAA APPROVED SPECIES, MIXTURES, AND RATES OF APPLICATION PROVIDED IN THIS ITEM MAY BE USED TO ESTABLISH VEGETATION. ALL ACTIVITIES ASSOCIATED WITH SEEDING INCLUDING SOIL PREPARATION, SEED APPLICATION, FERTILIZATION, AND MAINTENANCE SHALL ALSO CONFORM TO THESE APPROVED STANDARDS.
SEED:
ALL SEED SHALL COMPLY WITH THE MARYLAND SEED LAW (AGRICULTURAL ARTICLE OF THE ANNOTATED CODE OF MARYLAND). ONLY MAA-APPROVED SPECIES, MIXTURES, AND RATES OF APPLICATION PROVIDED IN THIS ITEM MAY BE USED TO ESTABLISH VEGETATION. SEED WILL BE SAMPLED AND TESTED BY AN INSPECTOR FROM THE TURF AND SEED SECTION, MARYLAND DEPARTMENT OF AGRICULTURE (MDA), ANNAPOLIS, MARYLAND. ALL LAWN AND TURF SEED AND MIXTURES SHALL BE FREE FROM THE FOLLOWING STATE LISTED RESTRICTED NOXIOUS WEEDS:

CORN COCKLE (*AGROSTEMMA GITHAGO*)	BENTGRASS (*AGROSTIS* SPP.)
REDTOP (*AGROSTIS GIGANTEA*)	WILD ONION (*ALLIUM CANADENSE*)
WILD GARLIC (*ALLIUM VINEALE*)	BINDWEED (*CALSTEGIA* SPP.)
DODDER (*CUSCUTA* SPP.)	BERMUDA GRASS (*CYNODON DACTYLON*)
ORCHARDGRASS (*DACTYLIS GLOMERATA*)	TALL FESCUE (*FESTUCA ARUNDINACEA*)
MEADOW FESCUE (*FESTUCA PRATENSIS*)	VELVETGRASS (*HOLCUS LANATUS*)
ANNUAL BLUEGRASS (*POA ANNUA*)	ROUGH BLUEGRASS (*POA TRIVIALIS*)
TIMOTHY (*PHLEUM PRATENSE*)	JOHNSON GRASS (*SORGUM HALEPENSE*)

RESTRICTED NOXIOUS-WEED SEED MAY NOT EXCEED 0.5 PERCENT BY WEIGHT OF ANY SEED MIXTURE. IN ADDITION, ALL SEEDS SOLD IN MARYLAND SHALL BE FREE FROM THE FOLLOWING LISTED PROHIBITED NOXIOUS WEEDS: BALLOONVINE (*CARDIOSPERMUM HALICACABUM*), QUACKGRASS (*ELYTRIGIA REPENS*), SICKLEPOD (*SENNA OBTUSIFOLIA*), SORGHUM (*SORGHUM* SPP.), CANADA THISTLE (*CIRSIUM ARVENSE*), PLUMELESS THISTLE (*CARDUUS* SPP.-INCLUDES MUSK THISTLE AND CURLED THISTLE), AND SERRATED TUSSOCK (*NASSELLA TRICHOTOMA*).

APPROVED SPECIES:
THE FOLLOWING TABLE CONTAINS SPECIES THAT ARE APPROVED BY MAA FOR USE IN SEED MIXTURES. PURITY REQUIREMENTS AND GERMINATION REQUIREMENTS ARE ALSO PROVIDED.

APPROVED PLANT SPECIES – MAA SEED MIXTURES

SPECIES	PURITY [a] (MIN. %)	MIN % GERMINATION [b]	PURE LIVE SEED FACTOR
CERTIFIED TURF-TYPE TALL FESCUE (Festuca arundinacea)	98	90	1.13
CERTIFIED KENTUCKY BLUGRASS (Poa pratensis)	90	80	1.39
HARD FESCUE (Festuca longifolia)	98	90	1.13
CHEWINGS RED FESCUE (Festuca rubra commutata)	98	90	1.13
ANNUAL RYEGRASS (Lolium multiflorum)	95	85	1.24
PERENNIAL RYEGRASS (Lolium perenne)	90	80	1.39
FOWL MEADOW GRASS (Poa palustris)	90	80	1.39
LITTLE BLUESTEM (Andropogon scoparius)	62	94	1.71

a THE PERCENTAGE WEIGHT OF PURE SEED PRESENT SHALL BE FREE OF ANY AGRICULTURE SEEDS, INERT MATTER, AND OTHER SEEDS DISTINGUISHABLE BY THEIR APPEARANCE
b THE PERCENTAGE OF GERMINATION SHALL BE ACTUAL SPROUTS AND SHALL NOT INCLUDE HARD SEEDS UNLESS SPECIFICALLY PERMITTED BY THE MAA ENGINEER.

PURITY:
ALL SEED SHALL BE FREE OF ALL STATE-DESIGNATED NOXIOUS WEEDS LISTED IN PARAGRAPH 2.1.1 AND CONFORM TO MAA SPECIFICATIONS. TO ENSURE COMPLIANCE, MAA REQUIRES SAMPLING AND TESTING OF SEED BY THE TURF AND SEED SECTION, MARYLAND DEPARTMENT OF AGRICULTURE (MDA). THE CONTRACTOR SHALL FURNISH THE MAA ENGINEER WITH DUPLICATE SIGNED COPIES OF A STATEMENT BY THE TURF AND SEED SECTION CERTIFYING THAT EACH LOT OF SEED HAS BEEN LABORATORY TESTED WITHIN SIX MONTHS OF DATE OF DELIVERY. THIS STATEMENT SHALL INCLUDE THE FOLLOWING INFORMATION:
1. NAME AND ADDRESS OF LABORATORY
2. DATE OF TEST
3. LOT NUMBER
4. THE RESULTS OF TESTS AS TO NAME, PERCENTAGES OF PURITY AND OF GERMINATION
5. PERCENTAGE OF WEED CONTENT FOR THE SEED FURNISHED
6. THE PROPORTIONS OF EACH KIND OF SEED

SEED SHALL BE FURNISHED IN STANDARD CONTAINERS WITH THE SEED NAME, LOT NUMBER, NET WEIGHT, PERCENTAGES OF PURITY, GERMINATION RATE AND HARD SEED, AND PERCENTAGE OF MAXIMUM WEED SEED CONTENT CLEARLY MARKED. ALL SEED CONTAINERS SHALL BE TAGGED WITH A MDA SUPERVISED MIX PROGRAM SEED TAG.
MIXTURES AND APPLICATION RATES:
ONLY SEED MIXTURES AND APPLICATION RATES DESCRIBED IN THIS ITEM MAY BE USED UNLESS OTHERWISE APPROVED BY THE MAA ENGINEER. SEED MIXTURES SHALL MEET CRITERIA DETAILED IN THE PREVIOUS SECTION ON PURITY. SEED MIXTURES HAVE BEEN FORMULATED TO MINIMIZE THE ATTRACTIVENESS OF AREAS TO WILDLIFE OF COMMON LANDSCAPE SCENARIOS. THE APPROPRIATE SEED MIXTURE FOR APPLICATION WILL BE DESIGNATED BASED ON ENVIRONMENTAL CONDITIONS AND MAY VARY FROM SITE TO SITE. ALL PLANTING RATES LISTED ARE IN POUNDS OF PURE LIVE SEED (PLS) PER ACRE.
SEED MIXTURES, APPLICATION SCENARIOS, AND RATES FOR "PERMANENT COOL-SEASON GRASSES" ARE AS FOLLOWS:
1. SEED MIXTURE NO. 1 – RELATIVELY FLAT AREAS (GRADE LESS THAN 4:1) SUBJECT TO NORMAL CONDITIONS AND REGULAR MOWING (APPLICATION RATE = 234 LBS PLS/ACRE)
2. SEED MIXTURE NO. 2 – SLOPED AREAS (GRADE GREATER THAN 4:1) NOT SUBJECT TO REGULAR MOWING (APPLICATION RATE = 115 LBS PLS/ACRE)
3. SEED MIXTURE NO. 3 – WETLANDS AND THEIR ASSOCIATED BUFFER ZONES (APPLICATION RATE = 131 LBS PLS/ACRE).

SEED MIXTURE NO. 1: RELATIVELY FLAT AREAS REGULARLY MOWED AND EXPOSED TO NORMAL CONDITIONS (APPLICATION RATE = 234 LBS PLS/ACRE)

SEED (LBS OF LS/ACRE)	RATE OF APPLICATION
85% CERTIFIED TURF-TYPE TALL FESCUE	192
10% CERTIFIED KENTUCKY BLUEGRASS	28
5% PERENNIAL RYEGRASS	14
SUPPLEMENTAL SEED	
ANNUAL RYEGRASS	25

SEED MIXTURE NO. 2: SLOPED AREAS NOT SUBJECT TO REGULAR MOWING (APPLICATION RATE = 115 LBS PLS/ACRE)

SEED (LBS OF PLS/ACRE)	RATE OF APPLICATION
75% HARD FESCUE	85
20% CHEWINGS FESCUE	23
5% KENTUCKY BLUEGRASS	7
SUPPLEMENTAL SEED	
REDTOP	3

SEED MIXTURE NO. 3 – WETLAND AREAS AND THEIR ASSOCIATED BUFFER ZONES (APPLICATION RATE = 131 LBS PLS/ACRE)

SEED (LBS OF PLS/ACRE)	RATE OF APPLICATION
60% FOWL MEADOW GRASS	83
30% CHEWINGS FESCUE	34
10% PERENNIAL RYEGRASS	14
SUPPLEMENTAL SEED	
REDTOP	3

SEEDING SEASONS:
APPLICATION OF SEED AND SEED MIXTURES SHALL OCCUR WITHIN A SPECIFIED SEEDING SEASON UNLESS OTHERWISE APPROVED BY THE MAA ENGINEER. NO SEED OR SEED MIXTURES ARE TO BE APPLIED ON FROZEN GROUND OR WHEN THE TEMPERATURE IS AT OR BELOW 35 DEGREES FAHRENHEIT (7.2 DEGREES CENTIGRADE). UNDER THESE CONDITIONS, A LAYER OF MULCH SHOULD BE APPLIED IN ACCORDANCE WITH ITEM 905, MULCHING, TO STABILIZE THE SITE, AND PERMANENT SEEDING SHOULD OCCUR IN THE SUBSEQUENT SEEDING SEASON. SEED APPLICATION MAY OCCUR DURING THE SEEDING SEASON DATES LISTED BELOW. SEEDING PERFORMED AFTER OCTOBER 20 SHOULD BE A TEMPORARY COVER OF ANNUAL RYEGRASS AND FOLLOWED BY OVERSEEDING OF THE APPROPRIATE SEED MIXTURE DURING THE SPRING SEEDING SEASON.
SEEDING SEASONS:

PERMANENT COOL-SEASON GRASSES	MARCH 1 TO APRIL 20 AND AUGUST 1 TO OCTOBER 20, INCLUSIVE
TEMPORARY COVER OF ANNUAL RYE/REDTOP	MARCH 1 TO APRIL 30 AND AUGUST 1 TO NOVEMBER 30, INCLUSIVE
TEMPORARY COVER OF WARM-SEASON GRASSES (*LITTLE BLUESTEM ONLY*)	MAY 1 TO JULY 31, INCLUSIVE. RATE OF APPLICATION SHOULD BE 13.6 LBS. PLS PER ACRE.

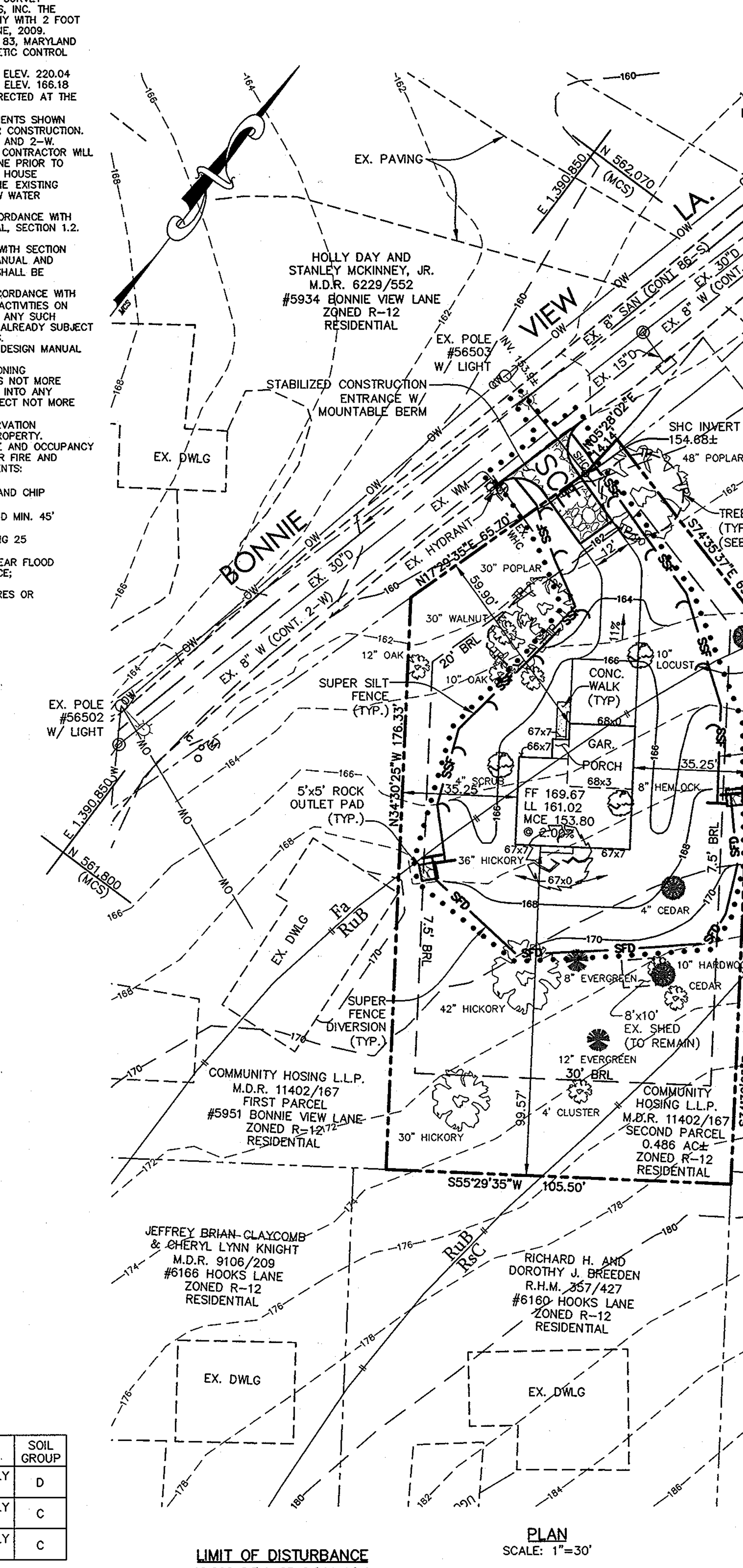
SEEDING SEASONS ARE BASED ON TYPICAL YEARS AND CAN BE SUBJECT TO VARIATION, WHICH MAY BE MODIFIED BY THE MAA ENGINEER BASED ON SEASONAL TRENDS.
IF THE TIME REQUIRED TO COMPLETE ANY OF THE OPERATIONS NECESSARY UNDER THIS ITEM, WITHIN THE SPECIFIED PLANTING SEASON OR ANY AUTHORIZED EXTENSIONS THEREOF, EXTENDS BEYOND THE CONTRACT PERIOD, THEN SUCH TIME WILL BE CHARGED AGAINST THE CONTRACT TIME, AND LIQUIDATED DAMAGES WILL BE ENFORCED WITH RESPECT TO THIS PORTION OF WORK.
LIME:
LIME SHALL CONSIST OF GROUND LIMESTONE AND CONTAIN AT LEAST 85 PERCENT TOTAL CARBONATES. LIME SHALL BE GROUND TO A FINENESS SO THAT AT LEAST 90 PERCENT WILL PASS THROUGH A NO. 20 MESH SIEVE AND 50 PERCENT WILL PASS THROUGH A NO. 100 MESH SIEVE. DOLOMITIC LIME OR A HIGH MAGNESIUM LIME SHALL CONTAIN AT LEAST 10 PERCENT MAGNESIUM OXIDE. LIME SHALL BE APPLIED BY APPROVED METHODS DETAILED IN SECTION 903-3.3 OF THIS ITEM. THE RATE OF APPLICATION WILL BE BASED ON RESULTS OF SOIL TESTS.
FERTILIZER:
FERTILIZER SHALL BE STANDARD COMMERCIAL FERTILIZER (SUPPLIED SEPARATELY OR IN MIXTURES) AND MEET THE REQUIREMENTS OF APPLICABLE STATE AND FEDERAL LAWS (O-F-241) AS WELL AS STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. NITROGEN-PHOSPHORUS-POTASSIUM (N-P-K) CONCENTRATIONS SHALL BE DETERMINED FROM ANALYSIS OF SOIL SAMPLES.*(APPROVED FERTILIZER RATE: 21 POUNDS OF 10-10-10 PER 1,000 SQUARE FEET.)* METHODS OF FERTILIZER APPLICATION SHALL CONFORM TO STANDARDS DESCRIBED IN SECTION 903-3.3 OF THIS ITEM. FERTILIZER SHALL BE FURNISHED IN STANDARD CONTAINERS THAT ARE CLEARLY LABELED WITH NAME, WEIGHT, AND GUARANTEED ANALYSIS OF THE CONTENTS (PERCENTAGE OF TOTAL NITROGEN, AVAILABLE PHOSPHORIC ACID, AND WATER-SOLUBLE POTASH).
MIXED FERTILIZERS SHALL NOT CONTAIN ANY HYDRATED LIME OR CYANAMIDE COMPOUNDS. FERTILIZERS FAILING TO MEET THE SPECIFIED ANALYSIS MAY BE APPROVED BY THE MAA ENGINEER, PROVIDING SUFFICIENT MATERIALS ARE APPLIED TO CONFORM WITH THE SPECIFIED NUTRIENTS PER UNIT OF MEASURE WITHOUT ADDITIONAL COST TO MAA. THE FERTILIZERS MAY BE SUPPLIED IN THE FOLLOWING FORMS:
A. A DRY, FREE-FLOWING FERTILIZER SUITABLE FOR APPLICATION BY A COMMON FERTILIZER SPREADER;
B. A FINELY GROUND FERTILIZER SOLUBLE IN WATER, SUITABLE FOR APPLICATION BY POWER SPRAYERS; OR
C. A GRANULAR OR PELLET FORM SUITABLE FOR APPLICATION BY BLOWER EQUIPMENT.
THE RATE OF APPLICATION WILL BE BASED ON RESULTS OF SOIL TESTS PERFORMED BY THE UNIVERSITY OF MARYLAND SOIL TESTING LABORATORY. BY LAW, PERSONS APPLYING FERTILIZER TO STATE-OWNED LAND SHALL FOLLOW THE RECOMMENDATIONS OF THE UNIVERSITY OF MARYLAND AS SET FORTH IN THE "PLANT NUTRIENT RECOMMENDATIONS BASED ON SOIL TESTS FOR TURF MAINTENANCE" AND THE "PLANT NUTRIENT RECOMMENDATIONS BASED ON SOIL TESTS FOR SOD PRODUCTION" (SEE APPENDIX B). APPLICATION OF THE FERTILIZER SHALL BE IN A MANNER THAT IS CONSISTENT WITH THE RECOMMENDATIONS OF THE UNIVERSITY OF MARYLAND COOPERATIVE EXTENSION.
CONSTRUCTION METHODS AND EQUIPMENT
GENERAL:
THIS SECTION PROVIDES APPROVED METHODS FOR THE APPLICATION OF AND INCLUDES STANDARDS FOR SEEDBED PREPARATION, METHODS OF APPLICATION, AND EQUIPMENT TO BE USED DURING THE PROCESS. LIME AND FERTILIZER SHALL BE APPLIED TO SEEDED AREAS BEFORE THE SEED IS SPREAD. THE MIXTURE OF SEED WILL BE DETERMINED FOR SITES BASED ON ENVIRONMENTAL CONDITIONS AS DESCRIBED IN MIXTURES AND APPLICATION RATES SECTION.
ADVANCE PREPARATION:
AREAS DESIGNATED FOR SEEDING SHALL BE PROPERLY PREPARED IN ADVANCE OF SEED APPLICATION. THE AREA SHALL BE TILLED AND GRADED PRIOR TO APPLICATION OF LIME AND FERTILIZER, AND THE SURFACE AREA SHALL BE CLEARED OF ANY STONES LARGER THAN 1 INCH IN DIAMETER, STICKS, STUMPS, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH SOWING OF SEED, GROWTH OF GRASSES, OR SUBSEQUENT MAINTENANCE OF GRASS-COVERED AREAS. DAMAGE CAUSED BY EROSION OR OTHER FORCES THAT OCCUR AFTER THE COMPLETION OF GRADING SHALL BE REPAIRED PRIOR TO THE APPLICATION OF FERTILIZER AND LIME. THE CONTRACTOR WILL REPAIR SUCH DAMAGE, WHICH MAY INCLUDE FILLING GULLIES, SMOOTHING IRREGULARITIES, AND REPAIRING OTHER INCIDENTAL DAMAGE BEFORE BEGINNING THE APPLICATION OF FERTILIZER AND GROUND LIMESTONE.
IF AN AREA TO BE SEEDED IS SPARSELY SODDED, WEEDY, BARREN AND UNWORKED, OR PACKED AND HARD, ALL GRASS AND WEEDS SHALL FIRST BE CUT OR OTHERWISE SATISFACTORILY DISPOSED OF, AND THE SOIL THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH NOT LESS THAN 5 INCHES (125 MM). CLODS SHALL BE BROKEN AND THE TOP 3 INCHES (75 MM) OF SOIL SHALL BE WORKED INTO A SATISFACTORY CONDITION BY DISCING OR BY USE OF CULTIPACKERS, ROLLERS, DRAGS, HARROWS, OR OTHER APPROPRIATE MEANS.

AN AREA TO BE SEEDED SHALL BE CONSIDERED A SATISFACTORY SEEDBED (WITHOUT REQUIRING ADDITIONAL TREATMENT) IF IT HAS RECENTLY BEEN THOROUGHLY LOOSENED AND WORKED TO A DEPTH OF NOT LESS THAN 5 INCHES; THE TOP 3 INCHES OF SOIL IS LOOSE, FRIABLE, AND IS REASONABLY FREE FROM LARGE CLODS, ROCKS, LARGE ROOTS, OR OTHER UNDESIRABLE MATTER; APPROPRIATE AMOUNTS OF FERTILIZER AND LIME HAVE BEEN ADDED; AND, IF IT HAS BEEN SHAPED TO THE REQUIRED GRADE IMMEDIATELY PRIOR TO SEEDING.
FOR SLOPE AREAS STEEPER THAN 3:1 (THREE HORIZONTAL TO ONE VERTICAL), THE SUBSOIL SHALL BE LOOSE TO A DEPTH OF 1 INCH.
AFTER COMPLETION OF TILLING AND GRADING, LIME AND FERTILIZER SHALL BE APPLIED WITHIN 48 HOURS ACCORDING TO THE SPECIFIED RATE AND METHODS APPROVED BY MAA. THE SEEDING MIXTURE SHALL BE APPLIED WITHIN 48 HOURS AFTER APPLICATION OF LIME AND FERTILIZER. TO FIRM THE SEEDED AREAS, CULTIPACKING SHALL OCCUR IMMEDIATELY AFTER SEEDING.
METHODS OF APPLICATION: LIME, FERTILIZER, AND SEED MIXES SHALL BE APPLIED BY EITHER THE DRY OR WET APPLICATION METHODS THAT HAVE BEEN APPROVED BY MAA AND ARE DETAILED BELOW.
DRY APPLICATION METHOD:
A. LIMING. IF SOIL TEST RESULTS INDICATE THAT LIME IS NEEDED, THE FOLLOWING PROCEDURES WILL BE USED: FOLLOWING ADVANCE PREPARATION OF THE SEEDBED, LIME SHALL BE APPLIED PRIOR TO THE APPLICATION OF ANY FERTILIZER OR SEED AND ONLY ON SEEDBEDS THAT HAVE BEEN PREPARED AS DESCRIBED IN THE ADVANCED PREPARATION SECTION. THE LIME SHALL BE UNIFORMLY SPREAD AND WORKED INTO THE TOP 2 INCHES OF SOIL, AFTER WHICH THE SEEDBED SHALL BE PROPERLY GRADED AGAIN.
B. FERTILIZING. FOLLOWING ADVANCE PREPARATIONS (AND LIMING IF NECESSARY), FERTILIZER SHALL BE SPREAD UNIFORMLY AT THE SPECIFIED RATE TO PROVIDE NO LESS THAN THE MINIMUM QUANTITY AS DESCRIBED IN THE FERTILIZER SECTION
C. SEEDING. SEED MIXTURES SHALL BE SOWN IMMEDIATELY AFTER FERTILIZATION OF THE SEEDBED. THE FERTILIZER AND SEED SHALL BE LIGHTLY RAKED TO A DEPTH OF 1 INCH FOR NEWLY GRADED AND DISTURBED AREAS.
D. ROLLING. AFTER THE SEED HAS BEEN PROPERLY COVERED, THE SEEDBED SHALL BE IMMEDIATELY COMPACTED USING A CULTIPACKER OR AN APPROVED LAWNROLLER.

WET APPLICATION METHOD/HYDROSEEDING:
A. GENERAL THE CONTRACTOR MAY ELECT TO APPLY SEED AND FERTILIZER AS PER PARAGRAPHS C AND D OF THIS SECTION IN THE FORM OF AN AQUEOUS MIXTURE BY SPRAYING OVER THE PREVIOUSLY PREPARED SEEDBED USING METHODS AND EQUIPMENT APPROVED BY MAA. THE RATES OF APPLICATION SHALL BE AS SPECIFIED IN THE MATERIALS SECTION.
B. SPRAYING EQUIPMENT THE SPRAYING EQUIPMENT SHALL HAVE A CONTAINER OR WATER TANK EQUIPPED WITH A LIQUID LEVEL GAUGE CAPABLE OF READING INCREMENTS OF 50 GALLONS OR LESS OVER THE ENTIRE RANGE OF THE TANK CAPACITY. THE LIQUID LEVEL GAUGE SHALL BE MOUNTED SO AS TO BE VISIBLE TO THE NOZZLE OPERATOR AT ALL TIMES. THE CONTAINER OR TANK SHALL ALSO BE EQUIPPED WITH A MECHANICAL POWER-DRIVEN AGITATOR CAPABLE OF KEEPING ALL THE SOLIDS IN THE MIXTURE IN COMPLETE SUSPENSION AT ALL TIMES UNTIL USED. THE SPRAYING EQUIPMENT SHALL ALSO INCLUDE A PRESSURE PUMP CAPABLE OF DELIVERING 100 GALLONS PER MINUTE AT A PRESSURE OF 100 POUNDS PER SQUARE INCH. THE PRESSURE PUMP ASSEMBLAGE SHALL BE CONFIGURED TO ALLOW THE MIXTURE TO FLOW THROUGH THE TANK WHEN NOT BEING SPRAYED FROM THE NOZZLE. ALL PUMP PASSAGES AND PIPELINES SHALL BE CAPABLE OF PROVIDING CLEARANCE FOR 5/8-INCH SOLIDS. THE POWER UNIT FOR THE PUMP AND AGITATOR SHALL HAVE CONTROLS MOUNTED SO AS TO BE ACCESSIBLE TO THE NOZZLE OPERATOR. A PRESSURE GAUGE SHALL BE CONNECTED TO AND MOUNTED IMMEDIATELY BEHIND THE NOZZLE. THE NOZZLE PIPE SHALL BE MOUNTED ON AN ELEVATED SUPPORTING STAND IN SUCH A MANNER THAT IT CAN BE ROTATED THROUGH 360 DEGREES HORIZONTALLY AND INCLINED VERTICALLY FROM AT LEAST 20 DEGREES BELOW TO AT LEAST 60 DEGREES ABOVE THE HORIZONTAL. THERE SHALL BE A QUICK ACTING, THREE WAY CONTROL VALVE CONNECTING THE RECIRCULATING LINE TO THE NOZZLE PIPE AND MOUNTED SO THAT THE NOZZLE OPERATOR CAN CONTROL AND REGULATE THE AMOUNT OF FLOW OF MIXTURE TO BE SUPPLIED SO THAT MIXTURES MAY BE PROPERLY SPRAYED OVER A DISTANCE VARYING FROM 20 FEET TO 100 FEET. ONE SHALL BE A CLOSE-RANGE RIBBON NOZZLE, ONE A MEDIUM-RANGE RIBBON NOZZLE, AND ONE A LONG-RANGE JET NOZZLE. FOR EASE OF REMOVAL AND CLEANING, ALL NOZZLES SHALL BE CONNECTED TO THE NOZZLE PIPE BY MEANS OF QUICK-RELEASE COUPLINGS. IN ORDER TO REACH AREAS INACCESSIBLE TO THE REGULAR EQUIPMENT, AN EXTENSION HOSE AT LEAST 50 FEET IN LENGTH SHALL BE PROVIDED TO WHICH THE NOZZLES MAY BE CONNECTED.
C. MIXTURES LIME SHALL BE APPLIED SEPARATELY IN THE QUANTITY SPECIFIED, PRIOR TO THE FERTILIZING AND SEEDING OPERATIONS. LIME SHOULD BE ADDED TO AND MIXED WITH WATER AT A CONCENTRATION NOT TO EXCEED 220 POUNDS OF LIME FOR EVERY 100 GALLONS OF WATER. AFTER LIME HAS BEEN APPLIED, THE TANK SHOULD BE EMPTIED AND RINSED WITH FRESH WATER. SEED AND FERTILIZER SHALL BE MIXED TOGETHER IN THE RELATIVE PROPORTIONS SPECIFIED, BUT THE RESULTING CONCENTRATION SHOULD NOT EXCEED 220 POUNDS OF MIXTURE PER 100 GALLONS OF WATER AND SHOULD BE APPLIED WITHIN 30 MINUTES TO PREVENT FERTILIZER BURN OF THE SEEDS. ALL WATER USED SHALL BE OBTAINED FROM FRESH WATER SOURCES AND SHALL BE FREE FROM INJURIOUS CHEMICALS AND OTHER TOXIC SUBSTANCES HARMFUL TO PLANT LIFE. BRACKISH WATER SHALL NOT BE USED AT ANY TIME. THE CONTRACTOR SHALL IDENTIFY ALL SOURCES OF WATER TO THE MAA ENGINEER AT LEAST TWO WEEKS PRIOR TO USE. THE ENGINEER MAY TAKE SAMPLES OF THE WATER AT THE SOURCE OR FROM THE TANK AT ANY TIME AND HAVE A LABORATORY TEST THE SAMPLES FOR CHEMICAL AND SALINE CONTENT. THE CONTRACTOR SHALL NOT USE ANY WATER FROM ANY SOURCE THAT IS DISAPPROVED BY THE ENGINEER FOLLOWING SUCH TESTS.
ALL MIXTURES SHALL BE CONSTANTLY AGITATED FROM THE TIME THEY ARE MIXED UNTIL THEY ARE FINALLY APPLIED TO THE SEEDBED. ALL SUCH MIXTURES SHALL BE USED WITHIN 30 MINUTES FROM THE TIME THEY WERE MIXED OR THEY SHALL BE WASTED AND DISPOSED OF AT A LOCATION ACCEPTABLE TO THE ENGINEER.
D. SPRAYING LIME SHALL BE SPRAYED UPON PREVIOUSLY PREPARED SEEDBEDS ON WHICH THE LIME, IF REQUIRED, SHALL HAVE BEEN WORKED IN ALREADY. THE MIXTURES SHALL BE APPLIED USING A HIGH-PRESSURE SPRAY WHICH SHALL ALWAYS BE DIRECTED UPWARD INTO THE AIR SO THAT THE MIXTURES WILL FALL TO THE GROUND IN A UNIFORM SPRAY. NOZZLES OR SPRAYS SHALL NEVER BE DIRECTED TOWARD THE GROUND IN SUCH A MANNER THAT MIGHT PRODUCE EROSION OR RUNOFF. PARTICULAR CARE SHALL BE EXERCISED TO ENSURE THAT THE APPLICATION IS MADE UNIFORMLY, AT THE PRESCRIBED RATE, AND TO GUARD AGAINST MISSES AND OVERLAPPED AREAS. PREDETERMINED QUANTITIES OF THE MIXTURE SHALL BE USED IN ACCORDANCE WITH SPECIFICATIONS TO COVER SPECIFIED SECTIONS OF KNOWN AREAS. TO CHECKS THE RATE AND UNIFORMITY OF APPLICATION, THE APPLICATOR WILL OBSERVE THE DEGREE OF WETTING OF THE GROUND OR DISTRIBUTE TEST SHEETS OF PAPER OR PANS OVER THE AREA AT INTERVALS AND OBSERVE THE QUANTITY OF MATERIAL DEPOSITED THEREON.
ON SURFACES THAT ARE TO BE MULCHED AS INDICATED BY THE PLANS OR DESIGNATED BY THE MAA ENGINEER, SEED AND FERTILIZER APPLIED BY THE SPRAY METHOD NEED NOT BE RAKED INTO THE SOIL OR ROLLED. HOWEVER, ON SURFACES ON WHICH MULCH IS NOT TO BE USED, THE RAKING AND ROLLING OPERATIONS WILL BE REQUIRED AFTER THE SOIL HAS DRIED.
MAINTENANCE OF SEEDED AREAS: THE CONTRACTOR SHALL PROTECT SEEDED AREAS AGAINST TRAFFIC OR OTHER USE BY WARNING SIGNS OR BARRICADES, AS APPROVED BY THE ENGINEER. SURFACES GULLIED OR OTHERWISE DAMAGED FOLLOWING SEEDING SHALL BE REPAIRED BY REGRADING AND RESEEDING AS DIRECTED. THE CONTRACTOR SHALL MOW, WATER AS DIRECTED, AND OTHERWISE MAINTAIN SEEDED AREAS IN A SATISFACTORY CONDITION UNTIL FINAL INSPECTION AND ACCEPTANCE OF THE WORK. WHEN EITHER THE DRY OR WET APPLICATION METHOD OUTLINED ABOVE IS USED FOR WORK PERFORMED OUT OF SEASON, THE CONTRACTOR WILL BE REQUIRED TO ESTABLISH A GOOD STAND OF GRASS OF UNIFORM COLOR AND DENSITY TO THE SATISFACTION OF THE ENGINEER. IF AT THE TIME WHEN THE CONTRACT HAS BEEN OTHERWISE COMPLETED IT IS NOT POSSIBLE TO MAKE AN ADEQUATE DETERMINATION OF THE COLOR, DENSITY, AND UNIFORMITY OF SUCH STAND OF GRASS, PAYMENT FOR THE UNACCEPTED PORTIONS OF THE AREAS SEEDED OUT OF SEASON WILL BE WITHHELD UNTIL SUCH TIME AS THESE REQUIREMENTS HAVE BEEN MET.
MULCHING
MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. DURING THE TIME PERIODS WHEN SEEDING IS NOT PERMITTED, MULCH SHALL BE APPLIED IMMEDIATELY AFTER GRADING.
TEMPORARY SEEDING
LIME: 100 POUNDS OF DOLOMITIC LIMESTONE PER 1,000 SQUARE FEET.
FERTILIZER: 15 POUNDS OF 10-10-10 PER 1,000 SQUARE FEET.
FILL
NO FILLS MAY BE PLACED ON FROZEN GROUND. ALL FILL TO BE PLACED IN APPROXIMATELY HORIZONTAL LAYERS, EACH LAYER HAVING A LOOSE THICKNESS OF NOT MORE THAN 8 INCHES. ALL FILL IN ROADWAYS AND PARKING AREAS IS TO BE CLASSIFIED TYPE 2 AS PER ANNE ARUNDEL COUNTY CODE – ARTICLE 21, SECTION 2-308, AND COMPACTED TO 90% DENSITY; COMPACTION TO BE DETERMINED BY ASTM D-1557-66T (MODIFIED PROCTOR). ANY FILL WITHIN THE BUILDING AREA IS TO BE COMPACTED TO A MINIMUM OF 95% DENSITY AS DETERMINED BY METHODS PREVIOUSLY MENTIONED. FILLS FOR POND EMBANKMENTS SHALL BE COMPACTED AS PER MD-378 CONSTRUCTION SPECIFICATIONS. ALL OTHER FILLS SHALL BE COMPACTED SUFFICIENTLY SO AS TO BE STABLE AND PREVENT EROSION AND SLIPPAGE.
SODDING
INSTALLATION OF SOD SHOULD FOLLOW PERMANENT SEEDING DATES. SEEDBED PREPARATION FOR SOD SHALL BE AS NOTED ABOVE. LIME AND FERTILIZER PER PERMANENT SEEDING SPECIFICATIONS AND LIGHTLY IRRIGATE SOIL PRIOR TO LAYING SOD. SOD IS TO BE LAID ON THE CONTOUR WITH ALL ENDS TIGHTLY ABUTTING. JOINTS ARE TO BE STAGGERED BETWEEN ROWS. WATER AND ROLL OR TAMP SOD TO INSURE POSITIVE ROOT CONTACT WITH THE SOIL. ALL SLOPES STEEPER THAN 3:1, AS SHOWN, ARE TO BE PERMANENTLY SODDED OR PROTECTED WITH AN APPROVED EROSION CONTROL NETTING. ADDITIONAL WATERING FOR ESTABLISHMENT MAY BE REQUIRED. SOD IS NOT TO BE INSTALLED ON FROZEN GROUND. SOD SHALL NOT BE TRANSPLANTED WHEN MOISTURE CONTENT (DRY OR WET) AND/OR EXTREME TEMPERATURE MAY ADVERSELY AFFECT ITS SURVIVAL. IN THE ABSENCE OF ADEQUATE RAINFALL, IRRIGATION SHOULD BE PERFORMED TO ENSURE ESTABLISHMENT OF SOD.

GENERAL NOTES:

1. SUBJECT PROPERTY ZONED: R-12 PER COMPREHENSIVE ZONING PLAN AND COMPREHENSIVE LITE ZONING REGULATIONS EFFECTIVE 7/28/06.
2. TOTAL AREA OF SITE: 0.486 ACRES
3. TOTAL NUMBER OF LOTS SUBMITTED: 1 SFD
4. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE WORKING DAYS PRIOR TO START OF WORK.
5. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
6. THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: LIBER 11402, FOLIO 167, SEWER CONT. NO. 86-S AND WATER CONT. NO. 2W.
7. THIS PLAN IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT JUNE, 2009 BY LITTLE & ASSOCIATES, INC. THE EXISTING TOPOGRAPHY WAS TAKEN FROM FIELD RUN TOPOGRAPHY WITH 2 FOOT INTERVALS PREPARED BY LITTLE & ASSOCIATES, INC, DATED JUNE, 2009.
8. HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.
   HOWARD COUNTY MONUMENT 38AA N 561158.82 E 1389726.33 ELEV. 220.04
   HOWARD COUNTY MONUMENT 38BA N 562553.31 E 1390967.86 ELEV. 166.18
9. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
10. THIS PLAN IS FOR HOUSE SITING AND GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE RIGHTS-OF-WAY OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION. SEE APPROVED WATER AND SEWER PLANS CONTRACT NO. 86-S AND 2-W.
11. SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR TO CONSTRUCTION. CONTRACTOR WILL CHECK THE EXISTING WATER HOUSE CONNECTION FOR ADEQUACY PRIOR TO LAYING ANY PIPE. IF THE EXISTING WATER CONNECTION DOES NOT MEET THE CURRENT CODE A NEW WATER CONNECTION SHALL BE INSTALLED AT THE SAME LOCATION.
12. THIS PLAN IS EXEMPT FROM STORMWATER MANAGEMENT IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, SECTION 1.2. THE NET DISTURBANCE DOES NOT EXCEED 5000 SQUARE FEET.
13. PERIMETER LANDSCAPING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL AND DEVELOPMENT CRITERIA. TOTAL SURETY AMOUNT OF $1,500.00 SHALL BE POSTED WITH THE GRADING PERMIT.
14. THIS PROPERTY IS EXEMPT FROM FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202(b)(1)(i) OF THE COUNTY CODE: DEVELOPMENT ACTIVITIES ON SINGLE LOTS SMALLER THAN 40,000 SQUARE FEET AS LONG AS ANY SUCH CUTTING, CLEARING OR GRADING DOES NOT INCLUDE ANY AREA ALREADY SUBJECT TO PREVIOUSLY APPROVED FOREST CONSERVATION RESTRICTIONS.
15. FOR DRIVEWAY ENTRANCE DETAILS, REFER TO HOWARD COUNTY DESIGN MANUAL VOL. IV, DETAIL R.6.06.
16. 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 SETBACKS.
17. NO WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS OR 100 YEAR FLOODPLAIN EXIST ON THIS PROPERTY.
18. 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. 14% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS;
   -STRUCTURES (CULVERTS/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.
19. THIS PROPERTY DOES NOT CONTAIN ANY HISTORICAL STRUCTURES OR CEMETERIES.



PLAN
SCALE: 1"=30'

LIMIT OF DISTURBANCE
10,620 S.F.± OR 0.244 AC.±

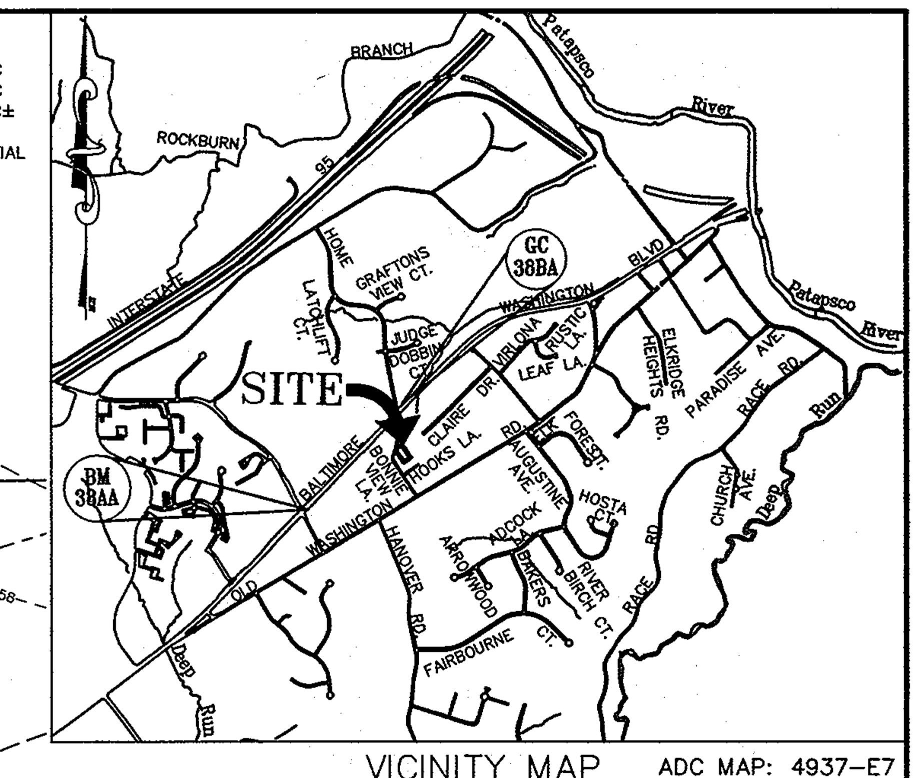
SOIL DESIGNATION	SOIL TYPES	SOIL CHARACTERISTICS		SOIL GROUP
Fa°	FALLSINGTON LOAM	0-2%	MODERATELY ERODED	D
RsC	RUSSETT FINE SANDY LOAM	5-10%	MODERATELY ERODED	C
RuB	RUSSETT	2-5%	MODERATELY ERODED	C

SOIL LINES AND TYPES SHOWN ARE TAKEN FROM HOWARD COUNTY USDA SOILS MAP NO. 26.
° INDICATES A HYDRIC SOIL
\# INDICATES A SOIL WITH SLOPES LESS THAN 15% AND SIGNIFICANT EROSION POTENTIAL

SITE ANALYSIS DATA CHART

A)	TOTAL PROJECT AREA:	0.486 AC
B)	AREA OF PLAN SUBMISSION:	0.486 AC
C)	LIMIT OF DISTURBANCE:	0.24 AC±
D)	PRESENT ZONING DESIGNATION:	R-12
E)	PROPOSED USE(S):	RESIDENTIAL
F)	DPZ FILE REFERENCES:	N/A

LOT NO.	AREA (AC.)
1	0.486



VICINITY MAP 1"=1000'
ADC MAP: 4937-E7

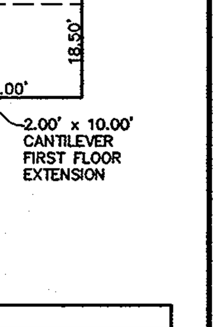
BENCHMARK:
GEODETIC CONTROL 38AA: STAMPED DISC ON A CONCRETE MONUMENT SET ON THE NORTHEAST CORNER OR ROUTE-1 AND MONTGOMERY ROAD (ELEV. 220.044)
N 561,158.82 E 1,389,726.33

BENCHMARK 38BA: STAMPED DISC ON A CONCRETE MONUMENT SET ON THE WEST SIDE OF ROUTE-1 APPROX. 0.3 MILE NORTH OF MONTGOMERY ROAD (ELEV. 166.184)
N 562,553.31 E 1,390967.86

LEGEND

EXISTING CONTOUR	— — 136 — —
PROPOSED CONTOUR	——136——
SPOT ELEVATION	36x7
EXISTING FENCE	——X——
PROPERTY LINE	
LIMIT OF DISTURBANCE	• • • • • • •
EXISTING WATER METER	
EXISTING SAN. CLEANOUT	c/o
TREE PROTECTION FENCE	—TP—
OVERHEAD WIRES	——OW——
EXISTING UTILITY POLE	
EXISTING STREETLIGHT	
EXISTING TREES (TO REMAIN)	
EXISTING TREES (TO BE REMOVED)	
SUPER SILT FENCE	——SSF——
SUPER FENCE DIVERSION	——SFD——

NOTE: NO EXISTING GAS ON SITE



PROPOSED RESIDENCE
WINDSOR (REVERSED)
SCALE: 1" = 30'

SHEET INDEX	
SHEET	TITLE
S-1	SITE DEVELOPMENT PLAN-1 – GRADING, EROSION AND SEDIMENT CONTROLS
S-2	SITE DEVELOPMENT PLAN-2 – LANDSCAPE PLAN, EROSION AND SEDIMENT CONTROL DETAILS

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

ADDRESS CHART	
LOT/PARCEL #	STREET ADDRESS
PARCEL 977	5941 BONNIE VIEW LANE

LITTLE & ASSOCIATES, INC.
ENGINEERS~~LAND PLANNERS~~SURVEYORS
1055 TAYLOR AVENUE, SUITE 307
TOWSON, MARYLAND 21286
PHONE: (410)296-1636 FAX: (410)296-1639

PROFESSIONAL CERTIFICATION
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. 16019, EXPIRATION DATE: 5/8/2010.

STATE OF MARYLAND G. DWIGHT LITTLE JR. NO. 16019 REGISTERED PROFESSIONAL ENGINEER

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 G. DWIGHT LITTLE 12/16/09 Date

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 12-17-09 Date

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
Howard SCD 1/6/10 Date

OWNER
COMMUNITY HOSING LLP
611 FREDERICK RD #201
BALTIMORE, MARYLAND 21228
410-788-9995

BUILDER/DEVELOPER
ARRISBROOK BUILDERS
P.O. BOX 21201
CATONSVILLE, MD 21228
443-926-0021

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chief, Division of Land Development 1/14/10 Date
Chief, Development Engineering Division J.P. 1/13/10 Date
Director – Department of Planning and Zoning 1/14/10 Date

PROJECT			SECTION	LOT/ PARCEL NO.	
PROPERTY OF COMMUNITY HOSING LLP			N/A	PARCEL 977	
PLAT	BLOCK NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
LIBER 11402 FOLIO 167	N/A	R-12	38	1-01	601201
WATER ZONE			SEWERSHED		
400					

DES: AK
DRN: KR
CHK: AK
DATE: 10-12-2009

BY	NO.	REVISION	DATE

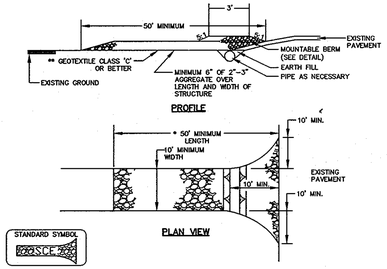
SITE DEVELOPMENT, SEDIMENT & EROSION CONTROL PLAN, NOTES AND DETAILS

SINGLE FAMILY DETACHED
L. 11402 F. 168
PROPERTY OF
COMMUNITY HOSING LLP
SDP-10-017
#5941 BONNIE VIEW LN

ELECTION DISTRICT 1-01
TAX ACCOUNT NUMBER: 01-187457
SCALE: AS SHOWN
PRIOR PLANS:

HOWARD COUNTY, MD
M 38 G 03 P 977
NOVEMBER 30, 2009
SHEET 1 OF 2

DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE



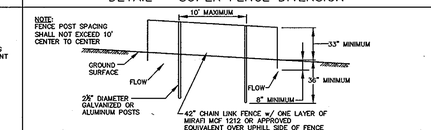
CONSTRUCTION SPECIFICATIONS

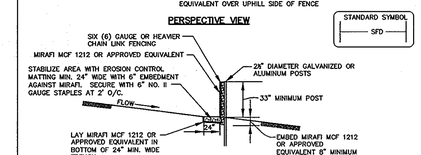
1. LENGTH – MINIMUM OF 50' (*30' FOR SINGLE RESIDENCE LOT).
2. WIDTH – 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
3. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE 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 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.
6. 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F-17-3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL – SUPER FENCE DIVERSION

NOTE: FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER



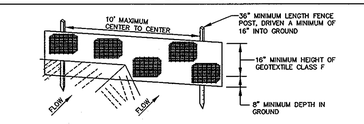


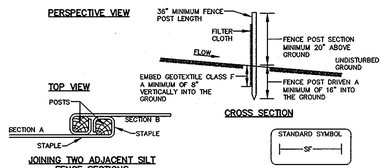
CONSTRUCTION SPECIFICATIONS

1. FENCING SHALL BE 42 INCHES IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY (SHA) DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6' FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6' LENGTH POSTS
2. THE POSTS DO NOT NEED TO BE SET IN CONCRETE
3. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE. THE CHAIN LINK FENCING SHALL BE (6) GAUGE OR HEAVIER.
4. MIRAFI MCF 1212 OR APPROVED EQUIVALENT SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
5. MIRAFI MCF 1212 OR APPROVED EQUIVALENT SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
6. WHEN TWO SECTIONS OF MIRAFI MCI 1212 OR APPROVED EQUIVALENT ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED.
8. MAXIMUM FLOW SLOPE 10.0%
9. MAXIMUM DRAINAGE AREA 5 ACRES.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE MODIFIED	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 22 – SILT FENCE





CONSTRUCTION SPECIFICATIONS

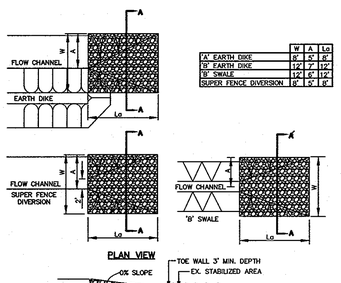
1. FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE (MINIMUM CUT, OR 1 3/4" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS WILL BE STANDARD T OR U SECTION WEIGHTING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
2. GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIRES 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 FT2/MINUTE (MAX.)	TEST: MSMT 322
FILTERING EFFICIENCY	75% (MIN.)	TEST MSMT 322

3. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
4. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 50% OF THE FABRIC HEIGHT

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E-15-3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

ROCK OUTLET PROTECTION III (MODIFIED) – FOR EARTH DIKE, TEMPORARY SWALE, AND SUPER FENCE DIVERSION OUTLETS

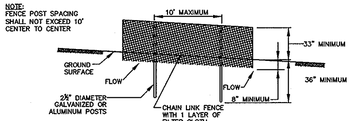


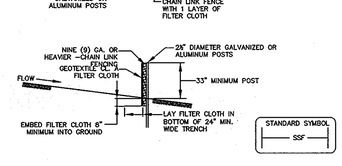
	W	A	Lo
'A' EARTH DIKE	8'	5'	8'
'B' EARTH DIKE	12'	2'	12'
'B' SWALE	12'	6'	12'
SUPER FENCE DIVERSION	8'	5'	8'

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE MODIFIED	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 33 – SUPER SILT FENCE

NOTE: FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER

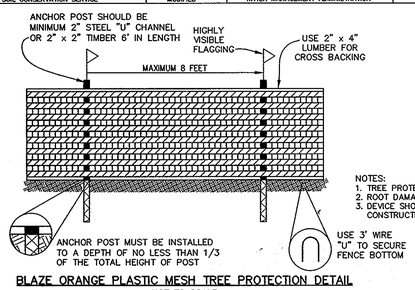




CONSTUCTION SPECIFICATIONS

1. FENCING SHALL BE 42" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY DETAILS FOR CHAIN LINK FENCING. THE SHA SPECIFICATION FOR A 6' FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6' LENGTH POSTS.
2. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
3. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE. THE CHAIN LINK FENCING SHALL BE SIX (6) GAUGE OR HEAVIER.
4. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
5. FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
6. WHEN TWO SECTIONS OF GEOTEXTILE FABRIC ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE MODIFIED	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



NOTES:
1. TREE PROTECTION DEVICE ONLY.
2. ROOT DAMAGE SHOULD BE AVOIDED.
3. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

BLAZE ORANGE PLASTIC MESH TREE PROTECTION DETAIL
NOT TO SCALE

DEVELOPER'S/OWNERS CERTIFICATE

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

NAME _____ DATE 12-17-09

PLANT LIST

QUANTITY	QUANTITY	BOTANICAL NAME/COMMON NAME	MINIMUM SIZE	ROOT
+	1	QUERCUS RUBRA / RED OAK	2 – 2 1/2" CAL.	B&B
+	2	ACER RUBRUM / RED MAPLE	2 – 2 1/2" CAL.	B&B
*	4	PINUS STROBUS / EASTERN WHITE PINE	5–6'	B&B

SCHEDULE 'A' – PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTY 'A'	'B'	'C'	'D'
LOCATION				
ADJACENT TO	ADJACENT TO RESIDENTIAL PERIMETER PROPERTIES	ADJACENT TO RESIDENTIAL PERIMETER PROPERTIES	ADJACENT TO RESIDENTIAL PERIMETER PROPERTIES	ADJACENT TO RESIDENTIAL PERIMETER PROPERTIES
LANDSCAPE TYPE	'A'	'A'	'A'	'A'
LIN. FT. OF PROPERTY LINE	176.33 FEET	105.5 FEET	174.57 FEET	69.33 FEET
CREDIT FOR EX. VEGETATION	1	2	1	1
CREDIT FOR WALL, FENCE OR BERM	0	0	0	0
NUMBER OF PLANTS REQUIRED: SHADE TREE	3 (1 / 60)	2 (1 / 60)	3 (1 / 60)	2 (1 / 60)
EVERGREEN TREE	0	0	0	0
SHRUB	0	0	0	0
NUMBER OF PLANTS PROVIDED: SHADE TREE	0 (+1 EX. –CREDIT)	0 (+2 EX. –CREDIT)	2 (+1 EX. –CREDIT)	1 (+1 EX. –CREDIT)
EVERGREEN TREE	4	0	0	0
SHRUB (10:1 SUB)	0	0	0	0

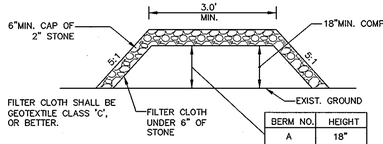
LANDSCAPE NOTES

1) ALL PLANT MATERIALS SHALL BE NURSERY GROWN AND SHALL CONFORM TO AMERICAN ASSOCIATION OF NURSERYMEN, INC. STANDARDS.
2) ALL PLANTING PROCEDURES AND SPECIFICATIONS SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE WASHINGTON METROPOLITAN AREA" LATEST EDITION.
3) THE CONTRACTOR SHALL CONTACT "MISS UTILITY" FOR UNDERGROUND UTILITY LOCATIONS AT LEAST 72 HOURS PRIOR TO THE COMPLETION DATE.
4) ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR FOR ONE YEAR FOLLOWING THE INSTALLATION COMPLETION DATE.

LANDSCAPE SURETY NOTE:

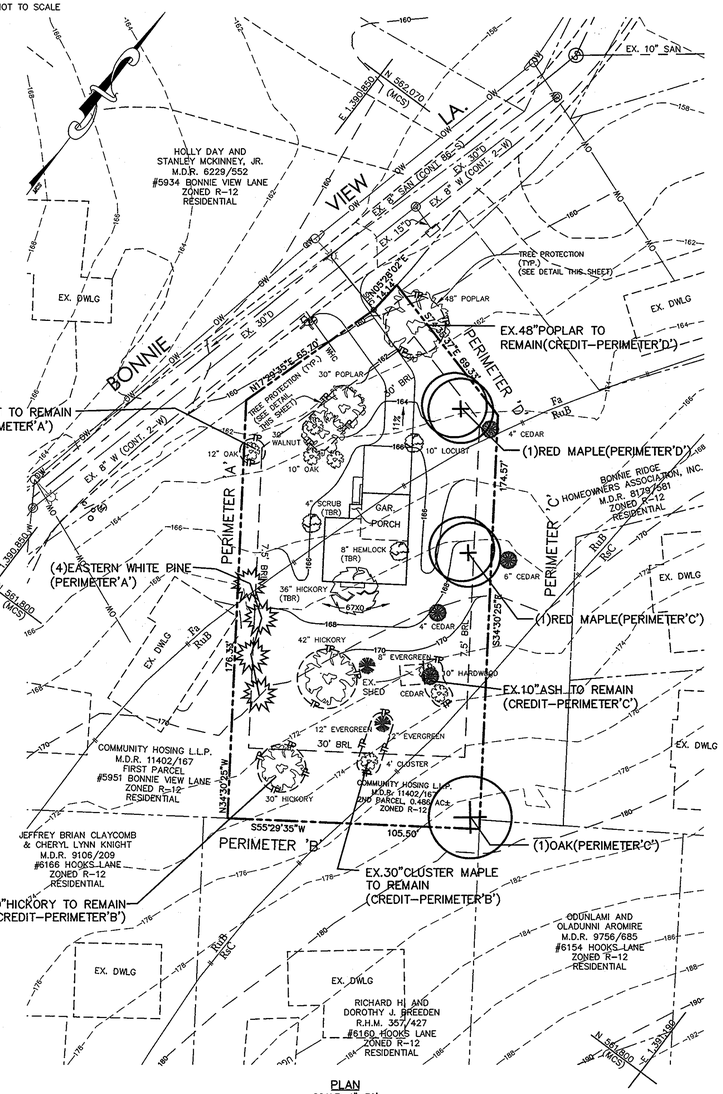
THIS LANDSCAPE PLAN WAS PREPARED IN ACCORDANCE WITH SUBDIVISION SECTION 16.124 AND THE HO. CO. LANDSCAPE MANUAL. LANDSCAPE SURETY IN THE AMOUNT OF $1,500.00 HAS BEEN POSTED WITH THE GRADING PERMIT.

(3) SHADE TREES @ $300 EACH = $900.00
(4) EVERGREEN TREES @ $150 EACH = $600.00
(0) SHRUBS @ $30 EACH =
TOTAL = $1,500.00



BERM NO.	HEIGHT
A	18"
B	30"

MOUNTABLE BERM DETAIL
NOT TO SCALE



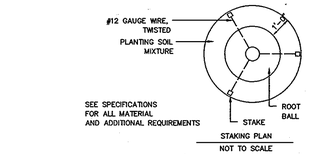
PLAN
SCALE: 1"=30'

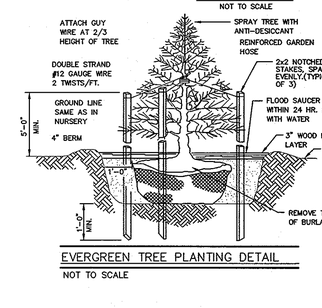
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

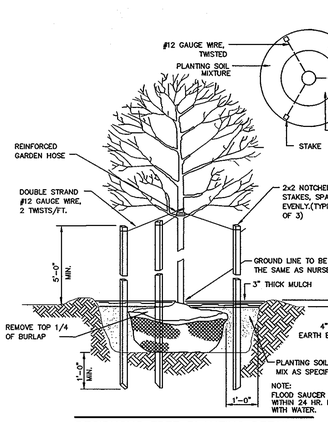
LEGEND

EXISTING CONTOUR	136
PROPOSED CONTOUR	136
SPOT ELEVATION	36x7
EXISTING FENCE	X
PROPERTY LINE	
LIMIT OF DISTURBANCE	
EXISTING WATER METER	
EXISTING SAN. CLEANOUT	
TREE PROTECTION FENCE	TP TP TP
OVERHEAD WIRES	OW
EXISTING UTILITY POLE	
EXISTING STREETLIGHT	
EXISTING TREES (TO REMAIN)	
EXISTING TREES (TO BE REMOVED)	
TO BE REMOVED	(TBR)

NOTE: NO EXISTING GAS ON SITE







LITTLE & ASSOCIATES, INC.
ENGINEERS~~LAND PLANNERS~~SURVEYORS
1055 TAYLOR AVENUE, SUITE 307
TOWSON, MARYLAND 21286
PHONE: (410)296–1636 FAX: (410)296–1639

PROFESSIONAL CERTIFICATION
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. 16019, EXPIRATION DATE: 9/8/2010.

STATE OF MARYLAND G. DWIGHT LITTLE No. 16019 REGISTERED PROFESSIONAL ENGINEER

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 G. DWIGHT LITTLE 12/16/09 Date

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 12-17-09 Date

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD 1/4/10 Date

OWNER
COMMUNITY HOSING LLP
611 FREDERICK RD #201
BALTIMORE, MARYLAND 21228
410–788–9995

BUILDER/DEVELOPER
ARRISBROOK BUILDERS
P.O. BOX 21201
CATONSVILLE, MD 21228
443–926–0021

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 1/4/10
Chief, Development Engineering Division J.P. — Date 1/13/10
Director – Department of Planning and Zoning — Date 1/14/10

PROJECT	SECTION	LOT/ PARCEL NO.
PROPERTY OF COMMUNITY HOSING LLP	N/A	PARCEL 977

PLAT	BLOCK NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
LIBER 11402 FOLIO 167	N/A	R–12	38	1–01	601201

WATER ZONE	SEWERSHED
400	

DES: AK
DRN: KR
CHK: AK
DATE: 10–12–2009

BY	NO.	REVISION	DATE

LANDSCAPE PLAN, EROSION AND SEDIMENT CONTROL DETAILS

SINGLE FAMILY DETACHED
L. 11402 F. 168
PROPERTY OF
COMMUNITY HOSING LLP
SDP–10–017
#5941 BONNIE VIEW LN

ELECTION DISTRICT 1–01
TAX ACCOUNT NUMBER: 01–187457
SCALE: AS SHOWN
PRIOR PLANS:

HOWARD COUNTY, MD
M 38 G 03 P 977
NOVEMBER 30, 2009
SHEET 2 OF 2

SDP–10–017