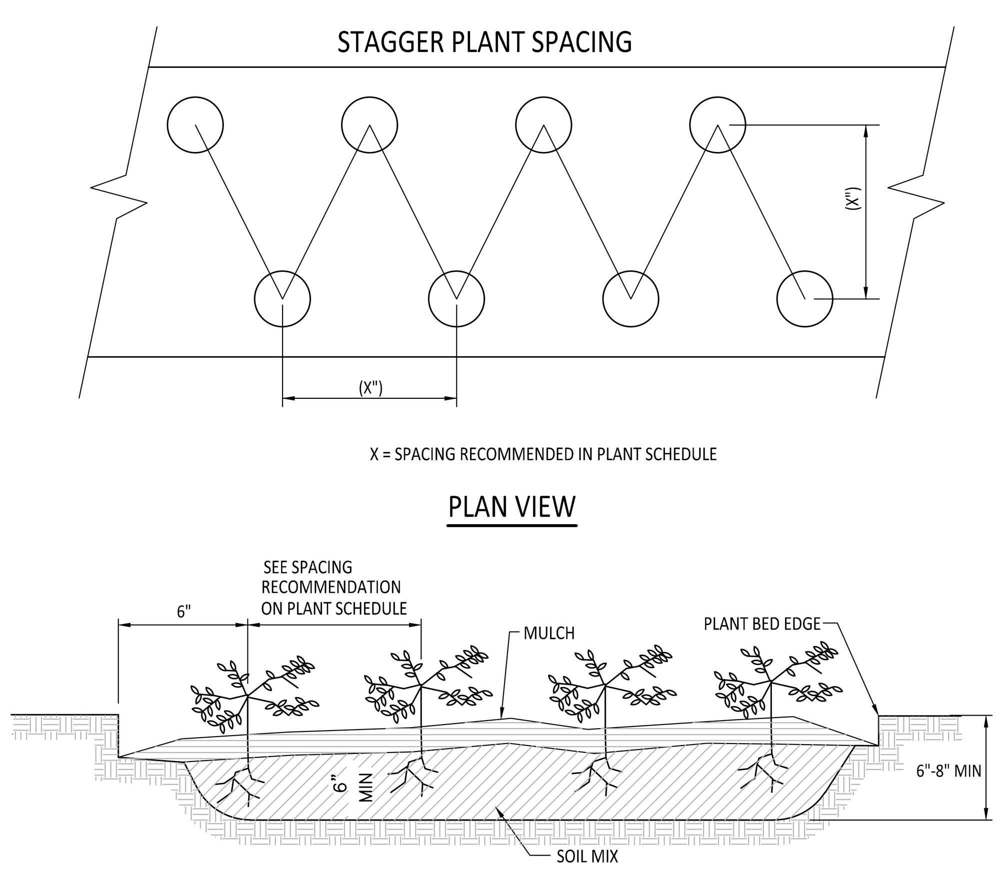
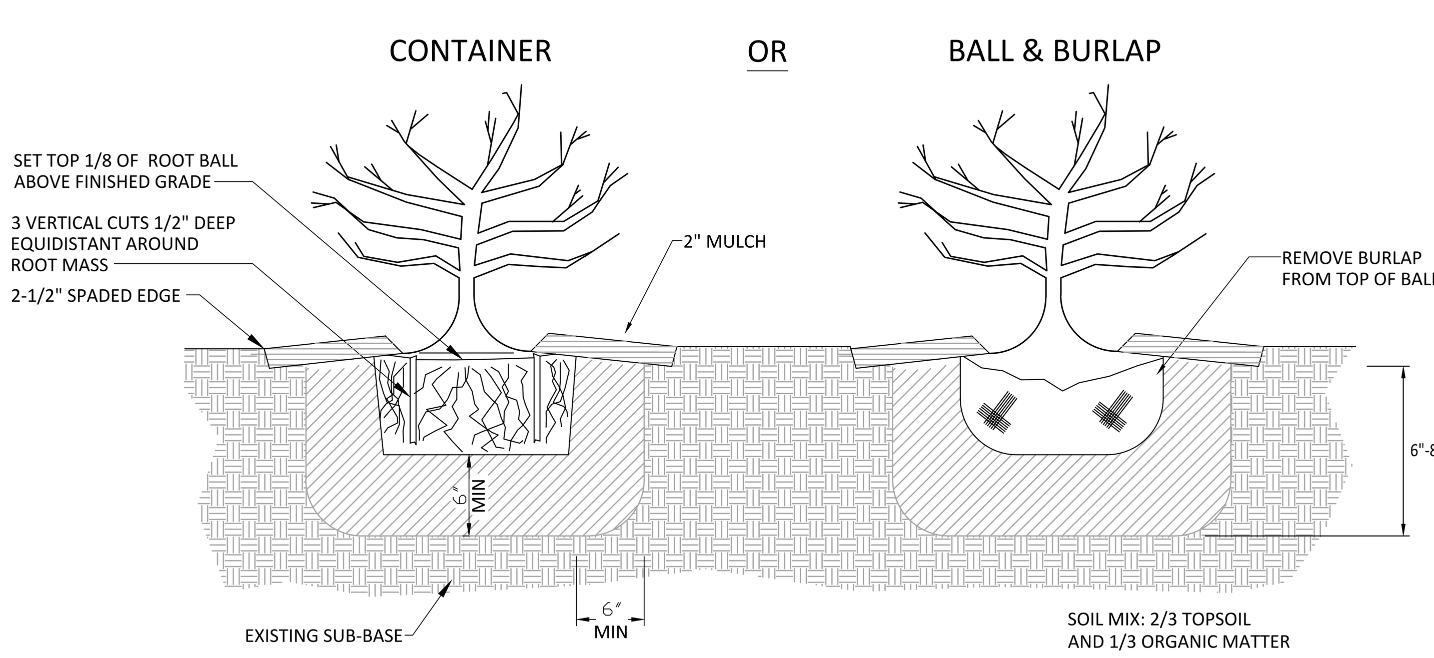
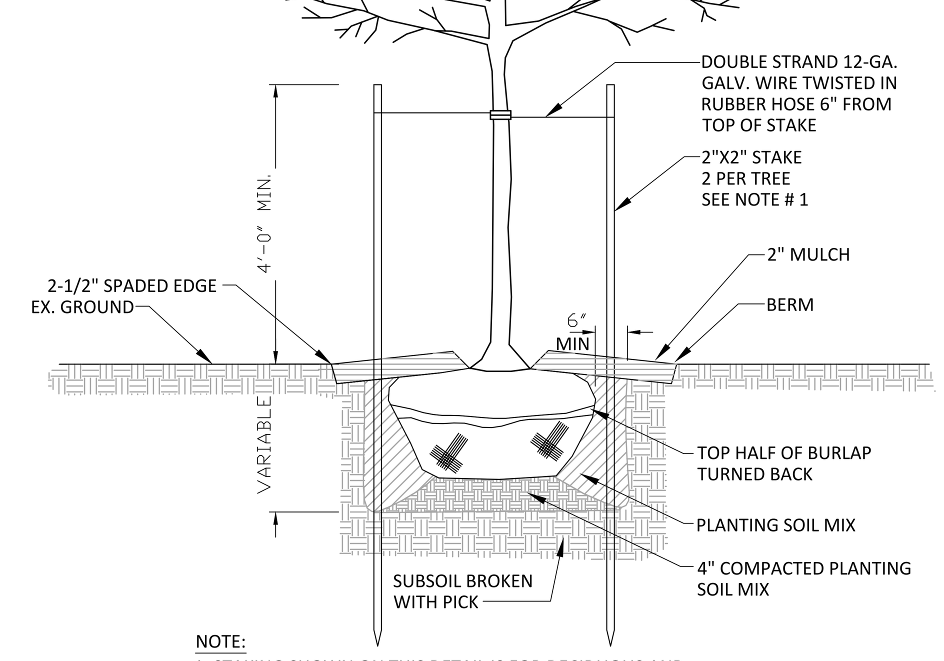


1 GROUND COVER PLANTING DETAIL
NOT TO SCALE



2 SHRUB PLANTING DETAIL
NOT TO SCALE



NOTE:

1. STAKING SHOWN ON THIS DETAIL IS FOR DECIDUOUS AND EVERGREEN TREES UNDER 4" CALIPER AND 6' OR MORE IN HEIGHT. STAKE TREES ONLY IN AREAS OF HIGH WIND. REMOVE AFTER FIRST GROWING SEASON.

2. NO STAKING REQUIRED FOR STREET TREES. CONTRACTOR RESPONSIBLE FOR KEEPING STREET TREES STRAIGHT.

3 TREE PLANTING DETAIL
NOT TO SCALE

GENERAL PLANTING NOTES

PLANT / MATERIAL NOTES

PLANT IDENTIFICATION:

1. ALL PLANTS SHALL BE PROPERLY MARKED FOR IDENTIFICATION AND CHECKING AND ARE SUBJECT TO APPROVAL BY THE OWNER'S REPRESENTATIVE.
2. STATE OR FEDERAL NURSERY INSPECTION CERTIFICATES SHALL BE FURNISHED TO THE OWNER UPON REQUEST.
3. THE CONTRACTOR SHALL VERIFY PLANT QUANTITIES AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. PLANT QUANTITIES SHOWN ON THE PLAN SHALL GOVERN OVER THOSE SHOWN ON THE PLANT LIST.
4. CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS REQUIRED TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS.
5. PLANTS WILL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE 'AMERICAN STANDARD FOR NURSERY STOCK' PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION AND CONFORM IN GENERAL TO THE REPRESENTATIVE SPECIES.
6. SUBSTITUTIONS SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER & MNCPPC STAFF. ANY SUBSTITUTIONS MADE WITHOUT THIS APPROVAL MADE BE SUBJECT TO REJECTION AND REMOVAL AT THE CONTRACTOR'S EXPENSE.
7. PLANT MATERIAL SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY OWNER OR OWNER'S REPRESENTATIVE FOR CONFORMITY TO SPECIFICATION REQUIREMENTS AS TO QUALITY, SIZE AND VARIETY. PLANTS DAMAGED IN HANDLING OR TRANSPORTATION MAY BE REJECTED BY THE OWNER.

PLANT QUALITY:

1. ALL PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE AND BE FREE OF PLANT DISEASE, INSECTS, EGGS AND LARVAE AND SHALL HAVE HEALTHY ROOT SYSTEMS, PLANTS SHALL BE OBTAINED FROM SITES WHICH ARE SIMILAR IN SOIL AND CLIMATIC CONDITIONS AS THOSE OF THE PROJECT SITE.
2. BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM, NATURAL BALL OF EARTH. BALL SIZES SHALL BE IN ACCORDANCE WITH A.N.L.A. SPECIFICATIONS.
3. CONTAINER GROWN STOCK SHALL HAVE BEEN GROWN IN THE CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL TOGETHER.
4. PRUNING SHALL BE DONE DURING PLANTING OPERATION.
5. ALL PLANT MATERIAL IN TRANSIT SHALL BE COVERED WITH BURLAP OR SIMILAR COVER TO KEEP IT FROM WIND DAMAGE AND DRYING OUT.

PLANT SIZE:

1. ALL PLANT SIZES SHALL AVERAGE AT LEAST THE MIDDLE OF THE PLANT RANGE GIVEN IN THE PLANT LIST, BUT IN NO CASE SHALL ANY PLANT BE LESS THAN THAT SIZE STATED FOR THAT SPECIES.
2. CALIPER MEASUREMENTS SHALL BE TAKEN AT A POINT ON THE TRUNK 6 INCHES ABOVE NATURAL GRADE FOR TREES UP TO 4 INCHES IN DIAMETER; AND AT A POINT 12 INCHES ABOVE NATURAL GRADE FOR TREES OVER 4 INCHES IN DIAMETER.
3. SINGLE TRUNK TREES SHALL NOT INCLUDE THE "V" CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE.
4. SHRUBS HEIGHT SHALL BE MEASURED FROM THE GROUND TO THE AVERAGE HEIGHT OF THE TOP OF THE PLANT. SPREAD SHALL BE MEASURED FROM THE END OF THE BRANCHING, EQUALLY AROUND THE PLANT. MEASUREMENTS SHALL NOT INCLUDE TERMINAL GROWTH.
5. HEIGHT AND SPREAD DIMENSIONS SPECIFIED SHALL REFER TO THE MAIN BODY OF THE PLANT AND NOT FROM BRANCH TIP TO TIP.

SEEDING AND SODDING:

SOIL TESTING

A SOIL TEST SHALL BE MADE TO DETERMINE SOIL TEXTURE, pH, MAGNESIUM, PHOSPHORUS AND POTASSIUM. ADDITIONAL TESTS FOR SOLUBLE SALTS AND ORGANIC MATTER SHOULD ALSO BE MADE. SOIL TESTS SHALL BE CONDUCTED BY A STATE LABORATORY OR RECOGNIZED COMMERCIAL LABORATORY. THE LANDSCAPE CONTRACTOR SHALL PERFORM ONE (1) SOIL TEST USING A REPRESENTATIVE SAMPLE OF ON-SITE SOILS. IF EXISTING SOIL HAS BEEN UNDISTURBED AND IS SUITABLE AS DETERMINED BY SOIL TEST, NO ADDITIONAL AMENDMENTS ARE REQUIRED. IF THE OWNER DOES NOT ACCEPT THE SOIL TEST RESULTS AS SUBMITTED BY THE LANDSCAPE CONTRACTOR, THE OWNER IS ACCEPTING FULL RESPONSIBILITY AND THEREBY VOIDS THE LANDSCAPE CONTRACTOR'S GUARANTEE. ADJUSTMENTS SHOULD BE MADE BASED ON SOIL TEST RESULTS.

ACCEPTABLE SOIL TEST RESULTS

pH RANGE	BLUEGRASS 6.0-7.0, FESCUES 5.5-7.0
ORGANIC MATTER	>1.5%
MAGNESIUM - Mg	35 POUNDS PER ACRE
PHOSPHORUS - P_2O_5	100 POUNDS PER ACRE
POTASSIUM - K_2O	85 POUNDS PER ACRE
SOLUBLE SALTS	NOT TO EXCEED 900 PPM

REFER TO LANDSCAPE SPECIFICATION GUIDELINES PART 7: SOILS, SECTION 1.7 (SOIL TESTING) TO DETERMINE HOW TO RAISE AND LOWER pH.

2.0 PRODUCTS

2.1 QUALITY ASSURANCE

MANUFACTURERS' CERTIFIED ANALYSES SHALL ACCOMPANY PACKAGED STANDARD PRODUCTS.

2.2 ORGANIC MATTER

A. LEAF COMPOST: SCREENED AND FREE OF TRASH.
B. COMPOSTED SWAGE SLUDGE: APPROVED, SCREENED, POLYMER-DEWATERED SEWAGE SLUDGE WITH A pH OF 6.2 TO 7.2.
C. MSW (MUNICIPAL SOLID WASTE) COMPOST WITH pH OF 6.2 TO 7.2 THAT IS SCREENED AND CONTAINS LESS THAN 1% MAN-MADE MATERIALS.

2.3 TOPSOIL

A. TOPSOIL SHALL MEET ACCEPTABLE SOIL TEST LEVELS AS SPECIFIED IN THE SOILS SPECIFICATION.
B. TOPSOIL INSTALLED ON GRADE SHALL ATTEMPT TO MATCH EXISTING SOIL TEXTURE, EXCEPT FOR SITUATIONS WHERE CLAY SUBSOIL EXISTS. WHERE CLAY SUBSOIL EXISTS, USE LOAM OR SILT LOAM TOPSOILS.
C. TOPSOIL SHALL BE FREE OF STONES, LUMPS, PLANTS, ROOTS, AND OTHER DEBRIS OVER 11/2". TOPSOIL MUST ALSO BE FREE OF PLANTS OR PLANT PARTS.
D. TOPSOIL SHALL NOT CONTAIN TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH (E.G., PESTICIDE RESIDUES).

3.0 SOIL PREPARATION

3.1 SUBGRADE SOIL PREPARATION

A. GENERAL CONDITIONS: WORK SHALL PROCEED ONLY AFTER ROUGH GRADING HAS BEEN COMPLETED AND THE SUBGRADE IS WITHIN 2/10 OF 1' (I.E., 2.4") FROM FINAL SUBGRADE. IF THE GRADED AREA DEVELOPS VOLUNTEER WEED GROWTH, THE GROWTH MUST BE ELIMINATED AT THE EXPENSE OF THE GENERAL CONTRACTOR OR THE OWNER.
B. GRADES: GRADES THAT HAVE BEEN PREVIOUSLY ESTABLISHED IN CONFORMANCE WITH THE DRAWINGS AND/OR OTHER APPLICABLE SPECIFICATIONS SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE.
C. LIMING: LIMESTONE SHALL BE SPREAD BASED ON SOIL TEST RECOMMENDATIONS. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH AN EXPANDED TILLAGE OPERATION, AS DESCRIBED IN PARAGRAPH D, WHICH FOLLOWS.
D. TILLING (SCARIFYING): AFTER THE AREAS HAVE BEEN BROUGHT TO GRADE, THE SUBGRADE SHALL BE LOOSENED BY DISKING OR SCARIFYING TO A DEPTH OF 6" TO 8". THIS IS ESPECIALLY CRITICAL WHEN TOPSOIL IS TO BE ADDED.

3.4 FINISH GRADE

A. GENERAL CONDITIONS: THE LANDSCAPE CONTRACTOR SHALL PROCEED ONLY AFTER THE TOPSOIL OR SUBSOIL HAS BEEN PREPARED UNIFORMLY IN THE DESIGNATED AREAS TO WITHIN 1/4 OF 1". ANY UNDULATIONS OR IRREGULARITIES IN THE SURFACE RESULTING FROM FERTILIZING, LIMING, TILLING, OR OTHER CAUSES SHALL BE LEVELED PRIOR TO SODDING OR SEEDING.
B. PRIOR TO SODDING OR SEEDING, THE SURFACE SHALL BE CLEARED OF ALL TRASH, DEBRIS, AND STONES LARGER THAN 11/2" IN DIAMETER OR LENGTH, AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH SODDING OR SEEDING.

4.0 SOD: PRODUCTS AND PROCEDURES

4.2 PRODUCTS

A. CLASSES OF MD TURFGRASS SOD:

1. STATE-CERTIFIED SOD (LABELED)
   THE MIXTURE IS MADE UP OF INDIVIDUAL VARIETIES THAT HAVE BEEN EVALUATED FOR AT LEAST FIVE YEARS AT UP TO EIGHT DIFFERENT LOCATIONS THROUGHOUT MARYLAND AND VIRGINIA AND ARE READILY AVAILABLE IN CERTIFIED FORM. ONE LABEL IS REQUIRED BY LAW ON EACH AND EVERY LOAD OF SOD, REGARDLESS OF SIZE. THE PURCHASER SHOULD REQUIRE A "CERTIFIED" LABEL UPON DELIVERY.
2. OTHER SOD
   TURFGRASS SOD THAT MEETS AND EXCEEDS THE STANDARDS OF STATE CERTIFIED AND STATE APPROVED SOD AND IS APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE.

B. SPECIFICATIONS FOR SOD MATERIALS

1. CLASS AND COMPOSITION: CLASS OF TURFGRASS SOD SHALL BE CREEPING BENTGRASS, KENTUCKY BLUEGRASS, TURF-TYPE TALL FESCUE, OR ZOYSIA GRASS.
2. THICKNESS OF CUT: SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 1/2", PLUS OR MINUS 1/4", AT THE TIME OF CUTTING,. MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH.
3. PAD SIZE: INDIVIDUAL PIECES OF SOD SHALL BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE 5%. BROKEN PADS AND TOR OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
4. STRENGTH OF SOD SECTIONS: UNDER IDEAL CONDITIONS, STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY FROM A FIRM GRASP ON THE UPPER 10% OF THE SECTION. NOTE: YOUNGER TALL FESCUE WILL NOT BE STRONG ENOUGH TO PASS THIS TEST BUT IS STILL OKAY TO USE.
5. SOD VIABILITY: SOD SHALL NOT BE HARVESTED OR TRANSPLANTED UNDER DROUGHT CONDITIONS.
6. TIME LIMITATIONS: UNDER OPTIMAL CONDITIONS, SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS. BECAUSE SOD IS A PERISHABLE COMMODITY, HOWEVER, IF HIGH TEMPERATURES AND LOW MOISTURE EXTREMES OCCUR, ITS VIABILITY DECLINES AND INSTALLATION SHOULD OCCUR WITHIN 24 HOURS FROM HARVEST. SOD NOT TRANSPLANTED WITHIN THIS PERIOD SHALL BE INSPECTED AND APPROVED OR REJECTED BY THE OWNER, OWNER'S REPRESENTATIVE, OR GENERAL CONTRACTOR PRIOR TO INSTALLATION.

5.0 SEEDING: PRODUCTS AND PROCEDURES

5.3 PRODUCTS

A. MULCHING MATERIALS

1. STRAW SHALL BE FREE OF ROT, MILDEW AND NOXIOUS WEED SEEDS AND SHALL BE A SMALL GRAIN, SUCH AS WHEAT, BARLEY, OR OATS.
2. WOOD CELLULOSE FIBER MULCH SHALL CONSIST OF SPECIALLY PREPARED CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
3. WOOD FIBER HYDRAULIC MULCH PRODUCTS SHALL CONSIST OF SPECIALLY PREPARED WOOD THAT HAS BEEN PROCESSED TO A UNIFORM FIBROUS STATE, AND SHALL BE PACKAGED FOR SALE AS A HYDRAULIC MULCH FOR USE WITH HYDRAULIC SEEDING EQUIPMENT. THE WOOD FIBERS OF WOOD FIBER HYDRAULIC MULCH PRODUCTS SHALL HAVE A LENGTH OF APPROXIMATELY 0.5" AND A DIAMETER OF APPROXIMATELY 0.0625". WOOD FIBER HYDRAULIC MULCH PRODUCTS SHALL HAVE A pH RANGE OF pH 4.0 TO 8.5, AND AN ASH CONTENT THAT SHALL NOT EXCEED 7% OF THE PRODUCT BY WEIGHT. IT SHALL CONTAIN NO MATERIALS OR CHEMICALS IN CONCENTRATIONS THAT INHIBIT THE GERMINATION OR GROWTH OF GRASSES, FORBS, MEADOW FLOWERS, OR OTHER SEEDLINGS WHEN THEY ARE APPLIED ACCORDING TO THE MANUFACTURER'S LABEL DIRECTIONS.
4. EROSION CONTROL BLANKETS SHALL BE WOVEN AND MAY CONTAIN LIGHTWEIGHT PLASTIC NETTING ON ONE OR BOTH SIDES.

B. STABILIZING MATERIALS

1. LIQUID MULCH BINDERS SHOULD BE APPLIED MORE HEAVILY AT THE EDGES, WHERE WIND CATCHES THE MULCH.

C. SEED MIX

1. PRIOR TO SPECIFYING THE COMPOSITION OF THE CERTIFIED SEED MIX OR BLEND AND APPLICATION RATES, CONTACT THE UNIVERSITY OF MARYLAND EXTENSION OR REFER TO WWW.IPMNET.UMD.EDU.

SOILS

1.7 SOIL TESTING

A. SOIL TESTS SHALL BE MADE OF EXISTING SOILS, IMPORTED SOILS, AND PLANTING MIXES TO DETERMINE SOIL TEXTURE, pH, TOTAL CALCIUM, MAGNESIUM, PHOSPHOROUS, POTASSIUM, SOLUBLE SALTS AND PERCENT ORGANIC MATTER. EACH SAMPLE TO BE SUBMITTED FOR TESTING SHALL BE EXTRACTED FROM A COMPOSITE SAMPLE REPRESENTING A MINIMUM FIVE (5) CORE SAMPLES FOR EACH SOIL AREA. SOIL TESTS SHALL BE CONDUCTED BY A STATE AGRICULTURAL SOIL TESTING LABORATORY OR BY A COMMERCIAL AGRICULTURAL SOIL TESTING LABORATORY.
B. EACH SOIL TEST SHALL EXAMINE THE FOLLOWING CHEMICAL AND PHYSICAL ATTRIBUTES. ANY SOIL THAT FALLS WITHIN THE INDICATED RANGE OF RESULTS SHALL BE CONSIDERED PROVISIONALLY ACCEPTABLE. ITS pH LEVEL SHOULD BE EXAMINED FOR SUITABILITY WITH THE PLANTS THAT ARE TO BE GROWN ON THE SITE. SPECIAL ATTENTION SHOULD BE PAID TO THE pH TOLERANCES OF PLANTS THAT REQUIRE ACIDIC SOIL FOR HEALTHY GROWTH.

SUGGESTED RANGES

NUTRIENT	PARTS PER MILLION CONCENTRATION DEPENDING ON CEC*
CALCIUM	400 TO 4,000
MAGNESIUM	60 TO 450
POTASSIUM	91 TO 250
PHOSPHORUS	30 TO 50

IF THE FOLLOWING NUTRIENTS ARE ANALYZED (SUGGESTED FOR SANDY SOILS)

IRON	5 TO 20
MANGANESE	5 TO 20
COPPER	0.3 TO 1
BORON	0.5 TO 1
ZINC	1 TO 3
**SS	0.2 TO 1/5 MMHOS/CM
pH	6.0 TO 7.5

* Ca, K, AND Mg OPTIMAL RANGES DEPEND ON THE ABILITY OF A SOIL TO HOLD CATIONS (CATION EXCHANGE CAPACITY). NUTRIENT LEVELS SHALL BE AS RECOMMENDED BY THE SOILS LAB FOR THE TYPES OF PLANTS AND SOIL CONDITIONS.

** SOLUBLE SALTS OR ELECTRICAL CONDUCTIVITY (EC) DEPEND ON THE TYPE OF TEST BEING PERFORMED. THE RECOMMENDATION IS FOR A 1:1 SOIL/WATER EXTRACT. THE EC UNITS OF mmhos/cm, dS/m, and mS/cm ARE INTERCHANGEABLE.

2.0 PRODUCTS

2.1 ORGANIC AMENDMENTS

A. THE FOLLOWING IS A LIST OF TYPES OF ORGANIC AMENDMENTS THAT MAY BE USED AS SOIL AMENDMENTS:
   YARD DEBRIS MATURE COMPOST (E.G., LEAFGRO*) - LEAVES, GRASS CLIPPINGS, AND PRUNINGS SCREENED THROUGH A 3/4" SCREEN AND CONTAINING LESS THAN 1% MAN-MADE INERTS.

   COMPOST: ORGANIC BLENDED MATERIAL, PROPERLY COMPOSTED AT TEMPERATURES SUFFICIENT TO BREAK DOWN ALL WOODY FIBERS, SEEDS, AND LEAF STRUCTURES; FREE OF TOXIC AND NONORGANIC MATTER. SOURCE MATERIAL SHALL BE YARD WASTE TRIMMINGS BLENDED WITH OTHER ORGANIC MATERIAL DESIGNED TO PRODUCE COMPOST HIGH IN FUNGAL MATERIAL.

   COMPOST SHALL BE COMMERCIALLY PREPARED COMPOST AND MEET U.S. COMPOST COUNCIL STA/ TMECC CRITERIA, OR AS MODIFIED IN THIS SECTION FOR STABLE , MATURE COMPOST INTEDED FOR BACKFILL MIX COMPONENT.

2.2 IMPORTED SOILS

A. IMPORTED SOIL SHALL MEET ACCEPTABLE SOIL TEST LEVELS AS SPECIFIED IN SECTION 1.7 (SOIL TESTING) IN THIS GUIDELINE.
B. IMPORTED SOILS SHALL BE LOAMS OF TEXTURAL CLASSIFICATION SPECIFIED FOR EACH APPLICATION.
C. IMPORTED SOIL SHALL NOT CONTAIN TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH.

2.3 PLANTING MIXES

A. TO MINIMIZE VOLUME REDUCTION OVER TIME, ONLY THE FOLLOWING ORGANIC SOURCES SHALL BE PERMITTED: MILLED PINE BARK, PINE FINES, MATURE YARD DEBRIS COMPOST (E.G., LEAFGRO) OR MANURE COMPOST.
B. PLANTING MIXES SHALL BE BLENDED MECHANICALLY USING A COMMERCIAL MIXER OR SHREDDER. INGREDIENTS SHALL BE UNIFORMLY INCORPORATED TO OBTAIN A CONSISTENT BLEND.
C. PROTECT PLANT MIX STOCKPILES AFTER MIXING BY USING PLASTIC SHEETING OR TARPS.

3.0 SOIL PREPARATION

3.1 MINIMUM MODIFICATIONS TO CREATE PLANTING SOILS

A. GENERAL CONDITIONS
1. IDENTIFY UTILITIES AND UNDERGROUND UTILITIES. ALL AREAS ON EITHER SIDE OF THE UTILITY MARKING, WHERE THE DISTANCE IS DICTATED BY THE LOCAL JURISDICTION, SHALL BE AMENDED BY HAND.
2. GRADES AFTER AMENDMENT, TILLING, AND FINE GRADING IN THE SPECIFIED AREA SHALL CONFORM TO THE DRAWINGS.
3. ROTOTILLING SHALL NOT BE PERFORMED WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.

3.2 MODIFICATION TO EXISTING SOILS

A. GENERAL CONDITIONS

1. AMENDMENTS SHALL BE APPLIED UNIFORMLY BASED ON THE FOLLOWING RECOMMENDATIONS AND SOIL TEST RESULTS. THOROUGHLY INCORPORATE THE AMENDMENTS INTO THE UPPER 6" OF SOIL.

3.3 SIGNIFICANT MODIFICATIONS TO CREATE PLANTING SOILS

A. GENERAL CONDITIONS
1. IDENTIFY UTILITIES AND UNDERGOUND UTILITIES (SEE SECTION 1.5 IN THIS GUIDELINE). ALL AREAS ON EITHER SIDE OF THE UTILITY MARKING, WHERE THE DISTANCE IS DICTATED BY THE LOCAL JURISDICTIONS, SHALL BE AMENDED BY HAND.
2. THE SOIL SHALL NOT BE TILLED, REGRADED, AMENDED, OR OTHERWISE WORKED WHEN THE SOIL'S MOISTURE LEVEL IS ABOVE FIELD CAPACITY OR WHEN THE SOIL IS FROZEN.
3. GRADES AFTER AMENDMENT, TILLING, AND FINE GRADING IN THE SPECIFIED AREA SHALL CONFORM TO THE DRAWINGS.
4. WORK TO ADD SOIL SHALL PROCEED ONLY AFTER ROUGH GRADING OF THE SUBSOIL HAS BEEN COMPLETED AND THE SUBGRADE IS WITHIN 1" TO 2" FROM FINAL SUBGRADE, AS INDICATED ON THE DRAWINGS.

3.4 SUBSOILING TO REDUCE CONPACTION

A. SUBSOILING SHALL BE DONE USING A TRENCHER (E.G., DITCHWITCH), BACKHOE, MINI-EXCAVATOR, OR ROTARY SPADER.
B. THE SUBSOILER SHALL PENETRATE THE SOIL TO A DEPTH OF 24" AT A MAXIMUM 24" INTERVAL WITH TWO PASSES IN EACH AREA AT 90 DEGREES TO EACH OTHER. IN SLOPED AREAS, THE FIRST PASS OF SUBSOILING EQUIPMENT SHALL BE ACROSS THE SLOPE. THE SECOND PASS OF SUBSOILIING EQUIPMENT SHALL BE UP AND DOWN THE SLOPE.
C. IF THE SOIL BEING SUBSOILED IS A LOAM, SILT LOAM, OR CLAY LOAM, SPREAD A 4" TO 6" LAYER OF PINE FINES, PINE BARK, OR MATURE COMPOST.

3.6 ADDING SOILS OR PLANTING MIXES

A. ADD IMPORTED SOIL OR PLANTING MIX. DEPTHS SHALL BE AS MEASURED FROM THE TOP OF THE SUBSOIL TO THE FINE GRADED SOIL LEVEL FOR MULCHED AND SEEDED LAWN AREAS AND TO THE BOTTOM OF THE SOD FOR SODDED LAWN AREAS.
B. TILL THE SUBGRADE TO A MINIMUM DEPTH OF 6".

MULCH:

1. MULCH SHALL BE EITHER COMPOSTED HARDWOOD BARK, FINE SHREDDED HARDWOOD BARK, PINE BARK OR APPROVED EQUAL, AND FREE OF FOREIGN MATTER.

FERTILIZER:

1. FERTILIZER SHALL BE GRANULAR, PACKET OR PELLET, WITH 35% TO 80% OF TOTAL NITROGEN IN ORGANIC FORM. IT SHALL BE A COMPLETE FERTILIZER WITH A MINIMUM ANALYSIS OF 10% NITROGEN, 6% PHOSPHOROUS AND 4% POTASSIUM. GRANULAR FERTILIZER SHALL BE APPLIED TO THE SOIL MIX WITH A 10-6-4 ANALYSIS AT THE FOLLOWING RATES: TREE PITS, 2-3 LBS. PER INCH OF TRUNK DIAMETER; SHRUB BEDS, 2 LBS. PER 100 SQUARE FEET OF BED AREA (OR 1/4 LB. PER FOOT OF HEIGHT OR SPREAD). GROUND COVER, VINE AND HERBACEOUS PLANTS, 2-3 LBS. PER 100 SQUARE FEET. THE OWNER RESERVES THE RIGHT TO DETERMINE THE TIME FERTILIZATION SHOULD OCCUR WITHIN THE ONE YEAR GUARANTEE PERIOD.
2. TOPSOIL, IF REQUIRED, SHALL BE FERTILE, FRIABLE NATURAL LOAM, UNIFORM IN COMPOSITION, FREE OF STONES, CLUMPS, PLANTS, AND THEIR ROOT DEBRIS AND OTHER EXTRANEOUS MATTER OF 1 INCH IN DIAMETER, AND CAPABLE OF PERMITTING VIGOROUS PLANT GROWTH. TOPSOIL SHALL HAVE A pH RANGE OF 6.0 TO 6.5, WITH A pH RANGE OF 5.0 TO 5.5 FOR PLANTS REQUIRING ACID SOILS. CONTRACTOR SHALL PROVIDE SOIL ANALYSIS TO OWNER PRIOR TO IMPORTING TOPSOIL ONTO THE PROJECT SITE.

PLANTING NOTES

LOCATION:

1. PLANT LOCATIONS WILL BE STAKED BY THE LANDSCAPE CONTRACTOR AND WILL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO PLANTING.
2. CONTRACTOR MAY MAKE MINOR ADJUSTMENTS TO PLANT LOCATIONS IN THE FIELD SO AS TO AVOID UTILITIES, SWALES AND OTHER UNFORESEEN CONFLICTS. IF UNUSUALLY LARGE DISCREPANCIES ARISE BETWEEN ACTUAL FIELD LIMITS AND THOSE PLANTING AREAS SHOWN ON THE PLAN , THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING. FAILURE TO MAKE THIS NOTIFICATION MAY RESULT IN THE CONTRACTOR'S NEED TO RELOCATE THE PLANT MATERIAL AT HIS OWN EXPENSE.
3. TREES AND SHRUBS THAT ARE TO BE PLANTED IN UNIFORM MASSES AND/OR ROWS SHALL BE OF UNIFORM SIZE, SHAPE, AND VIGOR.

TREE MAINTENANCE REQUIREMENTS:

ANY PERSON WHO INSTALLS A TREE PURSUANT TO THIS PLAN SHALL GUARANTEE THE LIFE OF THE TREE FOR ONE (1) YEAR AND SHALL REPLACE ANY TREE THAT DIES OR BECOMES DISEASED DURING THE ONE (1) YEAR PERIOD. THE PROPERTY OWNER SHALL WATER ANY TREE, OR OTHER WOODY OR HERBACEOUS PLANTING INCLUDING CONTAINER PLANTINGS LOCATED IN THE PUBLIC SPACE.

THE PROPERTY OWNER SHALL PERFORM ANY NEEDED MAINTENANCE OF THE TREE SPACE, INCLUDING, BUT NOT LIMITED TO, CLEANING, WEEDING, MULCHING, AND REPLACEMENT OF PLANTINGS, OR GROUND COVER.

THE PROPERTY OWNER SHALL PERFORM ANY NEEDED GENERAL MAINTENANCE WORK ON LANDSCAPED AREAS AND PLANTER BOXES INSTALLED ON PUBLIC SPACE.

THE PROPERTY OWNER OR THE DEPARTMENT MAY PERFORM ANY EMERGENCY MAINTENANCE OF A TREE IN THE PUBLIC SPACE.

MAINTENANCE / WARRANTY NOTES: CONTRACTOR RESPONSIBILITIES

MAINTENANCE:

1. THE CONTRACTOR SHALL BE RESPONSIBLE DURING THE CONTRACT AND UP TO THE TIME OF FINAL ACCEPTANCE FOR KEEPING THE PLANTING AND WORK INCIDENTAL THERETO IN GOOD CONDITION BY REPLANTING, PLANT REPLACEMENT, WATERING, WEEDING, CULTIVATING, PRUNING AND SPRAYING, RE-STAKING AND CLEANING UP AND BY PERFORMING ALL OTHER NECESSARY OPERATIONS OF CARE FOR PROMOTION OF GOOD PLANT GROWTH SO THAT ALL WORK IS IN SATISFACTORY CONDITION AT TIME OF FINAL ACCEPTANCE, AT NO ADDITIONAL COST TO THE OWNER.
2. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL DEBRIS, TRASH, AND UNNECESSARY MATERIALS FROM THE AREA OF WORK AND/OR THE PROPERTY ON A WEEKLY BASIS.
3. THE CONTRACTOR SHALL REMOVE ALL DEAD PLANT MATERIAL FROM THE JOB SITE ON A WEEKLY BASIS. CONTRACTOR SHALL ALSO BE REQUIRED TO RETAIN A LOG OF ALL PLANT MATERIALS REMOVED DUE TO DEATH OR INJURY SO AS TO PROPERLY IDENTIFY THOSE PLANTS FOR REPLACEMENT.

WARRANTY AND REPLACEMENT:

1. ALL PLANT MATERIAL, INCLUDING TREES AND ALL WOODY AND HERBACEOUS PLANTS SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF INITIAL ACCEPTANCE. THE CONTRACTOR IS NOT RESPONSIBLE FOR LOSSES OR DAMAGE CAUSED BY OTHER TRADES, MECHANICAL INJURY OR VANDALISM.
2. ANY MATERIAL THAT IS 25% DEAD OR MORE SHALL BE CONSIDERED DEAD AND SHALL BE REPLACED AT NO COST TO THE OWNER.

ENGINEERS PLANNERS
LANDSCAPE ARCHITECTS SURVEYORS
VIKA MARYLAND, LLC
20251 CENTURY BOULEVARD SUITE #400
GERMANTOWN, MARYLAND 20874
PHONE: (301) 916-4100
FAX: (301) 916-2262
GERMANTOWN, MD. MCLEAN, VA.

PREPARED FOR:
USL2 MR
MONTGOMERY VILLAGE
BUSINESS TRUST
c/o MONUMENT REALTY
1700 K STREET, NW, SUITE 600
WASHINGTON, DC 20006
202.777.2010
RUSSELL HINES

DESIGN CONSULTANTS

ARCHITECTS
TORTI GALLAS AND PARTNERS, INC
1300 SPRING STREET, SUITE 400
SILVER SPRING, MD 20910
301.588.4800
ERIK J. AULESTIA

ATTORNEY
LERCH, EARLY & BREWER CHTD.
3 BETHESDA METRO CENTER
SUITE 460
BETHESDA, MD 20814
301.841.3832
PATRICIA HARRIS

TRAFFIC ENGINEER
WELLS + ASSOCIATES
8730 GEORGIA AVENUE, SUITE 200
SILVER SPRING, MD 20910
301.448.1333
KEVIN BERGER

LANDSCAPE ARCHITECT
VIKA MARYLAND, LLC
20251 CENTURY BOULEVARD
SUITE 400
GERMANTOWN MD, 20874
301.916.4100
JOSH SLOAN

CIVIL ENGINEER
VIKA MARYLAND, LLC
20251 CENTURY BOULEVARD
SUITE 400
GERMANTOWN MD, 20874
301.916.4100
MIKE GOODMAN

REVISIONS	DATE

PROFESSIONAL SEAL

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED, REGISTERED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
NAME: JOSHUA SLOAN, RLA, ASLA
LICENSE NUMBER: 3776
EXPIRATION DATE: MAY 13, 2018

BLOOM MV
AREA I-VI

9TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 227NW09
TAX MAP: FU342

SP# 820170130

PLANTING DETAILS AND NOTES

DRAWN BY: DLK
DESIGNED BY: DLK - JS - SCM
DATE ISSUED: May 5, 2017
VIKA PROJECT: VM1920
DRAWING NO.:
SHEET NO. LA-31