

# FOREST MITIGATION BANK FRIENDSHIP LAKES, PRESERVATION PARCEL "A" THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	FOREST MITIGATION PLAN

ADDRESS CHART	
PARCEL/LOT NO.	STREET ADDRESS
PRESERVATION PARCEL A	2950 NEW ROVER ROAD, WEST FRIENDSHIP, MD 21794

PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	PRESERVATION PARCEL A		
FRIENDSHIP LAKES	N/A				
PLAT # OR L/F	GRID #	ZONING	TAX MAP NO.	ELECT. DIST.	CENSUS TRACT
6088/0476 (PLAT #15226)	19	RR-DEO	15	THIRD	6030
WATER CODE	SEWER CODE				
N/A	N/A				

### PLANTING SPECIFICATIONS AND NOTES

#### SITE PREPARATION AND SOILS

- PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS, IF NECESSARY.
- DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 2 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
- SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
- SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
- ALL MIXING IN 2 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

#### PLANT STORAGE AND INSPECTION

- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
- FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
- PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, NODD, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REJECTED.
- UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.

#### PLANT INSTALLATION

- THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, MAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
- PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
- CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THRU LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.
- CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
- FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL. THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
- FOR TREES PLANTED IN THE MITIGATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPACES OF TWO (2) TO FOUR (4), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.
- NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE WELL DRAINED NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.

#### FERTILIZING

- DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
- NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
- IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

### GENERAL NOTES (CONTINUED)

30. 1.04 ACRES OF THE FOREST CREDITS SHOWN ON THIS PLAN FULFILLS THE REMAINING FOREST CONSERVATION PROGRAM OBLIGATION FOR F-08-179, TROTTER LANDING, LOTS 1-6 AND OPEN SPACE LOTS 9 & 10, TAX MAP 85, GRID 2, PARCELS 18 & 22.
31. 1.46 ACRES OF THE FOREST CREDITS SHOWN ON THIS PLAN FULFILLS THE REMAINING FOREST CONSERVATION PROGRAM OBLIGATION FOR SDP-09-117, ENCLAVE AT ELLICOTT STATION, TAX MAP 17, GRID 8 AND 14, PARCELS 26 AND 27.

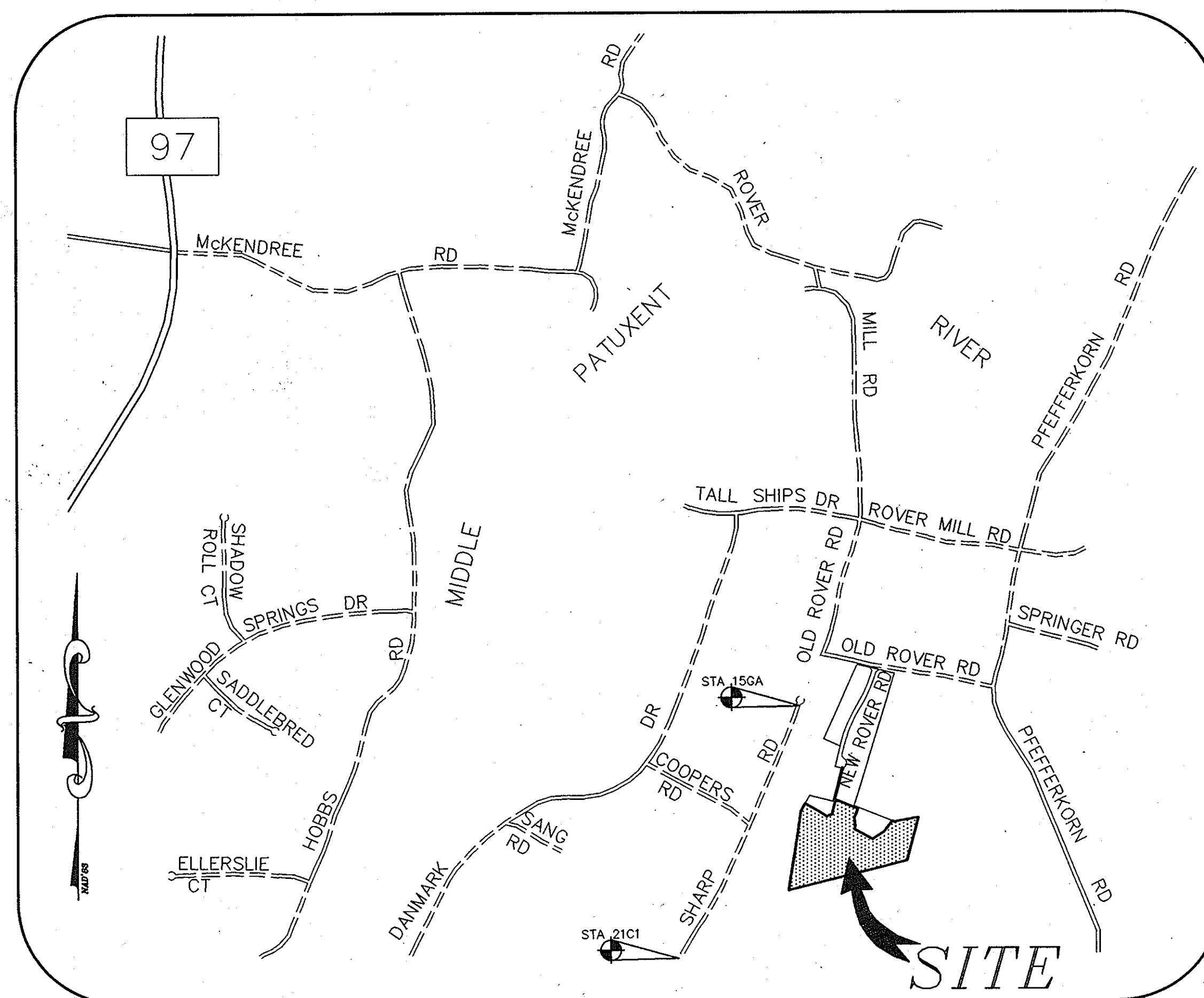
### MAINTENANCE SCHEDULE

- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
- ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
- VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
- REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
- REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
- A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

### SUPERVISION

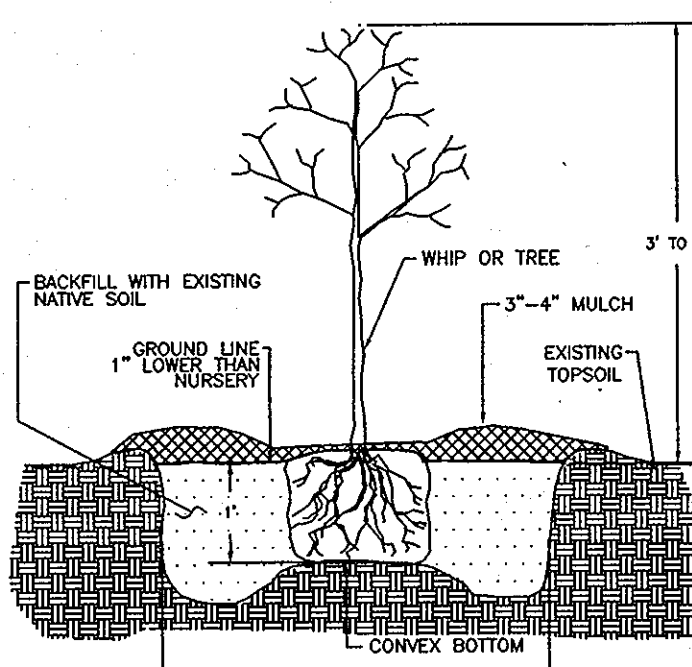
ALL FOREST CONSERVATION ACTIVITIES SHALL BE DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.19.08.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

STANDARD NON-DISTURBANCE NOTE:  
"THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY HOWARD COUNTY."

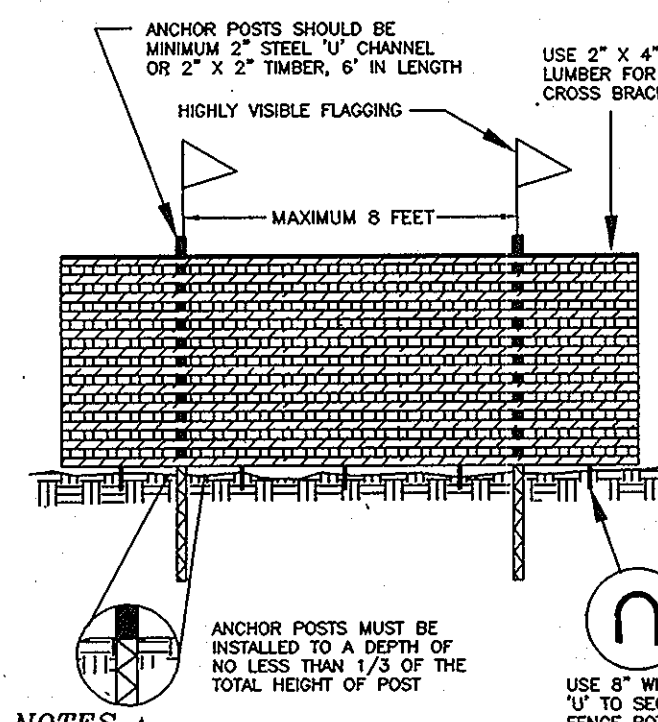


### VICINITY MAP

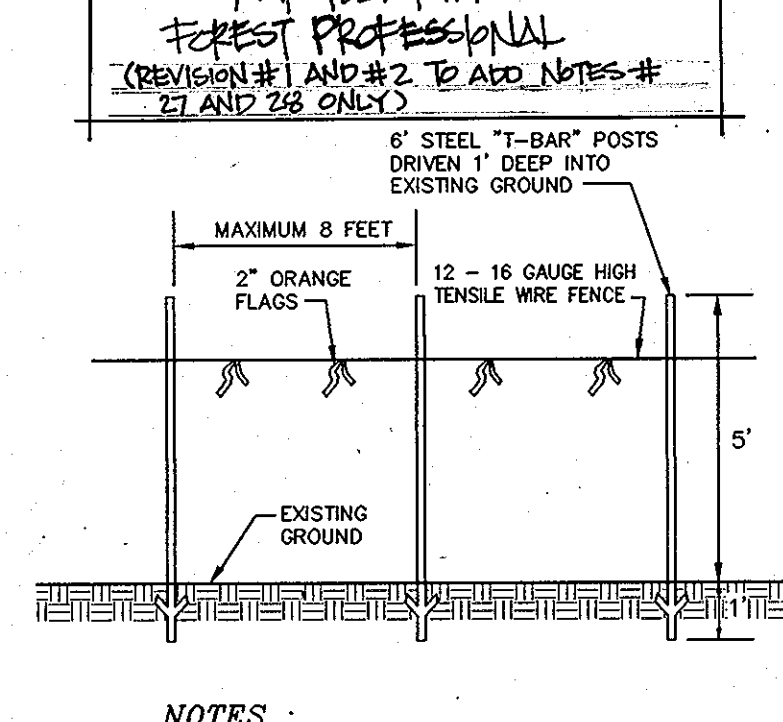
SCALE: 1" = 1000'



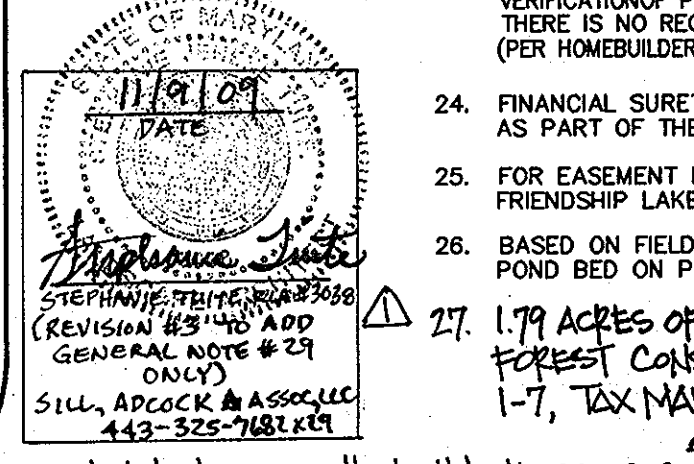
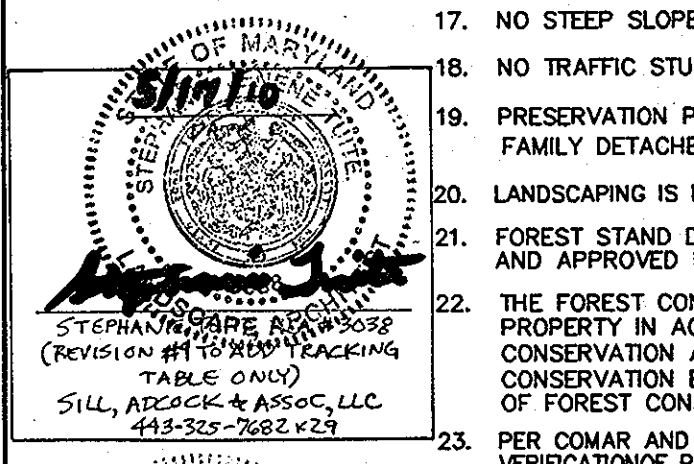
TREE PLANTING DETAIL  
CONTAINER GROWN



PROTECTIVE FENCE DETAIL  
BLAZE ORANGE PLASTIC MESH



ALTERNATIVE PROTECTIVE FENCE DETAIL  
SINGLE STRAND HIGH TENSILE WIRE



Christopher Consultants, Ltd. 410.872.8192  
DATE: 1/18/06  
Kevin Hodge  
KEVIN HODGE, P.E.  
COMAR QUALIFIED  
FOREST PROFESSIONAL  
(REVISION #1 AND #2 TO ADD NOTES # 27 AND 28 ONLY)

### GENERAL NOTES:

- THE SUBJECT PROPERTY IS ZONED RR-DEO PER THE 10/18/93 COMPREHENSIVE ZONING PLAN.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, AND MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/ CONSTRUCTION INSPECTION DIVISION AT (410)-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:  
MISS UTILITY: 1-800-257-7777  
C&P TELEPHONE COMPANY: (410) 725-9876  
HOWARD COUNTY BUREAU OF UTILITIES: (410) 313-4900  
AT&T CABLE LOCATION DIVISION: (410) 393-3533  
BALTIMORE GAS & ELECTRIC: (410) 685-5123  
STATE HIGHWAY ADMINISTRATION: (410) 531-5533  
HOWARD COUNTY DEPT. OF PUBLIC WORKS/ CONSTRUCTION INSPECTION DIVISION: (410) 313-1880
- PROJECT BACKGROUND:  
LOCATION: THIRD ELECTION DISTRICT - TAX MAP 15 - PARCEL 175 - BLOCK 19  
ZONING: RR-DEO  
DEED REFERENCE: L. 8088 F. 476  
AREA OF PLAN SUBMISSION: 14.51 ACRES ±  
DPZ REFERENCE #: F-88-204, SP-99-13, F-01-12, F-03-009, F-03-171, F-03-047
- TOPOGRAPHIC DATA BASED ON FIELD RUN BY MILDENBERG, BOENDER & ASSOCIATES, INC. CONDUCTED IN APRIL 1999 AND SUPPLEMENTED BY HOWARD COUNTY'S 200 SCALE TOPOGRAPHIC MAPS.
- HORIZONTAL AND VERTICAL DATUMS BASED ON (MAD'83) MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.  
STA No. 21CA: N 588,897.344, E 1,311,235.701, EL= 613.273  
STA No. 156A: N 591,743.505, E 1,312,790.715, EL= 588.446
- PRIVATE WATER AND PRIVATE SEWERAGE WILL BE UTILIZED. PUBLIC SHARED SEPTIC FOR LOTS 12 THRU 14 AND PRESERVATION PARCEL "A" IS LOCATED ON PRESERVATION PARCEL "B".
- SOILS DATA BASED ON HOWARD COUNTY SOIL SURVEY DATED 1968, SHEET 13.
- THIS PROJECT IS EXEMPT FROM PROVIDING STORMWATER MANAGEMENT.
- NO FLOODPLAIN STUDY IS REQUIRED PER SECTION 16.115(C) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. FLOODPLAIN EXISTS ON THE PRESERVATION PARCEL AT A LOCATION NOT CRITICAL TO THE PROPOSED DEVELOPMENT. 100 YEAR FLOODPLAIN AND UTILITY EASEMENT ELEVATIONS AND METES & BOUNDS BASED ON F-88-204, PLAT 8239 RECORDED ON NOVEMBER 16, 1988. AREA OF 100 YEAR FLOODPLAIN IS 2.53 ACRES.
- WETLAND STUDY BY WILDMAN ENVIRONMENTAL SERVICES ON OCTOBER, 1997 APPROVED UNDER F-01-12.
- THERE ARE NO EXISTING STRUCTURES ON-SITE.
- ACCESS TO THE FOREST MITIGATION AREA (EASEMENT C) WILL BE VIA THE PRIVATE USE-IN-COMMON DRIVEWAY FOR LOTS 12 THRU 14 AND PRESERVATION PARCEL "A" BASED ON THE AMENDMENT TO THE AGREEMENT FOR SALE OF PRESERVATION PARCEL "A". IT IS A CONDITION OF SALE THAT ACCESS FOR INSTALLATION AND MAINTENANCE PURPOSES IS GRANTED TO THE DEVELOPER.
- PROPERTY IS NOT LOCATED WITHIN A PLANNED SERVICE AREA.
- BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE.
- NO STEEP SLOPES EXIST ON-SITE.
- NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
- PRESERVATION PARCEL "A" IS TO BE USED FOR THE PURPOSE OF ONE SINGLE FAMILY DETACHED UNIT AND FOREST CONSERVATION ONLY.
- LANDSCAPING IS NOT REQUIRED ON PRESERVATION PARCELS PER THE HOWARD COUNTY LANDSCAPE MANUAL.
- FOREST STAND DELINEATION WAS COMPLETED BY WILDMAN ENVIRONMENTAL SERVICES ON JUNE 2, 1999 AND APPROVED UNDER F-01-12.
- THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED AS A FOREST MITIGATION BANK ON THIS PROPERTY IN ACCORDANCE WITH SECTION 16.1216 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- PER COMAR AND HOWARD COUNTY POLICY, THE SALE OF FOREST CREDITS MAY BEGUN UPON CERTIFICATION AND VERIFICATION OF PLANTING AND PAYMENT OF FOREST CONSERVATION SURETY FOR BANK PLANTING AND MAINTENANCE. THERE IS NO REQUIREMENT FOR WAITING FOR 2 YEARS OF SUCCESSFUL GROWTH OR FOR 25% OVERPLANTING. (PER HOMEBUILDERS NEWSLETTER OF JANUARY 2002)
- FINANCIAL SURETY FOR THE 7.23 ACRES (314,938.80 SQ. FT.) OF REFORESTATION HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$157,469.40.
- FOR EASEMENT INFORMATION, SEE PLAT ENTITLED "PLAT OF REVISION & FOREST MITIGATION BANK PLAT, FRIENDSHIP LAKES, PRESERVATION PARCEL "A", PLAT #15226 RECORDED ON 5-16-03
- BASED ON FIELD OBSERVATIONS IN JULY 2002, A VISUAL CLASSIFICATION FOR THE SOILS WITHIN THE OLD POND BED ON PRESERVATION PARCEL "A" DETERMINED THE SOILS TO BE A SILT LOAM.
- 1.79 ACRES OF THE FOREST CREDITS SHOWN ON THIS PLAN FULFILLS THE ENTIRE FOREST CONSERVATION PROGRAM OBLIGATION FOR F-08-179, TROTTER LANDING, LOTS 1-6 AND OPEN SPACE LOTS 9 & 10, TAX MAP 85, GRID 2, PARCELS 18 & 22.
- 1.46 ACRES OF THE FOREST CREDITS SHOWN ON THIS PLAN FULFILLS THE ENTIRE FOREST CONSERVATION PROGRAM OBLIGATION FOR SDP-09-117, ENCLAVE AT ELLICOTT STATION, TAX MAP 17, GRID 8 AND 14, PARCELS 26 AND 27.

FOR PRIVATE WATER AND SEWER HOWARD COUNTY HEALTH DEPARTMENT

FOR DEPARTMENT OF PLANNING AND ZONING

FOR DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES

DATE: 1/18/06

DATE: 4/5/03

DATE: 4/6/03

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
6072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042  
(410) 997-0286 Fax: (301) 921-5621 Wash. (410) 997-0288 Fax.

**FRIENDSHIP LAKES,  
PRESERVATION PARCEL "A"  
BLOCK - PRES. PARCEL A  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND**

**FOREST MITIGATION PLAN**

TAX MAP 15 - PARCEL 175 - BLOCK - PRES. PARCEL A  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

1 OF 2

