

**RIGHT OF WAY DATA**

CURVE	RADIUS	LENGTH	TANGENT	DELTA	CHORD
R14	65.00'	49.43'	26.01'	43°37'31"	N52°45'09"W 48.30'
R15	170.00'	178.02'	98.15'	60°00'00"	S60°56'23"E 170.00'
R16	210.00'	109.98'	54.21'	30°00'00"	N75°56'23"W 108.70'
R17	170.00'	89.01'	45.55'	30°00'00"	S75°56'23"E 88.00'
R18	25.00'	23.18'	12.50'	53°01'48"	N62°29'45"E 22.36'
R19	50.00'	24.91'	12.50'	28°15'37"	N00°54'23"W 60.00'
R20	25.00'	23.18'	12.50'	53°01'48"	N62°29'45"E 22.36'
R21	210.00'	109.98'	54.21'	30°00'00"	N75°56'23"W 108.70'
R22	170.00'	89.01'	45.55'	30°00'00"	S75°56'23"E 88.00'
R23	210.00'	109.98'	54.21'	30°00'00"	N75°56'23"W 108.70'
R24	25.00'	23.18'	12.50'	53°01'48"	N62°29'45"E 22.36'

**MINIMUM LOT SIZE CHART**

LOT NO.	MINIMUM LOT AREA	PIPESTEM	TOTAL LOT AREA
3	33,212 SQ. FT.	3,289 SQ. FT.	36,501 SQ. FT.
5	33,012 SQ. FT.	3,319 SQ. FT.	36,331 SQ. FT.
7	33,419 SQ. FT.	2,397 SQ. FT.	35,816 SQ. FT.
9	34,409 SQ. FT.	3,264 SQ. FT.	37,673 SQ. FT.
10	33,973 SQ. FT.	2,140 SQ. FT.	36,013 SQ. FT.
13	33,185 SQ. FT.	794 SQ. FT.	33,979 SQ. FT.
14	33,162 SQ. FT.	2,820 SQ. FT.	35,982 SQ. FT.
15	33,306 SQ. FT.	4,310 SQ. FT.	37,616 SQ. FT.
16	35,316 SQ. FT.	1,663 SQ. FT.	36,979 SQ. FT.

**CURVE DATA**

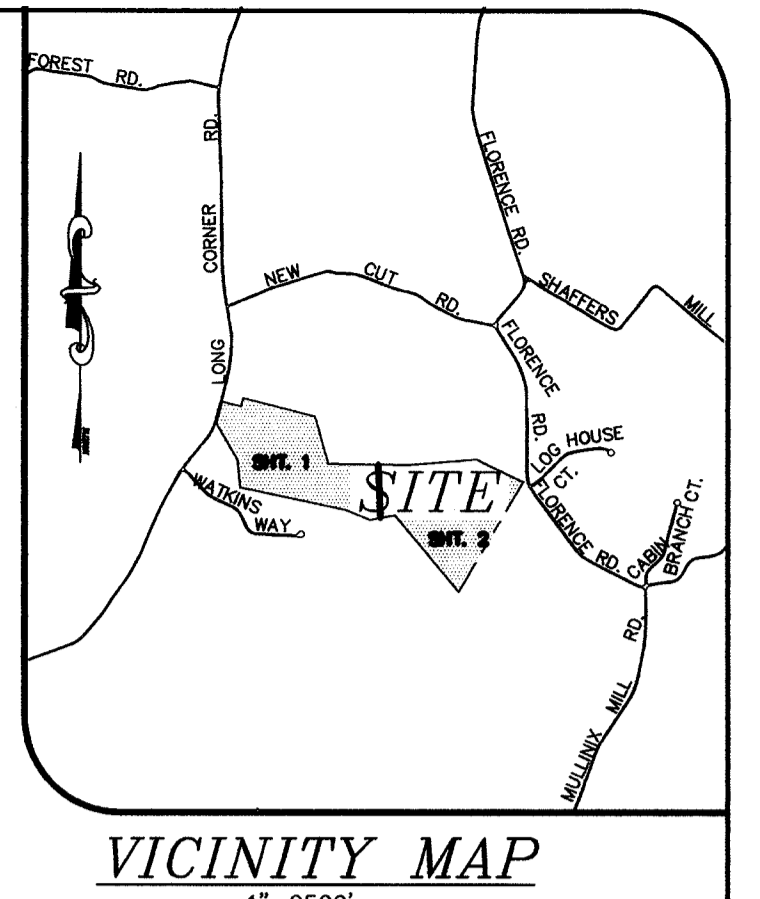
CURVE	RADIUS	LENGTH	TANGENT	DELTA	CHORD
C1	45.00'	34.26'	18.01'	43°37'31"	N52°45'09"W 33.44'
C2	190.00'	198.97'	109.70'	60°00'00"	S60°56'23"E 190.00'
C3	190.00'	99.48'	50.91'	30°00'00"	N75°56'23"W 98.35'
C4	190.00'	99.48'	50.91'	30°00'00"	S75°56'23"E 98.35'

**LOT FRONTAGE**

LOT	FRONTAGE
1	201.77'
2	178.40'
3	182.00'
4	155.78'
5	12.88'
6	139.05'
7	8.75'
8	120.88'
9	8.75'
10	8.72'
11	220.30'
12	220.36'
13	181.77'
14	13.17'
15	14.42'
16	20.18'
17	20.00'
18	181.38'
19	116.44'
20	109.48'
21	107.80'

**RIGHT OF WAY DATA**

LINE	LENGTH	BEARING
R1	235.15'	S15°24'06"W
R2	31.20'	N34°16'45"W
R3	41.91'	N74°13'54"W
R4	448.54'	S30°52'23"E
R5	146.50'	N69°03'37"E
R6	277.25'	S67°50'23"E
R7	108.18'	N69°03'37"E
R8	108.18'	N69°03'37"E
R9	277.25'	S67°50'23"E
R10	146.50'	N69°03'37"E
R11	448.54'	S30°52'23"E
R12	43.30'	N74°13'54"W
R13	16.24'	N63°57'57"E



**GENERAL NOTES:**

- SITE DATA:
  - ZONING: RC-DEO (ZONING MAP DATED OCTOBER 18, 1993)
  - TAX MAP 6 & 12 PARCEL 9 (RECONFIGURED)
  - DEED REFERENCE: 1084/139
  - GROSS AREA: 85.00 ACRES ±
  - AREA OF STEEP SLOPES: 1.74 ACRES ±
  - AREA OF WETLANDS: 0.045 ACRES
  - AREA IN ROW: 1.66 ACRES
  - MINIMUM LOT SIZE: 33,000 SQ. FT.
  - NUMBER OF ALLOWED BUILDABLE LOTS: 21
  - 85 AC / 4.25 (AC/LOT)=20 LOTS
  - 48.80 AC PRESERVATION PARCEL "C", 1 BONUS LOTS
  - TOTAL # OF LOTS ALLOWED = 20 + 1 = 21 LOTS
  - NUMBER OF PROPOSED BUILDABLE LOTS: 21
  - NUMBER OF PRESERVATION PARCELS: 3 (A, B & C)
  - AREA OF PROPOSED BUILDABLE LOTS: 17.43 ACRES
  - AREA OF PRESERVATION PARCELS: 65.91 ACRES
- TOPOGRAPHY FOR THE DEVELOPED AREAS IS BASED ON A FIELD RUN SURVEY BY MILDBERGER BOENDER AND ASSOC. ON OR ABOUT SEP. 2001.
- TOPOGRAPHY FOR THE NON-DEVELOPED AREAS IS BASED ON HOWARD COUNTY 200 SCALE MAPS.
- BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE.
- SOILS DATA BASED ON HOWARD COUNTY SOIL SURVEY DATED 1968, SHEET 5.
- PRIVATE WATER, PRIVATE SEWER AND PRIVATE SHARED SEPTIC WILL BE UTILIZED.
- PROPERTY IS LOCATED WITHIN THE "NO PLANNED SERVICE AREA."
- FLOODPLAIN EXISTS ON PRESERVATION PARCEL C.
- WETLAND STUDY PREPARED BY WILDMAN ENVIRONMENTAL SERVICES, INC. IN JULY 2001.
- ALL AREAS ARE MORE OR LESS.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - A) WIDTH - 12 FEET (14 FEET SERVING MORE THAN ONE RESIDENT).
  - B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
  - C) GEOMETRY - MAXIMUM 10% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT RADIUS.
  - D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
  - E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
  - F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
  - G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- NO STRUCTURES EXIST ON SITE.
- THIS PLAN WAS SUBMITTED PRIOR TO NOV. 15, 2001 AND THUS GRANDFATHERED TO THE FOURTH EDITION OF THE SUBDIVISION REGULATIONS.
- PUBLIC SHARED SEPTIC TO BE FOR LOTS 1-10 AND 12-21.
- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQ. FT. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWERAGE IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE EASEMENT, & RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
- ALL WELLS AND SEPTIC SYSTEMS WITHIN 100 FEET FROM THE PROPERTY LINE HAS BEEN SHOWN.
- GROUND WATER APPROPRIATIONS PERMIT AND GROUND WATER DISCHARGE PERMIT SHALL BE OBTAINED PRIOR TO RECORD PLAT SIGNATURE.
- ALL WELLS SHALL BE DRILLED PRIOR TO RECORD PLAT SIGNATURE.
- FINAL APPROVAL OF THE SHARED SEPTIC SYSTEM IS CONTINGENT UPON CONCURRENT MARYLAND DEPARTMENT OF THE ENVIRONMENT, HEALTH DEPARTMENT, AND DEPARTMENT OF PUBLIC WORKS/CONTROLLING AUTHORITY APPROVAL PRIOR TO RECORD PLAT APPROVAL.
- ALL SUCCESSFUL PERCOLATION TEST HOLES HAVE BEEN FIELD LOCATED AND SHOWN AS ●.

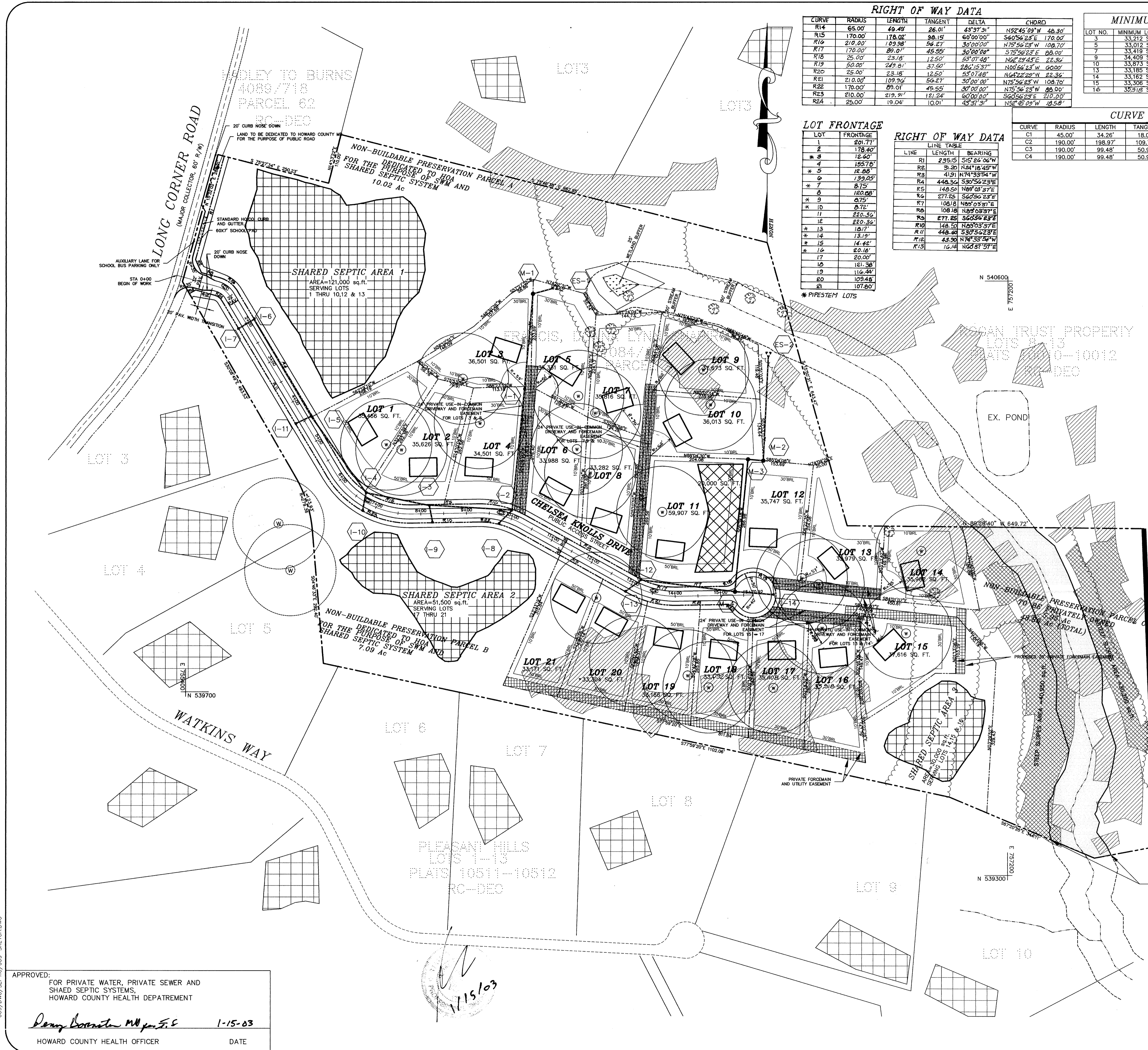
TENTATIVELY APPROVED  
DEPT. OF PLANNING AND  
ZONING OF  
HOWARD COUNTY  
*Mark A. Logg* 2/7/03  
PLANNING DIRECTOR DATE

**OWNER**  
DONNA SHAPIRO  
2082 FLORENCE RD.  
MT. AIRY, MD 21771

**LEGEND**

- DENOTES WETLANDS
- 15% TO 25% SLOPES
- 25% OR GREATER SLOPES
- PROPOSED PRIVATE USE-IN-COMMON DRIVEWAY EASEMENT
- EXISTING SPECIMEN TREES
- DENOTES EXISTING WELL
- DENOTES PROPOSED WELL
- DENOTES SHARED SEPTIC EASEMENT
- DENOTES SINGLE LOT SEPTIC EASEMENT
- DENOTES TREE MAINTENANCE EASEMENT

MATCHLINE  
SHEET 2 OF 2



APPROVED:  
FOR PRIVATE WATER, PRIVATE SEWER AND  
SHARED SEPTIC SYSTEMS,  
HOWARD COUNTY HEALTH DEPARTMENT  
*Donna Shapiro* 1-15-03  
HOWARD COUNTY HEALTH OFFICER DATE

Project	date	description	no.
01009	JUNE 2001	engineering	SA
		illustration	SA
		scale	SA
		approval	SA
		revisions	SA

TAX MAP 6 & 12 PARCEL 9  
**SHAPIRO PROPERTY**  
HOWARD COUNTY, MARYLAND  
FOURTH ELECTION DISTRICT  
PRELIMINARY EQUIVALENT SKETCH PLAN

**MILDBERGER, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 997-0296 Bldg. (301) 621-5521 Wash. (410) 987-0298 Fax.  
1 OF 4  
SP-02-01

009/DWG/SEPTIC/009-SKETCH-2-REVISED-27.DWG

E 757200  
N 540100

E 757200  
N 539100

MATCHLINE SHEET 1 OF 2

N 89°28'40" W 405.42'

S 85°24'37" W 876.52'

N 540100  
E 759200

N 64°21'56" W 674.99'

N 79°23'10" E 193.14'

NON-BUILDABLE PRESERVATION PARCEL C  
PRIVATLY OWNED  
42.85 Ac (THIS SHEET)  
48.80 Ac (TOTAL)

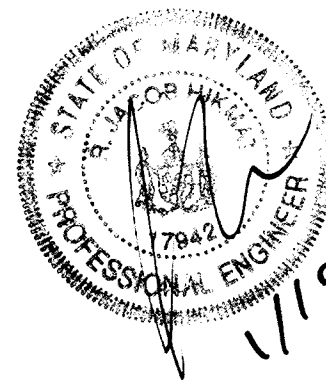
S 39°32'20" E 1295.34'

N 35°28'28" E 1658.28'

NORTH

FLORENCE RD.

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND  
ZONING OF  
HOWARD COUNTY  
*Frank A. Coughlin* 2/3/03  
PLANNING DIRECTOR DATE



APPROVED:  
FOR PRIVATE WATER, PRIVATE SEWER AND  
SHAED SEPTIC SYSTEMS,  
HOWARD COUNTY HEALTH DEPARTMENT  
*Wendy Donato MA, PE* 1-15-03  
HOWARD COUNTY HEALTH OFFICER DATE

project	01009	date	OCT. 2002
illustration	SAA	engineering	SAA
scale	1" = 100'	approval	RJH

no.	description	revisions	date

TAX MAP 6 & 12 PARCEL 9  
**SHAPIRO PROPERTY**  
HOWARD COUNTY, MARYLAND  
FORTH ELECTION DISTRICT  
PRELIMINARY EQUIVALENT SKETCH PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Elkton City, Maryland 21042  
(410) 997-0296 Fax. (301) 621-5521 Wash. (410) 997-0298 Fax.

009.DWG/SEPTIC/09-PRE-GRADING-1.DWG

APPROVED:  
FOR PRIVATE WATER, PRIVATE SEWER AND  
SHAED SEPTIC SYSTEMS,  
HOWARD COUNTY HEALTH DEPARTMENT  
*Penny Boman MD* 1-15-03  
HOWARD COUNTY HEALTH OFFICER DATE



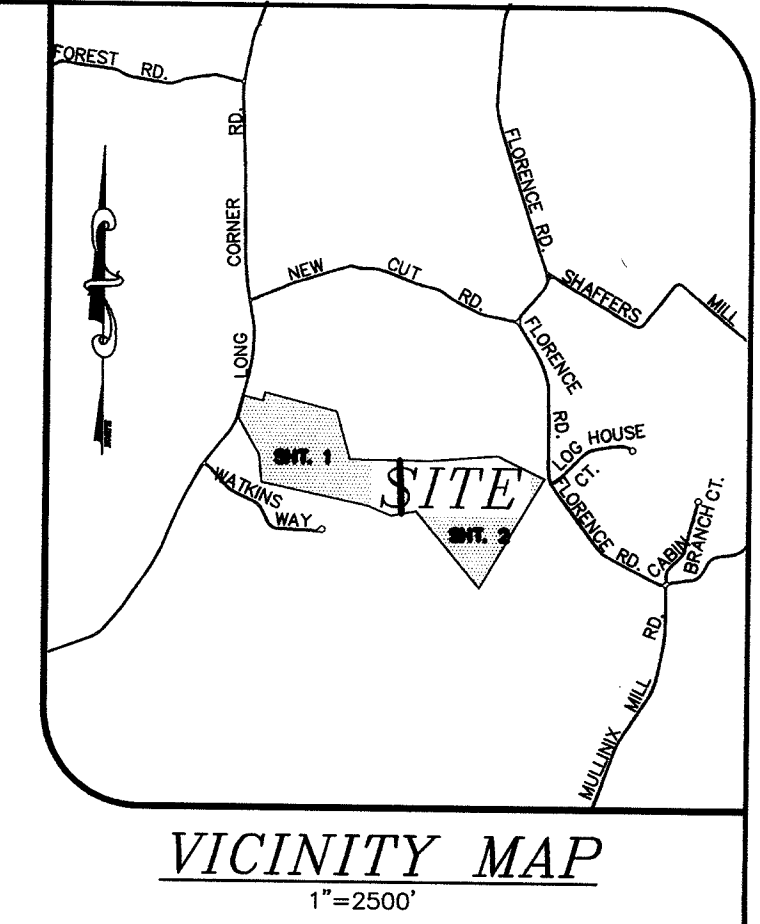
MATCHLINE SHEET 2 OF 4

NOTE:  
ALL STORM DRAIN IS 18" HDPE OR  
EQUIVALENT.

NOTE:  
FOR BEARINGS, DISTANCES &  
LOT FRONTAGES SEE SHEET 1.

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND  
ZONING OF  
HOWARD COUNTY  
*Mark A. Legler* 10/2/02  
PLANNING DIRECTOR DATE

- LEGEND**
- DENOTES WETLANDS
  - 15% TO 25% SLOPES
  - 25% OR GREATER SLOPES
  - PROPOSED PRIVATE USE-IN-COMMON DRIVEWAY AND FORECMAIN EASEMENT
  - FOREST CONSERVATION
  - EXISTING WETLANDS
  - EXISTING SPECIMEN TREES
  - DENOTES PROPOSED WELL
  - DENOTES EXISTING WELL
  - DENOTES SHARED SEPTIC EASEMENT
  - DENOTES SINGLE LOT SEPTIC EASEMENT
  - DENOTES TREE MAINTENANCE EASEMENT
  - FAILED PERC TEST HOLES
  - MARGINAL PERC TEST HOLES
  - SUCCESSFUL PERC TEST HOLES



project	01009	date	OCT. 2002
illustration	SAA	engineering	SAA
scale	1"=100'	approval	RH

no.	description	revisions	date

TAX MAP 6 & 12 PARCEL 9  
**SHAPIRO PROPERTY**  
 HOWARD COUNTY, MARYLAND  
 FOURTH ELECTION DISTRICT  
 PRELIMINARY GRADING AND PERC CERTIFICATION PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Surveyors  
 Engineers Planners  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 997-0236 Bldg. (301) 621-5521 Wash. (410) 997-0298 Fax.

**NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE FOREST CONSERVATION PLAN PURPOSES ONLY.**

- NOTES:**
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
  - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING IS TO BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT.
  - THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY RETENTION OF 2.32 ACRES OF FOREST AND AFFORESTATION OF 1.27 ACRES. FINANCIAL SURETY FOR THE ON-SITE RETENTION AND AFFORESTATION WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS SET FORTH IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

**SCHEDULE A : PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO PERIMETER PROPERTIES							
	A (PERIMETER 1)	A (PERIMETER 2)	A (PERIMETER 3)	A (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)	A (PERIMETER 7)	A (PERIMETER 8)
LINEAR FEET OF PERIMETER	570.82 LF	113.62 LF	55.24 LF	133.53 LF	339.32 LF	367.00 LF	252.35 LF	186.89 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	YES, 60 LF OF EX. TREES	YES, 55.24 LF OF EX. TREES	YES, 133.53 LF OF EX. TREES	YES, 339.32 LF OF EX. TREES	YES, 140 LF OF EX. TREES	YES, 193 LF OF EX. TREES	YES, 75 LF OF EX. TREES
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED								
SHADE TREES	10	1	0	0	0	4	1	2
EVERGREEN TREES	0	0	0	0	0	0	0	0
SHRUBS	0	0	0	0	0	0	0	0

CATEGORY	ADJACENT TO PERIMETER PROPERTIES						TOTAL
	A (PERIMETER 9)	A (PERIMETER 10)	A (PERIMETER 11)	A (PERIMETER 12)	A (PERIMETER 13)	A (PERIMETER 14)	
LINEAR FEET OF PERIMETER	450.61 LF	405.27 LF	103.29 LF	237.42 LF	89.35 LF	811.84 LF	310.84 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	NO	YES, 100 LF OF EX. TREES	NO	NO	NO
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED							
SHADE TREES	8	7	2	2	1	14	57
EVERGREEN TREES	0	0	0	0	0	0	0
SHRUBS	0	0	0	0	0	0	0

**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. SEE PLAN FOR LOCATIONS.
  - DISURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 5 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 THE 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 PLANTS IN 3 AND 4 SHALL BE PLANTED IN 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 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, MOOR, ROOTS, TRUNK VOLUMES, INSECTS AND DISEASE SHOULD BE REPLACED.
  - 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 STOCKPLAZED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, PLANTING FIELD SHOULD BE COVERED WITH MULCH TO A DEPTH OF 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 OPERATIONS 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 1/2 INCH DIAMETER ARE ENCOUNTERED, 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 LOOSESED 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 ROPE STRINGS 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 AFFORESTATION AREA, CONTRACTOR SHALL EVENLY DISPENSE SPECIES IN GROUPS 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.
  - AVOID PLANTING IN A STRIPED OR PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO OBTAIN A MORE NATURAL APPEARANCE.
  - 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 PROPERTY. WATERING SHOULD BE STOPPED WHEN TREES ARE ESTABLISHED. ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT MONTHS, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPLY 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 APPLIED 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 SEAWEED 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.
- 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 AFFECTING 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 SMOOTHERING 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 OTHER THAN THE CONTRACTOR, AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.08.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.
- GENERAL NOTES**
- FOREST PROTECTION**
- ALL FOREST RETENTION AREAS AND ISOLATED POTENTIAL SPECIMEN TREES SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED, BLACK PLASTIC MESH FENCING AS SHOWN ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY AND AROUND ISOLATED POTENTIAL SPECIMEN TREES PRIOR TO ANY CLEARING, GRADING, OR GRADING ACTIVITIES.
  - BLACK PLASTIC MESH FENCING SHALL BE INSTALLED ALONG THE AFFORESTATION BOUNDARY AFTER THE PLANTING OF THE EASEMENT.
  - THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT SYSTEMS WITHIN THE FOREST RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES. IT IS UNDERSTOOD THAT THE INSTALLATION OF THE FENCING IN THIS MANNER WILL CREATE AN IRREGULAR EDGE.
  - ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
  - ATTACHMENT OF SOILS OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THE PROTECTED AREAS.
  - INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE MOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRIPPING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
  - THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORAGE OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
  - REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE FOREST RETENTION AREA SHALL BE PROHIBITED.
  - THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
  - ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT GRUBBING WITHIN AND ADJACENT TO ALL FORESTED AREAS. PLEASE REFER TO ROOT PRUNING DETAIL THIS SHEET.
- PRE-CONSTRUCTION MEETING**
- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
- TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STORAGE AREAS.
  - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES.
  - MAKE ALL NECESSARY ADJUSTMENTS.
  - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.
- CONSTRUCTION MONITORING**
- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.
- ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE DAMAGE MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
- LIMITS OF WORK**
- THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.
- AFFORESTATION PLANT LISTS**
- | QTY. | SPECIES           | WT. | MILD.C. | SIZE & SPACING MARKS |
|------|-------------------|-----|---------|----------------------|
| 454  | Acer rubrum       | VT  | D-W     | FAC 15' CONT/B & B   |
|      | Red Maple         |     |         | 1' CALIPER           |
| 140  | Cornus florida    | VT  | D-W     | FACJ- 15' CONT/B & B |
|      | Flowering Dogwood |     |         | 3'-5' HEIGHT         |
| 140  | Sassafras albidum | T   | M       | FACUJ 15' CONT/B & B |
|      | Sassafras         |     |         | 3'-5' HEIGHT         |
| 250  | Nyssa sylvatica   | T   | M-W     | FAC 15' CONT/B & B   |
|      | Black Gum         |     |         | 1' CALIPER           |
| 140  | Prunus serotina   | I   | M       | FACU 11' CONT/B & B  |
|      | Wild Black Cherry |     |         | 3'-5' HEIGHT         |
| 330  | Quercus rubra     | MT  | D-M     | UPL 11' CONT/B & B   |
|      | Red Oak           |     |         | 1' CALIPER           |
|      | <b>TOTAL</b>      |     |         | <b>1454 TREES</b>    |
- NOTE:** IF WHIPS OR SEEDLINGS MAY BE SUBSTITUTED FOR THE 1" CALIPER OR QUANTITIES BY 3.5 TO DETERMINE THE NUMBER OF TREES REQUIRED.
- MD DNR QUALIFIED PROFESSIONAL**
- STEPHANIE DEMCHIK, RLA NO. 3038

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND  
ZONING OF  
HOWARD COUNTY

PLANNING DIRECTOR  
DATE

- LEGEND**
- Denotes Wetlands
  - 15% to 25% Slopes
  - 25% or Greater Slopes
  - Proposed Private Use-In-Common Driveaway Easement
  - Existing Specimen Trees
  - Denotes Proposed Well
  - Denotes Perimeter Landscape Edge
  - Denotes Forest Conservation Easement (Retention)
  - Denotes Forest Conservation Easement (Afforestation)
  - Denotes Forest Conservation Signage
  - Denotes Existing Well

**STREET TREE PLANTING SCHEDULE**

QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
6	ACER SACCHARUM 'GREEN MOUNTAIN' OR EQUIVALENT	GREEN MOUNTAIN SUGAR MAPLE OR EQUIVALENT	2 1/2" - 3" CAL.
81	PYRUS CALLERYANA 'REDSPIRE' OR EQUIVALENT	REDSPIRE PEAR OR EQUIVALENT	2 1/2" - 3" CAL.
<b>TOTAL</b>			<b>87 STREET TREES</b>

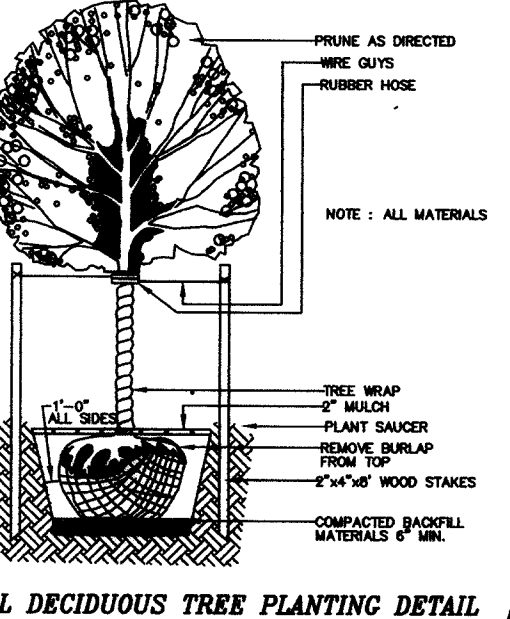
**STREET TREE CALCULATIONS**

LONG CORNER ROAD - 239 / 40 = 6
ROAD A - 3243 / 40 = 81
<b>TOTAL TREES REQUIRED = 87 TREES</b>
<b>TOTAL TREES PROVIDED = 87 TREES</b>

**NOTE:**  
FOR BEARINGS, DISTANCES & LOT FRONTAGES SEE SHEET 1.

APPROVED: FOR PRIVATE WATER, PRIVATE SEWER AND SHAD SEPTIC SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

Penny Bowater MW, F.S. 1-15-03  
HOWARD COUNTY HEALTH OFFICER



date	description
AUG 2002	engineering
01-009	illustration
SAW/SID	scale
1"=100'	approval

date	description	revisions

TAX MAP 6.12 PARCEL 9  
SHAPIO PROPERT  
PRELIMINARY LANDSCAPE & FOREST CONSERVATION PLAN  
FOURTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

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Surveyors  
5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 997-0296 Fax: (301) 621-5521 Wash. (410) 997-0298 Fax.