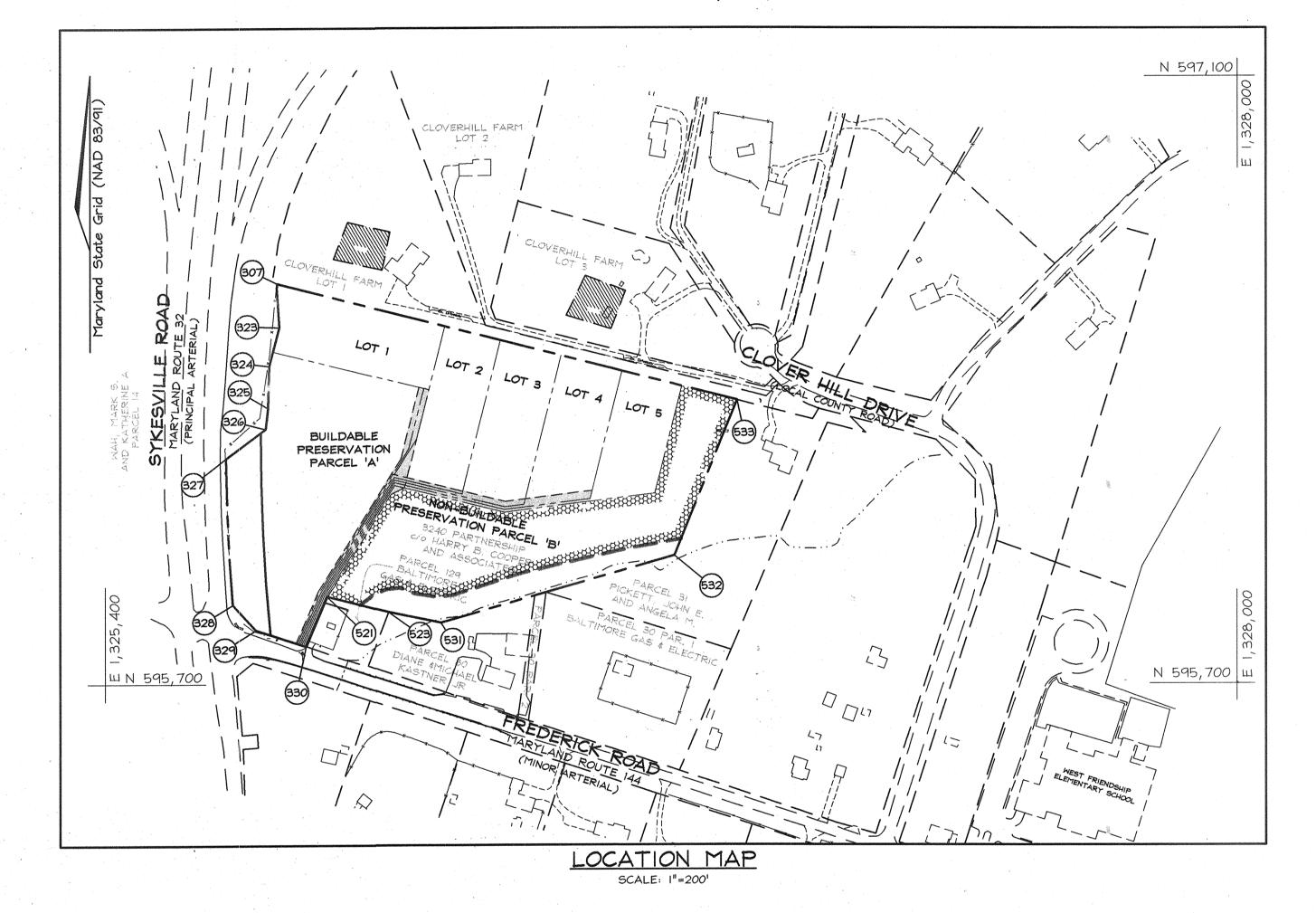
GENERAL NOTES 1. Subject property zoned RR-DEO per 02/02/04 Comprehensive Zoning Plan. 2. Total area of property = 14.71 ac. ± 3. Number of proposed lots: 5 4. Area of proposed lots = 6.05 ac.± 5 Number of proposed buildable preservation parcels: 1 6. Area of proposed buildable preservation parcel = 3.47 ac. \pm 7. Number of proposed non-buildable preservation parcels: 1 8. Area of proposed non-buildable preservation parcels = 4.44 ac.± 9. Area of proposed public right of way = 0.75 ac.± 10. Area of steep slopes: 0.70 Ac± II. Area of floodplain: 0.85 Ac± 12. Net area of property: 14.71 ac.± - 0.70 ac.± - 0.85 ac.± =13.16 ac.± 13. Density Calculations: a. Base Density = 14.71 ac. \pm / 4.25 ac./unit = 3.46 units; therefore, 3 units b. Density based on DEO option = 13.16 ac. \pm / 2ac./unit = 6.58 units; therefore, 6 units c. Total DEO units required = 6 units - 3 units = 3 units 14. Private water and sewer will be used within this site. 15. This area designates a private sewage easement of at least 10,000 square feet. Improvements of any nature in this area are restricted until public sewage is available. These easements shall become null and void upon connection to a public sewage system. The County Health Officer shall have the authority to grant adjustments to the private sewage easement. Recordation of a modified sewage easement shall not be necessary. 16. All wells and septic systems on adjacent properties within 100' of proposed wells and proposed septic systems have been shown. 17. Howard County Soil Map #8. 18. The septic fields are located on soil types GIC2 and GID2 as per the soil survey of Howard County. 19. Existing Topography based on Field Run Topographic Survey by FSH Associates. This boundary is based on Field Run Monumented Boundary Survey performed on or about June, 2004 By FSH Associates, Inc. All areas are more or less (+/-). 20. All wells to be drilled prior to submittal of record plat for signature. It is the developer's responsibility to schedule the well drilling prior to final plat submission. It will not be considered 'government delay' if the well drilling holds up the Health Department signature of the record plat. 21. The lots shown hereon comply with the minimum ownership, width and lot area as required by the Maryland Department of the Environment. 22 Street trees and or landscaping trees will be shown on the final plans. 23. Forest stand delineation and forest conservation plans prepared by Exploration Research Inc. 24. Noise study prepared by the Wilson T. Ballard Company on July, 2004 and approved on 4/19/2005. 25. Adequate public facilities traffic study prepared by Lee Cunningham & Associates, Inc. December, 2004. 26. There are no existing structures on site. 27. Wetlands investigation prepared by Exploration Research Inc. on December 20, 2004. 28. Preservation Parcels A & B have no further subdivision potential. S 13°57'11" W 269.36'-S 13°57'11" W 144.32'___ BUILDABLE PRESERVATION PARCEL 'A' S 31°55'48" W 299.22'-N 31°55'48" E 310.13' N 31'55'48" E 315.59' -NON-BUILDABLE PRESERVATION PARCEL 'B' S 23'14'10" W 125.98'___ S 23°14'10" W 125.40'-S 23°14'10" W 124.83' APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

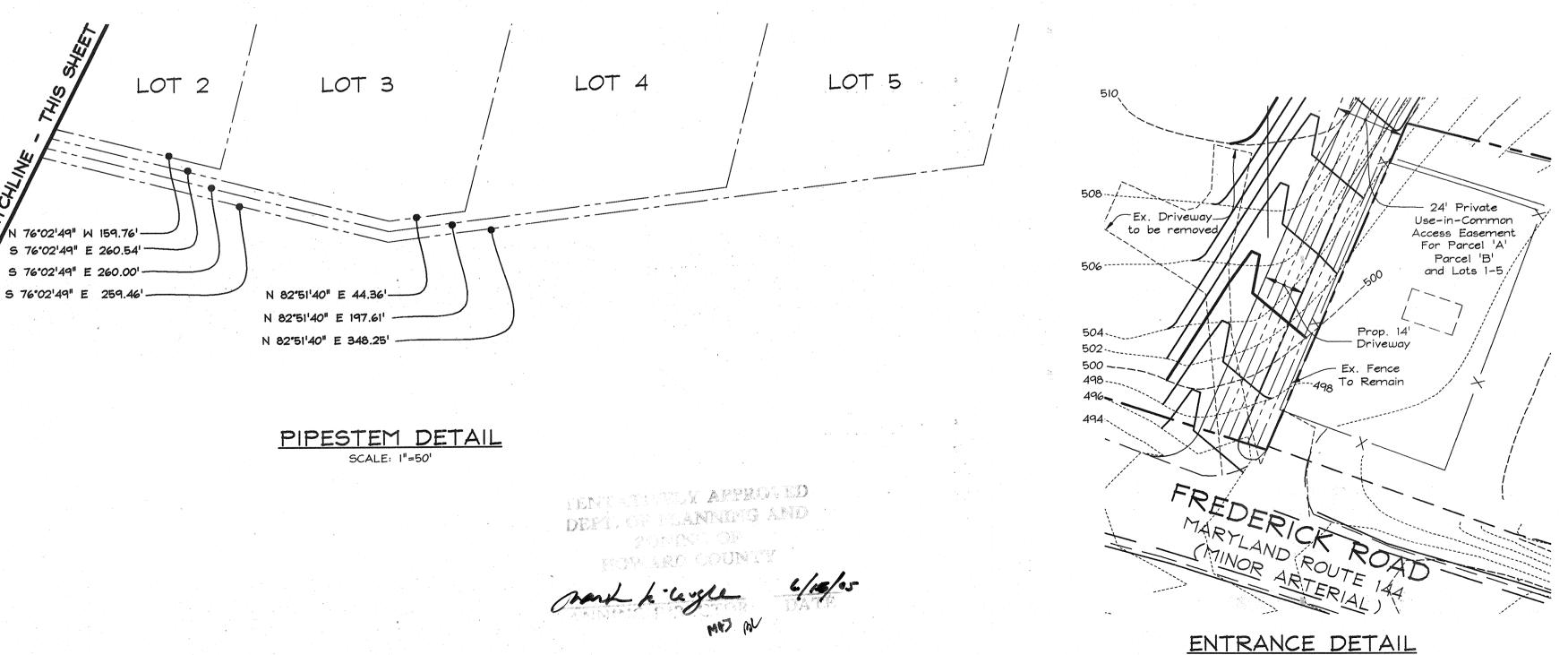
PRELIMINARY EQUIVALENT SKETCH PLAN

TERRAPIN PRESERVE

LOTS 1 THRU 5, BUILDABLE PRESERVATION PARCEL 'A' & NON-BUILDABLE PRESERVATION PARCEL 'B'

HOWARD COUNTY, MARYLAND





----552 Existing Spot Elevation Existing Stream Buffer — 58 — 58 — 58 — 58 — Existing Wetland Buffer — WB — WB — WB — WB — Existing Wetland Existing Trees to Remain Proposed Septic Area Existing Septic Area Proposed Well Area Proposed House Site Failed Perc Test Passed Perc Test Denotes Existing Well Location Sheet Flow to Buffer Credit Easement

VICINITY MAP SCALE: 1"=2000'

BENCHMARKS

Natural Area Conservation

Credit Easement

N 182,533.6973 E 404,139.3307 El.: 157.3223 (meters) N 598.862.638 E 1,325,913.787 E1.: 516.148 (feet) N 181,632.8032 E 404,052.1342 El.: 148.4227 (meters) E 1,325,627.710 El.: 486.950 (feet)

	SOILS LEGEND	
SYMBOL	NAME / DESCRIPTION	SOIL GROUP
CgC2	Chester gravelly silt loam, 8 to 15 percent slopes, moderately eroded	В
GIB2	Glenelg loam, 3 to 8 percent slopes, moderately eroded	В
GIC2	Glenelg loam, 8 to 15 percent slopes, moderately eroded	В
GID2	Glenelg loam, 15 to 25 percent slopes, moderately eroded	В
На	Hatboro silt loam	D
MIB2	Manor loam, 3 to 8 percent slopes, moderately eroded	B

SHEET INDEX	
DESCRIPTION	SHEET No.
Cover Sheet	1 of 5
Preliminary Equivalent Sketch Plan	2 of 5
Preliminary Grading, Landscape, Sediment and Erosion Control and Soils Plan	3 of 5
Preliminary Forest Conservation Plan	4 of 5
SWM Profile, Preliminary Forest Conservation Notes \$ Details	5 of 5

/ MINIM	UM LOT	SIZE C	HART
LOT NUMBER	GROSS AREA (sf)	PIPESTEM AREA (sf)	MINIMUM LOT SIZE (sf)
1	60,962±	3,395±	57,567 ±
2	51,318±	1,517±	49,801 ±
3	55,533±	2,459±	53,074 ±
4	51,310±	3,316±	47,994 ±
5	44,367±	4,212±	40,155 ±

COORDINATE TABLE				
POINT	NORTHING	EASTING		
307	596,621.95	1,325,795.09		
323	596,522.14	1,325,799.73		
324	596,433.21	1,325,776.49		
325	596,335.70	1,325,773.87		
326	596,286.81	1,325,768.34		
327	596,218.96	1,325,677.46		
328	595,882.02	1,325,692.76		
329	595,823.59	1,325,746.05		
330	595,786.19	1,325,861.00		
521	595,900.36	1,325,910.02		
523	595,864.48	1,326,051.27		
531	595,839.57	1,326,170.92		
532	595,992.94	1,326,707.12		
533	596,352.51	1,326,850.82		

OWNER/DEVELOPER

3240 PARTNERSHIP c/o Harry B. Cooper and Associates 10749 Falls Road, #202 Lutherville, Maryland 21093-7013 (410) 583-5540

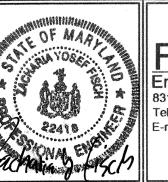
COVER SHEET

TERRAPIN PRESERVE

LOTS 1 THRU 5, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B'

TAX MAP 15 GRID II 3RD ELECTION DISTRICT

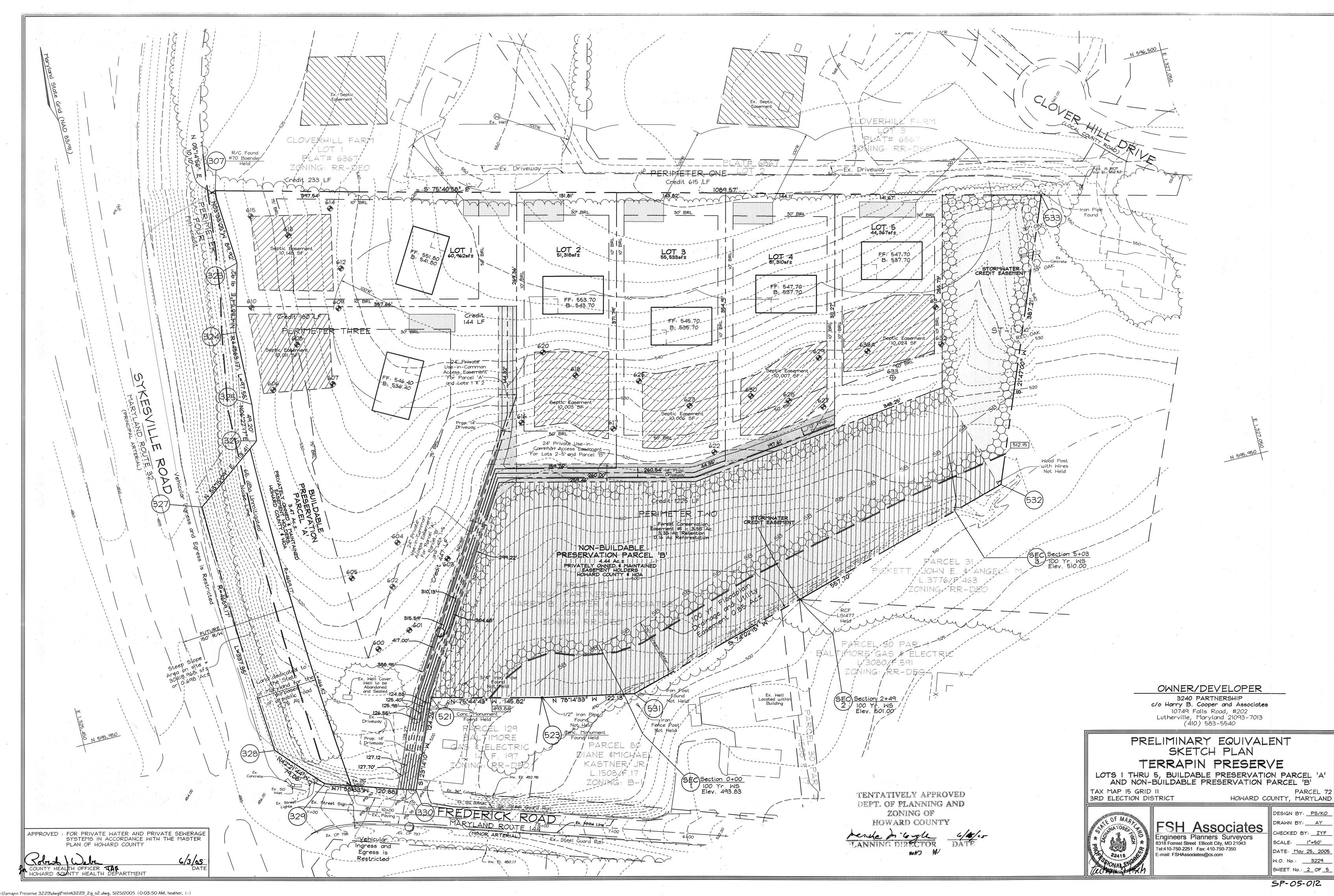
HOWARD COUNTY, MARYLAND

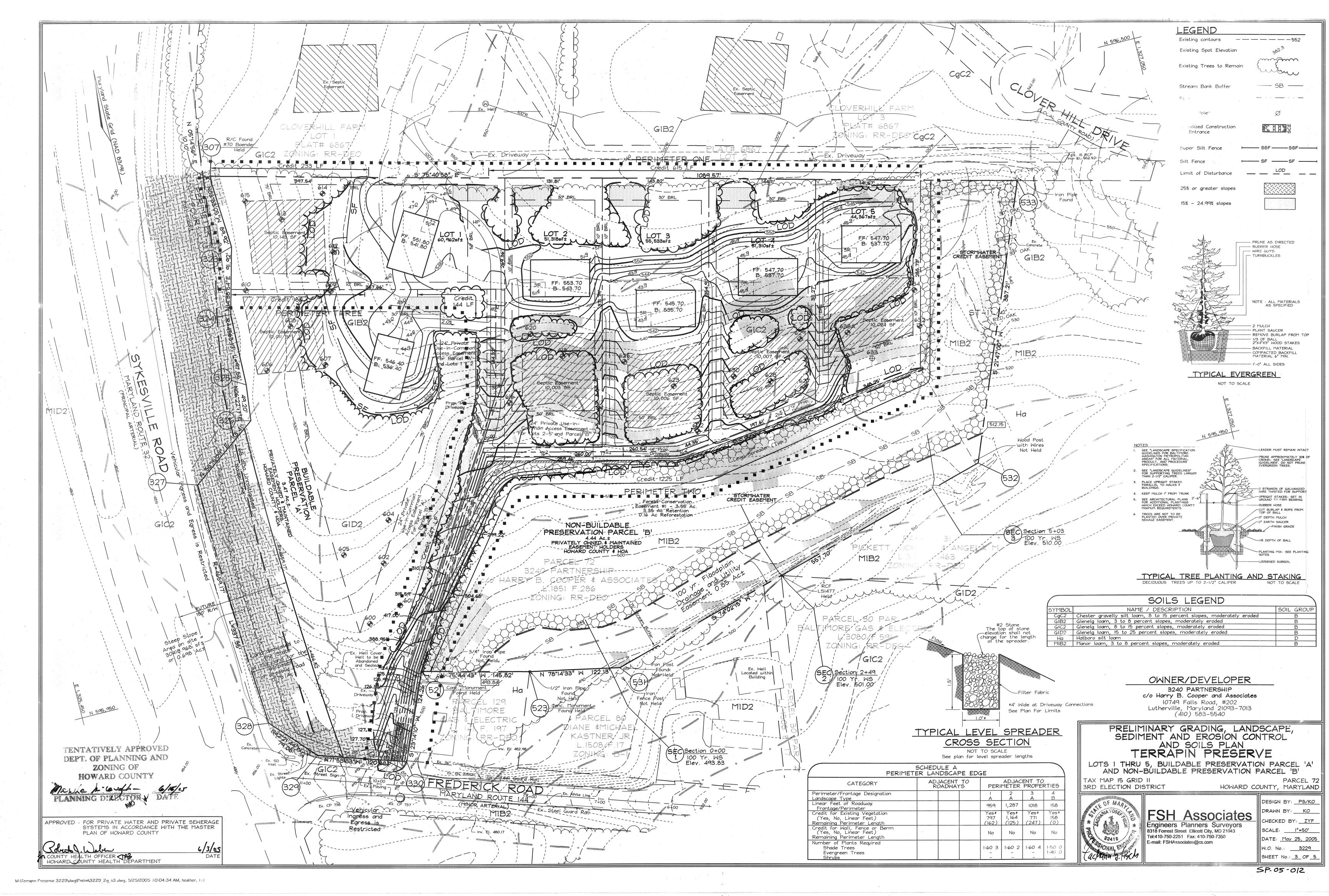


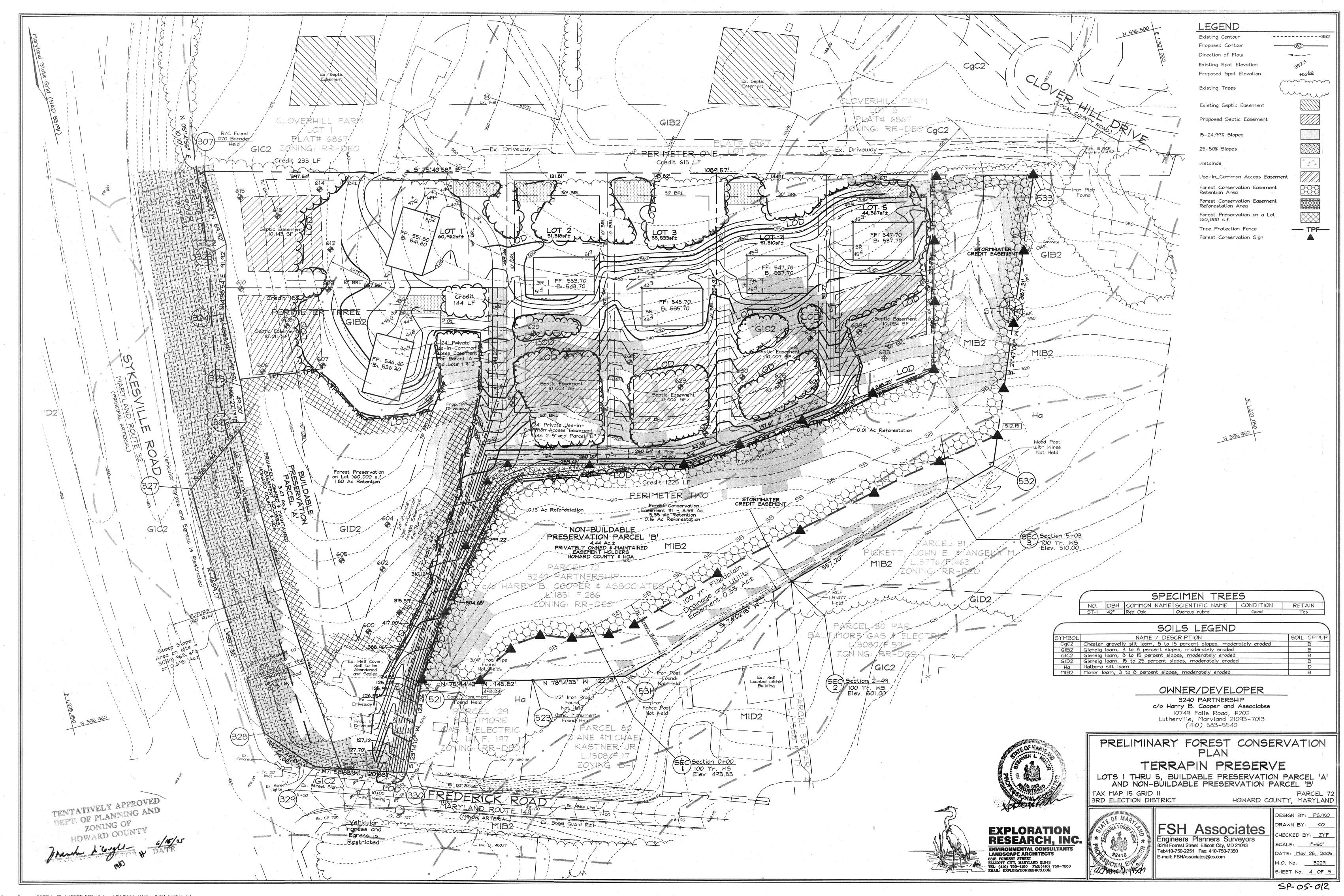
Tel:410-750-2251 Fax: 410-750-7350

DESIGN BY: PS/KO DATE: <u>May 25, 2005</u> W.O. No.: 3229 SHEET No .: _ 1 OF _ 5

COUNTY HEALTH OFFICER TAS HOWARD COUNTY HEALTH DEPARTMENT







FOREST CONSERVATION WORKSHEET Net Tract Area Acres A. Total Tract Area 14.71 0.85 B. Area Within 10° Year Floodplain C. Other deduct D. Net Tract Area 13.86 Zoning Use Category: RESIDENTIAL-SUBURBAN Land Use Category E. Afforestation Minimum (20 % x D) 2.77 F. Conservation Threshold (25 % x D) 3.47 Existing Forest Cover G. Existing Forest on Net Tract Area 13.25 H. Forest Area Above Conservation Threshold 9.78 Breakeven Point Forest Retention Above Threshold with no 5.43 Mitigation J. Clearing Permitted without Mitigation 7.82 Proposed Forest Clearing K. Forest Areas to be Cleared 8.10 L. Forest Areas to be Retained 5.15

Forest Conservation Narrative

Planting Requirements

©. Total Reforestation Required

R. Total Afforestation Required

M. Reforestation for Clearing Above Threshold

N. Reforestation for Clearing Below the Threshold

P. Credit for Retention Above Conservation Threshold

5. Total Reforestation and Afforestation Requirement

This Forest Conservation Plan was prepared in accordance with the Howard County Forest Conservation Manual, using the option for rural cluster subdivisions.

2.03

1.68

0.35

The subject property has a gross area of 14.71 Ac. Deduction of 0.85 Ac of floodplain creates a net tract area of 13.86 Ac. There is 13.25 Ac. of forest on the net tract. There is one specimen tree on the site which will be preserved. Forest has been retained to the greatest extent possible, including all forest in sensitive environments. The forest will be retained in one easement of 3.35 Ac. on Parcel B and as 1.80 Ac of retention on Parcel A. The retention on Parcel A is taken as retained on a lot larger than 60,000 s.f. without requiring an easement.

As partial fulfillment of the reforestation obligations, two planting areas are proposed, to be included in the forest conservation easement. The two planting areas are of 0.15 Ac and 0.01 Ac, and are adjacent to the proposed retention area. The areas will be planted with 2-3' whip stock with tree shelters at 350 trees/acre. The total easement area will be 3.55 Ac, consisting of 3.35 Ac of retention and 0.16 Ac of reforestation. For the remaining 0.19 Ac of mitigation, we are requesting to pay a fee-in-lieu of \$4,138.00 (8,276 s.f. @ \$0.50/s.f).

The total forest conservation obligation met on this site is 3.51 acres, with a total forest conservation surety amount of \$32,670.20 (145,926 s.f. retention @ \$0.20/s.f.=29,185.20 and 6,970 s.f. reforestation @ \$0.50/s.f.=\$3,485.00).

FOREST CONSERVATION EASEMENT #1 Reforestation Area 1: 0.15 Ac. (53 trees @ 350 TPA)

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
9	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	1-3
9	Liriodendron tulipifera	Tulip Poplar	WHIP 2-3	11' o.c.	Gallon Container
9	Prunus serrotina	Black Cherry	WHIP 2-31	II' o.c.	Grown
9	Quercus rubra	Red Oak	WHIP 2-3	11' o.c.	with tree
8	Juniperus virginiana	Red Cedar	WHIP 2-31	11' o.c.) shellers
9	Cornus florida	Flowering Dogwood	WHIP 2-3'	11' o.c.	

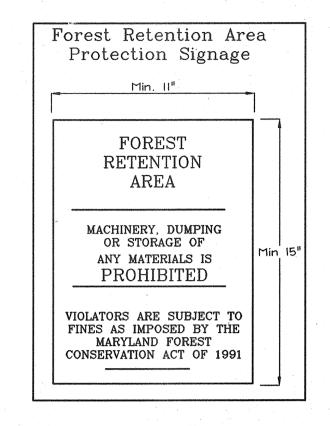
FOREST CONSERVATION EASEMENT #1 Reforestation Area 2: 0.01 Ac. (4 trees @ 350 TPA)

			1		1 1
Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
4	Juniperus virginiana	Red Cedar	WHIP 2-3'	11' o.c.	1-3
					Gallon
					Container Grown
					with tree
					shelters

TENTATIVELY APPROVED DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY bowh to layle TANNING NO

FOREST CONSERVATION FASEMENT TABLE

OREST CONSERVATION EASETIERT TAE				
ASEMENT	TYPE	,	AREA (ACRES)	
1	Retention Reforestation		3.35 0.16	
TOTAL	70 T		3.51	



SIGN DETAIL: PERMANENT SIGN

SIGNAGE NOTE: ALL TREE PROTECTION SIGNS SHALL BE PLACED ON METAL 'T' POSTS OR PRESSURE TREATED WOOD POLES. NO ATTACHMENT OF SIGNS TO TREES IS PERMITTED.

Forest Tree Protection and Management Notes

- 1. Tree protection devices shall be installed prior to any grading or land clearing.

 2. After the boundaries of the retention areas have been staked and flagged
- and before any disturbance has taken place a pre-construction meeting with the Howard County Inspector is required.
- 3. Provide maintenance to tree protection devices and signage to maintain their integrity throughout the duration of the project.
- 4. Attachment of signs to tree protection devices to maintain their integrity thoughout the duration of the project.
- 5. Any significant changes made to the Forest Conservation Plan shall be made with the prior approval if the Howard County Dept Of Plannina and
- 6. No burial of discarded material is permitted within the Forest Conservation and Planting areas.
- 7. No open burning within 100 feet of wooded areas is permitted. 8. Post construction phase

Provide (7)- 9'x3'x1' Gabion -

Check Dams in Grass

Channel Along Use-in-

Common Drive.

WSEL Between

Gabian Check Dams

(Typ.)

- a. Inspect existing trees around the perimeter of the site for signs of root or trunk damage and excessive soil compaction.
- b. Remove dead or dying trees and evaluate for hazard tree removal.* . All temporary forest protection devices will be removed after construction. d. Following completion of construction, prior to use, the county inspector

Existing Ground -

shall inspect the entire site for compliance with this Forest Conservation * A licensed Arborist or Forester should be retained for this service as needed.

For the edge of large areas, use the greater of the two choices below: I" DBH of the tree = I' radius of the or 8 ft radius circle around the trunk of the tree For isolated specimen trees: 1" DBH = 1.5 ' radius of the critical root zone 6" DBH TREE 10" DBH TREE 10' RADIUS CRZ 30" DBH TREE 45' RADIUS CRZ 8' RADIUS CRZ

TWO STRAND SMOOTH WIRE

MAXIMUM 20 FEET

FOREST PROTECTION DEVICE ONLY.
RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR
TO INSTALLING DEVICE.
ROOT DAMAGE SHOULD BE AVOIDED.

SMOOTH WIRE

PLAZE ORANZE
FLAGGING STREAMERS
MIN. 2" WIDE, 12" LONG
TIED TO SMOOTH
WIRE

ANCHOR POST SHOULD BE MINIMUM 2" STEEL "U" CHANNE

ANCHOR POST MUST BE INSTALLED TO A DEPTH OF NO LESS THAN 1/3 OF THE TOTAL HEIGHT OF POST

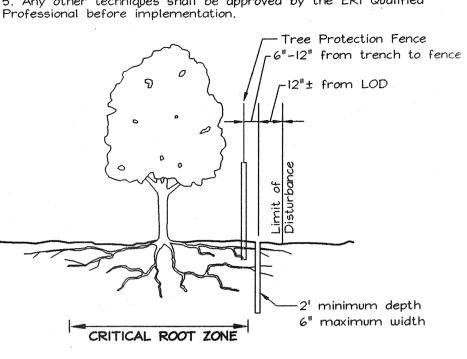
PROTECTIVE SIGNAGE MAY ALSO BE USED.
DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

Proposed Grade

CRITICAL ROOT ZONE

ROOT PRUNING

- . Retention areas shall be set prior to construction 2. Boundaries of retention areas shall be flagged, and location of trench shall be specified by ERI Qualified Professional.
- 3. Roots shall be cut cleanly with root pruning equipment. Where roots >1" are found, trenching shall be done by air spade or hand tools. Roots >1" shall be cut with a hand saw.
- 4. Trench shall be immediately backfilled with soil removed or high organic content soil.
- 5. Any other techniques shall be approved by the ERI Qualified



Soil Protection Zone Notes

- I. The Soil Protection Zone sho tude all areas contained inside the Limit of I bance. 2. Where possible, the Soil Praction Zone shall extend to the drip line of specimen trees. For other groups of trees, the zone shall be the drip line or 40% of the height of the tree, whichever is great 3. No construction activity is permitted within the Soil Protection Zone.
- 4. If soil has been compacted or grading has taken place in the vicinity of the Soil Protection Zone, root pruning shall be implemented per Root Pruning detail, shown on this plan.
- 5. Root pruning shall occur prior to the beginning of construction 6. Where the Soil Protection Zone must encroach
- inside the Critical Root Zone of a tree, soil disturbance shall be mitigated with vertical mulching, radial trenching, or another method approved by the ERI Forest Conservation Professional
- 7. Prior to construction, the Limits of Disturbance shall be marked and the ERI Professional shall determine which trees will need preventative
- treatment or removal. 8. Tree maintenance and removal shall be undertaken by a qualified MD Tree Expert to ensure
- damage to surrounding trees is minimized. 9. Brush and limbs removed for construction shall be chipped and spread at the edge of the Soil Protection Zone to a depth of 6 inches This shall occur outside the Soil Protection Lone where compaction could impact otherwise unprotected Critical Root Zone.

Reforestation Area Plantina Notes

- 1. Initial planting inspection and certification required. Planting contractor to notify ERI qualified professional 24 hours in advance of planting. 2. Reforestation areas may be planted as soon as reasonable to do so. Late winter- early spring plantings are preferred. Earliest planting dates will
- vary from year to year but planting may generally begin as soon as the ground is no longer frozen. Alternate planting dates may be considered as conditions warrants. 3. Soil amendments and fertilization recommendations will be made based upon the results of soil analysis for nitrogen, phosphorus, potassium, organic matter content and pH. If required, fertilizer will be provided
- using a slow release, soluble 16-8-16 analysis designed to last 5-8 years contained in polyethylene perforated bags such as manufactured by ADCO Works, P.O. Box 310 Hollins, N.Y. 11423 or approved equal. 4. Plant materials shall be planted in accordance with the planting diagram, planting details and planting schedule.
- 5. Plant stock must be protected from desiccation at all times prior to planting. Materials held for planting shall be moistened and placed in cool shaded areas until ready for placement.
- specifications for size, form, vigor, or roots, or due to trunk wounds, preakage, desiccation, insect or disease must be replaced. Newly planted trees may require watering at least once per week during the first growing season depending on rainfall in order to get established.

Plants not conforming to the American Standards for Nursery Stock

The initial planting operation should allow for watering during installation to completely soak backfill materials. Mulch shall be applied in accordance with the diagram provided and shall consist of composted, shredded hardwood bark mulch, free of

Planting materials shall be nursery grown and inspected prior to planting.

- wood alcohol. 9. Planting holes should be excavated to a minimum diameter of 2.5 to 3 times the diameter of the root ball or container. Mechanical auguring is preferred with scarification of the sides of each hole.
- 10. All nursery stock may be sprayed with deer repellent containing Bitrex such as Repellex(TM). All nursery stock to be grown with deer repellent tablets in growing medium, such as Repellex Tablets.

Reforestation Area Monitoring Notes

MAKE LATERAL SLICES IF, ROOTBOUND

- I. Monthly visits during the first growing season are to assess the success of the plantings and to determine if supplemental watering, pest control, invasive plant management, mowing or other actions are necessary. Early spring visits will document winter kill and autumn visits will document summer kill. 2. The minimum survival rate shall be 75% of the total number of trees planted
- per acre at the end of the two year maintenance period. Wild tree seedlings from natural regeneration on the planting site may be counted up to 50% toward the total survival number if they are healthy native species at least 3. Survival will be determined by a stratified random sample of the plantings.
- The species composition of the sample population should be proportionate to the amount of each species in the entire planting to be sampled.
- 4. Effective monitoring will assess plant survivability during the first growing season and make recommendations for reinforcement planting if required at

CONTAINER PLANTING

PLANTING PROCEDURE FOR CONTAINER GROWN PLANTS

I. REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER
2. USE A KNIFE TO CUT THROUGH BOTTOM HALF OF THE ROOT BALL.
3. PLANT SHRUBS ON FORMED UP MOUNDS 4" ABOVE THE EXISTING GRADE WHEN HIGH WATER TABLE CONDITIONS EXIST, OTHERWISE PLANT FLUSH

6. AFTER WATER PERCOLATES, BACKFILL HOLE TO TOP OF ROOT BALL AND GENTLY TAMP SOIL TO FIRM CONTACT WITH PLANT.
7. APPLY MULCH RING AROUND PLANT KEEPING A 6 IN CLEARANCE FROM STEM.

WITH EXISTING GRADE.

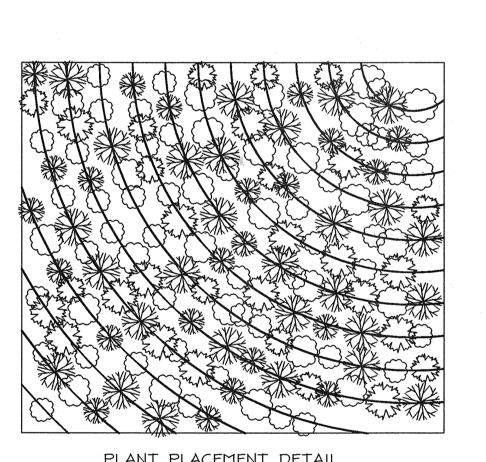
4. PLANTING HOLE TO BE 2-3 TIMES THE DIAMETER OF THE CONTIANER. 5. INSERT FERTILIZER TABLET, BACKFILL 2/3 OF THE ROOT BALL AND WATER

OWNER/DEVELOPER

3240 PARTNERSHIP

c/o Harry B. Cooper and Associates

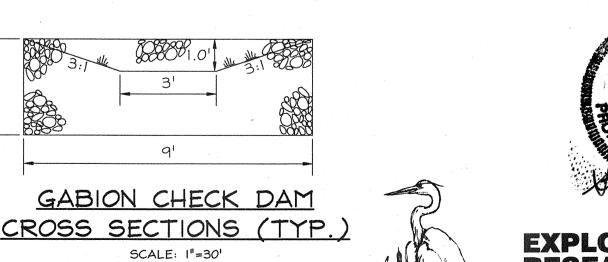
10749 Falls Road, #202 Lutherville, Maryland 21093-7013 (410) 583-5540



PLANT PLACEMENT DETAIL

CURVILINEAR RANDOMIZED PLANTING

. SET THE GUIDE CURVILINEAR LINE AS CLOSE TO CONTOUR AS POSSIBLE





EXPLORATION RESEARCH, INC. VIRONMENTAL CONSULTANTS LANDSCAPE ARCHITECTS



SWM PROFILE, PRELIMINARY FOREST CONSERVATION NOTES & DETAILS TERRAPIN PRESERVE

LOTS 1 THRU 5, BUILDABLE PRESERVATION PARCEL A' AND NON-BUILDABLE FRESERVATION PARCEL 'B'

TAX MAP 15 GRID II 3RD ELECTION DISTRICT

22418

FSH

Engineers | | | 8318 Forrest Street ± Tel:410-750-2251 Fa 110-750-7350 E-mail: FSHAssociates@cs.com

sociates

DESIGN BY: PS/KO DRAWN BY: KO CHECKED BY: ZYF SCALE: 1"=50' DATE: May 25, 2005 W.O. No.: 3229 SHEET No.: 5 OF 5

HOWARD COUNTY, MARYLAND

- KEEP 6 IN DIAMETER CLEARANCE OF MULCH AROUND STEM

-2" THICK MULCH RING

WATER QUALITY (WQV) GRASS CHANNEL PROFILE

Gabions

NOT TO SCALE

MIX TREE AND SHRUB SPECIES IN THE STAGING AREA.

PARCEL 72