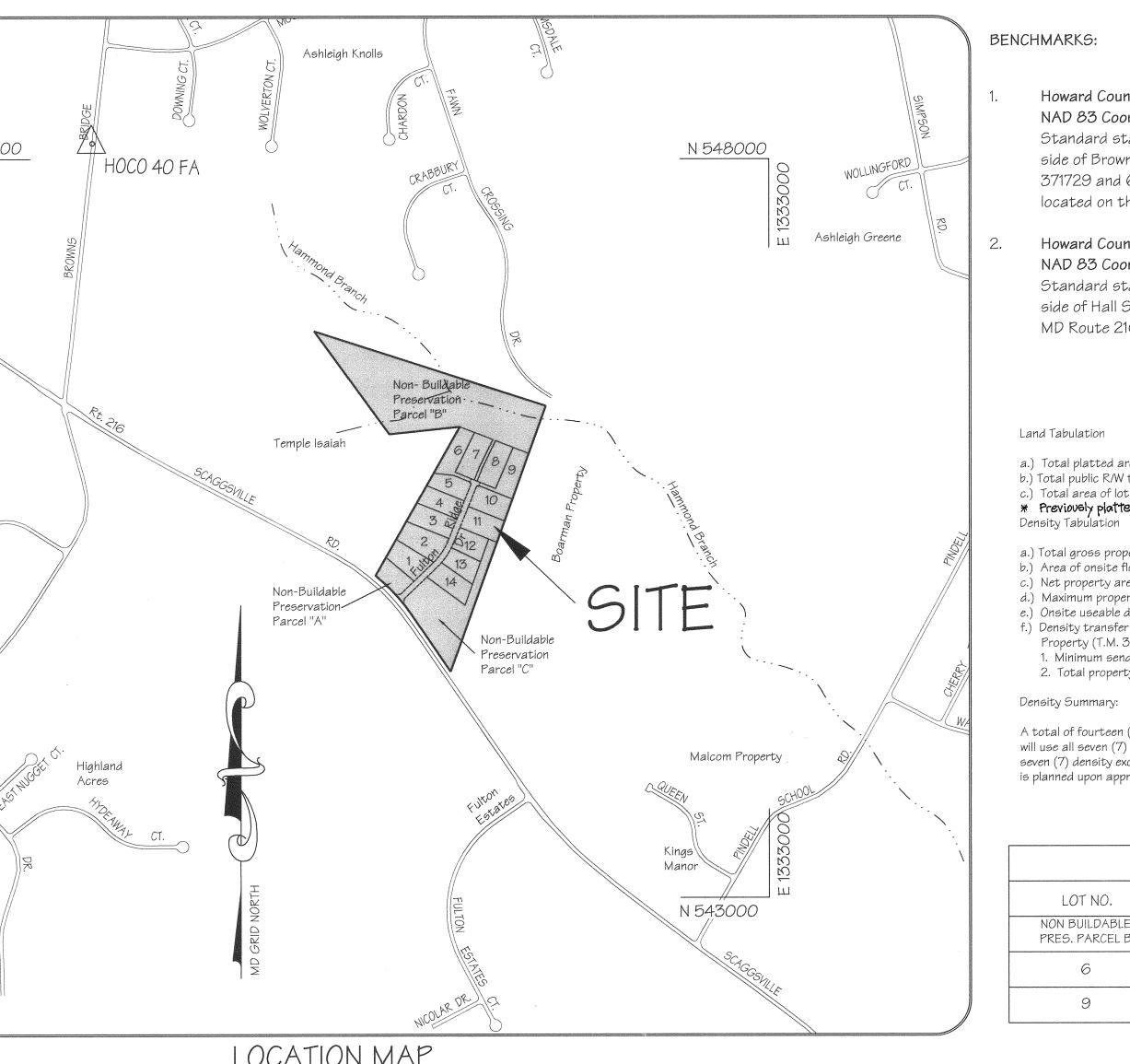
| No. | INDEX OF SHEETS | | HALL SHOP ROAD | |
|--|--|---|--|--------------|
| | Description | | Lot | |
| 1 2 | Cover Sheet Preliminary Equivalent Sketch Plan | | HOCO 40 FB | |
| 3 | - Preliminary Equivalent Sketch Plan | | N 5- | 4800 |
| <u>4</u> 5 | Preliminary Grading and Landscape Obligations Plan Preliminary Grading and Landscape Obligations Plan | | 00 | |
| 6 7 | Preliminary Maryland Route 216 Improvement Plan Forest Stand Delineation & Preliminary Forest Conservation | tion Plan | 1327400 | |
| 8 | Forest Stand Delineation & Preliminary Forest Conserva | and the second | | |
| | | | | |
| | | Ben than each of the second and the second second second and the second s | | |
| | GENERAL NOTES | | A A A A A A A A A A A A A A A A A A A | |
| | Zoning: RR-DEO (Rural Residential-Density Exchange Option) per | April 2004 Comprehensive | HAVEN CT. Bucks | |
| | ference: Lot 3 - Liber 3607, Folio 43 and Liber 2045, Folio 169 | | Haven Manor | |
| | ^F erence: Plat No. 14537 Area of Tract: = 30.809 Ac+- (See Density Calculation, This Sheet) | | 0 | |
| | ct Area: 28.007 Ac+ of Proposed Lots: 14 | | | |
| a) Build | dable: 14 lots Buildable Preservation Parcels: 3 | | | |
| Area of | Proposed Lots: 1,341,982 s.f. (30.809Ac) able: 563,697 s.f. (12.940 Ac) | | | |
| b) Non-E | Buildable Preservation Parcels: 738,060 s.f. (16.943 Ac.) | | | |
| and for | of Proposed Public Roadway: 40,225 s.f. (0.926 Ac.) Public Road was Previously dedicated under Plat No. 14537. (See L | and Tabulation note) | \$ | |
| The exis | ect is in conformance with the latest Howard County Standards u ting topography shown hereon was field run with a 2' contour inter | nless waivers have been approved. val and prepared by LDE, | WOODWARD | |
| | eptember, 2003. Ding for this development and landscaping surety will be provided a | t final plan stage, in | Greenwood Farms | |
| | ice with section 16.124 of the Howard County subdivision and land itest edition of the Howard County Landscape Manual. | development regulations | A. J. | |
| The fore | st conservation obligation for this development will be met via rete Non-Buildable Preservation Parcel B. | ention of 7.1 acres of existing | Č Š | |
| The coor | dinates shown hereon are based upon the Howard County Geodet Maryland State Plane Coordinate System. Howard County Monu | | | |
| were use | d for this project. | NUTL TUD. TUL IN ANA TUED | | |
| Private | perty is not within the Metropolitan District. vater and sewer systems will be utilized for this development. Lots | | | |
| on Lots | d septic system. Fees will be determined at the time of Final Plan 2 4, 5, 12, & 13 may require relocation subject to final shared system | n design (Grinder Pump Location). | PEr. | |
| credits, | ater management for this development will be provided via , grass sheetflow to buffer credit and natural conservation area credits. | | | |
| Existing The Non | utilities shown hereon are based on field surveys and record drawi -Critical floodplain study for this project was prepared by LDE, Inc | | |) (fr |
| floodpla | n study was approved by Howard County in December 2004. and study for this site was prepared by LDE, Inc. in January, 2004 | | | ·· // |
| approve | d by Howard County in September, 2004. No wetland impacts are ient plans. | proposed under these | S S | |
| The tra | ffic study for this project was prepared by the MARS Traffic Grou | p in January, 2004, and | BOWER WC | / |
| The nois | roved by Howard County on September, 2004. e study for this project was prepared by LDE, Inc. in July, 2004, a | nd was approved by Howard | | |
| The geo | n December 2004. technical study for this project was prepared by Hillis Carnes Eng | | | |
| . Project | , 2004, and was approved by Howard County in September, 2004. Background Information: | | | |
| a. Subdi b. Tax M | vision Name: Cecil Cole Property ap: 41 | | | |
| c. Lot 3 d. Zonin | g: RR-DEO | | | |
| e. Electi | on District: 5th Fract Area: 30.147 Acres + 0.662 Ac. (R/W) = 30.809 Ac. (See [| Density | | |
| Calcu | ation, This Sheet) er of Proposed Lots: 14 Residential + 3 Non-Buildable Preservatio | | | |
| h. Depar | tment of Planning and Zoning File Numbers: WP-01-07, F-81-128, ase No. 99-72E, F-01-54, F-03-86 | | | |
| BA-99- | | O to allow a religious facility | | |
| on Lot | f as a special exeption. | J to allow a folgious facility | | |
| | Petition WP-01-07 was approved on August 17, 2000 to waive sec | tion 16.119(f)(3) to allow | PRELIMI | ΝΙ |
| . The exis | se driveway access onto Route 216, a restricted road, for lot 4. Iting dwelling located on proposed lots 2 & 3 will be abandoned and | | | I N |
| | ting block garage located on proposed lot 3 will be abandoned and sting private water and sewerage facility serving the existing dwell | | | P |
| existing | water and sewerage facility serving the block garage located on lo ance with Health Department Procedures. | | | |
| . All know | n sewage disposal easements of record have been shown. posed Access Street shall be public. | | | |
| . B.R.L. (| denotes building restriction line. Ights will be provided on the final road construction drawings in a | accordance with the Desian Manual | | 8 |
| Sedime | nt and Erosion control measures will be in accordance with the 199 | 94 Maryland Standards | $1 \cap T \cap 1$ | 1/ |
| . Street | pecifications for Soil Erosion and Sediment Control and will be sho trees will be provided on the Access Street in accordance with Se | | LUIJI | 14 |
| . No dwe | rision Regulations. Illing units are proposed within the 65 dBA zone. Therefore no nois | e mitigation is proposed. | | |
| . Sidew | alks are not provided since this subdivision is located within the Ri ance with Section 16.134 of the Subdivision Regulations. | R Zoning District, in | | |
| | This area designates a private easement of 10,000 sf as rea Department of the Environment for individual sewage dispose | | ARES | 511 |
| $V \square$ | nature on this area are restricted until public sewerage is available and void upon connection to a public sewerage system. The Co | ailable. These easements shall | | |
| become | ve the authority to grant variances for encroachments into the pr nt. Recordation of a modified easement shall not be necessary. | | | ГA |
| shall ha | THE NEGHTARDON OF A DEPARTMENT PARENT OF A DEPARTMENT OF A DEPARTMENT | | | 1 / V |
| shall ha easeme | 🗙 🗙 This area designates a private sewage easement as required | by the Maryland | | |
| shall ha easeme 5. | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. In the area are restricted until public sewage is available. Thi | Improvements of any nature | 5th | |
| shall ha easeme | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. Thi d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sul | Improvements of any nature is easement shall become null | 5th | |
| shall ha easeme b. and vo . This pla Develo b. Non-Bu | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. Thi d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sul oment Regulations, effective 4-13-2004. ildable Preservation Parcel A | Improvements of any nature is easement shall become null | 5th | |
| shall ha easeme and vo . This pla Develop . Non-Bu 32,878 | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. Thi d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sul oment Regulations, effective 4-13-2004. ildable Preservation Parcel A | Improvements of any nature is easement shall become null | 5th | E |
| shall ha easeme and vo This pla Develop Non-Bu 32,878 Owner: | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. Thi d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sul oment Regulations, effective 4-13-2004. <u>A S.F.</u> Fulton Ridge LLC ent Holders: Howard County, Maryland | Improvements of any nature is easement shall become null | 5th | E |
| shall ha easeme and vo . This pla Develo . Non-Bu 32,878 Owner: Easem | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. This d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sub oment Regulations, effective 4-13-2004. <u>A S.F.</u> Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust uildable Preservation Parcel B | Improvements of any nature is easement shall become null | 5th | E |
| shall ha easeme and vo . This pla Develop . Non-Bu 32,878 Owner: Easem <u>Non-Bu</u> 528,9 Owner: | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. Thi d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sul ment Regulations, effective 4-13-2004. <u>As S.F.</u> Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust <u>uildable Preservation Parcel B</u> 9 S.F. Fulton Ridge LLC | Improvements of any nature is easement shall become null | 5th | E |
| shall ha easeme and vo This pla Develop Non-Bu 32,878 Owner: Easem <u>Non-Bi</u> 528,91 Owner: Easem | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. This d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sul oment Regulations, effective 4-13-2004. <u>ildable Preservation Parcel A</u> 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust <u>uldable Preservation Parcel B</u> 9 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust | Improvements of any nature is easement shall become null bdivision and Land | | E |
| shall ha easeme and vo This pla Develo Non-Bu 32,878 Owner: Easem Non-Bu 528,9° Owner: Easem | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. This d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sub oment Regulations, effective 4-13-2004. <u>ildable Preservation Parcel A</u> 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust <u>uildable Preservation Parcel B</u> 9 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust <u>uildable Preservation Parcel C</u> 3 S.F. | Improvements of any nature is easement shall become null bdivision and Land | 5th PERTAINS TO THE ROAD CENTERLINE | E |
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| shall ha easeme and vo This pla Develop Non-Bu 32,878 Owner: Easem <u>Non-Bu</u> 528,9° Owner: Easem <u>Non-Bu</u> 176,26 Owner: Easem | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. This d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sub oment Regulations, effective 4-13-2004. <u>ildable Preservation Parcel A</u> 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust <u>uildable Preservation Parcel B</u> 9 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust <u>uildable Preservation Parcel C</u> 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust <u>uildable Preservation Parcel C</u> 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust | Improvements of any nature is easement shall become null bdivision and Land NOTE: ALL CURVE DATA ROAD NAME STA | PERTAINS TO THE ROAD CENTERLINE CURVE TAI TION TO STATION RADIUS DELTA L | BLE ENGTI |
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| shall ha easeme and vo This pla Develo Non-Bu 32,878 Owner: Easem Non-Bu 528,97 Owner: Easem Non-Bu 528,97 Owner: Easem Non-Bu 76,26 Owner: Easem Non-Bu 776,26 Owner: Easem | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. This d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sub- oment Regulations, effective 4-13-2004. ildable Preservation Parcel A 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust uildable Preservation Parcel B 9 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust uildable Preservation Parcel C 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust uildable Preservation Parcel C 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust uildable Preservation Parcel C 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland: 30 Maryland Environmental Trust s shown hereon comply with the minimum lot area and whip width as required by the Maryland State Department Environment. | Improvements of any nature is easement shall become null bdivision and Land NOTE: ALL CURVE DATA ROAD NAME STA | PERTAINS TO THE ROAD CENTERLINE CURVE TAI TION TO STATION RADIUS DELTA L | BLE ENGT |
| shall ha easeme and vo This pla Develop Non-Bu 32,878 Owner: Easem <u>Non-Bu</u> 528,97 Owner: Easem <u>Non-Bu</u> 776,26 Owner: Easem <u>Non-Bu</u> 776,26 Owner: Easem <u>Non-Bu</u> 776,26 Owner: Easem | This area designates a private sewage easement as required Department of the Environment for shared sewage disposal. in the area are restricted until public sewage is available. This d upon connection to a public system. n is subject to the amended 5th edition of the Howard County Sub ment Regulations, effective 4-13-2004. ildable Preservation Parcel A 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust uildable Preservation Parcel B 9 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust uildable Preservation Parcel C 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust uildable Preservation Parcel C 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland Maryland Environmental Trust uildable Preservation Parcel C 3 S.F. Fulton Ridge LLC ent Holders: Howard County, Maryland: 30 Maryland Environmental Trust s shown hereon comply with the minimum lot areo and on private water and private sewerage for lots | Improvements of any nature is easement shall become null bdivision and Land NOTE: ALL CURVE DATA ROAD NAME STA | PERTAINS TO THE ROAD CENTERLINE CURVE TAI TION TO STATION RADIUS DELTA L | BLE ENGT |

Health Officer KJB



LOCATION MAP 1'' = 600'

ARY EQUIVALENT SKETCH PLAN ULTON RIDGE AND NON-BUILDABLE PRESERVATION PARCELS "A", "B" & "C"

3DIVISION OF CECIL COLE PROPERTY, LOT 3 MAP NO. 41 - GRID NO. 13 - PARCEL 2 ECTION DISTRICT - HOWARD COUNTY, MD

TENTATIVELY APPROVED DEPT. OF PLANNING AND

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mas PLA

| DEPT. | OF PLANNING A ZONING OF WARD COUNTY L. C. J. J. J. C. J. J. J. C. J. | ND /14/05 DATE WALLSON | MAA AVID OUS AVID OUS TO BOOM | | 9250 Rumsey Road, 9250 (410) 715-1070 | DE, INC. Suite 106, Columbia, MD. 2104 596-3424 (410) 715-9540 (F | 5 Fax) |
|-------|---|------------------------------|--|----------|--|---|-----------|
| | | ¥ v | -10/05 | DESIGNED | | COVER SHEET | SCALE |
| | | | 501 | S.D.H. | FUL | TON RIDGE | As Shown |
| | | | | DRAWN | and Non-Buildable | Lots 1-14 Preservation Parcels A,B and C | DRAWING |
| BY | N <i>O</i> . | REVISION | DATE | M.D.L. | A Resubdivision F | ı Of Cecil Cole Property Lot 3 °lat No. 14537 | 1 of 8 |
| | | | | CHECKED | | 41 - Grid No. 13 - Parcel 2 | JOB NO. |
| | | | | B.D.B. | Previous Submittals: F-01-54, | rict - Howard County, Maryland , F-03-86, WP-01-07, 3, BA Case No. 99-72E | 02-017 |
| | | | | DATE | OWNERS Christopher R. Cole Gail Victoria Gray | DEVELOPER Fulton Ridge, LLC 7370 Grace Drive | FILE NO. |
| 人 | | | | 01/2005 | | Suite A Suite A Columbia, MD 21044 443-535-9200 | SP-05-001 |

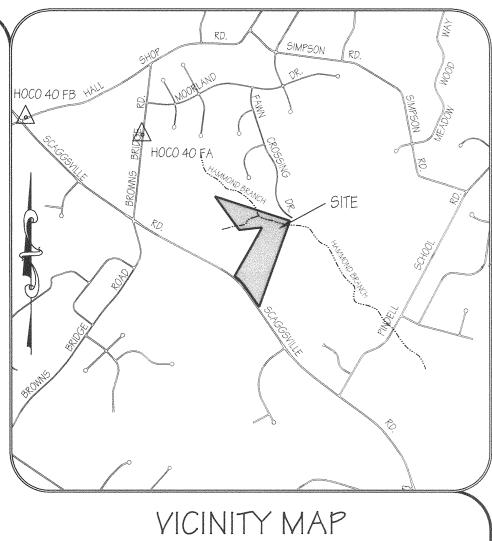
| TANGENT | CHORD/DISTANCE |
|---------|-----------------------|
| 107.72' | N35°32'43'E - 209.52' |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Howard County Control Station 40 FA. Elevation = 497.762' NAD 83 Coordinates: N 548106.878, E 1328421.402

Standard stamped disc set on a 3' deep concrete column located on the west side of Browns Bridge Road, 2.4' off edge of paving , 69.1 feet from BGE pole # 371729 and 60 feet from corner of existing woodsline. BGE pole and woodsline located on the east side of Browns Bridge Road.

Howard County Control Station 40 FB,Elevation = 505.114'

NAD 83 Coordinates: N 548470.347, E 1326000.820 Standard stamped disc set on a 3' deep concrete column located on the west side of Hall Shop Road, 10.5 feet off the edge of pavement, 100 feet north of the MD Route 216 centerline.



a.) Total platted area of Cecil Cole Property, Lot 3 (Plat # 14537): 30.147 Ac b.) Total public R/W to be returned to lot 3 under new resubdivision plat.* 0.662 Ac c.) Total area of lot 3 under new resubdivision plat: * Previously platted R/W area is returned due to reduction in Md. State Highway Inventory Requirements

| property area: | 30.809 Acres |
|---------------------|--|
| te floodplain: | 2.802 Acres |
| / area: | 28.007 Acres |
| operty yield: | 28.007 Ac / 2 = 14.00 (14 lots) |
| ple density: | 30.809 Ac / 4.25 = 7.25 (7 lots by right onsite) |
| sfer from the Houc | hens |
| M. 3, P. 2) | 7 additional lots allowed |
| sending parcel size | : 7 lots x 4.25 = 29.75 Acres |
| | transfer (shown on sending plat): 37 Acres |
| | |

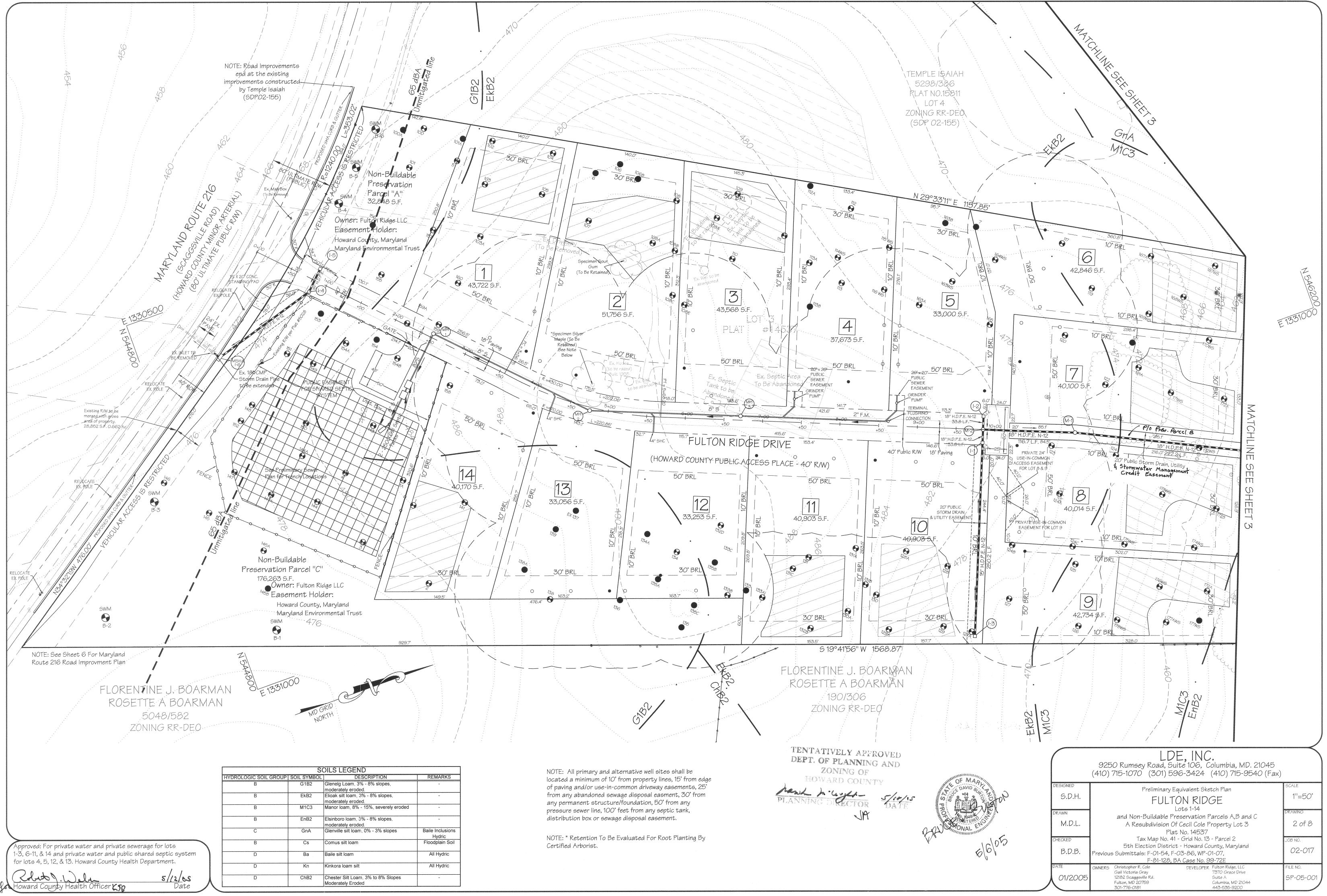
A total of fourteen (14) lots are allowed on the property under the density exchange option. The developer will use all seven (7) of the lots allowed by right on the property. The developer will transfer an additional seven (7) density exchange units from the Houchens Property, Tax. Map. 3, Parcel 2. The density transfer is planned upon approval of the preliminary equivalent sketch plan.

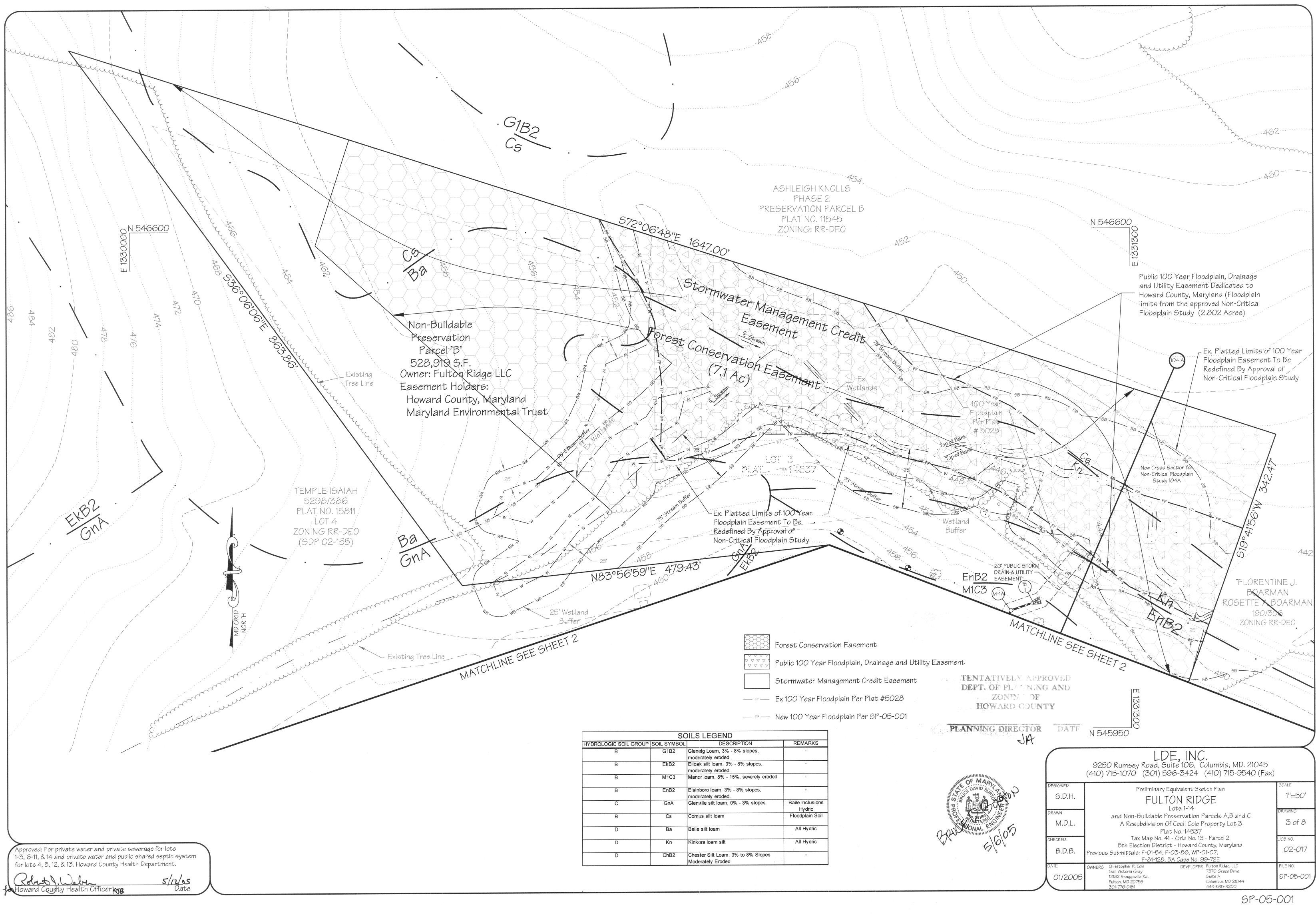
| MINIMUM LOT SIZE TABULATION | | | | | | | |
|-----------------------------|--------------|------------|------------------|--|--|--|--|
| Э. | GROSS AREA | PIPESTEM | MINIMUM LOT SIZE | | | | |
| ABLE CEL B | 528,919 S.F. | 6,007 S.F. | 522,912 S.F. | | | | |
| | 42,846 S.F. | 2,846 S.F. | 40,000 S.F. | | | | |
| | 42,734 S.F. | 2,682 S.F. | 40,052 S.F. | | | | |

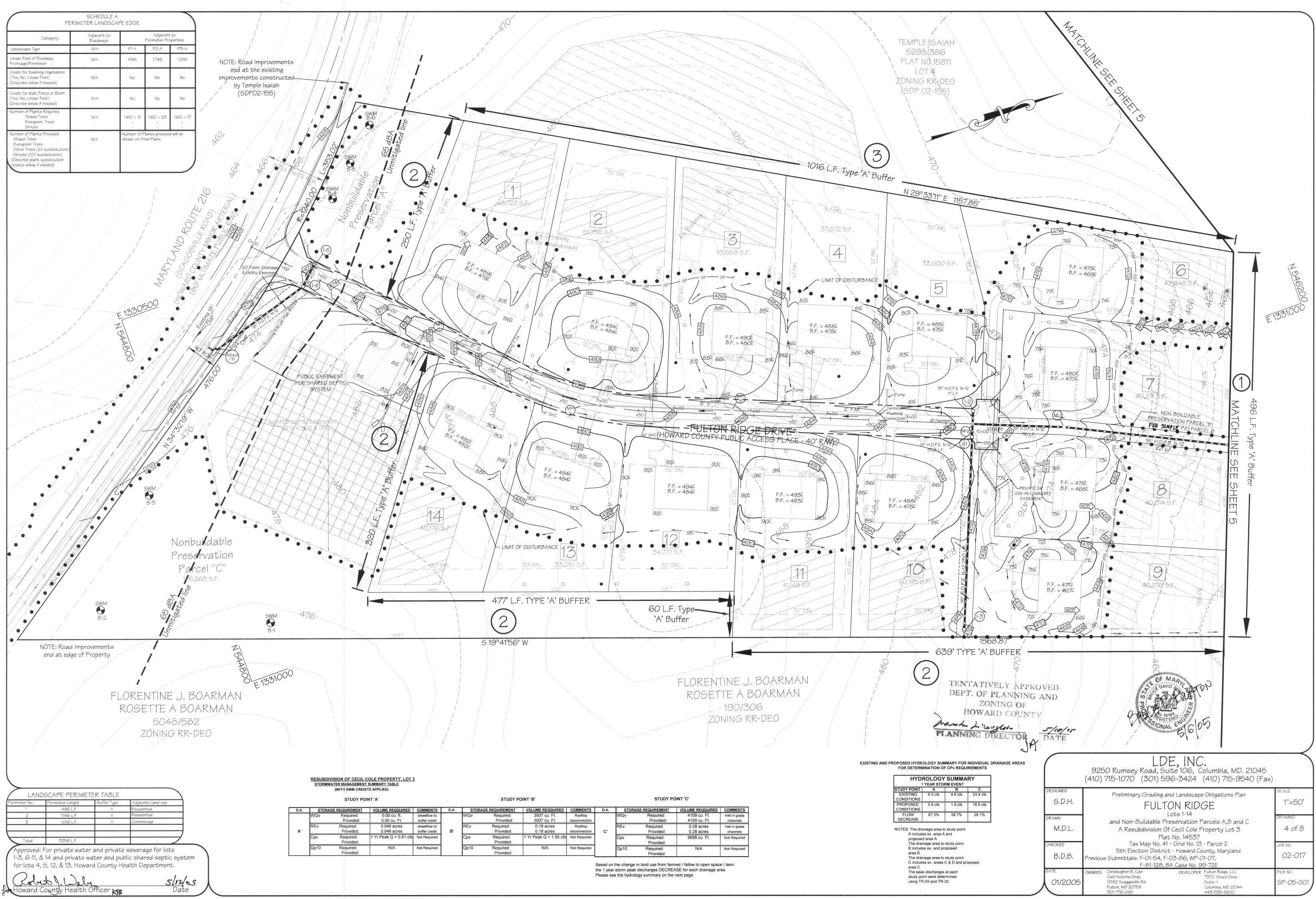
LEGEND

1" = 2000'

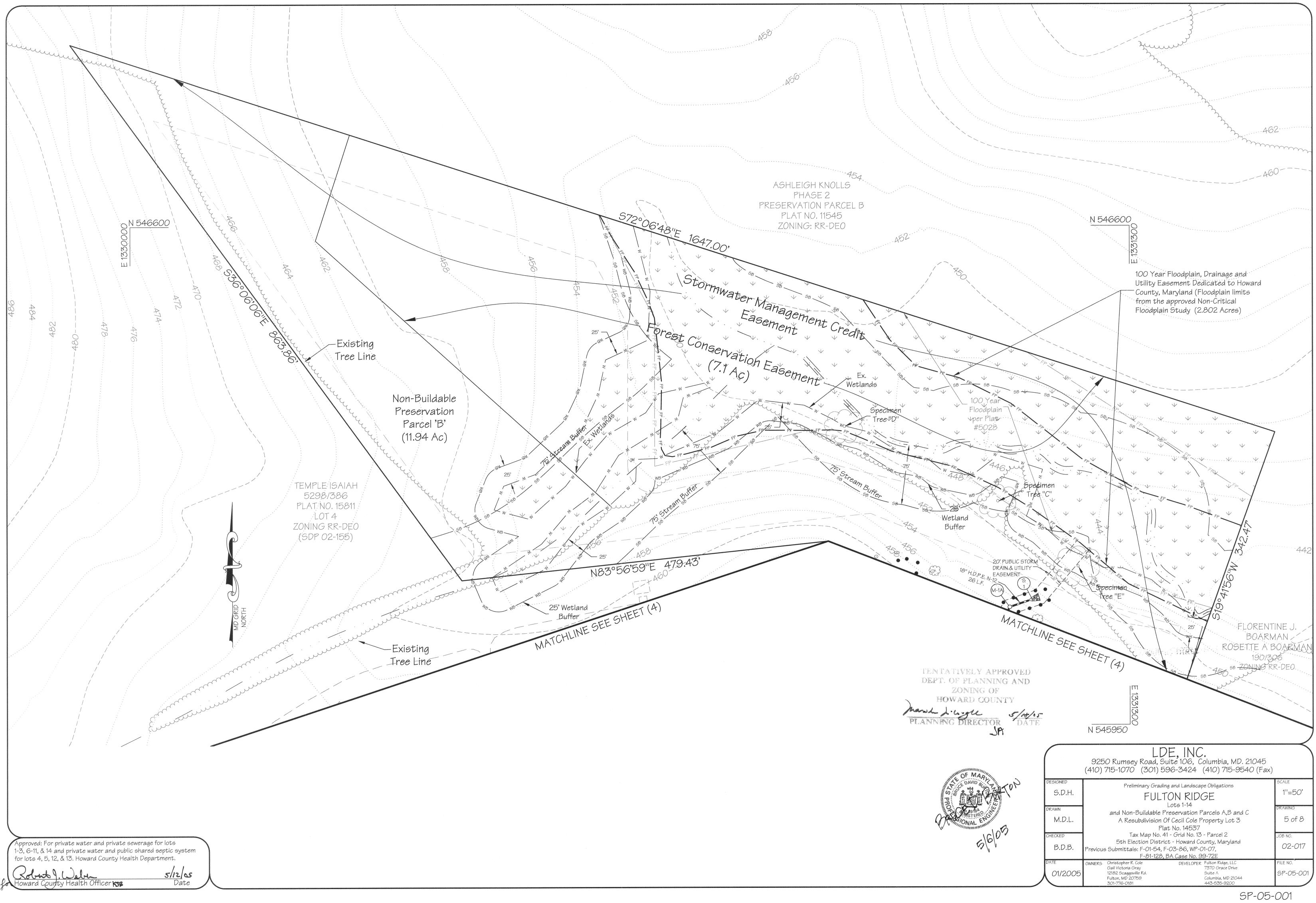
| 470 | Existing 25' Contours |
|---|-----------------------------------|
| 468 | Existing 5' Contours |
| ۲ | Proposed Primary Wells |
| 0 | Proposed Alternate Wells |
| | Proposed Sewage Disposal Easement |
| Conservation and a second as a sec | Building Restriction Line |
| | Proposed Dwelling |
| O ₁₄₀ | Perc Test Hole- Passed |
| 138 | Perc Test Hole- Failed |
| 005520853999 2 4095399997 2 0555993299 8 40952999269 | Soil Divide |
| W W | Wetland Limit |
| 58 58 58 | 75' Stream Buffer |
| 25' wB wB | 25' Wetland Buffer |
| аналын Ерекскология Ерекскология Ерекскология | Platted 100 Year Floodplain |
| азалиталия FPаналолияна FPаналолияна FPаналолиян | Revised 100 Year Floodplain |
| | Proposed Curb & Gutter |
| | Proposed Storm Drain |
| | Ex. Curb & Gutter |
| | Ex. Storm Drain |
| SWM B-1 | Stormwater Management Soil Boring |
| | Limit of Disturbance |
| enconsistences SF environments SF enconsistences | Silt Fence |
| annon-connection SSF announce SSF announcement | Super Silt Fence |

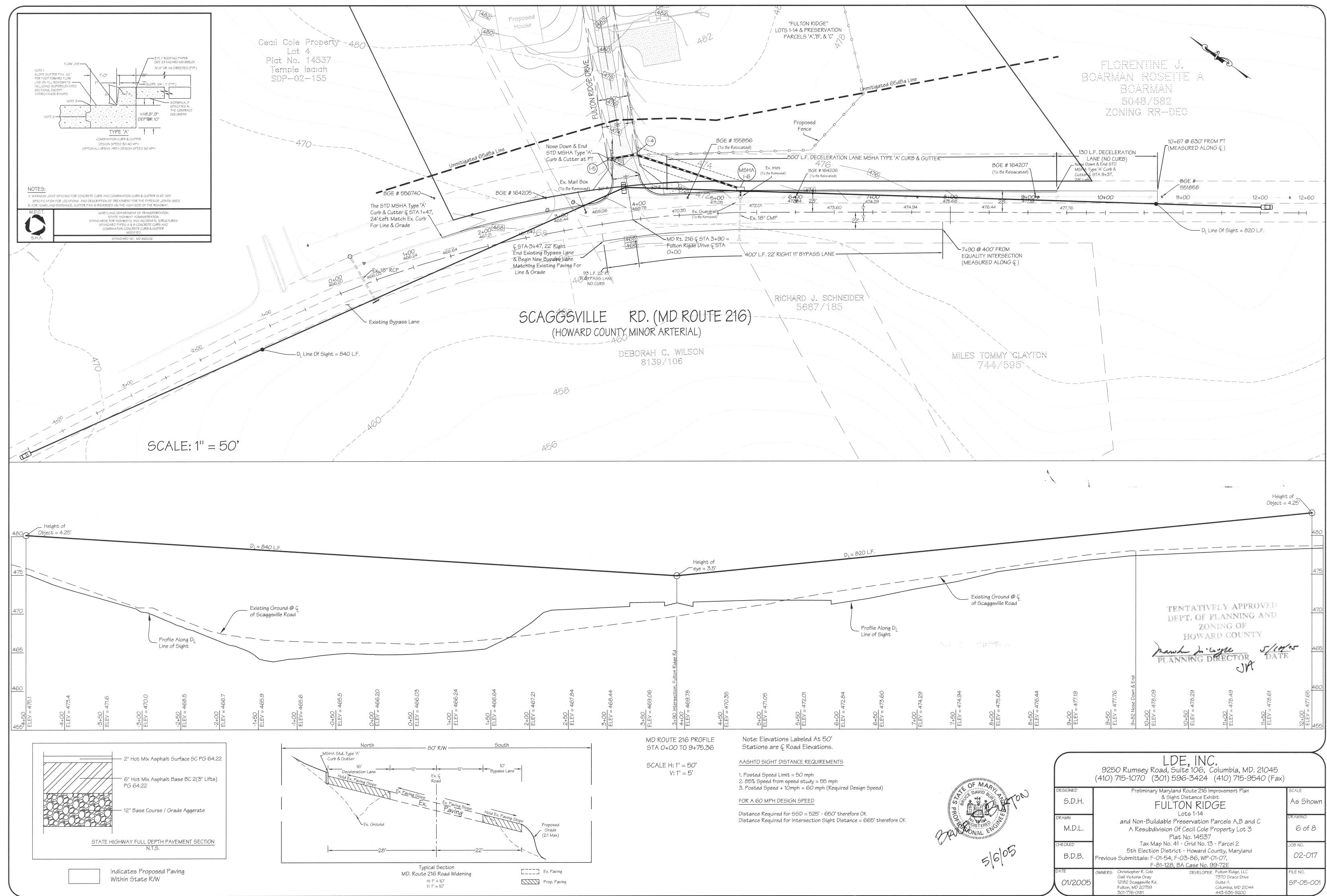






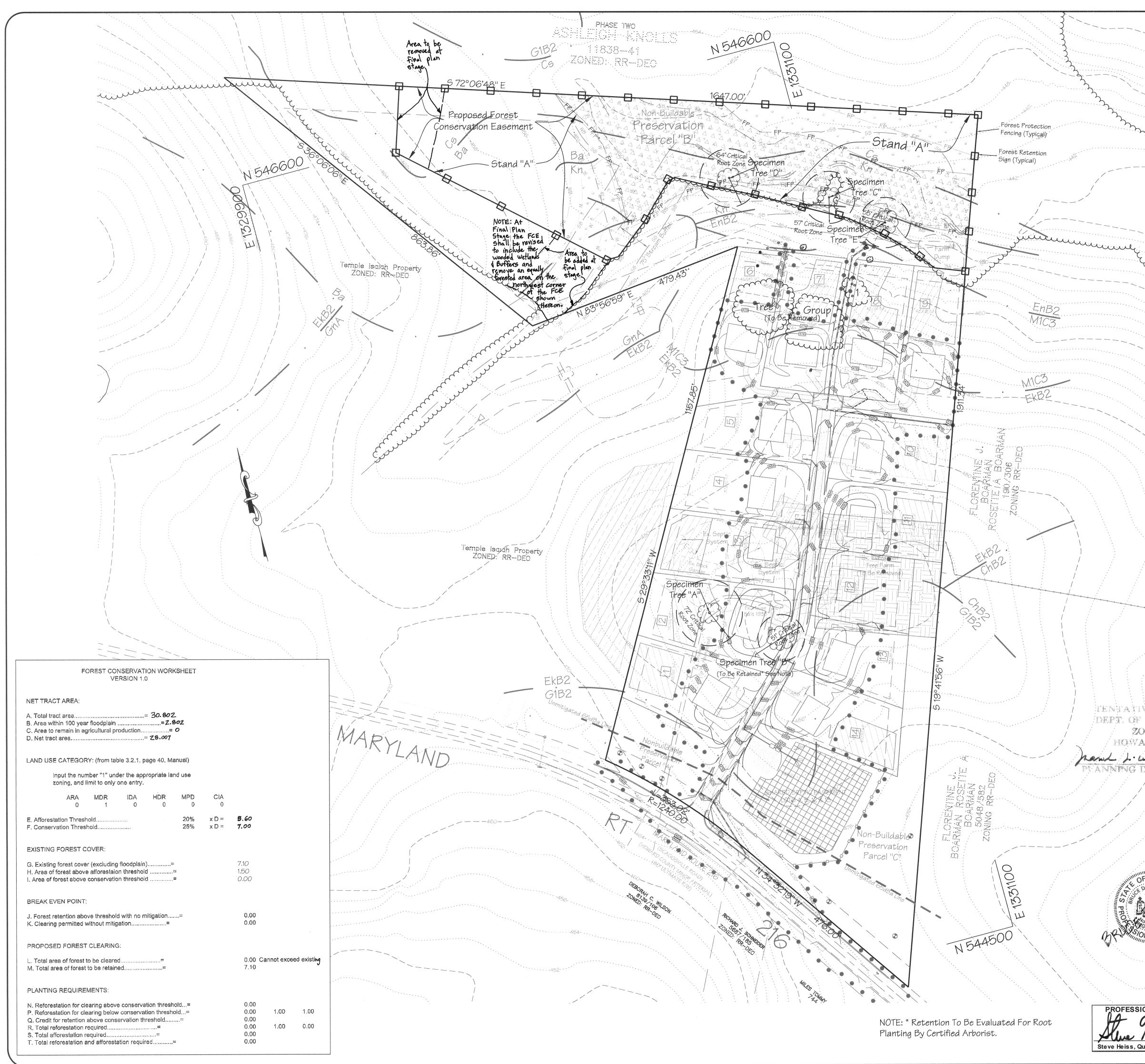
| STUDY POINT 'B' | | | | | | STUDY POINT 'C' | | | | |
|-------------------------|---|--------------------------|------------------------|------------------------------|--------------------------|-----------------|-------|------------------------|------------------------------|--------------------------|
| MMENTS | D.A. | STOR/ | AGE REQUIREMENT | VOLUME REQQUIRED | COMMENTS | D.A. | STOR/ | GE REQUIREMENT | VOLUME REQQUIRED | COMMENTS |
| etflow to fer credit | | WQv | Required: Provided: | 3007 cu. Ft. 3007 cu. Ft. | Rooftop disconnection | | WQv | Required: Provided: | 4109 cu. Ft. 4109 cu. Ft. | met in grass channels |
| etflow to fer credit | B' | REv | Required: Provided: | 0.18 acres 0.18 acres | Rooftop disconnection | C' | REv | Required: Provided: | 0.28 acres 0.28 acres | met in grass channels |
| Required | | Сри | Required: Provided: | 1 Yr Peak Q = 1.95 cfs | Not Required | | Срv | Required: Provided: | 9556 cu. Ft. | Not Required |
| Required | | Qp10 | Required: Provided: | N/A | Not Required | | Qp10 | Required: Provided: | N/A | Not Required |
| | darradona boli neb do de la bondura tina comunitado estas | สีมหมางอาจากการจะระระจาก | | | | | | | | |





-:\02-017PRE\dwg\02-017PRE-IMP.dwg, R0AD IMP, 5/5/2005 1:30:47 F

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| | | LEGEND |
|-------------------------|--|-------------|
| ••••• | — — 4 70 — — | Existing 2 |
| ***** | | Existing 5 |
| | diserte de la constante de constante de la constan | Soil Divide |
| | W W | Wetland L |
| <u>`</u> | WB WB | 25' Wetlar |
| | WB WB | 75' Wetlar |
| | FP FP | Platted 10 |
| | | 65 dBa U |
| analysis and the second | | Existing T |
| | -8-8-8- | Forest Re |
| | | Forest Co |
| None None- | | 100 Year |

25' Contours 5' Contours Limit and Buffer

and Buffer

00 Year Floodplain

Jnmitigated Noise Line Treeline

etention Sign

onservation Easement

· Floodplain Drainage & Utility Easement

🔹 🔹 🔹 🔹 🔹 Limit Of Disturbance Ex. Evergreen Tree Farm

Proposed Shared Septic System

Vicinity Map 1'' = 2000'

STAND "A"

NARRATIVE FOR FOREST STAND 'A'

Forest stand 'A' comprises 9.9. acres onsite and over 400 acres offsite. This stand is associated with the Hammond Branch stream corridor. The stand consists of typical wetland / bottomland species, including red maple (dominant), red oak (co-dominant), flowering dogwood, spicebush, white oak and tulip poplar. Much of the stand is located within nontidal wetlands, wetland buffers and 100 year floodplain. Many of the trees exhibit buttressed trunks and are growing on hummocks surrounded by standing water.

This stand should be protected because it is part of a large forested stream valley. The overall condition of the stand is good. No exotic or invasive plant or animal species were observed during the field investigation.

Onsite Acreage = **9.92**Ac Offsite Acreage = 400+ Ac

| Designation | Size | | Condition | Prop. Status |
|-------------|------|---------------------------|-----------|--------------|
| A 48" | | Sour Gum | Fair | Retained |
| В | 34" | Double Trunk Silver Maple | Good | Retained* |
| С | 38" | Tulip Poplar | Good | Retained |
| D | 43" | Tulip Poplar | Poor | Retained |
| E | 37" | Tulip Poplar | Good | Retained |

* Retention To Be Evaluated For Root Planting By Certified Arborist.

Total Property Area =**30.809** Ac Area of 100 Year Floodplain =**2.802** Ac

Net Property Area =28.007 Ac

Proposed Forest Coservation Easement = 7.1 Ac Proposed Forest Retention = 7.1 Ac

| | SOILS LEGEND | | | | | | |
|-----------------------|--------------|---|----------------------------|--|--|--|--|
| HYDROLOGIC SOIL GROUP | SOIL SYMBOL | DESCRIPTION | REMARKS | | | | |
| В | G1B2 | Glenelg Loam, 3% - 8% slopes, moderately eroded. | - | | | | |
| В | EkB2 | Elioak silt loam, 3% - 8% slopes, moderately eroded. | - | | | | |
| В | M1C3 | Manor loam, 8% - 15%, severely eroded | - | | | | |
| В | EnB2 | Elsinboro loam, 3% - 8% slopes, moderately eroded. | - | | | | |
| С | GnA | Glenville silt loam, 0% - 3% slopes | Baile Inclusions Hydric | | | | |
| В | Cs | Comus silt loam | Floodplain Soil | | | | |
| D | Ba | Baile silt loam | All Hydric | | | | |
| D | Kn | Kinkora loam silt | All Hydric | | | | |
| D | ChB2 | Chester Silt Loam, 3% to 8% Slopes Moderately Eroded | | | | | |

| | 9250 Rumsey Road, Suit | e 106, Columbia, MD. 21045 -3424 (410) 715-9540 (Fax) | |
|----------|---|---|-----------|
| DESIGNED | Forest Stand Delineation & Pr | eliminary Forest Conservation Plan | SCALE |
| S.D.H. | | NRIDGE | N/A |
| DRAWN | | ts 1-14 ervation Parcels A.B and C | DRAWING |
| M.D.L. | A Resubdivision Of C Plat N | ecil Cole Property Lot 3 10. 14537 | 7 of 8 |
| CHECKED | 1 | Grid No. 13 - Parcel 2 | JOB NO. |
| B.D.B. | Previous Submittals: F-01-54, F-03 | Howard County, Maryland 3-86, WP-01-07, Case No. 99-72E | 02-017 |
| DATE | OWNERS Christopher R. Cole | DEVELOPER Fulton Ridge, LLC | FILE NO. |
| 01/2005 | Gail Victoria Gray 12182 Scaggsville Rd. Fulton, MD 20759 301-776-0181 | 7370 Grace Drive Suite A Columbia, MD 21044 443-535-9200 | SP-05-001 |

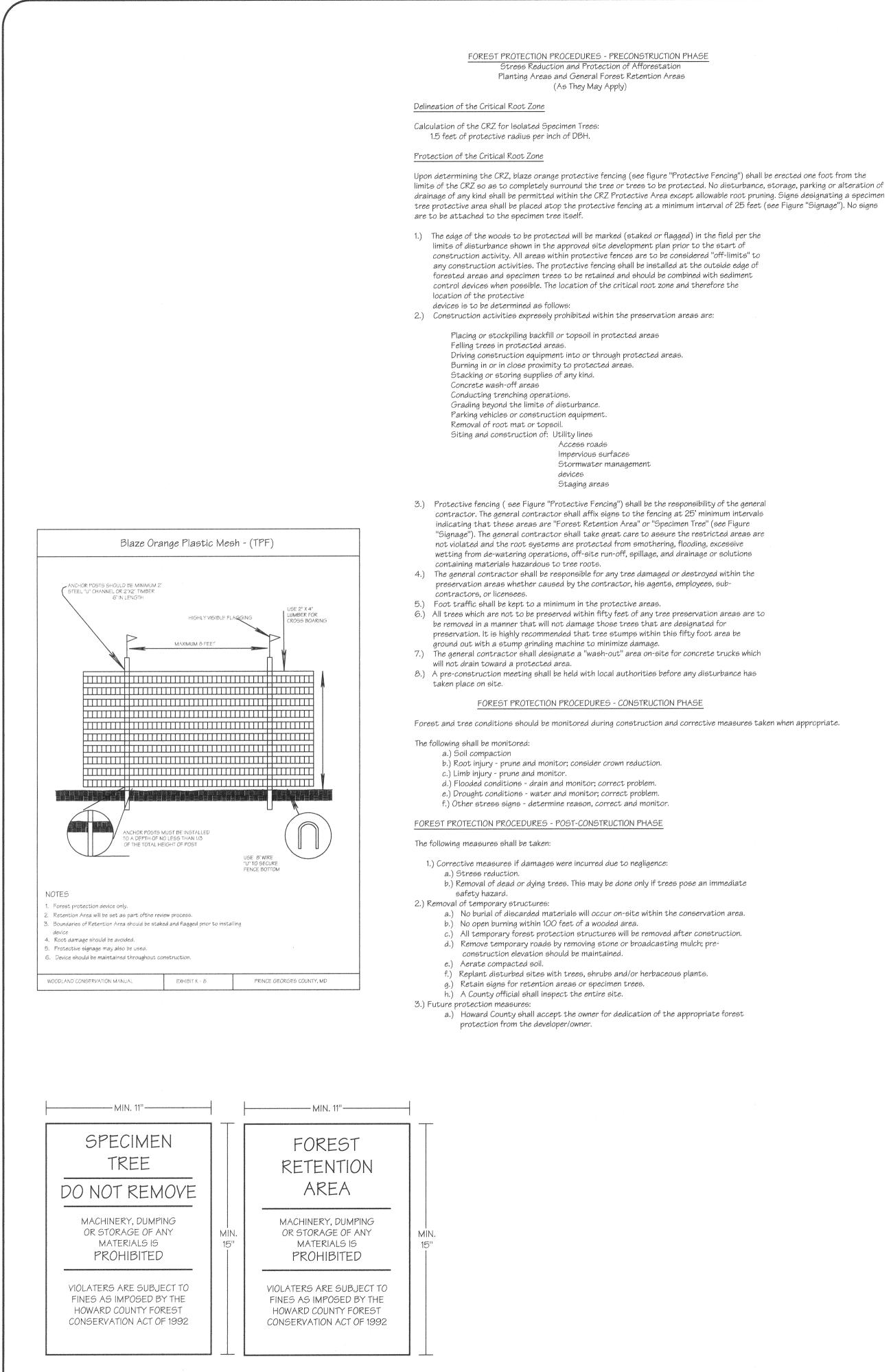
TENTATIVELY APPROVED DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY

DATE

PEANNING DIRECTOR



SP-05-001



APPENDIX G SOIL AND FOREST PROTECTION TECHNIQUES FOR FOREST RETENTION AREAS SOIL PROTECTION ZONE

The soil protection zone is that area which must be protected from construction activity and other stresses (e.g. flooding) to protect a forest retention stand from construction damage. Protecting trees from construction damage means protecting sufficient roots to provide the trees with adequate water and nutrient uptake for the existing leaf area and to maintain the physical stability of the tree. Trees in forest stands become interdependent on each other for physical support during high winds. Removal of adjacent trees and destruction of roots can cause windthrow long after the completion of construction. The extent of a tree's root system can be quite large. The ratio of root expansion to crown spread can be 2:1 for large open grown specimen trees and can be significantly larger (up to 5:1) for trees growing in the interior of forest stands. The increase of root expansion in forest stands stems from adjacent trees restricting the crown spread of a tree while its roots can constantly grow

through the soil medium. The minimum requirement for root protection varies from species to species and from soil type to soil type. The soil protection zone changes with the proximity of other trees, the amount of past human influence (agriculture or construction) in the vicinity of the tree and changes in soil type or ground water. For open grown trees, protecting the soil within the dripline of the tree is adequate to save the tree in most cases. For trees that have been part of forest communities, however, the soil protection zone must reflect a more complex relationship between crown spread and root growth. Calculating the Soil Protection Zone

A workable set of criteria for determining the limit of the soil protection zone is needed. In general, the soil protection zone is easier to define as a relationship to tree height. The following guidelines will protect most of the trees, most of the time, from construction damage

1) <u>Specimen trees:</u> the limit of the soil protection zone shall be the area within the drip line of the tree. Clusters of trees: i.e., groups of trees which are open grown, but growing close enough so that the individual crowns have grown ogether. For trees on the exterior of the group, the limit of the soil protection zone shall be the limit of the drip line. For interior trees, the soil protection zone shall be distance from the trunk of 40 percent of the height of tree or the limit of the drip line, whichever is greater 3) Forest stands: trees with a continuous canopy and an undisturbed ground plane. The limit of the soil protection zone for an

individual tree shall be a distance from the trunk of 40 percent of the height of the tree or the limit of the drip line, whichever is greater. Modifications to the Soil Protection Zone

When disturbance of the soil protection zone is unavoidable, tree survival remains probable provided: 1) Disturbance does not exceed 20 percent of the original soil protection zone area, and 2) A protected area of equal size and contiguous to the remaining soil protection zone is added back so that the finals soil

protection zone area is not decreased, and 3) The new limit of the soil protection zone is no closer to the center of any tree to be protected than 20 percent of the tree's

All reductions to the original soil protection zone shall be deducted from the calculations of the size of the forest retention area.

Reduction to the Soil Protection Zone for Individual Trees The soil protection zone for a specific tree may be reduced if it can be demonstrated that a smaller area will have no less impact on the tree's health than the size of the soil protection zone which would have resulted using the standard calculation. Requests for such reductions should include the following information:

1) The extent of the rooting system with root diameters 1" or greater; as determined by a field root survey. 2) The exact species of the tree and the qualified professional's estimation of this species' ability to withstand construction

3) The soil texture and the existing bulk density of the soil as measured in grams per cubic centimeter. 4) An estimate of soil moisture conditions before and after construction.

5) A list of construction impact mitigation practices to be performed before, during, and after construction.



20 percent Requirements for the Soil Protection Zone

Inless specifically approved by the forest conservation plan, no construction activity shall be permitted within the soil protection zone. This includes: Grading cut or fill.

Removal of existing ground plane vegetation or organic leaf layers. Roads or parking.

Walks, patios or decks Foundations, walls, or building footprints.

Underground utilities.

Temporary stormwater or sediment control structures. Storage or stock piling of construction supplies and equipment, including machinery, construction trailers, fill, topsoil, trash, etc.

Disposal of construction waste, including concrete truck wash off, paints, solvents, contaminated runoff, oils, fuels, or any other substances which are harmful to plants or animals.

The following activities are permitted within the soil protection zone: Removal of tree limbs which are outside of the soil protection zone and interfere with construction.

Removal of dead or dying trees within the soil protection zone.

Forest thinning or tree removal which is consistent with recognized forestry practices. Removal of trees on the edges of tree groups or forest stands whose trunks are within the soil protection zone of other trees, but which do not have sufficient soil protection zones of their own to allow them to survive. Note that trees which have a remaining soil protection zone of less than 50 percent of the limit required by these specifications must be removed. Removal of vines or other herbaceous plants which threaten the ecological balance of the remaining plants in the soil protection

Below ground utilities that can be placed by the use of a tunneling machine.

closer than 6'-0" o.c. and which can be manually installed.

Walks and paths that meet the following requirements: They are constructed of materials that can be installed using equipment with a

maximum weight of 1/2 ton.

They are no wider than 6'-0".

They are placed no closer than 6' from the base of the trunk of any tree over 12" D.B.H. - Are constructed without filling greater than 6".

Removal of any existing walks, walls, roads, or other structures as required. These items should be removed

without the use of heavy equipment.

Construction Adjacent to Soil Protection Zone_ Prior to the start of any construction (including clearing) adjacent to the soil protection zone, a fence must be erected along the boundary round all soil protection zones. This fence shall have 8-1/2" x 11" orange signs which shall read "Tree Preservation Area" in

1" high lettering posted every 50'. The fence shall be one of the following:

3 strands of barbed wire spaced 18" apart 4' high. 4' high wood and wire "snow fencing".

4' high chain link fence.

4' high welded wire fence.

All fencing shall be attached to "U" Channel metal post~ set 10' o.c. max. No fencing or wire shall be attached to any tree. Prior to the start of any grading, all sediment control devices shall be in place to prevent any silt or sediment from entering the soil protection zone. A synthetic filter fabric silt fence of a type acceptable to the U.S.D.A. Soil Conservation Service shall be installed on the uphill side of all soil protection zones. This fence shall be cleaned and maintained on a regular basis through the construction period. All drainage devices, inlets, or swales required to maintain existing surface and subsurface groundwater conditions within the soil protection zone must also be installed and operational prior to grading.

Management of the Soil Protection Zone Forest retention stands, smaller tree stands, and individual trees that the Forest Conservation Plan specifies must be protected and require careful management during and after construction.

Specimen trees and groups of trees are nearly always growing on soils previously influenced by human activity. If the soils under these trees are already compacted, they should be core aerated prior to construction and again after construction. Light spring and fall low nitrogen fertilizations will also help these trees adjust to the new environment. Very old trees (30" or larger D.B.H.) should be manually irrigated several times during the first two summers following grading in their vicinity. Each group of trees must also be monitored for disease and insect problems during and after construction. Trees in construction zones are more susceptible to attack by pests than trees in undisturbed conditions. Landscape practices under trees are as critical to tree survival as how much construction occurs around them. The following management practices must occur in the soil protection zone:

Bare soil: prior to construction, core aerate. Hand scarify with a steel rake to a depth of 1" max. Top dress with 1" - 2" shredded bark mulch. Mown lawn: prior to construction, core aerate. Keep grass mowed during construction.

Unmown grass: leave undisturbed during construction. After construction, mow grass and core aerate. Landscape shrubs and/or groundcovers: leave undisturbed during construction. Hand scarify and mulch any area with bare soil. Leave any paved areas, walks, drives, etc. in place within the dripline until other construction is nearly completed. Fill voids from removed objects with light top soil. Natural occurring ground plane growth: leave undisturbed except for invasive vines or small trees which could affect growth habits of specimen trees.

TENTATIVELY AS ANY SD DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY PLANNING DIRECTOR



PROFESSIONAL CERTIFICATION: Illess. Steve Heiss, Qualified Professional, MDFCA

| | | E, INC. ce 106, Columbia, MD. 21045 3-3424 (410) 715-9540 (Fax | ;) |
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| designed S.D.H. | FULTC | liminary Forest Conservation Detai NRIDGE 0ts 1-14 | ls ^{scale} 1''=100' |
| DRAWN M.D.L. | and Non-Buildable Pres A Resubdivision Of (Plat | servation Parcels A,B and C Cecil Cole Property Lot 3 No. 14537 | DRAWING 8 of 8 |
| CHECKED B.D.B. | 5th Election District Previous Submittals: F-01-54, F-0 | Grid No. 13 - Parcel 2 - Howard County, Maryland 3-86, WP-01-07, Case No. 99-72E | јов no. 02-017 |
| 01/2005 | OWNERS Christopher R. Cole Gail Victoria Gray 12182 Scaggsville Rd. Fulton, MD 20759 301-776-0181 | DEVELOPER Fulton Ridge, LLC 7370 Grace Drive Suite A Columbia, MD 21044 443-535-9200 | FILE NO. SP-05-001 |