

BENCHMARKS

TRAVERSE NO.	NORTHING	EASTING	ELEVATION
0066	N 587,380.453	E 1,352,603.459	EL = 387.306
2485	N 586,956.228	E 1,356,570.80	EL = 390.970

ADDRESS CHART

LOT #	STREET ADDRESS
1	3033 BETHANY LANE
2	3037 BETHANY LANE

PERMIT INFORMATION CHART

PROJECT NAME	SECTION/AREA	LOTS
TOLIVER PROPERTY	N/A	1 & 2
PLAT REF. 16523/16524	BLOCK NO. 20	ZONE R-20
TAX MAP 17	ELECT. DIST. 2ND	CENSUS TR. 6022.00
WATER CODE: H 08	SEWER CODE: 5990000	

SHEET INDEX

DESCRIPTION	SHEET NO.
SITE DEVELOPMENT AND LANDSCAPE PLAN	1 OF 2
HOUSE TYPES AND SEDIMENT CONTROL DETAILS	2 OF 2

LEGEND

- 585 --- EXISTING 2 FT CONTOUR
- 580 --- EXISTING 10 FT CONTOUR
- ⊖ 582 ⊖ PROPOSED 2 FT CONTOUR
- ⊖ 580 ⊖ PROPOSED 10 FT CONTOUR
- LOD --- LIMIT OF DISTURBANCE
- SSF --- SUPER SILT FENCE
- [Hatched Box] EROSION CONTROL MATING
- [Diagonal Lines Box] AREA OF 15% TO 24.9% SLOPES
- [Cross-hatched Box] AREA OF 25% OR GREATER SLOPES
- [Stippled Box] 100 YR FLOODPLAIN
- [Stippled Box with 'SCE'] STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 - MISS UTILITY: 1-800-257-7777
 - VERIZON TELEPHONE CO.: 725-9976
 - HOWARD COUNTY BUREAU OF UTILITIES: 313-2366
 - AT&T CABLE LOCATION DIVISION: 393-3553
 - B.G.&C. CO. CONTRACTOR SERVICES: 850-4620
 - B.G.&C. CO. UNDERGROUND DAMAGE CONTROL: 787-4620
 - STATE HIGHWAY ADMINISTRATION: 531-5533
- SITE ANALYSIS:
 - TOTAL AREA OF SITE: 2.00 AC
 - PRESENT ZONING: R-20
 - LIMIT OF DISTURBANCE: 16,097 SF
 - PROPOSED USE OF SITE: SINGLE FAMILY DETACHED DWELLING
- PROJECT BACKGROUND:
 - LOCATION: TAX MAP: 17 PARCEL: 534 GRID 20
 - ZONING: R-20
 - TOLIVER PROPERTY
 - DEED REFERENCE: LIBER 6731 FOLIO 305
 - DP2 REFERENCES: F-03-225, WP-03-225
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOILS TEST.
- COORDINATES AND ELEVATIONS ARE BASED ON HOWARD COUNTY MONUMENT NO'S. 0066 AND 2485
- THERE ARE STEEP SLOPES LOCATED ON THIS PROPERTY.
- NO BURIAL GROUNDS OR CEMETERIES ARE LOCATED ON THIS PROPERTY.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAYS/ROADWAYS SERVING TWO (2) OR MORE LOTS ARE REQUIRED TO MEET THE FOLLOWING SPECIFICATIONS FOR FIRE AND EMERGENCY VEHICLES ACCESS:
 - WIDTH - RESIDENTIAL DRIVEWAY FOURTEEN (14) FEET.
 - CONSTRUCTION - SIX (6) INCHES OF COMPACTED "CRUSHED RUN" BASE WITH A "TAR AND CHIP" COATING
 - TURNING RADIUS - FORTY-FIVE (45) FEET.
 - BRIDGES AND CULVERTS - DESIGNED TO SUPPORT VEHICLES WITH A GROSS VEHICLE WEIGHT OF TWENTY-FIVE (25) TONS.
 - OVERHEAD CLEARANCE - TWELVE (12) FEET.
 - MAINTENANCE - DRIVEWAYS MUST BE MAINTAINED FOR ALL-WEATHER USE.
 - GRADE - THE MAXIMUM ALLOWABLE GRADE SHALL BE 15%, WITH THE DURABLE AND SUSTAINABLE GRADE OF 8% THE TRANSITION FROM THE ROAD TO THE DRIVEWAY SHALL NOT EXCEED 8%.
- FLOODPLAIN ON SITE BASED ON PLAT NUMBER 16523.

- THIS SITE PLAN CONFORMS TO THE AMENDED 5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6-01.
- THERE ARE NO HISTORIC SITES ON THE PROPERTY.
- ESSEB DENOTES PUBLIC FOREST CONSERVATION EASEMENT. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE 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.
- WATER AND SEWER SERVICE TO THESE LOTS IS GRANTED UNDER THE PROVISIONS OF SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND PUBLIC SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME. UNDER CONTR. NO. W-71 & S-411
- THE SUBJECT PROPERTY IS ZONED R-20 PER THE 2/2/2004 AMENDED COMPREHENSIVE ZONING PLAN.
- THIS PLAN IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED ON OR ABOUT NOVEMBER 5, 2003 BY SOURABH G. MUNSHI, VANMAR ASSOC. INC.
- THIS SUBDIVISION IS IN THE METROPOLITAN DISTRICT.
- EXISTING WETLANDS SHOWN HEREON WERE DELINEATED BY WILDMAN ENVIRONMENTAL SERVICES IN JANUARY 2003.
- THE EXISTING 60" COLONIAL PIPELINE RIGHT OF WAY SHOWN HEREON IS BASED ON FIELD LOCATED STAKEOUT PROVIDED BY COLONIAL GAS ON MARCH 28, 2003, AS RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY LIBER 0998 FOLIO 0135.
- OPEN SPACE REQUIRED= 2.00 X 6 % = 0.12 AC.
- LIMIT OF 100 YEAR FLOODPLAIN SHOWN ON THIS PLAN WAS DERIVED FROM AN ADDENDUM TO THE CHILDS PROPERTY FLOODPLAIN ANALYSIS AND REPORT PREPARED BY ROBERT H. VOGEL, PEVP FROM COLUMBIA, MD IN JANUARY, 2003. THE ORIGINAL CHILDS PROPERTY FLOODPLAIN REPORT WAS APPROVED WITH THE CHILDS PROPERTY SUBDIVISION ON OR ABOUT NOV. 1998. THE FLOODPLAIN ON THIS PROPERTY IS DETERMINED AS OBVIOUSLY NOT CRITICAL.
- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL VOLUMES I & II VIA SHEETFLOW TO BUFFER CREDIT
- FOREST CONSERVATION RETENTION OBLIGATION OF 0.40 ACRES IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAVE BEEN FULFILLED BY A 0.40 ACRE PUBLIC RETENTION FOREST CONSERVATION EASEMENT ONSITE UNDER F-03-225.
- DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, THE FOREST CONSERVATION EASEMENT LOCATED IN, OVER AND THROUGH OPEN SPACE LOT 3, OR PORTIONS THEREOF, AND SHOWN ON THIS PLAN AS FOREST CONSERVATION AREA. ANY AND ALL CONVEYANCES OF AFORESAID LOTS SHALL BE SUBJECT TO THE EASEMENTS HEREIN RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEEDS CONVEYING SAID LOTS. DEVELOPER SHALL EXECUTE AND DELIVER A DEED OF FOREST CONSERVATION EASEMENT TO HOWARD COUNTY WITH A METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION AREA. UPON COMPLETION OF THE DEVELOPERS OBLIGATION UNDER THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT, THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED OF FOREST CONSERVATION EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.
- LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL SHALL BE PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN OF THE HOWARD COUNTY CODE. PUBLIC WATER AND PUBLIC SEWER ALLOCATION WILL NOT BE RESPONSIBLE FOR MAINTENANCE OF THE 24' PRIVATE ACCESS EASEMENT FOR LOTS 1 AND 2 OR THE 12' ACCESS EASEMENT TO OPEN SPACE LOT 3.
- NO CLEARING, GRADING OR DISTURBANCE IS PERMITTED IN THE STEEP SLOPE AREAS, WETLANDS, STREAMS OR THEIR BUFFERS, FLOODPLAIN AREAS OR FOREST CONSERVATION EASEMENT AREAS.
- THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS SUBDIVISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
- NOISE STUDY PREPARED BY WILDMAN ENVIRONMENTAL SERVICES ON OR ABOUT MARCH 2003. IT WAS APPROVED ON SEPTEMBER 12, 2003.
- THIS PLAN SUBJECT TO A 20 FOOT WIDE RIGHT OF WAY FOR SANITARY SEWER TO HOWARD COUNTY MARYLAND. RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 654 AT FOLIO 170.
- REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE EDGE OF THE RIGHT OF WAY.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 5/14/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 5/14/04
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 5/14/04
 DIRECTOR

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
 [Signature] 4/26/04
 SDN-NATURAL RESOURCES CONSERVATION SERVICE
 [Signature] 4/26/04
 [Signature] 4/26/04
 HOWARD SCD

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature] 4/13/04
 SIGNATURE OF ENGINEER
 ROBERT H. VOGEL, PE 16193

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature] 4/14/04
 SIGNATURE OF DEVELOPER

DEVELOPER'S BUILDER'S CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXCITED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
 [Signature] 4/14/04
 SIGNATURE OF DEVELOPER

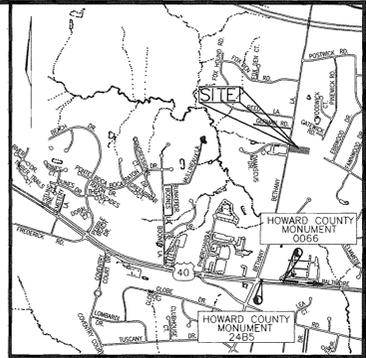
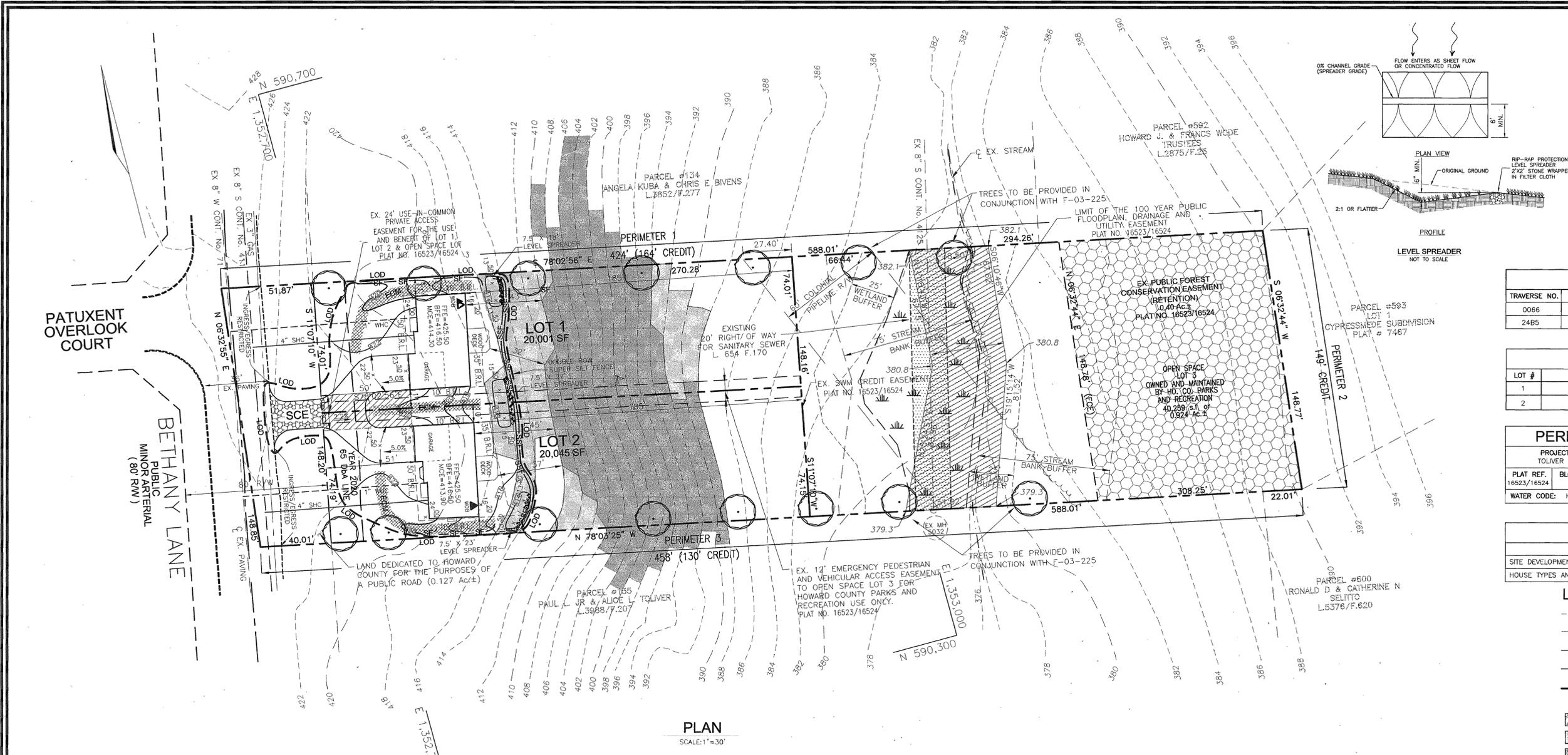
OWNER/BUILDER
 MICHAEL PFAU
 TRINITY QUALITY HOMES
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 410-480-0023

FREDERICK WARD ASSOCIATES, INC.
 ARCHITECTS | ENGINEERS | PLANNERS | SURVEYORS
 www.frederickward.com

7125 RIVERWOOD DRIVE
 COLUMBIA, MARYLAND 21046-2354
 410-720-6900
 410-720-6226 fax

DESIGN BY: JCO
 DRAWN BY: ELG
 CHECKED BY: RHV
 DATE: APRIL, 2004
 SCALE: 1"=30'
 W.O. NO.: 2044032

1 SHEET OF 2



BENCHMARKS

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2485	N 586,956.228	E 1,356,570.80	EL = 390.970

ADDRESS CHART

LOT #	STREET ADDRESS
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2	3037 BETHANY LANE

PERMIT INFORMATION CHART

PROJECT NAME	SECTION/AREA	LOTS			
TOLIVER PROPERTY	N/A	1 & 2			
PLAT REF.	BLOCK NO.	ZONE	TAX MAP	ELECT. DIST.	CENSUS TR.
16523/16524	20	R-20	17	2ND	6022.00
WATER CODE:	H 08		SEWER CODE:	5990000	

SHEET INDEX

DESCRIPTION	SHEET NO.
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HOUSE TYPES AND SEDIMENT CONTROL DETAILS	2 OF 2

LEGEND

- 585 --- EXISTING 2 FT CONTOUR
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- LOD --- LIMIT OF DISTURBANCE
- SSF --- SUPER SILT FENCE
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- [Diagonal Lines Box] AREA OF 15% TO 24.9% SLOPES
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- [Stippled Box] SCE STABILIZED CONSTRUCTION ENTRANCE

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 - B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 787-4620
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- SITE ANALYSIS:
 - TOTAL AREA OF SITE: 2.00 AC
 - PRESENT ZONING: R-20
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 - DEED REFERENCE: LIBER 6731 FOLIO 305
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- PROJECT BACKGROUND:
 - LOCATION: TAX MAP: 17 PARCEL: 534 GRID 20
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- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
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- COORDINATES AND ELEVATIONS ARE BASED ON HOWARD COUNTY MONUMENT NO'S. 0066 AND 2485
- THERE ARE STEEP SLOPES LOCATED ON THIS PROPERTY.
- NO BURIAL GROUNDS OR CEMETERIES ARE LOCATED ON THIS PROPERTY.
- IN ACCORDANCE WITH SECTION 12B OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAYS/ROADWAYS SERVING TWO (2) OR MORE LOTS ARE REQUIRED TO MEET THE FOLLOWING SPECIFICATIONS FOR FIRE AND EMERGENCY VEHICLES ACCESS:
 - WIDTH - RESIDENTIAL DRIVEWAY FOURTEEN (14) FEET.
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 - BRIDGES AND CULVERTS - DESIGNED TO SUPPORT VEHICLES WITH A GROSS VEHICLE WEIGHT OF TWENTY-FIVE (25) TONS.
 - OVERHEAD CLEARANCE - TWELVE (12) FEET.
 - MAINTENANCE - DRIVEWAYS MUST BE MAINTAINED FOR ALL-WEATHER USE.
 - GRADE - THE MAXIMUM ALLOWABLE GRADE SHALL BE 15%, WITH THE DURABLE AND SUSTAINABLE GRADE OF 8%. THE TRANSITION FROM THE ROAD TO THE DRIVEWAY SHALL NOT EXCEED 8%.
- FLOODPLAIN ON SITE BASED ON PLAT NUMBER 16523.
- THIS SITE PLAN CONFORMS TO THE AMENDED 5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD DETAIL R-6-01.
- THERE ARE NO HISTORIC SITES ON THE PROPERTY.
- EXISTING 60' COLONIAL PIPELINE RIGHT OF WAY SHOWN HEREON IS BASED ON FIELD LOCATED STAKEOUT PROVIDED BY COLONIAL GAS ON MARCH 28, 2003, AS RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY LIBER 0998 FOLIO 0135.
- OPEN SPACE REQUIRED= 2.00 X 6 % = 0.12 AC.
- LIMIT OF 100 YEAR FLOODPLAIN SHOWN ON THIS PLAN WAS DERIVED FROM AN ADDENDUM TO THE CHILDS PROPERTY FLOODPLAIN ANALYSIS AND REPORT PREPARED BY ROBERT H. VOGEL, PE, PVP FROM COLUMBIA, MD IN JANUARY, 2003. THE ORIGINAL CHILDS PROPERTY FLOODPLAIN REPORT WAS APPROVED WITH THE CHILDS PROPERTY SUBDIVISION ON OR ABOUT NOV. 1998. THE FLOODPLAIN ON THIS PROPERTY IS DETERMINED AS OBVIOUSLY NOT CRITICAL.
- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL VOLUMES I & II VIA SHEETFLOW TO BUFFER CREDIT
- FOREST CONSERVATION RETENTION OBLIGATION OF 0.40 ACRES IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAVE BEEN FULFILLED BY A 0.40 ACRE PUBLIC RETENTION FOREST CONSERVATION EASEMENT ONSITE UNDER F-03-225.
- DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, THE FOREST CONSERVATION EASEMENT LOCATED IN, OVER AND THROUGH OPEN SPACE LOT 3, OR PORTIONS THEREOF, AND SHOWN ON THIS PLAN AS FOREST CONSERVATION AREA. ANY AND ALL CONVEYANCES OF AFORESAID LOTS SHALL BE SUBJECT TO THE EASEMENTS HEREIN RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOT(S). DEVELOPER SHALL EXECUTE AND DELIVER A DEED OF FOREST CONSERVATION EASEMENT TO HOWARD COUNTY WITH A METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION AREA. UPON COMPLETION OF THE DEVELOPER'S OBLIGATION UNDER THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT, THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED OF FOREST CONSERVATION EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.
- LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL SHALL BE PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN ON FILE WITH THE PLAN. POSTING OF THE SURETY IN THE AMOUNT OF \$ 4,500 FOR THE REQUIRED PLANTING OF 15 SHADE TREES SHALL BE PROVIDED WITHIN THE BOUNDARY OF THE PROPERTY.
- THIS SUBDIVISION SUBJECT TO THE APPROVED WAIVER PETITION WP 03-225. PETITIONER IS REQUIRED TO PROVIDE 12 FOOT ACCESS EASEMENT BETWEEN LOT 1 AND LOT 2 FOR USE BY PARKS AND RECREATION AND ONLY IN CASE OF EMERGENCIES. HOWARD COUNTY WILL NOT BE RESPONSIBLE FOR MAINTENANCE OF THE 24' PRIVATE ACCESS EASEMENT FOR LOTS 1 AND 2 OR THE 12' ACCESS EASEMENT TO OPEN SPACE LOT 3.
- NO CLEARINGS, GRADING OR DISTURBANCE IS PERMITTED IN THE STEEP SLOPE AREAS, WETLANDS, STREAMS OR THEIR BUFFERS, FLOODPLAIN AREAS OR FOREST CONSERVATION EASEMENT AREAS.
- THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS SUBDIVISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
- NOISE STUDY PREPARED BY WILDMAN ENVIRONMENTAL SERVICES ON OR ABOUT MARCH 2003.
- THIS PLAN SUBJECT TO A 20 FOOT WIDE RIGHT OF WAY FOR SANITARY SEWER TO HOWARD COUNTY MARYLAND, RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 654 AT FOLIO 170.
- REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE EDGE OF THE RIGHT OF WAY.

PLAN
SCALE: 1"=30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 5/4/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 4/26/04
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 5/11/04
 DIRECTOR

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
 [Signature] 4/26/04
 [Signature] 4/26/04
 HOWARD SCD

ENGINEERS CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature] 4/13/04
 SIGNATURE OF ENGINEER
 ROBERT H. VOGEL, PE 16193

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature] 4/04/04
 SIGNATURE OF DEVELOPER

DEVELOPER'S BUILDER'S CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF THE LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
 [Signature] 4/4/04
 SIGNATURE OF BUILDER

OWNER/BUILDER
 MICHAEL PFAU
 TRINITY QUALITY HOMES
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 410-480-0023

NO.	REVISION	DATE
1	ADD 2' BUMPOUT TO HOUSE MODEL	6/19/04

SITE DEVELOPMENT AND LANDSCAPE PLAN
 TOLIVER PROPERTY
 LOT 1, 2, AND OPEN SPACE LOT 3
 SINGLE FAMILY DETACHED UNITS
 TAX MAP 17 SECOND ELECTION DISTRICT PARCEL 534 HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
 ARCHITECTS | ENGINEERS | PLANNERS | SURVEYORS
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 1 SHEET OF 2

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

DEFINITION
 PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE
 TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES
 I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS
 I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
 II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 I. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED AS RECOMMENDED BY AN AGRONOMIST OR A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 AND 1/2" IN DIAMETER.
 II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
 II. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

III. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 I. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 A. PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
 B. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 C. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 D. NO SOD OR LIME SHALL BE PLACED ON SOIL SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNLESS SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
 NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
 II. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION-SECTION I-VEGETATIVE STABILIZATION METHODS AND MATERIALS.
 V. TOPSOIL APPLICATION
 I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SOLE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
 II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
 III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
 V. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 I. MATERIAL SPECIFICATIONS
 THE RECOMMENDED CONSTRUCTION MATERIALS FOR OPEN CHANNELS AND FILTER STRIPS ARE DETAILED IN TABLE B.3.3.

PERMANENT SEEDING NOTES
 APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
 SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
 SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
 1) PREFERRED-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./100 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT THE TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.)
 2) ACCEPTABLE-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND APPLY 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
 SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.5 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.
 MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1000 SQ.FT.) FOR ANCHORING.
 MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.
TEMPORARY SEEDING NOTES
 SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
 SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)
 SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.7 LBS./1000 SQ.FT.) FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.
 MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1000 SQ.FT.) FOR ANCHORING.
 REFERENCE TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

B.3.C. SPECIFICATIONS FOR OPEN CHANNELS AND FILTER STRIPS
 I. MATERIAL SPECIFICATIONS
 THE RECOMMENDED CONSTRUCTION MATERIALS FOR OPEN CHANNELS AND FILTER STRIPS ARE DETAILED IN TABLE B.3.3.
 2. DRY SWALES
 PERMEABLE SOIL MIXTURE (20" TO 30" DEEP) SHOULD MEET THE BIORETENTION "PLANTING" SOIL SPECIFICATIONS.
 CHECK DAMS, IF REQUIRED, SHALL BE PLACED AS SPECIFIED.
 SYSTEM TO HAVE 6" OF FREEBOARD, MINIMUM ABOVE 2 YEAR WATER SURFACE ELEVATION.
 SIDE SLOPES TO BE 3:1 MAXIMUM (4:1 OR FLATTER IS PREFERRED). NO GRAVEL OR PERFORATED PIPE IS TO BE PLACED UNDER DRIVEWAYS.
 BOTTOM OF FACILITY TO BE ABOVE THE SEASONALLY HIGH WATER TABLE PER APPENDIX D.1.
 SEED WITH FLOOD/DROUGHT RESISTANT GRASSES; SEE APPENDIX A, SECTION 2.4. LONGITUDINAL SLOPE TO BE 4% MAXIMUM.
 BOTTOM WIDTH TO BE 8" MAXIMUM TO AVOID BRANDING; LARGER WIDTHS MAY BE USED IF PROPER BERMING IS SUPPLIED. WIDTH TO BE 2' MINIMUM.
 3. WET SWALES
 FOLLOW ABOVE INFORMATION FOR DRY SWALES, WITH THE FOLLOWING EXCEPTIONS; THE SEASONALLY HIGH WATER TABLE MAY INUNDATE THE SWALE; BUT NOT ABOVE THE BOTTOM OF THE CHANNEL (NOTE: IF THE WATER TABLE IS STABLE WITHIN THE CHANNEL, THE WQ STORAGE MAY START AT THIS POINT-SEE FIGURE 3.19).
 EXCAVATE INTO UNDISTURBED SOILS; DO NOT USE AN UNDERDRAIN SYSTEM.
 CONSTRUCT PEA GRAVEL DIAPHRAGMS 12" WIDE, MINIMUM, AND 24" DEEP MINIMUM. PERVIOUS BELMS TO BE SAND/GRAVEL MIX [SAND (35-60%), SILT (30-55%), AND GRAVEL (10-25%)].
 BERMS TO HAVE OVERFLOW WEIRS WITH 6 INCH MINIMUM HEAD.
 SLOPE RANGE TO BE 2% MINIMUM TO 6% MAXIMUM.
 5. PLANT SELECTION
 RECOMMENDED GRASS SPECIES FOR USE IN ESTABLISHING PERMANENT GROUND COVER ARE PROVIDED IN SECTION 2.4 OF APPENDIX A.

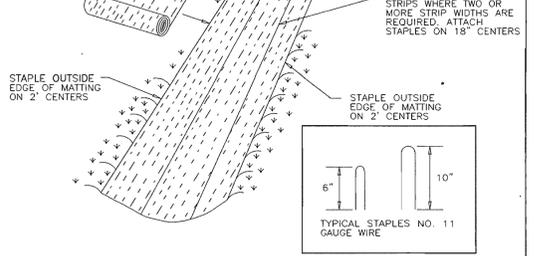
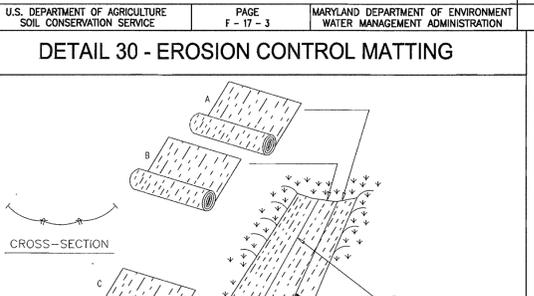
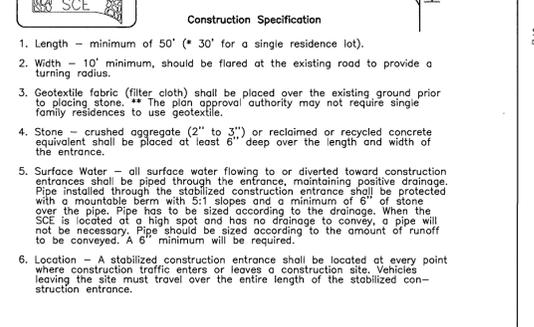
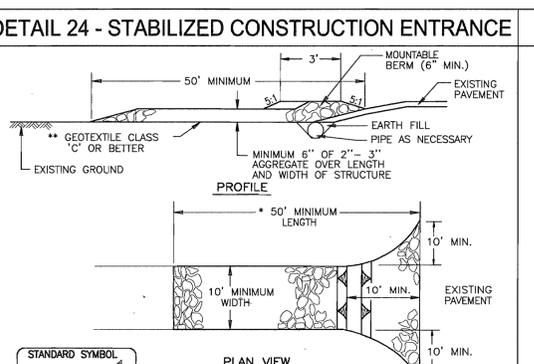
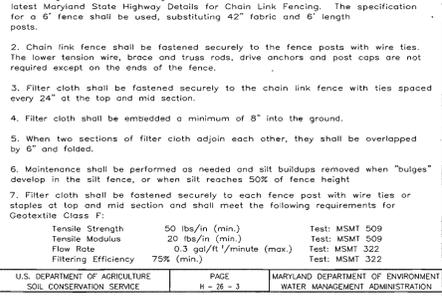
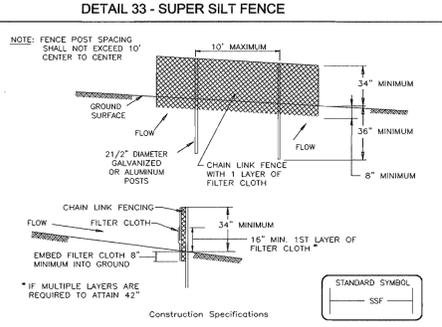
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 10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
 11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
 * TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT

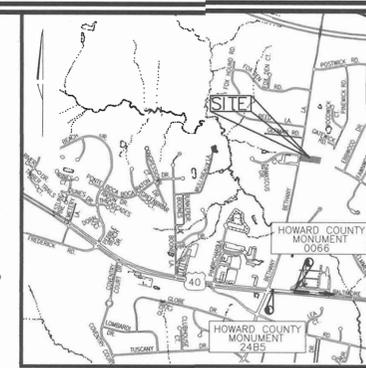
SEQUENCE OF CONSTRUCTION
 1. OBTAIN GRADING PERMIT.
 2. NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410.313.1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
 3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES. (1 DAY)
 4. INSTALL SILT FENCE. (2 DAYS)
 5. AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED, ROUGH GRADE SITE. (4 DAYS)
 6. CONSTRUCT HOUSE. (4 MONTHS)
 7. FINAL LOT GRADE TO BE IN SUBSTANTIAL CONFORMANCE WITH SITE DEVELOPMENT PLAN. (2 DAYS)
 8. DURING GRADING AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE THE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN HEREON.
 9. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITH:
 A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 10. UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES.



SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES		
		TYPE 'A'	TYPE 'A'	TYPE 'A'
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	0	588 (1)	149 (2)	588 (3)
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	YES* 154'	YES* 149'	YES* 130'
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	NO	NO	NO
NUMBER OF PLANTS REQUIRED	NA	424*	160 0	458*
SHADE TREES	NA	160 7	160 0	160 8
EVERGREEN TREES	NA	0	0	0
SHRUBS	NA	0	0	0
NUMBER OF PLANTS PROVIDED	NA	7	0	8
SHADE TREES	NA	0	0	0
EVERGREEN TREES	NA	0	0	0
OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION)	NA	0	0	0
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	NA	0	0	0

*CREDIT FOR EXISTING WOODS



VICINITY MAP
SCALE: 1"=200'

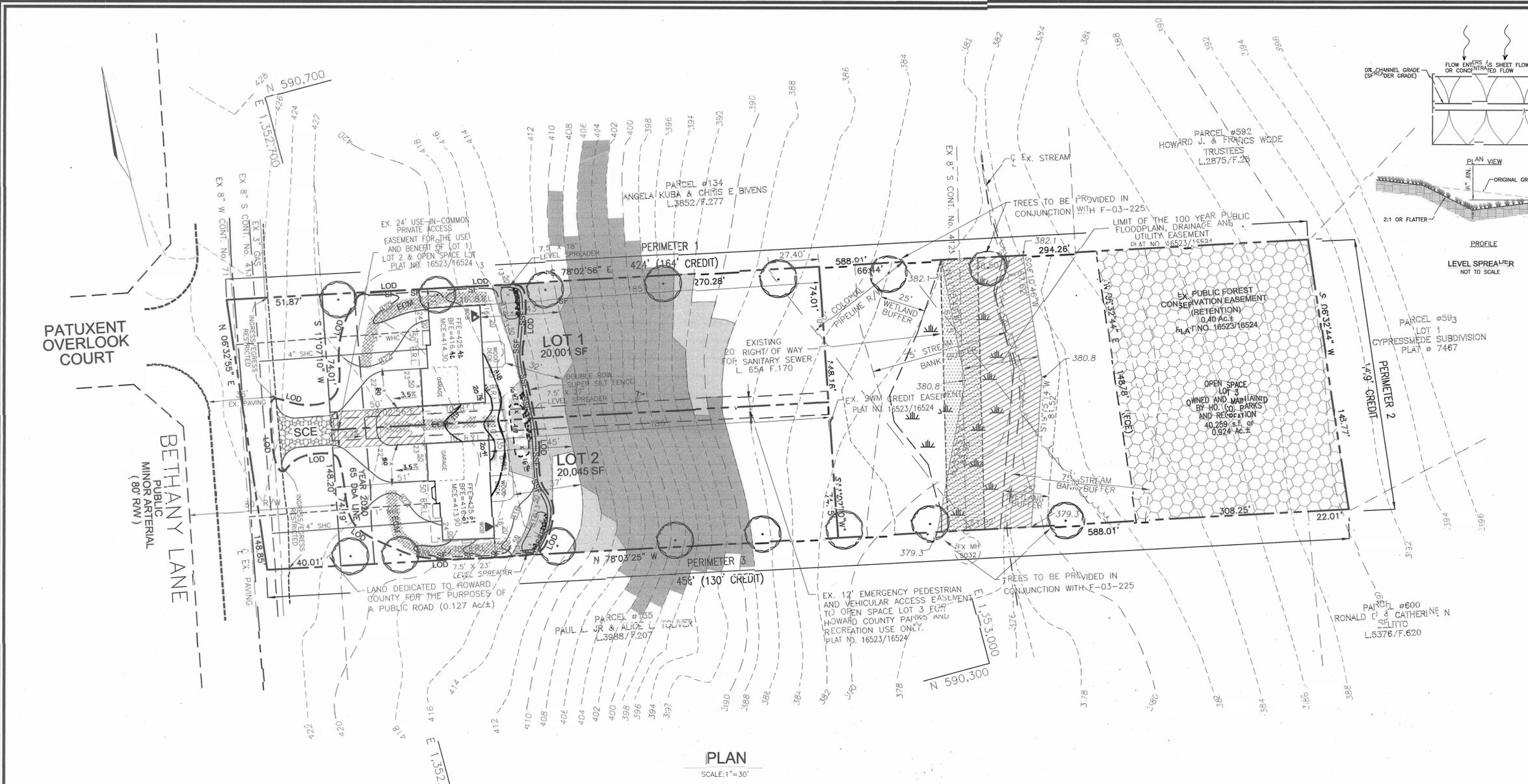
BENCHMARKS			
TRAVERSE NO.	NORTHING	EASTING	ELEVATION
025	N 587,380.453	E 1,352,603.459	EL. = 387.306
215	N 586,956.228	E 1,356,570.420	EL. = 390.970

ADDRESS CHART	
LOT #	STREET ADDRESS
1	3033 BETHANY LANE
2	3037 BETHANY LANE

PERMIT INFORMATION CHART				
PROJECT NAME	SECTION/AREA	LOTS		
TOLIVER PROPERTY	N/A	1 & 2		
PLAT REF. 16523/16524	BLOCK NO. 20	ZONE R-20	TAX MAPS 17	ELECT. DIST. 2ND
WATER CODE: H 08	SEWER CODE: 5990000	CENSUS TR. 6922.00		

SHEET INDEX	
DESCRIPTION	SHEET NO.
SITE DEVELOPMENT AND LANDSCAPE PLAN	1 OF 2
HOUSE TYPES AND SEDIMENT CONTROL DETAILS	2 OF 2

LEGEND	
--- 585 ---	EXISTING 2 FT CONTOUR
--- 580 ---	EXISTING 10 FT CONTOUR
--- (582) ---	PROPOSED 2 FT CONTOUR
--- (580) ---	PROPOSED 10 FT CONTOUR
--- LOD ---	LIMIT OF DISTURBANCE
--- SSF ---	SUPER SILT FENCE
[Hatched Box]	EROSION CONTROL MATTING
[Diagonal Lines]	AREA OF 15% OR GREATER SLOPES
[Cross-hatch]	AREA OF 25% OR GREATER SLOPES
[Stippled]	100 YR FLOODPLAIN
[Grid Pattern]	STABILIZED CONSTRUCTION ENTRANCE



PLAN
SCALE: 1"=30'

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
MISS UTILITY: 1-800-257-7777
VERIZON: 725-9776
HOWARD COUNTY BUREAU OF UTILITIES: 313-2366
AT&T CABLE LOCATION DIVISION: 393-3553
B.G.M.E. CO. CONTRACTOR SERVICES: 850-4620
B.G.M.E. CO. UNDERGROUND DAMAGE CONTROL: 787-4620
STATE HIGHWAY ADMINISTRATION: 531-5533
- SITE ANALYSIS:
TOTAL AREA OF SITE: 2.00 AC
PRESENT ZONING: R-20
LIMIT OF DISTURBANCE: 16,097 SF
PROPOSED USE OF SITE: SINGLE FAMILY DETACHED DWELLING
- PROJECT BACKGROUND:
LOCATION: TAX MAP: 17 PARCEL: 534 GRID 20
ZONING: R-20
TOLIVER PROPERTY
CDED REFERENCE: LIBER 6731 FOLIO 305
DPZ REFERENCES: F-03-225, W1-03-225
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL COMPACTON SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOILS TEST.
- COORDINATES AND ELEVATIONS ARE BASED ON HOWARD COUNTY MONUMENT NO'S. 0066 AND 2485
- THERE ARE STEEP SLOPES LOCATED ON THIS PROPERTY.
- NO BURIAL GROUNDS OR CEMETERIES ARE LOCATED ON THIS PROPERTY.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAYS/ROADWAYS SERVING TWO (2) OR MORE LOTS ARE REQUIRED TO MEET THE FOLLOWING SPECIFICATIONS FOR FIRE AND EMERGENCY VEHICLES ACCESS:
1) WIDTH - RESIDENTIAL DRIVEWAY FOURTEEN (14) FEET.
2) CONSTRUCTION - SIX (6) INCHES OF COMPACTED "CRUSHED RUN" BASE WITH A "TAR AND CHIP" COATING
3) TURNING RADIUS - FORTY-FIVE (45) FEET.
4) BRIDGES AND CULVERTS - DESIGNED TO SUPPORT VEHICLES WITH A GROSS VEHICLE WEIGHT OF TWENTY-FIVE (25) TONS.
5) OVERHEAD CLEARANCE - TWELVE (12) FEET.
6) MAINTENANCE - DRIVEWAYS MUST BE MAINTAINED FOR ALL-WEATHER USE.
7) GRADE - THE MAXIMUM ALLOWABLE GRADE SHALL BE 15%, WITH THE DURABLE AND SUSTAINABLE GRADE OF 8%. THE TRANSITION FROM THE ROAD TO THE DRIVEWAY SHALL NOT EXCEED 8%.
- FLOODPLAIN ON SITE BASED ON PLAT NUMBER 16523.
- THIS SITE PLAN CONFORMS TO THE AMENDED 5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL 6.01.
- THERE ARE NO HISTORIC SITES ON THE PROPERTY.
- EXISTING PUBLIC FOREST CONSERVATION EASEMENT. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE 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.
- WATER AND SEWER SERVICE TO THESE LOTS IS GRANTED UNDER THE PROVISIONS OF SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND PUBLIC SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME. UNDER CONTR. NO. W-71 & S-411.
- THE SUBJECT PROPERTY IS ZONED R-20 PER THE 2/2/2004 AMENDED COMPREHENSIVE ZONING PLAN.
- THIS PLAN IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED ON OR ABOUT NOVEMBER 5, 2003 BY SOUTHBH G. MUNSH, VANMAR ASSOC. INC.
- THIS SUBDIVISION IS IN THE METROPOLITAN DISTRICT.
- EXISTING WETLANDS SHOWN HEREON WERE DELINEATED BY WILDMAN ENVIRONMENTAL SERVICES IN JANUARY 2003.
- THE EXISTING 60' COLONIAL PIPELINE RIGHT OF WAY SHOWN HEREON IS BASED ON FIELD LOCATED STAKEOUT PROVIDED BY COLONIAL GAS ON MARCH 28, 2003, AS RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY LIBER 0998 FOLIO 0135.
- OPEN SPACE REQUIRED= 2.00 X 6 % = 0.12 AC.
- LIMIT OF 100 YEAR FLOODPLAIN SHOWN ON THIS PLAN WAS DERIVED FROM AN ADDENDUM TO THE CHILDS PROPERTY FLOODPLAIN ANALYSIS AND REPORT PREPARED BY ROBERT H. VOGEL PE,FP FROM COLUMBIA, MD IN JANUARY, 2003. THE ORIGINAL CHILDS PROPERTY FLOODPLAIN REPORT WAS APPROVED WITH THE CHILDS PROPERTY SUBDIVISION ON OR ABOUT NOV. 1998. THE FLOODPLAIN ON THIS PROPERTY IS DETERMINED AS OBVIOUSLY NOT CRITICAL.
- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL VOLUMES 1 & II VIA SHEETFLOW TO BUFFER CREDIT
- FOREST CONSERVATION RETENTION OBLIGATION OF 0.40 ACRES IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAVE BEEN FULFILLED BY A 0.40 ACRE PUBLIC RETENTION FOREST CONSERVATION EASEMENT ONSITE UNDER F-03-225.
- DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, THE FOREST CONSERVATION EASEMENT LOCATED IN, OVER AND THROUGH OPEN SPACE LOT 3, OR PORTIONS THEREOF, AND SHOWN ON THIS PLAN AS FOREST CONSERVATION AREA. ANY AND ALL CONVEYANCES OF AFORESAID LOTS SHALL BE SUBJECT TO THE EASEMENTS HEREBY RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOT(S). THE DEVELOPER SHALL EXECUTE AND DELIVER A DEED FOREST CONSERVATION EASEMENT TO HOWARD COUNTY WITH A METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION AREA. UPON COMPLETION OF THE DEVELOPERS OBLIGATION UNDER THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT, THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED OF FOREST CONSERVATION EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.
- LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL SHALL BE PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN ON FILE WITH THE PLAN. POSTING OF THE SURETY IN THE AMOUNT OF \$ 4,500 FOR THE REQUIRED PLANTING OF 45 SHADE TREES SHALL BE PROVIDED WITH THE BUILDER'S GARANTY PERMIT APPLICATION.
- THIS SUBDIVISION SUBJECT TO THE APPROVED WAIVER PETITION WP 03-225. PETITIONER IS REQUIRED TO PROVIDE 12 FOOT ACCESS EASEMENT BETWEEN LOT 1 AND LOT 2 FOR USE BY PARKS AND RECREATION AND ONLY IN CASE OF EMERGENCIES. HOWARD COUNTY WILL NOT BE RESPONSIBLE FOR MAINTENANCE OF THE 24' PRIVATE ACCESS EASEMENT FOR LOTS 1 AND 2 OR THE 12' ACCESS EASEMENT TO OPEN SPACE LOT 3.
- NO CLEARING, GRADING OR DISTURBANCE IS PERMITTED IN THE STEEP SLOPE AREAS, WETLANDS, STREAMS OR THEIR BUFFERS, FLOODPLAIN AREAS OR FOREST CONSERVATION EASEMENT AREAS.
- THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS SUBDIVISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
- NOISE STUDY PREPARED BY WILDMAN ENVIRONMENTAL SERVICES ON OR ABOUT MARCH 2003. IT WAS APPROVED ON SEPTEMBER 12, 2003.
- THIS PLAN SUBJECT TO A 20 FOOT WIDE RIGHT OF WAY FOR SANITARY SEWER TO HOWARD COUNTY, MARYLAND, RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 654 AT FOLIO 170.
- REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE EDGE OF THE RIGHT OF WAY.

31. DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, THE FOREST CONSERVATION EASEMENT LOCATED IN, OVER AND THROUGH OPEN SPACE LOT 3, OR PORTIONS THEREOF, AND SHOWN ON THIS PLAN AS FOREST CONSERVATION AREA. ANY AND ALL CONVEYANCES OF AFORESAID LOTS SHALL BE SUBJECT TO THE EASEMENTS HEREBY RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOT(S). THE DEVELOPER SHALL EXECUTE AND DELIVER A DEED FOREST CONSERVATION EASEMENT TO HOWARD COUNTY WITH A METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION AREA. UPON COMPLETION OF THE DEVELOPERS OBLIGATION UNDER THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT, THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED OF FOREST CONSERVATION EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.
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34. NO CLEARING, GRADING OR DISTURBANCE IS PERMITTED IN THE STEEP SLOPE AREAS, WETLANDS, STREAMS OR THEIR BUFFERS, FLOODPLAIN AREAS OR FOREST CONSERVATION EASEMENT AREAS.
35. THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS SUBDIVISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
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37. THIS PLAN SUBJECT TO A 20 FOOT WIDE RIGHT OF WAY FOR SANITARY SEWER TO HOWARD COUNTY, MARYLAND, RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 654 AT FOLIO 170.
38. REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE EDGE OF THE RIGHT OF WAY.

2	REVISE FIRST FLOOR ELEVATIONS AND GRADING TO AS-BUILT	5/5/05
	ADD 2' BUMPOUT TO HOUSE MODEL	6/19/04
NO.	REVISION	DATE

SITE DEVELOPMENT AND LANDSCAPE PLAN
TOLIVER PROPERTY
LOT 1, 2, AND OPEN SPACE LOT 3
SINGLE FAMILY DETACHED UNITS

TAX MAP: 17 PARCEL: 534
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

7125 RIVERWOOD DRIVE
COLUMBIA, MARYLAND 21046-2354
410-720-6900
410-720-6226 fax

FREDERICK WARD ASSOCIATES, INC.
ARCHITECTS | ENGINEERS | PLANNERS | SURVEYORS |
www.frederickward.com

DESIGN BY: JCO
DRAWN BY: ELG
CHECKED BY: RHV
DATE: APRIL 2004
SCALE: 1"=30'
W.O. NO.: 2144032

OWNER/BUILDER
MICHAEL PAUL
TRINITY QUALITY HOMES
3675 PARK AVE., STE. 301
ELICOTT CITY, MARYLAND 21043
410-480-0923

1 SHEET OF 2

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
5/4/04
C. H. HARRIS, CHIEF, DEVELOPMENT ENGINEERING DIVISION

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
4/26/04
JIM MORGAN, SDA-NATURAL RESOURCES COMMISSIONER

ENGINEERS CERTIFICATE
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.
4/13/04
ROBERT H. VOGEL, PE 16193

DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT.
4/14/04

DEVELOPER'S BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
4/6/04

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
5/4/04
C. H. HARRIS, CHIEF, DEVELOPMENT ENGINEERING DIVISION

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
4/26/04
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4/14/04

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4/6/04

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

DEFINITION
 PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE
 TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FLURISH CONTAINING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

I. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF SANDS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1" AND 1/2" IN DIAMETER.

II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

I. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:

A. PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0 SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.

B. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.

C. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

D. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

II. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION-SECTION 1-VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION

I. WHEN TOPSOILING, MAINTAIN NEAR EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKS, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.

III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

II. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- ALL VEGETATION AND STRUCTURAL FEATURES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1; (B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. 3). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7. SITE ANALYSIS :

TOTAL AREA	2.00 AC
AREA DISTURBED	16,097 SF
AREA TO BE ROOFED OR PAVED	5,854 SF
AREA TO BE VEGETATIVELY STABILIZED	10,243 SF
TOTAL CUT	300 CY
TOTAL FILL	300 CY
OFFSITE WASTE/BORROW AREA LOCATION	*

- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF SEDIMENT CONTROL AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

* TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS DESIRED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED-APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS./100 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT THE TIME OF SEEDING. APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.)
- ACCEPTABLE-APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS./1000 SQ.FT.) AND APPLY 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOLO OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.) FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28. PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OR USE SOD.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

4. FILTER STRIPS
 CONSTRUCT PEA GRAVEL DIAPHRAGMS 12" WIDE, MINIMUM, AND 24" DEEP MINIMUM. PERVIOUS BERMS TO BE SAND/GRAVEL MIX (SAND (35-60%), SILT (30-55%), AND GRAVEL (10-25%). BERMS TO HAVE OVERFLOW WEIRS WITH 6 INCH MINIMUM HEAD.

5. SLOPE RANGE TO BE 3% MINIMUM TO 6% MAXIMUM.

6. PLANT SELECTION
 RECOMMENDED GRASS SPECIES FOR USE IN ESTABLISHING PERMANENT GROUND COVER ARE PROVIDED IN SECTION 2.4 OF APPENDIX A.

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 CONSTRUCT PEA GRAVEL DIAPHRAGMS 12" WIDE, MINIMUM, AND 24" DEEP MINIMUM. PERVIOUS BERMS TO BE SAND/GRAVEL MIX (SAND (35-60%), SILT (30-55%), AND GRAVEL (10-25%). BERMS TO HAVE OVERFLOW WEIRS WITH 6 INCH MINIMUM HEAD.

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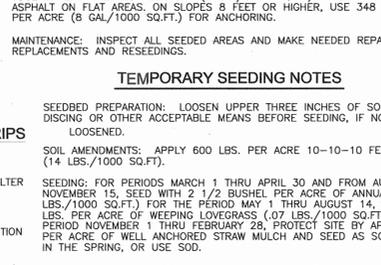
5. SLOPE RANGE TO BE 3% MINIMUM TO 6% MAXIMUM.

6. PLANT SELECTION
 RECOMMENDED GRASS SPECIES FOR USE IN ESTABLISHING PERMANENT GROUND COVER ARE PROVIDED IN SECTION 2.4 OF APPENDIX A.

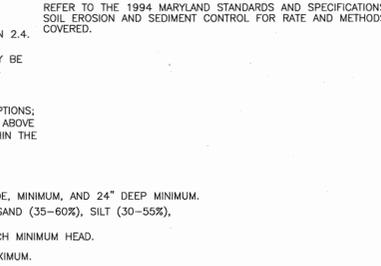
SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410.313.1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES. (1 DAY)
- INSTALL SILT FENCE. (2 DAYS)
- AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED, ROUGH GRADE SITE. (4 DAYS)
- CONSTRUCT HOUSE. (4 MONTHS)
- DURING GRADING AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE THE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN HEREON.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 - 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.
- UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES.

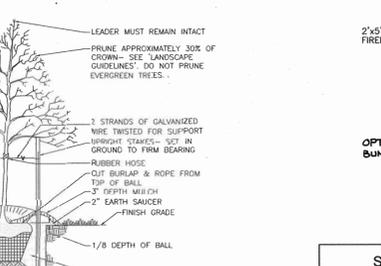
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



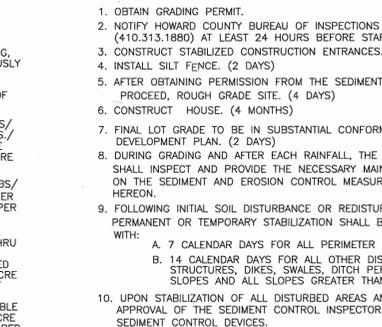
DETAIL 22 - SILT FENCE



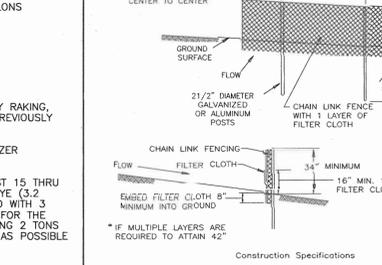
DETAIL 33 - SUPER SILT FENCE



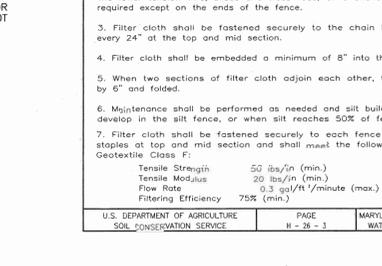
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



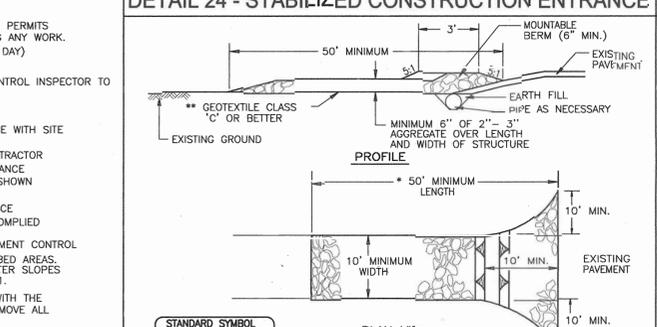
DETAIL 22 - SILT FENCE



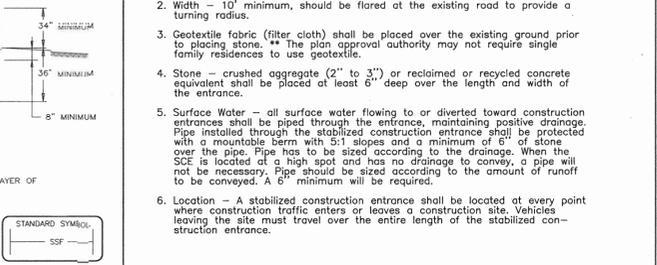
DETAIL 33 - SUPER SILT FENCE



DETAIL 30 - EROSION CONTROL MATTING



TREE PLANTING AND STAKING



SCHEDULE A PERIMETER LANDSCAPE EDGE

LANDSCAPE TYPE	CATEGORY	ADJACENT TO PERIMETER PROPERTIES		
		NONE REQUIRED	TYPE 'A'	TYPE 'A'
LINEAR FEET OF ROADWAY FRONT/PERIMETER	0	588 (1)	149 (2)	588 (3)
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	YES* 164*	YES* 149*	YES* 130*
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	NO	NO	NO
NUMBER OF PLANTS REQUIRED	NA	424*	160	458*
SHADE TREES	NA	0	0	0
EVERGREEN TREES	NA	0	0	0
SHRUBS	NA	0	0	0
NUMBER OF PLANTS PROVIDED	NA	7	0	8
SHADE TREES	NA	0	0	0
EVERGREEN TREES	NA	0	0	0
OTHER TREES (2:1 SUBSTITUTION)	NA	0	0	0
SHRUBS (10:1 SUBSTITUTION)	NA	0	0	0

CONSTRUCTION SPECIFICATIONS

- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
- Staple the 4" overlap in the channel center using an 18" spacing between staples.
- Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
- Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
- Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
- The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area affected by the flow must be keyed-in.

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 5/4/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 5/5/04
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 5/11/04
 DIRECTOR DATE

ENGINEERS CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

[Signature] 4/13/04
 SIGNATURE OF ENGINEER DATE
 ROBERT H. VOGEL, PE 16193

DEVELOPER'S CERTIFICATE

"I WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT.

[Signature] 4/14/04
 SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

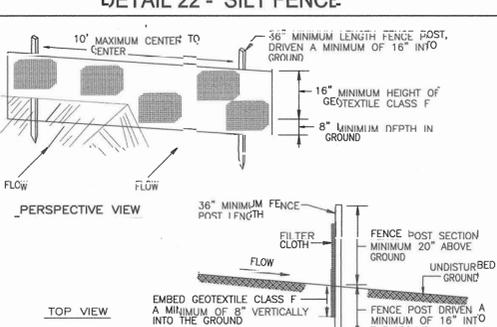
[Signature] 4/26/04
 HOWARD SCD DATE

[Signature] 4/26/04
 HOWARD SCD DATE

"I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN AND SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING."

[Signature] 4/14/04
 SIGNATURE OF DEVELOPER DATE

SITE DEVELOPMENT AND LANDSCAPE PLAN



TOLIVER PROPERTY

LOT 1, 2, AND OPEN SPACE LOT 3
 SINGLE FAMILY DETACHED UNITS

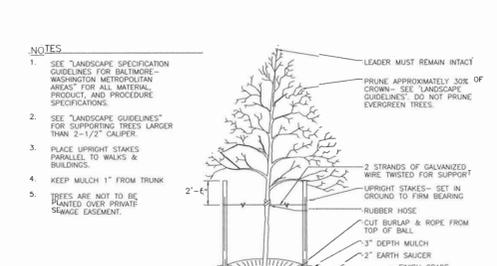
TAX MAP 17 PARCEL 534
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

7125 RIVERWOOD DRIVE
 COLUMBIA, MARYLAND 21046-2354
 410-720-8900
 410-720-6226 fax

REGIONAL OFFICES:
 BEL AIR, MARYLAND AND WARRENTON, VIRGINIA

FREDERICK WARD ASSOCIATES, INC.
 ARCHITECTS | ENGINEERS | PLANNERS | SURVEYORS | www.frederickward.com

NO.	ADD 2' BUMPOUT TO HOUSE MODEL	6.19.04
REVISION		DATE



SCHEDULE A PERIMETER LANDSCAPE EDGE

LANDSCAPE TYPE	CATEGORY	ADJACENT TO PERIMETER PROPERTIES		
		NONE REQUIRED	TYPE 'A'	TYPE 'A'
LINEAR FEET OF ROADWAY FRONT/PERIMETER	0	588 (1)	149 (2)	588 (3)
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	YES* 164*	YES* 149*	YES* 130*
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	NO	NO	NO
NUMBER OF PLANTS REQUIRED	NA	424*	160	458*
SHADE TREES	NA	0	0	0
EVERGREEN TREES	NA	0	0	0
SHRUBS	NA	0	0	0
NUMBER OF PLANTS PROVIDED	NA	7	0	8
SHADE TREES	NA	0	0	0
EVERGREEN TREES	NA	0	0	0
OTHER TREES (2:1 SUBSTITUTION)	NA	0	0	0
SHRUBS (10:1 SUBSTITUTION)	NA	0	0	0

Note: If flow will enter from the edge of the matting then the area affected by the flow must be keyed-in.

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