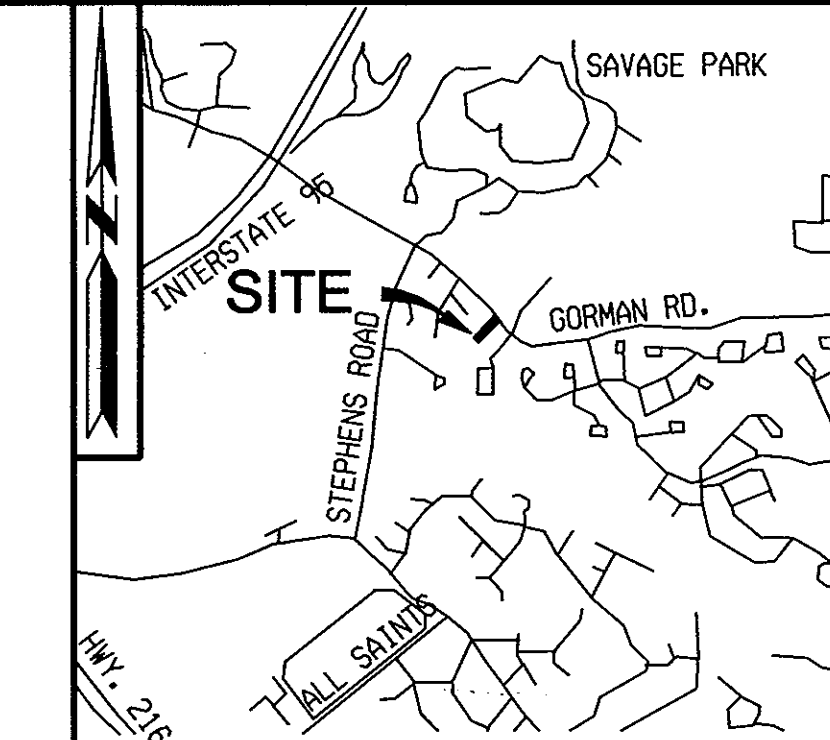
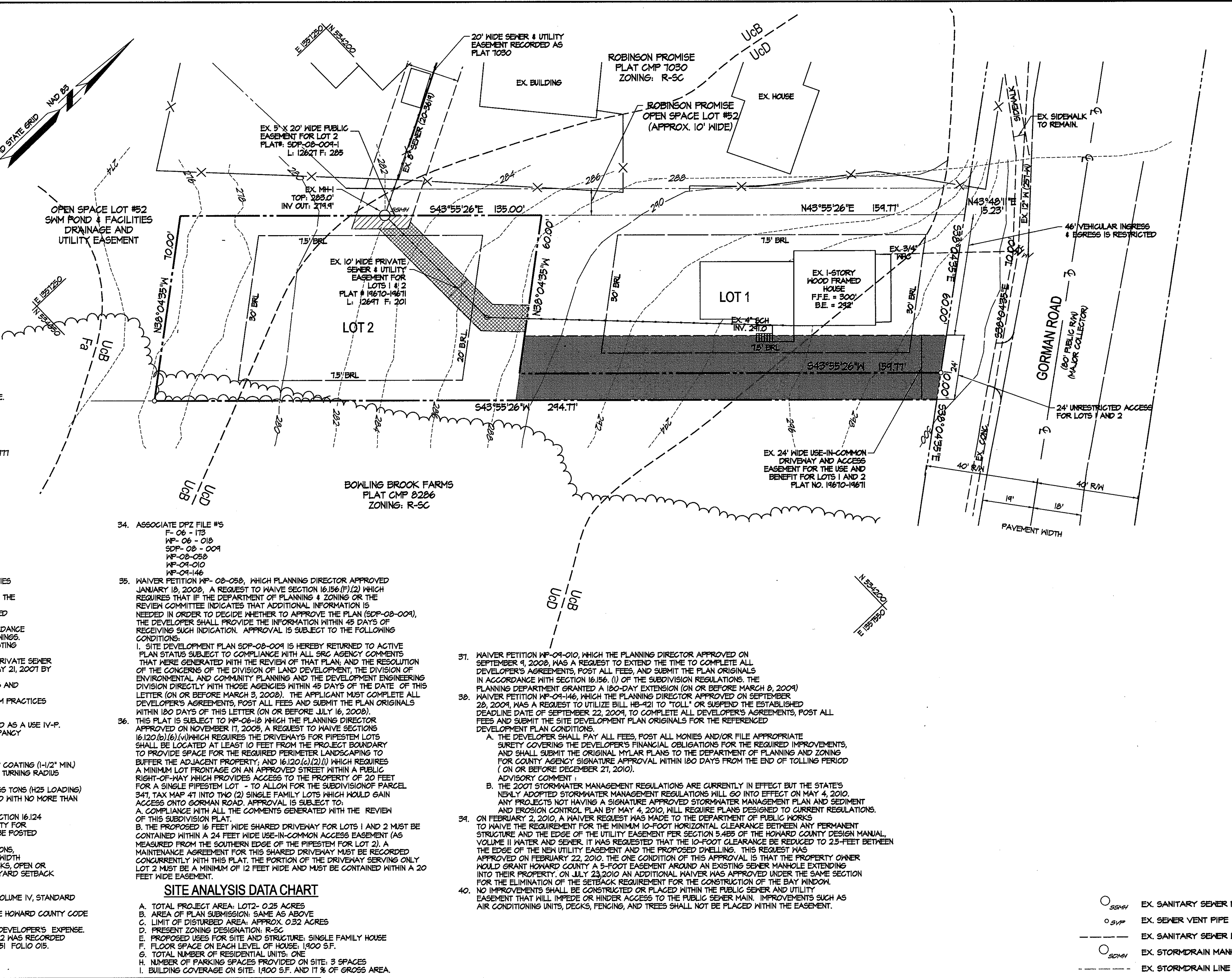


**GENERAL NOTES**

- SUBJECT PROPERTY ZONED R-SC (RESIDENTIAL SINGLE CLUSTER) PER THE 02/02/2004 COMPREHENSIVE ZONING PLAN AND PER THE 'COMP LITE' ZONING AMENDMENTS EFFECTIVE 1/28/2006. COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO.
  - STATION 4: N 535 846.1521 E 1355 431.2024
  - STATION 5: N 445 540.73 E 1261 533.04
- ███ DENOTES PRIVATE DRIVEWAY EASEMENT.
- WATER AND SEWER SERVICE TO THE SUBJECT LOT WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.9 OF THE HOWARD COUNTY CODE.
- PUBLIC WATER AND SEWAGE ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- THERE IS AN EXISTING DWELLING/STRUCTURE LOCATED ON LOT 1 TO REMAIN. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING(S) ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS REQUIRE.
- DEVELOPER RESERVES INTO ITSELF, ITS SUCCESSORS AND ASSIGNS, ALL EASEMENTS SHOWN ON THIS PLAN FOR WATER, SEWER, STORM DRAINAGE, OTHER PUBLIC UTILITIES, ANY CONVEYANCES OF THE AFORESAID LOTS/PARCELS SHALL BE SUBJECT TO THE EASEMENTS HEREIN RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOTS/PARCELS, UPON COMPLETION OF THE PUBLIC UTILITIES AND THEIR ACCEPTANCE BY HOWARD COUNTY. UPON RELEASE OF THE DEVELOPER'S SURETY FOOTED WITH SAID AGREEMENT, THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED(S) OF EASEMENT IN THE LANDRECORDS OF HOWARD COUNTY.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE NOT TO THE PIPESTEM LOT DRIVEWAY.
- NO WETLANDS, STREAMS, STEEP SLOPES, FLOODPLAIN, HISTORIC STRUCTURES OR CEMETERIES EXIST ON-SITE.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E. STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL TEST FIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
  - MISS UTILITY: 1-800-251-TTTT
  - VERIZON TELEPHONE COMPANY: 752-4416
  - HOWARD COUNTY BUREAU OF UTILITIES: 442-2266
  - AT&T CABLE LOCATION DIVISION: 342-3533
  - BALTIMORE GAS & ELECTRIC COMPANY: 685-0123
  - STATE HIGHWAY ADMINISTRATION: 531-5533
  - HOWARD COUNTY CONSTRUCTION INSPECTION/SURVEY DIVISION: 742-1212
  - (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)
  - TOPO TAKEN FROM FIELD SURVEY DATED OCTOBER, 2005 BY KCI TECHNOLOGIES INC.
- THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORM WATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORM WATER ONTO OR ACROSS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR GRADING AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
- INSTALLATION OF TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL ON-SITE PARKING AND DRAINAGE STRUCTURES SHALL BE PRIVATELY OWNED & MAINTAINED.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- GRAVITY SEWER HOUSE CONNECTIONS WILL BE 4" PVC. IN ADDITION, THE 10' PRIVATE SEWER EASEMENT WAS APPROVED AS PER THE WAIVER APPROVAL LETTER DATED MAY 21, 2007 BY MR. RONALD LERSON.
- THIS PLAN IS SUBJECT TO THE FIFTH EDITION OF THE SUBDIVISION REGULATIONS AND THE NEW ZONING REGULATIONS AS AMENDED BY COUNCIL BILL 05-2001.
- STORMWATER MANAGEMENT WILL BE PROVIDED THROUGH NON-STRUCTURAL SWM PRACTICES I.E. A BIORETENTION FACILITY.
- AN AFFO STUDY IS EXEMPT PER DMV/III SECTION 41.4.6.
- THIS SITE IS IN THE HAMMOND BRANCH WATERSHED #02-B-11 AND IS CLASSIFIED AS A USE IV-P.
- THE DRIVEWAY SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES. THE FOLLOWING MINIMUM REQUIREMENTS:
  - a) WIDTH: 12' (6' SERVING MORE THAN ONE RESIDENCE)
  - b) SURFACE: 6" OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1/2"-2" MIN) GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS
  - c) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE
  - d) STRUCTURES (GULLY/VERTS/BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING)
  - e) DRAINAGE ELEMENTS CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER THE DRIVEWAY SURFACE.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED ELEVEN (11) SHADE TREES IN THE AMOUNT OF \$33,000.00 IS TO BE POSTED WITH THE BUILDERS GRADING PERMIT APPLICATION.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, GABLES, OR EXTERIOR STAIRWAY 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 (APPLIES FOR RESIDENTIAL SDPS).
- SHG ELEVATIONS ARE LOCATED AT THE PROPERTY LINE.
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN, VOLUME IV, STANDARD DETAIL R-6.06
- THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE IT IS LESS THAN 40,000 SF. IN SIZE.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- A SHARED DRIVEWAY ACCESS AND MAINTENANCE AGREEMENT FOR LOTS 1 AND 2 WAS RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, MARYLAND ON 6-10-08, LIBER 1051 FOLIO 015.



**VICINITY MAP**  
SCALE: 1" = 2000'  
ADC MAP: 19 GRID: K-8

- SITE NOTES**
- PROPERTY OWNER/APPLICANT: CHRISTIAN & LYNN SCHLESIGER  
3711 EVANS TRAIL WAY  
BELTSVILLE, MD 20705  
PHONE: 301-437-2112  
ATTN: CHRISTIAN SCHLESIGER  
PHONE: 301-437-2112
  - SITE DATA:  
ADDRESS: 9471 GORMAN ROAD  
LAUREL, MD 20723  
TAX ACCOUNT #: 595302  
TAX MAP: 47  
LOT 2 TRACT AREA: 0.25 AC.  
ELECTION DISTRICT: 06  
DEED: 12186/242
  - CURRENT ZONE: R-SC
  - CURRENT USE: VACANT
  - PROPOSED USE: SINGLE FAMILY DETACHED HOME
  - PROPERTY SHOWN HEREIN LIES WITHIN ZONE 'C', A MINIMAL AREA OF FLOODING AS ESTABLISHED BY THE US FEDERAL EMERGENCY MANAGEMENT AGENCY, NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAPS, COMMUNITY PANEL NO. 24004 40043B, EFFECTIVE DATE DECEMBER 04, 1986.
  - TOPOGRAPHIC SURVEY PERFORMED BY KCI TECHNOLOGIES, INC. DATED OCTOBER, 2005.
  - ELEVATIONS SHOWN HEREON ARE NAVD 1988.

- ASSOCIATE DPZ FILE #5  
F-06-173  
WP-06-018  
SDP-08-009  
WP-08-058  
WP-04-010  
WP-01-146
- WAIVER PETITION WP-08-058, WHICH PLANNING DIRECTOR APPROVED JANUARY 19, 2008, A REQUEST TO WAIVE SECTION 16.156(F)(2) WHICH REQUIRES THAT IF THE DEPARTMENT OF PLANNING & ZONING OR THE REVIEW COMMITTEE INDICATES THAT ADDITIONAL INFORMATION IS NEEDED IN ORDER TO DECIDE WHETHER TO APPROVE THE PLAN (SDP-08-009), THE DEVELOPER SHALL PROVIDE THE INFORMATION WITHIN 45 DAYS OF RECEIVING SUCH INDICATION. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:  
1. SITE DEVELOPMENT PLAN SDP-08-009 IS HEREBY RETURNED TO ACTIVE PLAN STATUS SUBJECT TO COMPLIANCE WITH ALL SRC AGENCY COMMENTS THAT WERE GENERATED WITH THE REVIEW OF THAT PLAN; AND THE RESOLUTION OF THE CONCERNS OF THE DIVISION OF LAND DEVELOPMENT, THE DIVISION OF ENVIRONMENTAL AND COMMUNITY PLANNING AND THE DEVELOPMENT ENGINEERING DIVISION DIRECTLY WITH THOSE AGENCIES WITHIN 45 DAYS OF THE DATE OF THIS LETTER (ON OR BEFORE MARCH 3, 2008). THE APPLICANT MUST COMPLETE ALL DEVELOPER'S AGREEMENTS, POST ALL FEES AND SUBMIT THE PLAN ORIGINALS WITHIN 180 DAYS OF THIS LETTER (ON OR BEFORE JULY 16, 2008).
- THIS PLAN IS SUBJECT TO WP-08-18 WHICH THE PLANNING DIRECTOR APPROVED ON NOVEMBER 11, 2008, A REQUEST TO WAIVE SECTIONS 16.120(b)(1)(i) WHICH REQUIRES THE DRIVEWAYS FOR PIPESTEM LOTS SHALL BE LOCATED AT LEAST 10 FEET FROM THE PROJECT BOUNDARY TO PROVIDE SPACE FOR THE REQUIRED PERIMETER LANDSCAPING TO BUFFER THE ADJACENT PROPERTY; AND 16.120(c)(2)(i) WHICH REQUIRES A MINIMUM LOT FRONTAGE ON AN APPROVED STREET WITHIN A PUBLIC RIGHT-OF-WAY WHICH PROVIDES ACCESS TO THE PROPERTY OF 20 FEET FOR A SINGLE PIPESTEM LOT - TO ALLOW FOR THE SUBDIVISION OF PARCEL 341, TAX MAP 47 INTO TWO (2) SINGLE FAMILY LOTS WHICH WOULD GAIN ACCESS ONTO GORMAN ROAD. APPROVAL IS SUBJECT TO:  
A. COMPLIANCE WITH ALL THE COMMENTS GENERATED WITH THE REVIEW OF THIS SUBDIVISION PLAN.  
B. THE PROPOSED 16 FEET WIDE SHARED DRIVEWAY FOR LOTS 1 AND 2 MUST BE CONTAINED WITHIN A 24 FEET WIDE USE-IN-COMMON EASEMENT (AS MEASURED FROM THE SOUTHERN EDGE OF THE PIPESTEM FOR LOT 2). A MAINTENANCE AGREEMENT FOR THIS SHARED DRIVEWAY MUST BE RECORDED CONCURRENTLY WITH THIS PLAN. THE PORTION OF THE DRIVEWAY SERVING ONLY LOT 2 MUST BE A MINIMUM OF 12 FEET WIDE AND MUST BE CONTAINED WITHIN A 20 FEET WIDE EASEMENT.
- WAIVER PETITION WP-04-010, WHICH THE PLANNING DIRECTOR APPROVED ON SEPTEMBER 9, 2008, WAS A REQUEST TO EXTEND THE TIME TO COMPLETE ALL DEVELOPER'S AGREEMENTS, POST ALL FEES, AND SUBMIT THE PLAN ORIGINALS IN ACCORDANCE WITH SECTION 16.156 (I) OF THE SUBDIVISION REGULATIONS. THE PLANNING DEPARTMENT GRANTED A 180-DAY EXTENSION (ON OR BEFORE MARCH 8, 2009)
- WAIVER PETITION WP-04-146, WHICH THE PLANNING DIRECTOR APPROVED ON SEPTEMBER 28, 2004, WAS A REQUEST TO UTILIZE BILL HB-421 TO 'TOLL' OR SUSPEND THE ESTABLISHED DEADLINE DATE OF SEPTEMBER 22, 2004, TO COMPLETE ALL DEVELOPER'S AGREEMENTS, POST ALL FEES AND SUBMIT THE SITE DEVELOPMENT PLAN ORIGINALS FOR THE REFERENCED DEVELOPMENT PLAN CONDITIONS.  
A. THE DEVELOPER SHALL PAY ALL FEES, POST ALL MONIES AND/OR FILE APPROPRIATE SURETY COVERING THE DEVELOPER'S FINANCIAL OBLIGATIONS FOR THE REQUIRED IMPROVEMENTS, AND SHALL SUBMIT THE ORIGINAL MYLAR PLANS TO THE DEPARTMENT OF PLANNING AND ZONING FOR COUNTY AGENCY SIGNATURE APPROVAL WITHIN 180 DAYS FROM THE END OF TOLLING PERIOD (ON OR BEFORE DECEMBER 21, 2010).  
ADVISORY COMMENT:  
B. THE 2007 STORMWATER MANAGEMENT REGULATIONS ARE CURRENTLY IN EFFECT BUT THE STATE'S NEWLY ADOPTED STORMWATER MANAGEMENT REGULATIONS WILL GO INTO EFFECT ON MAY 4, 2010. ANY PROJECTS NOT HAVING A SIGNATURE APPROVED STORMWATER MANAGEMENT PLAN AND SEDIMENT AND EROSION CONTROL PLAN BY MAY 4, 2010, WILL REQUIRE PLANS DESIGNED TO CURRENT REGULATIONS.
- ON FEBRUARY 2, 2010, A WAIVER REQUEST WAS MADE TO THE DEPARTMENT OF PUBLIC WORKS TO WAIVE THE REQUIREMENT FOR THE MINIMUM 10-FOOT HORIZONTAL CLEARANCE BETWEEN ANY PERMANENT STRUCTURE AND THE EDGE OF THE UTILITY EASEMENT PER SECTION 5.4B5 OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME II WATER AND SEWER. IT WAS REQUESTED THAT THE 10-FOOT CLEARANCE BE REDUCED TO 2.5 FEET BETWEEN THE EDGE OF THE NEW UTILITY EASEMENT AND THE PROPOSED DWELLING. THIS REQUEST WAS APPROVED ON FEBRUARY 22, 2010. THE ONE CONDITION OF THIS APPROVAL IS THAT THE PROPERTY OWNER WOULD GRANT HOWARD COUNTY A 5-FOOT EASEMENT AROUND AN EXISTING SEWER MANHOLE EXTENDING INTO THEIR PROPERTY. ON JULY 23, 2010 AN ADDITIONAL WAIVER WAS APPROVED UNDER THE SAME SECTION FOR THE ELIMINATION OF THE SETBACK REQUIREMENT FOR THE CONSTRUCTION OF THE BAY WINDOW.
- NO IMPROVEMENTS SHALL BE CONSTRUCTED OR PLACED WITHIN THE PUBLIC SEWER AND UTILITY EASEMENT THAT WILL IMPEDER OR HINDER ACCESS TO THE PUBLIC SEWER MAIN. IMPROVEMENTS SUCH AS AIR CONDITIONING UNITS, DECKS, FENCINGS, AND TREES SHALL NOT BE PLACED WITHIN THE EASEMENT.

**SITE ANALYSIS DATA CHART**

- TOTAL PROJECT AREA: LOT2- 0.25 ACRES
- AREA OF PLAN SUBMISSION: SAME AS ABOVE
- LIMIT OF DISTURBED AREA: APPROX. 0.32 ACRES
- PRESENT ZONING DESIGNATION: R-SC
- PROPOSED USES FOR SITE AND STRUCTURE: SINGLE FAMILY HOUSE
- FLOOR SPACE ON EACH LEVEL OF HOUSE: 1900 SF.
- NUMBER OF PARKING SPACES PROVIDED ON SITE: 3 SPACES
- BUILDING COVERAGE ON SITE: 1900 SF. AND 11 % OF GROSS AREA.

**ADDRESS CHART**

LOT#	STREET ADDRESS
LOT #2	9471 GORMAN ROAD, LAUREL, MD 20723

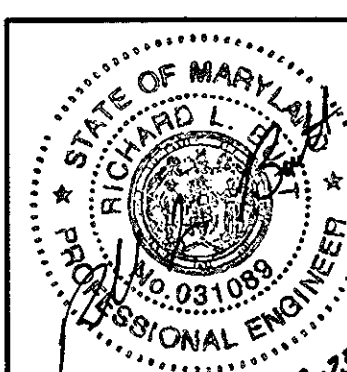
**PERMIT INFORMATION CHART**

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
CHRISTIAN & LYNN SCHLESIGER PROPERTY	N/A	LOT 2/ P/O PARCEL 341
PLAT NO. 19670-19671	GRID# 9	ZONING R-SC
TAX MAP# 47	ELECT. DIST. 06	CENSUS TRACT 606402
WATER CODE 4-C03	SEWER CODE 7500000	

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31084 EXPIRATION DATE: NOVEMBER 21, 2010

**SHEET INDEX**

SHEET NO.	TITLE
1	EXISTING CONDITIONS
2	SITE DEVELOPMENT, GRADING & UTILITY
3	STORMWATER MANAGEMENT PLAN & DETAILS
4	STORMWATER MANAGEMENT NOTES
5	SEDIMENT CONTROL PLAN & DETAILS
6	SEDIMENT CONTROL NOTES
7	LANDSCAPE PLAN
8	LANDSCAPE DETAIL SHEET



**KIRK & MARGO GUILLORY**  
PROPERTY, LOT 2  
EXISTING CONDITIONS

LOT 2  
SINGLE FAMILY DETACHED DWELLING  
ZONED R-SC  
TAX MAP NO. 47 GRID 15 PARCEL NO. 341  
ELECTION DISTRICT 06  
HOWARD COUNTY, MARYLAND

SCALE: 1" = 20'  
DATE: JUNE 11, 2010  
SHEET 1 OF 8

PLOTTED: 10:06 AM on Monday, September 20, 2010  
BY: Tyler Kohler, Division: P086 Land Develop GMA Emp  
FILE: M:\2010\270070\Drawings\01-EXCON.dwg

REVIEWED FOR HOWARD SCD AND MEETING REQUIREMENTS

DATE: 9/14/10

DATE: 10/15/10

DATE: 10/20/10

DATE: 10/26/10

BY THE DEVELOPER:

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 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 INSPECTIONS BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

DATE: 9/7/10

BY THE ENGINEER:

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

DATE: 7-23-10

**Drafting CS**

DATE	REVISIONS

**KCI ENGINEERS**  
PLANNERS  
SCIENTISTS  
TECHNOLOGIES CONSTRUCTION MANAGERS

3161 Maple Lawn Blvd, Suite 150  
Fulton, Maryland 20759  
Phone: (410) 742-8086  
Fax: (410) 742-1419  
www.kci.com

**OWNER:** CHRISTIAN & LYNN SCHLESIGER  
154 HOLIDAY COURT, SUITE 300  
ANNAPOLIS, MD 20705  
PHONE: 410-266-8684  
FAX: 443-182-0425

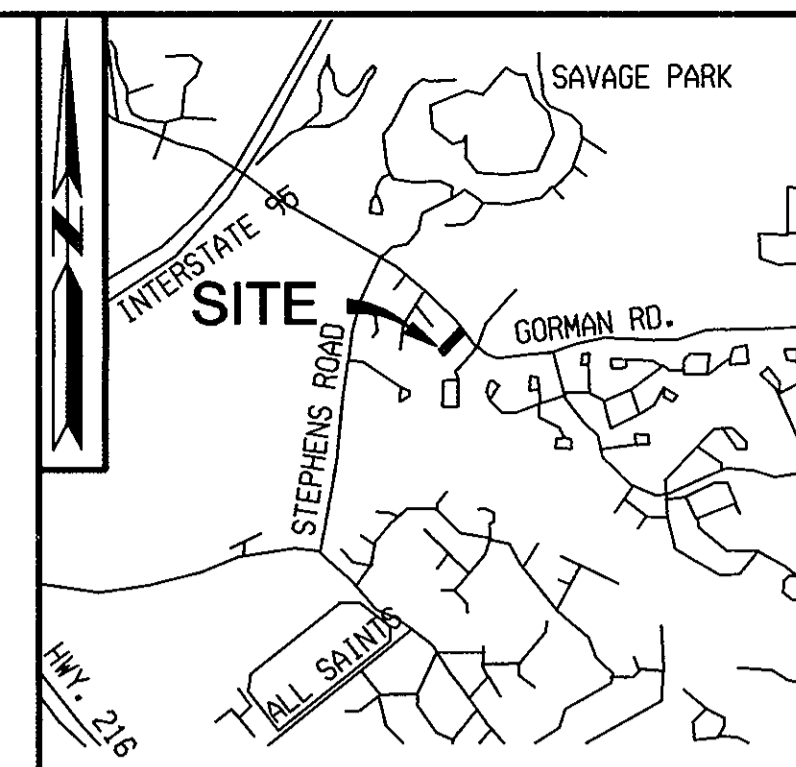
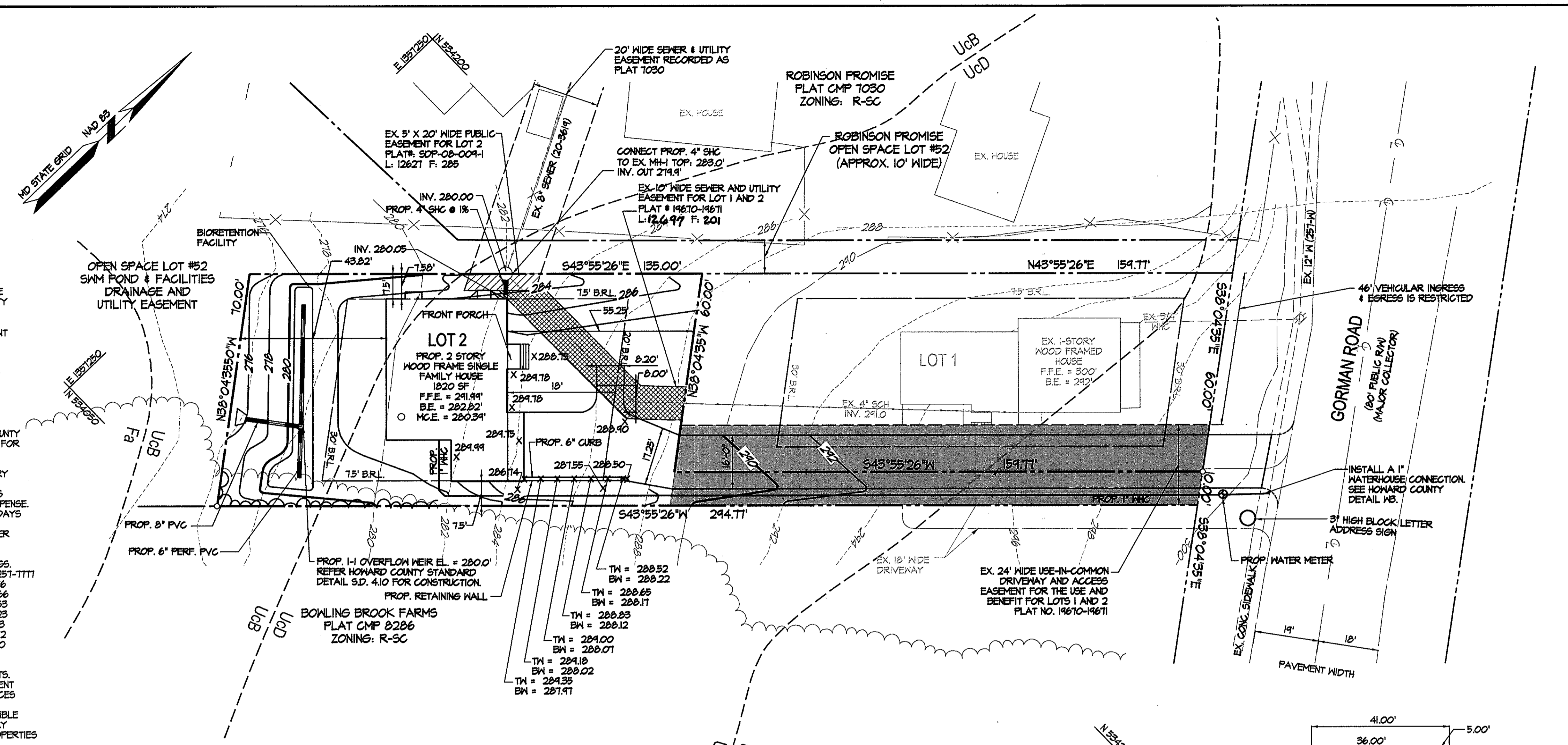
**DEVELOPER:** CHRISTIAN & LYNN SCHLESIGER  
154 HOLIDAY COURT, SUITE 300  
ANNAPOLIS, MD 20705  
PHONE: 410-266-8684  
FAX: 443-182-0425

**SCALE: 1" = 20'**

SDP-08-009

GENERAL NOTES

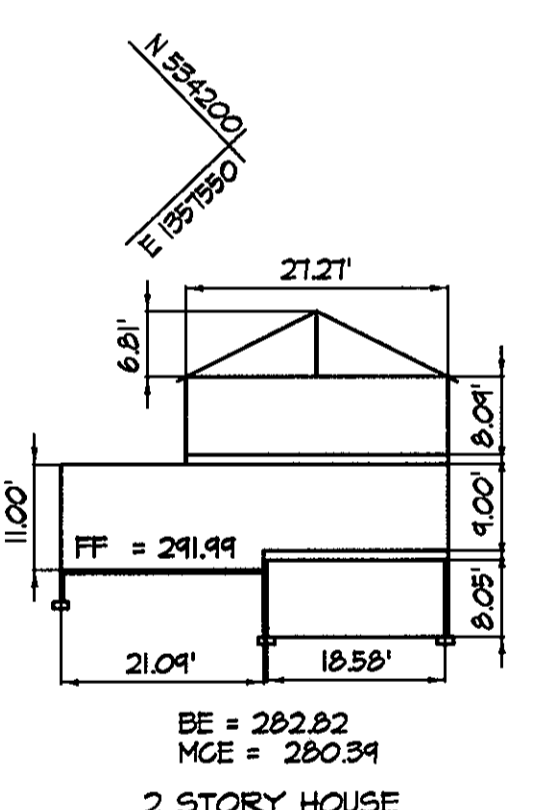
- 1. SUBJECT PROPERTY ZONED R-SC (RESIDENTIAL SINGLE CLUSTER) PER THE 02/02/2004 COMPREHENSIVE ZONING PLAN AND PER THE 'COMP LITE' ZONING AMENDMENTS EFFECTIVE 1/28/2006. COORDINATES BASED ON NAD 83 METHOD AND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS No. 4TE4 N 535,246.1521 E 1355,431.2024 GODE N 445,540.75 E 1361,533.04



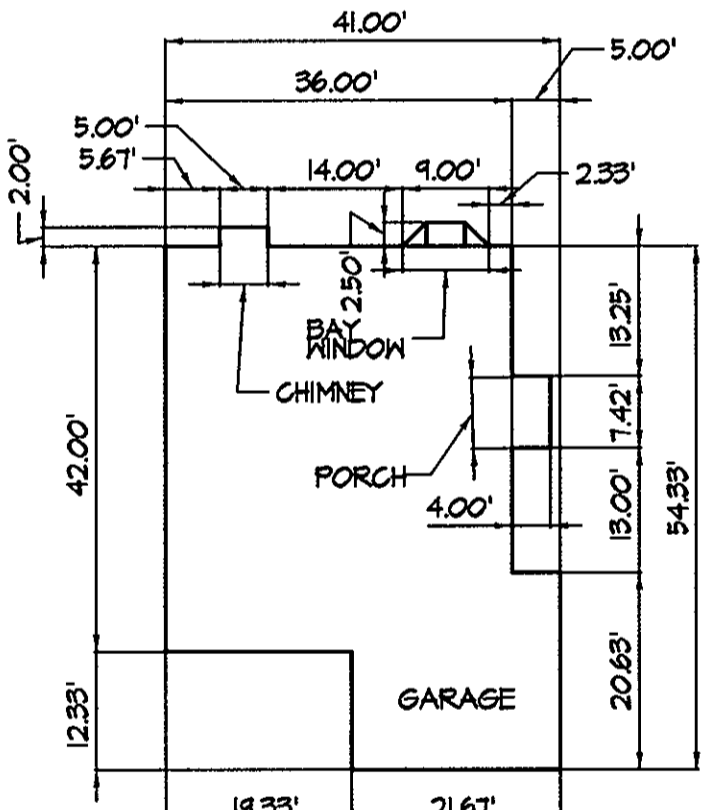
VICINITY MAP SCALE: 1" = 2000' ADC MAP: 14 GRID: K-B

- SITE NOTES
1. PROPERTY OWNER/APPLICANT: CHRISTIAN & LYNN SCHLESIGER
2. SITE DATA: ADDRESS: 9471 GORMAN ROAD LAUREL, MD 20712
3. CURRENT ZONE: R-SC
4. CURRENT USE: VACANT
5. PROPOSED USE: SINGLE FAMILY DETACHED HOME

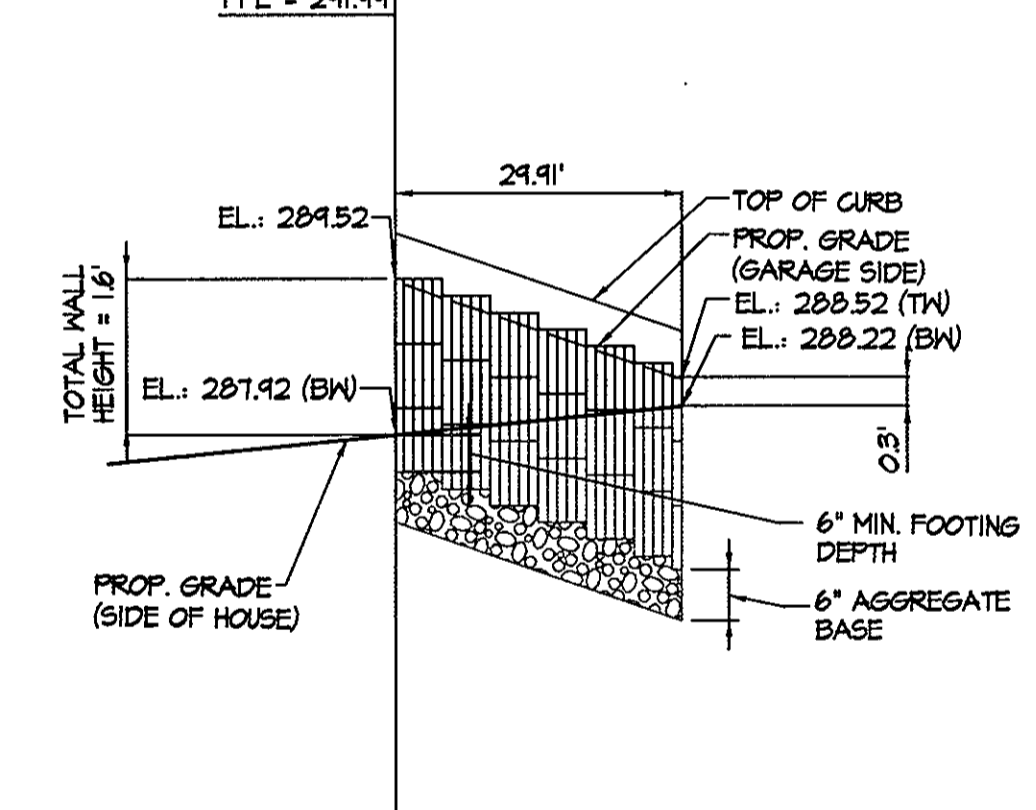
- 34. ASSOCIATE DFZ FILE #5
35. WAIVER PETITION WP-08-058, WHICH PLANNING DIRECTOR APPROVED JANUARY 18, 2008...
36. THIS PLAN IS SUBJECT TO THE FIFTH EDITION OF THE SUBDIVISION REGULATIONS AND THE NEW ZONING REGULATIONS AS AMENDED BY COUNCIL BILL 30-2001.



SCHEMATIC PROFILE (DETAIL/ELEVATION) SCALE: 1" = 20'



DIMENSIONED FOOT PRINT (WITH FRONT PORCH) OF HOUSE MODEL SCALE: 1" = 20'



SEGMENTED MASONRY BLOCK RETAINING WALL SCALE: HORIZONTAL: 1" = 20' VERTICAL: 1" = 20'

LEGEND table listing symbols for sanitary sewer manhole, sewer vent pipe, sanitary sewer line, storm drain manhole, storm drain line, water line, water valve, property line, spot elevation, and address sign.

REVISED FOR HOWARD COUNTY AND MEETS TECHNICAL REQUIREMENTS
John K. Roberts
10/4/10
10/15/10
10/20/10
10/20/10

BY THE DEVELOPER: I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL...
BY THE ENGINEER: 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...

ADDRESS CHART table with columns for LOT#, STREET ADDRESS, and LOT #2.

PERMIT INFORMATION CHART table with columns for SUBDIVISION NAME, SECTION/AREA, LOT/PARCEL NO., PLAT NO., GRID#, ZONING, TAX MAP#, ELECT. DISTR., CENSUS TRACT, WATER CODE, and SEWER CODE.

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 310384 EXPIRATION DATE: NOVEMBER 21, 2010

SHEET INDEX table with columns for SHEET NO. and TITLE.

STATE OF MARYLAND PROFESSIONAL ENGINEER seal for Kirk & Margo Guillory, License No. 031109, dated 4-23-10.

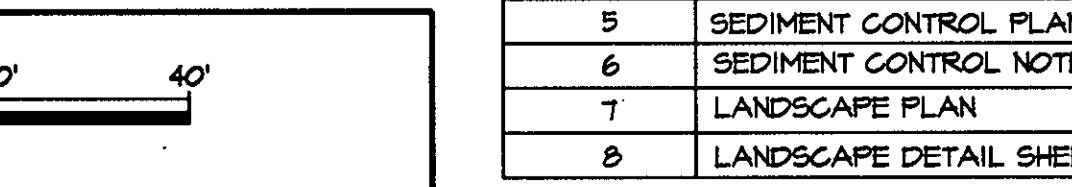
KIRK & MARGO GUILLORY PROPERTY, LOT 2 SITE DEVELOPMENT, GRADING & UTILITY LOT 2 SINGLE FAMILY DETACHED DWELLING ZONED R-SC TAX MAP NO. 41 GRID 15 PARCEL NO. 347 ELECTION DISTRICT 06 HOWARD COUNTY, MARYLAND SCALE: 1" = 20' DATE: JUNE 17, 2010 SHEET 2 OF 8

PLOTTED: 10:45:54 PM on Friday, September 17, 2010 BY: Mike Kohler, Div. 0686 Land Develop. GMA Emp FILE: M:\2010\27701010.dwg

Drafting CS, Check SB, Design BCC, Check MK table.

KCI ENGINEERS PLANNERS SCIENTISTS TECHNOLOGIES CONSTRUCTION MANAGERS logo and contact information.

OWNER: CHRISTIAN & LYNN SCHLESIGER, DEVELOPER: KIRK & MARGO GUILLORY, contact information.



**PROP. TR-55 DATA FOR DA-1**

$Q_1 = 0.75$  CFS,  $Q_2 = 1.60$  CFS,  $Q_3 = 2.41$  CFS  
 AREA: 0.28 ACRES  
 RCN: 41

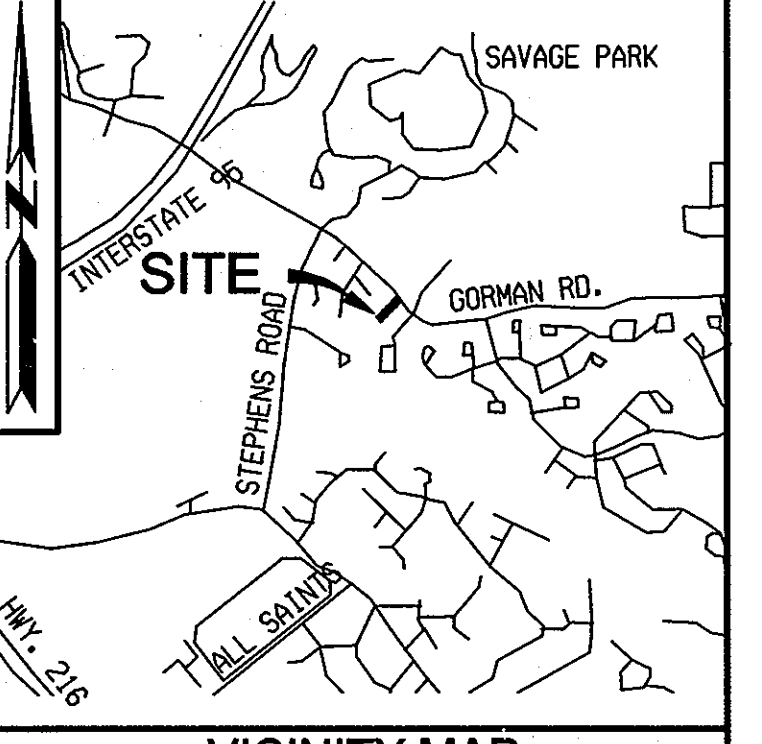
**TIME OF CONCENTRATION**

A - B 20' OF SHEET FLOW @ 2.0%  
 B - C 260' OF SHALLOW CONC. @ 5.0%  
 TIME: 0.100 HR

SOILS DATA CHART		
TYPE	DESCRIPTION	HSG
U&B	URBAN LAND-CHLUM-BELTSVILLE COMPLEX, 0 TO 5 PERCENT SLOPES	D
U&D	URBAN LAND-CHLUM-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	D

**SITE NOTES**

- PROPERTY OWNER/ APPLICANT:  
 CHRISTIAN & LYNN SCHLESISGER  
 3711 EVANS TRAIL WAY  
 BELTSVILLE, MD 20705  
 PHONE: 301-491-2112  
 ATTN: CHRISTIAN SCHLESISGER  
 PHONE: 301-491-2112
- SITE DATA:  
 ADDRESS:  
 9491 GORMAN ROAD  
 LAUREL, MD 20713  
 TAX ACCOUNT #: 585302  
 TAX MAP: 41  
 LOT 2 TRACT AREA: 0.25 Ac.  
 ELECTION DISTRICT: 06  
 DEED: 12186/242
- CURRENT ZONE: R-SC
- CURRENT USE: VACANT
- PROPOSED USE: SINGLE FAMILY DETACHED HOME
- PROPERTY SHOWN HEREIN LIES WITHIN ZONE "C", A MINIMAL AREA OF FLOODING, AS ESTABLISHED BY THE US FEDERAL EMERGENCY MANAGEMENT AGENCY, NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAPS, COMMUNITY PANEL NO. 24004 40048B, EFFECTIVE DATE DECEMBER 04, 1986.
- TOPOGRAPHIC SURVEY PERFORMED BY KGI TECHNOLOGIES, INC. DATED OCTOBER, 2005.
- ELEVATIONS SHOWN HEREON ARE NAVD 1988.



**VICINITY MAP**  
 SCALE: 1" = 2000'  
 ADC MAP: 14 GRID: K-8

**BORING LOG**

Report No: G68-232C  
 Client: Kirk Guillory  
 Project: 9491 Gorman Road, Laurel, MD  
 Boring No: SWM-4 (1 of 1) Total Depth: 7.0' Elev: Location:  
 Type of Boring: Hand Auger Start: 1/11/06 Completed: 1/12/06 Driller: N. Lazaro

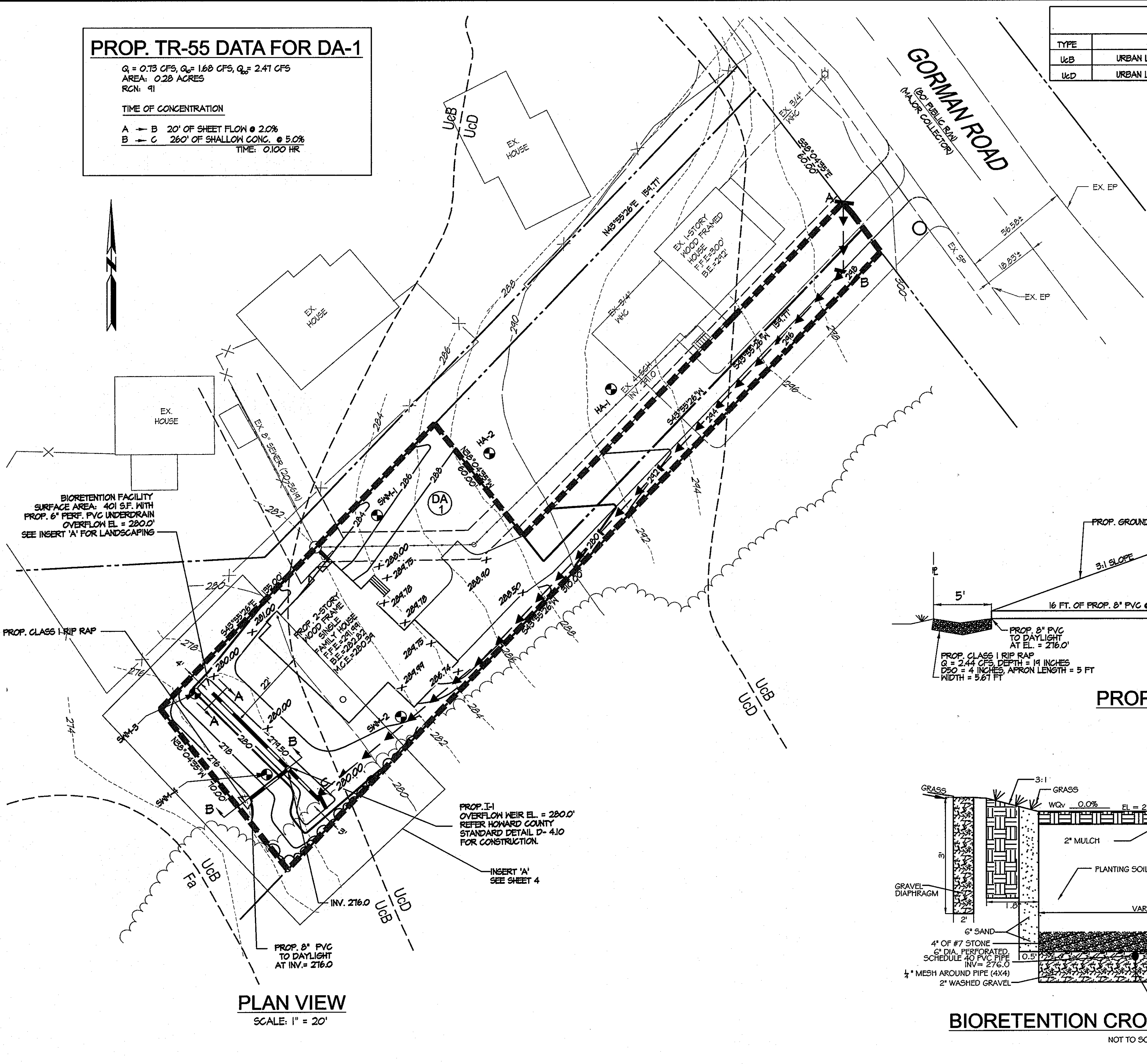
Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	Sample Blows	Sample Depth (feet)	N Value (blows/ft)	REMARKS
280.10	0.3	Surficial organic soil Dark yellowish brown, moist, very fine sandy SILT with some fine to medium gravel and trace clay (MLs)				
276.83	3.0	Yellowish brown, moist, fine sandy SILT with some fine to coarse gravel and little clay (MLs)				
276.83	7.0	Hand auger boring terminated at 7 feet.				

\*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the second and third increments is normal the standard penetration resistance, N.

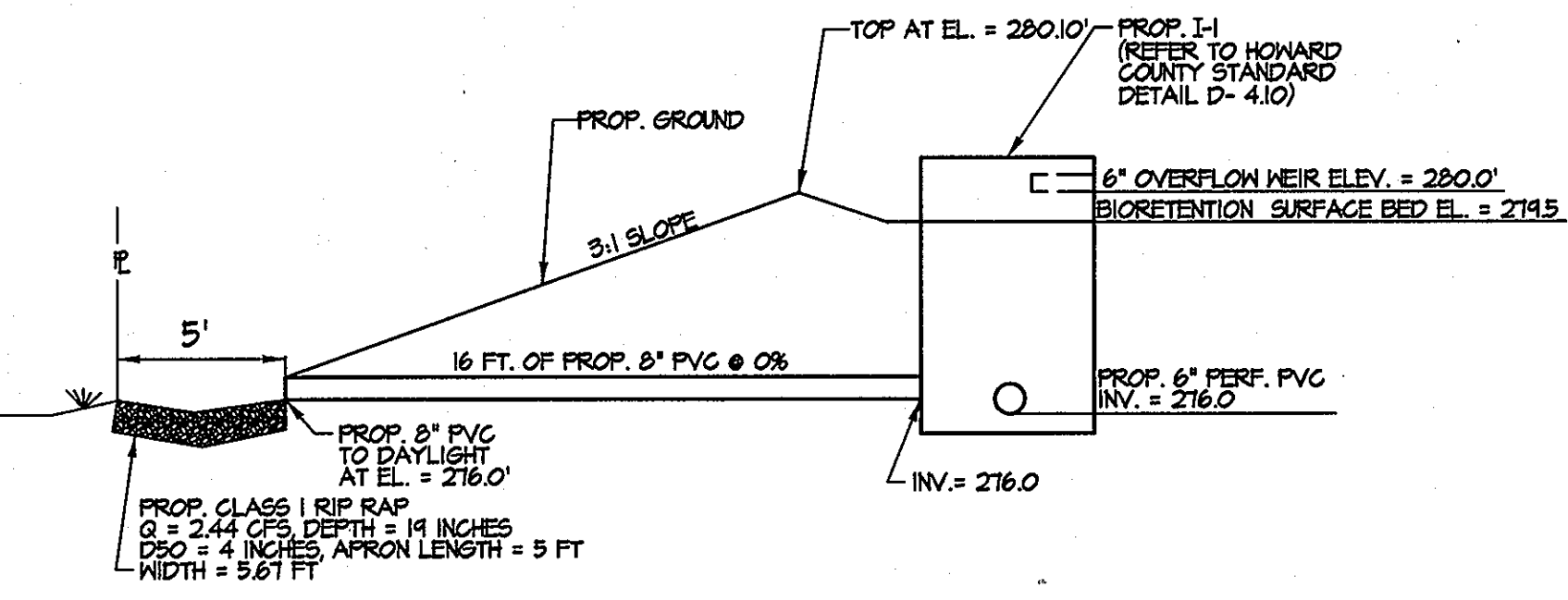
NOTE: THE INFILTRATION RATE FOR BORING #SWM-4 IS 0.4 INCHES PER HOUR AS PER FROEHLING AND ROBERTSON GEOTECHNICAL REPORT.

**LEGEND**

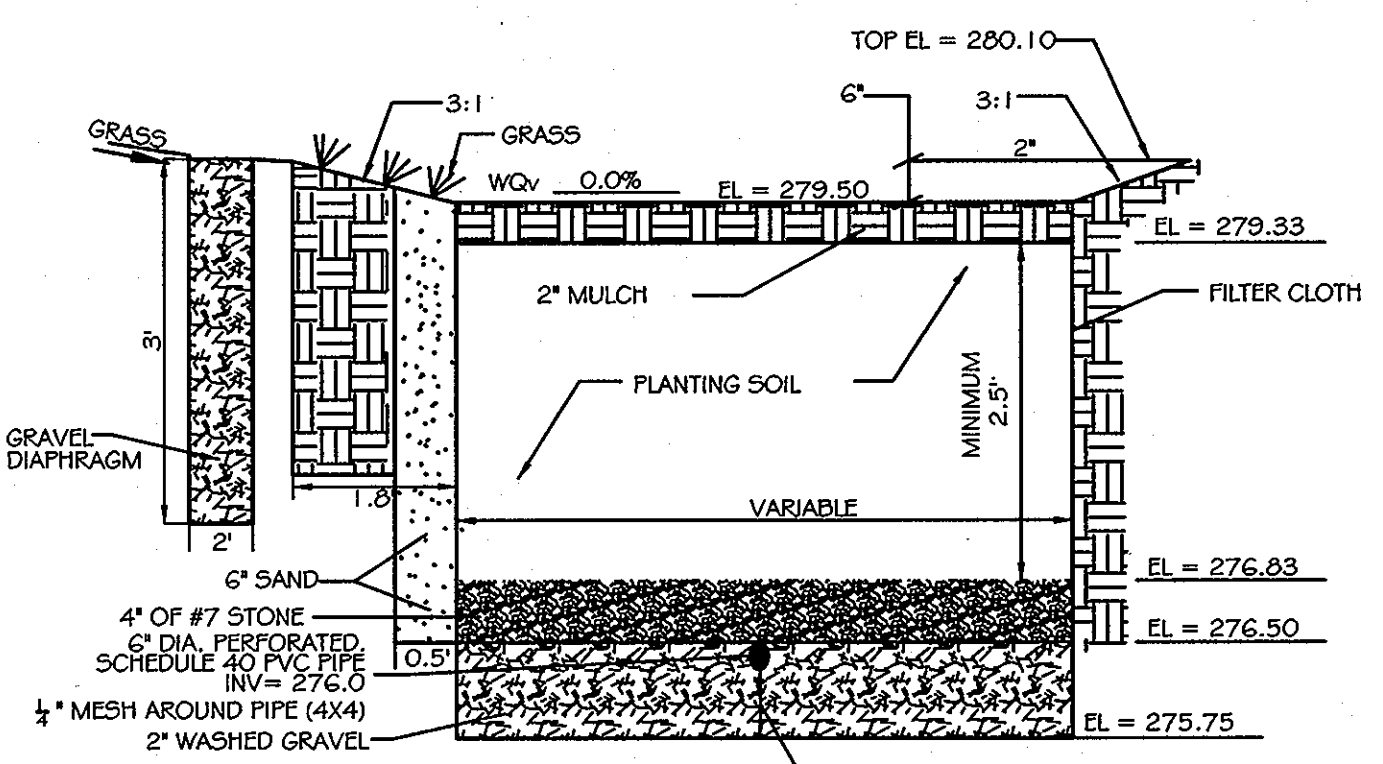
- SAN EX. SANITARY SEWER MANHOLE
- SVP EX. SEWER VENT PIPE
- EX. SANITARY SEWER LINE
- SDM EX. STORMDRAIN MANHOLE
- EX. STORMDRAIN LINE
- EX. WATER LINE
- WV EX. WATER VALVE
- EX. PROPERTY LINE
- EX. CONTOUR
- EX. SPOT ELEVATION
- ADDRESS SIGN
- SOIL BORING
- PROP. CONTOUR
- +100.00 PROP. SPOT ELEVATION
- 100.00 LIMIT OF DISTURBANCE
- SF SILT FENCE
- SSC2 SOIL TYPE DELINEATION
- SIB2
- TIME OF CONCENTRATION
- DRAINAGE AREA DELINEATION



**PLAN VIEW**  
 SCALE: 1" = 20'



**PROP. I-1 SECTION "B-B"**  
 NOT TO SCALE



**BIORETENTION CROSS SECTION "A-A"**  
 NOT TO SCALE

SWM SUMMARY TABLE						
STUDY POINT	AREA (ac)	IMP AREA (ac)	WATER QUALITY VOLUME (CF)	RECHARGE VOLUME (CF)	REMARKS	CHANNEL PROTECTION VOLUME (CFV)
BIORETENTION	0.28	0.17	806CF	802 CF	35 CF	40 CF

REMARKS: SURFACE AREA = 401 S.F., DEPTH = .25', DEPTH OF RECHARGE STONE BED = 0.25'

CHANNEL PROTECTION VOLUME (CFV): Q(1-YEAR): 0.73 CFS, NO CPV REQUIRED.

- The 1-yr storm is less than 2 c.f.s. for the drainage area; therefore CpV is not required.
- The will be no increase in out-of bank flooding; therefore Qp10 is not required.
- There are no adverse downstream effects from the 100-yr storm; therefore Qp100 is not required.

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31084, EXPIRATION DATE: NOVEMBER 21, 2010.

SHEET INDEX	
SHEET NO.	TITLE
1	EXISTING CONDITIONS
2	SITE DEVELOPMENT, GRADING & UTILITY
3	STORMWATER MANAGEMENT PLAN & DETAILS
4	STORMWATER MANAGEMENT NOTES
5	SEDIMENT CONTROL PLAN & DETAILS
6	SEDIMENT CONTROL NOTES
7	LANDSCAPE PLAN
8	LANDSCAPE DETAIL SHEET

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

DATE: 10/14/10

DATE: 10/15/10

DATE: 10/20/10

DATE: 10/24/10

DATE: 9/7/10

DATE: 9-9-10

**KCI ENGINEERS PLANNERS SCIENTISTS TECHNOLOGIES CONSTRUCTION MANAGERS**

3161 Maple Lawn Blvd, Suite 150  
 Fulton, Maryland 20754  
 Phone: (410) 742-8026  
 Fax: (410) 742-7419  
 WWW.KCI.COM

OWNER: CHRISTIAN & LYNN SCHLESISGER  
 3711 EVANS TRAIL WAY  
 BELTSVILLE, MD 20705  
 PHONE: 301-491-2112

DEVELOPER: NDI HOMES  
 154 HOLIDAY COURT, SUITE 200  
 ANNAPOLIS, MD 21401  
 PHONE: 410-266-5654  
 FAX: 443-192-0425

**KIRK & MARGO GUILLORY PROPERTY, LOT 2 STORMWATER MANAGEMENT PLAN & DETAILS**

LOT 2 SINGLE FAMILY DETACHED DWELLING  
 ZONED R-SC  
 TAX MAP NO. 41 GRID 15 PARCEL NO. 347  
 ELECTION DISTRICT 06  
 HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN  
 DATE: JUNE 17, 2010  
 SHEET 3 OF 8

COUNTY FILE # SDP-08-009

PLOTTED: 11:36 AM on Thursday, September 09, 2010  
 By: Tyler Kohler, Division: P088, Land Develop, GMA, Emp  
 C:\Users\tylerk\Documents\SDP-08-009\SDP-08-009.dwg

# I. BIORETENTION AREA SOIL SPECIFICATIONS

## A. Planting Soil

The bio-retention areas shall consist of a planting soil having a composition of at least 10 to 25 percent clay and shall be of a sandy loam or loamy sand texture. Loamy soils may be utilized for the planting soil but must consist of 35% sand. In addition, the furnished planting soil shall be of uniform composition, free of stones, stumps, roots or similar objects larger than one inch, brush, or any other material or substance which may be harmful to plant growth, or a hindrance to planting or maintenance operations.

The planting soil shall be free of plants or plant parts of Bermuda grass, Quack grass, Johnson grass, Mugwort, Nutsedge, Poison Ivy, Canadian Thistle or others as specified.

It shall not contain toxic substances harmful to plant growth. The planting soil shall be tested and meet the following criteria:

pH range 5.5 - 6.5  
Organic matter 1.5 - 3.0%  
Magnesium - Mg 35 lbs./acre  
Phosphorus - P2O5 100 lbs./acre  
Potassium - K2O 65 lbs./acre  
Soluble salts not to exceed 500ppm

The following testing frequencies shall apply to the above soil constituents: pH, Organic Matter: 1 test per 30 cubic yards, but no more than 1 test per Bio-retention Area

Magnesium, Phosphorus, Potassium, Soluble Salts: 1 test per 500 cubic yards, but no less than 1 test per borrow source. One grain size analysis shall be performed per 30 cubic yards of planting soil, but no less than 1 test per Bio-retention Area.

## B. Mulch Layer Specifications

A mulch layer shall be provided on top of the planting soil. An acceptable mulch layer shall include shredded hardwood or shredded wood chips or other similar product approved by the Maryland Department of Environment (MDE).

Of the approved mulch products all must be well aged, uniform in color, and free of foreign material including plant material. Well aged mulch is defined as mulch that has been stockpiled or stored for at least twelve (12) months.

## C. Sand Specifications

The sand shall be free of deleterious material and rocks greater than 1 inch in diameter.

## D. Compaction

Soil shall be placed in lifts less than 18 inches and lightly compacted (minimal compactive effort) by tamping with a bucket from a dozer or a backhoe.

# II. BIORETENTION AREA PLANT SPECIFICATIONS

## General Planting Specifications

Root stock of the plant material shall be kept moist during transport from the source to the job site and until planted.

Walls of planting pit shall be dug so that they are vertical.

The diameter of the planting pit must be a minimum of six inches (6") larger than the diameter of the ball of the tree.

The planting pit shall be deep enough to allow 1/4" of the ball to be above the existing grade. Loose soil at the bottom of the pit shall be tamped by hand.

The appropriate amount of fertilizer is to be placed at the bottom of the pit (see below for fertilization rates).

The plant shall be removed from the container and placed in the planting pit by lifting and carrying the plant by its ball (never lift by branches or trunk).

Set the plant straight and in the center of the pit so that the top of the ball is approximately 1/4" above the final grade.

Backfill planting pit with existing soil. Watering shall occur during backfill operations.

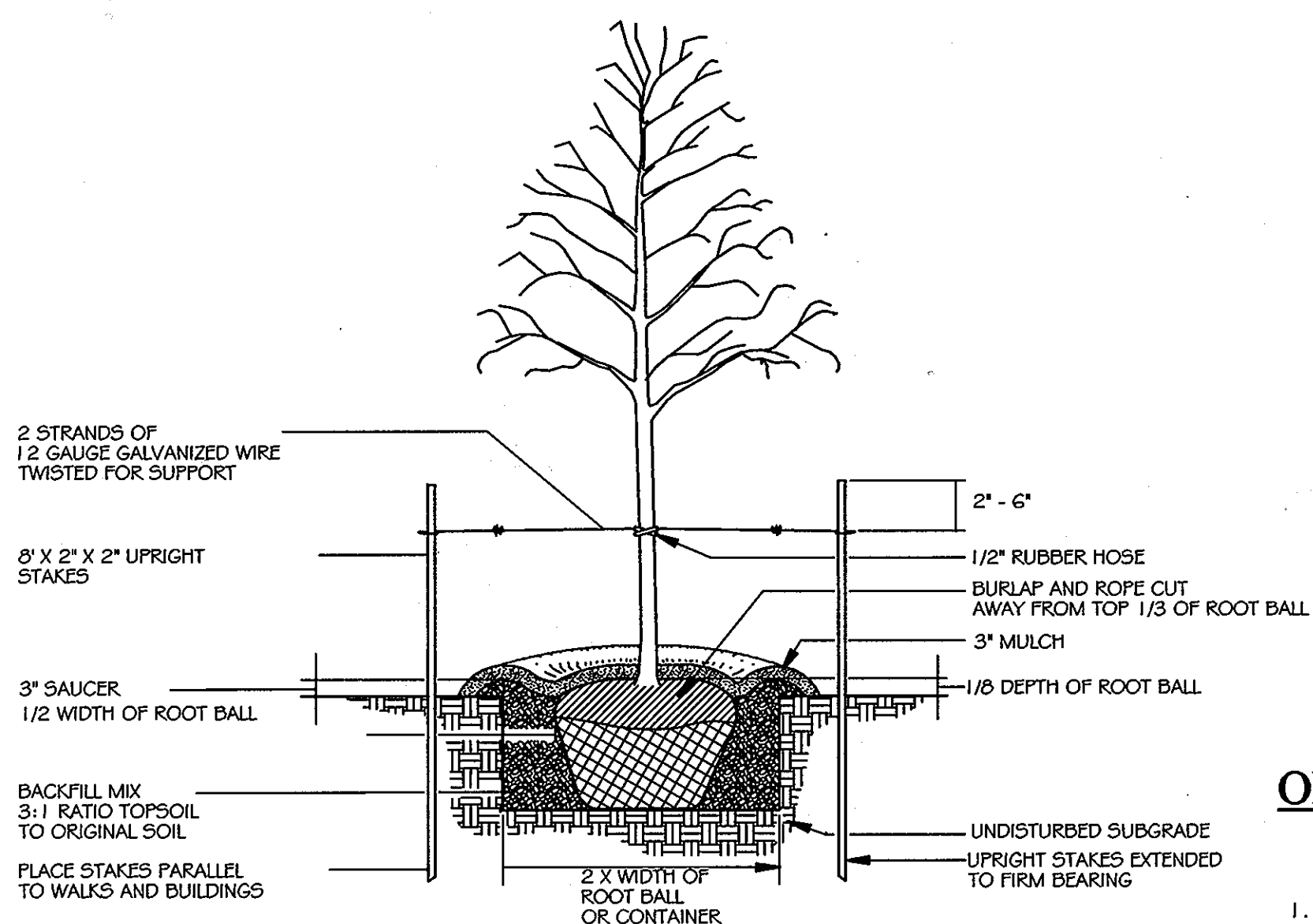
Make sure plant remains straight during backfilling procedure.

Never cover the top of the ball with soil.

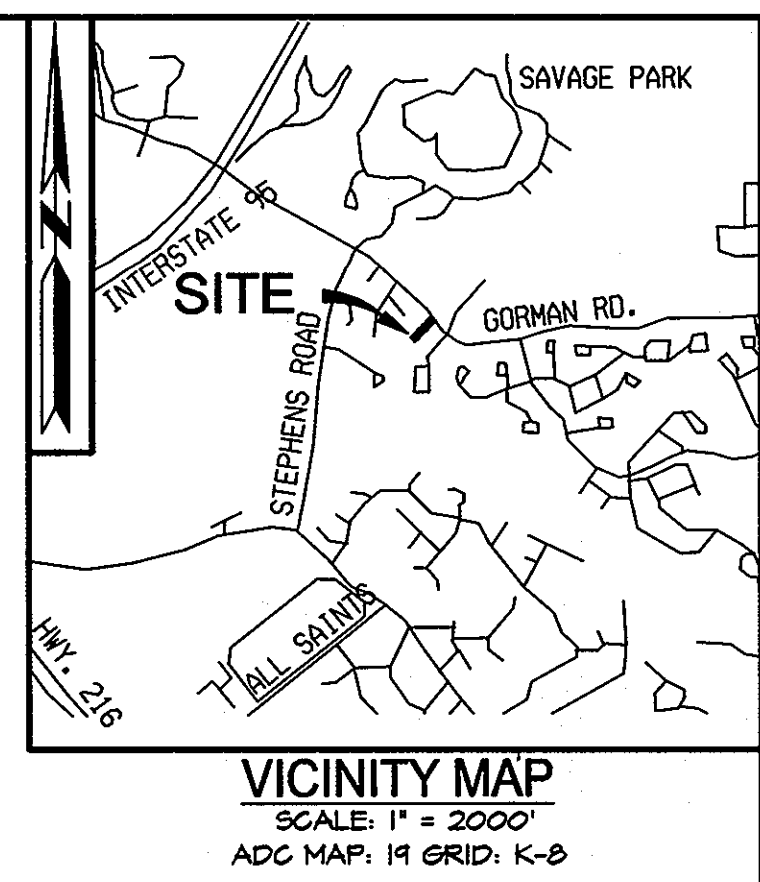
Trees shall be braced by using 2" by 2" white oak stakes. Stakes shall be placed parallel to walkways and buildings. Stakes are to be equally spaced on the outside of the tree ball. Utilizing hose and wire the tree is braced to the stakes.

# PLANTING NOTES

- Plants shall conform to current "American Standards for Nursery Stock" by American Association of Nurserymen (AAN), particularly with regards to size, growth, size of ball, and density of branch structure.
- All plants (B&B or container) shall be properly identified by weather-proof labels securely attached thereto before delivery to project site. Labels shall identify plants by name, species, and size. Labels shall not be removed until the final inspection by the Landscape Architect.
- Any material and/or work may be rejected by the Landscape Architect if it does not meet the requirement of the specifications. All rejected materials shall be removed from the site by the Landscape Contractor.
- The Landscape Contractor shall furnish all plants in quantities and sizes to complete the work as specified on the landscape plan. The Landscape Contractor shall be responsible to verify on the plan all plant quantities prior to commencement of work. Quantities in the schedule are for the Landscape Contractor's convenience.
- Substitutions in plant species or size shall not be permitted except with the written approval of the Landscape Architect.
- Plants shall be located as shown on the drawings and by scaling or as designated in the field by the Landscape Architect.
- All equipment and tools shall be placed so as not to interfere or hinder the pedestrian and vehicular traffic flow.
- During planting operations, excess and waste materials shall be promptly and frequently removed from the site.
- All disturbed areas of the site not planted with shrubs or ground cover shall be sodded. Till soil to a depth of 6". Apply fertilizer of analysis 5-10-5 at the rate of 20 lbs. per 1000 square feet. Water sod daily until established.
- All plant beds to receive perennials, bulbs or ground cover are to be tilled to a depth of 6" prior to installation of plants. Apply fertilizer of analysis 5-10-5 at the rate specified by manufacturer. Water plants until established.
- All beds containing shrubs, ground covers, perennials, bulbs or trees are to receive 3" of shredded hardwood bark mulch after planting and clean up operations have been completed.



**BIORETENTION TREE PLANTING DETAIL**  
NOT TO SCALE

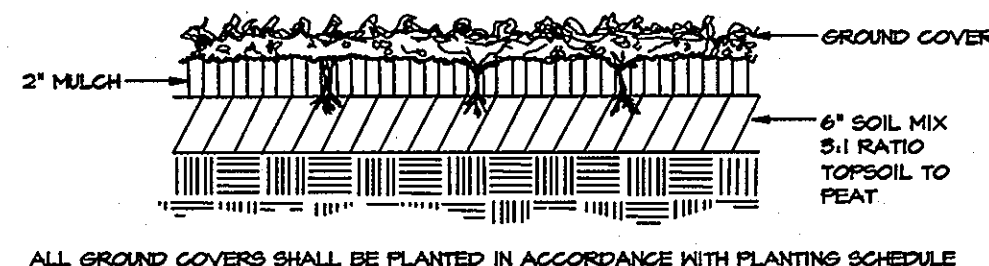


# OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION AREAS (F-6)

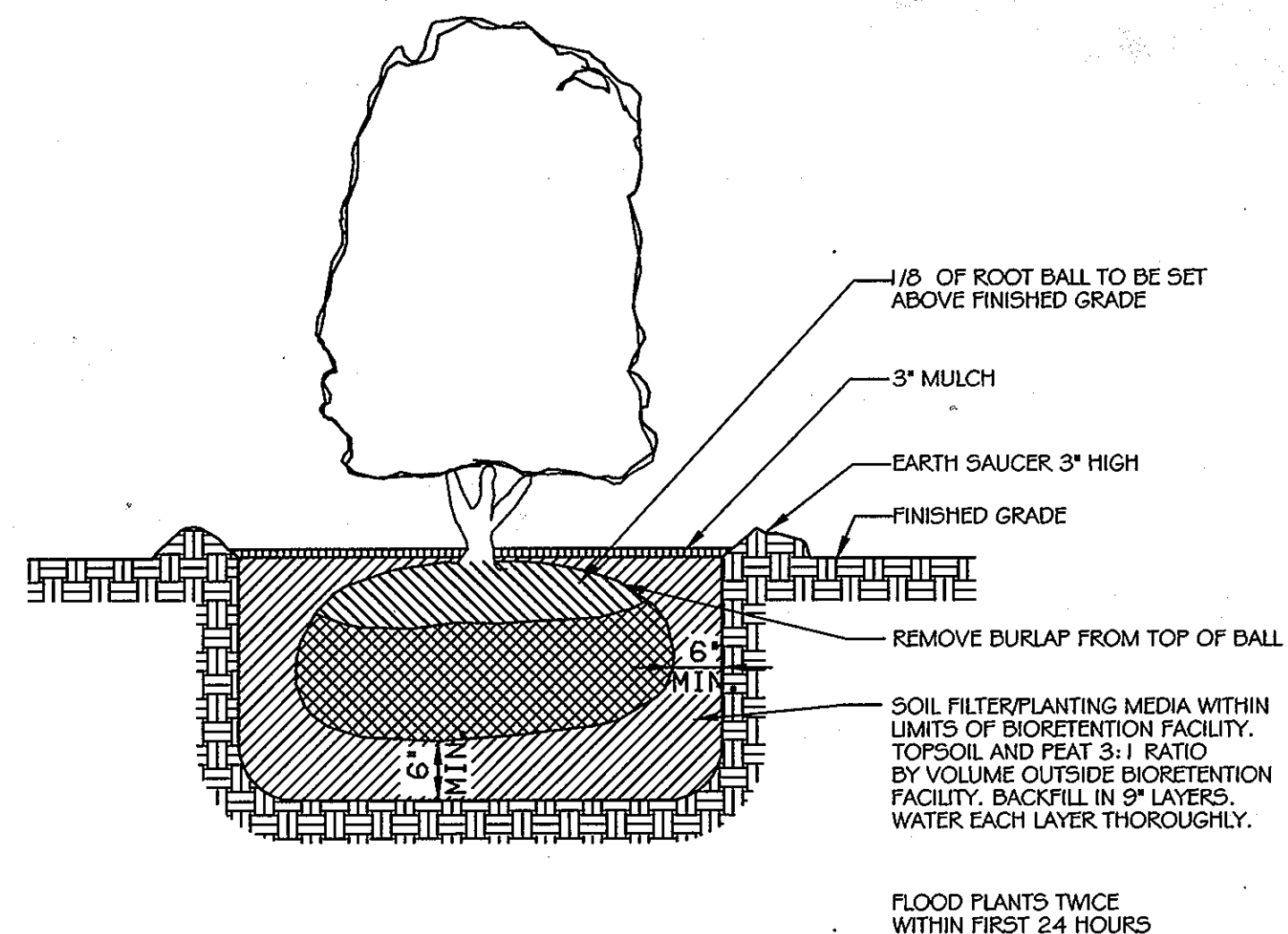
- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

# SOIL FILTER/PLANTING MEDIA

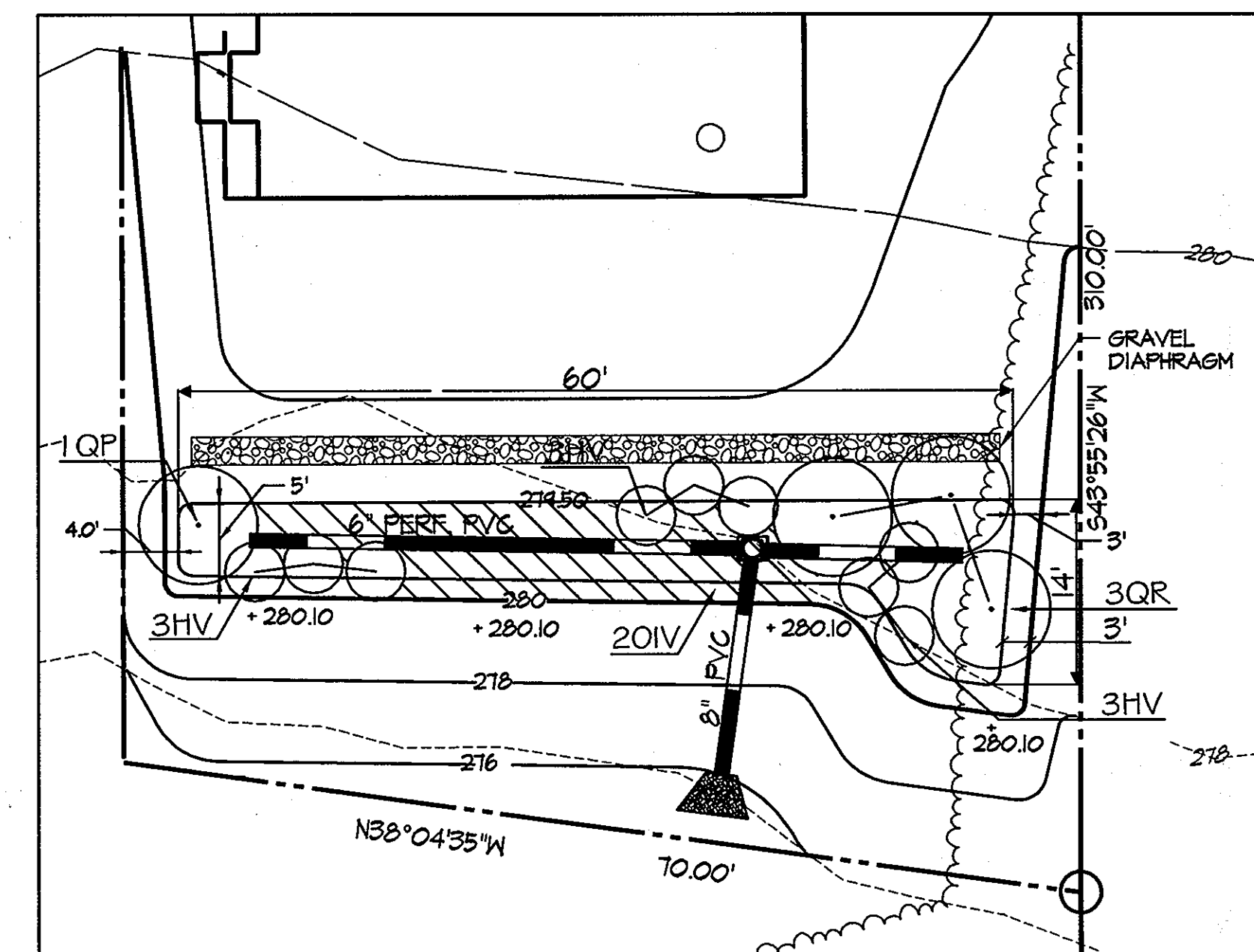
THE PLANTING MEDIA SHALL CONSIST OF 1/3 PERLITE, 1/3 COMPOST AND 1/3 ONSITE SOIL. THE PERLITE SHALL BE COARSE GRADE HORTICULTURAL PERLITE. THE COMPOST SHALL BE HIGH GRADE COMPOST FREE OF STONES AND PARTIALLY COMPOSTED WOODY MATERIAL. THE SOIL SHALL MEET THE FOLLOWING MINIMUM CRITERIA: CONTAIN NO MORE THAN 10% CLAY, 30 - 55% SILT AND 35 - 60% SAND. THE SOIL SHALL BE FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN 2 INCHES. THE FIRST LAYER OF THE PLANTING MEDIA SHALL BE LIGHTLY TILLED TO MIX IT INTO THE SAND LAYER, SO NOT TO CREATE A DEFINITIVE BOUNDARY. THE PLANTING MATERIAL SHALL BE FLOODED AFTER PLACEMENT. ANY SETTLEMENT THAT OCCURS SHALL BE FILLED BACK TO THE DESIGN ELEVATION.



**GROUND COVER PLANTING DETAIL**  
NOT TO SCALE



**BIORETENTION SHRUB PLANTING DETAIL**  
NOT TO SCALE



**BIORETENTION INSERT 'A'**  
SCALE: 1" = 10'

BIORETENTION LOT 2 PLANT SCHEDULE		
QTY.	KEY	BOTANICAL - COMMON NAME
TREES		
3	QR	Quercus rubra - Red Oak (2.5" Cal, B&B, Full Crown)
1	QP	Quercus palustris - Pin Oak (2.5" Cal, B&B, Full Crown)
SHRUBS		
9	HV	Hamamelis virginiana - Witch Hazel (18" -24" container)
GROUND COVER/ HERBACEUS		
20	IV	Ins Versicolor/ Blue Flag Ins

\* QUANTITIES BASED ON THE HOWARD COUNTY SWM DESIGN MANUAL FOR BIORETENTION FACILITIES

RECORD PLAT# 19670-19671

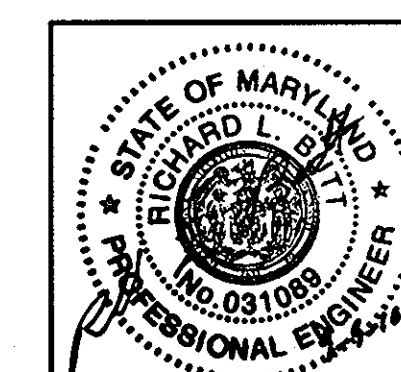
SCALE: N.T.S.

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PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31084, EXPIRATION DATE: NOVEMBER 21, 2010.

**KIRK & MARGO GUILLORY**  
PROPERTY LOT 2  
STORMWATER MANAGEMENT

**NOTES**  
LOT 2  
SINGLE FAMILY DETACHED DWELLING  
ZONED R-SC  
TAX MAP NO. 47 GRID 15 PARCEL NO. 347  
ELECTION DISTRICT 06  
HOWARD COUNTY, MARYLAND  
SCALE: N.T.S.  
DATE: JUNE 17, 2010  
SHEET 4 OF 8



COUNTY FILE # SDP-08-009

APPROVED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA - NATURAL RESOURCES CONSERVATION SERVICE  
This development plan is approved for soil erosion and sediment control by the HOWARD COUNTY CONSERVATION DISTRICT.

HOWARD SCD

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR

Drafting	CS	DATE	REVISIONS
Check	SG		
Design	BCC		
Check	MK		

DATE: 10/15/10  
DATE: 10/20/10  
DATE: 11/20/10

BY THE DEVELOPER:

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 INSPECTIONS BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

DATE: 9/7/10  
DEVELOPER: [Signature]

BY THE ENGINEER:

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 SOIL CONSERVATION DISTRICT.

DATE: 9-9-10  
ENGINEER: [Signature]

**KCI ENGINEERS PLANNERS SCIENTISTS TECHNOLOGIES CONSTRUCTION MANAGERS**  
3616 Maple Lawn Blvd, Suite 150  
Fulton, Maryland 20715  
Phone: (410) 742-8086  
Fax: (410) 742-7419  
www.kci.com

OWNER: CHRISTIAN & LYNN SCHLESINGER  
5111 EVANS TRAIL WAY  
BELTSVILLE, MD 20705  
PHONE: 301-487-2712

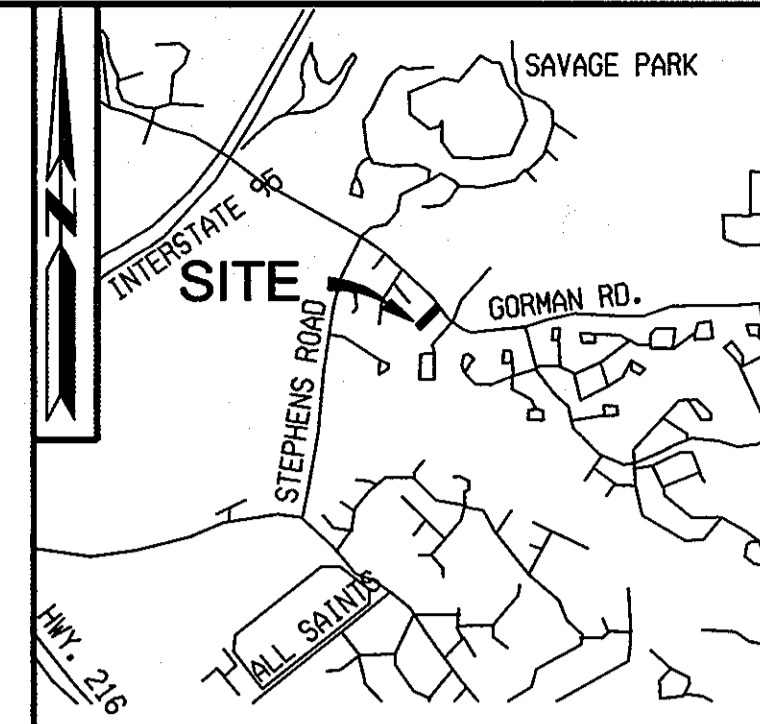
DEVELOPER: NDI HOMES  
154 HOLIDAY COURT, SUITE 200  
ANNAPOLIS, MD 21403  
PHONE: 410-266-5634  
FAX: 443-792-0425

PLOTTED: 11:40 AM on Friday, September 03, 2010  
BY: Tyler Koller, Division P088, Land Develop. O&A, Emp  
C:\Users\tyler\Documents\19670-19671.dwg

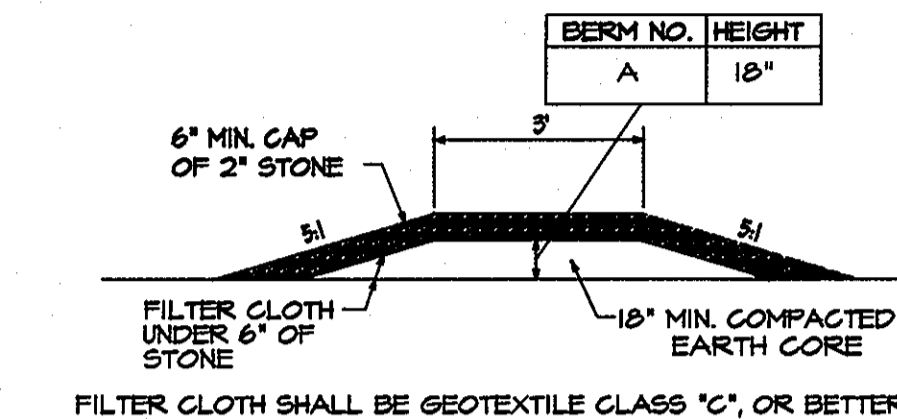
**GENERAL NOTES**

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (880-3450).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 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 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY 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.
- SITE ANALYSIS:**

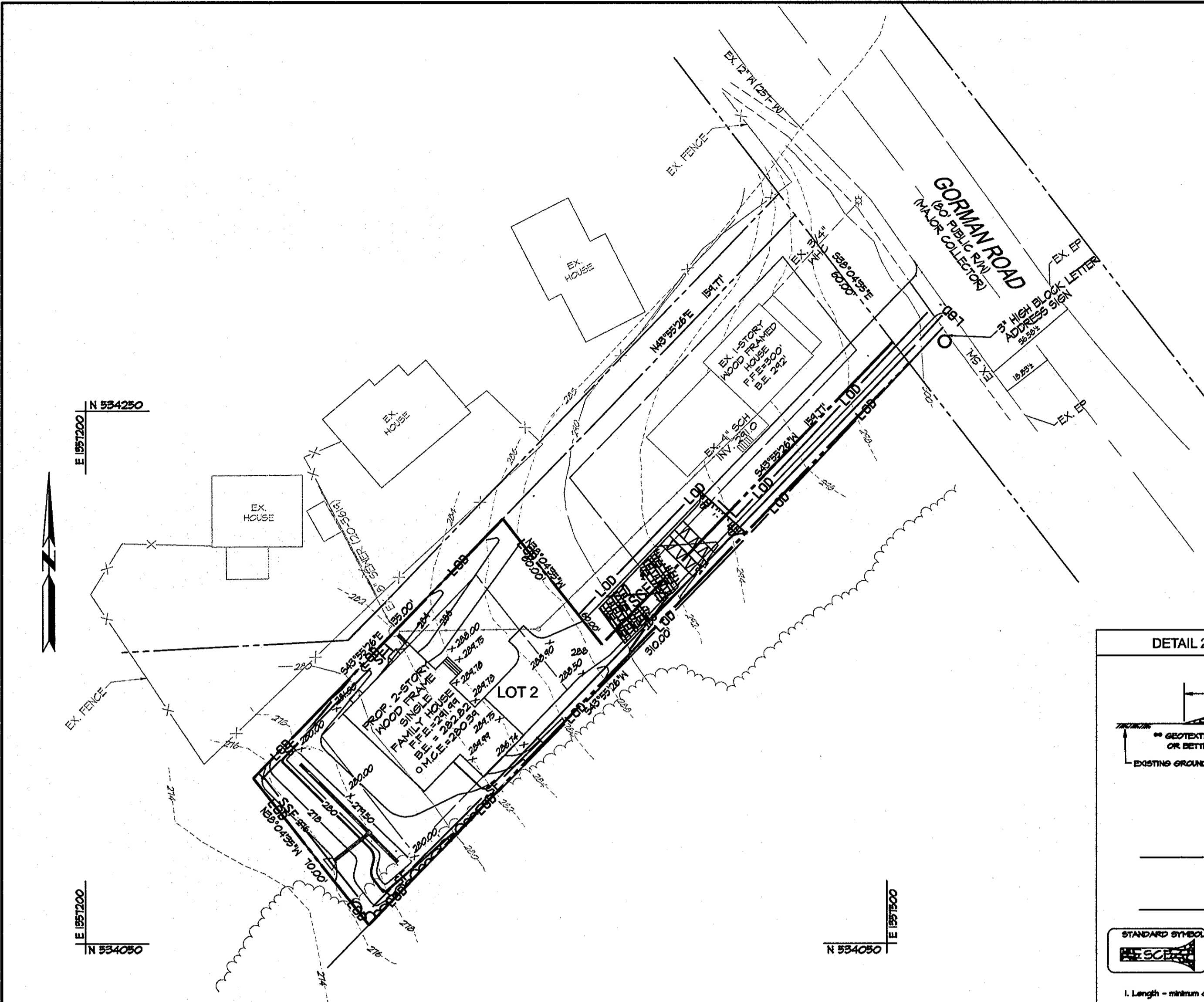
TOTAL AREA OF SITE	0.25 (LOT 2) ACRES
AREA DISTURBED	0.21 ACRES
AREA TO BE ROOFED OR PAVED	0.17 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.04 ACRES
TOTAL CUT	257 CUBIC YARDS
TOTAL FILL	257 CUBIC YARDS
OFFSITE WASTE/BORROW AREA LOCATION	NONE
- ANY SEDIMENT CONTROL PRACTICES WHICH IS DISTURBED BY GRADING 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 DEPARTMENT OF PUBLIC WORKS SEDIMENT CONTROL INSPECTOR.
- ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION 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.



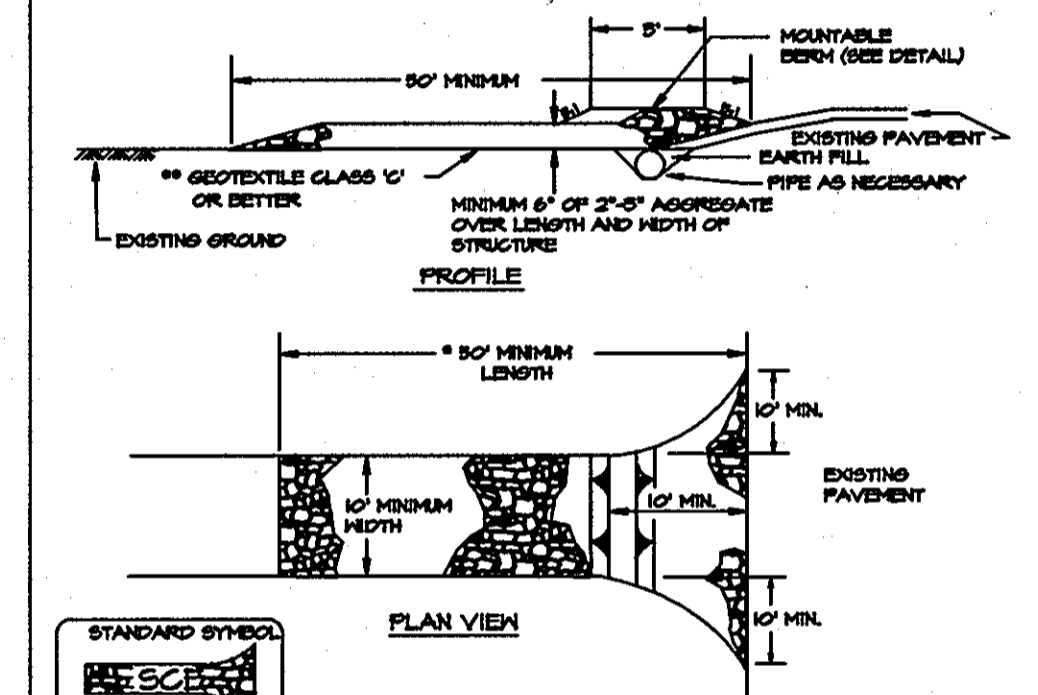
**VICINITY MAP**  
SCALE: 1" = 2000'  
ADC MAP: 14 GRID: K-8



**MOUNTABLE BERM DETAIL**  
NOT TO SCALE



**DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE**

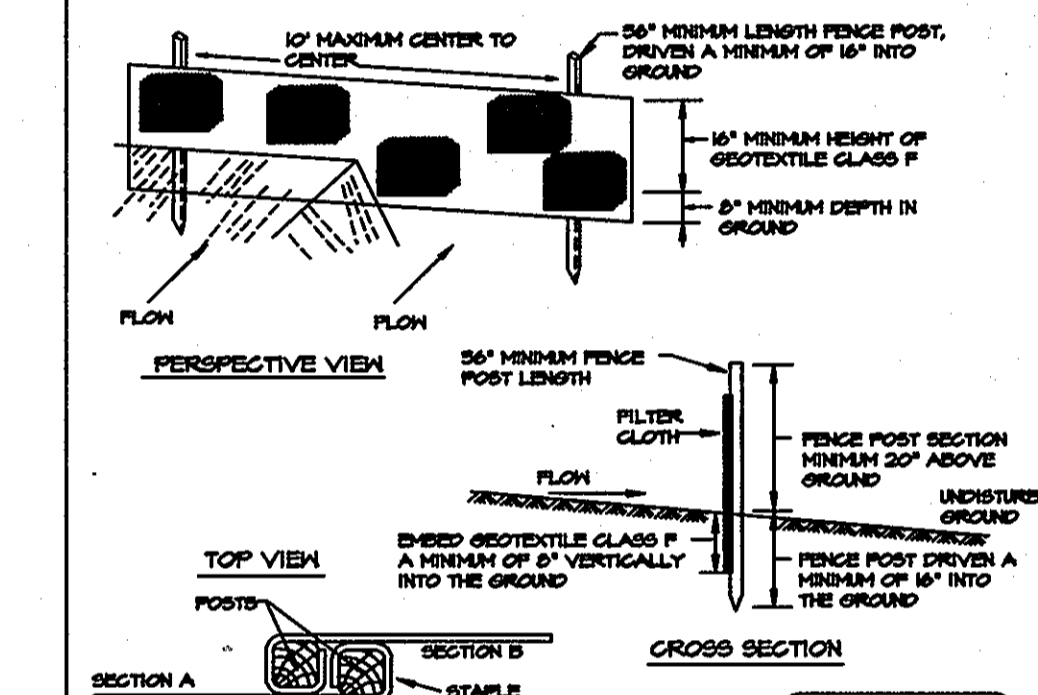


**Construction Specifications**

- Length - minimum of 50' (50' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. \*\*The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 5") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-17-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL 22 - SILT FENCE**



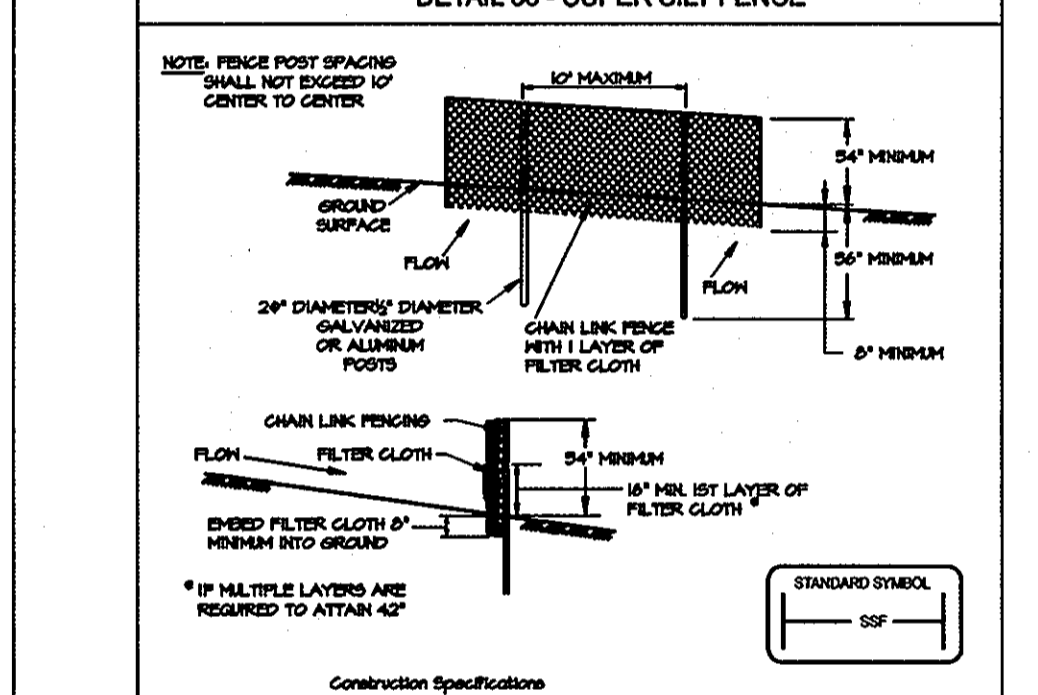
**Construction Specifications**

- Fence posts shall be a minimum of 50' long driven 18" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (round) oak, or 2" x 2" diameter round and shall be of second quality hardwood. Steel posts will be standard T or U section weighting not less than 100 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire line or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
 

Tensile Strength	50 lbs/ft (min.)	Test: MHMT 504
Tensile Modulus	20 lbs/ft (min.)	Test: MHMT 504
Flow Rate	0.5 gal/hr/minute (max.)	Test: MHMT 522
Filtering Efficiency	75% (min.)	Test: MHMT 522
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- 50' Fence shall be inspected after each rainfall event and maintained when bridges occur or when sediment accumulation reaches 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-15-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL 33 - SUPER SILT FENCE**



**Construction Specifications**

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 42" fence shall be used, substituting 42" fabric and 6" length posts. The lower tension wire, brace and bridle rods, drive anchors and post caps are not required except on the ends of the fence.
- Chain link fence shall be fastened securely to the chain link fence with wire ties. The lower tension wire, brace and bridle rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with tie spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 6" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt bridges removed when "bigges" develop in the silt fence, or when silt reaches 50% of fence height.
- Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:
 

Tensile Strength	50 lbs/ft (min.)	Test: MHMT 504
Tensile Modulus	20 lbs/ft (min.)	Test: MHMT 504
Flow Rate	0.5 gal/hr/minute (max.)	Test: MHMT 522
Filtering Efficiency	75% (min.)	Test: MHMT 522

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-28-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**SEQUENCE OF CONSTRUCTION**

- OBTAIN GRADING PERMIT. 1 DAY
- NOTIFY HOWARD COUNTY SEDIMENT CONTROL INSPECTOR FOR PRE-CONSTRUCTION MEETINGS AS REQUIRED BY NOTE NUMBER ONE (NO. 1) OF THE STANDARD EROSION AND CONTROL NOTES SHOWN ON THIS SHEET. NOTIFY MISS UTILITY. 1 DAY
- INSTALL SEDIMENT CONTROL MEASURES (I.E. SCE, SUPER SILT FENCE & SILT FENCE). 1 DAY
- WITH INSPECTORS APPROVAL, GRADE SITE WITHIN THE LIMITS OF DISTURBANCE. 3 DAYS
- INSTALL DRIVEWAY UP TO SUBGRADE. 3 DAYS
- INSTALL SEWER AND WATER HOUSE CONNECTIONS. 1 WEEK
- CONSTRUCT HOUSE. 3 MONTHS
- STABILIZE ALL DISTURBED AREAS. 2 DAYS
- INSTALL BIORETENTION FACILITY. 1 DAY
- WITH INSPECTOR'S APPROVAL, REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE ALL AREAS DISTURBED BY THIS PROCESS. 1 DAY

**STABILIZED CONSTRUCTION ENTRANCE**

**Construction Specifications**

- Length - minimum of 50' (50' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 5") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-17-3A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**SILT FENCE**

**Silt Fence Design Criteria**

Slope Steepness	Silt Fence Length	
	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

Note: In areas of less than 2% slope and sandy soils (MSDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In those areas a silt fence may be the only perimeter control required.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-15-3A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**LEGEND**

- EX. SANITARY SEWER MANHOLE
- EX. SEWER VENT PIPE
- EX. SANITARY SEWER LINE
- EX. STORM/RAIN MANHOLE
- EX. STORM/RAIN LINE
- EX. WATER LINE
- EX. WATER VALVE
- EX. PROPERTY LINE
- EX. CONTOUR
- EX. SPOT ELEVATION
- ADDRESS SIGN
- SOIL BORING
- PROP. CONTOUR
- PROP. SPOT ELEVATION
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE
- SOIL TYPE DELINEATION
- STONE CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

DATE: 10/14/10

DATE: 10/15/10

DATE: 10/20/10

DATE: 9/17/10

DATE: 9-9-10

DATE: 10/20/10

RECORD PLAT# 19670-19671

**KCI ENGINEERS PLANNERS SCIENTISTS TECHNOLOGIES CONSTRUCTION MANAGERS**

3161 Maple Lawn Blvd, Suite 150  
Fulton, Maryland 20714  
Phone: (410) 742-8026  
Fax: (410) 742-7419  
WWW.KCI.COM

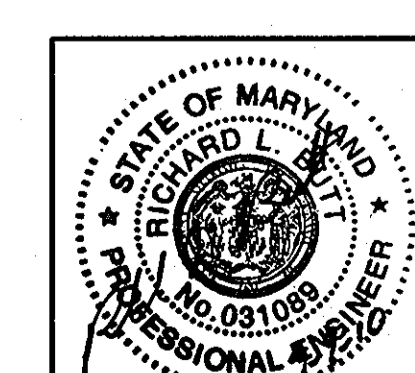
OWNER: CHRISTIAN & LYNN SCHLESINGER  
5711 EVANS TRAIL WAY  
BELTSVILLE, MD 20705  
PHONE: 301-437-2712

DEVELOPER: NDI HOMES  
154 HOLIDAY COURT, SUITE 200  
ANNAPOIS, MD 21403  
PHONE: 410-266-5634  
FAX: 443-192-0425

PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31089, EXPIRATION DATE: NOVEMBER 21, 2010.

**SHEET INDEX**

SHEET NO.	TITLE
1	EXISTING CONDITIONS
2	SITE DEVELOPMENT, GRADING & UTILITY
3	STORMWATER MANAGEMENT PLAN & DETAILS
4	STORMWATER MANAGEMENT NOTES
5	SEDIMENT CONTROL PLAN & DETAILS
6	SEDIMENT CONTROL NOTES
7	LANDSCAPE PLAN
8	LANDSCAPE DETAIL SHEET



**KIRK & MARGO GUILLORY PROPERTY, LOT 2 SEDIMENT CONTROL PLAN & DETAILS**

LOT 2 SINGLE FAMILY DETACHED DWELLING

ZONED R-5C

TAX MAP NO. 47 GRID 15 PARCEL NO. 347

ELECTION DISTRICT 06

HOWARD COUNTY, MARYLAND

SCALE: 1" = 30'

DATE: JUNE 17, 2010

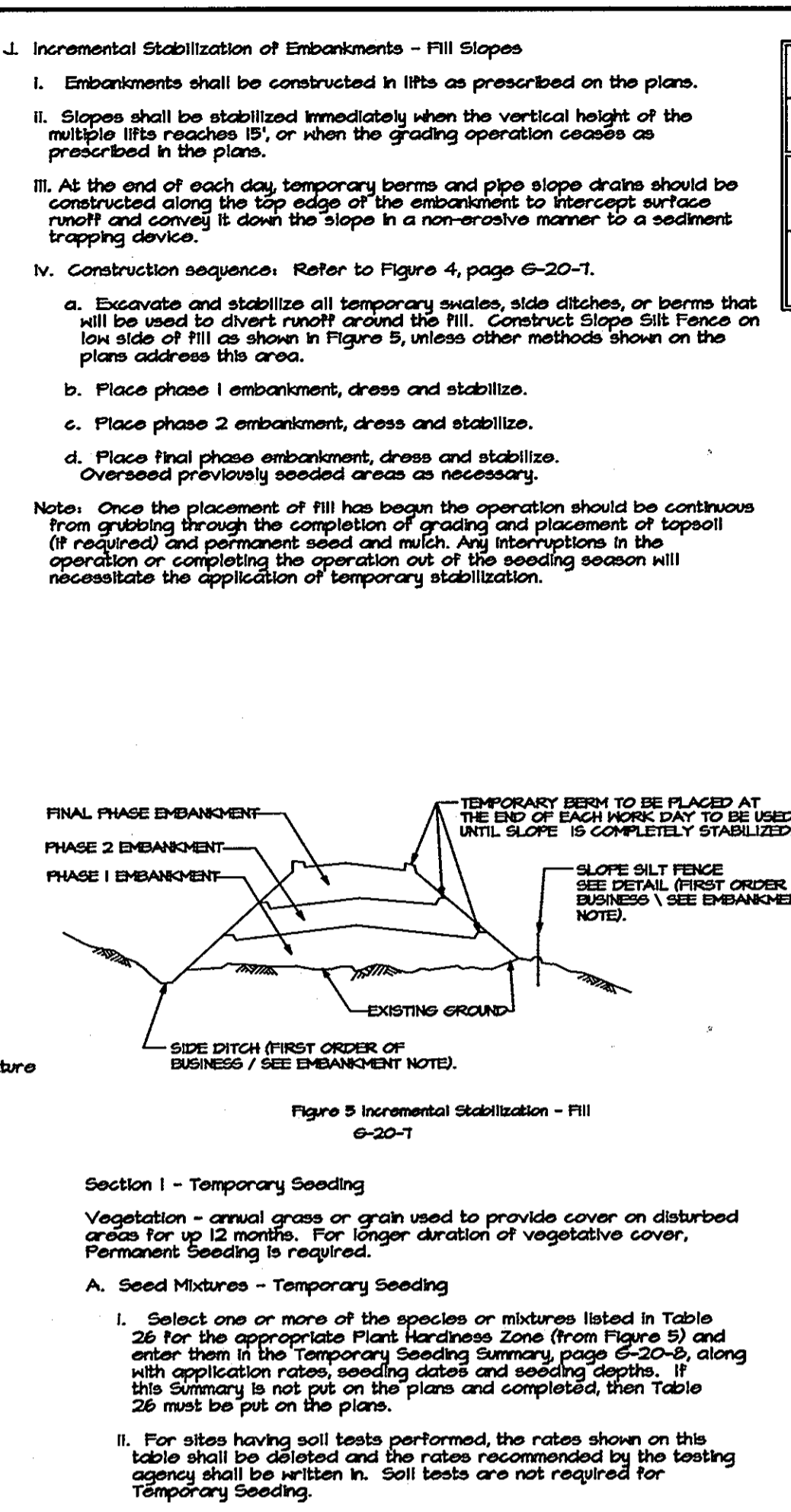
SHEET 5 OF 8

COUNTY FILE # SDP-08-009

Section I - Vegetative Stabilization Methods and Materials

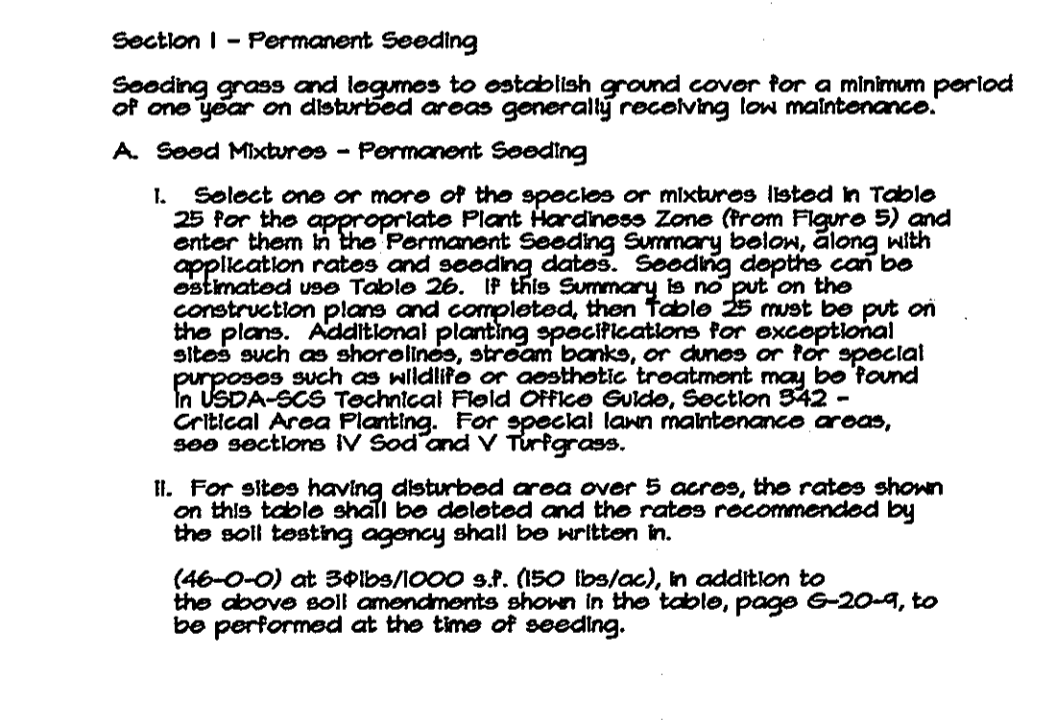
- A. Site Preparation
I. Install erosion and sediment control structures...
II. Perform all grading operations at right angles to the slope...
III. Schedule required soil test to determine soil amendment composition...
B. Soil Amendments (Fertilizer and Lime Specifications)
I. Soil test must be performed to determine the exact ratios and application rates...
II. Fertilizers shall be uniform in composition...
III. Lime materials shall be ground limestone (hydrated or burnt lime)...
C. Seeded Preparation
I. Temporary Seeding
a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment...
II. Permanent Seeding
a. Minimum soil conditions required for permanent vegetative establishment
1. Soil pH shall be between 6.0 and 7.0
2. Soluble salts shall be less than 500 parts per million (ppm)
3. The soil shall contain less than 40% clay but enough fine grained material (> 200 mesh plus clay) to provide the capacity to hold a moderate amount of moisture...
b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade...
c. Apply soil amendments as per soil test or as included on the plans.
d. Mix soil amendments into the top 3" - 5" of topsoil by disking or other suitable means...
D. Seed Specifications
I. All seed must meet the requirements of the Maryland State Seed Law...
II. Inoculant - The inoculant for treating legume seeds in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species...
E. Methods of Seeding
I. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer)...
II. Dry Seeding: This includes use of conventional drop or broadcast seeders...
III. Outrigger Seeders: Mechanized seeder that apply and cover seed with soil.

- III. Drill or Outrigger Seeders: Mechanized seeder that apply and cover seed with soil.
a. Outrigger seeders are required to bury the seed in such a fashion as to provide at least 1/4" of soil covering. Seedbed must be firm after planting.
b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
F. Mulch Specifications (in order of preference)
I. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be moldy, rotting, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
II. Wood Cellulose Fiber Mulch (WCFM)
a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous plastic sludge.
b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformity spread slurry.
c. WCFM, including dye, shall contain no germination or growth inhibiting factors.
d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry.
e. WCFM material shall contain no elements or compounds at concentration levels that will be phytotoxic.
f. WCFM must conform to the following physical requirements: Fiber length to approximately 10 mm, diameter approximately 1 mm, pH range of 4.0 to 8.5, as content of 1/8" maximum and water holding capacity of 40% minimum.
Note: Only sterile straw mulch should be used in areas where one species of grass is desired.
G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.
I. If grading is completed outside of the seeding season, mulch alone shall be applied as described in this section and mulched until the seeding season returns and seeding can be performed in accordance with these specifications.
II. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
III. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.
H. Sealing Straw Mulch (Mulch Anchoring) - Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard.
I. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
II. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
III. Application of liquid binders should be heavier at the edges where wind catches much, such as in valleys and on crests of banks. The remainder of area should be applied uniform after binder application. Synthetic binders - such as Acrylic DLR (Acry-Tack), DCA-10 (Reincoat), Terra Tack, Terra Tack AF or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
IV. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4" to 15 feet wide and 500 to 5,000 feet long.
I. Incremental Stabilization - Cut Slopes
I. All cut slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
II. Construction sequence (refer to Figure 4, page G-20-6):
a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
b. Perform phase I excavation, dress and stabilize.
c. Perform phase II excavation, dress and stabilize.
d. Perform final phase excavation, dress and stabilize. Overseed previously seeded areas as necessary.
Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.



Temporary Seeding Summary

Seed Mixture (Hardness Zone - EB)					Fertilizer Rate (10-10-10)	Lime Rate
No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depth (ft)		
1	RYE PLUS FOXTAIL MILLET	150	2/1 TO 11/30	1"	600 lb/acre (15 lb/1000 sq ft)	2 tons/acre (100 lb/1000 sq ft)



Permanent Seeding Summary

Seed Mixture (Hardness Zone - EB)					Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depth (ft)	N	P2O5	K2O	
5	TALL FESCUE PER RYE GRASS KENT BLUEGRASS	125 15 15	3/1 TO 5/15 OR 2/15 TO 11/15	1/2"	40 lb/acre (2.0 lb/1000 sq ft)	115 lb/acre (4.1 lb/1000 sq ft)	115 lb/acre (4.1 lb/1000 sq ft)	2 tons/acre (100 lb/1000 sq ft)

- III. If the stand provides between 40% and 14% ground coverage, overseeding and fertilizing using half of the rates originally shown in Table 24. For lawns and other medium to high maintenance turfgrass areas, refer to the University of Maryland publication 'Lawn Care in Maryland' Bulletin No. 171.
IV. Maintenance fertilizer rates for permanent seedings are shown in Table 24. For lawns and other medium to high maintenance turfgrass areas, refer to the University of Maryland publication 'Lawn Care in Maryland' Bulletin No. 171.
2.10 STANDARD AND SPECIFICATIONS
TOPSOIL
Definition: Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.
Purpose: To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, and are toxic to plants, and/or unacceptably soil gradation.
Conditions Where Practice Applies
7. 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 adequate 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.
8. 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 to the placement of topsoil.
Lime shall be distributed
7. 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.
7. 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 soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils that contain coarse particles or other materials, such as coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1/4" in diameter.
II. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
III. Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4 to 8 tons/acre (200-400 pounds per 1000 square feet) prior to uniform or designate areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
7. For sites having disturbed areas under 5 acres:
I. Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section 7 - Vegetative Stabilization Methods and Materials.
IV. For site having disturbed areas over 5 acres:
I. On site 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 6.0 or higher.
b. Organic content of topsoil shall be not less than 15 percent by weight.
c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
d. No soil or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time as elapsed (14 days min) to permit dissipation of phytotoxic materials, agronomist or soil scientist approved by the appropriate approval authority, may be used in lieu of natural topsoil.
II. Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section 7 - Vegetative Stabilization Methods and Materials.

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II. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
III. Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4 to 8 tons/acre (200-400 pounds per 1000 square feet) prior to uniform or designate areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
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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 6.0 or higher.
b. Organic content of topsoil shall be not less than 15 percent by weight.
c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
d. No soil or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time as elapsed (14 days min) to permit dissipation of phytotoxic materials, agronomist or soil scientist approved by the appropriate approval authority, may be used in lieu of natural topsoil.
II. Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section 7 - Vegetative Stabilization Methods and Materials.

24.0 MATERIALS AND SPECIFICATIONS

CLASS	APPEARANT OPENING SIZE (INCH MAX)	GRAB TENSILE STRENGTH (LB. MIN)	BURST STRENGTH (PSI MIN)
A	0.50**	250	500
B	0.60	200	320
C	0.50	200	320
D	0.60	140	145
E	0.50	140	145
F (SILT FENCE)	0.40 - 0.50 *	40	145

\* 1/2 STD. SUEVE GH-02215 \*\* 3/4" MAX. FOR SUPER SILT FENCE

THE PROPERTIES SHOULD BE DETERMINED IN ACCORDANCE WITH THE FOLLOWING PROCEDURES:

- APPEARANT OPENING SIZE MHT 523
- GRAB TENSILE STRENGTH ASTM D 1682 4"X8" SPECIMEN 1/2" CLAMPS, 1/2" MM. STRAIN RATE IN BOTH PRINCIPAL DIRECTIONS OF GEOTEXTILE FABRIC.
- BURST STRENGTH ASTM D 5186

THE FABRIC SHALL BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS, AND WILL BE ROT AND MILDEW RESISTANT. IT SHALL BE MANUFACTURED FROM FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYESTERS, AND COMPOSED OF A MESH OF 50% BY WEIGHT OF POLYESTERS, POLYESTERS, OR POLYAMIDES. THE GEOTEXTILE FABRIC SHALL RESIST DEGRADATION FROM ULTRAVIOLET EXPOSURE.

IN ADDITION CLASSES A THROUGH E SHALL HAVE A 0.01 CMHSG. MINIMUM PERMEABILITY WHEN TESTED IN ACCORDANCE WITH MHT 501, AND AN APPEARANT MINIMUM EMBOSSMENT OF 20 PERCENT (20) WHEN TESTED IN ACCORDANCE WITH THE GRAB TENSILE STRENGTH REQUIREMENTS LISTED ABOVE.

SILT FENCE

CLASS F GEOTEXTILE FABRICS FOR ALL SILT FENCE SHALL HAVE A SOLUBIN, MINIMUM TENSILE STRENGTH AND A 20 LB/M MINIMUM TENSILE MODULUS WHEN TESTED IN ACCORDANCE WITH MHT 501. MATERIAL SHALL ALSO HAVE A 0.5 GALS/FT/SQUARE/IN. FLOW RATE NO SEVENTY-FIVE PERCENT (75%) MINIMUM FILTERING EFFICIENCY WHEN TESTED IN ACCORDANCE WITH MHT 522.

GEOTEXTILE FABRICS USED IN THE CONSTRUCTION OF THE SILT FENCE SHALL RESIST DEGRADATION FROM ULTRAVIOLET EXPOSURE. THE FABRIC SHALL CONTAIN SUFFICIENT AMOUNTS OF ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 12 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120 DEGREES F.

REVIEWED FOR HOWARD SOI AND MEETS TECHNICAL REQUIREMENTS BY THE DEVELOPER. DATE: 10/4/10

DATE: 10/15/10

DATE: 10/20/10

DATE: 10/20/10

BY THE ENGINEER: 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 HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOI AND MEETS TECHNICAL REQUIREMENTS.

DATE: 9-9-10

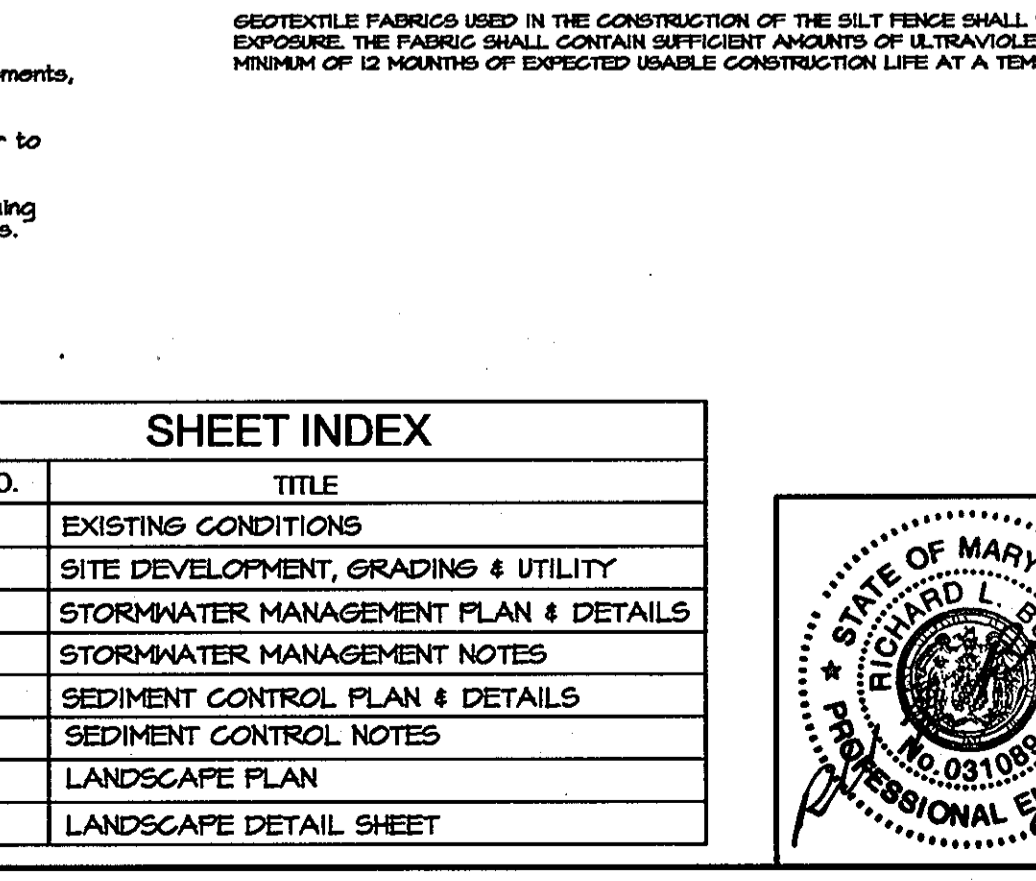
RECORD PLAT# 19670-19671

OWNER: CHRISTIAN & LYNN SCHLESINGER 8161 Maple Lawn Blvd, Suite 150 Beltsville, MD 20705 Phone: (410) 742-8026 Fax: (410) 742-7419 WWW.KCI.COM

DEVELOPER: NDI HOMES 154 HOLIDAY COURT, SUITE 500 ANNAPOLIS, MD 21403 Phone: 410-266-3634 Fax: 443-182-0428

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PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31084, EXPIRATION DATE: NOVEMBER 21, 2010.

KIRK & MARGO GUILLORY PROPERTY, LOT 2 SEDIMENT CONTROL NOTES

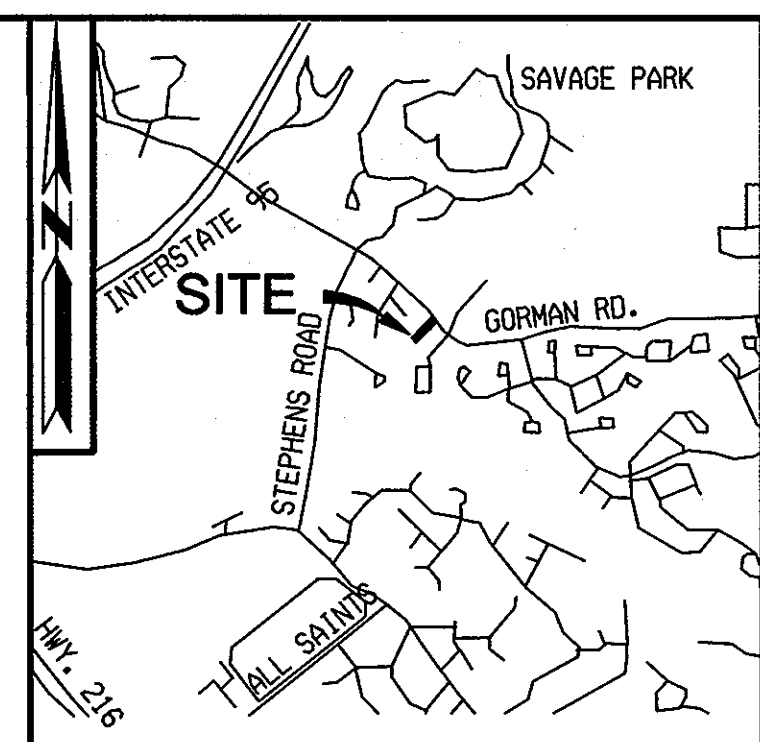
LOT 2 SINGLE FAMILY DETACHED DWELLING ZONED R-5C TAX MAP NO. 47 GRID 15 PARCEL NO. 347 HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: JUNE 17, 2010 SHEET 6 OF 8

COUNTY FILE # SDP-08-009

**GENERAL NOTES**

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- LANDSCAPING REQUIREMENTS WILL BE FURTHER REVIEWED AT THE SITE DEVELOPMENT PLAN STAGE AND IF UNCHANGED, FINANCIAL SURETY FOR THE REQUIRED (1) SHADE TREES IN THE AMOUNT OF \$3,500.00 IS TO BE POSTED WITH THE BUILDER'S GRADING PERMIT APPLICATION.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG PIPESTEM AND ROAD RIGHT-OF-WAY LINE NOT TO THE PIPESTEM LOT DRIVEWAY.
- THERE ARE NO 15% - 25% OR 25% OR GREATER SLOPES LOCATED ON THE SITE.
- SOILS INFORMATION OBTAINED FROM SOIL SURVEY OF HOWARD COUNTY DATED JULY 1969, SOIL SURVEY SHEET NUMBER 53.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTES OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING PLANT MATERIALS, BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR REPLACED.
- THE PROPOSED 16 FEET WIDE SHARED DRIVEWAY FOR LOTS 1 AND 2 MUST BE CONTAINED WITHIN A 24 FEET WIDE USE-IN-COMMON ACCESS EASEMENT (AS MEASURED FROM THE SOUTHERN EDGE OF THE PIPESTEM FOR LOT 2). A MAINTENANCE AGREEMENT FOR THIS SHARED DRIVEWAY MUST BE RECORDED CONCURRENTLY WITH THIS PLAN. THE PORTION OF THE DRIVEWAY SERVING ONLY LOT 2 MUST BE A MINIMUM OF 12 FEET WIDE AND MUST BE CONTAINED WITHIN A 20 FEET WIDE EASEMENT.
- THERE IS A HOME ON LOT 1 TO REMAIN WHICH IS NON-CONFORMING WITH RESPECT TO THE FRONT BUILDING RESTRICTION LINE AS SET FORTH UNDER SECTION 16.04D OF THE ZONING REGULATIONS. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING STRUCTURES ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS REQUIRE.
- PROPOSED STORMWATER MANAGEMENT FOR LOTS 2 IS TO BE PROVIDED THROUGH ONE (1) BIORETENTION FACILITIES LOCATED ON THE SOUTHWEST SIDE OF EACH PROPERTY.



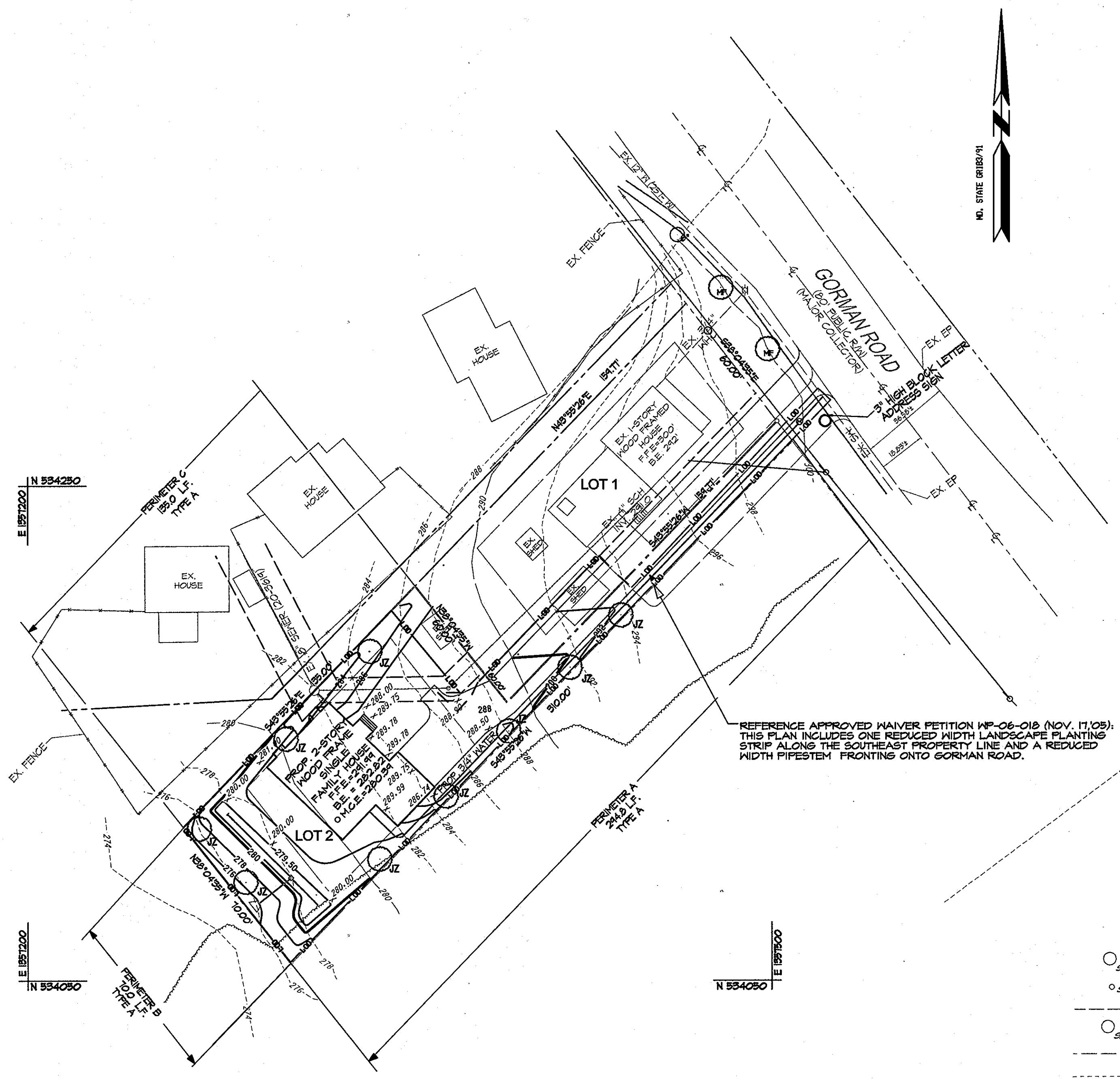
**SCHEDULE A, LANDSCAPE CHART**

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES		
		A	A	A
LANDSCAPE TYPE	STREET TREES	A	A	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	10'	PERIMETER A 244.8 LF	PERIMETER B 10.0 LF	PERIMETER C 135.0 LF
CREDIT FOR EXIST. VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	N/A	N/A	N/A
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	N/A	N/A	N/A
NUMBER OF PLANTS REQUIRED				
SHADE TREES	2	5	1	3
EVERGREEN TREES	0	0	0	0
SHRUBS	0	0	0	0
NUMBER OF PLANTS PROVIDED				
SHADE TREES	2	5	1	3
EVERGREEN TREES	0	0	0	0
SHRUBS	0	0	0	0
OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTIONS CREDITS BELOW IF NEEDED)	0	0	0	0
COMMENTS:				

LANDSCAPING REQUIRED:	LANDSCAPING PROVIDED:
SHADE TREES REQUIRED: 11	SHADE TREES PROVIDED: 11
EVERGREEN TREES REQUIRED: 0	EVERGREEN TREES PROVIDED: 0
OTHER TREES REQUIRED: 0	OTHER TREES PROVIDED: 0

**PLANT LIST CHART**

SYMBOL	KEY	QUANTITY	BOTANICAL NAME/ COMMON NAME	SIZE/ CONDITION	SPACING	REMARKS
	ZJ	4	Zelkova serrata/ Japanese Zelkova Green Vase	25'-3" CAL. B4B	AS SHOWN (60' O.C. MAX.)	FULL CROWN
	MF	2	Malus floribunda Harvest Gold/ Flowering Crabapple	25'-3" CAL. B4B	AS SHOWN (30' O.C. MAX.)	SPECIMEN



REFERENCE APPROVED HAIVER PETITION HP-06-018 (NOV. 17, 05). THIS PLAN INCLUDES ONE REDUCED WIDTH LANDSCAPE PLANTING STRIP ALONG THE SOUTHEAST PROPERTY LINE AND A REDUCED WIDTH PIPESTEM FRONTING ONTO GORMAN ROAD.

**LEGEND**

- EX. SANITARY SEWER MANHOLE
- EX. SEWER VENT PIPE
- EX. SANITARY SEWER LINE
- EX. STORM-DRAIN MANHOLE
- EX. STORM-DRAIN LINE
- EX. WATER LINE
- EX. WATER VALVE
- EX. PROPERTY LINE
- EX. CONTOUR
- EX. SPOT ELEVATION
- ADDRESS SIGN
- SOIL BORING
- PROP. CONTOUR
- PROP. SPOT ELEVATION
- LIMIT OF DISTURBANCE
- SILT FENCE
- SOIL TYPE DELINEATION
- STONE CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM
- PROPOSED TREE

**SHEET INDEX**

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2	SITE DEVELOPMENT, GRADING & UTILITY
3	STORMWATER MANAGEMENT PLAN & DETAILS
4	STORMWATER MANAGEMENT NOTES
5	SEDIMENT CONTROL PLAN & DETAILS
6	SEDIMENT CONTROL NOTES
7	LANDSCAPE PLAN
8	LANDSCAPE DETAIL SHEET

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 10/15/10  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 10/20/10  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 10/20/10  
DIRECTOR

Drafting: CS  
Check: SG  
Design: BCC  
Check: MK

**DEVELOPER'S / BUILDERS CERTIFICATE**

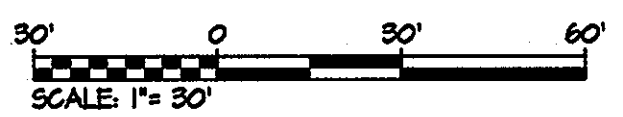
I HEREBY CERTIFY THAT THE LANDSCAPING ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN AND SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE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

*[Signature]* 9/7/10  
SIGNATURE (PRINT NAME BELOW SIGNATURE)  
MARILYN GERMAN

DATE

RECORD PLAT# 19670-19671

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31024. EXPIRATION DATE, NOVEMBER 21, 2010.

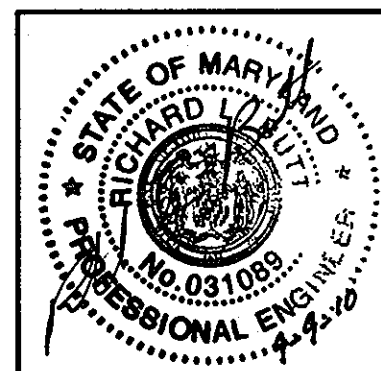


**KCI ENGINEERS PLANNERS SCIENTISTS**

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CHRISTIAN & LYNN SCHLESINGER  
5717 EVANS TRAIL WAY  
BELTSVILLE, MD 20705  
PHONE: 301-437-2712

**DEVELOPER**  
NDI HOMES  
134 HOLIDAY COURT, SUITE 200  
ANNAPOLIS, MD 21403  
PHONE: 410-266-5624  
FAX: 443-792-0425



**KIRK & MARGO GUILLORY PROPERTY, LOT 2 LANDSCAPE PLAN**

LOT 2 SINGLE FAMILY DETACHED DWELLING  
ZONED R-SC  
TAX MAP NO. 41 GRID 15 PARCEL NO. 347  
ELECTION DISTRICT 06  
HOWARD COUNTY, MARYLAND

SCALE: 1" = 30'  
DATE: JUNE 17, 2010  
SHEET 7 OF 8

**SPECIFICATIONS**

**PLANT MATERIALS AND PLANTING METHODS**

**A. Plant Materials**

The landscape contractor shall furnish and install and/or dig, ball, burlap, and transplant all of the plant materials called for on drawings and/or listed in the Plant Schedule.

**1. Plant Names**

Plant names used in the Plant Schedule shall conform to "Standardized Plant Names", latest edition.

**2. Plant Standards**

All plant material shall be equal to or better than the requirements of the "USA Standard for Nursery Stock", latest edition, as published by the American Association of Nurserymen (hereafter referred to as AAN Standards). All plants shall be typical of their species and variety, shall have a normal habit of growth, and shall be first quality, sound, vigorous, well-branched and with health, well-furnished root systems. They shall be free of disease, insect pests and mechanical injuries.

a. All plants shall be nursery grown and shall have been grown under the same climate as the location of this project for at least two years before planting. Neither heeled-in plants nor plants from cold storage will be accepted.

b. Collected plants or transplanted trees may be called for by the landscape architect and used, provided, however, that locations and soil conditions will permit proper balling.

**3. Plant Measurements**

All plants shall conform to the measurements specified in the Plant Schedule as approved by the A.C.

a. Caliper measurements shall be taken six inches (6") above grade for trees under four-inch (4") caliper and twelve inches (12") above grade for trees four inches (4") in caliper and over.

b. Minimum branching height for all trees shall be six feet (6'), maximum eight feet (8').

c. Minimum size for planting shade trees 2 1/2" - 3" caliper 12' - 14' in height.

e. Caliper, height, spread and size of ball shall be generally as follows:

Caliper	Height	Spread	Size of Ball
2 1/2" - 3"	12' - 14'	6' - 8'	28" diameter
3" - 3 1/2"	14' - 16'	6' - 8'	32" diameter
3 1/2" - 4"	14' - 16'	8' - 10'	36" diameter
4" - 4 1/2"	16' - 18'	8' - 10'	40" diameter
4 1/2" - 5"	16' - 18'	10' - 12'	34" diameter
5" - 5 1/2"	16' - 20'	10' - 12'	48" diameter
5 1/2" - 6"	18' - 20'	12' - 14'	52" diameter

All plant material shall generally average the median for the size ranges indicated above as indicated in the "AAN Standards".

**4. Plant Identification**

Legible labels shall be attached to all shade trees, minor trees, specimen shrubs and bundles or boxes of other plant material giving the botanical and common names, size and quantity of each. Each shipment of plants shall bear certificates of inspection as required by Federal, State and County authorities.

**5. Plant Inspection**

The A.C. may, upon request by the builder or developer, at least ten (10) days prior to the installation of any proposed plant material, inspect all proposed plant material at the source of origin.

**B. Planting Methods**

All proposed plant material that meet the specifications in Section A (preceding page) are to be planted in accordance with the following planting methods during the proper planting seasons as described in the following:

**1. Planting Seasons**

The planting of deciduous trees, shrubs and vines shall be from March 1st to June 15th and from September 15th to December 15th. Planting of deciduous material may be continued during the winter months providing there is no frost in the ground and frost-free topsoil planting mixtures are used.

The planting of evergreen material shall be from March 15th to June 15th and from August 15th to December 1st. No planting shall be done when ground is frozen or excessively moist. No frozen or wet topsoil shall be used at any time.

**2. Digging**

All plant material shall be dug, balled and burlapped (B+B) in accordance with the "AAN Standards."

**3. Excavation of Plant Pits**

The landscaping contractor shall excavate all plant pits, vine pits, hedge trenches and shrub beds in accordance with the following schedule:

a. Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscaping contractor.

b. All pits shall be generally circular in outline, vertical sides; depth shall not be less than 6" deeper than the root ball, diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.

c. If areas are designated as shrub beds or hedge trenches, they shall be excavated to at least 18" depth minimum. Areas designated for ground covers and vines shall be excavated to at least 12" in depth minimum.

d. Diameter and depth of tree pits shall generally be as follows:

Pit Plant Size	Pit Root Ball Diameter	Pit Depth
2 1/2" - 3" cal.	28"	56" 24"
3" - 3 1/2" cal.	32"	64" 28"
3 1/2" - 4" cal.	36"	72" 32"
4" - 4 1/2" cal.	40"	80" 36"
4 1/2" - 5" cal.	44"	88" 40"
5" - 5 1/2" cal.	48"	96" 44"
5 1/2" - 6" cal.	52"	104" 48"

A 20% compaction figure of the soil to be removed is assumed and will be allowed in calculation of extra topsoil. The tabulated pit sizes are for purposes of uniform calculation and shall not override the specified depths below the bottoms of the root balls.

**4. Staking, Guying and Wrapping**

All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

a. Stakes: Shall be sound wood 2" x 2" rough sawn oak or similar durable woods, or lengths, minimum 7' - 0" for major trees and 5' - 0" minimum for minor trees.

b. Wire and Cable: Wire shall be #10 ga. galvanized or bethanized annealed steel wire. For trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4" takeup. For trees over 5" caliper, provide 3/16", 7 strand cable cadmium plated steel, with galvanized "eye" thimbles of wire and hose on trees up to 3" in caliper.

c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 7" I.D. "Plastic Lock Ties" or "Paul's tree Braces" may be used in place of wire and hose on trees up to 3" in caliper.

d. All trees under 3" in caliper are to be planted and staked in accordance with the attached "Typical Tree Staking Detail". All trees over 3" in caliper are to be planted and guyed in accordance with the attached "Typical Tree Guying Detail."

**5. Plant Pruning, Edging and Mulching**

a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice. Broken or bruised branches shall be removed with clean cuts flush with the adjacent trunk or branches. All cuts over 1" in diameter shall be painted with an approved antiseptic tree wound dressing.

b. All Trenches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod which has been removed and stacked shall be used to trim the edges of all excavated areas to the neat lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.

c. After cultivation, all plant materials shall be mulched with a 4" layer of tan bark, peat moss, or another approved material over the entire area of the bed or saucer.

**6. Plant Inspection and Acceptance**

The A.C. shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

**7. Plant Guarantee**

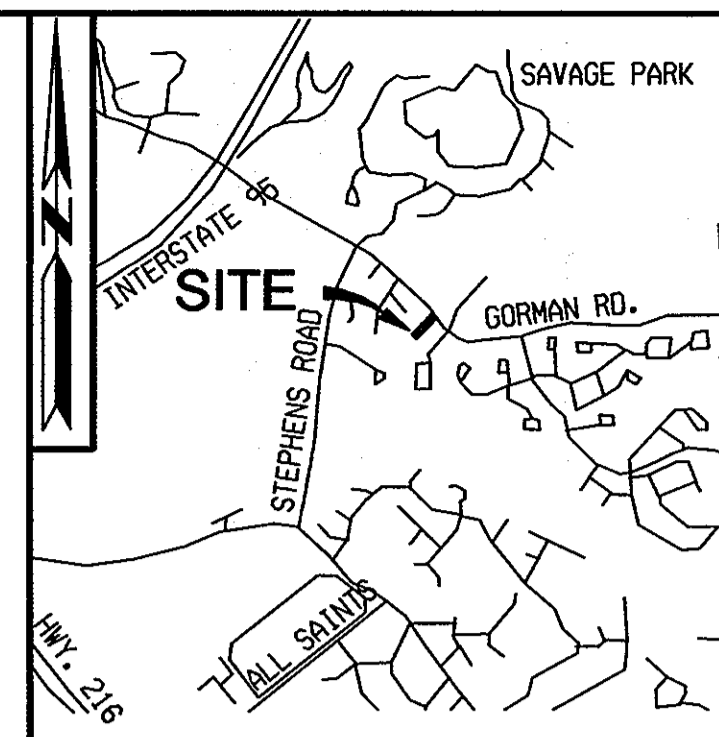
All Plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the guarantee period.

a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting season.

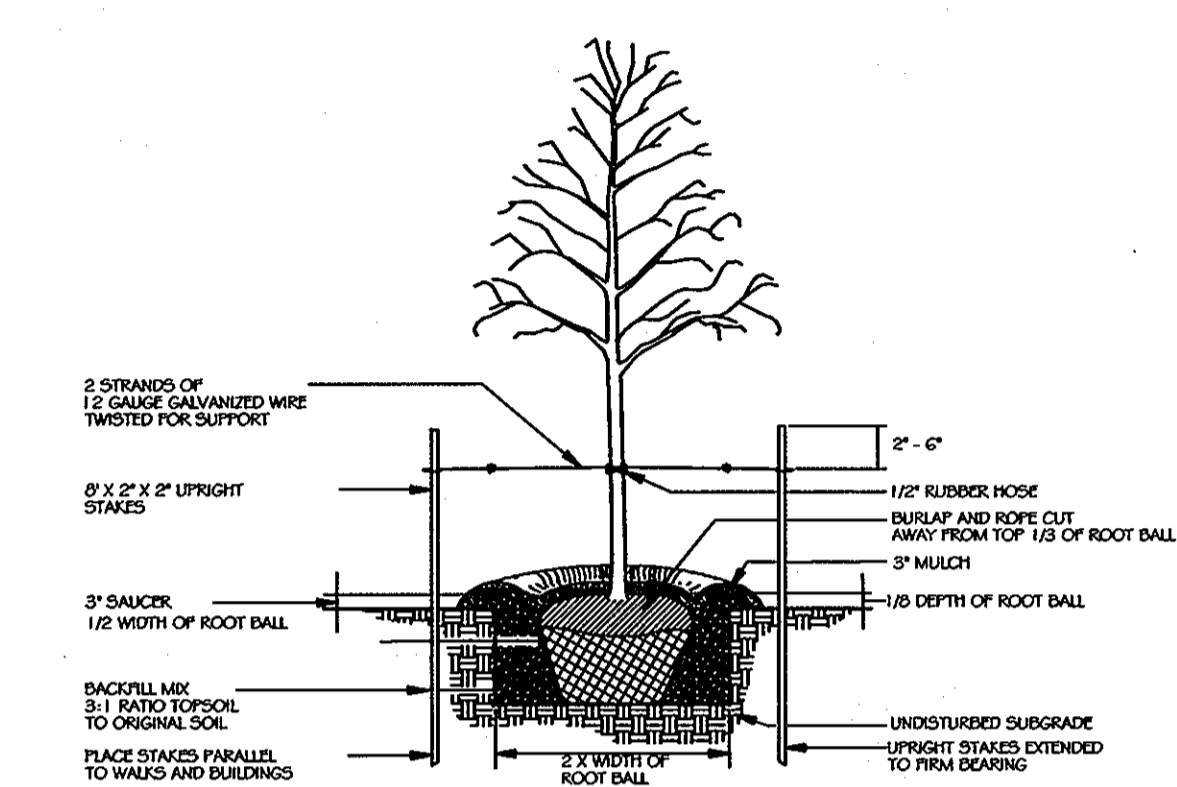
b. Guarantee for planting performed after the specified end of the "Spring" planting season, shall be extended through the end of the next following "Spring" planting season.

**SEEDING AND SODDING**

A. All seeding and sodding shall be as per "Standards and Specifications for Soil Erosion and Sediment Control in Urbanized Areas" as published by the Department of Natural Resources.



**VICINITY MAP**  
SCALE: 1" = 2000'  
ADC MAP: 14 GRID: K-8



**TREE PLANTING DETAIL**  
NOT TO SCALE

APPROVED FOR HOWARD SCD AND MEETS ENVIRONMENTAL REQUIREMENTS

USDA - NATURAL RESOURCES CONSERVATION SERVICE  
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SCD  
APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

10/15/10  
10/24/10  
10/24/10

Drafting CS  
Check SG  
Design BCC  
Check MK

BY THE DEVELOPER:

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 INSPECTIONS BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

10/15/10  
10/24/10  
10/24/10

DEVELOPER DATE  
ENGINEER DATE

**KCI ENGINEERS PLANNERS SCIENTISTS TECHNOLOGIES CONSTRUCTION MANAGERS**

8161 Maple Lawn Blvd, Suite 150  
Fulton Maryland 20754  
Phone: (410) 792-8026  
Fax: (410) 792-7419  
www.kci.com

BY THE ENGINEER:

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.

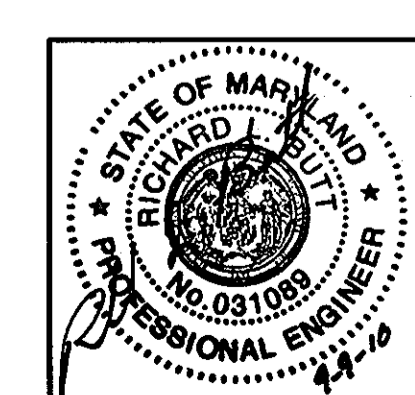
RECORD PLAT# 19670-19671

OWNER: CHRISTIAN & LYNN SCHLESINGER  
8711 EVANS TRAIL WAY  
BELTSVILLE, MD 20705  
PHONE: 301-437-2712

DEVELOPER: NDI HOMES  
184 HOLIDAY COURT, SUITE 800  
ANNAPOLIS, MD 21401  
PHONE: 410-266-5654  
FAX: 443-782-0425

SCALE: N.T.S.

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**KIRK & MARGO GUILLORY PROPERTY, LOT 2 LANDSCAPE DETAIL SHEETS**

LOT 2 SINGLE FAMILY DETACHED DWELLING  
ZONED R-5C  
TAX MAP NO. 47 GRID 15 PARCEL NO. 347  
ELECTION DISTRICT 06  
HOWARD COUNTY, MARYLAND

SCALE: N.T.S.  
DATE: JUNE 11, 2010  
SHEET 8 OF 8

COUNTY FILE # SDP-08-009