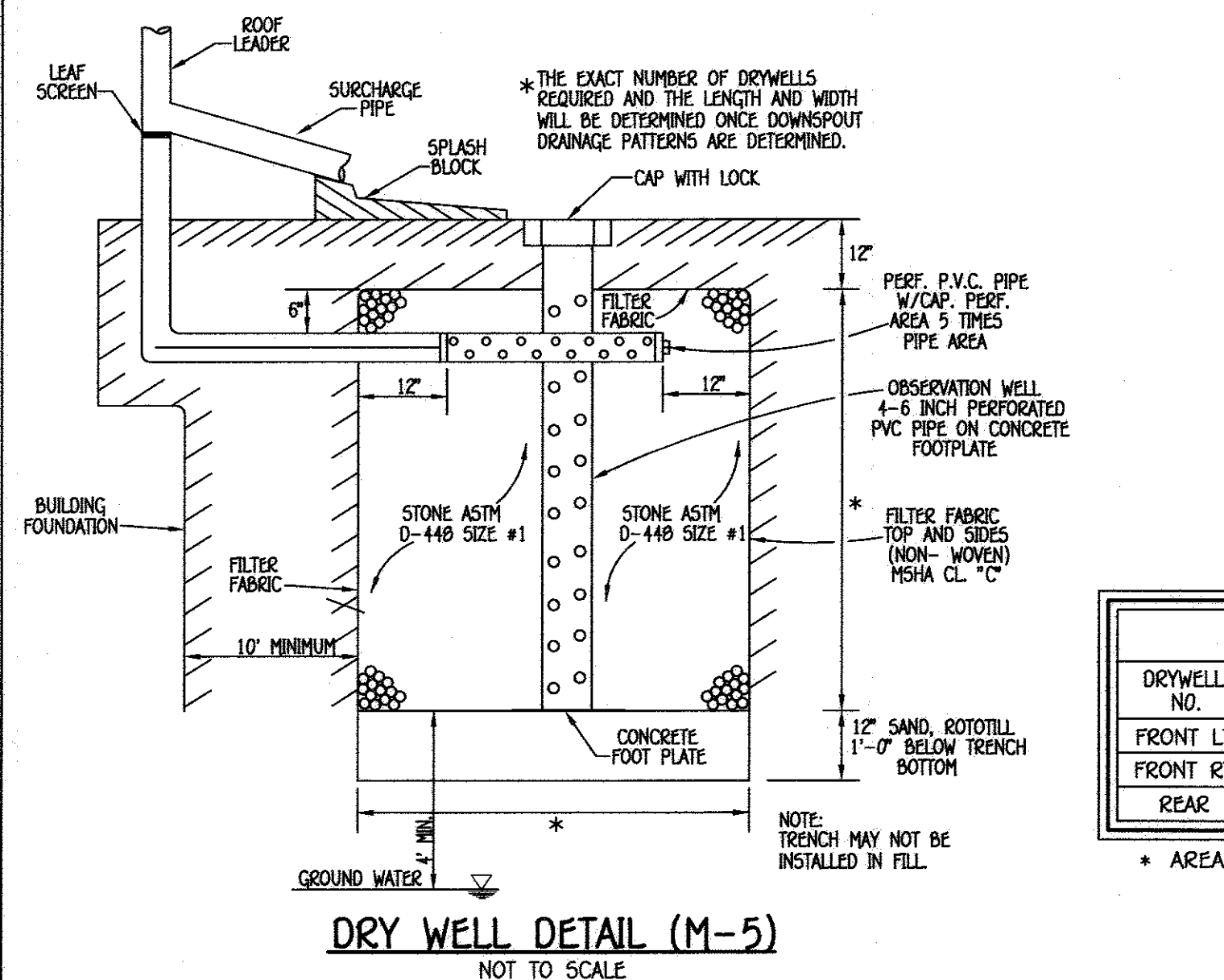


SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	DETAILS AND NOTES

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
GhB	Glennville-Urban land complex, 0 to 8 percent slopes	B	0.20
GnB	Glennville-Baile silt loams, 0 to 8 percent slopes (HYDRIC)	C	0.37

STORMWATER MANAGEMENT SUMMARY			
AREA ID.	ESDY REQUIRED CU.FT.	ESDY PROVIDED CU.FT.	REMARKS
SITE	279	306	DRY WELLS (M-5)
TOTAL	279	306	

GROSS AREA = 0.46 ACRES
 LOD = 0.26 ACRES
 RCN = 58.9
 TARGET Pe = 1.0'



GUTTER DRAIN FILTER DETAIL
NOT TO SCALE

STORMWATER MANAGEMENT NOTES

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.

DRY WELL CHART					
DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L W D
FRONT LT	505 SQ. FT.	40 C.F.	72 C.F.	100%*	6' x 6' x 5'
FRONT RT	582 SQ. FT.	47 C.F.	72 C.F.	100%*	6' x 6' x 5'
REAR	798 SQ. FT.	64 C.F.	162 C.F.	100%*	9' x 9' x 5'

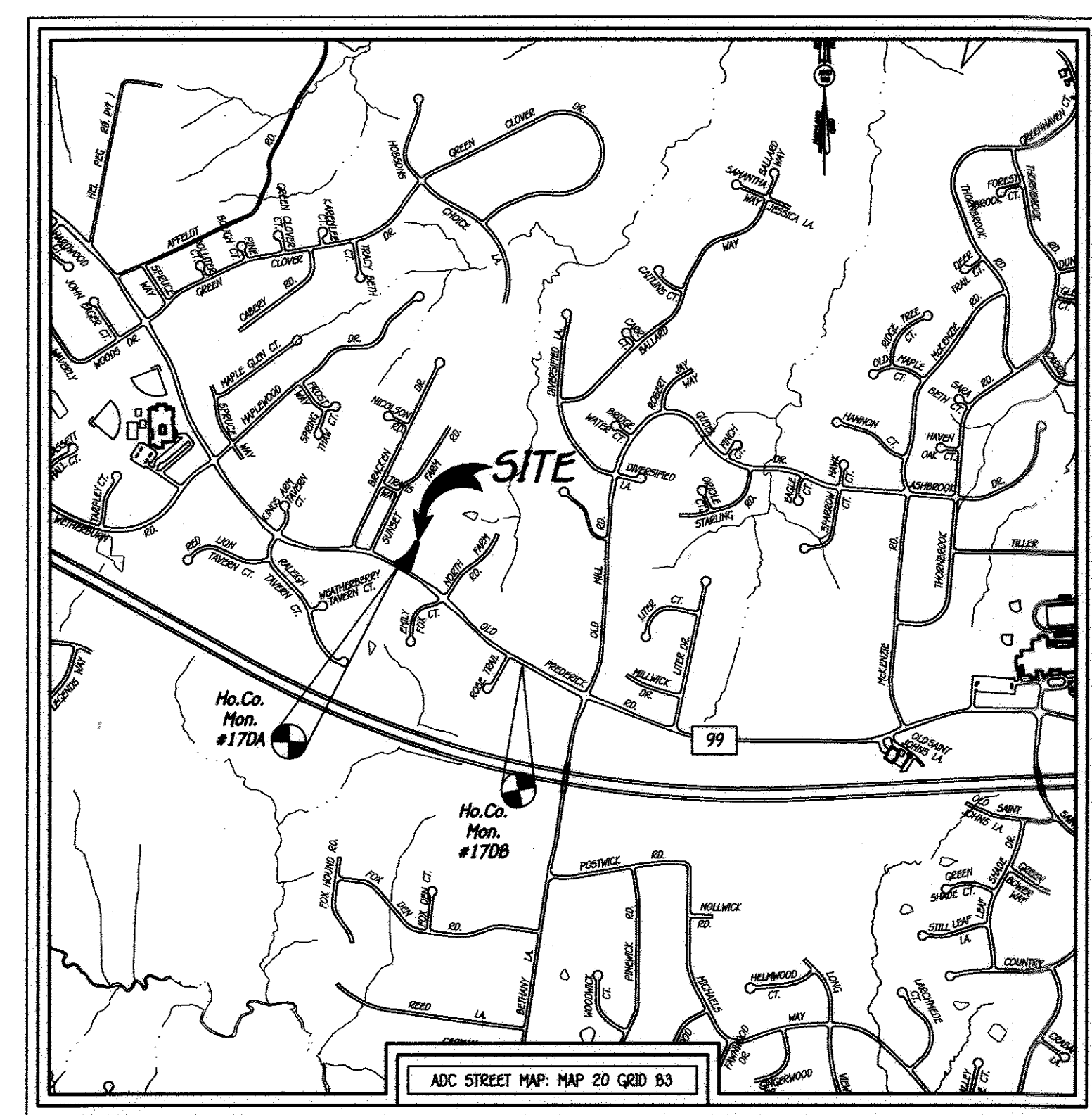
* AREA OF TREATMENT EXCEEDS THAT REQUIRED.

SITE DEVELOPMENT PLAN

10078 OLD FREDERICK ROAD

MARK KLEIN PROPERTY, LOT 5

TAX MAP No. 17 GRID No. 8 PARCEL NO. 613
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 1200'

BENCHMARK INFORMATION	
B.M.#1 - HOWARD COUNTY CONTROL STATION #170A - HORIZONTAL - (NAD '83) (LOCATED ON RT. 99, 0.4 MILES WEST OF BETHANY LANE) N 995.410,810 E 1,351,641,161 ELEVATION = 481.246 - VERTICAL - (NAVD '86)	
B.M.#2 - HOWARD COUNTY CONTROL STATION #170B - HORIZONTAL - (NAD '83) (LOCATED ON RT. 99, 0.1 MILES WEST OF BETHANY LANE) N 994,529,513 E 1,352,722,855 ELEVATION = 475.219 - VERTICAL - (NAVD '86)	

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

- THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE.
- THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---492---	EXISTING 2' CONTOURS	---	PROPOSED CONTOUR
---490---	EXISTING 10' CONTOURS	+362.5	SPOT ELEVATION
GhB	SOILS LINES AND TYPE	---	LIMITS OF DISTURBANCE
GhC		---	PROPOSED TREE LINE
---	EXISTING TREE LINE	---	SILT FENCE
---	EXISTING FENCE LINE	---	EROSION CONTROL MATTING
---	PROPOSED PAVING	---	SUPER SILT FENCE
---	DRAINAGE AREA DIVIDE	---	STABILIZES CONSTRUCTION ENTRANCE
---	EXISTING 65 DBA NOISE LINE (PLAT NO. 10092)	---	30' PRIVATE ACCESS EASEMENT FOR THE USE AND BENEFIT OF LOT 6 (PLAT NO. 23410)
---	EXISTING 30' PRIVATE USE-IN-COMMON ACCESS EASEMENT FOR LOTS 1-4 (PLAT NO. 10092 & L. 2392, F. 009) LOTS 1 & 2 RENUMBERED AS 5 & 6	---	30' PRIVATE SEWER, WATER EASEMENT FOR THE USE AND BENEFIT OF LOT 6 (PLAT NO. 23410)

GENERAL NOTES

- THE SUBJECT PROPERTY IS ZONED R-20 (PER DATE 10/06/2013 COMPREHENSIVE ZONING PLAN).
- COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PREDICTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 170A AND 170B.
- BOUNDARY SHOWN HEREON IS BASED ON FIELD RUN TOPOGRAPHY PERFORMED BY FISHER, COLLINS & CARTER, INC. DATED MARCH, 2015 AND SUPPLEMENTED WITH HOWARD COUNTY GIS TOPOGRAPHY AT 5' CONTOUR INTERVAL INTERPOLATED FOR 2' CONTOUR INTERVAL.
- 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 THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.C. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH CHAPTER 5, THREE (3) DRYWELLS, ARE BEING UTILIZED.
- THIS PROPERTY IS LOCATED INSIDE THE METROPOLITAN DISTRICT. LOT IS TO BE SERVED EXISTING PUBLIC WATER AND PUBLIC SEWER HOUSE CONNECTIONS, CONTRACT #2793-5 & #557-W.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- NO 100 YEAR FLOODPLAIN, WETLANDS, STREAM(S) AND/OR THEIR BUFFERS, NOR STEEP SLOPES EXIST ON-SITE.
- NO FOREST STANDS EXIST ON-SITE. SEE ENVIRONMENTAL FINDINGS LETTER PREPARED BY FISHER, COLLINS & CARTER, INC. DATED OCTOBER, 2016.
- THIS LOT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202(b)(1)(ii), SINCE IT IS A LOT LESS THAN 40,000 SQ.FT. IN SIZE.
- ALL LOT AREAS ARE MORE OR LESS (±).
- DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND NOT REDUCED TO NAD '83 GRID MEASUREMENT.
- TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- NO CEMETERIES EXIST ON THIS SITE BASED ON A VISUAL SITE VISIT AND BASED ON AN EXAMINATION OF THE HOWARD COUNTY CEMETERY INVENTORY MAP.
- WATER AND SEWER SERVICE TO THIS LOT WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 16.1228 OF THE HOWARD COUNTY CODE.
- PUBLIC WATER AND SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- ALL WATER HOUSE CONNECTIONS SHALL BE OUTSIDE METER SETTING UNLESS OTHERWISE NOTED ON THE PLANS OR IN SPECIFICATIONS.
- NO NOISE STUDY IS REQUIRED FOR THIS PROJECT. STUDY PROVIDED UNDER F-91-043. THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS DEVELOPMENT 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.
- THIS PLAN IS SUBJECT TO THE METROPOLITAN DISTRICT. LOT IS TO BE SERVED EXISTING PUBLIC WATER AND PUBLIC SEWER HOUSE CONNECTIONS, CONTRACT #2793-5 & #557-W.
- FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF FLAG OR PIPE STEM AND ROAD RIGHT-OF-WAY LINE ONLY AND NOT ONTO THE FLAG OR PIPE STEM LOT DRIVEWAY.
- TRASH AND RECYCLABLES COLLECTION WILL BE AT OLD FREDERICK ROAD WITHIN 5' OF THE COUNTY ROADWAY.
- DRIVEWAY SHALL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL R-6.06 IN THE VOL. IV DESIGN MANUAL.
- IN ACCORDANCE WITH SECTION 128 (01/01/16) OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTENSOR 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.
- LANDSCAPING IS NOT REQUIRED SINCE LOT 5 IS INTERIOR TO THE MARK KLEIN SUBDIVISION.
- THE PROPOSED UNITS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- EXISTING UTILITIES ARE BASED ON FIELD LOCATION AND SUPPLEMENTED WITH HOWARD COUNTY RECORDS.
- SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
- PARKING FOR THIS PROJECT IS PROVIDED AS FOLLOWS:
 4 SPACES PER LOT (2 CAR SPACES + 2 SPACES PER PRIVATE ON-LOT DRIVEWAY)
 TWO CAR GARAGE SPACES TO BE USED FOR PARKING ONLY OR STORAGE SPACE.
- THE FOLLOWING SHALL BE NOTED REGARDING TRAFFIC CONTROL SIGNS IN THE COUNTY RIGHT-OF-WAY:
 (A) ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED SQUARE PITCH (PERCH) SQUARE TUBE POST (14 GAUGE) INTO A 2-1/2" GALVANIZED STEEL, PERFORATED SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO (2) FEET PUNCH HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
 (B) A PRIVATE RANGE OF ADDRESS SIGN SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DRIVEWAY ACCESS POINT ON TEN OAKS ROAD AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 MISS UTILITY 1.800.257.7777
 BCE(CONTRACTOR SERVICES) 410.850.4820
 BCE(UNDERGROUND DAMAGE CONTROL) 410.787.9088
 COLONIAL PIPELINE COMPANY 410.531.9538
 HOWARD COUNTY, DEPT. OF PUBLIC WORKS, BUREAU OF UTILITIES 410.313.4900
 HOWARD COUNTY HEALTH DEPARTMENT 410.313.2840
 AT&T 1.800.252.1133
 VERIZON 1.800.743.9033/410.224.9210
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
 a) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE);
 b) SURFACE - SIX (6) INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1 - 1/2" MINIMUM);
 c) GEOMETRY - MAXIMUM 1% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
 d) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H2S-LOADING);
 e) DRAINAGE DEPTHS - CAPABLE OF SAFELY PARKING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER SURFACE;
 f) STRUCTURE CLEARANCES - MINIMUM 12 FEET;
 g) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.

SITE ANALYSIS DATA CHART

- TOTAL AREA OF THIS SUBMISSION = 20,000 SQ.FT. OR 0.46 AC.
- LIMIT OF DISTURBED AREA = 11,140 SQ.FT. OR 0.26 AC.
- PRESENT ZONING DESIGNATION = R-20 (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
- PROPOSED USE - RESIDENTIAL
- PREVIOUS HOWARD COUNTY FILES: F-91-43, F-15-107, WF-91-037, & ECP-17-008.
- TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0.00 AC
- TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.00 AC
- TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC.
- TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0.00 AC.
- TOTAL AREA OF FOREST (INCLUDING BUFFER) = 0.00 AC
- TOTAL GREEN OPEN AREA = 0.40 AC
- TOTAL IMPERVIOUS AREA = 0.06 AC
- TOTAL AREA OF ERODIBLE SOILS = 0.12 AC. (HYDRIC SOILS)
- TOTAL AREA OF ROAD DEGRADATION = 0.00 AC.
- PARKING REQUIRED = 8 SPACES PER LOT
- PARKING PROVIDED = 4 SPACES (2 CAR SPACES AND 2 DRIVEWAY SPACES)

ADDRESS CHART	
LOT #	STREET ADDRESS
5	10078 OLD FREDERICK ROAD

Table B.4. Materials Specifications for Micro-Bioretenion, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil	loamy sand 60-85% comp. 35-40% or sandy loam 30% coarse sand 30% comp. 40%		USDA soil types loamy sand or sandy loam; clay content <5% (2" to 4" deep)
Organic Content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum
Peat gravel diaphragm	peat gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Curbin drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type I nonwoven
Gravel (underdrains and infiltration berms)	ASHTO M-43	No. 57 or No. Aggregate (3/8" to 3/4")	
Underdrain piping	F 756, Type P5 28 or ASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe: 3/8" per. @ 6" on center, 4 holes per row, minimum of 3" of gravel over pipe; not necessary underdrain pipes. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-615-65	n.a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved site or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 308.8.09; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	ASHTO M-6 or ASTM-C-33	0.075" to 0.04"	Sand substitutions such as Dabase and Graystone (ASHTO) #10 are not acceptable. No calcium carbide or dolomite sand substitutions are acceptable. No "rock dust" can be used for sand.

OWNER
KAREN KILLIAN
10080 OLD FREDERICK ROAD
ELLCOTT CITY, MD 21042
443-864-1403

BUILDER / DEVELOPER
BURKARD HOMES
5300 DORSEY HALL DRIVE
SUITE 102
ELLCOTT CITY, MD 21042
240-375-1012

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SERVICE OFFICE: 10272 BALTIMORE NATIONAL PkE
ELLCOTT CITY, MARYLAND 21042
(410) 461-2895

NO.	REVISION	DATE	X

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Joh R. Roberts
Howard SCD
8/9/17

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. 38366, EXPIRATION DATE: 01/12/2018.

Stephen J. Jantz
Signature Of Professional Engineer
DATE: 8/4/17

BUILDER/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 ANY 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 SOIL CONSERVATION DISTRICT."

ACD
Signature of Developer
DATE: 8/7/17

ENGINEER'S CERTIFICATE

"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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."

Stephen J. Jantz
Signature of Engineer
DATE: 8/4/17

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Valerie Zolner
Director - Department of Planning and Zoning
DATE: 8/22-17

Veronica
Chief, Division of Land Development
DATE: 8/12-17

U. L. L.
Chief, Engineering Division
DATE: 8/12-17

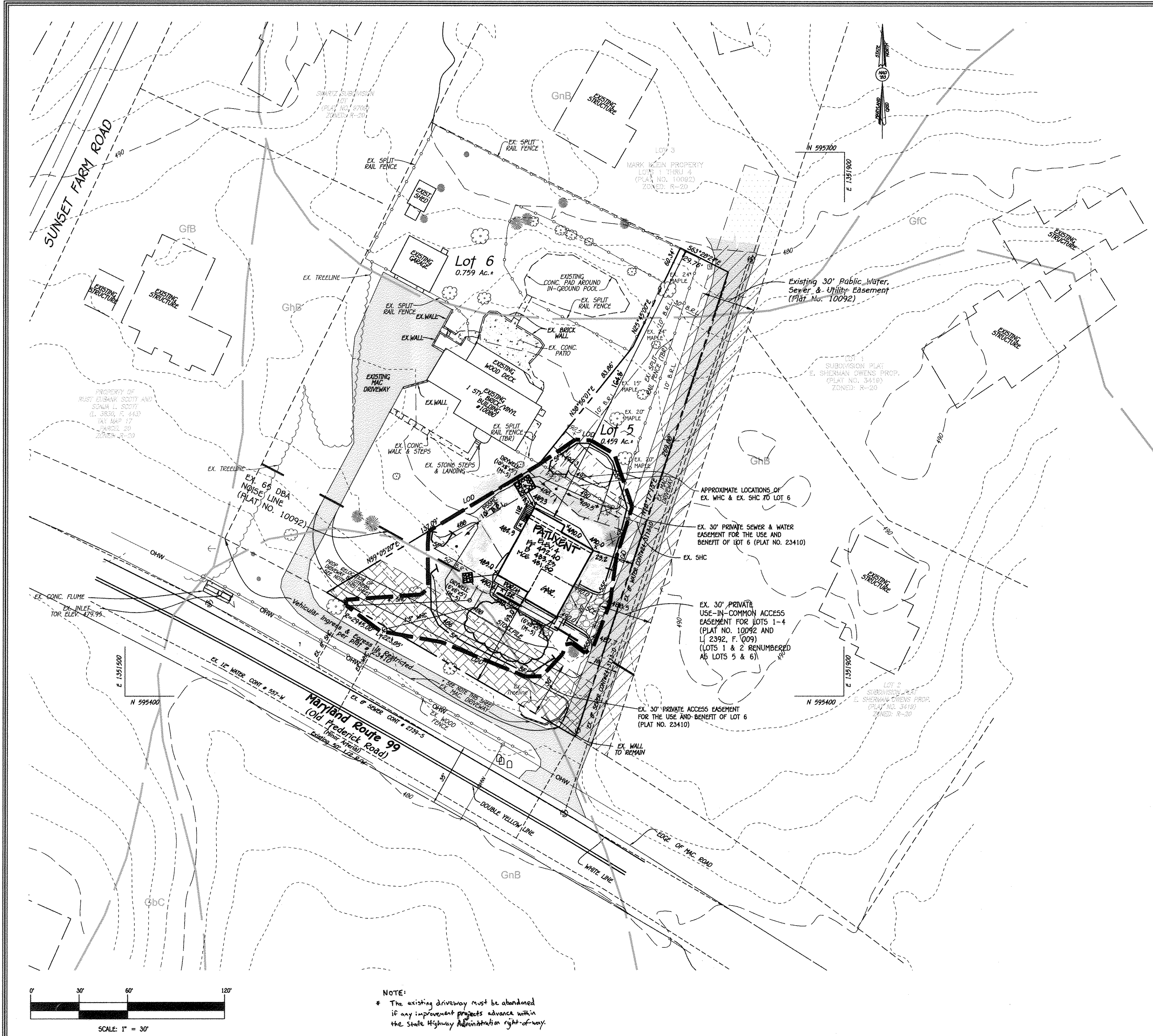
TITLE SHEET

10078 OLD FREDERICK ROAD
MARK KLEIN PROPERTY, LOT 5
ZONED R-20

TAX MAP No. 17 GRID No. 8 PARCEL No. 613
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST, 2017
SHEET 1 OF 3

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23410	8	R-20	17	SECOND	602100

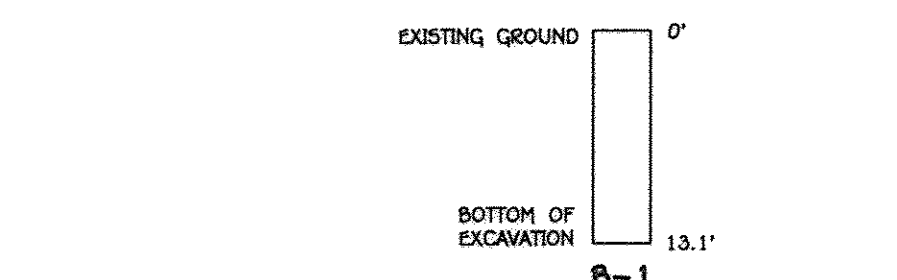
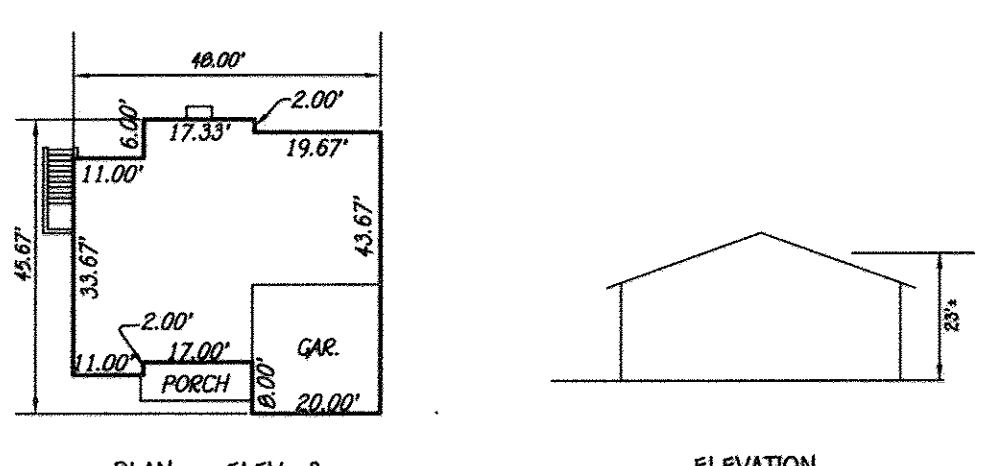
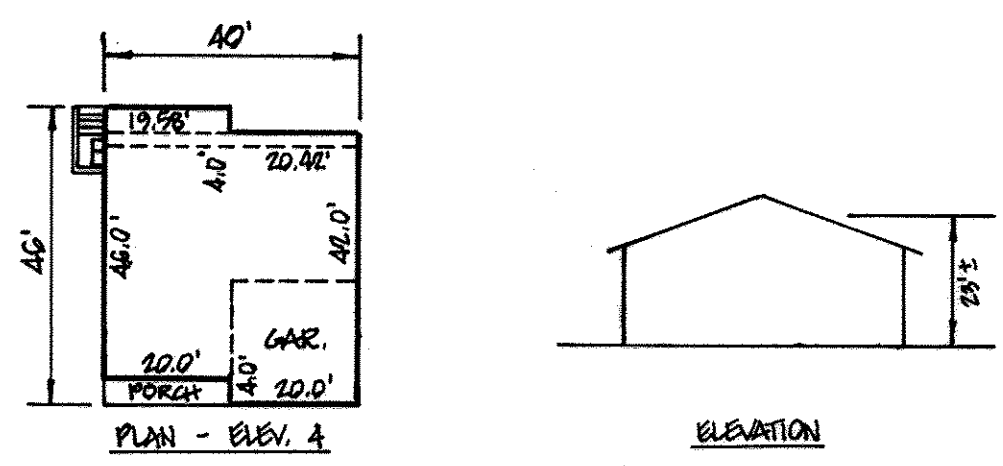
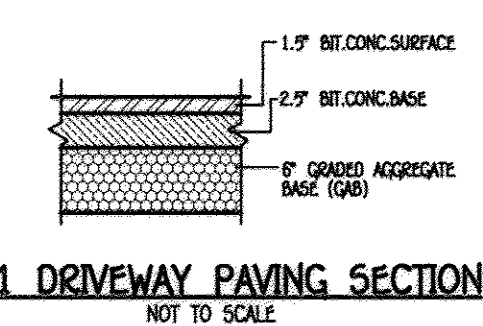
SDP-17-004



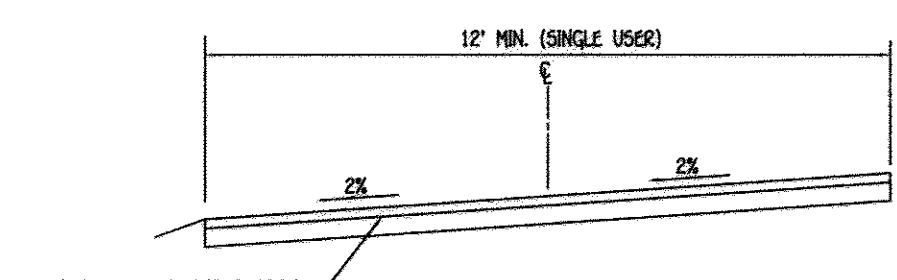
LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---	EXISTING 2' CONTOURS	---	PROPOSED CONTOUR
---	EXISTING 10' CONTOURS	+	SPOT ELEVATION
GFB, GbC	SOILS LINES AND TYPE	---	LOD
---	EXISTING TREELINE	---	PROPOSED TREELINE
---	EXISTING FENCE LINE	---	SILT FENCE
---	PROPOSED PAVING	---	PERMANENT SOIL STABILIZATION MATTING
---	DRAINAGE AREA DIVIDE	---	SUPER SILT FENCE
---	EXISTING 65 DBA NOISE LINE (PLAT NO. 10092)	---	STABILIZED CONSTRUCTION ENTRANCE
---	EXISTING 30' PRIVATE USE-IN-COMMON ACCESS EASEMENT FOR LOTS 1-4 (PLAT NO. 10092 & L. 2392, F. 009) LOTS 1 & 2 RENUMBERED AS 5 & 6	---	30' PRIVATE ACCESS EASEMENT FOR THE USE AND BENEFIT OF LOT 6 (PLAT NO. 23410)
---	EXISTING 30' PUBLIC WATER, SEWER & UTILITY EASEMENT (PLAT NO. 10092)	---	30' PRIVATE SEWER, WATER EASEMENT FOR THE USE AND BENEFIT OF LOT 6 (PLAT NO. 23410)

SEWER HOUSE CONNECTION CHART							
LOT	SLOPE	ELEVATION AT ROW	ELEVATION AT CLEANOUT	ELEV AT HOUSE	MCE	BSE	FFE
5	2%	EX. 478.70 (GRT) 478.72 (DB)	477.04 (GRT) 478.04 (DB)	478.50	481.50	483.23	492.40

STORMWATER MANAGEMENT PRACTICES		
LOT NO.	ADDRESS	DRY WELLS (M-5) Y/N, NUMBER
5	10078 OLD FREDERICK ROAD	YES, THREE (3)

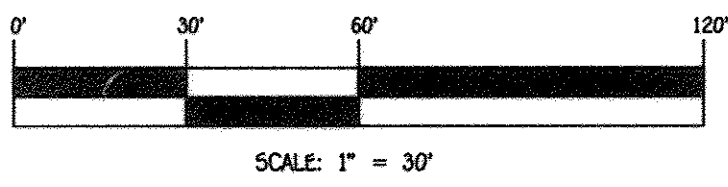


NOTE: SOIL PROFILE BASED ON ON-SITE OBSERVATION ON JANUARY 31, 2017. NO ROCK OR WATER WAS ENCOUNTERED.



NOTE: ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.

NOTE:
* The existing driveway must be abandoned if any improvement projects advance within the State Highway Administration right-of-way.



OWNER
KAREN KILLIAN
10080 OLD FREDERICK ROAD
ELLICOTT CITY, MD 21042
443-864-1403

BUILDER / DEVELOPER
BURKARD HOMES
5300 DORSEY HALL DRIVE
SUITE 102
ELLICOTT CITY, MD 21042
240-375-1012

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 18272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461-2995

NO.	REVISION	DATE	X
1	REVISE TYPE & CALL FROM PERMITS TO PATUXENT HOUSE TYPE & ADD PATUXENT HOUSE TYPE	8/26/17	

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

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. 38306, EXPIRATION DATE: 01/12/2018.

Stephen J. Jute 8/14/17
Signature of Professional Engineer DATE

BUILDER/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 ANY 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 SOIL CONSERVATION DISTRICT.

Mark Klein 8/17/17
Signature of Developer DATE

ENGINEER'S CERTIFICATE
I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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.

Stephen J. Jute 8/14/17
Signature of Engineer DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

N. Williams 8-22-17
Director - Department of Planning and Zoning DATE

Kevin S. ... 8-22-17
Chief, Division of Land Development DATE

... 8-17-17
Chief, Professional Engineering Division DATE

MARK KLEIN PROPERTY, LOT 5 10078 OLD FREDERICK ROAD ELLICOTT CITY, MD 21042	SECTION N/A	PARCEL NO. 613
PLAT 23410	BLOCK NO. 8	TAX/ZONE 17
ELEC. DIST. SECOND	CENSUS TR. 602100	

SITE DEVELOPMENT PLAN

10078 OLD FREDERICK ROAD
MARK KLEIN PROPERTY, LOT 5
ZONED R-20
TAX MAP No. 17 GRID No. 8 PARCEL No. 613
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST, 2017
SHEET 2 OF 3

SDP-17-004

SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

A. Soil Preparation

- 1. Temporary Stabilization
a. Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment...
2. Permanent Stabilization
a. A soil test is required for any earth disturbance of 5 acres or more...

- 1. WCMH is to be dried green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection...
2. Application
a. Apply mulch to all seeded areas immediately after seeding...
3. Anchoring
a. Perform mulch anchoring immediately following application of mulch to minimize loss of wind or water...

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

- 1. General Specifications
a. Sod of turfgrass sod must be Maryland State Certified...
2. Sod Installation
a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod...
3. Sod Maintenance
a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches...

B-4-3 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

- 1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan...
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1...
3. Runoff from the stockpile area must drain to a suitable sediment control practice...

TEMPORARY SEEDING NOTES (B-4-4)

- 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardness Zone...
2. For sites having soil test performed, use and show the recommended rates by the testing agency...
3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3A.1.b...

Table with columns: Species, Application Rate (lb/ac), Seeding Dates, Seeding Depths, Fertilizer Rate (10-20-20) (lb/ac), Lime Rate (1000 sf)

PERMANENT SEEDING NOTES (B-4-5)

- 1. General Use
a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardness Zone...
2. Turfgrass Mixtures
a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance...

B. Topsoiling

- 1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation...
2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications...
3. Topsoiling 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...
4. Areas having slopes steeper than 2:1 require special consideration and design...

C. Soil Amendments (Fertilizer and Lime Specifications)

- 1. Soil tests must be performed to determine the exact rates and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more...
2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment...
3. Where the subsoil is either highly acidic or composed of heavy clay, spread ground limestone at the rate of 4 to 6 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil...

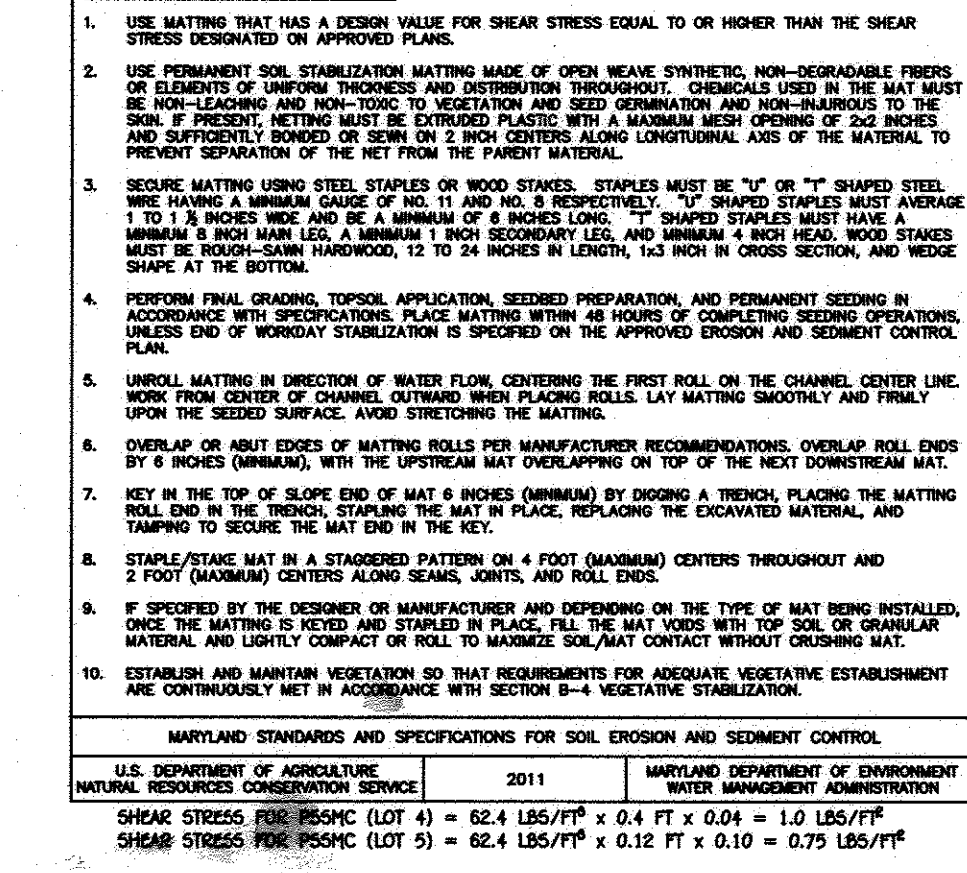
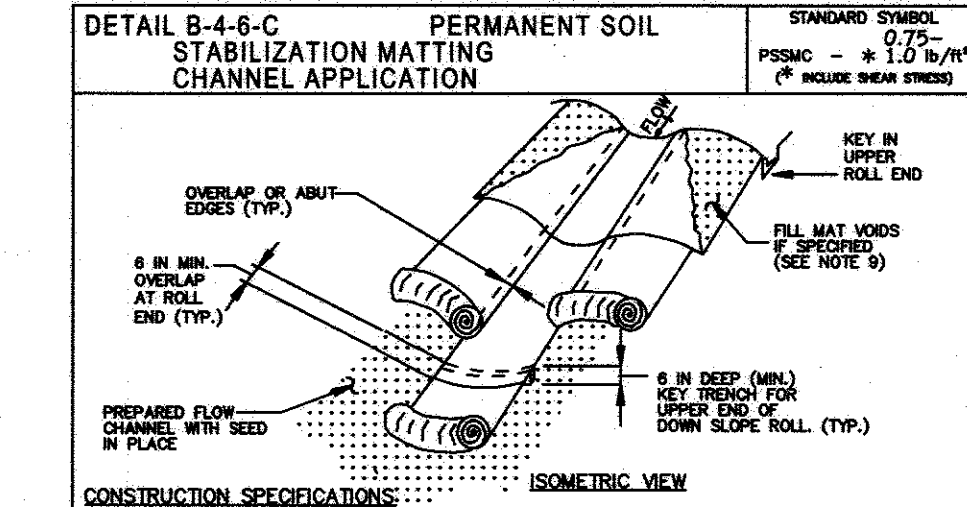
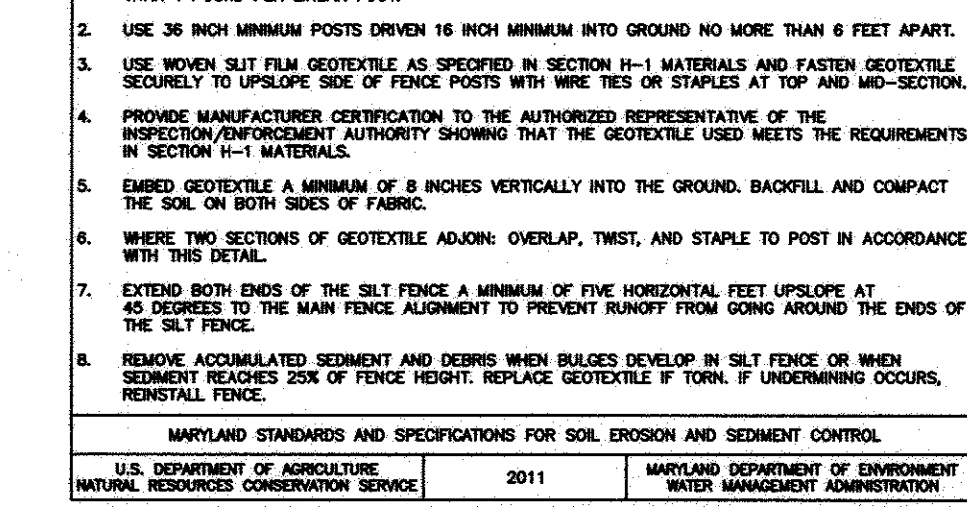
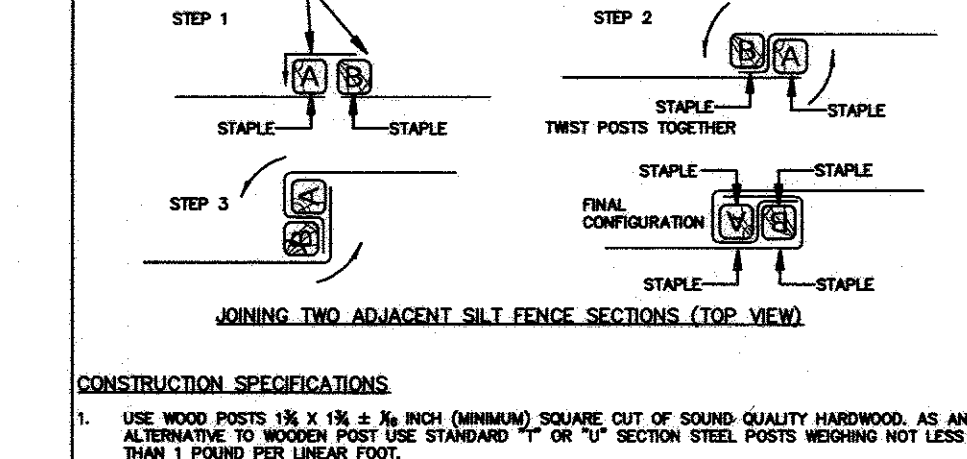
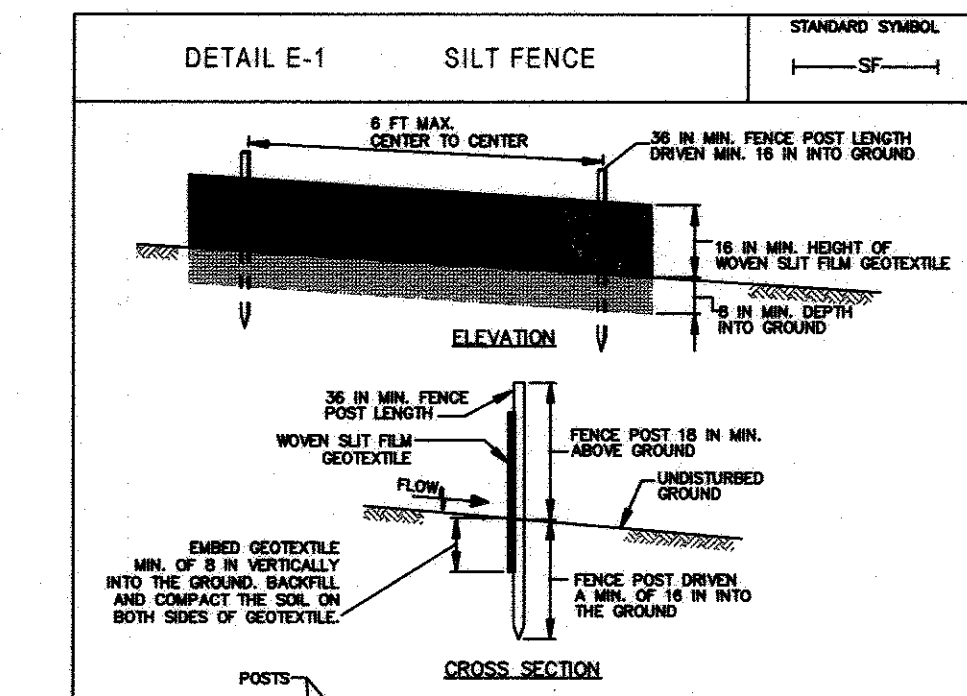
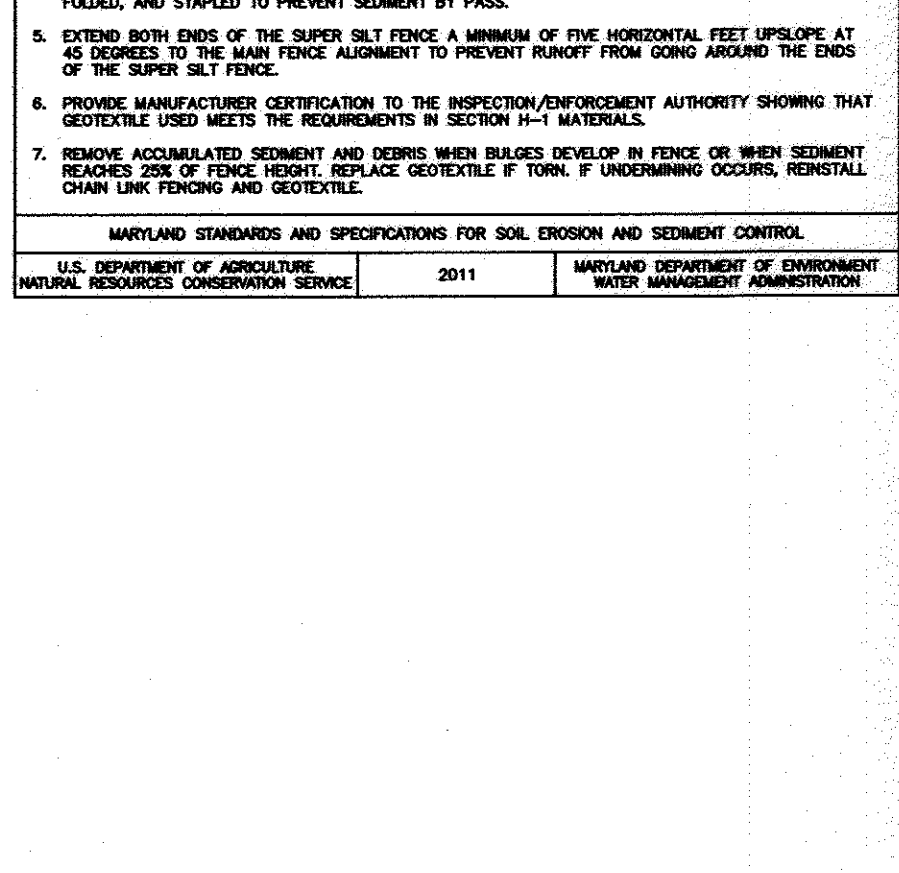
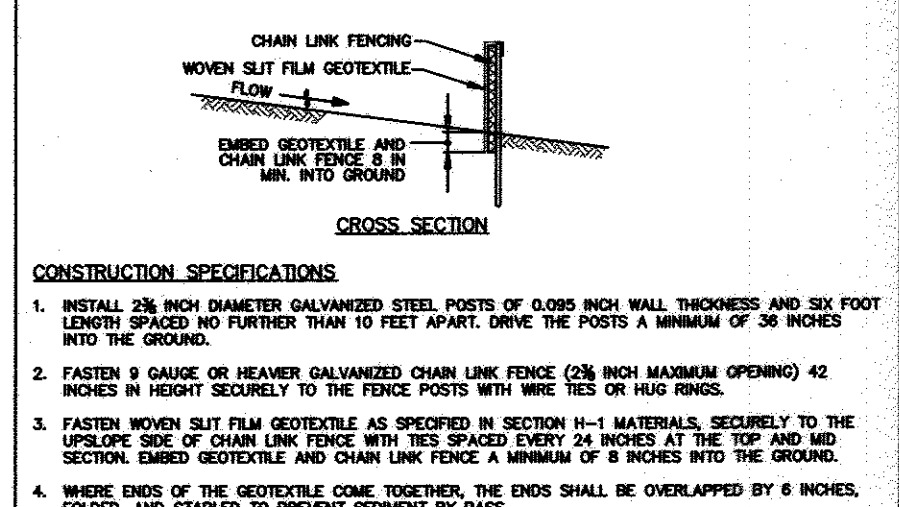
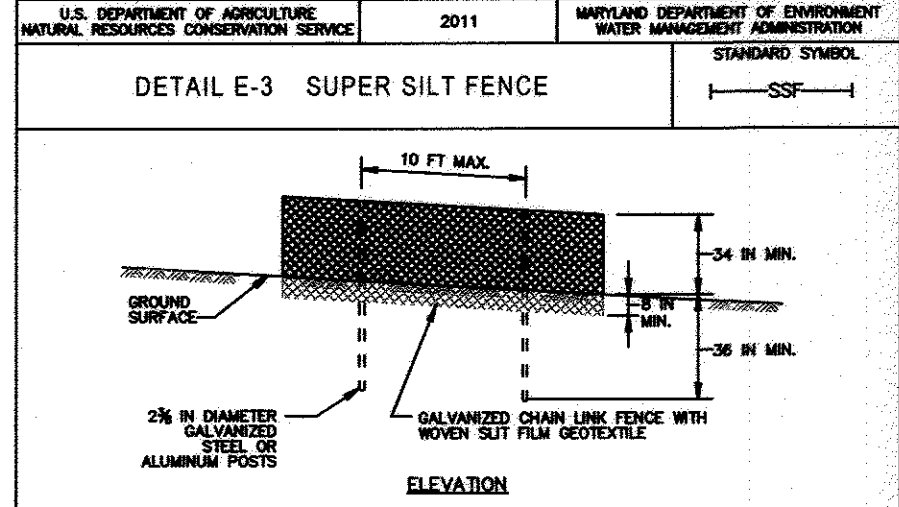
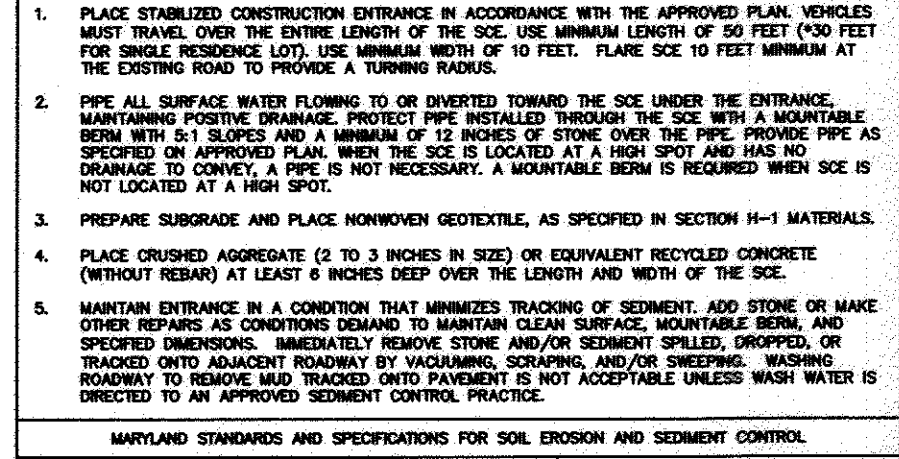
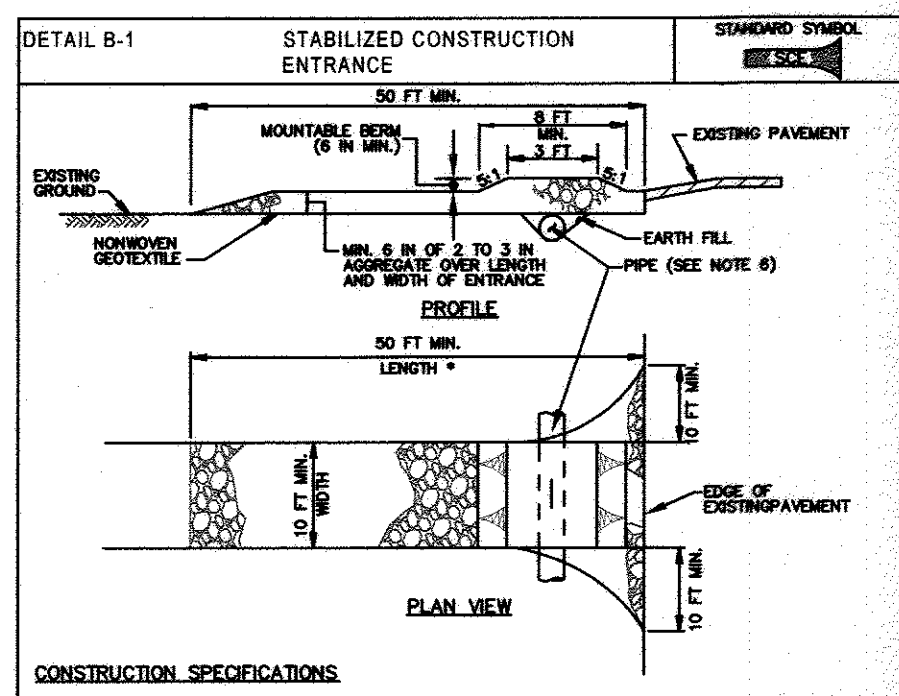
B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

- The application of seed and mulch to establish vegetative cover.
1. Seeding
a. All seed must meet the requirement of the Maryland State Seed Law...
2. Application
a. Dry Seeding: This includes use of conventional drop or broadcast spreaders...
3. Mulching
a. Mulch Materials (in order of preference):
i. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color...

Table with columns: Hardness Zone, Species, Application Rate (lb/ac), Seeding Dates, Seeding Depths, N, P2O5, K2O, Lime Rate (1000 sf)

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

- 1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1895...
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1...
3. Runoff from the stockpile area must drain to a suitable sediment control practice...
4. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance...



- 1. OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR...
2. NOTIFY 'MSS UTILITY' AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK...
3. NOTIFY 'MSS UTILITY' AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK...
4. NOTIFY 'MSS UTILITY' AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK...

OWNER: KAREN KILLIAN, 10080 OLD FREDERICK ROAD, ELLICOTT CITY, MD 21042. BUILDER / DEVELOPER: BURKARD HOMES, 5500 DORSEY HALL DRIVE, SUITE 102, ELLICOTT CITY, MD 21042. FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. Signature of Professional Engineer: Stephen J. Lutz, DATE: 8/4/17.

BUILDER/DEVELOPER'S CERTIFICATE: I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL... ENGINEER'S CERTIFICATE: I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN...

APPROVED: DEPARTMENT OF PLANNING AND ZONING. Director: Department of Planning and Zoning, DATE: 8-22-17. Chief, Division of Land Development: DATE: 8-22-17. Chief, Development Engineering Division: DATE: 8/17/17.

SEDIMENT & EROSION CONTROL NOTES & DETAILS. 10078 OLD FREDERICK ROAD, MARK KLEIN PROPERTY, LOT 5. ZONED R-20. TAX MAP No. 17 GRID No. 8 PARCEL No. 613. SHEET 3 OF 3. SDP-17-004