

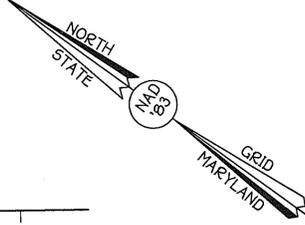
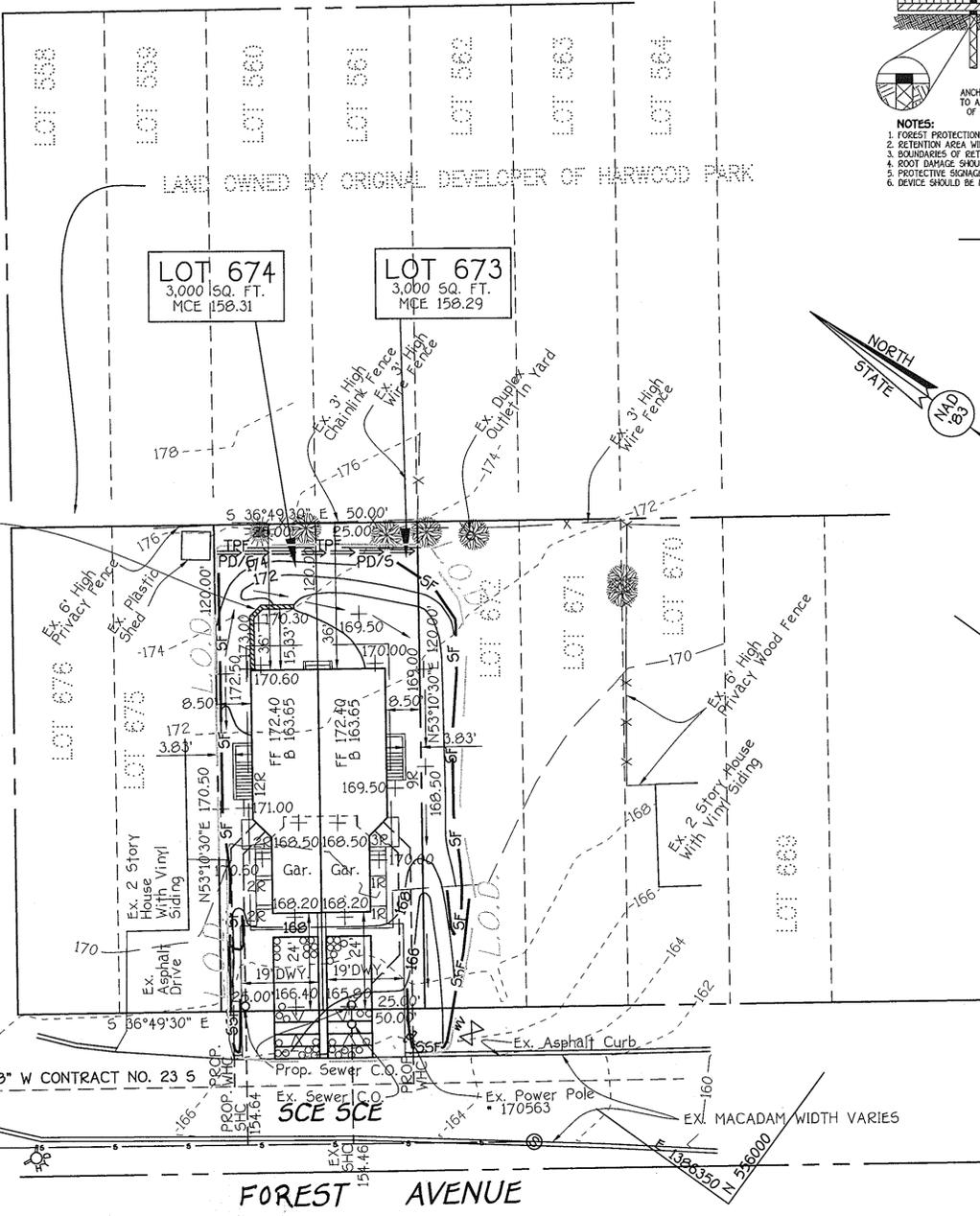
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HIGHLAND AVENUE
(PUBLIC ROAD 40' R/W)

BEECHFIELD AVENUE
(PUBLIC ROAD 40' R/W)

LOT 674
3,000 SQ. FT.
MCE 158.31

LOT 673
3,000 SQ. FT.
MCE 158.29



GENERAL NOTES

- SUBJECT PROPERTY ZONED R-12 PER THE 7/28/06 COMPREHENSIVE ZONING PLAN. REFERENCE FILE NUMBERS: 23-5, C.M.P. 5300
- COORDINATES BASED ON "MAD 23" MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 389A AND NO. 3806.
- TOPOGRAPHIC AND BOUNDARY SURVEY COMPLETED BY FISHER, COLLINS AND CARTER, INC. IN MAY OF 2007.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
 - A) WIDTH - 12 FEET (6 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 15' RADIUS
 - D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (425-LOADING)
 - E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 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
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- CONTRACTOR SHALL CHECK SEWER HOUSE CONNECTION ELEVATION AT PROPERTY LINE PRIOR TO CONSTRUCTION
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO HO. CO. DESIGN MANUAL VOL. IV DETAILS R.6.05.
- SITE ANALYSIS DATA:
 - A. TOTAL PROJECT AREA: 6000 SQ. FT. + OR 0.1377 AC. +
 - B. LIMIT OF DISTURBED AREA: 7481 SQ. FT. + OR 0.1717 AC. +
 - C. TOTAL NUMBER OF UNITS PERMITTED: 2
 - D. TOTAL NUMBER OF UNITS PROPOSED: 2
 - E. TOTAL NUMBER OF PARKING SPACES REQUIRED: 2 PER UNIT, 4 TOTAL
 - F. TOTAL NUMBER OF PARKING SPACES PROVIDED: 4 PER UNIT, 8 TOTAL
 - C. ZONED R-12
 - D. ZONED R-12
- THIS SITE IS EXEMPT FROM THE CURRENT LANDSCAPING REQUIREMENTS. THE DEVELOPMENT OF THESE EXISTING LOTS IS NOT SUBJECT TO THE REQUIREMENTS OF THE LANDSCAPE MANUAL SINCE HARWOOD PARK WAS GRANTED PRELIMINARY PLAN APPROVAL PRIOR TO THE EFFECTIVE OF THE 1993 EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE IT IS ON LAND WHICH IS LESS THAN 40,000 SQUARE FEET AND WAS SUBDIVIDED PRIOR TO DECEMBER 31, 1992.
- THIS SITE IS EXEMPT FROM THE 2000 MARYLAND STORMWATER MANAGEMENT REQUIREMENTS SINCE THE TOTAL IMPERVIOUS SURFACE PROPOSED IS LESS THAN 5000 SQUARE FEET.
- THE WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING.
- THE MINIMUM SETBACK FOR STRUCTURES SHALL BE AS FOLLOWS:
 - SINGLE FAMILY ATTACHED, SEMI-DETACHED, AND TWO-FAMILY DWELLINGS:
 - FRONT SETBACK: 20' FROM THE PUBLIC STREET RIGHT OF WAY
 - REAR SETBACK: 30'
 - SIDE SETBACK: 7.5' FROM PROPERTY LINE
 - EXCEPT ZERO LOT LINE DWELLINGS: 0 FEET
- IN ACCORDANCE WITH SECTION 129 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16' FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACKS.
- PREVIOUS FILE NUMBERS FOR REFERENCE: 23-5, C.M.P. 5300.
- THE WFO MUST BE INSTALLED WITH A MINIMUM 1.5-FOOT HORIZONTAL CLEARANCE AND 1-FOOT VERTICAL CLEARANCE ABOVE THE SHC.

LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR, 2' INTERVAL
---	PROPOSED CONTOUR
+162.2	SPOT ELEVATION
SF-SF	SILT FENCE
---	DIRECTION OF DRAINAGE
LOD	LIMIT OF DISTURBANCE
---	SUPER SILT FENCE
---	PERIMETER DIKE/SWALE
---	TREE PROTECTION FENCE
⊙	EXISTING TREES TO BE SAVED

INDEX CHART	
SHEET	DESCRIPTION
SHEET 1	SITE DEVELOPMENT, S&E CONTROL PLAN
SHEET 2	SEDIMENT & EROSION CONTROL DETAILS, EXISTING CONDITIONS

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
673	6373 FOREST AVENUE
674	6371 FOREST AVENUE

PROPOSED CONDITIONS
SCALE: 1"=20'
EXISTING CONDITION SHOWN ON SHEET 2

NOTE: FOR PROPER INSTALLATION OF WATER AND SEWER HOUSE CONNECTIONS PLEASE REFER TO GENERAL NOTE 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. 9753, EXPIRATION DATE: 2/28/08.

Earl D. Collins 11/26/07 Date

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21142
(410) 461-2855

NO.	REVISION	DATE



ENGINEER'S CERTIFICATE
"I 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."

Earl D. Collins 11/26/07 Date
Signature of Engineer

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."

William Welzenbach 11/26/07 Date
Signature of Developer

Reviewed for HOWARD COUNTY Landmarks and Historic Preservation Requirements.

John K. Edwards 12/3/07 Date
Howard SCD

OWNER/BUILDER
WILLIAM WELZENBACH
2706 PISCATAWAY RUN DRIVE
ODENTON, MD, 21113
301-529-9336

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

John K. Edwards 12/11/07 Date
Chief, Department of Planning and Zoning

John K. Edwards 12/7/07 Date
Chief, Development Engineering Division

John K. Edwards 12/11/07 Date
Director - Department of Planning and Zoning

PROJECT	SECTION	LOTS NO.
HARWOOD PARK	N/A	673 AND 674
PLAT	BLOCK NO.	ZONE
C.M.P. 5300	13	R-12
TAX	ELEC. DIST.	CENSUS TR.
38	FIRST	601202
WATER CODE	SEWER CODE	
A 02	2152209	

SITE DEVELOPMENT, SEDIMENT AND EROSION CONTROL PLAN

SINGLE FAMILY ATTACHED UNITS HARWOOD PARK LOTS 673 AND 674

TAX MAP NO: 38 PARCEL NO.: 873 GRID NO.: 13
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY, 2007
SHEET 1 OF 2

SDP-08-005

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION DEFINITION

Using vegetation as cover for barren soil to prevent it from areas that cause erosion.

PURPOSE
Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas and receiving water bodies and coastal resources.

CONDITIONS WHERE PRACTICES APPLICABLE
This practice shall be used on annual lands as specified on the plans and may be used on highly erodible or critical eroding lands. This specification is divided into Temporary Seeding to quickly establish vegetative cover for short duration (up to one year) and Permanent Seeding for long term vegetative cover. Examples of applicable lands for Temporary Seeding are temporary soil stabilization, cleared areas being left between construction phases, earth slopes, etc. and for Permanent Seeding are roads, dikes, and all slopes and other areas of final grade, former cropland and slaying lands, etc.

EFFECTS ON WATER QUALITY AND QUANTITY
Planting vegetation in disturbed lands will have an effect on the water budget, especially on volume and rates of runoff, infiltration, evaporation, transpiration, interception, percolation, and groundwater recharge. Vegetation over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals caused by runoff to receiving waters. Plants will also help protect groundwater supplies by insulating those substances present within the soil zone. Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and final vegetation establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- Site Preparation**
 - Install erosion and sediment control structures (either temporary or permanent) such as dimensions, silt fence, stabilization structures, berms, waterways, or sediment control basins.
 - Perform all grading operations at right angles to the slope. Final grading and sloping is not usually necessary for temporary seeding.
 - Schedule required soil tests to determine soil amendment composition and application rates for having disturbed areas over 2 acres.
- Soil Amendments - Fertilizer and Lime Specifications**
 - Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 2 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
 - Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Fertilizer may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall be delivered to the site in bulk according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and manufacturer of the product.
 - Lime materials shall be ground limestone (hydrated or hard lime) may be substituted which contains at least 90% total calcium oxide plus magnesium oxide. Limestone shall be ground to such fineness that it will pass through a 100 mesh sieve and 90-100% will pass through a 20 mesh sieve.
 - Intermix lime and fertilizer into the top 3-5" of soil by disk or other suitable means.
- Seeded Preparation**
 - Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or ripper mounted on construction equipment. After the soil is loosened it should not be rolled or compacted, but left in the prepared condition. Seedbeds lighter than 300 lbs. should be treated leaving the surface in an irregular condition with ridges running parallel to the center of the slope.
 - Apply fertilizer and lime as prescribed on the plan.
 - In composite line and fertilizer into the top 3-5" of soil by disk or other suitable means.
- Permanent Seeding**
 - Minimum soil conditions required for permanent vegetative establishment:
 - Soil pH shall be between 6.0 and 7.0.
 - Salinity shall be less than 500 mg/l per million parts.
 - The soil shall contain less than 60% clay, but enough fine grained material (60% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if long-term erosion is expected to be present, then a silt plus clay plus silt plus clay would be acceptable.
 - Soil shall contain 12% minimum organic matter by weight.
 - Soil must contain sufficient pore space to permit adequate root penetration.
 - If these conditions cannot be met by soils on site, making topsoil is required in accordance with Section 2.0 Standard and Specification for Topsoil.
 - Areas previously graded in conformance with the drawings shall be maintained to a true and even grade. Area seeded or otherwise treated to a depth of 3" to 5" to prevent loss of the topsoil to the surface and to create horizontal erosion check skirts to prevent topsoil from sliding down slope.
 - Apply soil amendments as per soil test or as included on the plan.
 - Final soil amendments into the top 3-5" of topsoil by disk or other suitable means. Lawn areas should be rolled to smooth the surface, remove large objects like stones and branches, and roll the soil for seed and application. Where site conditions will not permit normal seedbed preparation, loose surface soil by heavy chain or other equipment to roughen the surface. Slope slopes steeper than 3:1 shall be treated by a disk leaving the soil in a rough condition with ridges running parallel to the center of the slope. The top 3-5" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.
- Seed Specifications**
 - All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of seeding such material on this job.
 - Seed lots shall be made available to the inspector to verify the true site of seed used.
 - Incidental - The incident for treating barren seed in the seed mixture shall be a pure culture of nitrogen-fixing bacteria present specifically for the species. Incidental shall not be used after the date indicated on the container. All fresh incident is directed on package. Use the times recommended when hydroseeding. Note it is very important to keep incident as cool as possible with seed. Temperatures above 75-80°F. can weaken bacteria and make the incident less effective.
- Methods of Seeding**
 - Hydroseeding - Apply seed uniformly with hydromulch (barry includes seed and fertilizer), broadcast or dry spread, or a suitable seeder.
 - If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen maximum of 100 lbs. per acre total of soluble nitrogen (200 lbs. phosphate/100 lbs. potash/100 lbs. lime).
 - Lime - use only ground agricultural limestone, 4 to 3 lbs. per acre may be applied by hydroseeding. Normally, not more than 2 lbs. are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
- Dry Seeding** - This includes use of conventional dry broadcast spreaders.
 - Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Specifications or Tables 200 or 201. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- Drill or Outdrill Seeding** - Mechanized seeders that apply and cover seed with soil.
 - Calibration systems are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seeding must be firm after seeding.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- Mulch Specifications** in order of preference:
 - Straw shall consist of threshed wheat, rye or oat straw, reasonable bright in color, and shall not be mucky, moldy, rotten, decayed or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
 - Wood Chalkose Fiber (MWF)
 - MWF shall consist of specially prepared wood chalkose processed into a uniform fibrous product 480.
 - MWF shall be dry grass or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniform spread alerts.
 - MWF material shall be manufactured and processed in such a manner that the wood chalkose fiber mat will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mat material shall form a better-fit ground cover, on application, having moisture absorption and retention properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - MWF material shall contain no elements or compounds of concentration levels that will be injurious.
 - MWF must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 6.0 to 8.5, ash content of 10% maximum and water holding capacity of 10% minimum.
 - Only sterile straw mulch should be used in areas where one species of grass is desired.

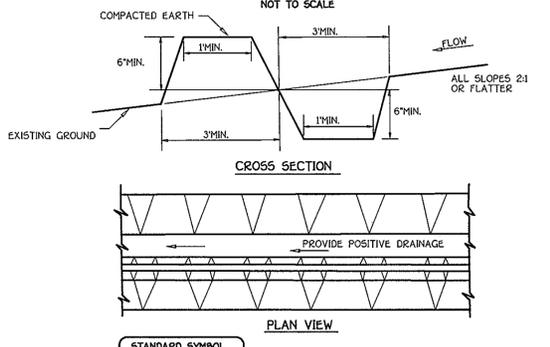
SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSING AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (311-8555).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 90 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, BY 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/DRAINAGE SHOWS MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. I, 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 50), SOD (SEC. 94), 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 ESTABLISHMENT AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSON FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:**
 - TOTAL AREA OF SITE: 0.1377 ACRES
 - AREA DISTURBED: 0.1717 ACRES
 - AREA TO BE ROOFED OR PAVED: 0.0810 ACRES
 - AREA TO BE VEGETATIVELY STABILIZED: 0.0907 ACRES
 - TOTAL CUT: 644 CU.YDS.
 - TOTAL FILL: 0 CU.YDS.
- OFFSITE WASTE AREA TO BE DETERMINED
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEMPED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF 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.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT	7 DAYS
2. INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN	7 DAYS
3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE	4 DAYS
4. INSTALL TEMPORARY SEEDING	2 DAYS
5. CONSTRUCT BUILDINGS	60 DAYS
6. FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE	14 DAYS
7. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.	7 DAYS

PERIMETER DIKE / SWALE



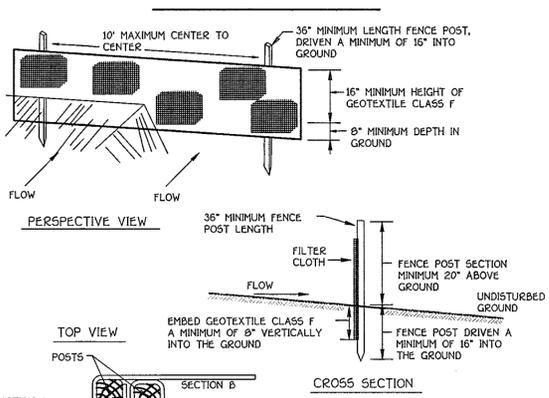
STABILIZATION

- PD/S-1 SEED AND MULCH (DRAINING ≤ 1 ACRE)
PD/S-2 SEED AND COVER WITH SOIL
STABILIZATION MATTING OR LINE WITH SOD (DRAINING BETWEEN 1 AND 2 ACRES)
- Construction Specifications**
- All perimeter dike/swales shall have an uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
 - Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
 - Runoff diverted from an undisturbed area shall outlet into an undisturbed stabilized area at a non-erosive velocity.
 - The swale shall be excavated or shaped to line, grade, and cross-section as required to meet the criteria specified in the standard.
 - Fill shall be compacted by earth moving equipment.
 - Stabilization with seed and mulch or as specified of the area disturbed by the dike and swale shall be completed within 7 days upon removal.
 - Inspection and required maintenance shall be provided after each rain event.
- Note: The maximum drainage area for this practice is 2 acres.

PERMANENT SEEDING NOTES

- Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seedbed Preparation** - Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
- Soil Amendments** - In lieu of soil test recommendations, use one of the following schedules:
- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.).
 - Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.
- Seeding** - For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 80 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options:
- 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.
 - Use sod.
 - Seed with 80 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.
- Mulching** - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.
- Maintenance** - Inspect all seeded areas and make needed repairs, replacements and reseedings.

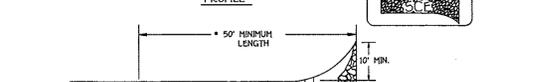
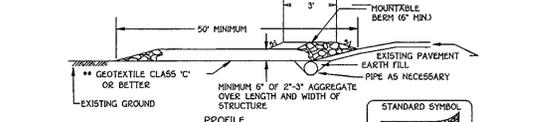
SILT FENCE



- Construction Specifications**
- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot.
 - Geotextile 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/in (min)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min)	Test: MSMT 509
Flow Rate	0.3 gal/ft / minute (max)	Test: MSMT 322
Filtering Efficiency	75% (min)	Test: MSMT 322

- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

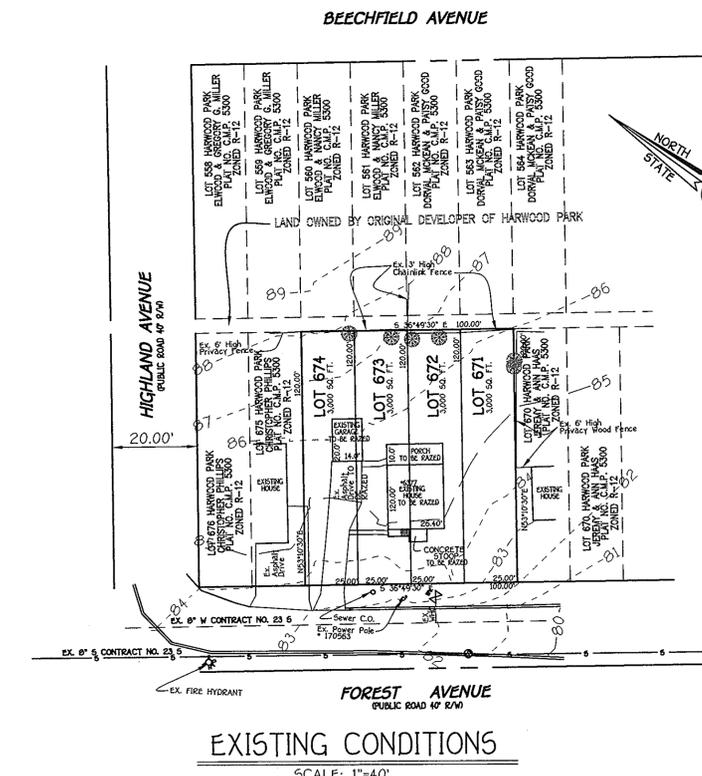


- Construction Specifications**
- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6" fence shall be used, substituting 42" fabric and 6" length posts.
 - Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss 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 ties 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 buildups removed when "bulges" 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/in (min)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min)	Test: MSMT 509
Flow Rate	0.3 gal/ft / minute (max)	Test: MSMT 322
Filtering Efficiency	75% (min)	Test: MSMT 322

- Length - minimum of 50' x 30' for single residence lots.
- Width - 10' minimum, should be fitted 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 - emulsified asphalt (2" to 3") 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 beam 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 SIZ is located at a high spot and has no drainage or a very shallow slope will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

STABILIZED CONSTRUCTION ENTRANCE



TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be restituted where a short-term vegetative cover is needed.
- Seedbed Preparation** - Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
- Soil Amendments** - Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).
- Seeding** - For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.
- Mulching** - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.
- Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

SUPER SILT FENCE

NOT TO SCALE

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1500 feet
20 - 33%	5:1 - 3:1	100 feet	1000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

ENGINEER'S CERTIFICATE

"I 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."

Signature of Engineer: *William Welzenbach* Date: 11/26/07

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."

Signature of Developer: *William Welzenbach* Date: 11/26/07

OWNER/BUILDER

Reviewed for HOWARD COUNTY Department's Technical Requirements:
U.S.D. Natural Resources Conservation Service
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT
Signature: *John K. Roberts* Date: 11/30/07

Signature: *William Welzenbach* Date: 11/26/07

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature: *Paul D. Collins* Date: 11/16/07
Chief, Division of Planning and Zoning
Signature: *Paul D. Collins* Date: 12/7/07
Chief, Engineering Division
Signature: *Paul D. Collins* Date: 12/11/07
Director - Department of Planning and Zoning

"PROFESSIONAL CERTIFICATION, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED AND APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 9753.
EXPIRATION DATE: 2/28/08.

Signature: *Paul D. Collins* Date: 11/26/07

EXISTING CONDITIONS, SEDIMENT AND EROSION CONTROL DETAILS

SINGLE FAMILY SEMI-DETACHED, UNITS
HARWOOD PARK
LOT# 673 AND 674

TAX MAP NO: 3B PARCEL NO: 873 GRID NO: 13
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY, 2007
SHEET 2 OF 2

SDP-08-005

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL PIKE
BALTIMORE, MARYLAND 21286
(410) 461-2955

Professional Engineer Seal: *William Welzenbach*, License No. 9753, State of Maryland

NO.	REVISION	DATE

