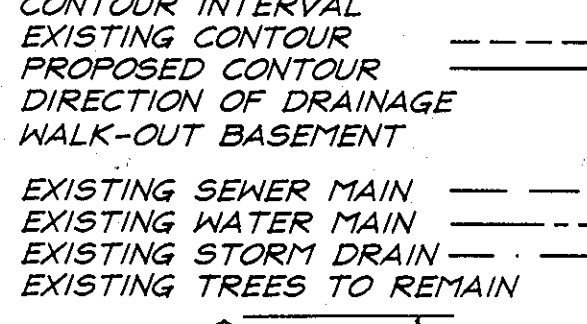
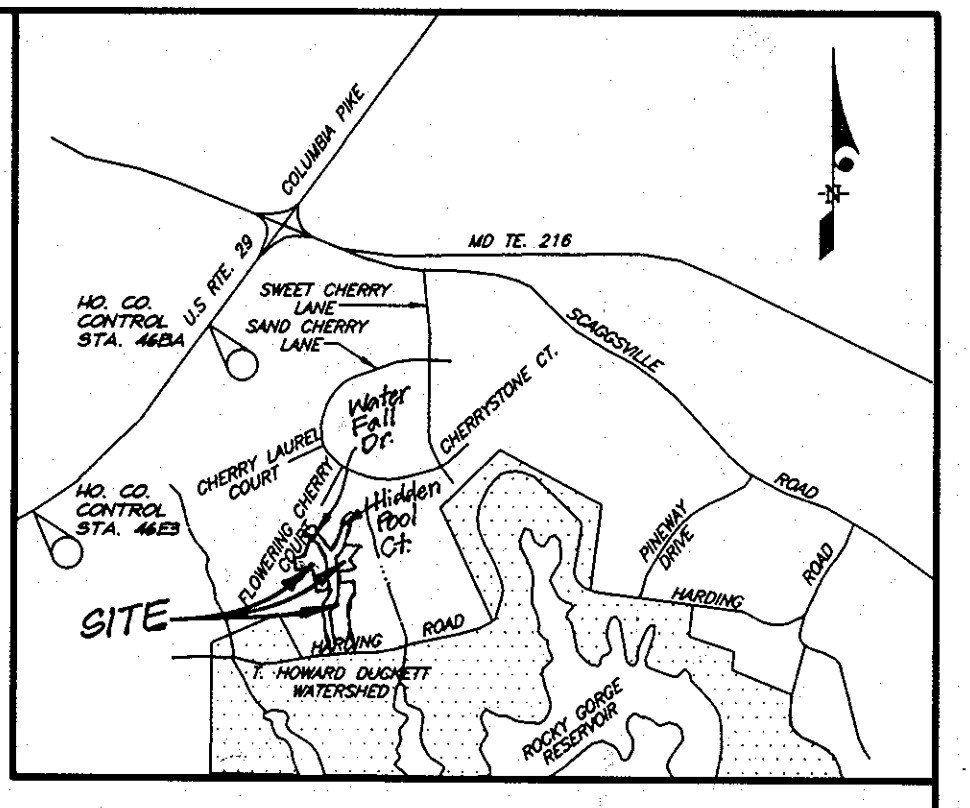


**LEGEND**



ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
5	8708 Flowering Cherry Lane
6	8704 " " " "
7	8700 " " " "
9	8604 WATER FALL DRIVE
10	8606 WATER FALL DRIVE
11	8612 WATER FALL DRIVE
12	8616 WATER FALL DRIVE



**VICINITY MAP**  
Scale: 1"=2000'

**BENCH MARKS**

Ho. Co. Monument No. 46E3 = N.163254.4726(meters) Elev.=410.06  
E.407801.1581(meters)  
Ho. Co. Monument No. 46BA = N.163844.2998(meters) Elev.=426.45  
E.408386.8130(meters)

**COURTLAND GENERAL NOTES:**

- Subject property is zoned: R-20 per 10-18-93 Comprehensive Zoning Plan.
- The total area included in this submission is: 5.3292 ac.
- The total number of lots included in this submission is: 17
- Improvement to property: Single Family Detached
- Shc elevations shown are located at the property line.
- Department of Planning and Zoning reference file numbers are: SP 97-05, F-98-11, W-98-9 (cont. #02-393-07)
- Utilities shown as existing are taken from approved Water and Sewer plans Contract #24-3639-D, and approved Road Construction plans F-98-17
- Any damage to county owned rights-of-way shall be corrected at the developer's expense.
- All roadways are public and existing.
- The existing topography was taken from Road Construction plans F-98-17 prepared by Fisher, Collins & Carter, Inc.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Control stations: 46BA and 46E3
- The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 313-1880 at least twenty-four (24) hours 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.
- For driveway entrance details, refer to Ho. Co. Design Manual Volume IV details, R.G.0G
- In accordance with Sect. 102 of the Ho. Co. Supplementary Zoning Dist. Reg. by windows or chimneys not more than 10 feet in width may project not more than 1 foot into any setbacks; porches and decks may project not more than 10 feet into the front or rear setbacks.
- Stormwater Management is provided per: F-98-17
- Financial Surety for the required landscaping must be posted as part of the Grading Permit in the amount of \$1,000.00.
- Existing Landscaping provided for F-98-17 approved Road Plans #24-3639-D.

**SPECIAL NOTES:**

This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Road Construction Plans F-98-17 and/or approved Water and Sewer Plans Contract #24-3639-D.

SHEET INDEX	
DESCRIPTION	SHEET No.
SITE DEVELOPMENT PLANS	1 & 2 of 5
SEDIMENT EROSION CONTROL PLANS	3, 4 & 5 of 5

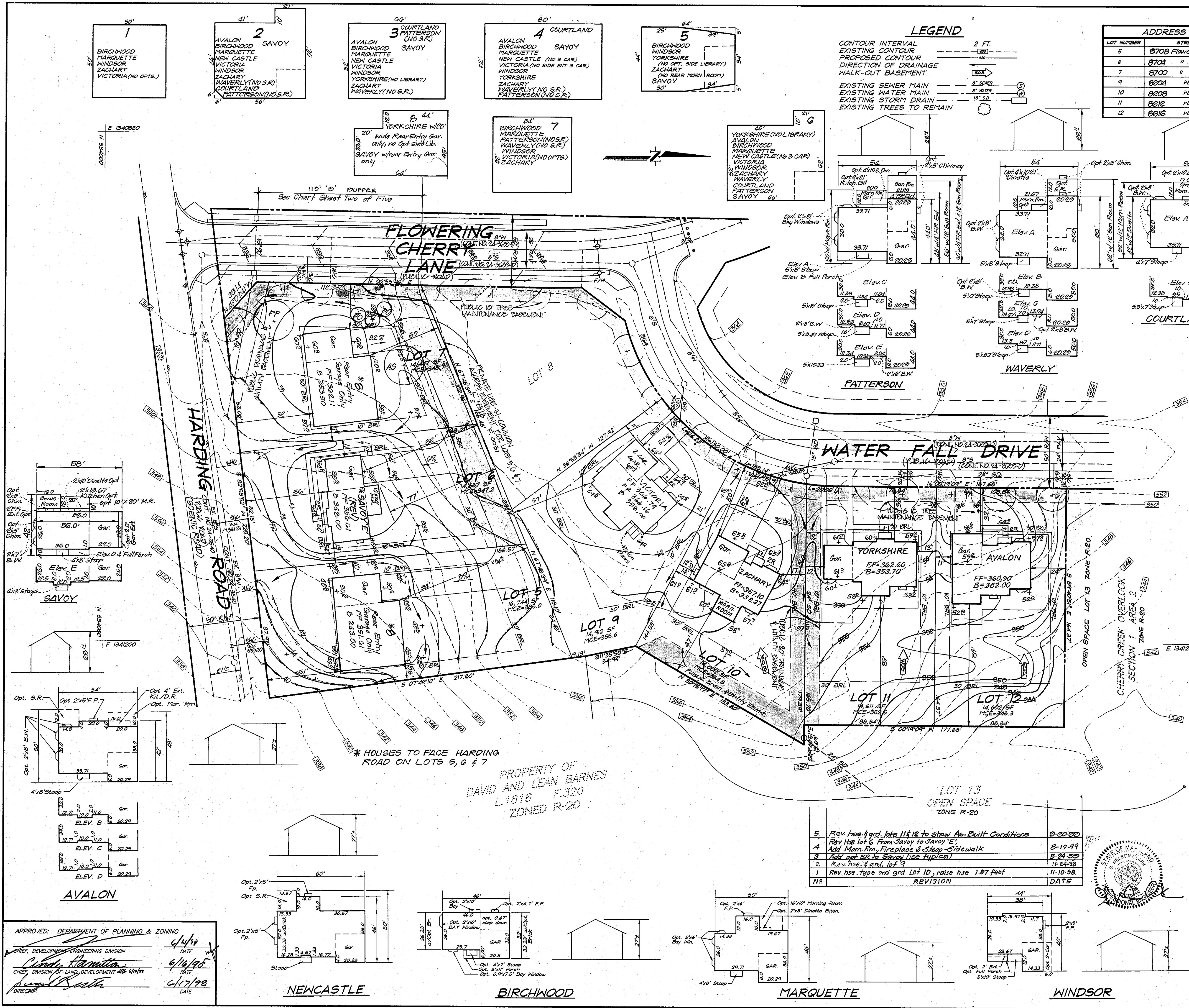
**DEVELOPER**

BARNES PROPERTY, LLC.  
C/O LAND DESIGN & DEVELOPMENT, INC.  
10805 HICKORY RIDGE ROAD  
COLUMBIA, MARYLAND 21044

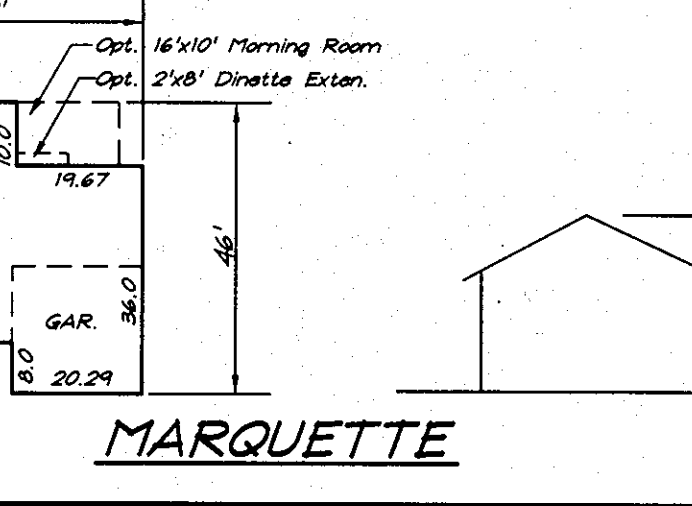
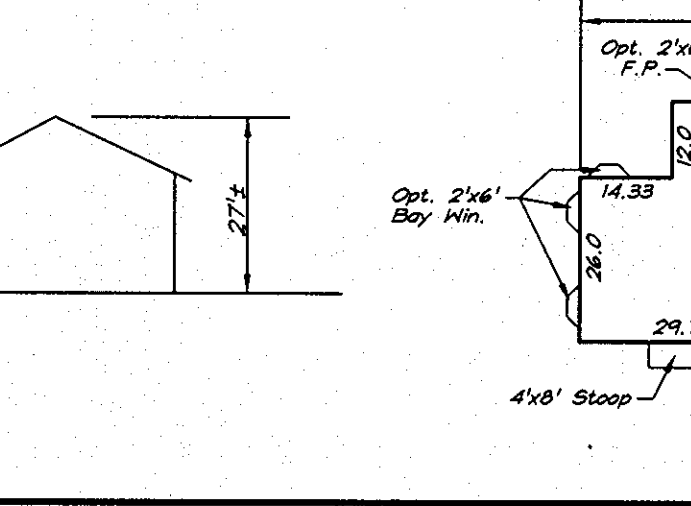
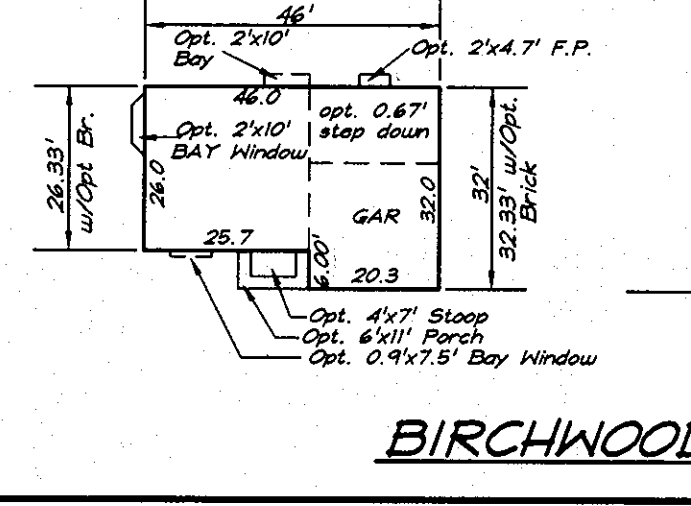
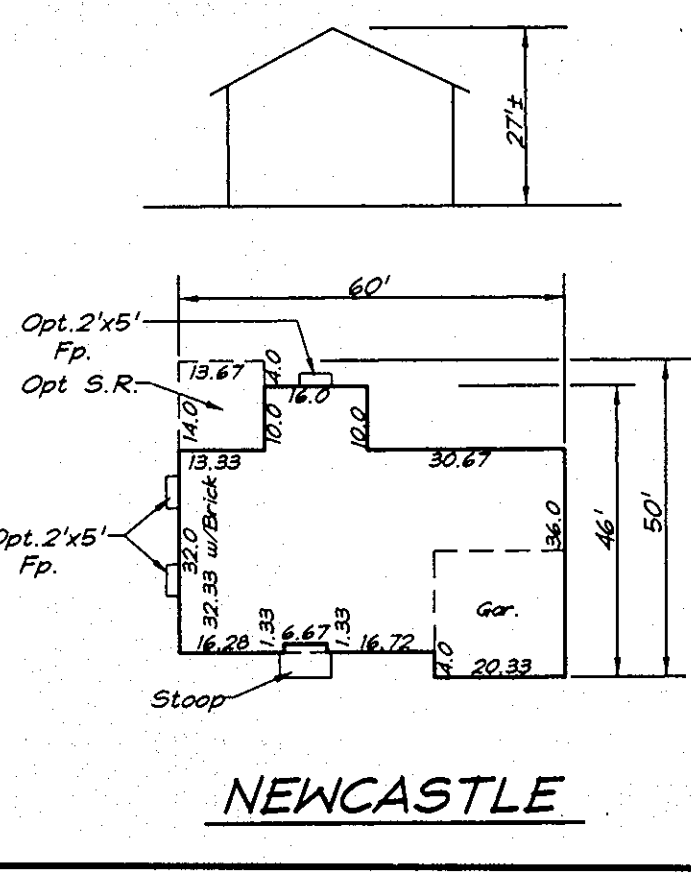
SUBDIVISION NAME		SECTION/AREA	LOTS/PARCELS
CHERRY CREEK OVERLOOK		ONE/TWO	5-7, 9-12, 14-16 & 36-42
PLAN NO. 13155	BLOCK NO. 1G	ZONE R-20	TAX MAP NO. 46 ELECTION DIST. 6TH CENSUS TRACT 6068.02
WATER CODE E-18	SEWER CODE 7602000		

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED	JME	<b>SITE DEVELOPMENT PLAN</b> LOTS 5-7, 9-12, 14-16 & 36-42 <b>CHERRY CREEK OVERLOOK</b> SECTION 1 AREA 2 SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: Ryan Homes, Inc. 11460 Cranridge Drive, Suite 128 Clwings Mills, Maryland 21117	SCALE	1" = 30'
DRAWN	BLP		DRAWING	1 of 5
CHECKED	JME		JOB NO.	97-161
DATE	MAR., 1998		FILE NO.	97-161X



APPROVED: DEPARTMENT OF PLANNING & ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE 6/16/95  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE 6/12/98



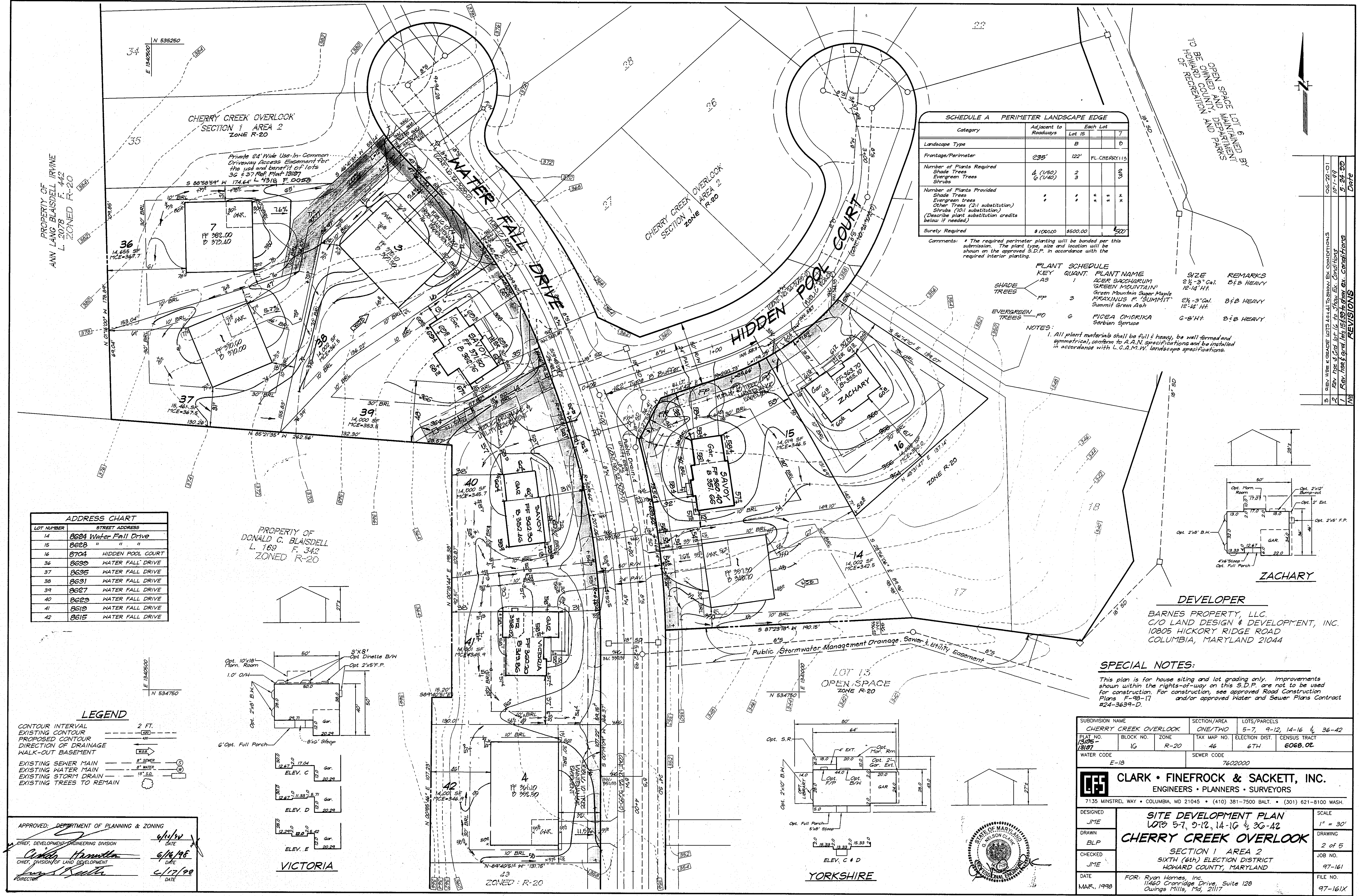
NO.	REVISION	DATE
5	Rev. hse. & grd. lots 11 & 12 to show As-Built Conditions	9-30-99
4	Rev. hse. lot 6 From Savoy to Savoy 'E', Add Morn. Rm., Fireplace & Stoop-Sidewalk	8-19-99
3	Add opt. SR to Savoy use typical	5-24-99
2	Rev. hse. & grd. lot 9	11-24-98
1	Rev. hse. type and grd. Lot 10, raise hse 1.87 feet	11-10-98
NB	REVISION	DATE



PROPERTY OF  
DAVID AND LEAN BARNES  
L.1816 F.330  
ZONED R-20

\* HOUSES TO FACE HARDING ROAD ON LOTS 5, 6 & 7





CHERRY CREEK OVERLOOK  
SECTION 1 AREA 2  
ZONE R-20

CHERRY CREEK OVERLOOK  
SECTION 1 AREA 2  
ZONE R-20

SCHEDULE A PERIMETER LANDSCAPE EDGE				
Category	Adjacent to Roadways	Each Lot		
		Lot 15	16	17
Landscape Type		B		D
Frontage/Perimeter	235'	122'	FL.CHERY113	
Number of Plants Required				
Shade Trees	4 (1/50)	2		3/4
Evergreen Trees	6 (1/40)	3		
Shrubs				
Number of Plants Provided				
Shade Trees	*	*	*	*
Evergreen Trees	*	*	*	*
Other Trees (2:1 substitution)	*	*	*	*
Shrubs (10:1 substitution)	*	*	*	*
(Describe plant substitution credits below if needed)				
Surety Required	\$1000.00	\$500.00		\$200

Comments: \* The required perimeter planting will be bonded per this submission. The plant type, size and location will be shown on the approved S.D.P. in accordance with the required interior planting.

KEY	QUANT.	PLANT NAME	SIZE	REMARKS
AS	1	ACER SACCHARUM	2 1/2 - 3" Cal.	B & B HEAVY
FP	3	FRAXINUS P. SUMMITT	2 1/2 - 3" Cal.	B & B HEAVY
PO	6	PICEA OMDRIKA	6-8" HT.	B & B HEAVY

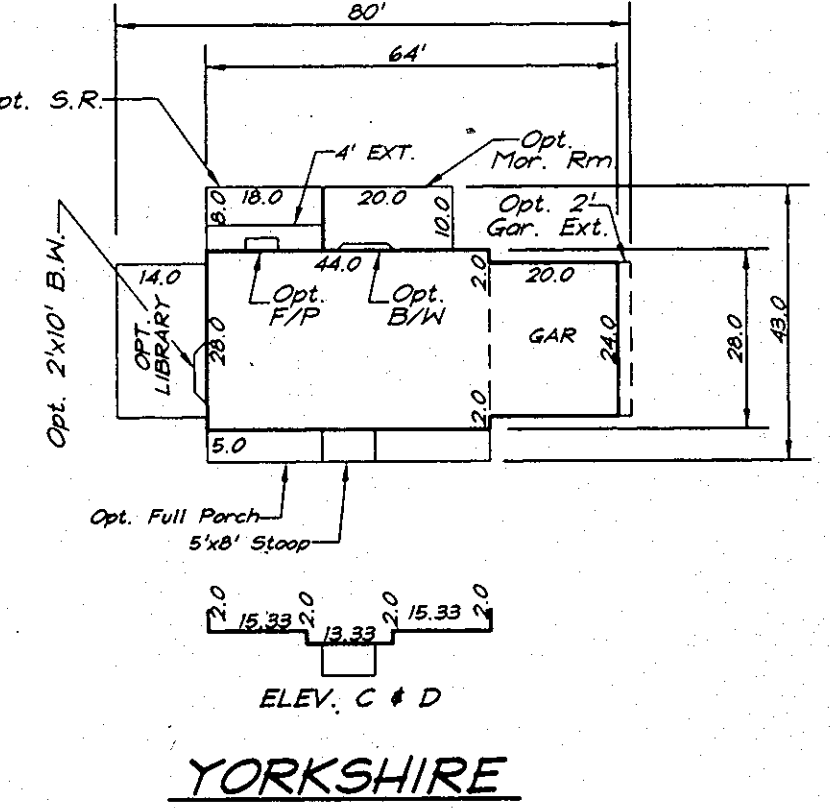
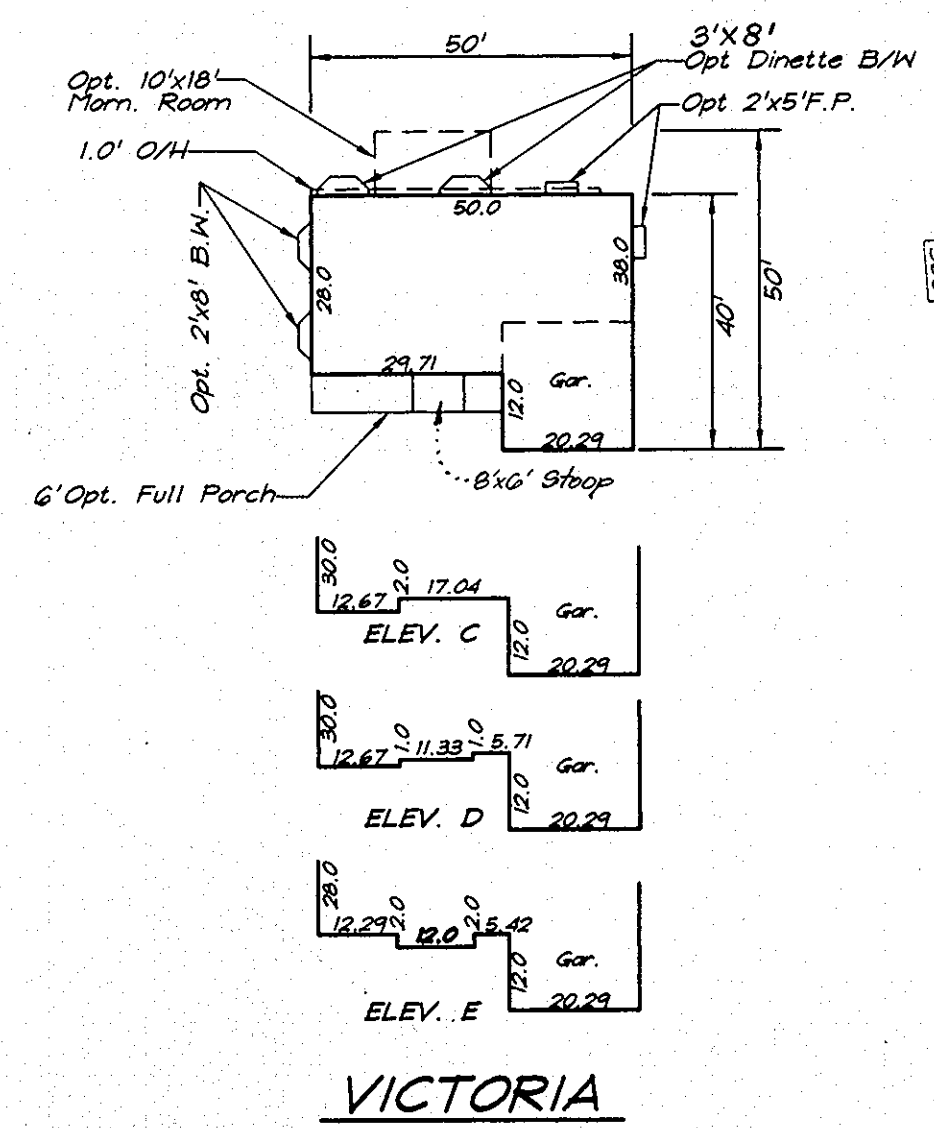
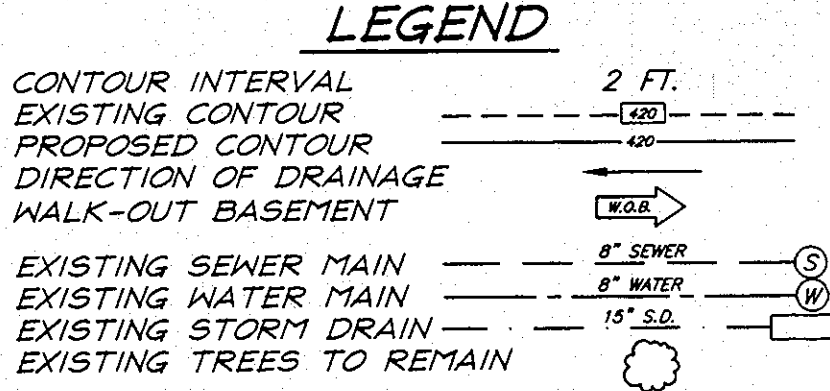
NOTES:  
1. All plant materials shall be full & heavy, be well formed and symmetrical, conform to A.A.N. specifications and be installed in accordance with L.C.A.M.W. landscape specifications.

LOT NUMBER	STREET ADDRESS
14	8624 Water Fall Drive
15	8628 " " "
16	8704 HIDDEN POOL COURT
36	8630 WATER FALL DRIVE
37	8635 WATER FALL DRIVE
38	8631 WATER FALL DRIVE
39	8627 WATER FALL DRIVE
40	8623 WATER FALL DRIVE
41	8619 WATER FALL DRIVE
42	8615 WATER FALL DRIVE

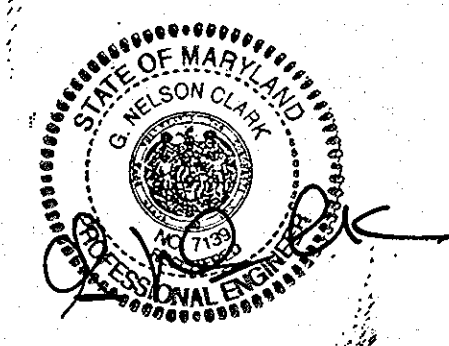
PROPERTY OF DONALD C. BLAISDELL  
L. 169 F. 342  
ZONED R-20

**ZACHARY DEVELOPER**  
BARNES PROPERTY, LLC.  
C/O LAND DESIGN & DEVELOPMENT, INC.  
10805 HICKORY RIDGE ROAD  
COLUMBIA, MARYLAND 21044

**SPECIAL NOTES:**  
This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Road Construction Plans F-98-17 and/or approved Water and Sewer Plans Contract #24-3639-D.



APPROVED: DEPARTMENT OF PLANNING & ZONING  
DATE: 6/14/98  
DATE: 6/16/98  
DATE: 6/17/98



SUBDIVISION NAME	SECTION/AREA	LOTS/PARCELS
CHERRY CREEK OVERLOOK	ONE/TWO	5-7, 9-12, 14-16 & 36-42
PLAT NO. 3195-18197	BLOCK NO. 1G	ZONE R-20
TAX MAP NO. 46	ELECTION DIST. 6TH	CENSUS TRACT 6068.02
WATER CODE E-18	SEWER CODE 7602000	
<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b>		
ENGINEERS • PLANNERS • SURVEYORS		
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.		
DESIGNED JME	SITE DEVELOPMENT PLAN	
DRAWN BLP	LOTS 5-7, 9-12, 14-16 & 36-42	
CHECKED JME	CHERRY CREEK OVERLOOK	
DATE MAR, 1998	SECTION 1 AREA 2	
	SIXTH (6th) ELECTION DISTRICT	
	HOWARD COUNTY, MARYLAND	
	FOR: Ryan Homes, Inc.	SCALE 1" = 30'
	11460 Cranridge Drive, Suite 128	DRAWING 2 OF 5
	Quings Mills, Md, 21117	JOB NO. 97-161
		FILE NO. 97-161X



**LEGEND**

CONTOUR INTERVAL 2 FT.

EXISTING CONTOUR (---)

PROPOSED CONTOUR (---)

DIRECTION OF DRAINAGE (--->)

WALK-OUT BASEMENT (---)

EXISTING SEWER MAIN (---)

EXISTING WATER MAIN (---)

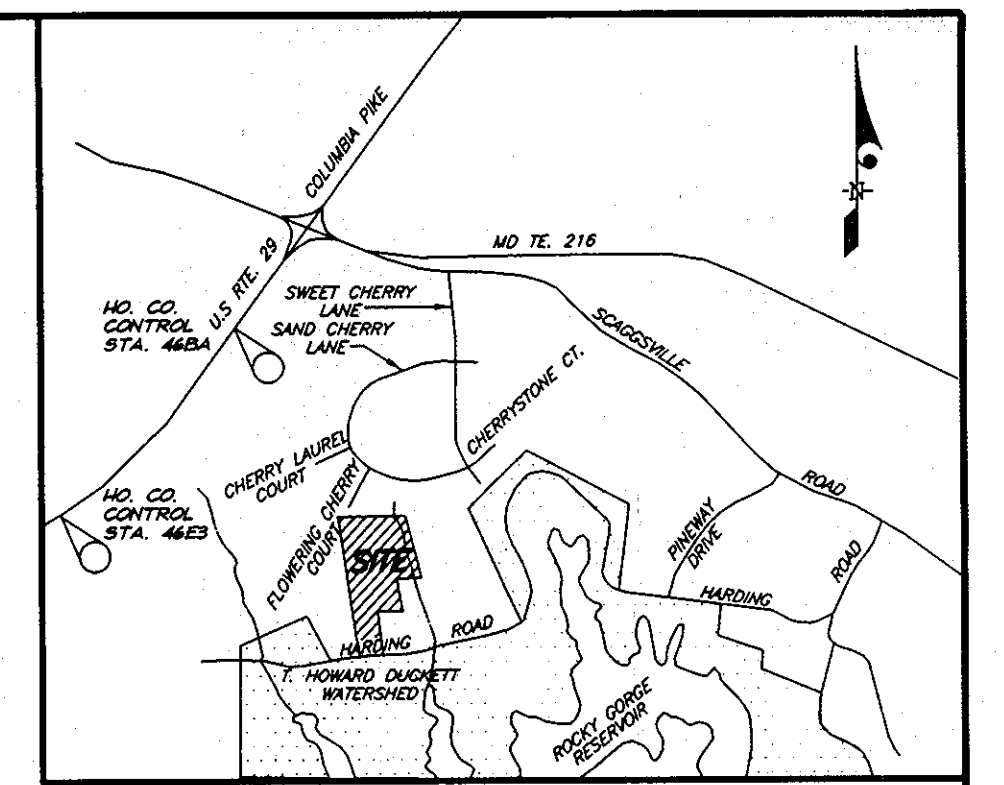
EXISTING STORM DRAIN (---)

EXISTING TREES TO REMAIN (---)

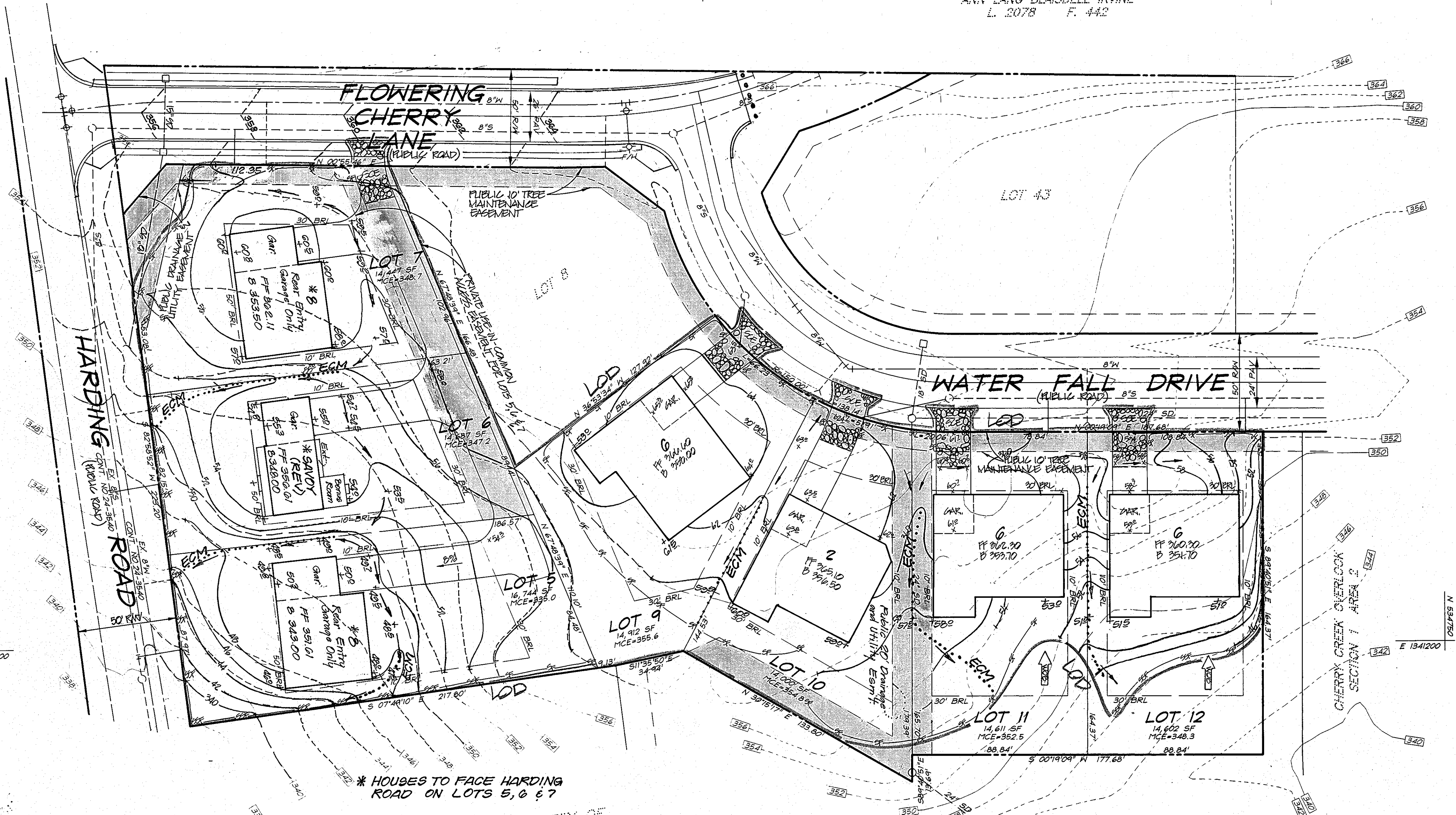
LIMIT OF DISTURBANCE (---)

EROSION CONTROL MATTING (---)

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
5	8708 Flowering Cherry Lane
6	8704 " " " "
7	8700 " " " "
9	8604 WATER FALL DRIVE
10	8608 WATER FALL DRIVE
11	8612 WATER FALL DRIVE
12	8616 WATER FALL DRIVE



PROPERTY OF  
ANN LANG BLAISDELL IRVINE  
L. 2078 F. 442



\* HOUSES TO FACE HARDING ROAD ON LOTS 5, 6 & 7

PROPERTY OF  
DAVID AND LEAN BARNES  
L1816 F.320

**DEVELOPER**  
BARNES PROPERTY, LLC  
C/O LAND DESIGN & DEVELOPMENT, INC.  
10805 HICKORY RIDGE ROAD  
COLUMBIA, MARYLAND 21044

Reviewed for HOWARD S.C.D.  
and meets Technical Requirements  
Signature: *Chris Sennitt* Date: 6/16/98  
U.S. National Resources Conservation Service

**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Signature: *Michael Shearer* Date: 3/6/98

**ENGINEER'S CERTIFICATE**

I hereby certify that this plan for Sediment and Erosion Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature: *G. Nelson Clark* Date: 3-6-98



APPROVED: DEPARTMENT OF PLANNING & ZONING

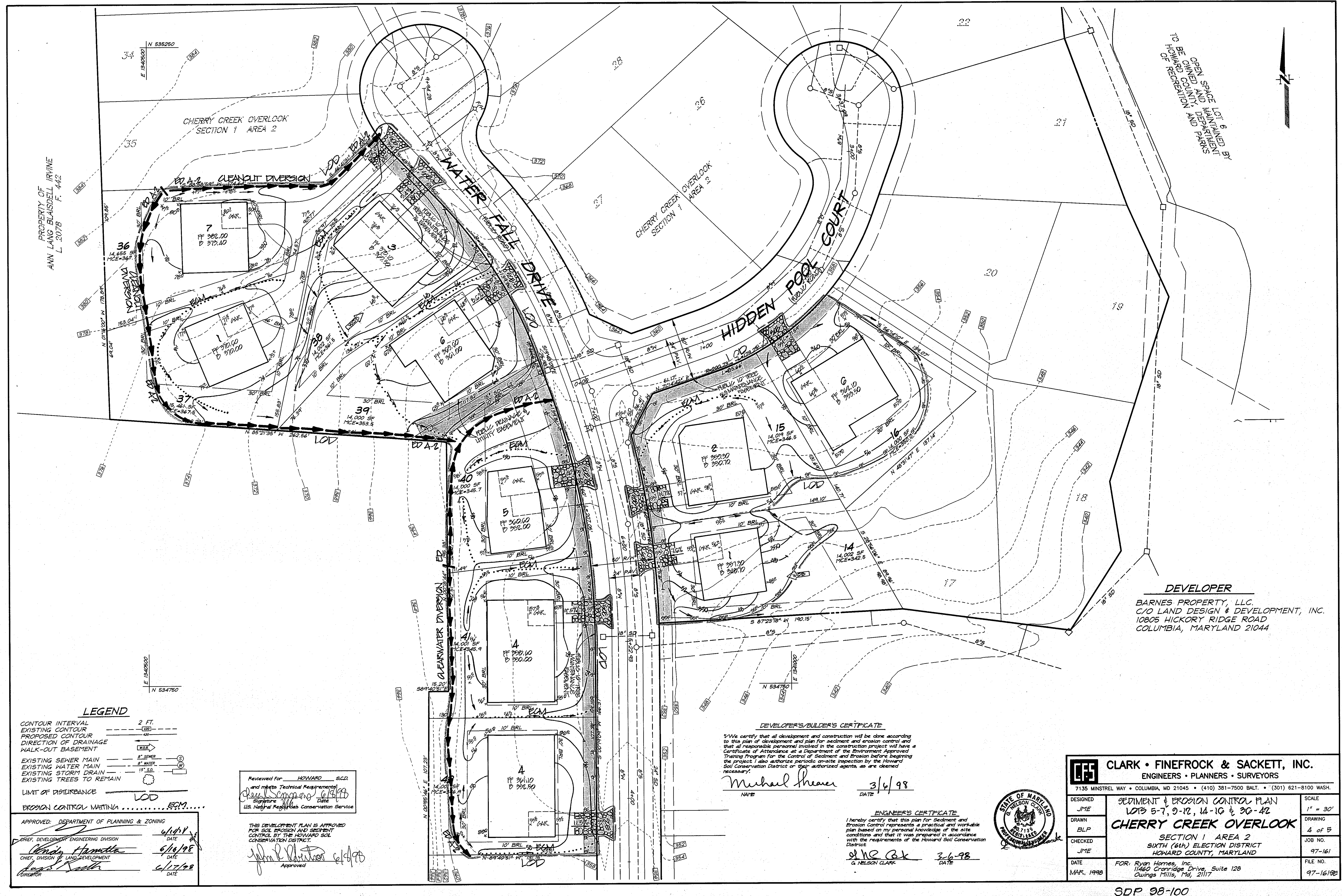
Signature: *Andy Brumby* Date: 6/16/98  
Signature: *James S. Smith* Date: 6/17/98

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

Signature: *John R. Deaton* Date: 6/16/98

<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS		
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.		
DESIGNED JME	SEDIMENT & EROSION CONTROL PLAN LOTS 5-7, 9-12, 14-16 & 30-42 <b>CHERRY CREEK OVERLOOK</b>	SCALE 1" = 30'
DRAWN BLP		DRAWING 3 of 5
CHECKED JME	SECTION 1 AREA 2 SIXTH (64th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 97-161
DATE MAR. 1998	FOR: Ryan Homes, Inc. 11460 Cranridge Drive, Suite 128 Gwings Mills, Maryland 21117	FILE NO. 97-161SE





PROPERTY OF  
ANN LANG BLAISDELL IRVINE  
L. 3078 F. 442

TO BE OPEN SPACE MAINTAINED  
BY THE COUNTY AND DEPARTMENT  
OF RECREATION AND PARKS

**LEGEND**

- CONTOUR INTERVAL 2 FT.
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DIRECTION OF DRAINAGE
- WALK-OUT BASEMENT
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING STORM DRAIN
- EXISTING TREES TO REMAIN
- LIMIT OF DISTURBANCE LOD
- EROSION CONTROL MATTING ECM

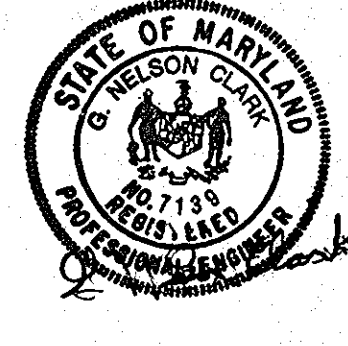
Reviewed for HOWARD S.C.D.  
and its Technical Requirements  
*John S. Simpson*  
Signature Date  
U.S. National Resources Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED  
FOR SOIL EROSION AND SEDIMENT  
CONTROL BY THE HOWARD SOIL  
CONSERVATION DISTRICT.  
*John S. Simpson*  
Approved

APPROVED: DEPARTMENT OF PLANNING & ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*Andy Hamada* 6/16/98  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*Paul Smith* 6/17/98  
DIRECTOR

**DEVELOPER'S/BUILDER'S CERTIFICATE**  
I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance as 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 or their authorized agents, as are deemed necessary.  
*Michael Shearer* 3/6/98  
NAME DATE

**ENGINEER'S CERTIFICATE**  
I hereby 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.  
*G. Nelson Clark* 3-6-98  
G. NELSON CLARK DATE



**DEVELOPER**

BARNES PROPERTY, LLC.  
C/O LAND DESIGN & DEVELOPMENT, INC.  
10805 HICKORY RIDGE ROAD  
COLUMBIA, MARYLAND 21044

<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.		
DESIGNED JME	SEDIMENT & EROSION CONTROL PLAN LOTS 5-7, 9-12, 14-16 & 30-42	SCALE 1" = 30'
DRAWN BLP	<b>CHERRY CREEK OVERLOOK</b>	DRAWING 4 of 5
CHECKED JME	SECTION 1 AREA 2 SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 97-161
DATE MAR. 1998	FOR: Ryan Homes, Inc. 11460 Cranridge Drive, Suite 128 Cwings Mills, Md, 21117	FILE NO. 97-16198



21.0 STANDARDS AND SPECIFICATIONS

FOR TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose

To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
  - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
  - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
  - The original soil to be vegetated contains material toxic to plant growth.
  - The soil is so acidic that treatment with limestone is not feasible.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 and 1/2" in diameter.

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, johnsongrass, nutgrass, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

iii. For sites having disturbed areas over 5 acres:
 

- On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
  - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
  - Organic content of topsoil shall be not less than 1.5 percent by weight.
  - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
  - 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 has elapsed (14 days min.) to permit dissipation of phytotoxic materials.

NOTE: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

ii. Place topsoil (if required) and apply soil amendments specified in 20.0 Vegetative Stabilization-Section 1-Vegetative Stabilization Methods and Materials.

V. Topsoil Application

i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet in a condition that may otherwise be detrimental to proper grading and seeded preparation.

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/1000 sq.ft.) and 500 lbs per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 100 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs./1000 sq.ft.).
- Acceptable-Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of wessing lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 340 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.).

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.) for the period May 1 thru August 14, seed with 3 lbs. per acre of wessing lovegrass (.07 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 340 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

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

SEDIMENT AND EROSION CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, Licenses and Permits, Sediment Control Division prior to the start of any construction (315-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
  - 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1.
  - 14 days for all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol. 1, Chapter 7, 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 seedings, sod, temporary seeding and mulching (See G). 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:	5,056.6
Area Disturbed:	2,522.3
Area to be roofed or paved:	1,482
Area to be vegetatively stabilized:	1,040.3
Total Cut:	2,072.7
Total Fill:	2,072.7
Off-site/Borrow Area Located:	0

- 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 control must be provided, if deemed necessary by the Howard County DPM 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.

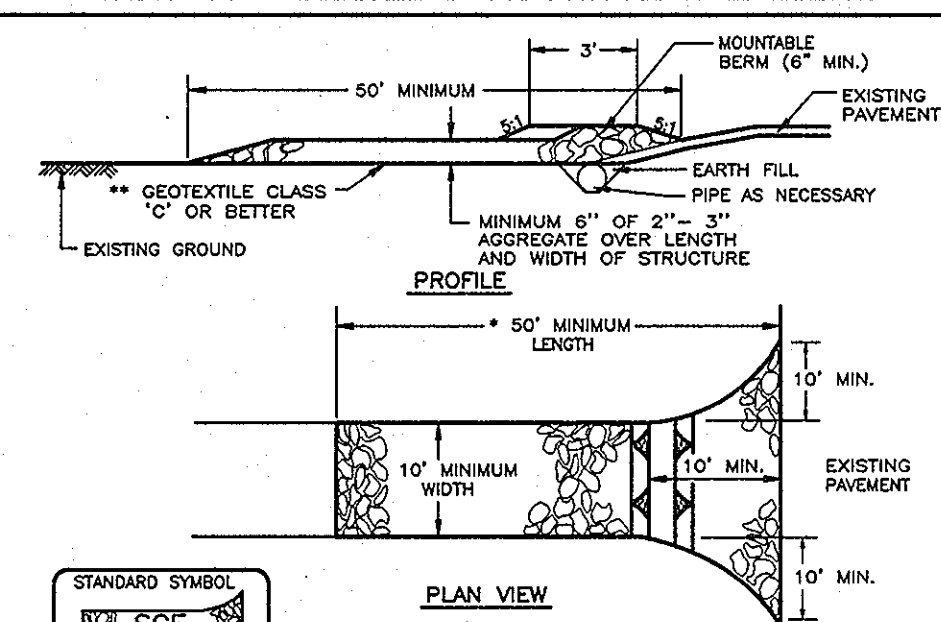
- The total amount of silt fence = 1,040 LF
- The total amount of super silt fence = 1,482 LF
- The total amount of earth dike = 2,072 LF

\*It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval of the site and it's sediment control inspector of the site and it's grading permit number at the time of construction.

CONSTRUCTION SEQUENCE:

- |  | NO. OF DAYS |
|--|-------------|
| 1. Obtain grading permit.  | 7           |
| 2. Install tree protection fence.  | 14          |
| 3. Install sediment and erosion control devices and stabilize.   | 14          |
| 4. Excavate for foundations, rough grade and temporarily stabilize.  | 30          |
| 5. Construct structures, sidewalks and driveways.  | 60          |
| 6. Final grade and stabilize in accordance with Specs. and Specs. 14.  | 14          |
| 7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize. | 7           |
- \* Delay construction of houses on lots: N/A

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

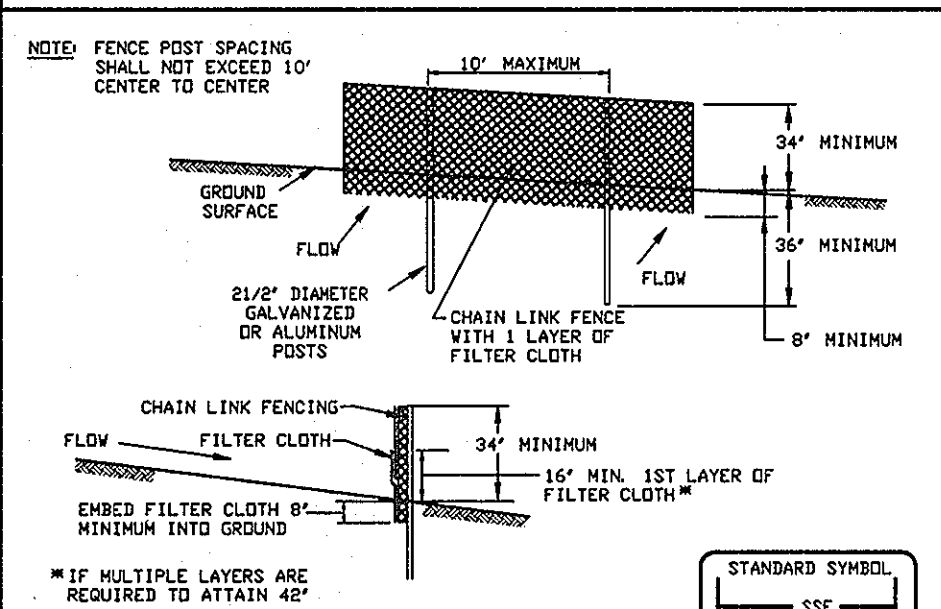


Construction Specifications

- Length - minimum of 50' (\* 30' for a 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 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. 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 conveyance. 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.

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DETAIL 33 - SUPER SILT FENCE



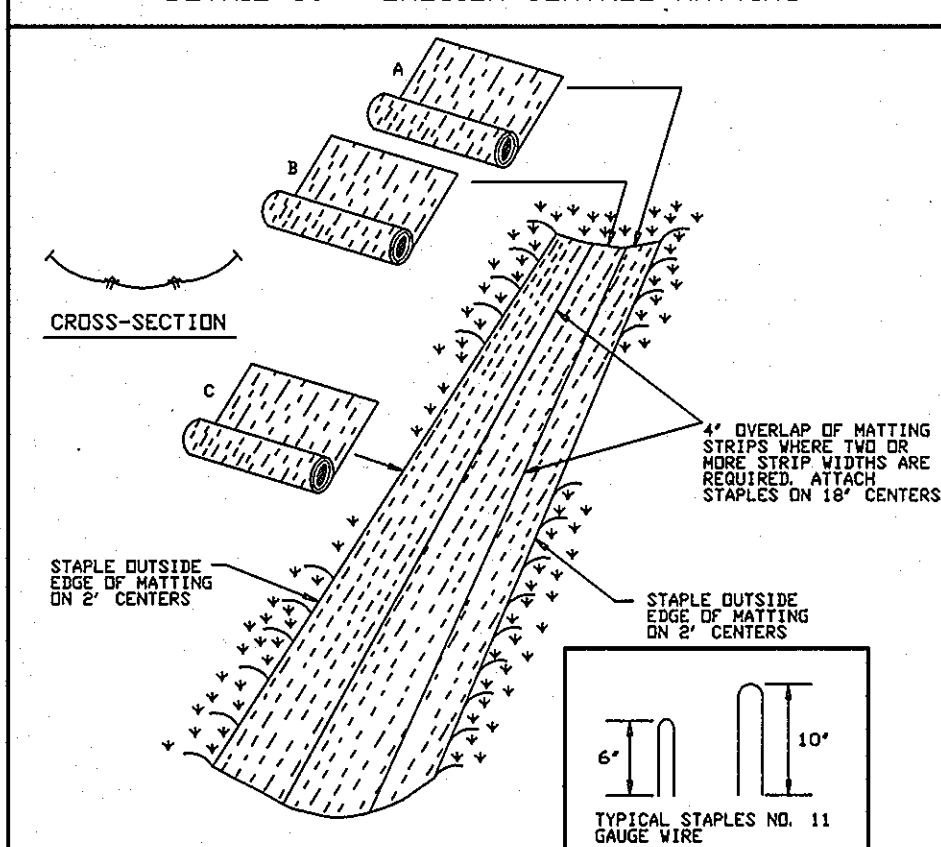
Construction Specifications

- 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 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 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and joined.
- 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 on 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 <sup>2</sup> /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

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DETAIL 30 - EROSION CONTROL MATTING



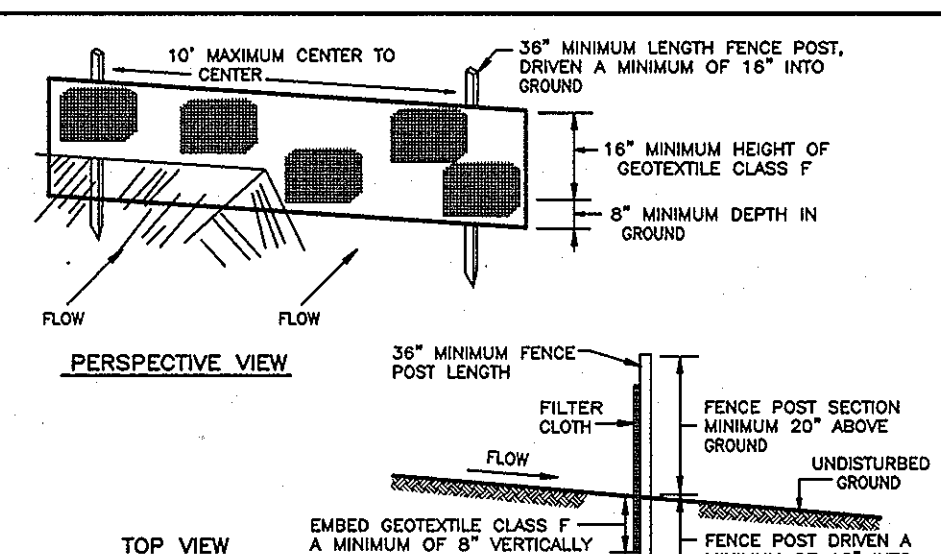
Construction Specifications

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

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

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DETAIL 22 - SILT FENCE



Construction Specifications

- Fence posts shall be a minimum of 36" long, driven 16" minimum into the ground. Posts shall be 1 1/2" square (minimum) cut, or 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 <sup>2</sup> /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 reaches 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 8-15-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

APPROVED: DEPARTMENT OF PLANNING & ZONING

Chief Development Engineering Division Date: 6/16/98  
 Chief Division of Land Development Date: 6/16/98  
 Director Date: 6/17/98

Reviewed for HOWARD S.C.D. and Dept. Technical Requirements

Signature: [Signature] Date: 6/16/98  
 U.S. Natural Resources Conservation Service

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

Signature: [Signature] Date: 6/16/98  
 Approved

DEVELOPER'S/BUILDER'S CERTIFICATE

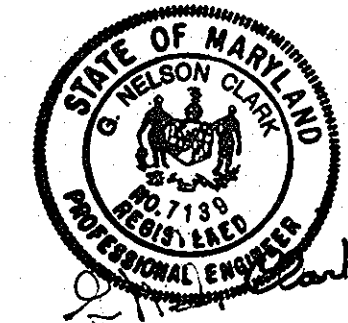
"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."

Signature: Michael Shearer Date: 3/6/98  
 NAME DATE

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature: G. Nelson Clark Date: 3-6-98  
 NAME DATE



**CLARK • FINEFROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED	JME	SCALE	AS SHOWN
DRAWN	BLP	DRAWING	5 of 5
CHECKED	JME	JOB NO.	97-161
DATE	MAR. 1998	FILE NO.	97-161SE

FOR: Ryan Hornes, Inc.  
 11460 Cranidge Drive, Suite 128  
 Owings Mills, Maryland 21117

SDP 98-100