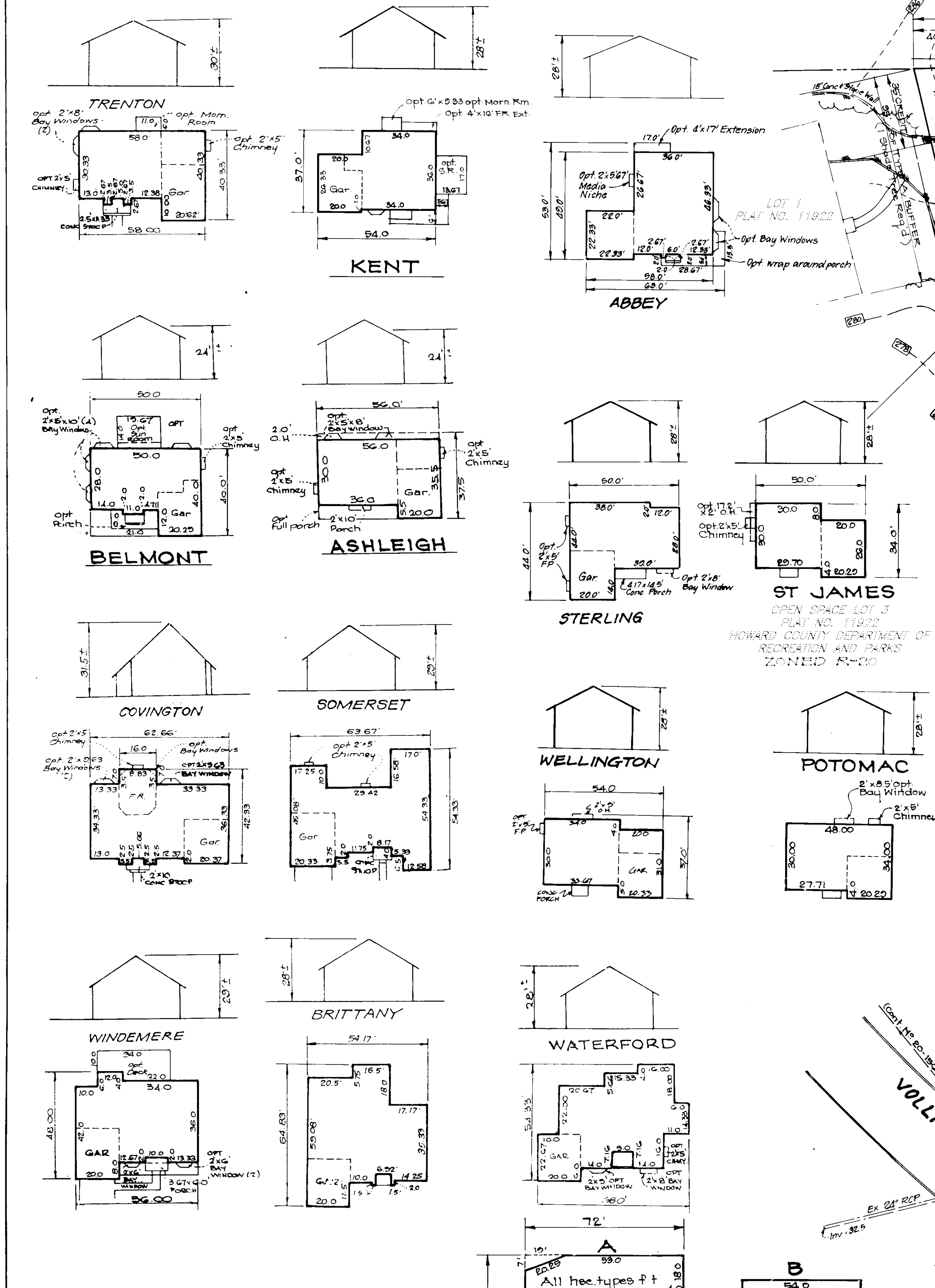
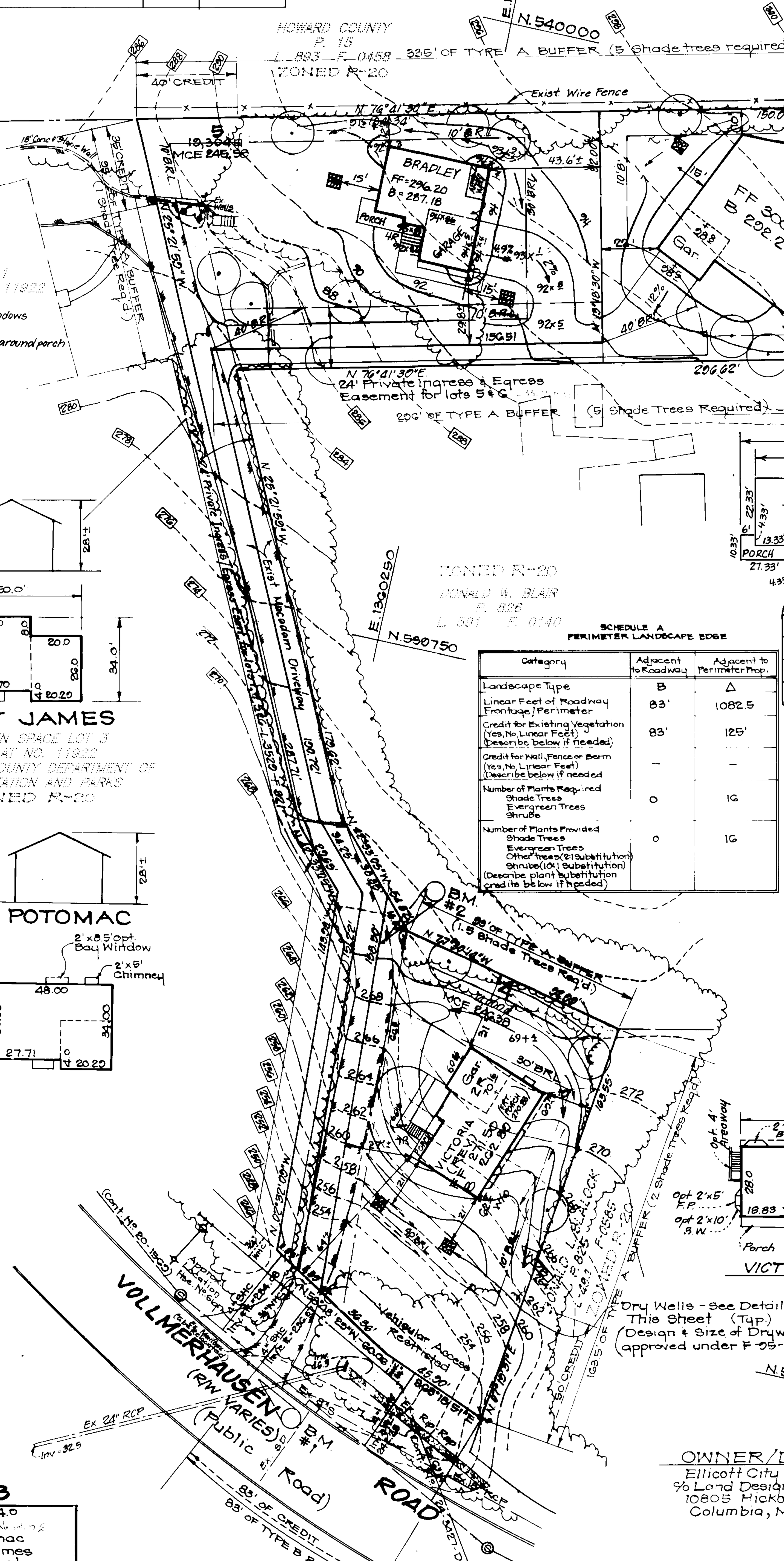
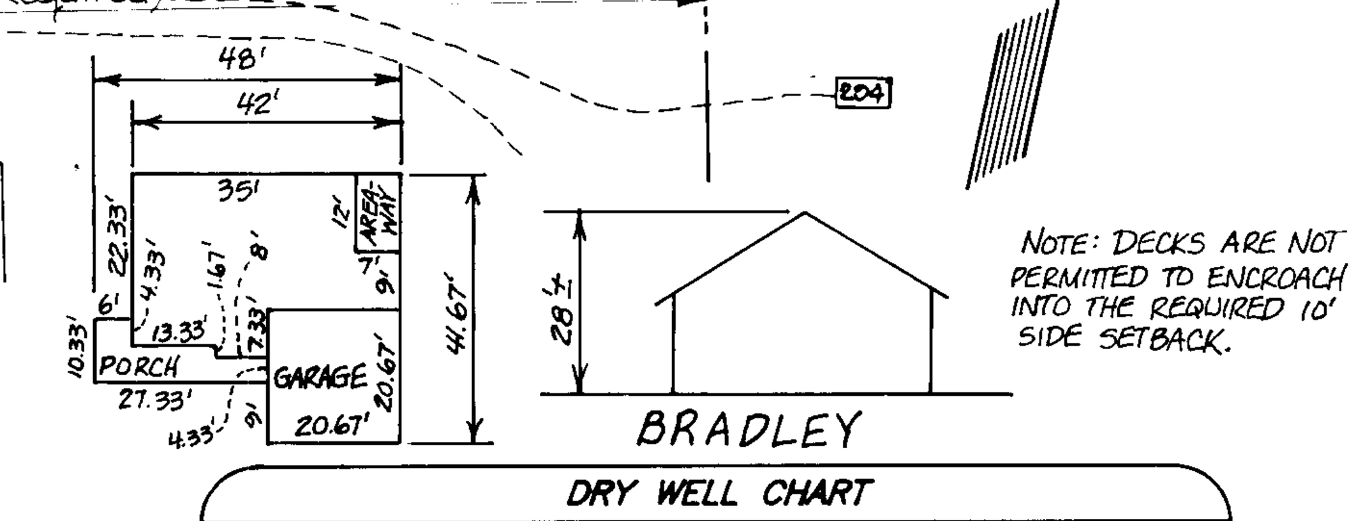
KEY	QUANTITY	PLANT NAME	SIZE	REMARKS
(symbol)	16	ACER RUBRUM 'RED SUNSET' RED SUNSET MAPLE	2½"-3"C	B & B

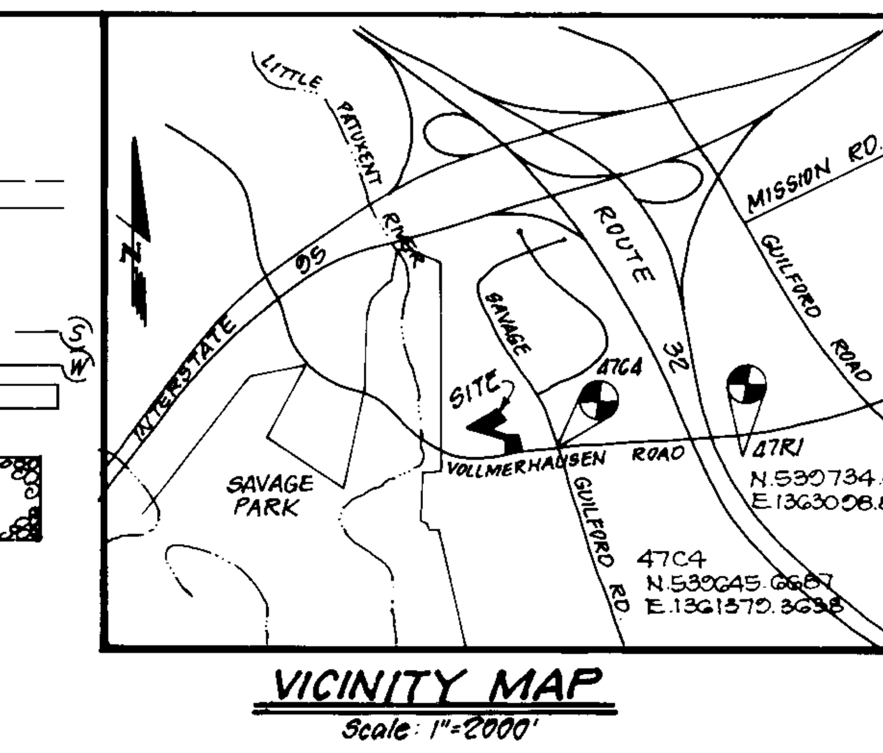






LEGEND

CONTOUR INTERVAL	2 FT.
EXISTING CONTOUR	
PROPOSED CONTOUR	
DIRECTION OF DRAINAGE	
WALK-OUT BASEMENT	
EXISTING SEWER MAIN	8" SEWER
EXISTING WATER MAIN	8" WATER
EXISTING STORM DRAIN	15" S.D.
EXISTING TREES TO REMAIN	
PROPOSED DRYWELL	



VICINITY MAP
Scale: 1"=2000'

Bench Mark #1
P.K. Nail Point No108 - Elev. 252.29
N.539453.807 E.1360267.138
Bench Mark #2
P.K. Nail Point No110 - Elev. 271.11
N.539633.769 E.1360277.754

NOTE: DECKS ARE NOT PERMITTED TO ENCROACH INTO THE REQUIRED 10' SIDE SETBACK.

GENERAL NOTES:

1. Subject property is zoned: R-20 per 10-18-93 Comprehensive Zoning Plan.
2. The total area included in this submission is : 52,817 ☐ or 1.2125 Ac. The total area of buildable lots is: 1.2125 Ac.
3. The total number of lots included in this submission is: 3 The total number of buildable lots is: 3
4. Improvement to property : Single Family Detached Homes
5. Department of Planning and Zoning reference file numbers F-95-123 F-96-71
6. Utilities shown as existing are taken from approved Water and Sewer plans Contract #'s 24-3427-D & 20-1569 and actural field surveys by Clark, Finefrock and Sackett, dated 8-7-96
7. Any damage to county owned rights-of-way shall be corrected at the developer's expense.
8. All roadways are public and existing.
9. The existing topography was taken from actual field survey by Clark, Finefrock & Sackett, dated 8-7-96
10. 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: 47C4 & 47R1
11. 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.
12. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
13. In accordance with sections 128.A.1.b and .c of the Zoning Regulations, bay windows or chimneys not more than 16 feet in width may project not more than 4 feet into any setbacks; porches and decks may project not more than 10 feet into the front or rear setbacks.
14. Stormwater Management is provided per: drywells *
15. ~~All landscaping will be installed by the developer in conjuction with the construction plans for F-95-123.~~

* All downspouts to be connected to ~~proposed drywells~~ proposed drywells.

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 and/or~~ approved Water and Sewer Plans Contract # 24-3427 D and # 20-1569

16. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and Landscape Manual. Financial surety for the required trees in the amount of $1600.00 is part of the Builders Grading Permit Application.

MINIMUM LOT SIZE CHART

LOT No	GROSS AREA	PIPESTEM AREA	REMAINING AREA	100 YEAR FLOODPLAIN	25% SLOPES	MINIMUM LOT SIZE
5	19,304 ☐	3713 ☐	15,591 ☐	0	0	15,591 ☐
6	19,513 ☐	5330 ☐	14,183 ☐	0	0	14,183 ☐

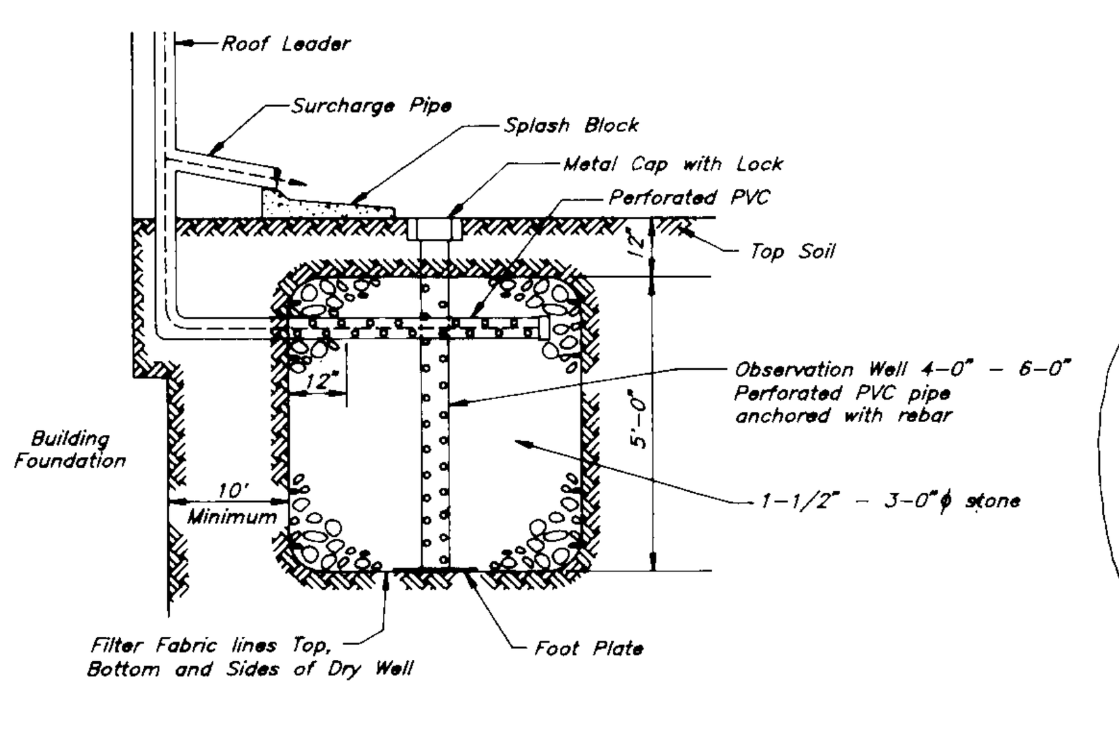
17. The Health Dept. must certify that the existing water wells on Lot 5 have been abandoned prior to issuance of a building permit.

DRY WELL CHART

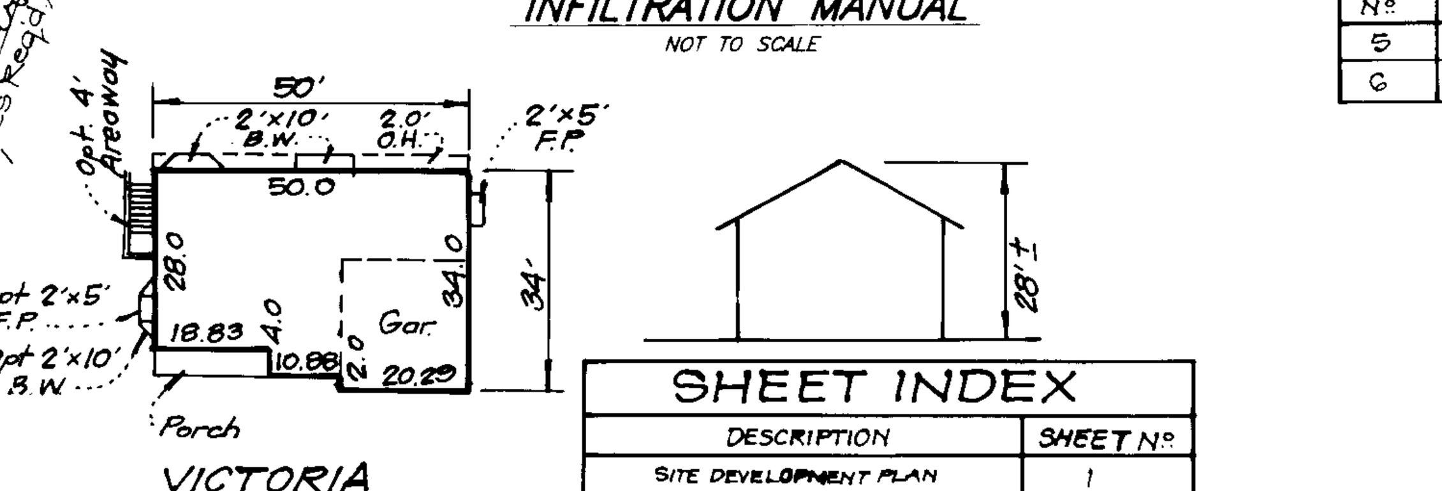
LOT No.	AREA REQUIRED	AREA PROVIDED	No. WELLS	SIZE WELLS
4			2	5'×5'
5			2	5'×5'
6			2	5'×5'

SCHEDULE A
PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadway	Adjacent to Perimeter Prop.
Landscape Type	B	A
Linear Feet of Roadway Frontage/Perimeter	83'	1082.5
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	83'	125'
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed	–	–
Number of Plants Required: Shade Trees, Evergreen Trees, Shrubs	0	16
Number of Plants Provided: Shade Trees, Evergreen Trees, Other trees (2:1 Substitution), Shrubs (10:1 Substitution) (Describe plant substitution credits below if needed)	0	16



TYPICAL DRY WELL CROSS SECTION
INFILTRATION MANUAL
NOT TO SCALE



SHEET INDEX

DESCRIPTION	SHEET No
SITE DEVELOPMENT PLAN	1
SEDIMENT AND EROSION CONTROL PLAN	2

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
4	9210 VOLLMERHAUSEN ROAD
5	9230 VOLLMERHAUSEN ROAD
6	9228 VOLLMERHAUSEN ROAD

OWNER/DEVELOPER
Ellicott City Land Holding Inc.
% Land Design & Development, Inc
10805 Hickory Ridge Road
Columbia, Maryland 21044

10/22/97
Lot 4
Lot 5 JH

No	REVISIONS	Date
3	ADD BRADLEY HOUSE MODEL, AND CHANGE LOT 5 FROM GENERIC BOX B TO BRADLEY	01-30-98
2	CHANGE HOUSE MODEL FROM ASHLEIGH (REV) TO VICTORIA (REV) ON LOT 4	10-23-97
1	Add Victoria house typical, Rev Drywell Sizes	4-9-97

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division	11/13/96 Date
Chief, Division of Land Development and Research	11/26/96 Date
Director	11/26/96 Date

SUBDIVISION NAME			SECTION/AREA	LOTS/PARCELS	
SHANK PROPERTY				4,5 AND 6	
PLAT NO. 12260	BLOCK NO. 5	ZONE R-20	TAX MAP NO. 47	ELECTION DIST. 6TH	CENSUS TRACT 6069.02
WATER CODE C01			SEWER CODE 6100000		

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

DESIGNED JME	SITE DEVELOPMENT PLAN LOTS 4,5 AND 6	SCALE 1"=30'
DRAWN ZAH	**SHANK PROPERTY**	DRAWING 1 of 2
CHECKED jme	SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 96-141
DATE 10-30-96	FOR: TRINITY BUILDERS INC 6212 DEVON DRIVE COLUMBIA, MD 21044	FILE NO 96-141-X

SDP 97-19

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition

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

Purpose

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

Conditions Where Practice Applies

I. This practice is limited to areas having 2:1 or flatter slopes where:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible.

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

Construction and Material Specifications

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

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

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used 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 that 1 and 1/2" in diameter.

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

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

II. For sites having disturbed areas under 5 acres:

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

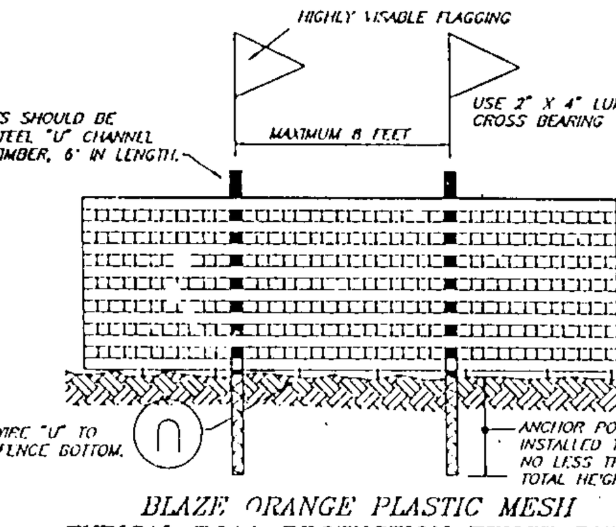
V. Topsoil Application

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 place while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.



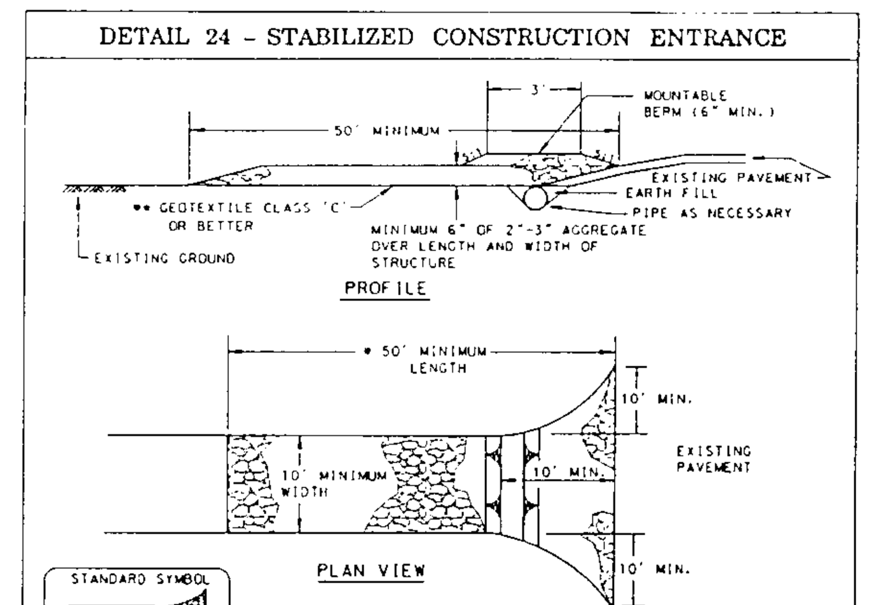
BLAZE ORANGE PLASTIC MESH
TYPICAL TREE PROTECTION FENCE DETAIL
NO SCALE

NOTES:
1. Forest protection device only.
2. Retention area will be set as part of the review process.
3. Boundaries of retention area should be staked and flagged prior to installing device.
4. Root damage should be avoided.
5. Protection signage may also be used.
6. Device should be maintained throughout construction.

LEGEND

Contour Interval	2 Ft.
Existing Contour	296
Proposed Contour	296
Spot Elevation	+97.2
Direction of Drainage	→
Walk out Basement	WOB
Silt Fence	—S——S—
Super Silt Fence	——SSF——SSF—
Stabilized Construction Entrance	
Proposed Dry Well	

DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).

2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.

3. 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.

4. 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.

5. Surface Water – all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location – A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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

PERMANENT SEEDING NOTES

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

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

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:

1) Preferred–Apply 2 tons per acre dolomitic limestone (92 lbs/100 sq.ft.) and 600 lbs per acre 10–10–10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30–0–0 ureaform fertilizer (9 lbs/1000 sq.ft.)

2) Acceptable–Apply 2 tons per acre dolomatic limestone (92 lbs/1000 sq.ft.) and apply 1000 lbs. per acre 10–10–10– fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

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

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

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

TEMPORARY SEEDING NOTES

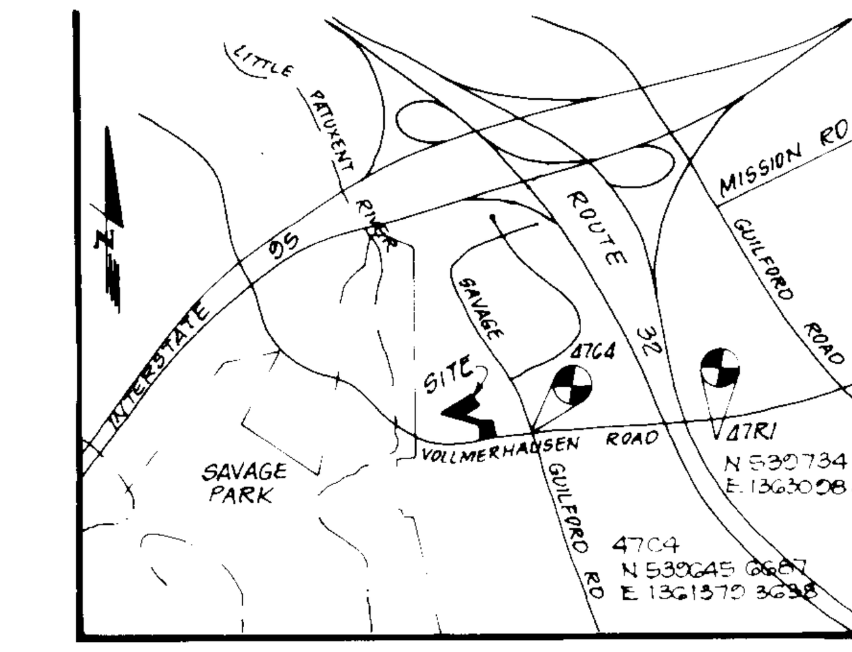
SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

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 weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



VICINITY MAP
Scale 1"=2000'

SEDIMENT AND EROSION CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (313–1855).
2. 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.
3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within:
   a) 7 calendar days for all perimeter sediment control stuctures, dikes, perimeter slopes and all slopes greater than 3:1
   b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol.1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. 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 seedings and mulching (Sec. G-20-1 thru G-23-3). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. SITE ANALYSIS:

Total Area of Site:	1.21 Ac.
Area Disturbed:	0.75 Ac.
Area to be roofed or paved:	0.23 Ac.
Area to be vegetatively stabilized:	0.51 Ac.
Total Cut:	1246 cu.
Total Fill:	1088 cu.
Offsite Waste/Borrow Area Location:	*

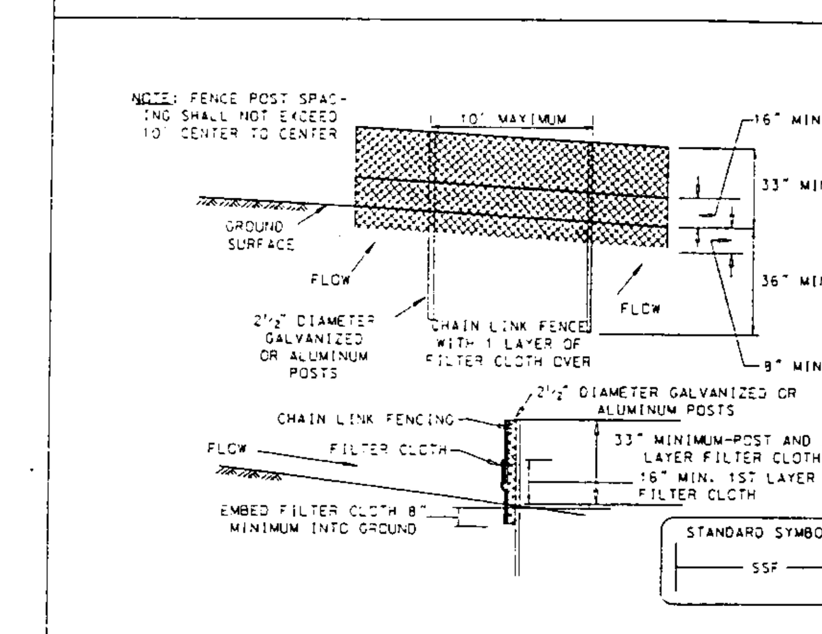
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
11. The total amount of silt fence = 108 L.F.
    " " " Super Silt Fence = 455 L.F.

* It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the 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.	7
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 Stds. and Specs.	14
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7

DETAIL 33 – SUPER SILT FENCE

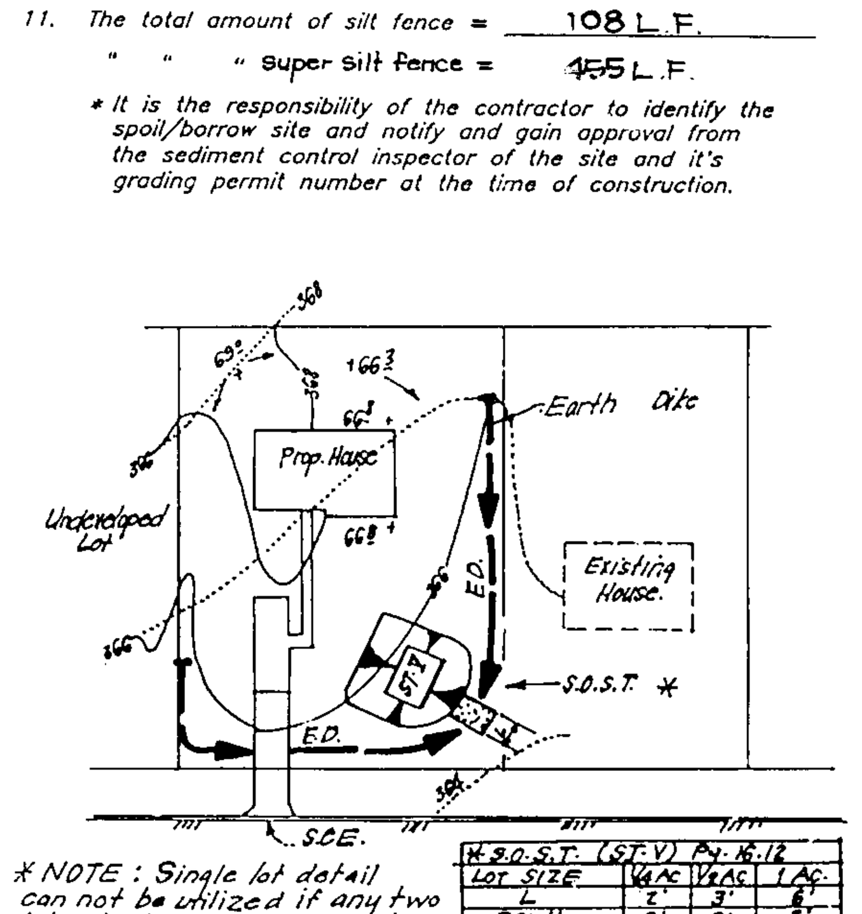


Construction Specifications

Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.

1. The poles do not need to set in concrete.
2. Chain link fence shall be fastened securely to the fence posts with wire ties or staples.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



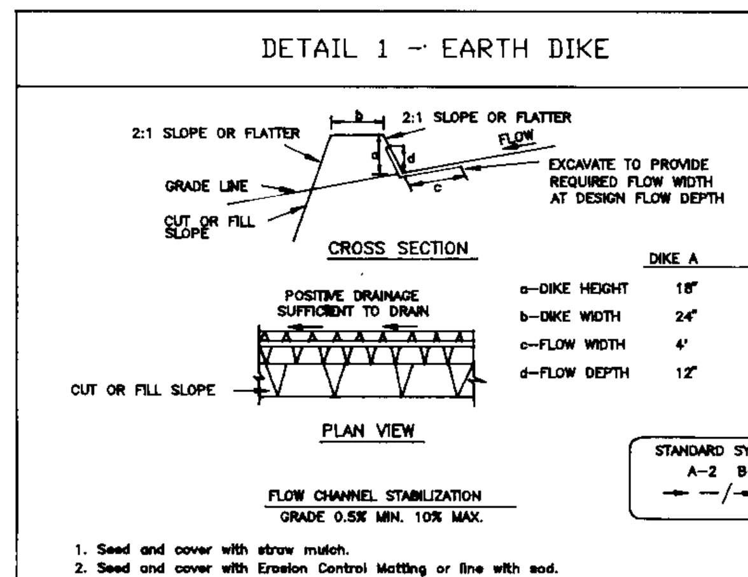
* NOTE : Single lot detail can not be utilized if any two lots sharing common property lines are to be disturbed at the same time or on any lots showing a sediment trap.

* S.O.S.T. (ST-V) Pg. 16.12			
Lot Size	1/4 Ac	1/2 Ac	1 Ac.
L	2'	3'	6'
Depth	2'	2'	2'
Bot. Length	11'	26'	26'
Bot. Width	11'	11'	26'
Bot. Area	121#	286#	676#

\+ Can be adjusted in field, but bottom area must be as given or greater

SINGLE LOT SEDIMENT CONTROL PLAN
NO SCALE

DETAIL 1 – EARTH DIKE



	DIKE A	DIKE B
a–DIKE HEIGHT	18"	30"
b–DIKE WIDTH	24"	36"
c–FLOW WIDTH	4'	6'
d–FLOW DEPTH	12"	24"

FLOW CHANNEL STABILIZATION
GRADE 0.5% MIN. 10% MAX.

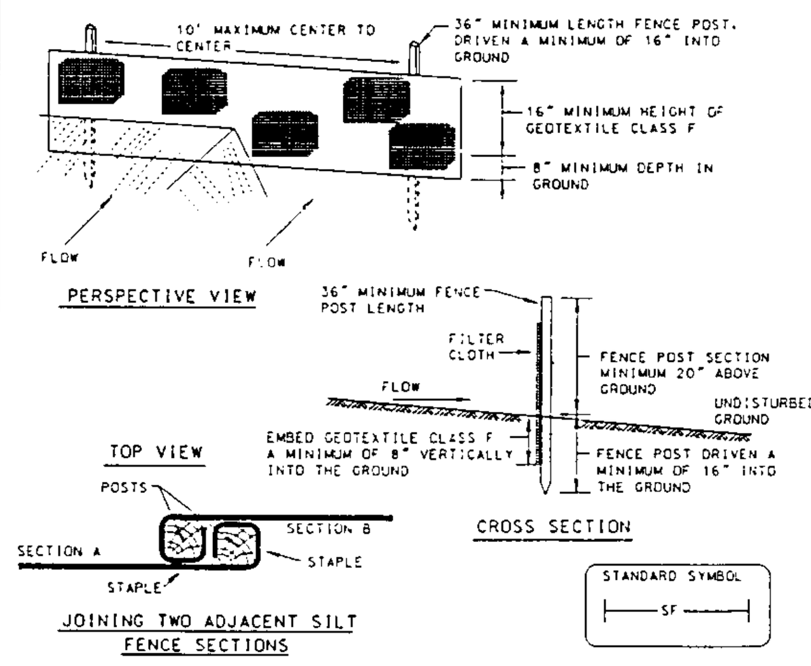
1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" – 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A - 1 - 6	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 22 – SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1½" x 1½" square (minimum) cut, or 1¾" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. 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 ft²/ minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division	11/13/96 Date
Chief, Division of Land Development and Research	11/26/96 Date
Director	11/26/96 Date

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

Signature — Date
Natural Resources Conservation Service

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

Approved 11/6/96

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".

MICHAEL PFAU — 8-20-96 DATE

OWNER/DEVELOPER
Ellicott City Land Holding Inc
% Land Design & Development, Inc
10805 Hickory Ridge Road
Columbia, Maryland 21044

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 condtions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

G. NELSON CLARK, P.E. — 8-20-96 DATE

STATE OF MARYLAND — G. NELSON CLARK — No. 7139 — REGISTERED PROFESSIONAL ENGINEER

SUBDIVISION NAME			SECTION/AREA	LOTS/PARCELS	
SHANK PROPERTY				4,5 AND 6	
PLAT NO. 12260	BLOCK NO. 5	ZONE R–20	TAX MAP NO. 47	ELECTION DIST. 6TH	CENSUS TRACT 6069.02
WATER CODE C01			SEWER CODE G100000		

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

DESIGNED KWM	SEDIMENT AND EROSION CONTROL PLAN LOTS 4,5 AND 6	SCALE 1"=30'
DRAWN ZAH	SHANK PROPERTY	DRAWING 2 of 2
CHECKED KM	SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 96-141
DATE 10-30-96	FOR TRINITY BUILDERS INC 6212 DEVON DRIVE COLUMBIA, MD 21044	FILE NO 96-141-S&E

SDP 97-1?

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition

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

Purpose

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

Conditions Where Practice Applies

I. This practice is limited to areas having 2:1 or flatter slopes where:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible.

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

Construction and Material Specifications

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

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

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used 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 that 1 and 1/2" in diameter.

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

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

II. For sites having disturbed areas under 5 acres:

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

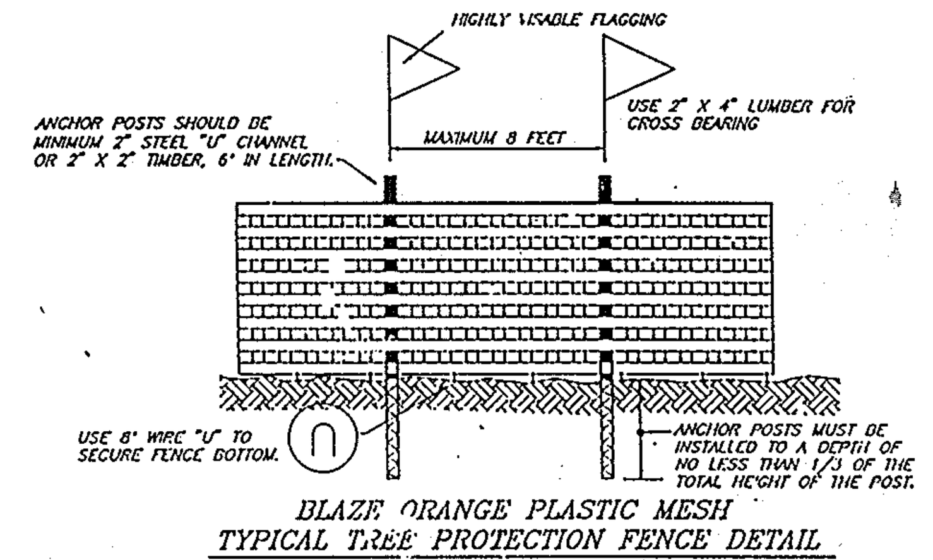
V. Topsoil Application

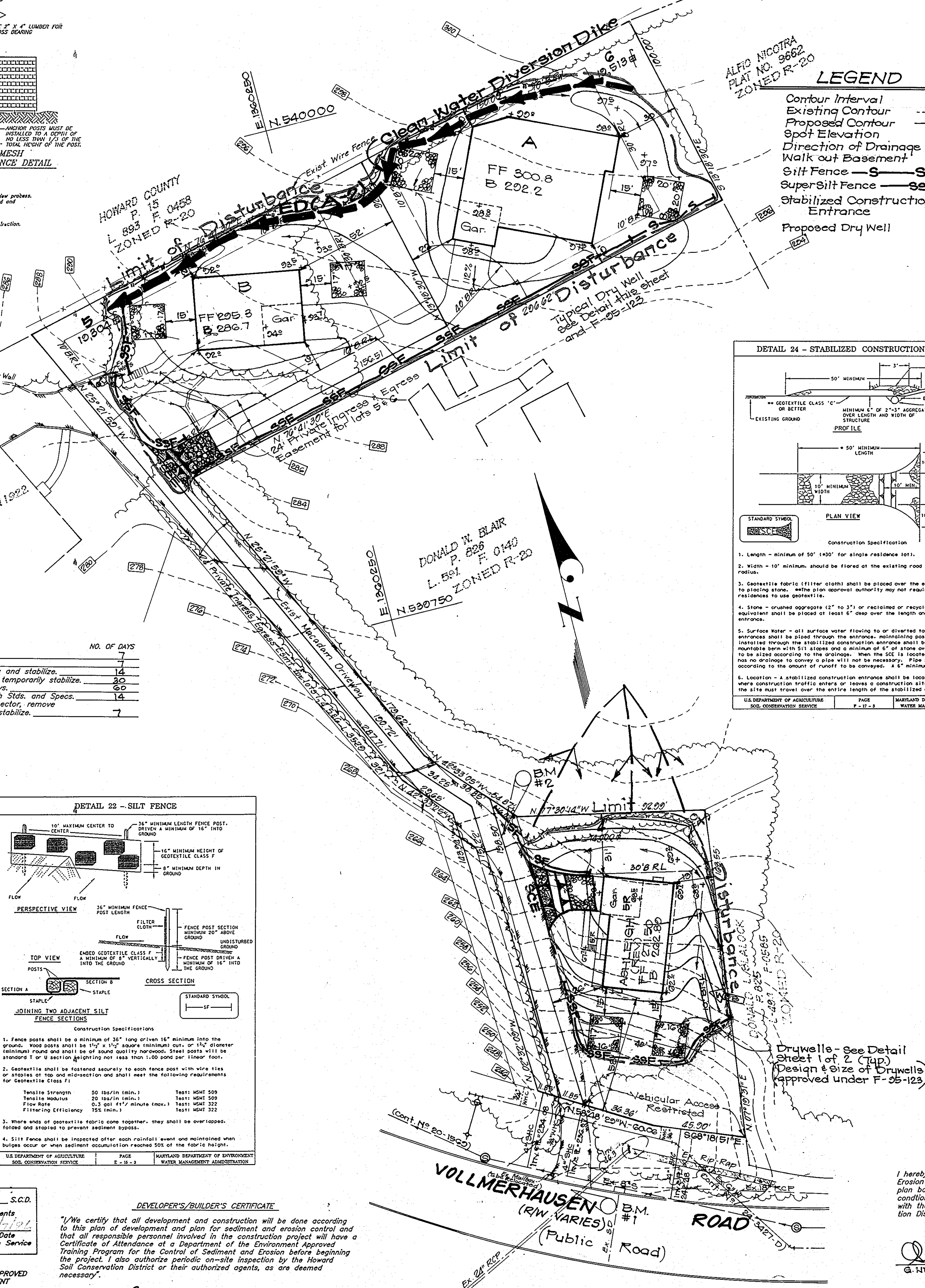
i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

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.

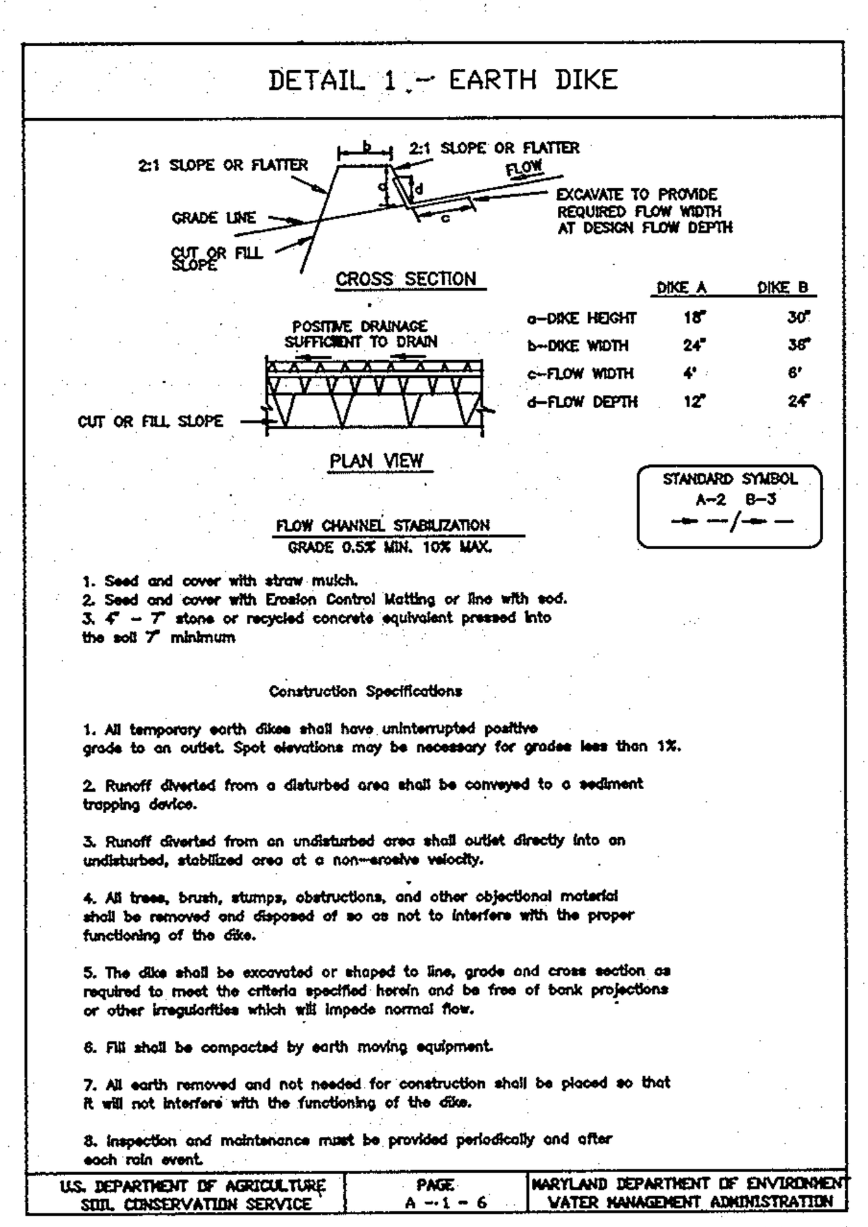
iv. Topsoil shall not be place while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

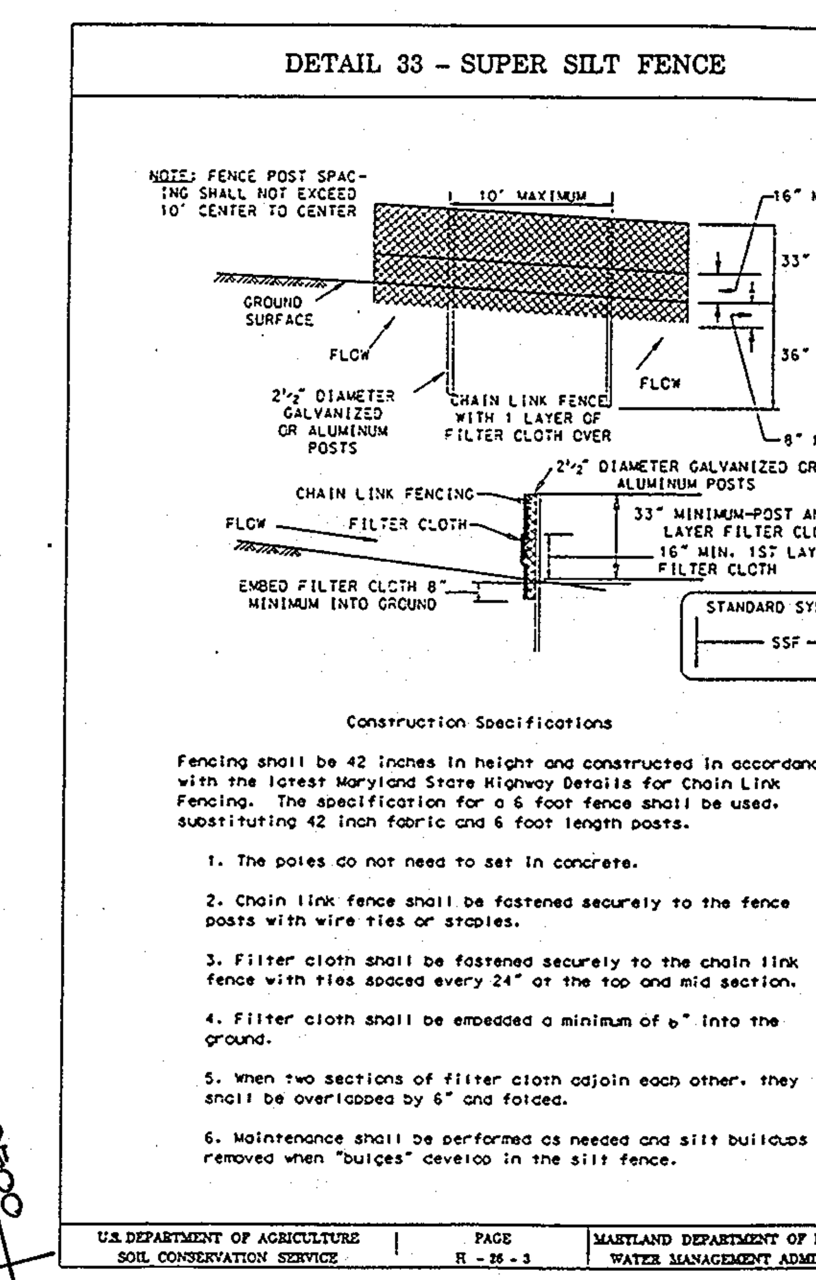




CONSTRUCTION SEQUENCE:

	NO. OF DAYS
1. Obtain grading permit.	7
2. Install tree protection fence.	7
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 Stds. and Specs.	14
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7





PERMANENT SEEDING NOTES

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

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

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:

1) Preferred–Apply 2 tons per acre dolomitic limestone (92 lbs/100 sq.ft.) and 600 lbs per acre 10–10–10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30–0–0 ureaform fertilizer (9 lbs/1000 sq.ft.)

2) Acceptable–Apply 2 tons per acre dolomatic limestone (92 lbs/1000 sq.ft.) and apply 1000 lbs. per acre 10–10–10– fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

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

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

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

TEMPORARY SEEDING NOTES

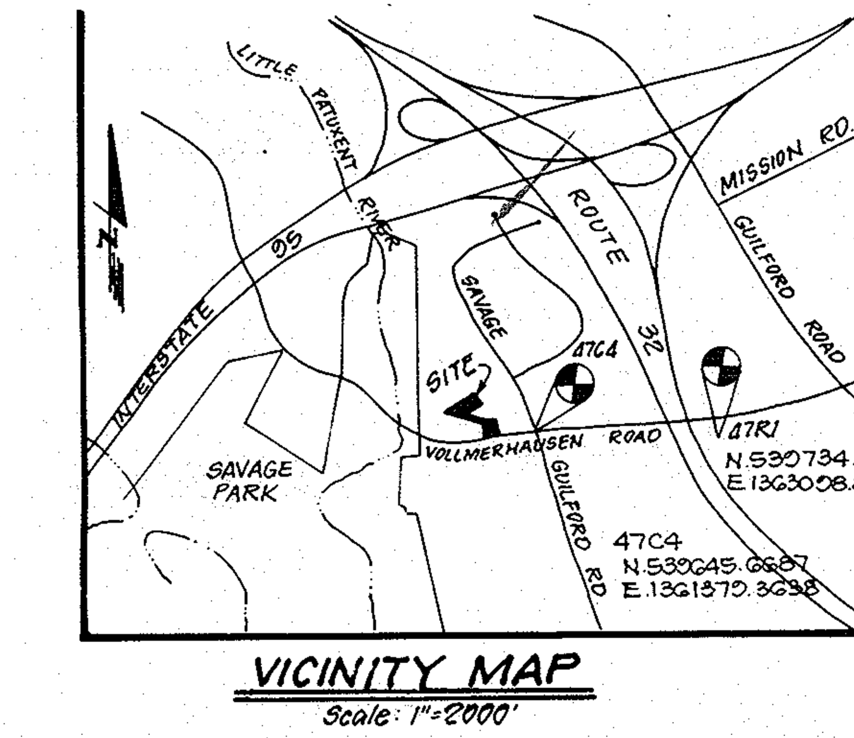
SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

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 weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



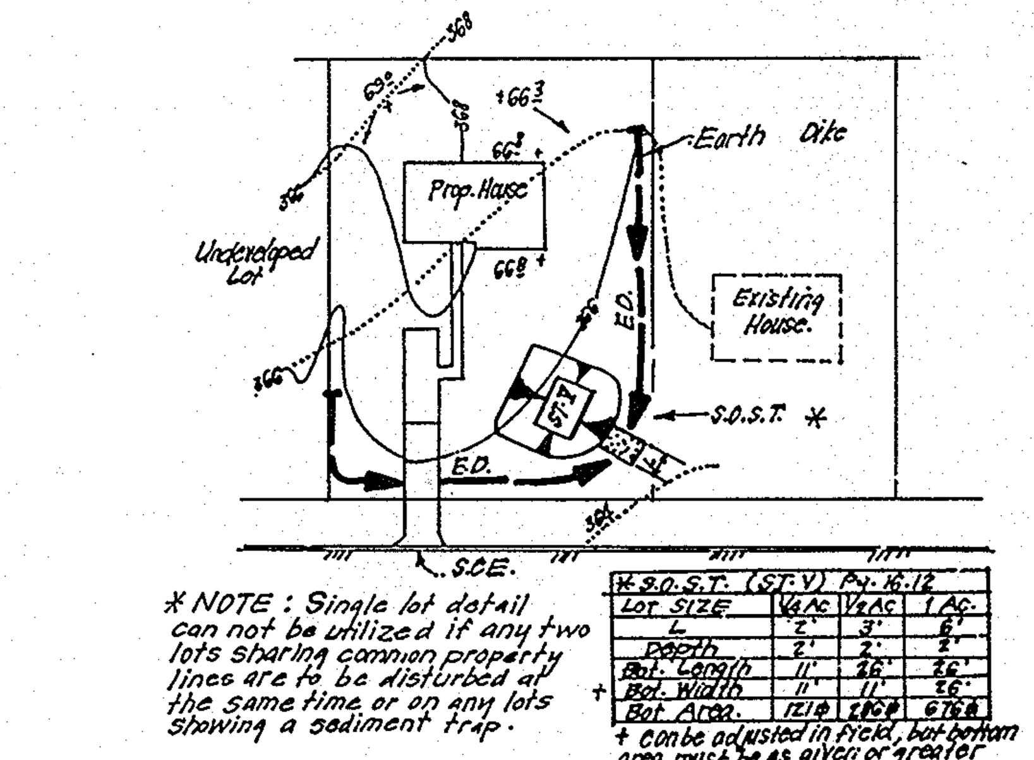
VICINITY MAP

Scale: 1"=2000'

SEDIMENT AND EROSION CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (313–1855).
2. 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.
3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within:
   a) 7 calendar days for all perimeter sediment control stuctures, dikes, perimeter slopes and all slopes greater than 3:1
   b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. 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 seedings and mulching (Sec. G-20-1 thru G-23-3).
   Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. SITE ANALYSIS:
   Total Area of Site: 1.21 Ac.
   Area Disturbed: 0.75 Ac.
   Area to be roofed or paved: 0.23 Ac.
   Area to be vegetatively stabilized: 0.51 Ac.
   Total Cut: 1246 c.y.
   Total Fill: 1088 c.y.
   Offsite Waste/Borrow Area Location: *
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
11. The total amount of silt fence = 108 L.F.
    " " " super silt fence = 455 L.F.

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



SINGLE LOT SEDIMENT CONTROL PLAN

NO SCALE

OWNER/DEVELOPER

Ellicott City Land Holding Inc.
% Land Design & Development, Inc
10805 Hickory Ridge Road
Columbia, Maryland 21044

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 condtions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

G. NELSON CLARK, P.E. — DATE 8-20-96

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".

MICHAEL PFAU — DATE 8-20-96

Reviewed for HOWARD S.C.D. and meets Technical Requirements
Signature — Date
Natural Resources Conservation Service

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

Approved 11/6/96

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division	11/13/96
Chief, Division of Land Development and Research	11/26/96
Director	11/26/96

SUBDIVISION NAME			SECTION/AREA	LOTS/PARCELS	
SHANK PROPERTY				4,5 AND 6	
PLAT NO. 12260	BLOCK NO. 5	ZONE R-20	TAX MAP NO. 47	ELECTION DIST. 6TH	CENSUS TRACT 6069.02
WATER CODE C01			SEWER CODE G100000		

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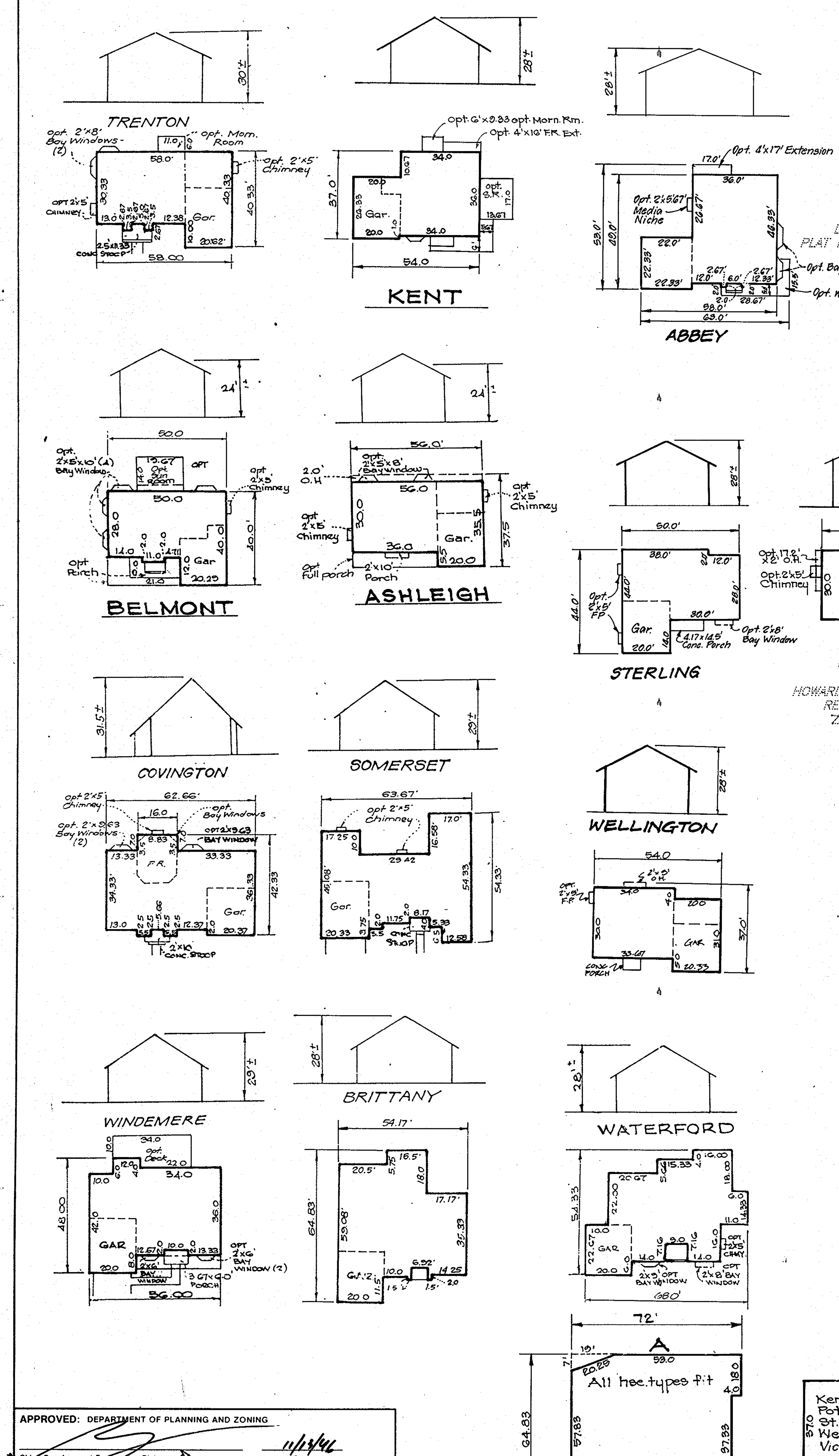
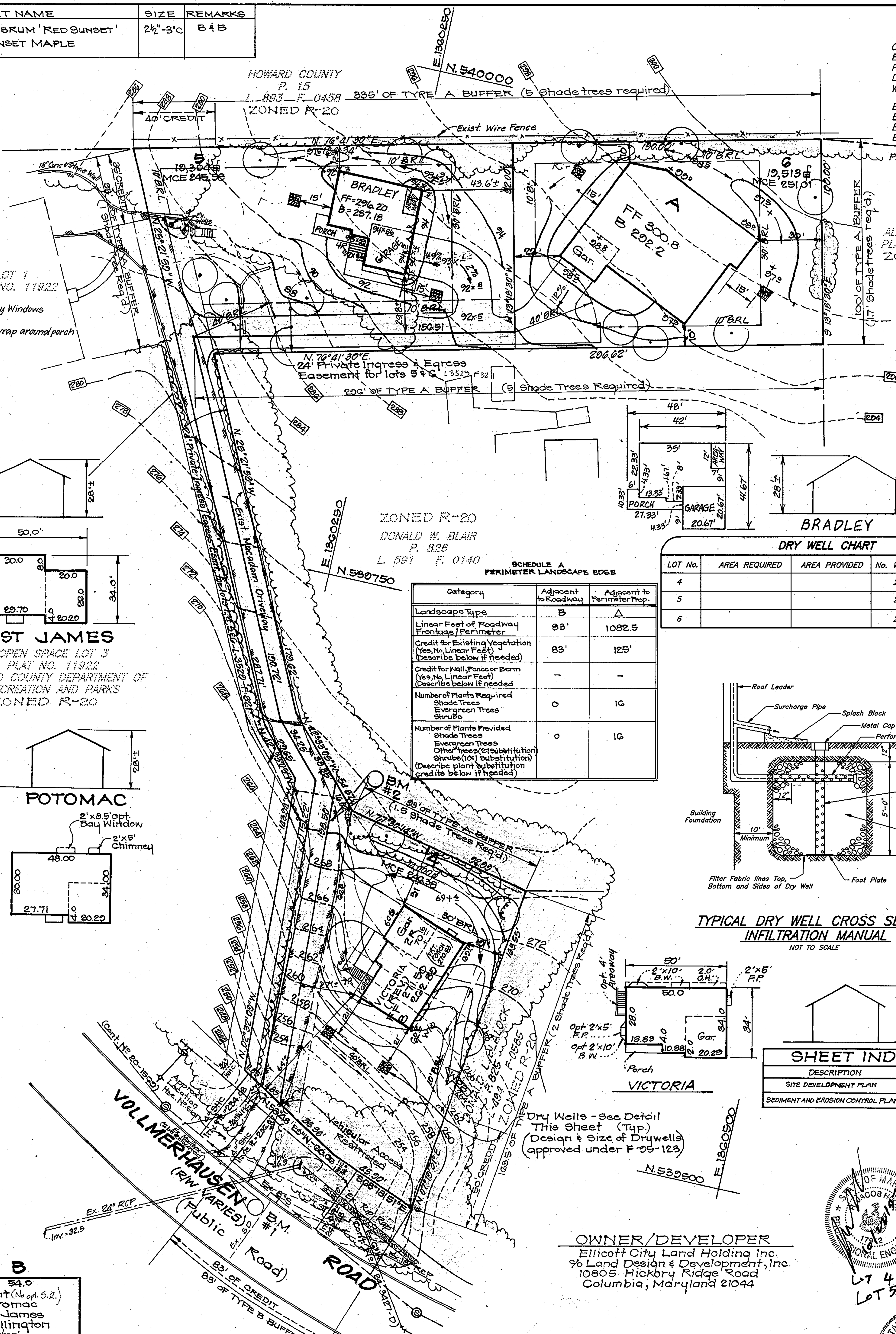
DESIGNED KIWM	SEDIMENT AND EROSION CONTROL PLAN LOTS 4,5 AND 6 SHANK PROPERTY SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=30'
DRAWN ZAH		DRAWING 2 of 2
CHECKED KM		JOB NO 96-141
DATE 10-30-96	FOR: TRINITY BUILDERS INC. 6212 DEVON DRIVE COLUMBIA, MD 21044	FILE NO 96-141-S&E

SDP 97-19

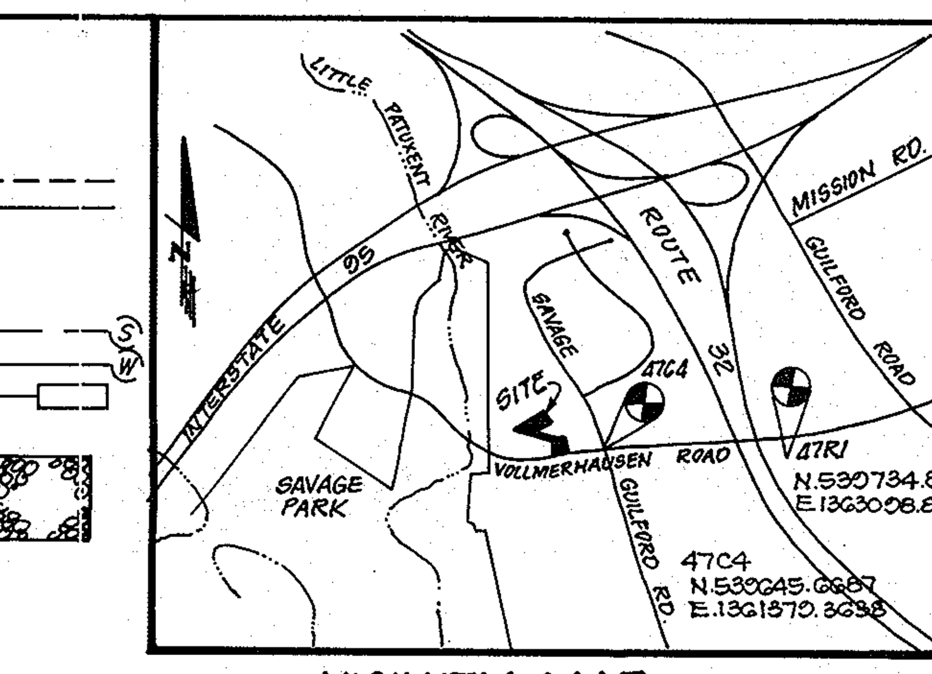
KEY	QUANTITY	PLANT NAME	SIZE	REMARKS
⊙	16	ACER RUBRUM 'RED SUNSET' RED SUNSET MAPLE	2½"-3"C	B & B





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
PROPOSED DRYWELL



VICINITY MAP
Scale: 1"=2000'

Bench Mark #1
P.K. Nail Point №108 - Elev. 252.29
N.539453.807 E.1360267.138
Bench Mark #2
P.K. Nail Point №110 - Elev. 271.11
N.539633.769 E.1360277.754

GENERAL NOTES:

1. Subject property is zoned: R-20 per 10-18-93 Comprehensive Zoning Plan.
2. The total area included in this submission is : 52,817 ◻ or 1.2125 Ac. The total area of buildable lots is: 1.2125 Ac.
3. The total number of lots included in this submission is: 3 The total number of buildable lots is: 3
4. Improvement to property : Single Family Detached Homes
5. Department of Planning and Zoning reference file numbers F-95-123 F-96-71
6. Utilities shown as existing are taken from approved Water and Sewer plans Contract #'s 24-3427-D & 20-1569 and actural field surveys by Clark, Finefrock and Sackett, dated 8-7-96
7. Any damage to county owned rights-of-way shall be corrected at the developer's expense.
8. All roadways are public and existing.
9. The existing topography was taken from actual field survey by Clark, Finefrock & Sackett, dated 8-7-96.
10. 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: 47C4 & 47R1
11. 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.
12. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
13. In accordance with sections 128.A.1.b and .c of the Zoning Regulations, bay windows or chimneys not more than 16 feet in width may project not more than 4 feet into any setbacks; porches and decks may project not more than 10 feet into the front or rear setbacks.
14. Stormwater Management is provided per: drywells *
15. ~~All landscaping will be installed by the developer in conjuction with the construction plans for F-95-123.~~

* ~~All downspouts to be connected to proposed drywells.~~

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 and/or~~ approved Water and Sewer Plans Contract # 24-3427 D and # 20-1569

16. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and Landscape Manual. Financial surety for the required trees in the amount of $1600.00 is part of the Builders Grading Permit Application.

NOTE: DECKS ARE NOT PERMITTED TO ENCROACH INTO THE REQUIRED 10' SIDE SETBACK.

DRY WELL CHART

LOT No.	AREA REQUIRED	AREA PROVIDED	No. WELLS	SIZE WELLS
4			2	5'×5'
5			2	5'×5'
6			2	5'×5'

SCHEDULE A PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadway	Adjacent to Perimeter Prop.
Landscape Type	B	A
Linear Feet of Roadway Frontage/Perimeter	83'	1082.5
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	83'	125'
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed	–	–
Number of Plants Required: Shade Trees, Evergreen Trees, Shrubs	0	16
Number of Plants Provided: Shade Trees, Evergreen Trees, Other Trees (2:1 Substitution), Shrubs (10:1 Substitution) (Describe plant substitution credits below if needed)	0	16

TYPICAL DRY WELL CROSS SECTION
INFILTRATION MANUAL
NOT TO SCALE

MINIMUM LOT SIZE CHART

LOT №	GROSS AREA	PIPESTEM AREA	REMAINING AREA	100 YEAR FLOODPLAIN	25% SLOPES	MINIMUM LOT SIZE
5	19,304 ◻	3713 ◻	15,591 ◻	0	0	15,591 ◻
6	19,513 ◻	5330 ◻	14,183 ◻	0	0	14,183 ◻

17. The Health Dept. must certify that the existing water wells on Lot 5 have been abandoned prior to issuance of a building permit.

SHEET INDEX

DESCRIPTION	SHEET №
SITE DEVELOPMENT PLAN	1
SEDIMENT AND EROSION CONTROL PLAN	2

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
4	9210 VOLLMERHAUSEN ROAD
5	9230 VOLLMERHAUSEN ROAD
6	9228 VOLLMERHAUSEN ROAD

OWNER/DEVELOPER
Ellicott City Land Holding Inc.
% Land Design & Development, Inc.
10805 Hickory Ridge Road
Columbia, Maryland 21044

LOT 4
LOT 5 JH

№	REVISIONS	Date
3	ADD BRADLEY HOUSE MODEL, AND CHANGE LOT 5 FROM GENERIC BOX B TO BRADLEY	01-30-98
2	CHANGE HOUSE MODEL FROM ASHLEIGH (REV.) TO VICTORIA (REV) ON LOT 4	10-23-97
1	Add Victoria house typical, Rev. Drywell Sizes	4-9-97

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — 11/25/96 Date
Chief, Division of Land Development and Research TC — 11/26/96 Date
Director — 11/26/96 Date

SUBDIVISION NAME	SECTION/AREA	LOTS/PARCELS
SHANK PROPERTY		4,5 AND 6

PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECTION DIST.	CENSUS TRACT
12260	5	R-20	47	6TH	6069.02

WATER CODE	SEWER CODE
C01	6100000

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DESIGNED JME	SITE DEVELOPMENT PLAN LOTS 4,5 AND 6	SCALE 1"=30'
DRAWN ZAH	**SHANK PROPERTY**	DRAWING 1 of 2
CHECKED jme	SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 96-141
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SDP 97-19