

**APPROVED:** DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division  
*Condy Hamilton*  
Date: 10/1/97

Chief, Division of Land Development  
*James P. Smith*  
Date: 10/2/97

**REVISIONS**

No.	Description	Date
3	Rev. hse. & grad. lot 214, to show ex. cond.	12-11-98
2	Add A/E hse. typical	5-1-98
1	Rev. hse. & grad. lot 212, Add hse. typical	4-2-98

SUBDIVISION NAME	SECTION/AREA	LOTS/PARCELS
COLUMBIA VILLAGE OF RIVER HILL	216 PHASE 3	212 THRU 215 & 226
PLAT NO.	TAX MAP NO.	ELECTION DIST.
12836	B	35
WATER CODE	SEWER CODE	GENUS TRACT
H-12	6652500	6055

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

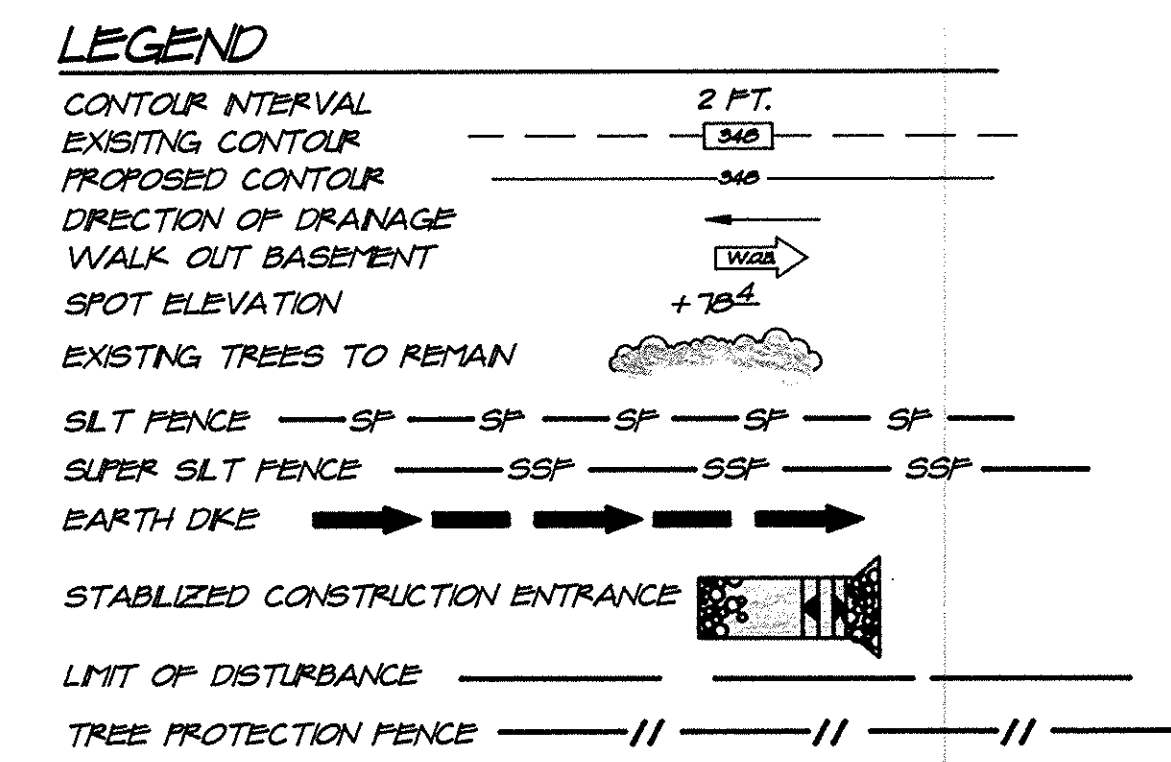
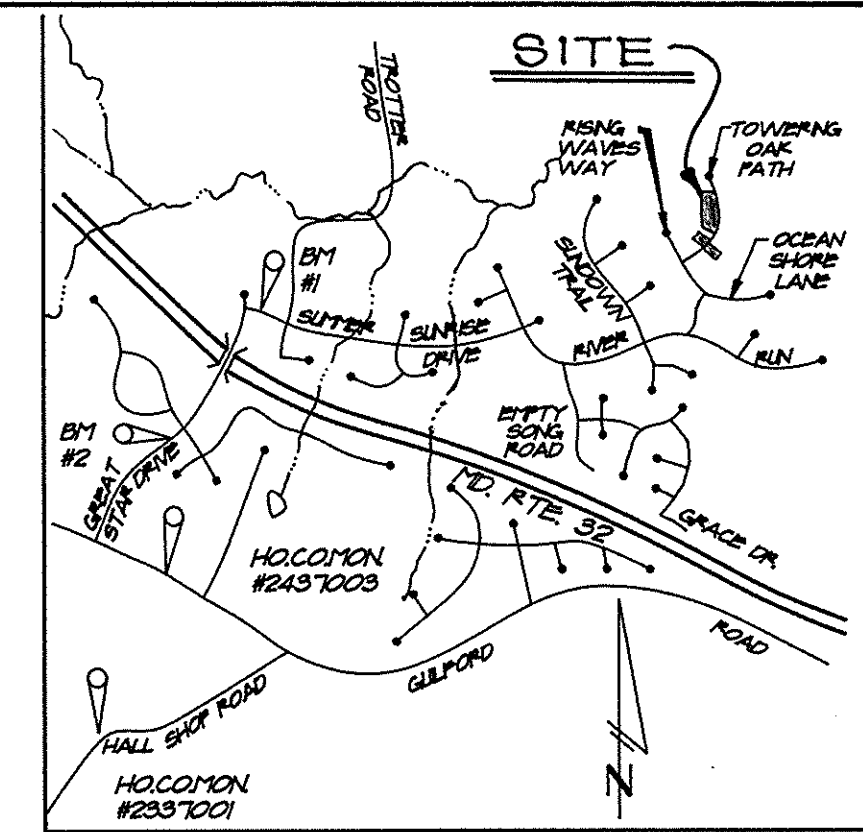
**DESIGNED** JE  
**DRAWN** PS/2H  
**CHECKED** JML  
**DATE** 8-19-97

**SITE DEVELOPMENT PLAN**  
LOTS 212 THRU 215 AND 226  
**COLUMBIA VILLAGE OF RIVER HILL**  
SECTION 2 AREA 6 PHASE 3  
11TH (35W) ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

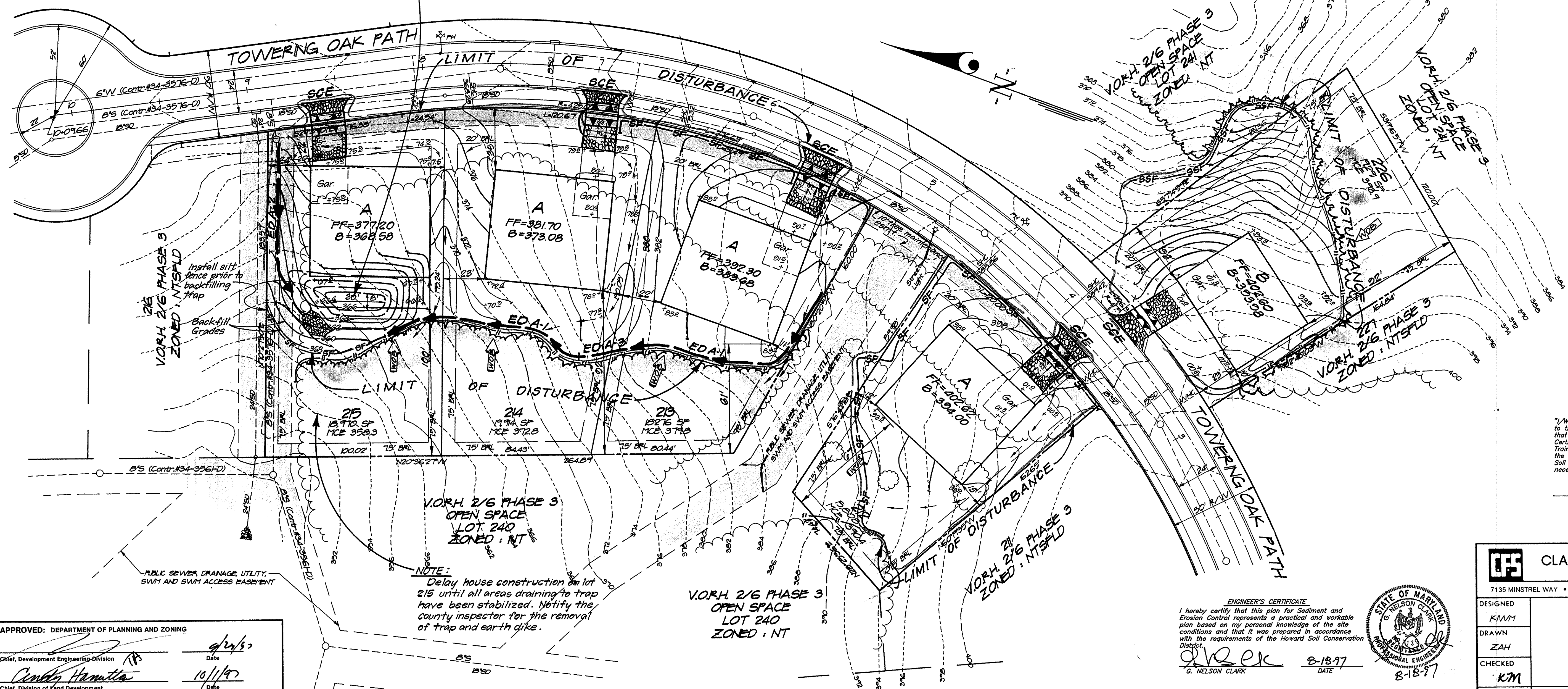
**SCALE** 1"=30'  
**DRAWING** 1 of 3  
**JOB NO.** 97-042  
**FILE NO.** 97-042X

FOR: GOODER BUILDERS, INC.  
3034 Dorsey Hill Drive, Suite 205  
Beltzville City, Maryland 21042





**TRAP #1 S.O.S.T.**  
 Max Drainage Area = 0.85 Ac.  
 Wet Storage Required = 1530 CF  
 Wet Storage Provided = 1570 CF  
 Dry Storage Required = 1530 CF  
 Dry Storage Provided = 1570 CF  
 Stone Crest Elevation = 358.0  
 Bottom Elevation = 353.5  
 Bottom Dimensions = 8' x 30'  
 Side Slopes = 1.5:1  
 Crest Length = 7'  
 Top of Dam = 360.5  
 Cleanout Elevation = 1/2 Wet Storage Depth.

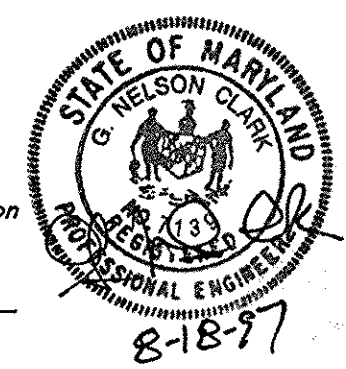


Reviewed for HOWARD S.C.D.  
 and meets Technical Requirements  
*Cheryl Simmons* 9/25/97  
 Signature Date  
 U.S. Natural Resources-Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED  
 FOR SOIL EROSION AND SEDIMENT  
 CONTROL BY THE HOWARD SOIL  
 CONSERVATION DISTRICT.  
*John R. Robertson* 9/25/97  
 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."  
*Richard C. Goodwin* 8-18-97  
 NAME DATE

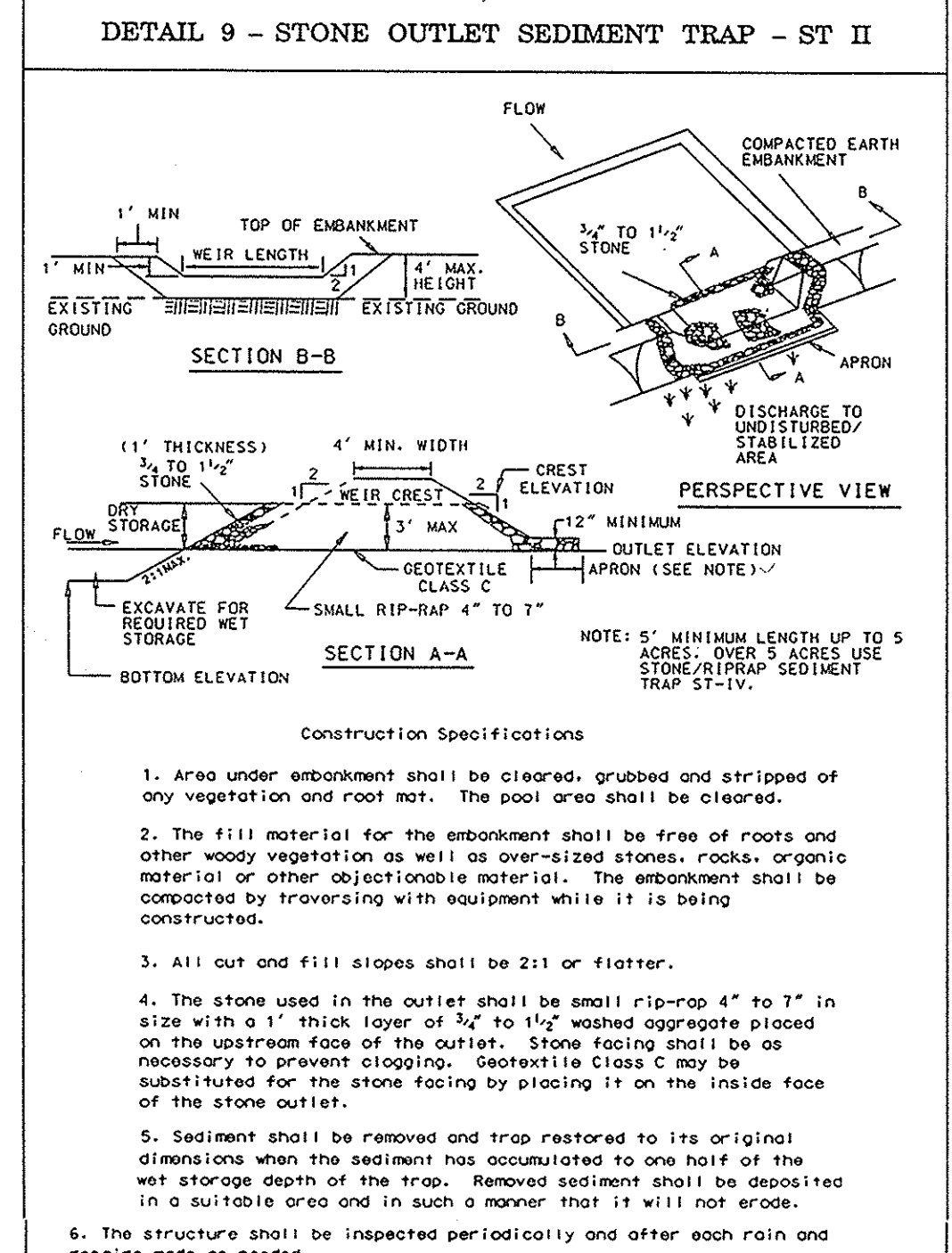
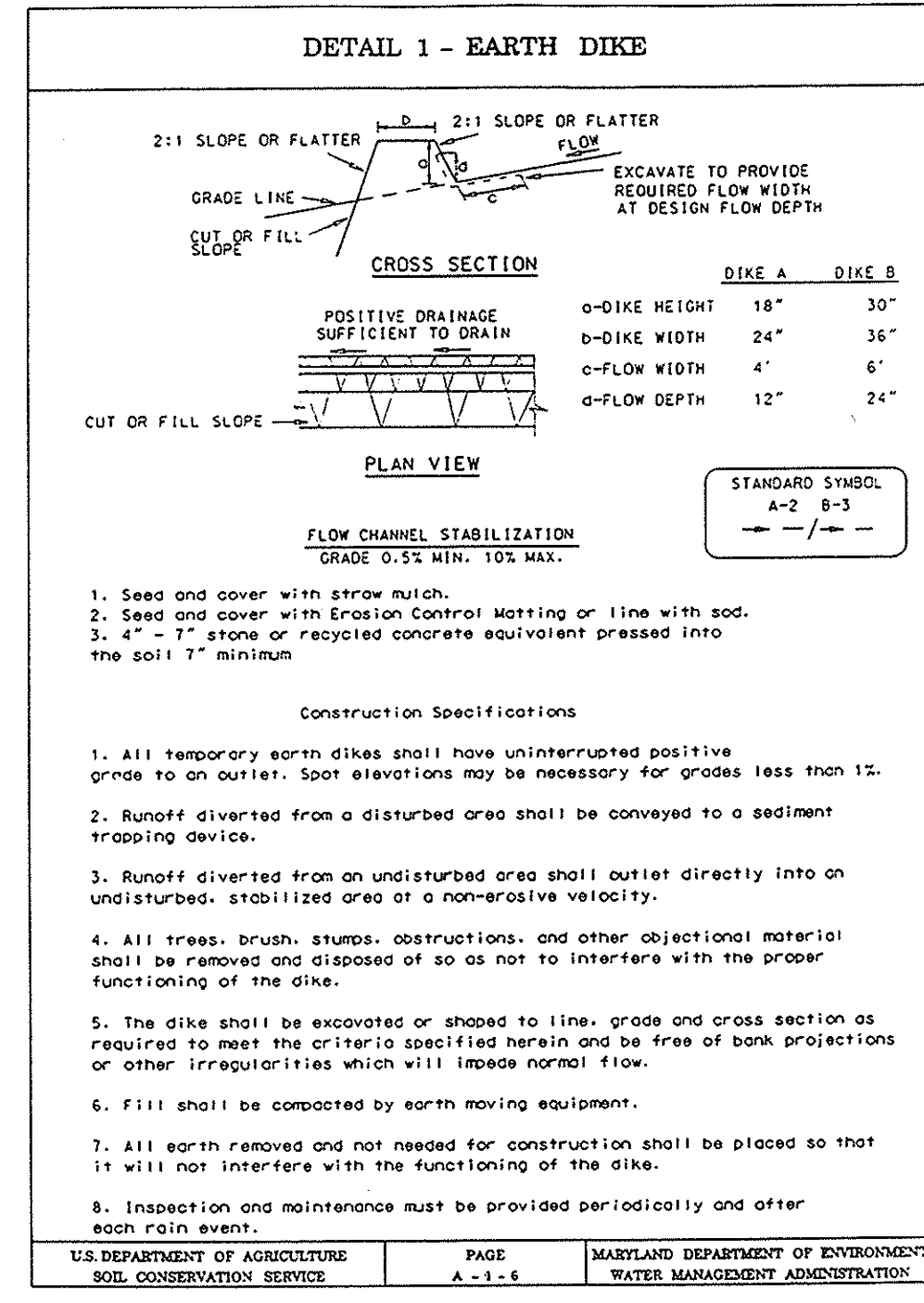
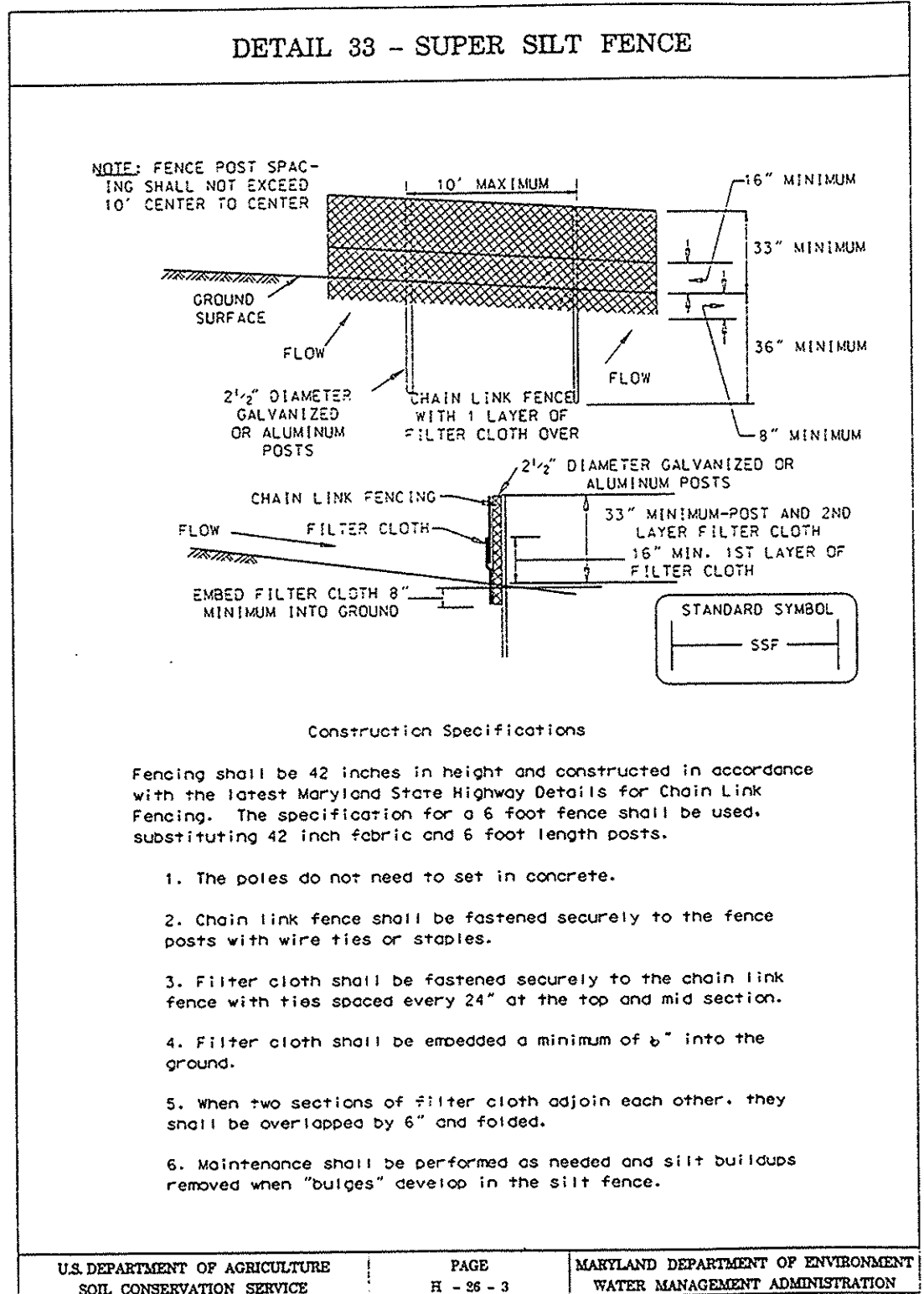
**ENGINEER'S CERTIFICATE**  
 I hereby certify that this plan for Sediment and Erosion Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.  
*G. Nelson Clark* 8-18-97  
 DATE



**APPROVED: DEPARTMENT OF PLANNING AND ZONING**  
 Chief, Development Engineering Division  
*Cindy Hamilton* 10/1/97  
 Chief, Division of Land Development  
*Joseph J. Suter* 10/2/97  
 Director

<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.	
DESIGNED KMM	SCALE 1"=30'
DRAWN ZAH	DRAWING 2 of 3
CHECKED KMM	JOB NO. 97-042
DATE 8-19-97	FILE NO. 97-042se
SECTION 4 EROSION CONTROL PLAN LOTS 212 THRU 225 AND 226 <b>COLUMBIA</b> VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 3 PP1TH (S)R) ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: GOODER BUILDERS, Inc. 2054 Dorsey Hall Drive, Suite 205 Ellicott City, Maryland 21042	





### 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 vegetable 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.
- 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**

- 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.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
  - 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 2% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 and 1/2" in diameter.
  - Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
  - 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.
- For sites having disturbed areas under 5 acres:
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
- Topsoil Application
  - When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grass Stabilization Structures, Earth Dikes, Slope Soil Fence and Sediment Traps and Basins.
  - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 6" higher in elevation.
  - Topsoil shall be uniformly distributed in a 4" - 6" layer and lightly compacted to a minimum "bounce 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.
  - Topsoil shall not be placed 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.

### 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./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.)
- 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 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 seed Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

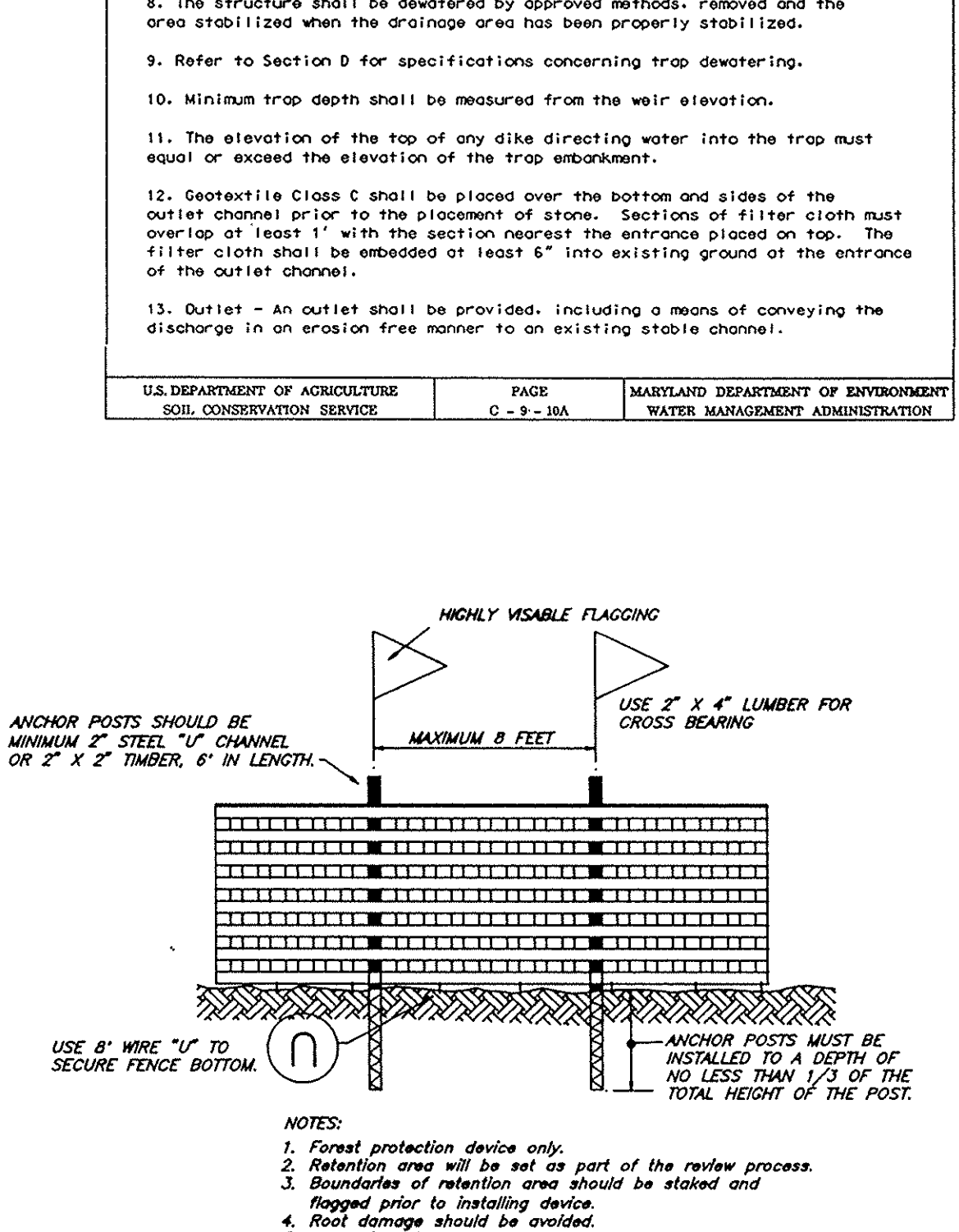
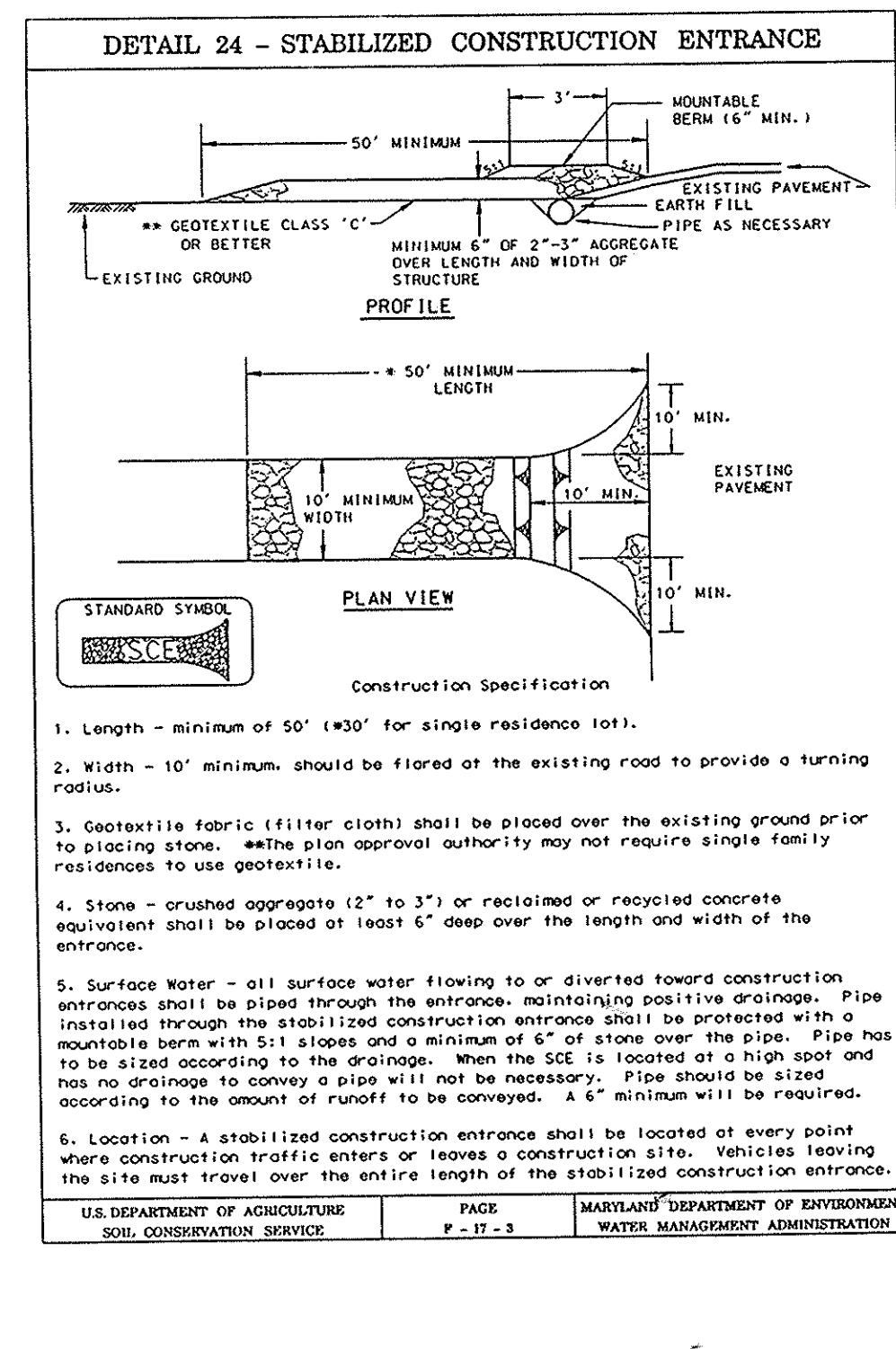
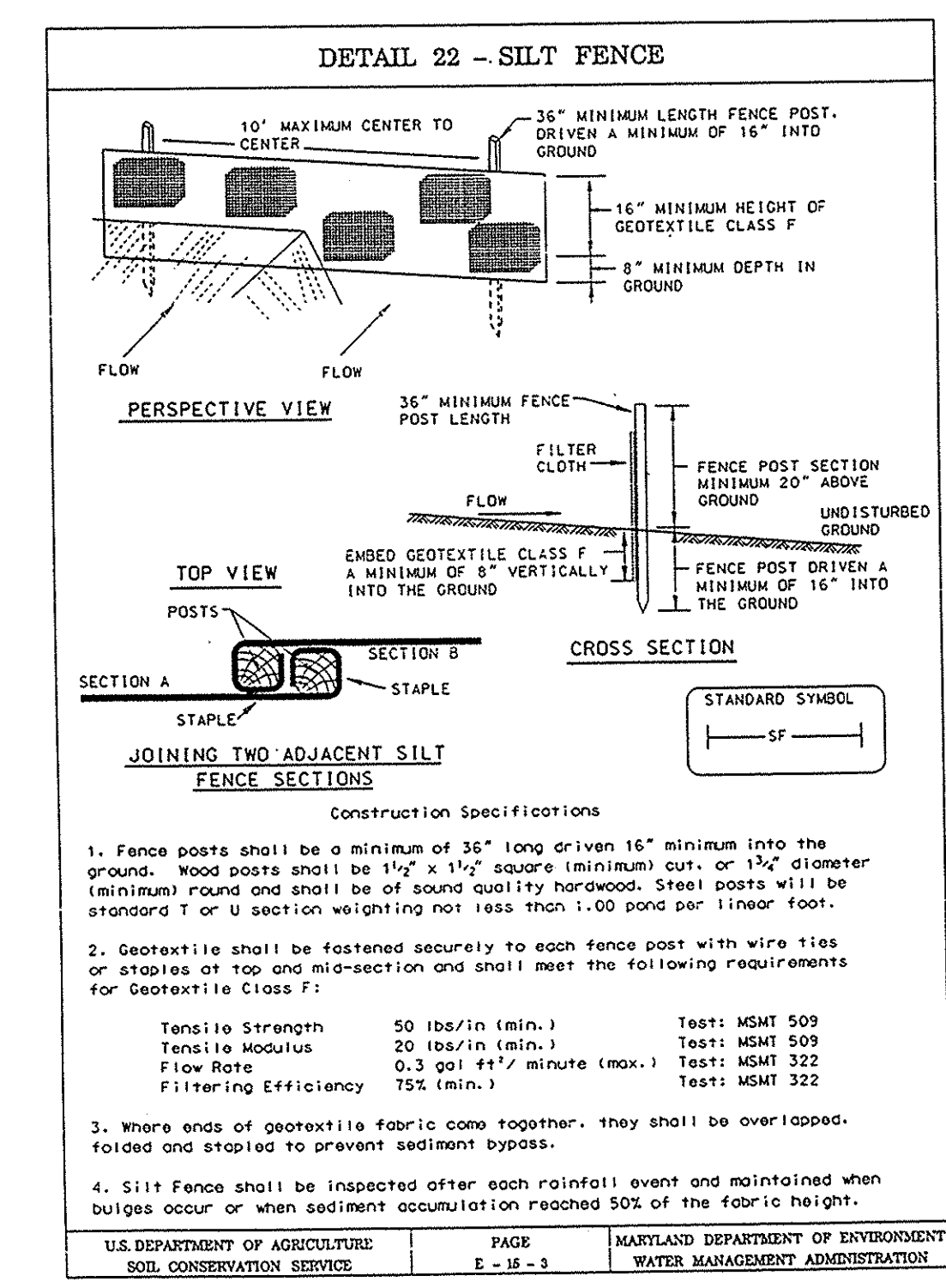
**MULCHING:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (6 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or 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.

### SEDIMENT AND EROSION CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).
- 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 redisturbance, 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 as to all other disturbed or graded areas on the project site.
- All sediment traps/basins 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 (One O). Temporary stabilization with such 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:	212 AC.
Area to be seeded or paved:	160
Area to be vegetatively stabilized:	50
Total Cost:	175
Total Fill:	672 CY
Offsite Waste/Borrow Area Location:	
- 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 DPW Sediment Control Inspector.
- 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 = 650 LF
- The total amount of silt fence = 120 LF
- Total amount of silt fence = 380 LF
- It is the responsibility of the contractor to identify the silt/fence area and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.



### 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 ryegrass (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 unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (6 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.**

### CONSTRUCTION SEQUENCE

	NO. OF DAYS
1. Obtain grading permit.	1
2. Install tree protection fence.	1
3. Install sediment and erosion control devices and stabilize.	1
4. Excavate for foundations, rough grade and temporarily stabilize.	1
5. Construct structures, sidewalks and driveways.	1
6. Final grade and stabilize in accordance with Site and Specs.	1
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	1

\* Delay construction of houses on lots: 215

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: *[Signature]* Date: 9/24/97

Chief, Division of Land Development: *[Signature]* Date: 10/1/97

Director: *[Signature]* Date: 10/2/97

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

*[Signature]* Date

U.S. Natural Resources Conservation Service

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

*[Signature]* Date: 9/25/97

Approved

DEVELOPER'S/BUILDER'S CERTIFICATE

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*[Signature]* Date: 8-18-97

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]* Date: 8-18-97

G. NELSON CLARK DATE

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ENGINEERS • PLANNERS • SURVEYORS

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DESIGNED: KMM

DRAWN: ZAH

CHECKED: KTM

DATE: 8-19-97

SCALE: 3 OF 3

JOB NO: 77-042

FILE NO: 77-0420E

SEDMENT CONTROL DETAILS  
LOTS 212 THRU 215 AND 226  
COLUMBIA  
VILLAGE OF RIVER HILL  
SECTION 2 AREA 6 PHASE 3  
PP7TH (5th) ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

FOR: GOODER BUILDERS, INC.  
2034 Dorsey Hill Drive, Suite 203  
Beltzville, Maryland 20642

STATE OF MARYLAND  
G. NELSON CLARK  
PROFESSIONAL ENGINEER  
8-18-97

S.D.P. 98-20



