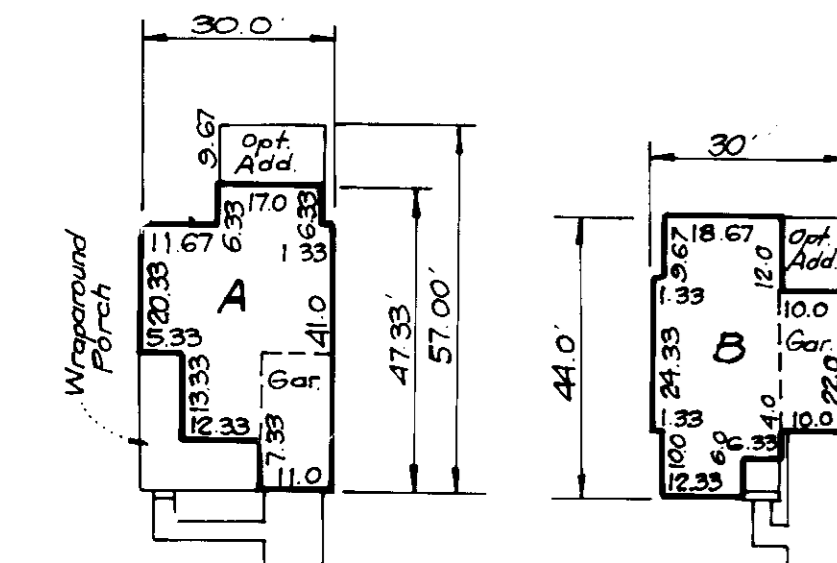


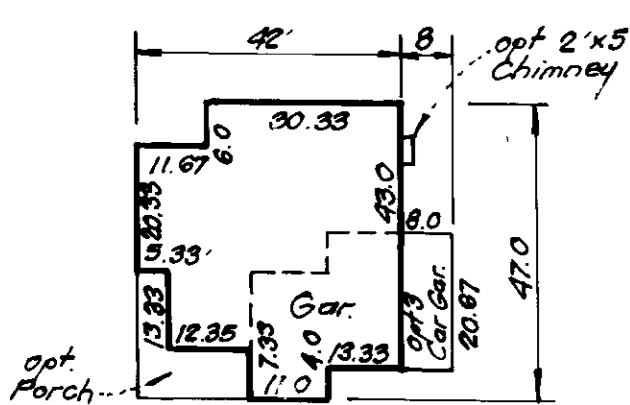
**GENERIC BOXES**



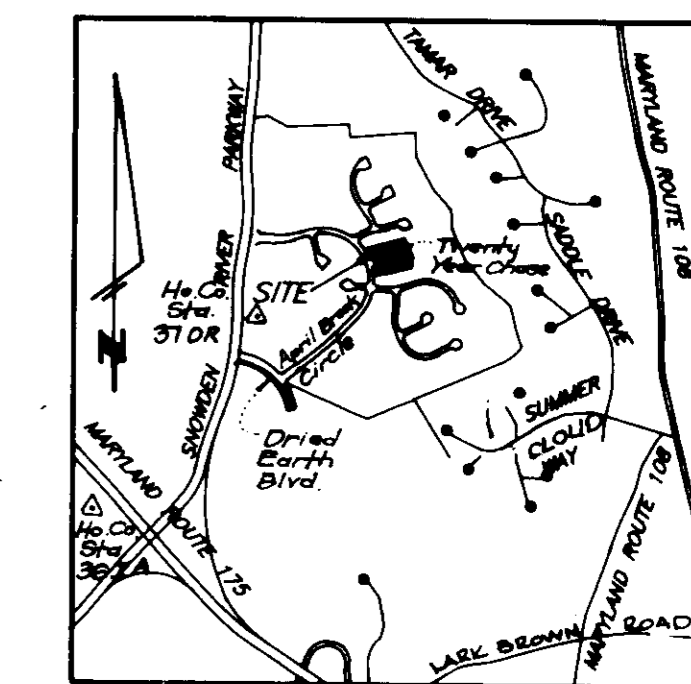
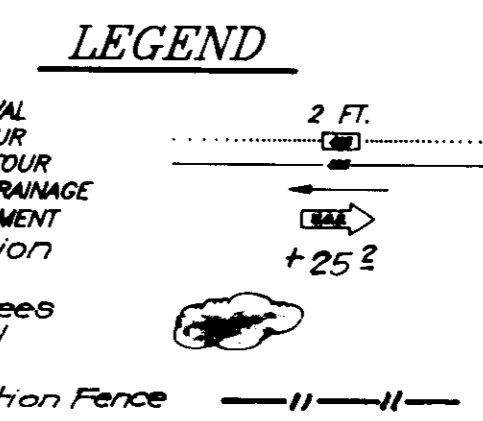
1306.67 = 4655 sq Min Lot Size  
0.3  
1562.0 = 5207 sq Min Lot Size w/opt Addition  
0.3

1080.36 = 3601 sq Min Lot Size w/opt Addition  
0.3  
360.36 = 3201 sq Min Lot Size  
0.3

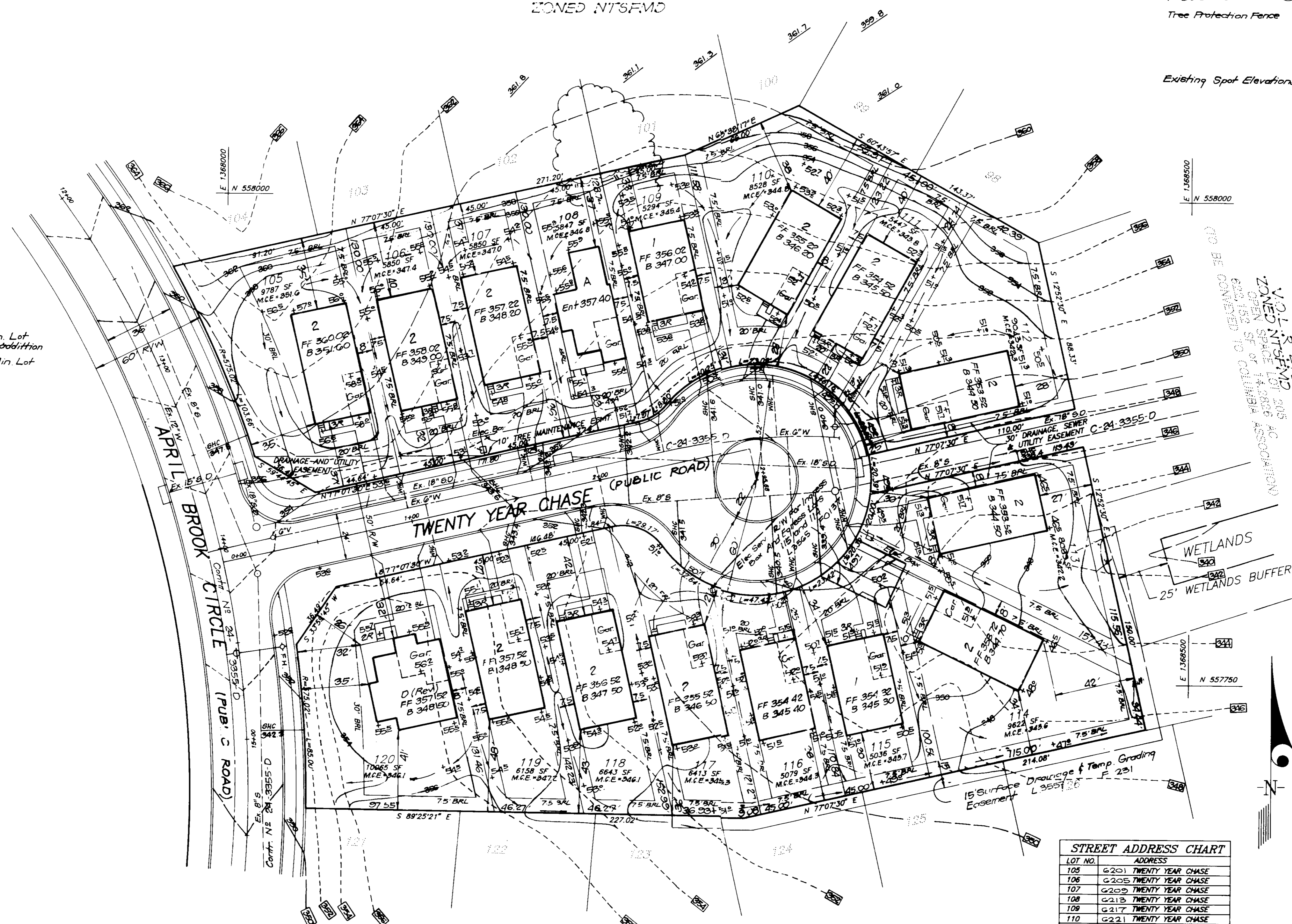
**HOUSE TYPICALS**



1099.34 = 6664.5 sq Min Lot Size  
0.3



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



- GENERAL NOTES:**
- Subject property is zoned: NT SFMD per 10-18-93 Comprehensive Zoning Plan.
  - The total area included in this submission is: 2.588 Ac.
  - The total area of buildable lots is: 42,006.1 Ac.
  - The total number of lots included in this submission is: 16
  - The total number of buildable lots is: 200
  - Improvement to property: Single Family Detached Units
  - The maximum lot coverage permitted is: 30%
  - The Department of Planning and Zoning reference file numbers are: S-93-16, F-20-53, P-94-16, F-25-25
  - Utilities shown as existing are taken from approved Water and Sewer plans Contract # 24-3355-D approved Road Construction plans F-95-25, and actual field survey.
  - 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 field run by Clark, Finerock & Sackett, Inc. on 6-1-95.
  - 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: 36 IA & 37 DR.
  - 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-6.03 and R-6.05.
  - In accordance with FDP-PHASE 216 bay windows or chimneys not more than 10 feet in width may project not more than 4 feet into any setbacks; porches and decks may project not more than 3 feet into the front or rear setbacks.
  - Stormwater Management is provided per: F-95-25 SWM Quality Control is provided in detention facilities and quantity control is provided in shallow marshes.
  - No clearing, grading or construction is permitted within the Wetland or Stream Buffers.

**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-95-25 and/or approved Water and Sewer Plans Contract # 24-3355-D.

**SHEET INDEX**

DESCRIPTION	SHEET NO.
SITE DEVELOPMENT PLAN	1
SEDIMENT AND EROSION CONTROL PLAN	2 & 3

**STREET ADDRESS CHART**

LOT NO.	ADDRESS
105	G201 TWENTY YEAR CHASE
106	G205 TWENTY YEAR CHASE
107	G209 TWENTY YEAR CHASE
108	G213 TWENTY YEAR CHASE
109	G217 TWENTY YEAR CHASE
110	G221 TWENTY YEAR CHASE
111	G225 TWENTY YEAR CHASE
112	G229 TWENTY YEAR CHASE
113	G233 TWENTY YEAR CHASE
114	G237 TWENTY YEAR CHASE
115	G241 TWENTY YEAR CHASE
116	G245 TWENTY YEAR CHASE
117	G249 TWENTY YEAR CHASE
118	G253 TWENTY YEAR CHASE
119	G257 TWENTY YEAR CHASE
120	G261 TWENTY YEAR CHASE

**OWNER / DEVELOPER:**  
HOWARD RESEARCH AND DEVELOPMENT CORP.  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

SUBDIVISION NAME:	COLUMBIA VILLAGE OF LONGREACH	SECT./AREA:	4/2	LOT/PARCEL NO.:	105-120
PLAT NO. OF L.P.:	11598	BLOCK NO.:	12	ZONE:	NT SFMD
UNDER CODE:	E-07	SEWER CODE:	33460000	BLK. DIST.:	6th
				GEN. DIST.:	COCT. 03

**CLARK • FINEROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 821-8100 - WASH.

**SITE DEVELOPMENT PLAN**  
LOTS 105-120  
**COLUMBIA VILLAGE OF LONGREACH**  
SECTION 4, AREA 2  
SIXTH (6th) ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**SCALE:** 1"=30'  
**DRAWING:** 1 OF 3  
**JOB NO.:** 95-067  
**FILE NO.:** 95-067X

**DATE:** 9-19-95  
**FOR:** CHARLESTON HOMES  
13090 Old Frederick Rd.  
Sykesville, Md. 21784

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*[Signature]* 10/1/95  
DATE

*[Signature]* 10/5/95  
DATE

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

*[Signature]* 10/1/95  
DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

REVISION

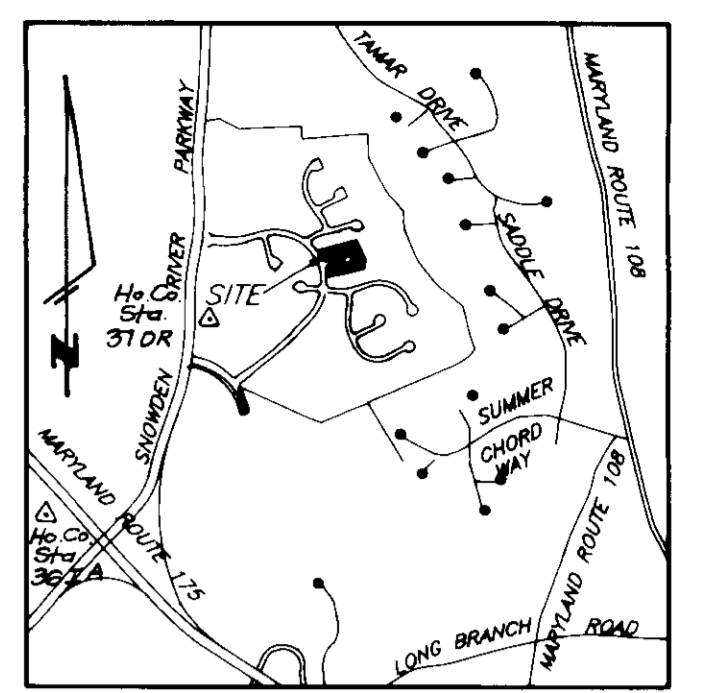
NO.	REVISION	DATE
2	Rev. hse. & grad. lot 120 Add hse. typical	9-17-96
1	Rev. hse. & grad. to show A6-Built Conditions	8-16-96





**LEGEND**

- CONTOUR INTERVAL: 2 FT.
- EXISTING CONTOUR: [Symbol]
- PROPOSED CONTOUR: [Symbol]
- DIRECTION OF DRAINAGE: [Symbol]
- WALK-OUT BASEMENT: [Symbol]
- Spot Elevation: +25.2
- Existing Trees To Be Saved: [Symbol]
- Tree Protection Fence: [Symbol]
- Silt Fence: [Symbol]
- Earth Dike: E.D. (A-1) [Symbol]
- Stabilized Construction Entrance: [Symbol]
- Existing Silt Fence: [Symbol]



NOTE: The Builder is Responsible for Cleaning the Immediate Receiving SWVI Structure & All Sediment Attributed to Work on This Plan.

**TRAP NO. 1 60ST ST-11**

Existing Drainage Area 3.2 Ac.  
Bottom Elevation 338.0  
Crest Elevation 343.0  
Bottom Dimensions See Plan  
Storage Depth (Wet) 3"  
Volume Required 5760 of  
Volume Provided 6370 of  
Dry Storage Depth 2'  
Volume Required 5760 of  
Volume Provided 6210 of  
L=13'  
2:1 Side Slopes  
Clearcut Elev. 339.5

OWNER / DEVELOPER  
HOWARD RESEARCH AND DEVELOPMENT CORP.  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*[Signature]* 10/5/95  
DATE

*[Signature]* 10/5/95  
DATE

*[Signature]* 10/2/95  
DATE

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

CHIEF, DEVELOPMENT ENGINEERING DIVISION

HOWARD COUNTY  
Natural Resources Conservation Service

*[Signature]* 9/17/95  
DATE

This Development Plan is Approved for Erosion and Sediment Control by The Howard Soil Conservation District

*[Signature]* 9/17/95

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

I hereby certify that all development and construction has been done in accordance with the plan of development and erosion and sediment control measures shown on this plan and that all responsible personnel involved in the construction of this project have a Certificate of Attendance in a Dept. of the Environment and Planning Program for the Control of Erosion and Sedimentation during the project. I also authorize participation in erosion prevention by the Soil Conservation District or their authorized agencies in all areas shown on this plan.

*[Signature]*  
Date: 7-24-95

**ENGINEER'S CERTIFICATE**

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

*[Signature]* 9/10/95  
Date



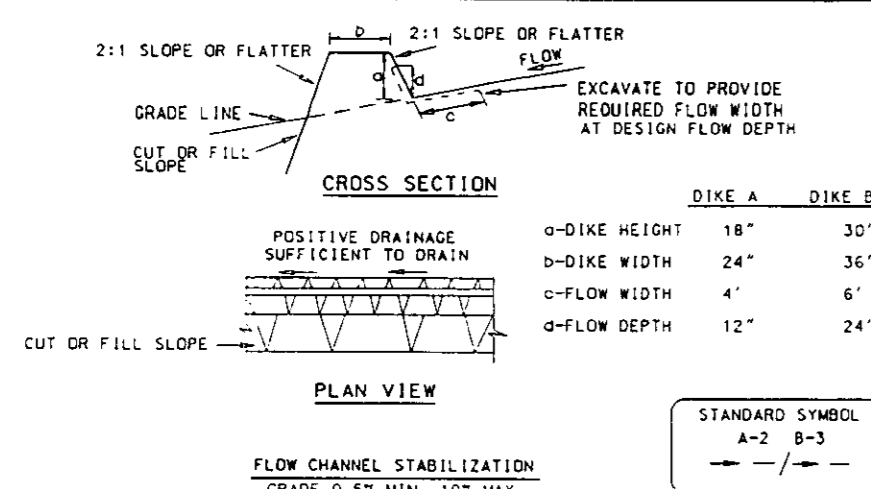
**CLARK • FINEPROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

DESIGNED JME	<b>SEDIMENT &amp; EROSION CONTROL PL. 4.1</b> <b>COLUMBIA VILLAGE OF LONGREACH</b> SECTION 4 - AREA 2 SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=30'
DRAWN BAL		DRAWING 2 OF 3
CHECKED JMS		JOB NO. 95-087
DATE 9-19-95		FILE NO. 95-087SD

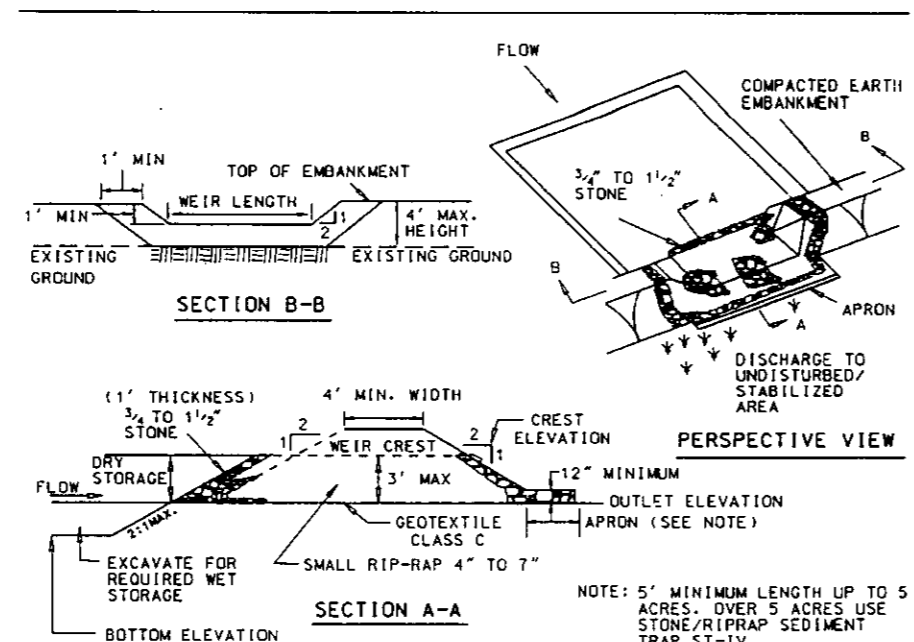
FOR: CHARLESTON HOMES  
13090 Old Frederick Rd.  
Byrnesville, Md. 21784

**DETAIL 1 - EARTH DIKE**



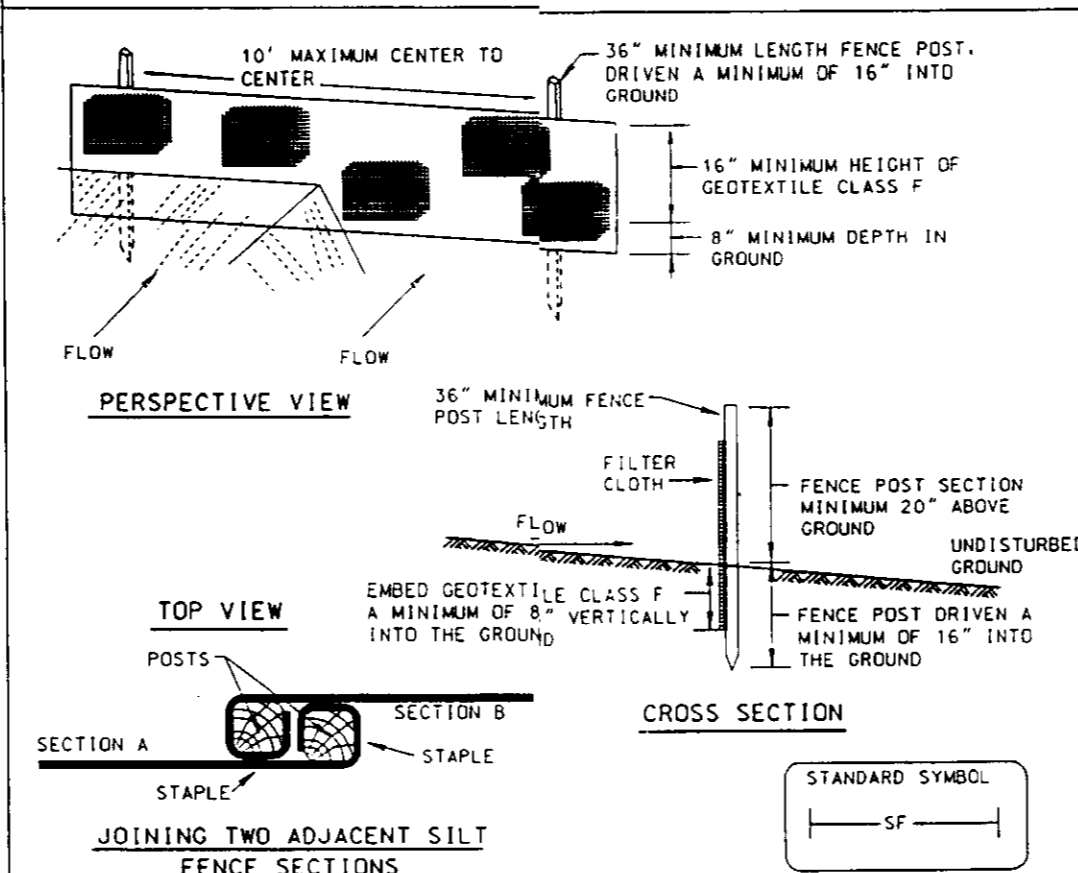
1. Seed and cover with straw mulch.
  2. Seed and cover with Erosion Control Matting or lime with sod.
  3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum.
- Construction Specifications**
1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. 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-erodible velocity.
  4. All trees, brush, stumps, obstructions, and other objectionable 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 road 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.

**DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II**



- Construction Specifications**
1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
  2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
  3. All cut and fill slopes shall be 2:1 or flatter.
  4. The stone used in the outlet shall be small rip-rap 4" to 7" in size with a 1" thick layer of 3/4" to 1 1/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.
  5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
  6. The structure shall be inspected periodically and after each rain and repair a mow as needed.
  7. Construction of traps shall be carried out in such a manner that sediment pollution is avoided. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration inflow shall be protected in accordance with the Grade Stabilization Structure criteria. The remainder of the interior slope should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
  8. The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.
  9. Refer to section D for specifications concerning trap dewatering.
  10. Minimum trap depth shall be measured from the weir elevation.
  11. The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.
  12. Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to the placement of stone. Sections of filter cloth must overlap at least 1" with the section nearest the entrance placed on top. The filter cloth shall be embedded at least 6" into existing ground at the entrance of the outlet channel.
  13. Outlet - An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stable channel.

**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 1 1/2" x 1 1/2" square (minimum) cut, or 1 1/2" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard I or U section weighting not less than 1.00 pound 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 1/4" minute (max.) | Test: MSMT 522 |
| Filtering Efficiency | 75% (min.)                 | Test: MSMT 522 |
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 reaches 50% of the fabric height.
- U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE      PAGE E-11-3      MARYLAND DEPARTMENT OF ENVIRONMENT AND 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 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 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 unrattled 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 ryegrass (3.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 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 (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.

**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 1983 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.
3. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
  - a) 7 calendar days for all perimeter sediment control structures, 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51), sod (Sec. 54), temporary seedings (Sec. 50) and mulching (Sec. 52). 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:	2,598 Ac.
Area Disturbed:	2.70 Ac.
Area to be roofed or paved:	0.77 Ac.
Area to be vegetatively stabilized:	1.94 Ac.
Total Fill:	8206 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 = 295

\* 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 its grading permit number at the time of construction.

**CONSTRUCTION SEQUENCE:**

	NO. OF DAYS
1. Obtain grading permit.	7
2. Install tree protection fence.	3
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

\* Delay construction of houses on lots: 113  
See single lot sediment control detail, this sheet.

**OWNER/DEVELOPER**

HOWARD RESEARCH AND DEVELOPMENT CORP.  
10275 Little Patuxent Parkway  
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 conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

*G. Nelson Clark*  
G. NELSON CLARK  
Date: 9/10/95

**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 of 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."

*Philip J. Dorsey*  
7-24-95

Reviewed for: HOWARD S.C.D.  
and meets Technical Requirements  
*John R. Blanton* 9/27/95  
Signature Date  
Natural Resources Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John R. Blanton* 9/27/95  
Approved

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*John J. Trummey* 10/15/95  
Chief, Development Engineering Division Date  
*Gina Trummey* 10/15/95  
Chief, Division of Land Development and Research Date  
*James R. Smith* 10/15/95  
Director Date

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
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DESIGNED <i>JME</i>	<b>SEDIMENT &amp; EROSION CONTROL PLAN</b> LOTS 105-120 <b>COLUMBIA</b> <b>VILLAGE OF LONGREACH</b> SECTION 4, AREA 2 SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=30'
DRAWN <i>BAL</i>		DRAWING 3 OF 3
CHECKED <i>JLB</i>		JOB NO. 95-087
DATE 9-19-95		FILE NO. 95-087

FOR: CHARLESTON HOMES  
13030 Old Orchard Rd.  
Sykesville, Md. 21784