SITE DEVELOPMENT PLAN FOR VILLAGE OF RIVER HILL PHEASANT RIDGE NEIGHBORHOOD TOT LOTS 1, 2 AND 4

All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.

- 2. The contractor shall notify the Bureau of Engineering / Construction Inspection Division at (410) 313—1880 at least five (5) days prior to the start of work.
- 3. The contractor shall notify "MISS UTILITY" at 1(800)257-7777 at least 48 hours prior to any excavation work.
- 4. Project background:
 Location: Village Of River Hill
 Zoning: New Town Open Space
 Election District: 5th

GENERAL NOTES

TOT LOT NO.	DISTURBED AREA	VORH S/A	O.S.LOT	LOT AREA	"F" PLAN
1 2	0.12 AC 0.19 AC	VORH 4/5 VORH 4/4	139 PART 280 PART	3.6 AC. 6.3 AC.	F-96-102 F-98-120
4	0.10 AC	VORH 4/1 PHASE 2	82	41.6 AC.	F-96-123

OTHER FILE REFERENCES

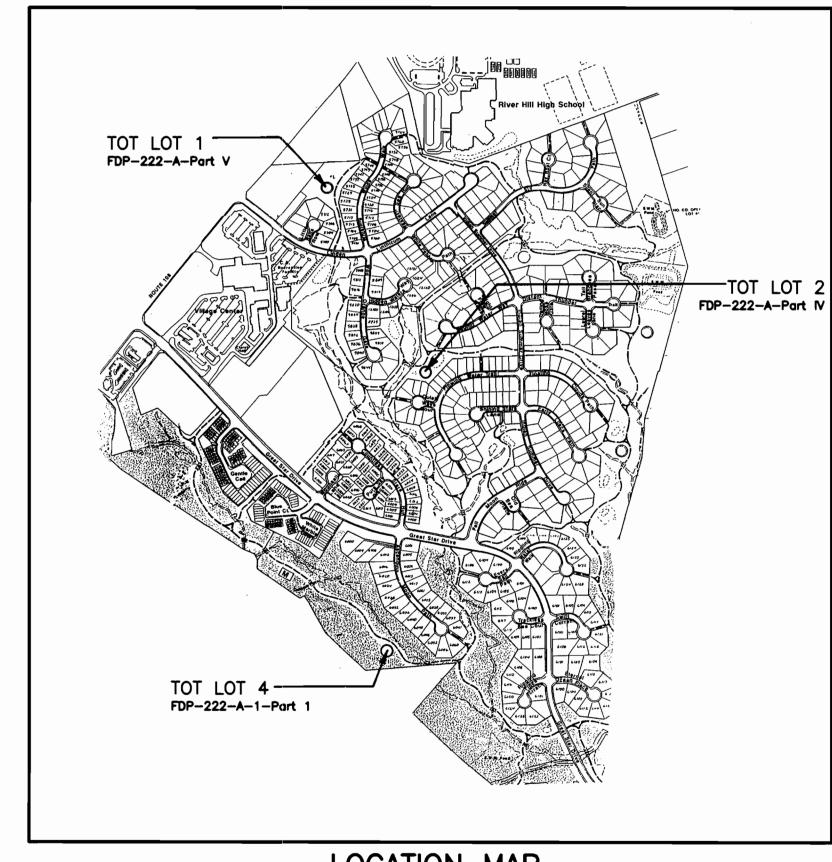
SDP 00-14 For construction of pathways. (TOT LOTS #1 & 4) SDP 01-21 For construction of pathways. (TOT LOTS #2)

- 5. Topography within limits of disturbance was field run at two foot contour intervals by Clark, Finefrock & Sackett, dated December, 2000.
- 6. Horizontal controls are based on Maryland State Grid System as per the respective record plats.
- 7. Floodplain and wetland limits were derived from the retrospective record plats established under subdivision plans F-96-102, F-98-110, F-98-120, F-98-123.
- 8. Stormwater management for these sites was provided under the original subdivision plans F-96-102, F-98-120, F-98-123.
- 9. The existing utilities were located from existing plans and records. The contractor must dig test pits, by hand, at all utility crossings and connection points to verify exact location
- 10. Any damage to County rights—of—ways and paving of public roads shall be repaired immediately at the contractors expense in accordance with the Howard County Specifications and Standards.
- 11. All concrete for the site work shall be Class 2 concrete and shall be in accordance with the Maryland State Highway Administration specifications as amended to date.12. The limit of disturbance area on the site shall be marked with a construction fence prior to any
- clearing and grading activity for the tot lot construction.
- 13. Maintenance of the tot lots will be the responsibility of the owner, The Columbia Association.
- 14. All trees 12 inches and larger are not to be disturbed unless indicated on plans. All trees within the limit of disturbance are to have tree protection fence installed around them.
- 15. No disturbance of Wetlands or Steam Buffers is permitted unless specific waiver is approved.
- 16. The subject property is zoned NT per the 10-18-93 Comprehensive Zoning Plan.
- 17. This plan complies with the requirements of section 16.1200 of the Howard County Code for Forest Conservation by prior approvals.
- 18. No traffic study is required for this project.
- 19. The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 29G4 and 29G5 were used for this project.

APPROVED

PLATINING BOARD of HOWALL CLUNTY

DATE 8-23-01



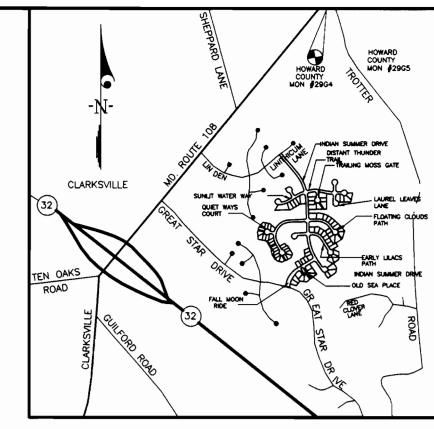
LOCATION MAP

SUMMARY SITE ANALYSIS TOT LOTS 1-4

Zone	NT OPEN SPAC
Disturbed Areas	0.41 AC.
Impervious Areas	_
Permeable Areas	0.41 AC.
Mulched Areas	0.17 AC.
Vegetatively Stabilized Areas	0.24 AC.
Total Earth Cut	365 C.Y.
total Earth fill	365 C.Y.

Total Spoil

NOTE: Construction of all bituminous pathways is permitted under SDP#00-14 & SDP#01-21



VICINITY MAP

Scale: 1"=2000'

BENCHMARKS:

Howard County Monument 29G4 Intersection of MD. Route 108 and

Howard County Monument 29G5 an additional 2,544' ± Northeasterly along MD. Route 108 away from Site

LEGE	ND
ITOUR INTERVAL STING CONTOUR POSED CONTOUR ECTION OF DRAINAGE OF ELEVATION IT OF DISTURBED AREA E PROTECTION FENCE STING TREES TO REMAIN	2 FT. 348
ACCESS / STABILIZED	

	ADDRESS CHART			
TOT LOT	LOT NUMBER	ADDRESS		
1	OPEN SPACE LOT 139	12153 LINDEN LITHICUM LANE		
2	OPEN SPACE LOT 280	5866 INDIAN SUMMER DRIVE		
4	OPEN SPACE LOT 82	6062 ASCENDING MOON PATH		

SHEET INDEX	
DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 5
TOT LOT NO. 1 SITE PLAN AND SEDIMENT CONTROL PLAN	2 OF 5
TOT LOT NO. 2 SITE PLAN AND SEDIMENT CONTROL PLAN	3 OF 5
TOT LOT NO. 4 SITE PLAN AND SEDIMENT CONTROL PLAN	4 OF 5
SITE AND SEDIMENT CONTROL DETAILS	5 OF 5

OWNER / DEVELOPER

HOWARD RESEARCH AND DEVELOPMENT, CO.

HOWARD RESEARCH AND DEVELOPMENT, CO 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044

THE COLUMBIA ASSOCIATION 10221 WINCOPIN CIRCLE, SUITE 100 COLUMBIA, MARYLAND 21844-3410

SUBDIVISION NAME		SE	SECTION/AREA		LOTS/PARCELS	
VILLAGE OF	RIVER HILL	4/5, 4/	/4, 4/1 PHAS	E 2	139, 28	0, & 82
PLAT NO.	GRID NO.	ZONE	TAX MAP NO). ELE	CTION DIST.	CENSUS TRACT
12693,12856 13288,12851		NT	35		5TH	6055.01
WATER CODE			SEWER CODE	<u> </u>		



CLARK · FINEFROCK & SACKETT.	INC.	
CLARK · FINEFROCK & SACKETT, ENGINEERS · PLANNERS · SURVEYORS		

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

DESIGNED SITE DEVELOPMENT FOR SCALE

DESIGNED

DAR

SITE DEVELOPMENT FOR

TOT LOTS 1, 2, AND 4

AS SHOWN

DRAWING

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CHECKED

SECTION 4 AREA 1, AREA 4 AND AREA 5

FIFTH (5th) ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

DATE

FOR: THE COLUMBIA ASSOCIATION

10221 Wimcopin Circle, Suite 100

Columbia Mandard 21044

(7)F:/Drawings/vorh/tot-lot-cover

Columbia, Maryland 21044
Phone: 410-381-0383

APPROVED: DEPARTMENT OF PLANNING & ZONING

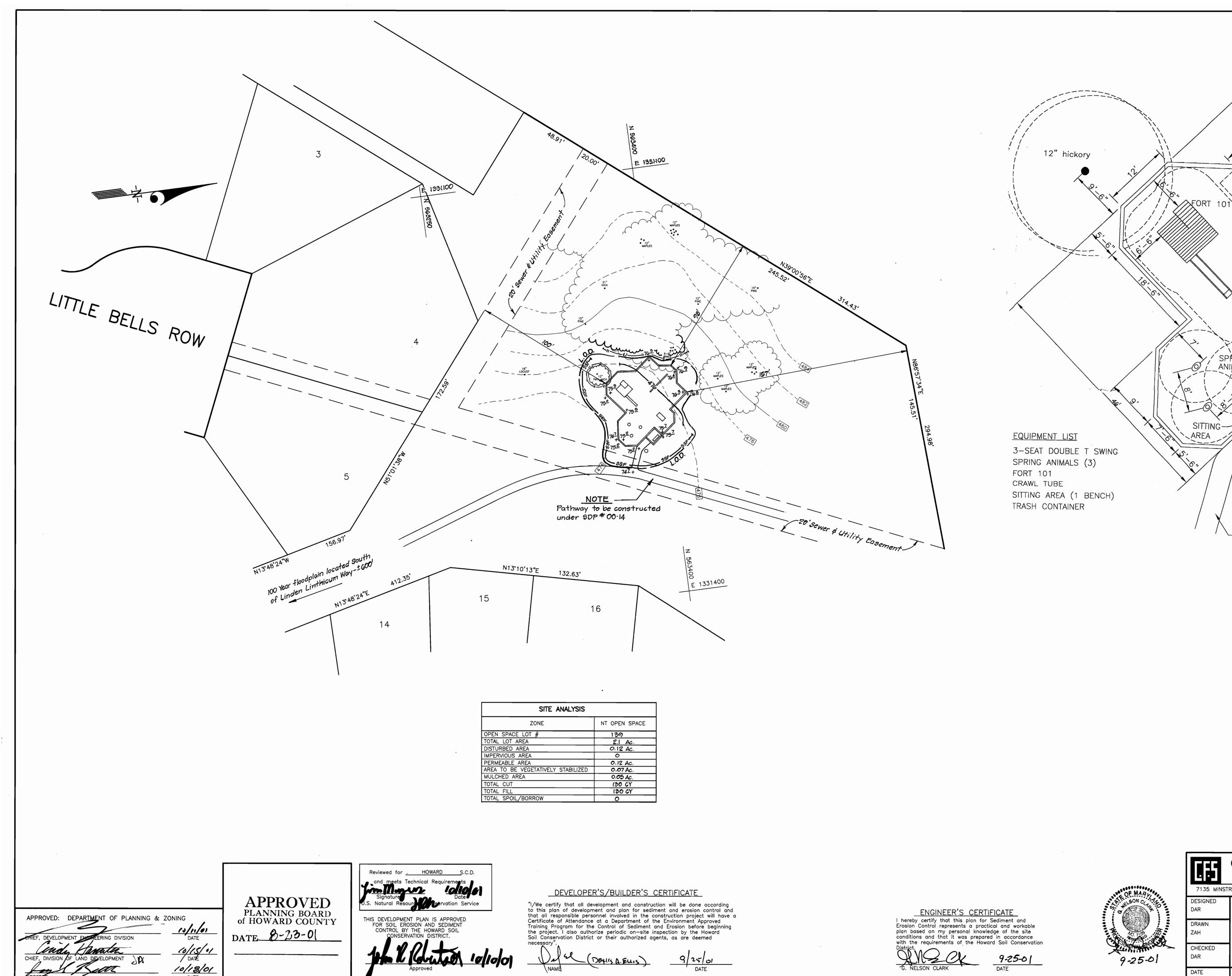
CHIEF, DEVELOPMENT ENGINEERING DIVISION

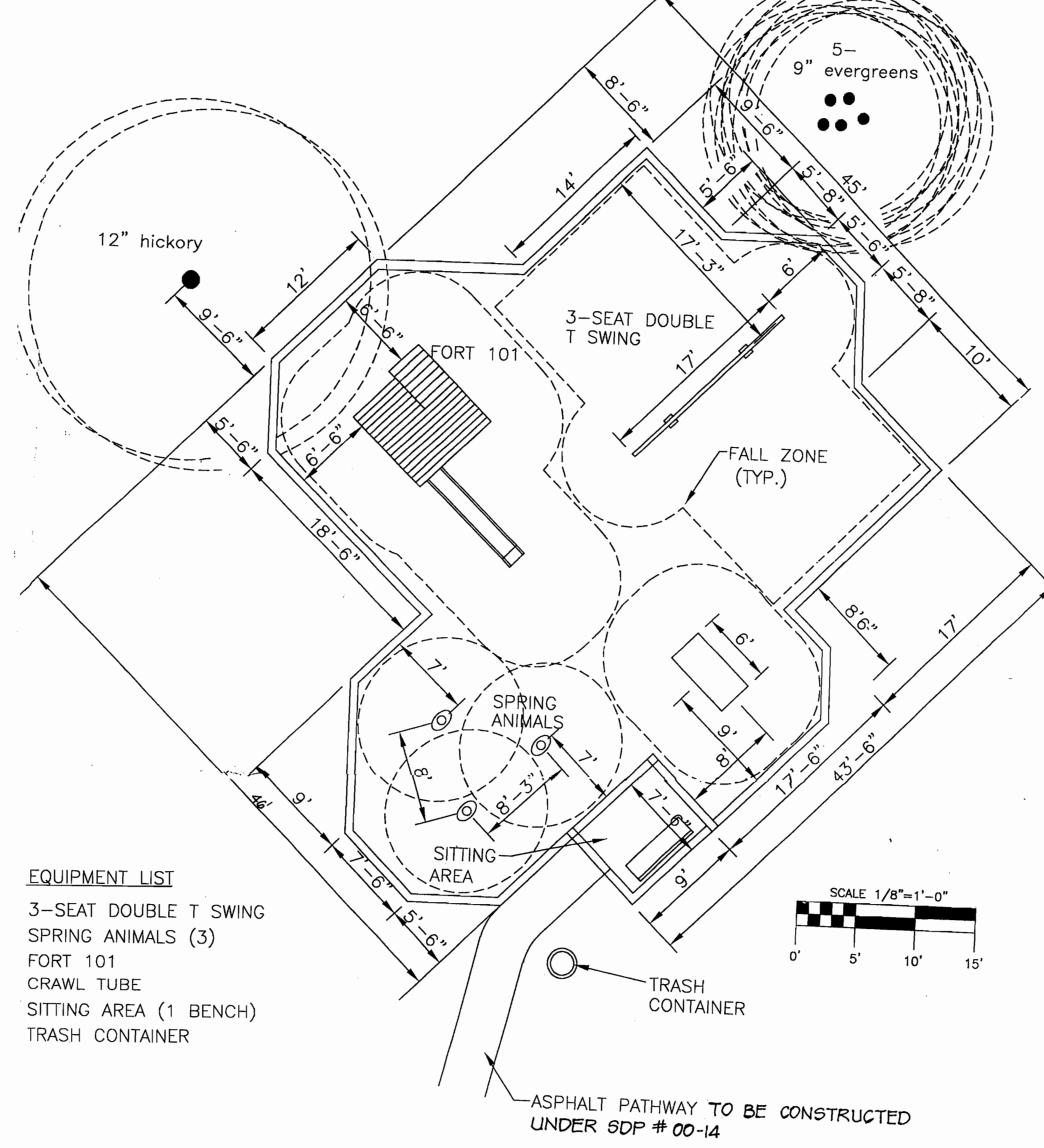
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CHIEF, DIVISION OF LAND DEVELOPMENT | DATE

DATE

DATE





OWNER / DEVELOPER

HOWARD RESEARCH AND DEVELOPMENT, CO. 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044

THE COLUMBIA ASSOCIATION 10221 WINCOPIN CIRCLE, SUITE 100 COLUMBIA, MARYLAND 21844-3410

CLARK · FINEFROCK & SACKETT, INC. ENGINEERS · PLANNERS · SURVEYORS

7135 MINSTREL WAY . COLUMBIA, MD 21045 . (410) 381-7500 BALT. . (301) 621-8100 WASH. SITE DEVELOPMENT PLAN

AND SEDIMENT EROSION CONTROL PLAN TOT LOT 1 VILLAGE OF RIVER HILL

FOR: THE COLUMBIA ASSOCIATION

10221 Wincopin Circle, Suite 100 Columbia, Maryland 21844-3410 Phone: 410-381-0383

SECTION 4 AREA **5** FIFTH (5th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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00-118-X

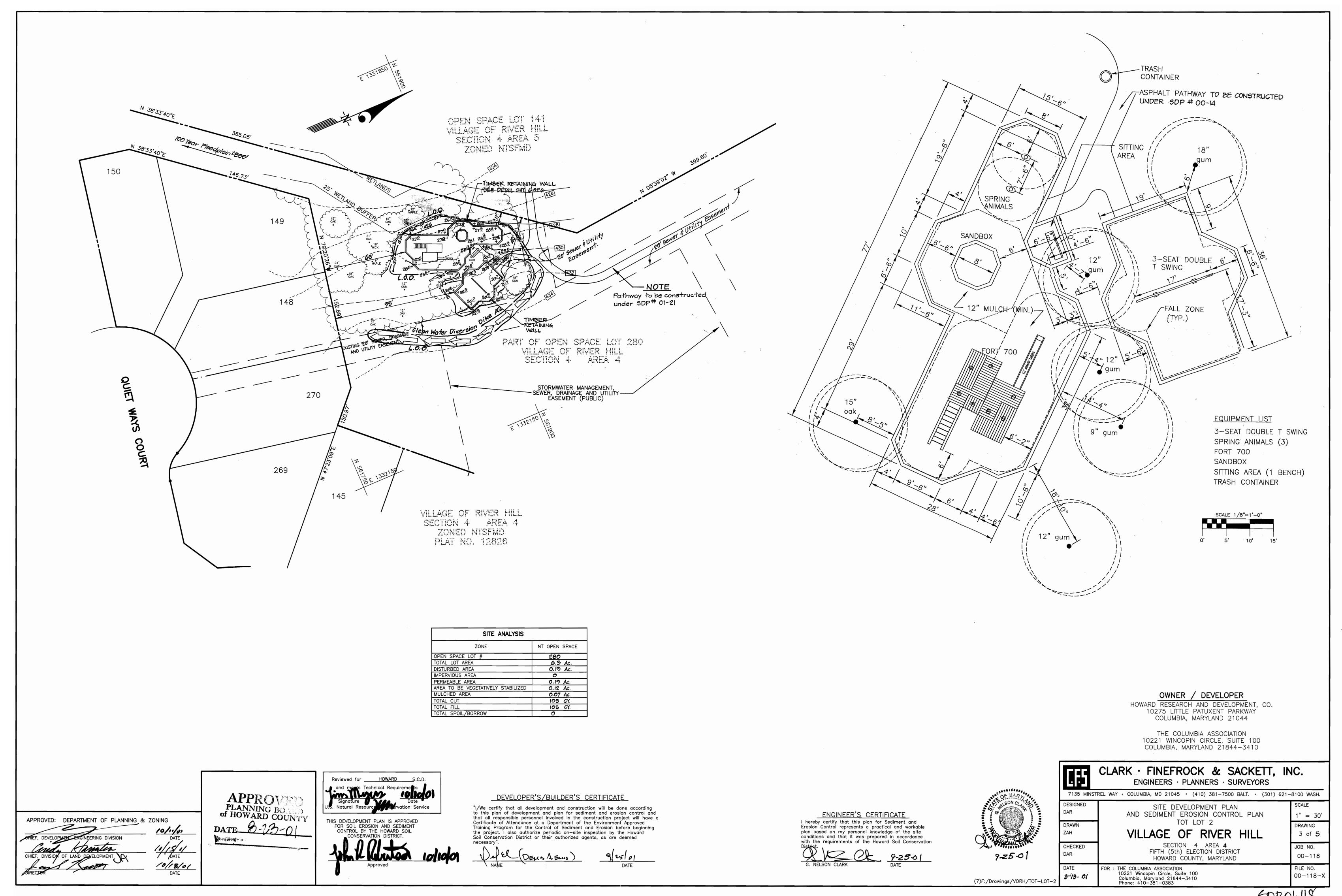
1" = 30'

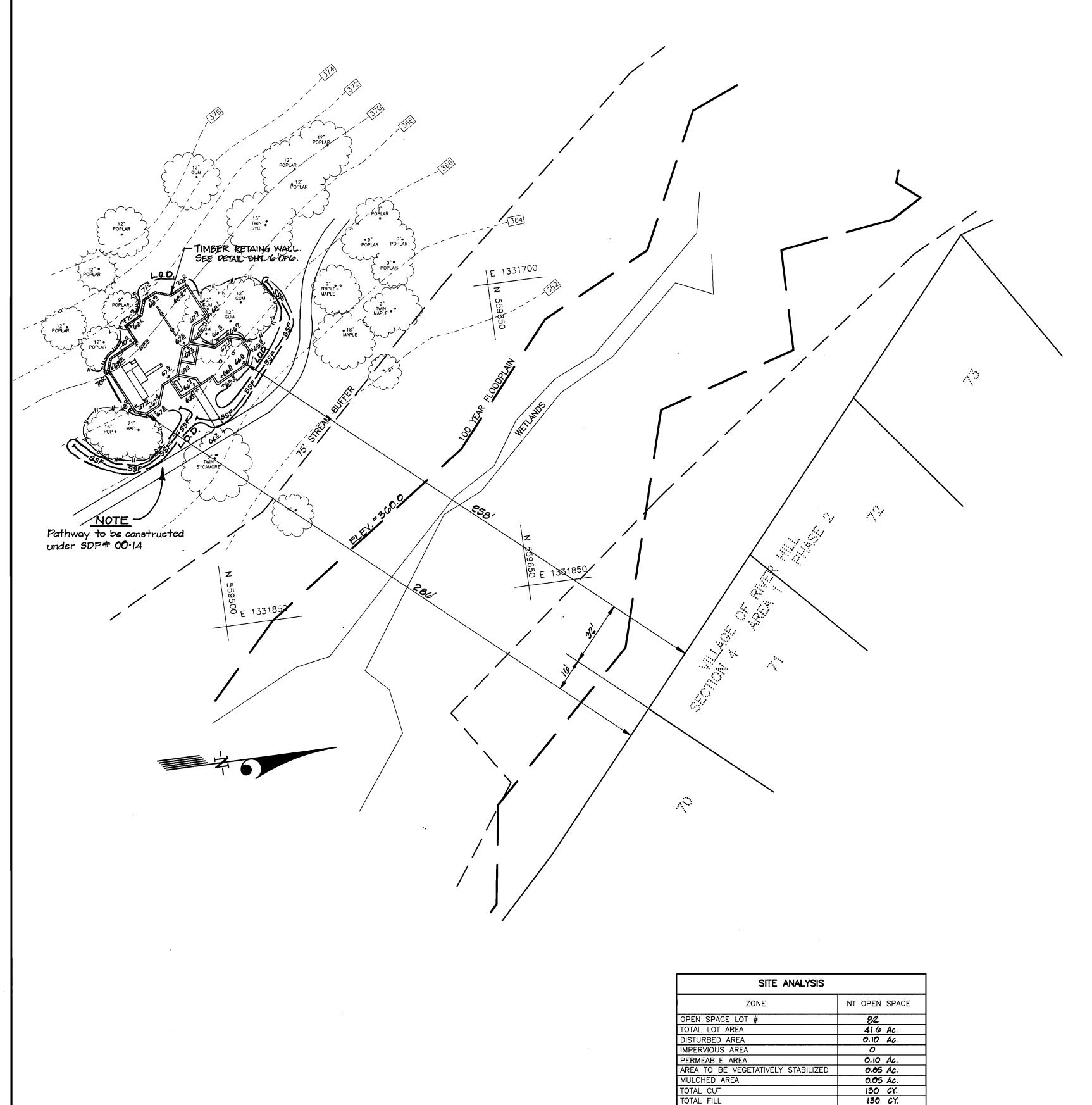
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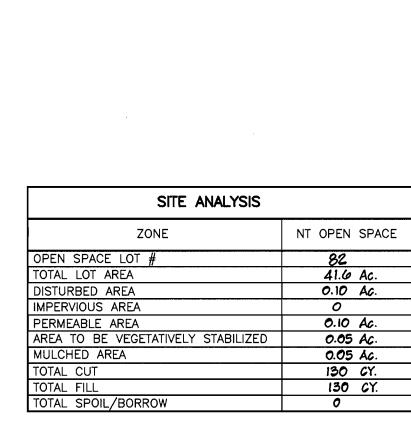
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2 of 5







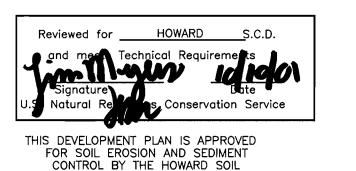
APPROVED PLANNING BOARD of HOWARD COUNTY

DATE 8-23-0

10/18/01

APPROVED: DEPARTMENT OF PLANNING & ZONING

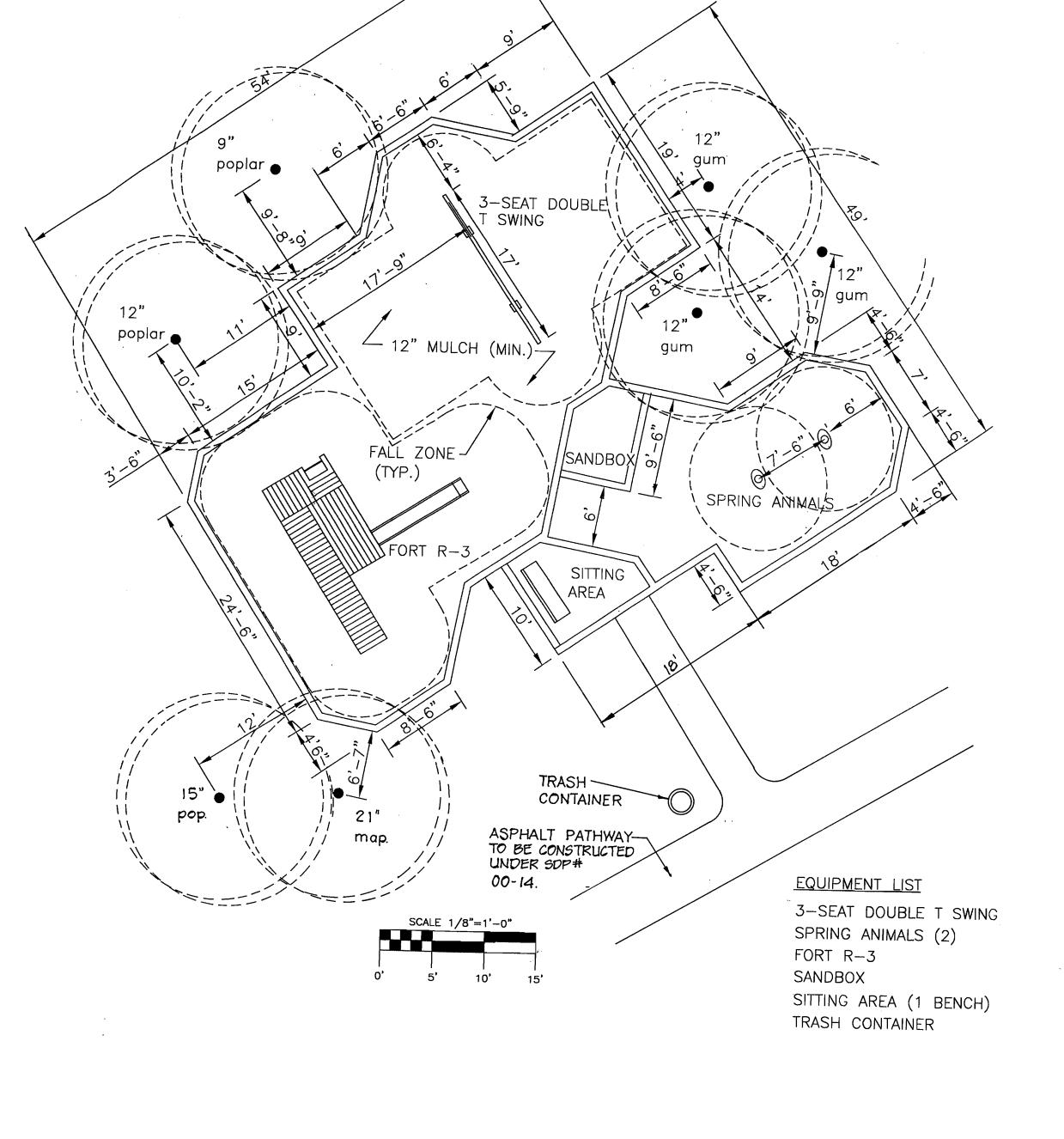
CHIEF, DEVELOPMENT ENGINEERING DIVISION



CONSERVATION DISTRICT.

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



OWNER / DEVELOPER

HOWARD RESEARCH AND DEVELOPMENT, CO. 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044

THE COLUMBIA ASSOCIATION 10221 WINCOPIN CIRCLE, SUITE 100 COLUMBIA, MARYLAND 21844-3410



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

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CLARK · FINEFROCK & SACKETT, INC. ENGINEERS · PLANNERS · SURVEYORS

7135 MINSTREL WAY · COLUMBIA, MD 21045 · (410) 381-7500 BALT. · (301) 621-8100 WASH. DESIGNED

SITE DEVELOPMENT PLAN DAR AND SEDIMENT EROSION CONTROL PLAN TOT LOT 4 ZAH

VILLAGE OF RIVER HILL SECTION 4 , AREA 1 , PHASE 2
FIFTH (5th) ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR: THE COLUMBIA ASSOCIATION 10221 Wincopin Circle, Suite 100 Columbia, Maryland 21844-3410 Phone: 410-381-0383 3-13-01

CHECKED

(7)F:/Drawings/VORH/TOT-LOT-4

1" = 30'

4 of 5

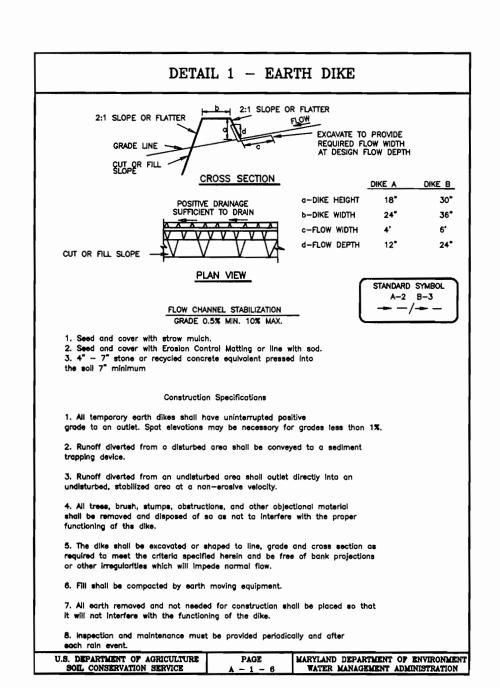
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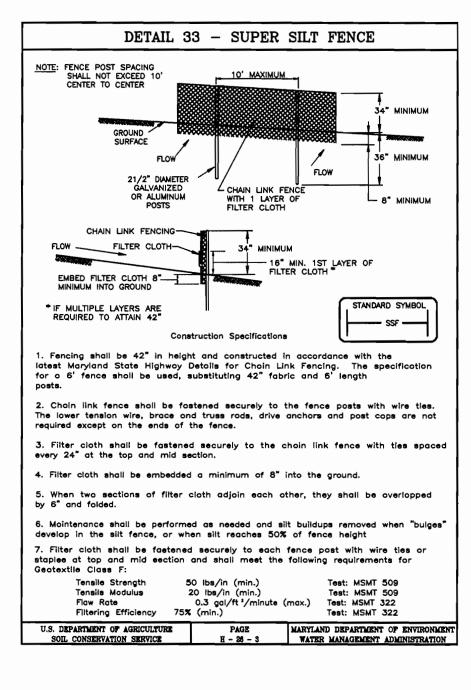
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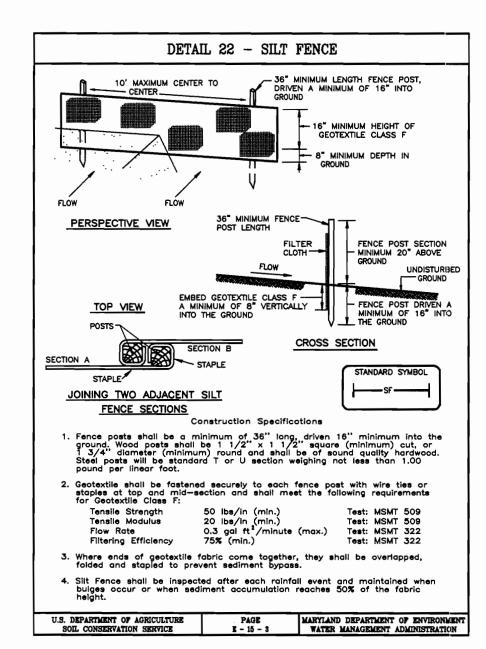
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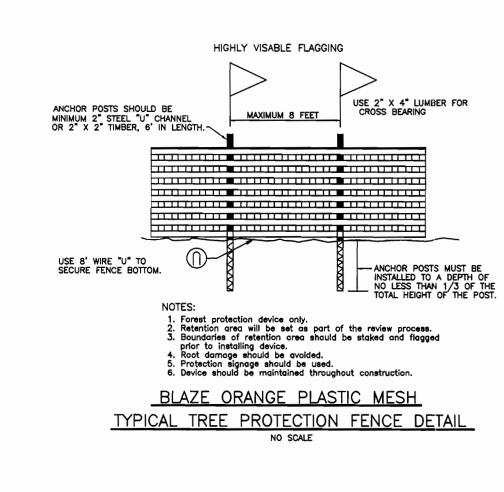
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21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

<u>Definition</u>

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: The texture of the exposed subsoil/parent

material is not adequate to produce vegetative 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

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 Construction and Material Specifications

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

II. 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 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 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.

NOTES:

1. Timbers shall be either:

a) Creasote treated railroad ties.

Hardware shall be hot dipped galvanized.

CCA treated landscaping timbers (.40 lb./cf retention)

iii. Where the subsoil is either highly acidic or camposed 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 III. 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

IV. 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

a. pH for topsoil shall be between 6.0 and 7.5. If

d. ph for topsoil shall be between 5.0 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.
b. Organic content of topsoil shall be not less than 1.5 percent by weight.
c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
d. No sod or seed shall be placed on soil which have been treated with soil statilations or chemicals.

has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic 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 ii. Place topsoil (if required) and apply soil amendments specified in 20.0 Vegetative Stabilization—Section I—

Vegetative Stabilization Methods and Materials.

V. Topsoil Application

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 top-solling 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 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

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

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

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: Optian (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

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 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,

TEMPORARY SEEDING NOTES

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

SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer

replacements and reseedings.

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 unratted 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 at 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

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: a) 7 calendar days for all perimeter sediment cantrol stuctures dikes, perimeter slopes and all slopes greater than 3:1 b) 14 days as to all other disturbed or graded areas on the

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

5. All disturbed areas must be stabilized within the time period specified above, in accordance with the 1994 MARYLAND STAND-ARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec G).
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:
Area Disturbed:
Area to be roofed or paved: Area to be vegetatively stabilized:

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same

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

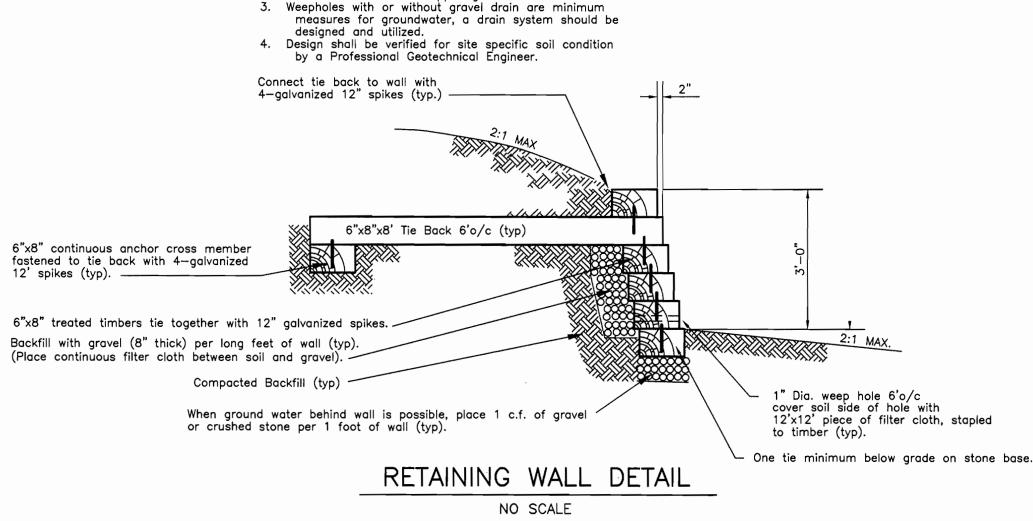
proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made. 11. Trenches for the construction of utilities shall be backfilled and stabilized within one working day, or is limited to three pipe lengths.

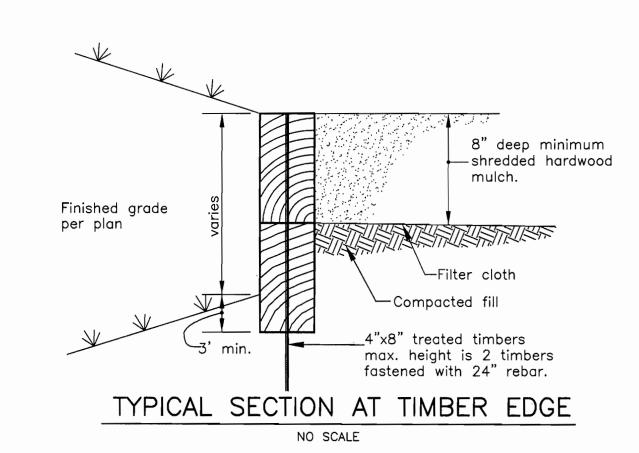
12. The total amount of earth dike = 296 LF 13. The total amount of super silt fence = 324 LF

14. The total amount of super diversion fence: 328 LF * 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 Obtain grading permit.
 Install tree protection fence. 2. Install tree protection fence.
3. Install sediment and erosion control devices and stabilize.
4. Excavate for foundations, rough grade and temporarily stabilize.
5. Construct structures, sidewalks and driveways.
6. Final grade, install Erosion Control Matting and stabilize in accordance with standards and specifications. 7. Upon approval of the sediment control inspector, remove





OWNER / DEVELOPER HOWARD RESEARCH AND DEVELOPMENT, CO. 10275 LITTLE PATUXENT PARKWAY

COLUMBIA, MARYLAND 21044

THE COLUMBIA ASSOCIATION 10221 WINCOPIN CIRCLE, SUITE 100 COLUMBIA, MARYLAND 21844-3410

CLARK · FINEFROCK & SACKETT, INC.

ENGINEERS · PLANNERS · SURVEYORS DRAWN

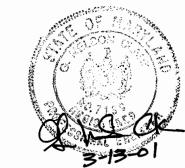
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH. SEDIMENT CONTROL DETAILS TOT LOTS 1,2 \$4 VILLAGE OF RIVER HILL ZAHSECTION 4, AREA 1, AREA 4 AND AREA 5 CHECKED FIFTH (5th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND

THE COLUMBIA ASSOCIATION

Columbia, Maryland 21044 Phone: 410-381-0383

10221 Wimcopin Circle, Suite 100

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



(#7)F:/drawings/vorh/tot-lot-details

APPROVED DEVELOPER'S/BUILDER'S CERTIFICATE PLANNING BOARD "I/We certify that all development and construction will be done according of HOWARD COUNTY to this plan of development and plan for sediment and erosion control and 8-23-01 that all responsible personnel involved in the construction project will have THIS DEVELOPMENT PLAN IS APPROVED APPROVED: DEPARTMENT OF PLANNING & ZONING a Certificate of Attendance at a Department of the Environment Approved FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard So CONSERVATION DISTRICT. Conservation District or their authorized agents, as are deemed necessary' 3/14/01 DATE 10/18/01

00-118-> GHDINI.118

SCALE

1" = 30'

DRAWING

JOB NO.

00-118

FILE NO.

.5 of 5