

LEGEND

- EXISTING 2' INTERVAL CONTOUR
- EXISTING 10' INTERVAL CONTOUR
- PROPOSED 2' INTERVAL CONTOUR
- PROPOSED 10' INTERVAL CONTOUR
- SPOT ELEVATION
- - - SILT FENCE
- - - EARTH DIKE
- - - THESE PROTECTION FENCE AND SIGNAGE FOR FOREST CONSERVATION AREA
- - - EXISTING TREE LINE
- - - L.O.D. LIMIT OF DISTURBANCE
- - - EXISTING FOREST CONSERVATION EASEMENT LINE
- - - SUPER SILT FENCE
- - - DRAINAGE AREA LINE

SPECIFICATIONS FOR LOT FILL

Lot fill shall consist of well to moderately well-graded soils consisting of sands, silts, clays and gravel, and shall be free from detrimental quantities of debris, muck, peat, roots, grass, leaves, humus, sewage and other organic material, clogs, lumps, and balls of clay, and frozen materials. All fill material shall conform to the following material specifications:

Liquid Limit	40 maximum
Plasticity Index	10 maximum
Laboratory Maximum	100 pounds per cubic foot (min.)
Dry Density (ASTM T-180)	100
Percent Passing #40 Sieve	50 maximum
Percent Passing U.S. #200 Sieve	50 maximum

Prior to the placement of lot fill, remove all topsoil, root matter, organic materials, large stones, debris, and other unstable material to the depth at which a stable subgrade is achieved. Prior to the placement of fill on the prepared subgrade, the area should be proof-rolled to delineate any potentially soft or unstable areas. These areas should be undercut to stable materials and backfilled with suitable fill and properly compacted.

Lot fill shall be placed in horizontal layers, with thickness limited to a maximum of 12 inches. Each lift shall be evenly spread and thoroughly compacted to the specified percentage of maximum dry density. Moisture content at the time of compaction shall be maintained within the limits specified for each area of lot fill.

The degree of compaction to be achieved for lot fill within the building envelope shall be determined by the geotechnical engineer. Moisture content of the compacted fill shall be maintained within a specified range of the optimum moisture content for compaction specified.

The degree of compaction to be achieved for lot fill outside the area of the building envelope and areas of driveways or parking pads shall be determined by the geotechnical engineer. Moisture contents shall be maintained within a specific range of the optimum moisture content for compaction specified.

The degree of compaction achieved on lot fill shall be verified by continuous monitoring and testing by an approved independent testing agency. The results shall be submitted to the client within two weeks after completion of the work for their review.

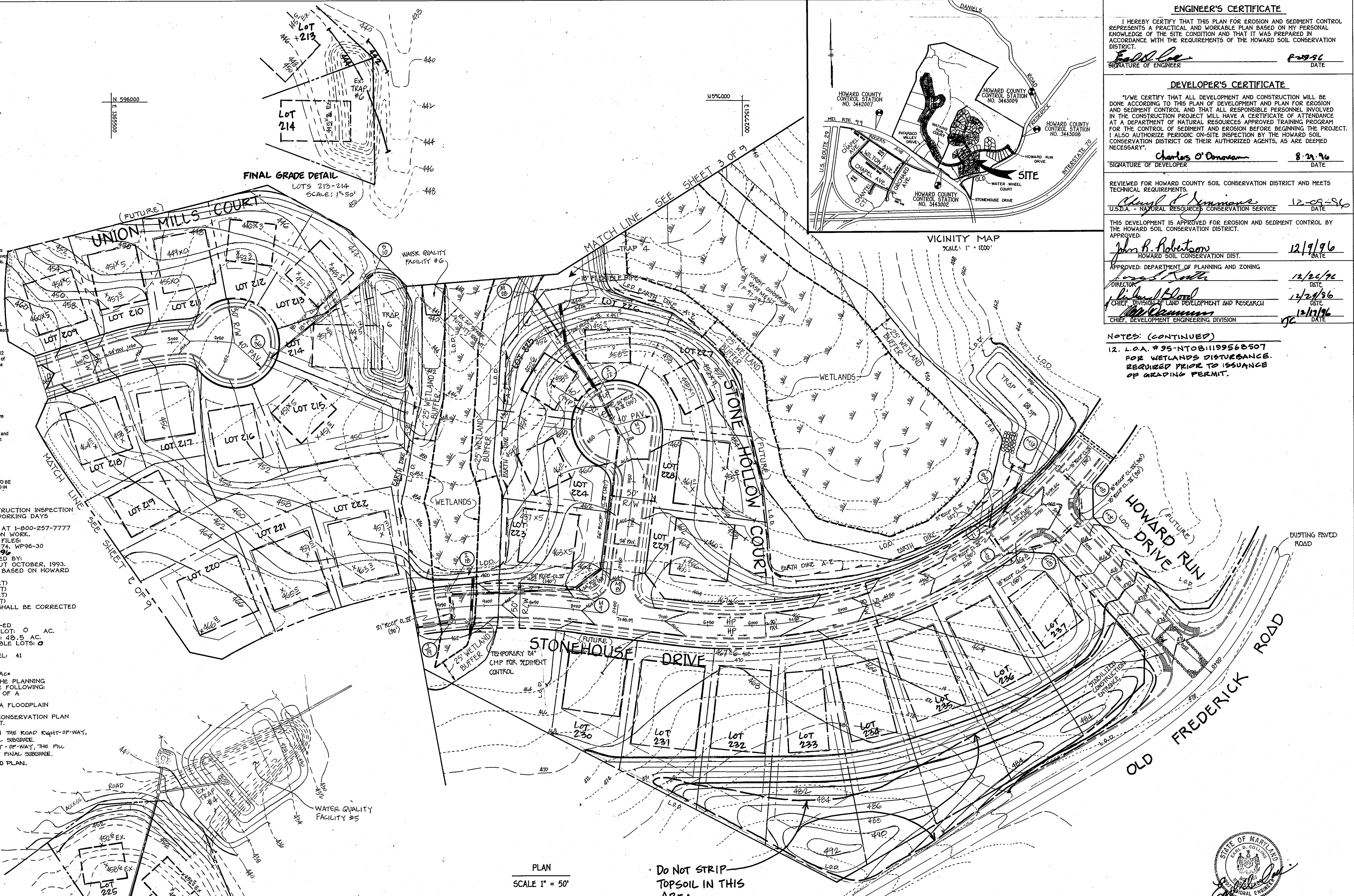
ALL FILL MATERIAL TO BE COMPACTED AND TESTED TO THE CONTOUR WITHIN ENVELOPES SHOWN BY GEOTECHNICAL ENGINEER FOR PLACEMENT OF FILL MATERIAL. CONTRACTOR TO OBTAIN SUBSURFACE EXPLORATION REPORT.

ALL TOPSOIL TO BE STRIPPED FROM BUILDING ENVELOPES AND PAVED AREAS. TOPSOIL IS TO BE REMOVED IN ALL AREAS UNLESS OTHERWISE NOTED ON THE PLAN. TOPSOIL MAY BE PLACED IN FILL AREAS AS NOTED ON PLAN AND PLACED IN THE LAST # OF FILL.

- GENERAL NOTES:**
- THE CONTRACTOR SHALL NOTIFY THE THE CONSTRUCTION INSPECTION DIVISION AT (410) 313-1800 AT LEAST (5) FIVE WORKING DAYS 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.
 - THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: DANIELS MILL OVERLOOK - 595-18, PB299, WP95-74, WP96-30 AND 96-37, **WP-95-74 APPROVED 11/25/96**
 - BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. ON OR ABOUT OCTOBER, 1993. HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON HOWARD COUNTY GEODETIC CONTROL STATIONS:
STA. 17EA N 594357.6446 (FEET)
E 135751.3476 (FEET)
STA. 17EB N 593813.9200 (FEET)
E 135731.8617 (FEET)
 - ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
 - SITE ANALYSIS:
A. THIS PROJECT IS ZONED R-ED
B. TOTAL AREA OF BUILDING LOT: 0 AC.
C. LIMIT OF SUBMISSION AREA: 48.5 AC.
D. TOTAL NUMBER OF BUILDABLE LOTS: 0
 - PROJECT BACKGROUND:
LOCATION: TAX MAP 17 PARCEL: 41
ZONED: R-ED
ELECTION DISTRICT: SECOND
LIMITS OF DISTURBANCE: 48.5 AC
 - THIS PROJECT IS SUBJECT TO WP96-48 WHICH THE PLANNING DIRECTOR APPROVED A REQUEST TO WAIVE THE FOLLOWING:
A) SECTION 16-144 (f) REQUIRING SUBMITTAL OF A PRELIMINARY PLAN
B) SECTION 16-146 (c)(1) AND (b) REQUIRING A FLOODPLAIN DELINEATION AND DEDICATION
C) SECTION 16-1204 REQUIRING A FOREST CONSERVATION PLAN WITH APPLICATION FOR ALL DEVELOPMENT.
 - A) IN AN AREA WHERE EXCAVATION IS NEEDED WITHIN THE ROAD RIGHT-OF-WAY, EXCAVATION SHALL BE WITHIN ONE (1) FOOT OF FINAL SUBGRADE.
B) WHERE FILL IS PROPOSED WITHIN THE ROAD RIGHT-OF-WAY, THE FILL SHALL BE A MINIMUM OF TWO (2) FEET BELOW THE FINAL SUBGRADE.
 - MASS GRADING DOES NOT ENCRoACH INTO 100 YEAR FLOOD PLAN.

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: 9/11/96

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 1872 BALTORE NATIONAL FREE
BLUDDITT CITY, MARYLAND 21042
MD REG. 1395



FINAL GRADE DETAIL
LOTS 225-226
SCALE: 1" = 50'

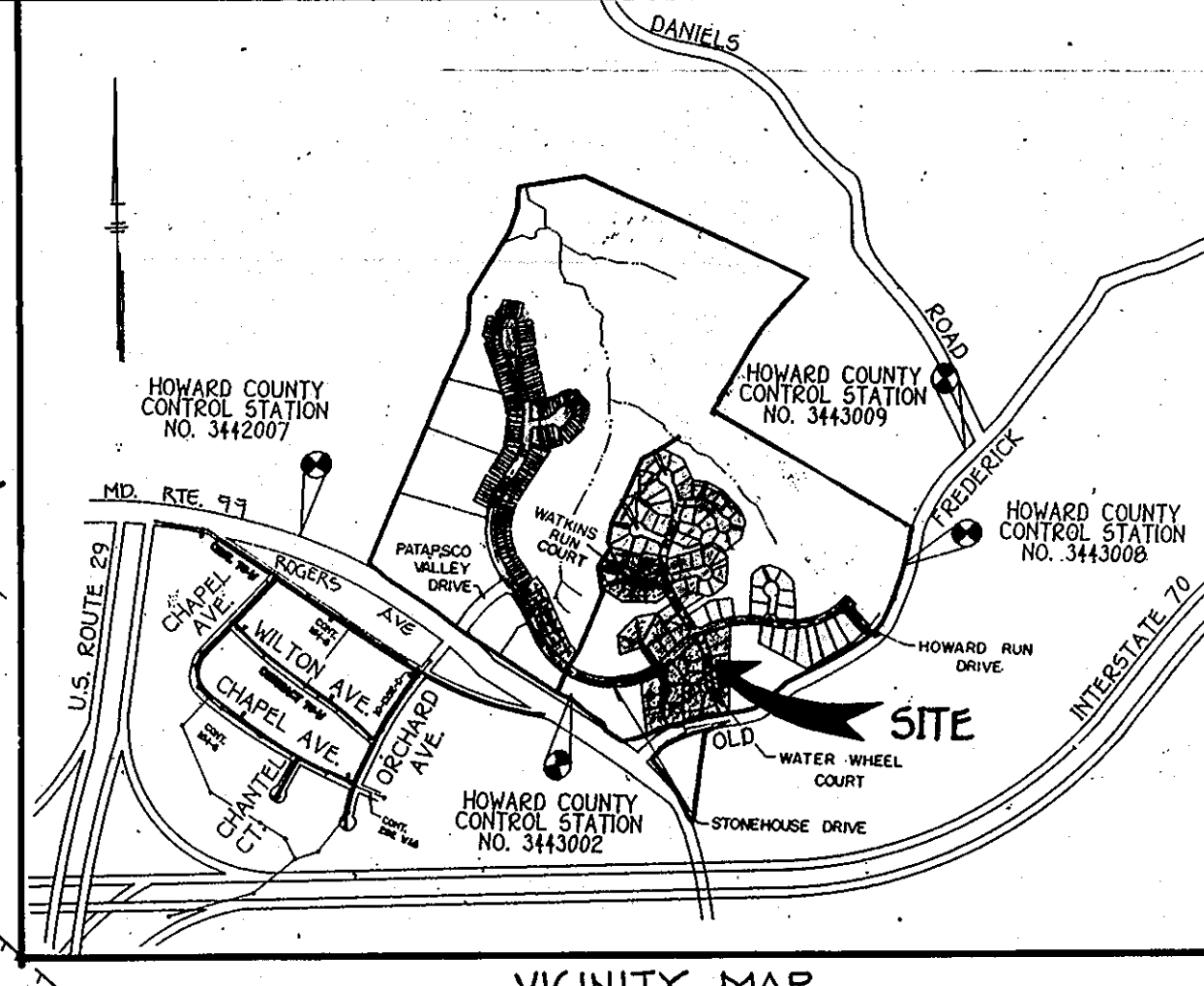
SHEET INDEX

SHEET NO.	DESCRIPTION
1	PLAN VIEW (GRADING)
2	"
3	"
4	"
5	"
6	"
7	"
8	NOTES AND DETAILS
9	"

PLAN
SCALE: 1" = 50'

SUBDIVISION	SECTION AREA	PARCEL
DANIELS MILL OVERLOOK		41
PLAT NO.	BLOCK NO.	ZONE
	12	R-ED
		TAX ZONE
		17
		ELEC. DIST.
		SECOND
		CENSUS TR.
		6021
WATER CODE	SEWER CODE	

Do NOT STRIP
TOPSOIL IN THIS
AREA.



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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Charles O'Donovan
SIGNATURE OF ENGINEER

8-29-96
DATE

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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.

Charles O'Donovan
SIGNATURE OF DEVELOPER

8-29-96
DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Joseph J. Sullivan
U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE

12-09-96
DATE

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

John R. Robertson
DIRECTOR
HOWARD SOIL CONSERVATION DIST.

12/9/96
DATE

APPROVED DEPARTMENT OF PLANNING AND ZONING

James J. Sullivan
DIRECTOR

12/26/96
DATE

Richard L. Sullivan
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH

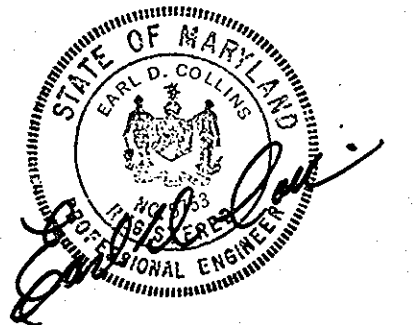
12/29/96
DATE

Michael J. Sullivan
CHIEF, DEVELOPMENT ENGINEERING DIVISION

12/19/96
DATE

NOTES: (CONTINUED)

12. L.O.A. # 95-NT081199568507 FOR WETLANDS DISTURBANCE. REQUIRED PRIOR TO ISSUANCE OF GRADING PERMIT.



MASS GRADING PLAN
DANIELS MILL OVERLOOK

ZONED: R-ED
TAX MAP No. 17 PARCEL Nos. 41 and 547
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SHEET 1 OF 9
SCALE: AS SHOWN DATE: AUGUST 28, 1996

SUBDIVISION DANIELS MILL OVERLOOK	SECTION/AREA 41	PARCEL 41
PLAT NO. 12	BLOCK NO. 17	ZONE R-ED
TAX/ZONE 17	ELEC. DIST. SECOND	CENSUS TR.
WATER CODE	SEWER CODE	

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: *Paul C. ...* DATE: 8-29-96

DEVELOPER'S CERTIFICATE
 I HAVE CERTIFIED THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 SIGNATURE OF DEVELOPER: *Charles O'Donovan* DATE: 8-29-96

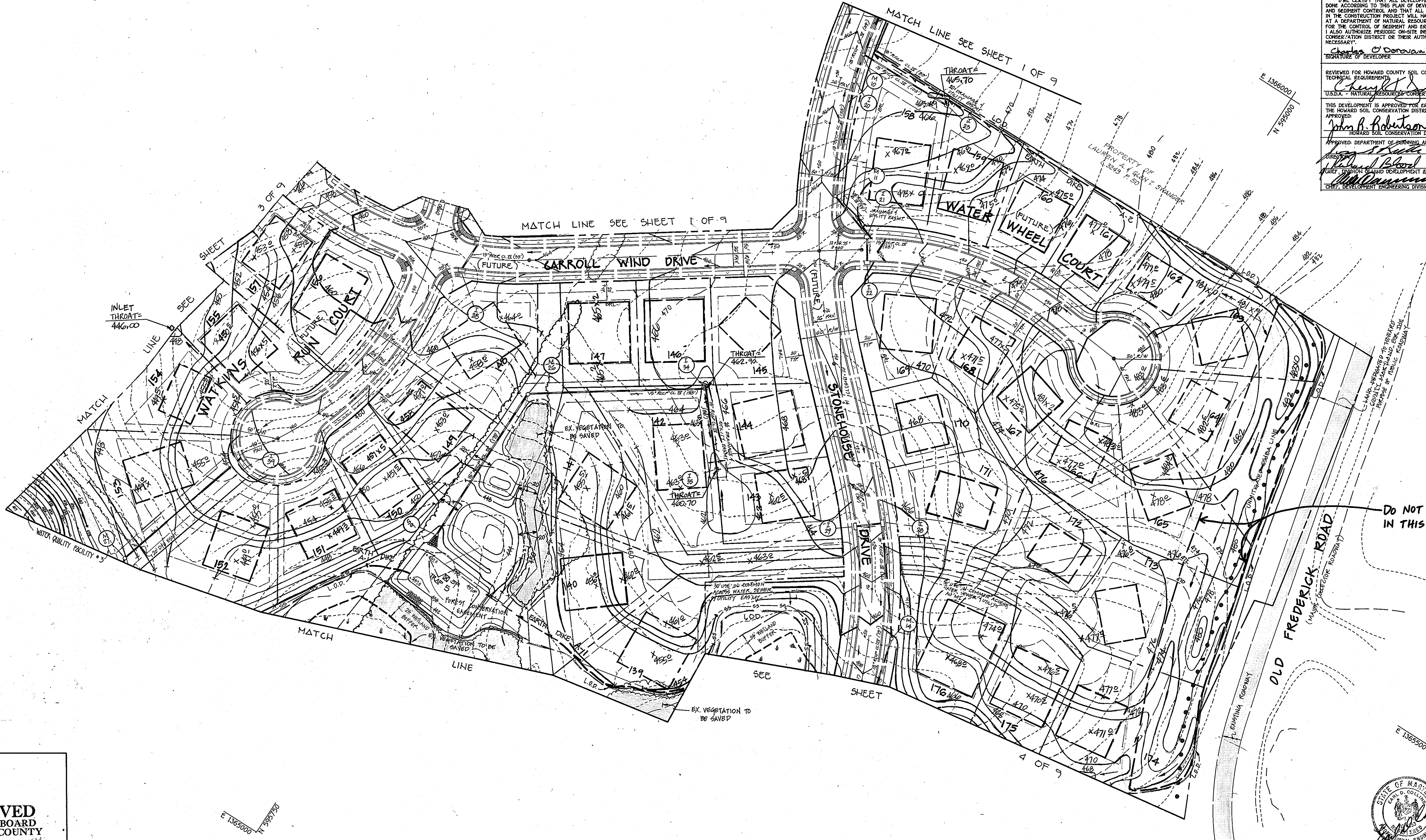
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
Charles O'Donovan 12-28-96 DATE
 U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *John R. Robertson* 12/19/96 DATE
 HOWARD SOIL CONSERVATION DIST.

APPROVED DEPARTMENT OF PERMITS AND ZONING
John R. Robertson 12/22/96 DATE
 DEPARTMENT OF PERMITS AND ZONING

APPROVED: *John R. Robertson* 12/24/96 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

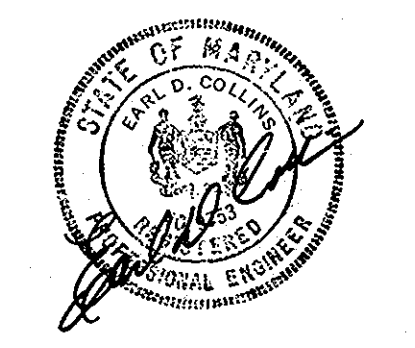
John R. Robertson 12/17/96 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION



DO NOT STRIP TOPSOIL IN THIS AREA.

APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE: 9/11/96

PLAN
 SCALE: 1" = 50'



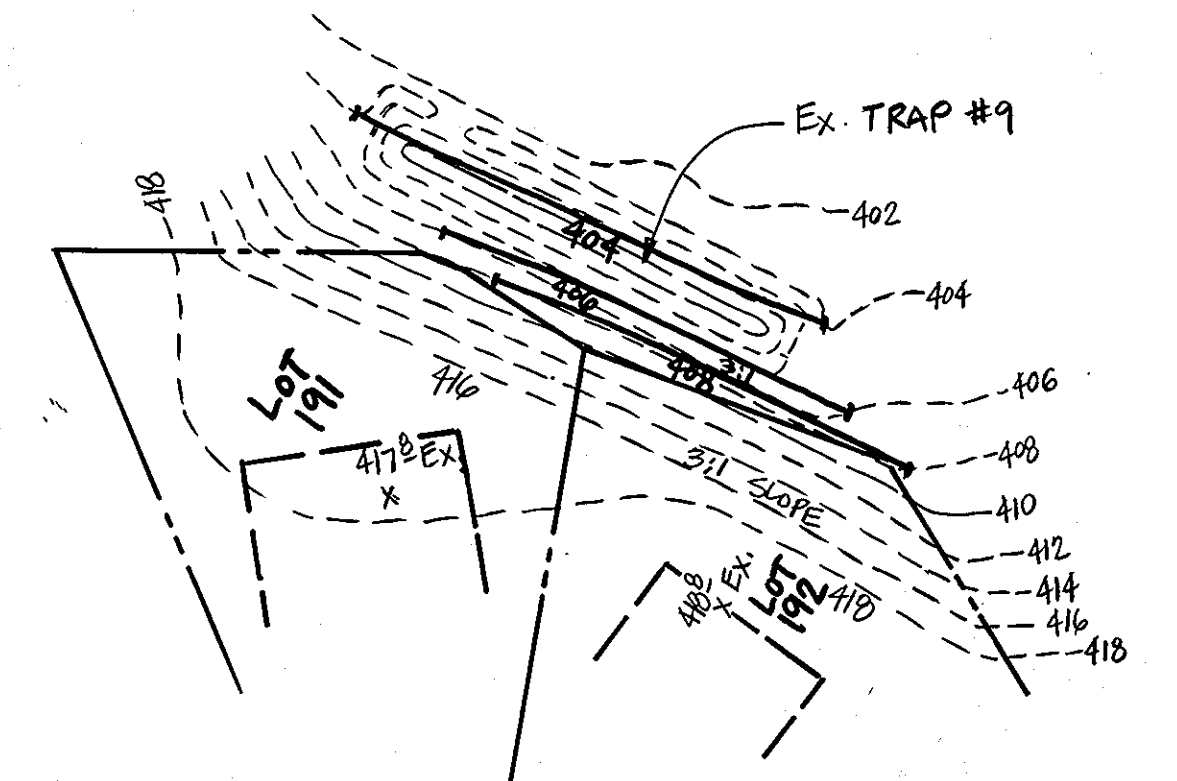
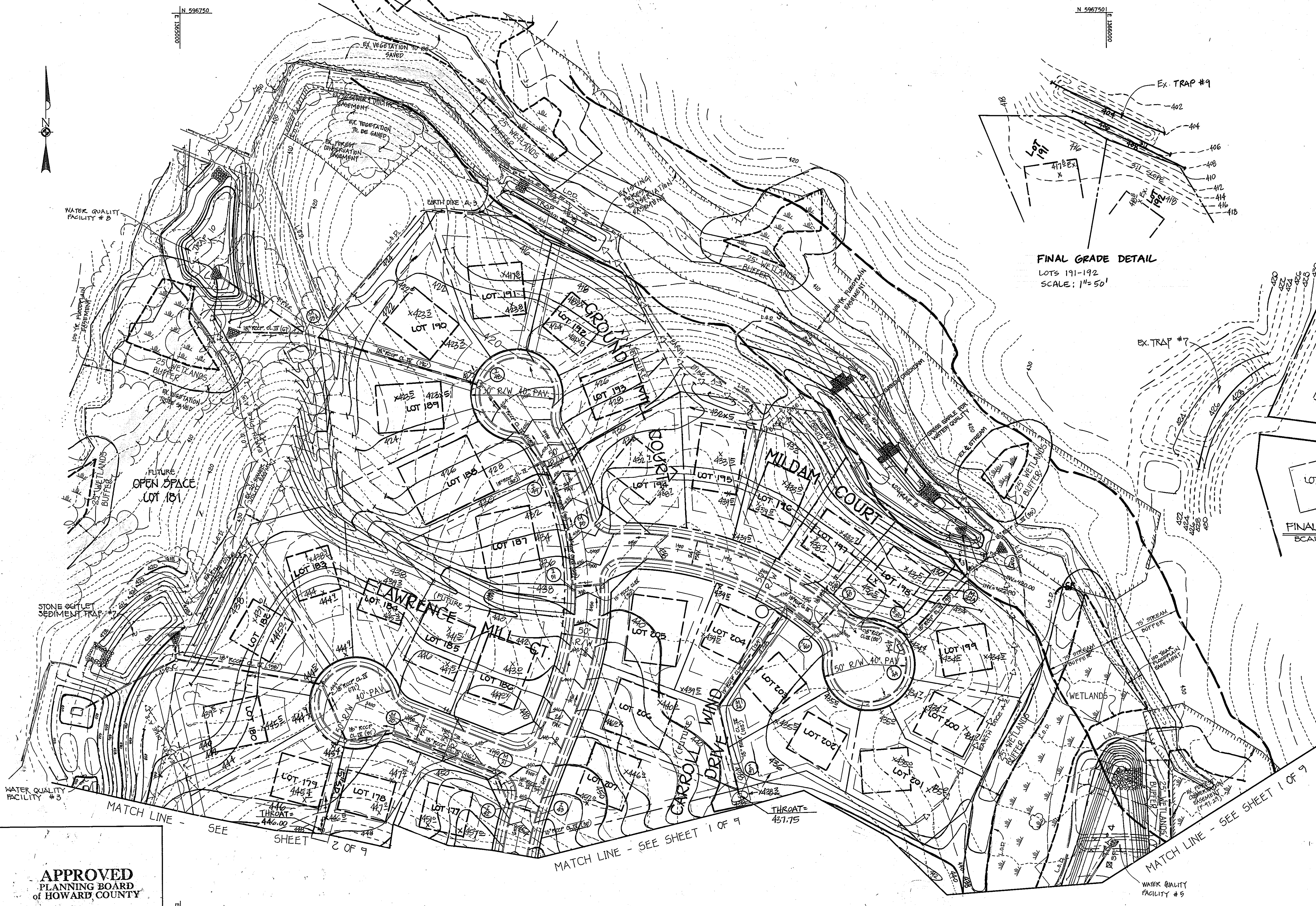
MASS GRADING PLAN
 DANIELS MILL OVERLOOK

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE: 10772 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2000

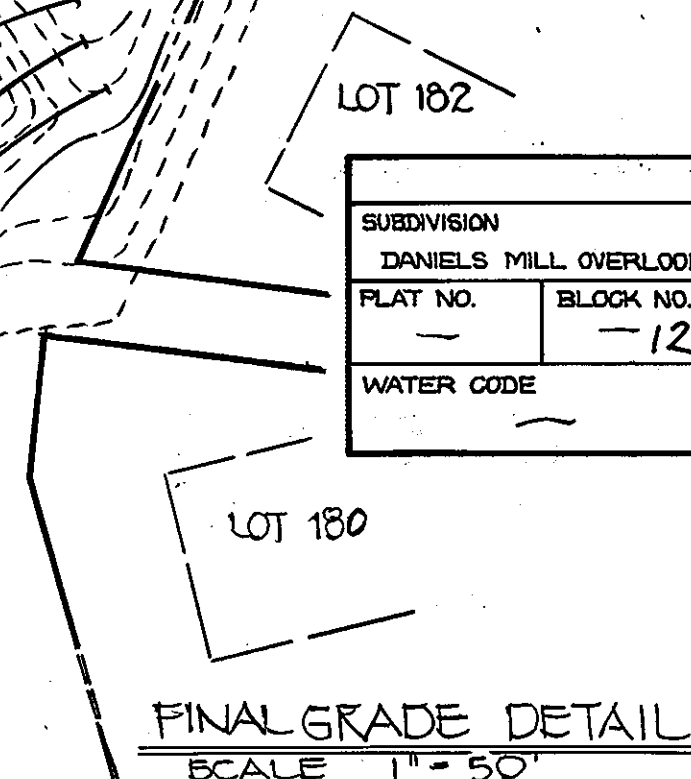
DEVELOPER
 RYLAND HOMES
 C/O MR. CHARLES O'DONOVAN
 1447 YORK ROAD
 LUTHERVILLE, MARYLAND 21093

OWNER
 PERCOTEE, INC.
 C/O MR. MICHAEL DIFFENDAL
 11900 TECH ROAD
 SILVER SPRING, MARYLAND 20904

TAX MAP No: PARCEL:
 ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: AUGUST 28, 1996
 SHEET 2 OF 9



FINAL GRADE DETAIL
LOTS 191-192
SCALE: 1" = 50'



FINAL GRADE DETAIL
LOT 182
SCALE: 1" = 50'

SUBDIVISION		SECTION / AREA	PARCEL		
DANIELS MILL OVERLOOK			41		
PLAT NO.	BLOCK NO.	ZONE	TAX / ZONE	ELEC. DIST.	CENSUS TR.
	12	R-ED	17	SECOND	
WATER CODE		SEWER CODE			

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Charles O'Donovan
SIGNATURE OF ENGINEER
8-29-96
DATE

DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT 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.
Charles O'Donovan
SIGNATURE OF DEVELOPER
8-29-96
DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
Carol E. Simmons
U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE
12-09-96
DATE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
APPROVED:
John B. Robertson
HOWARD SOIL CONSERVATION DIST.
12/19/96
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
James S. Smith
DIRECTOR
12/20/96
DATE

Richard Blood
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
12/21/96
DATE

W. Simmons
CHIEF, DEVELOPMENT ENGINEERING DIVISION
12/17/96
DATE

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 9/11/96

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 1972 BALTIMORE NATIONAL PkE
ELLSWORTH CITY, MARYLAND 21042
4100 461 - 2995

PLAN
SCALE 1" = 50'

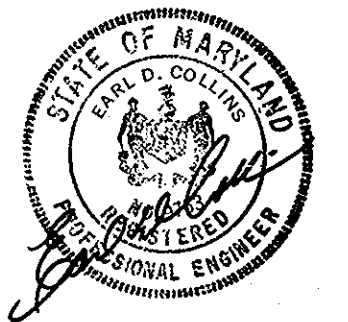
DEVELOPER
RYLAND HOMES
% MR. CHARLES O'DONOVAN
1447 YORK ROAD
LUTHERVILLE, MARYLAND 21093

OWNER
PERCONTEE, INC.
% MR. MICHAEL DIFFENDAL
11900 TECH ROAD
SILVER SPRING, MARYLAND 20904

MASS GRADING PLAN
DANIELS MILL OVERLOOK

ZONED: R-ED
TAX MAP No. 17 PARCEL Nos. 41 and 547
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SHEET 3 OF 9

SCALE: AS SHOWN DATE: AUGUST 28, 1996



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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Erroll Cole 8-27-96
SIGNATURE OF ENGINEER DATE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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."

Charles O'Donovan 8/29/96
SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Cheryl L. Johnson 12-09-96
U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE DATE

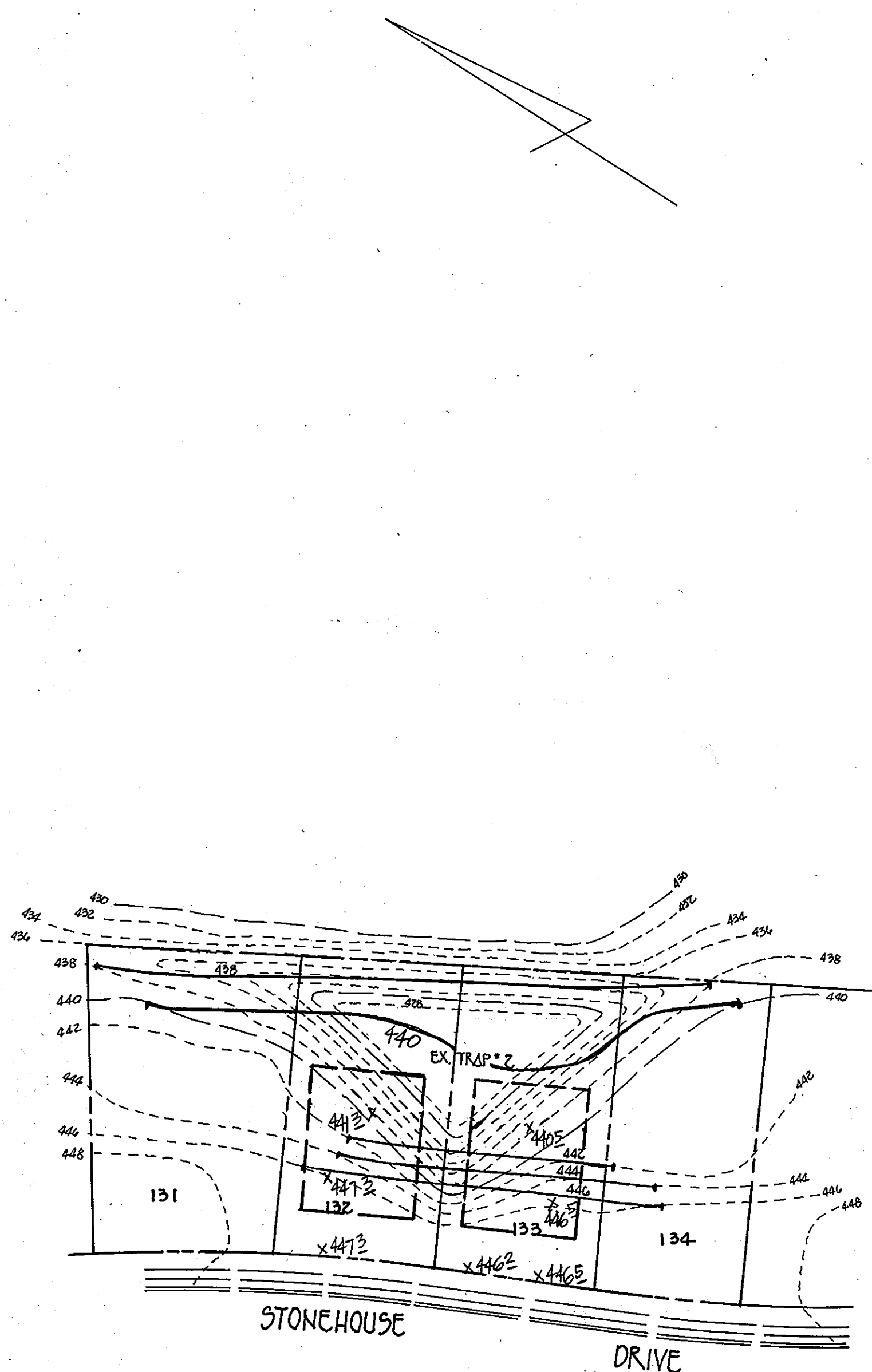
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: *John R. Robinson* 12/19/96
HOWARD SOIL CONSERVATION DIST. DATE

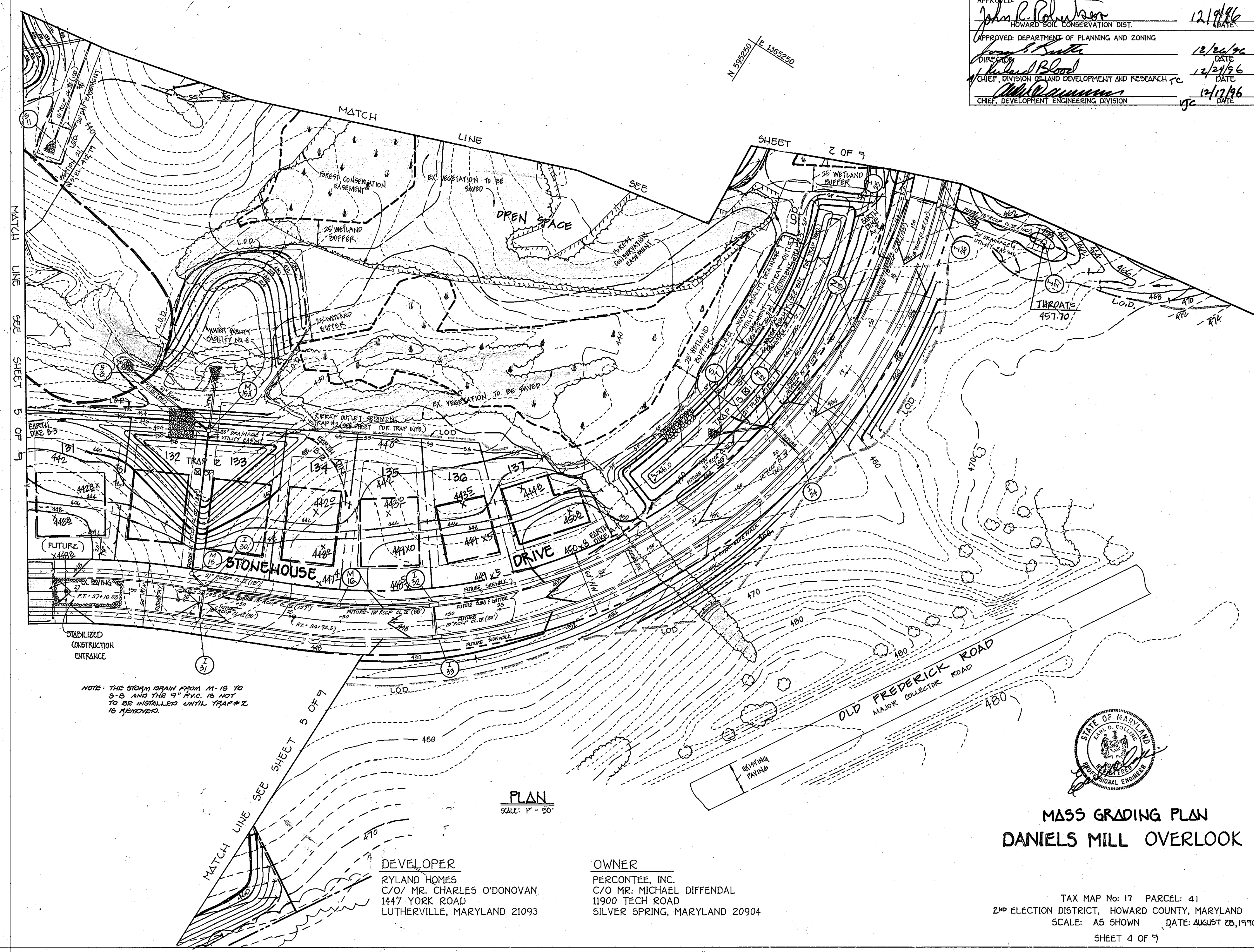
APPROVED: DEPARTMENT OF PLANNING AND ZONING
James S. Smith 12/22/96
DIRECTOR DATE

William B. Blood 12/21/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

Bill Williams 12/17/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



FINAL GRADE DETAIL
LOT 131 - 134
SCALE: 1" = 50'



PLAN
SCALE: 1" = 50'

NOTE: THE STORM DRAIN FROM M-15 TO S-8 AND THE 9" DIA. IS NOT TO BE INSTALLED UNTIL TRAP #2 IS REMOVED.

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 2/11/97

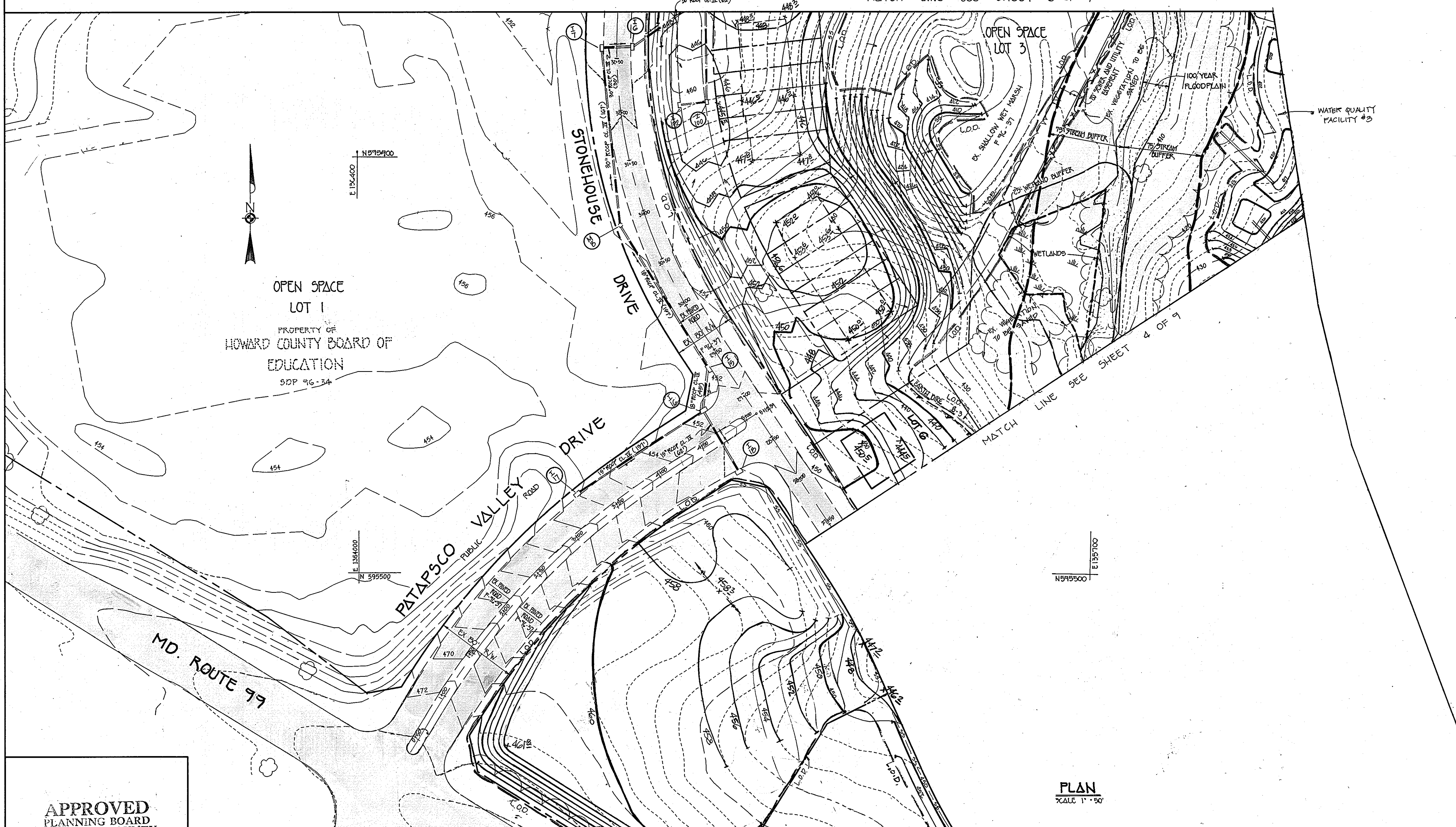
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-2885

DEVELOPER
RYLAND HOMES
C/O MR. CHARLES O'DONOVAN
1447 YORK ROAD
LUTHERVILLE, MARYLAND 21093

OWNER
PERCOTEE, INC.
C/O MR. MICHAEL DIFFENDAL
11900 TECH ROAD
SILVER SPRING, MARYLAND 20904

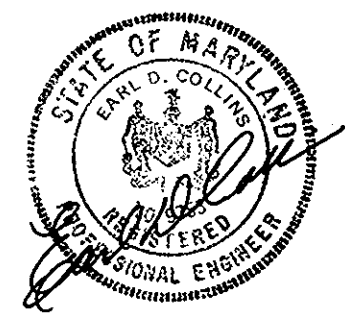
STATE OF MARYLAND
PROFESSIONAL ENGINEER
MASS GRADING PLAN
DANIELS MILL OVERLOOK

TAX MAP No: 17 PARCEL: 41
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST 28, 1996
SHEET 4 OF 9



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 9/11/96

PLAN
SCALE 1" = 50'



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLIOTT CITY, MARYLAND 20942
(410) 461 - 2955

ENGINEER'S CERTIFICATE
"I 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."
Earl C. Cui 8-29-96
Signature of Engineer (Print name below signature) Date

DEVELOPER'S CERTIFICATE
"I/We certify that all development and construction will be done according to this plan, and that any 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."
Charles O'Donovan 8-29-96
Signature of Developer (Print name below signature) Date

Reviewed for HOWARD SCD and meets Technical Requirements.
Charles O'Donovan 12-09-96
Director, U.S.D.A. Natural Resources Conservation Service
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John K. Robinson 12/9/96
Howard SCD

DEVELOPER RYLAND HOMES % CHARLES O'DONOVAN 1447 YORK ROAD LUTHERVILLE, MD. 21093	OWNER PERCENTEE, INC. % MICHAEL DIFFENDAL 11900 TECH ROAD SILVER SPRING, MD. 20914
---	---

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Richard Blood 12/26/96
Director
Michael Blood 12/24/96
Chief, Division of Land Development and Research
Michael W. ... 12/17/96
Chief, Development Engineering Division

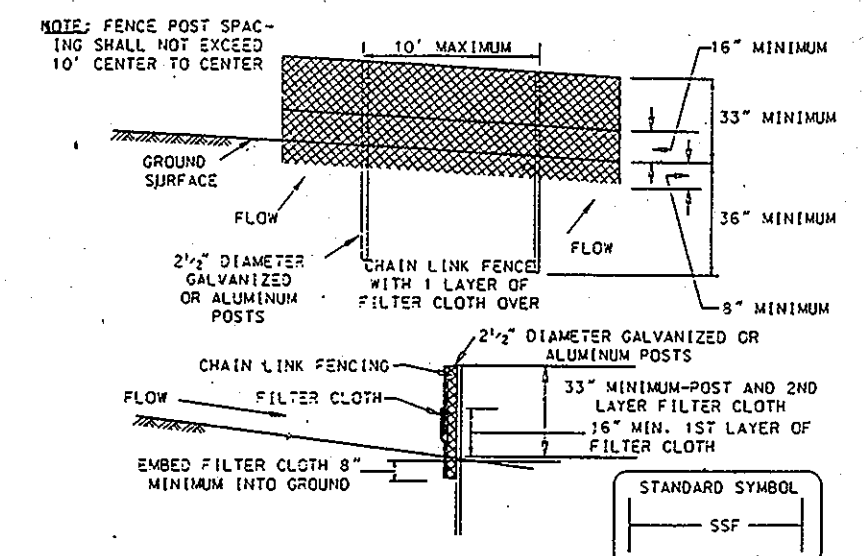
SUBDIVISION DANIELS MILL OVERLOOK	SECTION/AREA 41	PARCEL 41
PLAT NO. 12	BLOCK NO. 17	ZONE R-ED
TAX/ZONE 17	ELEC. DIST. SECOND	CENSUS TR. 6021
WATER CODE -	SEWER CODE -	

MASS GRADING PLAN
DANIELS MILL OVERLOOK
TAX MAP No: 17 PARCEL: 41
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST 28, 1996
SHEET 5 OF 9

TRAP DATA

TRAP NO.	STONE OUTLET ST II TRAP #1	RIPRAP OUTLET ST IV TRAP #2	RIPRAP OUTLET ST IV TRAP #3	STONE OUTLET ST II TRAP #4	STONE OUTLET ST II TRAP #5	STONE OUTLET ST II TRAP #6	STONE OUTLET ST II TRAP #7	STONE OUTLET ST II TRAP #8	STONE OUTLET ST II TRAP #9	STONE OUTLET ST II TRAP #10	STONE OUTLET ST II TRAP #11	STONE OUTLET ST II TRAP #12	STONE OUTLET ST II TRAP #13
DRAINAGE AREA	4.93 AC*	5.306 AC*	7.78 AC*	3.98 AC*	3.62 AC*	4.58 AC*	3.10 AC*	3.47 AC*	1.40 AC*	3.59 AC*	1.5 AC*	6.8 AC*	3.2 AC*
STORAGE REQUIRED	17,748 C.F.	28,652 C.F.	42,012 C.F.	14,328 C.F.	13,032 C.F.	16,188 C.F.	11,160 C.F.	12,492 C.F.	5040 C.F.	12,924 C.F.	5400 C.F.	12,480 C.F.	11,520 C.F.
STORAGE PROVIDED	10,100 C.F.	32,665 C.F.	42,500 C.F.	14,761 C.F.	13,672 C.F.	17,710 C.F.	12,284 C.F.	13,152 C.F.	5632 C.F.	14,872 C.F.	9600 C.F.	24,500 C.F.	11,550 C.F.
WEIR CREST ELEV.	455.00	435.00	449.00	445.00	445.00	441.00	431.00	427.00	410.00	417.00	416.00	394.00	410.00
BOTTOM ELEV.	451.00	428.00	441.00	441.00	441.00	434.00	428.00	424.00	400.00	414.00	412.00	388.00	406.00
DEPTH	4'	11'	8'	4'	4'	7'	3'	3'	3'	3'	3'	3'	3'
SIDE SLOPES	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1
TOP EMBANKMENT	456.00	436.00	450.00	446.00	446.00	442.00	432.00	428.00	404.00	418.00	416.50	394.50	410.50
WEIR LENGTH	20'	22'	32'	16'	15'	18'	13'	14'	6'	15'	4'	14'	8'
CLEANOUT ELEV.	453.00	433.50	445.00	443.00	443.00	437.50	429.50	425.50	401.50	415.50	414.00	391.00	408.00

MATCH LINE SEE SHEET 7 OF 9



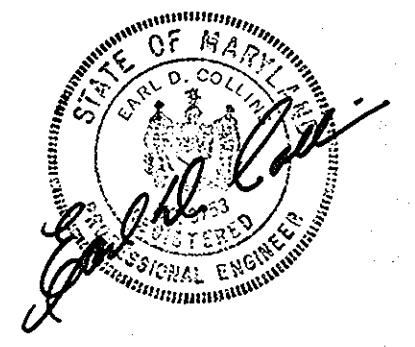
- Construction Specifications
- Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.
 - The poles do not need to set in concrete.
 - Chain link fence shall be fastened securely to the fence posts with wire ties or staples.
 - Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" of the top and mid section.
 - Filter cloth shall be embedded a minimum of 6" into the ground.
 - When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and fastened.
 - Maintenance shall be performed as needed and all buildings removed when "bulges" develop in the silt fence.

SUPER SILT FENCE
NOT TO SCALE



LEGEND

- - - - - EXISTING 2' INTERVAL CONTOUR
- - - - - EXISTING 10' INTERVAL CONTOUR
- - - - - PROPOSED 2' INTERVAL CONTOUR
- - - - - PROPOSED 10' INTERVAL CONTOUR
- GZ4 SPOT ELEVATION
- - - - - SILT FENCE
- - - - - EARTH DIKE
- - - - - TREE PROTECTION FENCE (SIGNAGE PER FOREST CONSERVATION AREA)
- - - - - EXISTING TREE LINE
- - - - - EX. FOREST CONSERVATION BASEMENT LINE
- - - - - L.O.D. LIMITS OF DISTURBANCE
- - - - - SUPER SILT FENCE
- - - - - DRAINAGE AREA LINE



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 9/11/96

MATCH LINE SEE SHEET 5 OF 9

PLAN
SCALE: 1" = 50'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE BLDG. - 10772 BALTIMORE NATIONAL FREE
ELICOTT CITY, MARYLAND 21042
(410) 461 - 2255

ENGINEER'S CERTIFICATE
"I 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 of Engineer (Print name below signature) *Edward J. ...* Date 8-29-96

DEVELOPER'S CERTIFICATE
"I/We certify that all development and construction will be done according to this plan, and that any 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."
Signature of Developer (Print name below signature) *Charles O'Donovan* Date 9/22/96

Reviewed for HOWARD SCD and meets Technical Requirements.
Signature of Reviewer *Charles O'Donovan* Date 12-09-96
U.S.D.A.-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
Signature of Approver *Frank Robinson* Date 12/9/96
Howard SCD

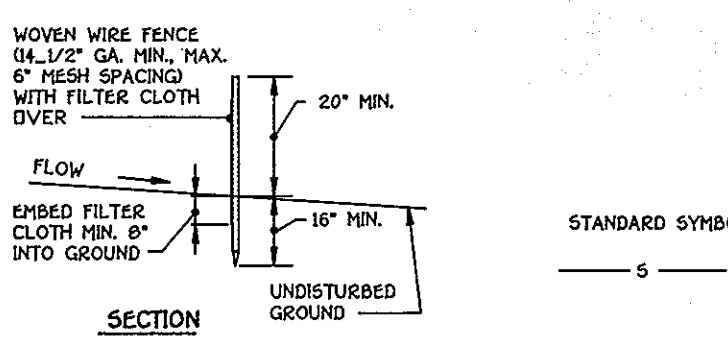
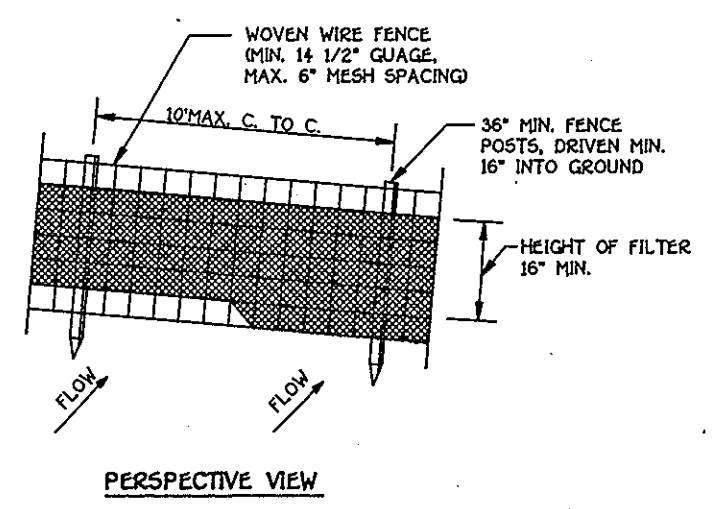
DEVELOPER
RYLAND HOMES
% MR. CHARLES O'DONOVAN
1447 YORK ROAD
LUTHERVILLE, MD. 21093

OWNER
PERCENTEE, INC.
% MR. MICHAEL DIFFENDAL
11900 TECH ROAD
SILVER SPRING, MD. 20904

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Signature of Approver *Richard Blood* Date 12/26/96
Chief, Development Engineering Division
Signature of Approver *Michael ...* Date 12/17/96
Chief, Development Engineering Division

SUBDIVISION DANIELS MILL OVERLOOK SECTION/AREA PARCEL 41
PLAT NO. BLOCK NO. ZONE TAX/ZONE ELEC. DIST. CENSUS TR. 12 R-ED 17 SECOND 6021
WATER CODE SEWER CODE

MASS GRADING PLAN
DANIELS MILL OVERLOOK
TAX MAP No: 17 PARCEL: 41
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST 28, 1996
SHEET 6 OF 9

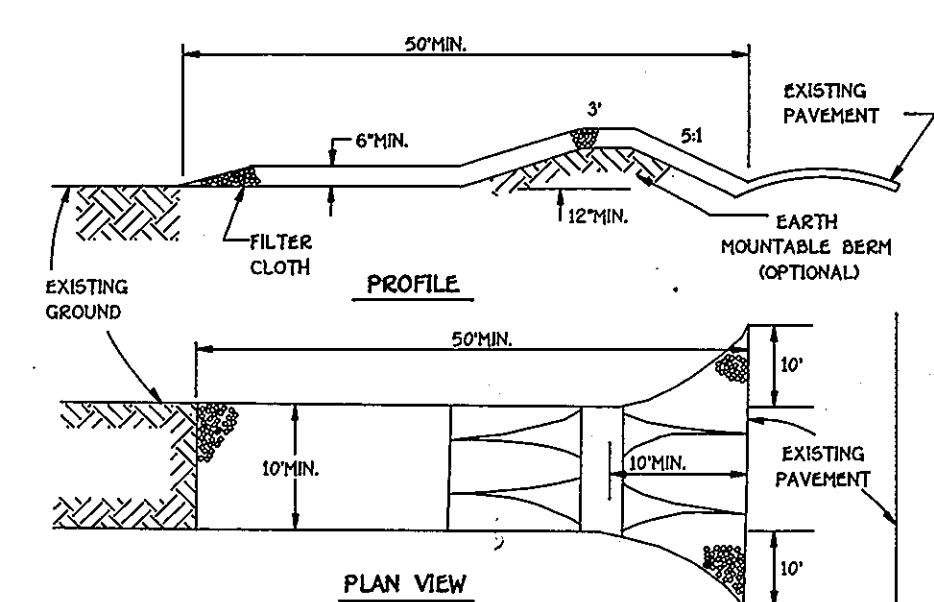


CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OF STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE

NOT TO SCALE

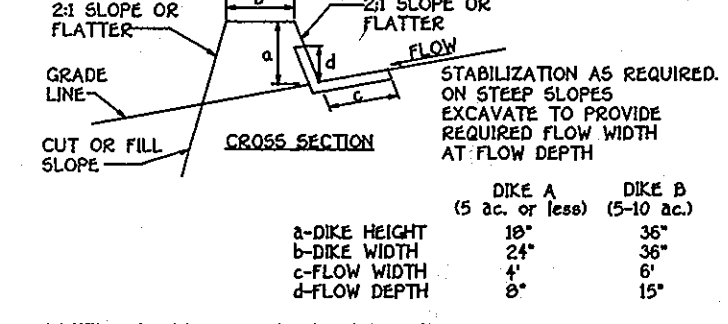


CONSTRUCTION SPECIFICATIONS

- STONE SIZE - USE 2" STONE, OR RECYCLED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THICKNESS - NOT LESS THAN 6 INCHES.
- WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BEEM WITH 51 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOWING SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND FOR CLEANOUT OF ANY MEASURES USED TO TREAT SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE - 2

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

- ALL DICES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
- ALL DICES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- TOP WIDTH MAY BE WIDE AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
- FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- EARTH DICES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION RUNOFF SHALL BE CONVEYED TO A SEDIMENT BASIN WHERE EITHER THE DICE CHANNEL OR THE DRAINAGE AREA ABOVE THE DICE IS NOT ADEQUATELY STABILIZED.
- STABILIZATION SHALL BE (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER CHART BELOW.

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL SIZE	DICE A	DICE B
1	5-3-0X	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3-1-50X	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELLOSPR; 500# 2" STONE
3	5-1-80X	SEED WITH JUTE, OR 500# 2" STONE	LINED RIP-RAP 4'-6"
4	8-1-20X	LINED RIP-RAP 4'-6"	ENGINEERING DESIGN

EARTH DIKE

NOT TO SCALE

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

SEEDING PREPARATION
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS
APPLY TWO TONS PER ACRE DELOMITE LIME (80% CaO) OR 1000 LBS/ACRE OF 0-20-20 FERTILIZER (100 LBS/1000 SQFT) BEFORE SEEDING HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (3 LBS/1000 SQFT) AND 500 LBS PER ACRE (0.5 LBS/1000 SQFT) OF 10-20-20 FERTILIZER.

SEEDING
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH NOVEMBER 15, SEED WITH 100 LBS PER ACRE (2.5 LBS/1000 SQFT) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE (1.5 LBS/1000 SQFT) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD AUGUST 1 THROUGH OCTOBER 31, SEED WITH 2 LBS PER ACRE (0.05 LBS/1000 SQFT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER IS THROUGH FEBRUARY 28, PROJECT SITE BY: OPTION (1) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING; OPTION (2) - USE 500# OPTION (3) SEED WITH 100 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEDED.

MULCHING
APPLY 10 TO 2 TONS PER ACRE (10 TO 50 LBS/1000 SQFT) OF UNWETTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (2 GAL/1000 SQFT) OF PHOSPHORIC ASPHALT ON FLAT ACRES, ON SLOPES 6 FEET OR HIGHER USE 340 GALLONS PER ACRE (3.4 GAL/1000 SQFT) FOR ANCHORING.

MAINTENANCE
INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.
* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNWEED AT 15 LBS/ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS/ACRE AS TEMPORARY SOIL STABILIZERS. DETERMINE SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

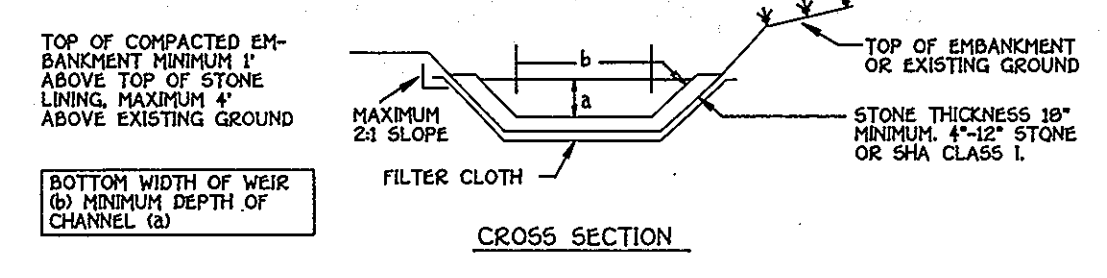
SOIL AMENDMENTS
APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (4 LBS/1000 SQFT).

SEEDING
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH NOVEMBER 15, SEED WITH 17 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/ACRE) OR WEEDING LOVEGRASS (0.7 LBS/1000 SQFT). FOR THE PERIOD NOVEMBER IS THROUGH 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 SOO.

MULCHING
APPLY 10 TO 2 TONS PER ACRE (10 TO 50 LBS/1000 SQFT) OF UNWETTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHORING TOOL OR 210 GALLONS PER ACRE (2.1 GAL/1000 SQFT) OF PHOSPHORIC ASPHALT ON FLAT ACRES, ON SLOPES 6 FEET OR HIGHER, USE 340 GALLONS PER ACRE (3.4 GAL/1000 SQFT) FOR ANCHORING.

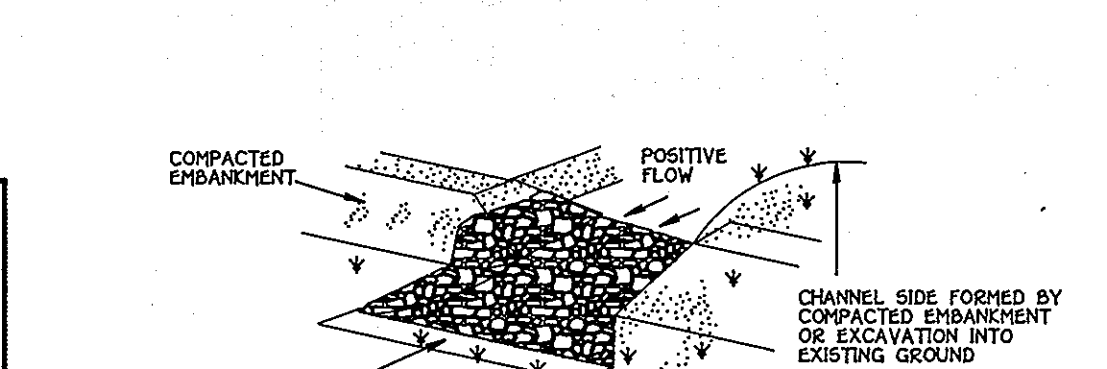
REFER TO THE 1986 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

TEMPORARY SEEDING NOTES



CONSTRUCTION SPECIFICATIONS

- The area under embankment shall be cleared, grubbed and striped of any vegetation and root mat. The pool area shall be cleared.
- The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable matter. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be 4', measured at centerline of embankment.
- All cut and fill slopes shall be 2:1 or flatter.
- Elevation of the top of any dike directing water into trap must equal or exceed the height of trap embankment.
- Storage area provided shall be figured by computing the volume measured from top of excavation. For storage requirements see Table 10.
- Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Section of fabric must overlap at least 1' with section nearest the entrance placed on top. Fabric shall be embedded at least 6" into existing ground at entrance of outlet channel.
- Stone used in the outlet channel shall be 4" - 12" placed 10" thick.
- Outlet - An outlet shall be provided, which includes a means of conveying the discharge in an erosion free manner to an existing stable channel. Protection against scour at the discharge end shall be provided as necessary.
- Outlet channel must have positive drainage from the trap.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/4 of the wet storage depth of the trap (3350 cf/acre). Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The structure shall be inspected periodically after each rain and repaired as needed.
- Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentrated inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
- The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.



PERMANENT SEEDING NOTES

NOTE: MAXIMUM DRAINAGE AREA- 10 ac.

RIP-RAP OUTLET PROTECTION

NOT TO SCALE

SEDIMENT 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 (03-1995).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, PERMITEE SLOPES AND ALL SLOPES STEEPER THAN 3:1, (B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPPING DEVICES MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1996 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 50), SOO (SEC. 54), TEMPORARY SEEDING (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.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PROVISION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS**
TOTAL AREA OF SITE: 48.5 ACRES
AREA TO BE ROOFED OR PAVED: 4.5 ACRES
AREA TO BE VEGETATIVELY STABILIZED: 48.5 ACRES
TOTAL CUT & FILL: 2,231.86 CUYD.
TOTAL FILL: 1478.65 CUYD.
OFFSITE WASTE/BORROW AREA LOCATION: CUYD.
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 CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHEREVER IS SHORTER.

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 9/11/96

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL PIKE
BLADDER CITY, MARYLAND 21046
(410) 461-2055

ENGINEER'S CERTIFICATE
"I 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 of Engineer (Print name below signature) Edward Call Date 8-29-96

DEVELOPER'S CERTIFICATE
"I/We certify that all development and construction will be done according to this plan, and that any 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."
Signature of Developer (Print name below signature) Charles O'Donovan Date 8-29-96

Reviewed for HOWARD SCD and meets Technical Requirements.
Charles O'Donovan 8-29-96 Date
U.S.D.A. National Resources Conservation Service
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
Frank Robinson 8/29/96 Date
HOWARD SCD

DEVELOPER
RYLAND HOMES,
% CHARLES O'DONOVAN
1447 YORK ROAD
LUTHERVILLE, MD 21093

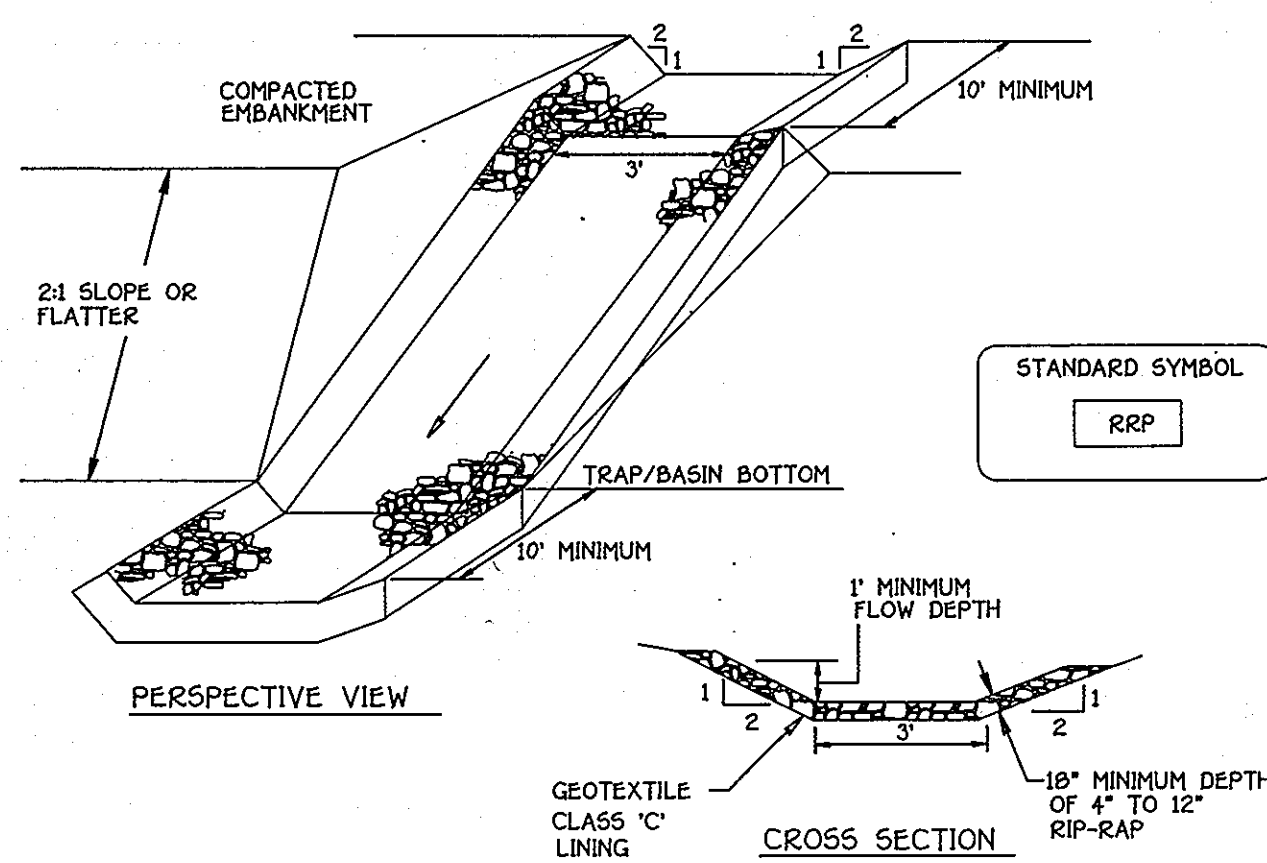
OWNER
PERCONTEE, INC.
% MICHAEL DIFFENHAL
11700 TECH ROAD
SILVER SPRING, MD 20904

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Richard Smith 12/24/96 Date
Richard Blood 12/24/96 Date
Chief, Division of Land Development and Research
Walter Summers 12/17/96 Date
Chief, Development Engineering Division

SUBDIVISION	DANIELS MILL OVERLOOK	SECTION/AREA	PARCEL
PLAT NO.	12	TAX/ZONE	41
BLOCK NO.	12	ELEC. DIST.	6021
WATER CODE		SEWER CODE	

MASS GRADING PLAN
DANIELS MILL OVERLOOK
TAX MAP No: 17 PARCEL: 41
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST 28, 1996
SHEET 8 OF 9



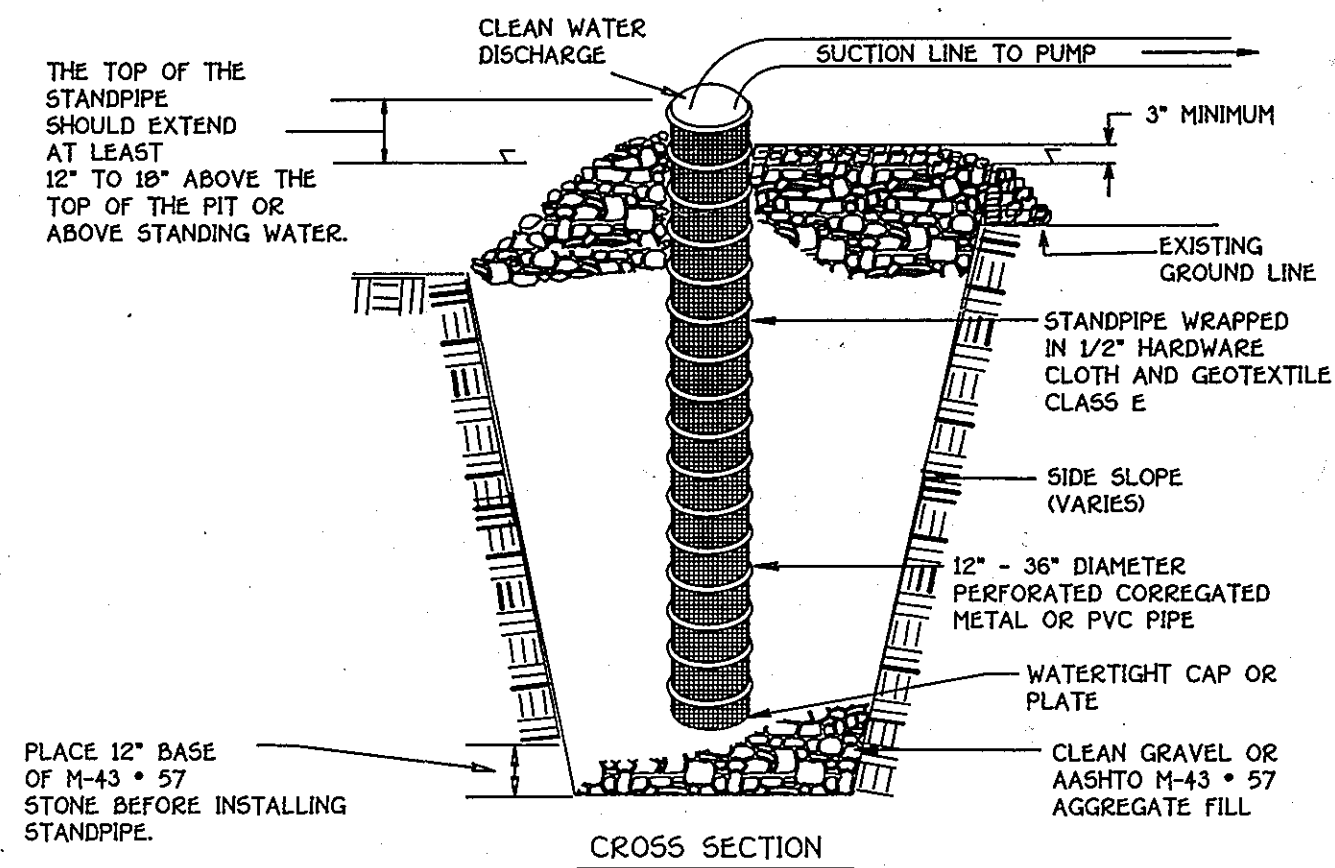


Construction Specifications

- Rip-rap lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3' (min) bottom width. The channel shall be lined with 4" to 12" rip-rap to a depth of 18".
- Filter cloth shall be installed under all rip-rap. Filter cloth shall be Geotextile Class C.
- Entrance and exit sections shall be installed as shown on the detail section.
- Rip-rap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.
- Gabion Inflow Protection may be used in lieu of Rip-rap Inflow Protection.
- Rip-rap should blend into existing ground.
- Rip-rap Inflow Protection shall be used where the slope is between 4:1 and 10:1, for slopes flatter than 10:1 use Earth Dike or Temporary Swale lining criteria.

RIP-RAP INFLOW PROTECTION

NOT TO SCALE

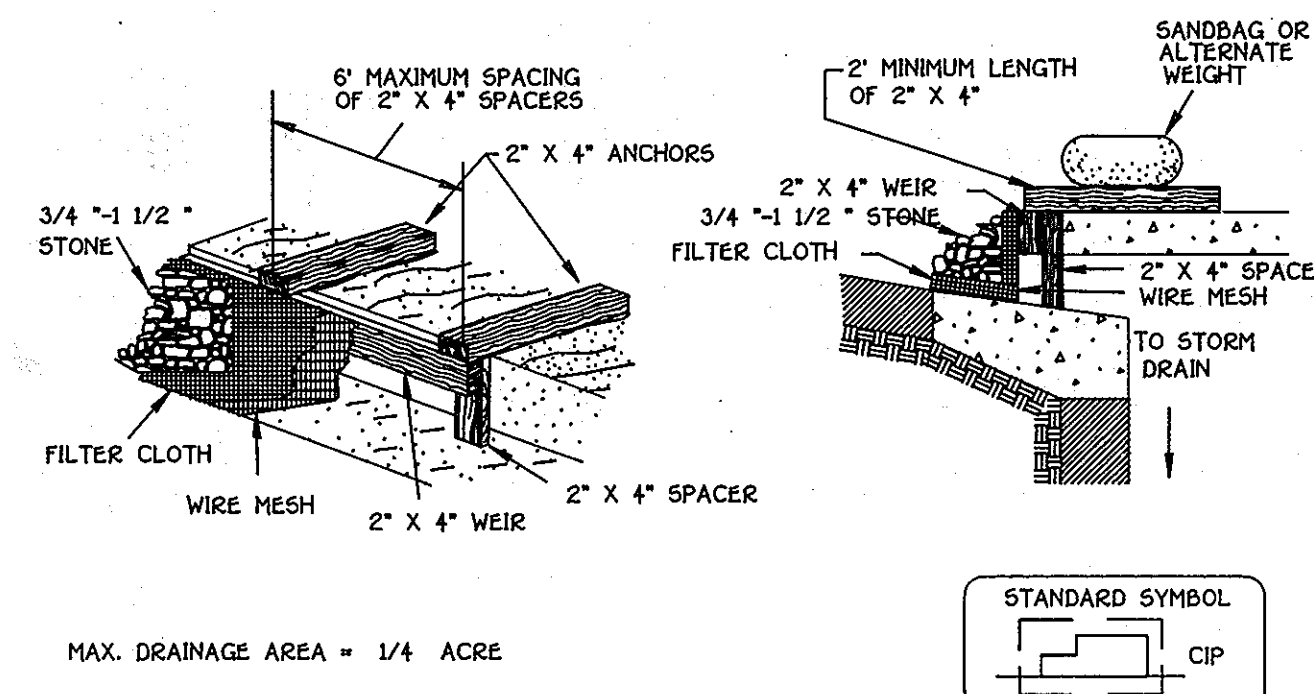


Construction Specifications

- Pit dimensions are variable, with the minimum diameter being 2 times the standpipe diameter.
- The standpipe should be constructed by perforating a 12" to 24" diameter corrugated or PVC pipe. Then wrapping with 1/2" hardware cloth and Geotextile Class E. The perforations shall be 1/2" x 6" slits or 1" diameter holes.
- A base of filter material consisting of clean gravel or #57 stone should be placed in the pit to a depth of 12". After installing the standpipe, the pit surrounding the standpipe should then be backfilled with the same filter material.
- The standpipe should extend 12" to 18" above the lip of the pit or the riser crest elevation (rain dewatering only) and the filter material should extend 3" minimum above the anticipated standing water elevation.

SUMP PIT

NOT TO SCALE

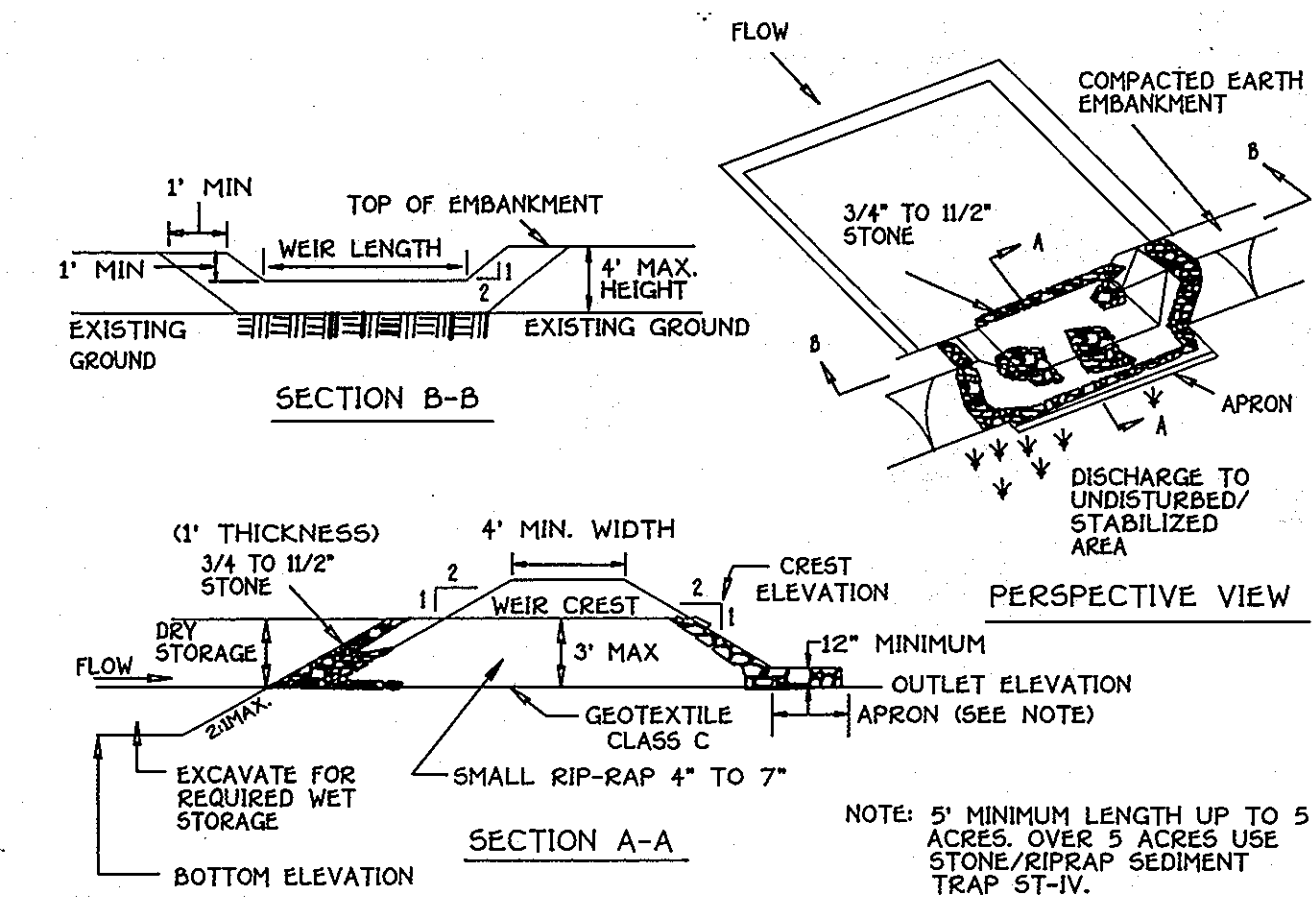


Construction Specifications

- Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
- Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.
- Securely nail the 2" x 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4" apart).
- Place the assembly against the inlet throat and soil (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
- The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
- Form the 1/2" x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4" x 1 1/2" stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
- This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
- Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

CURB INLET PROTECTION (COG OR COS INLETS)

NOT TO SCALE

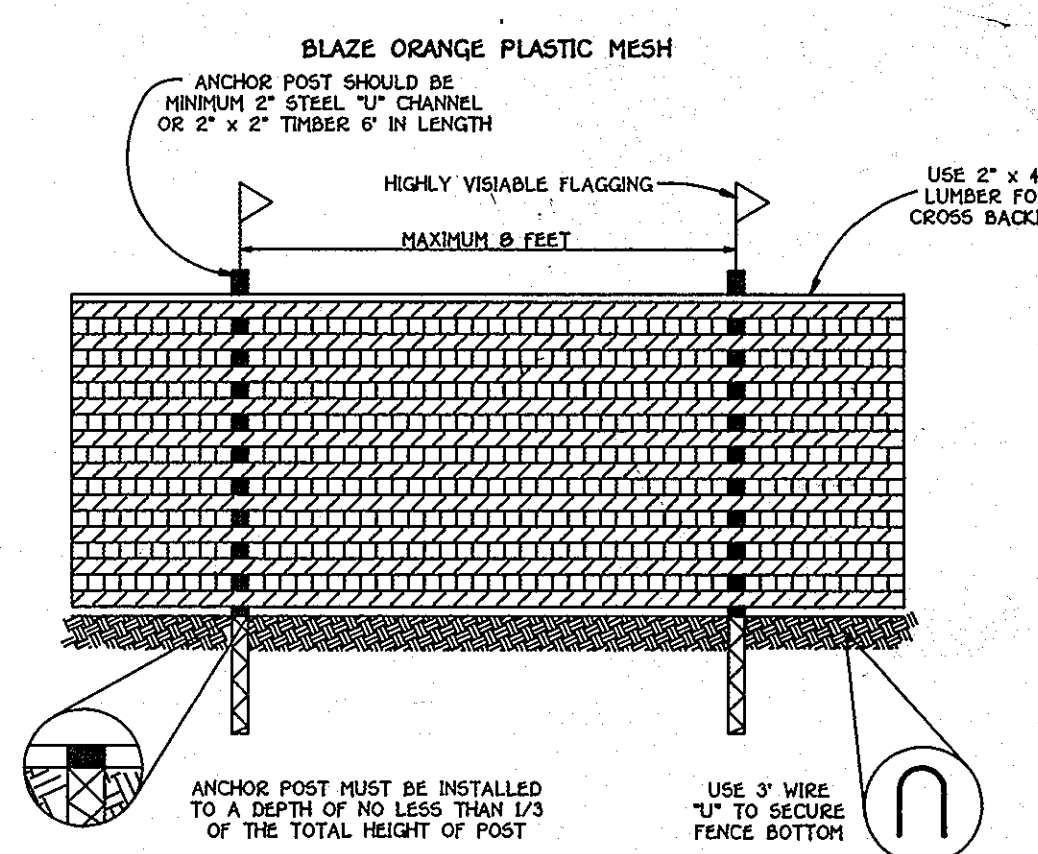


Construction Specifications

- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- 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.
- All cut and fill slopes shall be 2:1 or flatter.
- 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.
- 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.
- The structure shall be inspected periodically and after each rain and repairs made as needed.
- Construction of traps shall be carried out in such a manner that sediment pollution is abated. 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 Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
- The structures shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.
- Refer to Section D for specifications concerning trap dewatering.
- Minimum trap depth shall be measured from the weir elevation.
- The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.
- 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.
- Outlet - An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stable channel.

STONE OUTLET SEDIMENT TRAP - ST II

NOT TO SCALE



- NOTES:
- FOREST PROTECTION DEVICE ONLY.
 - RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
 - BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
 - ROOT DAMAGE SHOULD BE AVOIDED.
 - PROTECTIVE SIGNAGE MAY ALSO BE USED.
 - DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION DETAIL

NOT TO SCALE

- OBTAIN THE REQUIRED GRADING PERMIT.
- NOTIFY MISS UTILITY 48 HOURS BEFORE BEGINNING ANY WORK (1-800-257-7777). NOTIFY HOWARD COUNTY CONSTRUCTION/INSPECTION DIVISION 24 HOURS BEFORE STARTING ANY WORK (410)313-1870.
- INSTALL THE REQUIRED SEDIMENT AND EROSION CONTROL DEVICES AND TREE/FOREST PROTECTION DEVICES AS INDICATED ON THE PLAN SHEETS. (15 DAYS)
- THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION CONTROL DEVICES AFTER EACH RAINFALL AND ON A DAILY BASIS.
- CLEAR AND GRUB SITE (60 DAYS)
- MASS GRADE SITE TO LIMITS OF DISTURBANCE (180 DAYS)
- FINE GRADE SITE PER TOPSOIL SPECS AND SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES SHOWN ON THIS PLAN.
- FOLLOWING SUCCESSFUL STABILIZATION OF ALL DISTURBED AREAS, AND AFTER PERMISSION HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES.

NOTE: THERE WILL BE NO GRADING OF THE SITE UNTIL THE SEDIMENT CONTROL MEASURES ARE IN PLACE PER FINAL ROAD CONSTRUCTION DRAWINGS.

SEQUENCE OF CONSTRUCTION

APPROVED PLANNING BOARD OF HOWARD COUNTY

DATE 9/11/96

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

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

Conditions Where Practice Applies

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

Construction and Material Specifications

- Topsoil salvaged from the existing site may be provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged to 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.
- 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 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.
 - 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 4-6 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 over 5 acres:
 - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.

- Organic content of topsoil shall be not less than 1.5 percent by weight.
- Topsoil having soluble salt content greater than 500 parts per million shall not be used.
- No soil or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min) to permit dissipation of phytotoxic materials.

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

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.
- 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 thickness of 4". Spreading shall be performed in such a manner that sodding or seedline 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.

Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

- Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall conform to the following requirements:
 - Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
 - Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding, MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

ENGINEER'S CERTIFICATE

"I 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 of Engineer (Print name below signature) *Earl W. Lee* 8-29-96 Date

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, and that any 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."

Signature of Developer (Print name below signature) *Charles O'Donovan* 8-29-96 Date

Reviewed for HOWARD SCD and meets Technical Requirements.
Charles O'Donovan 12-09-96 Date
U.S.D.A.-Natural Resources Conservation Service
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John K. Robertson 12/9/96 Date
Howard SCD

DEVELOPER
RYLAND HOMES
90 MR CHARLES O'DONOVAN
1177 YORK ROAD
LUTHERVILLE, MARYLAND 21095

OWNER
PERONTTEE, INC.
90 MR CHARLES O'DONOVAN
1100 TECH ROAD
SILVER SPRING, MARYLAND 20904

APPROVED: DEPARTMENT OF PLANNING AND ZONING
James D. Smith 12/26/96 Date
Director
Richard Blase 12/21/96 Date
Chief, Division of Land Development and Research TC
John O'Donovan 12/17/96 Date
Chief, Development Engineering Division JTC

SUBDIVISION DANIELS MILL OVERLOOK		SECTION/AREA 41	PARCEL 41
PLAT NO.	BLOCK NO.	ZONE R-ED	TAX/ZONE 17
WATER CODE		SEWER CODE	

MASS GRADING PLAN
DANIELS MILL OVERLOOK
TAX MAP No: 17 PARCEL: 41
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST 28, 1996
SHEET 9 OF 9

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
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