SITE DEVELOPMENT PLAN **EMERSON**

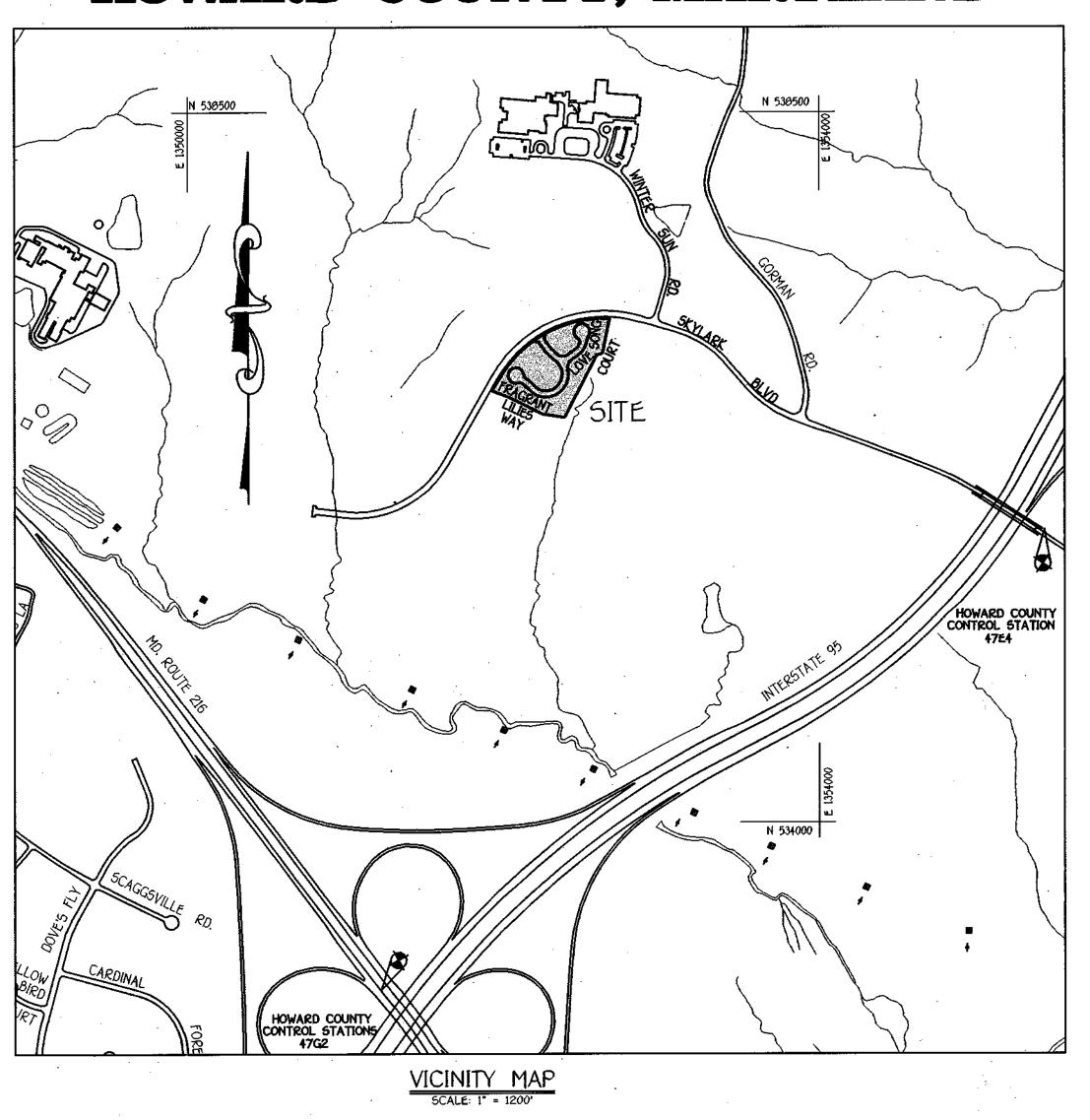
SECTION 2, PHASE 2 LOTS 1 THRU 63 AND O.S. LOT 64

ZONED PEC-MXD-3

TAX MAP No. 47 SIXTH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

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2 STORY BUILDING	3	STORY BUILDING
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. Vpr. 10 x 10	Decr	
/ W/Sunroom	מ	/ W/out Sunroom
Opt. 10'x 10' W/Sunroom		Opt. 10'×'18' Deck W/out Sunroom Opt. 8 '× 10' Deck
		/ W/Out Sunroom / Opt. 8 '× 10' Deck / W/Sunroom
Opt. 10'x 16' W/out Sunra (10'X10.23')		Opt. 8 'x 10' Deck W/Sunroom COPT. SUN ROOM
Opt. 10'x 16' W/out Sunro OPT. (10'X10.23') OPT. CHIMMEY 1		Opt. 8 'x 10' Deck W/Sunroom OPT. SUN ROOM (10'X12')
Opt. 10'x 16' W/out Sunro OPT. (10'X10.23') OPT. CHIMMEY 1		Opt. 8 'x 10' Deck W/Sunroom OPT. SUN ROOM (10'X12') S SUN OPT.KET NOOK (2'X9.67')
Opt. 10'x16' W/out Sunro (10'X10.23') OPT. CHIMNEY 3		Opt. 8 'x 10' Deck w/ Sunroom OPT. SUN ROOM (10'X12') SUN OPT.KIT NOOK (2'X9.67') OPT. CHINNEY (2'X5')
OPT. CHIMNEY 10.23°) OPT. CHIMNEY 10.23°) OPT. CHIMNEY 10.23°) OPT. CHIMNEY 10.23°) 22.00°		Opt. 8 'x 10' Deck W/Sunroom OPT. SUN ROOM (10'X12') SUN OPT. CHIMNEY (2'X5') OPT. CHIMNEY (2'X5') OPT. BAYWINDOW
Opt. 10'x 16' W/ouf Sunra OPT. CHIMNEY 10.23' OPT. CHIMNEY 10.23' SUN 8 ROOM 82 22.00' A 99		Opt. 8 × 10' Deck W/Sunroom OPT. SUN ROOM (10'X12') SUN OPT. (10'X12') OPT. OPT. (2'X5') OPT. BAYWINDOW (2'X6')
Opt. 10'x 16' W/ouf Sunro (10'X10.23') OPT. CHIMNEY 10.23 OPT. CHIMNEY 20.23 OPT. C		Opt. 8 × 10' Deck W/Sunroom OPT. SUN ROOM (10'X12') SUN OPT. HIT NOOK (2'X9.67') OPT. CHIMNEY (2'X5') OPT. OPT. AAYWINDOW (2'X6') B OPT. BAYWINDOW (2'X6')
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Opt. 10'x 16' W/ouf Sunro (10'X10.23') OPT. CHIMNEY 10.23 OPT. CHIMNEY 10.23 SUN 80 ROOM 22.00' A 86' GAR. GAR.	Deck	Opt. 8 × 10' Deck W/Sunroom OPT. SUN ROOM (10'X12') OPT. CHIMNEY (2'X5') OPT. CHIMNEY (2'X5') OPT. BAYWINDOW (2'X6') OPT. CHIMNEY (2'X5') OPT. BAYWINDOW (2'X6')
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Opt. 10'x 16' W/ouf Sunro (10'X10.23') OPT. CHIMNEY 10.23 OPT. CHIMNEY 10.23 SUN 80 ROOM 22.00' A 86' GAR. GAR.	Deck Nom	Opt. 8 × 10' Deck W Sunroom OPT. SUN ROOM (10'X12') OPT. CHIMNEY (2'X5') OPT. CHIMNEY (2'X5') OPT. CHIMNEY (2'X5') OPT. OPT. OPT. OPT. OPT. OPT. OPT. OPT.
OPT. CHIMNEY 10.23 OPT. C	Deck Den	PORCH (475) PORCH (EXTERIOR UNIT) OPT. 8 × 10' Deck W/Sunroom OPT. 5UN ROOM (10'X12') OPT. CHIMNEY (2'X5') OPT. CHIMNEY (2'X5') OPT. OPT. OPT. CHIMNEY (2'X5') OPT. OPT. OPT. OPT. OPT. OPT. OPT. OPT.
OPT. CHIMNEY 10.23 OPT. C	Deck Den	Opt. 8 × 10' Deck W Sunroom OPT. SUN ROOM (10'X12') OPT. CHIMNEY (2'X5') OPT. CHIMNEY (2'X5') OPT. CHIMNEY (2'X5') OPT. OPT. OPT. OPT. OPT. OPT. OPT. OPT.
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OPT. CHIMNEY 10.23 OPT. C	Deck Nom OR 37 PLAN	PORCH (475) PORCH (EXTERIOR UNIT) OPT. 8 × 10' Deck W/Sunroom OPT. 5UN ROOM (10'X12') OPT. CHIMNEY (2'X5') OPT. CHIMNEY (2'X5') OPT. OPT. OPT. CHIMNEY (2'X5') OPT. OPT. OPT. OPT. OPT. OPT. OPT. OPT.
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N. 535,063.639 E. 1,357,284.010 LOC. NEAR THE INTERSECTION

T.P. 47E4 ELEV. 339.00 N. 535,846.148 E. 1,355,431.223 LOC. NEAR 1-95 BRIDGE

BENCH MARKS T.P. 47EA ELEV 315.38

OF GORMAN RD.& STEVENS ROAD.

FOR CONSTRUCTION SEE APPROVED ROAD CONSTRUCTION PLANS F-03-63 AND/OR APPROVED WATER AND SEWER PLANS CONTRACT NO. 24-4050-D 12. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR TO CONSTRUCTION. 13. STORMWATER MANAGEMENT OBLIGATIONS ARE FULFILLED UNDER FOI-136 AND F-01-137. 14. SITE ANALYSIS DATA: A. TOTAL PROJECT AREA: 3.005 ACA

ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED

1. SUBJECT PROPERTY ZONED PEC-MXD-3 AND R-SC-MXD-3 AS GRANTED BY THE ZONING BOARD ON SEPTEMBER 3, 1998 AS CASE NO. ZB-979M.

2. COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 47E4 AND NO. 47G2.

3. BOUNDARY INFORMATION PROVIDED BY FISHER, COLLINS AND CARTER INC. ON PLAT-18/19-16/14-RECORDED ON OR AROUND 8-08-03.

4. DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) SPOUNDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM)

B) SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNIN RADIUS; D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-

LOADING:

E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE

E) DRAMAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER SURFACE;

F) STRUCTURE CLEARANCES - MINIMUM 12 FEET;

G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.

THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: ZB-979M, PB-339, PB-359, S 99-12, SP 02-12, F 01-137, F 02-167, F 03-63 W66 CONTR.* 24-4050-D, 25-3965-D, 20-3516-D.

I PHASING FOR THIS PROJECT IS IN ACCORDANCE WITH THE DECISION AND ORDER FOR ZONING CASE ZB-979M AND THE DECISION AND ORDER FOR PB-339 (COMPREHENSIVE SKETCH PLAN 5-99-12).

CRITERIA APPROVED WITH COMPREHENSIVE SKETCH PLAN (PB-339) SP 02-12, 5 99-12. THE CONTRACTOR SHALL NOTIFY "MISS UTBLITY" AT 1-800-257-7777

AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
TOPOGRAPHIC TAKEN FROM FINAL ROAD CONSTRUCTION, GRADING AND SEDIMENT CONTROL PLANS. (F 03-63) BY FISHER, COLLINS, AND CARTER INC.

THIS PLAN IS FOR HOUSE SITING AND LOT GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE RIGHTS-OF-WAYS OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION.

AREA OF PLAN SUBMISSION: 3.055 AC. LIMIT OF DISTURBED AREA: 3.550 AC. PRESENT ZONING: PEC-MXD-3

PROPOSED USE FOR SITE AND STRUCTURES: SINGLE FAMILY ATTACHED D.U. TOTAL NUMBER OF UNITS ALLOWED: 67 TOTAL NUMBER OF UNITS PROPOSED:

NUMBER OF PARKING SPACES REQUIRED: 126 (2 SPACES PER DWELLING UNIT) NUMBER OF PARKING SPACES PROVIDED: 144

BETWEEN STRUCTURES

15. TYPICAL DRIVEWAY APRON DETAIL FOR ALL GARAGE UNITS TO BE HOWARD COUNTY STANDARD 6.01 & 6.05.

16. GARAGES SHALL BE USED FOR PARKING PURPOSE ONLY IN ACCORDANCE WITH SECTION 133,D.2.A. OF THE HOWARD COUNTY ZONING REGULATIONS. 17. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISION OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE required internal landscaping has been posted as part of the grading permit

18. FOREST CONSERVATION OBLIGATIONS FOR THIS AREA OF EMERSON MXD PROJECT WER ADDRESSED UNDER F 01-137. 19. ALL DWELLINGS ARE SUBJECT TO SECTION 128.A.I b AND c OF THE HOWARD COUNT

ZONING REGULATIONS
THERE IS NO LOT COVERAGE RESTRICTIONS IN ACCORDANCE WITH THE DEVELOPMENT
CRITERIA FOR OTHER RESIDENTIAL LAND USE AREAS FOR THIS SITE.

21. THERE IS NO MENDIUM LOT SIZE REQUIREMENT IN ACCORDANCE WITH THE DEVELOPMENT CRITERIA FOR OTHER RESIDENTIAL LAND USE AREAS FOR THIS SITE. 22. THE MINIMUM SETBACK FOR STRUCTURES SHALL BE AS FOLLOWS:

SINGLE FAMILY ATTACHED. SEMI-DETACHED. AND TWO-FAMILY DWELLINGS

5' FROM THE RIGHT-OF-WAY OR THE PROPERTY LINE TO THE HOUSE OR GARAGE

SIDE SETBACK 5' FROM PROPERTY LINE FOR END UNITS 15' FROM THE PROPERTY LINE

30' FRONT TO FRONT 50' BACK TO BACK 50 FRONT TO BACK 19' FOR ALL OTHER CONDITIONS

23. FROM THE EDGE OF PAVING 15' FROM THE EDGE OF PARKING LOT WHEN UNITS DO

STRUCTURES MAY BE LOCATED ANYWHERE WITHIN SUCH SETBACKS IN ACCORDANCE

APPROVED ROAD CONSTRUCTION DRAWINGS FOR F 03-63. FINANCIAL SURETY HAS BEEN POSTED WITH THE DEVELOPER'S AGREEMENT.

	SHEET INDEX
Sheet No.	Description
1	Title Sheet
2	Site Development Plan
3	Landscape Pian
4	Sediment and Erosion Control Plan
5	Detail Sheet

FISHER, COLLINS & CARTER, INC. Add 10'x10'or 10'x20' Deck to both Models 11-19-03 DESIGN JME/JZ CHECK JME

LOT INFORMATION AND ADDRESS CHART

4 9963 FRAGRANT LILIES WAY 345.13' 340.73' 1,861 SqFt. 9961 FRAGRANT LILIES WAY 343.85' 339.45'

9955 FRAGRANT LILIES WAY 342.81

9939 FRAGRANT LILIES WAY 339.49'

38 10019 LOVE SONG COURT 342.47'

39 9911 FRAGRANT LILIES WAY 342.21'

40 9909 FRAGRANT LILIES WAY 342.82' 41 9907 FRAGRANT LILIES WAY 343.36'

46 9904 FRAGRANT LILIES WAY

47 9906 FRAGRANT LILIES WAY 46 9906 FRAGRANT LILIES WAY

9924 FRAGRANT LILIES WAY

9928 FRAGRANT LILIES WAY 54 9930 FRAGRANT LILIES WAY

61 9964 FRAGRANT LILIES WAY 346.09'

63 9966 FRAGRANT LILIES WAY 346.98'

+ 337.20 | Spot Elevation

-55F--55F-|First Floor Elevation

Walkout Basement

Limit Of Disturbance

44 9901 FRAGRANT LILIES WAY 345.05' 340.65' 2,530 SqFt.

LEGEND

Proposed Contour 2' Interval

xisting Earth Dike Per F-03-63

346.81

339.41

2,348 SqF1

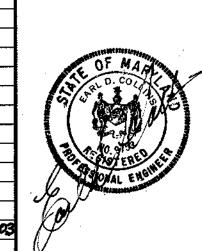
1,964 5qFt.

2,324 SqFt.

338.96' 1,928 5qFt. 339.55° 1,935 SqF†.

338.07*

9969 FRAGRANT LILIES WAY



ENGINEER'S CERTIFICATE
"I certify that this plan for erosion and sediment control represents a practical and workal 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."
Earla Call 8.18.03
Signature of Engineer Earl D. Collins Date
DEVELOPER'S CERTIFICATE
"I/We certify that all development and construction will be done according to this plan, for sediment and erosion control 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."

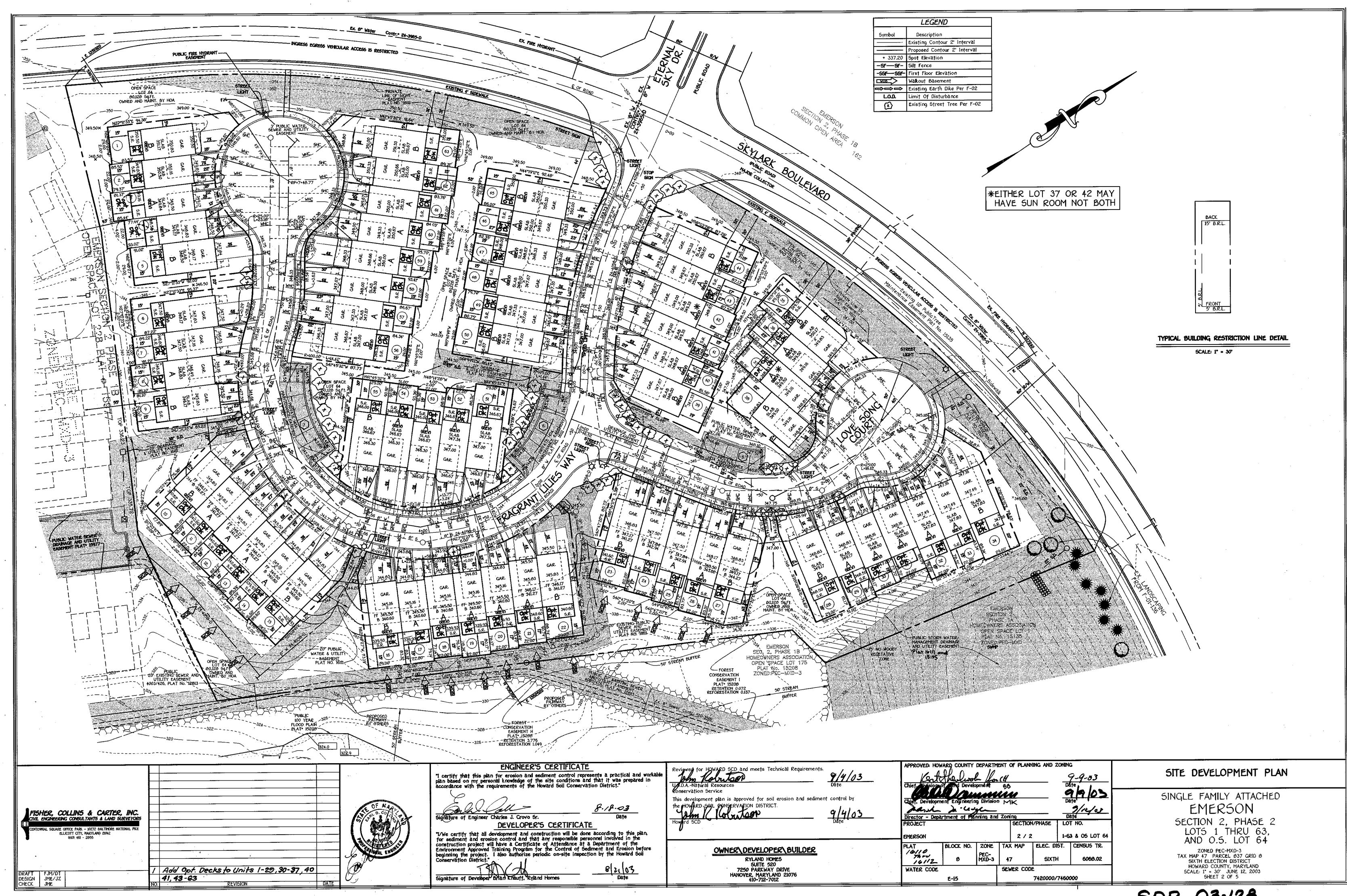
Reviewed for HOWARD SCD and meets Technical Requirements.	7.3
U.S.P.ANatural Resources Conservation Service This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT. Hyward SCD Date	Dire PRO
OWNER DEVELOPER BUILDER RYLAND HOMES SUITE 520 7250 PARKWAY DRIVE HANOVER, MARYLAND 21076 410-712-7012	PLA PLA 7 VA

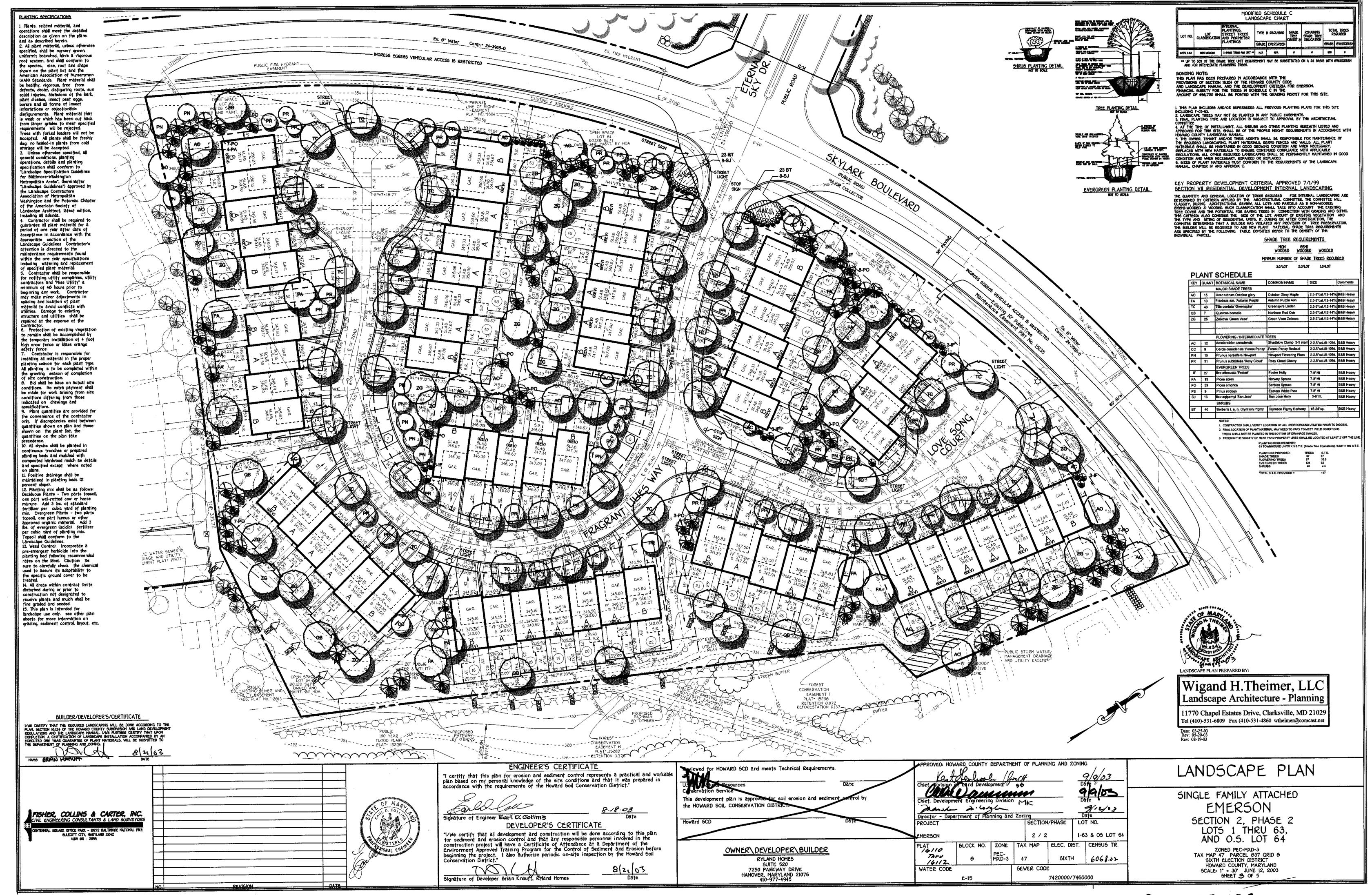
APPROVED: HOW	ARD COUNTY	DEPARTM	ENT	OF PLANN	IING AND 2	CONIN	G
Chief division	Dand Devek	opment	/	b		S Di	7-9-03
Chief, Developm	ent Engineerin	g Division	1	1K		Di	1910>
Director - Depa PROJECT	rtment of Pla		Zon	ing SECTION	I/PHASE		T NO.
EMERSON				2/2			3 & 05 LOT 64
PLAT /6//0	BLOCK NO.	ZONE	TA)	MAP	ELEC. DI	5T.	CENSUS TR.
74ru 16112	B	PEC- MXD-3	47		SIXTH		6069.02
WATER CODE SEWER CODE							
	E-15				7420000/	7460	000

4	Sediment and Ero
5	Detail Sheet

SINGLE FAMILY ATTACHED EMERSON SECTION 2, PHASE 2 LOTS 1 THRU 63 AND 0.5. LOT 64 ZONED PEC-MXD-3 TAX MAP 47 PARCEL 837 GRID 8
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: 1° = 30° JUNE 12, 2003 SHEET 1 OF 5

TITLE SHEET





ROAD CONSTRUCTION PLANS SECTION 5, PHASE 5

LOTS 380-396 & AND OPEN SPACE LOT 399

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET INDEX	
COVER SHEET	1
ROAD PLANS, PROFILES & TYPICAL SECTIONS	2
FILLET PROFILES & STREET MARKING PLAN	3
GRADING AND SEDIMENT CONTROL PLAN	. 4
SEDIMENT CONTROL NOTES AND DETAILS	5
DRAINAGE AREA MAP	6
STORMDRAIN PROFILES	7
LANDSCAPE PLAN	8

LEGEND

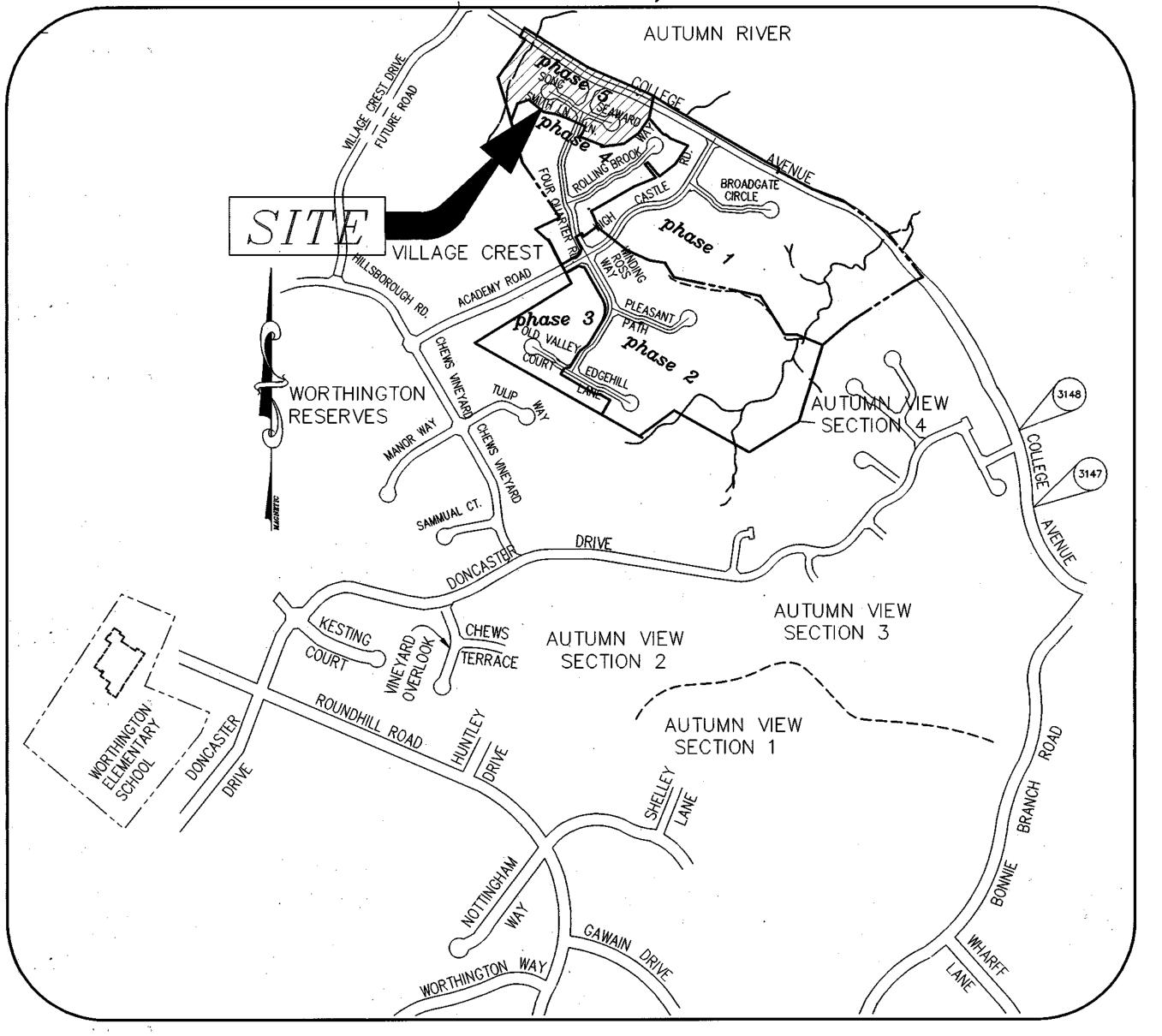
DENOTES LAND DEDICATED TO HOWARD COUNTY, MARYLAND FOR THE PURPOSE OF PUBLIC ROAD

DENOTES AREA OF 15%-24.99% SLOPES

DENOTES PUBLIC 100 YEAR FLOODPLAIN DRAINAGE AND UTILITY EASEMENT

DENOTES TREE MAINTENANCE AND UTILITY EASEMENT

BY THE DEVELOPER:	
"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CON ACCORDING TO THESE PLANS, AND THAT ANY RESPON THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF THE ENVIRONMENT APPROVED TRAIN CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNENGAGE A REGISTERED PROFESSIONAL ENGINEER TO AND PROVIDE THE HOWARD SOIL CONSERVATION DISTIPLY OF THE POND WITHIN 30 DAYS OF COMPLETION PERIODIC ON-STATE INSPECTIONS BY THE HOWARD SOIL	NSIBLE PERSONNEL INVOLVED IN TE OF ATTENDANCE AT A ING PROGRAM FOR THE ISING THE PROJECT. I SHALL SUPERVISE POND CONSTRUCTION RICT WITH AN "AS-BUILT" I. I ALSO AUTHORIZE
SQUATURE OF DEVELOPER	//-4-03 °
PRINTED NAME OF DEVELOPER	-
BY THE ENGINEER:	
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION. REPRESENTS A PRACTICAL AND WORKABLE KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSTITUTION OF THE HOWARD SOIL CONSTRUCT ON AND IT CONSERVATION SISTEMST WITH AN "ASSOURCE" PLAN OF COMPLETION. SIGNAPHRE OF ENGINEER PRINTED HAME OF ENGINEER	PLAN BASED ON MY PERSONAL AS PREPARED IN ACCORDANCE SERVATION DISTRICT. I HAVE SEE A REGISTERED PROFESSIONAL PROVIDE THE HOWARD SOIL
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARDISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL. USD - NATURAL RESOURCES ONSERNATION GERMA	or small pond construction,
THESE PLANS FOR SMALL POND CONSTRUCTOR, SOIL CONTROL MEET THE PROPERTIES OF THE HOWARD HOWARD SOIL CONSERVATION DISTRICT	EROSION AND SEDIMENT SOIL CONSERVATION DISTRICT.



GENERAL NOTES:

ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS EXCEPT FOR WAIVERS LISTED HEREIN.

PROJECT BACKGROUND: LOCATION: TAX MAP 25 ZONING: R-ED ELECTION DISTRICT: 2ND

SECTION: PHASE : GROSS AREA: 7.45± Ac PROVIDED OPEN SPACE:

REQUIRED OPEN SPACE:
ROAD DEDICATION:
NUMBER OF BUILDABLE LOTS:
AREA OF BUILDABLE LOTS:

NUMBER OF OPEN SPACE LOTS: TOTAL NUMBER LOTS: PREVIOUS DPZ FILE NUMBERS

TOPOGRAPHIC INFORMATION IS BASED ON AERIAL TOPOGRAPHIC

SURVEY BY WINGS AERIAL MAPPING CO., INC. FLOWN ON MARCH 25, 1995. VERTICAL DATUM IS NAD 83. 4. COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM

STA No. 3147 EL.= 335.987 E 1,375,801.7684 (IRON ROD)

STA No. 3148 N 576,015.4313 EL.= 379.248 (CONCRETE MONUMENT) E 1,375,770.4364

BY MILDENBERG, BOENDER & ASSOCIATES, INC.

STORM WATER MANAGEMENT IS PRIVATELY OWNED AND MAINTAINED BY THE H.O.A. AND WILL BE PROVIDED UNDER AUTUMN VIEW SECTION 5 PHASES 1 AND 4.

WETLANDS AND STREAM DELINEATION FOR ALL OF AUTUMN VIEW SECTION 5 IS BY CHESAPEAKE ENVIRONMENTAL MANAGEMENT, INC. DATED DECEMBER 1995. NO WETLANDS EXIST ON THIS PHASE OF AUTUMN VIEW SECTION 5.

ASSOCIATES THIS STUDY WAS DONE FOR VILLAGE CREST UNDER P-01-020 NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON SITE.

FLOODPLAIN INFORMATION IS BASED ON A FLOODPLAIN STUDY BY FREDERICK WARD AND

11. ALL EXISTING STRUCTURES ARE TO BE REMOVED UNLESS OTHERWISE NOTED. 12. TRAFFIC STUDY BY TRAFFIC GROUP, DATED JUNE 4, 1998. APPROVED AUGUST 20, 1999.

13. PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER ARE PUBLIC.

THIS PLAN WAS SUBMITTED PRIOR TO NOV. 15, 2001 AND THUS GRANDFATHERED TO THE FOURTH EDITION OF THE SUBDIVISION REGULATIONS.

15. WATER AND SEWER IS PUBLIC. IT IS PROVIDED THRU THE EXTENSION OF CONTRACT # 14-4079-D
16. DRY WELLS TO BE USED ON LOTS 381 TO 392
17. NO STEEP SLOPES EXIST ON SITE.

UKEST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL HAVE BEEN SATISFIED BY PLACEMENT 18. FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 1 OF A TOTAL OF 62.67 ACRES IN A FOREST CONSERVATION EASEMENT (41.22 ACRES OF RETENTION UNDER AUTUMN VIEW, SECTION 3 (F-99-45) 7.59 ACRES OF RETENTION UNDER AUTUMN VIEW, SECTION 5, PHASE 1 (F-01-23), AND 13.86 ACRES OF RETENTION UNDER AUTUMN VIEW, SECTION 5, PHASE 2 (F-01-38). 62.67 ACRES OF WHICH IS THE REQUIRED BREAK EVEN POINT FOR THE ACREAGE OF AUTUMN VIEW, SECTIONS 3, 4, AND 5 (PHASE 1 THRU 5). THESE EXISTING FOREST CONSERVATION EASEMENTS UNDER AUTUMN VIÈW, SECTION AND 5, PHASES 1 & 2, SATISFY THE FOREST CONSERVATION REQUIREMENTS FOR AUTUMN VIEW, SECTION 3, 4, AND 5, PHASES 1 THRU 5. NO ADDITIONAL EASEMENT AREA ON-SITE OR OFF-SITE IS REQUIRED.

19. THE STREET LIGHT LOCATIONS AND TYPES OF LIGHTS ARE AS FOLLOWS

STREET NAME	STATION	OFFSET	PIXTURE/PULE TIPE
FOUR QUARTER ROAD	11+15	30° LT	100 watt HPS VAPOR COLONIAL
FOUR QUARTER ROAD	9+10	25' RT	POST-TOP MOUNTED ON A 14' FIBERGLASS POLE

IN ACCORDANCE WITH THE SCENIC ROAD GUIDELINES OF SUBDIVISION SECTION 16.125, PB-329, S-99-01 AND AMENDED S-99-01, LOTS 386-391 MUST BE DEVELOPED WITH HOUSES THAT HAVE REAR ENTRY GARAGES AND THE FRONT OF THE UNITS FACING COLLEGE AVENUE.

THIS PROJECT IS SUBJECT TO P.B. CASE No. 329 APPROVED ON JULY 1, 1999 THIS PROJECT IS SUBJECT TO P.B. CASE NO. 329 APPROVED ON GOLT 1, 1999
THIS PROJECT IS SUBJECT TO P.B. CASE NO. 354 APPROVED ON DECEMBER 13, 2001
STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE
WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME III (1993) AND AS MODIFIED BY
"GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENT (JUNE 1993)" A MINIMUM
SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.

23. DRY WELLS TO BE USED ON LOTS 381 TO 392

VICINITY MAP SCALE: 1'=500'

OWNER

AUTUMN VIEW BUSINESS TRUST
8000 MAIN STREET
ELLICOTT CITY, MD 21043

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	TOTAL NUMBER OF PROPOSED LOTS:	77*	59	49	41	35	44	18	187	323*

1 of 8

20.0 STANDARDS AND SPECIFICATIONS

VEGETATIVE STABILIZATION

DEFINITION Using vegetation as cover for barren soil to protect it from forces that cause erosion.

PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources. CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding this practice shall be used on denuded areas as specified on the plans and may be used on highly erodice of critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration Olup to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left lide between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill stopes and other areas at final grade, former stockpile and staging areas, etc.

EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS te Preparation
Install erosion and sediment control structures (either temporary of permanent) such as diversions

grade stabilization structures, berms, waterways, or sediment control basins.

ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.

iii. Schedule required soil tests to determine soil amendment composition and application rates for sites

having disturbed area over 5 acres. Soil Amendments (Fertilizer and Lime Specifications) Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.

ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.

iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains

at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a \$100 mesh sieve and 90-100% will pass through a \$20 mesh sieve.
Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

C. "Seedbed Preparation
i. Temporary Seeding
a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plans.

c. In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

ii. Permanent Seeding

a. Minimum soil conditions required for permanent vegetative establishment:

1. Soil pH shall be between 6.0 and 7.0.

2. Soluble salts shall be less than 500 parts per million (ppm).

3. The soil shall contain less than 40% clay, but enough fine grained material 0.30% sitt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or

moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (30% silt

plus clay) would be acceptable. Soil shall contain 1.5% minimum organic matter by weight. 50il shall comfain 1.5% minimum organic matter by weight.
 50il must contain sufficient pore space to permit adequate root penetration.
 If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
 Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from the surface area and to create horizontal erosion check slots to prevent topsoil from

sliding down a slope.

Apply soil amendments as per soil test or as included on the plans.

Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on powly disturbed areas.

D. Seed Specifications All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of introgen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° f. can weaken bacteria and make the inoculant less effective.

Methods of Seedi⊓a Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcas or drop seeded, or a cultipacker seeder. drop seeded, or a cuttipacker seeder.

If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen maximum of 100 lbs. per acre total of soluble nitrogen: P205 (phosphorous): 200 lbs/ac; K20 (potassium): 200 lbs/ac.

Lime - use only ground agricultural limestone, (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and

without interruption

ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.

b. Where practical seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

Appy half the seeding rate in each direction.

Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.

Where practical, seed should be applied in two directions perpendicular to each other.

Apply half the seeding rate in each direction. Mulch Specifications (In order of preference)

Straw shall consist of thoroughly threshed wheat, rre or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

wood Cellulose Fiber Mulch (WCFM)

a. WCFM shall consist of specially prepared wood cellulose processed into a uniform brous physical state. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread sturry. WCFM, including dye, shall comfain no germination or growth inhibiting factors. WCFM materials shall be manufactured and processed in such a manner that the

vood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, tertilizer and other additives to form a homogeneous slurry. and will blend with seed, tertilizer and other additives to form a homogeneous suitt. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.

WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., ph range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

Only sterile straw mulch should be used in areas where one species of grass is desired.

SEQUENCE OF CONSTRUCTION

INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN . CLEAR AND GRUB TO LIMITS OF DISTURBANCE 2 DAYS 4. INSTALL TEMPORARY SEEDING 60 DAYS 5. CONSTRUCT BUILDINGS FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE 14 DAYS REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.

G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.

 If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed accordance with these specifications.

ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. It a mulch anchoring tool is

to be used, the rate should be increased to 2.5 tons/acre.

Wood cellulose fiber used as a much shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallions of water. of wood centrose tiper per 100 gations of water.

Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:

A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safety. It used on slopin land, this practice should be used on the contour if possible.

Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose tiber per 100 callons.

the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax III, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.

iv. Lightweight plastic netting may be stapted over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

Incremental Stabilization - Cut Slopes

All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.

ii. Construction sequence (Refer to Figure 3 below):

a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.

b. Perform Phase 1 excavation, dress, and stabilize.

c. Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as necessary.
Perform final phase excavation, dress and stabilize. Overseed previously seeded

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions int he operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization.

J. Incremental Stabilization of Embankments - fill Slopes

i. Embankments shall be constructed in lifts as prescribed on the plans.

ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches

15° or when the grading operation ceases as prescribed in the plans.

iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-crosive manner to a sediment trapping device.

iv. Construction sequence: Refer to Figure 4 (below).

a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slope silf tence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.

b. Place Phase 1 embankment, dress and stabilize.

c. Place Phase 2 embankment, dress and stabilize.

d. Place final phase embankment, dress and stabilize.

Once the placement of fill has begun the operation should be continuous from grubbing through the completion of and placement of topsoil (if required) grading and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization. incremental Stabilization of Embankments - Fill Slopes

SEDIMENT CONTROL NOTES

1) A MINIMUM OF 40 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1655).

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 MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS

CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATION SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: 3) 7

CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER 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 PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (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. 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

3.005 ACRES 3.550 ACRES 2.055 ACRES

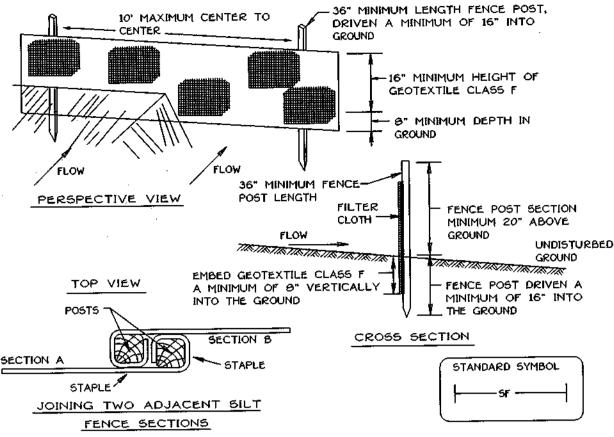
CONTROL INSPECTOR. 7) SITE ANALYSIS: TOTAL AREA OF SITE AREA DISTURBED AREA TO BE ROOFED OR PAVED
AREA TO BE VEGETATIVELY STABILIZED

1.495 ACRES 1500 CU.YDS. 1500 CU.YDS. OFFSITE WASTE/BORROW AREA LOCATION EMERSON SECT. 2, PH. 18 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.

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 IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY. WHICHEVER IS SHORTER.



Construction Specifications 1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot. 2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Test: MSMT 509 50 lbs/in (min.) Tensile Strength Test: MSMT 509 20 lbs/in (min.) Tensile Modulus 0.3 gal ft 1/ minute (max.) Test: MSMT 322 flow Rate Filtering Efficiency 75% (min.) Test: MSMT 322

folded and stapled to prevent sediment bypass. 4. Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

3. Where ends of geotextile fabric come together, they shall be overlapped

NOT TO SCALE

PERMANENT SEEDING NOTES

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS: SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING SOIL AMENDMENTS:

APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LB6. 1,000 SQ.FT.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (II LBS./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC. INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 38-0-0 UREAFORM FERTILIZER

(9 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE (II.5 LBS./

1,000 SQ.FT.) OF 10-20-20 FERTILIZER SEEDING:
FOR THE PERIODS MARCH I THROUGH APRIL 30, AND AUGUST
1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3
LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE
PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE 2 LBS, PER ACRE (0.05 LBS./1,000 SQ.FT.) OF WEEPING LOVEGRASS, DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28. PROJECT SITE BY: OPTION (I) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OPTION (2) - USE SOO; OPTION (3) - SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD

je hydroseeded. MULCHING: APPLY 1 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 5Q.FT.) OF UNROTTED SMALL GRAIN STRAW BYMEDIATELY AFTER SEEDING ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL./LOOD SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES. ON SLOPES & FEET OR HIGHER USE 340 GALLONS PER ACRE (8 GAL./1,000 SQ.FT.) FOR ANCHORING

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS. * FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVETCH AT 15 LBG./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBG/ACRE AS THE SEEDING REQUIRMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.

TEMPORARY SEEDING NOTES

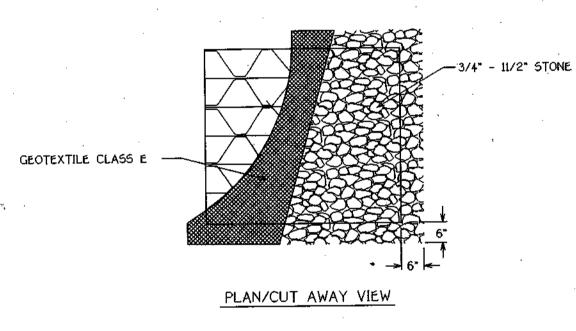
apply to graded or cleared areas likely to be redisturbed WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./

FOR THE PERIODS MARCH I THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 17 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./ACRE OF WEEPING LOVEGRASS COT LBS./ 1,000 SQ.FT. FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE

MULCHING: APPLY I TO 2 TONS PER ACRE (70 TO 90 LBS:/1,000 50.FT.) OF UNROTTED SMALL GRAIN STRAW INMEDIATELY AFTER SEEDING. ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GALL,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES ON SLOPES & FEET OR ACHER, USE 348 GALLONS PER ACRE (8 GAL./1.000 SQ.FT.) FOR ZEFER TO THE 1900 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NO

AT GRADE INLET PROTECTION



- 3/4" - 11/2" STONE —INLET GRATE ----GEOTEXTILE CLASS E CROSS SECTION

STANDARD SYMBOL AGIP MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.

2. Place 3/4" to 11/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

10' MAXIMUM NOTE: FENCE POST SPACING SHALL NOT EXCEED 10 CENTER TO CENTER TIKTIK TIKTIK T GROUND SURFACE FLOW 21/2" DIAMETER GALVANIZED OR ALUMINUM WITH I LAYER OF FILTER CLOTH CHAIN LINK FENCING FLOW ---FILTER CLOTH 78718718------ 16" MIN. 15T LAYER OF FILTER CLOTH EMBED FILTER CLOTH 8" ----STANDARD SYMBOL MINIMUM INTO GROUND * IF MULTIPLE LAYERS ARE REQUIRED TO ATTAIN 42"

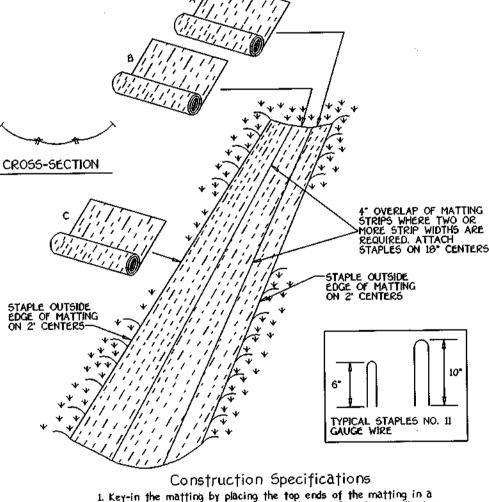
Construction Specifications 1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts. 2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence. 3. Filter cloth shall be fastened securely to the chain link tence with ties spaced every 24" at the top and mid section.

4. Filter cloth shall be embedded a minimum of 8" into the ground. 5. When two sections of filter cloth adjoin each other, they shall be overlapped 6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height 7. Filter cloth 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

> Test: MSMT 509 50 (bs/in (min.) Tensile Strength Test: MSMT 509 20 lbs/in (min.) Tensile Modulus 0.3 gal/ft /minuté (max.) Test: MSMT 322 Test: MSMT 322 Filtering Efficiency Design Criteria Silt Fence Length Slope Length (നമximum (maximum) Unlimited Unlimited 0 - 10% 0 - 10:1 10 - 20% 1,000 feet 100 feet 5:1 - 3:1 20 - 33% 500 feet 33 - 50% 3:1 - 2:1 100 feet 250 feet 50 feet 2:1 +

> > NOT TO SCALE

SILT FENCE



1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6° in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6". 2. Staple the 4" overlap in the channel center using an 18" spacing

between staples. 3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil. 4. Staples shall be placed 2' apart with 4 rows for each strip. 2 outer rows, and 2 alternating rows down the center. 5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4". shiplap fashion. Reinforce the overlap with a double row of staples spaced 6° apart in a staggered pattern on either side. 6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

effected by the flow must be keyed-in EROSION CONTROL MATTING NOT TO SCALE

7420000/7460000

Note: If flow will enter from the edge of the matting then the area

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

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

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 1. This practice is limited to areas having 2:1 or flatter slopes where: a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth. b. The soil material is so shallow that the rooting zone is not deep enough to support plants or

furnish continuing supplies of moisture and plant nutrients. c. The original soil to be vegetated contains material toxic to plant growth. d. The soil is so acidic that treatment with limestone is not feasible.

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

Construction and Material Specifications

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

i. Topsoil shall be a loam, sandy loam, clay loam, sit 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 tragments, gravel, sticks, roots, trash, or other materials larger than 11/2" in diameter. ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass. Johnson grass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square teet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures. For sites having, disturbed areas under 5 acres:

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

11. 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:

a. 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. o. 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 has been treated with soil sterilants or chemicals used for weed control until sufficient time has etapsed (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 lieu of natural topsoil. ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization — Section I — Vegetative Stabilization Methods and Materials. V. Topsoil Application

i. When top soiling, maintain needed crossion 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 top soiled, 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 soiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

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

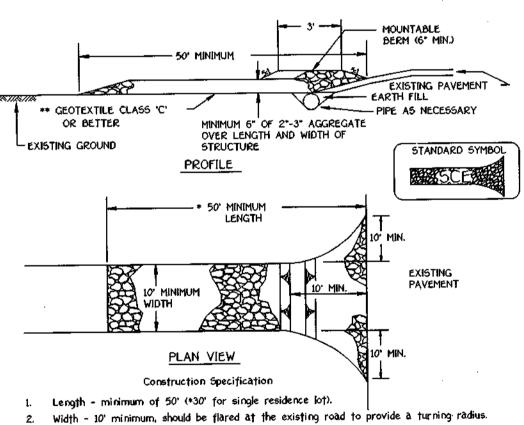
i. Composted Studge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under acres shall be rested to prescribe amendments and for sites naving disturbed areas under 5 acres shall conform to the following requirements:

a. 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.

b. Composted sludge shall contain at least I 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.

c. Composted sludge shall be applied at a rate of I ton/1,000 square feet.

iv. Composted studge 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.



Width - 10' minimum, should be flared at the existing road to provide a turning radius. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family

esidences to use geotextile. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

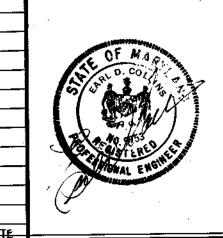
Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone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

where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance. STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

FISHER, COLLINS & CARTER, INC TVIL ENGINEERING CONSULTANTS & LAND SURVEYORS IQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2055

DESIGN JME/JZ



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."

8.18.03 ignature of Engineer Earl D. Collins DEVELOPER'S CERTIFICATE

for sediment and erosion control 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." I/We certify that all development and construction will be done according to this plan

Signature of Developer Brian Knauff, Ryland Homes

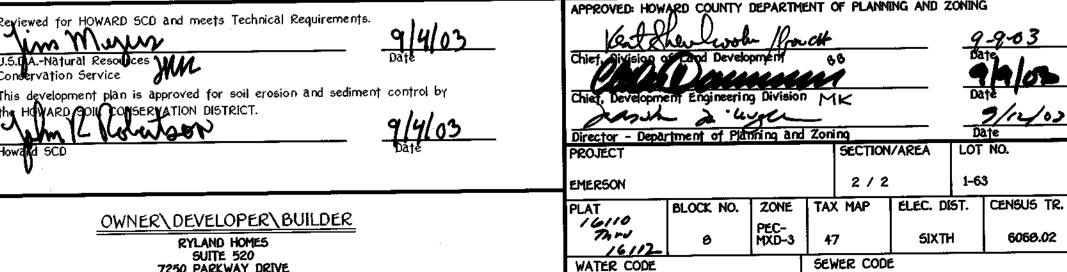
8/21/03

OWNER\DEVELOPER\BUILDER RYLAND HOMES SUITE 520 7250 PARKWAY DRIVE HANOVER, MARYLAND 21076 410-712-7012

sych mis

Construction Service

5.11A.-Natural Resources WWL



SEDIMENT, EROSION CONTROL NOTES & DETAILS SINGLE FAMILY ATTACHED EMERSON SECTION 2, PHASE 2 LOTS 1 THRU 63 AND 0.5. LOT 64

ZONED PEC-MXD-3 TAX MAP 47 PARCEL 837 GRID 8 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND 5CALE: 1" = 30' JUNE12, 2003 SHEET 5 OF 5



5DP 03-128

