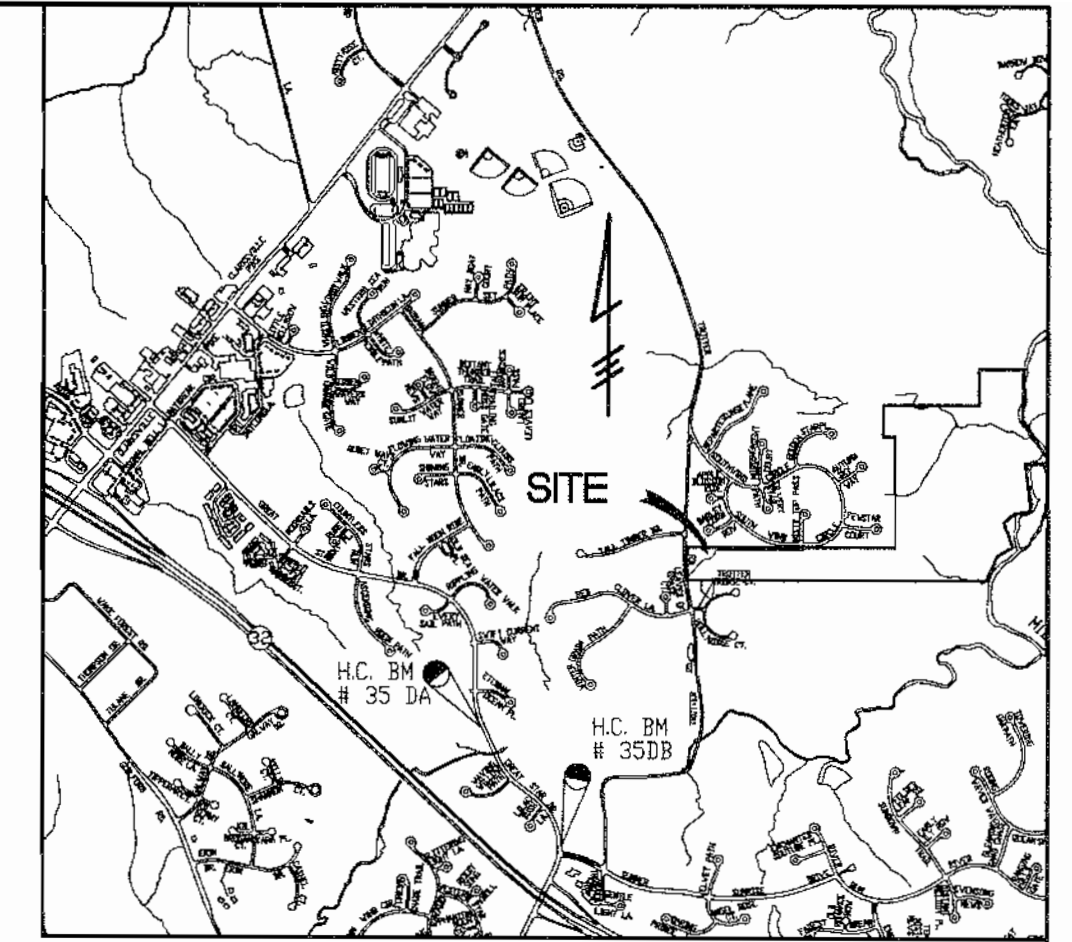


SHEET INDEX	
NO.	DESCRIPTION
1	COVER SHEET
2	PATHWAY PLAN I
3	SEDIMENT CONTROL NOTES AND DETAILS

PHEASANT RIDGE I - PHEASANT RIDGE II PATHWAY CONNECTOR

5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



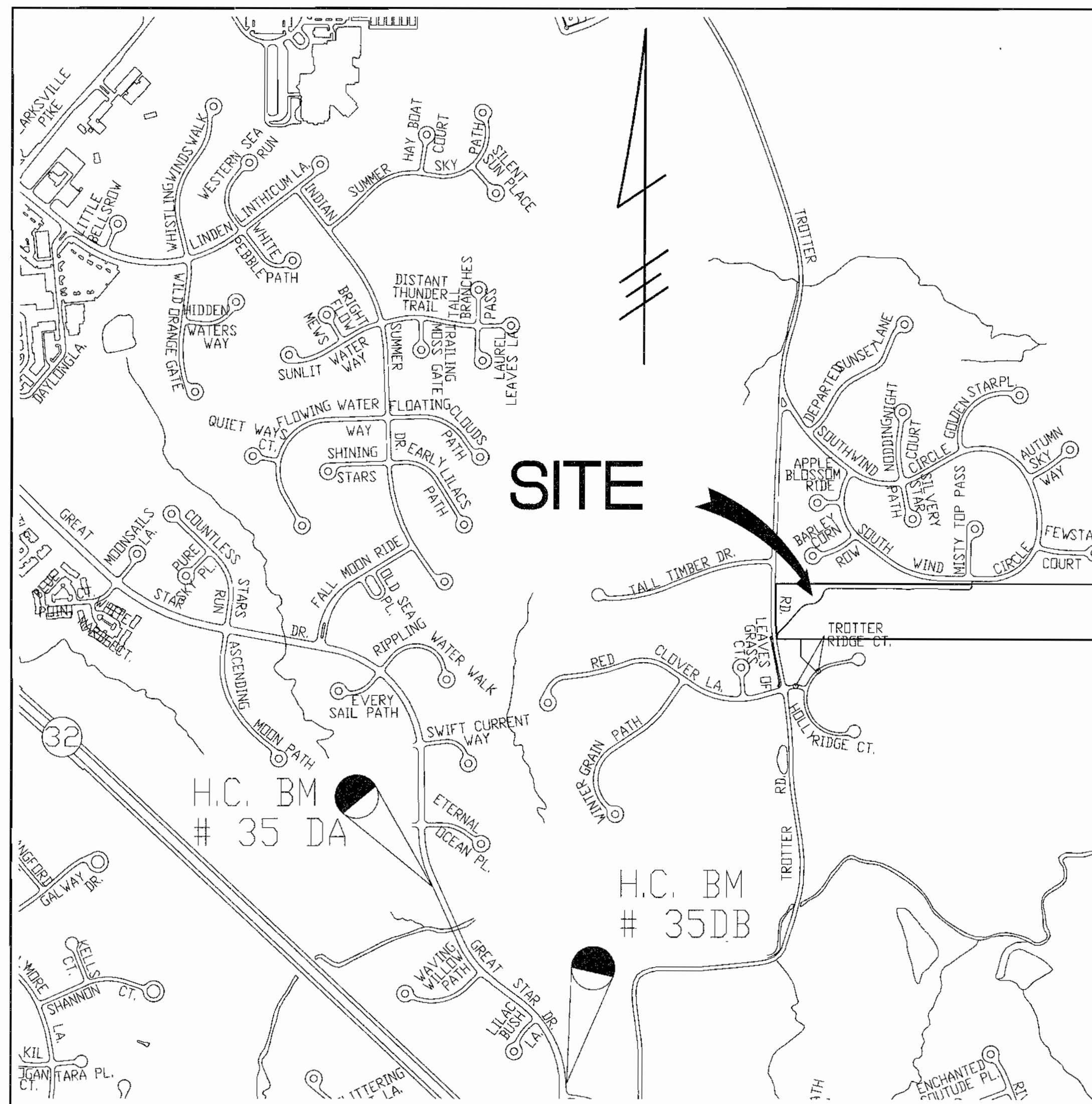
VICINITY MAP
SCALE 1" = 2000'

GENERAL NOTES

- TOPOGRAPHY SHOWN ON THESE DRAWINGS ARE BASED ON: ROAD PLANS (F-91-91, F- 95-165) AND ON HOWARD COUNTY TOPOGRAPHY. THE INFORMATION SHOWN OR NOT SHOWN HEREON DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PROPER COMPLETION OF GRADING.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
- DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF PHOENIX ENGINEERING MAY CAUSE THE WORK TO BE UNACCEPTABLE.
- THE LOCATION OF UTILITIES AND UTILITY EASEMENTS SHOWN ON THESE PLANS ARE FROM APPROVED SDP'S AND RECORDED PLATS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S ACTIONS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION AND MAINTAIN MINIMUM COVER IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.

MIN. COVER OVER WATER MAINS:	3.5'
MIN. COVER OVER SANITARY LINES:	2.5' ABOVE INVERT
MIN. COVER OVER STORM DRAIN:	18"
MIN. COVER OVER GAS LINES:	(AS PER BOE REQUIREMENTS)
MIN. COVER OVER ELECTRIC LINES:	(AS PER BOE REQUIREMENTS)
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK. CONTRACTOR SHALL SUPPLEMENT UTILITY MARKINGS WITH THOSE OF A PRIVATE COMPANY HIRED AND PAID FOR BY THE CONTRACTOR TO INSURE THAT ALL EXISTING UTILITIES ARE CLEARLY MARKED PRIOR TO EXCAVATION.
- FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
- ALL PROPOSED IMPROVEMENTS WILL BE MAINTAINED BY THE COLUMBIA ASSOCIATION.
- A FEE SHALL BE PAID IN LIEU OF STORMWATER MANAGEMENT IN THE AMOUNT OF \$ 1,711.00 FOR THIS PROJECT, AS PER HOWARD COUNTY DEVELOPMENT ENGINEERING DIVISION LETTER DATED MARCH 1, 2001.
- THE CONTRACTOR SHALL CONTACT THE BUREAU OF ENGINEERING, CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 48 HOURS IN ADVANCE OF THE COMMENCEMENT OF WORK.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL STAKE OUT ALL CONSTRUCTION AND VERIFY ALL OFFSETS, SETBACKS, EXISTING UTILITY LOCATIONS (HORIZONTAL AND VERTICAL) AND DIMENSIONS.
- THE PAVEMENT DETAIL SHOWN ON THESE PLANS (3" BITUMINOUS SURFACE COURSE OVER 4" CRUSHED AGGREGATE BASE) IS NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE. ANY PAVEMENT SECTION DETERMINED BY THE GEOTECHNICAL ENGINEER THAT IS LESS THAN THE HOWARD COUNTY MINIMUM STANDARD SHALL FIRST BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE PROVIDED BY THE OWNER.
- ALL FILL SHALL BE ROLLED TO A MINIMUM DEGREE OF COMPACTION TO 95% MAXIMUM STANDARD PROCTOR DENSITY WITH A MOISTURE CONTENT BETWEEN 0% AND 3% OF OPTIMUM AS DETERMINED BY ASTM-D-698. FILL UNDER PAVED AREAS, SHALL BE COMPACTED TO 98% MAXIMUM STANDARD PROCTOR DENSITY PER ASTM-D-698.
- ALL TREES 12" IN DIAMETER OR GREATER SHALL REMAIN PROTECTED AND UNDAMAGED AT ALL TIMES UNLESS OTHERWISE INDICATED. THE CONTRACTOR WILL ATTEMPT TO PROTECT ALL OTHER TREES THROUGH FIELD ADJUSTMENTS TO THE LAYOUT.
- THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS, OR RIGHTS-OF-WAYS THAT MAY BE REQUIRED TO COMPLETE THE WORK SHOWN HEREON.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES AND SAFETY PRECAUTIONS AND PROGRAMS.
- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN SEDIMENT AND EROSION CONTROL MEASURES AND NOTIFY THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410) 313- 1855.
- ADJUSTMENTS TO THE SEQUENCE OF CONSTRUCTION MUST BE APPROVED BY THE HOWARD COUNTY CONSTRUCTION AND INSPECTION DIVISION PRIOR TO SUCH ADJUSTMENTS.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS AND STANDARDS.
- ALL ROADS SHOWN ON THESE PLANS ARE PUBLIC ROADS.
- THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS BECAUSE IT IS PLANNED UNIT DEVELOPMENT WHICH HAS PRELIMINARY DEVELOPMENT PLAN APPROVAL AND 50% OR MORE OF THE LAND WAS RECORDED AND SUBSTANTIALLY DEVELOPED BEFORE DECEMBER 31, 1992.
- THERE ARE NO WETLANDS OR FLOODPLAIN ON THIS SITE.
- NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
- THE PROPOSED PATHWAYS WILL BE PRIVATELY OWNED AND MAINTAINED BY THE COLUMBIA ASSOCIATION.
- PATHWAY PROJECTS IN THE VILLAGE OF RIVER HILL ARE:
 - PHEASANT RIDGE I - SDP 92-121, PHEASANT RIDGE II - SDP 96-129, POINTERS RUN (PHASE 1) SDP 95-11, POINTERS RUN (PHASE 2) SDP 96-05, POINTERS RUN (PHASE 3) SDP 98-14, PHEASANT RIDGE III (PHASE 1) SDP 06-14, PHEASANT RIDGE III (PHASE 2) SDP 01-21, AND PHEASANT RIDGE II PATHWAY CONNECTOR SDP 01-88.

26. Criteria = Map per FDP Phase 201-A



LOCATION MAP
SCALE 1" = 600'

BM #35DA ELEV. 351.590
ALUMINUM DISC ON CONCRETE MONUMENT SET FLUSH WITH GROUND 2.1' BEHIND FACE OF CURB ON WEST SIDE OF GREAT STAR DRIVE, 420'+/- SOUTH OF TIDES TERRACE AND 1.6' NORTH OF A STORM DRAIN INLET
NORTHING 556918.643
EASTING 1333137.324

BM #35DB ELEV. 401.640
ALUMINUM DISC ON CONCRETE MONUMENT SET FLUSH WITH GROUND 7.3' BEHIND FACE OF CURB ON EAST SIDE OF GREAT STAR DRIVE, AND 46.9' NORTH OF LIGHT POLE AT INTERSECTION OF SUMMER SUNRISE DRIVE
NORTHING 557696.168
EASTING 1333974.579

SITE ANALYSIS

TOTAL AREA OF OPEN SPACE LOTS	498,265 AC.
TOTAL AREA OF THIS SUBMISSION	1.25 AC OR 54,450 S.F.
ZONING: NT-OS	
PROPOSED USE:	PEDESTRIAN PATHWAYS
LENGTH OF PATHWAYS:	1,711 L.F.
LENGTH OF BOARDWALKS & BRIDGES:	0 L.F.
TOTAL LIMIT OF DISTURBANCE:	0.42 AC. OR 18,295 S.F.
PARKING REQUIRED:	0 SPACES
PARKING PROVIDED:	0 SPACES

Date	No.	Revision Description

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
Pat DeLuca for CH
CHIEF, DIVISION OF LAND DEVELOPMENT
John R. Heinrichs
DIRECTOR

DATE: 8/1/01
DATE: 8/13/01
DATE: 8/15/01

OWNER/DEVELOPER
THE COLUMBIA ASSOCIATION
ATTN: DENIS ELLIS
10221 WINCOPIN CIRCLE SUITE 100
COLUMBIA MARYLAND 21044-3410
(410) 381-0383

PREPARED BY:
PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
813 MAIDEN CHOICE LANE, SUITE 300
BALTIMORE, MARYLAND 21228
(410) 247-8833 FAX 247-9387

AREA:
COLUMBIA - VILLAGE OF RIVER HILL
SECTION 1 AREA 3
SECTION 1 AREA 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE:
COVER SHEET

Des By	R.J.W.	Scale	AS SHOWN	Proj No	00-023
Drn By	R.H.D.	Date	JULY 02, 2001	DRAWING NO	101PRPPW.dwg
Chk By	J.R.H.	SDP	- 01 - 88		1 OF 3

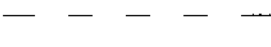
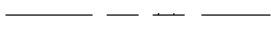



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: 8-21-2001

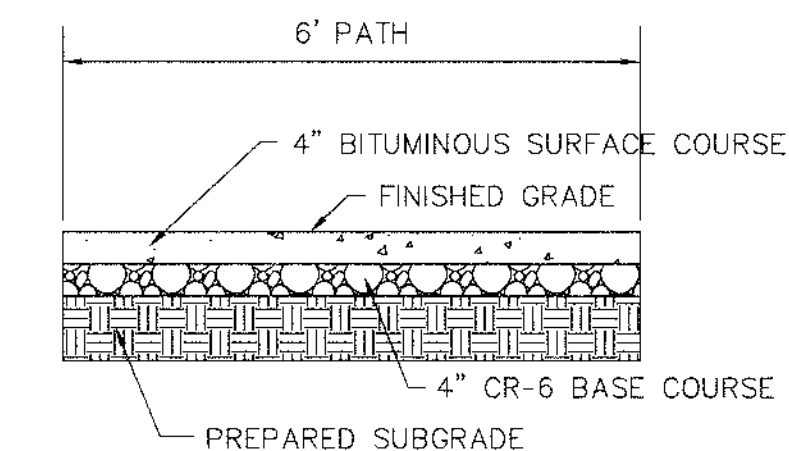
7/31/01
Date
JOHN R. HEINRICHS
Professional Engr. No. 14920

ADDRESS CHART

LOT No.	STREET ADDRESS
8500	SOUTH WIND CIRCLE
SUBDIVISION NAME: VILLAGE OF RIVER HILL	
SECT/AREA: 1/3 & 1/4	
PARCEL: L3716/F328	
PLATS: 9983 & 10367	BLOCK: 8
ZONE: NT-OS	TAX/ZONE: MAP 35
ELEC. DIST.: 5TH	CENSUS TR.: 6055
WATER CODE: 1-10	SEWER CODE: 6853500

LEGEND

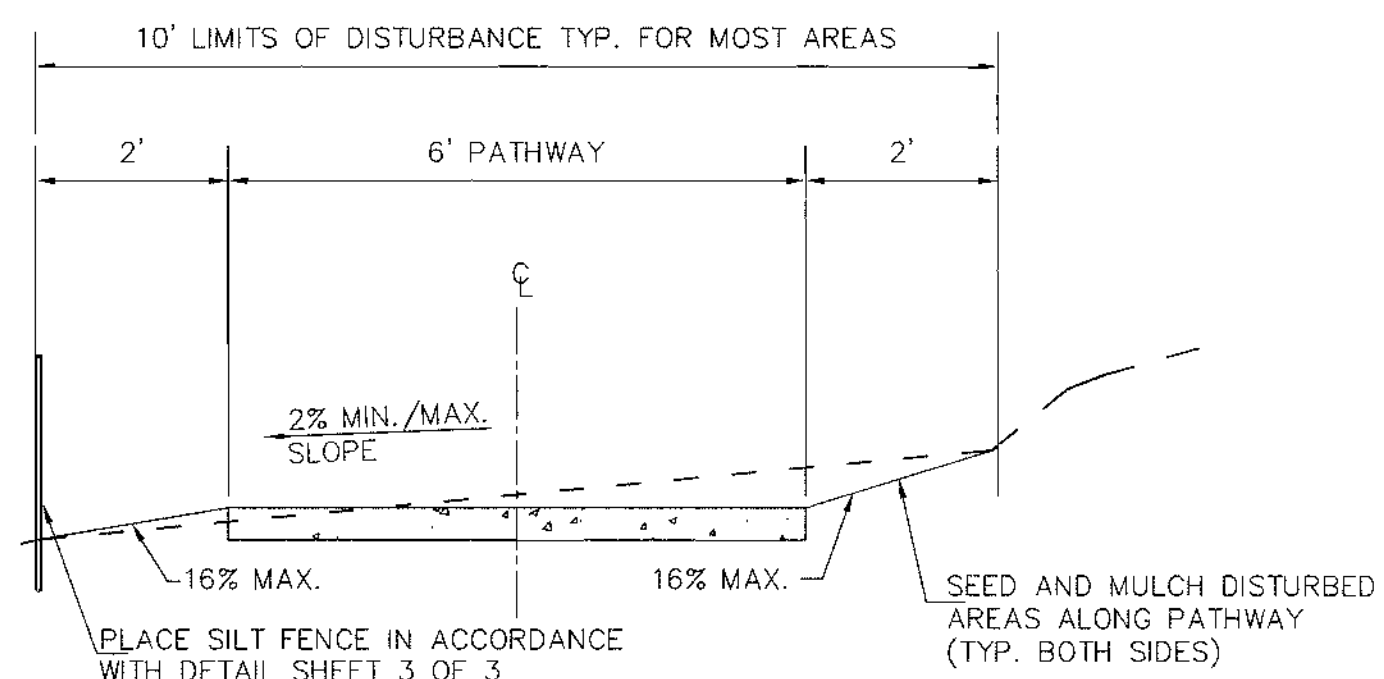
- EX. CONTOURS 
- PROPERTY LINE BOUNDARY 
- PROPOSED PATHWAYS (6' WIDE) 
- LIGHT POLES 
- EXISTING WOODS LINE 



NOTE

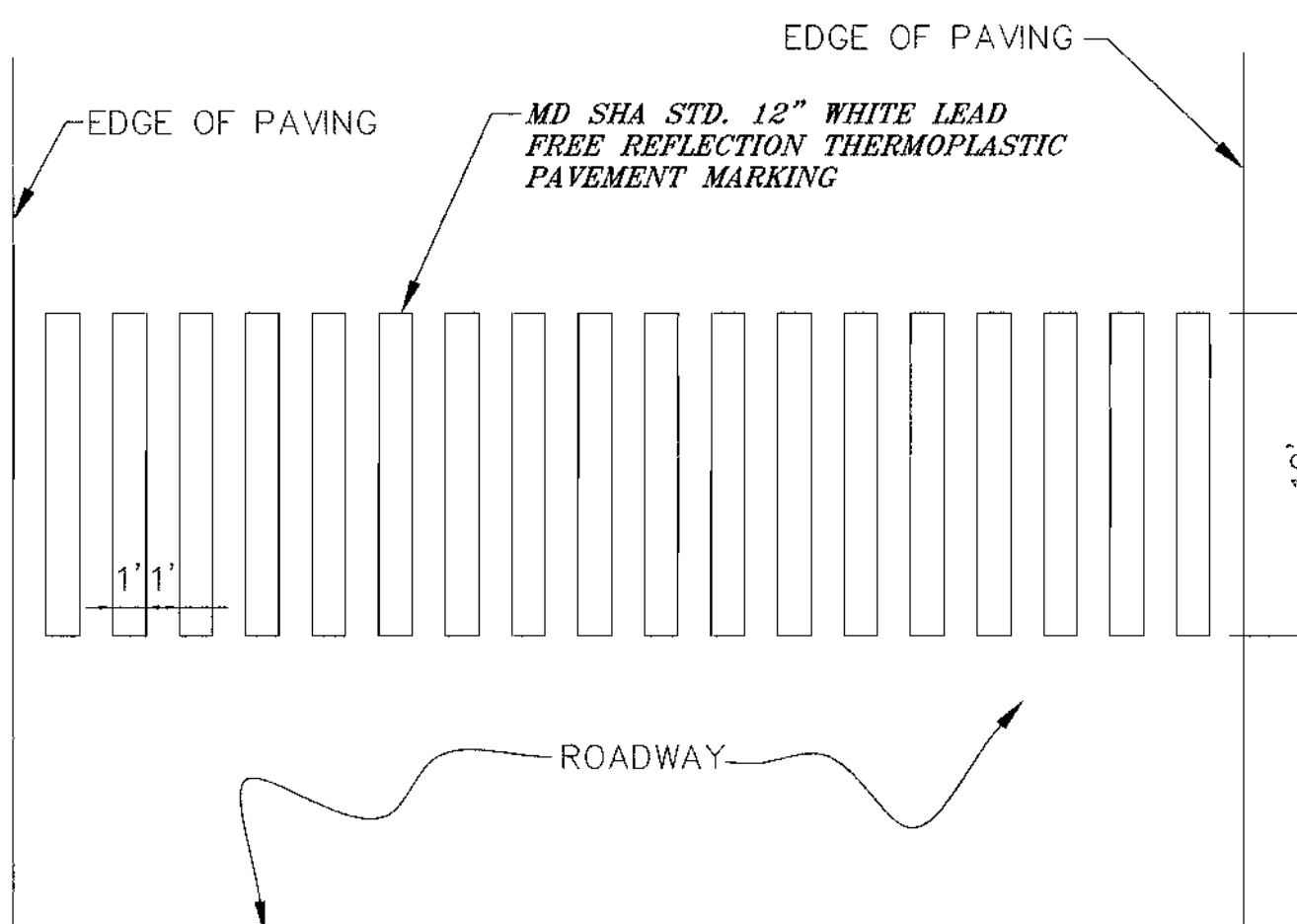
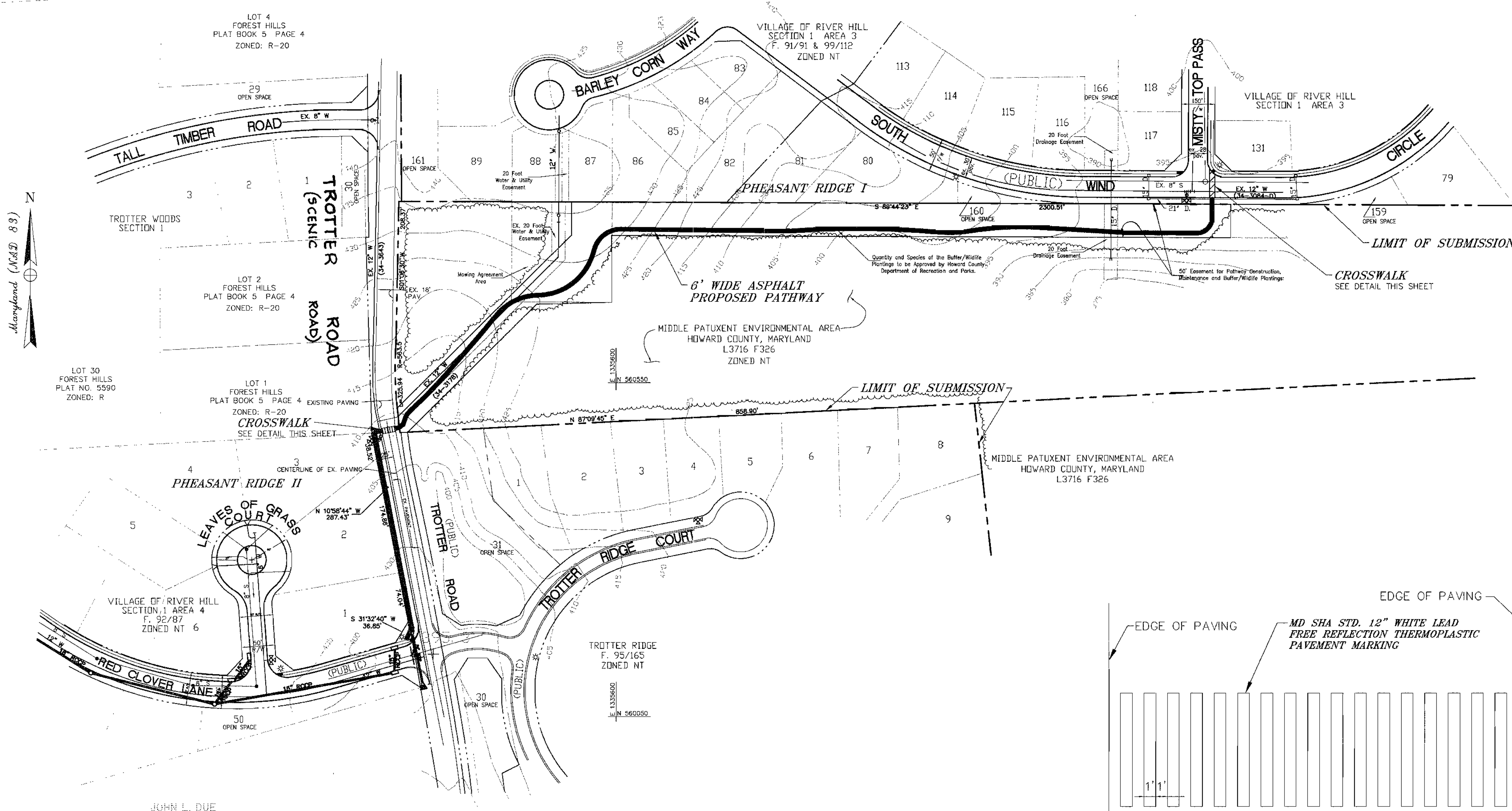
ALL FILL SHALL BE ROLLED TO A MINIMUM DEGREE OF COMPACTION TO 95% MAXIMUM STANDARD PROCTOR DENSITY WITH A MOISTURE CONTENT BETWEEN 0 AND 3% OF OPTIMUM AS DETERMINED BY ASTM-D-698. FILL UNDER PAVED AREAS SHALL BE COMPACTED TO 98% MAXIMUM STANDARD PROCTOR DENSITY PER ASTM-D-698.

1 PATHWAY PAVEMENT SECTION
SCALE: NTS



2 TYPICAL PATHWAY SECTION
SCALE: NTS

PATHWAY DISTURBANCE/CONSTRUCTION AND RESTABILIZATION IS TO OCCUR IN 200 LF SEGMENTS MAXIMUM



CROSS WALK DETAIL
SCALE: NTS

- MIN. COVER OVER WATER MAINS: 3.5'
- MIN. COVER OVER SANITARY LINES: 2.5' ABOVE INVERT
- MIN. COVER OVER STORM DRAIN: 18"
- MIN. COVER OVER GAS LINES: (AS PER BGC REQUIREMENTS)
- MIN. COVER OVER ELECTRIC LINES: (AS PER BGC REQUIREMENTS)

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: 7-21-2001

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	8/7/01
CHIEF, DIVISION OF LAND DEVELOPMENT	8/13/01
DIRECTOR	8/15/01

Date	No	Revision Description

OWNER/DEVELOPER
THE COLUMBIA ASSOCIATION
ATTN: DENIS ELLIS
10221 WINCOPIN CIRCLE SUITE 100
COLUMBIA MARYLAND 21044-3410
(410) 381-0383

PREPARED BY:
PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
813 MAIDEN CHOICE LANE, SUITE 300
BALTIMORE, MARYLAND 21228
(410) 247-8833 FAX 247-9397

AREA:
COLUMBIA - VILLAGE OF RIVER HILL
SECTION 1 AREA 3
SECTION 1 AREA 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE:
PATHWAY PLAN

7/31/01
Professional Engineer
JOHN R. HENRICHS
Professional Engr. No. 14920

Des By	R.J.W.	Scale	1" = 100'	Proj No	00-023
Drn By	R.H.D.	Date	JULY 02, 2001	DRAWING NO	ps01RHPW.dwg
Chk By	J.R.H.	SDP	01-88		2 OF 3

Table 25 Permanent Seeding For Low Maintenance Areas

MIX	SEED MIX (USE CERTIFIED MATERIAL IF AVAILABLE)	PLANTING RATE		SITE CONDITIONS	USDA HARDINESS ZONES	RECOMMENDED PLANTING DATES								NOTES
		LBS/AC	LBS/1000 SQ. FT.			3/1-5/15	3/15-6/1	5/15-8/14	6/2-7/31	8/1-10/1	8/15-10/15	8/15-11/15		
1.	TALL FESCUE (75%) CANADA BLUEGRASS (10%) KENTUCKY BLUEGRASS (10%) REDTOP (5%)	150	3.4	MOIST TO DRY	5b		X							
						6a	X				X			
						7a	X						X	
						7b	X							X
2.	KENTUCKY BLUEGRASS (50%) CREEPING RED FESCUE OR A HARD FESCUE (40%) REDTOP (10%)	150	3.4	MOIST TO MODERATELY DRY	5b		X				X			
						6a	X				X			
						6b	X					X		
						7a	X						X	
3.	TALL FESCUE (85%) PERENNIAL RYEGRASS (10%) KENTUCKY BLUEGRASS (5%)	125	2.9	MOIST TO DRY	5b		X				X			
						6a	X				X			
						6b	X					X		
						7a	X						X	
4.	RED FESCUE OR CHEWINGS FESCUE (90%) PERENNIAL RYEGRASS (20%)	60	.92	MOIST TO DRY	5b		X				X			
						6a	X				X			
						6b	X					X		
						7a	X						X	
5.	TALL FESCUE (85%) OR PERENNIAL RYEGRASS (50%) PLUS CROWNVECH OR FLATPEA	110	2.5	MOIST TO DRY	5b		X				X			
						6a	X				X			
						6b	X					X		
						7a	X						X	
6.	WEEPING LOVEGRASS (17%) SERECIA LESPEDEZA (83%)	4	.09	DRY TO VERY DRY	5b		X		X					
						6a	X		X					
						7a	X		X					
						7b	X		X					

NOTES: A/ USED BY SHA ON SLOPED AREAS. ADD A LEGUME FOR SLOPES > THAN 3:1.
 B/ USE IN MEDIAN AREAS BY SHA. SHADE TOLERANT.
 C/ POPULAR MIX - PRODUCES PERMANENT GROUND COVER QUICKLY. BLUEGRASS THICKENS STAND.
 D/ BEST USE ON SHADY SLOPES, NOT ON POORLY DRAINED CLAYS.
 E/ USE ON LOW MAINTENANCE, STEEP SLOPES. USE TALL FESCUE IN DRAUGHTY COND. CROWN VETCH BEST FOR 5b, 6a, 6b.
 F/ SUITABLE FOR SEEDING IN MID - SUMMER.

Table 25 Permanent Seeding For Low Maintenance Areas (Cont'd)

MIX	SEED MIX (USE CERTIFIED MATERIAL IF AVAILABLE)	PLANTING RATE		SITE CONDITIONS	USDA HARDINESS ZONES	RECOMMENDED PLANTING DATES								NOTES
		LBS/AC	LBS/1000 SQ. FT.			3/1-5/15	3/15-6/1	5/15-8/14	6/2-7/31	8/1-10/1	8/15-10/15	8/15-11/15		
7.	TALL FESCUE (83%) WEEPING LOVEGRASS (2%) SERECIA LESPEDEZA (15%)	110	2.5	DRY TO VERY DRY	5b		X		X	X				
						6a	X		X	X				
						6b	X		X	X				
						7a	X		X	X			X	
8.	REED CANARYGRASS (75%) REDTOP (6%) PLUS BIRDSFOOT TREFLOIL (19%)	40	.92	WET TO MODERATELY DRY	5b		X				X			
						6a		X			X			
						6b	X					X		
						7a	X						X	
9.	TALL FESCUE (86%) POA TRIVIALIS (7%) BIRDSFOOT TREFLOIL (7%)	125	2.9	WET TO MODERATELY DRY	5b		X				X			
						6a	X				X			
						6b	X					X		
						7a	X						X	
10.	TALL FESCUE (80%) HARD FESCUE (20%)	120	3.4	WET TO DRY	5b		X				X			
						6a	X				X			
						6b	X					X		
						7a	X						X	
11.	HARD FESCUE (100%)	75	1.7	MOIST TO DRY	5b		X				X			
						6a	X				X			
						6b	X					X		
						7a	X						X	

NOTES: 1/ WEEPING LOVEGRASS MAY BE SEEDING WITH TALL FESCUE IN MID-SUMMER. SERECIA LESPEDEZA IS BEST SUITED FOR ZONES 7a AND 7b.
 2/ USE ON POORLY DRAINED SOILS - DITCHES OR WATERWAYS. BIRDSFOOT TREFLOILS BEST FOR ZONES 5b, 6a, ABOVE 2000 FT.
 3/ USE IN AREAS OF MOST SHADE. POA TRIVIALIS THRIVES IN WET SHADY AREAS.
 4/ TALL FESCUE MAY BE SEEDING ALONE. THE HARD FESCUE PROVIDES BETTER SHADE TOLERANCE AND PRODUCES A BETTER STAND.
 5/ LOW FERTILITY GRASS. REQUIRES INFREQUENT MOWING. GOOD COMPANION FOR WILDFLOWERS.

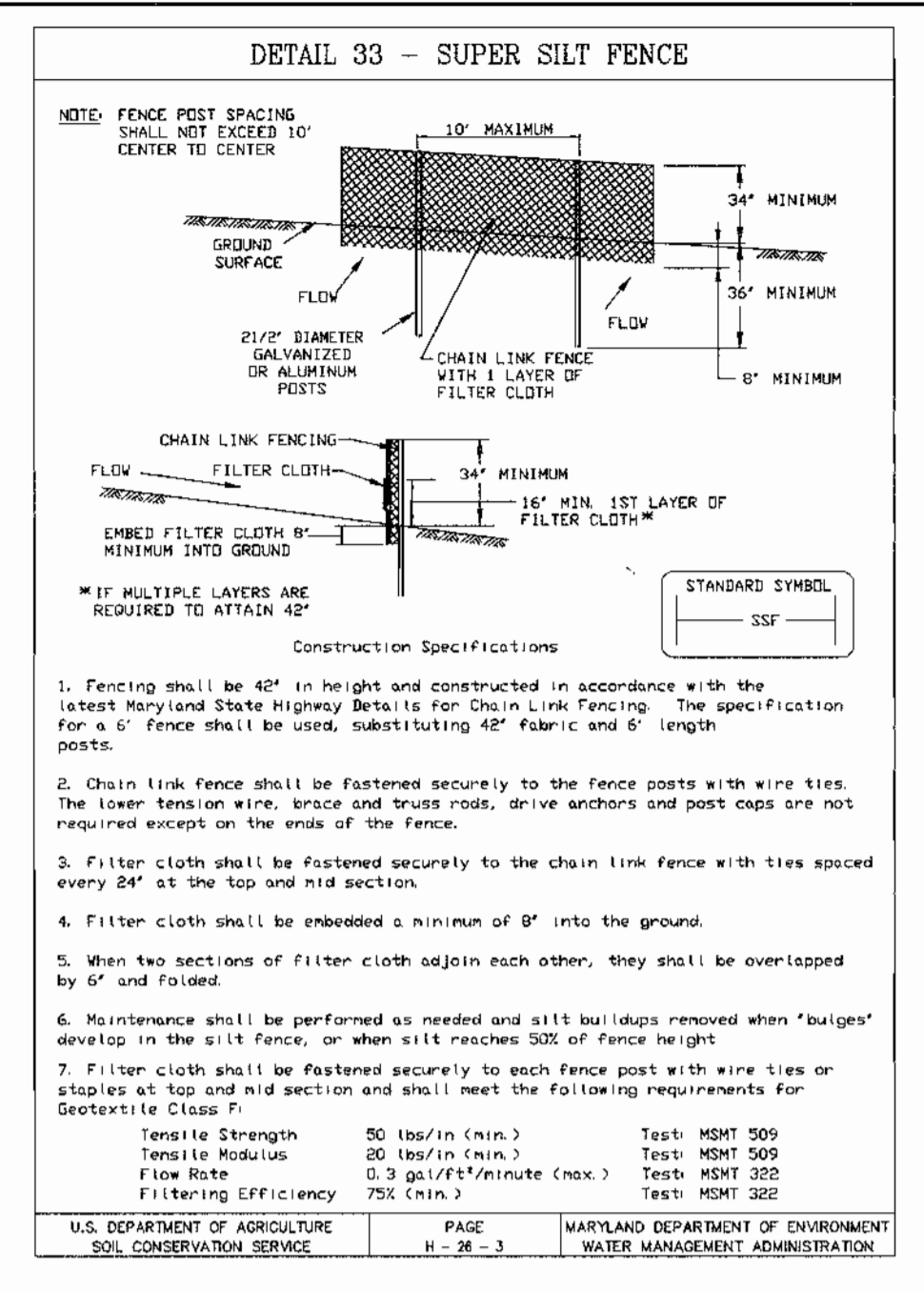
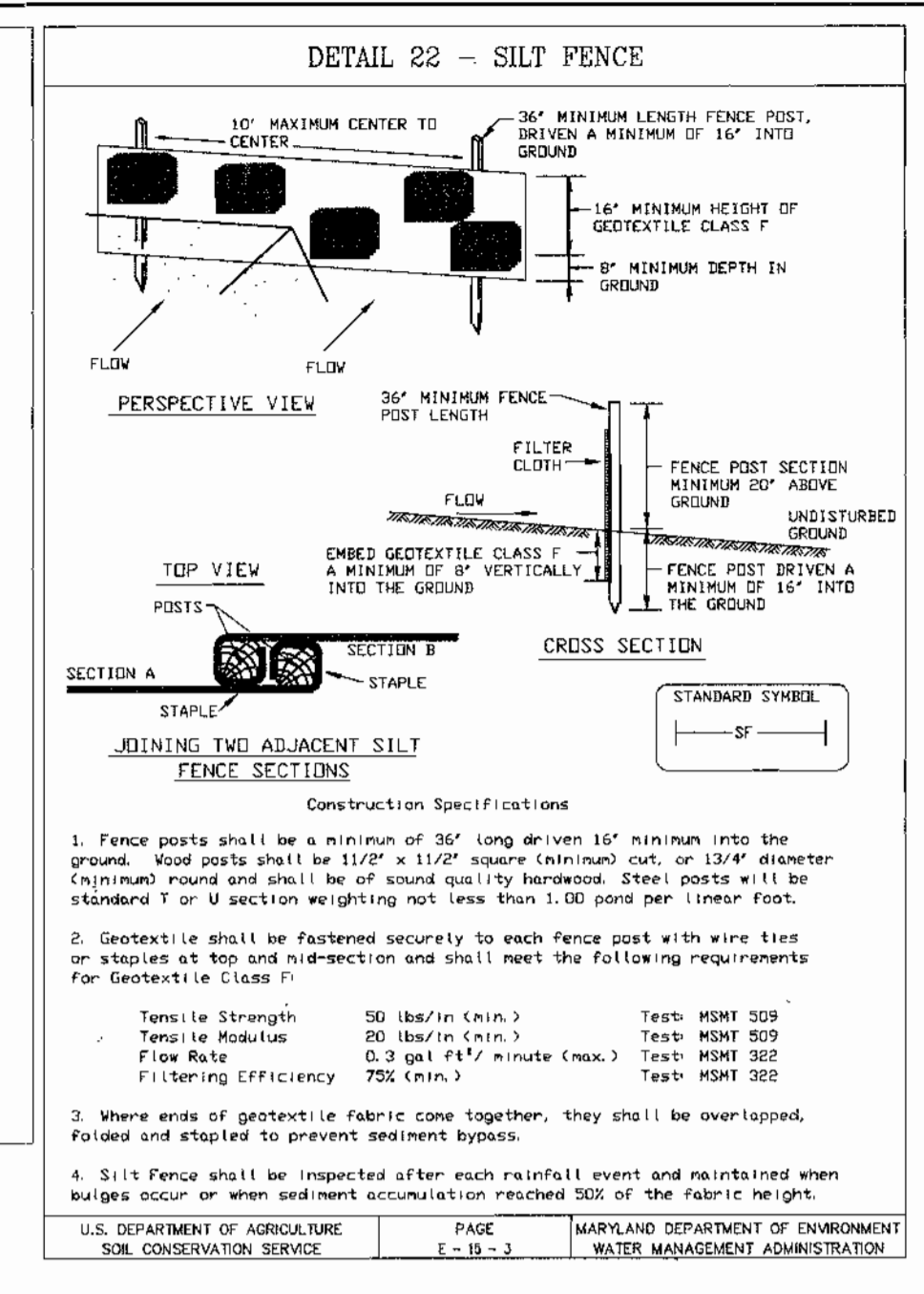
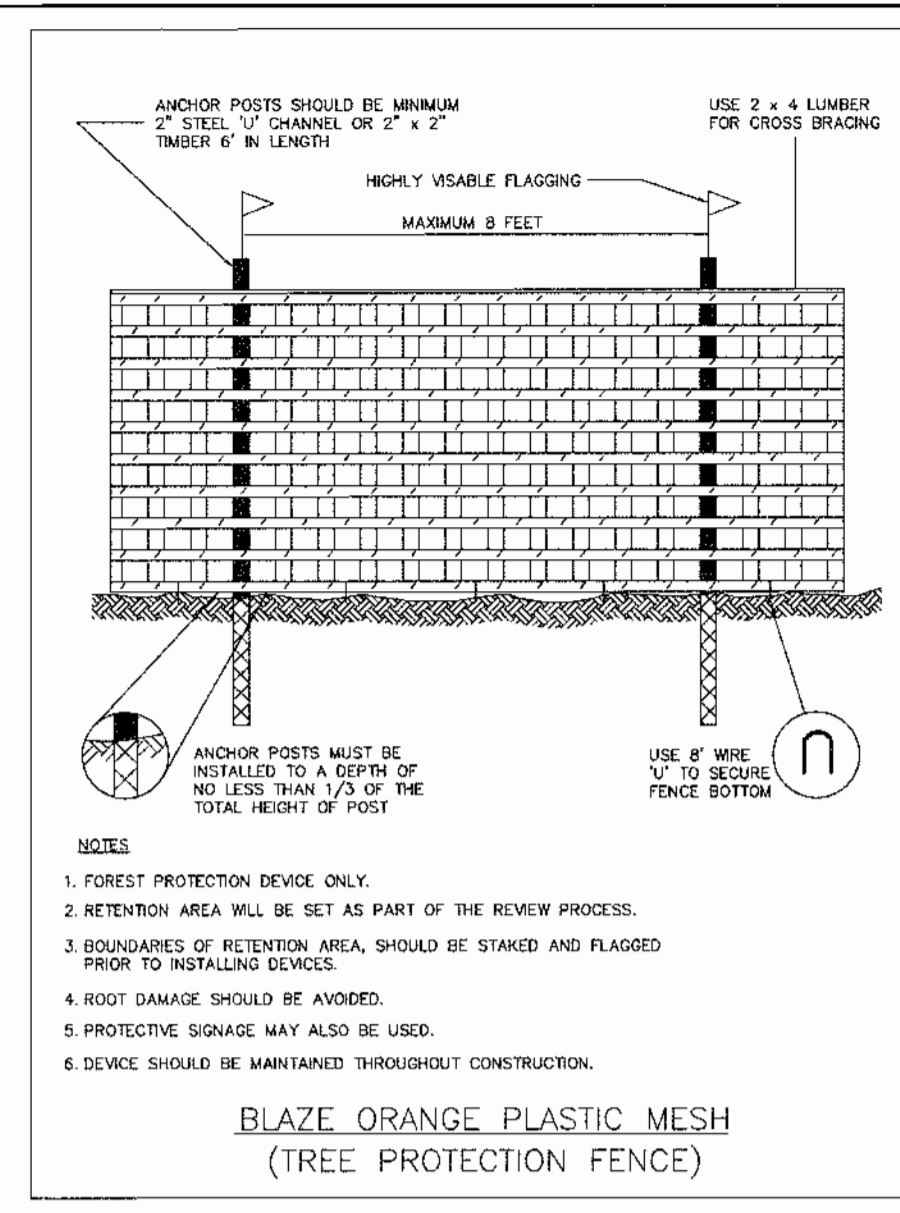
Permanent Seeding Summary

No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-20-20)			Lime Rate
					N	P2O5	K2O	
	TALL FESCUE	126.32	3/1-5/15	1/4"	90 lb/ac (2.0 lb/1000 sq ft)	175 lb/ac (4.0 lb/1000 sq ft)	175 lb/ac (4.0 lb/1000 sq ft)	2 tons/ac (100 lb/1000 sq ft)
3.	PERENNIAL RYEGRASS	14.81	3/1-5/15	1/4"				
	KENTUCKY BLUEGRASS	10.02						

Section III: Permanent Seeding
 Seeding grass on legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintenance.

Table 24 Maintenance Fertilization for Permanent Seeding

Seeding Mixture	Type	lb/cu	lb/1000 sq	Time	Mowing
Tall fescue makes up 70% or more of cover		10-10-10 or 30-10-10	500	11.5	Yearly as needed. Fall
Crownvetch Sericea Lespedeza Birdsfoot Trefoil		0-20-0	400	9.2	Spring, the year following establishment and every 4-5 years thereafter
Fairly uniform stand of tall fescue and sericea lespedeza, or birdsfoot trefoil		5-10-10	500	11.5	Fall, the year following establishment and every 4-5 years thereafter
Weeping lovegrass & sericea lespedeza fairly uniform plant distribution.		5-10-10	500	11.5	Spring, the year following establishment and every 3-4 years thereafter
Red & chewings fescue, Kentucky bluegrass, hard fescue mixtures		20-10-10	250	5.8	September, 30 days later. December, May 20, June 30, if needed.
			100	2.3	



SILT FENCE

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	105 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

NOTE: In areas of less than 2% slope and sandy soils (USDA general classification system, soil C or A), maximum slope length and silt fence length may be unlimited. In these areas a silt fence may be the only perimeter control required.

SUPER SILT FENCE

Slope Steepness	Slope Length (Maximum)	Silt Fence Length (Maximum)
0 - 10%	0 - 10:1	Unlimited
10 - 20%	10 - 5:1	1,500 feet
20 - 30%	5:1 - 3:1	1,000 feet
30 - 50%	3:1 - 2:1	500 feet
50% +	2:1 +	250 feet

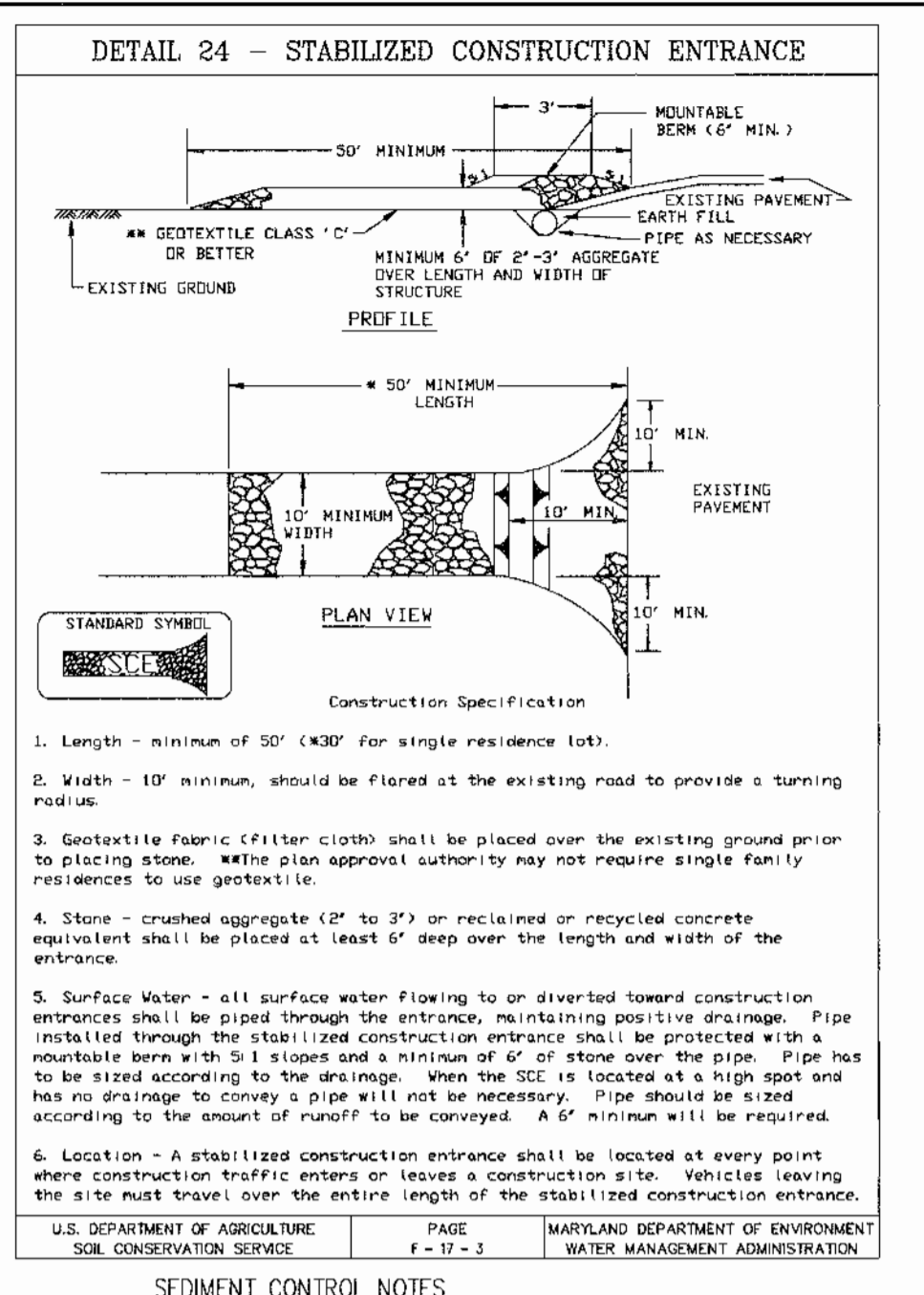
Table 26 Temporary Seeding Rates, Depths, and Dates

SPECIES	MINIMUM SEEDING RATES			PLANTING DEPTH*	HARDINESS ZONES** AND SEEDING DATES**								
	PER ACRE	LBS/1000 SQ. FT.	INCHES		7a and 7b	6b	6c and 5b						
CHOOSE ONE: BARLEY OATS RYE**	2.5 BU. (122 lbs) 3 BU. (96 lbs) 2.5 BU. (140 lbs)	2.80 2.21 3.22	1-2 1-2 1-2		2/1-4/30	5/1-8/14	8/15-11/30	3/1-4/30	5/1-8/14	8/15-11/15	3/15-5/31	6/1-7/31	8/1-10/31
BARLEY OR RYE PLUS FOXTAIL MILLET**	150 lbs.	3.45	1		X	X	X	X	X	X	X	X	X
WEEPING LOVEGRASS**	4 lbs.	.09	1/4-1/2		X			X					X
ANNUAL RYEGRASS	50 lbs.	1.15	1/4-1/2		X		11/1	X		11/1	X		8/15
MILLET**	50 lbs.	1.15	1/2		X			X					X

36. Applicable on slopes of 3:1 or flatter
 37. Refer to figure A - Adopted from USDA, ARS Miscellaneous Publication #1475, January 1990
 38. Between fall and spring seeding dates, use mulch only if ground is frozen and reseed when thawed.
 39. May be used as a nurse crop for late fall/early winter permanent seedings, add 56 lbs./ac to the permanent seeding mixture.
 40. Maryland State Highway Administration Temporary Seed Mix.
 41. May be used as a nurse crop for mid-summer permanent seedings. Add 2 lbs./ac to permanent seed mix.
 42. May be used as a nurse crop for mid-summer permanent seedings. Add 10 lbs./ac to the permanent seed mix.

Table 24 Maintenance Fertilization for Permanent Seeding

Seeding Mixture	Type	lb/cu	lb/1000 sq	Time	Mowing
Tall fescue makes up 70% or more of cover		10-10-10 or 30-10-10	500	11.5	Yearly as needed. Fall
Crownvetch Sericea Lespedeza Birdsfoot Trefoil		0-20-0	400	9.2	Spring, the year following establishment and every 4-5 years thereafter
Fairly uniform stand of tall fescue and sericea lespedeza, or birdsfoot trefoil		5-10-10	500	11.5	Fall, the year following establishment and every 4-5 years thereafter
Weeping lovegrass & sericea lespedeza fairly uniform plant distribution.		5-10-10	500	11.5	Spring, the year following establishment and every 3-4 years thereafter
Red & chewings fescue, Kentucky bluegrass, hard fescue mixtures		20-10-10	250	5.8	September, 30 days later. December, May 20, June 30, if needed.
			100	2.3	



PERMANENT SEEDING NOTES

- APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
 - PREFERRED - APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS/1000 SQUARE FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (8 LBS/1000 SQ FT).
 - ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 3 TONS PER ACRE (1.4 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS PER ACRE (0.27 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOIL. OPTION (3) SEED WITH 60 LBS/AC KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.
- MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.
- MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

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

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

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REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEQUENCE OF CONSTRUCTION

- Obtain a grading permit and all other necessary permits - 1 Day.
- Notify the Howard County Bureau of Licenses, Inspections and Permits at least 48 hours before beginning any work.
- Install stabilized construction entrances - 1 Day.
- Stake out pathway - 2 Days.
- Install silt fence, tree protection fence and other perimeter controls - 3-4 Days.
- Obtain approval from Inspector prior to proceeding - 1 Day.
- Begin clearing and grubbing for construction. Pathway disturbance/construction and restoration is to occur in 200 LF segments maximum - 2 weeks.
- Grade pathway maintaining positive drainage at all times - 1 Week.
- Compact subgrade and install aggregate base for pathway - 1 Week.
- Install pathway pavement - 1 Week.
- Stabilize all disturbed areas with seed and mulch within 14 days of disturbance.
- Upon stabilization of the site and approval of the Howard County Sediment Control Inspector, remove sediment and erosion controls.

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

Jim Myers 8/3/01
 USER: NATURAL RESOURCES CONSERVATION SERVICE

BY THE ENGINEER:
John A. Henrichs 7/31/01
 ENGINEER: JOHN A. HENRICHS, P.E.
 PROFESSIONAL ENGINEER, INC.

BY THE DEVELOPER:
John R. Roberts 8/3/01
 DEVELOPER: DENIS ELLIS
 COLUMBIA ASSOCIATION

7-2-01 DATE

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

John R. Roberts 8/3/01
 APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF DEVELOPMENT ENGINEER/ENGINEER
Ken H. Haddock 8/13/01
 CHIEF, DIVISION OF LAND DEVELOPMENT

John A. Henrichs 8/17/01
 PROJECT ENGINEER

Date No Revision Description

OWNER/DEVELOPER

THE COLUMBIA ASSOCIATION

ATTN: DENIS ELLIS

10221 WINCOPIN CIRCLE SUITE 100
 COLUMBIA MARYLAND 21044-3410
 (410) 381-0383

PREPARED BY:
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 CONSULTING ENGINEERS
 813 MAIDEN CHOICE LANE, SUITE 300
 BALTIMORE, MARYLAND 21228
 (410) 247-8833 FAX 247-9397

AREA:
 COLUMBIA - VILLAGE OF RIVER HILL
 SECTION 1 AREA 3
 SECTION 1 AREA 4
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE:
SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

Des By R.J.W. Scale AS SHOWN Proj No 00-023
 Dwn By R.H.D. Date JULY 02, 2001 DRAWING No D003prpw
 Cdw By J.R.H. SDP-01-88 3 OF 3