ROAD CONSTRUCTION PLANS
HOWARD BUSINESS PARK
PARCELS A-1 & B-1 THRU B-4
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SHEET INDEX

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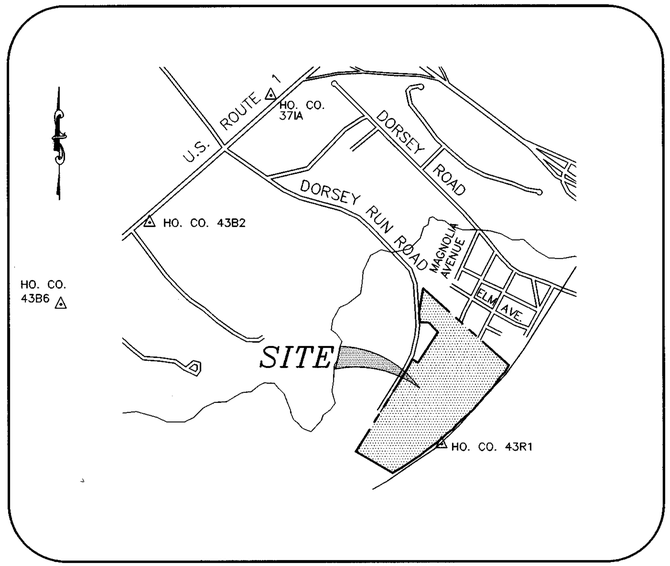

VICINITY MAP

SCALE: 1'=1000'

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:

MISS UTILITY	1-800-257-7777
C&P TELEPHONE COMPANY	(410) 725-9976
HOWARD COUNTY BUREAU OF UTILITIES	(410) 313-4900
AT&T CABLE LOCATION DIVISION	(410) 393-3533
BALTIMORE GAS & ELECTRIC	(410) 685-0123
STATE HIGHWAY ADMINISTRATION	(410) 531-5533
HOWARD COUNTY DEPT. OF PUBLIC WORKS/ CONSTRUCTION INSPECTION DIVISION	(410) 313-1880

4. PROJECT BACKGROUND:
   LOCATION: FIRST ELECTION DISTRICT - TAX MAP 43 - PARCEL 321

   ZONING: M-2
   TOTAL TRACT AREA: 51.90 ACRES ±
   NUMBER OF PROPOSED LOTS: 5
   ACREAGE OF PROPOSED LOTS : 51.90 ACRES ±
   OPEN SPACE REQUIRED : 0 ACRES
   OPEN SPACE PROVIDED : 0 ACRES
   PROPOSED ROAD DEDICATION : 0 ACRES
   DPZ REFERENCE #:
   - SDP-95-60 APPROVED ON JUNE 19, 1995.
   - WP-00-23 APPROVED ON AUGUST 31, 1999.
   - F-00-27 RECORDED ON OCTOBER 8, 1999, AS PLAT # 13970.
5. TWO FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL MAPPING TOPOGRAPHIC SURVEY BY WINGS AERIAL MAPPING CO, INC. IN FEBRUARY 1999.
6. HORIZONTAL AND VERTICAL DATUMS BASED ON (NAD'83) MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.

STA. No. 43B6	N 550,601.597 E 1,376,866.071	ELEV. 210.54
STA. No. 43B2	N 551,654.993 E 1,378,176.951	ELEV. 209.59
STA. No. 371A	N 553,315.147 E 1,379,982.153	ELEV. 195.75
STA. No. 43R1	N 548,305.502 E 1,382,025.818	ELEV. 134.53

7. STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
8. WATER AND SEWER ARE PUBLIC, CONTRACT # 44-3421-D FOR WATER AND CONTRACT # 10-3775-D FOR SEWER.
9. STORMWATER MANAGEMENT CONTROL WILL BE PROVIDED UNDER THE FUTURE SITE DEVELOPMENT PLAN.
10. TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC. IN AUGUST 1999.
11. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
12. WETLAND AND STREAM DELINEATION PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC. IN JANUARY 1998.
13. COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T-180.
14. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES ON SITE PRIOR TO COMMENCING CONSTRUCTION.
15. FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.200 OF HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING, OF CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OR CONSERVATION EASEMENT ARE ALLOWED.
16. A PORTION OF THE FOREST CONSERVATION OBLIGATIONS INCURRED BY THIS SUBDIVISION (9.73 ACRES OF REFORESTATION) WILL BE MET VIA OFF-SITE REFORESTATION ON "ROMITI PROPERTY".
17. PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
18. SLOPES IN EXCESS OF 25% EXIST AND ARE IDENTIFIED WHERE THEY EXCEED 20,000 SQ. FT.
19. THIS PROJECT IS SUBJECT TO WAIVER PETITION, WP-00-23, APPROVED ON AUGUST 31, 1999, WHICH WAIVED THE FOLLOWING TO PERMIT RECORDATION OF NONBUILDABLE PRESERVATION PARCELS A & B :

SECTION 16.116(a)(4)	WETLANDS AND THE REQUIRED BUFFERS FOR WETLAND AND STREAMS SHALL BE DELINEATED ON FINAL PLATS.
SECTION 16.117	REQUIRES THE SUBMISSION OF A FOREST CONSERVATION PLAN.
SECTION 16.124(a)(3)(ii)	FINAL PLAN SUBMISSIONS SHALL INCLUDE THE FINAL LANDSCAPE PLAN IN THE ROAD CONSTRUCTION DRAWINGS.
SECTION 16.132	REQUIREMENT TO PROVIDE ROAD IMPROVEMENTS.
SECTION 16.144(a) & (f)	REQUIRES THE SUBMISSION OF A SKETCH PLAN AND A PRELIMINARY PLAN.

20. THIS PROJECT IS SUBJECT TO WAIVER PETITION, WP-00-26, APPROVED ON DECEMBER 30, 1999, WHICH WAIVED THE FOLLOWING:

SECTION 16.124(a)(3)(ii)	FINAL PLAN SUBMISSIONS SHALL INCLUDE THE FINAL LANDSCAPE PLAN IN THE ROAD CONSTRUCTION DRAWINGS.
SECTION 16.144(a) & (f)	REQUIRES THE SUBMISSION OF A SKETCH PLAN AND A PRELIMINARY PLAN.
SECTION 16.120(c)(1)	REQUIRES COMMERCIAL LOTS TO HAVE A MINIMUM OF 60 FEET OF FRONTAGE ON AN APPROVED PUBLIC ROAD.

21. ALL STORM DRAIN PIPES TO BE HDPE UNLESS OTHERWISE NOTED.
22. IF MATERIAL IS WITHIN 8% OF OPTIMUM MOISTURE, WORKING THE MATERIAL UNTIL REQUIRED COMPACTION IS ACHIEVED IS CONTRACTOR'S RESPONSIBILITY.
23. SEDIMENT CONTROL FOR THIS PROJECT IS PROVIDE UNDER SDP-95-60. ALL SEDIMENT CONTROL DEVICES CONSTRUCTED UNDER SDP-95-60 WILL REMAIN IN PLACE DURING THE CONSTRUCTION OF THE DORSEY RUN ROAD EXTENSION.
24. THE STREET LIGHT LOCATIONS AND TYPES OF LIGHTS SHOWN ON SHEET 2 ARE AS FOLLOWS :
   - 250-WATT HPS VAPOR PENDANT FIXTURE (CUTOFF) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM ANGLED RADIAL TO THE FILLET AT DORSEY RUN ROAD, STATION 39+27, 11' RIGHT, STATION 45+30, 36' LEFT, AND STATION 47+81, 36' LEFT.
25. THE FOREST CONSERVATION ORDINANCE HAS BEEN COMPLIED WITH IN ACCORDANCE WITH THE FOLLOWING:
   TOTAL OBLIGATION = 18.78 ACRES ON-SITE FOREST RETENTION = 9.05 ACRES
   OFF-SITE REFORESTATION (ROMITI PROPERTY) = 9.73 ACRES

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 2/22/00
MARK L. LEVY
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000
R. JACOB HIKMAT
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/9/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
AS SHOWN	RJH

no.	description	date
	revisions	

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - BLOCK 12
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
COVER SHEET

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5527 Wash. (410) 997-0298 Fax.

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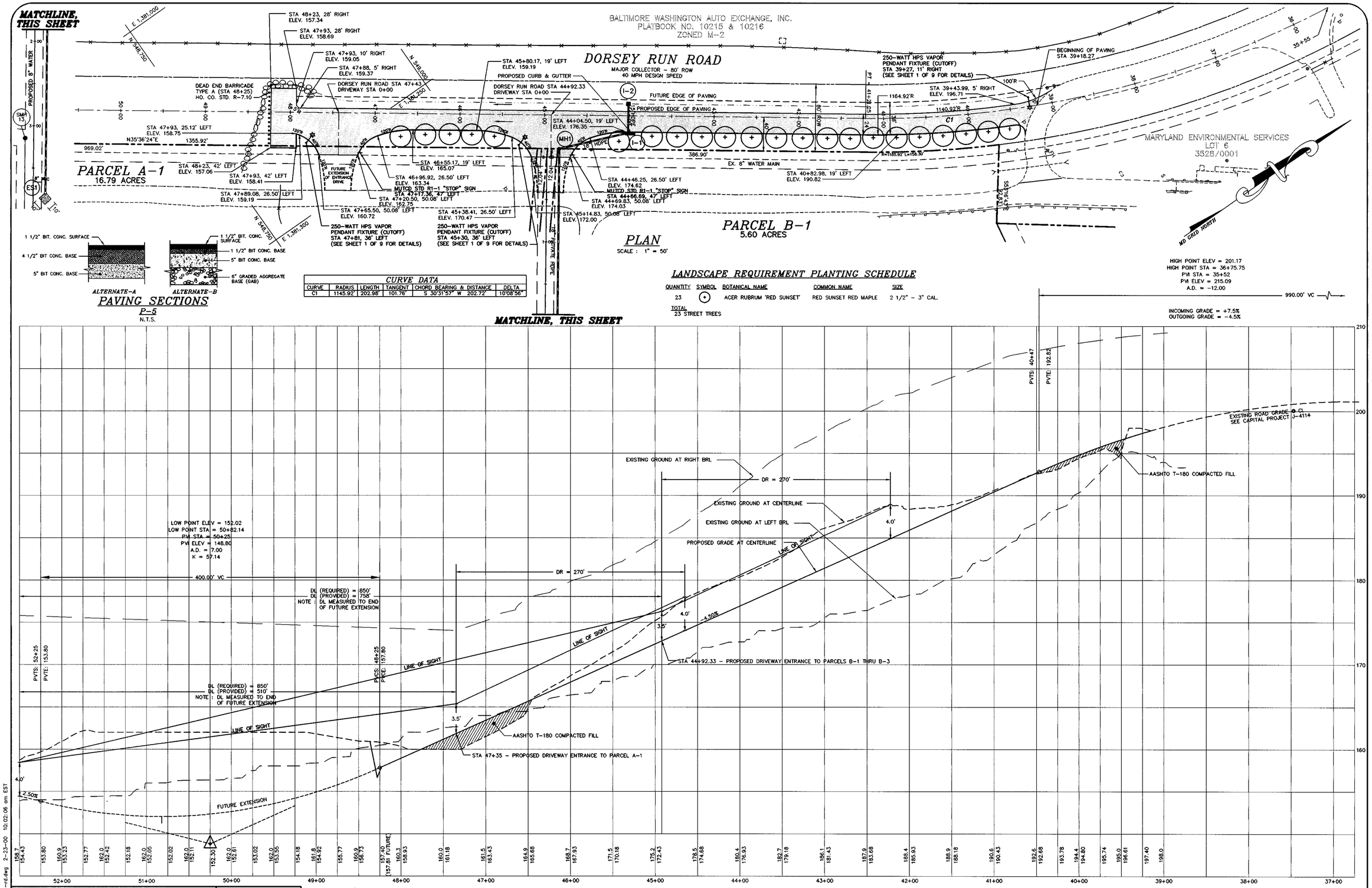

CURVE DATA

CURVE	RADIUS	LENGTH	TANGENT	CHORD BEARING & DISTANCE	DELTA
C1	1145.92'	202.98'	101.76'	S 30°31'57" W 202.72'	10°08'56"

LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
23	⊙	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.

TOTAL
23 STREET TREES

DORSEY RUN ROAD PROFILE

MAJOR COLLECTOR (40 MPH DESIGN SPEED)

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'

SIGHT DISTANCE NOTES

DESIGN SPEED = 40 MPH
HEIGHT OF EYE = 3.5'
HEIGHT OF OBJECT = 4.0'

DISTANCE LEFT (BOTH ENTRANCES)		DISTANCE RIGHT (BOTH ENTRANCES)	
LEFT	440' X 0.5 = 220'	LEFT	540' X 0.5 = 270' (CONTROL)
RIGHT	510' X 1.7 = 850' (CONTROL)	RIGHT	—
CROSS	—	CROSS	—
GRADE = -4.5%		GRADE = +4.5%	

BASED ON THIS ANALYSIS, THE ENTRANCES HAVE ADEQUATE SIGHT DISTANCE.

DEVELOPER

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25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/10/00

STATE OF MARYLAND — MARK A. MILDENBERG — 17842 — PROFESSIONAL ENGINEER

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
AS SHOWN	RJH

no.	description	date
	revisions	

HOWARD BUSINESS PARK, PARCEL A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - BLOCK 12
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
ROAD PLAN AND PROFILE

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5321 Wash. (410) 997-0298 Fax.

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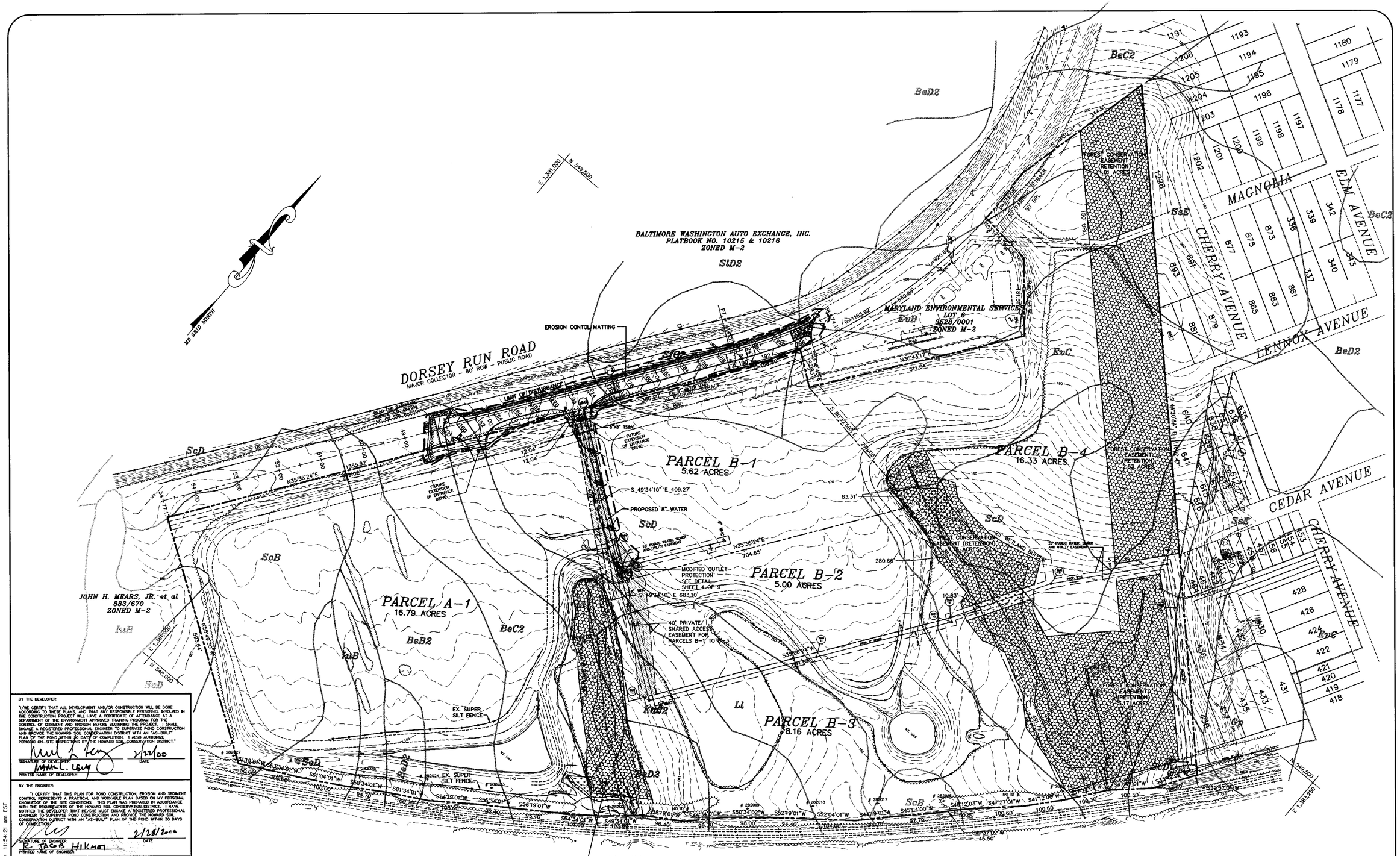

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SIGNATURE OF DEVELOPER — DATE 2/22/00

MARK L. LEVY
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000

C. JACOB HILKMAN
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/9/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

SOILS DESCRIPTION

SYMBOL	DESCRIPTION
BeB2	BELTSVILLE SILT LOAM, 1% TO 5% SLOPES, MODERATELY ERODED -- TYPE C
BeC2	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
BeC3	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, SEVERELY ERODED -- TYPE C
BeD2	BELTSVILLE SILT LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE C
EvB	EVESBORO LOAMY SAND, 1% TO 5% SLOPES -- TYPE A
EvC	EVESBORO LOAMY SAND, 5% TO 15% SLOPES -- TYPE A
Gp	GRAVEL PITS AND QUARRIES
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1% TO 5% SLOPES -- TYPE C
KhC2	KEYPORT SILT LOAM, 3% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
Ll	LEONARDTOWN SILT LOAM -- TYPE D
ScB	SANDY AND CLAYEY LAND, GENTLY SLOPING -- TYPE C
ScD	SANDY AND CLAYEY LAND, MODERATELY SLOPING -- TYPE C
ScE	SANDY AND CLAYEY LAND, MODERATELY STEEP -- TYPE C
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE B
SlD2	SASSAFRAS LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE B
SsE	SASSAFRAS SOILS, 15% TO 40% SLOPES -- TYPE B

THIS PLAN TO BE USED ONLY FOR GRADING & EROSION AND SEDIMENT CONTROL PLAN PURPOSES ONLY.

DEVELOPER

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25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN: MARK LEVY

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SJD	SJD
scale	approval
1"=100'	RJH

no.	description / revisions	date

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - LOT 5
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

GRADING & EROSION AND SEDIMENT CONTROL PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Bal. (301) 621-5621 Wash. (410) 997-0298 Fax.

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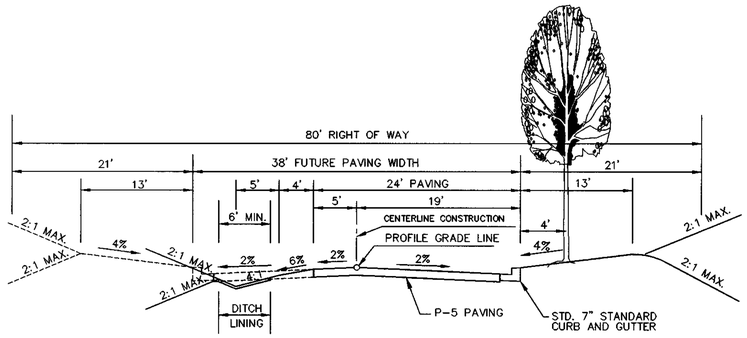
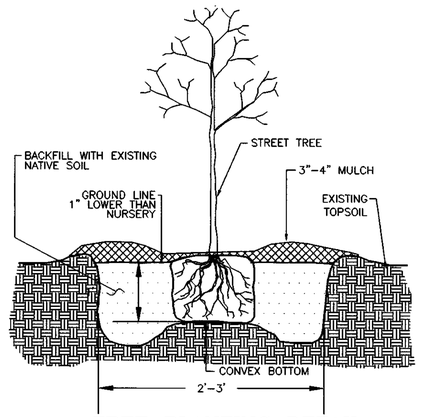


TYPICAL SECTION – MAJOR COLLECTOR

40 MPH DESIGN SPEED

STA 39+19.28 TO STA 48+23

N.T.S.

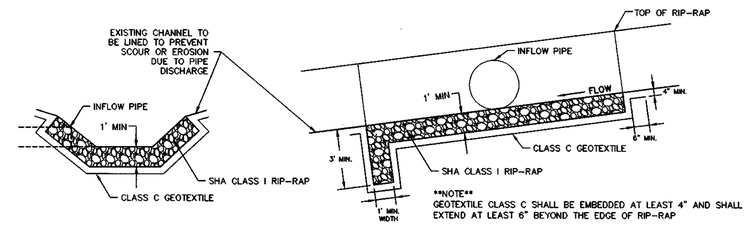


TREE PLANTING DETAIL

CONTAINER GROWN

MODIFIED OUTLET PROTECTION DETAIL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. EXTREME CARE SHALL BE TAKEN TO PRESERVE THE CHANNEL GEOMETRY AND STABILITY OF THE EXISTING DITCH.

2. THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

3. THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER

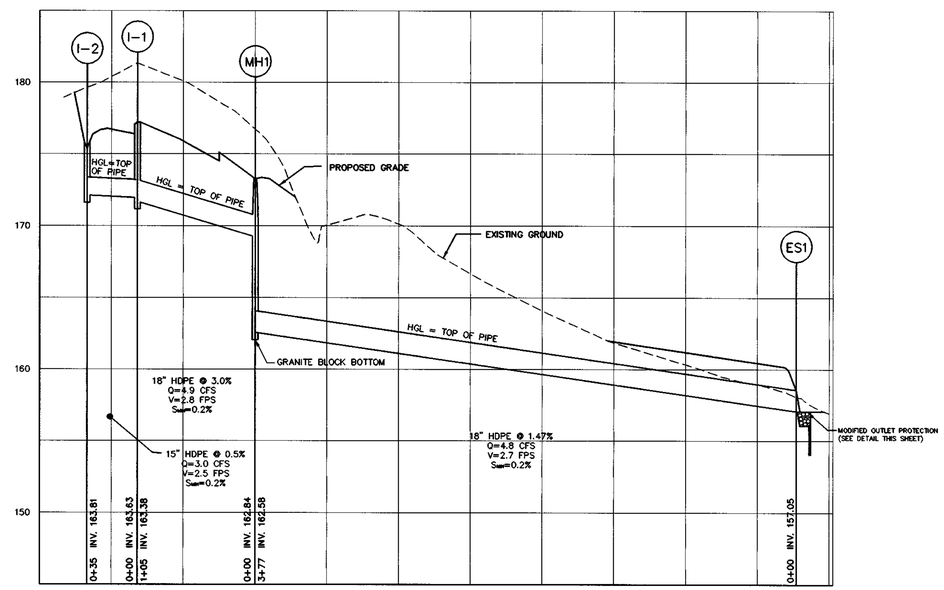
4. GEOTEXTILE SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. ALL OVERLAPS WHETHER FOR REPAIRS OR FOR JOINING TWO PLACES OF GEOTEXTILE SHALL BE A MINIMUM OF ONE FOOT.

5. STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.

6. THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.

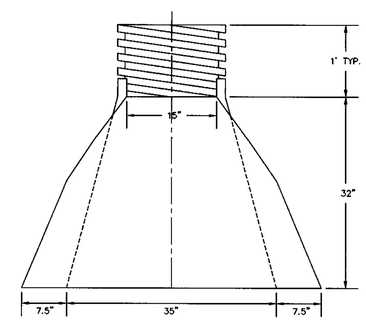
PIPE SCHEDULE

QUANTITY	PIPE SIZE
35'	15" HDPE
482'	18" HDPE

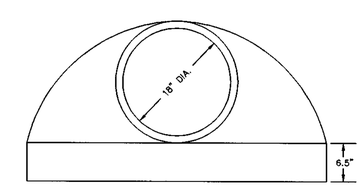


STORM DRAIN PROFILE – I-2 TO ES1

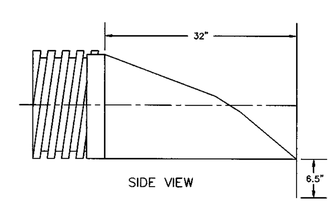
HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'



TOP VIEW



END VIEW



SIDE VIEW

18" HDPE END SECTION

(PART NO. 1810 NP)

NOT TO SCALE

INSTALLATION INSTRUCTIONS

1. SPREAD THE END SECTION COLLAR AND PLACE IT OVER THE LAST PIPE CORRUGATION. MAKE SURE THE COLLAR SEATS PROPERLY IN THE CORRUGATION VALLEY.
2. INSERT THREADED ROD THROUGH THE PRE-DRILLED HOLES IN THE END SECTION COLLAR. TIGHTEN WING NUTS.
3. PLACE BACKFILL AROUND THE END SECTION AND OVER THE TOE PLATE. USE CARE DURING COMPACTION ALONG THE SIDES TO PREVENT DISTORTION.

STRUCTURE SCHEDULE

NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS
I-1	DORSEY RUN ROAD STA 43+98.84 – 19' LEFT	177.20	171.94	171.69	INLET TYPE A-10 (HO. CO. STD SD 4.02) – 99% EFF.
I-2	DORSEY RUN ROAD STA 44+01.25 – 14' RIGHT	175.37	----	172.12	INLET TYPE K (HO. CO. STD SD 4.13)
M-1	DORSEY RUN ROAD STA 44+82.33 – 40' LEFT	173.27	169.23	162.74	PRECAST MANHOLE (HO. CO. STD SD 5.11)
ES-1	NORTHING 548,842.624 EASTING 1,381,797.254	----	----	157.05	18" ø HDPE END SECTION (SEE DETAIL ABOVE)

* STATIONS GIVEN TO CENTERLINE OF INLET AT TOP OF CURB FOR INLETS LOCATED WITHIN THE ROAD RIGHT-OF-WAY. STATIONS FOR "K" INLETS TO CL OF INLET. LOCATION OF END SECTION GIVEN TO THE CENTERLINE OF PIPE AT THE CONNECTION OF THE STORM DRAIN PIPE TO END SECTION.

** ELEVATIONS MEASURED TO CENTER OF ALL INLETS.

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 2/22/00

MARK L. LEVY
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000

R. JACOB HIKMAT
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA – NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/9/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

STATE OF MARYLAND — R. JACOB HIKMAT — 17048 — PROFESSIONAL ENGINEER

98001\dwg\Final\001-sd.dwg 2-23-00 2:47:01 pm EST

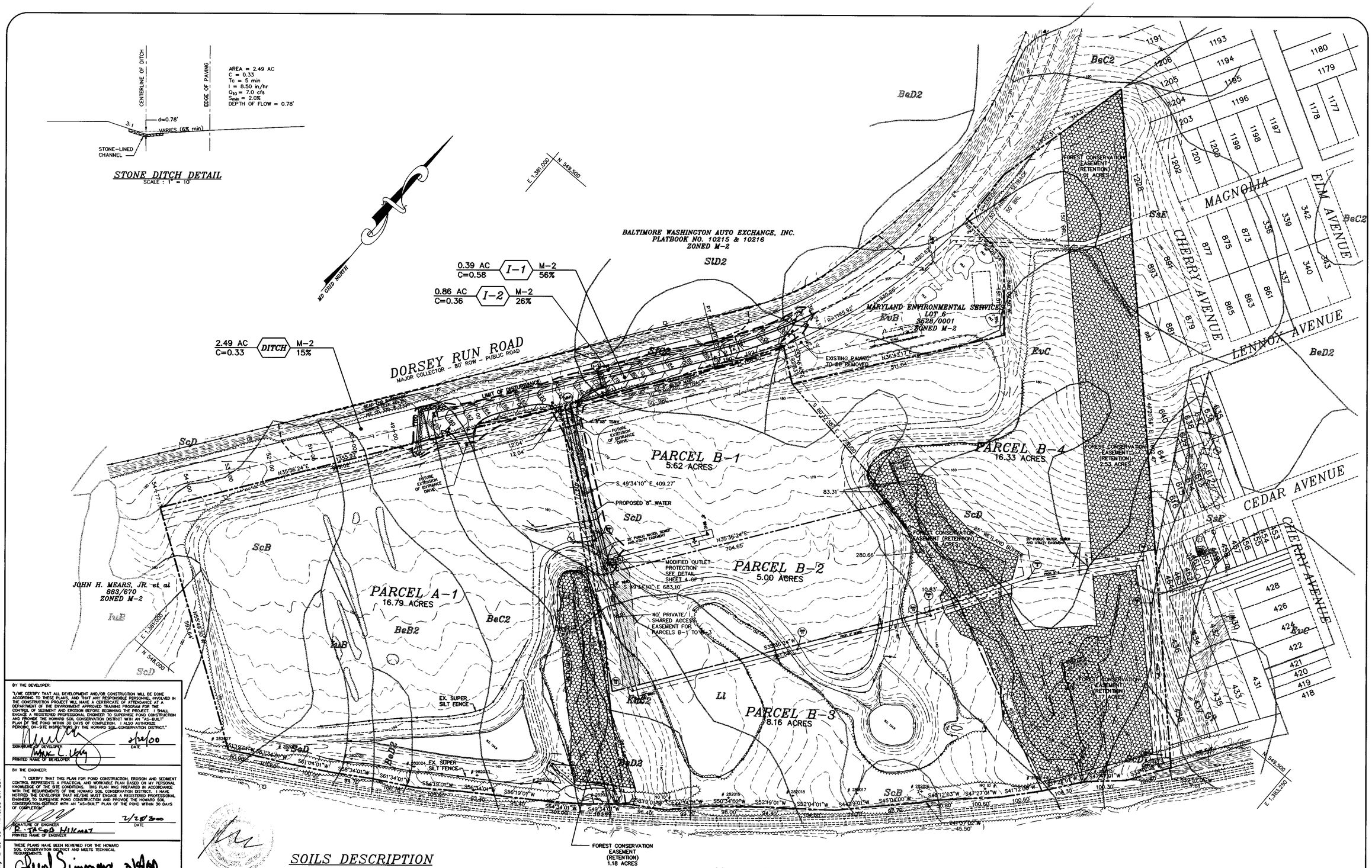
project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
AS SHOWN	RJH

no.	description	date
	revisions	

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 – PARCEL 321 – BLOCK 12
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
DETAILS & STORM DRAIN PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5321 Wash. (410) 997-0298 Fax.

F-00-29



SOILS DESCRIPTION

SYMBOL	DESCRIPTION
BeB2	BELTSVILLE SILT LOAM, 1% TO 5% SLOPES, MODERATELY ERODED -- TYPE C
BeC2	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
BeC3	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, SEVERELY ERODED -- TYPE C
BeD2	BELTSVILLE SILT LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE C
EvB	EVESBORO LOAMY SAND, 1% TO 5% SLOPES -- TYPE A
EvC	EVESBORO LOAMY SAND, 5% TO 15% SLOPES -- TYPE A
Gp	GRAVEL PITS AND QUARRIES
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1% TO 5% SLOPES -- TYPE C
KhC2	KEYPORT SILT LOAM, 3% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
Ll	LEONARDTOWN SILT LOAM -- TYPE D
ScB	SANDY AND CLAYEY LAND, GENTLY SLOPING -- TYPE C
ScD	SANDY AND CLAYEY LAND, MODERATELY SLOPING -- TYPE C
SsE	SANDY AND CLAYEY LAND, MODERATELY STEEP -- TYPE C
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE B
SlD2	SASSAFRAS LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE B
SsE	SASSAFRAS SOILS, 15% TO 40% SLOPES -- TYPE B

THIS PLAN TO BE USED ONLY FOR DRAINAGE AREA MAP PURPOSES ONLY.

BY THE DEVELOPER:

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SIGNATURE OF DEVELOPER — DATE 2/14/00
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

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SIGNATURE OF ENGINEER — DATE 2/28/00
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/14/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/14/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONNING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

CSX RAILROAD
(FORMERLY BALTIMORE & OHIO RAILROAD)
ANNE ARUNDEL COUNTY

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
1"=100'	RJH

no.	description	date
	revisions	

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - LOT 5
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
DRAINAGE AREA MAP

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

98001\dwg\drg\drg1.001-inlet&dam.dwg 2-23-00 11:45:53 am EST

F-00-29

HOWARD SOIL CONSERVATION DISTRICT

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:
1) PREFERRED – APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING , APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.).
2) ACCEPTABLE – APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING – FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 1.4 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LOBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) – 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) – USE SOD. OPTION (3) – SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONE/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.

TEMPORARY SEEDING NOTES

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

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

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

1) 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 NAY CONSTRUCTION, (313-1855).

2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.

3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR 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 1991 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.

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7) SITE ANALYSIS:

TOTAL AREA OF SITE:	54.04	ACRES
AREA DISTURBED:	2.05	ACRES
AREA TO BE ROOFED OR PAVED:	0.67	ACRES
AREA TO BE VEGITATIVELY STABILIZED:	1.38	ACRES
TOTAL CUT:	6,550	CU. YDS.
TOTAL FILL:	6,550	CU. YDS.
TOTAL WASTE/BORROW AREA LOCATION:	N/A	

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY.
CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.

8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY 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 LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

BY THE DEVELOPER:

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SIGNATURE OF DEVELOPER — DATE 2/22/00

MARK L. LEVY
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000

R. JACOB HIKMAT
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA – NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/9/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONNING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

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STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

I. 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.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE 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 SPECIFICATION. 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, 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.

ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON-SON 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 FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION – SECTION I – VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

i. 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 TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A pH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PERSCRIBED TO RAISE THE pH TO 6.5 OR HIGHER.

b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.

c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

d. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN 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 APPLUCATION

i. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" – 8" HIGHER IN ELEVATION.

iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 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 TOPSOILING 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 COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

i. COMPOSTED SLUDGE 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 AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO 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 LEASE 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOURUS, 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 1 TON/1,000 SQUARE FEET.

iv. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILLIZER 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.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT LOCATIONS SHOWN. (1 DAY)
3. INSTALL SEDIMENT CONTROL MEASURES. (1 DAY)
4. GRADE SITE. (5 DAYS)
5. CONSTRUCT STORM DRAIN SYSTEM AND BLOCK. (3 DAYS)
6. BRING SITE TO FINAL GRADE AND PAVE ROAD. (5 DAYS)
7. STABILIZE ALL DISTURBED AREAS. (3 DAYS)
8. WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS. (3 DAYS)

TEMPORARY DUST CONTROL MEASURES

1. MULCHES – SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.

2. VEGETATIVE COVER – SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.

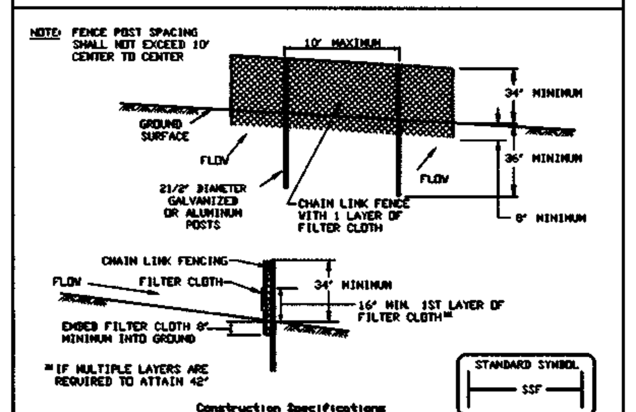
3. TILLAGE – TO ROUGHTN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS APCED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

4. IRRIGATION – THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.

5. BARRIERS – SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALT OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.

6. CALCIUM CHLORIDE – APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

DETAIL 33 – SUPER SILT FENCE



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 fence 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 by 6" and folded.

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 Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft²/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE H - 26 - 3 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

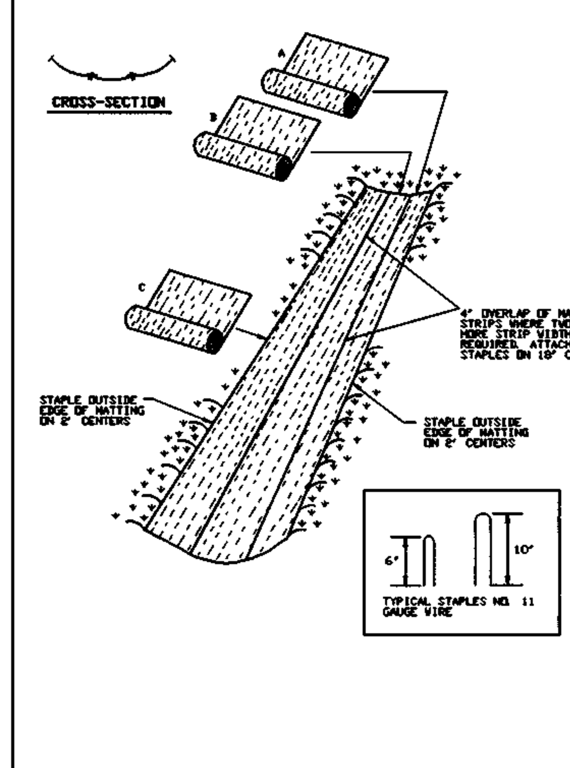
SUPER SILT FENCE

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE H - 26 - 3A | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 30 – EROSION CONTROL MATTING



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE G - 22 - 2 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

EROSION CONTROL MATTING

Construction Specifications

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.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

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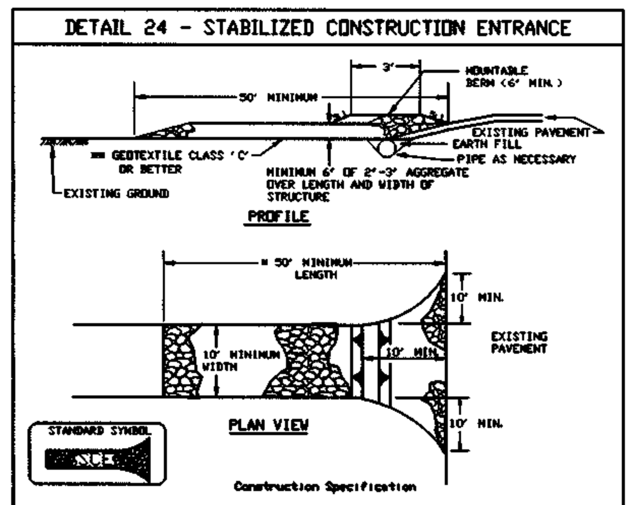
DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).

2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.

4. 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.

5. 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.

6. Location – 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE F - 17 - 3 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DEVELOPER

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25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

project	date	illustration	engineering	scale	approval
98001	FEB 2000	SJD	SJD	1"=100'	RJH

no.	description	date
	revisions	

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 – PARCEL 321 – LOT 5
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SEDIMENT CONTROL NOTES & DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

F-00-29

GENERAL NOTES

FOREST PROTECTION

1. ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGHAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES UNDER THE SDP.
2. THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.
3. ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
4. ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
5. INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
6. THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
7. REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
8. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
9. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

PRE-CONSTRUCTION MEETING

1. AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
   - A. TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
   - B. INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
   - C. MAKE ALL NECESSARY ADJUSTMENTS;
   - D. ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

CONSTRUCTION MONITORING

1. THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.
2. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
3. THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

NOTE :

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

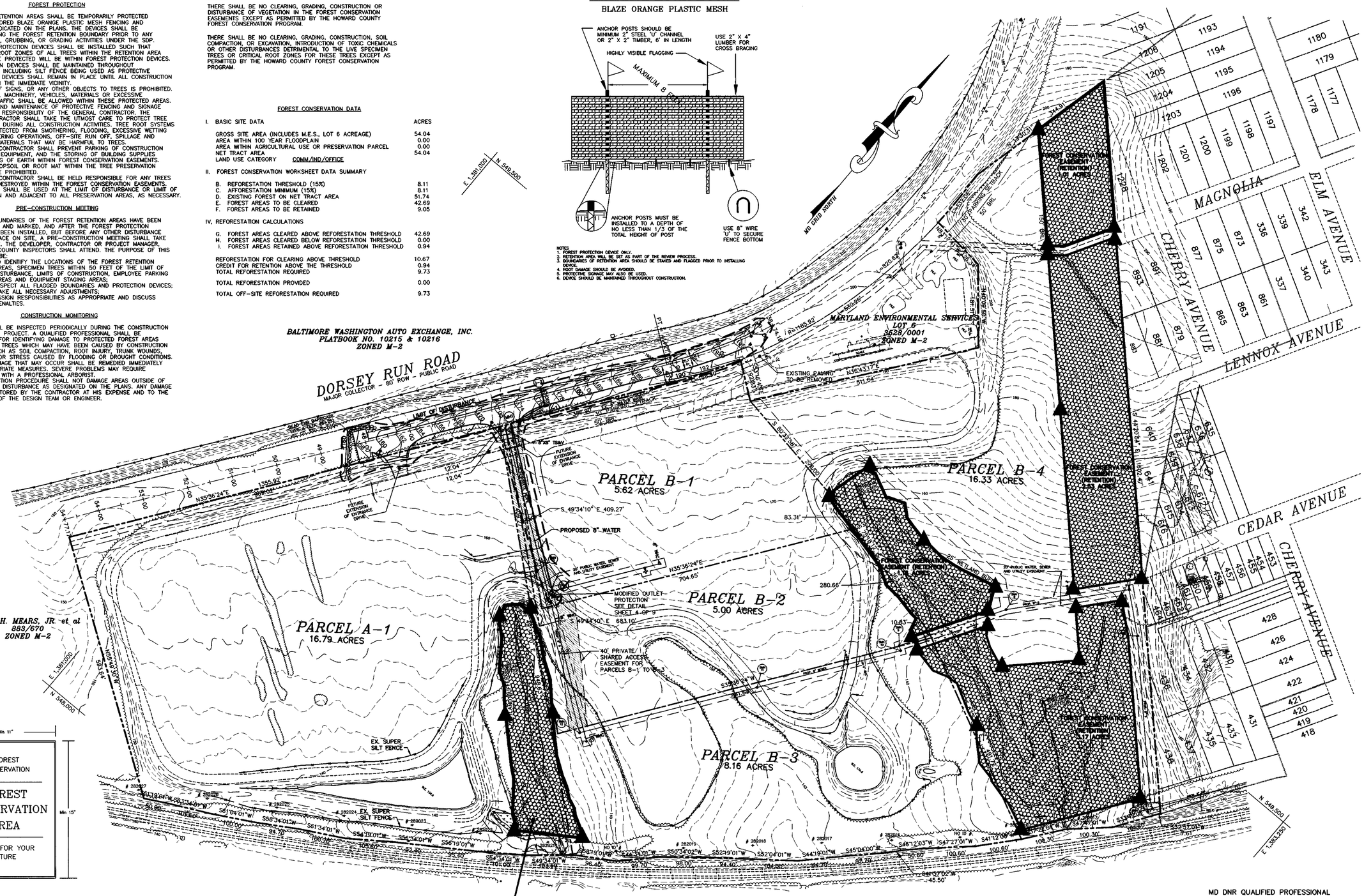
FOREST CONSERVATION DATA

		ACRES
I.	BASIC SITE DATA	
	GROSS SITE AREA (INCLUDES M.E.S., LOT 6 ACREAGE)	54.04
	AREA WITHIN 100 YEAR FLOODPLAIN	0.00
	AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	0.00
	NET TRACT AREA	54.04
	LAND USE CATEGORY COMM./IND/OFFICE	
II.	FOREST CONSERVATION WORKSHEET DATA SUMMARY	
	B. REFORESTATION THRESHOLD (15%)	8.11
	C. AFFORESTATION MINIMUM (15%)	8.11
	D. EXISTING FOREST ON NET TRACT AREA	51.74
	E. FOREST AREAS TO BE CLEARED	42.69
	F. FOREST AREAS TO BE RETAINED	9.05
IV.	REFORESTATION CALCULATIONS	
	G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	42.69
	H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	0.00
	I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	0.94
	REFORESTATION FOR CLEARING ABOVE THRESHOLD	10.67
	CREDIT FOR RETENTION ABOVE THE THRESHOLD	0.94
	TOTAL REFORESTATION REQUIRED	9.73
	TOTAL REFORESTATION PROVIDED	0.00
	TOTAL OFF-SITE REFORESTATION REQUIRED	9.73

PROTECTIVE FENCE DETAIL

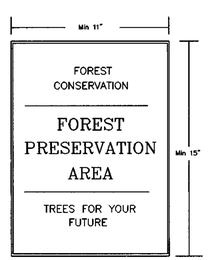
BLAZE ORANGE PLASTIC MESH

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



SIGNAGE DETAIL

NOT TO SCALE



CSX RAILROAD
(FORMERLY BALTIMORE & OHIO RAILROAD)
ANNE ARUNDEL COUNTY

NOTE: THIS PLAN IS TO BE USED FOR FOREST CONSERVATION PURPOSES ONLY.

NOTE:
- 9.05 ACRES OF RETENTION ARE SHOWN ON-SITE. 9.73 ACRES OF REFORESTATION ARE REQUIRED. THIS REQUIREMENT WILL BE MET VIA OFF-SITE REFORESTATION ON "ROMITI PROPERTY".

NOTE : TREE PROTECTIVE FENCING TO BE INSTALLED PRIOR TO ANY GRADING WITHIN PARCELS A-1 & B-1 THRU B-4 AROUND THE FOREST CONSERVATION AREAS NOT PROTECTED BY THE EXISTING SUPER SILT FENCE.

LEGEND

- FOREST CONSERVATION EASEMENT (RETENTION)
- FOREST CONSERVATION SIGNAGE

MD DNR QUALIFIED PROFESSIONAL

Stephanie Demchik 2/23/00
STEPHANIE DEMCHIK

DEVELOPER

ATTN : MARK LEVY
DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
1"=100'	RJH

no.	description	date
	revisions	

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - LOT 5
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
FOREST CONSERVATION PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5321 Wash. (410) 997-0298 Fax.

98001\dwg\final\001-fcp-1.dwg 2-23-00 2:49:32 pm EST

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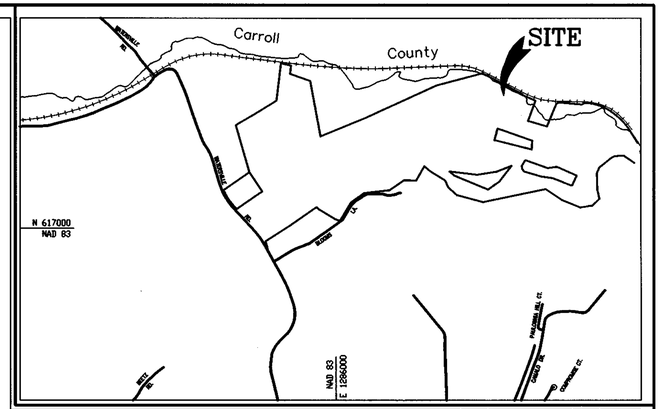

VICINITY MAP
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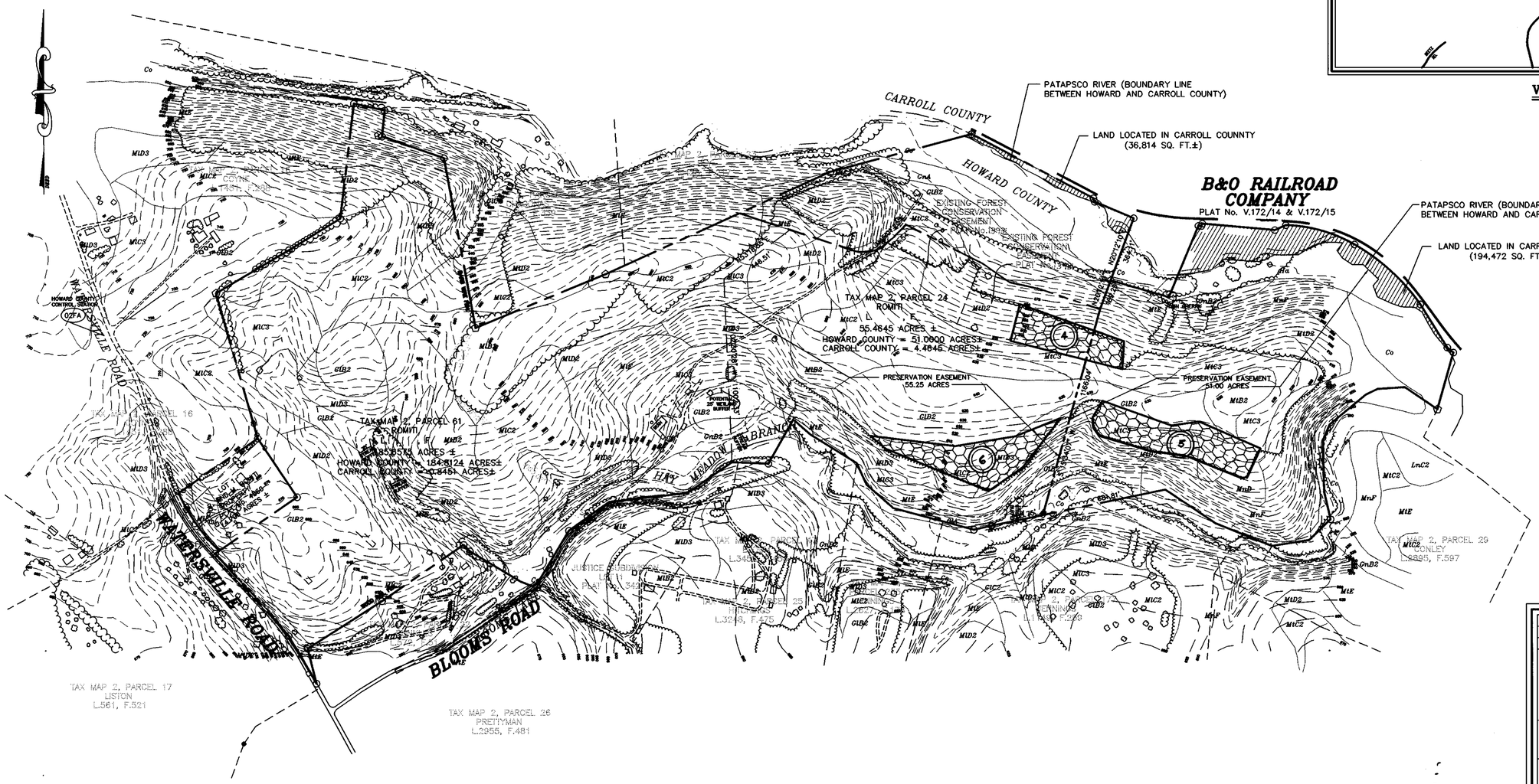

INDICATES AREA(S) OF FOREST CONSERVATION EASEMENT(S) FOR METES AND BOUNDS SEE SHEET 9 OF 9

DEVELOPER

DORSEY ROCK, LLC
c/o ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN: MARK LEVY

OWNER/GRANTOR

MR. ROBERT ROMITI
MR. LORENZO ROMITI
MS. THERESA ROMITI
6723 HOLIBIRD AVENUE
BALTIMORE, MARYLAND 21222

APPROVED: DEPARTMENT OF PUBLIC WORKS	
CHIEF BUREAU OF HIGHWAYS	DATE 3-14-00
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 3/21/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 3/16/00

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PROJECT:
HOWARD BUSINESS PARK
PARCELS A-1 & B-1 THRU B-4

TITLE:
OFF-SITE REFORESTATION PLAN

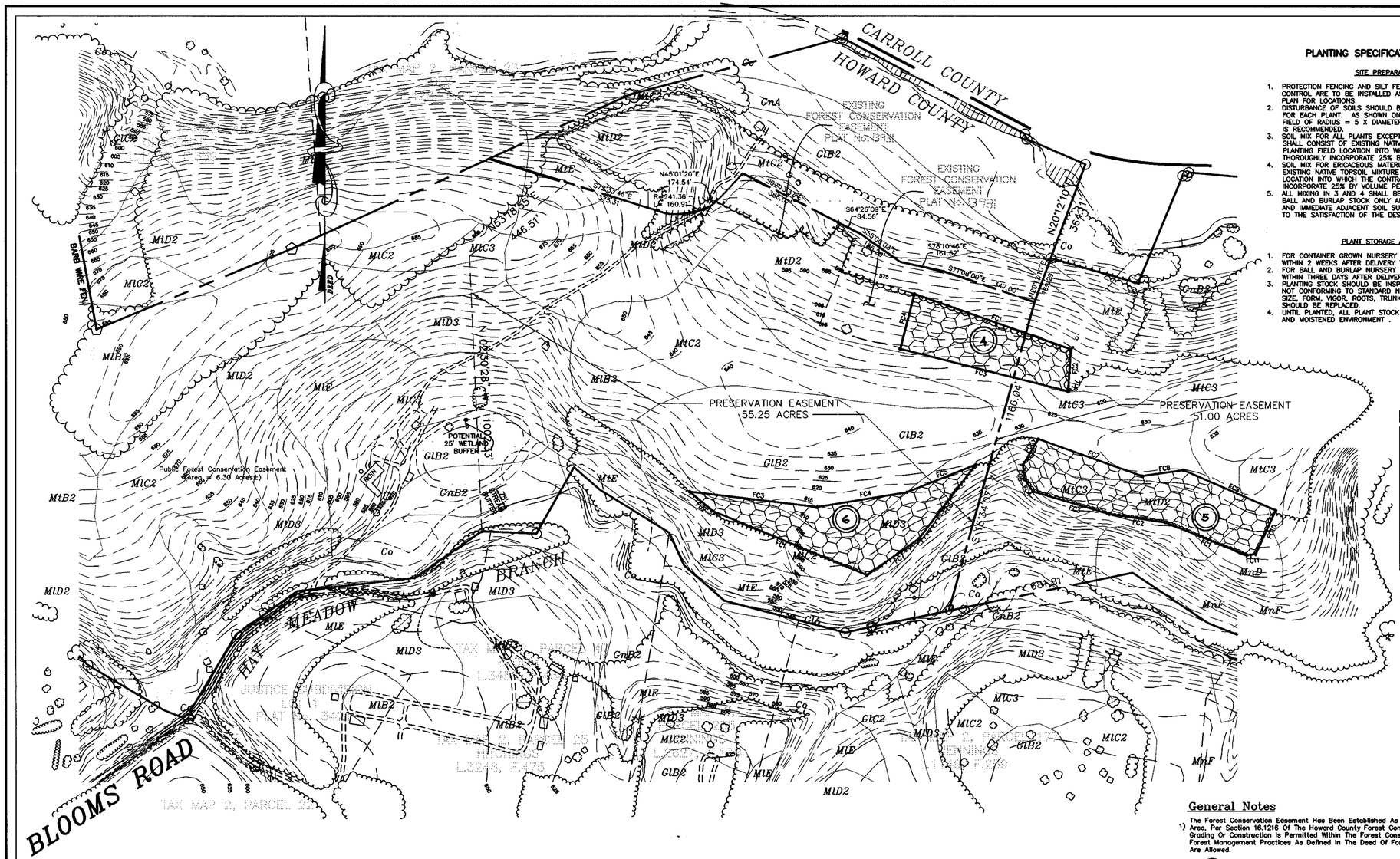
AREA:
ROMITI FARM
TAX MAP, 2 PARCEL 24
HOWARD COUNTY MARYLAND
LIBER, FOLIO

TITLE:
REFORESTATION PLANTING PLAN
COVER SHEET

WILDMAN
ENVIRONMENTAL SERVICES
4747 BONNIE BRANCH RD.
ELLICOTT CITY, MD. 21043
PHONE: (410) 313-9999
FAX: (410) 313-9099

DESIGNED BY: R.B.W.	
DRAWN BY: J.E.P.	
PROJECT NO. 99301	
DATE: 2/4/00	
SCALE: 1"= 300'	
SHEET NO. OF	
SDP SHEET NO. 8 OF 9	

F-00-29



PLANTING SPECIFICATIONS AND NOTES

SITE PREPARATION AND SOILS

1. PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS.
2. DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
3. SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
4. SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
5. ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

PLANT STORAGE AND INSPECTION

1. FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
2. FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
3. PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
4. UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT .

PLANT INSTALLATION

1. THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
2. PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
3. CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THRU LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.
4. CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENCIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
5. FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL. THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
6. FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FOUR (4), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST.
7. AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO OBTAIN A MORE NATURAL APPEARANCE.
8. NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE WELL DRAINED NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.

FERTILIZING

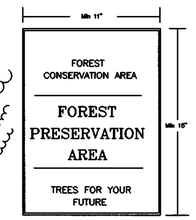
1. DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
2. NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
3. IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALLY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

MAINTENANCE SCHEDULE

1. ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
2. ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
3. VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
4. REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
5. REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
6. A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

SUPERVISION

1. ALL FOREST CONSERVATION ACTIVITIES SHALL BY DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.



SIGNAGE DETAIL

NOT TO SCALE

DEVELOPER

DORSEY ROCK, LLC
c/o ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN: MARK LEVY

OWNER/GRANTOR

MR. ROBERT ROMITI
MR. LORENZO ROMITI
MS. THERESA ROMITI
6723 HOLIBIRD AVENUE
BALTIMORE, MARYLAND 21222

THIS PLAN IS FOR FOREST CONSERVATION EASEMENT PLANTING PURPOSES ONLY

General Notes

1) The Forest Conservation Easement Has Been Established As An Offsite Forest Mitigation Area, Per Section 16.1216 Of The Howard County Forest Conservation Act. No Clearing, Grading Or Construction Is Permitted Within The Forest Conservation Easement; However, Forest Management Practices As Defined In The Deed Of Forest Conservation easement Are Allowed.

2) (No.) Denotes Forest Conservation Easement.

FOREST CONSERVATION EASEMENT AREA TABULATION

No.	AREA
4	2.50 Ac.±
5	3.80 Ac.±
6	3.43 Ac.±

Part Four

PUBLIC FOREST CONSERVATION EASEMENT

LINE	BEARING	DISTANCE
L1	S 70°31'01" E	602.21
L2	S 03°43'40" W	152.61
L3	N 75°51'17" W	628.52
L4	N 14°30'52" E	206.12

Part Five

PUBLIC FOREST CONSERVATION EASEMENT

LINE	BEARING	DISTANCE
FC1	N 68°08'31" W	316.67
FC2	N 81°28'58" W	205.38
FC3	N 73°24'10" W	290.00
FC4	N 35°16'24" W	53.22
FC5	N 05°26'43" W	53.49
FC6	N 30°17'14" E	109.49
FC7	S 70°17'28" E	399.80
FC8	N 81°47'10" E	151.92
FC9	S 66°17'27" E	365.64
FC10	S 24°34'40" W	174.35
FC11	S 83°42'10" W	33.68

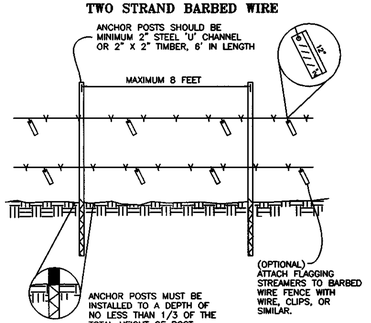
Part Six

PUBLIC FOREST CONSERVATION EASEMENT

LINE	BEARING	DISTANCE
FC1	N 67°25'37" W	608.41
FC2	N 49°33'29" W	107.49
FC3	S 83°06'43" E	466.60
FC4	N 80°40'07" E	330.20
FC5	N 68°00'33" E	270.09
FC6	S 37°30'44" W	340.85
FC7	S 55°03'10" W	229.78

PROTECTIVE FENCE DETAIL

TWO STRAND BARBED WIRE

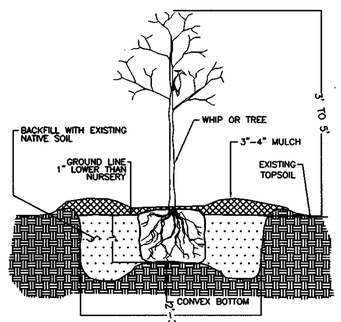


1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.
7. BARBED WIRE SHOULD BE ATTACHED SECURELY TO POSTS.

REFORESTATION PLANT LISTS

QTY.	SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN.O.C. SPACING	SIZE & REMARKS
390	Prunus serotina Wild Black Cherry	I	M	FACU	11'	CONT/BROOT 3'-5' HEIGHT
390	Robinia pseudoacacia Black Locust	VI	D-M	FACU-	11'	CONT/BROOT 3'-5' HEIGHT
390	Quercus prinus Chestnut Oak	MT	D-M	FACU-	11'	CONT/BROOT 3'-5' HEIGHT
390	Quercus rubra Red Oak	MT	D-M	UPL	11'	CONT/BROOT 3'-5' HEIGHT
390	Fraxinus americana White Ash	MT	D-M	FACU	11'	CONT/BROOT 3'-5' HEIGHT
390	Nyssa sylvatica Black Gum	T	M-W	FAC	11'	CONT/BROOT 3'-5' HEIGHT
390	Juglans nigra Black Walnut	VT	M	FACU	11'	CONT/BROOT 3'-5' HEIGHT
390	Acer rubrum Red Maple	VT	D-W	FAC	11'	CONT/BROOT 3'-5' HEIGHT
390	Cercis canadensis Eastern Redbud	T	M	UPL	11'	CONT/BROOT 3'-5' HEIGHT
390	Diospyros virginiana Persimmon	I	D-M	UPL	11'	CONT/BROOT 3'-5' HEIGHT

Quantities Of Individual Species And Species Composition May Change Depending On Availability At Time Of Planting. Total Quantity Of Trees For Entire Easement Area Will Not Change.



TREE PLANTING DETAIL

CONTAINER GROWN

APPROVED: DEPARTMENT OF PUBLIC WORKS CHIEF, BUREAU OF HIGHWAYS	3-14-00 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING CHIEF, DIVISION OF DEVELOPMENT	3/21/00 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	3/16/00 DATE

PROJECT: MES PROPERTY
HOWARD BUSINESS PARK
PARCELS A-1 & B-1 THRU B-4

TITLE: OFF-SITE REFORESTATION PLAN

AREA: ROMITI FARM
TAX MAP, 2 PARCEL 24
HOWARD COUNTY MARYLAND
LIBER, FOLIO

TITLE: REFORESTATION PLANTING PLAN
DETAILS AND SPECIFICATIONS

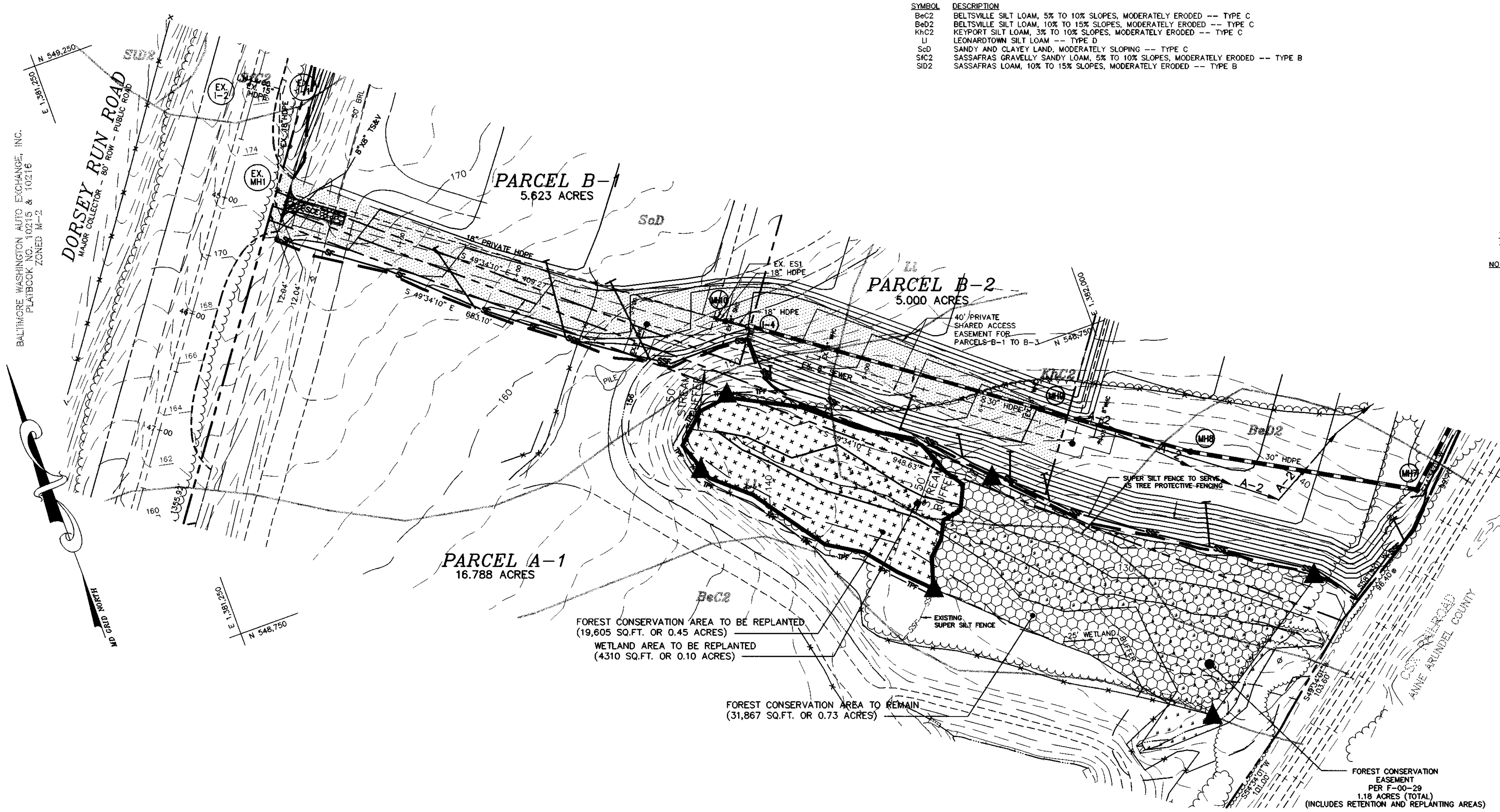
WILDMAN ENVIRONMENTAL SERVICES
4747 BONNIE BRANCH RD.
ELLICOTT CITY, MD. 21043
PHONE: (410) 313-9999
FAX: (410) 313-9099

Ronald A. Wildman 2-23-00

DESIGNED BY: R.B.W.
DRAWN BY: J.E.P.
PROJECT NO. 99301
DATE: 2/23/00
SCALE: 1"= 200'
SHEET NO. OF
SDP SHEET NO. 9 OF 9

AUTOCAD FILE NAME C:\DRAWINGS\Romiti Property\Mobberly\MOBREF26AC.dwg

F-00-29



SOILS DESCRIPTION

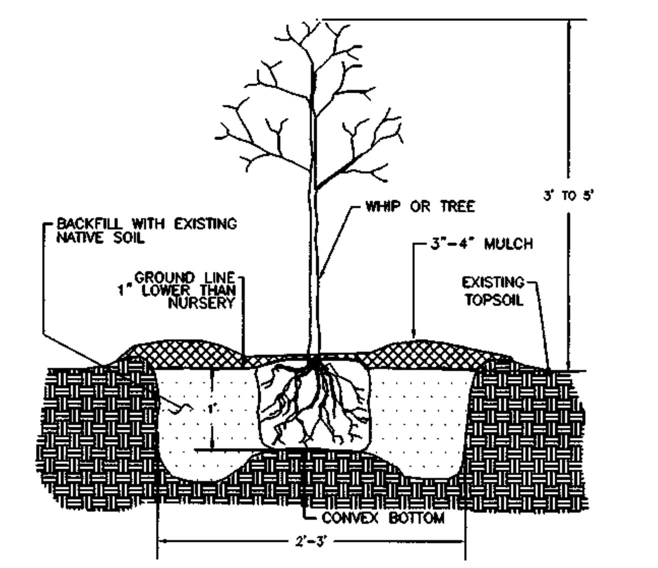
SYMBOL	DESCRIPTION
BeC2	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
BeD2	BELTSVILLE SILT LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE C
KhC2	KEYPORT SILT LOAM, 3% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
Ll	LEONARDTOWN SILT LOAM -- TYPE D
ScD	SANDY AND CLAYEY LAND, MODERATELY SLOPING -- TYPE C
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE B
SlD2	SASSAFRAS LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE B

UPLAND AND WETLAND PLANT LIST

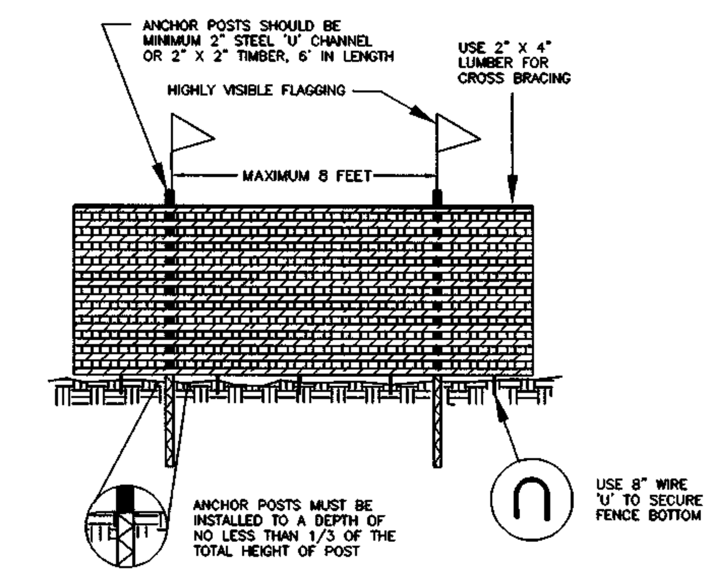
QTY.	SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN.O.C. SPACING	SIZE & REMARKS
35	Acer negundo Box Elder	T	M-W	FAC+	8'	CONT/B & B 3'-5' HEIGHT
28	Acer rubrum Red Maple	VT	D-W	FAC	15'	CONT/B & B 1" CALIPER
35	Fraxinus pennsylvanica Green Ash	I-MT	M-W	FACW	11'	CONT/B & B 3'-5' HEIGHT
35	Lindera benzoin Spicebush	VT	M-W	FAC+	8'	CONT/B & B 3'-5' HEIGHT
28	Liquidambar styraciflua American Sweetgum	I	M-W	FAC	15'	CONT/B & B 1" CALIPER
35	Nyssa sylvatica Black Gum	T	M-W	FAC	11'	CONT/B & B 1" CALIPER
28	Platanus occidentalis American Sycamore	MT	M-W	FACW-	15'	CONT/B & B 1" CALIPER
28	Quercus palustris Pin Oak	I	M-W	FACW	15'	CONT/B & B 1" CALIPER
28	Quercus phellos Willow Oak	I	M-W	FAC+	15'	CONT/B & B 1" CALIPER
32	Vaccinium corymbosum Highbush Blueberry	T	D-W	FAC	8'	CONT/B & B 3'-5' HEIGHT
35	Viburnum dentatum Arrowwood Viburnum	T	M-W	FACW	8'	CONT/B & B 3'-5' HEIGHT

TOTAL
347 TREES & SHRUBS (315 TREES & SHRUBS REQUIRED AND 32 ADDITIONAL SHRUBS)

NOTE : WHIPS OR SEEDLINGS MAY BE SUBSTITUTED FOR THE 1" CALIPER OR 3' - 5' TREES. IF WHIPS OR SEEDLINGS ARE TO BE USED, MULTIPLY THE QUANTITIES BY 3.5 TO DETERMINE THE NUMBER OF TREES REQUIRED.



TREE PLANTING DETAIL
CONTAINER GROWN



NOTES
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3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

PROTECTIVE FENCE DETAIL
BLAZE ORANGE PLASTIC MESH

NOTE: THIS PLAN IS TO BE USED FOR FOREST CONSERVATION PURPOSES ONLY.

NOTES :

1. THE FOREST CONSERVATION SURETY FOR THE AREA DESIGNATED TO BE REPLANTED HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT UNDER THIS PLAN, F-00-29, HOWARD BUSINESS PARK, PARCEL A-1 & B-1 THRU B-4.
2. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE, FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
3. THE EXISTING FOREST CONSERVATION SIGNAGE IS TO REMAIN. THE EXISTING SUPER SILT FENCE SHOWN HEREON IS TO REMAIN IN PLACE UNTIL COMPLETION OF ALL SITE WORK, TO SERVE AS TREE PROTECTIVE FENCING.

98001\dwg\final\001-replant.dwg 5-3-01 4:31:30 pm EST

APPROVED: DEPARTMENT OF PUBLIC WORKS
[signature] 5-11-01
CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONNING
[signature] HB 5/15/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[signature] 5/14/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

PLANTING SPECIFICATIONS AND NOTES

SITE PREPARATION AND SOILS

1. PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS, IF NECESSARY.
2. DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
3. SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
4. SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
5. ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

PLANT STORAGE AND INSPECTION

1. FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
2. FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
3. PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
4. UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT .

PLANT INSTALLATION

1. THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
2. PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
3. CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THRU LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.
4. CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENCIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
5. FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL. THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
6. FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FOUR (4), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST.
7. AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO OBTAIN A MORE NATURAL APPEARANCE.
8. NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE WELL DRAINED NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.

FERTILIZING

1. DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
2. NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
3. IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALLY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

MAINTENANCE SCHEDULE

1. ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
2. ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
3. VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
4. REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
5. REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
6. A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

SUPERVISION

ALL FOREST CONSERVATION ACTIVITIES SHALL BY DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

STANDARD NON-DISTURBANCE NOTE:
"THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY HOWARD COUNTY ."

STATE OF MARYLAND STEPHANIE JENENE DEMCHIK No. 303 LANDSCAPE ARCHITECT
MD DNR QUALIFIED PROFESSIONAL
[signature] 5/3/01
STEPHANIE DEMCHIK

LEGEND

- FLOW ARROWS
- LIMIT OF DISTURBANCE
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- SF — SILT FENCE
- SSF — SUPER SILT FENCE
- EX. WETLANDS
- TPF — TREE PROTECTIVE FENCING
- EX. FOREST CONSERVATION EASEMENT (RETAINED)
- FOREST CONSERVATION EASEMENT AREA TO BE REPLANTED
- WETLANDS TO BE REPLANTED
- EX. FOREST CONSERVATION SIGNAGE TO REMAIN

SITE CONTRACTOR

CHESAPEAKE CONTRACTING
C/O MILDENBERG, BOENDER & ASSOCIATES, INC.
5072 DORSEY HALL DRIVE, SUITE 202
ELLICOTT CITY, MARYLAND 21042
(410) 997-0296

project	date
98001	MAY 2001
illustration	engineering
SJD	SJD
scale	approval
1"=50'	RJH

no.	description	date
	revisions	

HOWARD BUSINESS PARK
PARCELS A-1 & B-1 THRU B-4
TAX MAP 43 - PARCEL 321 - BLOCK 12
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

WETLAND & FOREST REPLANTING PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

F-00-29

ROAD CONSTRUCTION PLANS
HOWARD BUSINESS PARK
PARCELS A-1 & B-1 THRU B-4
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SHEET INDEX

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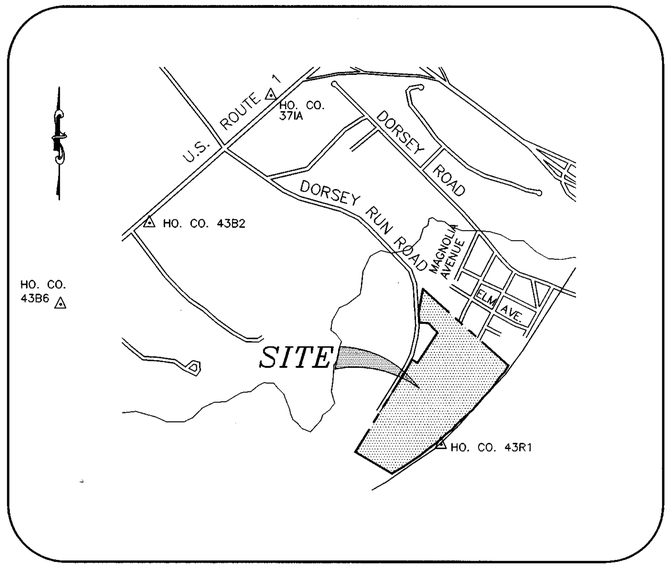

VICINITY MAP

SCALE: 1'=1000'

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 2/22/00
MARK L. LEVY
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000
R. JAGAR HIKMAT
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

USDA - NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/9/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONNING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:

MISS UTILITY	1-800-257-7777
C&P TELEPHONE COMPANY	(410) 725-9976
HOWARD COUNTY BUREAU OF UTILITIES	(410) 313-4900
AT&T CABLE LOCATION DIVISION	(410) 393-3533
BALTIMORE GAS & ELECTRIC	(410) 685-0123
STATE HIGHWAY ADMINISTRATION	(410) 531-5533
HOWARD COUNTY DEPT. OF PUBLIC WORKS/ CONSTRUCTION INSPECTION DIVISION	(410) 313-1880

4. PROJECT BACKGROUND:
   LOCATION: FIRST ELECTION DISTRICT - TAX MAP 43 - PARCEL 321

   ZONING: M-2
   TOTAL TRACT AREA: 51.90 ACRES ±
   NUMBER OF PROPOSED LOTS: 5
   ACREAGE OF PROPOSED LOTS : 51.90 ACRES ±
   OPEN SPACE REQUIRED : 0 ACRES
   OPEN SPACE PROVIDED : 0 ACRES
   PROPOSED ROAD DEDICATION : 0 ACRES
   DPZ REFERENCE #:
   - SDP-95-60 APPROVED ON JUNE 19, 1995.
   - WP-00-23 APPROVED ON AUGUST 31, 1999.
   - F-00-27 RECORDED ON OCTOBER 8, 1999, AS PLAT # 13970.
5. TWO FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL MAPPING TOPOGRAPHIC SURVEY BY WINGS AERIAL MAPPING CO, INC. IN FEBRUARY 1999.
6. HORIZONTAL AND VERTICAL DATUMS BASED ON (NAD'83) MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.

STA. No. 43B6	N 550,601.597 E 1,376,866.071	ELEV. 210.54
STA. No. 43B2	N 551,654.993 E 1,378,176.951	ELEV. 209.59
STA. No. 371A	N 553,315.147 E 1,379,982.153	ELEV. 195.75
STA. No. 43R1	N 548,305.502 E 1,382,025.818	ELEV. 134.53

7. STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
8. WATER AND SEWER ARE PUBLIC, CONTRACT # 44-3421-D FOR WATER AND CONTRACT # 10-3775-D FOR SEWER.
9. STORMWATER MANAGEMENT CONTROL WILL BE PROVIDED UNDER THE FUTURE SITE DEVELOPMENT PLAN.
10. TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC. IN AUGUST 1999.
11. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
12. WETLAND AND STREAM DELINEATION PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC. IN JANUARY 1998.
13. COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T-180.
14. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES ON SITE PRIOR TO COMMENCING CONSTRUCTION.
15. FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.200 OF HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING, OF CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OR CONSERVATION EASEMENT ARE ALLOWED.
16. A PORTION OF THE FOREST CONSERVATION OBLIGATIONS INCURRED BY THIS SUBDIVISION (9.73 ACRES OF REFORESTATION) WILL BE MET VIA OFF-SITE REFORESTATION ON "ROMITI PROPERTY".
17. PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
18. SLOPES IN EXCESS OF 25% EXIST AND ARE IDENTIFIED WHERE THEY EXCEED 20,000 SQ. FT.
19. THIS PROJECT IS SUBJECT TO WAIVER PETITION, WP-00-23, APPROVED ON AUGUST 31, 1999, WHICH WAIVED THE FOLLOWING TO PERMIT RECORDATION OF NONBUILDABLE PRESERVATION PARCELS A & B :

SECTION 16.116(a)(4)	WETLANDS AND THE REQUIRED BUFFERS FOR WETLAND AND STREAMS SHALL BE DELINEATED ON FINAL PLATS.
SECTION 16.117	REQUIRES THE SUBMISSION OF A FOREST CONSERVATION PLAN.
SECTION 16.124(a)(3)(ii)	FINAL PLAN SUBMISSIONS SHALL INCLUDE THE FINAL LANDSCAPE PLAN IN THE ROAD CONSTRUCTION DRAWINGS.
SECTION 16.132	REQUIREMENT TO PROVIDE ROAD IMPROVEMENTS.
SECTION 16.144(a) & (f)	REQUIRES THE SUBMISSION OF A SKETCH PLAN AND A PRELIMINARY PLAN.

20. THIS PROJECT IS SUBJECT TO WAIVER PETITION, WP-00-26, APPROVED ON DECEMBER 30, 1999, WHICH WAIVED THE FOLLOWING:

SECTION 16.124(a)(3)(ii)	FINAL PLAN SUBMISSIONS SHALL INCLUDE THE FINAL LANDSCAPE PLAN IN THE ROAD CONSTRUCTION DRAWINGS.
SECTION 16.144(a) & (f)	REQUIRES THE SUBMISSION OF A SKETCH PLAN AND A PRELIMINARY PLAN.
SECTION 16.120(c)(1)	REQUIRES COMMERCIAL LOTS TO HAVE A MINIMUM OF 60 FEET OF FRONTAGE ON AN APPROVED PUBLIC ROAD.

21. ALL STORM DRAIN PIPES TO BE HDPE UNLESS OTHERWISE NOTED.
22. IF MATERIAL IS WITHIN 8% OF OPTIMUM MOISTURE, WORKING THE MATERIAL UNTIL REQUIRED COMPACTION IS ACHIEVED IS CONTRACTOR'S RESPONSIBILITY.
23. SEDIMENT CONTROL FOR THIS PROJECT IS PROVIDE UNDER SDP-95-60. ALL SEDIMENT CONTROL DEVICES CONSTRUCTED UNDER SDP-95-60 WILL REMAIN IN PLACE DURING THE CONSTRUCTION OF THE DORSEY RUN ROAD EXTENSION.
24. THE STREET LIGHT LOCATIONS AND TYPES OF LIGHTS SHOWN ON SHEET 2 ARE AS FOLLOWS :
   - 250-WATT HPS VAPOR PENDANT FIXTURE (CUTOFF) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM ANGLED RADIAL TO THE FILLET AT DORSEY RUN ROAD, STATION 39+27, 11' RIGHT, STATION 45+30, 36' LEFT.
25. THE FOREST CONSERVATION ORDINANCE HAS BEEN COMPLIED WITH IN ACCORDANCE WITH THE FOLLOWING:
   TOTAL OBLIGATION = 18.78 ACRES — ON-SITE FOREST RETENTION = 9.05 ACRES
   OFF-SITE REFORESTATION (ROMITI PROPERTY) = 9.73 ACRES

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
AS SHOWN	RJH

no.	description	date
1	REVISE GENERAL NOTE #24 TO ELIMINATE STREET LIGHT AT STA 47+81	10/16/2000

revisions

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - BLOCK 12
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
COVER SHEET

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

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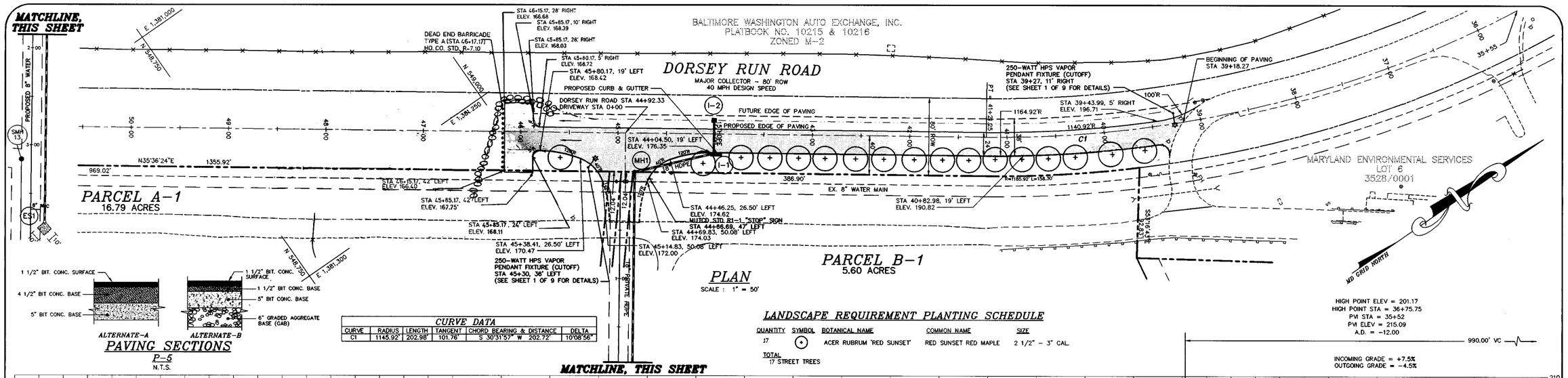
F-00-29



PLAN

SCALE : 1" = 50'

PAVING SECTIONS

P-5
N.T.S.

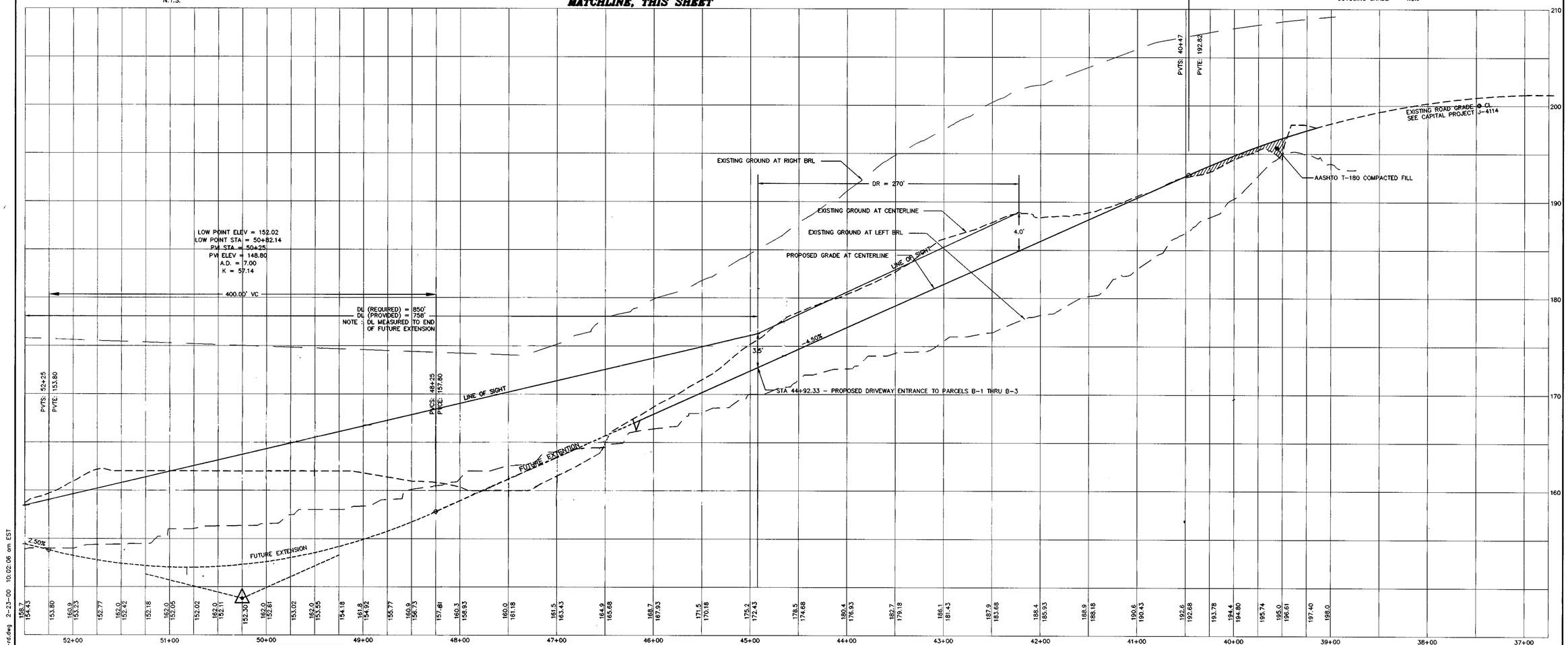
CURVE DATA

CURVE	RADIUS	LENGTH	TANGENT	CHORD BEARING & DISTANCE	DELTA
C1	1145.92'	202.98'	101.76'	S 30°31'57" W 202.72'	10°08'56"

LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
17	⊙	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.

TOTAL
17 STREET TREES



DORSEY RUN ROAD PROFILE

MAJOR COLLECTOR (40 MPH DESIGN SPEED)

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'

SIGHT DISTANCE NOTES

DESIGN SPEED = 40 MPH
HEIGHT OF EYE = 3.5'
HEIGHT OF OBJECT = 4.0'

DISTANCE LEFT (BOTH ENTRANCES)		DISTANCE RIGHT (BOTH ENTRANCES)	
LEFT	440' X 0.5 = 220'	LEFT	540' X 0.5 = 270' (CONTROL)
RIGHT	510' X 1.7 = 850' (CONTROL)	RIGHT	—
CROSS	—	CROSS	—
GRADE = -4.5%		GRADE = +4.5%	

BASED ON THIS ANALYSIS, THE ENTRANCES HAVE ADEQUATE SIGHT DISTANCE.

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/10/00

STATE OF MARYLAND — REGISTERED PROFESSIONAL ENGINEER — 17848

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
AS SHOWN	RJH

no.	description	date
1	RE-DO ATE "TURNAROUND FROM STA 6+23 TO STA 10+00 ON THE NORTHWEST CORNER OF STREET TREES PER HEALTH DEPT OF ROAD	10/16/2000

revisions

HOWARD BUSINESS PARK, PARCEL A-1 & B-1 THRU B-4

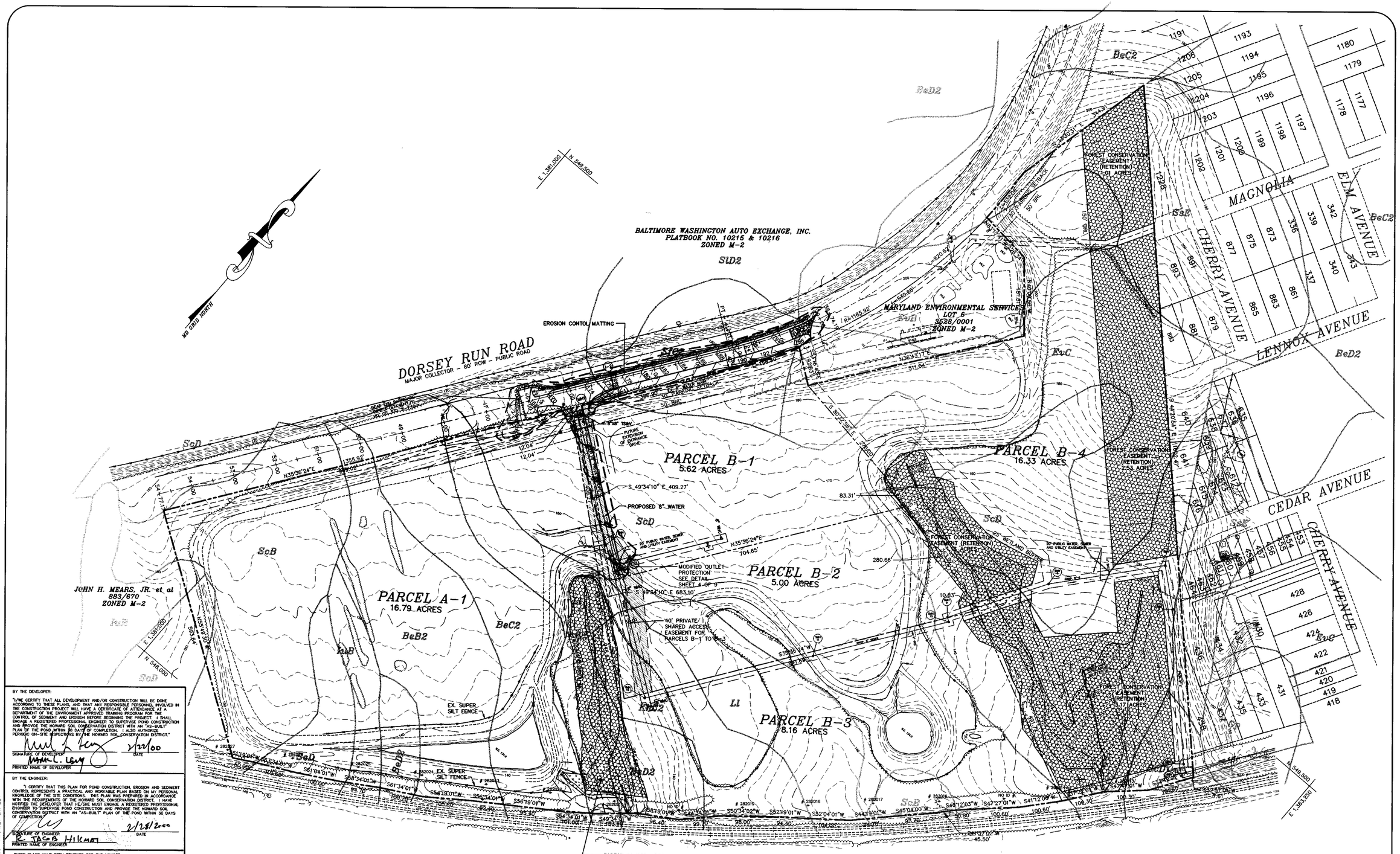
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - BLOCK 12
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

ROAD PLAN AND PROFILE

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202 Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

98001\dwg\final\001-rd.dwg 2-23-00 10:02:06 am EST

F-00-29



SOILS DESCRIPTION

SYMBOL	DESCRIPTION
BeB2	BELTSVILLE SILT LOAM, 1% TO 5% SLOPES, MODERATELY ERODED -- TYPE C
BeC2	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
BeC3	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, SEVERELY ERODED -- TYPE C
BeD2	BELTSVILLE SILT LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE C
EvB	EVESBORO LOAMY SAND, 1% TO 5% SLOPES -- TYPE A
EvC	EVESBORO LOAMY SAND, 5% TO 15% SLOPES -- TYPE A
Gp	GRAVEL PITS AND QUARRIES
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1% TO 5% SLOPES -- TYPE C
KhC2	KEYPORT SILT LOAM, 3% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
Ll	LEONARDTOWN SILT LOAM -- TYPE D
ScB	SANDY AND CLAYEY LAND, GENTLY SLOPING -- TYPE C
ScD	SANDY AND CLAYEY LAND, MODERATELY SLOPING -- TYPE C
ScE	SANDY AND CLAYEY LAND, MODERATELY STEEP -- TYPE C
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE B
SlD2	SASSAFRAS LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE B
SsE	SASSAFRAS SOILS, 15% TO 40% SLOPES -- TYPE B

THIS PLAN TO BE USED ONLY FOR GRADING & EROSION AND SEDIMENT CONTROL PLAN PURPOSES ONLY.

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 1/27/00
MARK L. LEVY
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000
E. TAGG HILKERT
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/9/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONNING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/10/00

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project	date
98001	FEB 2000
Illustration	engineering
SJD	SJD
scale	approval
1"=100'	RJH

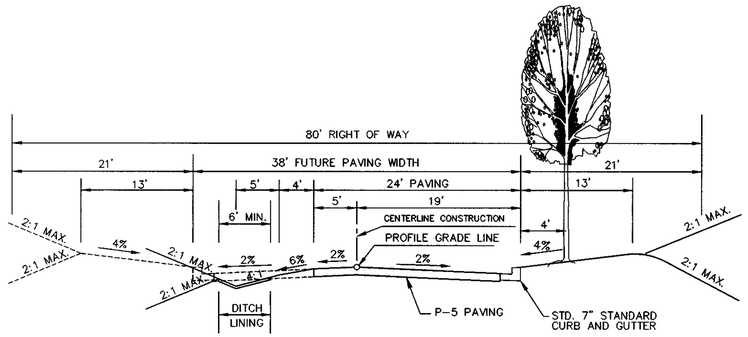
No.	description	date
1	RELOCATE T-TURNAROUND	10/20/00

revisions

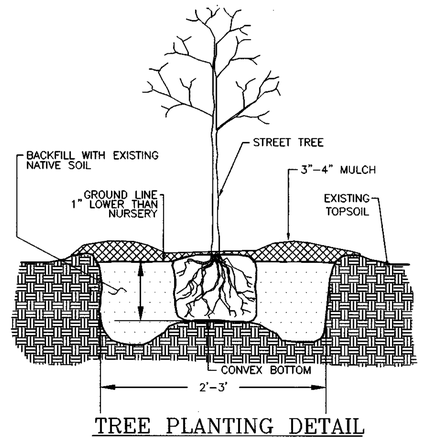
HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - LOT 5
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
GRADING & EROSION AND SEDIMENT CONTROL PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 987-0296 Balt. (301) 621-5521 Wash. (410) 987-0298 Fax.

E-00-29



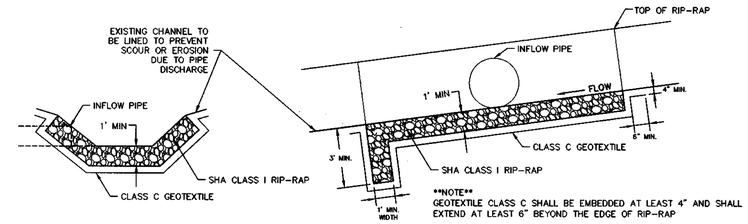
TYPICAL SECTION – MAJOR COLLECTOR
40 MPH DESIGN SPEED
STA 39+19.28 TO STA 46+15.17
N.T.S.



TREE PLANTING DETAIL
CONTAINER GROWN

MODIFIED OUTLET PROTECTION DETAIL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. EXTREME CARE SHALL BE TAKEN TO PRESERVE THE CHANNEL GEOMETRY AND STABILITY OF THE EXISTING DITCH.

2. THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

3. THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER

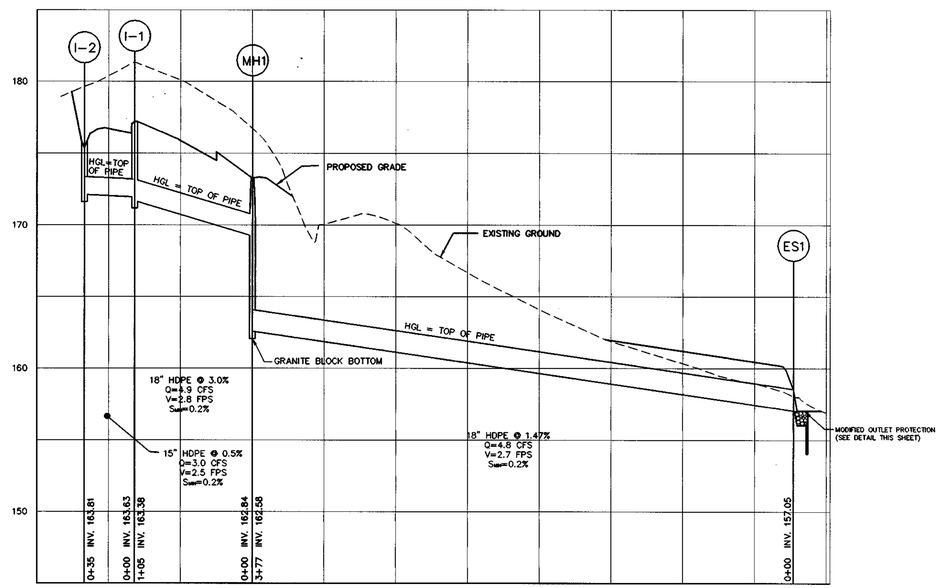
4. GEOTEXTILE SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. ALL OVERLAPS WHETHER FOR REPAIRS OR FOR JOINING TWO PLACES OF GEOTEXTILE SHALL BE A MINIMUM OF ONE FOOT.

5. STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.

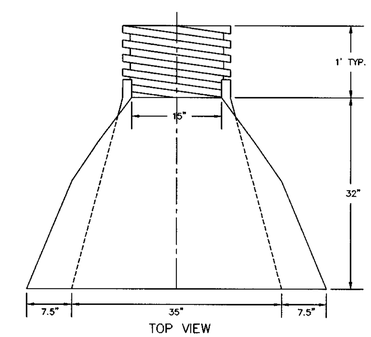
6. THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.

PIPE SCHEDULE

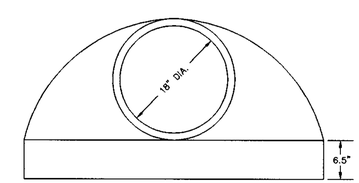
QUANTITY	PIPE SIZE
35'	15" HDPE
482'	18" HDPE



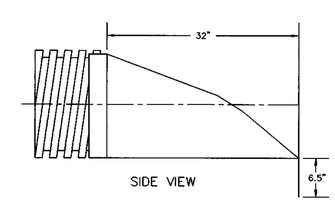
STORM DRAIN PROFILE – I-2 TO ES1
HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'



TOP VIEW



END VIEW



SIDE VIEW

18" HDPE END SECTION
(PART NO. 1810 NP)
NOT TO SCALE

INSTALLATION INSTRUCTIONS

1. SPREAD THE END SECTION COLLAR AND PLACE IT OVER THE LAST PIPE CORRUGATION. MAKE SURE THE COLLAR SEATS PROPERLY IN THE CORRUGATION VALLEY.
2. INSERT THREADED ROD THROUGH THE PRE-DRILLED HOLES IN THE END SECTION COLLAR. TIGHTEN WING NUTS.
3. PLACE BACKFILL AROUND THE END SECTION AND OVER THE TOE PLATE. USE CARE DURING COMPACTION ALONG THE SIDES TO PREVENT DISTORTION.

STRUCTURE SCHEDULE

NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS
I-1	DORSEY RUN ROAD STA 43+98.84 – 19' LEFT	177.20	171.94	171.69	INLET TYPE A-10 (HO. CO. STD SD 4.02) – 99% EFF.
I-2	DORSEY RUN ROAD STA 44+01.25 – 14' RIGHT	175.37	----	172.12	INLET TYPE K (HO. CO. STD SD 4.13)
M-1	DORSEY RUN ROAD STA 44+82.33 – 40' LEFT	173.27	169.23	162.74	PRECAST MANHOLE (HO. CO. STD SD 5.11)
ES-1	NORTHING 548,842.624 EASTING 1,381,767.254	----	----	157.05	18" ø HDPE END SECTION (SEE DETAIL ABOVE)

* STATIONS GIVEN TO CENTERLINE OF INLET AT TOP OF CURB FOR INLETS LOCATED WITHIN THE ROAD RIGHT-OF-WAY. STATIONS FOR "K" INLETS TO CL OF INLET. LOCATION OF END SECTION GIVEN TO THE CENTERLINE OF PIPE AT THE CONNECTION OF THE STORM DRAIN PIPE TO END SECTION.

** ELEVATIONS MEASURED TO CENTER OF ALL INLETS.

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 2/22/00
MARK L. LEVY
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000
C. JACOB HIKMAT
PRINTED NAME OF ENGINEER

STATE OF MARYLAND — C. JACOB HIKMAT — 17948 — PROFESSIONAL ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA – NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/9/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONNING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

DEVELOPER

ATTN : MARK LEVY
DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
AS SHOWN	RJH

no.	description	date
1	REVISE END STATION ON TYPICAL ROAD SECTION	10/20/00

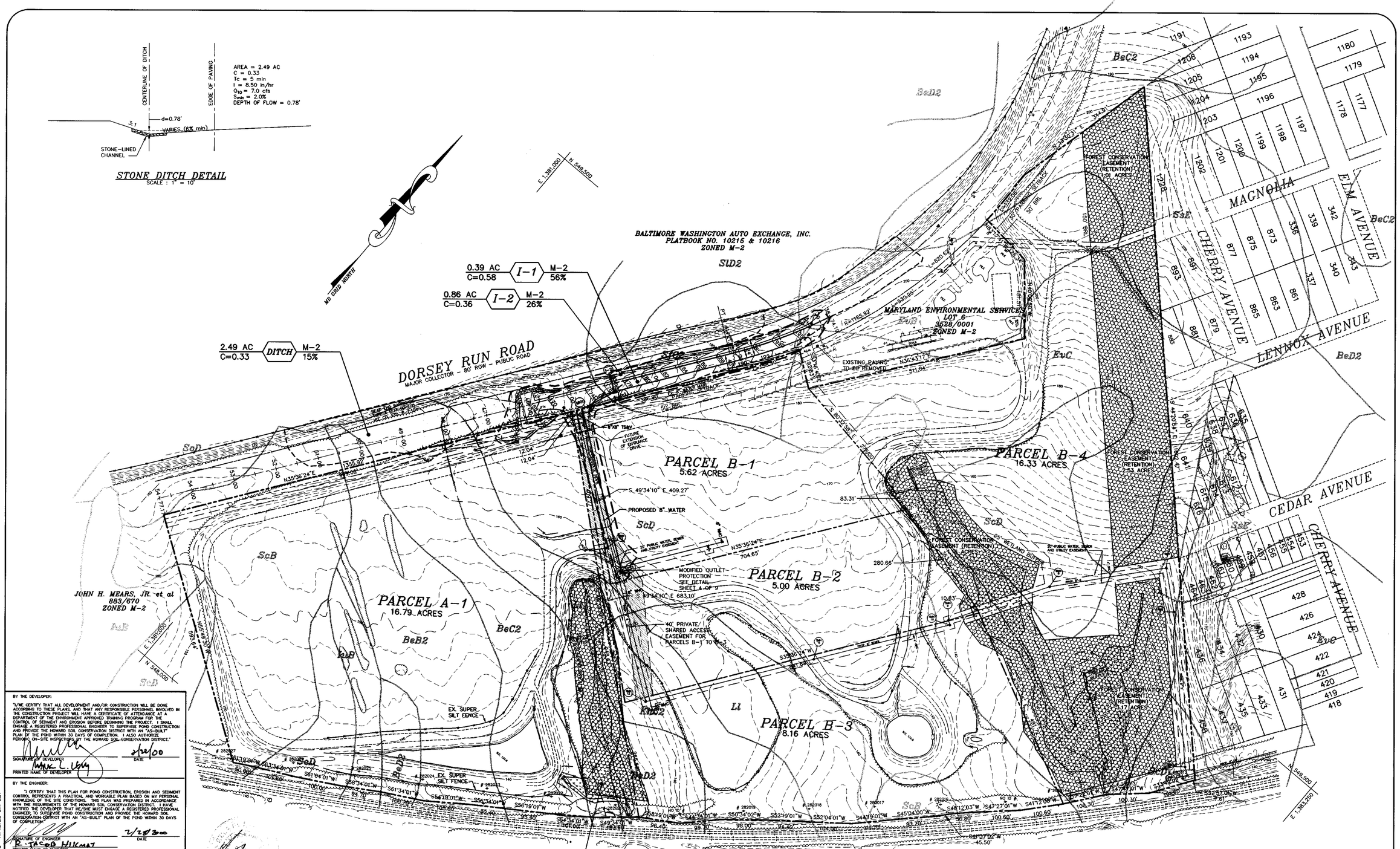
revisions

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 – PARCEL 321 – BLOCK 12
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
DETAILS & STORM DRAIN PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202 Ellicott City, Maryland 21042
(410) 997-0296 Bal. (301) 621-5521 Wash. (410) 997-0298 Fax.

F-00-29

98001\dwg\final\001-sd.dwg 2-23-00 2:47:01 pm EST



BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 2/22/00

PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000

E. Jacob Hikmat
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/14/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/14/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

98001\dwg\final\001-inletdam.dwg 2-23-00 11:45:53 am EST

SOILS DESCRIPTION

SYMBOL	DESCRIPTION
BeB2	BELTSVILLE SILT LOAM, 1% TO 5% SLOPES, MODERATELY ERODED -- TYPE C
BeC2	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
BeC3	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, SEVERELY ERODED -- TYPE C
BeD2	BELTSVILLE SILT LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE C
EvB	EVESBORO LOAMY SAND, 1% TO 5% SLOPES -- TYPE A
EvC	EVESBORO LOAMY SAND, 5% TO 15% SLOPES -- TYPE A
Gp	GRAVEL PITS AND QUARRIES
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1% TO 5% SLOPES -- TYPE C
KhC2	KEYPORT SILT LOAM, 3% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
Ll	LEONARDTOWN SILT LOAM -- TYPE D
ScB	SANDY AND CLAYEY LAND, GENTLY SLOPING -- TYPE C
ScD	SANDY AND CLAYEY LAND, MODERATELY SLOPING -- TYPE C
ScE	SANDY AND CLAYEY LAND, MODERATELY STEEP -- TYPE C
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE B
SlD2	SASSAFRAS LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE B
SsE	SASSAFRAS SOILS, 15% TO 40% SLOPES -- TYPE B

THIS PLAN TO BE USED ONLY FOR DRAINAGE AREA MAP PURPOSES ONLY.

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

F-00-29

project	date	
98001	FEB 2000	engineering
illustration	SJD	approval
SJD	scale	RJH
	1"=100'	

no.	description	date
1	RELOCATE T-TURNAROUND	10/20/00
	revisions	

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - LOT 5
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

DRAINAGE AREA MAP

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5321 Wash. (410) 997-0298 Fax.

HOWARD SOIL CONSERVATION DISTRICT

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:
1) PREFERRED – APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING , APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.).
2) ACCEPTABLE – APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING – FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 1.4 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LOBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) – 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) – USE SOD. OPTION (3) – SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONE/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.

TEMPORARY SEEDING NOTES

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

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

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

1) 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 NAY CONSTRUCTION, (313-1855).

2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.

3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR 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 1991 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.

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7) SITE ANALYSIS:

TOTAL AREA OF SITE:	54.04	ACRES
AREA DISTURBED:	1.73	ACRES
AREA TO BE ROOFED OR PAVED:	0.50	ACRES
AREA TO BE VEGITATIVELY STABILIZED:	1.23	ACRES
TOTAL CUT:	6,550	CU. YDS.
TOTAL FILL:	6,550	CU. YDS.
TOTAL WASTE/BORROW AREA LOCATION:	N/A	

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY.
CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.

8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY 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 LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

I. 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.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE 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 SPECIFICATION. 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, 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.

ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON-SON 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 FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION – SECTION i – VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

i. 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 TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A pH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PERSCRIBED TO RAISE THE pH TO 6.5 OR HIGHER.

b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.

c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

d. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN 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 APPLLICATION

i. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" – 8" HIGHER IN ELEVATION.

iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 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 TOPSOILING 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 COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

i. COMPOSTED SLUDGE 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 AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO 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 LEASE 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOURUS, 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 1 TON/1,000 SQUARE FEET.

iv. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILLIZER 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.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT LOCATIONS SHOWN. (1 DAY)
3. INSTALL SEDIMENT CONTROL MEASURES. (1 DAY)
4. GRADE SITE. (5 DAYS)
5. CONSTRUCT STORM DRAIN SYSTEM AND BLOCK. (3 DAYS)
6. BRING SITE TO FINAL GRADE AND PAVE ROAD. (5 DAYS)
7. STABILIZE ALL DISTURBED AREAS. (3 DAYS)
8. WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS. (3 DAYS)

TEMPORARY DUST CONTROL MEASURES

1. MULCHES – SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.

2. VEGETATIVE COVER – SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.

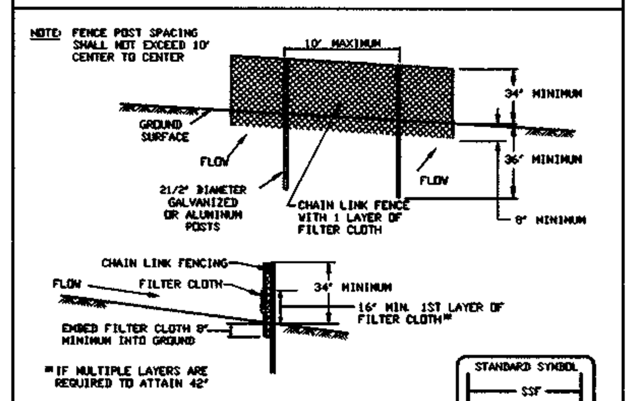
3. TILLAGE – TO ROUGHTN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS APCED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

4. IRRIGATION – THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.

5. BARRIERS – SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALT OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.

6. CALCIUM CHLORIDE – APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

DETAIL 33 - SUPER SILT FENCE



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 fence 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 by 6" and folded.

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 Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft²/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

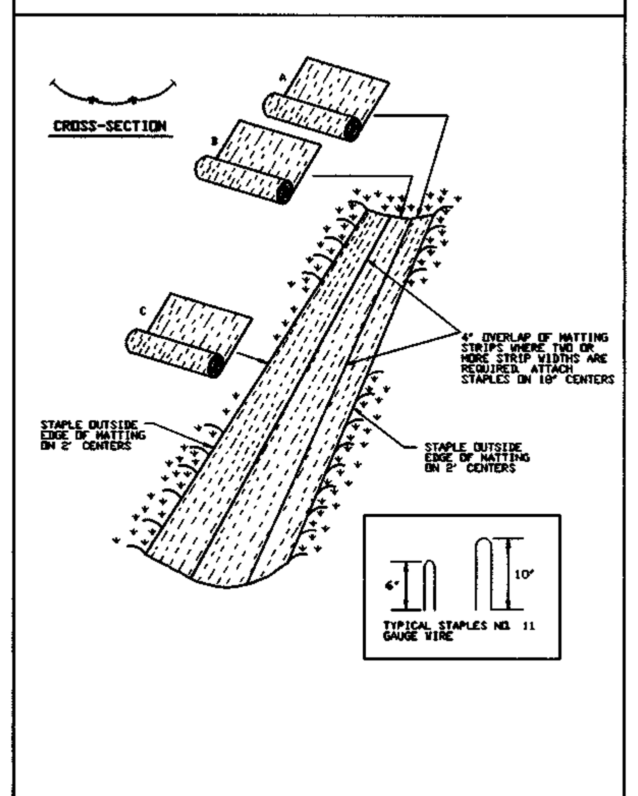
SUPER SILT FENCE

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 30 - EROSION CONTROL MATTING



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G - 22 - 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

EROSION CONTROL MATTING

Construction Specifications

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.

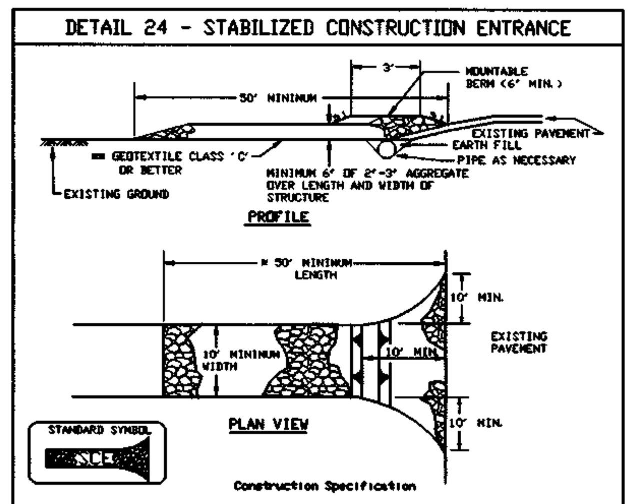
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.

6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G - 22 - 2A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).

2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.

4. 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.

5. 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.

6. Location – 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 17 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

[signature] 2/22/00
SIGNATURE OF DEVELOPER — DATE
MARK L. LEVY
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

[signature] 2/28/2000
SIGNATURE OF ENGINEER — DATE
R. JACOB HIKMAT
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[signature] 3/9/00
USDA – NATURAL RESOURCE CONSERVATION SERVICE — DATE

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

[signature] 3/9/00
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

[signature] 3-14-00
CHIEF BUREAU OF HIGHWAYS — DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONNING

[signature] 3/21/00
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

[signature] 3/16/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

98001\dwg\final\001-sedno.dwg 2-23-00 11:37:26 am EST

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
1"=100'	RJH

no.	description	date
1	REVISE SITE ANALYSIS TABLE PER CHANGE TO LOD	10/23/00

revisions

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 – PARCEL 321 – LOT 5
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL NOTES & DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

F-00-29

GENERAL NOTES

FOREST PROTECTION

1. ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGHAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES UNDER THE SDP.
2. THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.
3. ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
4. ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
5. INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
6. THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
7. REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
8. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
9. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

PRE-CONSTRUCTION MEETING

1. AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
   - A. TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
   - B. INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
   - C. MAKE ALL NECESSARY ADJUSTMENTS;
   - D. ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

CONSTRUCTION MONITORING

1. THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.
2. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
3. THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

NOTE :

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

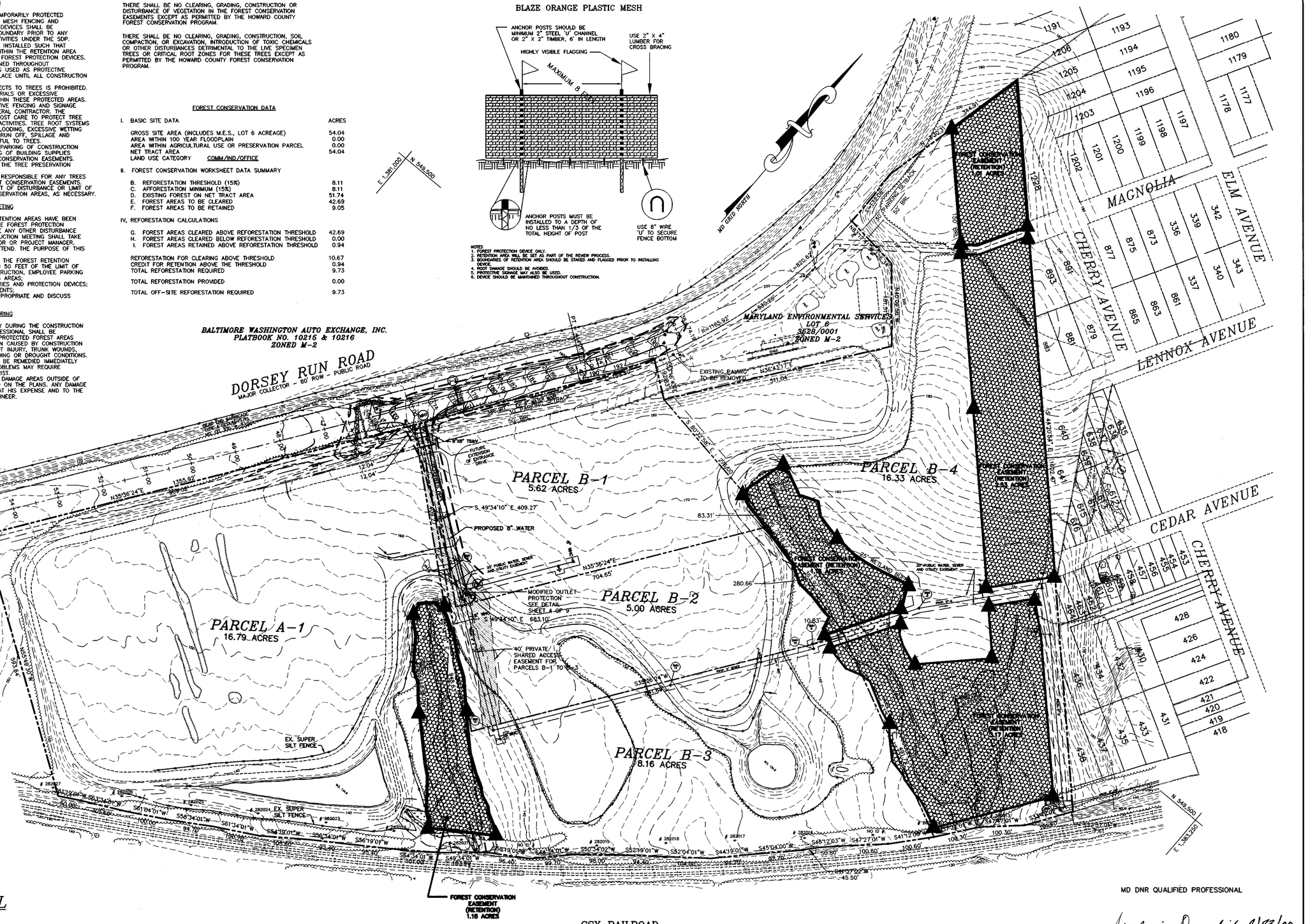
FOREST CONSERVATION DATA

		ACRES
I.	BASIC SITE DATA	
	GROSS SITE AREA (INCLUDES M.E.S., LOT 6 ACREAGE)	54.04
	AREA WITHIN 100 YEAR FLOODPLAIN	0.00
	AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	0.00
	NET TRACT AREA	54.04
	LAND USE CATEGORY COMM/IND/OFFICE	
II.	FOREST CONSERVATION WORKSHEET DATA SUMMARY	
	B. REFORESTATION THRESHOLD (15%)	8.11
	C. AFFORESTATION MINIMUM (15%)	8.11
	D. EXISTING FOREST ON NET TRACT AREA	51.74
	E. FOREST AREAS TO BE CLEARED	42.69
	F. FOREST AREAS TO BE RETAINED	9.05
IV.	REFORESTATION CALCULATIONS	
	G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	42.69
	H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	0.00
	I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	0.94
	REFORESTATION FOR CLEARING ABOVE THRESHOLD	10.67
	CREDIT FOR RETENTION ABOVE THE THRESHOLD	0.94
	TOTAL REFORESTATION REQUIRED	9.73
	TOTAL REFORESTATION PROVIDED	0.00
	TOTAL OFF-SITE REFORESTATION REQUIRED	9.73

PROTECTIVE FENCE DETAIL

BLAZE ORANGE PLASTIC MESH

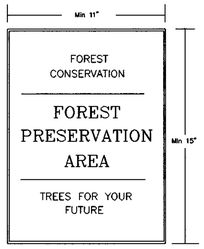
NOTES
1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT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



CSX RAILROAD
(FORMERLY BALTIMORE & OHIO RAILROAD)
ANNE ARUNDEL COUNTY

SIGNAGE DETAIL

NOT TO SCALE



APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

NOTE: THIS PLAN IS TO BE USED FOR FOREST CONSERVATION PURPOSES ONLY.

NOTE:
- 9.05 ACRES OF RETENTION ARE SHOWN ON-SITE. 9.73 ACRES OF REFORESTATION ARE REQUIRED. THIS REQUIREMENT WILL BE MET VIA OFF-SITE REFORESTATION ON "ROMITI PROPERTY".

NOTE : TREE PROTECTIVE FENCING TO BE INSTALLED PRIOR TO ANY GRADING WITHIN PARCELS A-1 & B-1 THRU B-4 AROUND THE FOREST CONSERVATION AREAS NOT PROTECTED BY THE EXISTING SUPER SILT FENCE.

LEGEND

- FOREST CONSERVATION EASEMENT (RETENTION)
- FOREST CONSERVATION SIGNAGE

MD DNR QUALIFIED PROFESSIONAL

Stephanie Demchik 2/23/00
STEPHANIE DEMCHIK

DEVELOPER

ATTN : MARK LEVY
DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
1"=100'	RJH

No.	description / revisions	date
1	RELOCATE T-TURNAROUND	10/23/00

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - LOT 5
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
FOREST CONSERVATION PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5621 Wash. (410) 997-0298 Fax.

F-00-29

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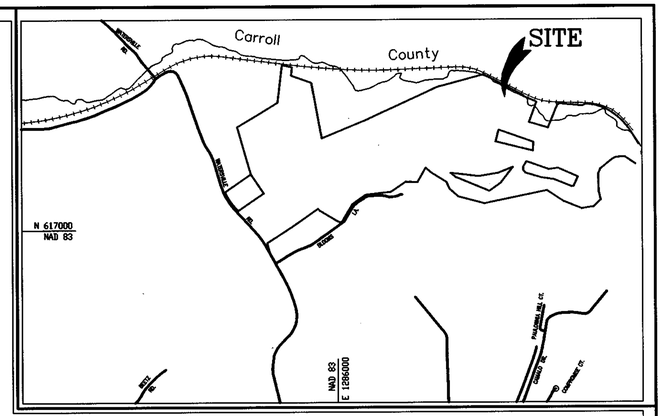
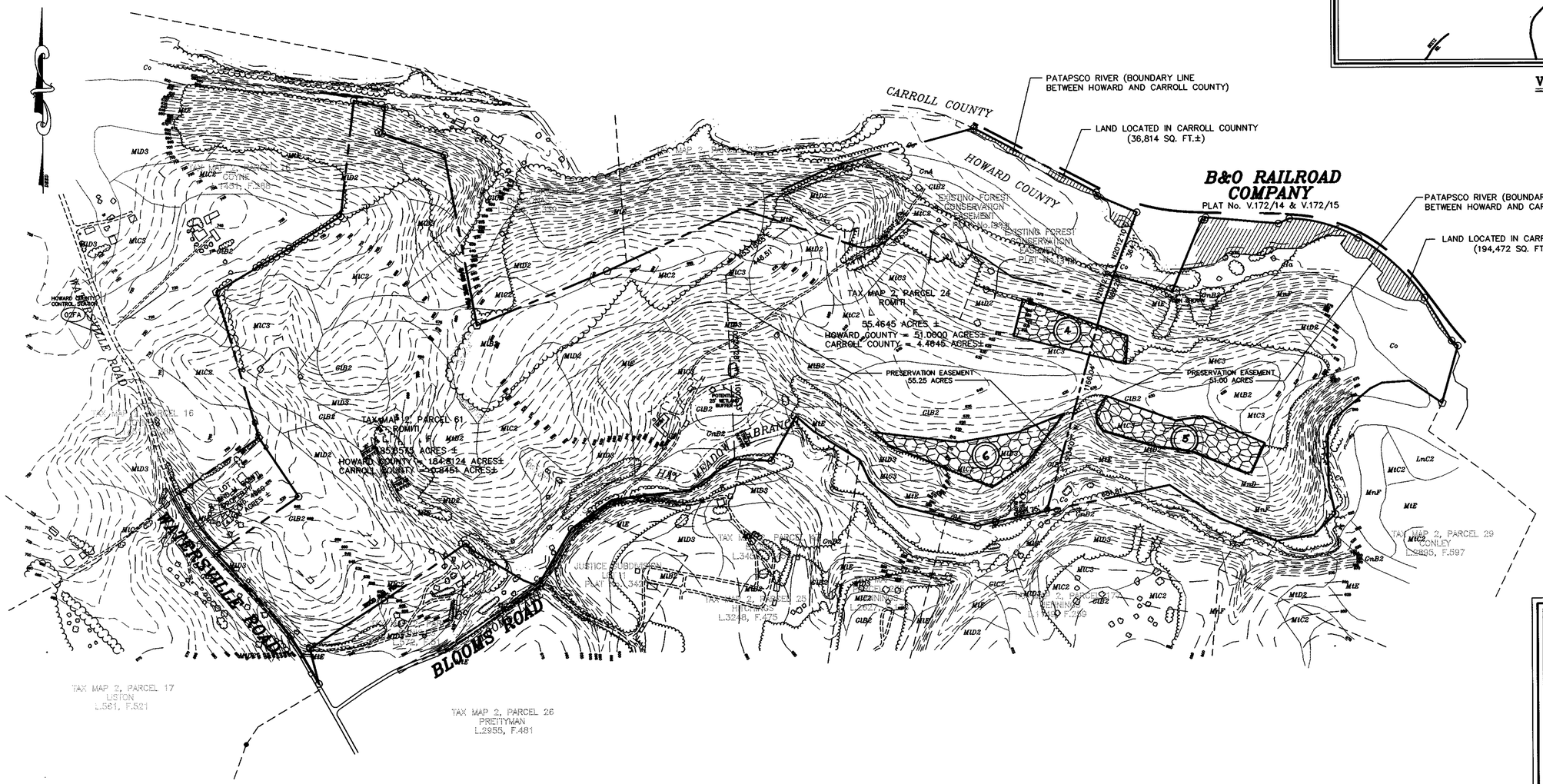


VICINITY MAP
SCALE: 1"=1200'



INDICATES AREA(S) OF FOREST CONSERVATION EASEMENT(S) FOR METES AND BOUNDS SEE SHEET 9 OF 9

5/4/01	1	REVISE SHEET #

PROJECT:

HOWARD BUSINESS PARK
PARCELS A-1 & B-1 THRU B-4

TITLE:

OFF-SITE REFORESTATION PLAN

AREA:

ROMITI FARM
TAX MAP, 2 PARCEL 24
HOWARD COUNTY MARYLAND
LIBER, FOLIO

TITLE:

REFORESTATION PLANTING PLAN
COVER SHEET

DEVELOPER
DORSEY ROCK, LLC
c/o ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN: MARK LEVY

OWNER/GRANTOR
MR. ROBERT ROMITI
MR. LORENZO ROMITI
MS. THERESA ROMITI
6723 HOLBIRD AVENUE
BALTIMORE, MARYLAND 21222

WILDMAN
ENVIRONMENTAL SERVICES
4747 BONNIE BRANCH RD.
ELLICOTT CITY, MD. 21043
PHONE: (410) 313-9999
FAX: (410) 313-9099

DESIGNED BY: R.B.W.	
DRAWN BY: J.E.P.	
PROJECT NO. 99301	
DATE: 2/4/00	
SCALE: 1"= 300'	
SHEET NO. OF	
SDP SHEET NO. 8 OF 10	

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONNING
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

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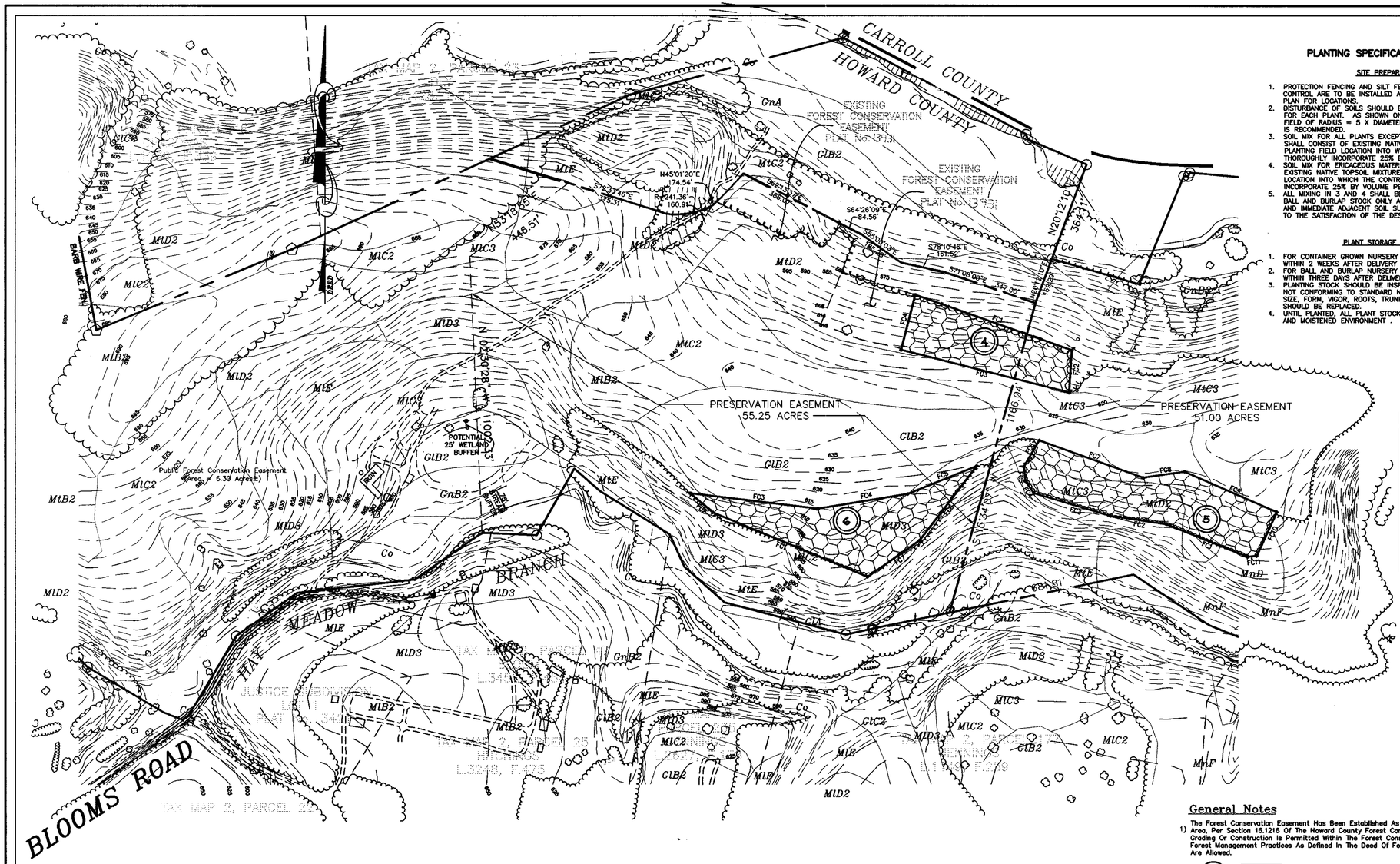
F-00-29



PLANTING SPECIFICATIONS AND NOTES

SITE PREPARATION AND SOILS

1. PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS.
2. DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
3. SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
4. SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
5. ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

PLANT STORAGE AND INSPECTION

1. FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
2. FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
3. PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
4. UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT .

PLANT INSTALLATION

1. THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
2. PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
3. CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THRU LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.
4. CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENCIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
5. FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL. THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
6. FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FOUR (4), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST.
7. AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO OBTAIN A MORE NATURAL APPEARANCE.
8. NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE WELL DRAINED NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.

FERTILIZING

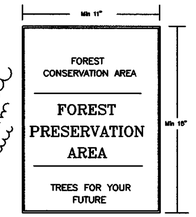
1. DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
2. NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
3. IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALLY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

MAINTENANCE SCHEDULE

1. ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
2. ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
3. VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
4. REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
5. REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
6. A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

SUPERVISION

1. ALL FOREST CONSERVATION ACTIVITIES SHALL BY DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.



SIGNAGE DETAIL

NOT TO SCALE

DEVELOPER
DORSEY ROCK, LLC
c/o ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN: MARK LEVY

OWNER/GRANTOR
MR. ROBERT ROMITI
MR. LORENZO ROMITI
MS. THERESA ROMITI
6723 HOLBIRD AVENUE
BALTIMORE, MARYLAND 21222

THIS PLAN IS FOR FOREST CONSERVATION EASEMENT PLANTING PURPOSES ONLY

General Notes

1) The Forest Conservation Easement Has Been Established As An Offsite Forest Mitigation Area, Per Section 16.1216 Of The Howard County Forest Conservation Act. No Clearing, Grading Or Construction Is Permitted Within The Forest Conservation Easement; However, Forest Management Practices As Defined In The Deed Of Forest Conservation easement Are Allowed.

2) (No.) Denotes Forest Conservation Easement.

Part Four

PUBLIC FOREST CONSERVATION EASEMENT

LINE	BEARING	DISTANCE
L1	S 70°31'01" E	602.21
L2	S 03°43'40" W	152.61
L3	N 75°51'17" W	628.52
L4	N 14°30'52" E	206.12

Part Five

PUBLIC FOREST CONSERVATION EASEMENT

LINE	BEARING	DISTANCE
FC1	N 68°08'31" W	316.67
FC2	N 81°28'58" W	205.38
FC3	N 73°24'10" W	290.00
FC4	N 35°16'24" W	53.22
FC5	N 05°26'43" W	53.49
FC6	N 30°17'14" E	109.49
FC7	S 70°17'28" E	399.80
FC8	N 81°47'10" E	151.92
FC9	S 68°17'27" E	385.64
FC10	S 24°34'40" W	174.35
FC11	S 83°42'10" W	33.68

Part Six

PUBLIC FOREST CONSERVATION EASEMENT

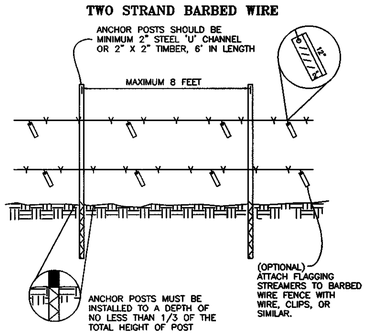
LINE	BEARING	DISTANCE
FC1	N 67°25'37" W	608.41
FC2	N 49°33'29" W	107.49
FC3	S 83°06'43" E	466.60
FC4	N 80°40'07" E	330.20
FC5	N 68°00'33" E	270.09
FC6	S 37°30'44" W	340.85
FC7	S 55°03'10" W	229.78

FOREST CONSERVATION EASEMENT AREA TABULATION

No.	AREA
4	2.50 Ac.±
5	3.80 Ac.±
6	3.43 Ac.±

PROTECTIVE FENCE DETAIL

TWO STRAND BARBED WIRE

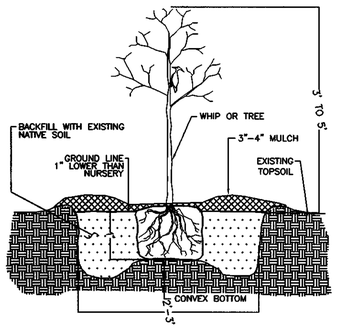


1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.
7. BARBED WIRE SHOULD BE ATTACHED SECURELY TO POSTS.

REFORESTATION PLANT LISTS

QTY.	SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN.O.C. SPACING	SIZE & REMARKS
390	Prunus serotina Wild Black Cherry	I	M	FACU	11'	CONT/BROOT 3'-5' HEIGHT
390	Robinia pseudoacacia Black Locust	VI	D-M	FACU-	11'	CONT/BROOT 3'-5' HEIGHT
390	Quercus prinus Chestnut Oak	MT	D-M	FACU-	11'	CONT/BROOT 3'-5' HEIGHT
390	Quercus rubra Red Oak	MT	D-M	UPL	11'	CONT/BROOT 3'-5' HEIGHT
390	Fraxinus americana White Ash	MT	D-M	FACU	11'	CONT/BROOT 3'-5' HEIGHT
390	Nyssa sylvatica Black Gum	T	M-W	FAC	11'	CONT/BROOT 3'-5' HEIGHT
390	Juglans nigra Black Walnut	VT	M	FACU	11'	CONT/BROOT 3'-5' HEIGHT
390	Acer rubrum Red Maple	VT	D-W	FAC	11'	CONT/BROOT 3'-5' HEIGHT
390	Cercis canadensis Eastern Redbud	T	M	UPL	11'	CONT/BROOT 3'-5' HEIGHT
390	Diospyros virginiana Persimmon	I	D-M	UPL	11'	CONT/BROOT 3'-5' HEIGHT

Quantities Of Individual Species And Species Composition May Change Depending On Availability At Time Of Planting. Total Quantity Of Trees For Entire Easement Area Will Not Change.



TREE PLANTING DETAIL

CONTAINER GROWN

APPROVED: DEPARTMENT OF PUBLIC WORKS CHIEF BUREAU OF HIGHWAYS	3-14-00 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING CHIEF, DIVISION OF DEVELOPMENT	3/21/00 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	3/16/00 DATE

AUTOCAD FILE NAME C:\DRAWINGS\Romiti Property\Mobberly\MOBREF26AC.dwg

5/4/01	1	REVISE SHEET #

PROJECT:
MES PROPERTY
HOWARD BUSINESS PARK
PARCELS A-1 & B-1 THRU B-4

TITLE:
OFF-SITE REFORESTATION PLAN

AREA:
ROMITI FARM
TAX MAP, 2 PARCEL 24
HOWARD COUNTY MARYLAND
LIBER, FOLIO

TITLE:
REFORESTATION PLANTING PLAN
DETAILS AND SPECIFICATIONS

WILDMAN ENVIRONMENTAL SERVICES
4747 BONNIE BRANCH RD.
ELLICOTT CITY, MD. 21043
PHONE: (410) 313-9999
FAX: (410) 313-9099
Ronald R. Wildman 2-23-00

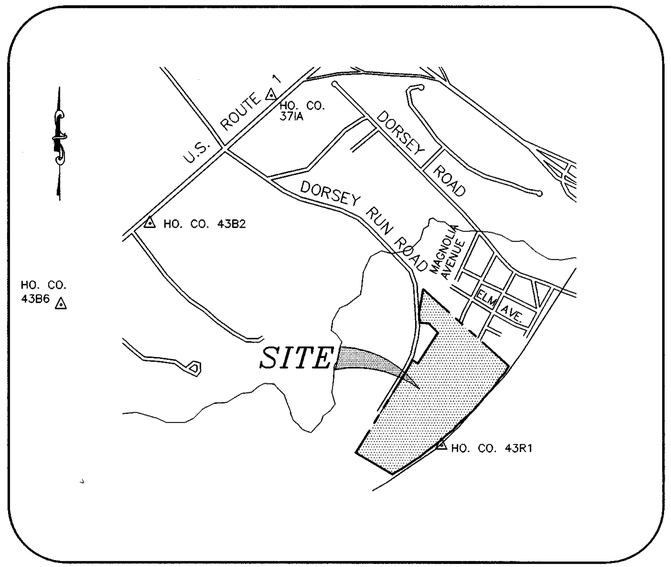
DESIGNED BY:	R.B.W.
DRAWN BY:	J.E.P.
PROJECT NO.	99301
DATE:	2/23/00
SCALE:	1"= 200'
SHEET NO.	OF
SDP SHEET NO.	9 OF 10

F-00-29

ROAD CONSTRUCTION PLANS
HOWARD BUSINESS PARK
PARCELS A–1 & B–1 THRU B–4
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SHEET INDEX

COVER SHEET	1
ROAD PLAN AND PROFILE	2
GRADING & EROSION AND SEDIMENT CONTROL PLAN	3
DETAILS & STORM DRAIN PROFILES	4
DRAINAGE AREA MAP	5
SEDIMENT CONTROL NOTES & DETAILS	6
FOREST CONSERVATION PLAN	7
OFF–SITE REFORESTATION PLAN	8
OFF–SITE REFORESTATION PLAN	9
WETLAND & FOREST REPLANTING PLAN	10



VICINITY MAP

SCALE: 1'=1000'

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526–4030
ATTN : MARK LEVY

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 2/22/00
MARK L. LEVY
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000
R. TAGHI HIKMAT
PRINTED NAME OF ENGINEER

PROFESSIONAL ENGINEER 17949

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA – NATURAL RESOURCES CONSERVATION SERVICE — DATE 3/9/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

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GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS DIVISION AT (410) 313–1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:

MISS UTILITY	1–800–257–7777
C&P TELEPHONE COMPANY	(410) 725–9976
HOWARD COUNTY BUREAU OF UTILITIES	(410) 313–4900
AT&T CABLE LOCATION DIVISION	(410) 393–3533
BALTIMORE GAS & ELECTRIC	(410) 685–0123
STATE HIGHWAY ADMINISTRATION	(410) 531–5533
HOWARD COUNTY DEPT. OF PUBLIC WORKS/ CONSTRUCTION INSPECTION DIVISION	(410) 313–1880

4. PROJECT BACKGROUND:
   LOCATION: FIRST ELECTION DISTRICT – TAX MAP 43 – PARCEL 321

   ZONING: M–2
   TOTAL TRACT AREA: 51.90 ACRES ±
   NUMBER OF PROPOSED LOTS: 5
   ACREAGE OF PROPOSED LOTS : 51.90 ACRES ±
   OPEN SPACE REQUIRED : 0 ACRES
   OPEN SPACE PROVIDED : 0 ACRES
   PROPOSED ROAD DEDICATION : 0 ACRES
   DPZ REFERENCE #:
   – SDP–95–60 APPROVED ON JUNE 19, 1995.
   – WP–00–23 APPROVED ON AUGUST 31, 1999.
   – F–00–27 RECORDED ON OCTOBER 8, 1999, AS PLAT # 13970.
5. TWO FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL MAPPING TOPOGRAPHIC SURVEY BY WINGS AERIAL MAPPING CO, INC. IN FEBRUARY 1999.
6. HORIZONTAL AND VERTICAL DATUMS BASED ON (NAD'83) MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.

STA. No. 43B6	N 550,601.597 E 1,376,866.071	ELEV. 210.54
STA. No. 43B2	N 551,654.993 E 1,378,176.951	ELEV. 209.59
STA. No. 371A	N 553,315.147 E 1,379,982.153	ELEV. 195.75
STA. No. 43R1	N 548,305.502 E 1,382,025.818	ELEV. 134.53

7. STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
8. WATER AND SEWER ARE PUBLIC, CONTRACT # 44–3421–D FOR WATER AND CONTRACT # 10–3775–D FOR SEWER.
9. STORMWATER MANAGEMENT CONTROL WILL BE PROVIDED UNDER THE FUTURE SITE DEVELOPMENT PLAN.
10. TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC. IN AUGUST 1999.
11. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
12. WETLAND AND STREAM DELINEATION PREPARED BY HILLIS–CARNES ENGINEERING ASSOCIATES, INC. IN JANUARY 1998.
13. COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T–180.
14. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES ON SITE PRIOR TO COMMENCING CONSTRUCTION.
15. FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.200 OF HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING, OF CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OR CONSERVATION EASEMENT ARE ALLOWED.
16. A PORTION OF THE FOREST CONSERVATION OBLIGATIONS INCURRED BY THIS SUBDIVISION (9.73 ACRES OF REFORESTATION) WILL BE MET VIA OFF–SITE REFORESTATION ON "ROMITI PROPERTY".
17. PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
18. SLOPES IN EXCESS OF 25% EXIST AND ARE IDENTIFIED WHERE THEY EXCEED 20,000 SQ. FT.
19. THIS PROJECT IS SUBJECT TO WAIVER PETITION, WP–00–23, APPROVED ON AUGUST 31, 1999, WHICH WAIVED THE FOLLOWING TO PERMIT RECORDATION OF NONBUILDABLE PRESERVATION PARCELS A & B :

SECTION 16.116(a)(4)	WETLANDS AND THE REQUIRED BUFFERS FOR WETLAND AND STREAMS SHALL BE DELINEATED ON FINAL PLATS.
SECTION 16.117	REQUIRES THE SUBMISSION OF A FOREST CONSERVATION PLAN.
SECTION 16.124(a)(3)(II)	FINAL PLAN SUBMISSIONS SHALL INCLUDE THE FINAL LANDSCAPE PLAN IN THE ROAD CONSTRUCTION DRAWINGS.
SECTION 16.132	REQUIREMENT TO PROVIDE ROAD IMPROVEMENTS.
SECTION 16.144(a) & (f)	REQUIRES THE SUBMISSION OF A SKETCH PLAN AND A PRELIMINARY PLAN.

20. THIS PROJECT IS SUBJECT TO WAIVER PETITION, WP–00–26, APPROVED ON DECEMBER 30, 1999, WHICH WAIVED THE FOLLOWING:

SECTION 16.124(a)(3)(II)	FINAL PLAN SUBMISSIONS SHALL INCLUDE THE FINAL LANDSCAPE PLAN IN THE ROAD CONSTRUCTION DRAWINGS.
SECTION 16.144(a) & (f)	REQUIRES THE SUBMISSION OF A SKETCH PLAN AND A PRELIMINARY PLAN.
SECTION 16.120(c)(1)	REQUIRES COMMERCIAL LOTS TO HAVE A MINIMUM OF 60 FEET OF FRONTAGE ON AN APPROVED PUBLIC ROAD.

21. ALL STORM DRAIN PIPES TO BE HDPE UNLESS OTHERWISE NOTED.
22. IF MATERIAL IS WITHIN 8% OF OPTIMUM MOISTURE, WORKING THE MATERIAL UNTIL REQUIRED COMPACTION IS ACHIEVED IS CONTRACTOR'S RESPONSIBILITY.
23. SEDIMENT CONTROL FOR THIS PROJECT IS PROVIDE UNDER SDP–95–60. ALL SEDIMENT CONTROL DEVICES CONSTRUCTED UNDER SDP–95–60 WILL REMAIN IN PLACE DURING THE CONSTRUCTION OF THE DORSEY RUN ROAD EXTENSION.
24. THE STREET LIGHT LOCATIONS AND TYPES OF LIGHTS SHOWN ON SHEET 2 ARE AS FOLLOWS :
   – 250–WATT HPS VAPOR PENDANT FIXTURE (CUTOFF) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM ANGLED RADIAL TO THE FILLET AT DORSEY RUN ROAD, STATION 39+27, 11' RIGHT, STATION 45+30, 36' LEFT.
25. THE FOREST CONSERVATION ORDINANCE HAS BEEN COMPLIED WITH IN ACCORDANCE WITH THE FOLLOWING:
   TOTAL OBLIGATION = 18.78 ACRES — ON–SITE FOREST RETENTION = 9.05 ACRES ✱
   OFF–SITE REFORESTATION (ROMITI PROPERTY) = 9.73 ACRES

✱ 0.45 ACRES OF RETENTION WAS DISTURBED DURING CONSTRUCTION. AREA TO BE REPLANTED UNDER THIS PLAN.

F-00-29

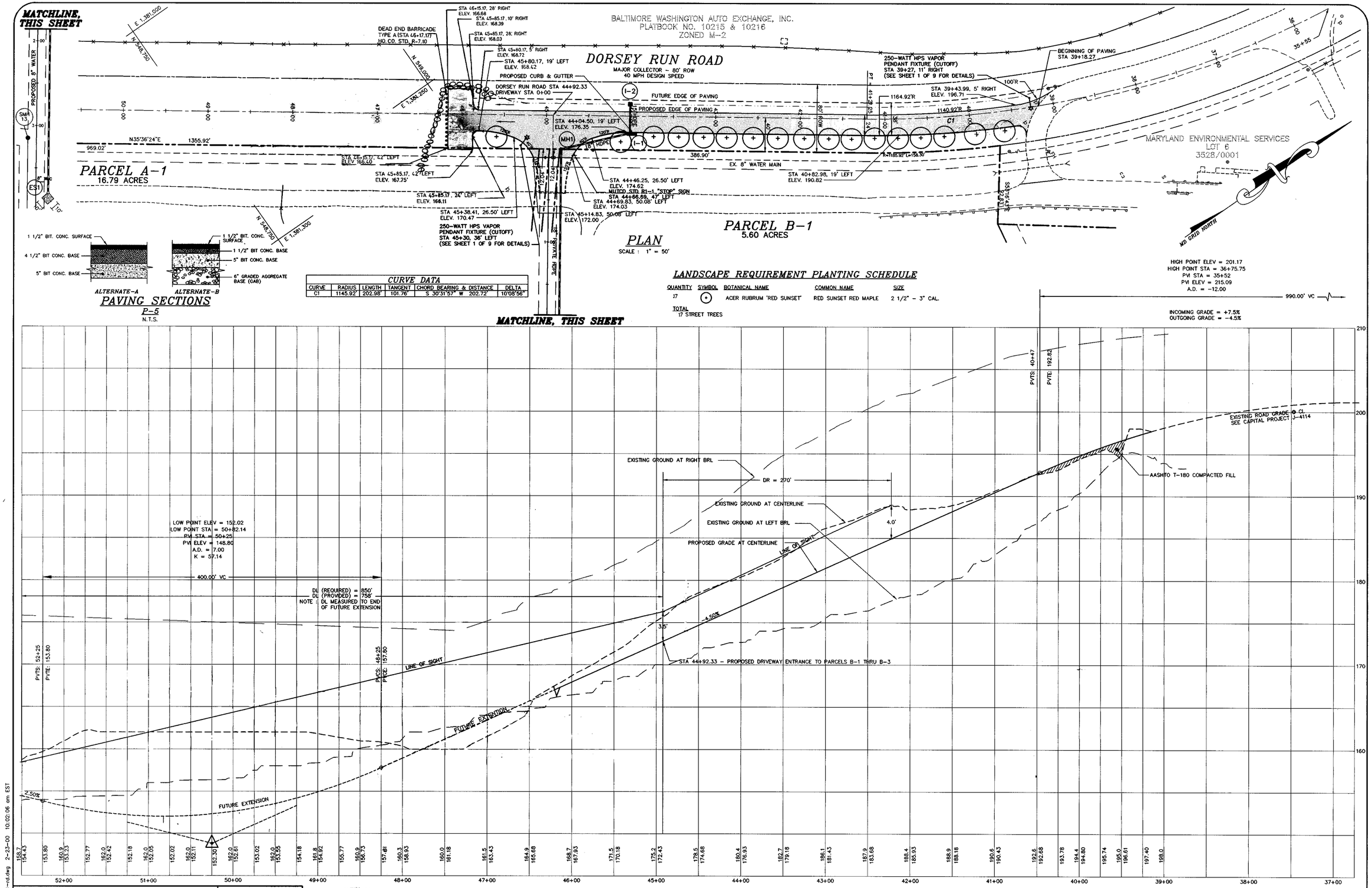
project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
AS SHOWN	RJH

no.	description	date
2	REVISE NOTE #25 & SHEET #	5/4/2001
1	REVISE GENERAL NOTE # 24 TO ELIMINATE STREET LIGHT AT STA. 47+81	10/16/2000

revisions

HOWARD BUSINESS PARK, PARCELS A–1 & B–1 THRU B–4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 – PARCEL 321 – BLOCK 12
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
COVER SHEET

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Bal. (301) 621-5321 Wash. (410) 997-0298 Fax.



CURVE DATA

CURVE	RADIUS	LENGTH	TANGENT	CHORD BEARING & DISTANCE	DELTA
C1	1145.92'	202.98'	101.76'	S 30°31'57" W 202.72'	10°08'56"

LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
17	⊙	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.

TOTAL
17 STREET TREES

DORSEY RUN ROAD PROFILE

MAJOR COLLECTOR (40 MPH DESIGN SPEED)

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'

SIGHT DISTANCE NOTES

DESIGN SPEED = 40 MPH
HEIGHT OF EYE = 3.5'
HEIGHT OF OBJECT = 4.0'

DISTANCE LEFT (BOTH ENTRANCES)		DISTANCE RIGHT (BOTH ENTRANCES)	
LEFT	440' X 0.5 = 220'	LEFT	540' X 0.5 = 270' (CONTROL)
RIGHT	510' X 1.7 = 850' (CONTROL)	RIGHT	—
CROSS	—	CROSS	—
GRADE = -4.5%		GRADE = +4.5%	

BASED ON THIS ANALYSIS, THE ENTRANCES HAVE ADEQUATE SIGHT DISTANCE.

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

STATE OF MARYLAND — R. JACOB WEBER — 17242 — PROFESSIONAL ENGINEER

no.	description	date
2	REVISE SHEET #	5/4/01
1	RELOCATE T-TURNAROUND FROM STA 4+23 TO STA 45+37 AND REVISE NUMBER OF STREET TREES PER HO. CO. LANDSCAPE MANUAL	01/16/2000

revisions

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
AS SHOWN	RJH

HOWARD BUSINESS PARK, PARCEL A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - BLOCK 12
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
ROAD PLAN AND PROFILE

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5321 Wash. (410) 997-0298 Fax.

F-00-29

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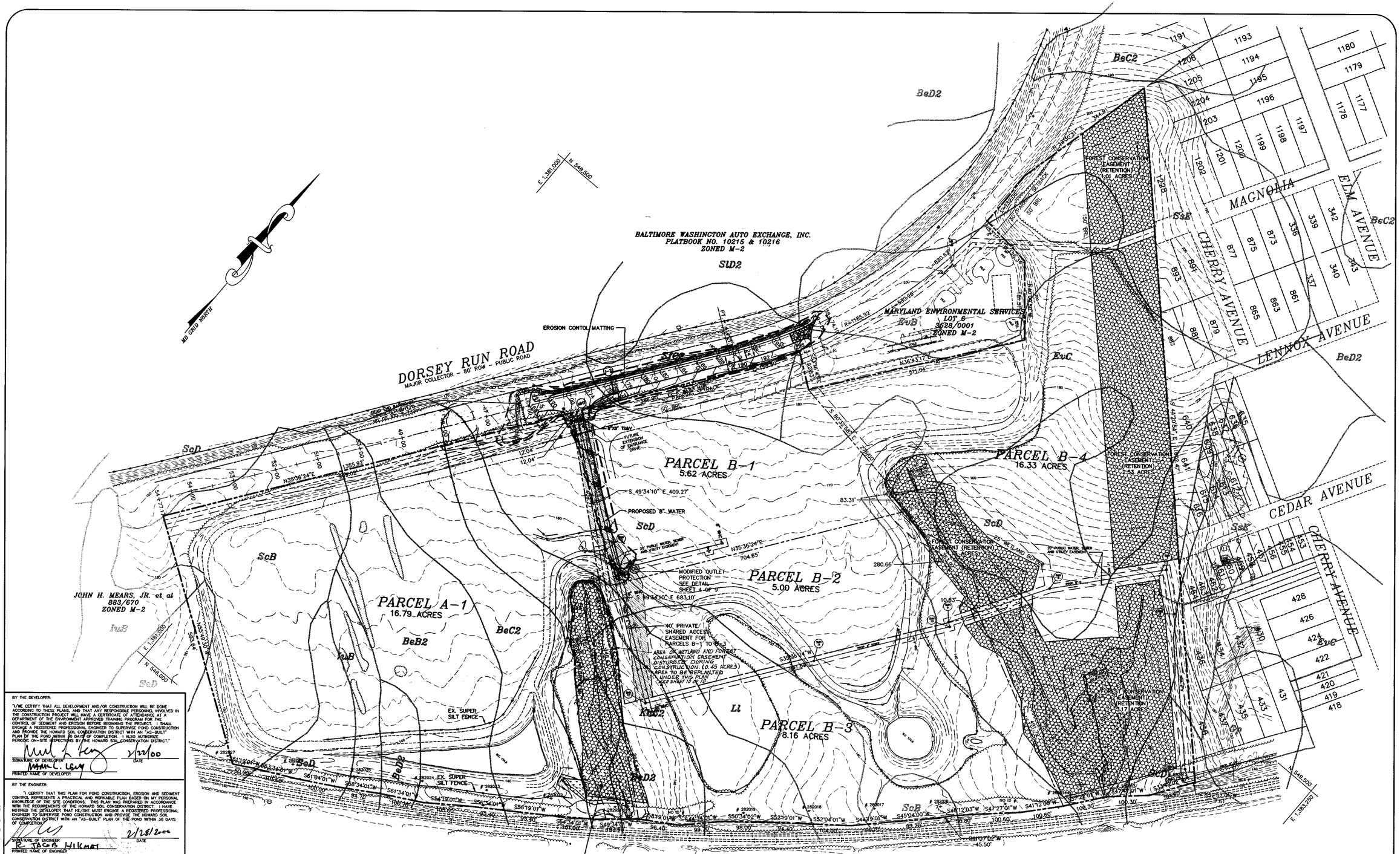


BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 2/22/00

PRINTED NAME OF DEVELOPER — MARK L. LEVY

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000

PRINTED NAME OF ENGINEER — R. JACOB HILMOE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/9/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

SOILS DESCRIPTION

SYMBOL	DESCRIPTION
BeB2	BELTSVILLE SILT LOAM, 1% TO 5% SLOPES, MODERATELY ERODED -- TYPE C
BeC2	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
BeC3	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, SEVERELY ERODED -- TYPE C
BeD2	BELTSVILLE SILT LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE C
EvB	EVESBORO LOAMY SAND, 1% TO 5% SLOPES -- TYPE A
EvC	EVESBORO LOAMY SAND, 5% TO 15% SLOPES -- TYPE A
Gp	GRAVEL PITS AND QUARRIES
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1% TO 5% SLOPES -- TYPE C
KhC2	KEYPORT SILT LOAM, 3% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
Ll	LEONARDTOWN SILT LOAM -- TYPE D
ScB	SANDY AND CLAYEY LAND, GENTLY SLOPING -- TYPE C
ScD	SANDY AND CLAYEY LAND, MODERATELY SLOPING -- TYPE C
ScE	SANDY AND CLAYEY LAND, MODERATELY STEEP -- TYPE C
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE B
SlD2	SASSAFRAS LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE B
SsE	SASSAFRAS SOILS, 15% TO 40% SLOPES -- TYPE B

THIS PLAN TO BE USED ONLY FOR GRADING & EROSION AND SEDIMENT CONTROL PLAN PURPOSES ONLY.

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN: MARK LEVY

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
1"=100'	RJH

no.	description	date
2.	SHOW DISTURBANCE TO FEL. PARCEL A-1.	5/4/01
1.	RELOCATE T-TURNAROUND	10/20/00

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4

A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B

TAX MAP 43 - PARCEL 321 - LOT 5

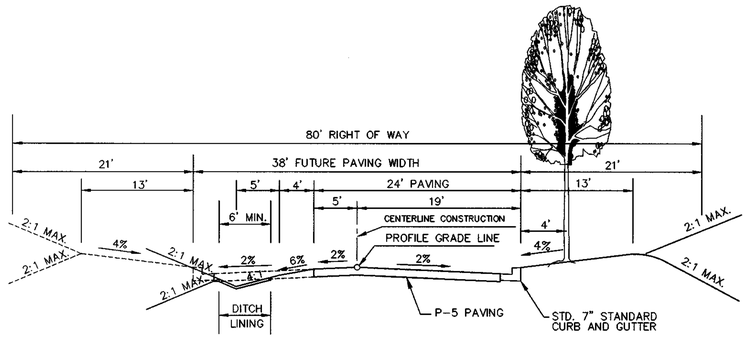
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

GRADING & EROSION AND SEDIMENT CONTROL PLAN

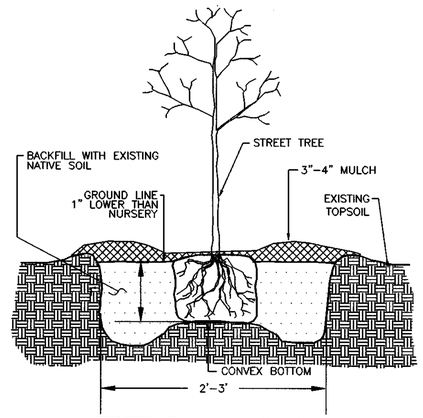
MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5621 Wash. (410) 997-0298 Fax.

98001\dwg\Vinal\001-grade.dwg 2-23-00 11:54:21 am EST

F-00-29

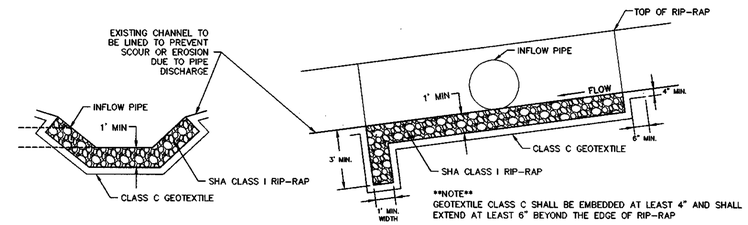


TYPICAL SECTION – MAJOR COLLECTOR
40 MPH DESIGN SPEED
STA 39+19.28 TO STA 46+15.17
N.T.S.



TREE PLANTING DETAIL
CONTAINER GROWN

MODIFIED OUTLET PROTECTION DETAIL
NOT TO SCALE



NOTE
GEOTEXTILE CLASS C SHALL BE EMBEDDED AT LEAST 4" AND SHALL EXTEND AT LEAST 6" BEYOND THE EDGE OF RIP-RAP

CONSTRUCTION SPECIFICATIONS

1. EXTREME CARE SHALL BE TAKEN TO PRESERVE THE CHANNEL GEOMETRY AND STABILITY OF THE EXISTING DITCH.

2. THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

3. THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER

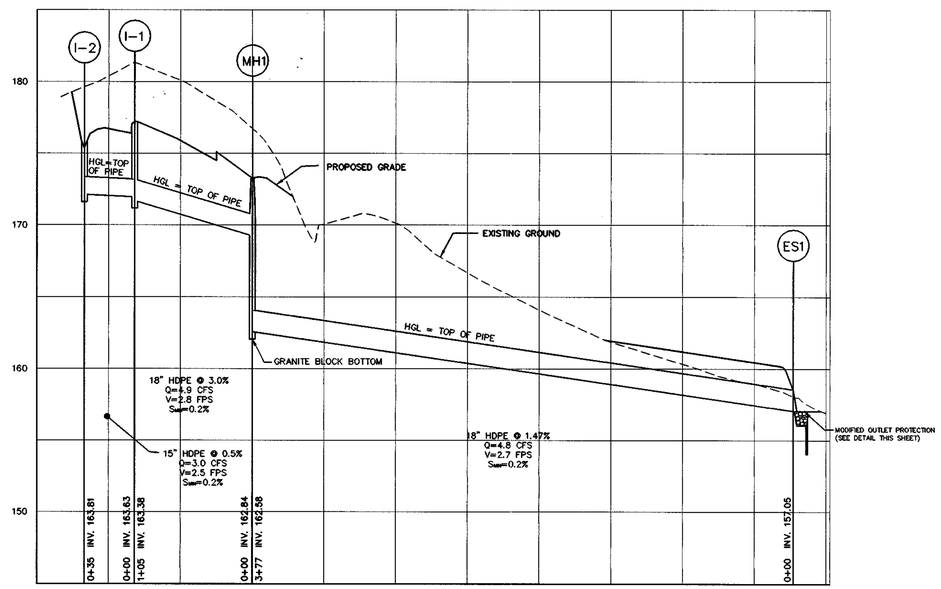
4. GEOTEXTILE SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. ALL OVERLAPS WHETHER FOR REPAIRS OR FOR JOINING TWO PLACES OF GEOTEXTILE SHALL BE A MINIMUM OF ONE FOOT.

5. STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.

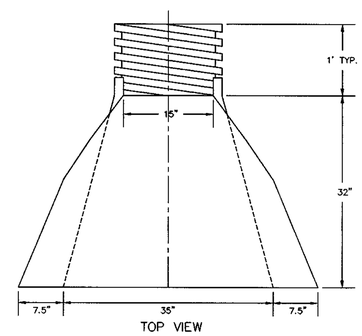
6. THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.

PIPE SCHEDULE

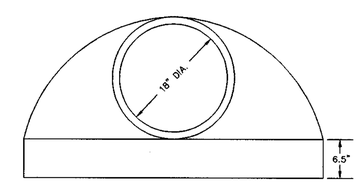
QUANTITY	PIPE SIZE
35'	15" HDPE
482'	18" HDPE



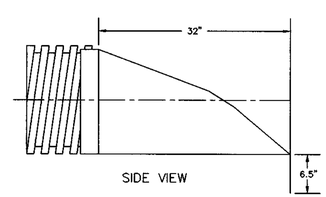
STORM DRAIN PROFILE – I-2 TO ES1
HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'



TOP VIEW



END VIEW



SIDE VIEW

18" HDPE END SECTION
(PART NO. 1810 NP)
NOT TO SCALE

INSTALLATION INSTRUCTIONS

1. SPREAD THE END SECTION COLLAR AND PLACE IT OVER THE LAST PIPE CORRUGATION. MAKE SURE THE COLLAR SEATS PROPERLY IN THE CORRUGATION VALLEY.
2. INSERT THREADED ROD THROUGH THE PRE-DRILLED HOLES IN THE END SECTION COLLAR. TIGHTEN WING NUTS.
3. PLACE BACKFILL AROUND THE END SECTION AND OVER THE TOE PLATE. USE CARE DURING COMPACTION ALONG THE SIDES TO PREVENT DISTORTION.

STRUCTURE SCHEDULE

NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS
I-1	DORSEY RUN ROAD STA 43+98.84 – 19' LEFT	177.20	171.94	171.69	INLET TYPE A-10 (HO. CO. STD SD 4.02) – 99% EFF.
I-2	DORSEY RUN ROAD STA 44+01.25 – 14' RIGHT	175.37	----	172.12	INLET TYPE K (HO. CO. STD SD 4.13)
M-1	DORSEY RUN ROAD STA 44+82.33 – 40' LEFT	173.27	169.23	162.74	PRECAST MANHOLE (HO. CO. STD SD 5.11)
ES-1	NORTHING 548,842.624 EASTING 1,381,797.251	----	----	157.05	18" ø HDPE END SECTION (SEE DETAIL ABOVE)

* STATIONS GIVEN TO CENTERLINE OF INLET AT TOP OF CURB FOR INLETS LOCATED WITHIN THE ROAD RIGHT-OF-WAY. STATIONS FOR "K" INLETS TO CL OF INLET. LOCATION OF END SECTION GIVEN TO THE CENTERLINE OF PIPE AT THE CONNECTION OF THE STORM DRAIN PIPE TO END SECTION.

** ELEVATIONS MEASURED TO CENTER OF ALL INLETS.

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 2/22/00
MARK L. LEVY
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000
G. JACOB HIKMAT
PRINTED NAME OF ENGINEER

STATE OF MARYLAND — G. JACOB HIKMAT — 17948 — PROFESSIONAL ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA – NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/9/00

THIS DEVELOPMENT PLAN IS APPROVED BY THE SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONNING
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 5/16/00

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project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
AS SHOWN	RJH

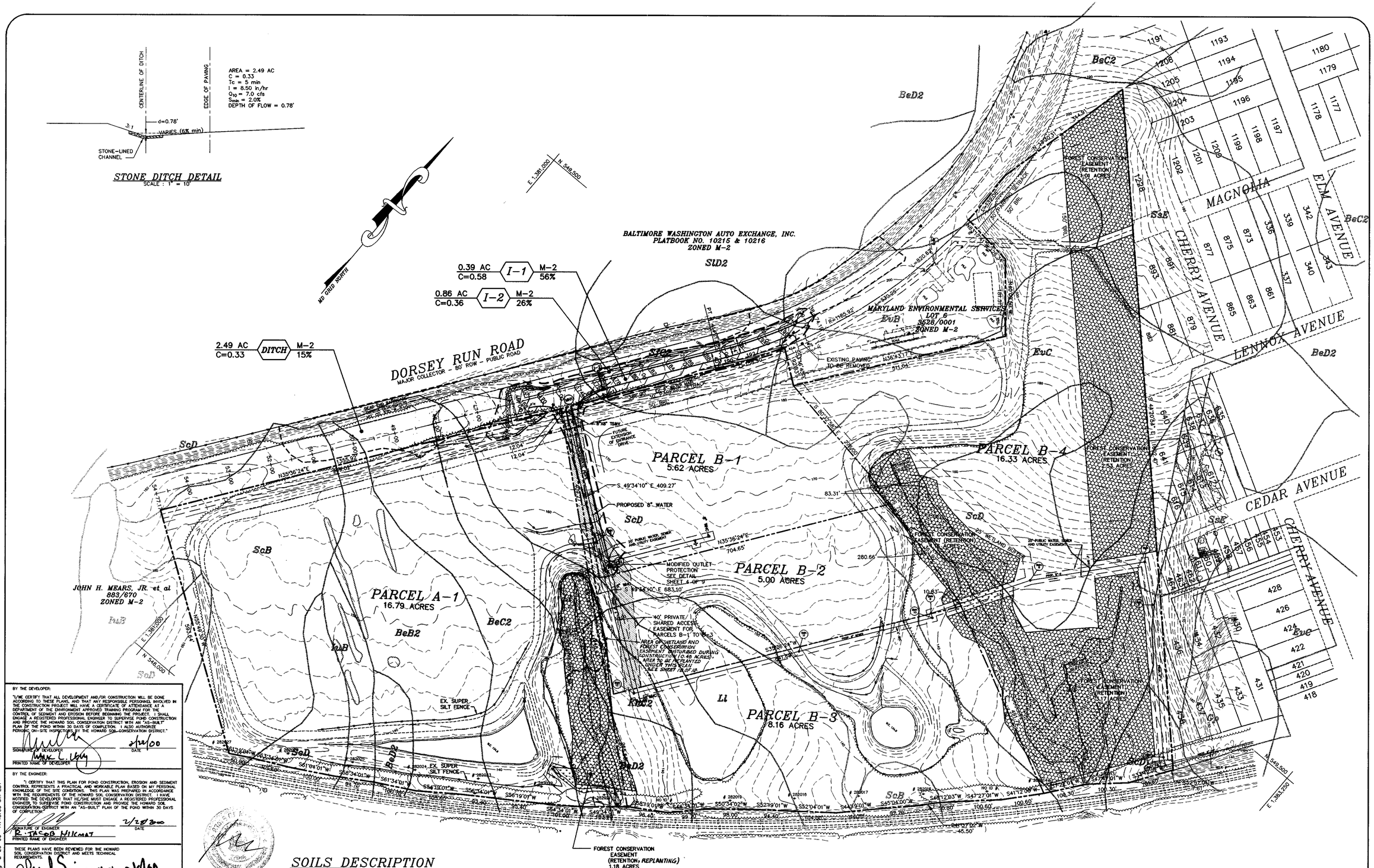
no.	revisions	date
1	REVISE END STATION ON TYPICAL ROAD SECTION	10/20/00
2	REVISE SHEET	5/4/01

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 – PARCEL 321 – BLOCK 12
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

DETAILS & STORM DRAIN PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5621 Wash. (410) 997-0298 Fax.

F-00-29



BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 2/24/00

PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000

PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/14/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/14/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

SOILS DESCRIPTION

SYMBOL	DESCRIPTION
BeB2	BELTSVILLE SILT LOAM, 1% TO 5% SLOPES, MODERATELY ERODED --- TYPE C
BeC2	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
BeC3	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, SEVERELY ERODED --- TYPE C
BeD2	BELTSVILLE SILT LOAM, 10% TO 15% SLOPES, MODERATELY ERODED -- TYPE C
EvB	EVESBORO LOAMY SAND, 1% TO 5% SLOPES --- TYPE A
EvC	EVESBORO LOAMY SAND, 5% TO 15% SLOPES --- TYPE A
Gp	GRAVEL PITS AND QUARRIES
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1% TO 5% SLOPES --- TYPE C
KhC2	KEYPORT SILT LOAM, 3% TO 10% SLOPES, MODERATELY ERODED --- TYPE C
Ll	LEONARDTOWN SILT LOAM --- TYPE D
ScB	SANDY AND CLAYEY LAND, GENTLY SLOPING --- TYPE C
ScD	SANDY AND CLAYEY LAND, MODERATELY SLOPING --- TYPE C
ScE	SANDY AND CLAYEY LAND, MODERATELY STEEP --- TYPE C
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5% TO 10% SLOPES, MODERATELY ERODED --- TYPE B
SlD2	SASSAFRAS LOAM, 10% TO 15% SLOPES, MODERATELY ERODED --- TYPE B
SsE	SASSAFRAS SOILS, 15% TO 40% SLOPES --- TYPE B

THIS PLAN TO BE USED ONLY FOR DRAINAGE AREA MAP PURPOSES ONLY.

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
1"=100'	RJH

NO.	description	date
2	SHOW DISTURBANCE TO ACE ON PARCEL A-1	5/4/01
1	RELOCATE T-TURNAROUND	10/20/00

revisions

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - LOT 5
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

DRAINAGE AREA MAP

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

F-00-29

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HOWARD SOIL CONSERVATION DISTRICT

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:

1) PREFERRED – APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING , APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.).
2) ACCEPTABLE – APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING – FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 1.4 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LOBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) – 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) – USE SOD. OPTION (3) – SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONE/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.

TEMPORARY SEEDING NOTES

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

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

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

1) 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 NAY CONSTRUCTION, (313-1855).

2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.

3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR 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 1991 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.

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7) SITE ANALYSIS:

TOTAL AREA OF SITE:	54.04	ACRES
AREA DISTURBED:	1.73	ACRES
AREA TO BE ROOFED OR PAVED:	0.50	ACRES
AREA TO BE VEGETATIVELY STABILIZED:	1.23	ACRES
TOTAL CUT:	6,550	CU. YDS.
TOTAL FILL:	6,550	CU. YDS.
TOTAL WASTE/BORROW AREA LOCATION:	N/A	

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.

8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY 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 LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

I. 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.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE 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 SPECIFICATION. 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, 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.

ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON-SON 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 FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION – SECTION I – VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

i. 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 TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A pH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PERSCRIBED TO RAISE THE pH TO 6.5 OR HIGHER.

b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.

c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

d. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN 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 APPLLICATION

i. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" – 8" HIGHER IN ELEVATION.

iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 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 TOPSOILING 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 COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

i. COMPOSTED SLUDGE 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 AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO 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 LEASE 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOURUS, 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 1 TON/1,000 SQUARE FEET.

iv. 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.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT LOCATIONS SHOWN. (1 DAY)
3. INSTALL SEDIMENT CONTROL MEASURES. (1 DAY)
4. GRADE SITE. (5 DAYS)
5. CONSTRUCT STORM DRAIN SYSTEM AND BLOCK. (3 DAYS)
6. BRING SITE TO FINAL GRADE AND PAVE ROAD. (5 DAYS)
7. STABILIZE ALL DISTURBED AREAS. (3 DAYS)
8. WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS. (3 DAYS)

TEMPORARY DUST CONTROL MEASURES

1. MULCHES – SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.

2. VEGETATIVE COVER – SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.

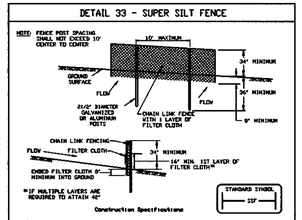
3. TILLAGE – TO ROUGHTN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS APCED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

4. IRRIGATION – THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.

5. BARRIERS – SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALT OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.

6. CALCIUM CHLORIDE – APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

DETAIL 33 - SUPER SILT FENCE



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 fence 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 by 6" and folded.

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 Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test MSMT 509
Flow Rate	0.3 gal/ft²/minute (max.)	Test MSMT 322
Filtering Efficiency	75% (min.)	Test MSMT 322

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SUPER SILT FENCE

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	30 feet	250 feet

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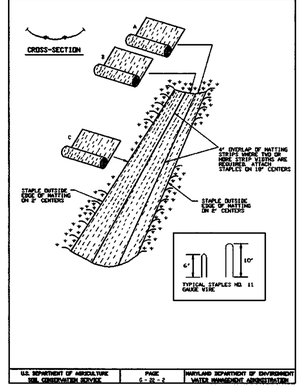
DETAIL 30 - EROSION CONTROL MATTING



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EROSION CONTROL MATTING

Construction Specifications

1. Key-in the matting by placing the top end 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 6", 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.

Note: If flow will enter from the edge of the matting then the area affected by the flow must be keyed-in.

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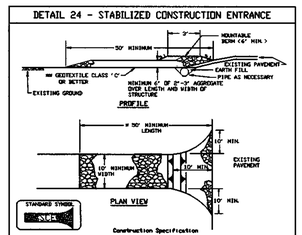
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).

2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (Filter cloth) shall be placed over the existing ground prior to placing stone. While plan approval authority may not require single family residences to use geotextile.

4. 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.

5. 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.

6. Location - 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE V - 37 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 2/22/00

PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER — DATE 2/28/2000

PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCE CONSERVATION SERVICE — DATE 3/9/00

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 3/9/00

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF BUREAU OF HIGHWAYS — DATE 3-14-00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/00

STATE OF MARYLAND — R. JACOB HIKMAT — 17948 — PROFESSIONAL ENGINEER

98001\dwg\final\001-sedno.dwg 2-23-00 11:37:26 am EST

DEVELOPER

DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030
ATTN : MARK LEVY

F-00-29

project 98001	date FEB 2000
illustration SJD	engineering SJD
scale 1"=100'	approval RJH

no.	revisions description	date
1	REVISE SHEET 6 REVISE SITE ANALYSIS TABLE PER CHANGE TO LOD.	5/4/01

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - LOT 5
FIRST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL NOTES & DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

GENERAL NOTES

FOREST PROTECTION

1. ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES UNDER THE SDP.
2. THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.
3. ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
4. ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
5. INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
6. THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
7. REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
8. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
9. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

PRE-CONSTRUCTION MEETING

1. AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
   - A. TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
   - B. INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
   - C. MAKE ALL NECESSARY ADJUSTMENTS;
   - D. ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

CONSTRUCTION MONITORING

1. THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.
2. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
3. THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

NOTE :

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

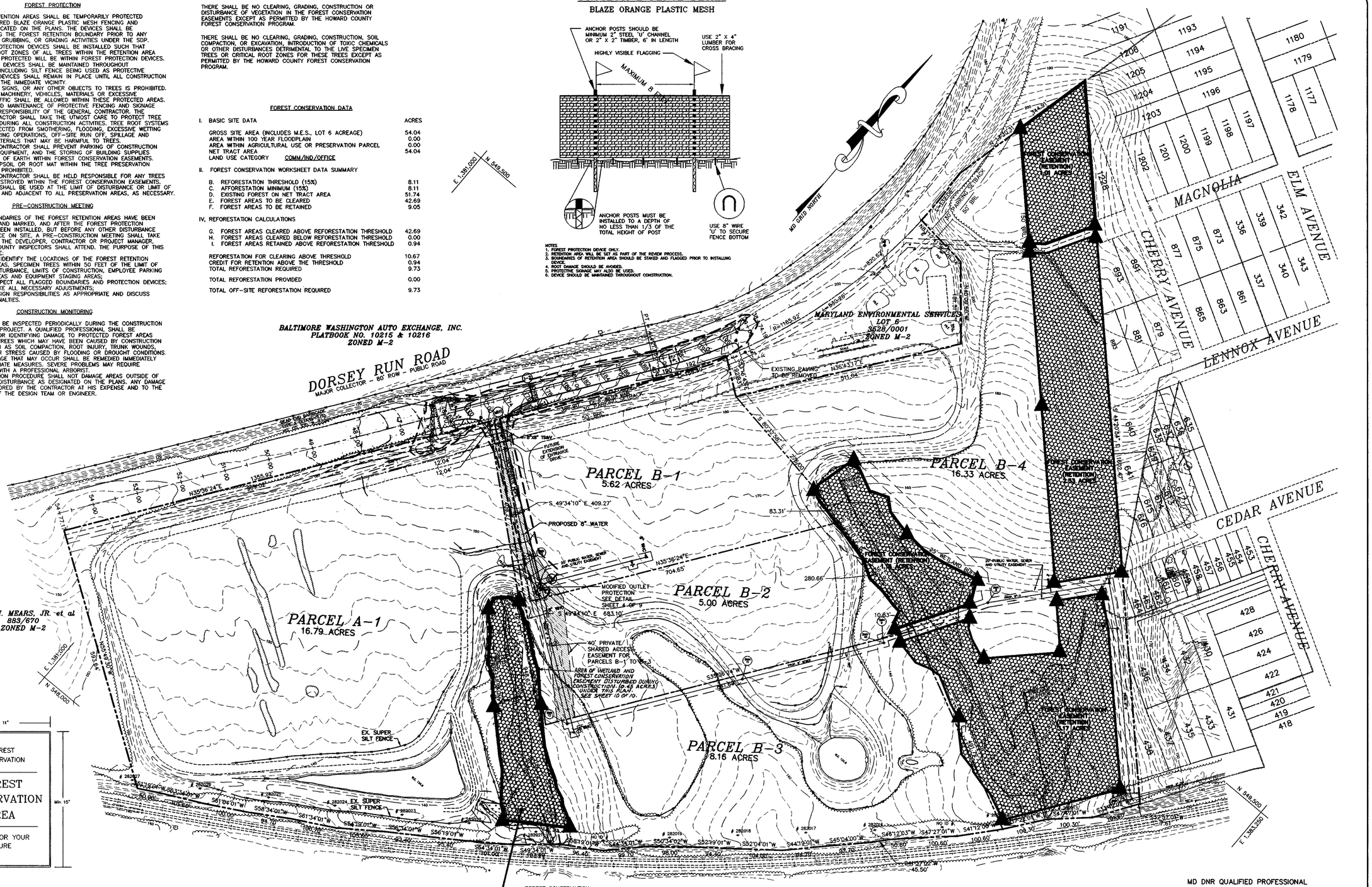
FOREST CONSERVATION DATA

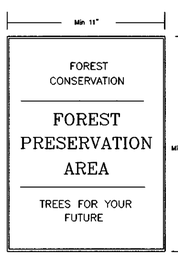
		ACRES
I.	BASIC SITE DATA	
	GROSS SITE AREA (INCLUDES M.E.S., LOT 6 ACREAGE)	54.04
	AREA WITHIN 100 YEAR FLOODPLAIN	0.00
	AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	0.00
	NET TRACT AREA	54.04
	LAND USE CATEGORY COMM/IND/OFFICE	
II.	FOREST CONSERVATION WORKSHEET DATA SUMMARY	
	B. REFORESTATION THRESHOLD (15%)	8.11
	C. AFFORESTATION MINIMUM (15%)	8.11
	D. EXISTING FOREST ON NET TRACT AREA	51.74
	E. FOREST AREAS TO BE CLEARED	42.69
	F. FOREST AREAS TO BE RETAINED	9.05
IV.	REFORESTATION CALCULATIONS	
	G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	42.69
	H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	0.00
	I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	0.94
	REFORESTATION FOR CLEARING ABOVE THRESHOLD	10.67
	CREDIT FOR RETENTION ABOVE THE THRESHOLD	0.94
	TOTAL REFORESTATION REQUIRED	9.73
	TOTAL REFORESTATION PROVIDED	0.00
	TOTAL OFF-SITE REFORESTATION REQUIRED	9.73

PROTECTIVE FENCE DETAIL

BLAZE ORANGE PLASTIC MESH

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





SIGNAGE DETAIL

NOT TO SCALE

APPROVED: DEPARTMENT OF PUBLIC WORKS CHIEF BUREAU OF HIGHWAYS	DATE 3-14-00
APPROVED: DEPARTMENT OF PLANNING AND ZONING CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 3/21/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 3/16/00

NOTE: THIS PLAN IS TO BE USED FOR FOREST CONSERVATION PURPOSES ONLY.

NOTE:
- 9.05 ACRES OF RETENTION ARE SHOWN ON-SITE. 9.73 ACRES OF REFORESTATION ARE REQUIRED. THIS REQUIREMENT WILL BE MET VIA OFF-SITE REFORESTATION ON "ROMITI PROPERTY".

NOTE : TREE PROTECTIVE FENCING TO BE INSTALLED PRIOR TO ANY GRADING WITHIN PARCELS A-1 & B-1 THRU B-4 AROUND THE FOREST CONSERVATION AREAS NOT PROTECTED BY THE EXISTING SUPER SILT FENCE.

LEGEND

- FOREST CONSERVATION EASEMENT (RETENTION)
- FOREST CONSERVATION SIGNAGE

MD DNR QUALIFIED PROFESSIONAL

Stephanie Demchik 2/23/00
STEPHANIE DEMCHIK

DEVELOPER

ATTN : MARK LEVY
DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030

project	date
98001	FEB 2000
illustration	engineering
SJD	SJD
scale	approval
1"=100'	RJH

no.	description	date
1	RELOCATE 1'-CONTOURS	10/23/00
2	REVISE SHEET # SHOW DISTURBANCE TO FCE ON PARCEL A-1	5/4/01

revisions

HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4
A RESUBDIVISION OF HOWARD BUSINESS PARK, BULK PARCELS A & B
TAX MAP 43 - PARCEL 321 - LOT 5
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
FOREST CONSERVATION PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 621-5321 Wash. (410) 997-0298 Fax.

F-00-29

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