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SITE DEVELOPMENT PLAN

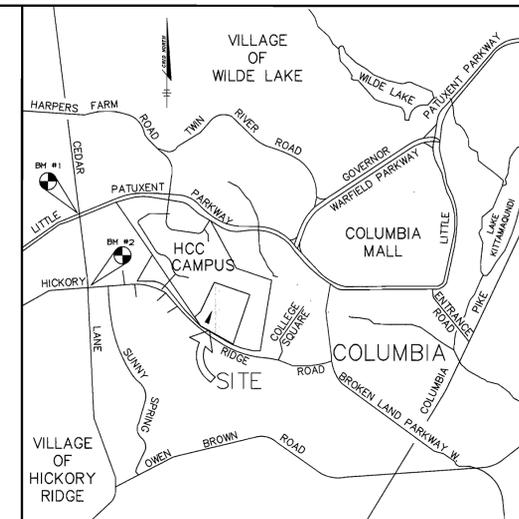
HOWARD

COMMUNITY COLLEGE

RELOCATE ATHLETIC TRACK, ADD BALL FIELDS AND RELOCATE PRIVATE SWMF #1

5th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

BENCHMARKS

BM #1
HOCO CONTROL #35-C2
ELEV. 464.13
N 563,920.83 E 1,344,204.15

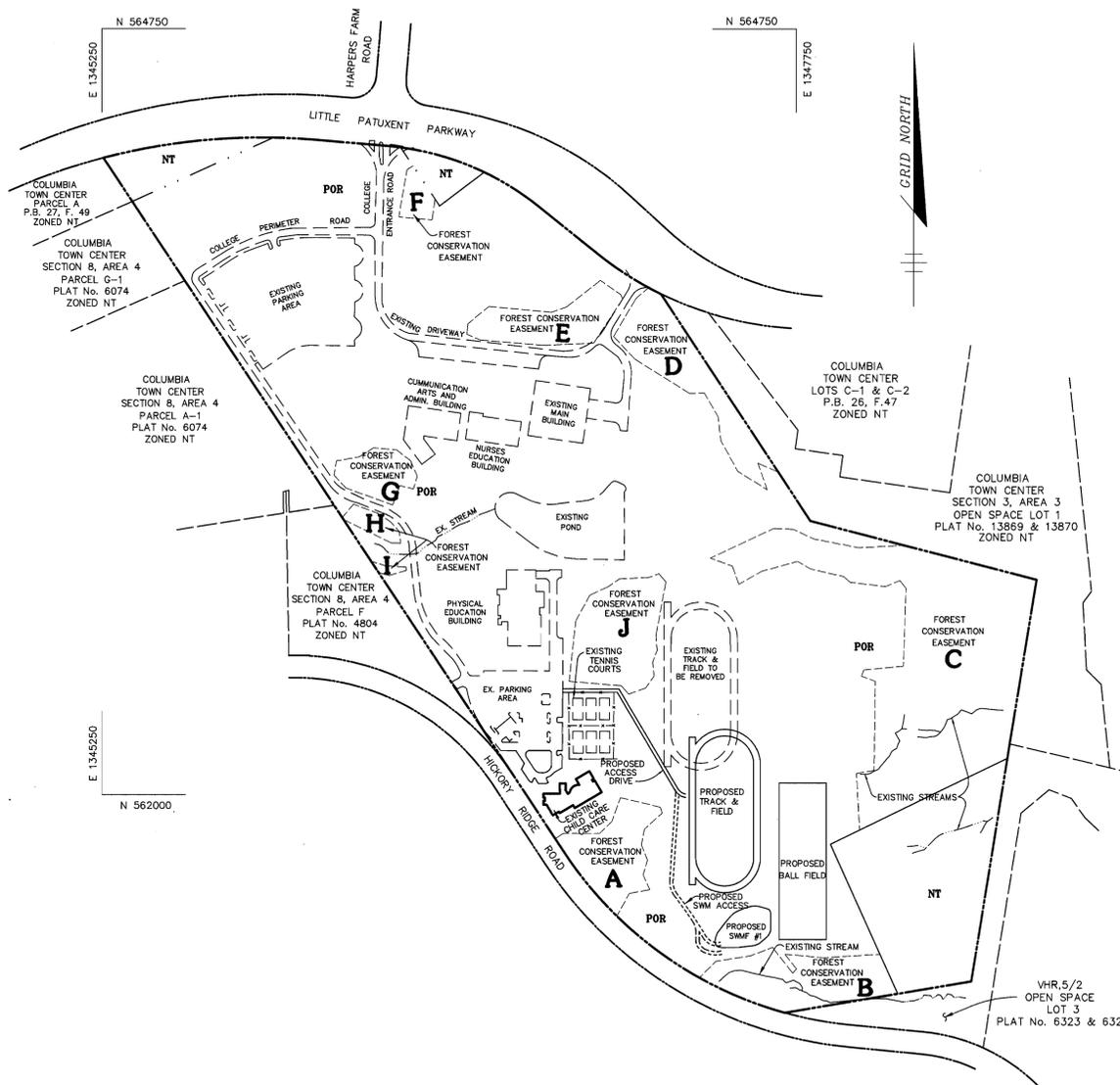
BM #2
HOCO CONTROL #35-C5
ELEV. 452.26
N 562,148.50 E 1,344,554.47

SITE ANALYSIS

AREA OF PARCEL 47	117.84 ACRES
DISTURBED AREA	ATHLETIC TRACKS 23.34 ACRES
PRESENT ZONING	POR & NT
PURPOSE:	RELOCATE ATHLETIC TRACK, ADD BALL FIELDS AND RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS ON THIS SITE.

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS & CARTER, INC., DATED SEPTEMBER 26, 1999 AND SUPPLEMENTED BY FIELD RUN SURVEY OF THE SWM AREA AND HIGH BEAM COURT BY RIEMER MUEGGE & ASSOC., DATED 11/99.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. 35C2 AND 35C5 WERE USED.
- WATER IS PUBLIC, CONTRACT NO. 824D-W
- SEWER IS PUBLIC, CONTRACT NO. 857D-W&S SEWER DRAINAGE AREA: PATUXENT TREATMENT PLANT: LITTLE PATUXENT WWTP
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- A 100-YEAR FLOODPLAIN STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE GEOTECHNICAL STUDY FOR THIS PROJECT WAS PERFORMED BY HILLIS CARNES ENGINEERING ASSOCIATES AND IS DATED SEPTEMBER 5, 2000.
- THE PROPERTY LINE SHOWN WAS TAKEN FROM A FIELD SURVEY BY FISHER, COLLINS AND CARTER DATED 9/26/99.
- SUBJECT PROPERTY ZONED POR & NT PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO. SDP-97-45, SDP-75-46, SDP-87-95, SDP-76-30, PB-229, SDP-68-12, SDP-75-32, SDP-00-56
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE PER HOWARD CO. STANDARD SPECIFICATIONS
- ALL STORM DRAIN INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN PAVEMENT SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY RIEMER MUEGGE AND ASSOCIATES DATED OCTOBER 2000.
- A LANDSCAPE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL FOR THIS SITE. THIS SITE IS EXEMPT FROM LANDSCAPE SURETY SINCE IT IS A GOVERNMENT USE.
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- NO NEW LIGHTING IS PROPOSED FOR THESE SITE IMPROVEMENTS.
- THE PROPOSED STORMWATER MANAGEMENT FACILITIES PROVIDED FOR THIS SITE CONSISTS OF A PRIVATE DRY SWALE AND A PRIVATE MICRO POOL EXTENDED DETENTION POND.
- FOREST CONSERVATION OBLIGATIONS, IN ACCORDANCE WITH SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL, HAVE BEEN MET BY THE PLACEMENT OF 23.53 ACRES OF FOREST IN RETENTION EASEMENTS AND PAYMENT OF FEE-IN-LIEU FOR 0.07 ACRES OF REFORESTATION OBLIGATION IN THE AMOUNT OF ~~\$1524.60~~ ~~PAID AFTER JULY 1, 2001.~~
- WP 01-98 --- A WAIVER REQUEST TO SECTION 16.155(g)(1) REQUIRING THE SUBMISSION OF A SITE DEVELOPMENT PLAN FOR NON-RESIDENTIAL DEVELOPMENT WAS APPROVED ON JUNE 11, 2001.
- FOREST CONSERVATION PLAT OF EASEMENTS RECORDED ON PLATS 14956 & 14957 ON SEPTEMBER 24, 2001.



LOCATION PLAN
SCALE: 1" = 300'

ADDRESS CHART	
PARCEL	STREET ADDRESS
47	10901 LITTLE PATUXENT PARKWAY

SUBDIVISION NAME - HOWARD COMMUNITY COLLEGE		SECT./AREA - N/A	PARCEL - 47
L/F - 486/224	BLOCK # - 641	ZONING - POR NT	TAX MAP NO. - 35, 36
523/320			ELECT. DIST. - 5th
WATER CODE - 107		SEWER CODE - 5522500	

* FOREST CONSERVATION PLATS OF EASEMENTS RECORDED REFERENCE 14956 & 14957.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>[Signature]</i> DIRECTOR	10/23/01 DATE
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	10/20/01 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	10/22/01 DATE

DATE	NO.	REVISION
OWNER / DEVELOPER		
HOWARD COMMUNITY COLLEGE 10901 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044-3197 ATTN: MR. JAMES O. LASH 410-772-4296		
PROJECT HOWARD COMMUNITY COLLEGE RELOCATE ATHLETIC TRACK, ADD BALL FIELDS, RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS		
AREA PARCEL 47 ZONED POR & NT TAX MAP NO. 35, 36 BLOCK 6 & 1 5th ELECTION DISTRICT, HOWARD COUNTY, MD.		
TITLE TITLE SHEET		

RIEMER MUEGGE
a division of
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DATE	DESIGNED BY : C.J.R.
	DRAWN BY: M.A.D.
	PROJECT NO : 00161 SDP1.DWG
	DATE : SEPTEMBER 17, 2001
	SCALE : AS SHOWN
	DRAWING NO. 1 OF 15





MATCH LINE FOR CONTINUATION SEE SHEET 5

LEGEND

- DRAINAGE AREA DIVIDE
- SF --- SILT FENCE
- SSF --- SUPER SILT FENCE
- TP --- TREE PROTECTION
- --- LIMIT OF DISTURBANCE
- --- SOIL LINE
- --- EXISTING STREAM
- --- STREAM BUFFER
- --- WETLANDS BUFFER
- --- WETLANDS LIMITS
- --- STEEP SLOPES

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.

James O. Lash 9/17/01
 DEVELOPER DATE

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.

Arthur E. Muegge 9/17/01
 ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Jim Higgins 10/16/01
 NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

John St... 10/16/01
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James O. Lash 10/23/01
 DIRECTOR DATE

Arthur E. Muegge 10/18/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Jim Higgins 10/23/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

9-16-05 **REVISOR** POLE BUILDING SIZE TO 28'x40'x14'
 7-27-05 **ADDED** POLE BUILDING

DATE NO.	REVISION

OWNER / DEVELOPER
 HOWARD COMMUNITY COLLEGE
 10901 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044-3197
 ATTN: MR. JAMES O. LASH
 410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**
 RELOCATE ATHLETIC TRACK, ADD BALL FIELDS, RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
 TAX MAP NO. 35, 36 BLOCK 6 & 1
 5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE **GRADING, SEDIMENT CONTROL AND DRAINAGE AREA MAP**

RIEMER MUEGGE
 a division of:
Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 3818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8900 Fax 410.997.9282

DATE	DESIGNED BY :
	C.J.R.
DATE	DRAWN BY :
	M.A.D.
DATE	PROJECT NO. :
	00161 SDP4.DWG
DATE	DATE :
	SEPTEMBER 17, 2001
SCALE :	DRAWING NO. :
1" = 50'	4 OF 15

ARTHUR E. MUEGGE #8707

P:\project\00161\SDP4.DWG Tue Oct 09 10:37:26 2001 RIEMER MUEGGE - A DIVISION OF PHRGA

SEDIMENT BASIN

DRAINAGE AREA	9.0 ACRES
WET STORAGE REQUIRED	16200 CF @ 397.20
DRY STORAGE REQUIRED	17156 CF @ 397.20
WET STORAGE PROVIDED	22220 CF @ 398.50
DRY STORAGE PROVIDED	22220 CF @ 398.50
CREST ELEVATION	398.50
TOP OF DAM	402.00
BOTTOM ELEVATION	394.00
CLEANOUT ELEVATION	396.40
SIDE SLOPES	2:1 FT
TOP OF RISER TO CLEANOUT	5.22 CFS
PRE-DEVELOPMENT Q ₂	2.79 CFS
POST-DEVELOPMENT Q ₂	2.79 CFS



GENERAL NOTES:

1. FOREST CONSERVATION PLANS 1 & 2 SHOW ONLY THE AREA OF FOREST AND OTHER TREES AFFECTED BY THIS PROPOSED BALLFIELDS DEVELOPMENT PLAN. HOWEVER, THE REFORESTATION REQUIREMENTS FOR THE EXISTING CHILD DAY CARE CENTER (APPROVED SDP-00-58) AND AN ANTICIPATED NEAR-FUTURE DEVELOPMENT OF A PARKING AREA NEAR THE MAIN CAMPUS ENTRANCE HAVE BEEN ACCOUNTED FOR WITHIN THE FOREST CONSERVATION WORKSHEET CALCULATIONS ON SHEET 13.
2. SEE FOREST CONSERVATION SHEET 13 FOR PROPOSED FOREST RETENTION EASEMENTS REQUIRED BY SECTION 16.1200 OF THE HOWARD COUNTY CODE.
3. HOWARD COMMUNITY COLLEGE REQUESTS PAYING FEE-IN-LIEU OF PROVIDING ANY ON OR OFF-SITE REFORESTATION TO MEET THEIR REFORESTATION OBLIGATION SHOWN ON THE FOREST CONSERVATION WORKSHEET.
4. THE MASTER FSD, DATED OCTOBER 11, 2000, HAS BEEN PREPARED BY RMA IN CONJUNCTION WITH THIS PROJECT AND HAS BEEN SUBMITTED AND APPROVED. THE MASTER FSD PLAN WAS PREPARED USING COUNTY AERIAL TOPOGRAPHY AT 200 SCALE. THE EXISTING CONDITIONS SHOWN ON THIS DEVELOPMENT PLAN MAY DIFFER SLIGHTLY FROM THE FSD BECAUSE THIS PLAN HAS BEEN PREPARED USING FIELD RUN TOPOGRAPHIC DATA DATED NOVEMBER 2000.
5. JUSTIFICATION FOR FOREST REMOVAL: IN ORDER TO EXPAND THE NUMBER OF BALLFIELDS AVAILABLE FOR SPORTS, FORESTED AREA NEEDS TO BE CLEARED. THE CURRENT OPEN AREAS ARE ALREADY IN USE AS BALLFIELDS.
6. SEE SEDIMENT CONTROL PLAN FOR EXACT LOCATION OF TREE PROTECTION FENCE AND TREE PROTECTION FENCE DETAILS.
7. SEE FOREST CONSERVATION SHEET 13 FOR LOCATION OF FOREST RETENTION SIGNS.
8. SPECIMEN TREE LOCATIONS ARE FIELD APPROXIMATED.
9. NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
10. NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
11. THERE ARE NO KNOWN CEMETERY OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY HISTORIC & CEMETERY SITE MAP.
12. THIS SITE CONTAINS TWO HYDRIC SOILS, HATBORO (Ha) & BAILE (Ba); AND ONE SOIL WITH POSSIBLE HYDRIC INCLUSIONS, GLENVILLE (GnB2).
13. NO SLOPES EXCEED 25% WITHIN PROJECT AREAS.
14. WETLANDS AND STREAMS SHOWN ON FOREST CONSERVATION SHEETS 11 & 12 HAVE BEEN DELINEATED AND SURVEYED BY RIEMER MUEGGE. WETLAND REPORT DATED OCTOBER 16, 2000.
15. THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THESE PLANS.

SPECIMEN TREES:

1. 48" Northern catalpa	44. 47" Tulip tree	87. 37" Red oak	130. 45" Tulip tree
2. 48" Silver maple	45. 38" Tulip tree	88. 46" Red oak	131. 40" Tulip tree
3. 36" Silver maple	46. 34" Tulip tree	89. 37" Tulip tree	132. 40" Tulip tree
4. 40" Silver maple	47. 48" White oak	90. 36" Tulip tree	133. 42" Tulip tree
5. 39" Silver maple	48. 62" Red oak	91. 30" Red oak	134. 37" Tulip tree
6. 50" American beech	49. 50" Red maple	92. 34" Red maple	135. 34" Tulip tree
7. 40" Butternut	50. 40" Tulip tree	93. 47" Tulip tree	136. 35" Tulip tree
8. 41" Silver maple	51. 40" Hickory	94. 34" Red Maple	137. 33" Tulip tree
9. 44" White oak	52. 36" Red oak	95. 32" Tulip tree	138. 36" Tulip tree
10. 35" White oak	53. 30" White oak	96. 36" Tulip tree	139. 60" Tulip tree twin
11. 30" Red maple	54. 41" White oak	97. 34" Tulip tree	140. 31" Tulip tree
12. 38" Red maple	55. 41" Red maple	98. 32" Tulip tree	141. 30" Tulip tree
13. 46" Red maple	56. 46" White oak	99. 36" Tulip tree	142. 32" Tulip tree
14. 38" Tulip tree	57. 41" White oak	100. 34" Scarlet oak	143. 31" Tulip tree
15. 44" Red oak	58. 42" Tulip tree	101. 36" Tulip tree	144. 34" Tulip tree
16. 46" Tulip tree	59. 37" Tulip tree	102. 38" Red maple	145. 45" Black Walnut
17. 30" Tulip tree	60. 31" White oak	103. 38" Tulip tree	146. 40" Tulip tree
18. 40" Tulip tree	61. 34" White oak	104. 40" Tulip tree	147. 36" Red oak
19. 40" Red oak	62. 36" Tulip tree	105. 49" Tulip tree twin	148. 48" Tulip tree
20. 36" Red oak	63. 36" White oak	106. 44" Tulip tree	149. 40" Red Maple
21. 40" White oak	64. 30" Red maple	107. 70" Tulip tree triple	150. 38" Tulip tree
22. 31" Hickory	65. 37" White oak	108. 56" Tulip tree triple	151. 35" Red oak
23. 36" White oak	66. 59" Red oak	109. 44" Tulip tree	152. 35" Red maple triple
24. 56" Red oak	67. 42" White oak	110. 45" Tulip tree	153. 41" Tulip tree
25. 34" Hickory	68. 40" Red maple	111. 31" Tulip tree	154. 55" Red oak twin
26. 36" White oak	69. 46" White oak	112. 60" Tulip tree	155. 35" Tulip tree
27. 40" Tulip tree	70. 34" White oak	113. 56" Tulip tree twin	156. 40" Tulip tree
28. 50" Tulip tree	71. 31" White oak	114. 40" Tulip tree	157. 39" Tulip tree
29. 46" Tulip tree	72. 31" White oak	115. 36" Tulip tree	158. 38" Tulip tree
30. 36" White oak	73. 30" White oak	116. 40" Tulip tree	159. 45" Tulip tree
31. 38" Tulip tree	74. 34" White oak	117. 35" Tulip tree	160. 50" Tulip tree
32. 46" White oak	75. 42" White oak	118. 43" Tulip tree	161. 56" Tulip tree
33. 36" Tulip tree	76. 42" White oak	119. 37" Tulip tree	162. 68" White oak triple
34. 40" Tulip tree	77. 30" White oak	120. 34" Tulip tree	163. 39" Tulip tree
35. 38" Tulip tree	78. 30" White oak	121. 42" Tulip tree	164. 32" White oak
36. 41" Tulip tree	79. 30" White oak	122. 34" Tulip tree	165. 40" Tulip tree
37. 42" Tulip tree	80. 36" White oak	123. 32" Tulip tree	166. 36" Tulip tree
38. 32" Tulip tree	81. 47" Red oak	124. 31" Tulip tree	167. 30" Tulip tree
39. 40" Tulip tree	82. 36" Tulip tree	125. 32" Tulip tree	168. 31" Tulip tree
40. 32" Tulip tree	83. 33" Tulip tree	126. 30" Tulip tree	169. 30" Tulip tree
41. 32" Tulip tree	84. 30" Tulip tree	127. 36" Tulip tree	170. 44" Red oak
42. 38" Tulip tree	85. 44" Tulip tree	128. 36" Tulip tree	
43. 37" Tulip tree	86. 30" White oak	129. 49" Tulip tree twin	



LEGEND

	EXISTING	PROPOSED
TREELINE		
PROPERTY LINE		
WETLAND & 25' BUFFER		
50' STREAM BUFFER		
CONTOUR LINES		
SPECIMEN TREES (± 30' DBH)		
SLOPES (15-25%) WITHIN PROJECT AREA		
SOILS		
APPROXIMATE LIMIT OF DISTURBANCE		
TREE PROTECTION FENCE		

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Paul Rusti 10/23/01
DIRECTOR DATE

Chris Muegge 10/20/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chris Muegge 10/22/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

9-14-05 REVISD PAB BUILDING SIZE TO 28'x40'x16'

7-27-00 ADDED POLE BUILDING

DATE NO. REVISION

OWNER / DEVELOPER

HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT HOWARD COMMUNITY COLLEGE
RELOCATE ATHLETIC TRACK, ADD BALL FIELDS,
RELOCATE PRIVATE SWIM #1 AND TO ESTABLISH
FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
TAX MAP NO. 35, 36 BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE

FOREST CONSERVATION PLAN

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS & SURVEYORS & PLANNERS
LANDSCAPE ARCHITECTS & ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

9-17-01
DATE

DESIGNED BY : DMD
DRAWN BY : DMD
PROJECT NO : 00231
"forcon1.DWG"
DATE : SEPTEMBER 17, 2001
SCALE : 1" = 50'
DRAWING NO. 11 OF 15

P:\proj\00231\forcon1.dwg Wed Sep 12 09:55:22 2001 RIEMER MUEGGE A DIVISION OF PHRMA

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SITE DEVELOPMENT PLAN

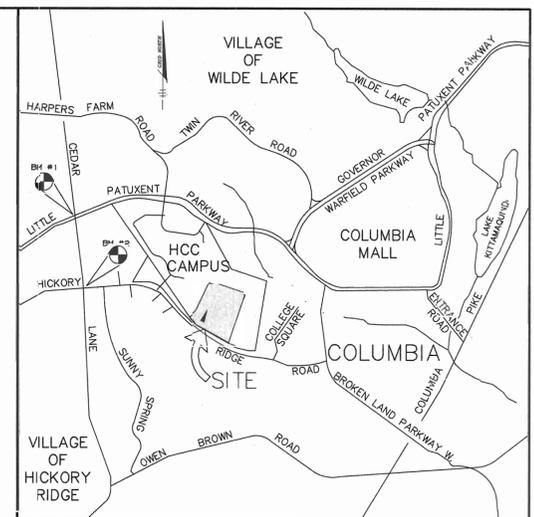
HOWARD

COMMUNITY COLLEGE

RELOCATE ATHLETIC TRACK, ADD BALL FIELDS AND RELOCATE PRIVATE SWMF #1

5th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

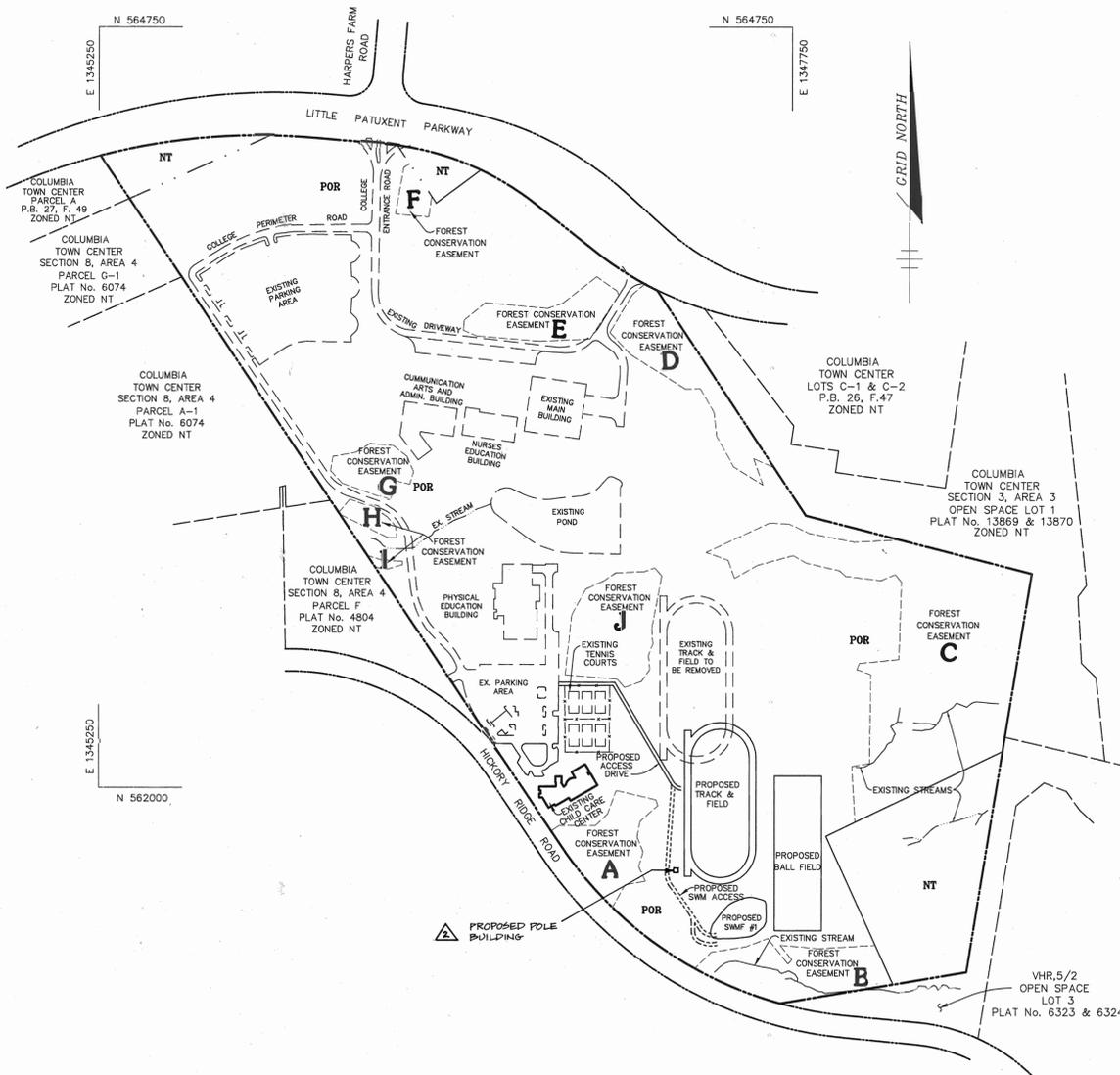
BENCHMARKS

BM #1
HOCO CONTROL #35-C2
ELEV. 464.13
N 563,920.83 E 1,344,204.15

BM #2
HOCO CONTROL #35-C5
ELEV. 452.26
N 562,148.50 E 1,344,554.47

SITE ANALYSIS

AREA OF PARCEL	117.84 ACRES
DISTURBED AREA	ATHLETIC FIELDS 23.34 ACRES
PRESENT ZONING	POR & NT
PURPOSE:	RELOCATE ATHLETIC TRACK, ADD BALL FIELDS AND RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS ON THIS SITE.



LOCATION PLAN
SCALE: 1" = 300'

* FOREST CONSERVATION PLATS OF EASEMENTS RECORDING REFERENCE 14956 & 14957.

ADDRESS CHART

PARCEL	STREET ADDRESS
47	10901 LITTLE PATUXENT PARKWAY

SUBDIVISION NAME -	HOWARD COMMUNITY COLLEGE	SECT./AREA -	N/A	PARCEL -	47
LOT -	486/224	BLOCK # -	641	ZONING -	POR NT
WATER CODE -	523/920	TAX MAP NO. -	35, 36	ELECT. DIST. -	5th
		SEWER CODE -		CENSUS TRACT -	6056

9-14-05 **ADDED NOTE NO. 35 FOR POLE BUILDING**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 10/25/01
DIRECTOR DATE

[Signature] 10/26/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 10/26/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

7-27-05 **ADDED POLE BUILDING**

7-2-03 **UPDATED SHEET INDEX**

DATE	NO.	REVISION

OWNER / DEVELOPER

HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**

RELOCATE ATHLETIC TRACK, ADD BALL FIELDS,
RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH
FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
TAX MAP NO. 35, 36 BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE **TITLE SHEET**

RIEMER MUEGGE
a division of:
Fallon Harris Rust & Associates, PC
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8800 fax 410.997.9992

DATE

DESIGNED BY: C.J.R.

DRAWN BY: M.A.D.

PROJECT NO: 00161
SDP1.DWG

DATE: SEPTEMBER 17, 2001

SCALE: AS SHOWN

DRAWING NO. 1 OF 15

ARTHUR E. MUEGGE #9707

P:\projects\00161\SDP1.dwg Tue Oct 09 10:36:00 2001 RIEMER MUEGGE: A DIVISION OF PHRGA



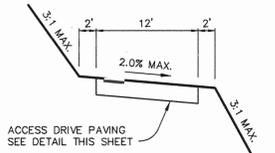
MATCH LINE FOR CONTINUATION SEE SHEET 3

LEGEND

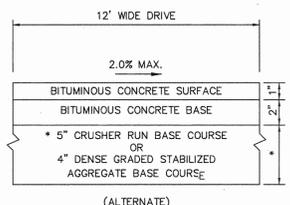
- EXISTING STREAM
- - - STREAM BUFFER
- - - WETLANDS BUFFER
- - - WETLANDS LIMITS
- 6' HIGH CHAINLINK FENCE
- 4' HIGH CHAINLINK FENCE
- FOREST CONSERVATION EASEMENT

SWM SUMMARY CHART SWMP DA: 6.2 AC.

STORM	EXISTING PEAK DISCHARGE AT STUDY POINT #1	PEAK FLOW OR DISCHARGE AT STUDY POINT #1	PEAK FLOW OR DISCHARGE AT STUDY POINT #2	PROPOSED PEAK DISCHARGE AT STUDY POINT #2	ELEVATION	STORAGE
1 YR.	5.48 CFS	13.77 CFS	0.63 CFS	4.30 CFS	398.1	0.54 ACFT
2 YR.	11.42 CFS	21.85 CFS	3.16 CFS	4.2 CFS	398.9	0.67 ACFT
10 YR.	34.6 CFS	51.74 CFS	34.75 CFS	61.76 CFS	399.2	1.10 ACFT
100 YR.	77.57 CFS	87.82 CFS	63.44 CFS	115.63 CFS	400.0	1.47 ACFT



ACCESS DRIVE TYPICAL DETAIL
NO SCALE



(ALTERNATE)

BITUMINOUS CONCRETE SURFACE
BITUMINOUS CONCRETE BASE

HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

P-1 PAVING ACCESS DRIVE DETAIL
NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David B. Bates 10/23/01
DIRECTOR DATE

John P. Brumby 10/18/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy K. Hester 10/22/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

12-B-03 REVISOR TRACK & FIELDS AND ADDED FENCES AND RELOCATED WATER MAIN

7-2-03 ADDED WATER & SEWER MAINS

DATE	NO.	REVISION

OWNER / DEVELOPER
HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**
RELOCATE ATHLETIC TRACK, ADD BALL FIELDS, RELOCATE PRIVATE SWMP #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
TAX MAP NO. 35, 36 BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE **SITE DEVELOPMENT PLAN**

RIEMER MUEGGE
a division of
Fatton Harris Rust & Associates, p.c.
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DATE	DESIGNED BY
	C.J.R.
DATE	DRAWN BY
	M.A.D.
DATE	PROJECT NO.
SEPTEMBER 17, 2001	00161 SDP2.DWG
SCALE	DRAWING NO.
1" = 50'	2 OF 15

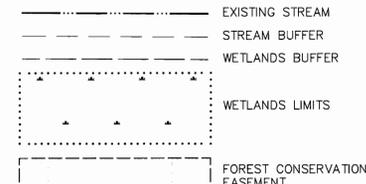


DATE	NO.	REVISION
9-16-05	1	REVISED POLE BUILDING SIZE TO 24'x10'x11'
7-27-05	2	ADDED POLE BUILDING



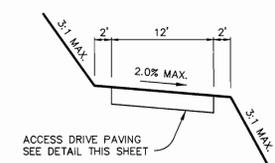
MATCH LINE FOR CONTINUATION SEE SHEET 3

LEGEND

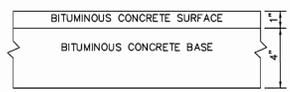
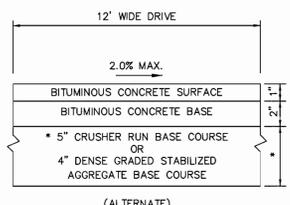


SWPM SUMMARY CHART SWMP DA. 6.2 AC.

STORM	EXISTING PEAK DISCHARGE AT STUDY POINT	PEAK INFLOW TO POND	PEAK DISCHARGE OUT OF POND	PROPOSED PEAK DISCHARGE AT STUDY POINT	ELEVATION	STORAGE
1 YR.	5.48 CFS	13.77 CFS	0.65 CFS	4.80 CFS	395.1	0.54 ACFT
2 YR.	11.92 CFS	21.19 CFS	2.16 CFS	9.2 CFS	395.5	0.67 ACFT
10 YR.	34.8 CFS	51.74 CFS	34.75 CFS	61.76 CFS	394.2	1.10 ACFT
100 YR.	77.97 CFS	87.82 CFS	63.94 CFS	115.63 CFS	400.0	1.47 ACFT



ACCESS DRIVE TYPICAL DETAIL



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David Barr DIRECTOR 10/23/01 DATE

Mike Drummond CHIEF, DEVELOPMENT ENGINEERING DIVISION 10/20/01 DATE

Cindy Horvath CHIEF, DIVISION OF LAND DEVELOPMENT 10/22/01 DATE

DATE NO. REVISION

OWNER / DEVELOPER
 HOWARD COMMUNITY COLLEGE
 10901 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044-3197
 ATTN: MR. JAMES O. LASH
 410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**
 RELOCATE ATHLETIC TRACK, ADD BALL FIELDS,
 RELOCATE PRIVATE SWMP #1 AND TO ESTABLISH
 FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
 TAX MAP NO. 35, 36 BLOCK 6 & 1
 5th ELECTION DISTRICT, HOWARD COUNTY, MD.

SITE DEVELOPMENT PLAN

RIEMER MUEGGE
 a division of
Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 3818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8800 fax 410.997.9282

DATE

DESIGNED BY : C.J.R.

DRAWN BY : M.A.D.

PROJECT NO : 00161

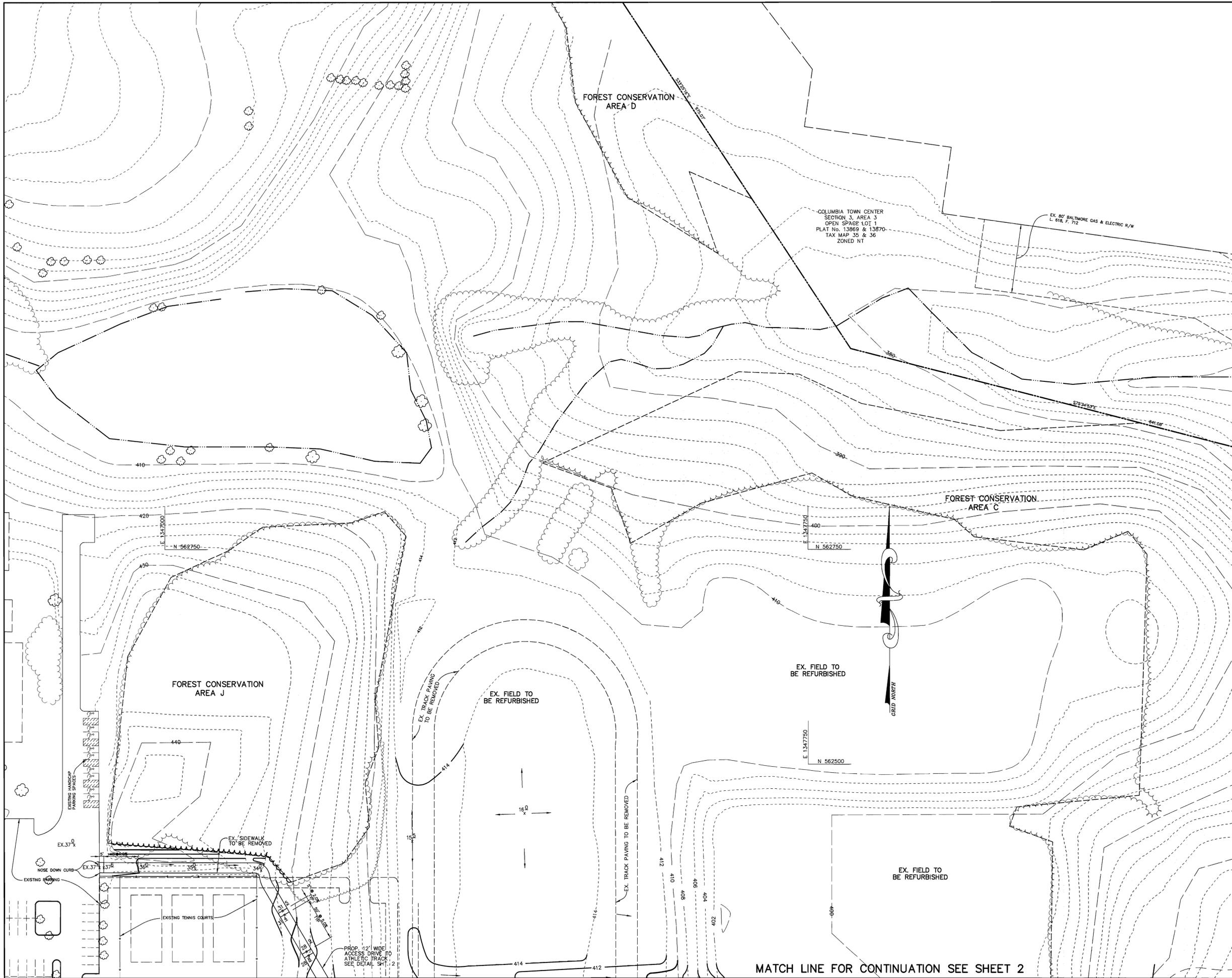
DATE : SEPTEMBER 17, 2001

SCALE : 1" = 50'

DRAWING NO. 2 OF 15



P:\project\00161\5002.dwg Tue Oct 09 10:35:13 2001 RIEMER MUEGGE - A DIVISION OF PHRGA



LEGEND

	EXISTING STREAM
	STREAM BUFFER
	WETLANDS BUFFER
	WETLANDS LIMITS
	FOREST CONSERVATION EASEMENT

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James S. Rust 10/23/01
DIRECTOR DATE

Arthur E. Muegge 10/10/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

David K. Harshbarger 10/23/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO.	REVISION

OWNER / DEVELOPER
 HOWARD COMMUNITY COLLEGE
 10901 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044-3197
 ATTN: MR. JAMES O. LASH
 410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**
 RELOCATE ATHLETIC TRACK, ADD BALL FIELDS,
 RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH
 FOREST CONSERVATION EASEMENTS

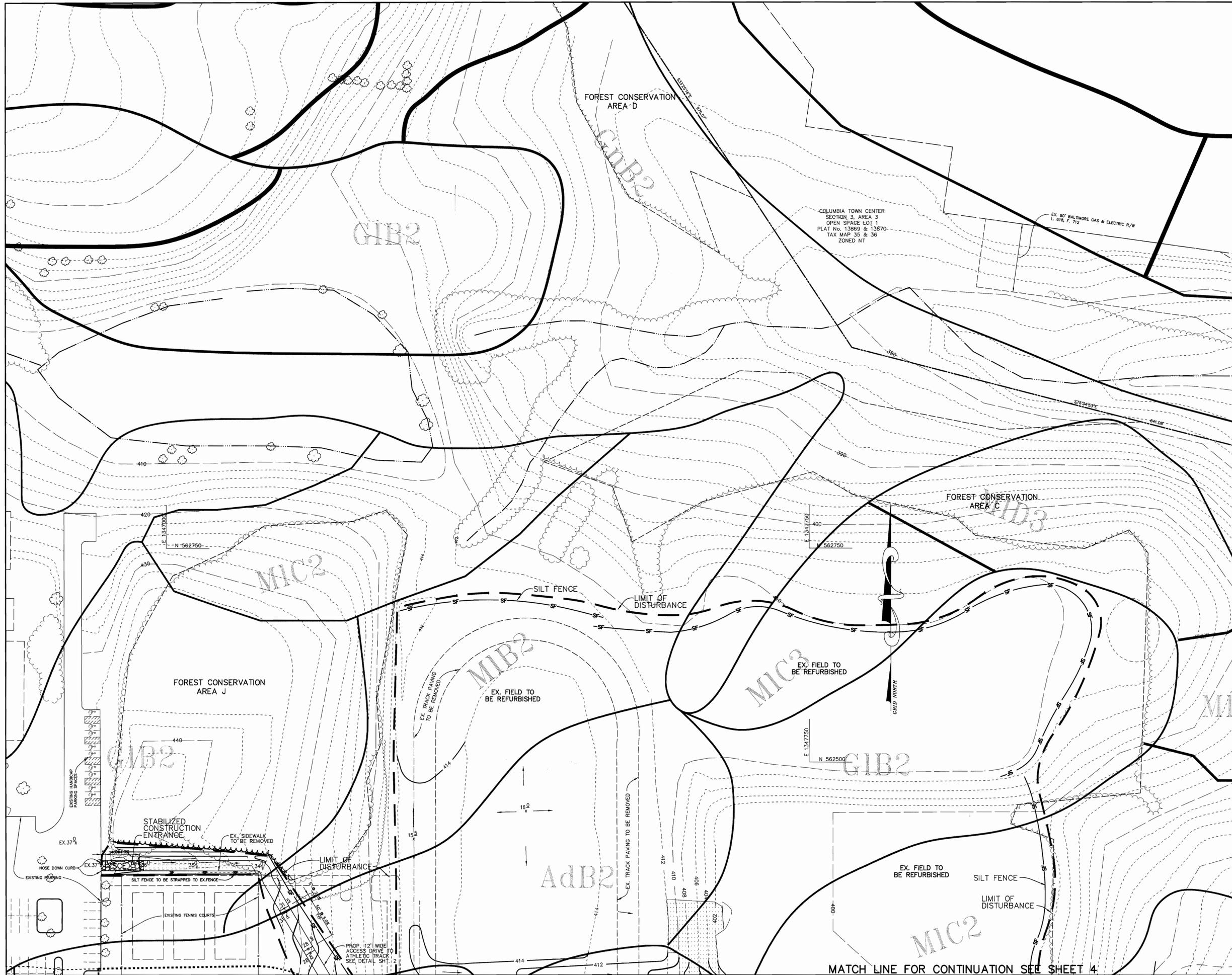
AREA PARCEL 47 ZONED POR & NT
 TAX MAP NO. 35, 36 BLOCK 6 & 1
 5th ELECTION DISTRICT, HOWARD COUNTY, MD.

SITE DEVELOPMENT PLAN

RIEMER MUEGGE
 a division of:
Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DATE	DESIGNED BY : C.J.R.
	DRAWN BY: M.A.D.
	PROJECT NO : 00161 SDP-3.DWG
	DATE : SEPTEMBER 17, 2001
	SCALE : 1" = 50'
	DRAWING NO. 3 OF 15

MATCH LINE FOR CONTINUATION SEE SHEET 2



LEGEND

- DRAINAGE AREA DIVIDE
- - - - - SF SILT FENCE
- - - - - SSF SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- SOIL LINE
- EXISTING STREAM
- STREAM BUFFER
- WETLANDS BUFFER
- WETLANDS LIMITS
- STEEP SLOPES

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.
James O. Lash 9-17-01
 DEVELOPER DATE

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.
Paul E. Muegge 9-17-01
 ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
Jim Munn /os 10/16/01
 NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Paul E. Muegge 10/16/01
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
James O. Lash 10/23/01
 DIRECTOR DATE

Michael J. ... 10/16/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Wanda ... 10/22/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO.	REVISION

OWNER / DEVELOPER
 HOWARD COMMUNITY COLLEGE
 10901 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044-3197
 ATTN: MR. JAMES O. LASH
 410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**
 RELOCATE ATHLETIC TRACK, ADD BALL FIELDS,
 RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH
 FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
 TAX MAP NO. 35, 36 BLOCK 6 & 1
 5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE **GRADING, SEDIMENT CONTROL
 AND DRAINAGE AREA MAP**

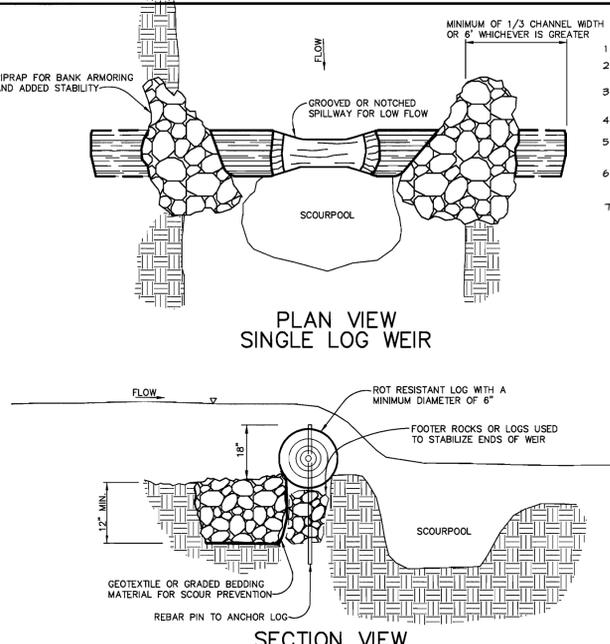
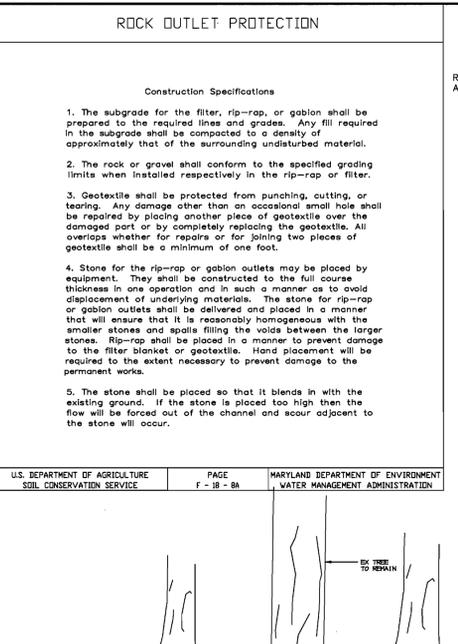
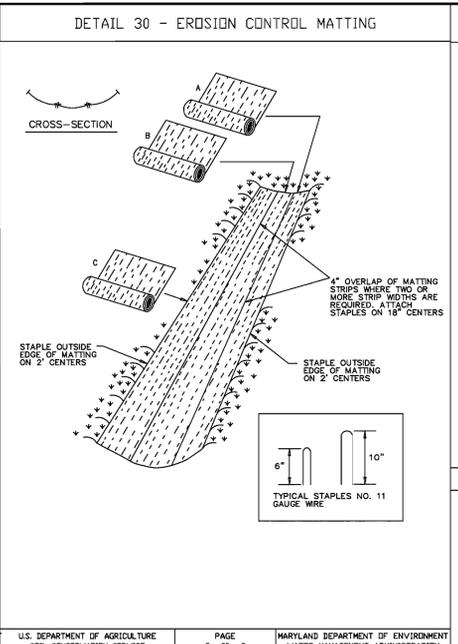
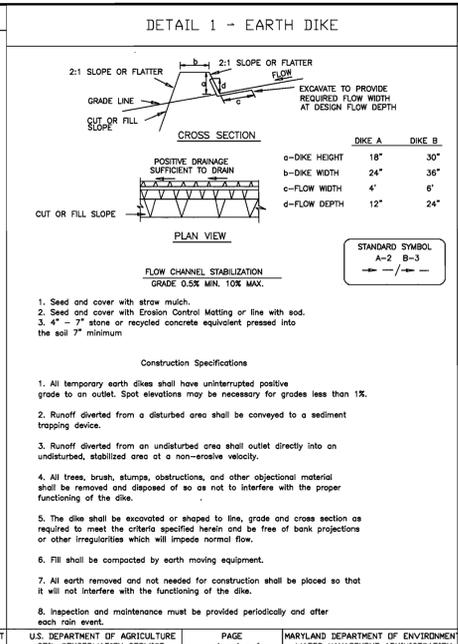
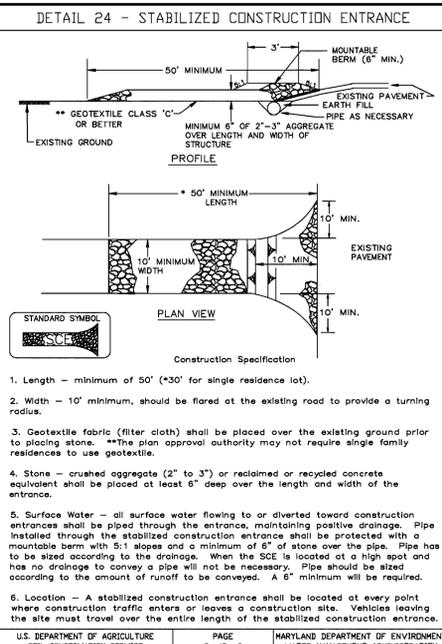
RIEMER MUEGGE
 a division of:
Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centre Park Drive, Columbia, MD 21046 • tel 410.997.8900 fax 410.997.9282

DATE _____
 DESIGNED BY : C.J.R.
 DRAWN BY : M.A.D.
 PROJECT NO : 00161
 SDP5.DWG
 DATE : SEPTEMBER 17, 2001
 SCALE : 1" = 50'
 DRAWING NO. 5 OF 15

Arthur E. Muegge #8707
 ARTHUR E. MUEGGE #8707

MATCH LINE FOR CONTINUATION SEE SHEET 4

P:\project\00161\SDP5.DWG Tue Oct 09 13:33:01 2001 RIEMER MUEGGE: A DIVISION OF PHRGA



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.

James D. Yash 9.17.01
DEVELOPER DATE

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.

And E. Muegge 9.17.01
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Jim Muegge 10/6/01
NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Shirley A. Lash 10/6/01
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James D. Yash 10/23/01
DIRECTOR DATE

Mr. James O. Lash 10/10/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Shirley A. Lash 10/22/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER

HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT HOWARD COMMUNITY COLLEGE
RELOCATE ATHLETIC TRACK, ADD BALL FIELDS,
RELOCATE PRIVATE SWM AND TO ESTABLISH
FOREST CONSERVATION EASEMENTS

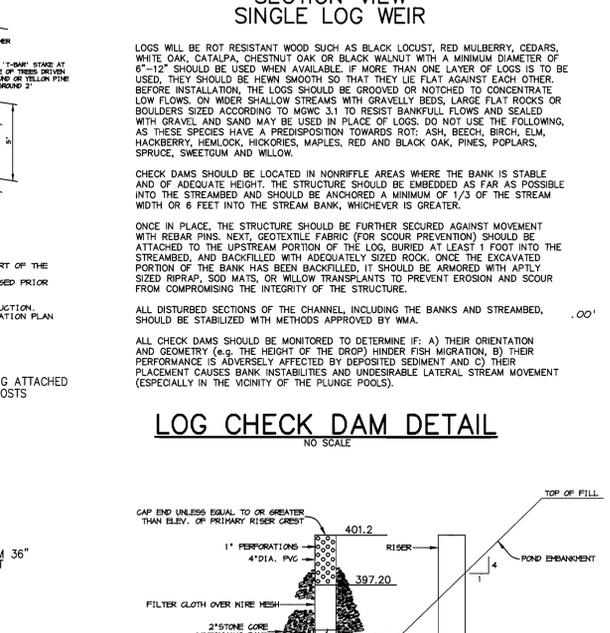
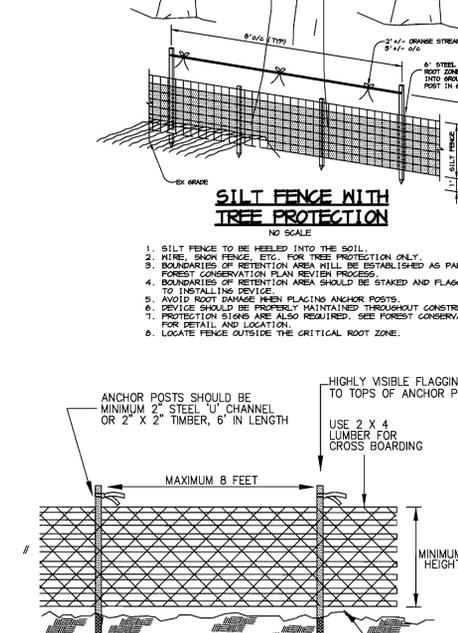
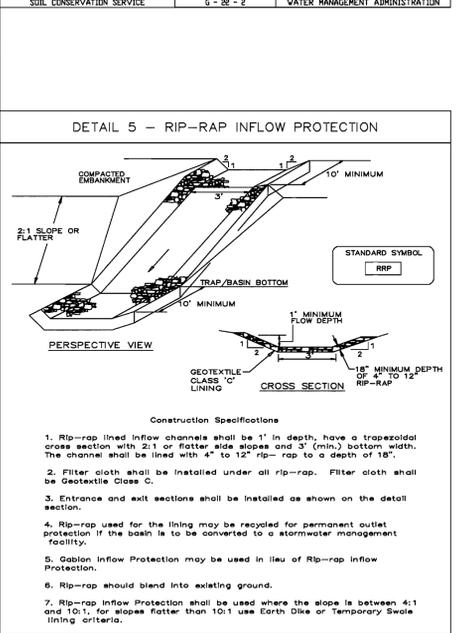
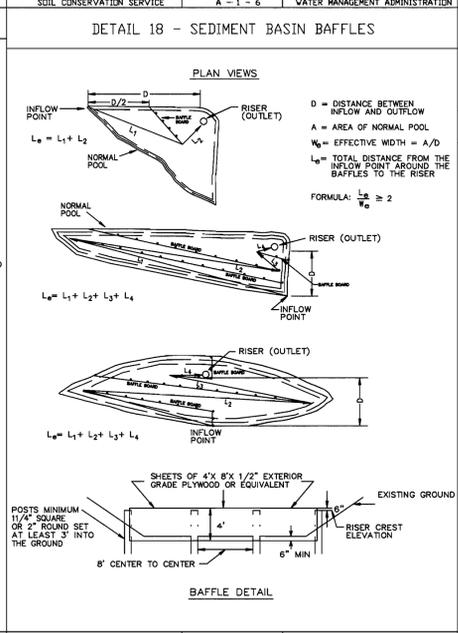
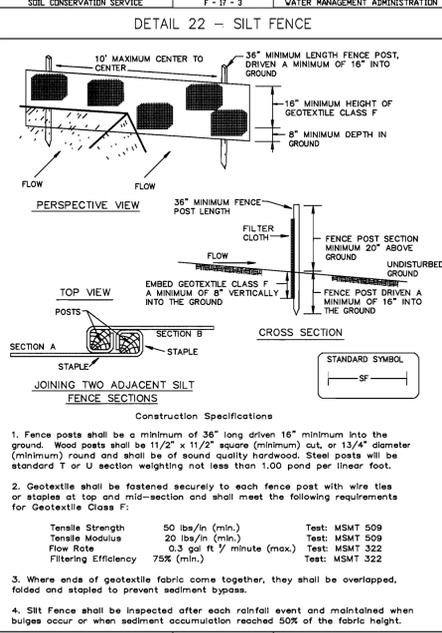
AREA PARCEL 47 ZONED P& NT
TAX MAP NO. 35, 36, BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE
SEDIMENT CONTROL DETAILS

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.987.8800 fax 410.987.8822

DATE
DESIGNED BY : C.J.R.
DRAWN BY: K.C.B.
PROJECT NO : 00161
SDP6.DWG
DATE : SEPTEMBER 17, 2001
SCALE : AS SHOWN
DRAWING NO. 6 OF 15

ARTHUR E. MUEGGE #8707



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James D. Yash 10/23/01
DIRECTOR DATE

Mr. James O. Lash 10/10/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Shirley A. Lash 10/22/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER

HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT HOWARD COMMUNITY COLLEGE
RELOCATE ATHLETIC TRACK, ADD BALL FIELDS,
RELOCATE PRIVATE SWM AND TO ESTABLISH
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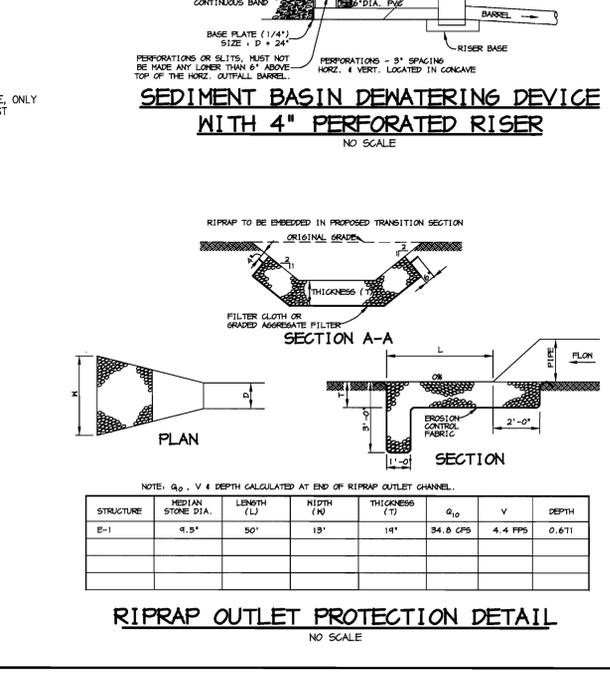
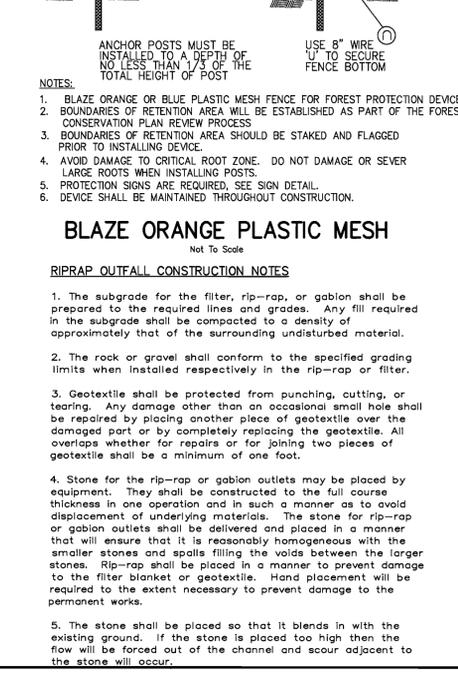
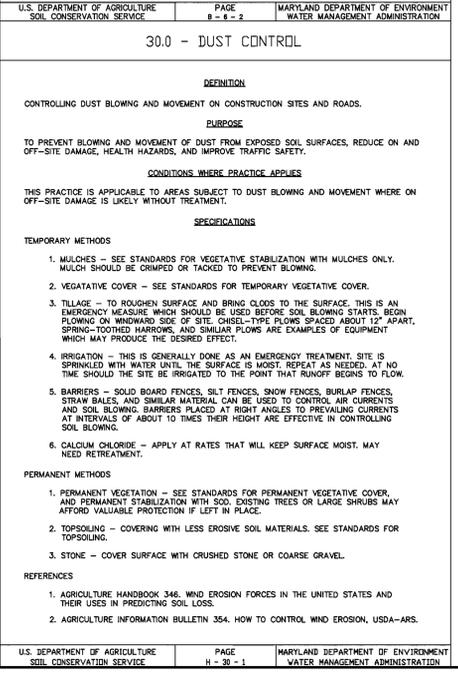
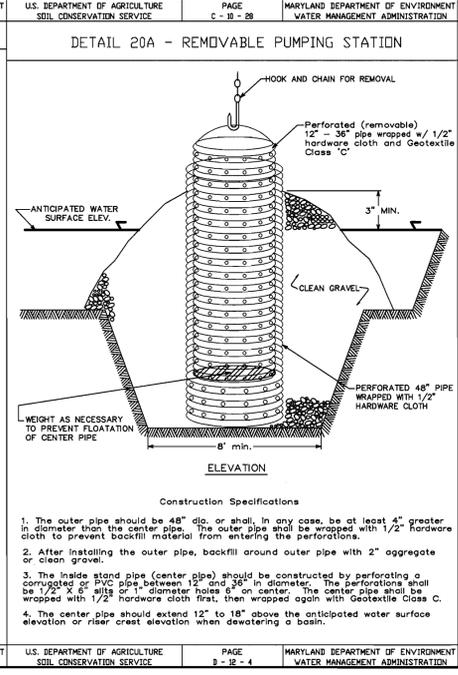
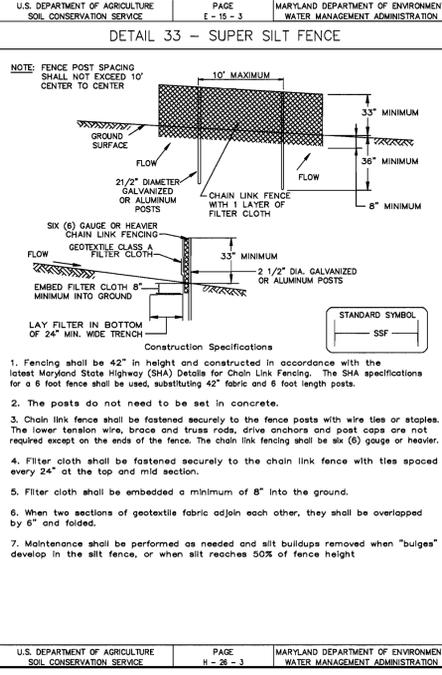
AREA PARCEL 47 ZONED P& NT
TAX MAP NO. 35, 36, BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE
SEDIMENT CONTROL DETAILS

RIEMER MUEGGE
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LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.987.8800 fax 410.987.8822

DATE
DESIGNED BY : C.J.R.
DRAWN BY: K.C.B.
PROJECT NO : 00161
SDP6.DWG
DATE : SEPTEMBER 17, 2001
SCALE : AS SHOWN
DRAWING NO. 6 OF 15

ARTHUR E. MUEGGE #8707



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James D. Yash 10/23/01
DIRECTOR DATE

Mr. James O. Lash 10/10/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Shirley A. Lash 10/22/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER

HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

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RELOCATE ATHLETIC TRACK, ADD BALL FIELDS,
RELOCATE PRIVATE SWM AND TO ESTABLISH
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AREA PARCEL 47 ZONED P& NT
TAX MAP NO. 35, 36, BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE
SEDIMENT CONTROL DETAILS

RIEMER MUEGGE
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8818 Centre Park Drive, Columbia, MD 21045 • tel 410.987.8800 fax 410.987.8822

DATE
DESIGNED BY : C.J.R.
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PROJECT NO : 00161
SDP6.DWG
DATE : SEPTEMBER 17, 2001
SCALE : AS SHOWN
DRAWING NO. 6 OF 15

ARTHUR E. MUEGGE #8707

MD-370 STANDARDS AND SPECIFICATIONS

SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-370. All references to ASHTO and ASHRAO specifications are to the most recent version.

SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Gravel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately 6 inches above the ground surface. For dry stormwater management ponds, a minimum of 25 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6" frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification CC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8-inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the down-slope portion of the embankment. The principal slopes must be taken concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compact on shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tire or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. Fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

When required by the reviewing agency the minimum required density shall not be less than 98% of maximum dry density with a moisture content within 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by ASHRAO Method T-94 (Standard Proctor).

Cut-off Trench - The cut-off trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for the excavation, with the minimum width being four feet. The trench shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

STRUCTURE BACKFILL

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material nearest to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall be driven equipment be closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over the structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications For Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 pass; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the pipe) of flowable fill shall be under (bedding) over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent flooding the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

PIPES/CONDUITS

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

- Materials - (Polymer Coated steel pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of ASHRAO Specifications M-245 & M-246 with watertight coupling bands or flanges. Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of ASHRAO Specifications M-274 with watertight coupling bands or flanges. Aluminum coated steel pipe shall be installed in fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of ASHRAO Specification M-190 Type A. Any aluminum coating damaged during construction shall be repaired with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.
- Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of ASHRAO Specifications M-190 or M-211 with watertight coupling bands or flanges. Aluminum pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of ASHRAO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts must be used for connections. The pH of the surrounding soils shall be between 4 and 8.
- Coupling bands, anti-seep collars, and sections, etc., must be composed of the same material and coated as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.
- Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dipole bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled on adequate number of corrugations to accommodate the band width. The following tube connections are acceptable for pipes less than 24" in diameter. Flanges shall be installed on a pipe with a circular 3/8" inch closed cell neoprene gasket, pre-punched to 24" in diameter bolt circles, sandwiched between adjacent flanges. A 12 inch wide standard lap type band with 12 inch wide by 3/8" inch thick closed cell circular neoprene gasket; and a 12 inch wide hugger type band with 24" diameter gaskets having a minimum diameter of 1/2 inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 2" (1/2" minimum) circular corrugated band using a minimum of 4 bolts and 4 nuts. 2 on each connecting pipe ends. A 24" wide by 3/8" inch thick closed cell circular neoprene gasket will be installed with 1/2 inch in end of each pipe. Flanged joints with 3/8" inch closed cell gaskets the full width of the flange is also acceptable.

Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

Backfilling shall conform to "Structure Backfill."

Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

- Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
- Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding/corona for their entire length. This bedding/corona shall consist of high strength concrete placed under the pipe with the side of at least 30% of its outside diameter with a minimum thickness of 6 inches. Where a concrete corolla is not needed for structural reasons, a bedding/corona may be used as described in the "Structure Backfill" section of this standard. gravel bedding is not permitted.

21.0 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

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

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

Topsoil Specifications - Soil to be used as topsoil must meet the following:

- Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of clinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
- Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
- Where 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.

For sites having disturbed areas under 5 acres:

- Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

For sites having disturbed areas over 5 acres:

- On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic content topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No 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 phytotoxic materials.

Note: Topsoil substitutes to 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.

- Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

V. Topsoil Application

When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope silt fence and sediment traps and basins.

Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

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

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

References: Guidelines Specifications, Soil Preparation and Sodding, MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1978.

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND SHOWN HEREON SHALL BE PERFORMED AT LEAST ONCE ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATION FOR PONDS" (MSP-10-10-10) AND ANY HEIRS, SUCCESSORS, OR AGENTS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

Seeded Preparation - Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments - Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.)

Seeding - For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual ryegrass (3.2 lbs. per 1000 sq.ft.) and 1/2 bushel per acre of annual ryegrass (3.2 lbs. per 1000 sq.ft.) and 1/2 bushel per acre of annual ryegrass (3.2 lbs. per 1000 sq.ft.). For the period November 15 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of well anchored straw mulch immediately after application using mulch anchoring tool (2 lbs. per 1000 sq.ft.) before seeding. Harvest or disc into pits on areas. On slopes, 8 ft. or higher, use 341 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Refer to the 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeded Preparation - Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments - In lieu of soil test recommendations, use one of the following schedules:

- Preferred - Apply 2 tons per acre dolomitic limestone (42 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harvest or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (4 lbs. per 1000 sq.ft.)
- Acceptable - Apply 2 tons per acre dolomitic limestone (42 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (28 lbs. per 1000 sq.ft.) before seeding. Harvest or disc into upper three inches of soil.

Seeding - For the periods March 1 thru April 30 and from August 15 thru October 15, seed with 60 lbs. per acre (4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. (0.06 lbs. per 1000 sq.ft.) of creeping lovegrass. During the period October 15 thru February 28, protect site by one of the following options:

- 2 tons per acre of well-anchored straw mulch and seed as soon as possible in the spring.
- Use sod.
- Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

Mulching - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of well anchored straw mulch immediately after application using mulch anchoring tool (2 lbs. per 1000 sq.ft.) before seeding. Harvest or disc into pits on areas. On slopes, 8 ft. or higher, use 341 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Maintenance - Inspect all seeded areas and make needed repairs, replacements and reseedings.

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Refer to the 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate 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 ANY CONSTRUCTION (313-1895).

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 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

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

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, 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 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. 6.) TEMPORARY STABILIZATION WITH MULCH ALONG SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED 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 117.84 ACRES

AREA DISTURBED 28.34 ACRES

AREA TO BE ROOFED OR PAVED 0.4 ACRES

AREA TO BE VEGETATIVELY STABILIZED 22.44 ACRES

TOTAL CUT 46544 CU. YARDS

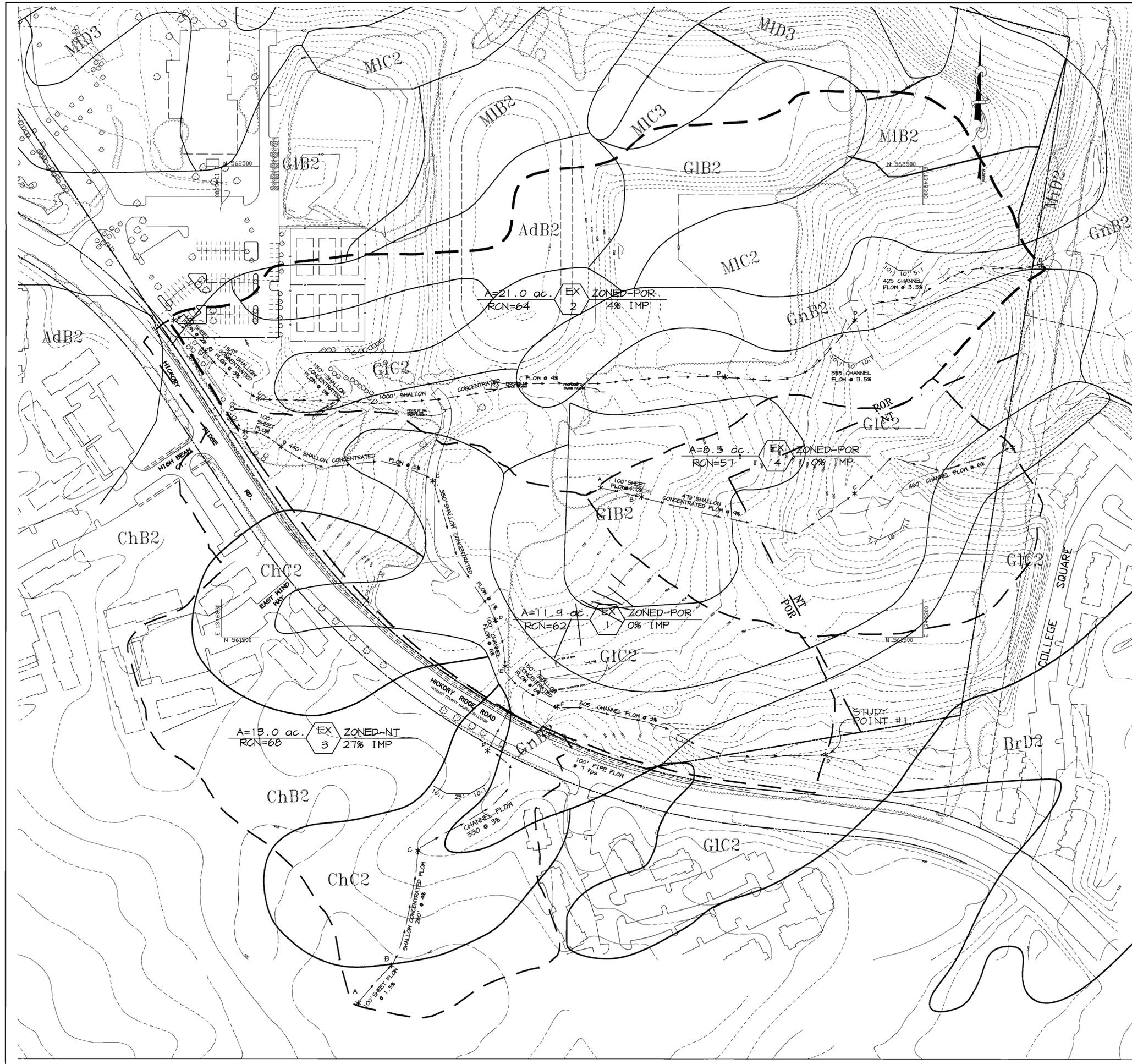
TOTAL FILL 94978 CU. YARDS

OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT

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 CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF



- LEGEND**
- DRAINAGE DIVIDE
 - SOIL BOUNDARY
 - EX. STREAM
 - TIME OF CONC. FLOW PATH
 - 400— EXISTING TEN FOOT CONTOUR
 - 402— EXISTING TWO FOOT CONTOUR
 - EX. TREELINE
- AREA RCN DA ZONE TR-55 DATA
 % IMP

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James Rust 10/23/01
 DIRECTOR DATE

Mr. [Signature] 10/10/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy [Signature] 10/22/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION
OWNER / DEVELOPER		
HOWARD COMMUNITY COLLEGE 10901 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044-3197 ATTN: MR. JAMES O. LASH 410-772-4296		
PROJECT HOWARD COMMUNITY COLLEGE RELOCATE ATHLETIC TRACK, ADD BALL FIELDS, RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS		
AREA	PARCEL 47	ZONED POR & NT
TAX MAP NO. 35, 36 BLOCK 6 & 1 5th ELECTION DISTRICT, HOWARD COUNTY, MD.		
TITLE EXISTING DRAINAGE AREA MAP		

RIEMER MUEGGE
 a division of
Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8800 fax 410.997.9282

DATE _____

DESIGNED BY : C.J.R.

DRAWN BY: K.C.B.

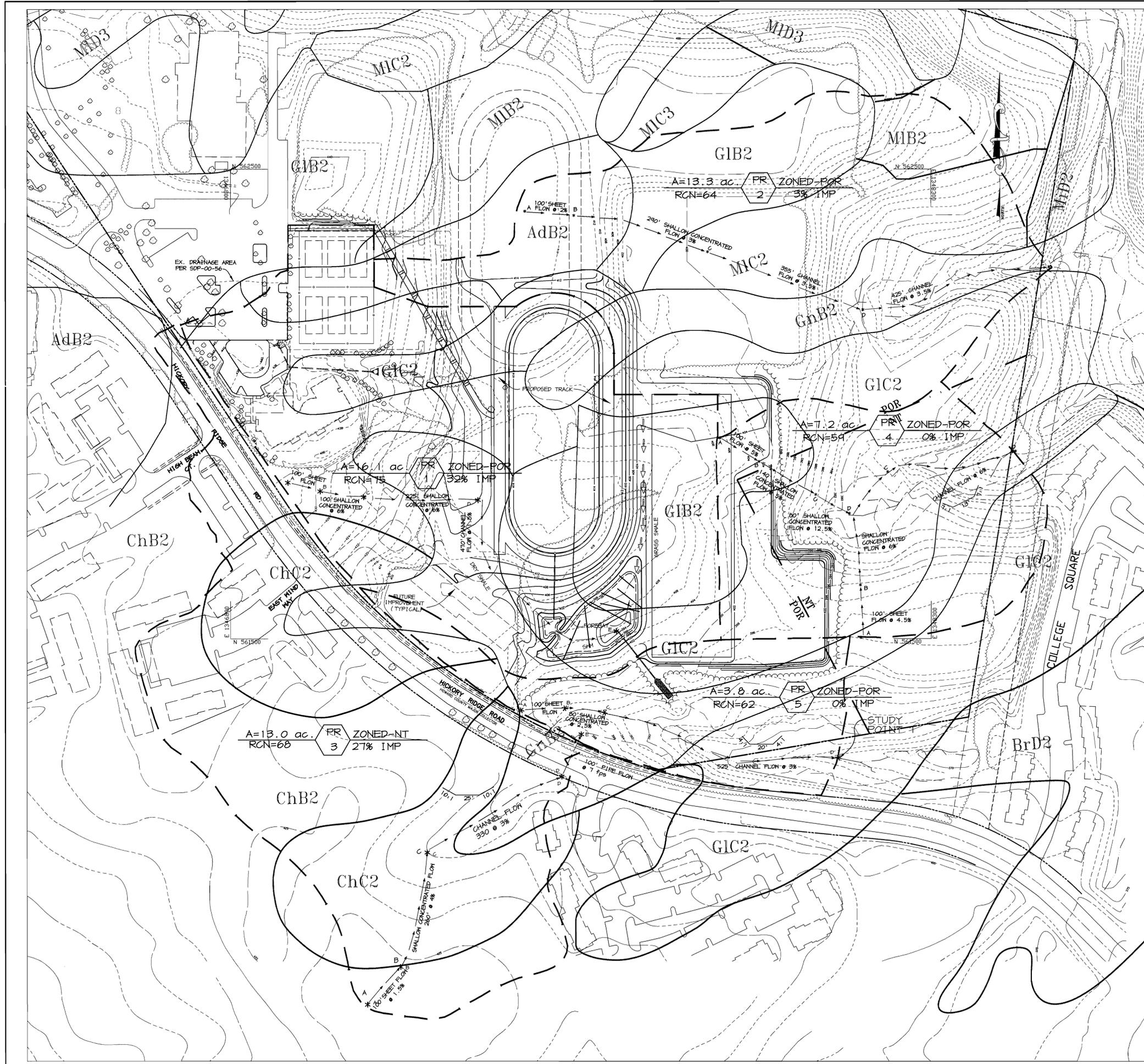
PROJECT NO : 00161
 EXDA.DWG

DATE : SEPTEMBER 17, 2001

SCALE : 1" = 100'

DRAWING NO. 0 OF 15

ARTHUR E. MUEGGE #8707



LEGEND

- DRAINAGE DIVIDE
- SOIL BOUNDARY
- EX. STREAM
- TIME OF CONC. FLOW PATH
- 400— EXISTING TEN FOOT CONTOUR
- 402— EXISTING TWO FOOT CONTOUR
- EX. TREELINE
- ⇄ PROPOSED GRASS SWALE

AREA RCN DA ZONE % IMP TR-55 DATA

STUDY POINT 2

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Paul Harris 10/23/01
DIRECTOR DATE

Mr. De... .. 10/10/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Kerster 10/23/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER
HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**
RELOCATE ATHLETIC TRACK, ADD BALL FIELDS,
RELOCATE PRIVATE SWMP #1 AND TO ESTABLISH
FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
TAX MAP NO. 35, 36 BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE
PROPOSED SWM DRAINAGE AREA MAP

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8900 Fax 410.997.9282

DATE

DESIGNED BY : C.J.R.

DRAWN BY: K.C.B.

PROJECT NO : 00161
PRDA.DWG

DATE : SEPTEMBER 17, 2001

SCALE : 1" = 100'

DRAWING NO. 9 OF 15

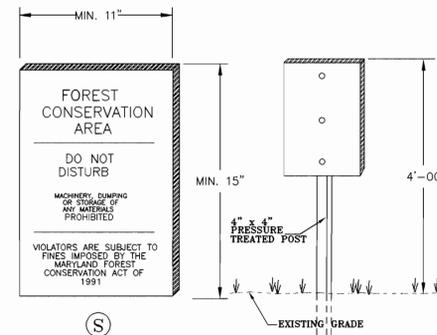
STATE OF MARYLAND
ARTHUR E. MUEGGE #8707

FOREST CONSERVATION SEQUENCE OF OPERATIONS

1. Prior to beginning any grading operations on this site or on a respective lot, there shall be a preconstruction meeting held at the site which is to include the Contractor and representatives from Riemer Muegge (RM). The Howard County Department of Planning and Zoning (DPZ) and the owner will be notified by the Contractor as to the time and place of the field meeting, should they wish to send a representative. The purpose of this meeting will be to review the approved FCP and to field verify the correct Limits of Disturbance (LOD).
2. The Limits of Disturbance (LOD) pertinent to the preservation of wooded areas shall be staked in the field with final adjustments being made as necessary to insure adequate protection of the Critical Root Zone of trees designated for retention. Stakes to be used shall be those specified for the "TREE PROTECTION FENCING" (see detail) to which approved protective material will be attached. Alternate means of defining the LOD may be used if approved by the DPZ.
3. All forest retention areas shall be protected by highly visible, well anchored temporary protection devices (see detail), which shall be securely in place prior to any clearing or grading operations.
4. Grading operations or other construction operations which could dislodge or otherwise damage the protective devices shall be avoided along the edges of the LOD lines if possible. Any protective devices which are damaged during site construction operations shall be properly repaired immediately by the Contractor.
5. After site grading, utility access road, and driveway construction have been completed, all trees adjacent to the LOD line shall be inspected for indications of crown die-back (summer indicator), damage within respective critical root zones or any dead wood or other conditions which might be hazardous to pedestrians, buildings, utility lines vehicular access ways or parked vehicles.
6. Should there be evidence of any damage to tree trunks, branches or the critical root zone of trees within the protected areas, or to isolated specimen trees to be preserved, the damage shall be examined within a period of two (2) days from the date of observation by a licensed tree care professional. Exposed roots should be covered immediately to a depth of 6 - 8 inches with soil, preferably mixed with 50% peat moss or leaf mold.
7. Remove damaged, dead or dying trees or limbs only if the trees or limbs pose an immediate safety hazard to buildings, utility lines, vehicles, access drives or pedestrian areas. Trees designated for pruning or removal shall be pruned or removed using equipment and methods which will not damage or destroy adjacent large trees or understory trees or shrubs designated for retention.
8. All temporary forest protection devices will be carefully removed after all general construction, necessary tree surgery, removal of debris, etc. regrading and reseeded of sediment and erosion control disturbance have been completed and acceptance and approval of the work and site conditions have been given by the DPZ.

TREE PROTECTION SIGNAGE

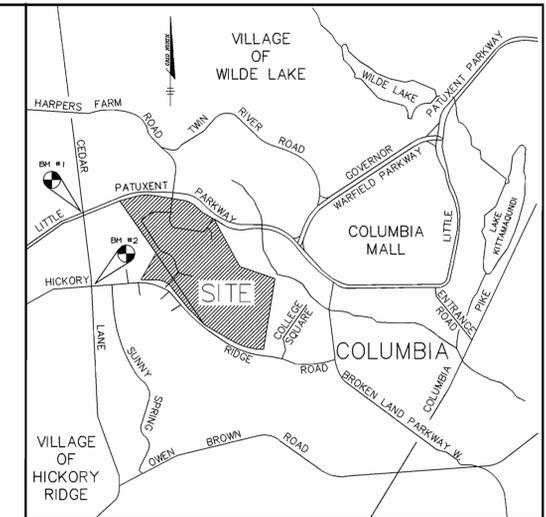
FOREST CONSERVATION SIGN DETAIL
N.T.S.



(S)

NOTES:

1. INSTALL SIGNS AT LOCATIONS SHOWN ON PLAN.
2. SIGNS SHALL NOT BE INSTALLED GREATER THAN 100' ON CENTER.



VICINITY MAP
SCALE: 1" = 2000'



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>James Rust</i> DIRECTOR	10/23/01 DATE
<i>David D. Jones</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	10/10/01 DATE
<i>David D. Jones</i> CHIEF, DIVISION OF LAND DEVELOPMENT	10/22/01 DATE
DATE NO.	REVISION
OWNER / DEVELOPER HOWARD COMMUNITY COLLEGE 10901 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044-3197 ATTN: MR. JAMES O. LASH 410-772-4296	
PROJECT HOWARD COMMUNITY COLLEGE RELOCATE ATHLETIC TRACK, ADD BALL FIELDS, RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS	
AREA PARCEL 47 ZONED POR & NT TAX MAP NO. 35, 36 BLOCK 6 & 1 5th ELECTION DISTRICT, HOWARD COUNTY, MD.	
TITLE FOREST CONSERVATION PLAN	
RIEMER MUEGGE a division of: Patton Harris Rust & Associates, pc ENGINEERS • SURVEYORS • PLANNERS LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282	
9-12-01 DATE	DESIGNED BY : DMD
	DRAWN BY: DMD
	PROJECT NO : 00231 forcon2.DWG
	DATE : SEPTEMBER 17, 2001
	SCALE : 1" = 50'
	DRAWING NO. 12 OF 15

MATCH LINE FOR CONTINUATION SEE SHEET 11



LEGEND:

FOREST CONSERVATION SIGN (PLACED AT 100' INTERVALS)	Ⓢ
FOREST CONSERVATION AREA	[Pattern]
FOREST CONSERVATION AREA SYMBOL	A
EX. TREELINE	[Wavy line]
PROP. TREELINE	[Wavy line]
PROPERTY LINE	[Solid line]
WETLAND	[Dotted pattern]
NET AREA (POSSIBLE WETLANDS)	W
EPHEMERAL STREAM	[Dashed line]
INTERMITTENT/PERENNIAL STREAM	[Dotted line]
50' STREAM BUFFER/25' WETLAND BUFFER	[Dotted line]
SPECIMEN TREES (≥30" DBH)	Ⓢ
LIMIT OF DISTURBANCE	[Dashed line]
100-YEAR FLOODPLAIN	[Hatched pattern]
SLOPES: 15-24.9%	[Hatched pattern]
SLOPES: 25%+	[Dotted pattern]
SOILS	Chc2 GrB2 ChB2

Howard County Forest Conservation Worksheet

PROJECT NAME: Howard C.C. Ballfields COUNTY FILE #: _____
 DATE: 5/2/01 RMA PROJECT #: 00231 211

Site Data *

A. Total site area	117.84
B. Areas in 100 year floodplain	6.31
Areas in agriculture use and preservation parcels	0.00
Area zoned NT (New Town district exempt)	8.72
C. Net Tract Area (A-B)	102.81
D. Forest Cover on net tract area	35.68
E. Amount of Net Tract Area Forest to be cleared per plan	12.15
F. Reforestation requirement percent by land use category	20%
G. Afforestation requirement percent by land use category	15%

Break Even Point *

A. Area of forest above conservation threshold	15.12
B. Amount of forest to retain w/o mitigation	23.59
C. Forest clearing permitted w/o mitigation	12.09

Reforestation Calculations *

A. Net Tract Area	102.81
B. Total forest within Net Tract Area	35.68
C. Net Tract Area forests to be cleared by development plan	12.15
D. Forest area remaining	23.53
E. Reforestation threshold in acres	20.56
F. Reforestation Debt	
above threshold	3.04
below threshold	0.00
G. Reforestation credit	2.97
H. REFORESTATION OBLIGATION	0.07

Afforestation Calculations

A. Net Tract Area	102.81
B. Total forest within Net Tract Area	35.68
C. Afforestation requirement in acres	15.42
D. AFFORESTATION OBLIGATION (C-B)	0.00

TOTAL REFORESTATION + AFFORESTATION OBLIGATION 0.07
 * includes 0.85 acres of forest removed under the Child Daycare project, SDP-00-58

GENERAL NOTES:

- THE MAJORITY OF THE ABOVE PLAN HAS BEEN PREPARED USING COUNTY AERIAL TOPOGRAPHY. HOWEVER, THE PROPOSED EXISTING TREELINE WITHIN THE PROPOSED BALLFIELDS LIMIT OF DISTURBANCE HAS BEEN SURVEYED. PORTIONS OF THE EXISTING AERIAL TREELINE, SPECIMEN TREES, WETLANDS, AND NET AREA LOCATIONS WERE FIELD APPROXIMATED.
- THE EXISTING FOUNDATION LOCATED IN THE CENTER OF STAND F8 MAY BE THAT OF THE HISTORIC STRUCTURE KNOWN AS "THE BASSLER HOUSE." THE HOWARD COUNTY HISTORIC BUILDING REGISTER NOTES THAT THE OLD HOUSE WAS DILAPIDATED AND THEREFORE DEMOLISHED. THE FOUNDATION LOCATION HAS BEEN FIELD APPROXIMATED.
- 100-YEAR FLOODPLAIN SHOWN ON THIS PLAN (FCP3) PER DECEMBER 4, 1996 FLOOD INSURANCE RATE MAP FOR HOWARD COUNTY, BY FEMA.
- THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION ARE PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS, EXCEPT AS SHOWN ON THE SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- FOREST CONSERVATION OBLIGATIONS, IN ACCORDANCE WITH SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL, HAVE BEEN MET BY THE PLACEMENT OF 23.53 ACRES OF FOREST IN RETENTION EASEMENTS AND PAYMENT OF FEE-IN-LIEU FOR 0.07 ACRES OF REFORESTATION OBLIGATION IN THE AMOUNT OF \$914.76 IF PAID PRIOR TO JULY 1, 2001 OR \$1524.60 IF PAID AFTER JULY 1, 2001.

FOREST CONSERVATION AREAS & TABULATION

FOREST CONSERVATION AREA A	1.777 ACRES
AREA B	2.451 ACRES
AREA C	11.118 ACRES
AREA D	2.417 ACRES
AREA E	1.607 ACRES
AREA F	0.377 ACRES
AREA G	0.904 ACRES
AREA H*	0.318 ACRES
AREA I*	0.070 ACRES
AREA J	2.490 ACRES
TOTAL RETENTION	23.529 ACRES

*AREAS H AND I NOT COMBINED DUE TO FLOODPLAIN BETWEEN. HOWEVER INCLUSION OF FLOODPLAIN FOREST ALLOWS THESE AREAS TO MEET THE 10000 SQUARE FEET MINIMUM FOR RETENTION.

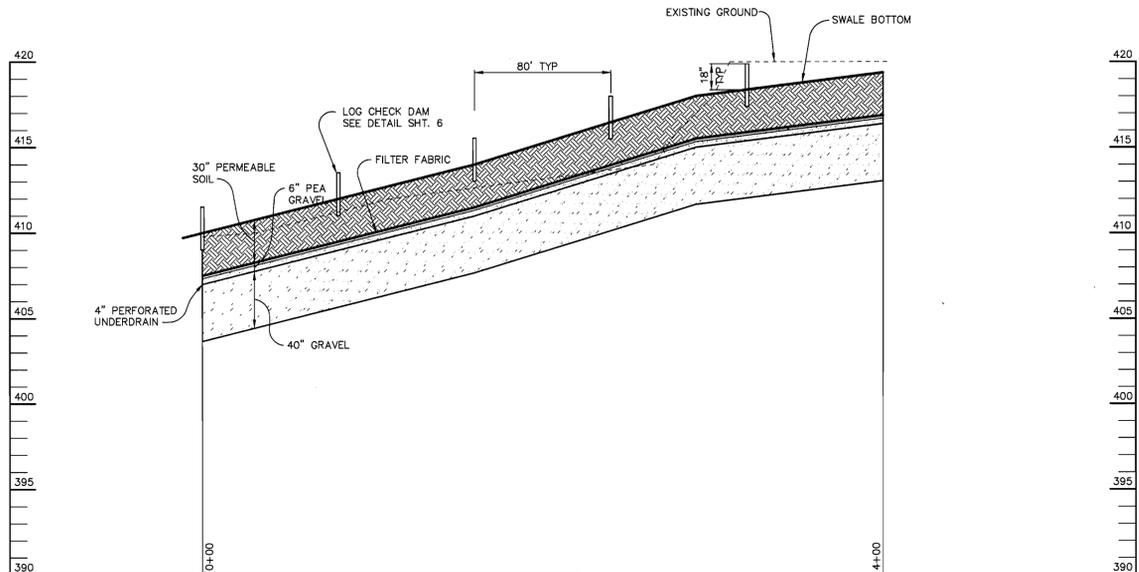
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 [Signature] DIRECTOR 10/23/01 DATE
 [Signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION 10/23/01 DATE
 [Signature] CHIEF, DIVISION OF LAND DEVELOPMENT 10/22/01 DATE

DATE NO. REVISION
 OWNER / DEVELOPER
 HOWARD COMMUNITY COLLEGE
 10901 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044-3197
 ATTN: MR. JAMES O. LASH
 410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**
 RELOCATE ATHLETIC TRACK, ADD BALL FIELDS, RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
 TAX MAP NO. 35, 36 BLOCK 6 & 1
 5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE **FOREST CONSERVATION PLAN**
 RIEMER MUEGGE
 a division of:
 Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.967.8800 fax 410.967.9282
 10.9.01
 DESIGNED BY: R.A.F.
 DRAWN BY: G.T.H.
 PROJECT NO: 00231\210 FORCONSA.DWG
 DATE: SEPTEMBER 17, 2001
 SCALE: 1" = 200'
 DRAWING NO. 13 OF 15



DRY SWALE PROFILE

SCALE:
HOR.-1"=50'
VERT.-1"=5'

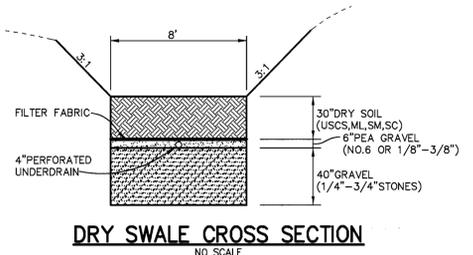
STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	NR INLET	N 561,602 E 1,347,494	408.23 (8") 408.23 (8")	407.65 (15")	413.42	HOCO STD. DETAIL SD 4.35
S-1	CONTROL STRUCTURE	N 561,501 E 1,347,639	394.00 (8")	394.00 (36")	401.27	SEE DETAIL THIS SHEET
E-1	15" END SECTION	N 561,541 E 1,347,491	397.00	-	-	HOCO STD. DETAIL SD 5.51
E-2	36" END SECTION	N 561,413 E 1,347,709	393.00	-	-	HOCO STD. DETAIL SD 5.51

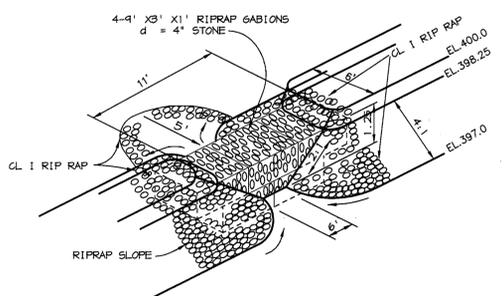
NOTES:
LOCATION OF "S" INLET IS AT CENTER OF TOP COVER.
FOR END SECTIONS THE LOCATION IS CENTER OF THROAT OPENING AT FACE OF STRUCTURE.
TOP ELEVATION IS TOP OF CURB/GRADE/RIM.

PIPE SCHEDULE

ITEM	QUANTITY
8" FLEXIBLE PERFORATED PIPE	1342 LF
15" ADS, N-12	141 LF
36" RCCP ASTM C-361	114 LF
8" DIP	15 LF
4" PERFORATED PIPE	400 LF



DRY SWALE CROSS SECTION



FOREBAY WEIR DETAIL

MATERIAL	SPECIFICATIONS	SIZE	NOTES
DRY SWALE SOIL	USDC; ML, SM, SC	N/A	SOIL WITH A HIGHER PERCENT ORGANIC CONTENT IS PREFERRED
DRY SWALE SAND	ASTM C-33 FINE AGGREGATE CONCRETE SAND	0.02" TO 0.04"	
CHECK DAM (NATURAL WOOD)	BLACK LOCUST, RED MULBERRY CEDARS, CATALPA, WHITE OAK CHESTNUT OAK, BLACK WALNUT	6" TO 12" DIAMETER; NOTCH AS NECESSARY	SEE DETAIL ON SHEET 6
PEA GRAVEL DIAPHRAGM AND CURTAIN DRAIN	ASTM-D-448	VARIES: NO. 6 OR 1/8" TO 3/8"	USE CLEAN BANK-RUN GRAVEL
UNDERDRAIN GRAVEL	AASHTO M-43	0.25" TO 0.75"	
UNDERDRAIN	F 758, Type PS 28 or AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC OR SDR35	3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW; MINIMUM OF 3" GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES
FILTER FABRIC	CLASS "C" - APPARENT OPENING SIZE (ASTM-D-4751) GRAB TENSILE STRENGTH (ASTM-D-4632), PUNCTURE RESISTANCE (ASTM-D-4833)	N/A	
RIP RAP	PER COUNTY CRITERIA; IF NONE GIVEN, USE MSHA STANDARDS AND SPECS SECTION 905	SIZE PER COUNTY DOT REQUIREMENTS BASED ON 10-YEAR DESIGN FLOWS	

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.

James O. Lash 9.17.01
DEVELOPER DATE

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.

Arthur E. Muegge 9.17.01
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Jim Mays 10/16/01
NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Arthur E. Muegge 10/16/01
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James O. Lash 10/23/01
DIRECTOR DATE

Arthur E. Muegge 10/18/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cynthia Harman 10/22/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER
HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**
RELOCATE ATHLETIC TRACK, ADD BALL FIELDS, RELOCATE PRIVATE SWM #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
TAX MAP NO. 35, 36 BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

PROFILES AND DETAILS

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21046 • tel 410.997.8900 fax 410.997.9282

DATE _____

DESIGNED BY: C.J.R.

DRAWN BY: M.A.D.

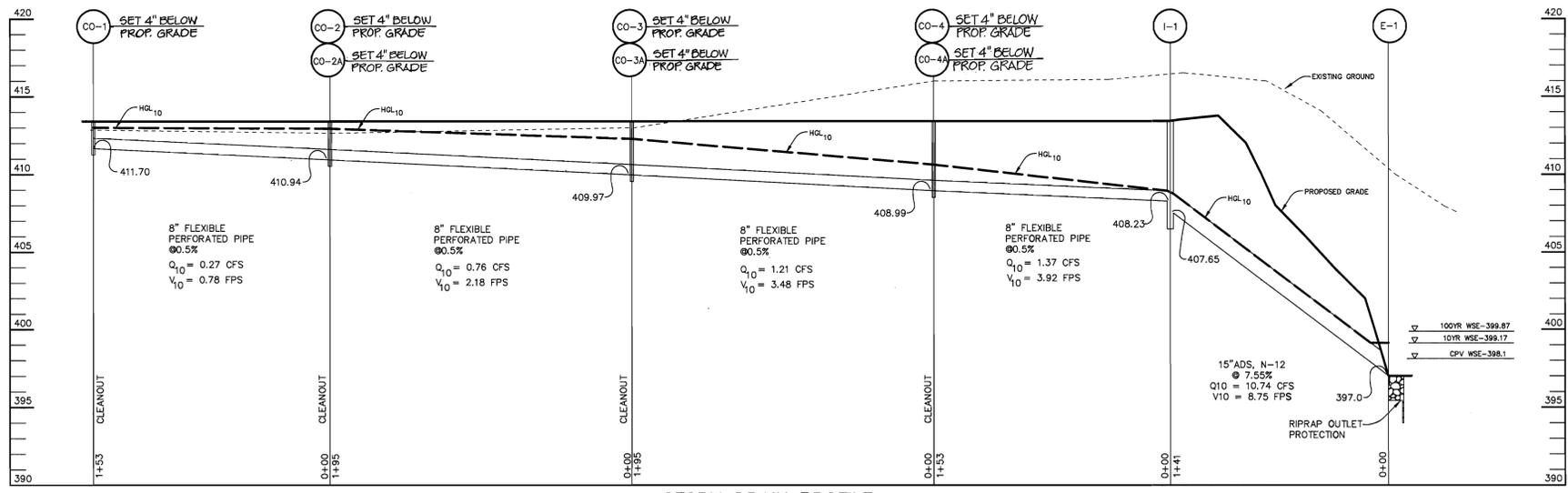
PROJECT NO. 00161
SDP9.DWG

DATE: SEPTEMBER 17, 2001

SCALE: AS SHOWN

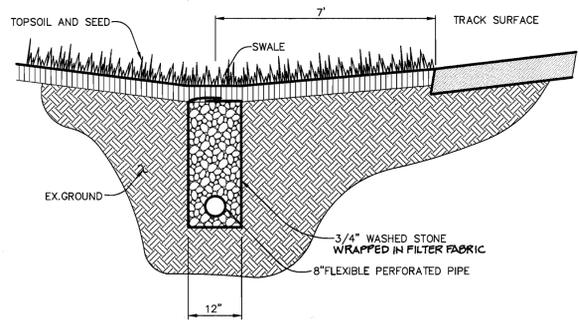
DRAWING NO. 15 OF 15

Arthur E. Muegge
ARTHUR E. MUEGGE #8707



STORM DRAIN PROFILE

SCALE:
HOR.-1"=50'
VERT.-1"=5'



TRACK & FIELD DRAIN SECTION



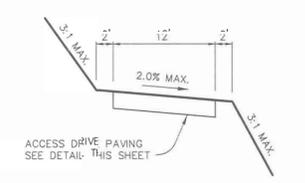
MATCH LINE FOR CONTINUATION SEE SHEET 3

LEGEND

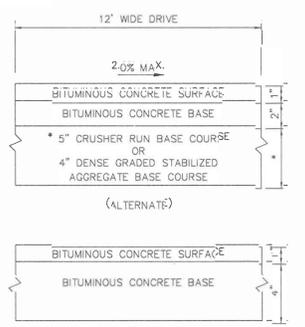
- EXISTING STREAM
- - - STREAM BUFFER
- WETLANDS BUFFER
- WETLANDS LIMITS
- 6' HIGH CHAINLINK FENCE
- 4' HIGH CHAINLINK FENCE
- FOREST CONSERVATION EASEMENT

SWM SUMMARY CHART SWMP DA, 6.2 AC.

STORM	EXISTING PEAK DISCHARGE AT STUDY POINT	PEAK INFLOW TO ROAD	PEAK DISCHARGE OUT OF POND AT STUDY POINT	PROPOSED PEAK DISCHARGE AT STUDY POINT	ELEVATION	STORAGE
1 YR.	5.48 CFS	13.77 CFS	0.63 CFS	4.30 CFS	398.1	0.58 ACFT
2 YR.	11.92 CFS	21.43 CFS	3.16 CFS	9.2 CFS	398.3	0.67 ACFT
10 YR.	39.6 CFS	51.74 CFS	34.75 CFS	61.76 CFS	399.2	1.10 ACFT
100 YR.	77.57 CFS	87.82 CFS	69.49 CFS	119.63 CFS	400.0	1.47 ACFT



ACCESS DRIVE TYPICAL DETAIL



P-1 PAVING ACCESS DRIVE DETAIL

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Joseph R. Smith 10/22/01
DIRECTOR DATE

Mike Primm 10/20/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy K. Hester 10/22/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

7-2-05 RELOCATED TRACK & FIELDS AND ADDED FENCES AND RELOCATED WATER MAIN

7-2-05 ADDED WATER & SEWER MAINS

DATE NO. REVISION

OWNER / DEVELOPER
HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**
RELOCATE ATHLETIC TRACK, ADD BALL FIELDS, RELOCATE PRIVATE SWMP #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
TAX MAP NO. 35, 36 BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE **SITE DEVELOPMENT PLAN**

RIEMER MUEGGE
a division of
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
3818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8900 fax 410.997.9282

DATE _____

DESIGNED BY: C.J.R.

DRAWN BY: M.A.D.

PROJECT NO: 00161
SDP2.DWG

DATE: SEPTEMBER 17, 2001

SCALE: 1" = 50'

DRAWING NO. 2 OF 15

Arthur E. Muegge
ARTHUR E. MUEGGE #8707

7-27-05 ADDED POLE BUILDING

DATE NO. REVISION

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	SITE DEVELOPMENT PLAN
4	GRADING AND SEDIMENT CONTROL AND DRAINAGE AREA MAP
5	GRADING AND SEDIMENT CONTROL AND DRAINAGE AREA MAP
6	SEDIMENT CONTROL DETAILS
7	SEDIMENT CONTROL NOTES AND DETAILS & WATER PROFILE
8	EXISTING DRAINAGE AREA MAP AND SEWER PROFILE
9	PROPOSED DRAINAGE AREA MAP AND SEWER PROFILE
10	LANDSCAPE PLAN
11	FOREST CONSERVATION PLAN 1
12	FOREST CONSERVATION PLAN 2 AND WATER PROFILES
13	FOREST CONSERVATION PLAN 3
14	STORMWATER MANAGEMENT NOTES AND DETAILS
15	PROFILES AND DETAILS

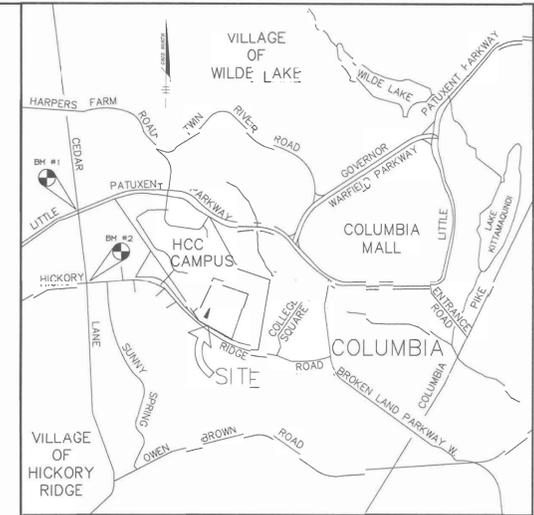
SITE DEVELOPMENT PLAN

HOWARD COMMUNITY COLLEGE

RELOCATE ATHLETIC TRACK, ADD BALL FIELDS AND RELOCATE PRIVATE SWMF #1

5th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

BENCHMARKS

BM #1
HOCO CONTROL #35-C2
ELEV. 464.13
N 563,920.83 E 1,344,204.15

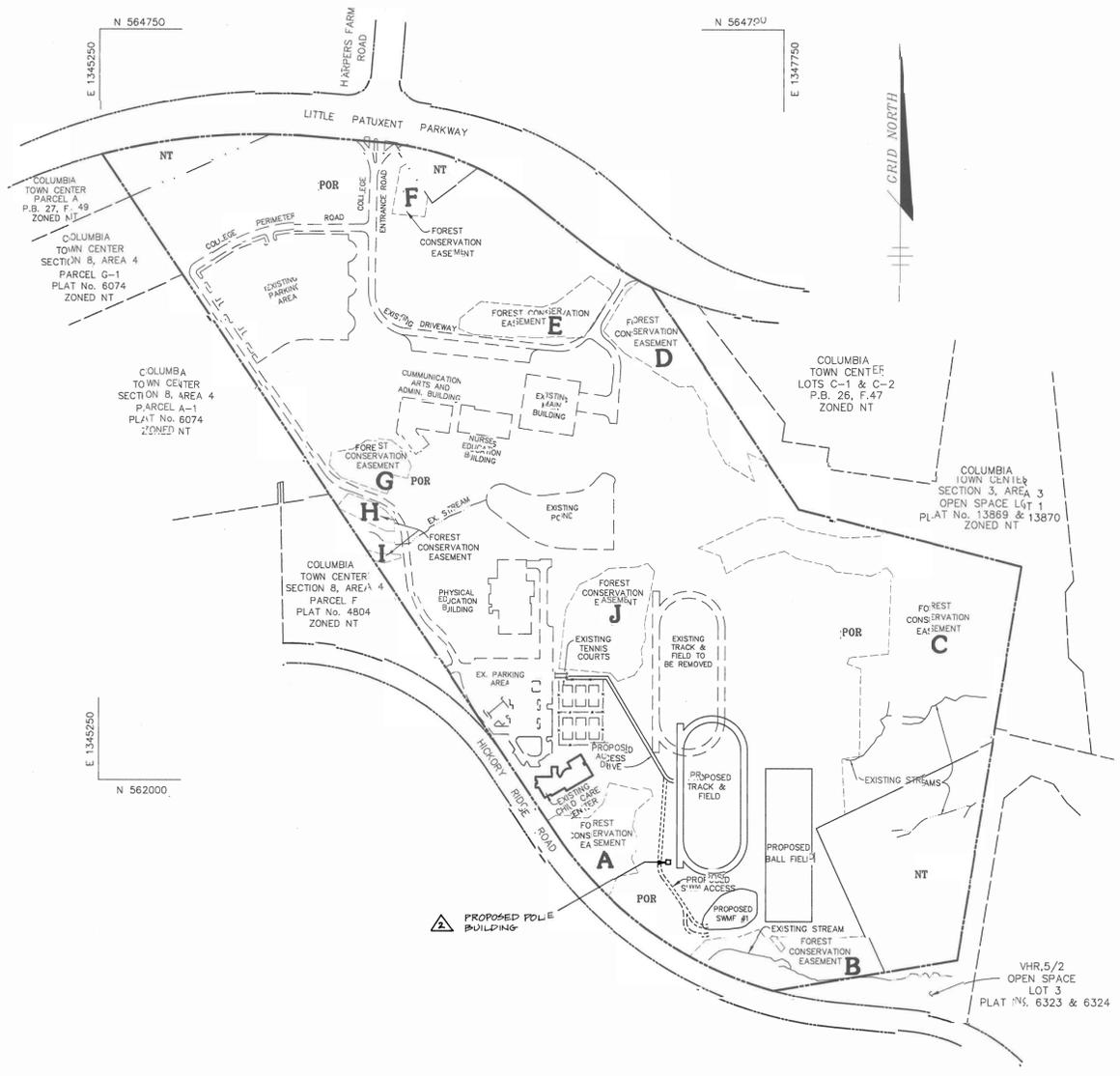
BM #2
HOCO CONTROL #35-C5
ELEV. 462.26
N 562,148.50 E 1,344,554.47

SITE ANALYSIS

AREA OF PARCEL 47	117.84 ACRES
DISTURBED AREA	ATHLETIC FIELDS 23.54 ACRES
PRESENT ZONING	POR & NT
PURPOSE:	RELOCATE ATHLETIC TRACK, ADD BALL FIELDS AND RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS ON THIS SITE.

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS & CARTER, INC., DATED SEPTEMBER 26, 1999 AND SUPPLEMENTED BY FIELD RUN SURVEY OF THE SWM AREA AND HIGH BEAM COURT BY RIEMER MUEGGE & ASSOC., DATED 11/99.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. 3562 AND 3565 WERE USED.
- WATER IS PUBLIC, CONTRACT NO. 824D-W
- SEWER IS PUBLIC, CONTRACT NO. 857D-W&S SEWER DRAINAGE AREA: PATUXENT TREATMENT PLANT: LITTLE PATUXENT WWTP
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- A 100-YEAR FLOODPLAIN STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE GEOTECHNICAL STUDY FOR THIS PROJECT WAS PERFORMED BY HILLIS CARNES ENGINEERING ASSOCIATES AND IS DATED SEPTEMBER 5, 2000.
- THE PROPERTY LINE SHOWN WAS TAKEN FROM A FIELD SURVEY BY FISHER, COLLINS AND CARTER DATED 9/26/99.
- SUBJECT PROPERTY ZONED POR & NT PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO. SDP-97-46, SDP-75-46, SDP-87-95, SDP-76-30, PB-229, SDP-68-12, SDP-75-32, SDP-00-56
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE PER HOWARD CO. STANDARD SPECIFICATIONS
- ALL STORM DRAIN INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN PAVEMENT SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T100.
- THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY RIEMER MUEGGE AND ASSOCIATES DATED OCTOBER 2000.
- A LANDSCAPE PLAN HAS BEEN PREPARED IN ACCORDANCE TO SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL FOR THIS SITE. THIS SITE IS EXEMPT FROM LANDSCAPE SURETY SINCE IT IS A GOVERNMENT USE.
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- NO NEW LIGHTING IS PROPOSED FOR THESE SITE IMPROVEMENTS.
- THE PROPOSED STORMWATER MANAGEMENT FACILITIES PROVIDED FOR THIS SITE CONSISTS OF A PRIVATE DRY SWALE AND A PRIVATE MICRO POOL EXTENDED DETENTION POND.
- FOREST CONSERVATION OBLIGATIONS, IN ACCORDANCE WITH SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL, HAVE BEEN MET BY THE PLACEMENT OF 23.53 ACRES OF FOREST IN RETENTION EASEMENTS AND PAYMENT OF FEE-IN-LIEU FOR 0.07 ACRES OF REFORESTATION OBLIGATION IN THE AMOUNT OF \$1524.60 PAID AFTER JULY 1, 2001.
- WP 01-98 -- A WAIVER REQUEST TO SECTION 16.155(a)(1) REQUIRING THE SUBMISSION OF A SITE DEVELOPMENT PLAN FOR NON-RESIDENTIAL DEVELOPMENT WAS APPROVED ON JUNE 11, 2001.
- FOREST CONSERVATION PLAT OF EASEMENTS RECORDED ON PLATS 14956 & 14957 ON SEPTEMBER 24, 2001.



LOCATION PLAN
SCALE: 1" = 300'

ADDRESS CHART

PARCEL	STREET ADDRESS
47	10901 LITTLE PATUXENT PARKWAY

SUBDIVISION NAME	SECTION/AREA	PARCEL
HOWARD COMMUNITY COLLEGE	N/A	A7
406/224	6 & 1	36
525/320	NT	5th
WATER CODE	SEWER CODE	552250

* FOREST CONSERVATION PLATS OF EASEMENTS RECORDED ON PLATS 14956 & 14957.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>[Signature]</i> DIRECTOR	10/23/01 DATE
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	10/20/01 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	10/22/01 DATE

7-27-05 ADDED POLE BUILDING
7-2-03 UPDATED SHEET INDEX

OWNER / DEVELOPER
HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT HOWARD COMMUNITY COLLEGE
RELOCATE ATHLETIC TRACK, ADD BALL FIELDS, RELOCATE PRIVATE SWMF #1 AND TO ESTABLISH FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
TAX MAP NO. 35, 36 BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE **TITLE SHEET**

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DESIGNED BY: C.J.R.
DRAWN BY: M.A.D.
PROJECT NO: 00161 SDP1.DWG
DATE: SEPTEMBER 17, 2001
SCALE: AS SHOWN
DRAWING NO. 1 OF 15

P:\project\00161\SDP1.dwg Tue Oct 01 10:36:00 2001 RIEMER MUEGGE - A DIVISION OF PHRGA

GENERAL NOTES:

1. FOREST CONSERVATION PLANS 1 & 2 SHOW ONLY THE AREA OF FOREST AND OTHER TREES AFFECTED BY THIS PROPOSED BALLFIELDS DEVELOPMENT PLAN. HOWEVER, THE REFORESTATION REQUIREMENTS FOR THE EXISTING CHILD DAY CARE CENTER (APPROVED SDP-00-58) AND AN ANTICIPATED NEAR-FUTURE DEVELOPMENT OF A PARKING AREA NEAR THE MAIN CAMPUS ENTRANCE HAVE BEEN ACCOUNTED FOR WITHIN THE FOREST CONSERVATION WORKSHEET CALCULATIONS ON SHEET 13.
2. SEE FOREST CONSERVATION SHEET 13 FOR PROPOSED FOREST RETENTION EASEMENTS REQUIRED BY SECTION 16.1200 OF THE HOWARD COUNTY CODE.
3. HOWARD COMMUNITY COLLEGE REQUESTS PAYING FEE-IN-LIEU OF PROVIDING ANY ON OR OFFSITE REFORESTATION TO MEET THEIR REFORESTATION OBLIGATION SHOWN ON THE FOREST CONSERVATION WORKSHEET.
4. THE MASTER FSD, DATED OCTOBER 11, 2000, HAS BEEN PREPARED BY RMA IN CONJUNCTION WITH THIS PROJECT AND HAS BEEN SUBMITTED AND APPROVED. THE MASTER FSD PLAN WAS PREPARED USING COUNTY AERIAL TOPOGRAPHY AT 200 SCALE. THE EXISTING CONDITIONS SHOWN ON THIS DEVELOPMENT PLAN MAY DIFFER SLIGHTLY FROM THE FSD BECAUSE THIS PLAN HAS BEEN PREPARED USING FIELD RUN TOPOGRAPHIC DATA DATED NOVEMBER 2000.
5. JUSTIFICATION FOR FOREST REMOVAL: IN ORDER TO EXPAND THE NUMBER OF BALLFIELDS AVAILABLE FOR SPORTS, FORESTED AREA NEEDS TO BE CLEARED. THE CURRENT OPEN AREAS ARE ALREADY IN USE AS BALLFIELDS.
6. SEE SEDIMENT CONTROL PLAN FOR EXACT LOCATION OF TREE PROTECTION FENCE AND TREE PROTECTION FENCE DETAILS.
7. SEE FOREST CONSERVATION SHEET 13 FOR LOCATION OF FOREST RETENTION SIGNS.
8. SPECIMEN TREE LOCATIONS ARE FIELD APPROXIMATED.
9. NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
10. NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
11. THERE ARE NO KNOWN CEMETERY OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY HISTORIC & CEMETERY SITE MAP.
12. THIS SITE CONTAINS TWO HYDRIC SOILS, HATBORO (Ha) & BAILE (Ba); AND ONE SOIL WITH POSSIBLE HYDRIC INCLUSIONS, GLENVILLE (GnB2).
13. NO SLOPES EXCEED 25% WITHIN PROJECT AREAS.
14. WETLANDS AND STREAMS SHOWN ON FOREST CONSERVATION SHEETS 11 & 12 HAVE BEEN DELINEATED AND SURVEYED BY RIEMER MUEGGE. WETLAND REPORT DATED OCTOBER 16, 2000.
15. THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THESE PLANS.

SPECIMEN TREES:

1. 48" Northern catalpa	44. 47" Tulip tree	87. 37" Red oak	130. 45" Tulip tree
2. 48" Silver maple	45. 38" Tulip tree	88. 46" Red oak	131. 40" Tulip tree
3. 36" Silver maple	46. 34" Tulip tree	89. 37" Tulip tree	132. 40" Tulip tree
4. 40" Silver maple	47. 48" White oak	90. 36" Tulip tree	133. 42" Tulip tree
5. 39" Silver maple	48. 82" Red oak	91. 30" Red oak	134. 37" Tulip tree
6. 50" American beech	49. 50" Red maple	92. 34" Red maple	135. 34" Tulip tree
7. 40" Butternut	50. 40" Tulip tree	93. 47" Tulip tree	136. 35" Tulip tree
8. 41" Silver maple	51. 40" Hickory	94. 34" Red Maple	137. 33" Tulip tree
9. 44" White oak	52. 36" Red oak	95. 32" Tulip tree	138. 36" Tulip tree
10. 35" White oak	53. 30" White oak	96. 36" Tulip tree	139. 80" Tulip tree twin
11. 30" Red maple	54. 41" White oak	97. 34" Tulip tree	140. 31" Tulip tree
12. 38" Red maple	55. 41" Red maple	98. 32" Tulip tree	141. 30" Tulip tree
13. 46" Red maple	56. 46" White ash	99. 36" Tulip tree	142. 32" Tulip tree
14. 38" Tulip tree	57. 41" White oak	100. 34" Spotted oak	143. 31" Tulip tree
15. 44" Red oak	58. 42" Tulip tree	101. 36" Tulip tree	144. 34" Tulip tree
16. 46" Tulip tree	59. 37" Tulip tree	102. 38" Red maple	145. 45" Black Walnut
17. 30" Tulip tree	60. 31" White ash	103. 38" Tulip tree	146. 40" Tulip tree
18. 40" Tulip tree	61. 34" White ash	104. 40" Tulip tree	147. 36" Red oak
19. 40" Red oak	62. 36" Tulip tree	105. 49" Tulip tree twin	148. 48" Tulip tree
20. 36" Red oak	63. 36" White ash	106. 44" Tulip tree twin	149. 40" Red Maple
21. 40" White oak	64. 30" Red maple	107. 70" Tulip tree triple	150. 38" Tulip tree
22. 31" Hickory	65. 37" White ash	108. 56" Tulip tree triple	151. 35" Red oak
23. 36" White oak	66. 59" Red oak	109. 44" Tulip tree	152. 35" Red maple triple
24. 58" Red oak	67. 42" White oak	110. 45" Tulip tree	153. 41" Tulip tree
25. 34" Hickory	68. 40" Red maple	111. 31" Tulip tree	154. 55" Red oak twin
26. 36" White oak	69. 46" White ash	112. 60" Tulip tree	155. 35" Tulip tree
27. 40" Tulip tree	70. 34" White oak	113. 56" Tulip tree twin	156. 40" Tulip tree
28. 50" Tulip tree	71. 31" White oak	114. 40" Tulip tree	157. 39" Tulip tree
29. 46" Tulip tree	72. 31" White oak	115. 36" Tulip tree	158. 38" Tulip tree
30. 36" White oak	73. 30" White oak	116. 40" Tulip tree	159. 45" Tulip tree
31. 38" Tulip tree	74. 34" White oak	117. 35" Tulip tree	160. 50" Tulip tree
32. 46" White ash	75. 42" White oak	118. 43" Tulip tree	161. 58" White oak triple
33. 36" Red oak	76. 42" White oak	119. 37" Tulip tree	162. 68" White oak triple
34. 40" Tulip tree	77. 30" White oak	120. 34" Tulip tree	163. 39" Tulip tree
35. 38" Tulip tree	78. 30" White oak	121. 42" Tulip tree	164. 32" White oak
36. 41" Tulip tree	79. 30" White oak	122. 34" Tulip tree	165. 40" Tulip tree
37. 42" Tulip tree	80. 36" White ash	123. 32" Tulip tree	166. 36" Tulip tree
38. 32" Tulip tree	81. 47" White oak	124. 31" Tulip tree	167. 30" Tulip tree
39. 40" Tulip tree	82. 36" Tulip tree	125. 32" Tulip tree	168. 31" Tulip tree
40. 32" Tulip tree	83. 33" Tulip tree	126. 30" Tulip tree	169. 30" Tulip tree
41. 32" Tulip tree	84. 30" Tulip tree	127. 36" Tulip tree	170. 44" Red oak
42. 38" Tulip tree	85. 44" Tulip tree	128. 36" Tulip tree	
43. 37" Tulip tree	86. 30" White oak	129. 49" Tulip tree twin	



LEGEND

	EXISTING	PROPOSED
TREELINE		
PROPERTY LINE		
WETLAND & 25' BUFFER		
50' STREAM BUFFER		
CONTOUR LINES		
SPECIMEN TREES (>= 30" DBH)		
SLOPES (15-25%) WITHIN PROJECT AREA		
SOILS		
APPROXIMATE LIMIT OF DISTURBANCE		
TREE PROTECTION FENCE		

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

<i>Paul Davis</i> DIRECTOR	10/23/01 DATE
<i>Chris Cummings</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	10/10/01 DATE
<i>Cindy Kervater</i> CHIEF, DIVISION OF LAND DEVELOPMENT	10/22/01 DATE

7-27-05 ADDED POLE BUILDING

DATE	NO.	REVISION

OWNER / DEVELOPER
HOWARD COMMUNITY COLLEGE
10901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT HOWARD COMMUNITY COLLEGE
RELOCATE ATHLETIC TRACK, ADD BALL FIELDS,
RELOCATE PRIVATE SWF #1 AND TO ESTABLISH
FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
TAX MAP NO. 35, 36 BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE
FOREST CONSERVATION PLAN

RIEMER MUEGGE
a division of
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

9-12-01
DATE

DESIGNED BY: DMD
DRAWN BY: DMD
PROJECT NO: 00231 forcon1.DWG
DATE: SEPTEMBER 17, 2001
SCALE: 1" = 50'
DRAWING NO. 11 OF 15

David T. Davis



LEGEND

-----	DRAINAGE AREA DIVIDE
-----	SILT FENCE
-----	SUPER SILT FENCE
-----	TREE PROTECTION
-----	LIMIT OF DISTURBANCE
-----	EXISTING INF
-----	EXISTING STREAM
-----	STREAM BUFFER
-----	WETLANDS BUFFER
-----	WETLANDS LIMITS
-----	STEEP SLOPES

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.

James O. Lash 9/17/01
DEVELOPER DATE

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.

Paul Muegge 9/17/01
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Jim Myra, Jr. 10/16/01
NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

John St... 10/16/01
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James O. Lash 10/23/01
DIRECTOR DATE

Paul Muegge 10/18/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Indy Hamata 10/22/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

7-27-05 **ADDED POLE BUILDING**

DATE	NO.	REVISION

OWNER / DEVELOPER
HOWARD COMMUNITY COLLEGE
19901 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044-3197
ATTN: MR. JAMES O. LASH
410-772-4296

PROJECT **HOWARD COMMUNITY COLLEGE**
RELOCATE ATHLETIC TRACK; ADD BALL FIELDS;
RELOCATE PRIVATE SWMP #1 AND TO ESTABLISH
FOREST CONSERVATION EASEMENTS

AREA PARCEL 47 ZONED POR & NT
TAX MAP NO. 35, 36 BLOCK 6 & 1
5th ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE **GRADING, SEDIMENT CONTROL
AND DRAINAGE AREA MAP**

RIEMER MUEGGE
a division of
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.6900 fax 410.997.8282

DATE _____

DESIGNED BY : C.J.R.
DRAWN BY : M.A.D.
PROJECT NO : 00161
SDP4.DWG
DATE : SEPTEMBER 17, 2001
SCALE : 1" = 50'
DRAWING NO. 4 OF 15

Arthur E. Muegge #8707
ARTHUR E. MUEGGE #8707

P:\projects\00161\SDP4.DWG Tue Oct 09 10:37:36 2001 RIEMER MUEGGE - A DIVISION OF PHS&A