

SHEET INDEX	
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SITE DEVELOPMENT PLAN

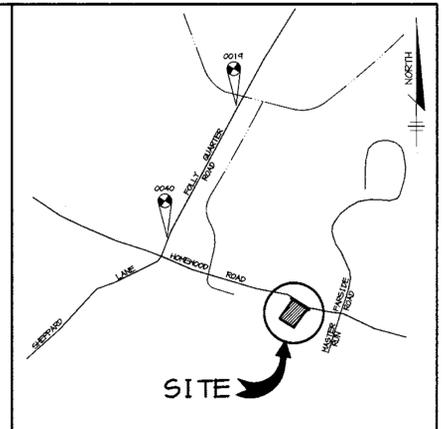
THE A.R.C. OF HO. CO.

ADULT ACTIVITY CENTER

BUILDING ADDITION

5th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

BENCHMARKS

HOWARD COUNTY SURVEY CONTROL
STATION 0019
N 580,468.133 E 1,333,675.522

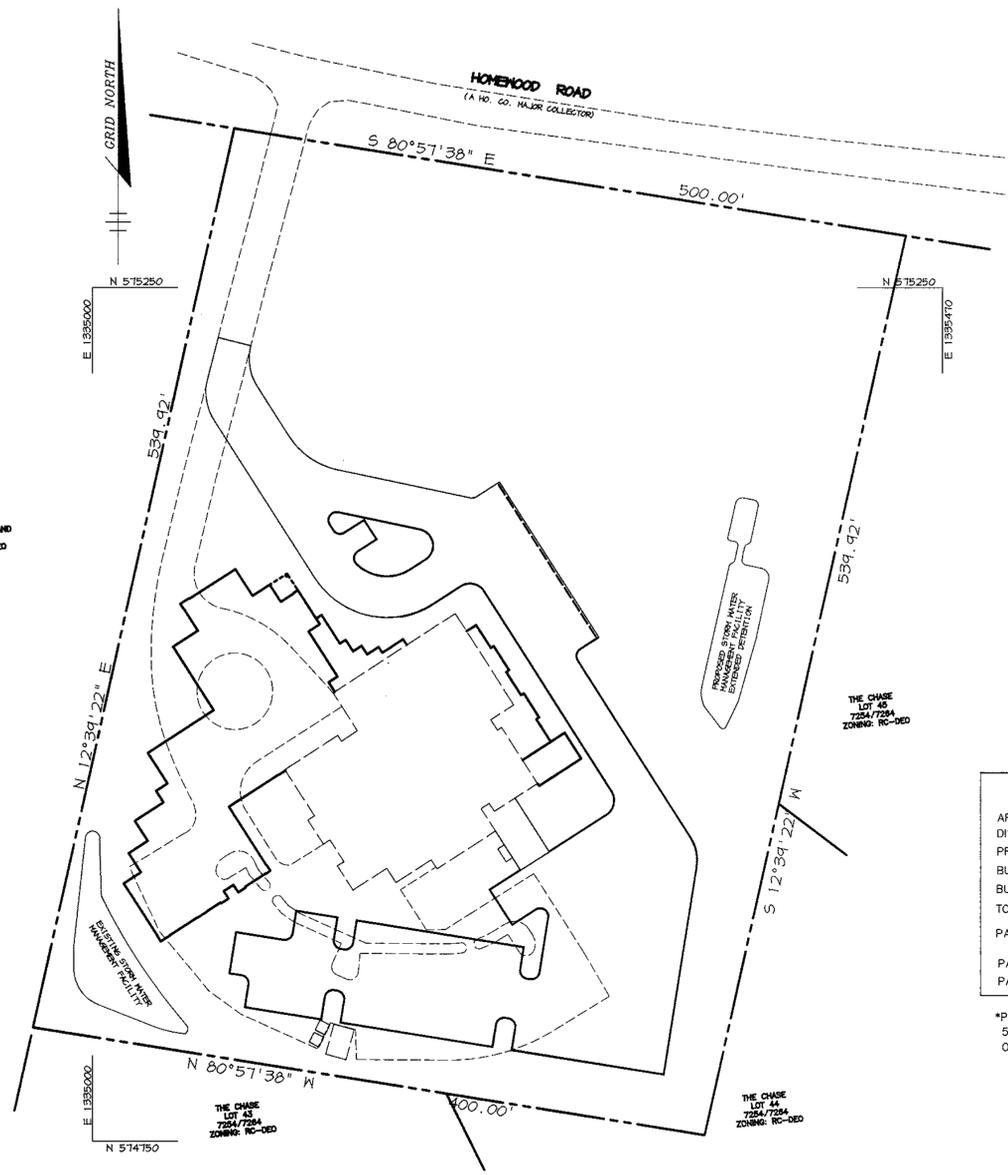
HOWARD COUNTY SURVEY CONTROL
STATION 0040
N 577,270.615 E 1,332,002.601

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- 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.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY AND BOUNDARY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE & ASSOCIATES, INC. DATED JAN. 1998.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 0019 AND 0040 WERE USED FOR THIS PROJECT.
- WATER IS PRIVATE.
- SEWER IS PRIVATE.
- 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 WETLANDS DELINEATION FOR THIS PROJECT IS NOT REQUIRED.
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A GEOTECHNICAL STUDY WAS PERFORMED FOR THIS PROJECT BY ECS, LTD. DATED MARCH 19, 1998.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- 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 CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- 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.
- STORM DRAIN PIPE MATERIAL CAN BE EITHER ADS N-12 PIPE OR REINFORCED CONCRETE. ADS N-12 PIPE TO BE INSTALLED ACCORDING TO THE LATEST HOWARD COUNTY DESIGN MANUAL VOL. IV.
- BA-97-34E SPECIAL EXCEPTION DECISION AND ORDER DATED OCTOBER 2, 1997. CONDITIONS - 1. THE SPECIAL EXCEPTION ONLY APPLIES TO THE DAY TREATMENT AND CARE FACILITY WITH ADMINISTRATIVE OFFICES AS DEPICTED ON THE SPECIAL EXCEPTION PLAN ON MAY 16, 1997. 2. A TYPE C LANDSCAPE EDGE BE LOCATED AND MAINTAINED ALONG THE SOUTH SIDE OF THE PRINCIPAL PARKING LOT AND A TYPE D LANDSCAPE EDGE ALONG A PORTION OF THE WEST SIDE OF THE PAVED AREA. 3. A PARKING NEEDS STUDY MUST BE SUBMITTED AS PART OF THE SITE DEVELOPMENT PLAN. 4. ANY NEW EXTERIOR LIGHTS ESTABLISHED FOR THE FACILITY SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 134 OF THE ZONING REGULATIONS.
- PREVIOUS FILES SDP-78-26, BA-97-34E AND F-75-90.

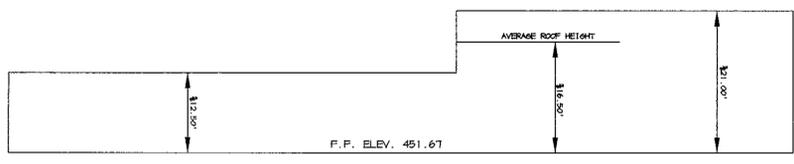
24. Forest Conservation Program obligations for this project are fulfilled by a Declaration of Intent; site improvements on this single lot do not involve more than 10,000 sq. ft. of clearing existing wooded areas; 0.166 acres of forest resources to be cleared = 33,193 sq. ft.

25. Landscape area = \$23,200 as part of the Developers Agreement.



SITE ANALYSIS	
AREA OF PARCEL	5.316 ACRES (231,565 SF)
DISTURBED AREA	3.11 ACRES (135,472)
PRESENT ZONING	RC-DEO
BUILDING COVERAGE (EX.)	13,050 SF
BUILDING COVERAGE (PROP.)	±17,100 SF
TOTAL BUILDING COVERAGE	±30,150 SF
PARKING (PROPOSED)	65 SPACES (INCL. 3 HC)
	NOT INCL. LOADING SPACES
PARKING REQUIRED	55 SPACES*
PAVED AREA	39,738 SF (17.2% OF SITE)

*PER PARKING NEEDS STUDY DATED AUGUST 19, 1998
52 EMPLOYEES AT 1 SPACE/EMPLOYEE
ONE PICK UP TRUCK AND 2 VANS FOR TOTAL OF 55 SPACES.



EAST BUILDING ELEVATION
NO SCALE

NOTE: SEE ARCHITECTURAL DRAWINGS FOR COMPLETE BUILDING DETAILS AND ELEVATIONS.

ADDRESS CHART	
PARCEL	STREET ADDRESS
321	10735 HOMEROOD ROAD

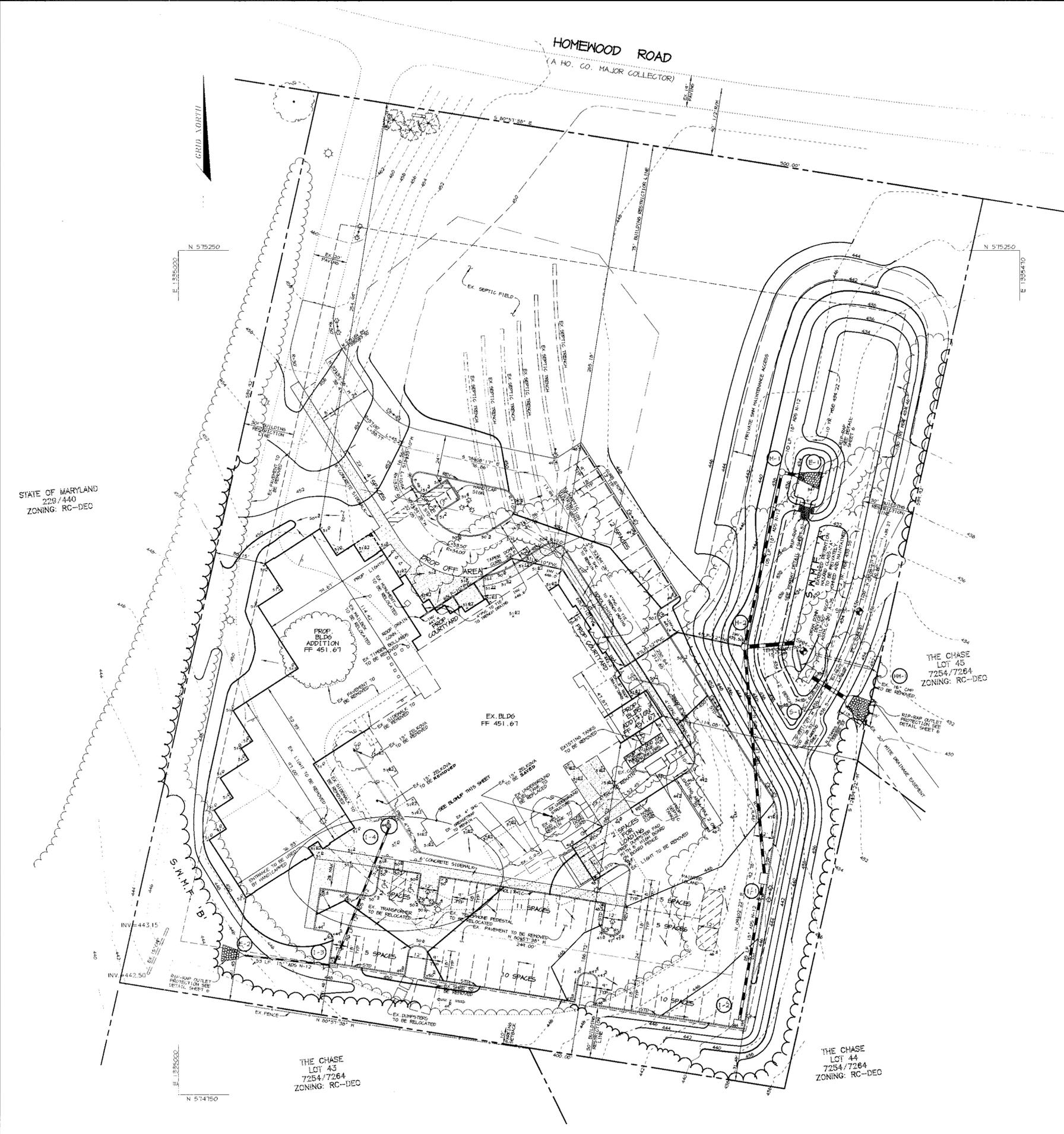
SUBDIVISION NAME - A.R.C. OF HOWARD COUNTY ADULT ACTIVITY CENTER	SECT./AREA - -	PARCEL - 321
PLAT # - -	BLOCK # - -	ZONING - TAX MAP NO. - RC-DEO 29
WATER CODE - PRIVATE	SEWER CODE - PRIVATE	ELECT. DIST. - 5th
		GENESIS TRACT - 6051.01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>[Signature]</i> DIRECTOR	12/18/99 DATE
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	12/1/99 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	12/2/99 DATE

DATE	NO.	REVISION
OWNER/DEVELOPER		
THE A.R.C. OF HOWARD COUNTY, INC. 4220 RUMSEY ROAD SUITE 105 COLUMBIA, MARYLAND 21045		
PROJECT		
THE A.R.C. OF HOWARD COUNTY ADULT ACTIVITY CENTER A BUILDING ADDITION		
AREA		
TAX MAP NO. 29 ZONED RC-DEO PARCEL 321 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
TITLE SHEET		

RIEMER MUEGGE & ASSOCIATES INC
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21045
tel 410.997.8800 fax 410.997.9282

DATE	DESIGNED BY: C.J.R.
	DRAWN BY: DAM
	PROJECT NO.: 96115 SDP1.DWG
	DATE: NOVEMBER 22, 1999
	SCALE: AS SHOWN
	DRAWING NO. 1 OF 7

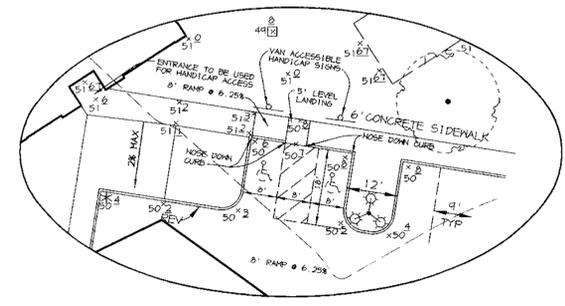


NOTES:

1. ALL EXTERIOR LIGHTINGS WILL COMPLY WITH SECTION 134, ZONING REGULATIONS.
2. ALL CURB RADII ARE 5' UNLESS OTHERWISE LABELED.
3. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDINGS UNLESS OTHERWISE SHOWN.
4. ALL ON-SITE ROADS ARE PRIVATE.
5. ALL ROOF DRAINAGE MUST BE DIRECTED TOWARD SHRF 'A'.

LEGEND

- PROPOSED LIMIT OF CLEARING
- P-2 PAVING
- P-1 PAVING (PARKING BAYS)
- CONCRETE SIDEWALK OR PAD
- EXISTING FOREST
- STD * REV DENOTES TRANSITION FROM STANDARD TO REVERSE CURB AND GUTTER
- 175 WATT ED-17 MH LAMP MOUNTED ON A 15'-0" HIGH TAPERED ALUMINUM ROUND HINGED BASE POLE PAINTED MOSS GREEN
- EXISTING LIGHT POLE TO BE REMOVED
- SOIL BORING



HANDICAPPED ENTRANCE DETAIL
SCALE: 1"=20'

STORMWATER MANAGEMENT DESIGN SUMMARY FACILITY A

DESIGN STORM (YR.)	ALLOWABLE RELEASE (C.F.S.)	FACILITY INFLOW (C.F.S.)	FACILITY DISCHARGE (C.F.S.)	WATER SURFACE ELEVATION (FT.)	STORAGE VOLUME (AC. FT.)
2	4.54	6.90	0.75	433.55	0.154
10	11.77	15.10	10.44	434.17	0.254
100*	-	24.71	21.82	434.46	0.363

* CLOGGED CONDITIONS

OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY EXTENDED DETENTION POND

ROUTINE MAINTENANCE

1. Facility shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the pond is functioning properly.
2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be mowed as needed.
3. Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
4. Visible signs of erosion in the pond as well as riprap outlet area shall be repaired as soon as it is noticed.

NON-ROUTINE MAINTENANCE

1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.
2. Sediment should be removed when its accumulation significantly reduces the design storage, interfere with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public Works.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Arthur E. Muegge 12/8/99
DIRECTOR DATE

Carla Hamilton 12/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Carla Hamilton 12/8/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER/DEVELOPER
THE A.R.C. OF HOWARD COUNTY, INC.
4220 RUMSEY ROAD
SUITE 105
COLUMBIA, MARYLAND 21045

PROJECT THE A.R.C. OF HOWARD COUNTY
ADULT ACTIVITY CENTER
A BUILDING ADDITION

AREA TAX MAP NO. 29 ZONED RC-DEC PARCEL 321
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE SITE DEVELOPMENT PLAN

RIEMER MUEGGE & ASSOCIATES INC
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21045
tel 410.997.8900 fax 410.997.9282

	DATE DESIGNED BY: C.J.R.
	DRAWN BY: DAM
	PROJECT NO: 96115 SDP2.DWG
	DATE: NOVEMBER 22, 1999
	SCALE: 1" = 30'
	DRAWING NO. 2 OF 7

STORM INLET SEDIMENT TRAP #1

DRAINAGE AREA	0.51 AC.
STORAGE VOLUME REQUIRED	1836 C.F. (NET/DRY)
STORAGE VOLUME PROVIDED	918 C.F. @ 442.60 (NET)
STORAGE VOLUME PROVIDED	1687 C.F. @ 444.90 (DRY)
NEIR ELEVATION	444.90
BOTTOM ELEVATION	440.00
CLEANOUT ELEV.	441.60
SIDE SLOPES	2:1
BOTTOM DIMENSIONS	16' x 9'
DEPTH	4.9'
DRAW DOWN DEVICE INVERT:	442.60

DRAINAGE DATA

INLET NOS.	AREA IN ACRES	'C' FACTOR	PERCENT IMPERVIOUS
1	0.12	0.80	92%
2	0.51	0.76	86%
3	0.11	0.80	91%
4	0.07	0.14	0%

LEGEND

- SF — SF — SILT FENCE
- SSF — SSF — SUPER SILT FENCE
- DRAINAGE DIVIDE
- [] CIP CURB INLET PROTECTION
- [] AGIP AT GRADE INLET PROTECTION
- EROSION CONTROL MATTING
- [] TEMPORARY TRAP GRADING
- SOILS DELINEATION

SEQUENCE OF CONSTRUCTION

PHASE 1

- OBTAIN GRADING PERMIT FOR SITE PLAN.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, AND SUPER SILT FENCE. (1 DAY)
- WITH THE APPROVAL OF THE DILP SEDIMENT CONTROL INSPECTOR, BEGIN REMOVAL OF EXISTING PAVING AND ROUGH GRADING AND START BUILDING CONSTRUCTION. (4 WEEKS)
- AS SUBGRADE ELEVATIONS ARE REACHED, INSTALL STORM DRAIN SYSTEM, TEMPORARY OUTFALL FROM M-2 IN EXISTING POND AND SEWER, PROVIDE INLET PROTECTION AND INLET TRAP AT INLET #2 AS NECESSARY. (2 WEEKS)
- INSTALL CURB & GUTTER AND SIDEWALKS, THEN PAVE. (3 WEEKS)
- STABILIZE DISTURBED AREAS AS NECESSARY AND COMPLETE REMAINING CONSTRUCTION. (12 WEEKS)
- UPON APPROVAL OF HOWARD COUNTY DILP SEDIMENT CONTROL INSPECTOR, REMOVE TEMPORARY SEDIMENT CONTROL DEVICES, BEGIN PHASE 2 WORK, AND STABILIZE REMAINING AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (3 DAYS)

NOTE:
IF CONTRACTOR WANTS TO PERFORM PHASE 2 FIRST HE MUST COMPLETE ENTIRE PHASE 1 PRIOR TO WORK ON PHASE 1.

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.

Jacqueline M. King 11-5-99
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 11-8-99
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.

Chad Simon / C.S. 11/20/99
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 A. King 11/24/99
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Lawrence B. Butler 12/8/99
DIRECTOR DATE

Arthur E. Muegge 11/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Charles J. Alexander 12/2/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER/DEVELOPER
THE A.R.C. OF HOWARD COUNTY, INC.
4220 RUMSEY ROAD
SUITE 105
COLUMBIA, MARYLAND 21045

PROJECT THE A.R.C. OF HOWARD COUNTY
ADULT ACTIVITY CENTER
A BUILDING ADDITION

AREA TAX MAP NO. 29 ZONED RC-DEO PARCEL 32:
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE DRAINAGE AREA MAP AND
SEDIMENT CONTROL PLAN
PHASE 1

RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21045
tel 410.997.8900 fax 410.997.9282

DESIGNED BY: C.J.R.
DRAWN BY: DAM
PROJECT NO: 96115
SDP3.DWG
DATE: NOVEMBER 22, 1999
SCALE: 1" = 30'
DRAWING NO. 3 OF 7

SDP-98-130



STATE OF MARYLAND
229/440
ZONING: RC-DEC

410.997.8900 FAX 410.997.9282
 8818 CENTRE PARK DRIVE, COLUMBIA, MD 21045
 RIEMER MUEGGE & ASSOCIATES, INC.

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 ASTM and AASHTO specifications apply 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. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. 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 level with the ground surface. For dry stormwater management ponds, a minimum of a 50 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 material. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification CC, SC, CH, or CL. Consideration may be given to the use of other materials in the embankment if design and construction are 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 downstream portions of the embankment. The principal spillway shall be installed 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 surface of each lift shall be compacted by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tire or vibratory roller. Fill materials shall contain moisture such that the required degree of compaction will be obtained with the equipment used. The 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. Where a minimum required density is specified, it shall not be less than 95% 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 it to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cutoff Trench - The cutoff 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 excavation, with the minimum width being four feet. The depth 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 back fill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

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 needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

PIPE CONDUITS
 All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:
 1. Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-140 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be repaired with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nevon, Plast-Kote, Blac-Kote and both 10 mil and 20 mil corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.
 2. Coupling bands, anti-seep collars, end sections, etc., must be composed of same material as the pipe. Bands must be installed from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.
 3. 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. Simple 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 an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 48" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket, and a 12" wide huggie type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 48" in diameter and larger shall be connected by a 24" long annular band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24". Helically corrugated pipe shall have either continuously welded seams or have lock seams.

4. 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.

5. Backfilling shall conform to "Structure Backfill."

6. 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:
 1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
 2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the side of the pipe at least 1/8 of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
 3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire length, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.
 4. Backfilling shall conform to Structure Backfill.
 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:
 1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.
 2. Joints and connections to anti-seep collars shall be completely watertight.
 3. 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.
 4. Backfilling shall conform to Structure "Backfill".
 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

CONCRETE
 Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

ROCK RIPRAP
 Rock riprap shall meet the requirements of Maryland Department of Transportation State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414.12.

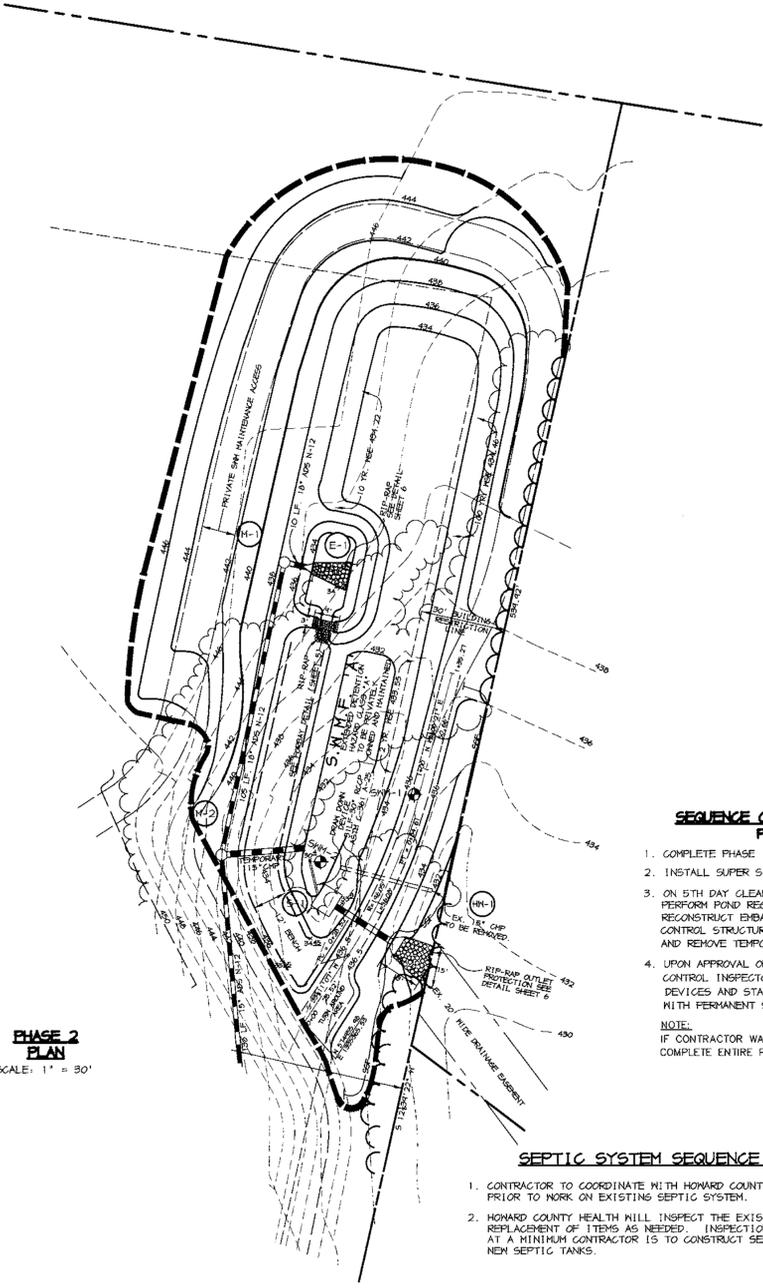
CARE OF WATER DURING CONSTRUCTION
 All work on permanent structures shall be carried out in areas free from water. The contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of the excavation and will assure satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

STABILIZATION
 All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, soil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

EROSION AND SEDIMENT CONTROL
 Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

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

NOTE: geotechnical engineer shall be engaged to monitor pond construction of the facility, embankment, cutoff trench, core and outfall structure.



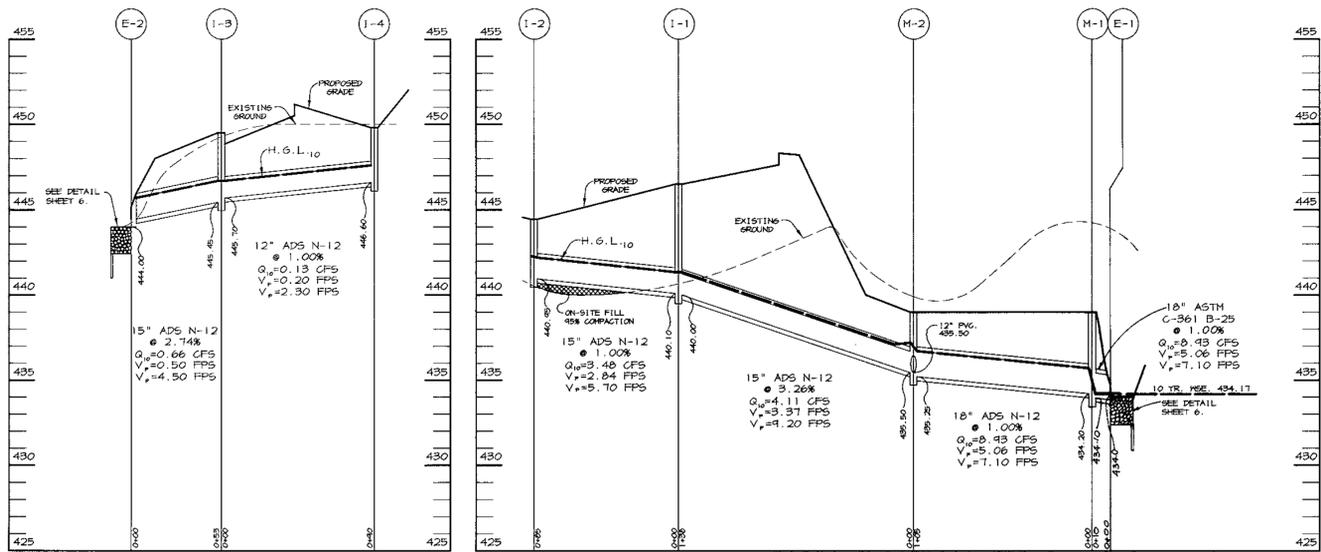
SEQUENCE OF CONSTRUCTION PHASE 2

1. COMPLETE PHASE 1 BEFORE STARTING.
2. INSTALL SUPER SILT FENCE. (2 DAYS)
3. ON 5TH DAY CLEAR (NO PRECIPITATION). FORECAST FROM NWS, PERFORM POND REGRADING. INSTALL CORE TRENCH, RECONSTRUCT EMBANKMENT AND INSTALL OUTLET PIPE AND CONTROL STRUCTURE. CONSTRUCT E-1 TO M-2 DRAIN AND REMOVE TEMPORARY PIPE. INSTALL FOREBAY. (4 WEEKS)
4. UPON APPROVAL OF HOWARD COUNTY DILP SEDIMENT CONTROL INSPECTOR, REMOVE TEMPORARY SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (3 DAYS)

NOTE: IF CONTRACTOR WANTS TO PERFORM PHASE 2 FIRST HE MUST COMPLETE ENTIRE PHASE PRIOR TO WORK ON PHASE 1.

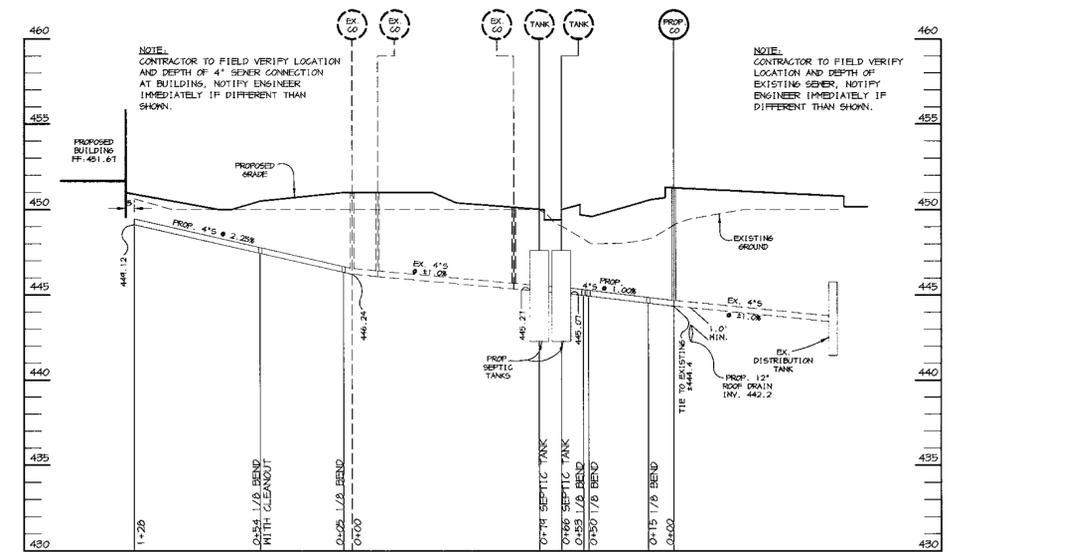
SEPTIC SYSTEM SEQUENCE OF CONSTRUCTION

1. CONTRACTOR TO COORDINATE WITH HOWARD COUNTY HEALTH DEPARTMENT (410-313-2640) PRIOR TO WORK ON EXISTING SEPTIC SYSTEM.
2. HOWARD COUNTY HEALTH WILL INSPECT THE EXISTING SEPTIC SYSTEM AND WILL RECOMMEND REPLACEMENT OF ITEMS AS NEEDED. INSPECTION MAY INVOLVE TESTING OF EXISTING SYSTEM. AT A MINIMUM CONTRACTOR IS TO CONSTRUCT SEWER MAIN AS SHOWN WITH CLEANOUTS AND NEM SEPTIC TANKS.



STORM DRAIN PROFILE
 SCALE: HOR. - 1"=50', VERT. - 1"=5'

STORM DRAIN PROFILE
 SCALE: HOR. - 1"=50', VERT. - 1"=5'



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

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.

Jacqueline M. King 11-5-99
 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 11-5-99
 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.

Cheryl Simms/G.S. 11/20/99
 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 Selig 11/20/99
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James S. Smith 12/8/95
 DIRECTOR DATE

Charles Hammett 12/8/95
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

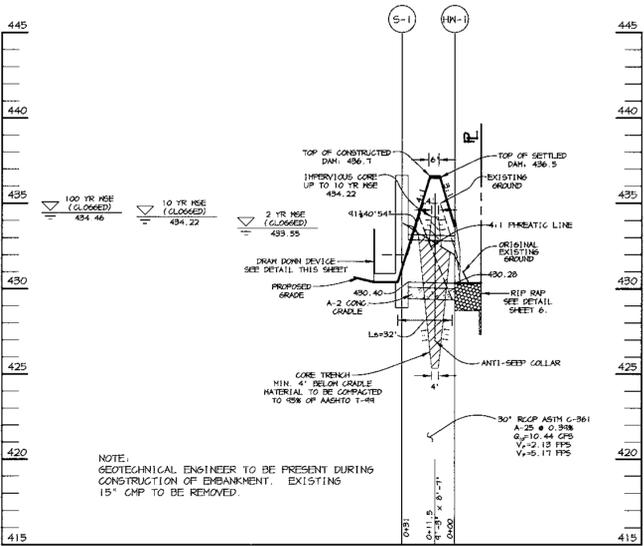
Charles Hammett 12/8/95
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION
OWNER/DEVELOPER		
THE A.R.C. OF HOWARD COUNTY, INC. 9220 RUMSEY ROAD SUITE 105 COLUMBIA, MARYLAND 21045		
PROJECT THE A.R.C. OF HOWARD COUNTY ADULT ACTIVITY CENTER A BUILDING ADDITION		
AREA TAX MAP NO. 29 ZONED RC-DEO PARCEL 321 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE PROFILES, DETAIL SHEET AND SEDIMENT CONTROL PLAN PHASE 2		

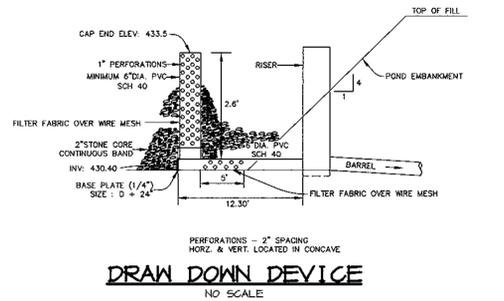
RIEMER MUEGGE & ASSOCIATES INC.
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
 8818 Centre Park Drive, Columbia, MD 21046
 tel 410.997.9600 fax 410.997.9282

DESIGNED BY: C.J.R.
 DRAWN BY: DAM
 PROJECT NO: 96115
 SDP4.DMS
 DATE: NOVEMBER 22, 1999
 SCALE: AS SHOWN
 DRAWING NO. 4 OF 7

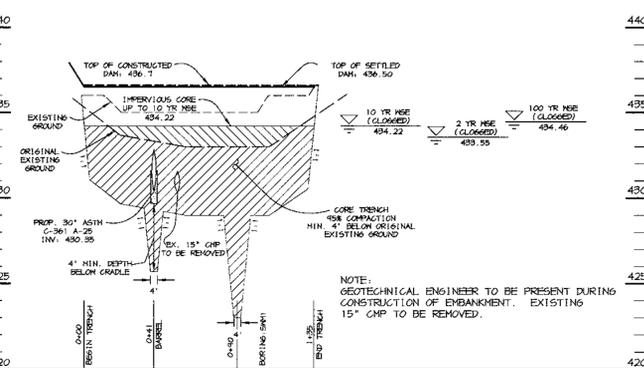
Arthur E. Muegge #8707
 ARTHUR E. MUEGGE #8707



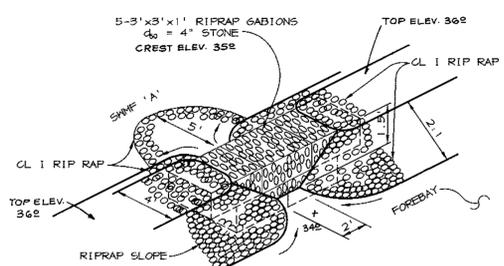
PRINCIPLE SPILLWAY PROFILE



DRAW DOWN DEVICE



EMBANKMENT CENTERLINE PROFILE

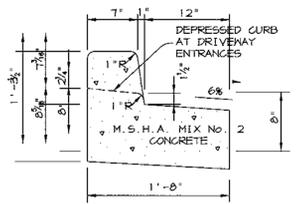


FOREBAY DETAIL

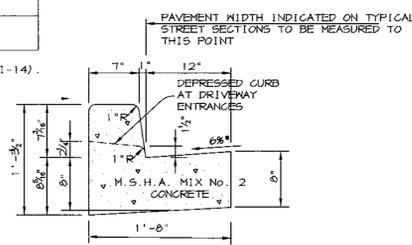
STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	NR	N 574,877.80 E 1,395,349.77	440.10	440.00	447.42	HOCO. STD. DETAIL SD 4.35
I-2	NR	N 574,740.08 E 1,395,332.52	-	440.95	445.48	HOCO. STD. DETAIL SD 4.35
I-3	A-S	N 574,828.30 E 1,395,042.29	445.70	445.45	444.58	HOCO. STD. DETAIL SD 4.01
I-4	ADS	N 574,909.47 E 1,395,124.83	-	446.60	444.80	18" DRAIN BASIN (2810 AS)
E-1	24" END SECTION	N 575,114.15 E 1,395,379.15	-	434.00	-	ADS END SECTION
E-2	15" END SECTION	N 574,832.77 E 1,395,039.34	-	444.00	-	ADS END SECTION
HW-1	TYPE 'A' HEADWALL	N 574,984.47 E 1,395,396.86	-	430.28	-	HOCO. STD. DETAIL SD-5.11
M-1	4" DIA. MANHOLE	N 575,118.58 E 1,395,358.63	434.20	434.10	439.00	HOCO. STD. DETAIL G 5.12
M-2	4" DIA. MANHOLE	N 575,015.29 E 1,395,336.31	12' 439.50 15' 439.50	435.25	439.00	HOCO. STD. DETAIL G 5.12
S-1	RISER STRUCTURE	N 574,991.81 E 1,395,375.82	-	-	-	SEE DETAIL THIS SHEET

STRUCTURE SCHEDULE

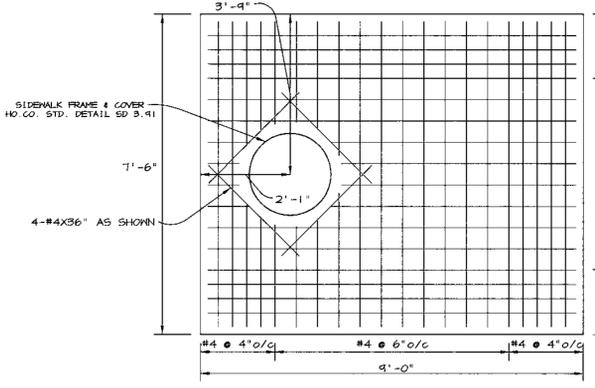
NOTES: LOCATION IS AT CENTER OF THROAT OPENING AT FACE OF CURB FOR CURB INLETS (CENTER OF GRATE FOR I-14). TOP ELEVATION IS TOP OF CURB/GRATE/RIM.



REVERSE 7" COMBINATION CURB AND GUTTER

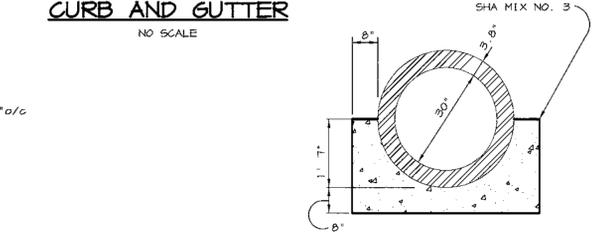


STANDARD 7" COMBINATION CURB AND GUTTER

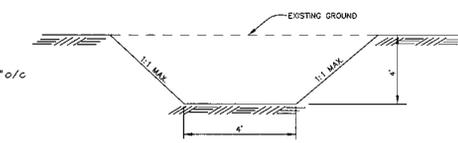


TOP SLAB - S-1

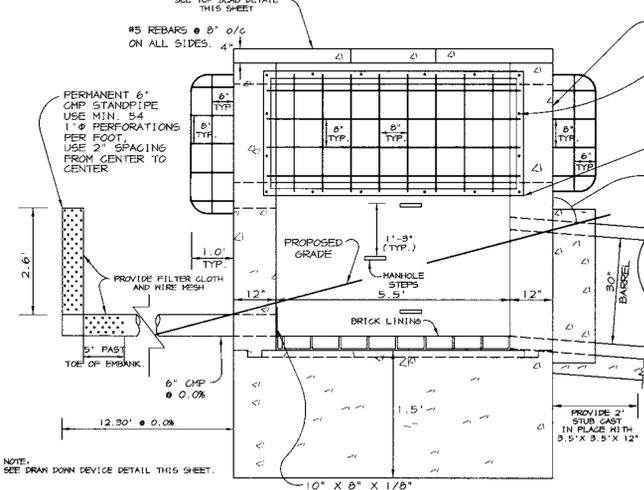
NOTES: 1. SLAB REINFORCING 1" CLEAR FROM BOTTOM AND 2" CLEAR FROM SIDES. 2. MIX NO. 2 CONCRETE.



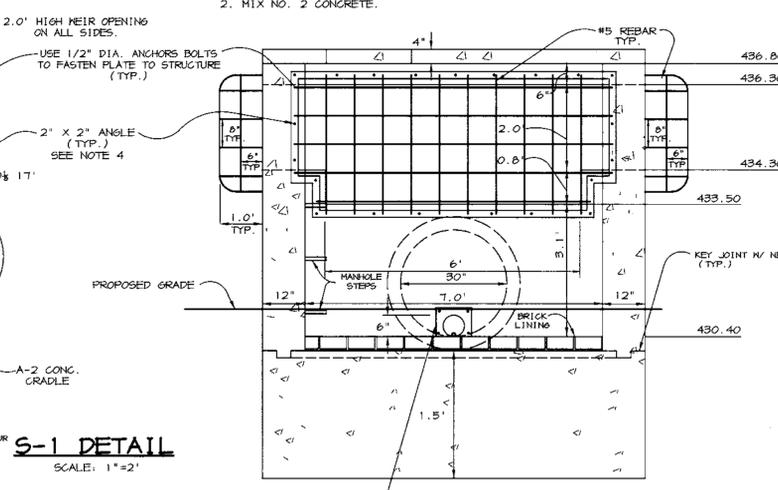
A-2 CONCRETE CRADLE



CORE TRENCH DETAIL



SIDE VIEW

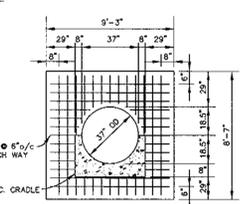


FRONT VIEW

NOTES: 1. REINFORCING, #4 @ 10" o/c E.W. IN & OF WALLS. REINFORCING TO BE CONTIGUOUS AT CORNERS. ALL LAPS 1'-4". 2. SHOP DRAWINGS TO BE SUBMITTED TO THE ENGINEER PRIOR TO FABRICATION, IF PRECAST STRUCTURE IS USED. 3. GALVANIZE RACK AFTER FABRICATION AND PAINT BATTLESHIP GRAY. 4. LOCATION OF ANGLE IRON SHALL BE 2" LARGER IN ALL DIRECTIONS FROM OPENINGS OF STRUCTURE. 5. IF RISER IS CAST IN PLACE THEN PROVIDE 2" MIN. BARREL STUB. ALSO PROVIDE 3.5' X 3.5' X 12" POUR FOR WATER TIGHT SEAL. 6. SEE HO. CO. STD. DETAIL G-5.21 FOR MANHOLE STEPS.

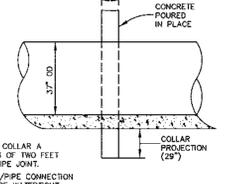
HANDICAP SIGN DETAIL

NO SCALE



CONCRETE ANTI-SEEP COLLAR

NOTE: CO. SO, CH, OR CL MATERIAL IS TO BE USED FOR CORE TRENCH. IF UNSUITABLE MATERIAL EXISTS ON SITE, ACCEPTABLE MATERIAL WILL NEED TO BE TRUCKED TO SITE.

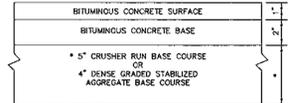


MONOLITHIC CURB & SIDEWALK

NOTES: 1. LONGITUDINAL JOINT BETWEEN SIDEWALK AND CURB SHALL BE CONTINUOUS AND TO A DEPTH OF 1/4" THE SIDEWALK THICKNESS OR 1" MAX. LATERAL JOINTS SHALL RUN FROM BACK EDGE OF SIDEWALK, CONTINUOUS TO THE BOTTOM FACE OF CURB TO A DEPTH OF 1/4" AND SPACED 5' APART. 2. PROVIDE 1/2" EXPANSION JOINTS AT 15' INTERVALS. IN LATERAL JOINTS TO FULL CROSS-SECTION.

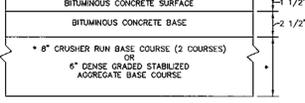
SIDEWALK DETAIL

NO SCALE



P-1 PAVING

NO SCALE



P-2 PAVING

NO SCALE

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.

Jacqueline M. King 11.5.99
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 DISTRICT 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.

Michelle Murray 11.8.99
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.

Cheryl Simons 11/24/99
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.

Stephen Kelly 11/24/99
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

John J. Smith 12/8/95
DIRECTOR DATE

John J. Smith 11/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cinda Hamilton 12/8/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER/DEVELOPER

THE A.R.C. OF HOWARD COUNTY, INC.
9220 RUMBLEY ROAD
SUITE 105
COLUMBIA, MARYLAND 21045

PROJECT THE A.R.C. OF HOWARD COUNTY
ADULT ACTIVITY CENTER
A BUILDING ADDITION

AREA TAX MAP NO. 29 ZONED RC-DEO PARCEL 321
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **PROFILES AND DETAIL SHEET**

RIEMER MUEGGE & ASSOCIATES INC
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centro Park Drive, Columbia, MD 21046
tel 410.987.8600 fax 410.987.9282

DESIGNED BY: C.J.R.
DRAWN BY: DAM
PROJECT NO: 96115
SDP5.DWG
DATE: NOVEMBER 22, 1999
SCALE: AS SHOWN
DRAWING NO. 5 OF 7

SDP-98-130

SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (313-1885).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES AND ALL SLOPES GREATER THAN 3:1. B) 14 DAYS AS TO OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL FOR PERMANENT SEEDINGS (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDINGS (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONGS CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:**

TOTAL AREA OF SITE	5.32	ACRES
AREA DISTURBED	3.11	ACRES
AREA TO BE ROOFED OR PAVED	1.22	ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.04	ACRES
TOTAL CUT	4865	CU. YDS.
TOTAL CUT AVAILABLE FOR BACKFILL	2774	CU. YDS.
TOTAL FILL	5024	CU. YDS.

BORROW OF 2255 CU. YDS. TO BE TAKEN FROM A SITE WITH AN OPEN GRADING PERMIT.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.**
- SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
- CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL, OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 AC., APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.
- Seeded Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
- Soil Amendments:** Apply 600 lbs. per acre 10-10-10 fertilizer (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.). For the period May 1 thru August 14, seed with 3 lbs. per acre of creeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.
- Mulching:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.
- Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

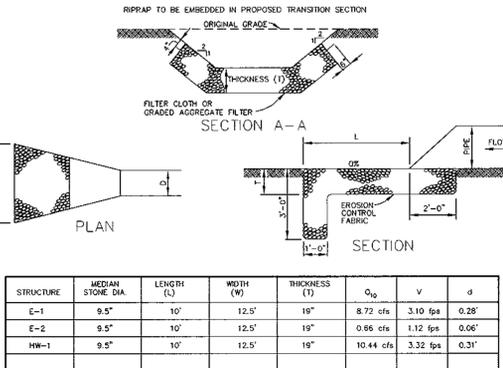
PERMANENT SEEDING NOTES

- 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, discing 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 (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (4 lbs. per 1000 sq.ft.).
 - Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (25 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.
- Seeding:** For the period March 1 thru April 30 and from August 15 thru October 15, seed with 60 lbs. per acre (1.4 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. per acre (0.05 lbs. per 1000 sq.ft.) of creeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options:
- 2 tons per acre of well-anchored mulch straw 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 unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.
- Maintenance:** Inspect all seeded areas and make needed repairs, replacements and reseedings.

21.0 STANDARD AND SPECIFICATIONS

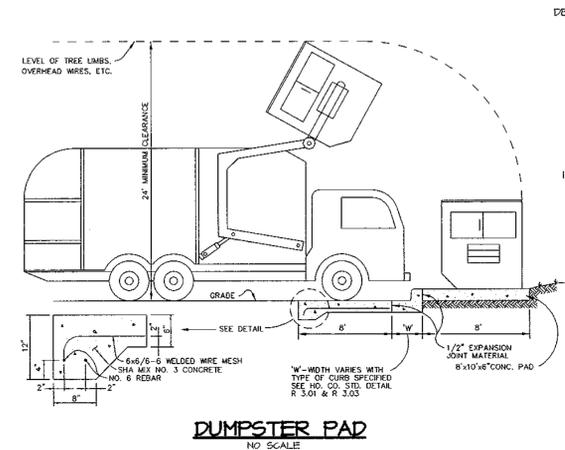
FOR TOPSOIL

- 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 Experiment 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, nutgrass, 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 I - 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 of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having a soluble salt content greater than 300 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 phyto-toxic materials.
 - 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 I - Vegetative Stabilization Methods and Materials.

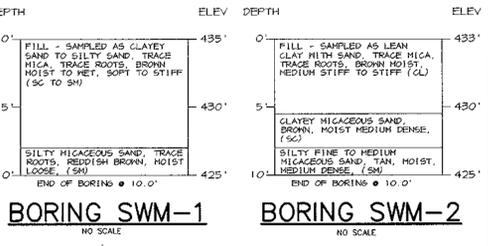


RIPRAP OUTLET PROTECTION DETAIL
NO SCALE

STRUCTURE	MEDIAN STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)	Q ₁₀	V	d
E-1	9.5"	12.5'	19"	19"	8.72 cfs	3.10 fpa	0.28'
E-2	9.5"	10'	12.5'	19"	0.96 cfs	1.12 fpa	0.06'
HW-1	9.5"	10'	12.5'	19"	10.44 cfs	3.32 fpa	0.31'



DUMPSTER PAD
NO SCALE



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.

Christopher J. Reid 11.5.99
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 11.8.99
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.

Cheryl Simmons 11/2/99
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.

Blaine S. ... 11/2/99
HOWARD SOIL CONSERVATION DISTRICT DATE

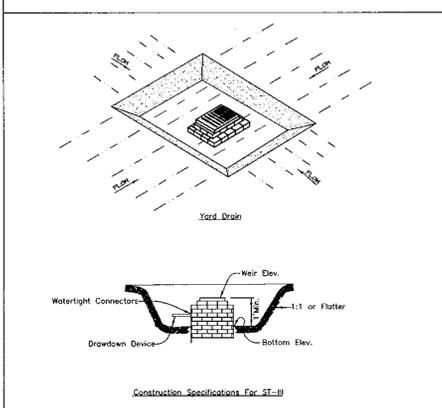
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

John B. ... 12/5/95
DIRECTOR DATE

Arthur E. Muegge 12/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

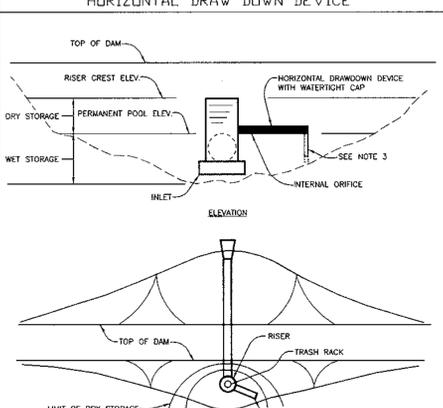
Cheryl Simmons 12/2/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

STORM INLET SEDIMENT TRAP ST-III



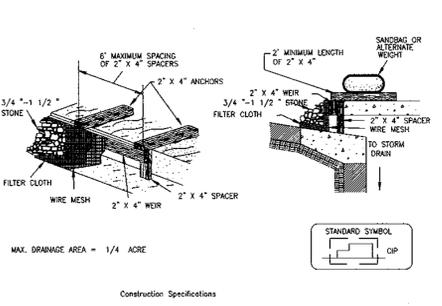
- Construction Specifications For ST-III**
- Sediment shall be removed and the restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Remove sediment shall be deposited in a suitable area and in such a manner that it will not erode.
 - The volume of sediment storage shall be 3500 cubic feet per acre of contributory drainage.
 - The structure shall be inspected after each rain and repairs made as needed.
 - Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
 - The sediment trap shall be removed and the area stabilized when the construction drainage area has been properly stabilized.
 - All cut slopes shall be 1:1 or flatter.
- MAXIMUM DRAINAGE AREA, 3 ACRES

SEDIMENT TRAP AND BASIN DRAWDOWN SCHEMATIC HORIZONTAL DRAW DOWN DEVICE



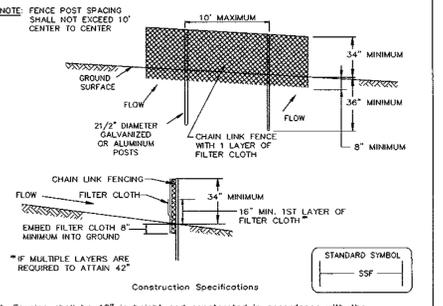
- Construction Specifications**
- The total area of the perforation must be greater than 2 times the area of the internal orifice.
 - The perforated portion of the drawdown device shall be wrapped with 1/2" hardware cloth and geotextile fabric. The geotextile fabric shall meet the specifications for Geotextile Class E.
 - Provide support of drawdown device to prevent sagging and flotation. An acceptable preventative measure is to stake both sides of drawdown device with 1" steel angle, or 1" by 4" square or 2" round wooden posts set 3" minimum into the ground then joining them to the device by wrapping with 12 gauge minimum wire.

DETAIL 23C - CURB INLET PROTECTION



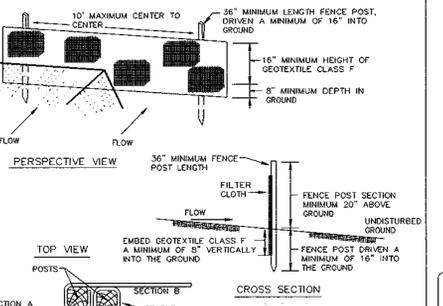
- Construction Specifications**
- Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard goods.
 - Place a continuous piece of Geotextile Class E (same dimensions as the wire mesh over the inlet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

DETAIL 33 - SUPER SILT FENCE



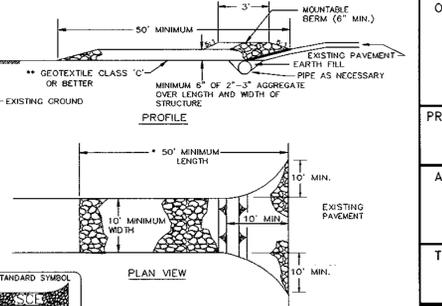
- Construction Specifications**
- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6" length posts.
 - Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and trust rods, drive anchors and post caps are not required except on the ends of the fence.
 - Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
 - Filter cloth shall be embedded a minimum of 8" into the ground.
 - When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
 - Maintenance shall be performed as needed and silt buildup removed when "bubbles" develop in the silt fence, or when silt reaches 50% of fence height.
 - Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
- | | | |
|-----------------------|--|----------------|
| Tensile Strength | 50 lbs/ft (min.) | Test: MSMT 509 |
| Tensile Modulus | 20 lbs/ft (min.) | Test: MSMT 509 |
| Flow Rate | 0.3 gal/ft ² /minute (max.) | Test: MSMT 322 |
| Filtration Efficiency | 75% (min.) | Test: MSMT 322 |

DETAIL 22 - SILT FENCE



- Construction Specifications**
- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.
 - Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
- | | | |
|-----------------------|--|----------------|
| Tensile Strength | 50 lbs/ft (min.) | Test: MSMT 509 |
| Tensile Modulus | 20 lbs/ft (min.) | Test: MSMT 509 |
| Flow Rate | 0.3 gal/ft ² /minute (max.) | Test: MSMT 322 |
| Filtration Efficiency | 75% (min.) | Test: MSMT 322 |
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
 - Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



- Construction Specifications**
- Length - minimum of 50' (*30' for single residence lot).
 - Width - 10' minimum, should be flared at the existing road to provide a turning radius.
 - Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. *The plan approval authority may not require same flared residences to use geotextile.
 - Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
 - Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the S.C.E. is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
 - Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

AS-BUILT CERTIFICATE

Christopher J. Reid 10.16.01
DATE

CHRISTOPHER J. REID # 19949

DATE	NO.	REVISION

OWNER/DEVELOPER
THE A.R.C. OF HOWARD COUNTY, INC.
9220 RUMSEY ROAD
SUITE 105
COLUMBIA, MARYLAND 21045

PROJECT
THE A.R.C. OF HOWARD COUNTY
ADULT ACTIVITY CENTER
A BUILDING ADDITION

AREA
TAX MAP NO. 29 ZONED RC-DEO PARCEL 321
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

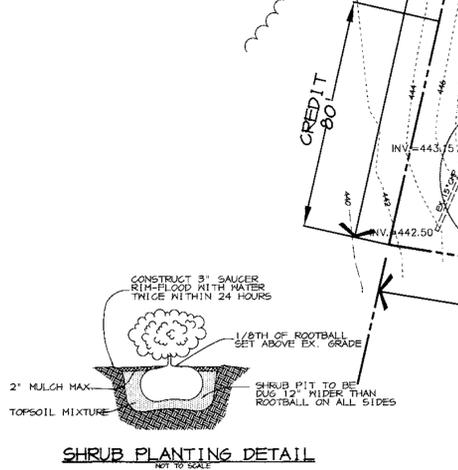
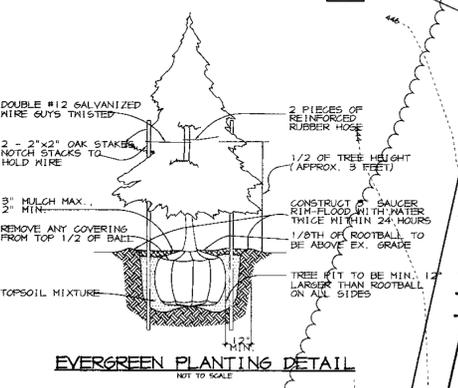
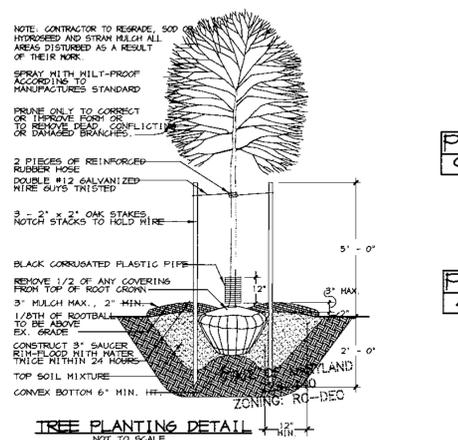
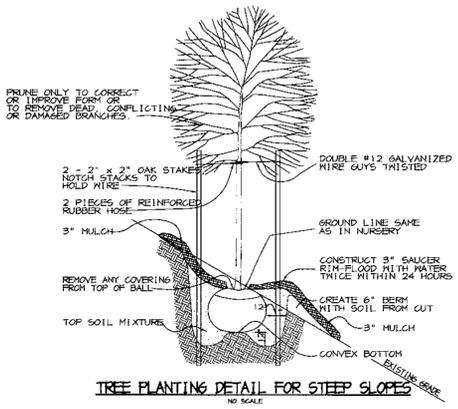
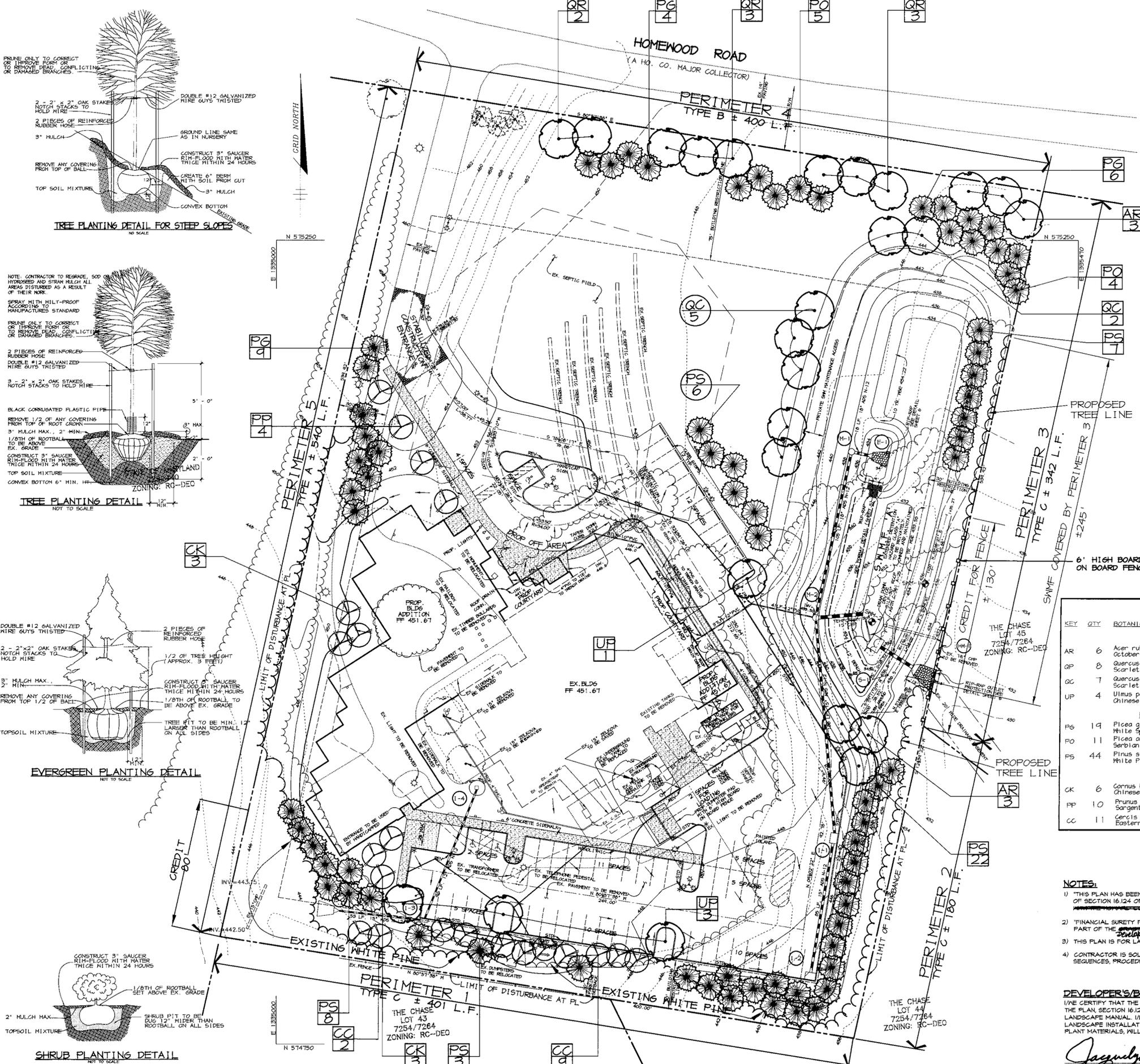
TITLE
NOTES AND DETAIL SHEET

RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8816 Centre Park Drive, Columbia, MD 21045
tel 410.907.8800 fax 410.907.8282

DESIGNED BY: C.J.R.
DRAWN BY: DAM
PROJECT NO. 96115
SDPB.DWG
DATE: NOVEMBER 22, 1999
SCALE: AS SHOWN
DRAWING NO. 6 OF 7

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

F:\PROJECT\96115\SDPB.DWG Fri Nov 05 09:13:09 1999 RIEMER MUEGGE & ASSOCIATES, INC.



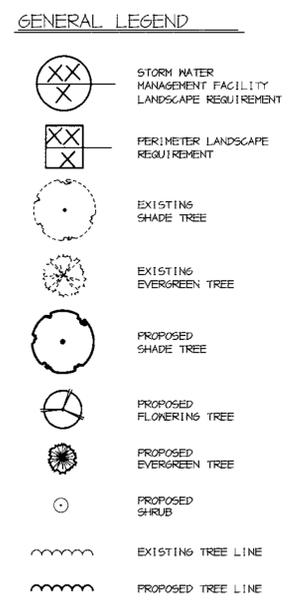
SCHEDULE A PERIMETER LANDSCAPE EDGE					
PERIMETER	ADJACENT TO PERIMETER PROPERTIES				ADJACENT TO ROADWAYS
	1	2	3	5	4
LANDSCAPE TYPE	C	C	C	A	B
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	± 401 LF	± 180 LF	± 342 LF	± 540 LF	± 400 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES EXISTING WHITE PINE	NO	NO	± 80 LF SEE NOTE BELOW	YES 3 EVERGRN. TREES
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	YES ± 130'	NO	NO
NUMBER OF PLANTS REQUIRED	SHADE TREES EVERGREEN TREES SHRUBS	• 1/40' = 10 • 1/20' = 20 0	• 1/40' = 5 • 1/20' = 4 0	• 1/40' = 5 • 1/20' = 11 0	• 1/60' = 8 0 0
NUMBER OF PLANTS PROVIDED	SHADE TREES EVERGREEN TREES SMALL FLOWERING TREES SHRUBS	- 20 14 -	3 13 -	5 17 -	- 4 1 8

PERIMETER LANDSCAPE EDGE, SUBSTITUTION NOTES - SCHEDULE A

PERIMETER 1:
14 FLOWERING TREES WERE SUBSTITUTED FOR 7 SHADE TREES (CREDIT TAKEN FOR EXISTING WHITE PINES (3 SHADE TREES)).

PERIMETER 2:
4 EVERGREEN TREES WERE SUBSTITUTED FOR 2 SHADE TREES.

PERIMETER 5:
4 EVERGREEN & 1 FLOWERING TREES WERE SUBSTITUTED FOR 8 SHADE TREES.



SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PARKING SPACES	67
NUMBER OF SHADE TREES REQUIRED @ 1 S.T./20 SPACES	3.3
NUMBER OF TREES PROVIDED	SHADE TREES 4 OTHER TREES (2:1 SUBSTITUTION) 0
NUMBER OF ISLANDS REQUIRED (1 ISLAND/ 20 SPACES)	3.3
NUMBER OF ISLANDS PROVIDED	4

SCHEDULE C STORM WATER MANAGEMENT FACILITY LANDSCAPE REQUIREMENTS	
SWM BUFFER (LINEAR FEET)	± 245 L.F.
NUMBER S.T. REQUIRED (TYPE "B" BUFFER)	5
1 SHADE TREE (1/50 L.F.) AND 1 EVERGREEN TREE (1/40 L.F.)	6
NUMBER S.T. PROVIDED	SHADE TREES 5 EVERGREEN/OTHER TREES 6

NOTE: 225 FEET OF S.W.M. COVERED BY PERIMETER 3 PLANTING

KEY	QTY	BOTANICAL - COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREES					
AR	6	Acer rubrum 'October Glory' / October Glory Red Maple	25' - 3" Cal.	B & B	Full Crown Central Leader
QP	8	Quercus phellos / Scarlet Oak	25' - 3" Cal.	B & B	Full Crown Central Leader
QC	7	Quercus coccinea / Scarlet Oak	25' - 3" Cal.	B & B	Full Crown Central Leader
UP	4	Ulmus parvifolia 'Allee' / Chinese Elm	25' - 3" Cal.	B & B	Full Crown Central Leader
EVERGREEN TREES					
P6	19	Picea glauca / White Spruce	6' - 8" Ht.	B & B	Full Form Central Leader
PO	11	Picea amarika / Serbian Spruce	6' - 8" Ht.	B & B	Full Form Central Leader
PS	44	Pinus strobus / White Pine	6' - 8" Ht.	B & B	Sheared Full Form
FLOWERING TREES					
CK	6	Cornus kousa / Chinese Dogwood	8' - 10' Ht.	B & B	Specimen
PP	10	Prunus sargentii / Sargent's Flowering Cherry	14" - 2" Cal.	B & B	Specimen
CC	11	Cercis canadensis / Eastern Redbud	14" - 2" Cal.	B & B	Specimen

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David T. Dows 12/2/99
DIRECTOR DATE

David Dows 12/2/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cathy Hamilton 10/2/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

OWNER/DEVELOPER

THE A.R.C. OF HOWARD COUNTY, INC.
9220 RUNSEY ROAD
SUITE 105
COLUMBIA, MARYLAND 21045

PROJECT THE A.R.C. OF HOWARD COUNTY ADULT ACTIVITY CENTER A BUILDING ADDITION

AREA TAX MAP NO. 29 ZONED RC-DEO PARCEL 321 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE LANDSCAPE PLAN

RIEMER MUEGGE & ASSOCIATES INC
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21045
tel 410.997.8000 fax 410.997.9282

DESIGNED BY: D.T.D.
DRAWN BY: A.J.L.
PROJECT NO: 96115 LSCP
DATE: NOVEMBER 22, 1999
SCALE: 1" = 30'
DRAWING NO. 7 OF 7

NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$28,202.
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.

DEVELOPER'S/BUILDER'S CERTIFICATE:

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Jacquelyn M. King 11-5-99
DATE

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	DRAINAGE AREA MAP AND SEDIMENT CONTROL PLAN
4	PROFILES & DETAIL SHEET
5	PROFILES & DETAIL SHEET
6	NOTES & DETAIL SHEET
7	LANDSCAPE PLAN

SITE DEVELOPMENT PLAN

THE A.R.C. OF HOWARD CO.

ADULT ACTIVITY CENTER

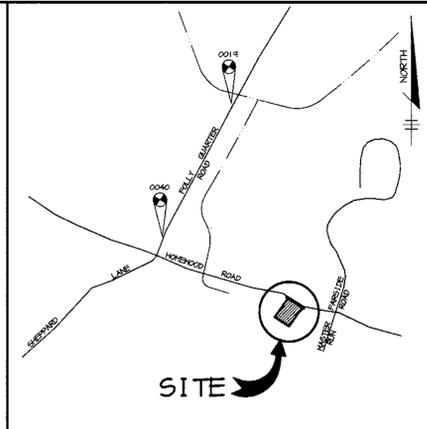
BUILDING ADDITION

5th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

GENERAL NOTES

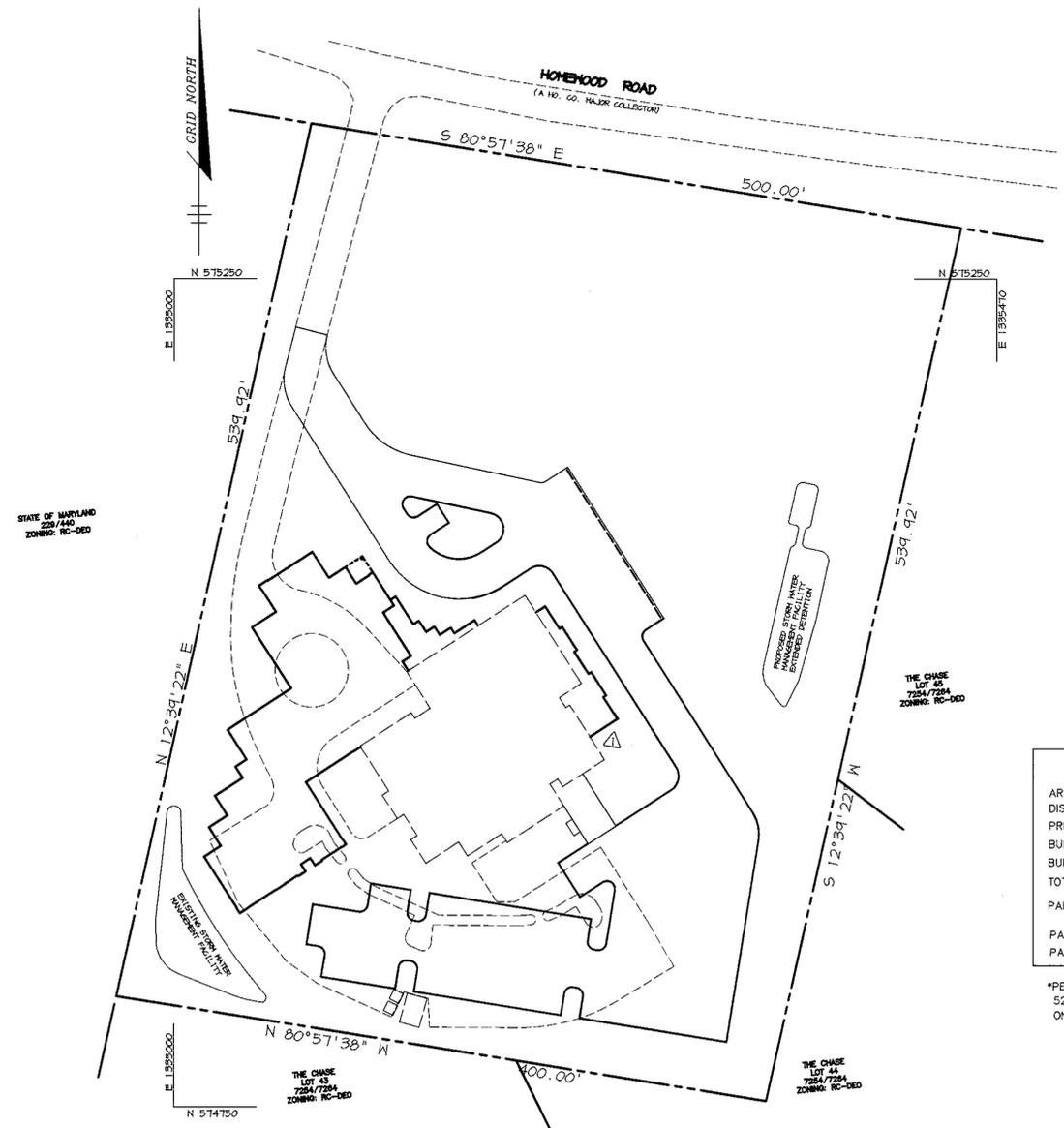
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST 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.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY AND BOUNDARY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE & ASSOCIATES, INC. DATED JAN. 1998.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 0019 AND 0040 WERE USED FOR THIS PROJECT.
- WATER IS PRIVATE.
- SEWER IS PRIVATE.
- 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 WETLANDS DELINEATION FOR THIS PROJECT IS NOT REQUIRED.
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A GEOTECHNICAL STUDY WAS PERFORMED FOR THIS PROJECT BY ECS, LTD. DATED MARCH 19, 1998.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- 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 CLASS "C" AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- 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.
- STORM DRAIN PIPE MATERIAL CAN BE EITHER ADS N-12 PIPE OR REINFORCED CONCRETE. ADS N-12 PIPE TO BE INSTALLED ACCORDING TO THE LATEST HOWARD COUNTY DESIGN MANUAL VOL. IV.
- BA-97-34E SPECIAL EXCEPTION DECISION AND ORDER DATED OCTOBER 2, 1997. CONDITIONS - 1. THE SPECIAL EXCEPTION ONLY APPLIES TO THE DAY TREATMENT AND CARE FACILITY WITH ADMINISTRATIVE OFFICES AS DEPICTED ON THE SPECIAL EXCEPTION PLAN ON MAY 16, 1997. 2. A TYPE C LANDSCAPE EDGE BE LOCATED AND MAINTAINED ALONG THE SOUTH SIDE OF THE PRINCIPAL PARKING LOT AND A TYPE D LANDSCAPE EDGE ALONG A PORTION OF THE WEST SIDE OF THE PAVED AREA. 3. A PARKING NEEDS STUDY MUST BE SUBMITTED AS PART OF THE SITE DEVELOPMENT PLAN. 4. ANY NEW EXTERIOR LIGHTS ESTABLISHED FOR THE FACILITY SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 134 OF THE ZONING REGULATIONS.
- PREVIOUS FILES SDP-78-26, BA-97-34E AND F-75-90.
- Forest Conservation Program obligations for this project are fulfilled by a Declaration of Intent; site improvements on this 5-acre lot do not involve more than 10,000 sq. ft. of clearing existing wooded areas; 0.760 acres of forest resources to be cleared = 33,190 sq. ft. Landscape = 21,200 sq. ft. of the Developers Agreement.*



VICINITY MAP

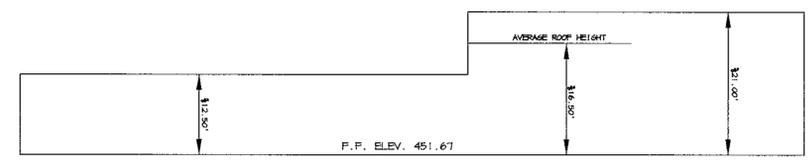
SCALE: 1" = 2000'
AS-BUILT CONTROL BENCHMARKS

- ✓ HOWARD COUNTY SURVEY CONTROL STATION 0019
N 580,468.133 E 1,333,675.522
- ✓ HOWARD COUNTY SURVEY CONTROL STATION 0040
N 577,270.615 E 1,332,002.601



SITE ANALYSIS	
AREA OF PARCEL	5.316 ACRES (231,565 SF)
DISTURBED AREA	3.11 ACRES (135,472)
PRESENT ZONING	RC-DEO
BUILDING COVERAGE (EX.)	13,050 SF
BUILDING COVERAGE (PROP.)	210,509 SF
TOTAL BUILDING COVERAGE	223,559 SF
PARKING (PROPOSED)	65 SPACES (INCL. 3 HC) NOT INCL. LOADING SPACES
PARKING REQUIRED	55 SPACES*
PAVED AREA	39,738 SF (17.2% OF SITE)

*PER PARKING NEEDS STUDY DATED AUGUST 19, 1998
 52 EMPLOYEES AT 1 SPACE/EMPLOYEE
 ONE PICK UP TRUCK AND 2 VANS FOR TOTAL OF 55 SPACES.



NOTE: SEE ARCHITECTURAL DRAWINGS FOR COMPLETE BUILDING DETAILS AND ELEVATIONS.
EAST BUILDING ELEVATION
 NO SCALE

PLAN
 SCALE: 1" = 50'

ADDRESS CHART

PARCEL	STREET ADDRESS
321	10735 HOMEROOD ROAD

SUBDIVISION NAME -	A.R.C. OF HOWARD COUNTY ADULT ACTIVITY CENTER	PARCEL -	321
PLAT # -		ZONING -	RC-DEO
		TAX MAP NO. -	29
		ELECT. DIST. -	5th
		CENSUS TRACT -	6051.01
WATER CODE -	PRIVATE	SEWER CODE -	PRIVATE

AS-BUILT CERTIFICATE

STATE OF MARYLAND
 CHRISTOPHER J. REID # 19949 DATE 10-16-01
 APPROVED BY HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR DATE 12/8/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 1/1/00
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE 12/8/99

G-8-00 REMOVED MECHANICAL ROOM ADDITION AND REV. SITE ANALYSIS

DATE	NO.	REVISION

OWNER/DEVELOPER
 THE A.R.C. OF HOWARD COUNTY, INC.
 9220 RUMSEY ROAD
 SUITE 105
 COLUMBIA, MARYLAND 21045

PROJECT THE A.R.C. OF HOWARD COUNTY ADULT ACTIVITY CENTER
 A BUILDING ADDITION

AREA TAX MAP NO. 29 ZONED RC-DEO PARCEL 321
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE SHEET

RIEMER MUEGGE & ASSOCIATES INC.
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
 8818 Centre Park Drive, Columbia, MD 21046
 tel 410.997.8800 fax 410.997.9282

DATE	DESIGNED BY
	C.J.R.
	DRAWN BY: DAM
	PROJECT NO: 96115
	SDP1.DWG
	DATE: NOVEMBER 22, 1999
	SCALE: AS SHOWN
	DRAWING NO. 1 OF 7

ARTHUR E. MUEGGE #8707

STATE OF MARYLAND
228/440
ZONING: RC-DEO

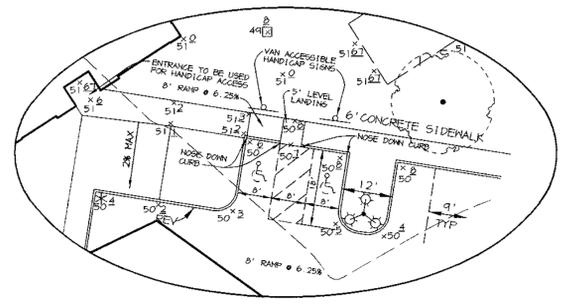
HOMWOOD ROAD
(A HO. CO. MAJOR COLLECTOR)

NOTES:

1. ALL EXTERIOR LIGHTINGS WILL COMPLY WITH SECTION 134, ZONING REGULATIONS.
2. ALL CURB RADII ARE 5' UNLESS OTHERWISE LABELED.
3. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE SHOWN.
4. ALL ON-SITE ROADS ARE PRIVATE.
5. ALL ROOF DRAINAGE MUST BE DIRECTED TOWARD SHMF 'A'.

LEGEND

- PROPOSED LIMIT OF CLEARING
- P-2 PAVING
- P-1 PAVING (PARKING BAYS)
- CONCRETE SIDEWALK OR PAD
- EXISTING FOREST
- STD + REV DENOTES TRANSITION FROM STANDARD TO REVERSE CURB AND GUTTER
- 175 WATT ED-17 MH LAMP MOUNTED ON A 15'-8" HIGH TAPERED ALUMINUM ROUND HINGED BASE POLE PAINTED MESS GREEN
- EXISTING LIGHT POLE TO BE REMOVED
- SOIL BORING



HANDICAPPED ENTRANCE DETAIL
SCALE: 1" = 20'

STORMWATER MANAGEMENT DESIGN SUMMARY
FACILITY A

DESIGN STORM (YR.)	ALLOWABLE RELEASE (C.F.S.)	FACILITY INFLOW (C.F.S.)	FACILITY DISCHARGE (C.F.S.)	WATER SURFACE ELEVATION (FT.)	STORAGE VOLUME (AC. FT.)
2	4.54	6.90	0.75	433.55	0.159
10	11.77	15.10	10.44	434.17	0.259
100*	-	24.71	21.82	434.46	0.363

* GLOGGED CONDITIONS

OPERATION AND MAINTENANCE SCHEDULE
OF PRIVATELY OWNED AND MAINTAINED
STORMWATER MANAGEMENT FACILITY
EXTENDED DETENTION POND

ROUTINE MAINTENANCE

1. Facility shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the pond is functioning properly.
2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be mowed as needed.
3. Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
4. Visible signs of erosion in the pond as well as riprap outlet area shall be repaired as soon as it is noticed.

NON-ROUTINE MAINTENANCE

1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.
2. Sediment should be removed when its accumulation significantly reduces the design storage, interfere with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public Works.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James B. Smith 12/8/99
DIRECTOR DATE

Cindy Hamilton 12/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Hamilton 12/2/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Q-3-00	REMOVED MECHANICAL ROOM ADDITION
DATE NO.	REVISION

OWNER/DEVELOPER
THE A.R.C. OF HOWARD COUNTY, INC.
9220 RUMSEY ROAD
SUITE 105
COLUMBIA, MARYLAND 21045

PROJECT THE A.R.C. OF HOWARD COUNTY
ADULT ACTIVITY CENTER
A BUILDING ADDITION

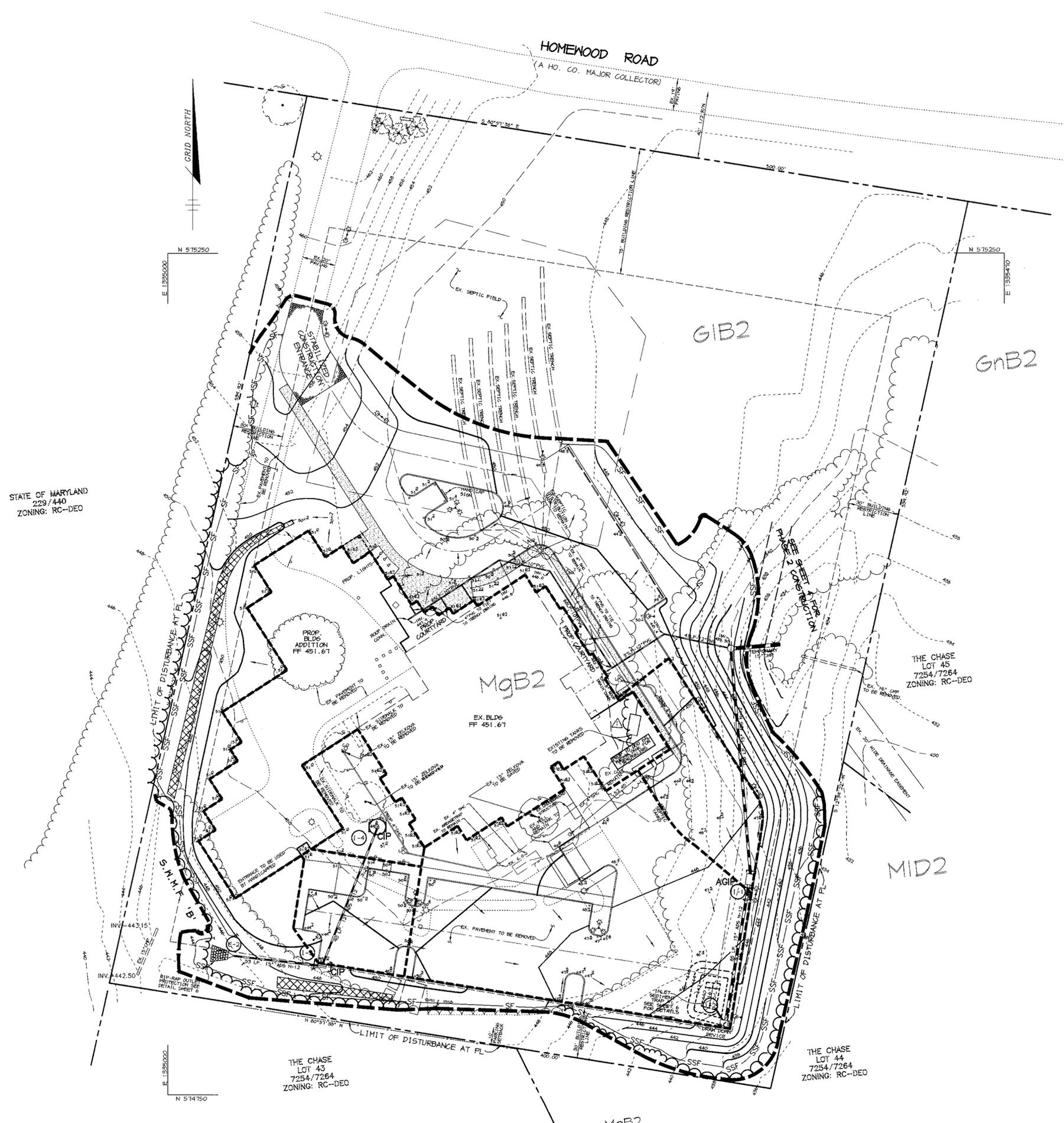
AREA TAX MAP NO. 29 ZONED RC-DEO PARCEL 321
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SITE DEVELOPMENT PLAN

RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21045
tel 410.967.8800 fax 410.967.9282

	DATE DESIGNED: 12/1/99
	DESIGNED BY: C.J.R.
	DRAWN BY: DAM
	PROJECT NO: 96115 SDP2.DWG
	DATE: NOVEMBER 22, 1999
SCALE: 1" = 30'	DRAWING NO. 2 OF 7

C:\UPLOADED\96115\SDP2.DWG F:\1\99\05\05\05\1999\RIEMER MUEGGE & ASSOCIATES, INC.



STORM INLET SEDIMENT TRAP #1

DRAINAGE AREA	0.51 AC.
STORAGE VOLUME REQUIRED	1836 C.F. (NET/DRY)
STORAGE VOLUME PROVIDED	918 C.F. @ 442.60 (NET)
STORAGE VOLUME PROVIDED	1687 C.F. @ 444.90 (DRY)
WEIR ELEVATION	444.90
BOTTOM ELEVATION	440.00
CLEANOUT ELEV.	441.60
SIDE SLOPES	2:1
BOTTOM DIMENSIONS	16' x 9'
DEPTH	4.9'
DRAW DOWN DEVICE INVERT:	442.60

DRAINAGE DATA

INLET NOS.	AREA IN ACRES	'C' FACTOR	PERCENT IMPERVIOUS
1	0.12	0.80	42%
2	0.51	0.76	86%
3	0.11	0.80	91%
4	0.07	0.19	0%

LEGEND

- SF — SF — SILT FENCE
- SSF — SSF — SUPER SILT FENCE
- DRAINAGE DIVIDE
- [] GP CURB INLET PROTECTION
- [] AGIP AT GRADE INLET PROTECTION
- ▬ EROSION CONTROL MATTING
- TEMPORARY TRAP GRADING
- SOILS DELINEATION

SEQUENCE OF CONSTRUCTION PHASE 1

- OBTAIN GRADING PERMIT FOR SITE PLAN.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, AND SUPER SILT FENCE. (1 DAY)
- WITH THE APPROVAL OF THE DILP SEDIMENT CONTROL INSPECTOR, BEGIN REMOVAL OF EXISTING PAVING AND ROUGH GRADING AND START BUILDING CONSTRUCTION. (4 WEEKS)
- AS SUBGRADE ELEVATIONS ARE REACHED, INSTALL STORM DRAIN SYSTEM, TEMPORARY OUTFALL FROM M-2 IN EXISTING POND AND SEWER; PROVIDE INLET PROTECTION AND INLET TRAP AT INLET #2 AS NECESSARY. (2 WEEKS)
- INSTALL CURB & GUTTER AND SIDEWALKS, THEN PAVE. (3 WEEKS)
- STABILIZE DISTURBED AREAS AS NECESSARY AND COMPLETE REMAINING CONSTRUCTION. (12 WEEKS)
- UPON APPROVAL OF HOWARD COUNTY DILP SEDIMENT CONTROL INSPECTOR, REMOVE TEMPORARY SEDIMENT CONTROL DEVICES, BEGIN PHASE 2 WORK, AND STABILIZE REMAINING AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (3 DAYS)

NOTE:
IF CONTRACTOR WANTS TO PERFORM PHASE 2 FIRST HE MUST COMPLETE ENTIRE PHASE 1 PRIOR TO WORK ON PHASE 1.

STATE OF MARYLAND
229/440
ZONING: RC-DEO

AS-BUILT CERTIFICATE

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER J. REID #19949
DATE: 10-10-01

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.

Jacqueline M. King 11-5-99
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 11-8-99
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.

Carol Simon / AS 11/20/99
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.

Howe A. Ellis 11/20/99
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
James B. Butler 12/2/99
DIRECTOR DATE

12/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

12/2/99
Cynthia Hamilton DATE
CHIEF, DIVISION OF LAND DEVELOPMENT

G-2-00 (A) REMOVED MECHANICAL ROOM ADDITION

DATE NO.	REVISION

OWNER/DEVELOPER
THE A.R.C. OF HOWARD COUNTY, INC.
4220 RUMSEY ROAD
SUITE 105
COLUMBIA, MARYLAND 21045

PROJECT THE A.R.C. OF HOWARD COUNTY
ADULT ACTIVITY CENTER
A BUILDING ADDITION

AREA TAX MAP NO. 29 ZONED RC-DEO PARCEL 321
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE DRAINAGE AREA MAP AND
SEDIMENT CONTROL PLAN
PHASE 1

RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21045
tel 410.997.8900 fax 410.997.9282

DESIGNED BY: C.J.R.
DRAWN BY: DAM
PROJECT NO: 96115
DATE: NOVEMBER 22, 1999
SCALE: 1" = 30'
DRAWING NO. 3 OF 7

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
ARTHUR E. MUEGGE #8707

AS-BUILT 10/10/01 SDP-98-130

F:\PROJECT\96115\SDP3.DWG P1 Nov 05 08 45 1999 RIEMER MUEGGE & ASSOCIATES, INC.

MD-378 STANDARDS AND SPECIFICATIONS

SPECIFICATIONS
These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply 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. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.
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 level with the ground surface. For any stormwater management ponds, a minimum of a 50 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 material. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification SC_{cl} , GC_{cl} , or CL . Consideration may be given to the use of other materials in the embankment if design and construction are 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 downstream portions of the embankment; the principal spillway must be installed 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 surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tire or vibratory roller. Fill materials shall be placed in sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The 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.
Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain this density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cutoff Trench - The cutoff 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 excavation, with the minimum width being four feet. The depth 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.

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 backfill 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 needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

PIPE CONDUITS
All pipes shall be circular in cross section.
Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe.

1. Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating composed of steel pipes with bituminous coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nevon, Plast-Gal, Plast-Kid, and Belled corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

2. Coupling bands, anti-seep collars, and sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.
3. 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 an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 48" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket, and a 12" wide hugger type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 48" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24". Helically corrugated pipe shall have either continuously welded seams or have lock seams.

4. 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.
5. Backfilling shall conform to "Structure Backfill."

6. 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:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the side of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.
4. Backfilling shall conform to Structure Backfill.
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.
2. Joints and connections to anti-seep collars shall be completely watertight.
3. 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.
4. Backfilling shall conform to Structure Backfill.
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

CONCRETE
Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

ROCK RIPRAP
Rock riprap shall meet the requirements of Maryland Department of Transportation State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 419.12.

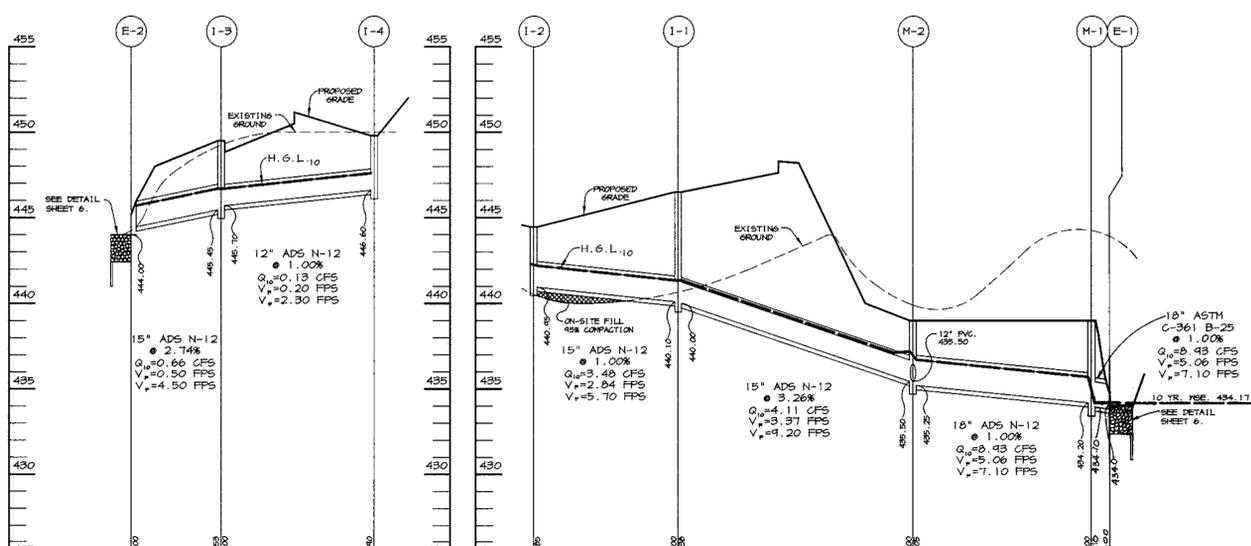
CARE OF WATER DURING CONSTRUCTION
All work on permanent structures shall be carried out in areas free from water. The contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which require draining the water to sumps from which the water shall be pumped.

STABILIZATION
All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

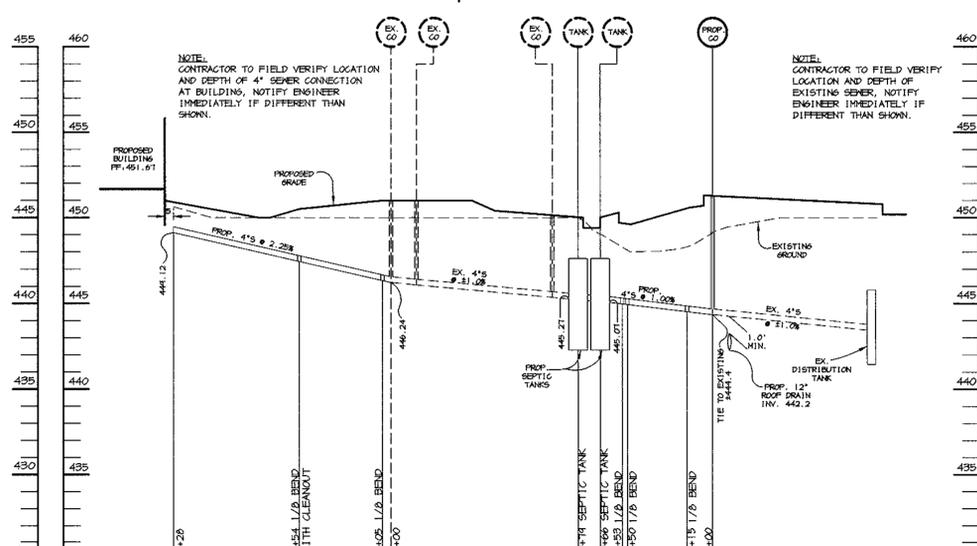
EROSION AND SEDIMENT CONTROL
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

NOTE:
Geotechnical engineer shall be engaged to monitor pond construction of the facility, embankment, cutoff trench, core and outfall structure.

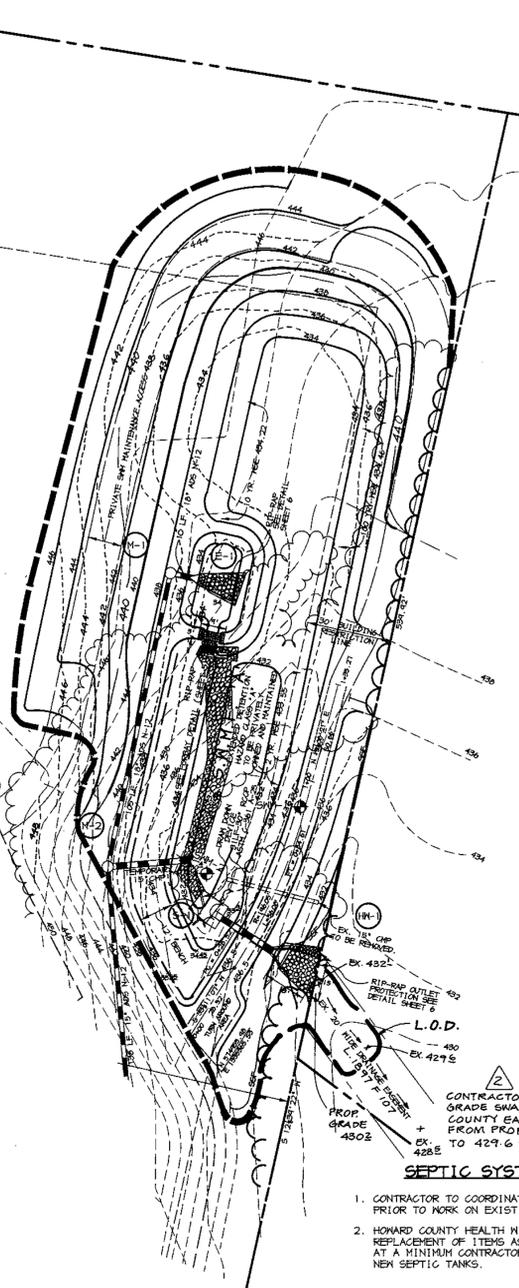


STORM DRAIN PROFILE
SCALE: HOR. - 1"=50', VERT. - 1"=5'



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

PHASE 2 PLAN
SCALE: 1" = 30'



SEQUENCE OF CONSTRUCTION PHASE 2

1. COMPLETE PHASE 1 BEFORE STARTING.
 2. INSTALL SUPER SILT FENCE. (2 DAYS)
 3. ON 5TH DAY CLEAR (NO PRECIPITATION) FORECAST FROM NWS, PERFORM POND REGRADING. INSTALL CORE TRENCH, RECONSTRUCT EMBANKMENT AND INSTALL OUTLET PIPE AND CONTROL STRUCTURE. CONSTRUCT E-1 TO M-2 DRAIN AND REMOVE TEMPORARY PIPE. INSTALL FOREBAY. (4 WEEKS)
 4. UPON APPROVAL OF HOWARD COUNTY DILP SEDIMENT CONTROL INSPECTOR, REMOVE TEMPORARY SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (3 DAYS)
- NOTE:**
IF CONTRACTOR WANTS TO PERFORM PHASE 2 FIRST HE MUST COMPLETE ENTIRE PHASE PRIOR TO WORK ON PHASE 1.

CONTRACTOR TO GRADE SWALE WITHIN COUNTY EASEMENT FROM PROPERTY LINE TO 429.6 EXISTING ELEV.

SEPTIC SYSTEM SEQUENCE OF CONSTRUCTION

1. CONTRACTOR TO COORDINATE WITH HOWARD COUNTY HEALTH DEPARTMENT (410-913-2640) PRIOR TO WORK ON EXISTING SEPTIC SYSTEM.
2. HOWARD COUNTY HEALTH WILL INSPECT THE EXISTING SEPTIC SYSTEM AND WILL RECOMMEND REPLACEMENT OF ITEMS AS NEEDED. INSPECTION MAY INVOLVE TESTING OF EXISTING SYSTEM AT A MINIMUM CONTRACTOR IS TO CONSTRUCT SEWER MAIN AS SHOWN WITH CLEANOUTS AND NEW SEPTIC TANKS.

AS-BUILT CERTIFICATE

STATE OF MARYLAND
CHRISTOPHER REID # 19949
DATE 10.10.01

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. ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Jacquelyn M. King 11.5.99
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.

W.L. Muegge 11.8.99
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.

Cheryl Simons/G.S. 11/20/99
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 A. Kelly 11/20/99
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David Bates 12/8/99
DIRECTOR DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 12/16/99
Cynthia Hammett 12/16/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

7.3.01 2 MODIFIED GRADING AT SWM OUTFALL
DATE NO. REVISION

OWNER/DEVELOPER
THE A.R.C. OF HOWARD COUNTY, INC.
4220 RUMSEY ROAD
SUITE 105
COLUMBIA, MARYLAND 21045

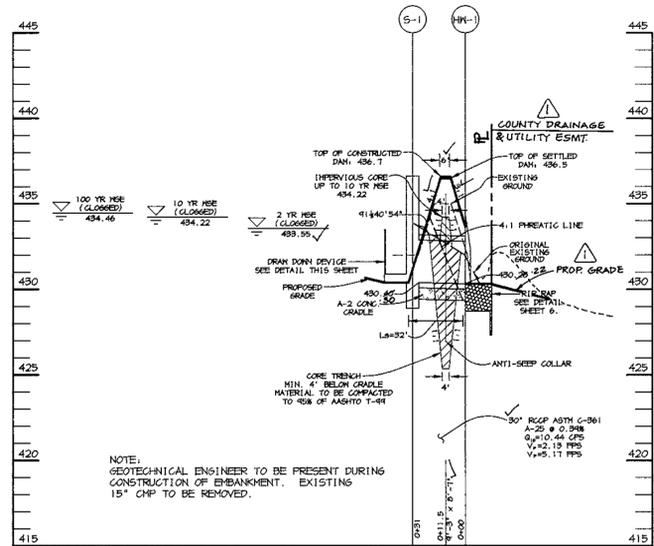
PROJECT THE A.R.C. OF HOWARD COUNTY
ADULT ACTIVITY CENTER
A BUILDING ADDITION

AREA TAX MAP NO. 29 ZONED RC-DEO PARCEL 321
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

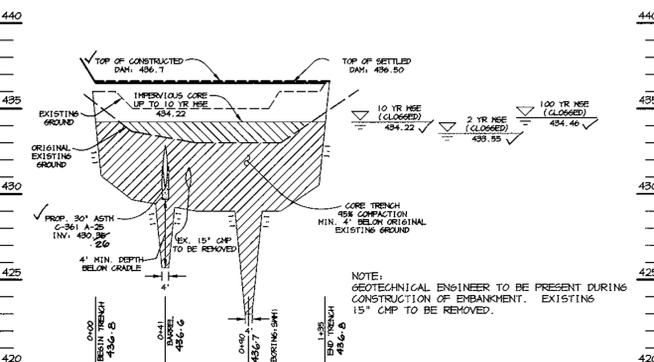
TITLE PROFILES, DETAIL SHEET
AND SEDIMENT CONTROL PLAN
PHASE 2

RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21045
tel 410.987.9900 fax 410.987.9282

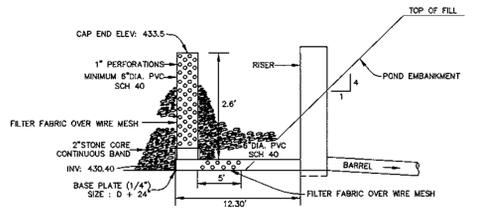
DESIGNED BY: C.J.R.
DRAWN BY: DAM
PROJECT NO: 96115
SDP4.DWG
DATE: NOVEMBER 22, 1999
SCALE: AS SHOWN
DRAWING NO. 4 OF 7



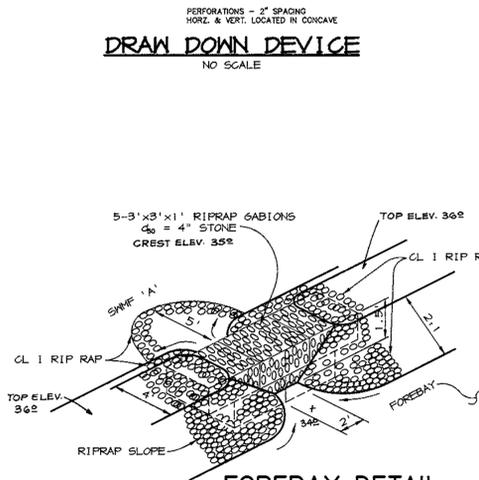
PRINCIPLE SPILLWAY PROFILE
SCALE: HOR. - 1"=50'
VERT. - 1"=5'



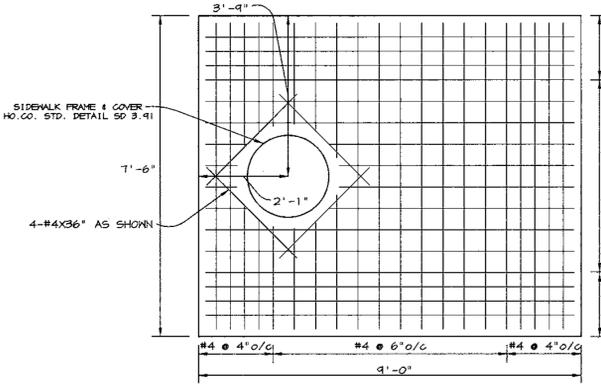
EMBANKMENT CENTERLINE PROFILE
SCALE: HOR. - 1"=50'
VERT. - 1"=5'



DRAW DOWN DEVICE
NO SCALE



FOREBAY DETAIL
NO SCALE



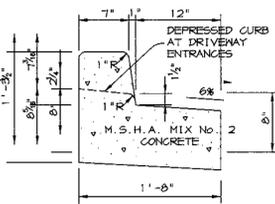
TOP SLAB - S-1
SCALE: 1"=2'

- NOTES:
1. SLAB REINFORCING 1" CLEAR FROM BOTTOM AND 2" CLEAR FROM SIDES.
2. MIX NO. 2 CONCRETE.

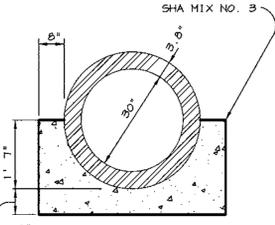
STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	HR	N 574,877.00 E 1,335,344.77	440.10	440.00	447.42	HOCO. STD. DETAIL SD 4.35
I-2	HR	N 574,790.00 E 1,335,332.52	-	440.95	445.48	HOCO. STD. DETAIL SD 4.35
I-3	A-5	N 574,828.30 E 1,335,042.24	445.70	445.45	444.58	HOCO. STD. DETAIL SD 4.01
I-4	ADS	N 574,904.47 E 1,335,124.83	446.60	444.80	-	18" DRAIN BASIN (2816 AG)
E-1	ADS	N 575,114.15 E 1,335,374.15	-	434.00	-	ADS END SECTION
E-2	ADS	N 574,832.77 E 1,335,034.34	-	444.00	-	ADS END SECTION
HN-1	TYPE 'A' HEADWALL	N 574,904.47 E 1,335,346.86	-	430.28	-	HOCO. STD. DETAIL SD-5.11
M-1	4" DIA. MANHOLE	N 575,118.58 E 1,335,358.63	434.20	434.10	434.00	HOCO. STD. DETAIL 6 5.12
M-2	4" DIA. MANHOLE	N 575,015.24 E 1,335,336.31	12" 435.50 15" 435.50	435.25	434.00	HOCO. STD. DETAIL 6 5.12
✓S-1	RISEY STRUCTURE	N 574,997.81 E 1,335,375.82	-	-	-	SEE DETAIL THIS SHEET

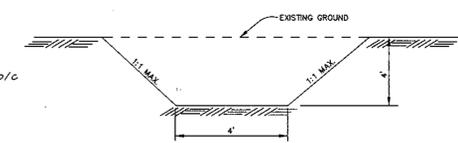
NOTES: LOCATION IS AT CENTER OF THROAT OPENING AT FACE OF CURB FOR CURB INLETS (CENTER OF GRATE FOR I-1-4). TOP ELEVATION IS TOP OF CURB/GRATE/RIM.



REVERSE 7" COMBINATION CURB AND GUTTER
NO SCALE

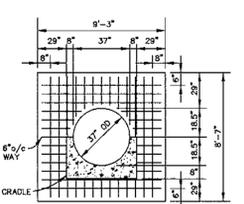


A-2 CONCRETE CRADLE
NO SCALE



CORE TRENCH DETAIL
NO SCALE

NOTE: CC, SC, CH, OR CL MATERIAL IS TO BE USED FOR CORE TRENCH. IF UNSUITABLE MATERIAL EXISTS ON SITE, ACCEPTABLE MATERIAL WILL NEED TO BE TRUCKED TO SITE.



MONOLITHIC CURB & SIDEWALK
NO SCALE

- NOTES:
1. LONGITUDINAL JOINT BETWEEN SIDEWALK AND CURB SHALL BE CONTINUOUS AND TO A DEPTH OF 1/4 THE SIDEWALK THICKNESS OR 1" MAX. LONGITUDINAL JOINTS SHALL RUN FROM BACK EDGE OF SIDEWALK CONTINUOUS TO THE BOTTOM FACE OF CURB TO A DEPTH OF 1/4" AND SPACED 5' APART.
2. PROVIDE 1/2" EXPANSION JOINTS AT 15' INTERVALS. IN LATTITUDINAL JOINTS TO FULL CROSS-SECTION.

BITUMINOUS CONCRETE SURFACE	1"
BITUMINOUS CONCRETE BASE	1"
6" CRUSHER RUN BASE COURSE OR 4" DENSE GRADED STABILIZED AGGREGATE BASE COURSE	6"

(ALTERNATE)

BITUMINOUS CONCRETE SURFACE	1"
BITUMINOUS CONCRETE BASE	1"
6" CRUSHER RUN BASE COURSE OR 4" DENSE GRADED STABILIZED AGGREGATE BASE COURSE	6"

(ALTERNATE)

P-1 PAVING
NO SCALE

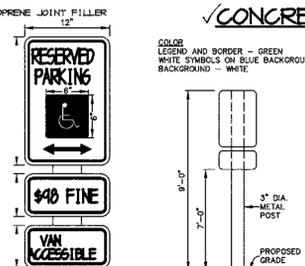
BITUMINOUS CONCRETE SURFACE	1 1/2"
BITUMINOUS CONCRETE BASE	2 1/2"
6" CRUSHER RUN BASE COURSE (2 COURSES) OR 6" DENSE GRADED STABILIZED AGGREGATE BASE COURSE	6"

(ALTERNATE)

BITUMINOUS CONCRETE SURFACE	1 1/2"
BITUMINOUS CONCRETE BASE	2 1/2"
6" CRUSHER RUN BASE COURSE (2 COURSES) OR 6" DENSE GRADED STABILIZED AGGREGATE BASE COURSE	6"

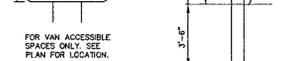
(ALTERNATE)

P-2 PAVING
NO SCALE

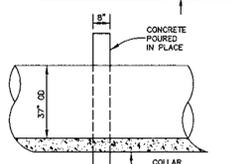


CONCRETE ANTI-SLEEP COLLAR
NO SCALE

- NOTES:
1. LOCATE COLLAR A MINIMUM OF TWO FEET FROM PIPE JOINT.
2. COLLAR/PIPE CONNECTION SHALL BE WATERTIGHT.

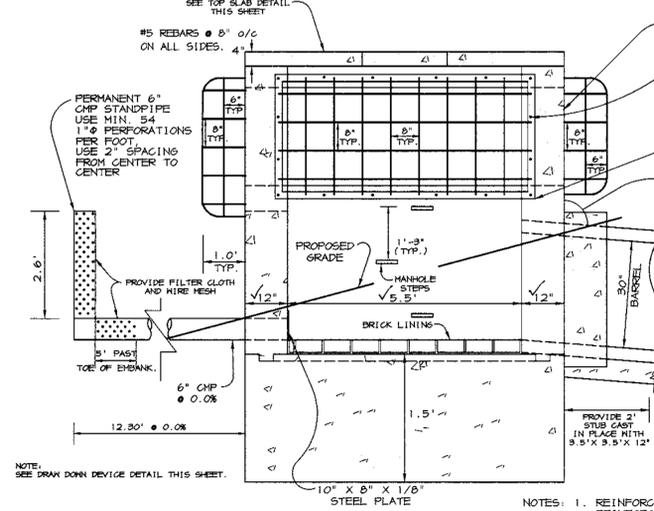


HANDICAP SIGN DETAIL
NO SCALE



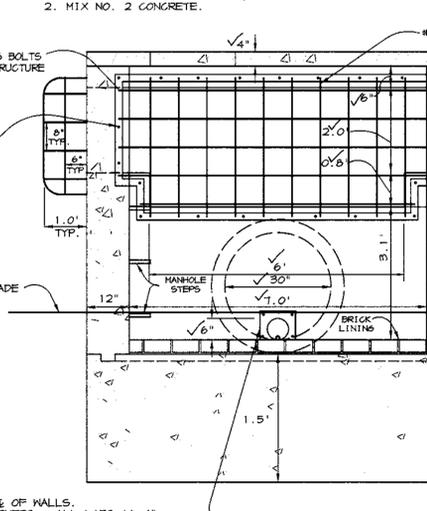
SIDEWALK DETAIL
NO SCALE

NOTE: PROVIDE LATTITUDINAL EXPANSION JOINTS AT 15' O.C. (MAX). PROVIDE CONTRACTION (DUMMY) JOINT AT 5' O.C. INTERVALS BETWEEN EXPANSION JOINTS. SIDEWALK TO BE SCRIBED IN 5" MAX. SQUARES.



SIDE VIEW

S-1 DETAIL
SCALE: 1"=2'



FRONT VIEW

- NOTES:
1. REINFORCING: #4 @ 10" O.C. E.M. IN & OF WALLS. REINFORCING TO BE CONTINUOUS AT CORNERS. ALL LAPS 1'-4".
2. SHOP DRAWINGS TO BE SUBMITTED TO THE ENGINEER PRIOR TO FABRICATION. IF PRECAST STRUCTURE IS USED.
3. GALVANIZE RACK AFTER FABRICATION AND PAINT BATTLESHIP GRAY.
4. LOCATION OF ANGLE IRON SHALL BE 3" LARGER IN ALL DIRECTIONS FROM OPENINGS OF STRUCTURE.
5. IF RISER IS CAST IN PLACE THEN PROVIDE 2" MIN. BARREL STUB. ALSO PROVIDE 3.5' X 3.5' X 12" POUR FOR WATER TIGHT SEAL.
6. SEE HO. CO. STD. DETAIL 6-5.21 FOR MANHOLE STEPS.

AS-BUILT CERTIFICATE

STATE OF MARYLAND
DEPARTMENT OF PLANNING AND ZONING
10-16-01
DATE

CHRISTOPHER M. REID #19949

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.

Jacquelyn M. Ring 11.5.99
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 11.8.99
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.

Cheryl Simms 11/28/99
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 11/28/99
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Paul W. Smith 12/8/99
DIRECTOR DATE

Cheryl Simms 11/28/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Hamilton 12/8/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

7.3.01 MODIFIED SWM OUTFALL GRADING
DATE NO. REVISION

OWNER/DEVELOPER
THE A.R.C. OF HOWARD COUNTY, INC.
9220 RUMSEY ROAD
SUITE 105
COLUMBIA, MARYLAND 21045

PROJECT THE A.R.C. OF HOWARD COUNTY
ADULT ACTIVITY CENTER
A BUILDING ADDITION

AREA
TAX MAP NO. 29 ZONED RC-DEO PARCEL 321
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
PROFILES AND DETAIL SHEET

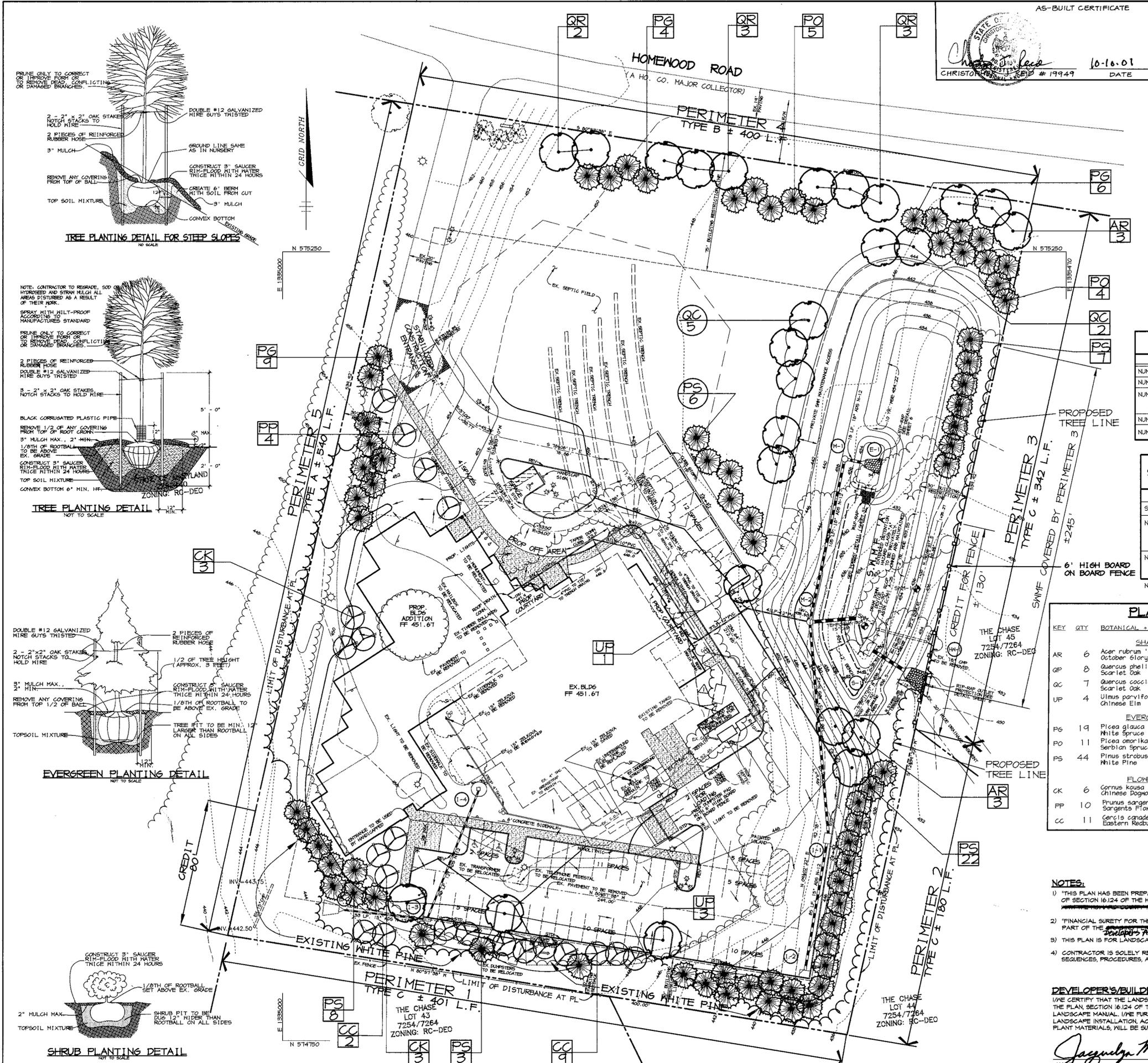
RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21046
tel 410.967.8900 fax 410.967.8282

DESIGNED BY: C.J.R.
DRAWN BY: DAM
PROJECT NO: 96115
SDPS.DWG
DATE: NOVEMBER 22, 1999
SCALE: AS SHOWN
DRAWING NO. 5 OF 7

ARTHUR E. MUEGGE #8707

AS-BUILT 10/10/01 SDP-98-130

F:\PROJECT\96115\96115.dwg F:\Nov 05 09:08:57 1999 RIEMER MUEGGE & ASSOCIATES



AS-BUILT CERTIFICATE
 STATE OF MARYLAND
 CHRISTOPHER J. LEWIS #19949
 10-16-01 DATE

SCHEDULE A PERIMETER LANDSCAPE EDGE

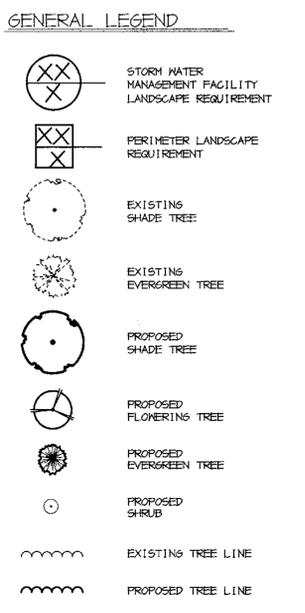
PERIMETER	ADJACENT TO PERIMETER PROPERTIES				ADJACENT TO ROADWAYS
	1	2	3	5	4
LANDSCAPE TYPE	C	C	C	A	B
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	± 401 LF	± 180 LF	± 342 LF	± 540 LF	± 400 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES EXISTING WHITE PINE	NO	NO	± 80 LF SEE NOTE BELOW	YES 3 EVERGRN. TREES
CREDIT FOR HALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	± 130'	NO	NO
NUMBER OF PLANTS REQUIRED	SHADE TREES 1/40' = 10 1/20' = 20	SHADE TREES 1/40' = 5 1/20' = 4	SHADE TREES 1/40' = 5 1/20' = 11	SHADE TREES 1/60' = 6 1/40' = 8	SHADE TREES 1/50' = 8 1/40' = 10
NUMBER OF PLANTS PROVIDED	SHADE TREES 20 14	SHADE TREES 3 13	SHADE TREES 5 17	SHADE TREES 6 7	SHADE TREES 8 10

PERIMETER LANDSCAPE EDGE - SUBSTITUTION NOTES - SCHEDULE A

PERIMETER 1:
14 FLOWERING TREES WERE SUBSTITUTED FOR 7 SHADE TREES (CREDIT TAKEN FOR EXISTING WHITE PINES (3 SHADE TREES)).

PERIMETER 2:
4 EVERGREEN TREES WERE SUBSTITUTED FOR 2 SHADE TREES

PERIMETER 5:
4 EVERGREEN + 7 FLOWERING TREES WERE SUBSTITUTED FOR 8 SHADE TREES



SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	67
NUMBER OF SHADE TREES REQUIRED @ 1 S.T./20 SPACES	3.3
NUMBER OF TREES PROVIDED	4
SHADE TREES	0
OTHER TREES (2:1 SUBSTITUTION)	4
NUMBER OF ISLANDS REQUIRED (1 ISLAND/ 20 SPACES)	3.3
NUMBER OF ISLANDS PROVIDED	4

SCHEDULE C STORM WATER MANAGEMENT FACILITY LANDSCAPE REQUIREMENTS

SWM BUFFER (LINEAR FEET)	± 245 L.F.
NUMBER S.T. REQUIRED (TYPE "B" BUFFER)	5
SHADE TREE (1/50 L.F.) AND 1 EVERGREEN TREE (1/40 L.F.)	6
NUMBER S.T. PROVIDED	5
SHADE TREES	5
EVERGREEN/OTHER TREES	6

NOTE: 225 FEET OF S.W.M. COVERED BY "PERIMETER 3" PLANTING

PLANT MATERIAL LIST

KEY	QTY	BOTANICAL - COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREES					
AR	6	Acer rubrum 'October glory'	2 1/2" - 3" Cal. B & B	B & B	Full Crown Central Leader
OP	8	Quercus phellos	2 1/2" - 3" Cal. B & B	B & B	Full Crown Central Leader
QC	7	Quercus coccinea	2 1/2" - 3" Cal. B & B	B & B	Full Crown Central Leader
UP	4	Ulmus parvifolia 'Allee'	2 1/2" - 3" Cal. B & B	B & B	Full Crown Central Leader
EVERGREEN TREES					
PG	19	Picea glauca	6' - 8' Ht. B & B	B & B	Full Form Central Leader
PO	11	Picea omorika	6' - 8' Ht. B & B	B & B	Full Form Central Leader
PS	44	Pinus strobus	6' - 8' Ht. B & B	B & B	Sheared Full Form
FLOWERING TREES					
CK	6	Cornus kousa	8' - 10' Ht. B & B	B & B	Specimen
FP	10	Prunus sargentii	1 1/2" - 2" Cal. B & B	B & B	Specimen
CC	11	Cercis canadensis	1 1/2" - 2" Cal. B & B	B & B	Specimen

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Christopher J. Lewis 12/9/99 DATE
 DIRECTOR

David Dows 12/9/99 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Cindy Hamilton 12/2/99 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

OWNER/DEVELOPER

THE A.R.C. OF HOWARD COUNTY, INC.
 9220 RUMSEY ROAD
 SUITE 105
 COLUMBIA, MARYLAND 21045

PROJECT THE A.R.C. OF HOWARD COUNTY ADULT ACTIVITY CENTER A BUILDING ADDITION

AREA TAX MAP NO. 29 ZONED RC-DEO PARCEL 321 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE LANDSCAPE PLAN

RIEMER MUEGGE & ASSOCIATES INC.
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
 8818 Centre Park Drive, Columbia, MD 21045
 tel 410.997.8900 fax 410.997.9282

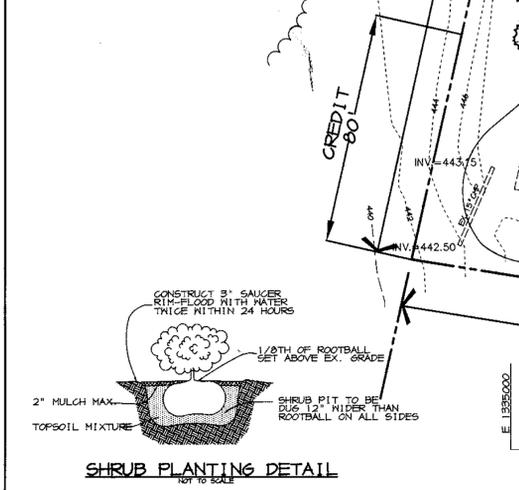
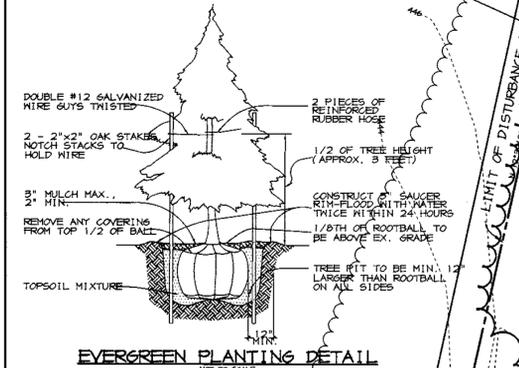
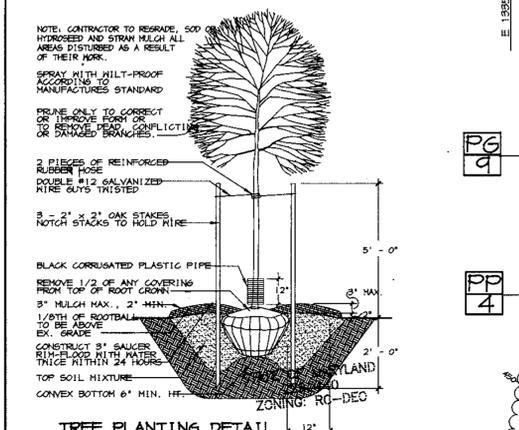
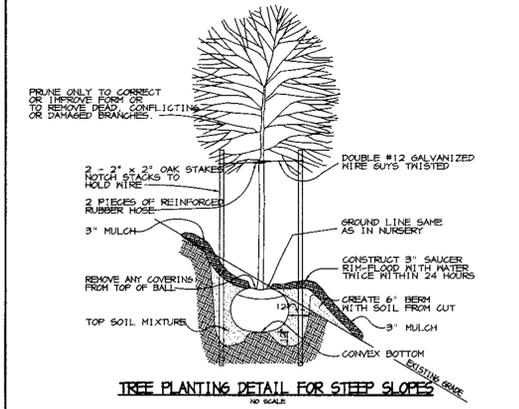
DESIGNED BY: D.T.D.
 DRAWN BY: A.J.L.
 PROJECT NO: 96115 LSCP
 DATE: NOVEMBER 22, 1999
 SCALE: 1" = 30'
 DRAWING NO. 7 OF 7

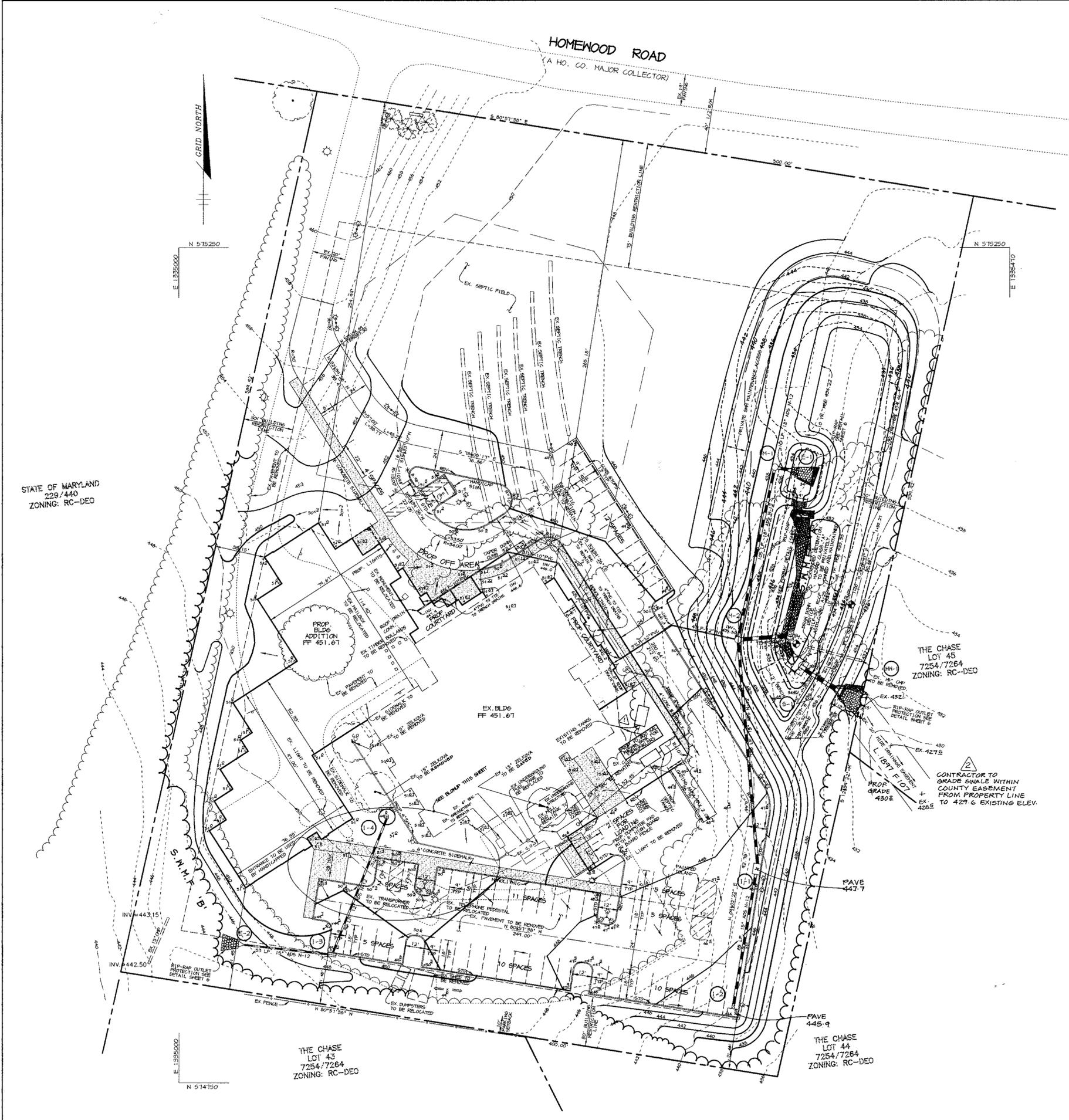
NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$23,200.
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.

DEVELOPER'S/BUILDER'S CERTIFICATE:
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

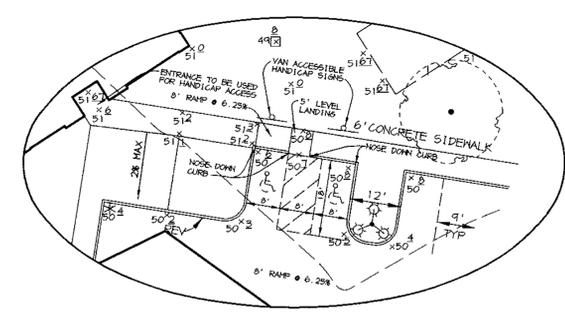
Jacquelyn M. King 11-5-99 DATE





- NOTES:**
1. ALL EXTERIOR LIGHTING WILL COMPLY WITH SECTION 134, ZONING REGULATIONS.
 2. ALL CURB RADII ARE 5' UNLESS OTHERWISE LABELED.
 3. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE SHOWN.
 4. ALL ON-SITE ROADS ARE PRIVATE.
 5. ALL ROOF DRAINAGE MUST BE DIRECTED TOWARD SHMF 'A'.

- LEGEND**
- PROPOSED LIMIT OF CLEARING
 - P-2 PAVING
 - P-1 PAVING (PARKING BAYS)
 - CONCRETE SIDEWALK OR PAD
 - EXISTING FOREST
 - STD * REV DENOTES TRANSITION FROM STANDARD TO REVERSE CURB AND GUTTER
 - 175 WATT ED-17 MH LAMP MOUNTED ON A 15'-0" HIGH TAPERED ALUMINUM ROUND HINGED BASE POLE PAINTED MOSS GREEN
 - EXISTING LIGHT POLE TO BE REMOVED
 - SOIL BORING



HANDICAPPED ENTRANCE DETAIL
SCALE: 1" = 20'

STORMWATER MANAGEMENT DESIGN SUMMARY FACILITY A
DRAINAGE AREA: 3.97 ac

DESIGN STORM (YR.)	ALLOWABLE RELEASE (C.F.S.)	FACILITY INFLOW (C.F.S.)	FACILITY DISCHARGE (C.F.S.)	WATER SURFACE ELEVATION (FT.)	STORAGE VOLUME (AC. FT.)
2	4.54	6.40	0.75	433.55	0.154
10	11.77	15.10	10.44	434.17	0.254
100*	-	24.71	21.82	434.46	0.363

* CLOGGED CONDITIONS

OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY EXTENDED DETENTION POND

- ROUTINE MAINTENANCE**
1. Facility shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the pond is functioning properly.
 2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be mowed as needed.
 3. Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
 4. Visible signs of erosion in the pond as well as riprap outlet area shall be repaired as soon as it is noticed.
- NON-ROUTINE MAINTENANCE**
1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.
 2. Sediment should be removed when its accumulation significantly reduces the design storage, interfere with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public Works.

AS-BUILT CERTIFICATE

STATE OF MARYLAND
DEPARTMENT OF PLANNING AND ZONING

CHRISTOPHER J. REID #19949 DATE 10.16.01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Amelia S. Butler 12/6/95 DIRECTOR DATE

Chief, Development Engineering Division 12/1/95 DATE

Chief, Division of Land Development 12/6/99 DATE

7-3-01 MODIFIED GRADINGS AT SWM OUTFALL

6-8-00 REINFORCED MECHANICAL ROOM ADDITION

DATE NO. REVISION

OWNER/DEVELOPER
THE A.R.C. OF HOWARD COUNTY, INC.
9220 RUMSEY ROAD
SUITE 105
COLUMBIA, MARYLAND 21045

PROJECT THE A.R.C. OF HOWARD COUNTY
ADULT ACTIVITY CENTER
A BUILDING ADDITION

AREA TAX MAP NO. 29 ZONED RC-DEO PARCEL 321
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **SITE DEVELOPMENT PLAN**

RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centro Park Drive, Columbia, MD 21045
Tel 410.997.9800 Fax 410.997.9282

DATE DESIGNED BY: C.J.R.
DRAWN BY: DAM
PROJECT NO: 96115 SDP2.DWG
DATE: NOVEMBER 22, 1999
SCALE: 1" = 30'
DRAWING NO. 2 OF 7

ARTHUR E. MUEGGE #8707

AS-BUILT 10/16/01 SDP-98-130

F:\PROJECT\96115\SDP2.dwg Fr1 Nov 05 08:43:25 1999 RIEMER MUEGGE & ASSOCIATES, INC.