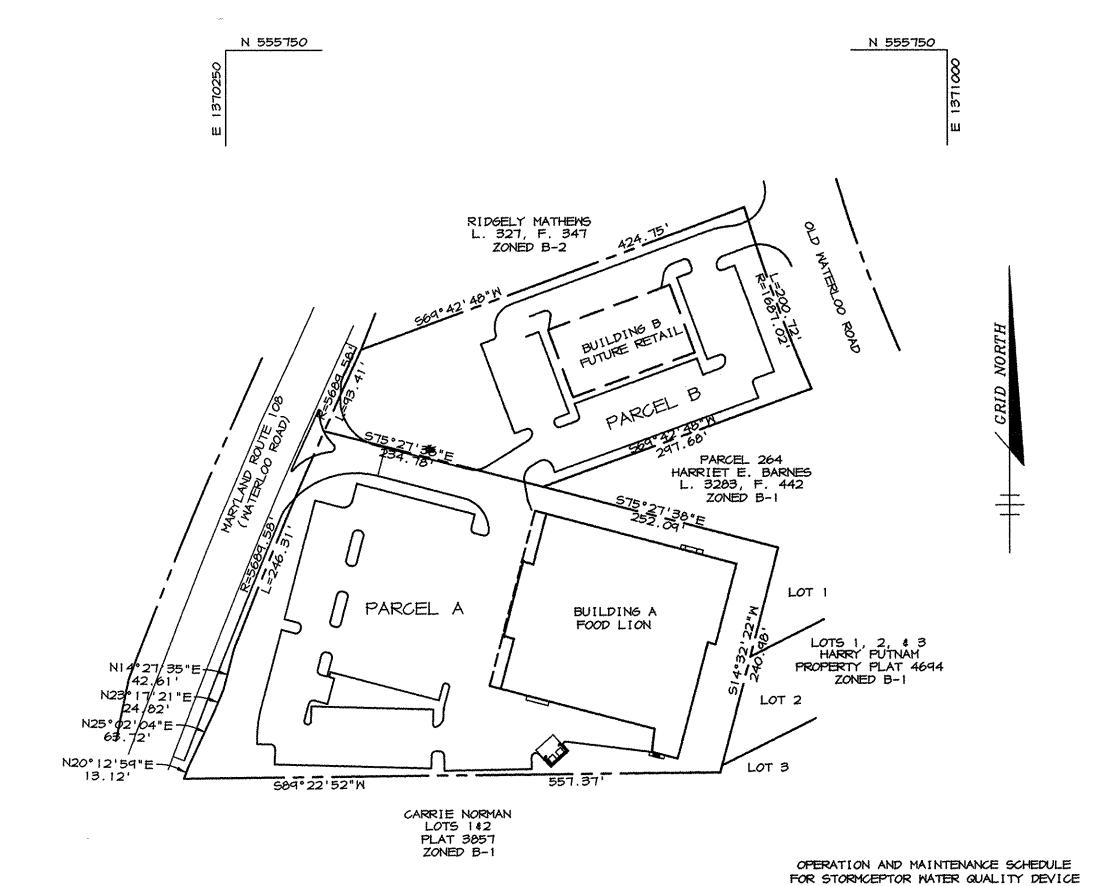
SHEET INDEX DESCRIPTION 1 TITLE SHEET 2 DEMOLITION PLAN AND EXISTING CONDITIONS 3 | SITE DEVELOPMENT PLAN 4 | SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP 5 NOTES AND DETAILS 6 NOTES AND DETAILS 7 PROFILES, NOTES, AND DETAILS 8 STORM DRAIN PROFILES 9 ROUTE 108 IMPROVEMENT PLAN 10 LANDSCAPING PLAN 11 LANDSCAPING DETAILS 12 | PROFILES, NOTES AND DETAILS

FOOD LION GROCERY STORE/FUTURE RETAIL STORE 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SITE DEVELOPMENT PLAN

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
- 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 IS TAKEN FROM FIELD SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE & ASSOC. DATED JANUARY, 1997.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. STATION NUMBERS 37GC AND 37HC WERE USED.
- WATER IS PUBLIC, CONTRACT NO. 24-3629-D.
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: DORSEY TREATMENT PLANT: DORSEY RUN PUMPING STATION CONTRACT NO. 24-3629-D.
- STORMWATER MANAGEMENT IS PROVIDED VIA THREE STORMCEPTOR UNITS AND AN ON-SITE RETENTION POND.
- 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.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PERFORMED BY STREET TRAFFIC STUDIES, LTD. AND IS DATED NOVEMBER 27, 1996.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE GEOTECHNICAL STUDY FOR THIS PROJECT WAS PERFORMED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC. AND IS DATED JUNE 18, 1996. A SUPPLEMENTAL STORMWATER MANAGEMENT GEOTECHNICAL REPORT WAS PERFORMED BY ENGINEERING CONSULTING SERVICES DATED APRIL, 1997.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PERFORMED BY RIEMER MUEGOE ASSOCIATES, INC. DATED MAY, 1997.
- 17. SUBJECT PROPERTY ZONED B-2 PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S WP-97-90, F-95-128, F-98-56, SOP-92-46
- 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 OF ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO TI80.
- A WAIVER HAS BEEN APPROVED ALLOWING STORM DRAIN PIPE MATERIAL TO BE EITHER ADS N-12 PIPE OR REINFORCED CONCRETE. SECTION 908 OF THE HOWARD COUNTY DESIGN MANUAL VOL. IV SHALL BE HELD FOR PIPE CONSTRUCTION. SEE SHEET 5 FOR ADS N-12 PIPE SPECIFICATIONS.
- WP-97-90 IS A WAIVER PETITION FOR SECTIONS 16.119(f)(1) AND (2) AND 16.120(α)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS THAT WAS GRANTED ON MARCH 27, 1997. THE WAIVER ALLOWS DIRECT ACCESS FROM THE SITE TO AN ARTERIAL HIGHWAY AND IS SUBJECT TO THE FOLLOWING:
- 1. AN ACCESS PERMIT IS OBTAINED FROM THE MARYLAND STATE HIGHWAY ADMINISTRATION AND ALL MSHA REQUIREMENTS ARE COMPLIED WITH,
- 2. A USE-IN-COMMON ACCESS AND MAINTENANCE AGREEMENT FOR THE JOINT ENTRANCE ONTO MD ROUTE 108 IS RECORDED, AND
- 3. A CORRECTION PLAT FOR F-95-128, PLAT #11692 TO SHOW A BREAK IN THE RESTRICTED AREA FOR THE ACCESS POINT IS RECORDED.
- ALL FOREST CONSERVATION REQUIREMENTS ARE BEING MET THROUGH THE PAYMENT OF A FEE-IN-LIEU. THIS SITE CARRIES NO ADDITIONAL RESTRICTIONS IN REGARDS TO FOREST CONSERVATION REQUIREMENTS. FEE-IN-LIEU \$13,068.00 PAID 1/12/98.
- 33. THERE ARE NO WETLANDS ON-SITE FOR THIS PROJECT BASED ON A FIELD INSPECTION.
- 34. SEE TAX MAP 37, BLOCK 20 FOR ADJOINING PROPERTIES.





N 554750

F.F. ELEV. 325.15

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

WEST ELEVATION - BUILDING A NO SCALE

2. Stormceptor water quality structures must be checked and cleaned immediately after petroleum spills. Contact appropriate requiatory agencies. 3. Maintenance of Stormceptor units should be done by a vacuum truck which will remove the water, sediment, debris, floating

Technical Manual) then cleaning of the unit is required.

1. Stormceptor water quality structures will require periodic

inspection and cleaning to maintain operation and function. Owners will have the Stormceptor unit inspected yearly or as

Monitoring Form. Inspections can be done by using a clear

When sediment depths exceed the specified level (Table 6 of

required by Howard County, utilizing the Stormceptor Inspection/

Plexiglas tube ("sludge judge") to extract a water column sample.

- hydrocarbons, and other materials in the unit. The proper cleaning and disposal of the removed materials and liquid must be followed. 4. Inlet and outlet pipes must be checked for any obstructions and If any obstructions are found they must be removed. Structural
- 5. Owner shall retain and make Stormceptor Inspection/Monitoring Forms available to Howard County officials upon their request.

parts of the Stormceptor will be repaired as needed.

SITE ANALYSIS

AREA OF PARCEL A 3.66 ACRES (159,275 SF) 1.90 ACRES (82,878 SF) AREA OF PARCEL B 5.56 ACRES (242,153 SF) TOTAL AREA DISTURBED AREA 6.05 ACRES (263,707 SF) PRESENT ZONING PROPOSED USE GROCERY/RETAIL **BUILDING COVERAGE** GROCERY STORE-BUILDING A 38.915 SF 10,125 SF RETAIL STORE-BUILDING B 49,040 SF (20.2% OF SITE)

OF PARKING SPACES REQUIRED @ 5.0 SP/1000 SF BUILDING A

195 SPACES 51 SPACES BUILDING B 246 SPACES

OF PARKING SPACES PROVIDED BUILDING A BUILDING B

PAVED AREA

TOTAL

TOTAL

110,081 SF (45.5% OF SITE)

151 SPACES (6 HC)

95 SPACES (4 HC)

246 SPACES

NOTE: AGREEMENT BETWEEN THE TWO PARCELS FOR A CROSS-EASEMENT TO SHARE PARKING AND ACCESS - RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, 1/26/98.

> OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY RETENTION POND

ROUTINE MAINTENANCE

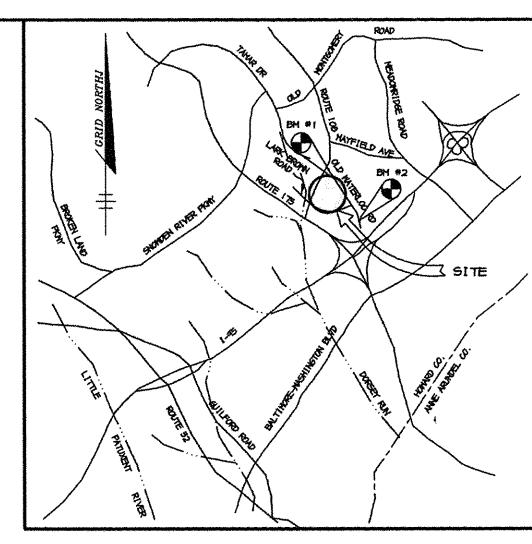
- 1. Facility shall be inspected anually and after major storms. inspections should be performed during wet weather to determine if the pond is functioning properly.
- 2. Top and side slopes of the embankment shall be moved a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be moved as
- 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 mell 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 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, interferes with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public

		ADDRESS CH	IART	
	BUILDING	STREET A		
	A	6551 WATER		
	В	6501 WATER	LOO ROAD	
SON HAME - COD LION	P-1804 SUBDIVI	SION SECT./AREA -	PARCEL - A 4	В

6067.03 20 B-2 6th 13014 3460000



BENCHMARKS

HOCO MONUMENT 37GC ELEV. 331.93 N 555,250.79 E 1,370,946.36

HOCO MONUMENT 37HC ELEV. 291.79 N 552,854.21 E 1.372.639.50

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT. 1-7-98 COUNTY HEALTH OFFICER MA DATE ZONING. 6/98 Ma Lummer CHIEF. DEVELOPMENT ENGINEERING DIVISION CHIEF. DIVISION OF LAND DEVELOPMENT TE DATE DATE NO. REVISION SPARROW II JOINT VENTURE **OWNER** c/o RICHARD B. TALKIN 9175 GUILFORD ROAD COLUMBIA, MARYLAND 21046 (410)730-7733 MARGARET ROBINSON c/o ROBERT LIDSTON 1334 SULPHUR SPRING ROAD BALTIMORE, MARYLAND 21227 (410) 242-6600 DEVELOPER ASTON PROPERTIES 6525 MORRISON BLVD., SUITE 300 CHARLOTTE, NC 28211 (704)366-7337 FOOD LION GROCERY STORE / FUTURE RETAIL STORE AREA FOOD LION P-1804, PARCELS A & B TAX MAP 37, BLOCK 20 6th ELECTION DISTRICT

ZONED B-2

TITLE SHEET

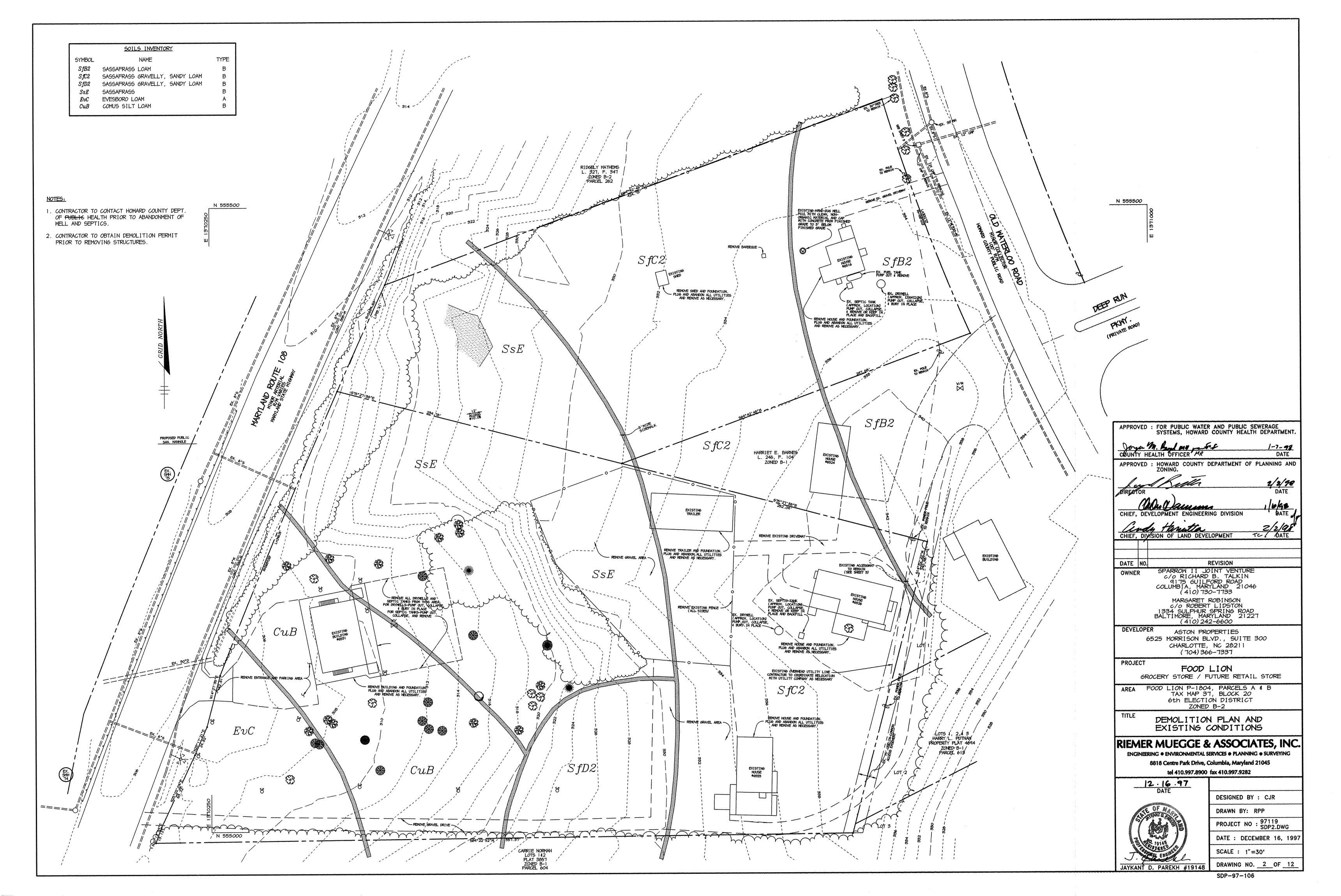
RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997.8900 fax 410.997.9282

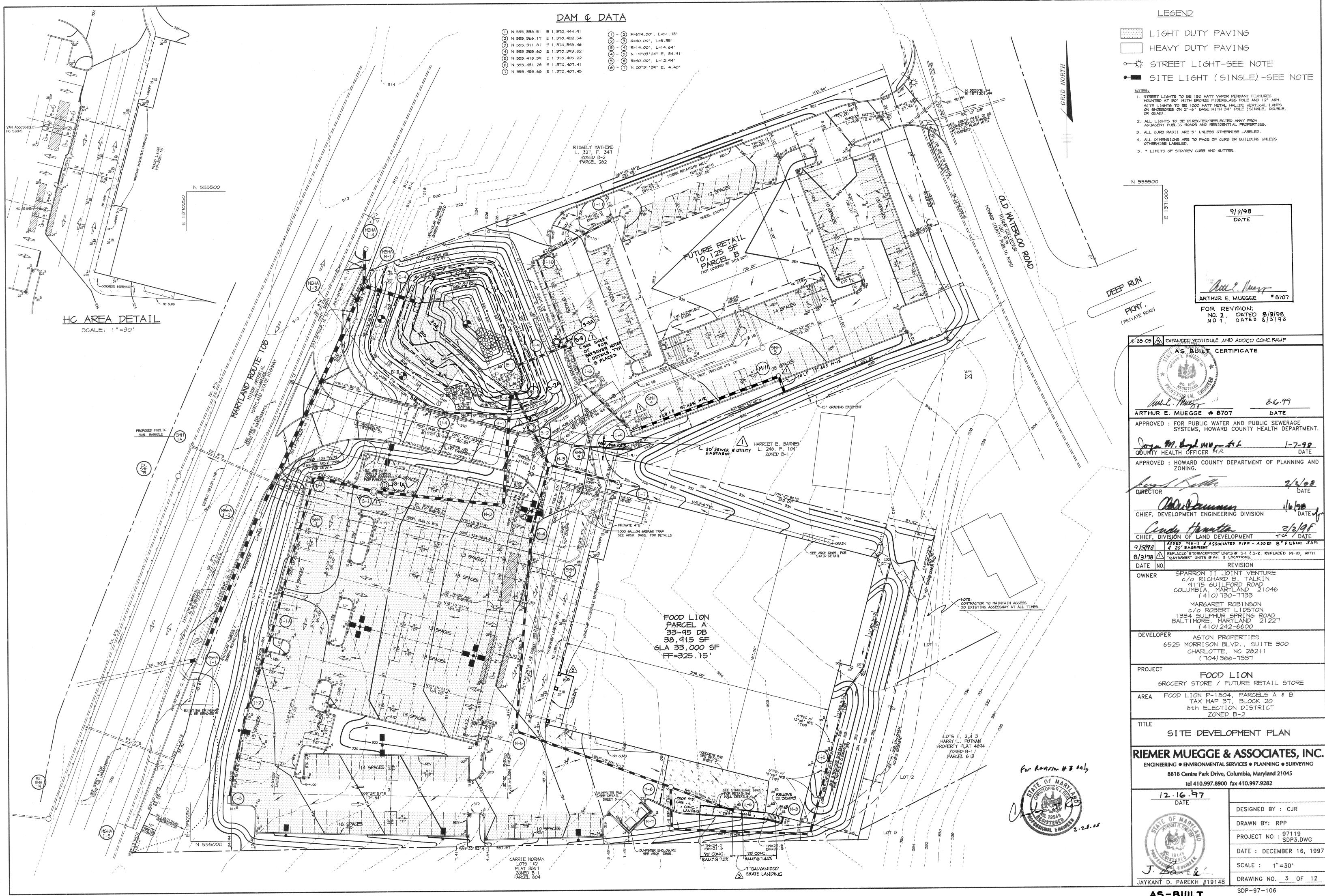
JAYKANT D. PAREKH #19148

TITLE

DESIGNED BY : CJR DRAWN BY: RPP PROJECT NO : 97119 SDP1.DWG DATE: DECEMBER 16, 1997 SCALE : AS SHOWN

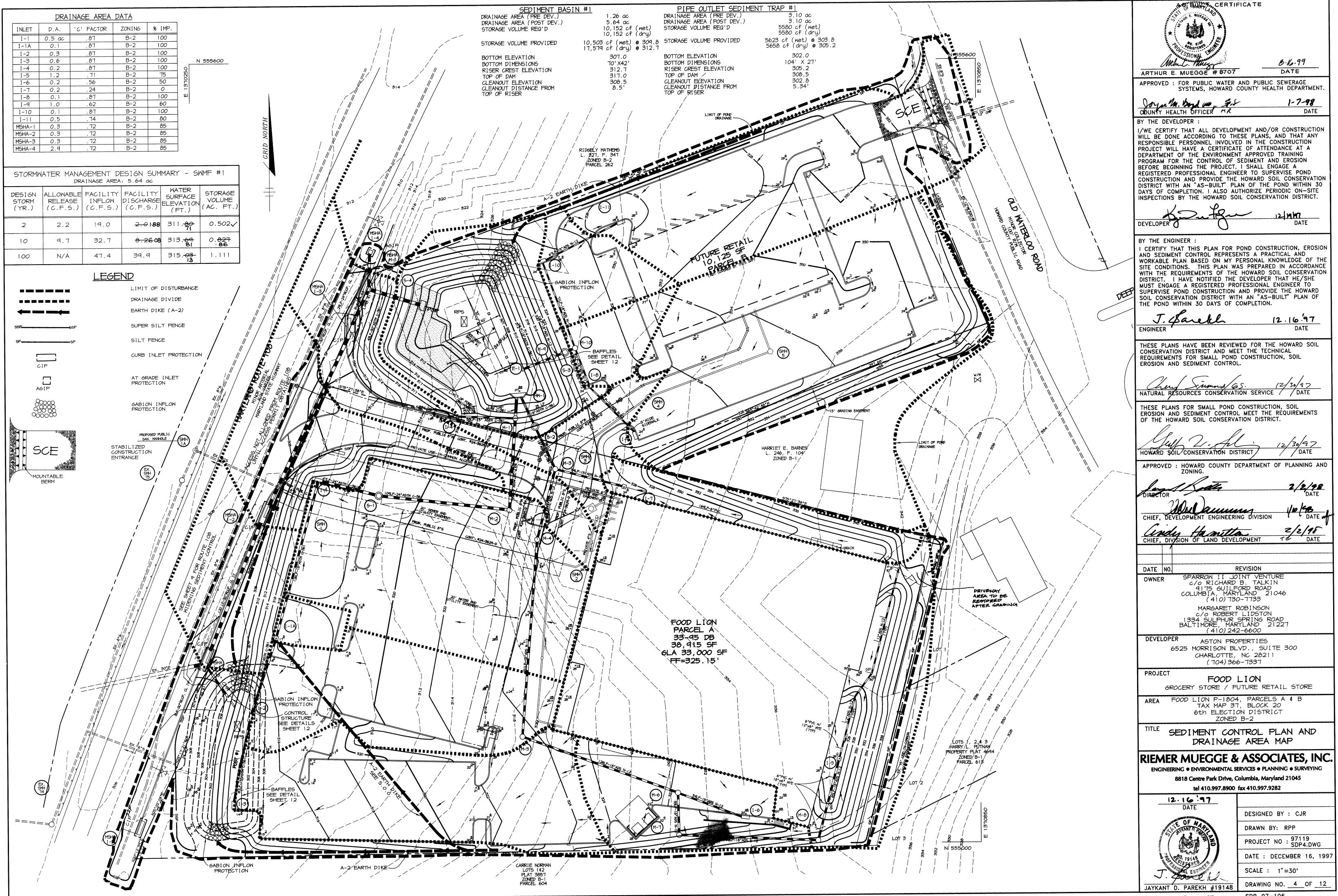
DRAWING NO. __1__OF__12_





AS-BUILT

8.16.99



AS-BUILT

8 · 16 · 99

TEMPORARY SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously

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

Seeding: For periods March | thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs per 1000 sq.ft.). For the period May I thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru Fébruary 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 218 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 anchorina.

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.

Seedbed Preparation: Loosen upper three inches of soil by raking discing or other acceptable means before seeding, if not previously

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

- 1) Preferred Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 ibs. 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 (9 lbs. per 1000 sq.ft.).
- 2) Acceptable Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 ibs. 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 1 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 weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following

- 1) 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.
- 3) 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 218 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.

SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855)
- 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) T CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE
- 5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G.) TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 7. SITE ANALYSIS:

TOTAL AREA OF SITE AREA DISTURBED AREA TO BE ROOFED OR PAVED AREA TO BE VEGETATIVELY STABILIZED

5.56 ACRES 6.05 ACRES 3.65 ACRES 2.40 ACRES 43,029 CU. YARDS TOTAL OUT 17,486 CU. YARDS TOTAL FILL OFFSITE WASTE/BORROW AREA LOCATION: TO HAVE AN ACTIVE 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.
- 9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 10. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
- 11. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT
- ELEVATION SHOWN ON THE PLANS. 12. 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 13. 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.

11.0 STANDARD AND SPECIFICATION

TOPSOIL

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

- To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, ion nutrient levels, ion pH, materials toxic to plants, and/or unacceptable soil gradation.
 - Conditions Where Practice Applies
- I. This practice is limited to areas having 2:1 or flatter slopes where:
- b. The soil material is so shallow that the rooting zone is not deep enough to support plants or urnish continuing supplies of moisture and plant nutrients.

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with ilmestone is not feasible.

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

Construction and Material Specifications

- I. Topsoil ealvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimentation Station.
- 11. Topsoil Specifications Soil to be used as topsoil must meet the following:
- soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, sing, coarse ragmente, gravel, eticke, roote, trash, or other materials larger than 14° in diameter
- 11. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, polson ivy, thistle, or others as specified.
- III. 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 eites having disturbed areas under 5 acres
- 1. Place topsoil (if required) and apply soil amendments as specified in 20.0 Yesetative Stabilization - Section I - Vegetative Stabilization Methods and Materials

III. For sites having disturbed areas over 5 acres:

- i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compilance with the following:
- a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
- b. Organic content of topsoil shall be not less than 1.5 percent by weight.
- c. Topsoil having soluble sait content greater than 500 parts per million shall not be used.
- d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for meed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

Note: Topsoil substitutes to amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority may be used in lieu of natural topsoil

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

- When topsciling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins
- ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 6" higher in elevation.
- thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tiliage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the

111. Tappoll shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum

- the subsoil is excessively met or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.
- VI. Alternative for Permanent Seeding instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
- . Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements
- a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
- . Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
- Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
- . Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 equare feet, and 1/8 the normal lime application rate.

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

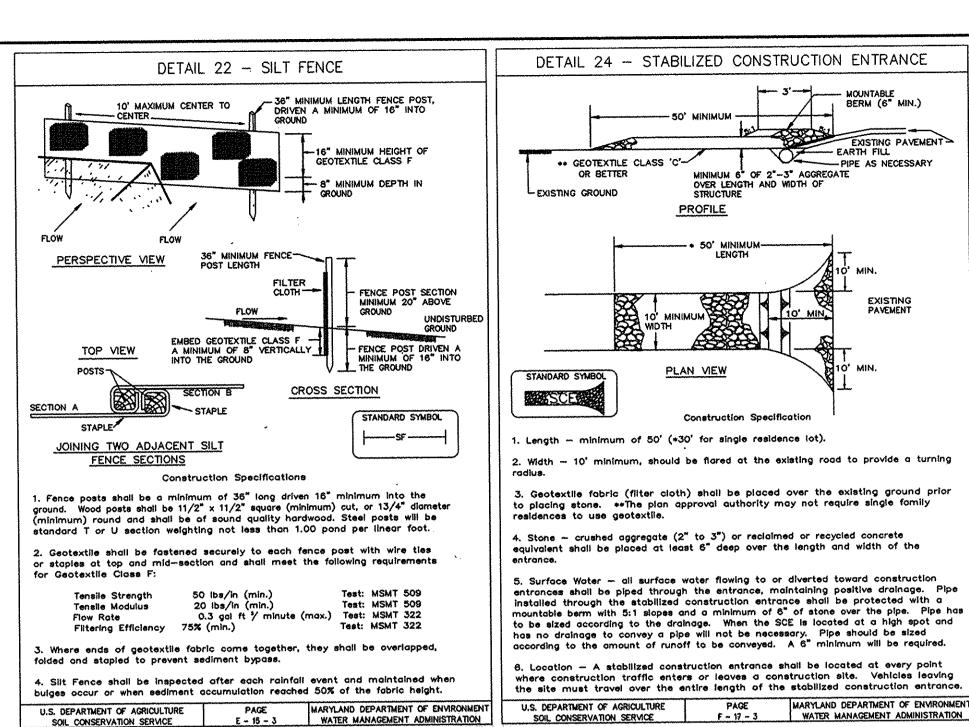
SEQUENCE OF CONSTRUCTION

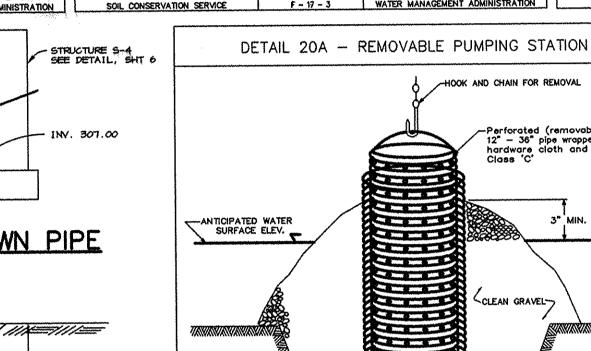
1. OBTAIN GRADING PERMIT.

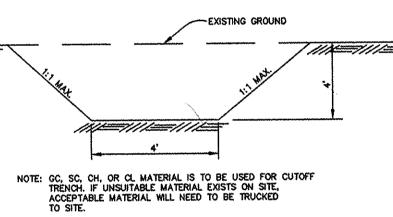
- INSTALL STABILIZED CONSTRUCTION ENTRANCE AND INSTALL STORM DRAIN SYSTEM FROM MSHA INLET I TO 4 AND ASSOCIATED SEDIMENT CONTROL DEVICES. (I WEEK)
- UPON COMPLETION OF STEP 2 INSTALL SEDIMENT BASIN PER SHEET 4, PIPE OUTLET SEDIMENT TRAP #1, EARTH DIKES, AND SILT FENCE. (2 WEEKS)
- WITH PERMISSION OF HOWARD COUNTY DILP SEDIMENT CONTROL INSPECTOR, PERFORM ROUGH GRADING. OBTAIN BUILDING PERMIT AND BEGIN BUILDING
- AND WALL CONSTRUCTION. (3 WEEKS) AS SUBGRADE ELEVATIONS ARE ESTABLISHED, INSTALL UTILITIES INCLUDING STORM DRAINS, WATER, AND SENER. AS SOON AS STORM DRAIN RUN FROM POND O INLET I-IA IS IN PLACE, DIVERT DRAINAGE VIA EARTH DIKE TO INLET.
- WITH PERMISSION OF HOWARD COUNTY DILP INSPECTOR, FILL IN TRAP #1.
- (1 DAY) 7. INSTALL CURB AND GUTTER, THEN PAVE. UPON OBTAINING THE ACCESS PERMIT,
- WIDENING OF ROUTE 108 CAN BE CONSTRUCTED. (3 WEEKS) APPLY TOPSOIL AND STABILIZE DISTURBED AREAS AS NECESSARY IN
- ACCORDANCE WITH PERMANENT SEEDING NOTES. (3 DAYS) 9. INSTALL LIGHTS, LANDSCAPING, SIGNS, AND STRIPING, AND COMPLETE
- REMAINING BUILDING CONSTRUCTION. (4 MONTHS) UPON APPROVAL OF HOWARD COUNTY DILP SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND CONVERT SEDIMENT
- BASIN TO PERMANENT SWMF IN THE FOLLOWING STEPS: CLEAN STORM DRAIN INLETS AND FLUSH OUT PIPES, (1 DAY)
- PUMP OUT STANDING WATER IN BASIN USING PUMPING STATION, (1 DAY) REMOVE ACCUMULATED SEDIMENT, (2 DAYS)

COMPLETE/REPAIR GRADING PER SHEET 3, REMOVE DEWATERING

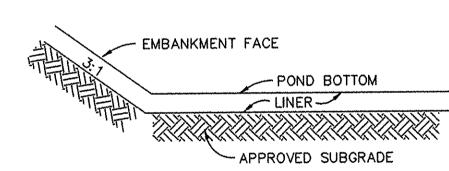
- DEVICE, ORIFICE PLATE, AND PLYWOOD FROM SEDIMENT BASIN #1 (2 DAYS) e. INSTALL PERMANENT LOW FLOW PIPE, (1 DAY)
- f. INSTALL RIP-RAP, (I DAY) STABILIZE REMAINING DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 DAYS)







CUTOFF TRENCH DETAIL



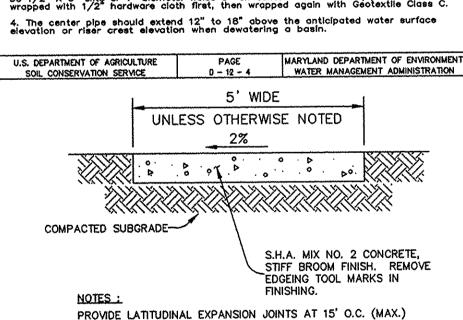
LINER NOTES :

LEVEL OF TREE LIMBS, OVERHEAD WIRES, ETC.

SOIL CONSERVATION SERVICE

- 1. THE LINER SHALL BE AT LEAST 18" THICK PLACED AS COMPACTED FILL IN LOOSE LIFTS OF 8", COMPACTED TO 95% OF THE MAXIMIUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD (ASTM D-698).
- 2. FILL MATERIAL FOR THE LINER SHALL CONSIST OF SILTY OR SANDY CLAY (CL), OR CLAYEY SAND (SC). CLAYEY SAND MATERIALS SHALL HAVE NO LESS THAN 30% PASSING THE No. 200 SIEVE. OTHER BACKFILL MATERIALS MAY BE CONSIDERED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
- 3. THE LINER SUBGRADE SHALL BE OBSERVED BY THE GEOTECHNICAL ENGINEER TO BE STABLE PRIOR TO BACKFILLING THE LINER.
- 4. THE LINER SHALL EXTEND VERTICALLY AT LEAST TO THE 10-YEAR WATER SURFACE ELEVATION.

PROVIDE CONTRACTION (DUMMY) JOINT AT 5' O.C. INTERVALS POND LINER DETAIL BETWEEN EXPANSION JOINTS. SIDEWALK TO BE SCRIBED IN



C 1-1-3

CELLE

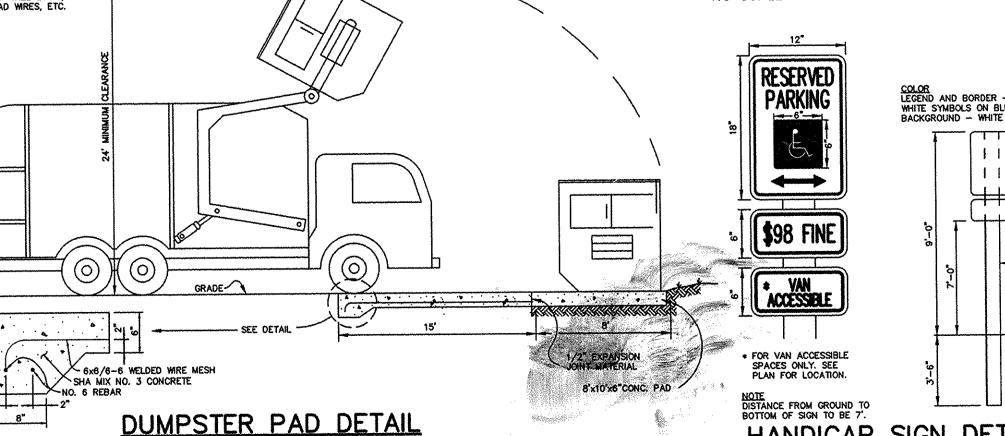
ELEVATION

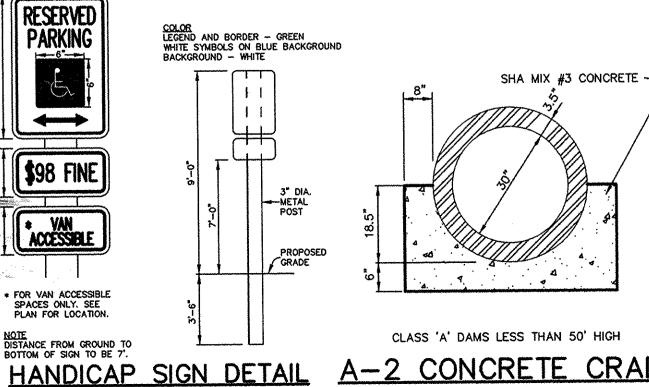
Construction Specifications

1. The outer pipe should be 48'' dia. or shall, in any case, be at least 4''' greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2'' hardwar cloth to prevent backfill material from entering the perforations.

2. After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.

SIDEWALK DETAIL





DETAIL 1 - EARTH DIKE

PLAN VIEW

Seed and cover with Erosion Control Matting or line with sod.
 4" — 7" stone or recycled concrete equivalent pressed into

1. All temporary earth dikes shall have uninterrupted positive

undisturbed, stabilized area at a non-erosive velocity

or other irregularities which will impede normal flow.

8. Fill shall be compacted by earth moving equipment

it will not interfere with the functioning of the dike.

SOIL CONSERVATION SERVICE

each rain event.

erforated (removable) 2" — 36" pipe wrapped w/ 1/2"

WRAPPED WITH 1/2" HARDWARE CLOTH

hardware cloth and Geotext

LEAN GRAVEL-

Construction Specifications

2. Runoff diverted from a disturbed area shall be conveyed to a sediment

3. Runoff diverted from an undisturbed area shall outlet directly into an

4. All trees, brush, stumps, obstructions, and other objectional material

shall be removed and disposed of so as not to interfere with the prope

5. The dike shall be excavated or shaped to line, grade and cross section as

required to meet the criteria specified herein and be free of bank projections

7 All earth removed and not needed for construction shall be pigged so that

PERSPECTIVE VIEW

on slopes steeper than 4:1.

SOIL CONSERVATION SERVICE

8. Inspection and maintenance must be provided periodically and after

grade to an outlet. Spot elevations may be necessary for grades less than 1%.

1. Seed and cover with straw mulch.

18"

12

MARYLAND DEPARTMENT OF ENVIRONMEN

PROFILE ALONG CENTERLINE

Construction Specifications

Geotextile Class C shall be installed under all gabion baskets.

3. The stone used to fill the gobion baskets shall be 4"-7".

Gabion inflow protection shall be constructed of $9' \times 3' \times 9''$ gabion

baskets forming a trapezoidal cross section 1' deep, with 2:1 side slopes,

. Gabions shall be installed in accordance with manufacturers recommendations.

Gabion inflow Protection shall be used where concentrated flow is present

STANDARD SYMBOL

GM

A -- 1 - 6 VATER MANAGEMENT ADMINISTRATION

DETAIL 6 - GABION INFLOW PROTECTION

STANDARD SYMBOL

A-2 B-3

6-DIKE WIDTH

c-FLOW WIDTH

d-FLOW DEPTH

30

A-2 CONCRETE CRADLE

DRAWN BY: RPP

APPROVED : FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT 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. BY THE ENGINEER 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. 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. THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL HOWARD SOIL CONSERVATION DISTRICT ZONING.

1-7-98

DATE

12.16.97

DATE

TE DATE

DATE

EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND

16/98 DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT WATER MANAGEMENT ADMINISTRATION

> REVISION DATE NO. PARROW II JOINT VENTURE OWNER c/o RICHARD B. TALKIN 9175 GUILFORD ROAD COLUMBIA, MARYLAND 21046

(410)730-7733 MARGARET ROBINSON c/o ROBERT LIDSTON 1334 SULPHUR SPRING ROAD BALTIMORE, MARYLAND 21227 (410)242-6600

DEVELOPER ASTON PROPERTIES 6525 MORRISON BLVD., SUITE 300

PROJECT

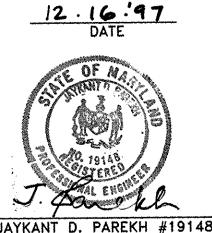
CHARLOTTE, NC 28211 (704)366-7337

FOOD LION GROCERY STORE / FUTURE RETAIL STORE FOOD LION P-1804, PARCELS A & B

TAX MAP 37, BLOCK 20 6th ELECTION DISTRICT ZONED B-2 TITLE

NOTES AND DETAILS

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



DESIGNED BY : CJR PROJECT NO : 97119 SDP5.DWG DATE: DECEMBER 16, 1997 SCALE : AS SHOWN DRAWING NO. <u>5</u> OF <u>12</u>

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

shall be sloped to no steeper than 1:1

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

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 GC, 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 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 entire 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 material shall contain 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 $\pm -2\%$ of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by 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

The back fill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

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

PIPE CONDUITS

All pipes shall be circular in cross section.

Reinforced Concrete Pipe — All of the following criteria shall apply for

- Materials Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is AWWA Specification C-302.
- 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
- 3. Laying pipe Bell and spigot pipe shall be placed with the bell end 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
- Backfilling shall conform to Structure Backfill.
- 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the

CONCRETE

drawinas.

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

All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of an individual rock fragment shall be not less than one—third the greatest dimension of the fragment.

- The rock shall have the following properties:
- . Bulk specific gravity (saturated surface—dry basis) not less than 2.5. Absorption not more than three percent.
- 3. Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 88.

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 919.12

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 may require draining the water to sumps from which the water shall be pumped.

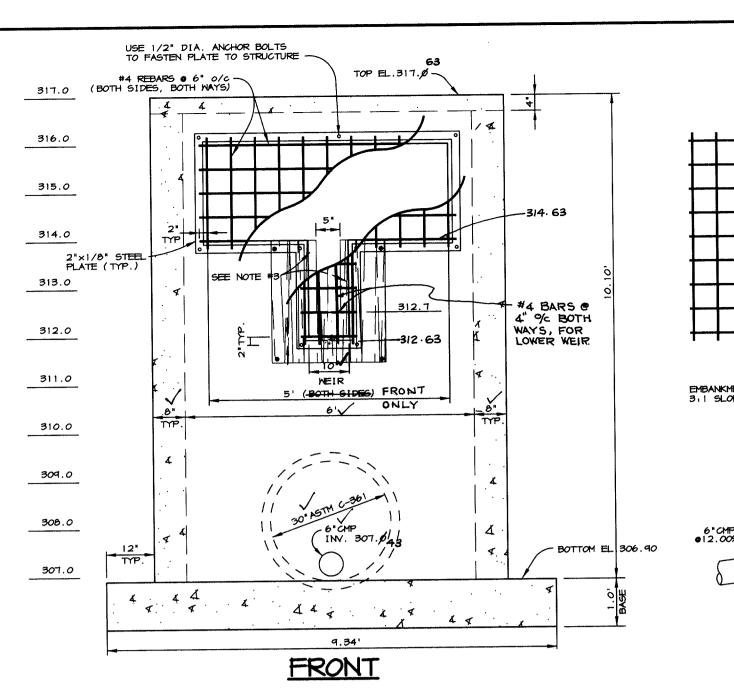
STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a sightly 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.

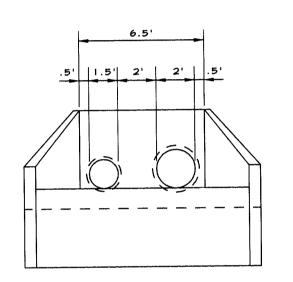


SCALE: 1"=2'

- OTHER THAN THE MODIFICATIONS SHOWN HERE, THIS STRUCTURE SHALL BE CONSTRUCTED IN ACCORDANCE WITH HO. CO. STD. DETAIL SD 4.01, HOWEVER A BRICK STRUCTURE IS NOT ALLOWED.
 - 2. SHOP DRAWINGS TO BE SUBMITTED TO HOWARD COUNTY AND CONSULTANT PRIOR TO FABRICATION.
 - 3. DURING CONSTRUCTION, FIRST WIER TO BE BLOCKED USING PLYWOOD BOLTED TO INSIDE OF RISER. ALL SEALS TO BE WATER TIGHT A 5" WEIR STARTING AT 312.5 TO BE CUT INTO PLYWOOD.
 - 4. GALVANIZE RACKS AFTER FABRICATION AND PAINT BATTLESHIP GRAY.

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND SHOWN HEREON SHALL BE PERFORMED AT LEAST ONCE ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATION FOR PONDS" (MD378). THE POND OWNER AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.



~ 2" × 1/6" STEEL _PLATE (TYP.)

10.CO.STD. DET.

@ 314.63 W/TRASH RACKS

EL. 314.063

EL. 312.663

WEIR CREST

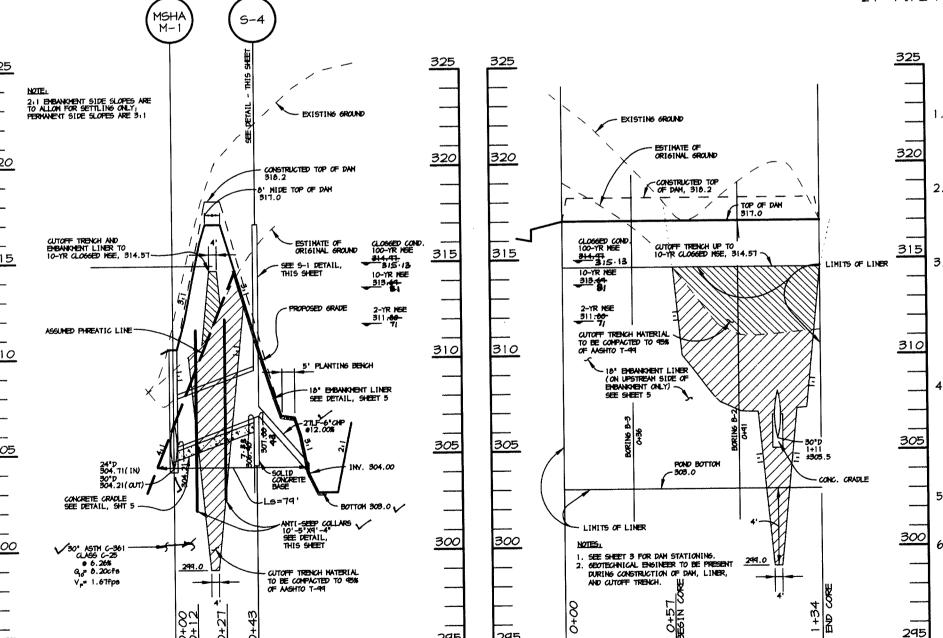
5.84

SIDE

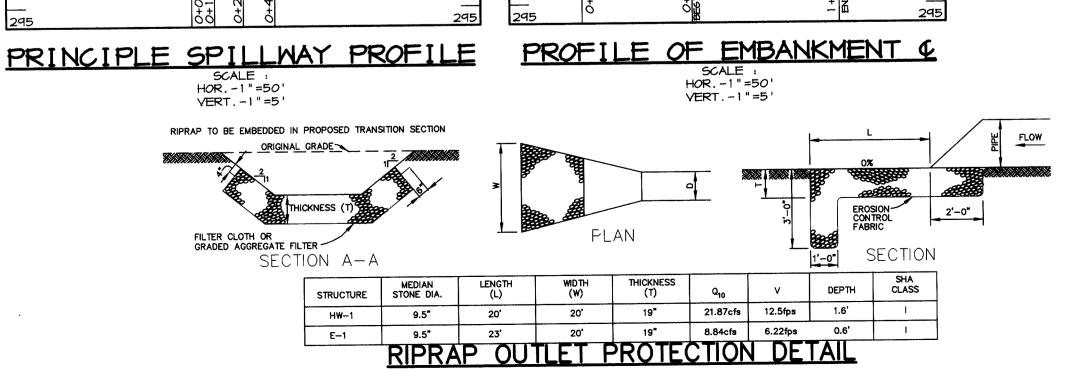
HEIR CREST

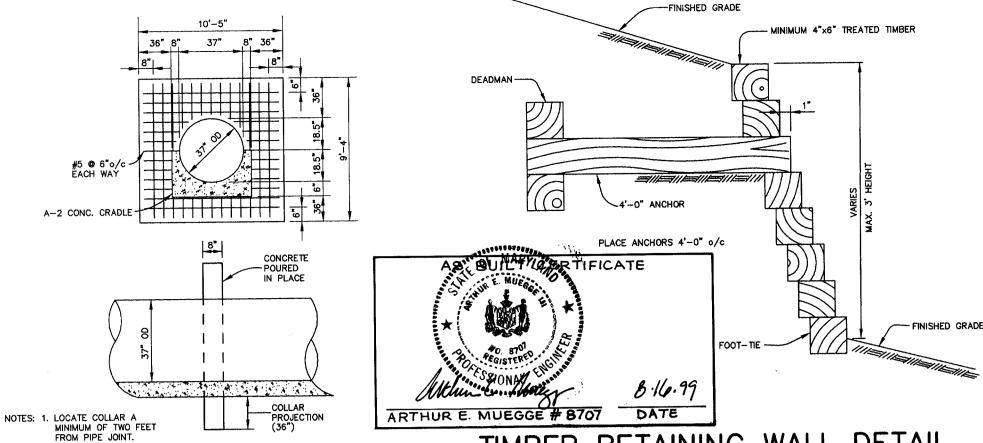
HEADWALL 1 DETAIL NO SCALE

NOTE: OTHER THAN THE DIMENSIONS SHOWN HERE. THIS STRUCTURE SHALL BE CONSTRUCTED AS A HOWARD COUNTY TYPE 'A' HEADWALL FOR 24" PIPE PER HOCO STD. DETAIL SD 5.11



FOR POND CONSTRUCTION STRUCTURE S-4 FOUNDATION MATERIALS TO BE VISUALLY EXAMINED AND TESTED FOR A NET BEARING PRESSURE OF 2500 psf (MIN.) IMMEDIATELY PRIOR TO PLACEMENT OF FOUNDATION CONCRETE. PRIOR TO BACKFILLING, EXPOSED SUBGRADE SHALL BE EXAMINED, PROOFROLLED, AND/OR PROBED AS NECESSARY AND UNSTABLE MATERIA SHALL BE REPLACED AND COMPACTED WITH APPROVED FILL. DEWATERING DURING CONSTRUCTION SHALL BE ACCOMPLISHED USING INTERCEPTOR TRENCHES, SUMPS, AND/OR PUMPS AS NECESSARY TO TWO





TIMBER RETAINING WALL DETAIL

CONCRETE ANTI-SEEP COLLAR

NO SCALE

NOTES: 2. COLLAR/PIPE CONNECTION SHALL BE WATERTIGHT.

STRUCTURE SCHEDULE

4 4			LOCATION		INV. IN	INV. OUT	TOP	REMARKS
A-2 CONCRETE CRADLE	STRUCTURE	TYPE	LOCATION					HOCO STD. DETAIL SD 4.40
	I - 1			1,370,346.14	309.86	309.36		HOCO STD. DETAIL SD 4.40
	I – 1 A	S WITH RETICULAR GRATE	₩ N 555,159.92 E	1,370,313.27	310.59	310.58	317.3	
	I -2	A-5	₩ N 555,098.60 E	1,370,294.55	311.16	310.91		HOCO STD. DETAIL SD 4.40
	E-1	A-5	* N 555,032.12 E	1,370,281.53		311.5 <i>0</i>	315.4	HOCO STD. DETAIL SD 4.40
	I -4	A-10	₩ N 555,328.75 E	1,370,439.90	-	309.92	315.2-315.8	HOCO STD. DETAIL SD 4.41
	I -5	D	₩ N 555,064.63 E	1,370,742.16	321. <i>00</i>	320.50	325 . O	HOCO STD. DETAIL SD 4.39
6.5'	I-6	A-5	₩ N 555,021.88 E	1,370,670.51	_	317.52	321.1	HOCO STD. DETAIL SD 4.40
1 1.5' 2' 2' .5'	I -7	D	₩ N 555,274.07 E	1,370,579.62	321.46	321.25	324.5	HOCO STD. DETAIL SD 4.39
	I-8	A-5	★ N 555,352.55 E	1,370,553.28	320.64	320.39	325. <i>0</i>	HOCO STD. DETAIL SD 4.40
	I-9	A-5	* N 555,313.78 Ε	1,370,590.00	321.21	321.15	325.0	HOCO STD. DETAIL SD 4.40
	I-10	A-5		1,370,518.96	321.48	321.23	325. <i>0</i>	HOCO STD. DETAIL SD 4.40
	I-11	A-5		1,370,578.07		322.15	326.0	HOCO STD. DETAIL SD 4.40
				1,370,496.94	309.34(15")	307.92	316.0	HOCO STD. DETAIL 6 5.12
	M-1	4' MH	* N 555,326.88 E	1,570,440.44	308.02(24")	307.12		
	M-2	4' MH	₩ N 555, 256.60 E	1,370,491.94	308.47	308.37	322.8	HOCO STD. DETAIL 6 5.12
DWALL 1 DETAIL	M-3	4' MH	₩ N 555,287.87 E	1,370,527.17	318.85(15") 313.37(18")	309.76	322.2	HOCO STD. DETAIL 6 5.12
NO SCALE		23		1,370,512.95	313.31(16")	313.43	323.9	HOCO STD. DETAIL 6 5.12
a com	M-4	4' MH				315.54	323.7	HOCO STD. DETAIL 6 5.12
N THE DIMENSIONS SHOWN HERE, CTURE SHALL BE CONSTRUCTED AS	M-5	4' MH		1,370,500.54	315.64			HOCO STD. DETAIL 6 5.12
COUNTY TYPE 'A' HEADWALL FOR PER HOCO STD. DETAIL SD 5.11	M-6	4' MH	米 N 555,039.34 E	1,370,619.00	317.25(15") 317. <i>00</i> (18")	316.90	321.9	HOCO SID. DETAIL 0 3.12
	M-7	4' MH	₩ N 555,006.83 E	1,370,619.60	317.63	317.53	325.5	HOCO STD. DETAIL 6 5.12
	M-8	4' MH	₩ N 555,002.16 E	: 1,370,725.72	319.85	319.75	335. <i>0</i>	HOCO STD. DETAIL 6 5.12
GEOTECHNICAL RECOMMENDATIONS FOR POND CONSTRUCTION	M-9	4' MH	* N 555,373.52 E	: 1,370,525.89	317.00	308.07	320.0	HOCO STD. DETAIL 6 5.12
1. STRUCTURE 5-4 FOUNDATION MATERIALS TO BE		3K-BAYSAYER			000.10	309.02	318.7	SEE DETAIL, SHEET GA
VISUALLY EXAMINED AND TESTED FOR A NET BEARING PRESSURE OF 2500 psf (MIN.)	<u>\$</u> 5-1	SEPARATION UNI	,	1,370,542.98	309.12	309.02	310.1	
IMMEDIATELY PRIOR TO PLACEMENT OF FOUNDATION CONCRETE.	S-1A	SK-BAYSAVER CONTAINMEN UNIT	* N 555, 273.74 E	1,370, 397.99	•	·	318.8	SEE DETAIL, SHEET GA
2. PRIOR TO BACKFILLING, EXPOSED SUBGRADE SHALL BE EXAMINED, PROOFROLLED, AND/OR	5-2		* N 555, 315.87 E	1 270 54 14	308.83	308.73	321.9	SEE DETAIL, SHEET GA
PROBED AS NECESSARY AND UNSTABLE MATERIALS SHALL BE REPLACED AND COMPACTED WITH	73			1, 370, 514.14		700.17		
APPROVED FILL.	1 S-2A	3K- BAYSAYER CONTAINMENT UNIT	* N 555,323.03 E	1, 370, 517.43	-	_	319.5	SEE DETAIL, SHEET GA
3. DEWATERING DURING CONSTRUCTION SHALL BE ACCOMPLISHED USING INTERCEPTOR TRENCHES,	5-4	MODIFIED	N 555,413.85 E	1,370,426.70	307.00	306.90	317.0	SEE DETAIL, SHEET 6
SUMPS, AND/OR PUMPS AS NECESSARY TO TWO FEET BELOW THE BOTTOM OF THE CONSTRUCTION		A-5 INLET						LIGOR CTD. DETAIL G. E. E.I.
AREA. SUMPS SHALL BE REMOVED AND BACKFILLED WITH CLAYEY SOILS AFTER CONSTRUCTION. GRAVEL MAY BE USED TO PROVIDE A WORKING	E-1	18" END SECTION	1 //	1,307,502.38	307.83	-		HOCO STD. DETAIL 6 5.51
SURFACE, BUT NOT BENEATH THE FOOTPRINT OF THE EMBANKMENT.	HW-1	MODIFIED	* N 555,343.07 E	1,307,499.85	307.83		-	SEE DETAIL, THIS SHEET
4. SURFACE RUNOFF SHALL BE DIVERTED AWAY FROM		TYPE 'A'	CENTER FACE C			2.2	205 5	HOCO STD. DETAIL 6 5.12
THE LIMITS OF CONSTRUCTION BY BERMING, TRENCHING, AND/OR GRADING AS NECESSARY.	SMH-4	4' MH		1,370,598.74	319.62	319.52	325.5	
THE GROUND SURFACE SHALL BE SEALED WITH A SMOOTH DRUM ROLLER AT THE END OF EACH WORKDAY AND PRIOR TO RAINFALL. WATER SHALL	SMH-5	4' MH		1,370,692.00	321.72	321.62	327.5	HOCO STD. DETAIL 6 5.12
NOT BE ALLOWED TO POND ON TOP OF SLOPE AREAS.	CO1	CLEANOU"	T ★ N 555,129.61 E	E 1,370,767.61	327.30	323.84	330.3	
5. A SHEEPSFOOT ROLLER SHALL BE USED FOR	CO2	CLEANOU"	T * N 555,209.88 E	≣ 1,370,788.73		329.54	337.9	
COMPACTION; A SMOOTH DRUM ROLLER SHALL BE USED FOR SEALING ONLY.								WOULD PETATI UP 274 F1
6. A SOIL TECHNICIAN SHALL BE PRESENT DURING FILL OPERATIONS TO OBSERVE AND TEST	MSHA I-1	15' 606		N 555, 152.38 E 1,370,260.36	301.55	301 . 45	306.5	MSHA STD. DETAIL MD-374.51
COMPACTION. DENSITY TESTS SHALL BE 1 TEST PER 2500 sf OF FILL AREA (MIN.) FOR EACH	MSHA I-2	15' 006	* N 555,263.40 *E 1,370,306.18	N 555, 248.65	302.45	302.35	307.4-307.5	MSHA STD. DETAIL MD-374.51
LIFT PLACED.	MSHA I-3	15' 009	* N 555,388.83	N 555, 404.80	304.01	303.91	309.0 - 309.2	MSHA STD. DETAIL MD-374.61
	11011/1 1-0	1.5	₩E 1,370,368.19	E 1,370,369.20				
	MSHA I-4	SINGLE	< 	E 1,370,387.40	-	305.00	308.5	MSHA STD. DETAIL MD-378.05
	MSHA I-5	10' 006		N 555,020.99	_	-	305.8-305.9	SEE DETAIL, SHEET 9
	11311/4 1-3			E 1,370,209.14			2.0.1	MSHA STD. DETAIL MD-386.11
	MSHA M-1	JUNCTIO BOX 3.5'S	1 /	E 1,370,385.66	304.71(24") 304.21(30")	304.21	310.6	3.5'x3.5' INSIDE DIMENSIONS
E FLOW							_	
***************************************	NOTES:	* LOCATIO	ON IS AT CENTER OF TH	HROAT OPENING A	AT FACE OF CUR	B FOR INLET	D. INIETG	

* LOCATION IS AT CENTER OF THROAT OPENING AT FACE OF CURB FOR INLETS TOP ELEVATION IS TOP OF CURB/GRATE/RIM OR THROAT OPENING FOR 'D' INLETS * LOCATION IS OUTSIDE WALLS OF CURB OPENING AT FACE OF CURB FOR INLETS. TOP ELEVATION IS TOP/FACE OF CURB

	<u>A</u> 9-3	3K- Baysaver Primary Separation Unit	* N 555 380 42	E 1,370,542.98	320.52 320.08	317.64	325.0	SEE DETAIL, SHEET GA
	<u> </u>	3K-BAYSAVER CONTAINMENT UNIT	* N. 555, 383.26	E 1, 370, 533. 99	-	-	324.79	SEE DETAIL, SHEET GA
\triangle	M-11	4' MH	* N 555 356.25	E 1370704.90	322.70	322.45	326.9	HO. CO. STD. DETAIL G 5. 12

APPROVED : FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

DATE

Sthe E. Ruse

RTHUR E. MUEGGE #870"

1-7-98 DUNTY HEALTH OFFICER MR DATE

FOR REVISION;

No. 2 - DATED 9/9/98 No. 1 - DATED 8/3/98

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.

BY THE ENGINEER

BY THE DEVELOPER :

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.

12.16.97 DATE **ENGINEER**

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

NATURAL RESOURCES CONSERVATION SERVICE

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

CONSERVATION DISTRICT

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION CHIEF, DIVISION OF LAND DEVELOPMENT 9/988 A MODIFIED STRUCTURE SCHEDULE ADDING M-11

8/3/98 MODIFIED STRUCTURE SCHEDULE, REMOVING "STORMCEPTA DATA, ADDING "BAY SAVER" DATA. DATE NO. SPARROW II JOINT VENTURE OWNER

C/O RICHARD B. TALKIN 9175 GUILFORD ROAD COLUMBIA, MARYLAND 21046 (410) 730-7733 MARGARET ROBINSON c/o ROBERT LIDSTON 334 SULPHUR SPRING ROAD BALTIMORE, MARYLAND 21227

(410) 242-6600 DEVELOPER ASTON PROPERTIES 6525 MORRISON BLVD., SUITE 300 CHARLOTTE, NC 28211

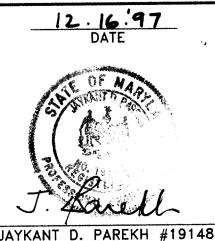
(704)366-7337 PROJECT

FOOD LION GROCERY STORE / FUTURE RETAIL STORE

AREA FOOD LION P-1804, PARCELS A & B TAX MAP 37, BLOCK 20 6th ELECTION DISTRICT ZONED B-2

NOTES AND DETAILS

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

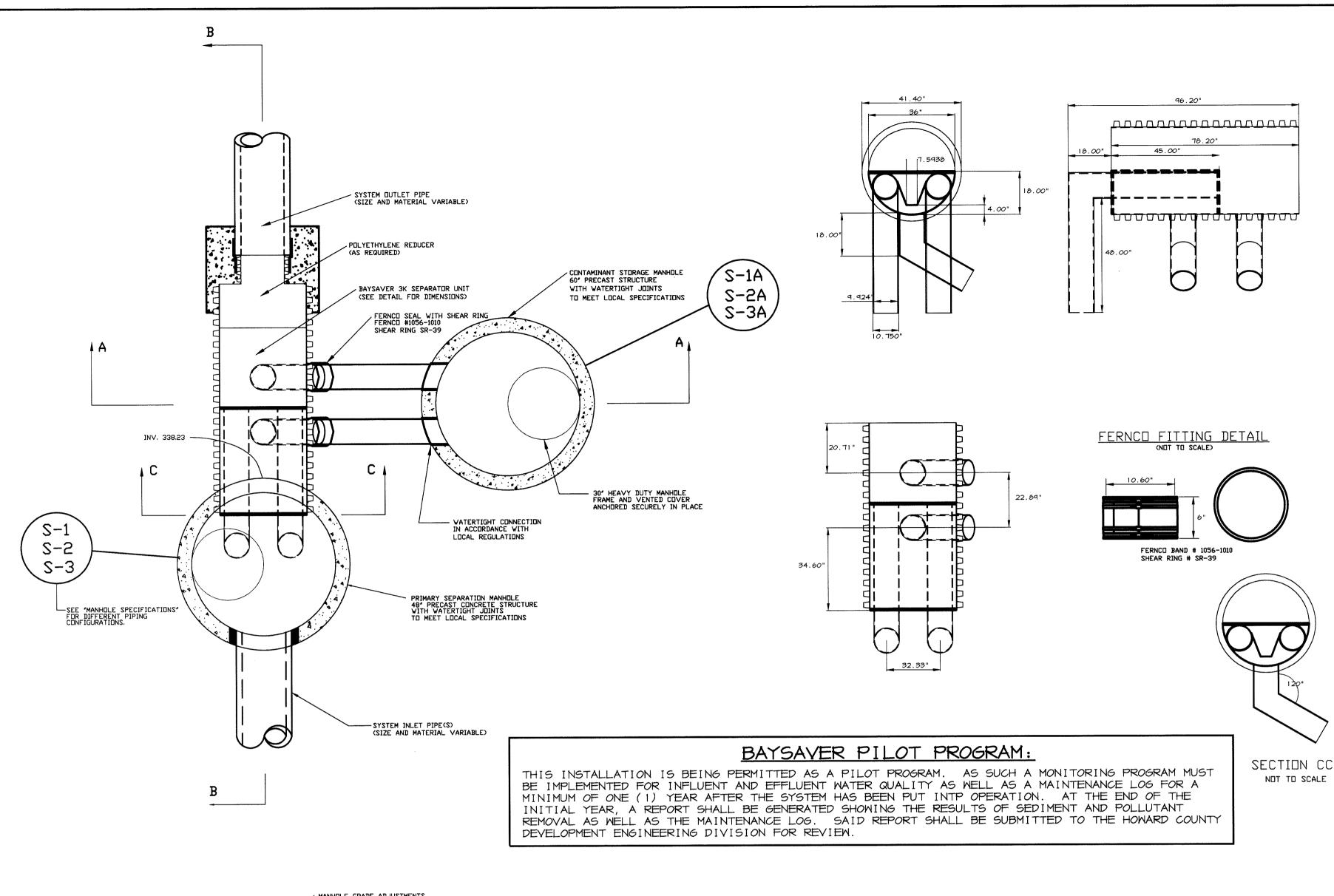


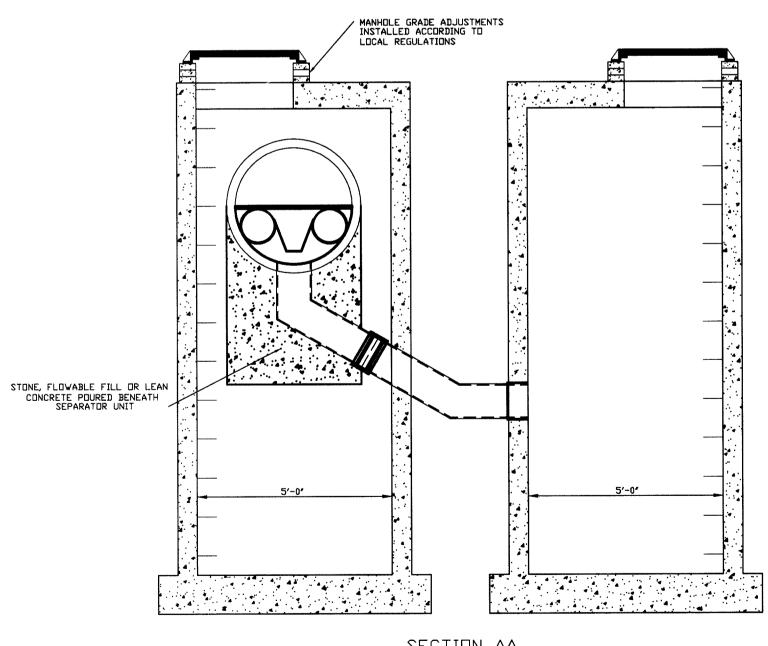
DESIGNED BY : CJR DRAWN BY: RPP : 97119 : SDP6.DWG PROJECT NO DATE: DECEMBER 16, 1997 SCALE : AS SHOWN

DRAWING NO. 6 OF 12

AS - BUILT

8 · 16 · 99



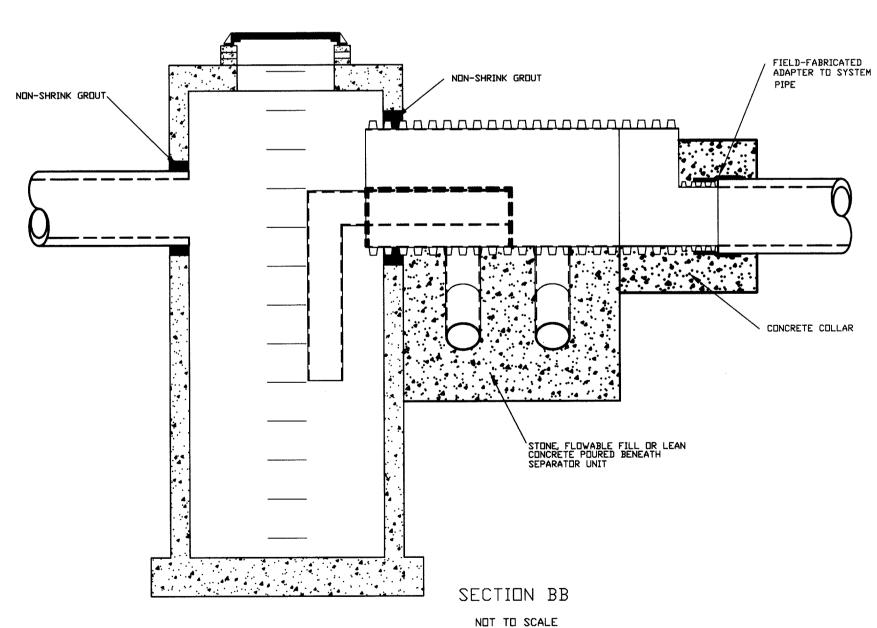


SECTION AA NOT TO SCALE

BAYSAVER INSTALLATION INSTRUCTIONS

8. INSTALL AND SET MANHOLE FRAME AND COVER UNITS.

1. EXCAVATION MUST PROVIDE ADEQUATE SPACE TO CONNECT INLET AND DUTLET PIPES TO SEPARATOR MANHOLE AND BAYSAVER UNIT. INSTALL PRECAST DROP STRUCTURES ON SOLID GROUND AS VERIFIED BY A GEOTECHNICAL ENGINEER. VERIFY THE SUBGRADE ELEVATION AGAINST THE MANHOLE DIMENSIONS AND CONNECTING STORM DRAIN INVERTS. 3. MAKING SURE THE BASES ARE LEVEL AND THE STORAGE MANHOLE OPENINGS ARE ALIGNED WITH THE SEPARATOR UNIT, INSTALL PRIMARY AND STORAGE MANHOLES. INSTALL RUBBER GASKETS ON BASE UNITS AND COAT WITH LUBRICATING GREASE. INSTALL ADDITIONAL MANHOLE SECTIONS AS REQUIRED. 4. BACKFILL BASE SECTIONS OF MANHOLES TO INVERT OF STORAGE MANHOLE CONNECTING PIPES.
USING APPROVED BACKFILL MATERIAL, BACKFILL AND COMPACT IN 8 INCH LIFTS. BACKFILL AND
COMPACTION SHOULD BE MONITORED BY A GEOTECHNICAL ENGINEER. 5. INSTALL BAYSAVER SEPARATOR UNIT AND CONNECTING PIPES. SEAL ALL CONNECTING JOINTS AND INSTALL SEPARATOR UNIT/STORM DRAIN JOINT COLLAR. CUT EXCESS LENGTH OFF CONNECTING PIPES INSIDE STURAGE MANHULE.
6. BACKFILL SEPARATUR UNIT AND MANHULES. AREASE NOT ACCESSIBLE TO COMPACTION EQUIPMENT MUST BE BACKFILLED WITH LEAN CONCRETE OR FLOWABLE 7. INSTALL AND SET MANHOLE COVER GRADE ADJUSTMENTS AS NECESSARY.



BAYSAVER MAINTENANCE (BY DWNER)

BAYSAVER SYSTEMS MUST BE INSPECTED AND MAINTAINED PERIODICALLY. INSPECTION IS MADE BY CHECKING THE DEPTH OF SEDIMENT IN EACH MANHOLE WITH A GRADE STICK OR SIMILAR DEVICE. MAINTENANCE IS REQUIRED WHEN THE SEDIMENT DEPTH IN EITHER MANHOLE EXCEEDS 2 FEET. MAINTENANCE CONSISTS OF THE FOLLOWING

A. PRIMARY MANHOLE

1. PUMP THE CLEAN WATER FROM THE CENTER OF THE MANHOLE DIRECTLY TO THE SYSTEM OUTFALL UNTIL THE WATER LEVEL FALLS TO 1 FOOT ABOVE THE SEDIMENT LAYER. 2. REMOVE THE SETTLED SEDIMENT AND REMAINING WATER BY VACUUM TRUCK. 3. CLEAN THE MANHOLE WALLS AND FLUSH OUT THE MANHOLE USING A HIGH PRESSURE HOSE AND REMOVE FLUSHING WATER BY VACUUM TRUCK. MAKE CERTAIN MANHOLE IS CLEAN.

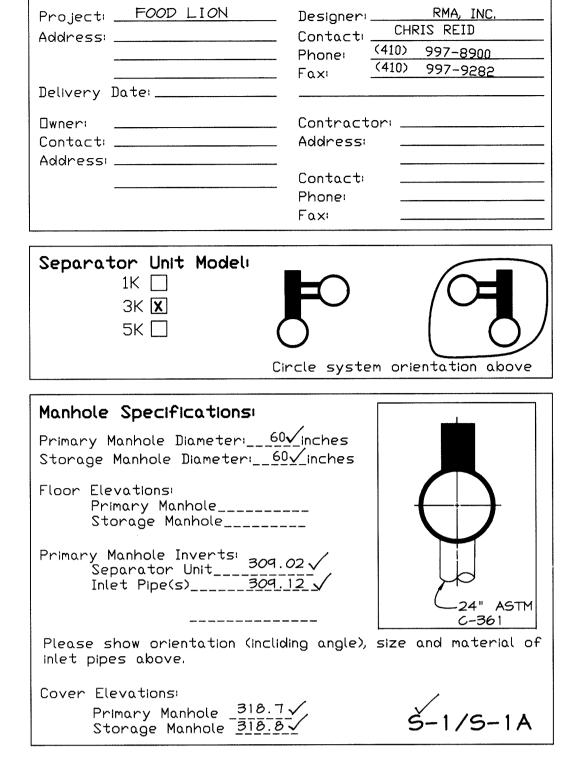
B. STORAGE MANHOLE

1. REMOVE THE TOP 12 INCHES OF DIL, DEBRIS, AND WATER BY VACUUM TRUCK.

2. PUMP THE CLEAN WATER FROM THE CENTER OF THE MANHOLE DIRECTLY TO THE SYSTEM DUTFALL UNTIL THE WATER LEVEL FALLS TO 1 FOOT ABOVE THE SEDIMENT LAYER. 3, REMOVE THE SETTLED SEDIMENT AND REMAINING WATER BY VACUUM TRUCK. 4. CLEAN THE MANHOLE WALLS AND FLUSH OUT THE MANHOLE USING A HIGH PRESSURE HOSE AND REMOVE FLUSHING WATER BY VACUUM TRUCK. MAKE CERTAIN MANHOLE IS CLEAN.

CONTAMINATED MATERIAL REMOVED FROM THE MANHOLES MUST BE DISPOSED OF RESPONSIBLY AND LEGALLY BY THE OPERATOR OF THE VACUUM TRUCK.

BaySaver Separation System Separator System Order



This order can be faxed to Bay Saver, Inc. at (301) 829-3747

BaySaver Separation System Separator System Order

Contact: CHRIS REID

(410) 997-8900

Project: FOOD LION

Address: __

Delivery Date:	Fax: (410) 997-9282
Owner: Contact: Address:	
Separator Unit Model: 1K 3K X 5K C	ircle system orientation above
Manhole Specifications:	
Primary Manhole Diameter: <u>60</u> Storage Manhole Diameter: <u>6</u>	0√inches
Floor Elevations: Primary Manhole Storage Manhole	
Primary Manhole Inverts: 317 Separator Unit317 Inlet Pipe(s)320	1.52 / 18" HDPE
Please show orientation (inclided inlet pipes above.	ding angle), size and material of
Cover Elevations: Primary Manhole 325.0 Storage Manhole 324.	o√ <u>ia</u> √ Š-3/5-3A

This order can be faxed to Bay Saver, Inc. at (301) 829-3747

GENERAL CONSTRUCTION NOTES

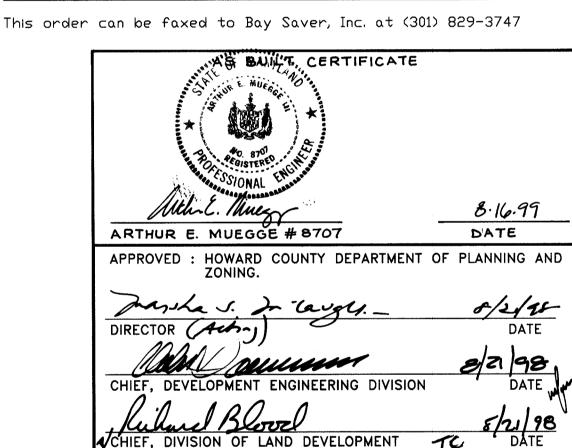
. ALL WORK MUST BE DONE WITH REGARD FOR THE SAFETY OF THE CONSTRUCTION CREW. P. ALL WORK AND MATERIALS MUST COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS. KNOW THE LOCATION AND DEPTH OF ANY UNDERGROUND UTILITIES BEFORE EXCAVATION BEGINS.

> NOTE: THIS SHEET IS SUPPLEMENTAL TO SHEET 6 OF 12.

BaySaver Separation System Separator System Order

Project: FOOD LION Address:	CHDIC PEID
Delivery Date: Contact: Address:	Contractor:Address:
Separator Unit Model	Phone:Fax:
3K 🕱 5K □	Circle system orientation above

Manhole Specifications: Primary Manhole Diameter: 60 inches Storage Manhole Diameter: __60 \(\square\$ inches Floor Elevations: Primary Manhole_____ Storage Manhole_____ Primary Manhole Inverts:
Separator Unit____308.73 ✓
Inlet Pipe(s)____308.83 ✓ ₩24" ASTM _____ Please show orientation (incliding angle), size and material of inlet pipes above. Cover Elevations: Primary Manhole _321.9V 5-2/5-2A Storage Manhole 319.5 V



DATE NO. REVISION OWNER c/o RICHARD B. TALKIN 9175 GUILFORD ROAD COLUMBIA, MARYLAND 21046 (410)730-7733

MARGARET ROBINSON c/o ROBERT LIDSTON 1334 SULPHUR SPRING ROAD BALTIMORE, MARYLAND 21227

(410)242-6600 DEVELOPER ASTON PROPERTIES 6525 MORRISON BLVD., SUITE 300 CHARLOTTE, NC 28211

FOOD LION GROCERY STORE / FUTURE RETAIL STORE

(704)366-7337

AREA FOOD LION P-1804, PARCELS A & B TAX MAP 37, BLOCK 20 6th ELECTION DISTRICT ZONED B-2

NOTES AND DETAILS

RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING ● ENVIRONMENTAL SERVICES ● PLANNING ● SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045

	tel 410.997.8900 fax 410.997.9282							
	३.3. ६६							
	DATE	DESIGNED BY : C.J.R.						
4		DRAWN BY: R.J.C.						
		PROJECT NO : 97119						

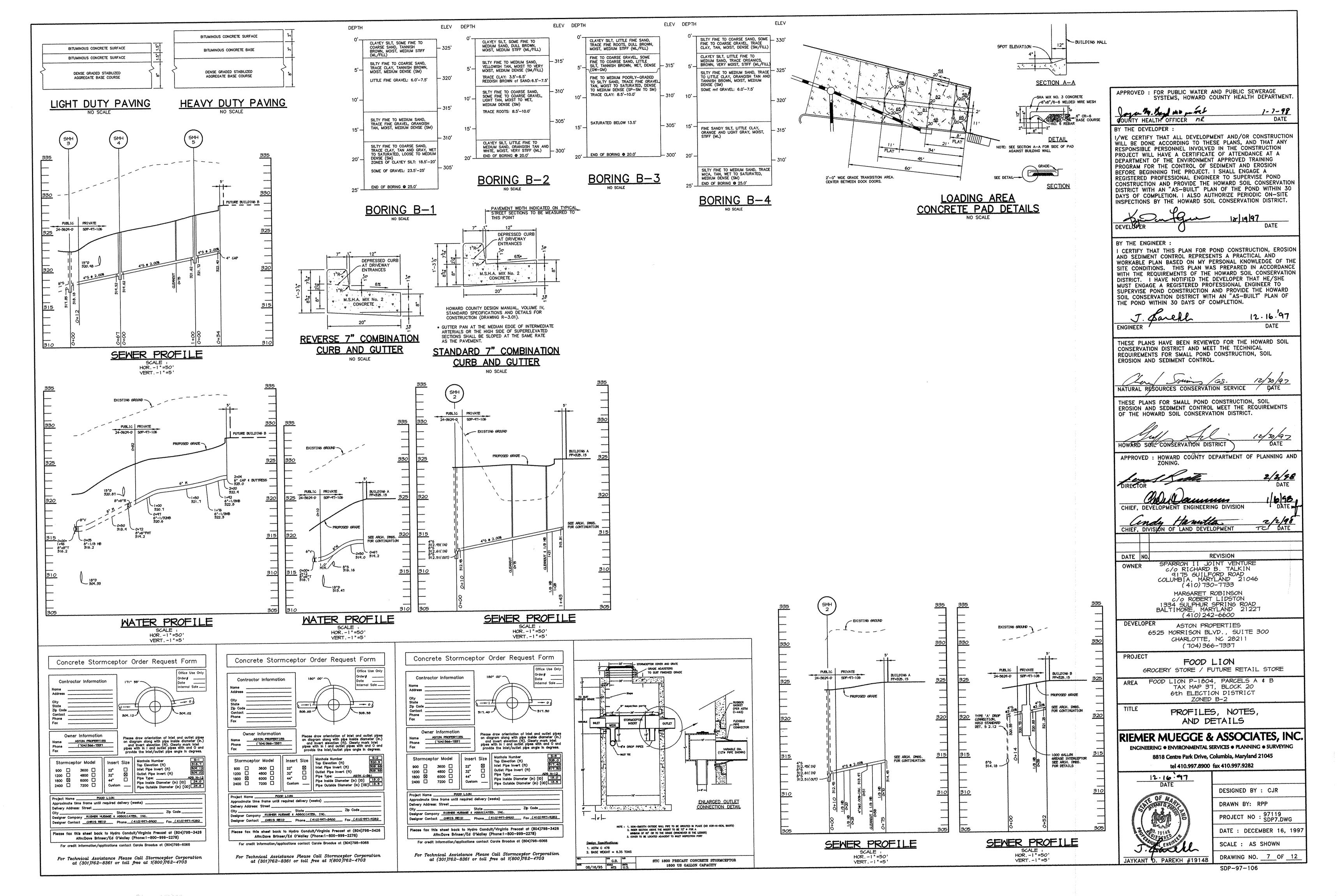
SDP6A.DWG DATE: AUGUST 3, 1998 SCALE: AS SHOWN

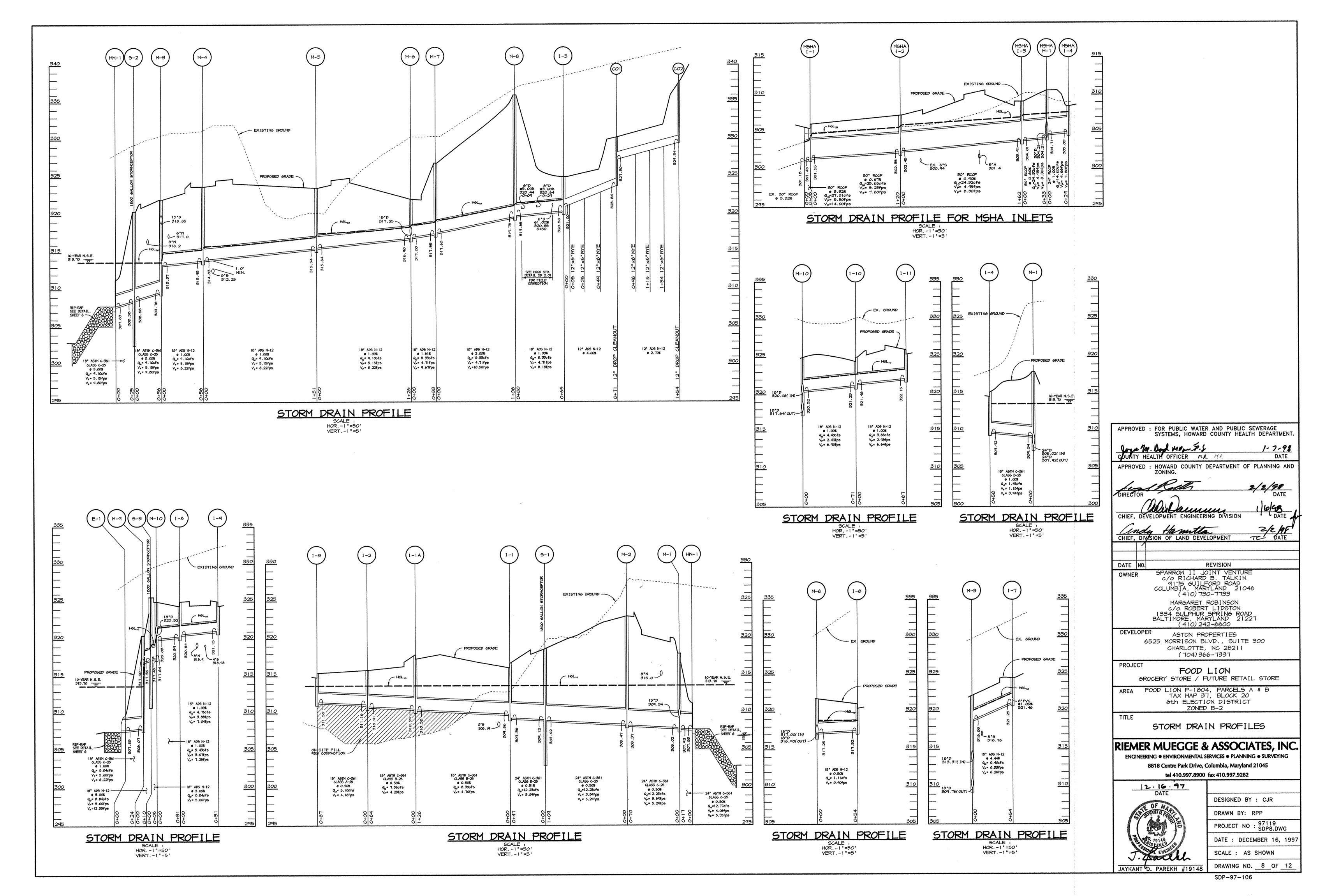
DRAWING NO. 6A OF 12

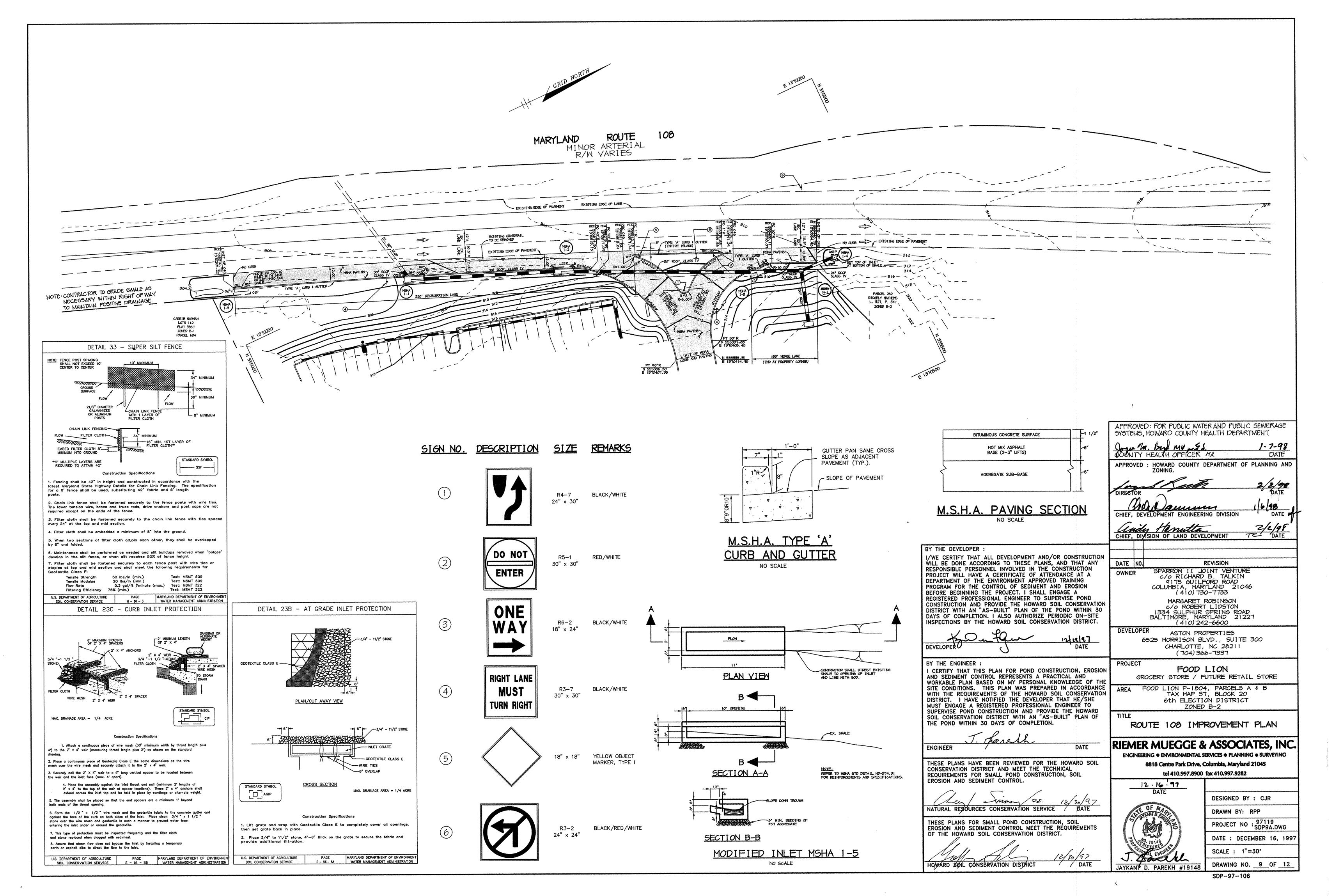
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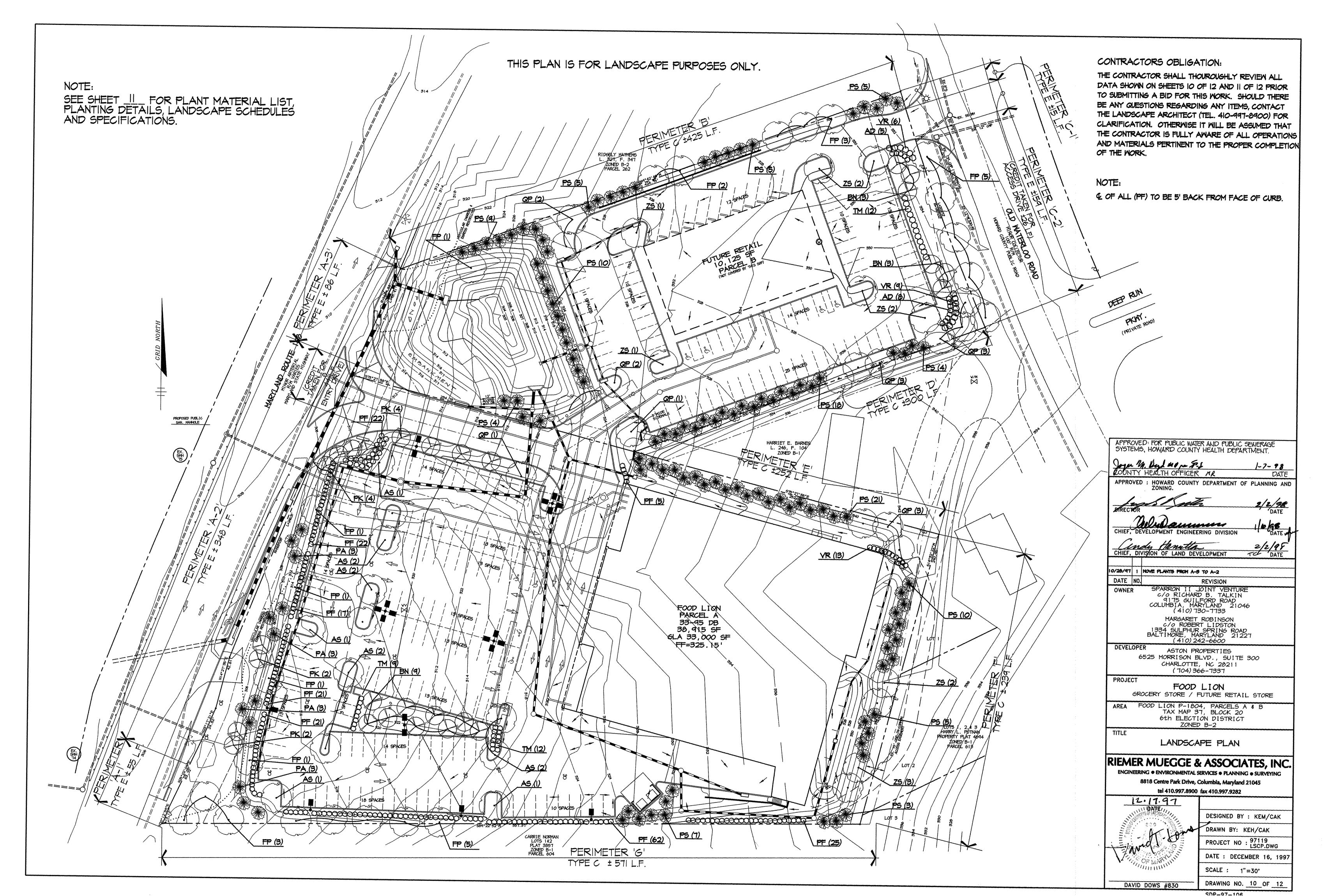
AS-BUIL'

ARTHUR E. MUEGGE #870









	PLANT MATERIAL LIST							
KEY	QTY	BOTANICAL + COMMON NAME	SIZE	ROOT	<u>REMARKS</u>			
AS	12	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	2½" - 3" Cal.	B # B	Full Crown Central Leader			
BN	15	Betula nigra 'Heritage' Heritage River Birch	8'-10' HT.	B # B	Multistemmed			
FP	23	Fraxinus pennsylvanica 'Marshall's Seedless' Marshall's Seedless Green Ash	2½" - 3" Cal.	B # B	Full Crown Central Leader			
PK	12	Prunus serrulata 'Kwanzan' Kwanzan Cherry	8'-10' HT.	B # B	Full Crown			
QP	15	Quercus palustris Pin Oak	2½" - 3" Cal.	B & B	Full Crown Central Leader			
ZS	11	Zelkova serrata 'Green Vase' Green Vase Japanese Zelkova	2½" - 3" Cal.	B \$ B	Full Crown			
PA	12	Picea ables Normay Spruce	6'-8' HT.	B # B	Full Form			
P5	106	Pinus strobus White Pine	6'-8' HT.	B # B	Full Form			
AD	13	Azalea X Delamare Valley White' Delamare Valley White Azalea	18"-24" SP.	B&B/Cont.	Full			
PF	181	Photinia X fraserii Frasier's Photinia	3'-4' HT.	B&B/Cont.	Full Form			
тм	33	Taxus media 'Hicksii' Hicks Yem	2½-3' HT.	B 4 B	Full Form			
VR	28	Viburnum rhytidophyllum Leatherleaf Viburnum	2½-3' HT.	8 4 8	Full Form			

PLANTING SPECIFICATIONS

1. Plants, related material, and operations shall meet the detailed description as given on the plans and as described herein.

- 2. All plant material, unless otherwise specified, shall be nursery grown, uniformly branched, have a vigorous root system, and shall conform to the species, size, root and shape shown on the plant list and the American Association of Nurserymen (AAN) Standards. Plant material shall be healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements. Plant material that is weak or which has been cut back from larger grades to méet specified requirements will be rejected. Trees with forked leaders will not be accepted. All plants shall be freshly dua; no healed-in plants or plants from cold storage will be accepted.
- 3. Unless otherwise specified, all general conditions, planting operations, details and planting specification shall conform to "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architect, latest edition, includina all agenda.
- 4. Contractor shall be required to quarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section of the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.
- 5. Contractor shall be responsible for notifying utility companies, utility contractors and "Miss Utility" a minimum of 48 hours prior to beginning any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.
- 6. Protection of existing vegetation to remain shall be accomplished by the temporary installation of 4 foot high snow fence or blaze orange safety fence at the drip line.
- 7. Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within the growing season of completion of site construction.
- 8. Bid shall be based on actual site conditions. No extra payment shall be made for work arising from site conditions differing from those indicated on drawings and specifications.
- 9. Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence.
- 10. All shrubs shall be planted in continuous trenches or prepared planting beds and mulched with composted hardwood mulch as detailed and specified except where noted on plans.
- II. Positive drainage shall be maintained in planting beds (minimum 2 percent slope).
- 12. Planting mix shall be as follows: Deciduous Plants Two parts topsoil, one part well-rotted cow or horse manure. Add 3 lbs of standard fertilizer per cubic yard of planting mix. Evergreen Plants - two parts topsoil, one part humus or other approved organic material. Add 3 lbs. of evergreen (acidic) fertilizer per cubic yard of planting mix. Topsoil shall conform to the Landscape Guidelines.
- 13. Weed Control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. Caution: Be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be treated.
- 14. All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded and seeded.
- 15. This plan is intended for landscape use only. See other plan sheets for more information on grading, sediment control, layout, etc.

LANDSCAPE SCHEDULES

			PERIM		EDULE A .ANDSCAP	E EDGE		<u>:</u>		
	ADJACENT TO ROADWAYS					ADJACENT TO PERIMETER PROPERTIES				
PERMETER	A-I	A-2	A-3	G-1	C-2	В	D	E	F	6
LANDSCAPE TYPE	E	E	E	E	E	C	C	C	c	C
LINEAR PEET OF ROADWAY PRONTAGE/ PERIMETER	± 55'	± 348'	± 86'	± 15'	± 154'	± 425'	± 900'	± 252'	± 234'	± 57l'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	ю	ю	×	МО	NO	NO	ю	ю	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO (42 L.F. ENTRY DRIVE)	NO	Ю	YES ± 26' ACCESS DRIVE	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	55'/40 = 1.4 0 55'/4 = 13.6	306'/40 = 7.7 0 306'/4 = 76.5	86'/40 = 2.2 0 86'/4 = 21.5	151/50=0.4				252'/40 = 6.3 252'/20 = 12.6 0		5711/40=14: 5711/20=28: 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES SMALL FLOWERING TREES SHRUBS	- 90 Q	4 9 4 72	000 4 22	0000	2 0 6 40	1922 200	5200	2 (1 O B	6 5 0 0	5 24 4 87

SUBSTITUTION NOTES: PERIMETER LANDSCAPE EDGE: SCHEDULE A

PERIMETER A-1: SUBSTITUTE ONE (I) EVERGREEN TREE FOR FIVE (5) SHRUBS.

PERIMETER A-3.

DUE TO PLANTING RESTRICTIONS, THE TREES AND SHRUBS HAVE BEEN SHIPTED TO PERIMETER A-2.

PERIMETER G-1: SUBSTITUTE (2) EVERGREEN TREES FOR (0.9) SHADE TREE AND (0.4) EVERGREEN TREE..

PERIMETER 6-2:
TWO (2) SHADE TREES ARE LOCATED IN THE NEAREST PARKING LOT ISLANDS.

PERIMETER D EIGHT (8) EVERGREEN TREES WERE SUBSTITUTED FOR 4 SHADE TREE REQUIREMENTS

EIGHT (6) EVERGREEN TREES WERE SUBSTITUTED FOR 4 SHADE TREE REQUIREMENTS

PERIMETER 6:

EIGHTY-SEVEN (87) SHRUBS HAVE BEEN SUBSTITUTED FOR NINE (9) SHADE TREES.

THREE (3) EVERGREEN TREES WERE LOCATED ALONG PERIMETER F.

FOURTEEN (14) EVERGREEN TREES HAVE BEEN LOCATED ON THE NORTHEAST AND SOUTHWEST SLOPES OF THE SWM POND. FOUR (4) SMALL FLOWERING TREES HAVE BEEN SUBSTITUTED FOR FOUR (4) EVERGREEN TREES ALONG THE SOUTHEAST SIDE OF THE WEST ENTRANCE DRIVE.

SCHEDULE B	
PARKING LOT INTERNAL LANDSCA	APING
NAMEER OF PARKING SPACES	258
NAMBER OF TREES REQUIRED	12.4
NAMBER OF TRIES PROVIDED SHADE TREES OTHER TREES (2.1 SUBSTITUTION)	19
NUMBER OF ISLANDS REGUIRED (1 ISLAND/ 20 SPACES)	12.9
NUMBER OF ISLANDS PROVIDED	Я
	1

NOTES: "THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE

"FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$ 40,700,000

STREET TREE REQUIREMENTS 1201 LF. (ROAD FRONTAGE) - 126 LF. (ACCESS DRIVE ENTRANCE) ±175 L.F. (NET ROAD FRONTAGE) 5 STREET TREES REQUIRED

(* I STREET TREE / 95 L.F. ROAD FRONTAGE)

NOTE: CONTRACTOR TO REGRADE, SOD OR HYDROSEED AND STRAW MULCH ALL DOUBLE #12 GALVANIZED WIRE GUYS TWISTED 2 PIECES OF REINFORCED RUBBER HOSE AREAS DISTURBED AS A RESULT 2 - 2"x2" OAK STAKES, L., NOTCH STAKES TO HOLD WIRE SPRAY WITH WILT-PROOF ACCORDING TO MANUFACTURES STANDARDS 1/2 OF TREE HEIGHT -(APPROX. 3 FEET) PRUNE 1/3 LEAF AREA, BUT RETAIN NATURAL FORM OF TREE CONSTRUCT 3" SAUCER RIM-FLOOD WITH WATER TWICE WITHIN 24 HOURS 2 PIECES OF REINFORCED-RUBBER HOSE DOUBLE #12 GALVANIZED-WIRE GUYS TWISTED

5' - O'

TOPSOIL MIXTURE

PLANTING DETAILS

OF THEIR WORK.

3 - 2" x 2" OAK STAKES, NOTCH STAKES TO HOLD WIRE -

REMOVE ANY COVERING FROM TOP OF ROOT CROWN

MAINTAIN GROUND LINE WITH TOP OF ROOT CROWN

TOP SOIL MIXTURE

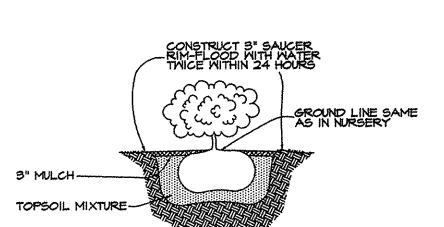
CONSTRUCT 3" SAUCER RIM-FLOOD WITH WATER TWICE WITHIN 24 HOURS-

CONVEX BOTTOM 6" MIN. H

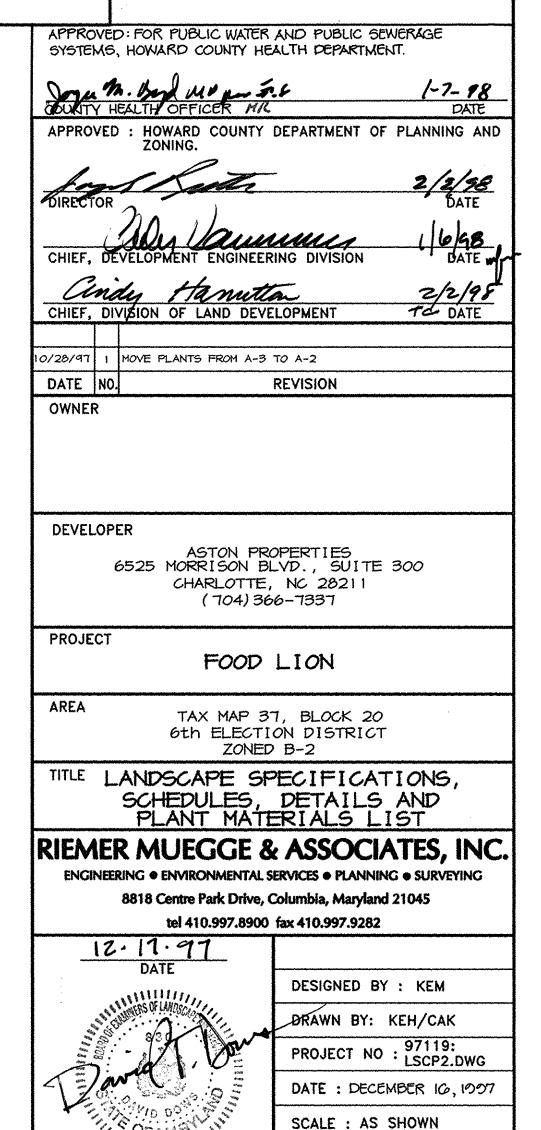
TREE PLANTING DETAIL

WRAP TRUNK TO SECOND TIER OF BRANCHES WITH WATERPROOF TREE WRAP, TIE AT 24" INTERVALS (EXCEPT EVERGREENS) —

EVERGREEN PLANTING DETAIL

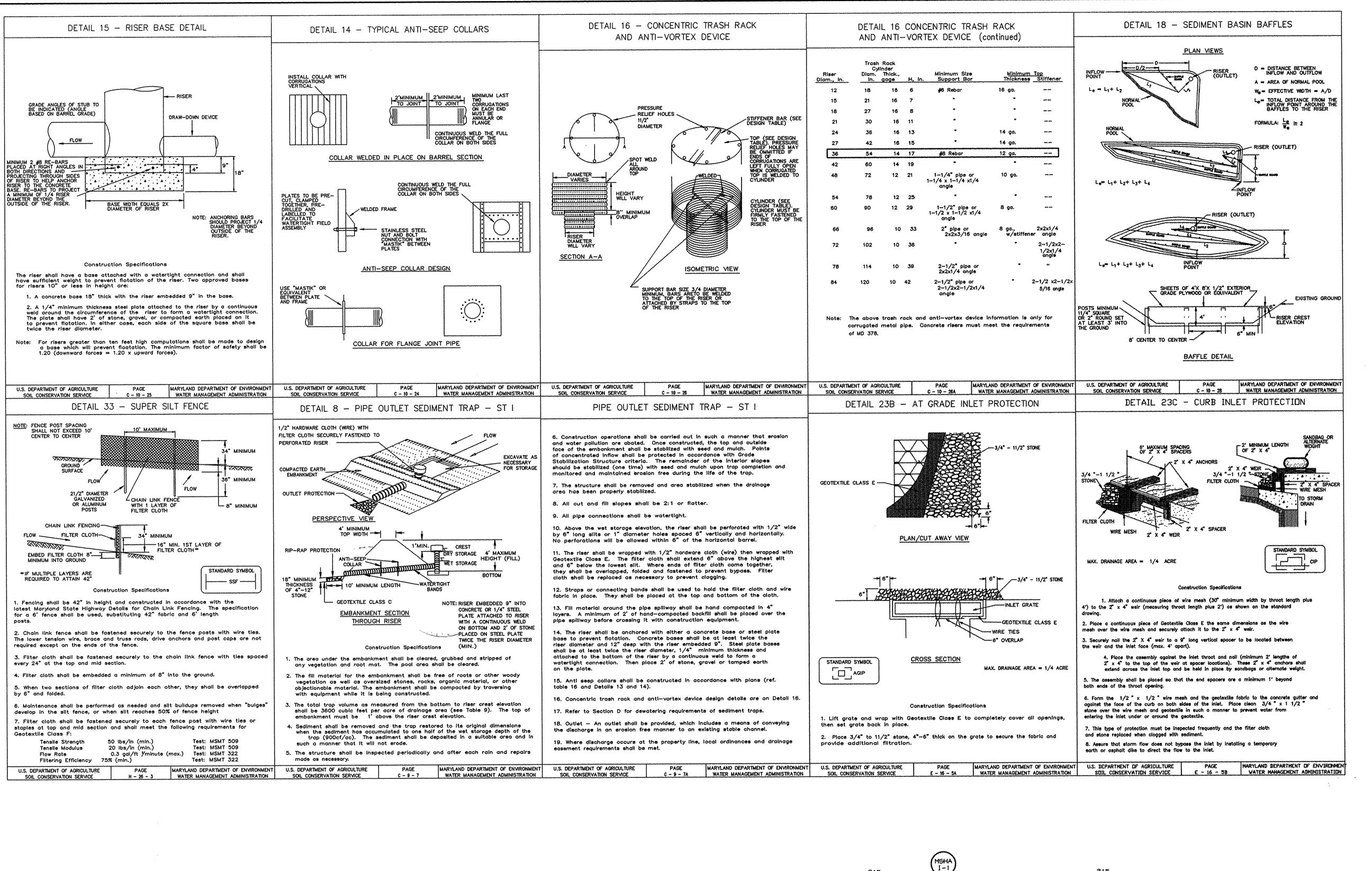


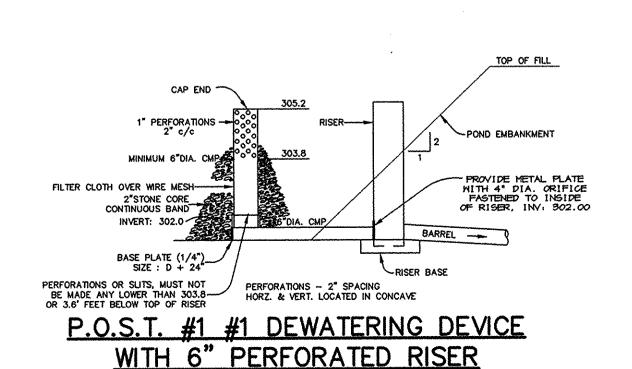
SHRUB PLANTING DETAIL

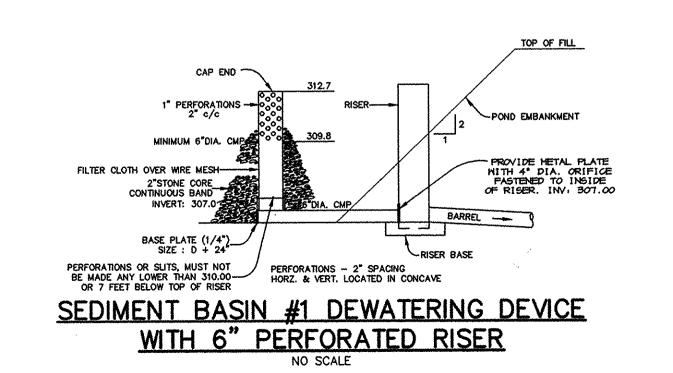


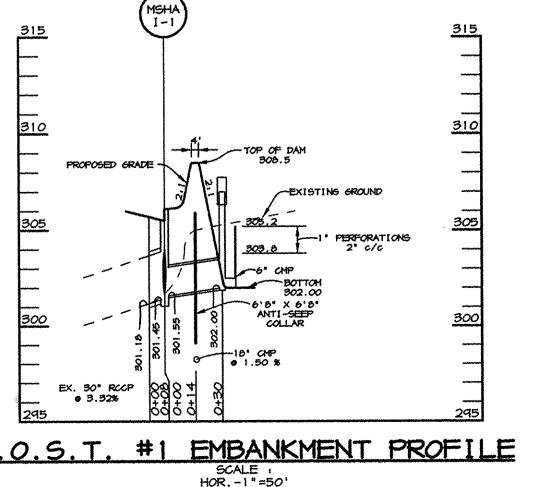
DAVID DOWS #830

DRAWING NO. __11_OF __12_

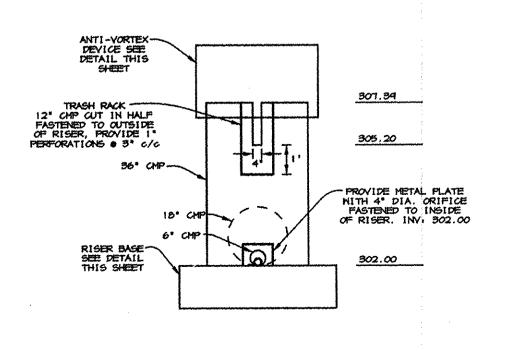




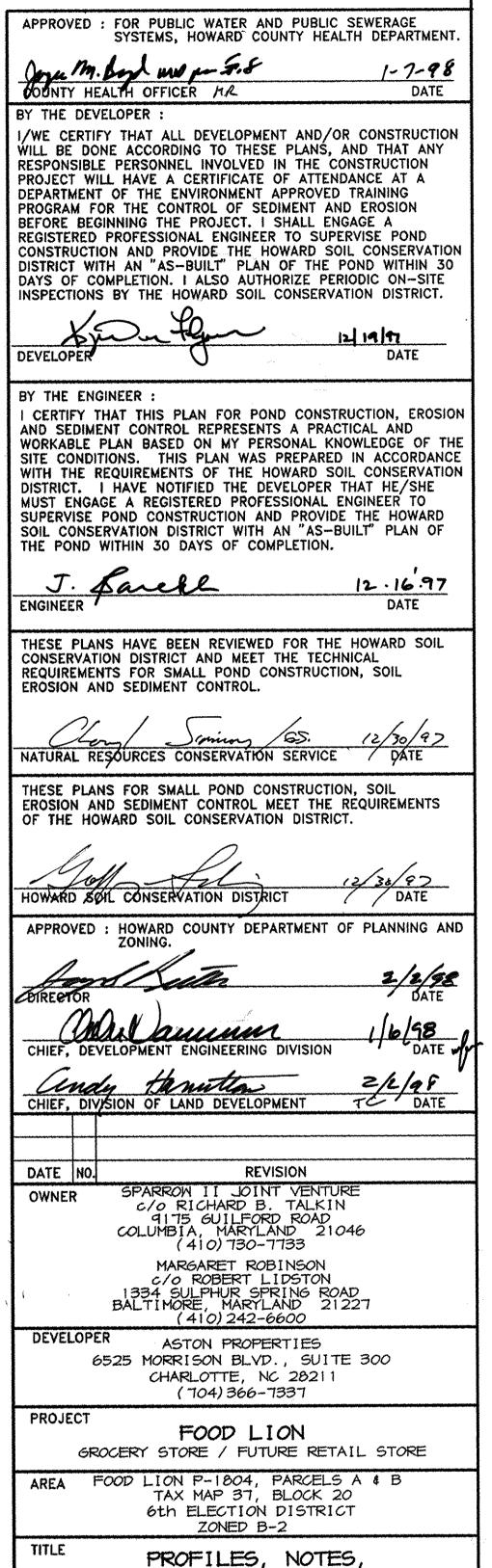




VERT. -1"=5'



P.O.S.T. #1 RISER DETAIL



| 12 · 16 · 97 |
| DATE | DESIGNED BY : CJR |
| DRAWN, BY: RPP |
| PROJECT NO : 97119 |
| PROJECT NO : 97119 |
| SDP12.DWG |
| DATE : DECEMBER 16, 199 |
| SCALE : AS SHOWN |
| DRAWING NO. 12 OF 12 |
| DRAWING NO. 14 |
| DRAWING NO. 15 |
| DRAWING NO. 15

AND DETAILS

RIEMER MUEGGE & ASSOCIATES, INC.

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