## SHEET INDEX

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# CHATHAM MEWS ROADWAYS, STORM DRAINS, & STORMWATER MANAGEMENT

LOTS 1 - 17 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECCESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED
- 3. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.

IMMEDIATELY AT THE CONTRACTOR'S EXPENSE, EXISTING UTILITIES ARE SHOWN BASED ON THE BEST

- 4. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- 5. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK. BELL TELEPHONE SYSTEM LONG DISTANCE CABLE DIVISION BALTIMORE GAS AND ELECTRIC CO. HOWARD COUNTY BUREAU OF UTILITIES

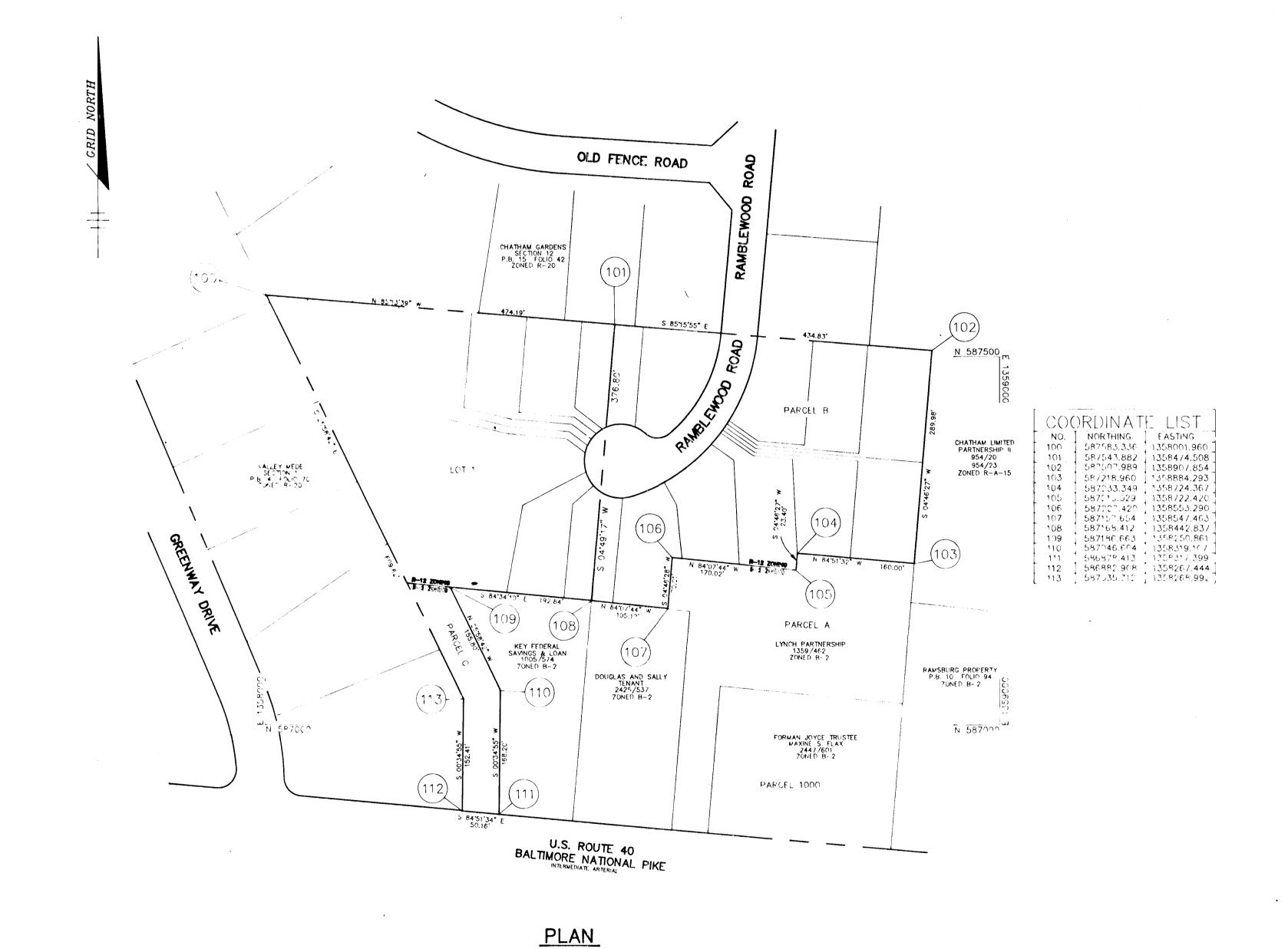
393-3553 OR 3554 539-8000 313-4900 795-1390

- 6. 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.
- 7. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- 8. ALL STREET CURB RETURNS SHALL HAVE 25' RADII UNLESS OTHERWISE NOTED. 9. 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.
- 10. 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. 11. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE RAMBLEWOOD ROAD
- 12. ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATIM,
- 13. ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A
- MINIMUM OF 95% COMPACTION OF AASHTO T 180 14. ALI PIPE ELEVATIONS SHOWN ARE INVERT - ELEVATIONS.
- 15. PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN
- 16. SUBJECT PROPERTY ZONED R-12 PER 10-18-93 COMPREHENSIVE ZONING PLAN. 17. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROKIGHT WITHIN 6"
- 18. ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTEL 19. SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S. S-93-20, F-79-10,
- P-94-06, ZB 863M, ZB 889M, WP-93-113, WP-95-13 F-914-84 20. LIGHT POLES, ARMS AND FIXTURES FOR STREET LIGHTS SHALL BE IN ACCORDANCE
- WITH HOWARD COUNTY DESIGN MANUAL, VOLUME II' AND SHEELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS, JUNE 1993.
- 21. THE STORMWATER MANAGEMENT FACILITY PROPOSET FOR THIS SITE IS GLASS 'A' HAZARD FACILITIES, WATER QUALITY IS PROMOBED BY EXTENDED DETENTION.
- 22. TOPOGRAPHY SHOWN HEREON WAS PERFORMED BY RIEMER MUEGGE & ASSOCIATES, INC. DEC. 1993. ALL CONTOURS ARE TWO FOOT INTERVALS 23. PUBLIC WATER AND SEWER SYSTEMS AS PER CONTRACT NO 14-1317-0
- ARE TO BE UTILIZED FOR THIS SITE. SEWER SERVICE DRAINAGE AREA MICTULE PATRICENT
- 24. NOISE STUDY WAS PREPARED BY RIEMER MILEGUE & ASSOCIATED, INC. AND APPROVED 25. GEOTECHNICAL STUDY FOR STURMWATER MANAGEMENT AND FAZEMENT FOR THIS PROJECT
- IS PROMOED BY ATEC ASSOCIATES INC., DECEMBER 1993 26. ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CUIRB.
- 27. STREET LIGHT PLACEMENT AND TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MAN TAL ZOL IT (1993) AND AS MODIFIED BY THE "GUIDELINES FOR STREFT LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)" WHICH INCLUDES PRIBELINES FOR LATERAL AND LONDT TUNAL IS ALEMENT
- STREET TREES TO BE PLACET 20' FROM STREET LIGHTS. 28. 78 863M - REQUESTED A ZONING CHANGE FROM R-12 TO B-2 FOR 5.2 ACRES OF PARCEL 979
- AND 1137, BOTH DPZ AND THE PLANNING BOARD RECOMMEND DENIAL OF RECONING, THE PETITIONERS WITHDREW THE APPLICATION ON JULY 5, 1988 PRIOR TO THE ZONING BOARL HEARING.
- ZB 889M REQUIESTED A ZONING CHANGE OF 1.15 ACRES OF FARCE, 979 FROM R-12 TC 8-2 BCTH DPZ AND THE PLANNING BOARD RECOMMENDED DENIAL OF REZONING, ON A IGUST 16, 1990,
- THE ZONING BOARD DENIET THE REZONING REQUEST WP-93-113 - REQUESTED WALKER TO 16.121(+)(1) TO REDUCE REQUIRED 40' OPEN SPACE LOT FRONTAGE TO 20', APPROVED, JULY 22, 1993 WITH CONDITIONS:

- INCREASE THE 7.5' BRU ON LOT 10 BY 10 FEET TO 17.5" -DEMARCATION OF OPEN SPACE LCT 17 MTH BOLLARUS

WP-95-13 - REQUESTED WAIVER TO 18.154 TO WAIVE THE SITE DEVELOPMENT PLAN PROCESS AND 16.120(b)(4,(1)) TO ALLOW FOR THE CREATION OF 5 ADJACENT PIPESTEM LATS.

- 29. THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITE TESTING OF THE FINISHED SUBGRADE. ANY PAVEMENT SECTION DETERMINED BY THE GEOTECHNICAL ENGINEER THAT IS LESS THAN THE HOWARD COUNTY MINIMUM STANDARD, SHALL FIRST BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. THE
- TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER. 30. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS
- 31. HOA IS RESPONSIBLE TO REPLACE ALL PLANTS AND FENCE WITHIN THE PUBLIC DRAINAGE EASEMENT WHEN MAINTENANCE IS REQUIRED FOR THE DRAINAGE SYSTEM.



HOWARD CO. MON. #24B3

# VICINITY MAP

CONTROL USED FOR AS-**BENCHMARKS** BUILT SURVEY.

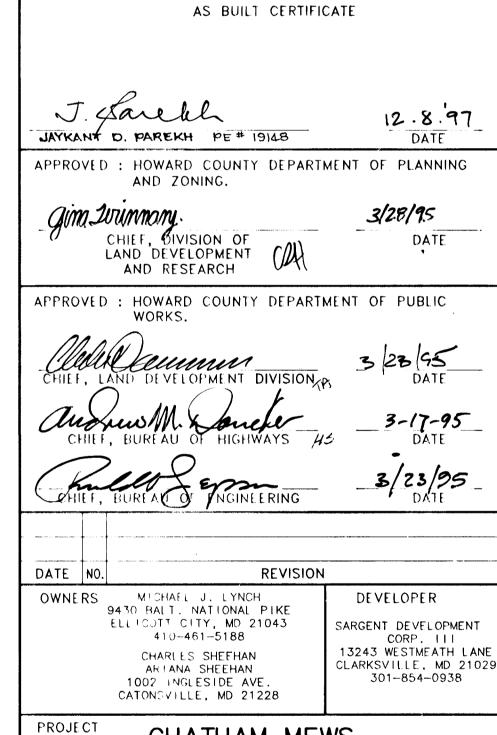
✓B.M. # 1(NAD 83 HORIZ. DATUM)

N. 586661.201, E. 1359226.385 ELEV.= 385.295 CONCRETE MONUMENT 18'± SOUTH OF SOUTH EDGE OF ROUTE 40 EAST(TRAFFIC LANE) 150' EAST OF EAST END OF SUNOCO STATION OPPOSITE DOCTORS BUILDING 1.5' BELOW SURFACE.

B.M. # 2(NAD 27 HORIZ. DATUM)

N. 525789.095, E. 849475.765 ELEV.= 400.780 CONCRETE MONUMENT AT SURFACE 1'± NORTH OF EDGE OF MACADAM SHOULDER OF ROUTE 40 WEST (TRAFFIC LANE) 150' EAST OF ST. JOHNS LANE.

NOTE: HORIZONTAL CONTROL WAS ESTABILISHED ON THE NAD 83 (B.M. #I) MONUMENT. THE BACKSIGHT BEARING TO THE NAD 27(B.M.#2 MONUMENT IS 0.7 SECONDS OFF FROM THE NAD 83 DATUM AND IS ASSUMED NEGLIGBLE.

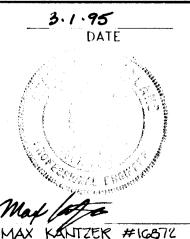


CHATHAM MEWS

AREA TAX MAP NO. 24 ZONED R-12 & B-2 PARCELS 979 & 1137 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND CHATHAM MEWS, A RESUBDIVISION OF PARCEL B & LOT '

TITLE SHEET

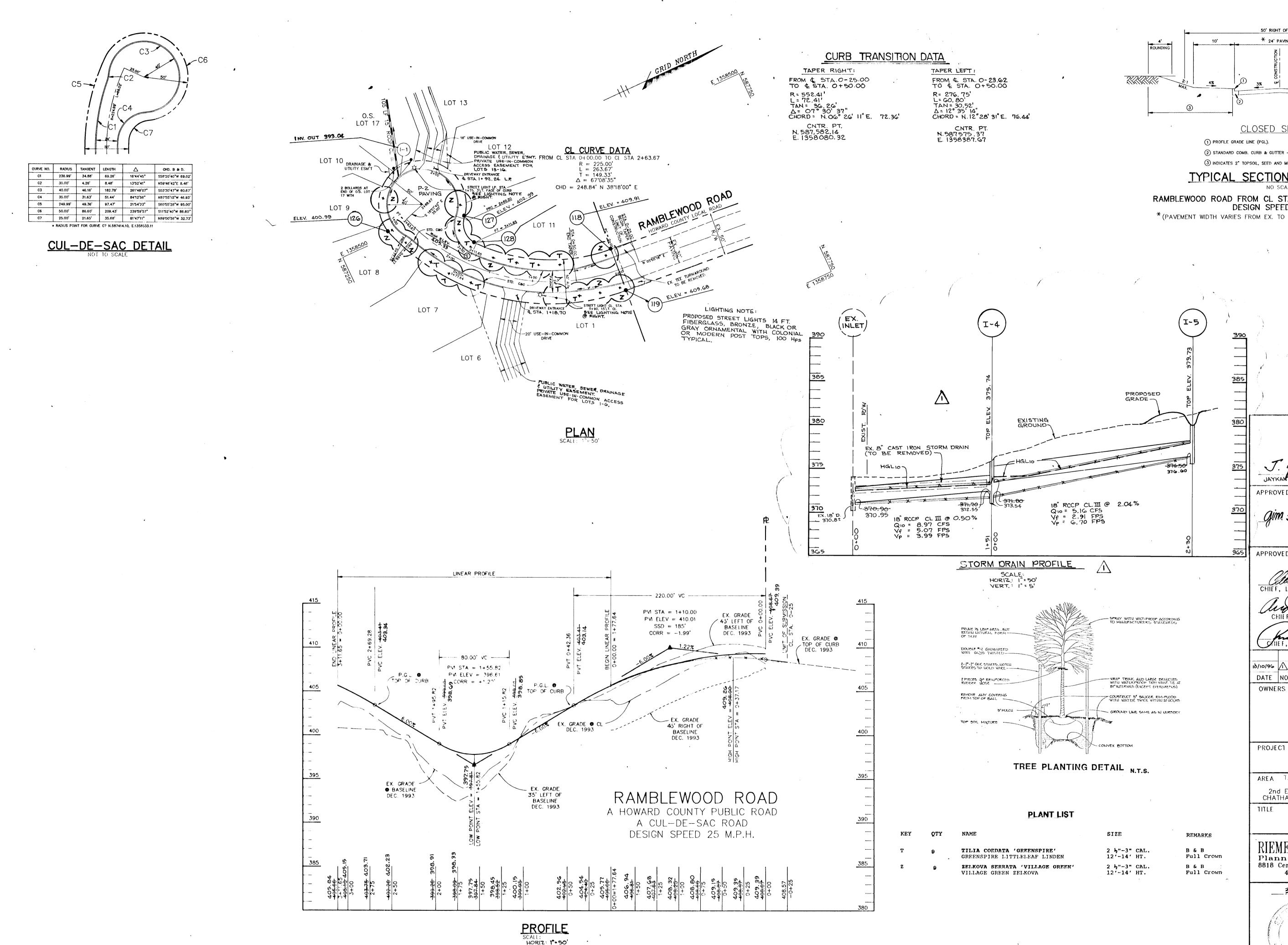
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8900 FAX: 410-997-9282



DESIGNED BY :JTD DRAWN BY : JTD PROJECT NO:50011

SCALE : AS SHOWN DRAWING NO. 1 OF 6

DATE : FEB. 27, 1995



VERT : 1" = 5"

50' RIGHT OF WAY X 24' PAVING CLOSED SECTION (2) STANDARD COMB. CURB & GUTTER - SEE STD. DETAIL R 3.01. 3 INDICATES 2" TOPSOIL, SEED AND MULCH. TYPICAL SECTION CUL-DE-SAC RAMBLEWOOD ROAD FROM CL STA 0+50 TO CL STA 3+16.07 DESIGN SPEED 25 MPH \*(PAVEMENT WIDTH VARIES FROM EX. TO 24' BETWEEN STA 0-25 TO 0+50) AS BUILT CERTIFICATE 12.8.97 JAYKANT D. PAREKH PE #19148 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Gim Summany.

CHIEF, DIVISION OF LAND DEVELOPMENT (AK AND RESEARCH 3/28/95 DATE APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. Clau Danner 3/23/95 DATE CHIEF, LAND DEVELOPMENT DIVISION Chippen M. Laneler RUREAU OF HIGHWAYS 3-17-95 18/10/96 ADDED STRM. DRN. PROFILE, EX. INLET TO I-5 DATE NO REVISION OWNERS MICHAEL J. LYNCH
9430 BALT. NATIONAL PIKE
ELLICOTT CITY, MD 21043
410-461-5188 DEVELOPER SARGENT DEVELOPMENT CORP. III 13243 WESTMEATH LANE CLARKSVILLE, MD 21029 301-854-0938 CHARLES SHEEHAN ARIANA SHEEHAN

CHATHAM MEWS
LOTS 1-17

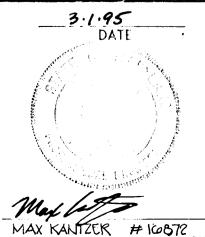
1002 INGLESIDE AVE. CATONSVILLE, MD 21228

PARCELS 979 & 1137

2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
CHATHAM MEWS, A RESUBDIVISION OF PARCEL B & LOT 1

PLAN & PROFILE OF RAMBLEWOOD DRIVE

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers Surveyors
8818 Centre Park Drive • Suite 200 Columbia, Md 21045
410-997-8900 FAX: 410-997-9282



DESIGNED BY :JTD

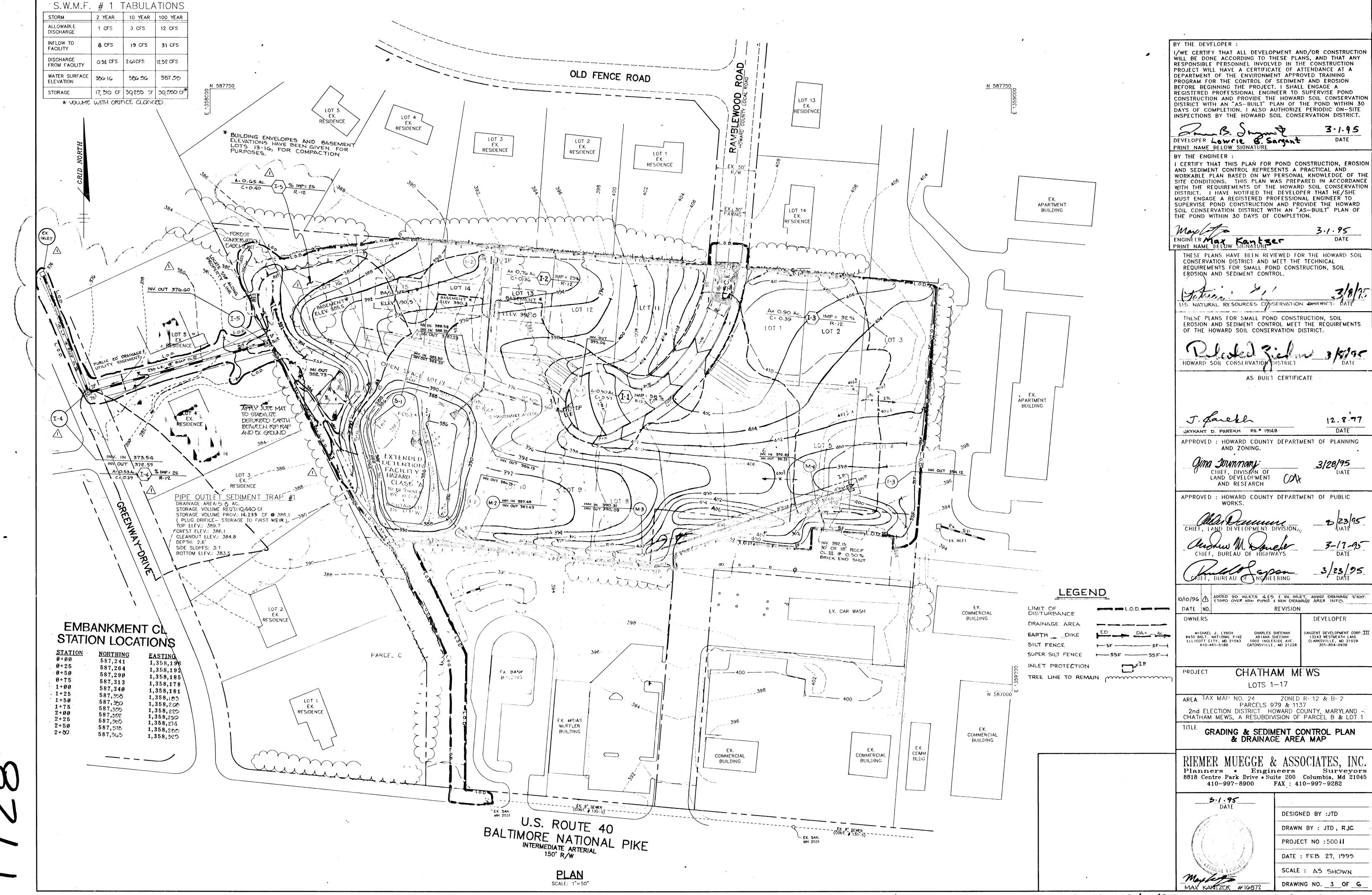
DRAWN BY : JTD

PROJECT NO :50011

DATE : FEB. 27, 1995

SCALE : AS SHOWN

DRAWING NO. 2 OF 6



AS-BUILT 12/02/97

F-95-92

discing or other acceptable means before seeding, if not previously Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14

Seeding: For periods Morch 1 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 1 thru August 14, seed with 3 lbs. per acre of weeping lovegross (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 ocre (70 to 90 lbs. per 1000 Anchor mulch immediately after application using mulch anchoring tool or 218 gol. per ocre (5 gol. per 1000 sq.ft.) of emulsified osphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for onchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

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.

PERMANENT SEEDING NOTES

discing or other occeptable means before seeding, if not previously Soil Amendments: In lieu of soil test recommendations, use one of

1) Preferred — Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.f..) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 100r 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 lbs. per 1000 sq.ft.) before seeding. Horrow 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 ocre (1.4 lbs. per 1000 sq.ft.)

of Kentucky 31 Tali 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 Tail Fescue and mulch

Mulching: Apply 1-1/2 to 2 tons per ocre (70 to 90 lbs. per 1000 sa.ft.) of unrotted small grain strow immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per ocre (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 onchoring.

Maintenance : Inspect all seeded areas and make needed repairs.

with 2 tons per ocre well anchored straw.

### SEDIMENT CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any construction (992-2437).

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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL. 3. Following initial soil disturbance or redisturbance, permanent or

temporary stabilization shall be completed within : a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to other disturbed or graded areas on the project site.

4. All sediment trops/bosins shown must be fenced and worning signs posted around the perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Droinage.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL for permonent seedings (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dotes do not allow for proper germination and establishment of grosses.

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

7. Site Analysis

Total Areo of Site 6.68 acres Areo Disturbed G.GI ocres Area to be roofed or poved 0.27 Quies Area to be vegetatively stabilized 6.34 ocres 18315 cu.yds. 18613 cu.yds. Total Cut

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same dov of disturbance.

9. Additional sediment controls must be provided, if deemed necessary by the Howard County Department of Public Works Sediment Control

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

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 offect the work.

out elevation shown on the plans.

13. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this approval by the inspection agency is made.

1. OBTAIN GRADING PERMIT AND ALL OTHER NECESSARY PERMITS

7. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR.

MANAGEMENT FACILITY 1. COMPLETE CONSTRUCTION OF STORMWATER

8. STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT

INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES

9. WITH PERMISSION OF THE HOWARD COUNTY SEDIMENT CONTROL

3. CLEAR AND GRUB SITE AS NECESSARY

MANAGEMENT FACILITY #1.

SEEDING NOTES.

5. INSTALL UTILITIES AND INLET PROTECTION.

6. INSTALL CURB AND GUTTER AND BEGIN PAVING

AND STABILIZE REMAINING DISTURBED AREAS.

4. ROUGH GRADE SITE.

2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, EARTH

CHATHAM MEWS

SEQUENCE OF CONSTRUCTION

AND REMOVE ALL SEDIMENT FROM STORMWATER

SEQUENCE OF CONSTRUCTION

STORMWATER MANAGEMENT FACILITY #1.

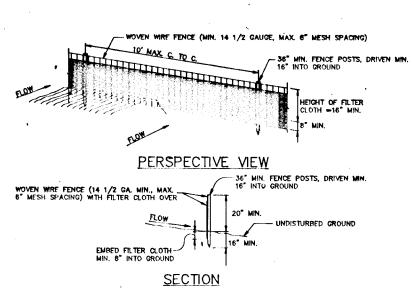
(1 WEEK)

(2 WEEKS)

(5 WEEKS)

(2 MONTHS)

(2 WEEKS)



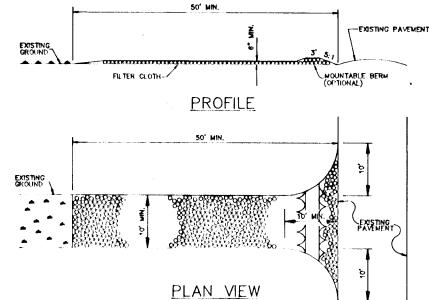
completely the second second second second

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE . WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES AND STAPLES. FILTER CLOTH TO BE FASTENED TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.

3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES (6") AND FOLDED.

4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULDES" DEVELOF IN THE SILT FENCE.

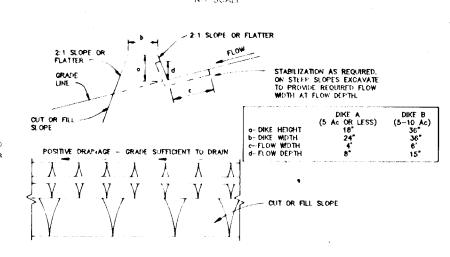
POSTS: STEEL, EITHER T OR U TYPE OR 2" HARDWOOD, FENCE: WOVEN WRE, 14 GG.6" MAX. MESH O'PENING. FILTER CLOTH: FILTER X. MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL. PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL. SILT FENCE DETAIL



CONSTRUCTION SPECIFICATIONS CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEFT (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMAM WOULD APPLY).
3. THICKNESS - MOT LESS THAN 51X (8) INCHES.
4. WIDTH - TEN (10) FOOT MINIMAM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WERE INCRESS AND EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER COTH WILL NOT BE REQUIRED ON A SINGLE RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWLYS OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE. FILTER IS IMPRACTICAL, A MCUNTARLE BENN 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOF DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAM! AND REPAIR AMPLOOR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MIST BE REMOVED. MASTED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MIST BE REMOVED. MISTING IS REQUIRED.
1 T SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TOTAL AND WHICH DRAINS INTO AN APPROVED SEDIMENT TOTAL BE PROVIDED AFTER EACH RAIN.

### STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATIONS 1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT 2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.

3. TOP MOTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IN DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC. 4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE

5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SCIDIENT TRAPPING DEVICE SUCH AS A SEDMENT TRAP OR SEDIMENT BASIN WHERE "BUTHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.

 STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS
FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B)
FLOW CHANNEL AS PER THE CHART BELOW: FLOW CHANNEL STABILIZATION DIKE A

0.5-3.0% SEED & STRAW MULCH SEED & STRAW MULCH SEED & STRAW MULCH SEED USING JUTE, OR EXCELSIOR; SOD; 2° STON SEED WITH JUTE, OR LINED RIPRAP 4--8"
SOD: 2" STONE 5.1~8.0% UNED RIPRAP 4-8" ENGINEERED DESIGN 8.1-20% A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.

B. RIPRAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL. C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS. . PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE

#### OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT FACILITY

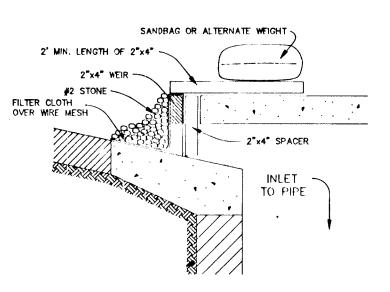
HOME OWNERS ASSOCIATION'S MAINTENANCE RESPONSIBILITIES: 1. Top and side slopes of the embankment shall be moved a minimum of two (2)

times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be moved as needed. 2. Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.

3. When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.

> OPERATIONAL MAINTENANCE SCHEDULE FOR S.W. M.F.

# 6' MAX. SPACING OF 2"x4" SPACERS 2"x4" WEIR -2"x4" SPACER -



والأراج المراج والمراجع المرازي والمراجع والمناز والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع

### CONSTRUCTION SPECIFICATIONS

I. MATERIALS A. WOODEN FRAME IS TO BE CONSTRUCTED OF 2"x4" CONSTRUCTION GRADE LUMBER. B. WIRE MESH MUST BE OF SUFFICIENT STRENGTH TO SUPPORT FILTER FABRIC, AND

C. FILTER CLOTH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE; RESISTANT TO SUNLIGHT WITH A SEIVE SIZE, EOS 40-85, TO ALLOW SUFFICIENT PASSAGE OF WATER AND REMOVAL OF SEDIMENT D. STONE IS TO BE 2" IN SIZE AND CLEAN, SINCE FINES WOULD CLOG THE CLOTH.

II. PROCEDURE (FOR CURB INLET PROTECTION) A. ATTACH A CONTINUOUS PIECE OF WIRE MESH (30" MIN. WIDTH BY THROAT LENGTH PLUS 4') TO THE 2"x4" WEIR (MEASURING THROAT LENGTH PLUS 2')

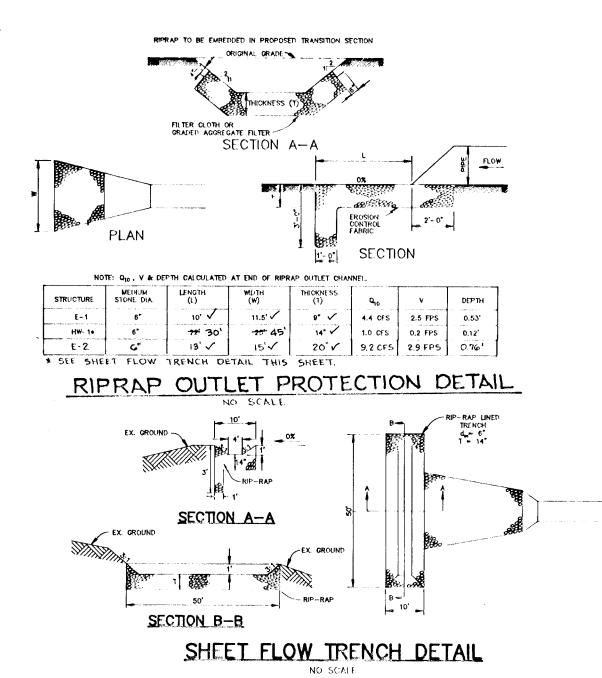
AS SHOWN ON THE STANDARD DRAWING. B. PLACE A PIECE OF APPROVED FILTER CLOTH (40-85 SEIVE) OF THE SAME TO THE 2"x4" WEIR.

C. SECURELY NAIL THE 2"x4" WEIR TO 9" LONG VERTICAL SPACERS TO BE OCATED BETWEEN THE WEIR AND INLET FACE (MAX. 6' APART) D. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL (MINIMUM 2' LENGTHS) OF 2"x4" TO THE TOP OF THE WEIR AT SPACER LOCATIONS.
THESE 2"x4" ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT.

E. THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM I' BEYOND BOTH ENDS OF THE THROAT OPENING F. FORM THE WIRE MESH AND FILTER CLOTH TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE
CLEAN 2" STONE OVER THE WIRE MESH AND FILTER FABRIC IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND TH

G. THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT H. ASSURE THAT STORM FLOW DOES NOT BYPASS INLET BY INSTALLING TEMPORARY EARTH OR ASPHALT DIKES DIRECTING FLOW INTO INLET

# STONE FILTER INLET PROTECTION



### MAX I MUM 36" MINIMUM 21 ST DIAMETER DAE VANIDED OR AULMINUM THAIN JINK FENCES #17H 1 LAYER OF FILTER DLOTH OVER MUMININ "E y 21/21 DIAMETER GALVANIZED OR ALUMINUM POSTS - SHAIN LINK FENCING-16" MIN. 1ST LAYER OF - MINIMUM INTO SECUND STANDARD SYMBOL

Construction Specifications fending shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The spea Fication for a 6 foot fence shall be used. substituting 42 inch febric end 6 foot length posts. 1. The poles do not need to set in concrete.

--- SSF ----

2. Chain (ink fence shall be fastened securely to the fence 3. Filter cloth should be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section. 4. Filter cloth should be embedded a minimum of go into the

5. When two sections of Fliter cloth adjoin each other, they 6. Maintenance shall be performed as needed and silt buildups

# SUPER SILT FENCE DETAIL

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 preas to be occupied by the permanent works. The contractor shall also furnish tratall, operate, and maintain all necessary pumping and other equipment regulred for removal of water from the various parts of the work and for mointaining the excevations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each port of the work. After having served their purpose, all temporary protective works shall be removed or levaled 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 possed through the permonent 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 excovations 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

CARE OF WATER DURING CONSTRUCTION

All borrow greas shall be graded to provide proper drainage and left in a eightly condition. All exposed surfaces of the embankment, spillway, spall and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in occordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the occomponying drawings. EROSION AND SEDIMENT CONTROL

Construction operations will be corried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local lows concerning pollution obotement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

### POND SPECIFICATIONS

SPECIFICATIONS

These specifications are appropriate to all ponds within the scape 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 dry stormwater management pands, a minimum of a 50 fee adius around the inlet structure shall be cleared.

All cleared and arubbed 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 tapsoil will be stackalled in a 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 Soll 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 excovated into the embankment

Composition - The movement of the houling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be troversed 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 vibrotory roller. Fill material shall contain sufficient maisture 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 compocted as necessory 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 excovated 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. STRUCTURE BACKFILL

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjaining 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 compostion equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the bookfilling 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. Corrugated Metal Pipe - All of the following criterio shall apply for corrugated

Moteriols - (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 cooting domoged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mill) on both sides of the pipe. The following coatings or an approved equal may be used: Nevon, Plosti-Cote, Blac-Klod, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246. 2. Coupling bonds, ontl-seep collors, end sections, etc., must be composed of

the some moterial as the pipe. Metals must be insulated from dissimilar moterials with use of rubber or plastic insulating materials at least 24 3. Connections - All connections with pipes must be completely watertight. The

drain pipe or borre' 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. Dimple bands are not considered to be watertight. All connections shall use a rubber or neoprene gasket when joining pipe corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 48" in diameter; flonges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular near-rene gasket; and a 12" wide hugger type band with 0-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

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 seems or have lock seems. 4. Bedding - The pipe shall be firmly and uniformly bedded throughout its encountered, all such material shall be removed and replaced with suitable

24" long annular corrugated band using rods and lugs. A 12" wide by 3/8"

5. Backfilling shall, conform to "Structure Bockfill," 6. Other details (anti-seep collars, valves, etc.) shall be as shown on the

Reinforced Concrete Pipe - Al of the following criterio shall apply for reinforced concrete pipe:

. Materials — Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is AWWA Specification C-302.

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 s 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 upstream. Joints shall be made in accordance with recommendations of the monufacturer 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

4. Backfilling shall conform to Structure Backfill. 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drowings. Polyvinyl Chloride (PVC) Pipe - All of the following criterio shall apply for

polyvlnyl chloride (PVC) pipe: 1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785

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 sultable 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

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

All rock shall be dense, sound, and free from cracks, seems, 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: 1. Bulk specific grovity (soturated surface-dry basis) not less than 2.5. 2. Absorption not more than three percent.

3. Soundness: Weight loss in five cycles not more than 20 percent when sodium

Bulk specific gravity and obsorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 88. The riprop shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprop in place shall be reosonobly homogeneous with the larger rocks uniformly distributed and firmly in contact one to onother with the smaller rocks filling the voids between the lorger rocks. Filter cloth shall be placed under all riprop and shall meet the regulrements of Maryland Department of Transportation, State

Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

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.

DEVELOPER LOWIR B. Sargant PRINT NAME BELOW SIGNATURE

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 THI 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

311.95 ENGINEERMAY Kantzer

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.

NATURAL RESOURCES CONSERVATION DISTRIC

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

AS BUILT CERTIFICATE

12.8.97 JAYKANT D. PAREKH P.E. # 19148

DATE APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

3/28/95

Gina Summany. CHIEF, DIVISION OF CHIEF, DIVISION C...
LAND DEVELOPMENT

PEGEARCH

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

MOU CALLETTE DIVISION lecover M. Lanche

HIGHWAYS 45 CHIEF, BUREAU OF

DATE NO. MICHAEL J. LYNCH

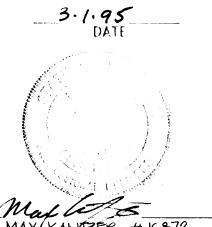
DEVELOPER 9430 BALT. NATIONAL PIKE ELLICOTT CITY, MD 21043 SARGENT DEVELOPMENT 410-461-5188 CORP. III 13243 WESTMEATH LANE CHARLES SHEEHAN LARKSVILLE, MD 21029 ARTANA SHEEHAN 301-854-0938 1002 INGLESIDE AVE. CATONSVILLE, MD 21228

PROJECT CHATHAM MEWS LOTS 1-17

AREA TAX MAP NO. 24 ZONED R- 12 & B- 2 PARCELS 979 & 1137 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND CHATHAM MEWS, A RESUBDIVISION OF PARCEL B & LOT

SEDIMENT CONTROL DETAILS AND NOTES

Surveyors Planners • Engineers 8818 Centre Park Drive • Suite 200 Columbia, Md 21045 410-997-8900 FAX: 410-997-9282



DESIGNED BY :JTD

F-95-92

DRAWN BY : JTD PROJECT NO:50011 DATE: FEB. 27, 1995

DRAWING NO. 4 OF 6

SCALE : AS SHOWN

