

# MASS GRADING AND STORMWATER MANAGEMENT PLANS

## WAL-MART STORES, INC.

ROUTE 40 AND ROUTE 29

2nd ELECTION DISTRICT  
ELLCOTT CITY, MD  
HOWARD COUNTY

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### GENERAL NOTES

- TOTAL AREA OF PARCELS - 69.40 AC.  
PARCEL A-1 - 6.25 AC.  
PARCEL B - 18.36 AC.  
PARCEL C - 1.70 AC.  
BULK PARCEL D - 17.12 AC.  
BULK PARCEL E - 7.30 AC.  
PARCEL F - 8.27 AC.  
PARCEL G - 10.40 AC.  
TOTAL GROSS AREA OF SUBDIVISION - 69.40 AC.
- THE LOCATION OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION AND DEPTH OF ANY EXISTING UTILITIES AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK.
- THE CONTRACTOR SHALL NOTE THAT IN CASE OF A DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- WATER AND SEWER CONTRACT NUMBER 14-3444-D. ALL WATER AND SEWER ARE PROPOSED AS PUBLIC. THIS PROJECT IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- THERE ARE NO CONTIGUOUS SLOPES OF 25% OR GREATER WHICH ARE GREATER THAN 20,000 SQ.FT. IN AREA.
- THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS. WITH THE EXCEPTION OF STORMWATER MANAGEMENT WAIVER, APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5.a AND SECTION 10.2.6.6.a. OFFICIAL LETTER FROM DPW ATTACHED TO THIS PLAN SET ON SHEET 14.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/ BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN OR AERIAL SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE AND ASSOCIATES, INC. DATED MAY 5, 1994.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NUMBERS 24C2 AND 18G1 WERE USED FOR THIS PROJECT.
- STORMWATER MANAGEMENT FOR THE ENTIRE SITE WILL BE PROVIDED IN THE PROPOSED "PRIVATE" FACILITY AS DESIGNED IN THIS PLAN SET. WATER QUALITY WILL BE PROVIDED BY A STORMCEPTOR SEWER SYSTEM ON THE PARCELS ZONED COMMERCIAL. EXTENDED DETENTION BY FOREBAY WILL PROVIDE WATER QUALITY MANAGEMENT FOR THE RESIDENTIAL SECTION. THE STORMWATER MANAGEMENT POND WILL BE OWNED AND MAINTAINED BY WAL-MART STORES, INC.
- REFERENCE FILE NUMBERS: F-96-01 (FINAL ROAD CONSTRUCTION PLANS FOR NORTH RIDGE ROAD), F-96-09 (FINAL RECORD PLAN), SDP-96-11 (WAL-MART FINAL SITE PLAN) AND C#14-3444-D (FINAL WATER PLAN)
- THE OWNER SHALL BE ADVISED THAT A BUILDING PERMIT IS REQUIRED FOR THE CONSTRUCTION OF THE ON-SITE RETAINING WALLS. TWO (2) COMPLETE SETS OF STRUCTURAL DRAWINGS BEARING THE SEAL AND ORIGINAL SIGNATURE OF MARYLAND STATE REGISTERED PROFESSIONAL
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLANDS OR STREAM BUFFERS, OR FOREST CONSERVATION AREAS.
- THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF THE FOREST CONSERVATION EASEMENT ARE ALLOWED.

I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 3/6/96  
SIGNATURE OF DEVELOPER DATE

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

*[Signature]* 3-1-96  
SIGNATURE OF ENGINEER DATE

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

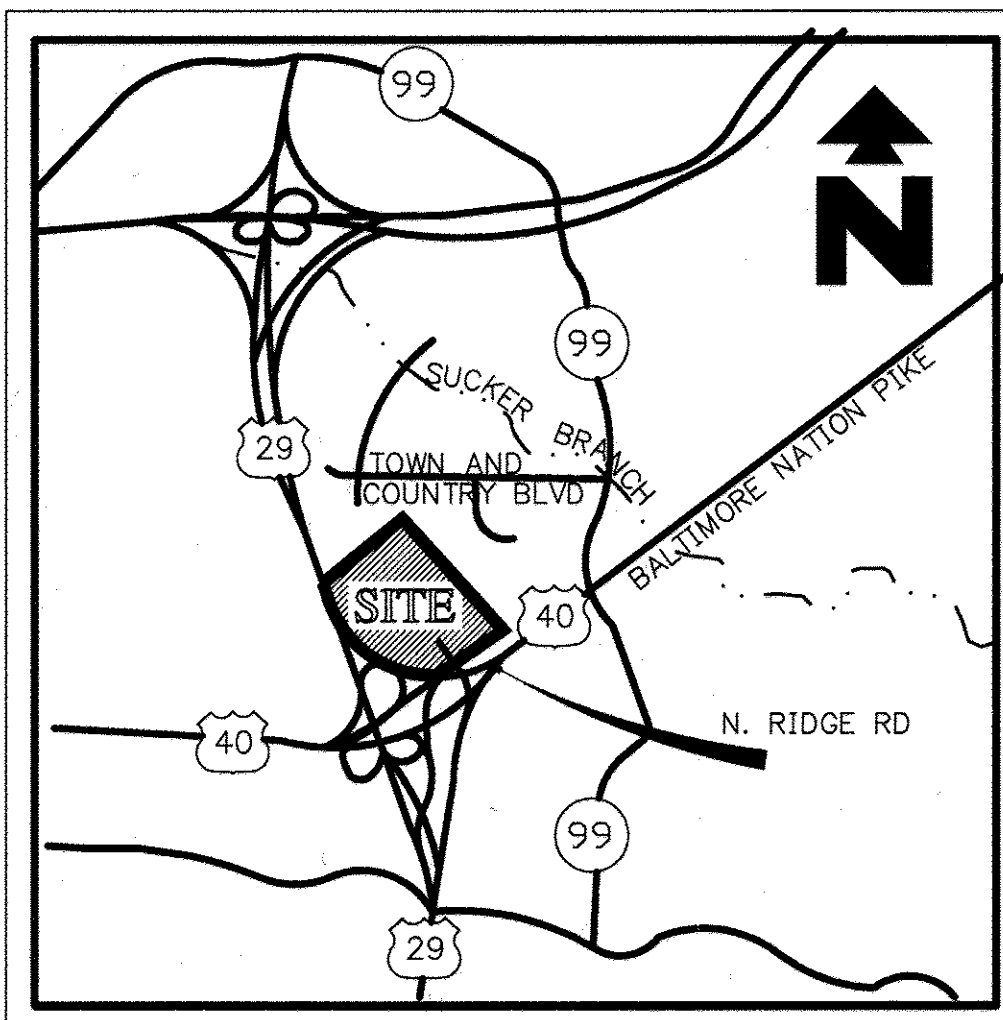
*[Signature]* 9/26/96  
HOWARD SOIL CONSERVATION DISTRICT DATE

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

*[Signature]* 3/26/96  
USFS - NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 4/1/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*[Signature]* 4/3/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE  
*[Signature]* 4/3/96  
DIRECTOR DATE

PERMIT INFORMATION BLOCK					
E.C. WALMART, PARCELS B, C, D, HOENES PROP. PARCEL A-3, PARCELS 47 & 970		SECTION/AREA	LOT/PARCEL #		
		N/A	970, 47, A-3, B, C, D		
PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TRACT
12106, 12107, 12108	23, 24 & 5, 6	RA-15	17 & 24	2nd	5026
11976		B-2 & P.O.R.			
L1244/F489					
L1244/F251					
WATER CODE		SEWER CODE			
F-03		1452800			
ADDRESS CHART					
LOT NUMBER			STREET ADDRESS		
HOENES PROPERTY, 970, 47, A-3, B, C, D			3200 NORTH RIDGE ROAD		



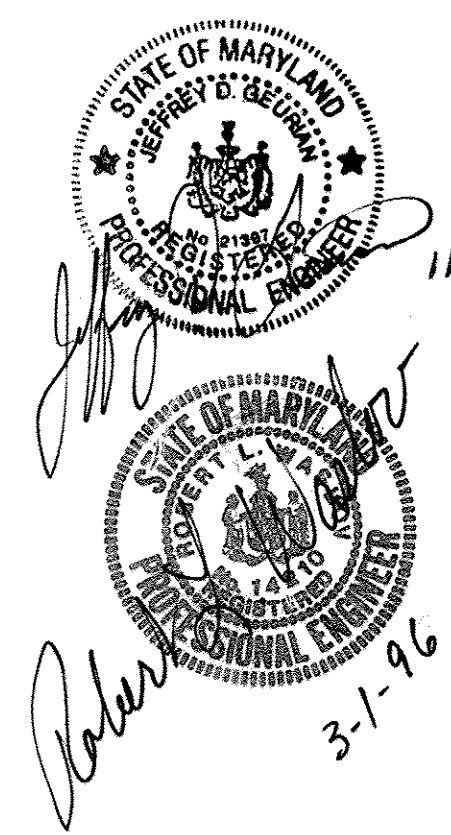
Vicinity Map  
SCALE: 1"=2000'

## STORE NUMBER 2412

### SITE ANALYSIS: (PROPOSED UNDER SDP-96-11)

AREA OF PARCEL:	799,847 Sq.Ft. OR 18,36 AC
PRESENT ZONING:	B-2 ZONING BOARD CASE ZB-941
TOTAL AREA OF SITE:	65.79 ACRES
AREA DISTURBED:	46.00 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	4.04 ACRES
TOTAL CUT:	130,000 CU YD
TOTAL FILL:	130,000 CU YD

JULY 02, 2018 CAPITAL PROJECT PA-132-2017 ELLCOTT CITY WALMART RETROFIT. CAPITAL PROJECT INVOLVES RETROFIT OF EXISTING CONCRETE RISER. PROPOSED RETROFIT PROVIDES CONTINUOUS MONITORING AND ADAPTIVE CONTROL (CMAC) TO THE POND BY INSTALLING A 10-INCH ACTUATED BUTTERFLY VALVE. A WATER LEVEL SENSOR WILL BE INSTALLED TO PROVIDE REAL TIME MONITORING OF THE WATER LEVEL WITHIN THE POND. EXISTING RISER WILL BE MODIFIED TO MEET MDE SAFETY REQUIREMENTS.



**GAH ENGINEERING ASSOCIATES, INC**  
ENGINEERS • PLANNERS • SURVEYORS  
9175 Guilford Road, Suite 306 (301) 490-4145  
Columbia, MD 21046 FAX (301) 490-4149

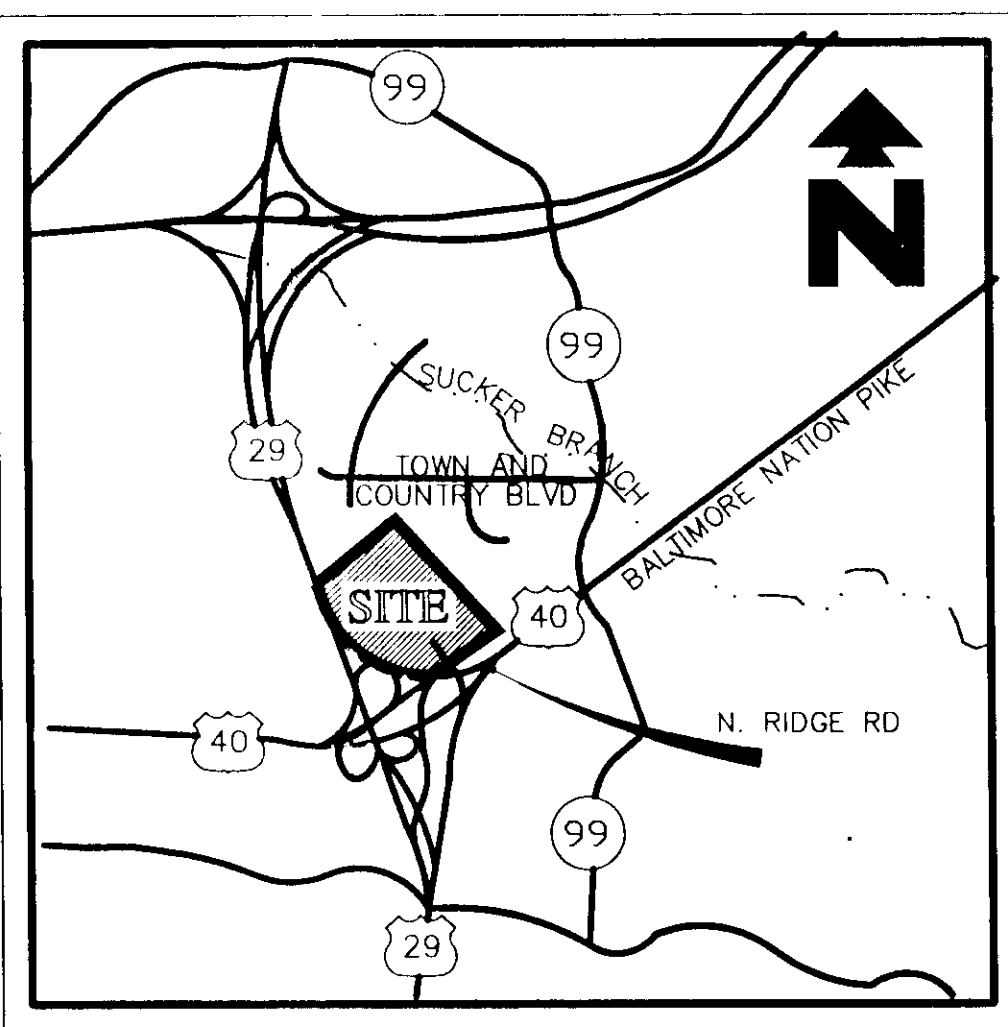
- RESOURCE LIST :**
- SURVEYOR (TOPOGRAPHY)**  
RIEMER MUEGGE AND ASSOCIATES, INC.  
MR. RON ANDERSON  
8818 CENTER PARK DRIVE, SUITE 200  
COLUMBIA, MD 21045  
(410) 997-8900
  - SURVEYOR (EASEMENT INFORMATION)**  
SET, INC.  
MR. JOHN MOSELEY  
3098 NEWINGTON DR.  
RIVA, MD 21140-1440  
(410) 974-8086
  - MARYLAND STATE HIGHWAY ADMIN.**  
ENGINEERING ACCESS PERMITS DIVISION  
707 N. CALVERT STREET  
P.O. BOX 717  
BALTIMORE, MARYLAND 21203  
(410) 333-1350
  - BELL ATLANTIC TELEPHONE**  
MR. JOHN FIDLER  
7133 RUTHERFORD RD.  
2nd FLOOR  
WOODLAWN, MD 21244  
(410) 281-7532
  - HOWARD COUNTY**  
GEORGE HOWARD BUILDING  
3430 COURTHOUSE DRIVE  
ELLCOTT CITY, MARYLAND 21043  
(410) 313-2393
  - DEPARTMENT OF PLANNING AND ZONING DEVELOPMENT ENGINEERING DIVISION**  
MR. CHARLES DAMMERS, P.E.  
(410) 313-2420
  - DEPARTMENT OF PLANNING AND ZONING**  
MS. REGINA TIRINNANZI  
(410) 313-2354
  - DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS DEPARTMENT**  
(410) 313-2455
  - DEVELOPER**  
WAL-MART STORES, INC.  
MOHSEN GHADIMKHANI  
701 SOUTH WALTON BLVD.  
BENTONVILLE, AR 72716  
(501) 273-4940
  - CONTRACT PURCHASER**  
MANGIONE FAMILY ENTERPRISES  
1205 YORK ROAD PENTHOUSE  
LUTHERVILLE, MARYLAND 21093  
(410) 825-9400
  - OWNER OF DEVELOPMENT**  
LEONORA K. HOENES  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MD 21043  
(410) 465-2321

- ENGINEER SHALL ACCOMPANY THE BUILDING PERMIT APPLICATION.
- HAZARD CLASSIFICATION**  
CLASS "A" - STRUCTURES LOCATED IN RURAL, AGRICULTURAL OR URBAN AREAS DEDICATED TO REMAIN IN FLOOD TOLERANT USAGES WHERE FAILURE MAY DAMAGE NON-INHABITED BUILDINGS, AGRICULTURAL LAND, FLOODPLANS OR COUNTY ROADS.
- NOTICE TO BIDDERS:**  
ALL QUESTIONS REGARDING THE GENERAL CONTRACTOR'S PREPARATION OF HIS BID SHALL BE DIRECTED TO THE WAL-MART CONSTRUCTION DEPARTMENT AT (501) 273-4940. SUBCONTRACTORS MUST DIRECT THEIR QUESTIONS THROUGH THE GENERAL CONTRACTOR ONLY. THE CONSULTING ARCHITECT AND/OR THE CONSULTING ENGINEER SHALL NOT BE CONTACTED DIRECT WITHOUT PRIOR AUTHORIZATION FROM WAL-MART.
- FLOOD CERTIFICATION:**  
THIS PROPERTY IS NOT LOCATED WITHIN ANY PRESENTLY ESTABLISHED 100-YEAR FLOOD PLAIN, AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP FOR THE ELLCOTT CITY, MARYLAND. COMMUNITY PANEL NUMBER 2400440 023 B
- WETLAND CERTIFICATION:**  
THIS PROJECT DOES NOT REQUIRE A DEPARTMENT OF THE ARMY SECTION 404 PERMIT PER A DETERMINATION BY THE CORPS OF ENGINEERS, BALTIMORE DISTRICT.
- NOTICE TO CONTRACTOR:**  
THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 THREE (3) WORKING DAYS PRIOR TO BEGINNING ANY WORK IN THE VICINITY OF EXISTING UTILITIES.

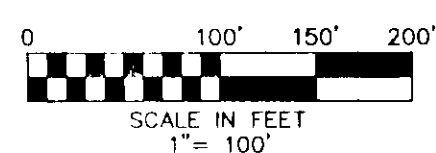
**SUBDIVISION "ELLCOTT CITY WAL-MART"**  
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND  
TAX MAP 17 & 24 P/O PARCEL 848  
REZONING CASE NUMBER ZB-941 DATED: OCTOBER 18, 1993  
SKETCH PLAN S-95-01 APPROVED: 12-2-1994  
PRELIMINARY PLAN P-95-21 APPROVED: 6-6-95  
DATE: NOVEMBER 17, 1995

STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5a AND SECTION 10.2.6.6a.





Vicinity Map  
SCALE: 1" = 2000'



LEGEND

- PROPOSED DRAINAGE AREAS
- SOIL TYPE GIB2 (B)
- 15-24.9% EXISTING SLOPES
- 25% OR MORE EXISTING SLOPES

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*Leonora K. Hoenes*  
SIGNATURE OF DEVELOPER  
3/6/96  
DATE

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

*Robert W. Ziehm*  
SIGNATURE OF ENGINEER  
3-1-96  
DATE

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

*Robert W. Ziehm*  
HOWARD SOIL CONSERVATION DISTRICT  
3/26/96  
DATE

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

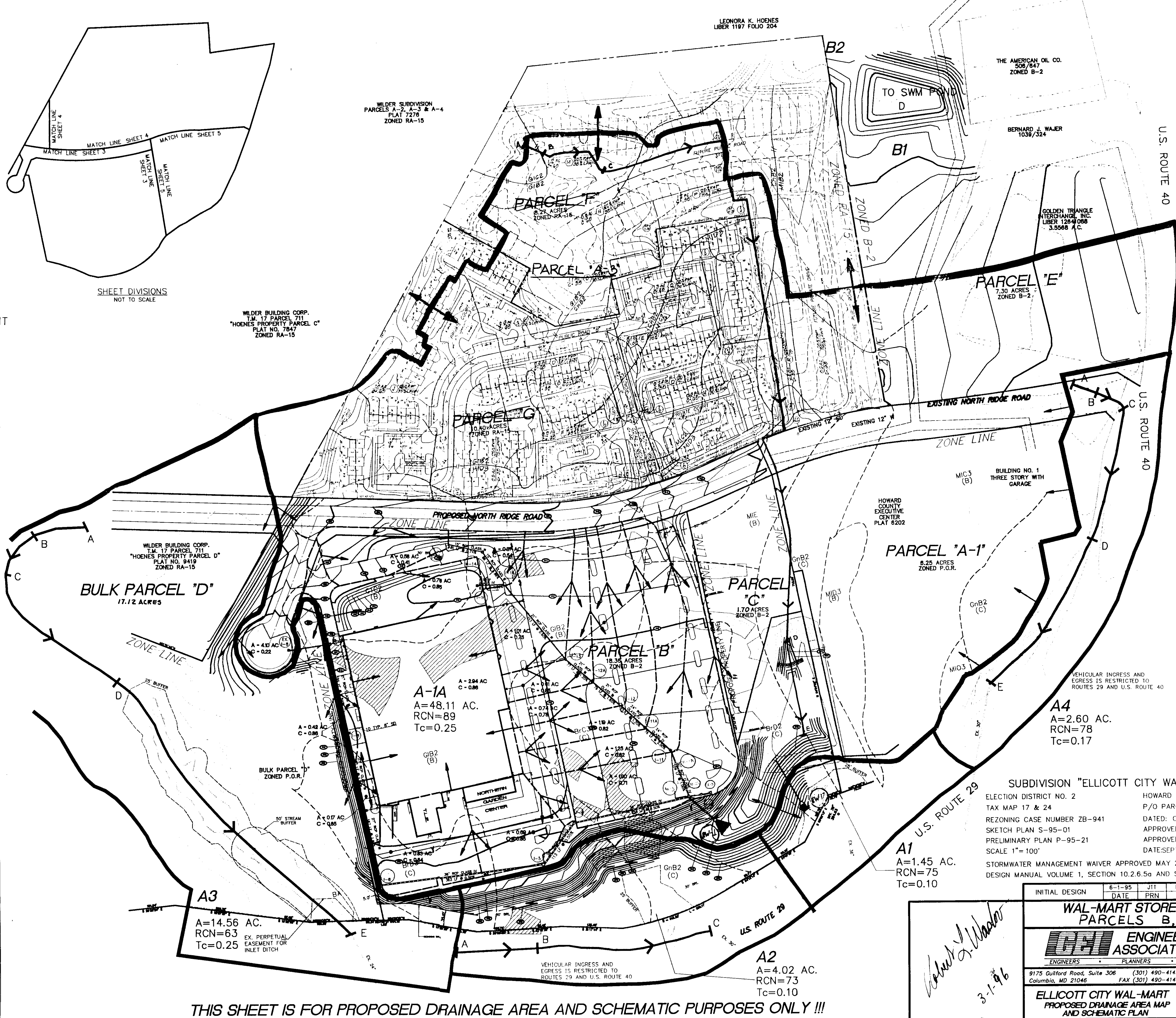
*J. D. Worfield*  
U.S. - NATURAL RESOURCES CONSERVATION SERVICE  
3/26/96  
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*John J. ...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
4/1/96  
DATE

*Gina ...*  
CHIEF, DIVISION AND LAND DEVELOPMENT AND RESEARCH  
4/3/96  
DATE

*Paul ...*  
DIRECTOR  
4/3/96  
DATE



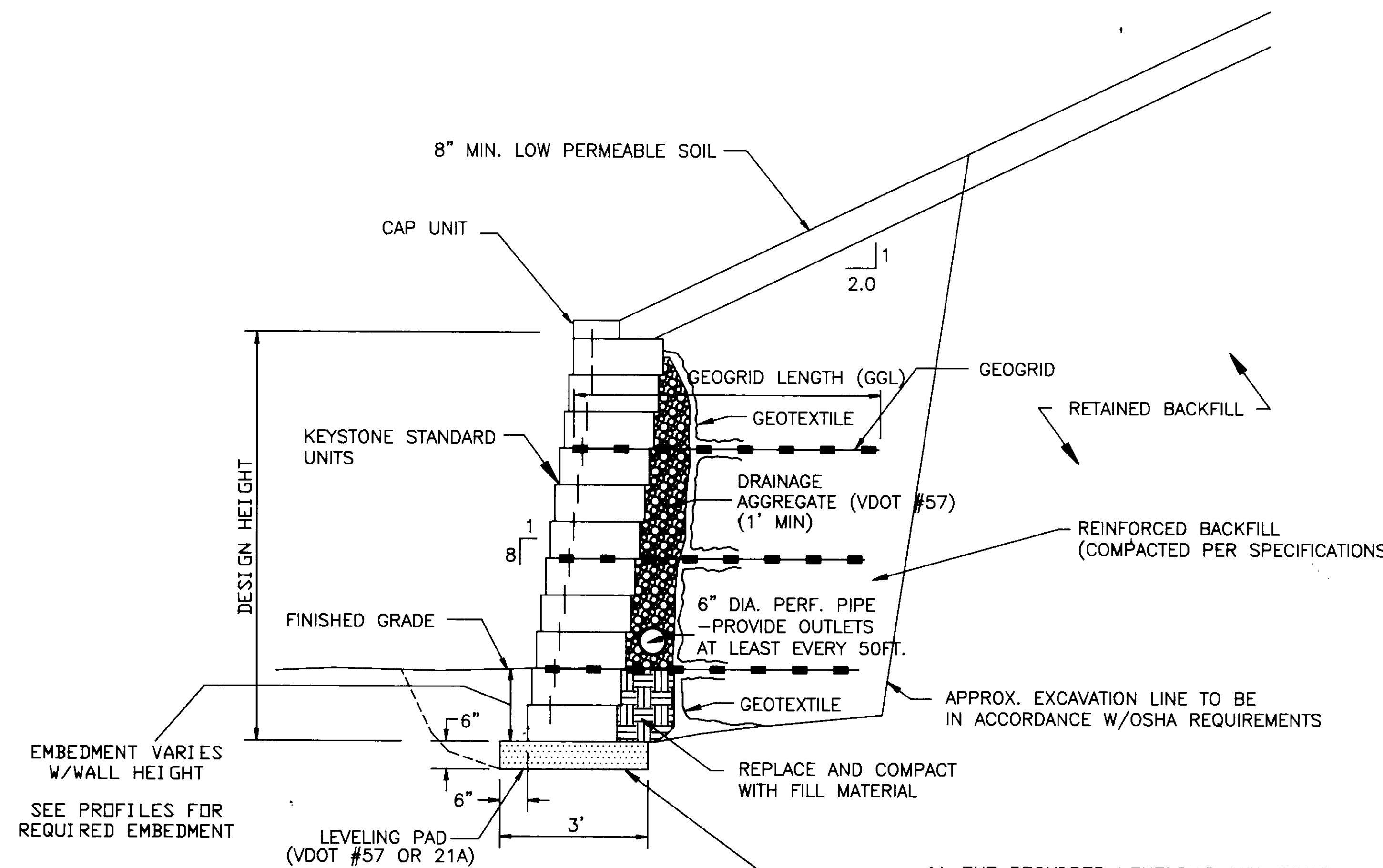
THIS SHEET IS FOR PROPOSED DRAINAGE AREA AND SCHEMATIC PURPOSES ONLY !!!

SUBDIVISION "ELLCOTT CITY WAL-MART"  
ELECTION DISTRICT NO. 2  
TAX MAP 17 & 24  
REZONING CASE NUMBER ZB-941  
SKETCH PLAN S-95-01  
PRELIMINARY PLAN P-95-21  
SCALE 1" = 100'  
STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5a AND SECTION 10.2.6.6a

INITIAL DESIGN	6-1-95	JIT	KLM	IMP	1VV
DATE	PRN	BM	DES	DRW	
<b>WAL-MART STORES, INC.</b> PARCELS B,C,D					
<b>ENGINEERING ASSOCIATES, INC.</b>					
ENGINEERS PLANNERS SURVEYORS					
9175 Guilford Road, Suite 306 Columbia, MD 21046			(301) 490-4145 FAX (301) 490-4149		
JOB NO: 9146 DWG NAME: 9146/PRJ1			DATE: 7-5-95 SHEET NO: 2 OF 25		
<b>ELLCOTT CITY WAL-MART</b> PROPOSED DRAINAGE AREA MAP AND SCHEMATIC PLAN					

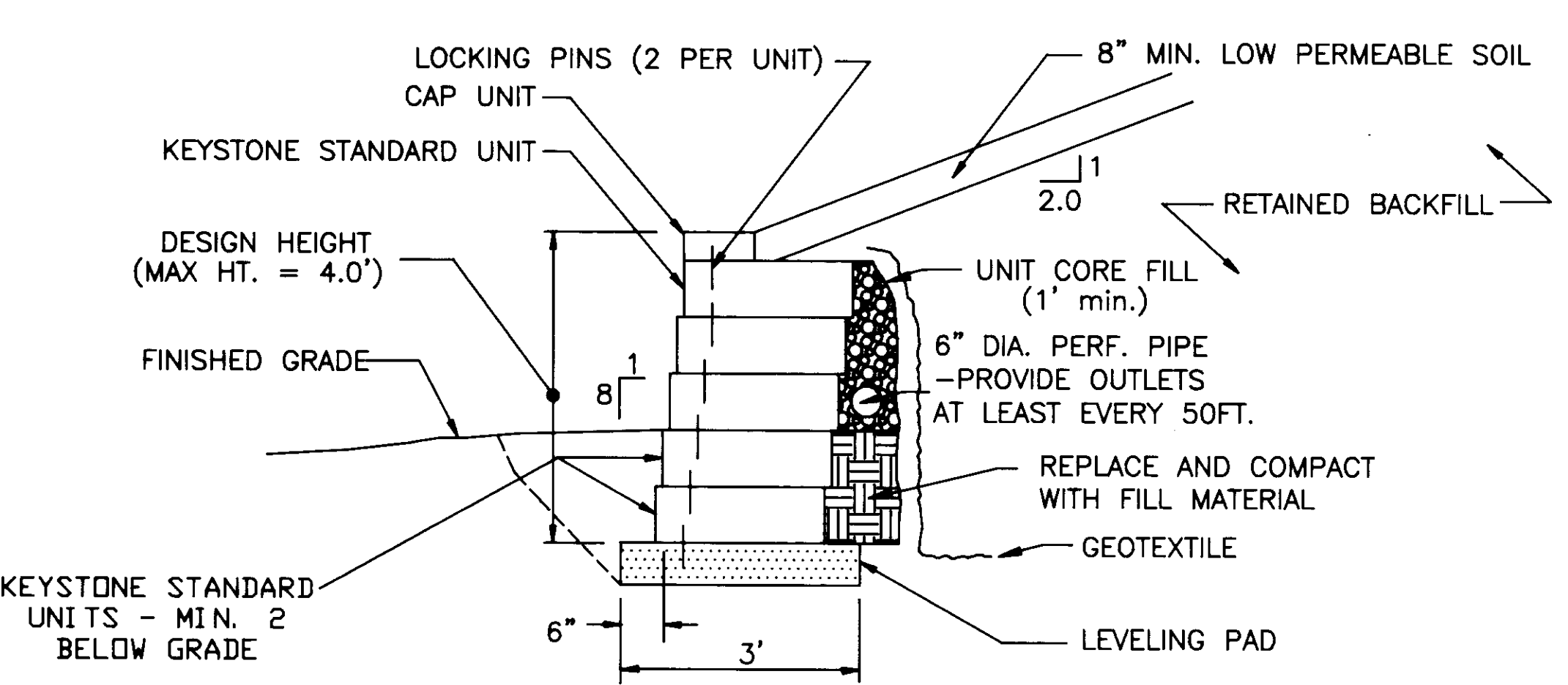
0. 13802019-461 MASS:006131-461DRAN. Top Aug. 29 15 54. 03. 1995

SDP-96-01

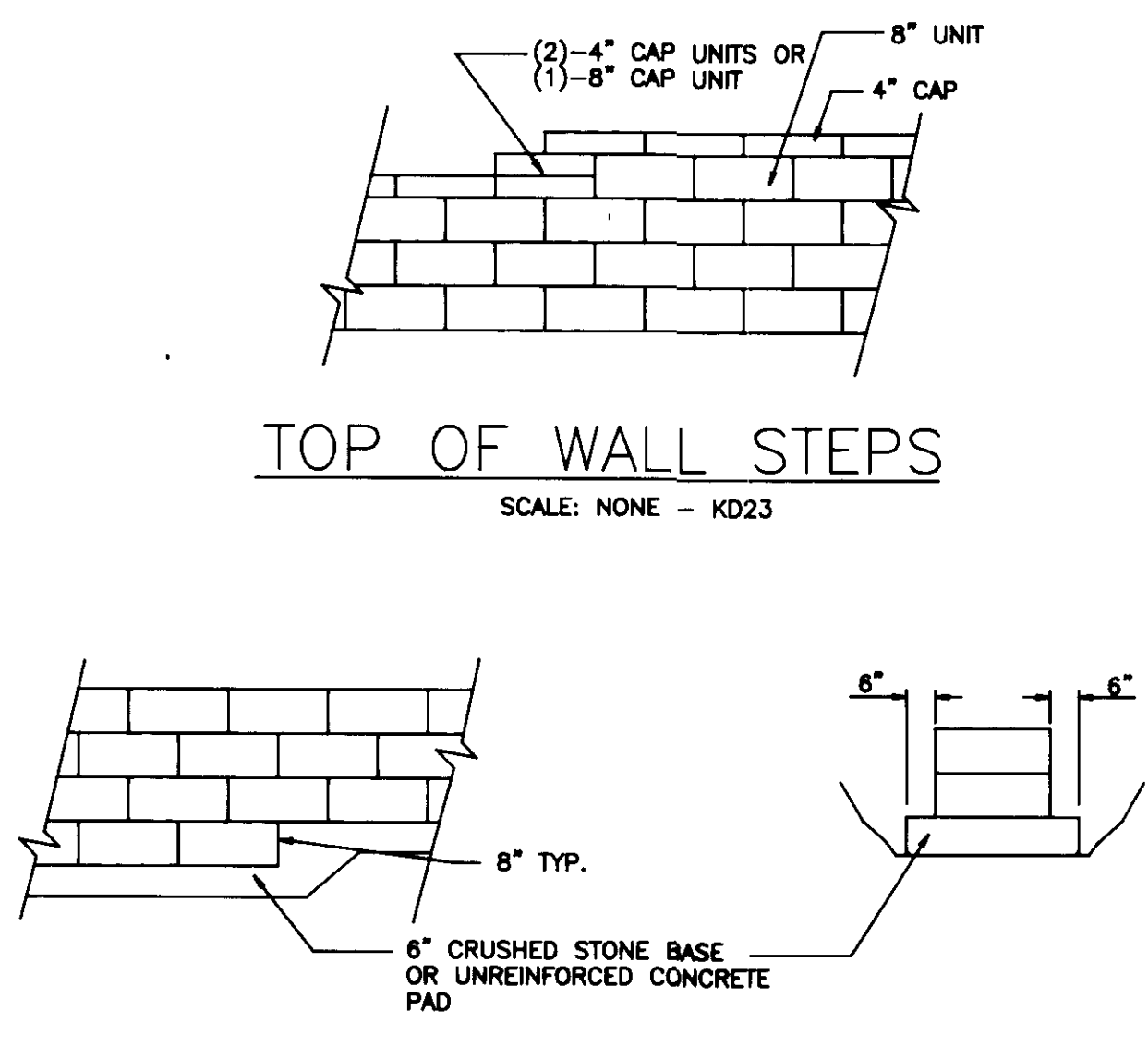


**TYPICAL REINFORCED SECTION**  
STANDARD UNIT - 1" SETBACK  
SCALE: NONE

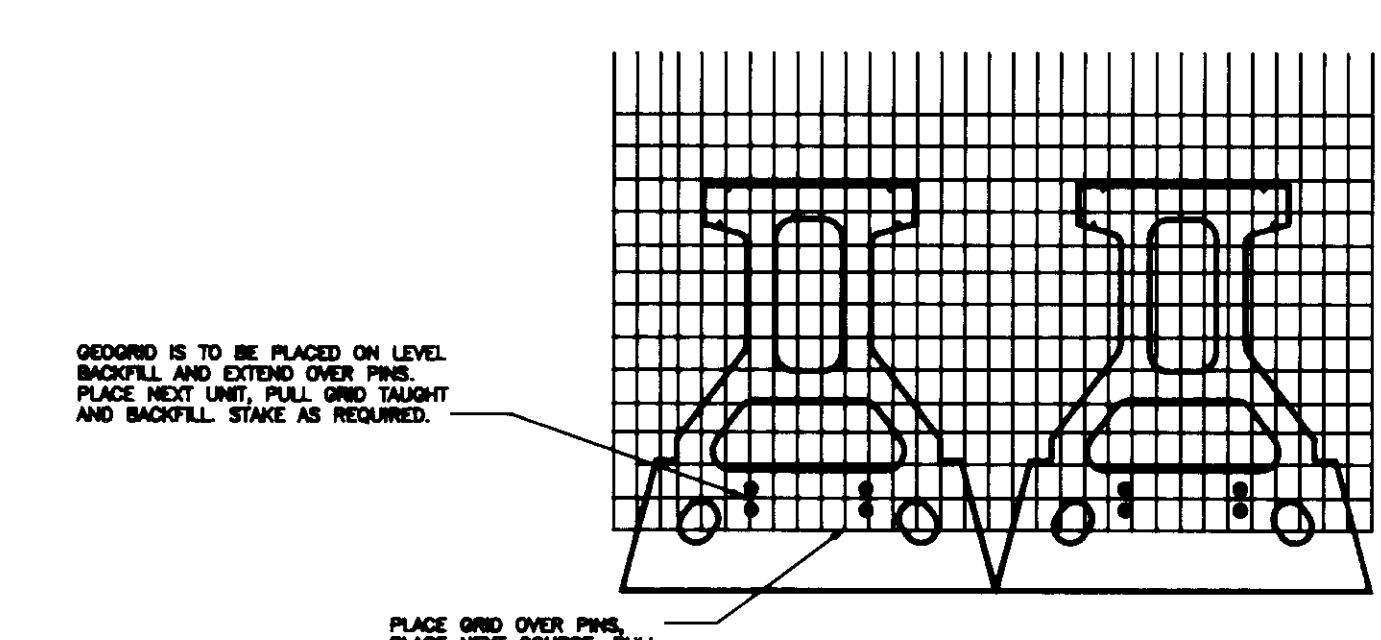
- 1) THE REQUIRED LEVELING AND SUBGRADE BEARING CAPACITY SHALL BE CERTIFIED BY A MARYLAND REGISTERED PROFESSIONAL ENGINEER PRIOR TO FOOTING PLACEMENT.
- 2) THE FOUNDATION SOIL MUST BE EXAMINED BY A MARYLAND REGISTERED PROFESSIONAL ENGINEER TO ASSURE THAT THE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR EXCEEDS ASSUMED DESIGN STRENGTH.



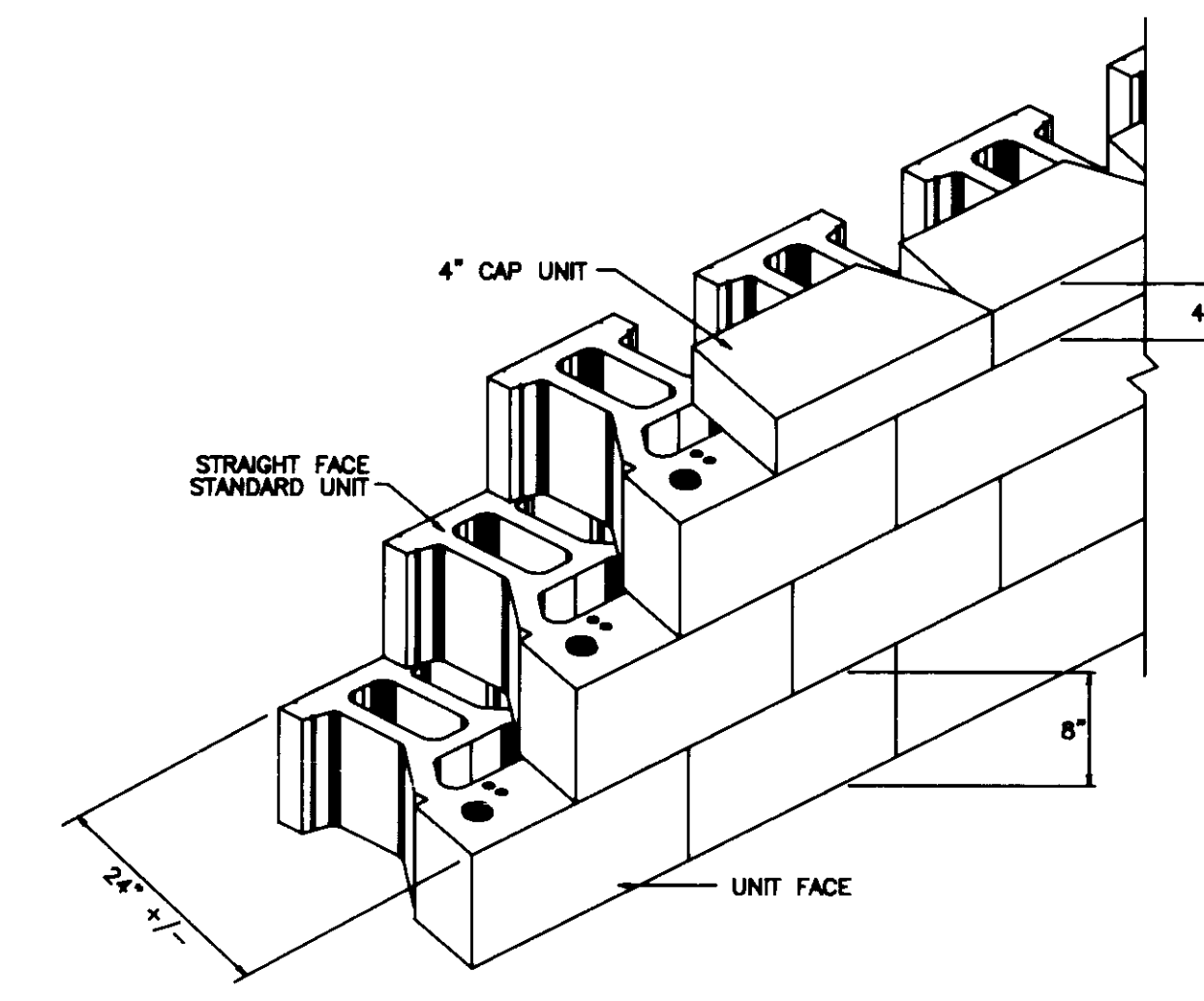
**TYPICAL GRAVITY SECTION**  
STANDARD UNITS - 1" SETBACK  
SCALE: NONE - KD55



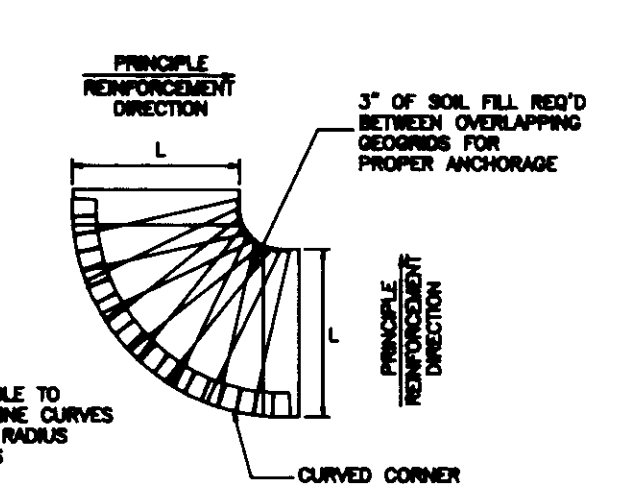
**LEVELING PAD AND STEP DETAILS**  
SCALE: NONE - KD24



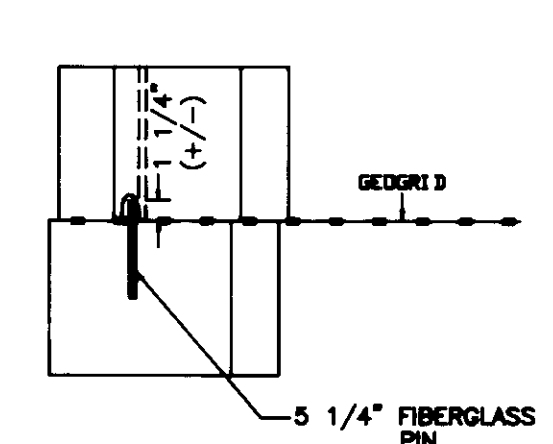
**KEYSTONE STANDARD UNIT**  
GRID/PIN CONNECTION  
SCALE: NONE - KD118



**KEYSTONE STANDARD UNIT**  
ISOMETRIC  
SCALE: NONE - KD75



**CONVEX CORNER GEOGRID PLACEMENT DETAIL**  
SCALE: NONE - KD28



**GRID/PIN CONNECTION DETAIL**  
SCALE: NONE - KD13

NOTE: REFER TO SHEET 25 OF 25 FOR RETAINING WALL SPECIFICATIONS

NOTE: 1) THE PROPOSED CONSTRUCTION OF ALL RETAINING WALLS SHALL BE PERFORMED UNDER THE DIRECTION OF A MARYLAND REGISTERED PROFESSIONAL ENGINEER.

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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN THIRTY DAYS OF COMPLETION.

SIGNATURE OF DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_

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

SIGNATURE OF ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

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

HOWARD SOIL CONSERVATION DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

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

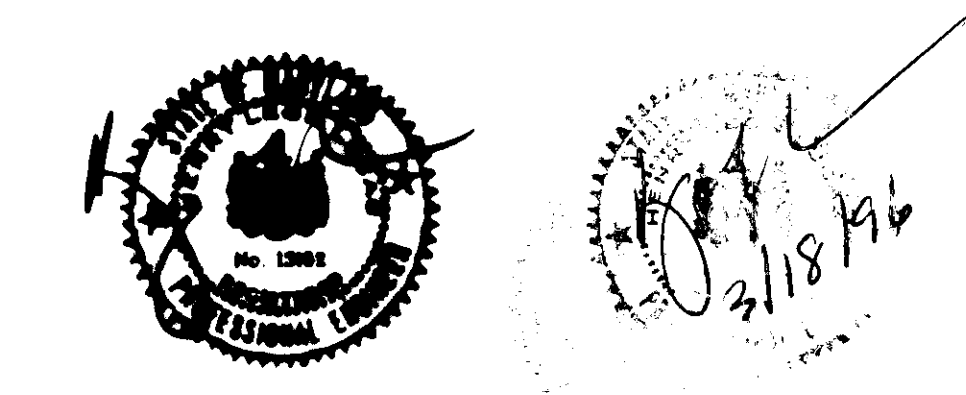
U.S. SOIL CONSERVATION SERVICE \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*John D. Williams* 4/1/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Jim Swinney* 4/3/96  
CHIEF, DIVISION AND LAND DEVELOPMENT AND RESEARCH DATE

*James S. Smith* 4/3/96  
DIRECTOR DATE

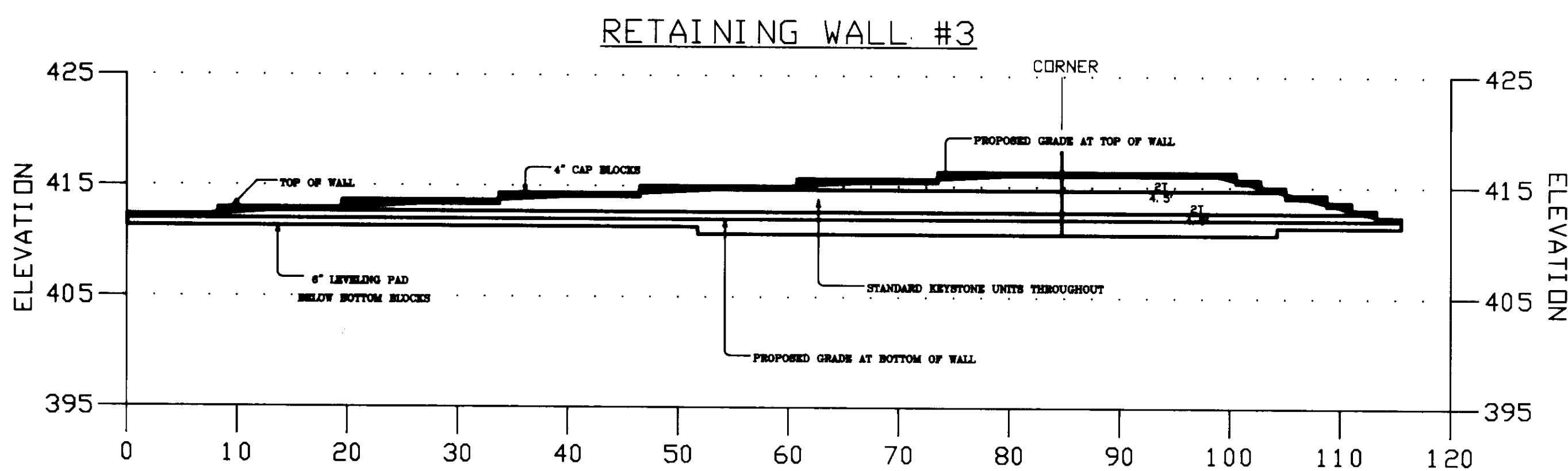
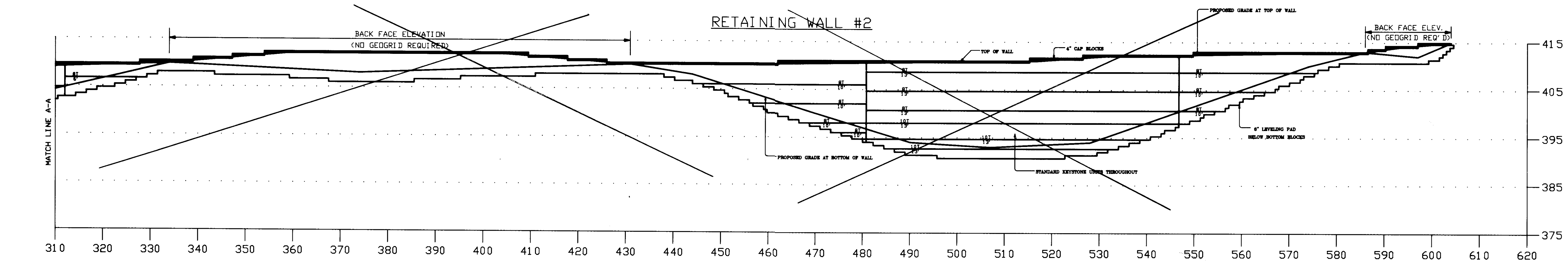
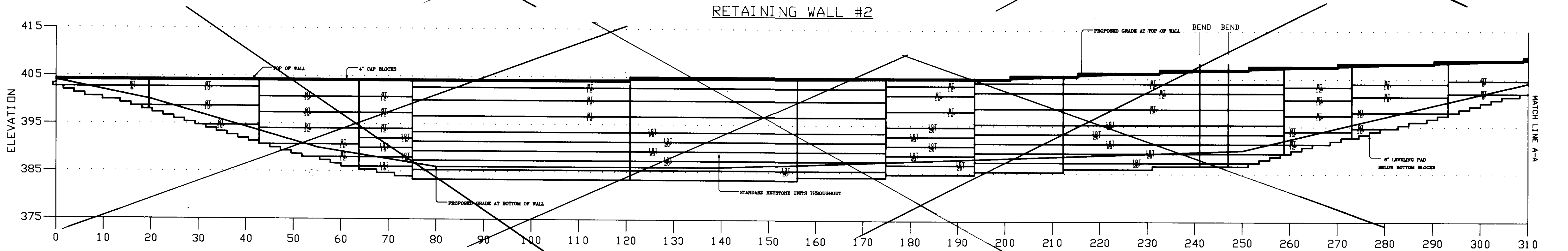
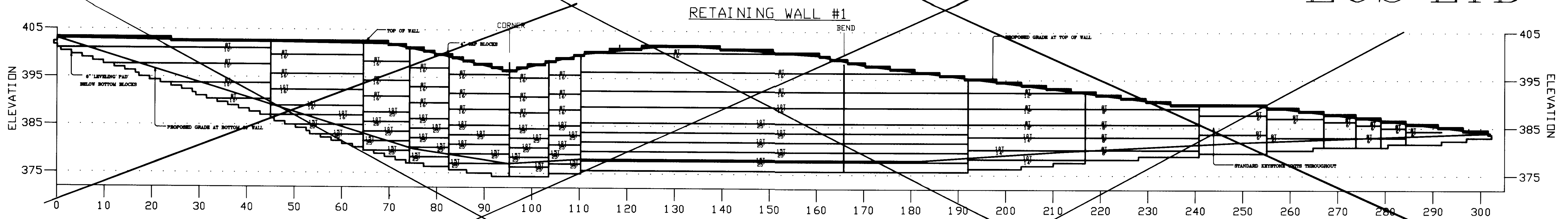


OWNER OF DEVELOPMENT  
LEONORA K. HOENES  
8668 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MD 21043  
(410) 465-2321

ELECTION DISTRICT NO. 2  
HOWARD COUNTY, MD  
TAX MAP 17 & 24

REVISIONS		RETAINING WALL DETAILS			
		WAL*MART STORE #2412 - ELLICOTT CITY, MD.			
		WAL*MART STORES, INC			
RAC	JRC	08-30-95	NTS	B1177	24 OF 25





I 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN THIRTY DAYS OF COMPLETION.

SIGNATURE OF DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_

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

SIGNATURE OF ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

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

HOWARD SOIL CONSERVATION DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

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

U.S. SOIL CONSERVATION SERVICE \_\_\_\_\_ DATE \_\_\_\_\_

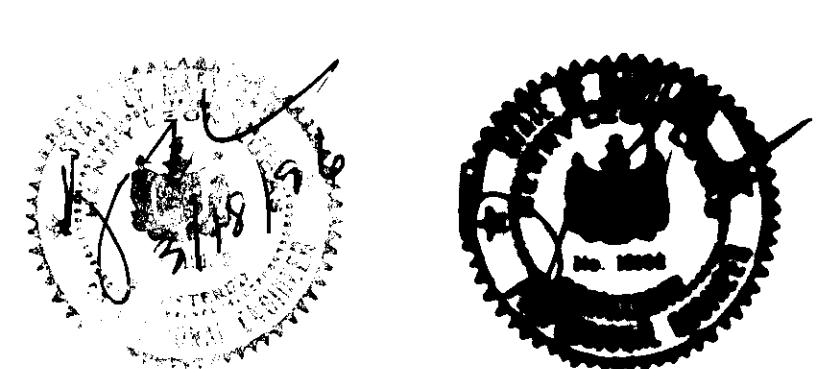
APPROVED: DEPARTMENT OF PLANNING AND ZONING

*McDermott* 4/1/96  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Jina* 4/3/96  
 CHIEF, DIVISION AND LAND DEVELOPMENT AND RESEARCH DATE

*James* 4/13/96  
 DIRECTOR DATE

ELECTION DISTRICT No. 2 HOWARD COUNTY, MARYLAND  
 TAX MAP 17 & 24

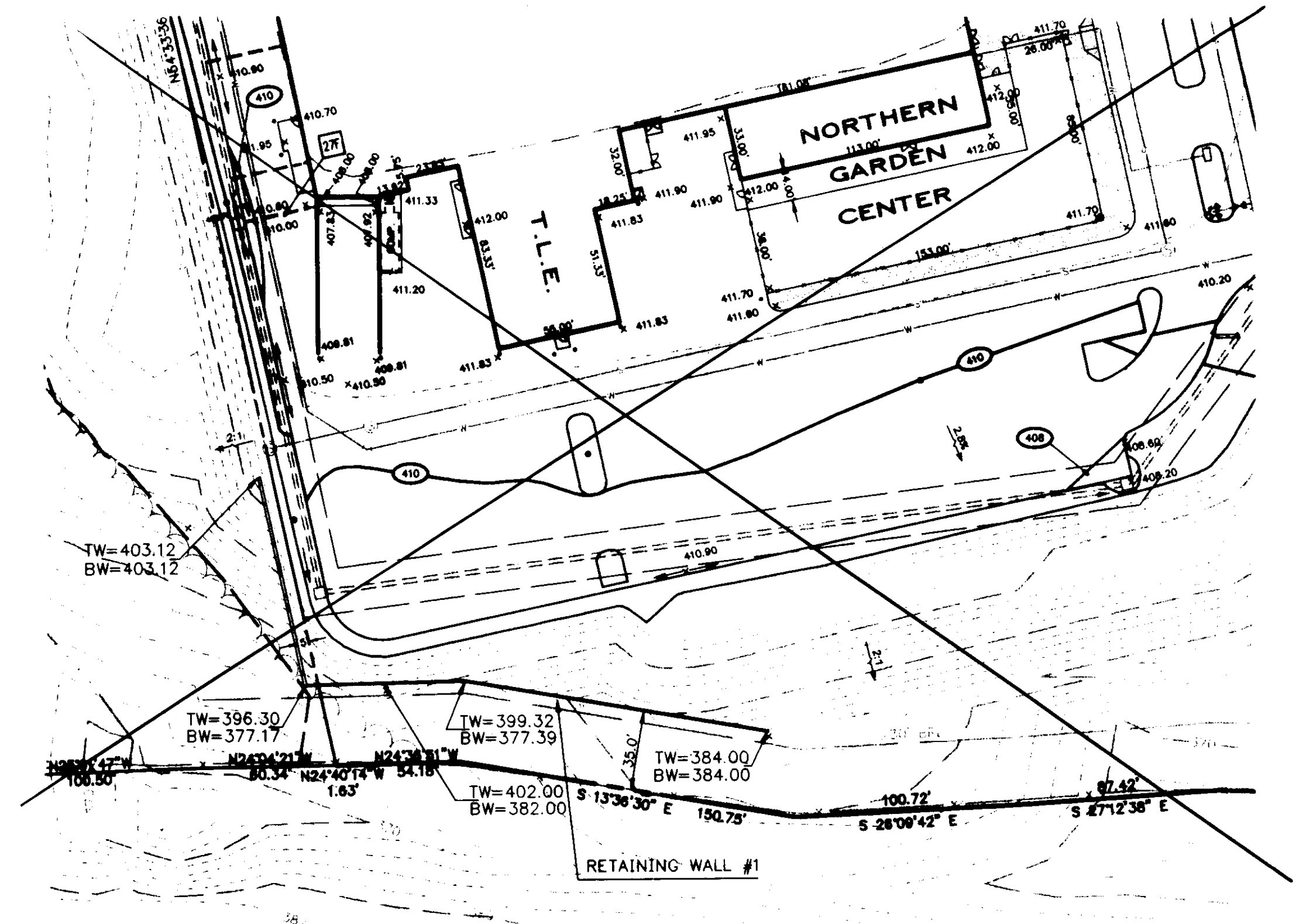
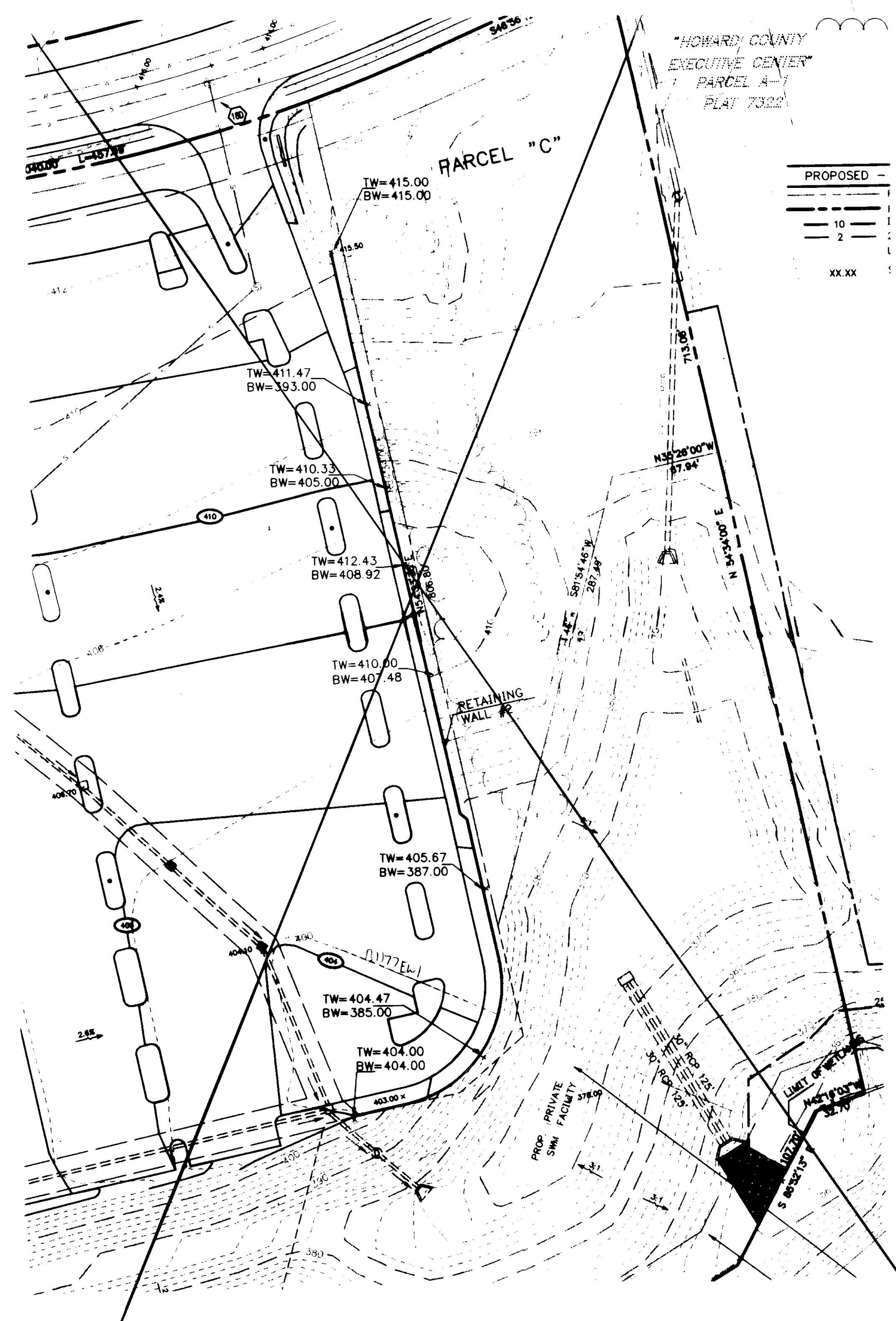
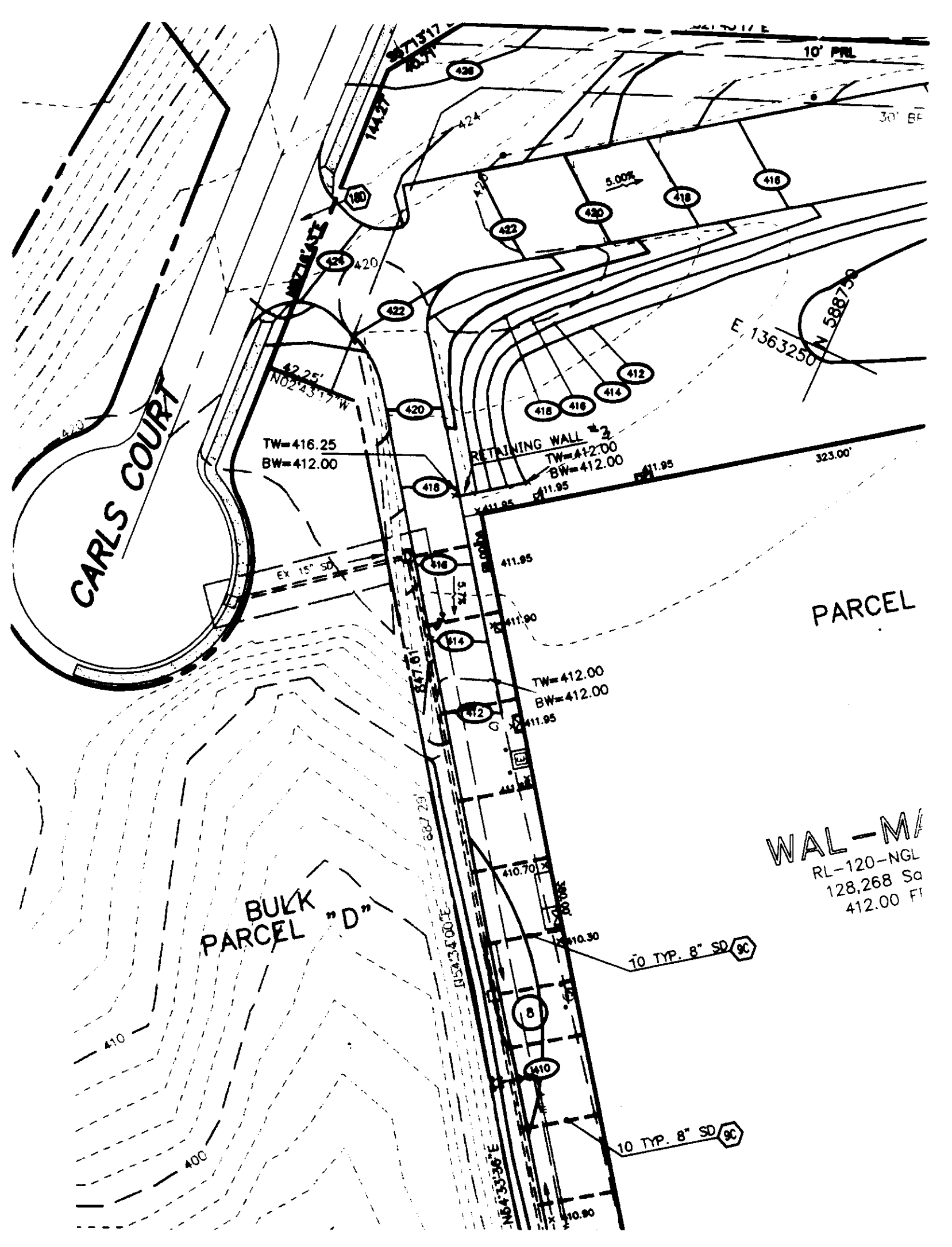


OWNER OF DEVELOPMENT  
 LEONORA K. HOENES  
 2668 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21043  
 (410) 465-2321

REVISIONS
10-11-95
VOIDS & REVISIONS
WALLS 1 & 2 7/19/96



RETAINING WALL PROFILES					
WAL*MART STORE #2412 - ELLICOTT CITY, MD.					
WAL*MART STORES, INC.					
RAC	JRC	08-30-95	1"=10'	B1177	23 OF 25



**DESIGN PARAMETERS**

<b>SMALL GEOMETRY</b>	
Exposed Height:	See Profiles
Back Better of Face (deg):	7.1°
Minimum Block Embedment:	See Profiles
Maximum Backfill Slope:	2H:1V (= 26.6°)
<b>REINFORCED FILL ZONE</b>	
Density of Backfill (pcf):	125
Phi (deg):	32°
Cohesion (pcf):	0
<b>RETAINED ZONE</b>	
Density (pcf):	125
Phi (deg):	32°
Cohesion (pcf):	25
<b>FOUNDATION SOIL</b>	
Density (pcf):	125
Phi (deg):	32°
Cohesion (pcf):	25
Allowable Bearing Pressure (psf):	0' < H < 10': 2,000 10' < H < 20': 4,000 20' < H < 25': 5,000 Where "H" is the total wall height from leveling pad to top of wall
Leveling Pad:	Crushed Stone (AASHTO #57), or Graded Aggregate (MDOT CR-467)
<b>SURCHARGE LOADS</b>	
Surcharge (psf):	Unpaved Areas: 0 Parking Stalls: 125 Truck Lanes: 250
<b>MODULAR BLOCK DATA</b>	
Modular Block System:	Keystone Blocks and Caps
Block Type:	Keystone Standard Units (Straight Face), with 4" Cap Units
Unit Fill:	Crushed Stone (AASHTO # 57)
<b>GEGRID DATA</b>	
Geogrid Type:	Mirafi (or approved equivalent; See Profiles)
Coverage of Geogrids (%):	100
Construction Damage Based on:	Sand, Silt, or Clay

**FACTORS OF SAFETY**

F.S. against Sliding:	1.5
F.S. against Overturning:	2.0
F.S. against Bearing Capacity Failure:	3.0
F.S. against Global Instability:	1.5
F.S. against Uncertainties:	1.5
F.S. against Geogrid Pullout:	1.5

**NOTE:** The design is based on a local borrow source with a Unified Soil Classification System Designation of SM or better for the Reinforced Backfill and a soil friction angle of 32° or better.

**NOTE:** Site Plan Taken From CEI Engineering Associates, Inc. Grading Plan, Latest Revision Dated 7-21-95, Scale: 1" = 50'

**OWNER OF DEVELOPMENT**  
LEONORA K. HOENES  
8668 BALTIMORE NATIONAL PIKE  
ELlicOTT CITY, MD 21043  
(410) 465-2321

I 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN THIRTY DAYS OF COMPLETION.

SIGNATURE OF DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_

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DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE OF ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

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

HOWARD SOIL CONSERVATION DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

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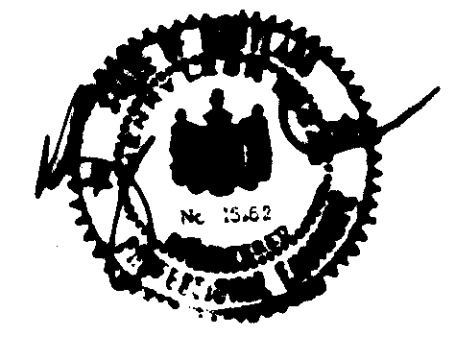
U.S. SOIL CONSERVATION SERVICE \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Bill Damm* \_\_\_\_\_ 4/1/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Jim Summerville* \_\_\_\_\_ 4/3/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*James Smith* \_\_\_\_\_ 4/3/96  
DIRECTOR DATE



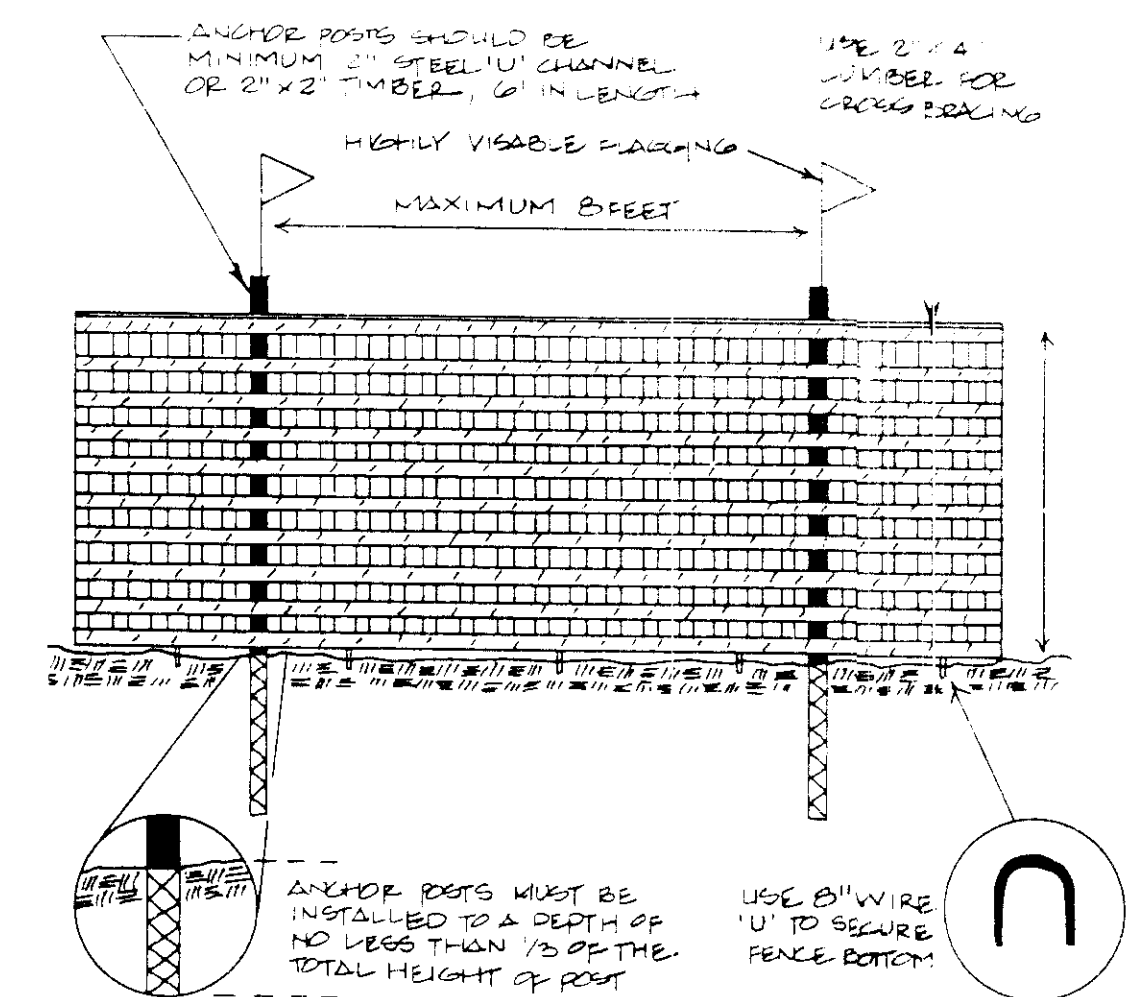
ELECTION DISTRICT NO. 2  
HOWARD COUNTY, MARYLAND  
TAX MAP 17 & 24

<b>REVISIONS</b>	<b>ECS LTD</b>	<b>RETAINING WALL SITE PLANS</b>				
10-11-95 VOID REINFORCING WALLS 1 E 2 7/1/96		<b>WAL*MART STORE #2412 - ELlicOTT CITY, MD.</b>				
<b>ENGINEERING CONSULTING SERVICES, LTD</b>	<b>RAC</b>	<b>JRC</b>	<b>08-30-95</b>	<b>NTS</b>	<b>B1177</b>	<b>22 OF 25</b>

SDP-96-01

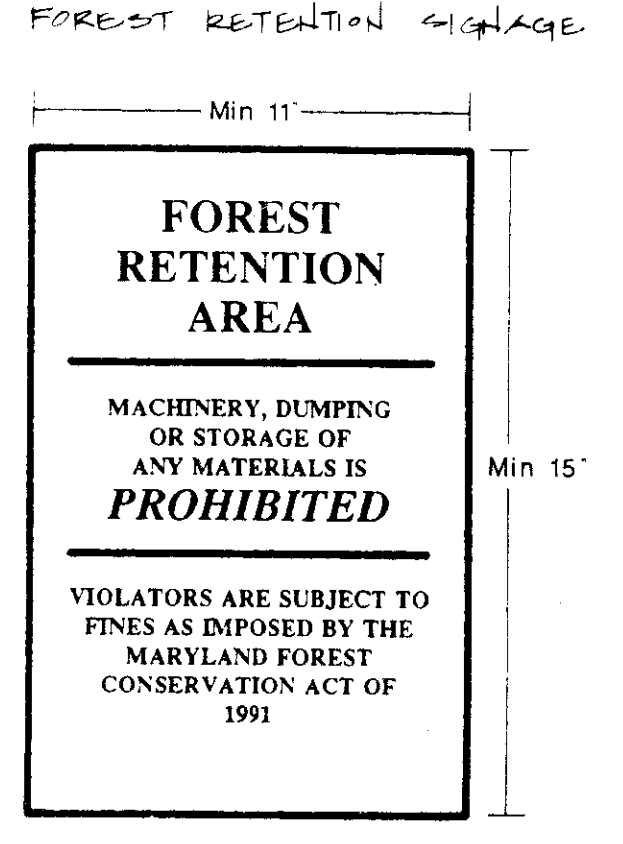


Figure J-4 Blaze Orange Plastic Mesh



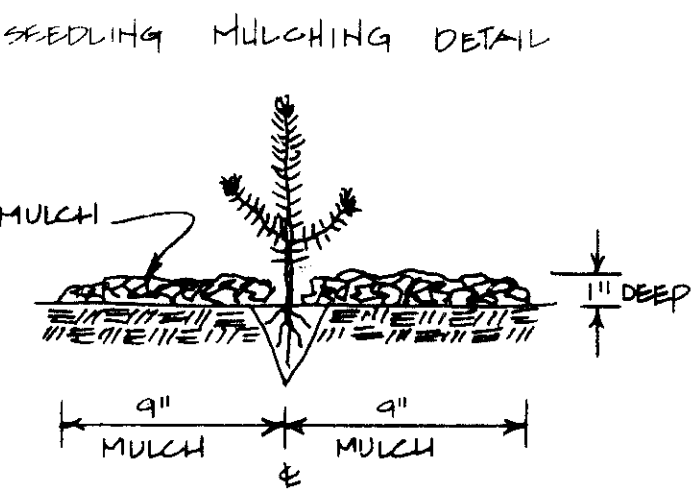
Notes:  
 1. Forest protection device only.  
 2. Retention Area will be set as part of the review process.  
 3. Boundaries of Retention Area should be staked and flagged prior to installing device.  
 4. Root damage should be avoided.  
 5. Protective signage may also be used.  
 6. Device should be maintained throughout construction.

FOREST RETENTION DETAILS

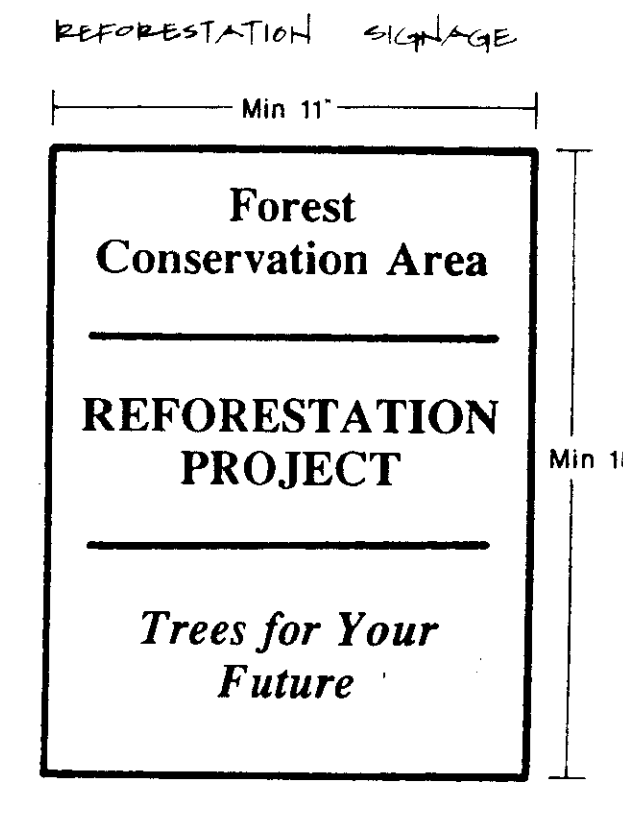
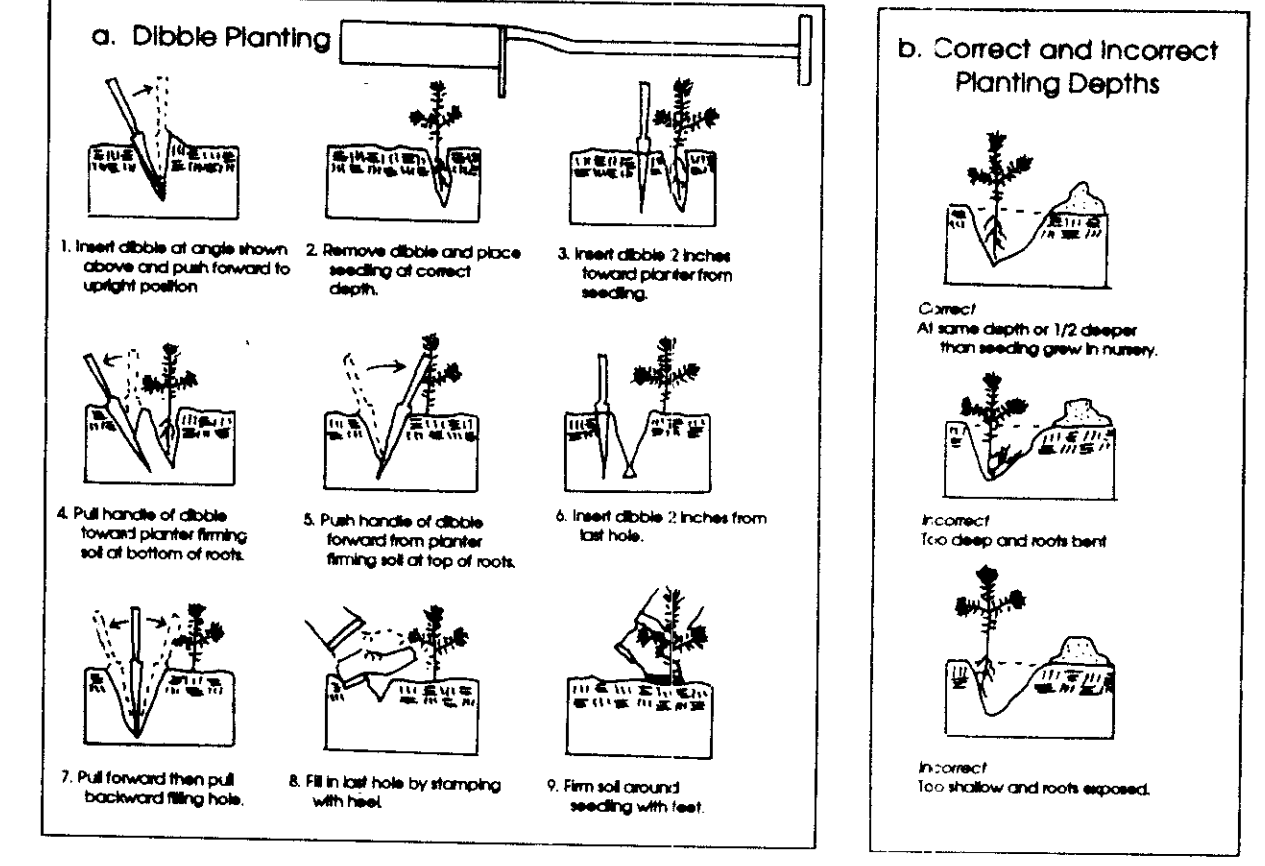


ATTACH SIGNAGE SECURELY TO TREE PROTECTION DEVICE. POSTS @ 300' O.C. SIGNS SHALL BE BRIGHT RED OR ORANGE IN COLOR WITH A CONTRASTING COLOR LETTERING.

HANDLING SEEDLINGS IN THE FIELD



SEEDLING PLANTING DETAILS



ATTACH SIGNAGE TO STEEL "11\"/>

OWNER OF DEVELOPMENT  
 LEONORA K. HOENES  
 8668 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21043  
 (410) 465-2321  
 TAX MAP 17 & 24

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 Date: 4/1/96  
 Chief, Division of Land Development and Research  
 Date: 4/3/96  
 Director  
 Date: 4/3/96

REFORESTATION DETAILS

SITE PREPARATION FOR PLANTING

**Undisturbed Sites:** Soils disturbance should be limited to the planting field for each plant. Planting field is a new term that reflects a change in recommended planting specifications. Research has shown that root systems of trees planted in the traditional holes with amended soils are likely to remain confined to the amended soil area. Such trees have lower survival rates. A planting field of radius = 5 x diameter of the root ball is recommended.

**On steep slopes or erodible soils,** soil disturbance should be limited to the planting field whose radius is equal to 2.5 diameter of the root ball.

**Disturbed Areas:** Soils should be treated by incorporating natural mulch within the top 12 inches or by amendments as determined by a soils analysis. Soil amendments, by definition, include modifications of soils to improve such structural characteristics as bulk density or porosity. On development sites, the common use of fill materials may increase the need for such amendments. Natural amendments such as organic mulch or leaf mold compost are preferred.

When fill material is used at the planting site, it should be clean fill topped with 12 inches of native soil. Stockpiling of native top soils must be done in such a way that the height of the pile does not damage the seed bank.

**Planting Period:** Planting windows are the time during the year when, depending on the size stock being used, planting windows differ. Recommended planting windows are shown in Exhibit M-1.

**Plant Material Storage:** Planting should occur within 24 hours of delivery to the site. Plant materials left unplanted for more than 24 hours should be protected from direct sun and weather and kept moist. Bare root stock unplanted for more than 24 hours should be heeled in as shown in Exhibit M-2. Nursery stock should be stored in tree banks for more than 24 hours, following the examples in Exhibit M-3.

**On Site Inspection:** Planting stock should be inspected prior to planting. Plants not conforming to standard nurseryman specifications for size, form, vigor, roots, trunk wounds, insects and disease should be replaced.

**PLANT INSTALLATION**

**Seedlings/Whips:** Small stock, such as seedlings and whips and ball and burlap stock up to 2" caliper, can be planted by manual methods of planting using shovels, planting or dibble bars, and mattocks (See Exhibit M-4). For large areas, planting machines are occasionally used but have the drawback of creating linear, plantation-type forests.

Extreme care should be taken to insure retained moisture of live roots. When planting seedlings and whips, a moist carrying container should be used to prevent desiccation (See Exhibit M-5). For greater protection, seedlings may be planted with tree shelters.

Areas planted with seedlings or whips should be mulched after planting as shown in Exhibit M-6.

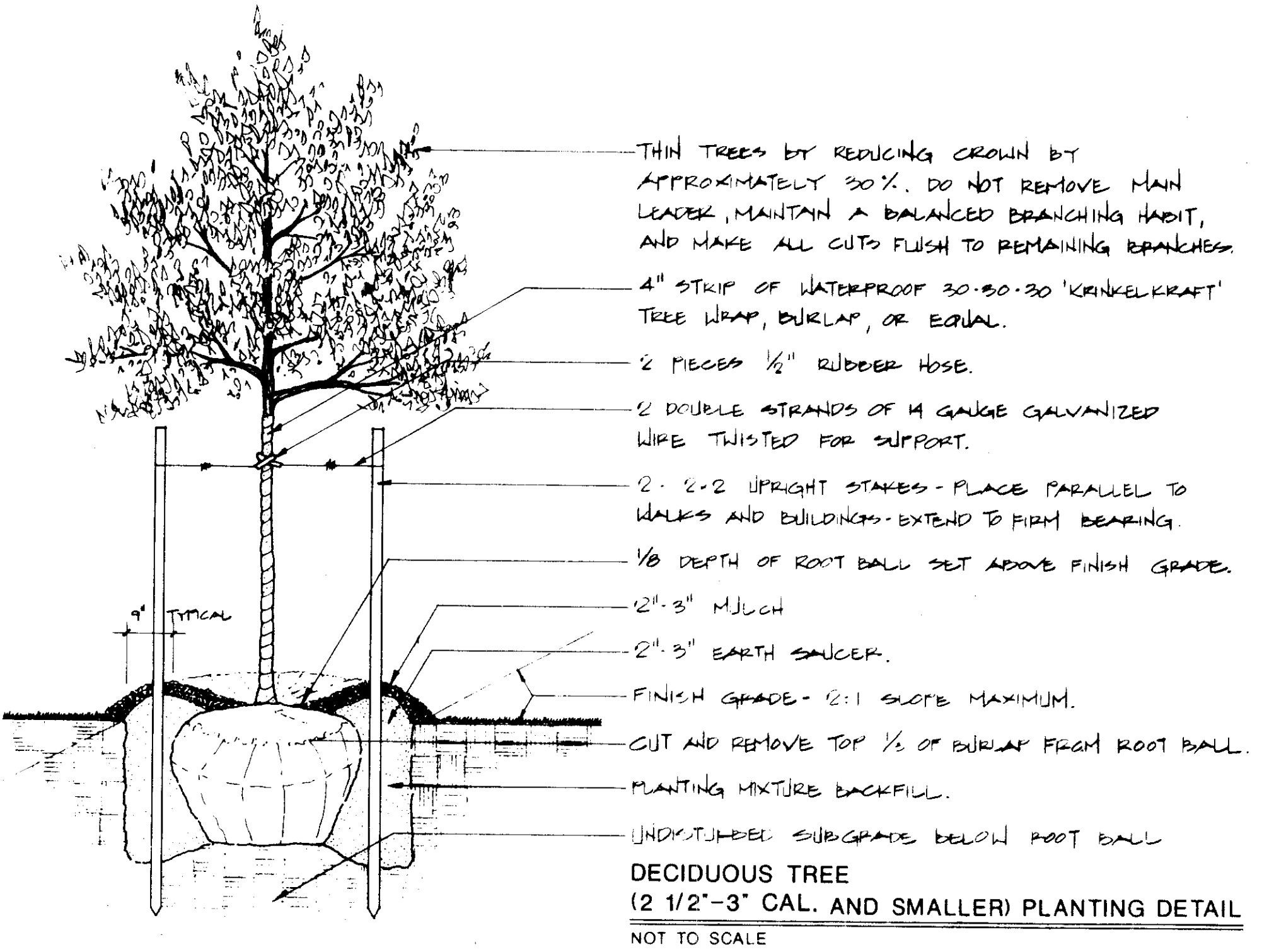
**GENERAL GUIDANCE FOR MAINTENANCE OF PLANTED AREAS**

**Watering:** A watering plan should only be implemented to compensate for deficient rainfall patterns. Trees can die from too much water as well as too little. Newly planted trees may need water as much as once a week for the entire first growing season. The next two years, in contrast, may require watering only a few times a year (one a month during July and August). After that, trees should only need water in severe droughts. Bare root transplants, if sufficiently watered during planting, may not need water for almost 2-4 weeks after growth begins. Balled and burlap material may require more frequent watering.

**Soil and Watering:** Soil texture influences the downward flow of water. Soils with more clay tend to retain more water and can be watered less often; soils with more sand drain more quickly and need to be watered more often. For examples of on-site evaluation recommendations, if the soil was well prepared before planting, there should be few drainage problems. Restricted downward penetration indicates the soil may have been compacted during construction and not aerated before planting, or there may be a clay hardpan.

**How to Water:** The best way to water is deeply and slowly using a regular hose, a soaker hose, or drip irrigation. For larger trees, start by watering the root ball thoroughly. The wetted area shall be enlarged to include the whole root zone as the tree becomes more established. Mulching around the base of newly transplanted trees prevents roots from drying too quickly while still providing air movement to the roots.

PLANTING SPECIFICATIONS



DECIDUOUS TREE (2 1/2"-3" CAL. AND SMALLER) PLANTING DETAIL NOT TO SCALE

FOREST CONSERVATION WORKSHEET

	ACRES (1/10 acre)
<b>I. BASIC SITE DATA</b>	
GROSS SITE AREA	66.35 AC
AREA WITHIN 100 YEAR FLOODPLAIN	0
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	0
NET TRACT AREA	66.35 AC
LAND USE CATEGORY (R-RLD, R-RMD, F-S, C/10, I) C/10	
<b>II. INFORMATION FOR CALCULATIONS</b>	
A. NET TRACT AREA	66.35 AC
B. REFORESTATION THRESHOLD (15% x A)	9.95
C. AFFORESTATION MINIMUM (15% x A)	9.95
D. EXISTING FOREST ON NET TRACT AREA	14.1
E. FOREST AREAS TO BE CLEARED	5.23
F. FOREST AREAS TO BE RETAINED	8.87 AC
<b>III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION</b>	
1. Reforestation	
If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C), and clearing of forest areas is proposed, reforestation requirements may apply.	
GO TO SECTION IV	
If existing forests exceed the afforestation minimum (if D equals or is more than C) and no clearing of existing forest resources is proposed, no reforestation is required. No further calculations are needed.	
2. Afforestation	N/A
If existing forest areas are less than the afforestation minimum (if D is less than C), afforestation requirements apply.	
GO TO SECTION V	
<b>IV. REFORESTATION CALCULATIONS</b>	
A. NET TRACT AREA	66.35 AC
B. REFORESTATION THRESHOLD (15% x A)	9.95
C. EXISTING FOREST ON NET TRACT AREA	14.1
D. FOREST AREAS TO BE CLEARED	5.23
E. FOREST AREAS TO BE RETAINED	8.87
F. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD (D - F, if F equals or is greater than B, Alternate 1)	4.15
G. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD (D - B, if B is less than B, Alternate 2)	1.08
H. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (B - F, if applicable)	0
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (F - B, Retention Credit, if applicable)	0
Select the alternative that applies:	
1. Clearing above the threshold only	
If forest areas to be retained equal or are greater than the reforestation threshold (if F equals or is greater than B), the following calculations apply:	
REFORESTATION FOR CLEARING ABOVE THRESHOLD	N/A
G x 1/4	N/A
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD	N/A
I = Retention Credit	N/A
TOTAL REFORESTATION REQUIRED (G x 1/4) - I	N/A
If the total reforestation requirement is equal to or less than 0, no reforestation is required.	
2. Clearing below the threshold	
If forest areas to be retained are less than the reforestation threshold (if F is less than B), the following calculations apply:	
REFORESTATION FOR CLEARING ABOVE THRESHOLD	1.08
G x 1/4	2.16
REFORESTATION FOR CLEARING BELOW THRESHOLD	3.20 AC
TOTAL REFORESTATION REQUIRED (G x 1/4) + (H x 2)	
Since clearing occurs below the threshold, no forest retention credit is possible.	
A TOTAL OF 15 ACRES OF REFORESTATION HAS BEEN INDICATED ON THE PLAN (SEE SHEET 1). THIS PLANTING SHALL BE 1/2" CAL WIREBAY STOCK PLANTED AT A DENSITY OF 150 PER ACRE, APPROXIMATELY 6' O.C. - SEE DETAILS AND PLANTING SPECIFICATIONS.	
SEEDLINGS SHALL BE COMPOSED OF THE FOLLOWING SPECIES:	
LOW LYING WETLAND AREAS AND WETLAND BUFFERS:	
± 40% RED MAPLE	WETLAND BUFFERS:
± 30% BLACK GUM	ACER RUBRUM
± 30% STEAMORE	NYSSA SYLVATICA
	MATANICA OCCIDENTALIS
ALL OTHER AREAS:	
± 30% TULIP TREE	LIRIODENDRON TULIPIFERA
± 20% RED MAPLE	ACER RUBRUM
± 20% BLACK GUM	NYSSA SYLVATICA
± 10% NORTHERN RED OAK	QUERCUS FUBRA

IPDC

THE LAND PLANNING & DESIGN GROUP

AS NOTED LIST 2-24-95

SEE SHEET 1 FOR CROSS AREA

FOR THE CITY OF ELLICOTT CITY

SUBMITTED FOR SIGNATURE

DATE: 3/19/96

FOREST CONSERVATION PLAN

ELLICOTT CITY WAL - MART

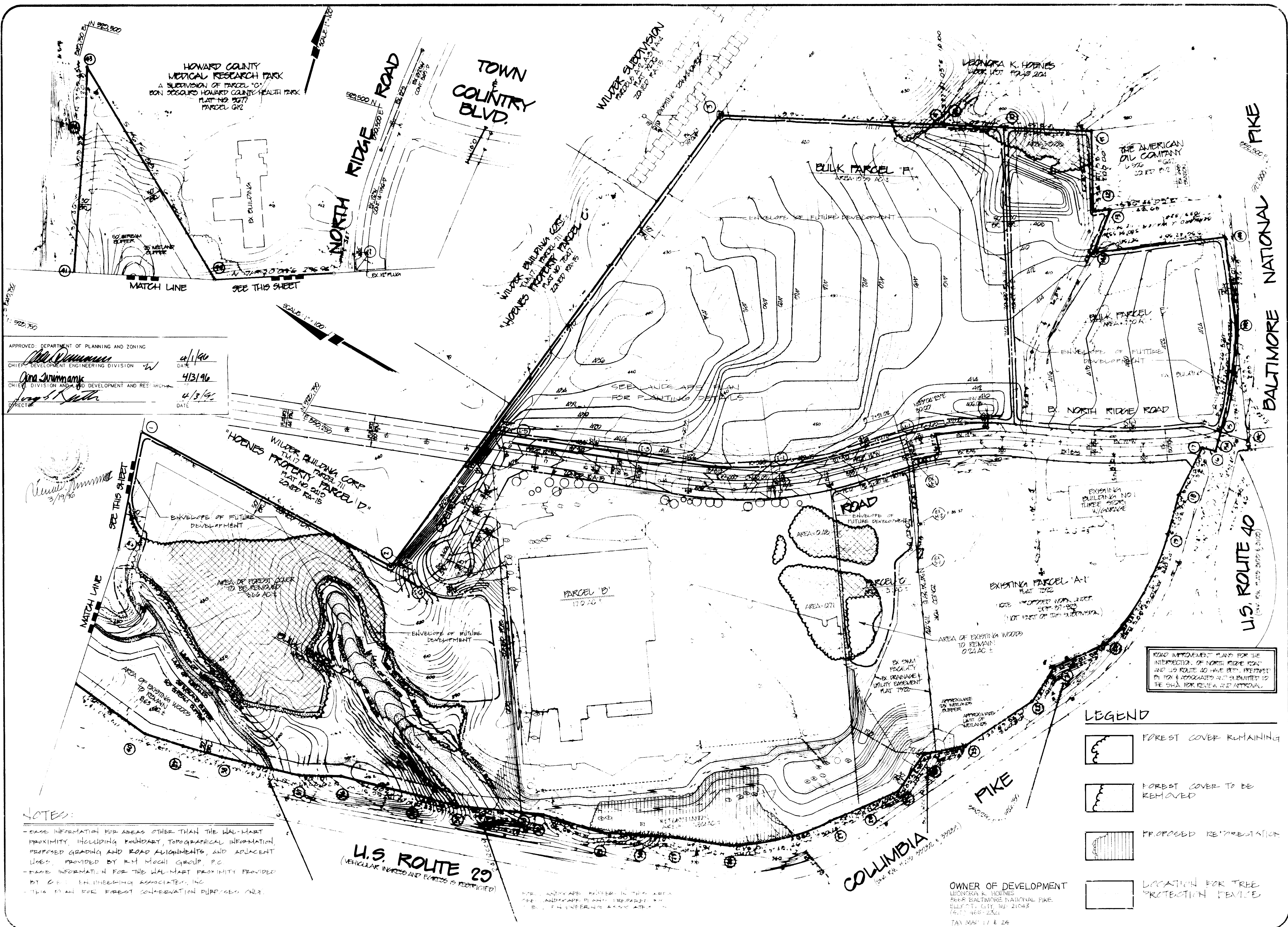
HOWARD COUNTY MARYLAND

ELECTION DISTRICT NO. 7

SHEET: 21 OF 25

SDP-96-01





APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHIEF, DIVISION AND PLANNING AND RES. ARCHITECTURE  
 DATE: 4/1/96  
 DATE: 4/3/96  
 DATE: 4/3/96

3/19/96

NOTES:  
 - BASE INFORMATION FOR AREAS OTHER THAN THE WAL-MART PROXIMITY, INCLUDING BOUNDARY, TOPOGRAPHICAL INFORMATION, PROPOSED GRADING AND ROAD ALIGNMENTS, AND ADJACENT USES, PROVIDED BY R.H. MOCH GROUP, P.C.  
 - BASE INFORMATION FOR THE WAL-MART PROXIMITY PROVIDED BY G.E. ENGINEERING ASSOCIATES, INC.  
 - THIS PLAN FOR FOREST CONSERVATION PURPOSES ONLY.

ROAD IMPROVEMENT PLANS FOR THE INTERSECTION OF NORTH RIDGE ROAD AND U.S. ROUTE 40 HAVE BEEN PREPARED BY FOX & ASSOCIATES AND SUBMITTED TO THE SHA FOR REVIEW AND APPROVAL.

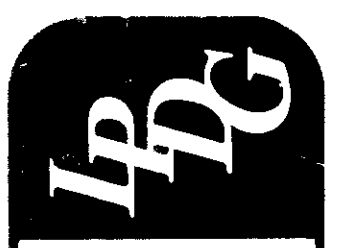
- LEGEND
- FOREST COVER REMAINING
  - FOREST COVER TO BE REMOVED
  - PROPOSED RE-VEGETATION
  - LOCATION FOR TREE PROTECTION DEVICE

OWNER OF DEVELOPMENT  
 LEONORA K. HORNES  
 2010 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21043  
 (410) 468-2361  
 TAX MAP 17 & 24

DATE	BY	REVISION

ELICOTT CITY WAL-MART  
 FOREST CONSERVATION PLAN

ELICOTT CITY WAL-MART  
 FOREST CONSERVATION PLAN



ELICOTT CITY WAL-MART  
 FOREST CONSERVATION PLAN











4.0 Installation Procedures

4.1 Concrete Stormceptor® Installation

The installation of the concrete Stormceptor® should conform in general to state highway or local specifications for the construction of manholes. Selected sections of a general specification that are applicable are summarized in the following sections:

Excavation

Excavation for the installation of the Stormceptor® should conform to state highway or local specifications. Topsoil that is removed during the excavation for the Stormceptor® should be stockpiled in designated areas and should not be mixed with subsoil or other materials. Topsoil stockpiles, and the general site preparation for the installation of the Stormceptor® should conform to state highway or local specifications.

The Stormceptor® should not be installed on frozen ground. Excavation should extend a minimum of 12 inches from the precast concrete surfaces plus an allowance for stone and bedding where required. If the bottom of the excavation provides an unstable foundation additional excavation may be required.

In areas with a high water table, continuous dewatering should be provided to ensure that the excavation is stable and free of water.

Leveling

A 6 to 12 inch layer of granular material conforming to local or state highway backfill specifications should be installed, compacted and leveled at the bottom of the excavation to the proper elevation for the installation of the interceptor base.

Backfilling

Backfill material should conform to state highway or local specifications. Generally, backfill material should be placed in uniform layers not exceeding 12 inches in depth. Each layer should be compacted to 95% of the maximum dry density. Backfill is not to contain topsoil.

The concrete Stormceptor® is installed in sections in the following sequence:

1. aggregate base
2. base slab
3. treatment chamber section(s)
4. transition slab (if required)
5. by-pass section
6. connect inlet and outlet pipes
7. transition slab
8. maintenance access way
9. frame and access cover

The precast base should be placed level at the specified grade. The entire base should be in contact with the underlying compacted granular material. Subsequent sections, complete with joint seals, should be installed in accordance with the precast concrete manufacturer's recommendations.

Adjustment of the Stormceptor® can be performed by lifting the upper sections free of the excavated area, re-leveling the base, and re-installing the sections. Damaged sections and gaskets should be replaced. Once the Stormceptor® has been constructed, the life holes should be plugged with mortar.

Down Pipe and Riser Pipe

Once the by-pass section has been attached to the treatment chamber the down pipe and riser pipe can be attached. To install these pipes a woker enters the treatment chamber through the central access way in the by-pass section.

STC 900, STC 1200, STC 1800

The inlet pipe (pipe with the tee at the end) is installed by cutting the outside of the end of the pipe with quick dry PVC cement and pushing the pipe into the coupling provided on the underside of the by-pass section. The tee must be oriented such that water which enters the treatment chamber is directed tangentially around the inside walls of the chamber.

The outlet riser pipe (straight pipe without the tee) is installed in a similar fashion using the quick dry PVC cement and coupling provided underneath the by-pass section near the 45-degree pipe.

STC 2400, STC 3000, STC 4500, STC 6000, STC 7200

The inlet pipe (pipe with the tee at the end) is installed by cutting the outside of the end of the pipe with lubricant and pushing the pipe into the coupling provided on the underside of the by-pass section. The tee must be oriented such that water which enters the treatment chamber is directed tangentially around the inside walls of the chamber.

The outlet riser pipe (straight pipe without the tee) is installed in a similar fashion using pipe lubricant and a pressure coupling provided underneath the by-pass section near the down stream pipe.

Inlet and Outlet Pipes

Inlet and outlet pipes should be securely set into the by-pass chamber using grout or approved pipe seals so that the structure is watertight. Kor-N-Seal® boots are normally used and installed at the precast concrete plant prior to shipping. The Kor-N-Seal® boots are applicable for pipes with an outside diameter up to 46 inches. Stormceptor Corporation should be notified if the pipe is to be grouted in the field at the time of ordering (i.e. Kor-N-Seal® boots will not be used) since the boots are generally included in the price quotations.

Installation of the Kor-N-Seal® boots should follow the manufacturer's recommendations. As previously mentioned, the boots will already be attached to the Stormceptor® at the concrete plant. Accordingly, the following procedure should be followed to attach the inlet and outlet pipes to the Stormceptor® in the field:

1. Center the pipe in the boot opening.
2. Lubricate the outside of the pipe and/or inside of the boot if the pipe outside diameter is the same as the inside diameter of the boot.
3. Position the pipe clamp in the groove of the boot with the screw at the top.
4. Tighten the pipe clamp screw to 60 inch pounds.
5. On minimum outside diameter installations lift the boot such that it contacts the bottom of the pipe while tightening the pipe clamp to ensure even engagement of the rubber.
6. Move the pipe horizontally and/or vertically to bring it to grade.

Frame and Cover Installation

Precast concrete adjustment units should be installed to set the frame and cover at the required elevation. The adjustment units should be laid in a full bed of mortar with successive units being joined using sealant recommended by the manufacturer. Frames for the cover should be set in a full bed of mortar at the elevation specified.

DEPARTMENT OF PUBLIC WORKS

James M. Irvin, Director  
May 2, 1995

CEI Engineering Associates, Inc.  
9175 Old Ford Road  
Suite 305  
Columbia, Maryland 21046

Attn: Mr. Kim Morgan  
Re: Wal-Mart - Ellicott City  
Waiver Request  
P-95-21

Dear Mr. Morgan:

I am writing in reference to your letter dated April 19, 1995 requesting a waiver from Design Manual Volume 1, Section 10.2.3.D, prohibiting stormwater management facilities within wetlands or 100-year floodplains, Section 10.2.6.5.a, which requires a 12' level area around the entire facility for maintenance and Section 10.2.6.6.a, which requires that the side slopes of the facility be no steeper than 3:1 anywhere around the facility.

After reviewing the information enclosed with your request, this Department has decided to approve your request for a waiver to Design Manual Volume 1, Sections 10.2.6.5.a. and 10.2.6.6.a.

This approval is based principally on:

1. The waiving of the requirements would be in the best interest of the County.
2. The facility is to remain as a privately maintained facility. A detailed Operation & Maintenance Schedule must be included at time of Final Plan submittal outlining the owners maintenance requirements.

3430 Courthouse Drive • Ellicott City, Maryland 21043 • (410) 313-4100 • TDD 313-2323

Wal-Mart - Ellicott City  
Waiver Request  
Page 2

This department has decided, however, to deny your request for a waiver to Design Manual Volume 1, Section 10.2.3.D.

This denial is based principally on that a disturbance of the wetlands buffer requires a waiver of the Subdivision and Land Development Regulations through the Department of Planning and Zoning not a Design Manual Waiver. Any wetlands (filling) requires permitting through State and Federal regulators and a waiver would not be granted until those permits were appropriated.

Please contact Mr. Charles Damers, Chief of the Land Development Division at 313-2422 if you have any further questions on this matter.

Very truly yours,

James M. Irvin  
Director

JMI/pmt

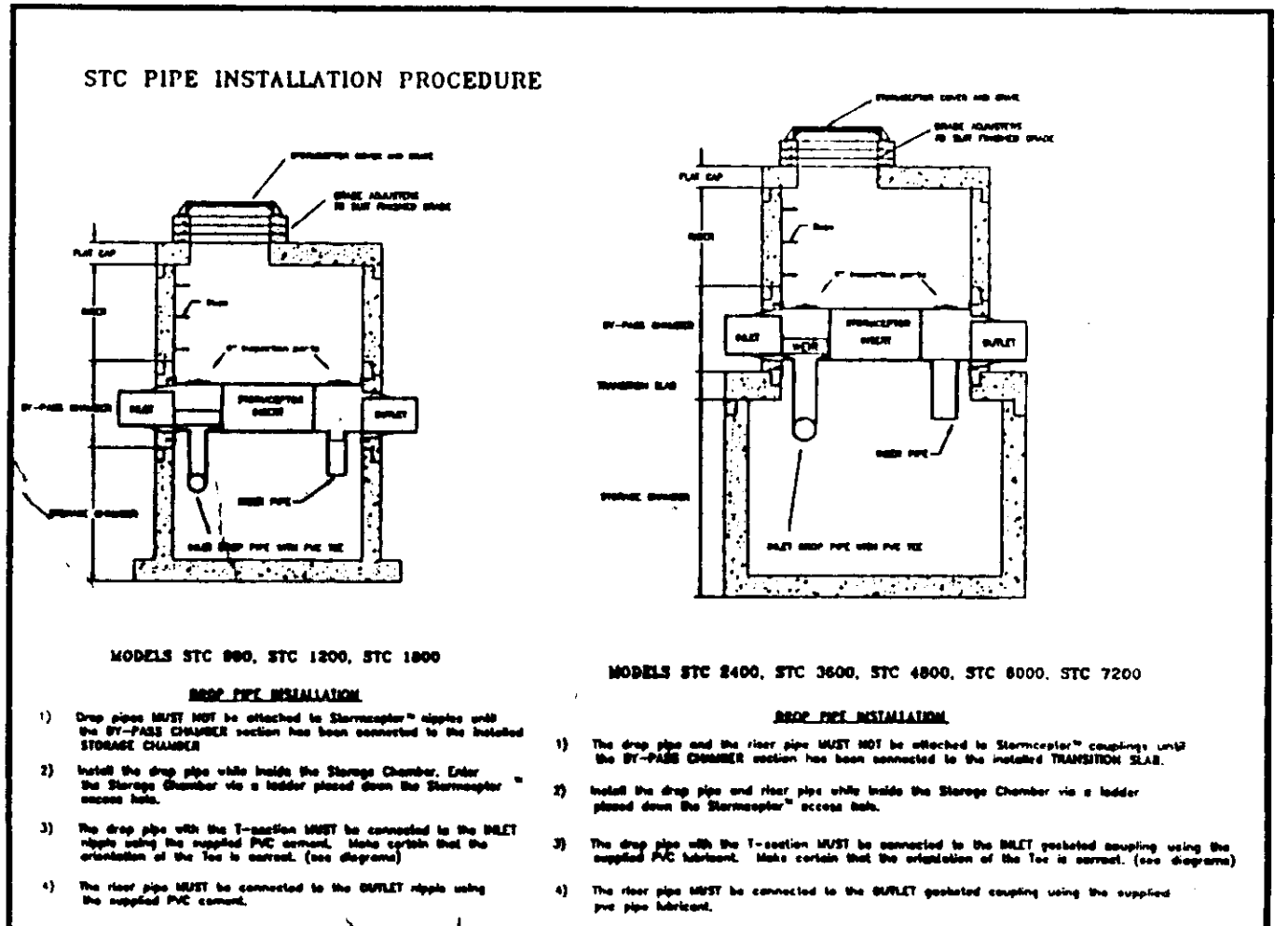
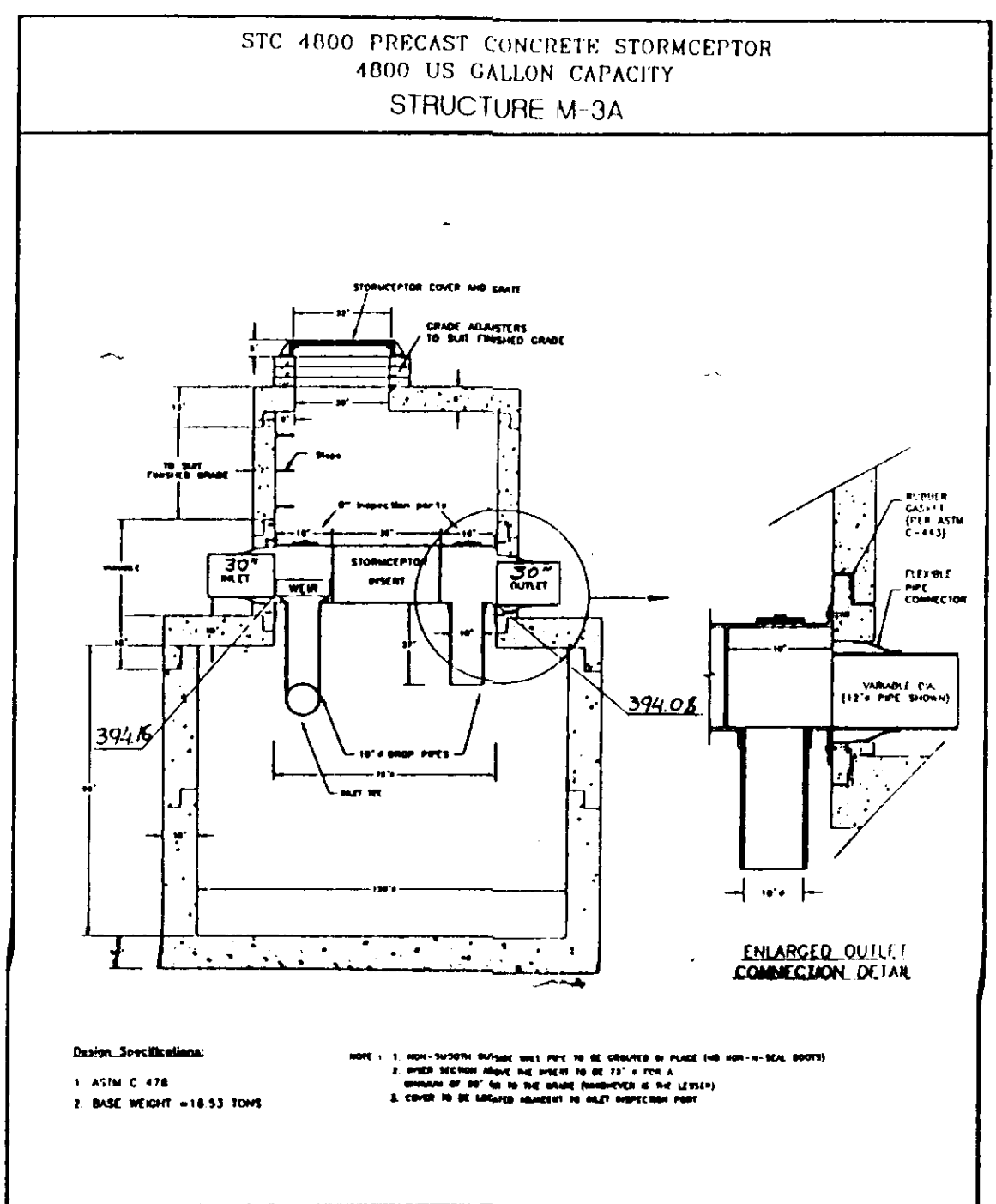
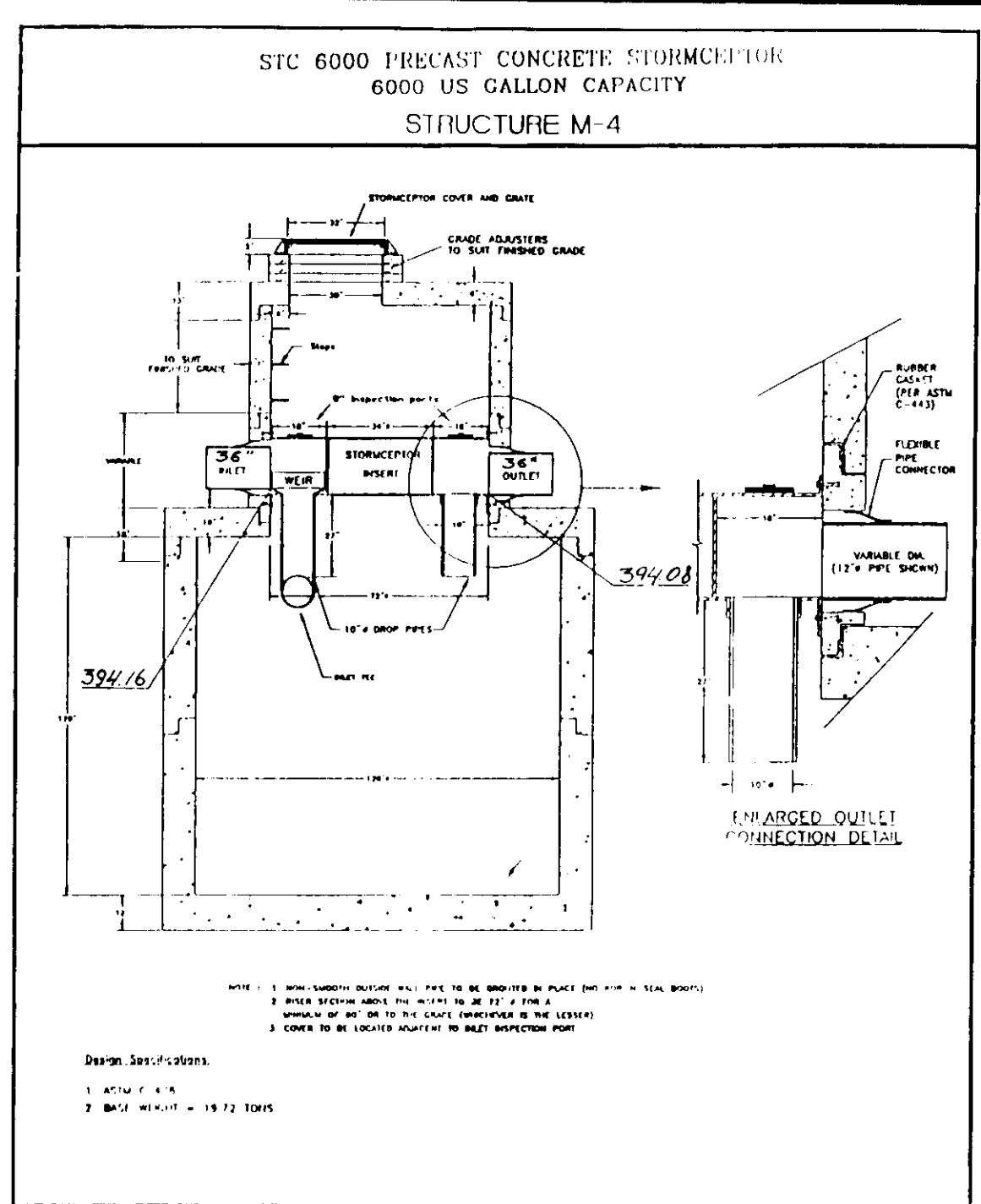
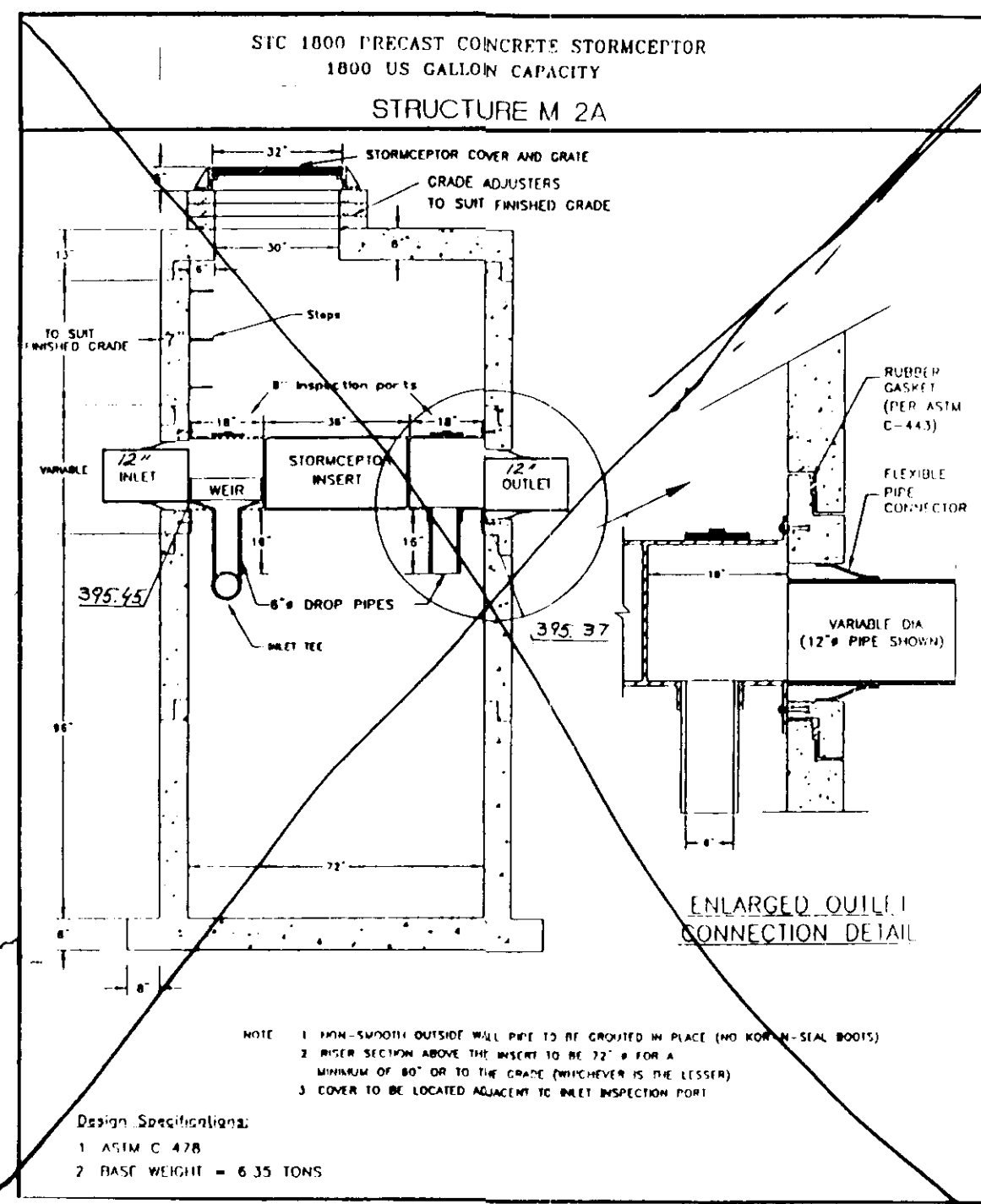
cc: Ron Lepson  
Charles Damers  
Edna Plesniak  
Phil Thompson  
File (DPW 5)  
File 1710 2

INSTALLATION INSTRUCTIONS:  
PRECAST CONCRETE STORMCEPTOR

1. STAKE OUT THE LOCATION OF THE STORMCEPTOR AND EXCAVATE HOLE. EXCAVATE ADEQUATE SPACE TO CONNECT INLET AND OUTLET PIPES TO UNIT. INSTALL A 12" DEPTH OR AS REQUIRED LAYER OF COMPACTED STANDARD PROCTOR DENSITY AGGREGATE BASE AT BOTTOM OF EXCAVATION. INSTALL MALE OR BUSHING, AS NEEDED. CHECK ELEVATION OF UNIT BY MEASURING ITS SECTIONS FROM BASE OF STORAGE CHAMBER BOTTOM OF UNIT'S LEGS TO THE INVERT OF STORMCEPTOR BYPASS ELEVATION OF INSTALLED SURFACE AND ADJUST AS NEEDED.
2. SECURE INSPECTOR APPROVAL OF SUBGRADE AND SUBBASE.
3. INSTALL STORAGE CHAMBER. INSTALL SCREW INSERTS INTO BASE OF STORAGE CHAMBER ATTACHMENT HOLES TO ALL LIFTING LUGS ON THE BASE SLAB. USING LARGE EQUIPMENT OR CRANE LIFT AND PLACE THE BASE SECTION OF THE STORAGE CHAMBER IN THE EXCAVATED HOLE ON THE SUBGRADE. MAKE SURE THAT THE BASE LEVEL, SPECIFIC ALIGNMENT OF THIS PART IS NOT REQUIRED. INSTALL RUBBER GASKETS ON BASE LUGS AND COAT WITH LUBRICATING GREASE (PROVIDED IN SUPPLEMENT IF NOT PRELUBRICATED. INSTALL ADDITIONAL STORAGE CHAMBER SECTIONS AS REQUIRED (PROCEEDING IN SAME AS STEP 3).
4. INSTALL INLET AND OUTLET STORM DRAIN PIPES. CONNECT INLET AND OUTLET STORM DRAIN PIPES WITH FLEXIBLE BOOTS (WHEN PROVIDED) AND WITH NON SHRINK GROUT WHEN NO FLEXIBLE BOOTS ARE PROVIDED. THE INVERT OF THE INLET AND OUTLET PIPE IS TO MATCH WITH THE INVERT OF THE STORMCEPTOR INSERT. FLEXIBLE BOOT DIAMETER IS THE SAME AS THE INSIDE DIAMETER OF THE BOOT. POSITION THE PIPE CLAMP ON THE GROOVE OF THE BOOT AND THE SCREW AT THE TOP. TIGHTEN THE PIPE CLAMP SCREW TO 60 INCH POUNDS. IF THE PIPE IS LARGER THAN THE BOOT OF THE BOOT THAT IT CONTACTS THE BOTTOM OF THE PIPE WHILE TIGHTENING THE CLAMP TO ENSURE EVEN CONTRACTION OF THE RUBBER. ABOVE-GRADE PIPE HORIZONTALLY AND REMOVED VERTICALLY TO BRING IT TO GRADE.
5. THE STORMCEPTOR SHOULD BE PUMPED OUT WHEN THE SECTOR CONTROL MEASURES ARE REMOVED PERMANENTLY STABILIZED.
6. FINAL INSPECTION.

MAINTENANCE NOTES  
(WATER QUALITY STRUCTURE WASTE)

1. WATER QUALITY STRUCTURES WILL REQUIRE PERIODIC CLEANING. OWNERS OF THESE FACILITIES WILL HAVE TO CLEAN THEM AS NEEDED.
2. MAINTENANCE OF THESE FACILITIES WILL CONSIST OF CLEANING OUT THE STORMCEPTOR AND DISPOSAL OF THE WASTE AND REPAIR OF THE FACILITY AS NEEDED. PERIODIC INSPECTIONS OF THESE FACILITIES WILL BE MADE BY THE OWNER.
3. THE DISPOSAL OF THE LIQUID AND SOLID MATTER SHALL BE AS FOLLOWS:  
A. ALL LIQUID MATERIAL IN THE STORMCEPTOR SHALL BE PUMPED INTO A SUITABLE TANK TRUCK AND DISPOSED OF AT AN APPROVED SANITARY DISTRICT DISCHARGE MANHOLE OR BE TAKEN TO AN APPROVED SEWAGE TREATMENT PLANT FOR DISCHARGE.  
B. THE SOLID MATERIAL SHALL BE LANDFILLED IN AN APPROVED SANITARY LANDFILL.
4. THE INLET PIPES AND STRUCTURAL PARTS SHALL BE REPAIRED AS NEEDED.
5. STORMCEPTOR INLET AND OUTLET ASSEMBLY SHALL BE PERIODICALLY INSPECTED. BLOCKAGES SHALL BE REMOVED AND DISPOSED OF AS REQUIRED IN 3B ABOVE.



I 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 EMPLOY 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 AUTHORIZES FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL. MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Developer: [Signature] DATE: 3/6/96

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

Signature of Engineer: [Signature] DATE: 3-1-96  
DATE: 6-6-96

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

Signature of Engineer: [Signature] DATE: 6/12/96

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

Signature of Engineer: [Signature] DATE: 6/27/96

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION AND LAND DEVELOPMENT AND RESEARCH  
DIRECTOR

DATE: 10/25/96  
DATE: 7/2/96  
DATE: 7/2/96

Concrete Stormceptor® Order Request Form

Contractor Information  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_

Owner Information  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_

Stormceptor Model: \_\_\_\_\_  
Inlet Size: \_\_\_\_\_  
Outlet Size: \_\_\_\_\_  
Pipe Inside Diameter (in) (ID): \_\_\_\_\_  
Pipe Outside Diameter (in) (OD): \_\_\_\_\_

Project Name: \_\_\_\_\_  
Approximate time frame and required delivery (week): \_\_\_\_\_  
Delivery Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_  
Design Company: \_\_\_\_\_  
Designer Contact: \_\_\_\_\_

Please fax this sheet back to Hydrex Canada's Virginia Plant at (804) 798-3425. A fax to Steve Brainerd / Bryan Lowery (Phone: 1-800-999-2278) will be credited information/updates contact: Candy Brooks at (804) 798-6064. For Technical Assistance Please Call Stormceptor Corporation at (804) 767-8361 or toll free at (1-800) 767-4781.

Concrete Stormceptor® Order Request Form

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Owner Information  
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Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_  
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Stormceptor Model: \_\_\_\_\_  
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Concrete Stormceptor® Order Request Form

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OWNER OF DEVELOPMENT  
LEONORA K. HOENES  
8668 BALTIMORE NATIONAL PIKE  
ELICOTT CITY, MD 21043  
(410) 465-2321

DIVISION "ELICOTT CITY WAL-MART"  
ELECTION DISTRICT NO. 2  
TAX MAP 17 & 24  
REZONING CASE NUMBER ZB-941  
SKETCH PLAN S-95-01  
PRELIMINARY PLAN P-95-21

HOWARD COUNTY, MARYLAND  
P/O PARCEL 848  
DATED: OCTOBER 18, 1993  
APPROVED: 12-2-1994  
APPROVED: 6-6-95  
DATE: SEPTEMBER 6, 1995

INITIAL DESIGN  
DATE: 8-1-95  
PRN: JTT  
PM: KLM  
DES: TMP  
DRW: IVV

WAL-MART STORES, INC.  
WAL-MART STORE #2412

ENGINEERING ASSOCIATES, INC.  
ENGINEERS PLANNERS SURVEYORS

9175 Guilford Road, Suite 308  
Columbia, MD 21046  
(301) 490-4145  
FAX (301) 490-4149  
JOB NO.: 9146  
DWG NAME: 9146MISC

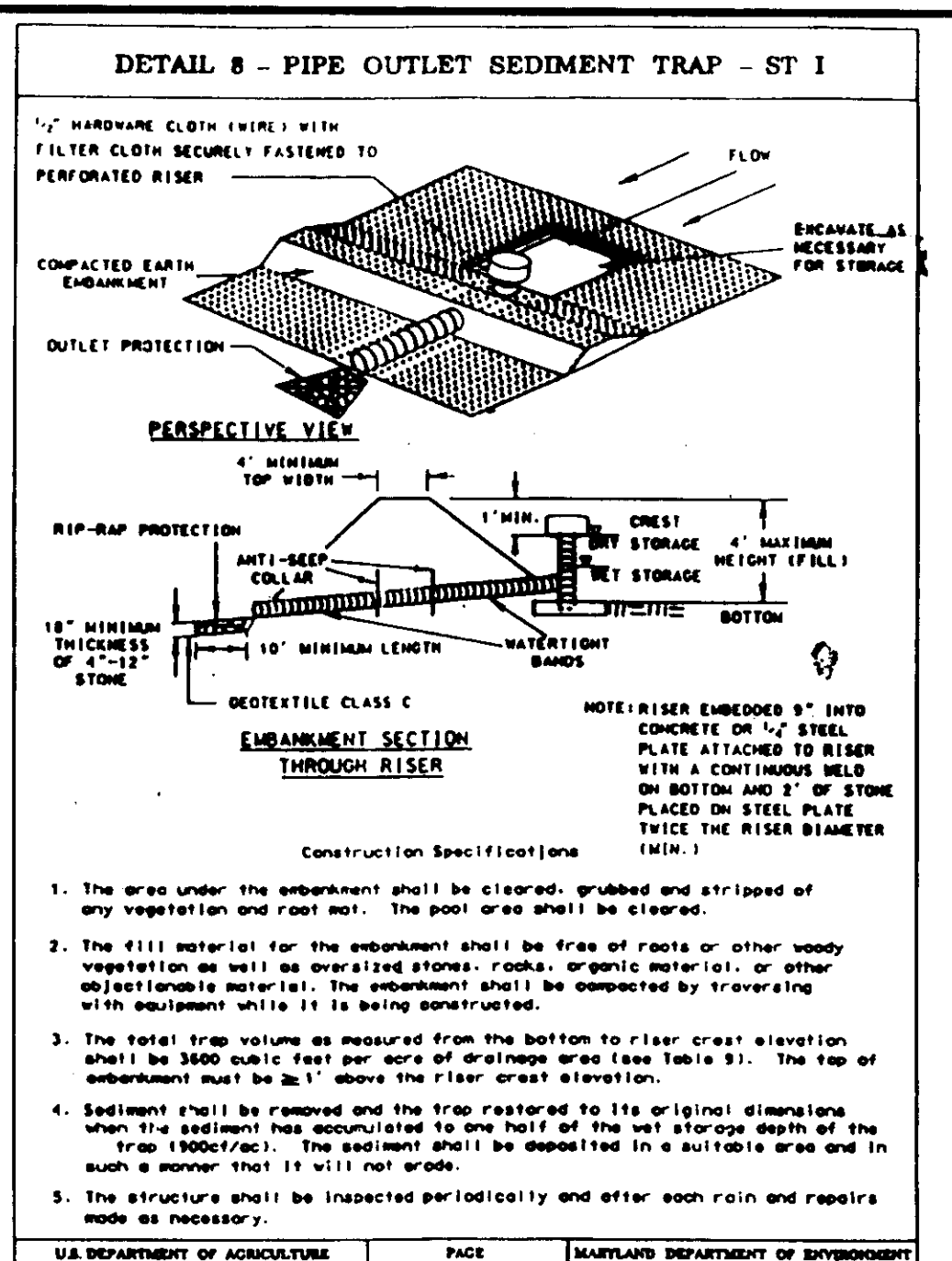
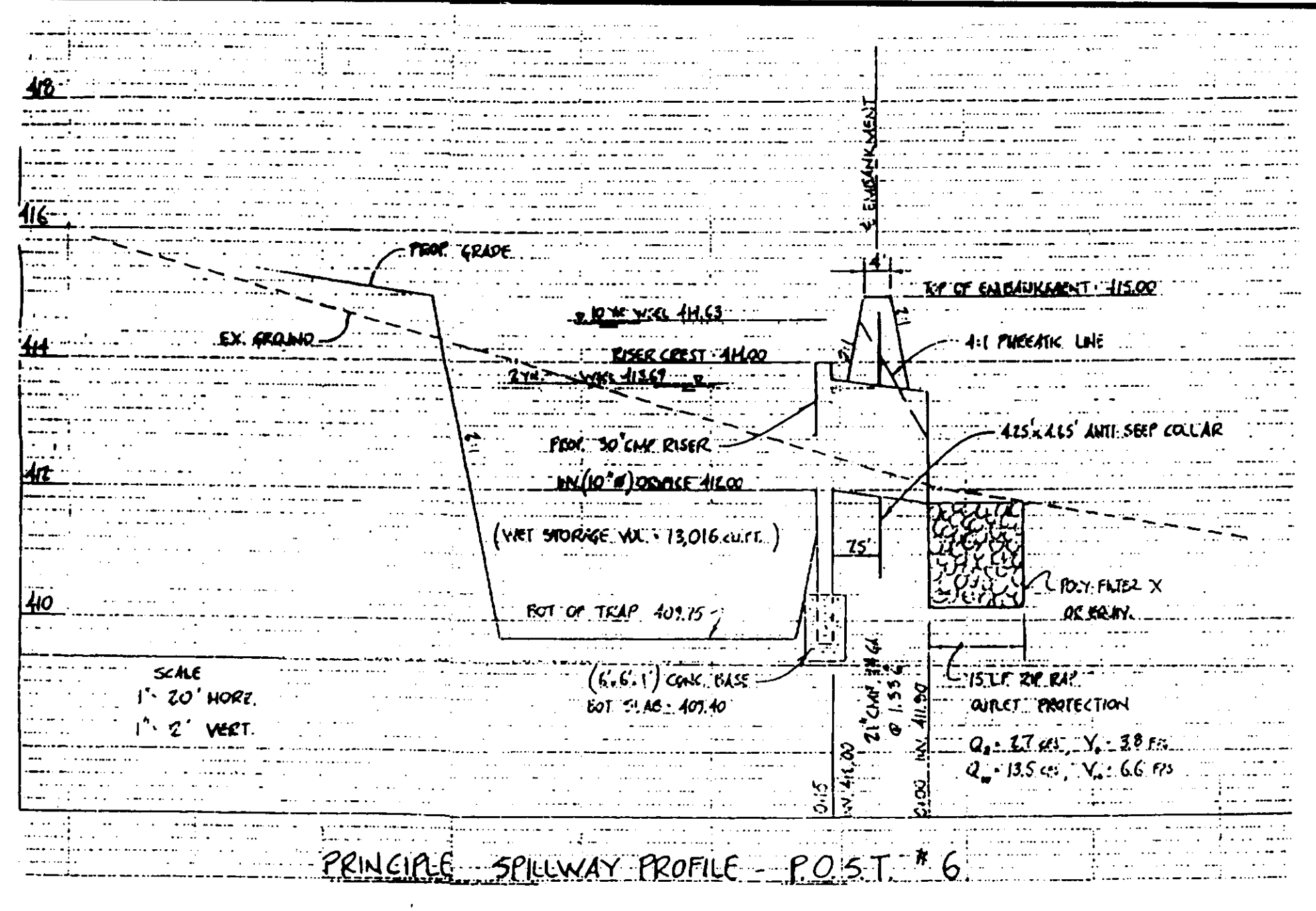
ELICOTT CITY WAL-MART  
MISCELLANEOUS DETAILS  
DATE: 10-18-95  
SHEET NO: 17 of 25

SDP-96-01



From No.	To No.	Inch. Area (sq. ft.)	Total Area (sq. ft.)	C	CSA (sq. ft.)	SLM (CWA)	TME (min.)	I (in./hr.)	Q (cfs)	Design Slope (%)	Diameter (in.)	Velocity (ft./sec)	Length (ft.)	Time (min.)	Remarks
M-2	M-3	4.10	4.10	0.80	1.04	0.0	0.0	0.0	0.0	2.00	18	10.2	81	0.15	
M-3	M-4	1.80	5.90	0.80	1.33	0.0	0.1	0.48	20.08	2.04	21	12.2	187	0.26	
M-4	M-7	1.70	7.6	0.80	1.71	0.0	0.4	0.80	34.08	1.47	27	10.7	173	0.27	
M-7	M-8	0.80	8.4	0.80	2.51	0.0	0.7	0.18	36.4	1.80	27	10.7	78	0.12	
M-8	M-9	0.10	8.50	0.80	2.61	0.0	0.8	0.14	37.10	0.80	38	7.4	128	0.28	
M-9	M-10	0.00	7.80	0.80	2.61	0.0	0.80	0.00	38.72	0.80	38	7.40	42	0.09	
M-10	M-11	0.00	7.80	0.80	2.61	0.0	0.17	7.53	38.40	0.80	38	7.40	163	0.43	
M-11	M-12	0.00	8.20	0.80	2.61	0.0	0.8	0.00	38.44	0.80	38	7.40	70	0.18	
M-12	M-13	0.00	8.20	0.80	2.61	0.0	0.7	0.00	38.38	0.80	38	8.70	282	0.80	
M-13	M-14	1.80	1.80	0.80	0.80	0.0	0.0	0.00	7.31	0.80	18	4.79	192	0.87	
M-14	M-15	0.80	2.60	0.80	0.80	0.0	0.7	0.15	7.01	0.80	18	4.80	212	0.74	
M-15	M-16	0.80	3.40	0.80	1.20	0.4	7.24	10.8	1.90	21	8.2	77	0.18		
M-16	M-17	0.80	4.20	0.80	1.20	0.4	7.76	13.80	1.80	18	8.4	78	0.18		
M-17	M-18	1.11	5.31	0.80	1.71	0.0	6.7	7.72	17.8	1.38	21	8.7	97	0.18	
M-18	M-19	1.11	6.42	0.80	1.71	0.0	6.8	7.84	23.10	2.00	24	11.0	85	0.13	
M-19	M-20	1.08	7.50	0.80	2.82	7.0	7.88	28.88	1.80	24	11.0	39	0.10		
M-20	M-21	0.80	8.30	0.80	3.62	7.1	7.82	41.88	1.30	30	10.4	68	0.12		
M-21	M-22	0.00	10.82	0.80	0.00	10.48	7.2	7.82	78.38	13.80	38	31.2	35	0.02	
M-22	M-23	0.00	10.82	0.80	0.00	10.48	7.2	7.82	78.38	2.00	38	14.9	32	0.03	
M-23	M-24	2.14	2.14	0.80	1.71	1.71	0.0	0.80	14.86	1.00	21	8.71	84	0.10	

STRUCTURES 10 AND THE 15' STORM DRAIN FROM STR.10 TO STR.9 TO BE CONSTRUCTED BY OTHER'S.  
 THE DRAINAGE AREA OF 1.55 BETWEEN STRUCTURES 9 AND 8 IS THROUGH A SERIES OF ROOF DRAIN CONNECTIONS.  
 ACTUAL DRAINAGE AREA TO STRUCTURE 9 IS 0.0 ACRES AS IT IS A MANHOLE.  
 THERE IS 0.5 ACRES OF FLOW TO THIS INLET. THE REMAINING DRAINAGE AREA IS THROUGH A SERIES OF ROOF DRAIN CONNECTIONS.



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.

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WILL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST EMPLOY 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.

APPROVED: J.G. Wainwright, Director, Howard Soil Conservation District.

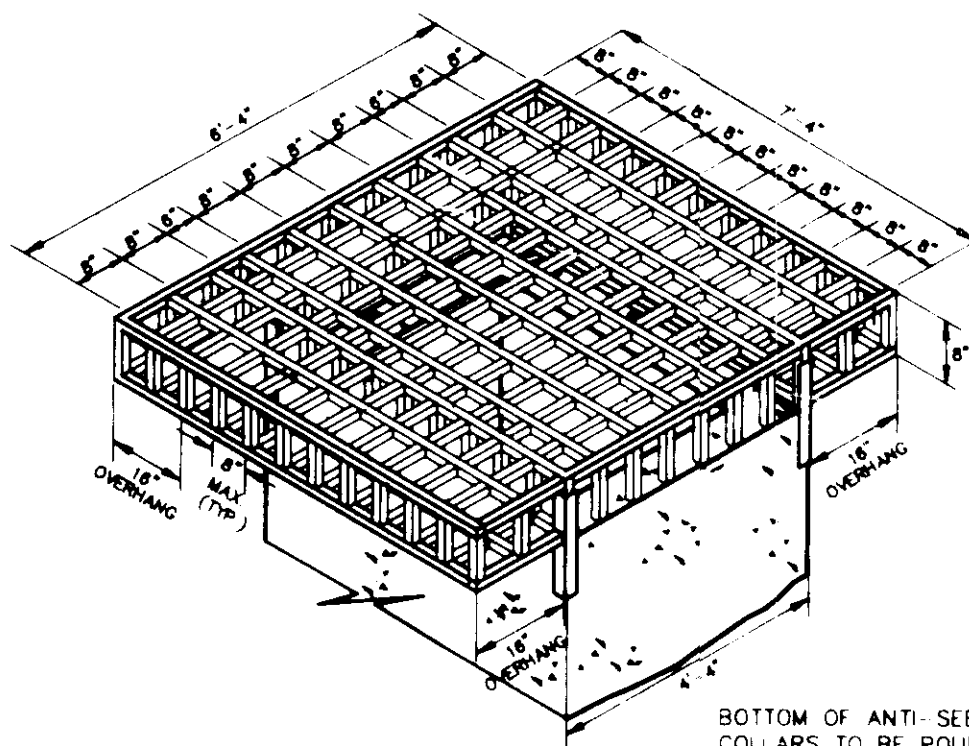
**SEQUENCE OF CONSTRUCTION**

- NOTIFY THE HOWARD COUNTY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO THE START OF WORK.
  - CLEAR FOR AND INSTALL STABILIZED CONSTRUCTION ENTRANCE (1 DAY).
  - CLEAR FOR AND INSTALL SILT FENCE AND DIVERSION DIKE AS SHOWN (1 WEEK).
  - CLEAR FOR AND INSTALL DIVERSION DIKES, SILT FENCE AND TEMPORARY SEDIMENT TRAPS ON SITE EAST OF NORTH RIDGE ROAD, AS SHOWN ON THE PHASE I SEDIMENT AND EROSION CONTROL PLAN. INSTALL CULVERT INLET PROTECTION AT EXISTING PIPE IN LOW POINT ALONG NORTH RIDGE ROAD. INSTALL ALL TREE PROTECTION DEVICES AS SHOWN ON THE PHASE I EROSION AND SEDIMENT PLANS (1 WEEK).
  - CLEAR AND GRUB WITHIN LIMITS OF DISTURBANCE. THE PHASE I PLANS SHOW AN APPROXIMATE LOCATION OF AN ACCESS POINT BETWEEN THE SWM POND AND THE AREA MARKED FOR CORE TRENCH MATERIAL AND ROOF AND/OR DRIVE MATERIAL. THE CONTRACTOR SHALL FIELD LOCATE THE BEST ACCESS BETWEEN THE LOCATIONS. THE ACCESS SHALL BE EAST OF THE DIVERSION DIKE TO ENSURE THAT DISTURBED DRAINAGE FROM THE ACCESS IS DIVERTED TO THE TEMPORARY SEDIMENT BASIN. THE ACCESS SHOULD BE LINED WITH A DIVERSION DIKE, MUCH LIKE THE PHASE I PLAN SHOWS, AND A TEMPORARY CROSSING TO ALLOW THE CLEAN WATER TO BY PASS THE SEDIMENT BASIN (2 WEEKS).
  - REMOVE TOPSOIL AND STOCKPILE WHERE INDICATED ON PLAN (1 WEEK).
  - CONSTRUCT COFFER DAM (3 DAYS). THE STORAGE AREA OF THE COFFER DAM SHALL BE DRAINED BY PUMPING UPON REQUEST OF THE INSPECTOR. THE HEIGHT OF THE DAM WILL ACCOMMODATE STORAGE OF THE 2 YEAR STORM. BEGIN POND CONSTRUCTION OPERATIONS BY CUTTING AT THE NORTHEASTERN PORTION OF THE SITE EAST OF NORTH RIDGE ROAD, IN THE AREA DESIGNATED AS POSSIBLE CORE TRENCH MATERIAL (CONTRACTOR TO FIELD LOCATE THIS AREA AND COMPLETE BORINGS. IF NEEDED, TO ACCURATELY DEPICT LOCATION AND QUANTITY OF MATERIAL). FILL OPERATIONS TO BEGIN AT THE SOUTHWESTERN PORTION OF SITE WEST OF NORTH RIDGE ROAD BY CONSTRUCTING THE STORMWATER MANAGEMENT POND IN THE AREA ALONG RTE. 29. POSITIVE DRAINAGE OF THE DISTURBED AREA MUST ALWAYS BE MAINTAINED TO THE POND. PLACE DENSE MATERIAL (LOCATED IN THE APPROXIMATE AREA SHOWN ON SHEET 8) IN ACCORDANCE WITH THE GEOTECHNICAL REQUIREMENTS REGARDING THE SIZE OF MATERIAL VERSUS THE DEPTH OF FILL (2 MONTHS).
  - UPON FINAL CONSTRUCTION OF THE POND OUTFALL STRUCTURE, PLUG THE 12" ORIFICE WITH WATER TIGHT SEALS UNTIL THE TIME AS THE SWM POND IS CONVERTED FROM A TEMPORARY SEDIMENT BASIN TO A SWM POND.
  - INSTALL OUTLET PROTECTION AT THE EXISTING TWIN OUTFALL PIPES (1 DAY).
  - REMOVE EMBANKMENT ON WESTERN PORTION OF EX. SWM POND NEAR COFFER DAM AND ENLARGE POND AS SHOWN ON PLAN (3 MONTHS).
  - ONCE SWM POND IS ENLARGED, STABILIZE AND REMOVE COFFER DAM (1 WEEK).
  - UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL DIVISION INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES FOR PHASE I AND STABILIZE ANY AREAS STEEPER THAN 3:1 SLOPES WHICH WILL NOT BE WORKED FOR 7 DAYS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES (2 WEEKS).
- PHASE II**  
 NOTE: EXISTING STORMWATER MANAGEMENT POND TO BE USED AS A TEMPORARY SEDIMENT BASIN (TSS)
- CLEAR FOR AND INSTALL DIVERSION DIKES, SILT FENCE AND TEMPORARY SEDIMENT TRAPS ON SITE WEST OF NORTH RIDGE ROAD (1 WEEK).
  - CLEAR AND GRUB WITHIN LIMITS OF DISTURBANCE FOR PHASE II (2 WEEKS).
  - REMOVE TOPSOIL AND STOCKPILE WHERE INDICATED ON PLAN (1 WEEK).
  - CONTINUE MASS GRADING OPERATIONS BY CUTTING AT THE NORTHEASTERN PORTION OF SITE, EAST OF NORTH RIDGE ROAD. CUTTING OPERATIONS TO PROCEED IN A NORTHEAST TO SOUTHWEST DIRECTION TOWARD RT. 29 ALWAYS MAINTAINING POSITIVE DRAINAGE TO THE TEMPORARY SEDIMENT BASIN BY FLOW ALONG THE DIVERSION DIKE. AS THE AREA IS FILLED TOWARD THE POND BEGIN TO REMOVE SED. TRAP #1 THROUGH #4 WITH PERMISSION OF THE SEDIMENT/EROSION CONTROL INSPECTOR. PLACE SILT FENCE AT THE TOE OF THE 2:1 SLOPE. STABILIZE THE SEDIMENT TRAP AREAS TO ORIGINAL CONDITION TO BE VERIFIED BY GEOTECHNICAL ENGINEER (3 WEEKS).
  - BEGIN CONSTRUCTION OF RETAINING WALLS. PROCEED WITH PLACEMENT OF COMPACTED FILL ALONG WESTERN PORTION OF SITE UNTIL ENTIRE AREA WEST OF NORTH RIDGE ROAD IS BROUGHT TO GRADE (3 MONTHS).
- NOTE:** CONTRACTOR SHALL RECONSTRUCT DIKES AT THE END OF EACH WORKING DAY TO ENSURE POSITIVE DRAINAGE TO THE TSS AND SEDIMENT TRAP. PORTIONS OF THE TSS AND SEDIMENT TRAPS MAY BE FILLED, UPON RECEIVING PERMISSION FROM INSPECTOR, IF ANY UNDESIRABLE AREAS ARE STABILIZED PROVIDED SUFFICIENT VOLUME IS MAINTAINED FOR REMAINING DISTURBED AREAS.
- PHASE III**
- CONTINUE MASS GRADING OPERATIONS TOWARD WESTERN PORTION OF SITE, GRAB THE POND ACCESS ROAD IS CONSTRUCTED AND STABILIZED. GRADE BITCH IN CENTER FOR CHANNELIZATION OF WATER TO TSS/SWM POND. (CONTINUATION OF PHASE II)
  - CONSTRUCT CONSTRUCTION OF RETAINING WALL IN AREA OF SWM POND AND FILL. CONSTRUCTION SHALL BE ALIGNED WITH POSITIVE DRAINAGE TO THE TSS BY PLACING A DIVERSION DIKE AT THE TOP OF THE 2:1 SLOPE AS SHOWN IN PHASE II. (CONTINUATION OF PHASE II)
  - GRUB AND GRUB WITHIN LIMITS OF DISTURBANCE. INSTALL INLET PROTECTION ON ALL STORM STRUCTURES (3 MONTHS).
  - REMOVE THE FILL IN THE CENTER OF THE POND ACCESS ROAD AND GRADE WITHIN 2X CROSS-SLOPE (3 DAYS).
- NOTE:** UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL DIVISION INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

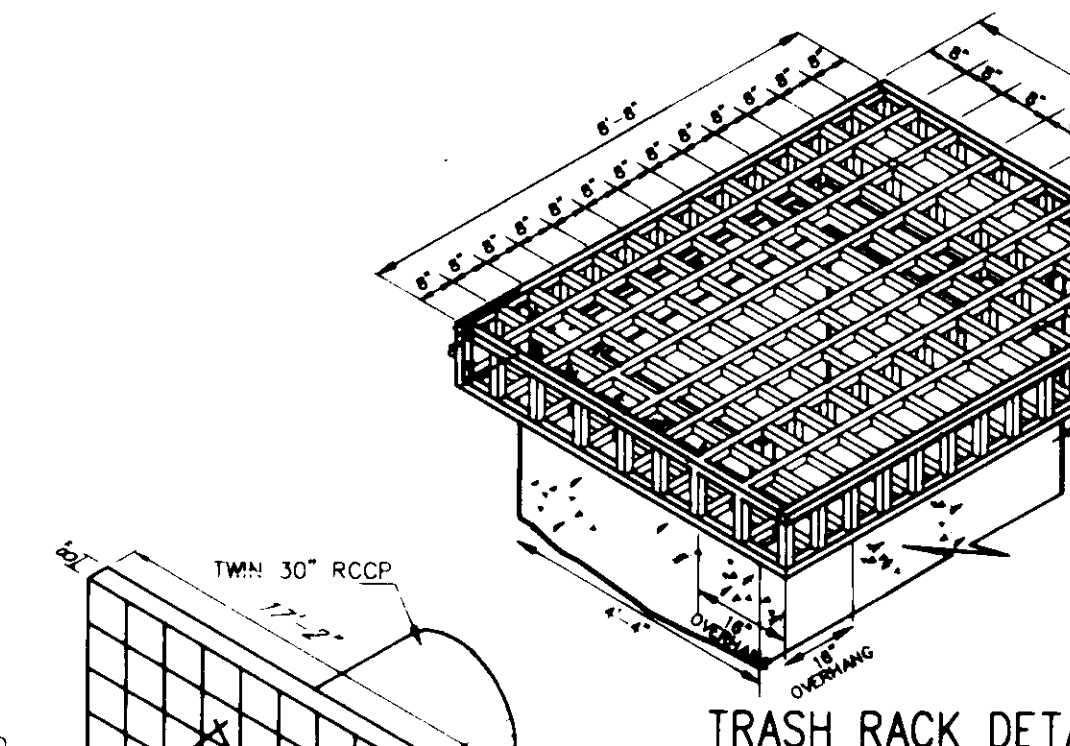
**STORMCEPTOR WATER QUALITY MANAGEMENT FOR ELLICOTT CITY, MD WAL-MART SITE**

STRUCTURE NUMBER	STORMCEPTOR MODEL	ACTUAL DRAINAGE AREA	% IMPERVIOUS DRAINAGE AREA	SIZE IN	SIZE OUT
M-4	STC 6000	8.26	0.85	36	36
M-3B	STC 6000	8.36	0.85	30	30

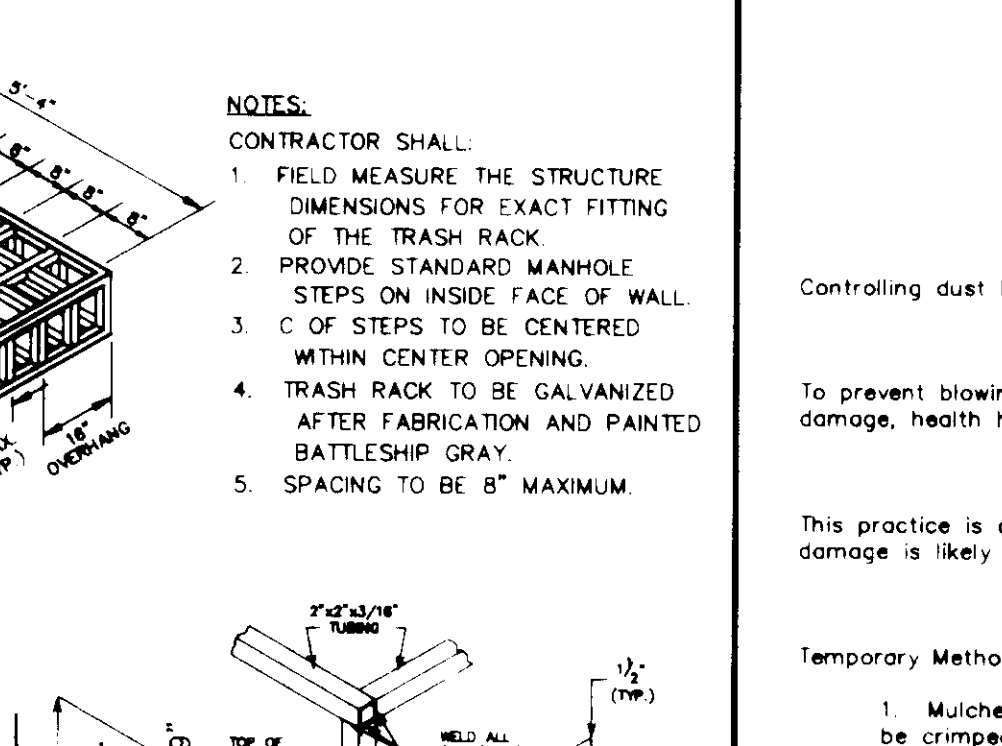
- NOTES:**
- FOR ADDITIONAL TECHNICAL QUESTIONS ON THE STORMCEPTOR DESIGN, PLEASE NOTIFY MR. VINCE BERG (301) 762-8361.
  - A MAINTENANCE AGREEMENT WILL BE PREPARED TO ENSURE THAT THE SYSTEM IS MAINTAINED ON AN ANNUAL BASIS. ONCE THE SITE IS STABILIZED, THE SYSTEM WILL BE MONITORED TO DETERMINE THE FREQUENCY OF MAINTENANCE BASED ON THE SITE CONDITIONS. THE SEDIMENT WILL BE TESTED TO DETERMINE THE DISPOSAL OPTIONS. THE HAZARDOUS MATERIALS (OIL, CHEMICALS, FUEL), WILL BE REMOVED BY A LICENSED WASTE MANAGEMENT COMPANY AND DISPOSED OF ACCORDINGLY.



**TRASH RACK DETAIL FOR UPPER WEIR**  
 N.T.S.  
 1- SUBGRADE TO BE COMPACTED AROUND VICINITY OF COLLAR  
 2- ANTI-SEEP COLLARS SHALL BE LOCATED 2'-0" (MIN.) FROM PIPE JOINT



**TRASH RACK DETAIL FOR LOWER WEIR**  
 N.T.S.  
 APPLY SIKADUR 32 1/4 MOD BINDER TO JOINT SURFACES PRIOR TO SECOND COLLAR POUR



**FASTENING DETAIL**  
 N.T.S.  
 BOTTOM OF ANTI-SEEP COLLARS TO BE POURED IN THE SAME POUR AS BEDDING WITH TIE-IN STEEL EXTENDING UP.

**STRUCTURE SCHEDULE**

STR. NO.	S.D. COORD.	TYPE	ELEV. TOP	MSHA STANDARD	HOWARD COUNTY STANDARD
EW-1	N 587955.2976 E 1363072.3502	STD. TYPE "C" ENDWALL	379.01		SD 5.21
M-2	N 587973.8360 E 1363090.6754	STD. MANHOLE	388.00		G 5.02
M-3	N 587996.6209 E 1363114.0274	STD. MANHOLE	400.50	MD-384.03	
I-3	N 587987.9555 E 1363206.9064	COG INLET	399.30	MD-374.62 TH=15'	
M-3A	N 588037.6353 E 1363169.8863	STD. MANHOLE/STC 4800	400.15		G - 5.02
M-4	N 588234.1105 E 1362942.7092	STD. MANHOLE/STC 6000	410.10		G 5.02
I-5	N 588281.8216 E 1362892.8320	COG INLET	410.46		SD 4.41
I-6	N 588594.2020 E 1362766.6452	COG INLET	410.10	MD-374.62 TH=15'	
M-7	N 588668.0611 E 1362785.3761	STD. MANHOLE	410.50		SD 4.41
I-8	N 588787.2703 E 1362927.3856	COG INLET	410.00		SD 4.41
M-9	N 588877.0870 E 1363078.0608	STD. MANHOLE	415.50		G - 5.01
EXI-6		COG INLET	417.89		SD 4.41
I-11	N 588061.5618 E 1363200.0589	STD. "WR" INLET	400.35		SD 4.35
I-11A	N 588145.8558 E 1363214.2540	STD. "WR" INLET	402.54		SD 4.35
I-12	N 588243.9077 E 1363218.0909	COG INLET	405.80		SD 4.41
I-12A	N 588317.8433 E 1363242.0787	STD. "WR" INLET	406.90		SD 4.35
I-13	N 588381.8908 E 1363284.2513	STD. "WR" INLET	408.90		SD 4.35
M-13A	N 588542.7485 E 1363302.1842	STD. MANHOLE	418.26		SD
I-14	N 588646.1338 E 1363378.7843	COG INLET	409.50		SD 4.41
EW-17	N 587786.87438 E 1363171.38987	MOD. TYPE "A" ENDWALL	385.00		SD 5.11
R-1	N 587886.18823 E 1363240.72281	RISER STRUCTURE	376.60		

BY OTHERS SEE F-98-01 FOR CO-ORDINATES TO EX.STRUCTURE I-6

**30.0 DUST CONTROL**  
 Definition: Controlling dust blowing and movement on construction sites and roads.  
 Purpose: To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off site damage, health hazards, and improve traffic safety.  
 Conditions Where Practice Applies: This practice is applicable to areas subject to dust blowing and movement where on and off site damage is likely without treatment.

- Temporary Methods**
- Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
  - Vegetative Cover - See standards for temporary vegetative cover.
  - Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin blowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
  - Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
  - Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.
  - Calcium Chloride - Apply at rates that will keep surface moist. May need treatment.
- Permanent Methods**
- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
  - Topping - Covering with less erosive soil materials. See standards for topping.
  - Stone - Cover surface with crushed stone or coarse gravel.

- References**
- Agriculture Handbook 346 Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss
  - Agriculture Information Bulletin 354 How to Control Wind Erosion - U.S.A. ARS - 1961

THIS SHEET WILL SUPERSEDE SHEET NUMBER 18 (DATED 1/7/95) APPROVED BY HOWARD COUNTY.

NO.	DATE	DESCRIPTION	BY
4	5/20/96	H.C. REDLINE REVISION	
3	11/15/95	COUNTY COMMENTS REVISION	
2	10/18/95	COUNTY COMMENTS REVISION	
1	9/22/95	COUNTY COMMENTS REVISION	

INITIAL DESIGN	DATE	PRN	DATE	DATE	DATE	DATE	DATE
	8-1-95	JTT	KLM	TPP	TPP	TPP	TPP

**WAL-MART STORES, INC. PARCEL B,C,D**  
**ENGINEERING ASSOCIATES, INC.**  
 ENGINEERS PLANNERS SURVEYORS

9175 Guilford Road, Suite 306  
 Columbia, MD 21046  
 (301) 490-4145  
 FAX (301) 490-4149  
 JOB NO. 9146  
 DATE SHEET NO. 05-30-96 18 OF 25

ELLICOTT CITY WAL-MART  
 MISC. NOTES AND DETAILS



I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: *[Signature]* DATE: 6/27/96

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

SIGNATURE OF REGISTERED PROFESSIONAL ENGINEER: *[Signature]* DATE: 6/6/96

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* DATE: 6/25/96  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* DATE: 7/2/96  
 CHIEF DIVISION AND LAND DEVELOPMENT AND RESEARCH

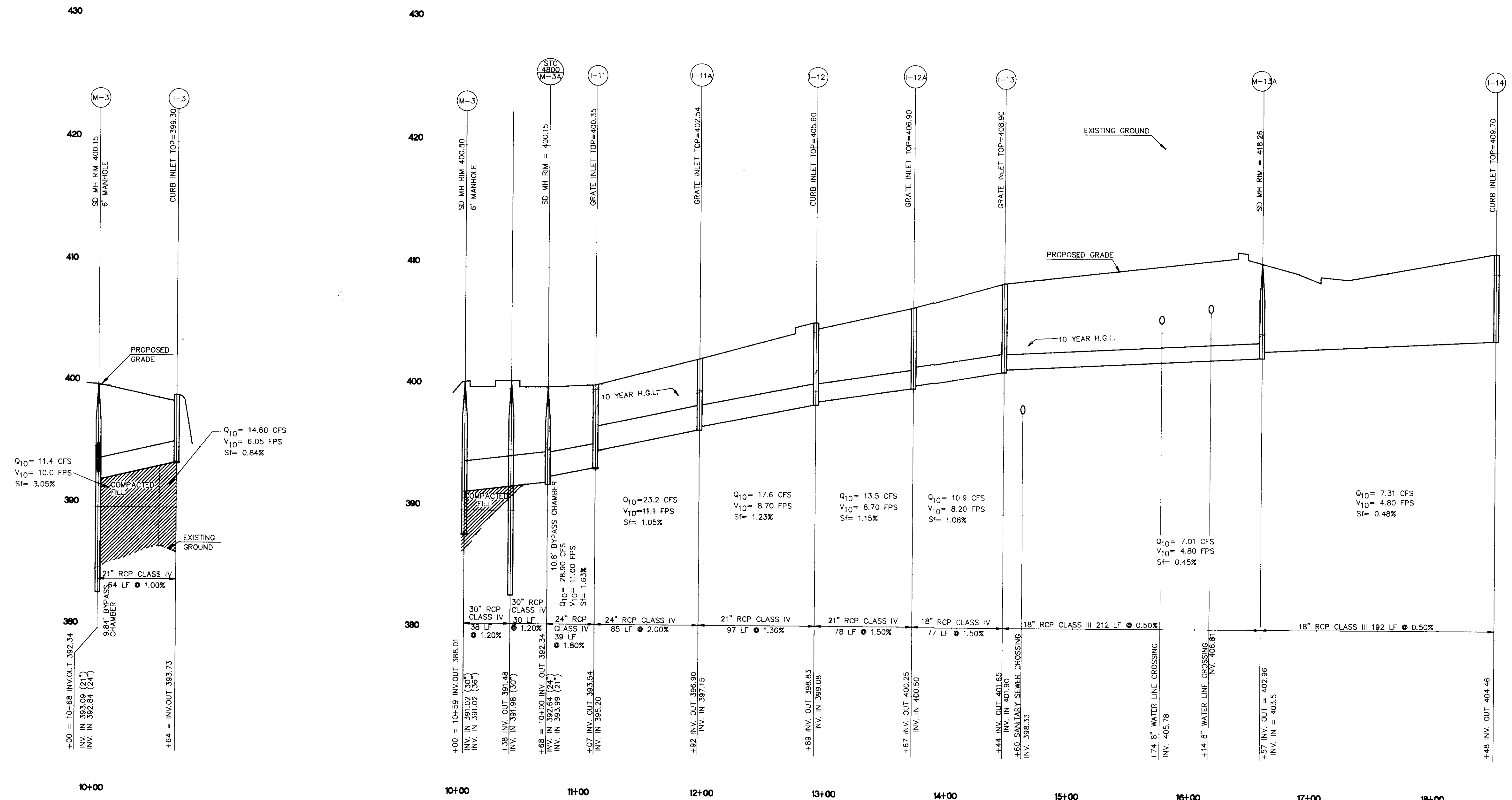
*[Signature]* DATE: 7/2/96  
 DIRECTOR

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

*[Signature]* DATE: 6/27/96  
 NATURAL RESOURCES CONSERVATION SERVICE

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

*[Signature]* DATE: 6/27/96  
 HOWARD SOIL CONSERVATION DISTRICT



PROPOSED STORM SEWER STA. 10+00 TO 10+49  
 SCALE: 1"=50' HORIZ.  
 1"=5' VERT.

PROPOSED STORM SEWER LINE #2 STA. 10+00 TO 17+94  
 SCALE: 1"=50' HORIZ.  
 1"=5' VERT.

THIS SHEET WILL SUPERSEDE SHEET NUMBER 15 (DATED 11/17/95) APPROVED BY HOWARD COUNTY.

⊕ STORMCEPTOR STRUCTURES

OWNER OF DEVELOPMENT  
 LEONORA K. HOENES  
 8668 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21043  
 (410) 465-2321

SUBDIVISION "ELLCOTT CITY WAL-MART"  
 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND  
 TAX MAP 17 & 24 P/O PARCEL 848  
 REZONING CASE NUMBER ZB-941 DATED: OCTOBER 18, 1993  
 SKETCH PLAN S-95-01 APPROVED: 12-2-1994  
 PRELIMINARY PLAN P-95-21 APPROVED: 6-6-95  
 DATE: NOVEMBER 17, 1995

STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5a AND SECTION 10.2.6.6a.



5/20/96 REVISED PER H.C. REDLINE COMMENTS		NO.		DATE		DESCRIPTION	
INITIAL DESIGN							
8-28-94	LD	KLM	TMP	MAM			
	DATE	PRN	PM	DES	CADD		
<b>WAL-MART STORES, INC.</b> PARCELS B,C,D							
<b>ENGINEERING ASSOCIATES, INC.</b>							
ENGINEERS		PLANNERS		SURVEYORS			
9175 Guilford Road, Suite 306 Columbia, MD 21046		(301) 490-4145 FAX (301) 490-4149		JOB NO.: 9146.0.350		DWG NAME: 9146PROF	
ELLCOTT CITY WAL-MART STORM SEWER PROFILES				DATE: 05-30-96	SHEET NO. 15 OF 25		

SDP-96-01

P:\9600\0146\WALMART\DWG\STORM SEWER STA. 10+00 TO 10+49.PLOT



I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]*  
SIGNATURE OF DEVELOPER

3/6/96  
DATE

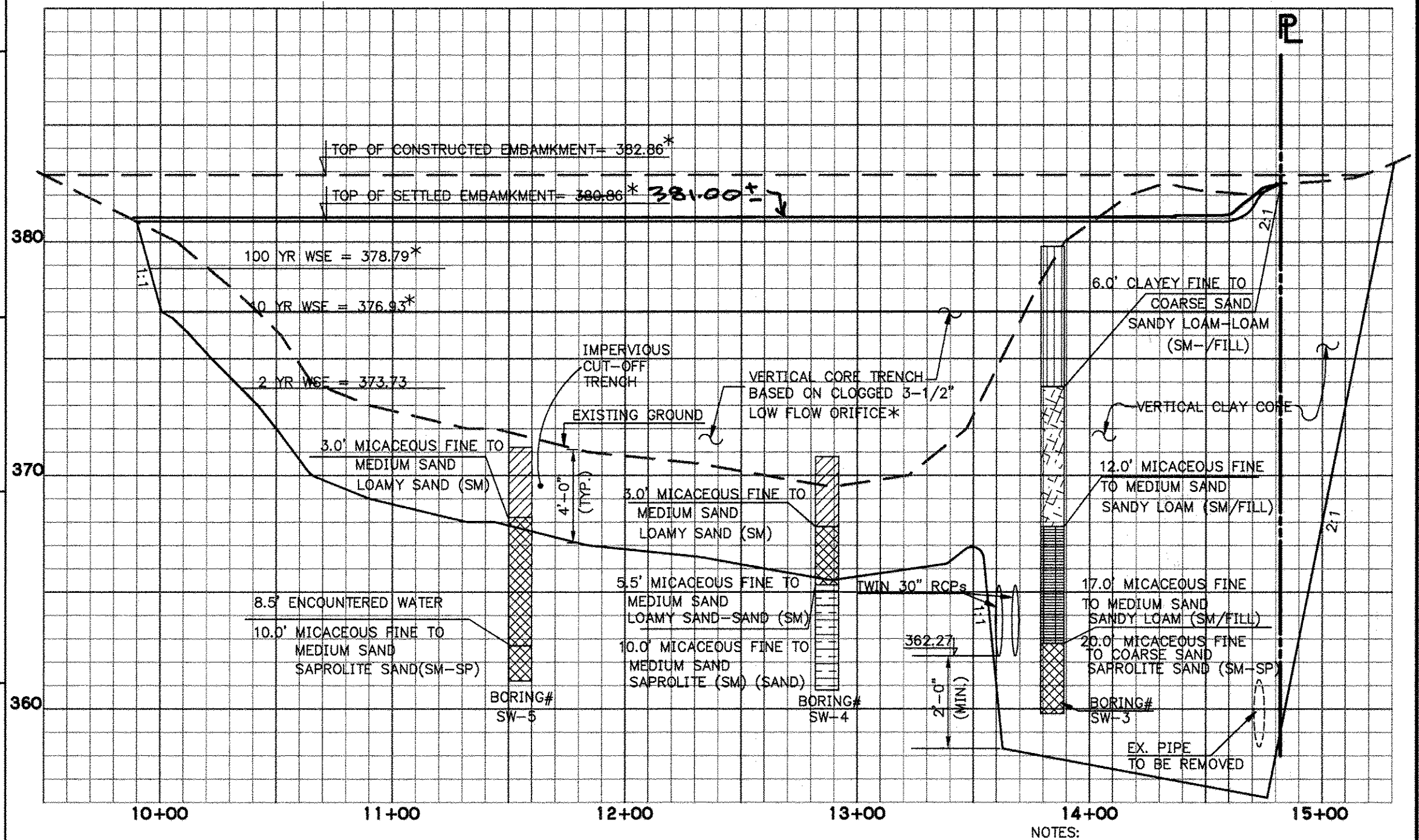
NO.	DATE	DESCRIPTION	BY
4	1/23/92	AS-BUILT	
3	11/14/95	COUNTY COMMENTS REVISION	
2	10/18/95	COUNTY COMMENTS REVISION	
1	9/22/95	COUNTY COMMENTS REVISION	

OWNER OF DEVELOPMENT  
LEONORA K. HOENES  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MD 21043  
(410) 465-2321

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

*[Signature]*  
SIGNATURE OF ENGINEER

5-1-96  
DATE



PROFILE THROUGH EMBANKMENT  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'

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

*[Signature]*  
HOWARD SOIL CONSERVATION DISTRICT

3/24/96  
DATE

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

*[Signature]*  
USA - NATURAL RESOURCES CONSERVATION SERVICE

5/26/96  
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

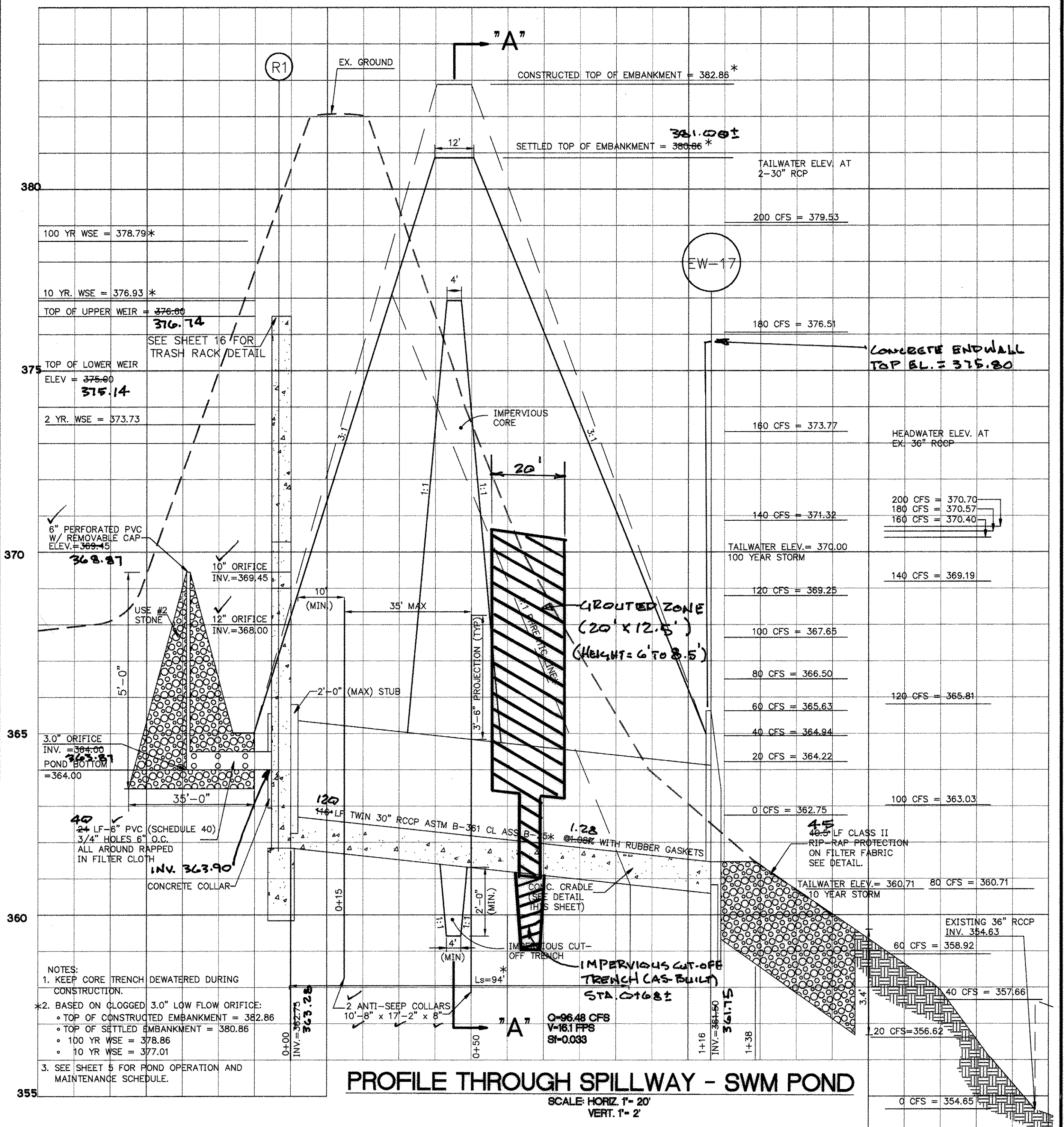
4/1/96  
DATE

*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

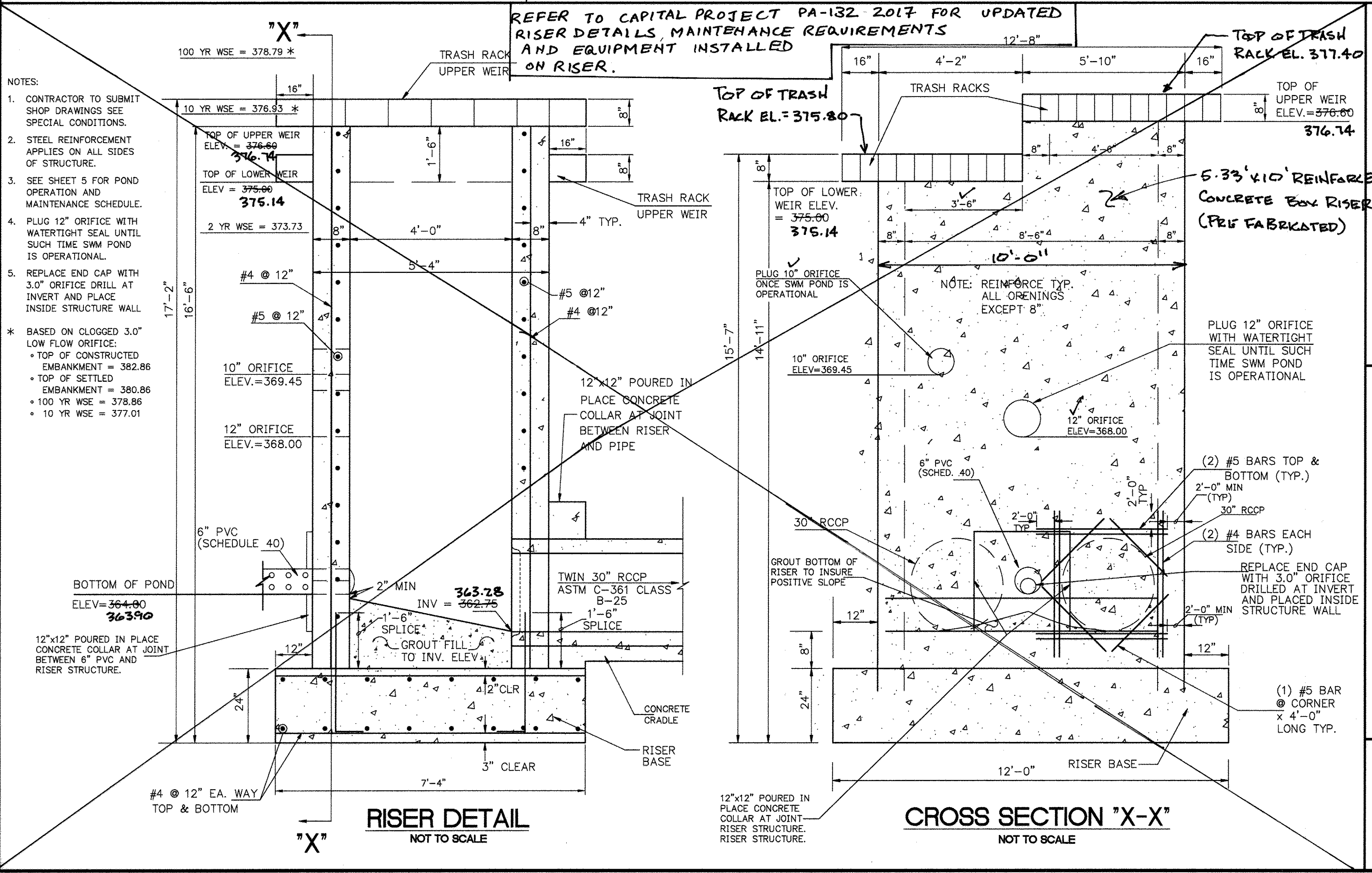
4/3/96  
DATE

*[Signature]*  
DIRECTOR

4/3/96  
DATE

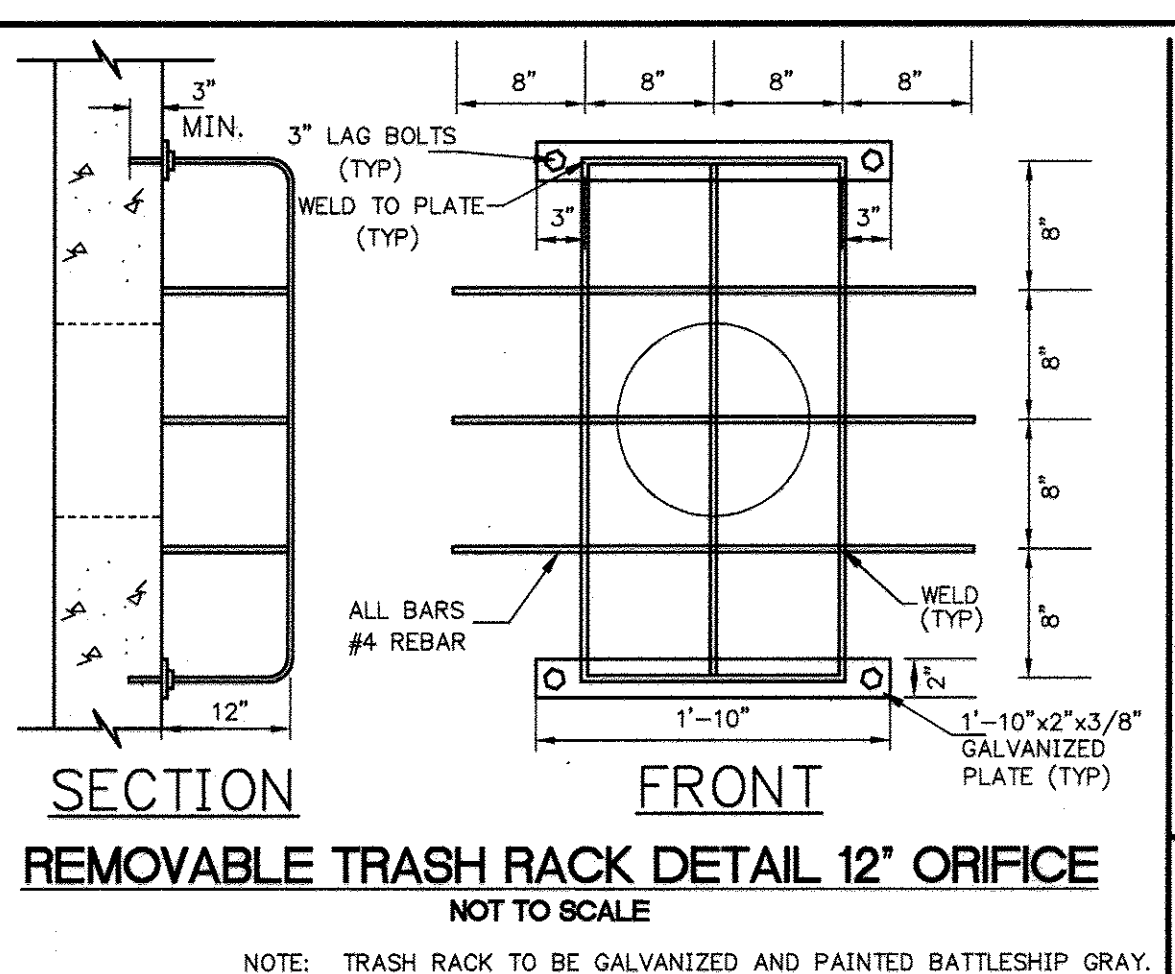


PROFILE THROUGH SPILLWAY - SWM POND  
SCALE: HORIZ. 1" = 20'  
VERT. 1" = 2'

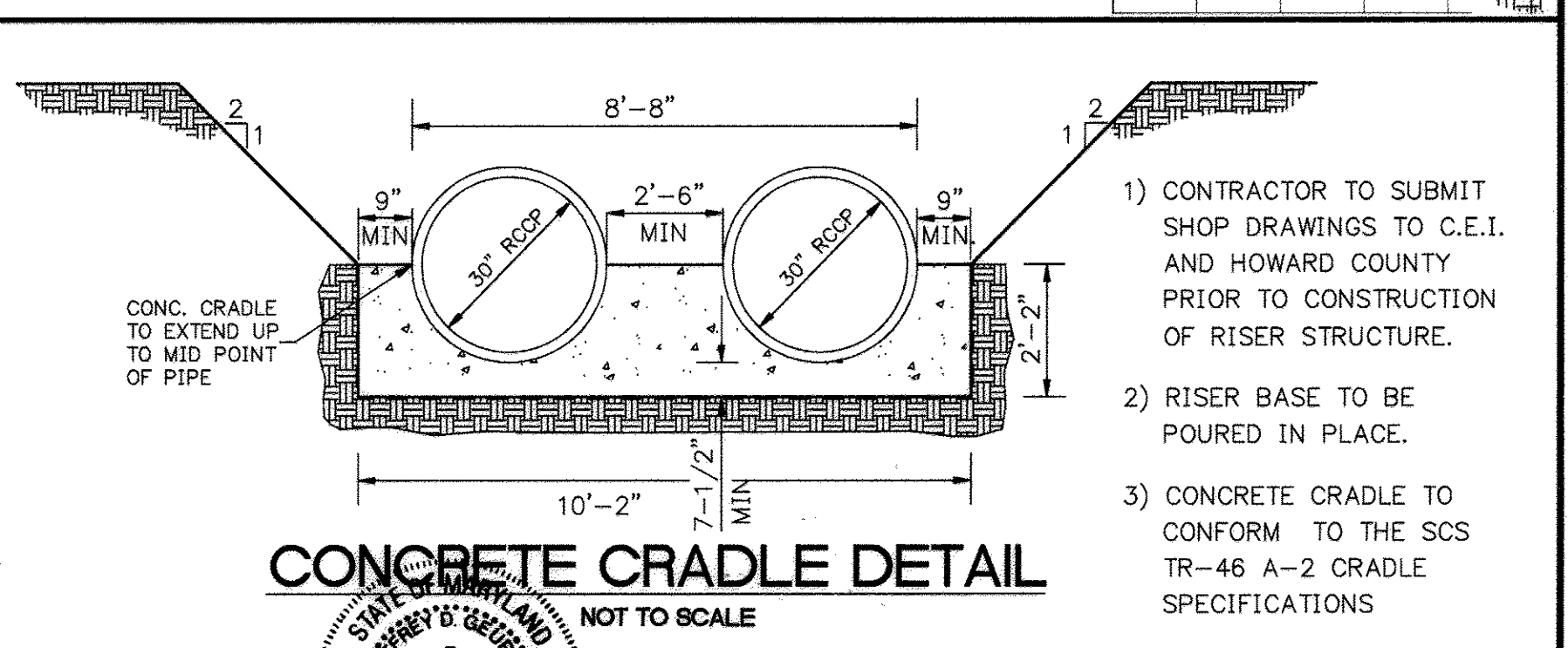


RISER DETAIL  
NOT TO SCALE

CROSS SECTION "X-X"  
NOT TO SCALE



REMOVABLE TRASH RACK DETAIL 12\"/>



CONCRETE CRADLE DETAIL  
NOT TO SCALE

SUBDIVISION "ELLCOTT CITY WAL-MART"  
ELECTION DISTRICT NO. 2  
TAX MAP 17 & 24  
REZONING CASE NUMBER ZB-941  
SKETCH PLAN S-95-01  
PRELIMINARY PLAN P-95-21

HOWARD COUNTY, MARYLAND  
P/O PARCEL 848  
DATED: OCTOBER 18, 1993  
APPROVED: 12-2-1994  
APPROVED: 6-6-95  
DATE: NOVEMBER 17, 1995

STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5a AND SECTION 10.2.6.6.a.

*[Signature]*  
1/23/92

*[Signature]*  
3-1-96

INITIAL DESIGN	6-1-95	JIT	KLM	TMP	TVV
DATE	PRN	PM	DES	DRW	

**WAL-MART STORES, INC.**  
PARCELS B,C,D

**ENGINEERING ASSOCIATES, INC.**  
ENGINEERS PLANNERS SURVEYORS

9175 Guilford Road, Suite 306  
Columbia, MD 21046

(301) 490-4145  
FAX (301) 490-4143

JOB NO: 9146  
DWG NAME: 9146-SMWD

**ELLCOTT CITY WAL-MART**  
STORMWATER MANAGEMENT DETAILS

DATE: 11-17-95  
SHEET NO: 13 OF 25

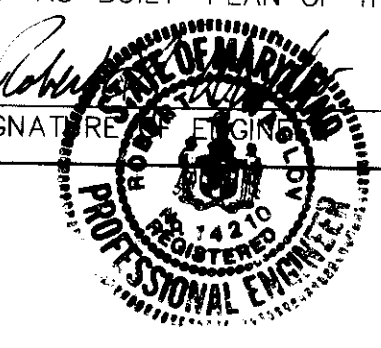


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SIGNATURE OF DEVELOPER: *[Signature]* DATE: *6/16/96*

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

SIGNATURE: *[Signature]* DATE: *6/16/96*



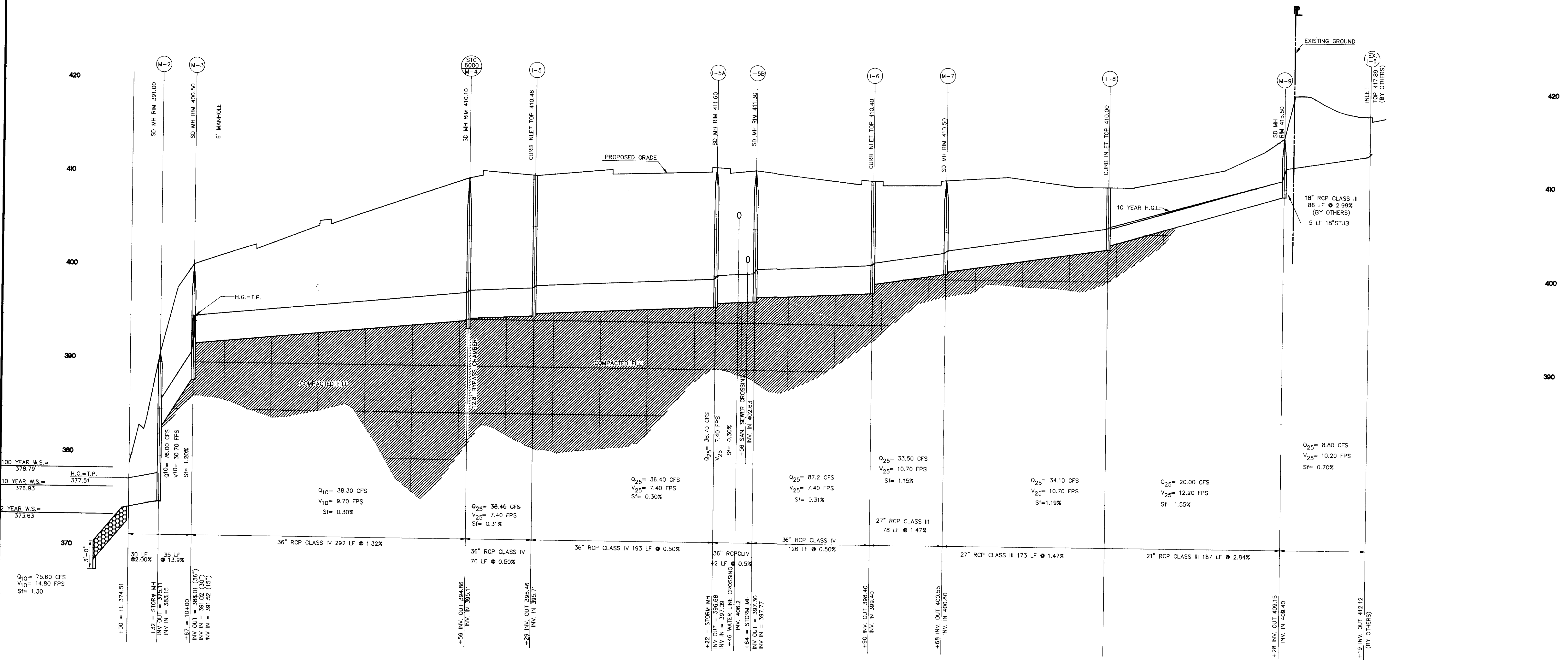
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: *6/22/96*

CHIEF, DIVISION AND LAND DEVELOPMENT AND RESEARCH  
 DATE: *7/2/96*

DIRECTOR  
 DATE: *7/2/96*

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.  
 J.C. Wardfield / JCS  
 USD - NATURAL RESOURCES CONSERVATION SERVICE  
 DATE: *6/27/96*

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 Robert W. Ziehm / JCS  
 HOWARD SOIL CONSERVATION DISTRICT  
 DATE: *6/27/96*



PROPOSED STORM SEWER LINE #1  
 STA. 10+00 TO 23+44  
 SCALE: 1"=50' HORIZ.  
 1"=5' VERT.

THIS SHEET WILL SUPERSEDE SHEET NUMBER 14  
 (DATED 11/17/95) APPROVED BY HOWARD COUNTY.

⊕ STORMCEPTOR STRUCTURES

OWNER OF DEVELOPMENT  
 LEONORA K. HOENES  
 8668 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21043  
 (410) 465-2321

SUBDIVISION "ELLCOTT CITY WAL-MART"  
 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND  
 TAX MAP 17 & 24 P/O PARCEL 848  
 REZONING CASE NUMBER ZB-941 DATED: OCTOBER 18, 1993  
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 DATE: NOVEMBER 17, 1995

STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5a AND SECTION 10.2.6.6a.



NO.	DATE	REVISIONS	DESCRIPTION														
1	5/20/96	REVISED PER H.C. REDLINE COMMENTS															
<table border="1"> <thead> <tr> <th>INITIAL DESIGN</th> <th>DATE</th> <th>PRN</th> <th>LDF</th> <th>KLM</th> <th>TMP</th> <th>MAM</th> </tr> </thead> <tbody> <tr> <td></td> <td>8-29-94</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				INITIAL DESIGN	DATE	PRN	LDF	KLM	TMP	MAM		8-29-94					
INITIAL DESIGN	DATE	PRN	LDF	KLM	TMP	MAM											
	8-29-94																
<p>WAL-MART STORES, INC.            PARCELS B,C,D</p> <p>ENGINEERING ASSOCIATES, INC.            ENGINEERS PLANNERS SURVEYORS</p>																	
<p>9175 Guilford Road, Suite 306 (301) 490-4145 JOB NO.: 9146.0.350            Columbia, MD 21046 FAX (301) 490-4149 DWG NAME: 9146PROF</p>																	
<p>ELLCOTT CITY WAL-MART            STORM SEWER PROFILES</p>																	
DATE: 05-30-96		SHEET NO: 14 OF 25															

SDP-96-01

P:\6000\G146\MASS\UNL\G146\2008 - 11C



I 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.

DATE: 3/6/96  
SIGNATURE OF DEVELOPER: [Signature]

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN CONFORMANCE 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.

DATE: 3-1-96  
SIGNATURE OF REGISTERED PROFESSIONAL ENGINEER: [Signature]

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

DATE: 3/26/96  
HOWARD SOIL CONSERVATION DISTRICT

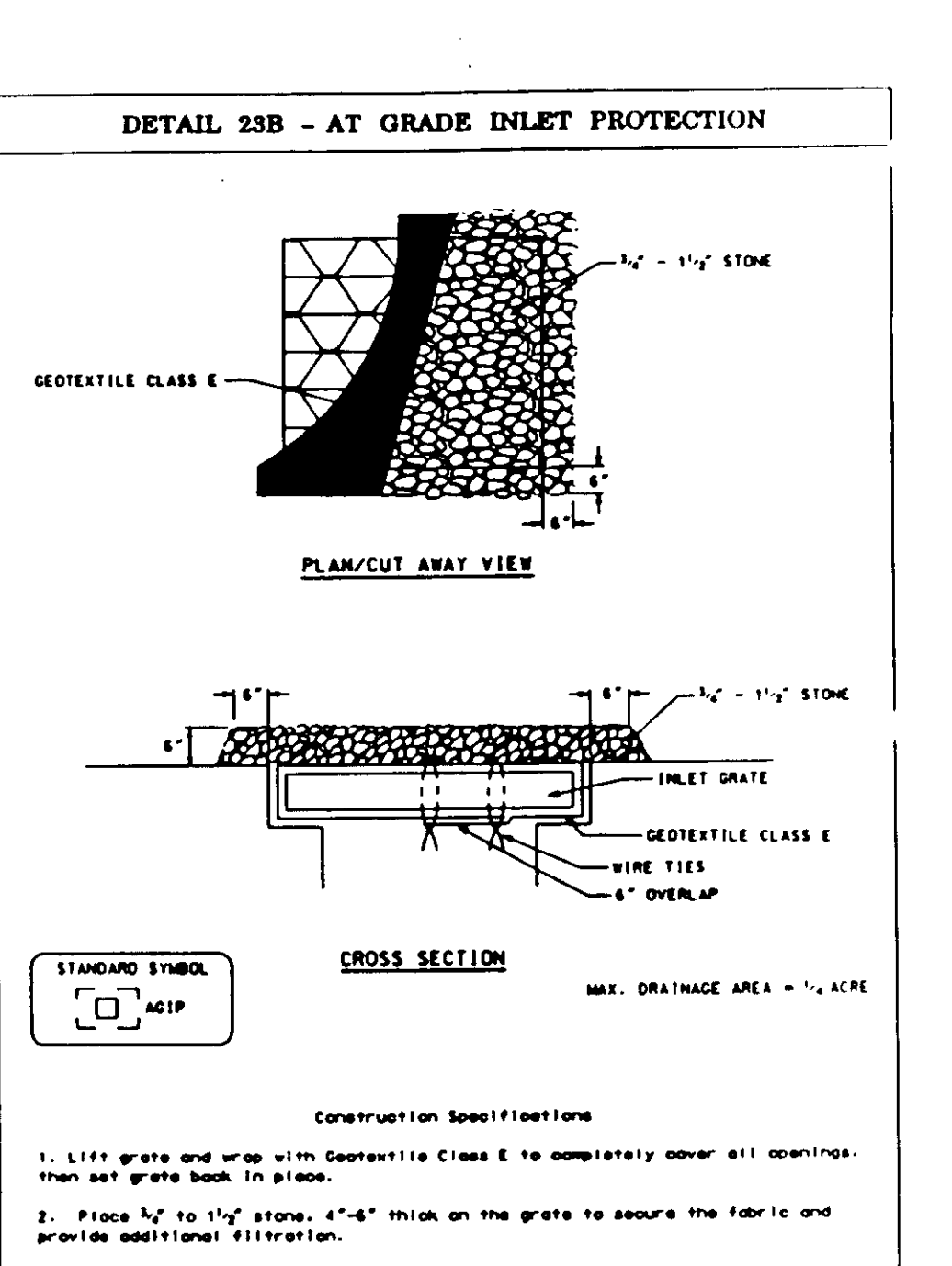
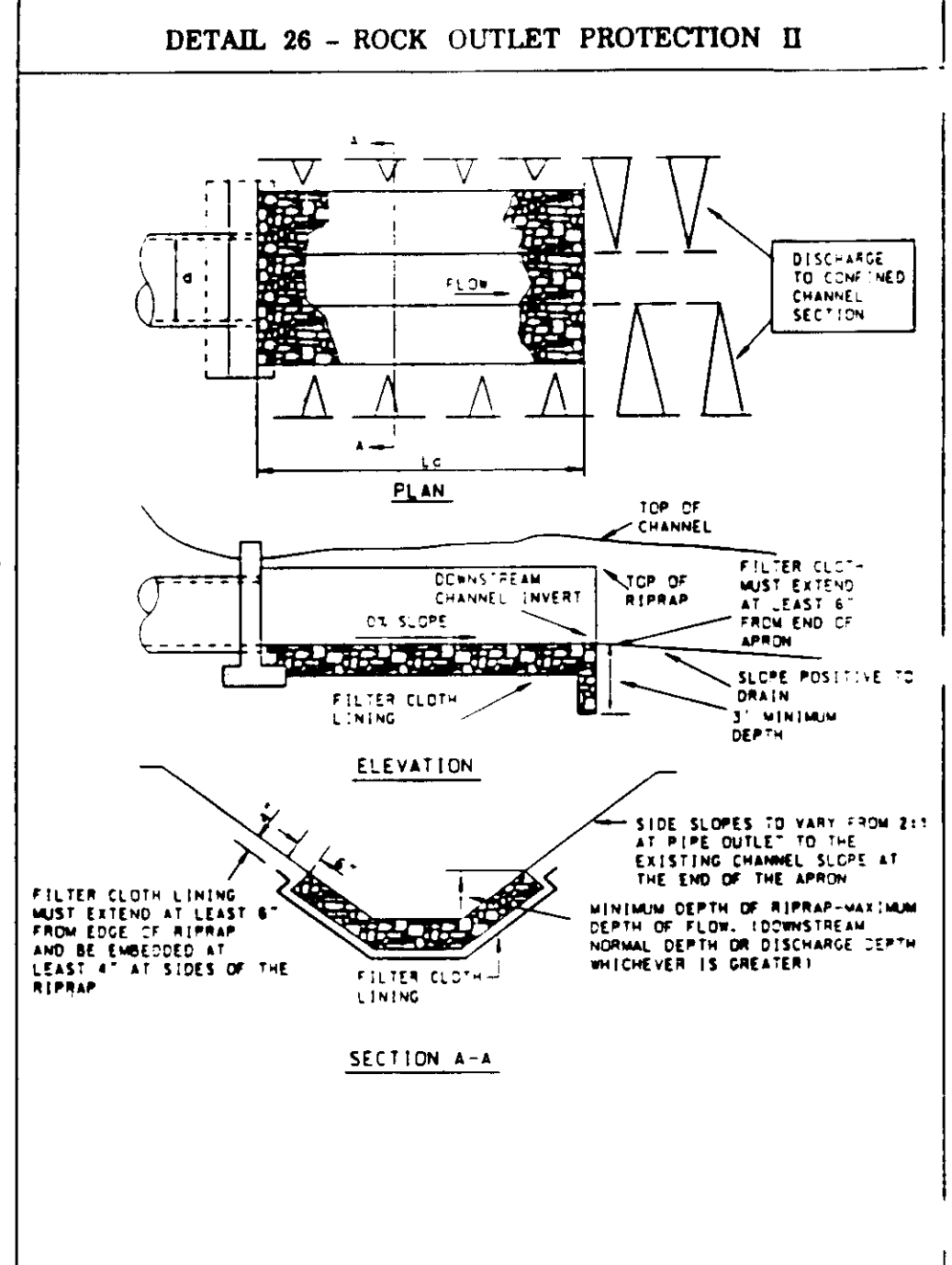
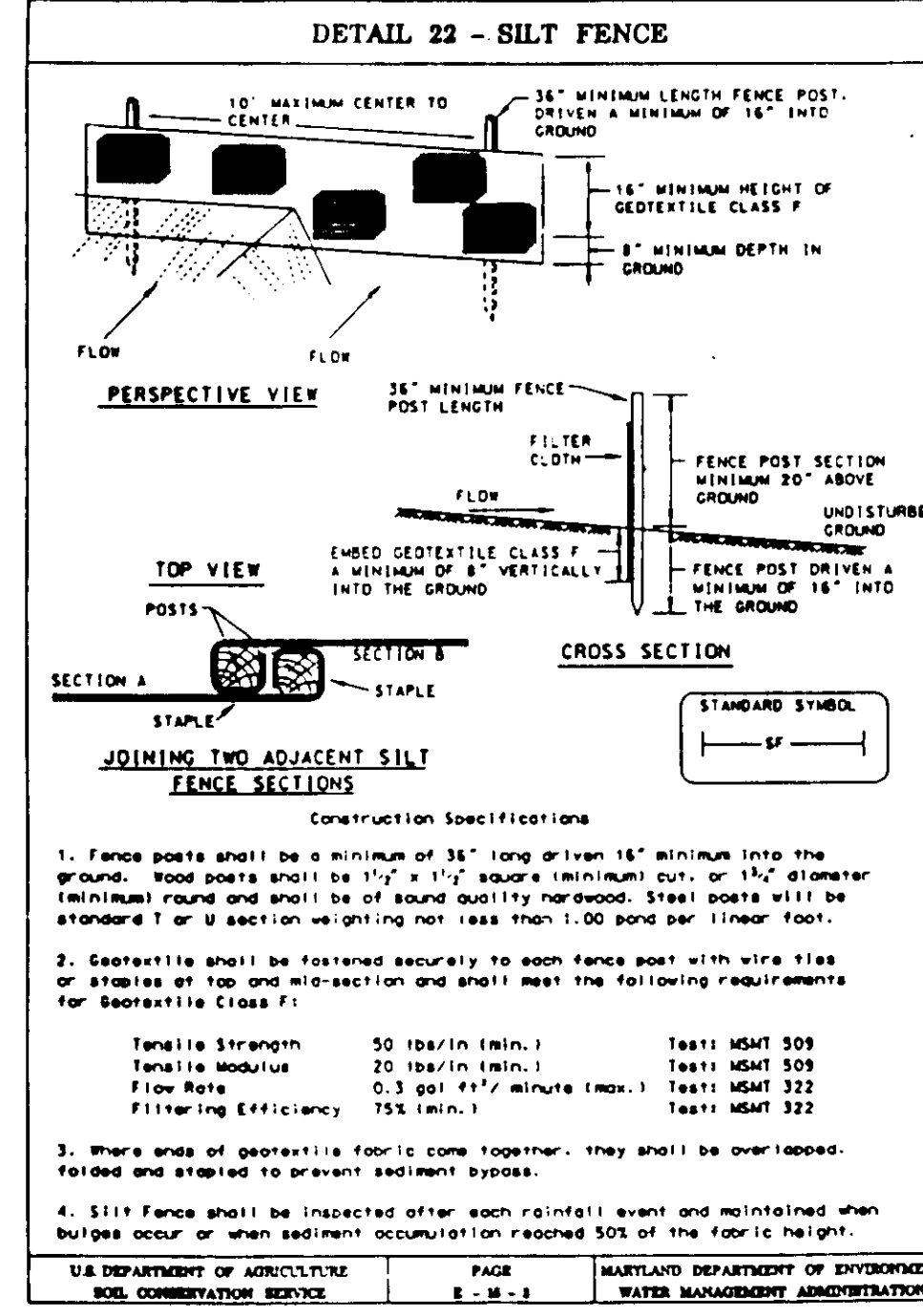
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

DATE: 3/26/96  
USDA - NATURAL RESOURCES CONSERVATION SERVICE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
DATE: 4/1/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature]  
DATE: 4/8/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH: [Signature]  
DATE: 4/2/96  
DIRECTOR: [Signature]

HOWARD SOIL CONSERVATION DISTRICT  
STANDARD SEDIMENT CONTROL NOTES

- 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. (410-313-1855).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL," AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISBURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1995 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOO (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 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.
- SITE ANALYSIS:  
TOTAL AREA OF SITE: 65.19 ACRES  
AREA DISTURBED: 45.00 ACRES  
AREA TO BE ROOFED OR PAVED: N/A ACRES  
AREA TO BE VEGETATIVELY STABILIZED: 4.04 ACRES  
TOTAL CUT: 109,000 CU YD  
TOTAL FILL: 106,000 CU YD  
OFFSITE WASTE/BORROW AREA LOCATED AT NORTHEASTERN PORTION OF SITE EAST OF NORTH RIDGE ROAD.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.



HOWARD SOIL CONSERVATION DISTRICT  
PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

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

SOIL AMENDMENTS -- IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:  
1) PREFERRED -- APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ. FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREA-FORM FERTILIZER (9 LBS./1000 SQ. FT.)  
2) ACCEPTABLE -- APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE 92 LBS./1000 SQ. FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

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

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

MAINTENANCE -- INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

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

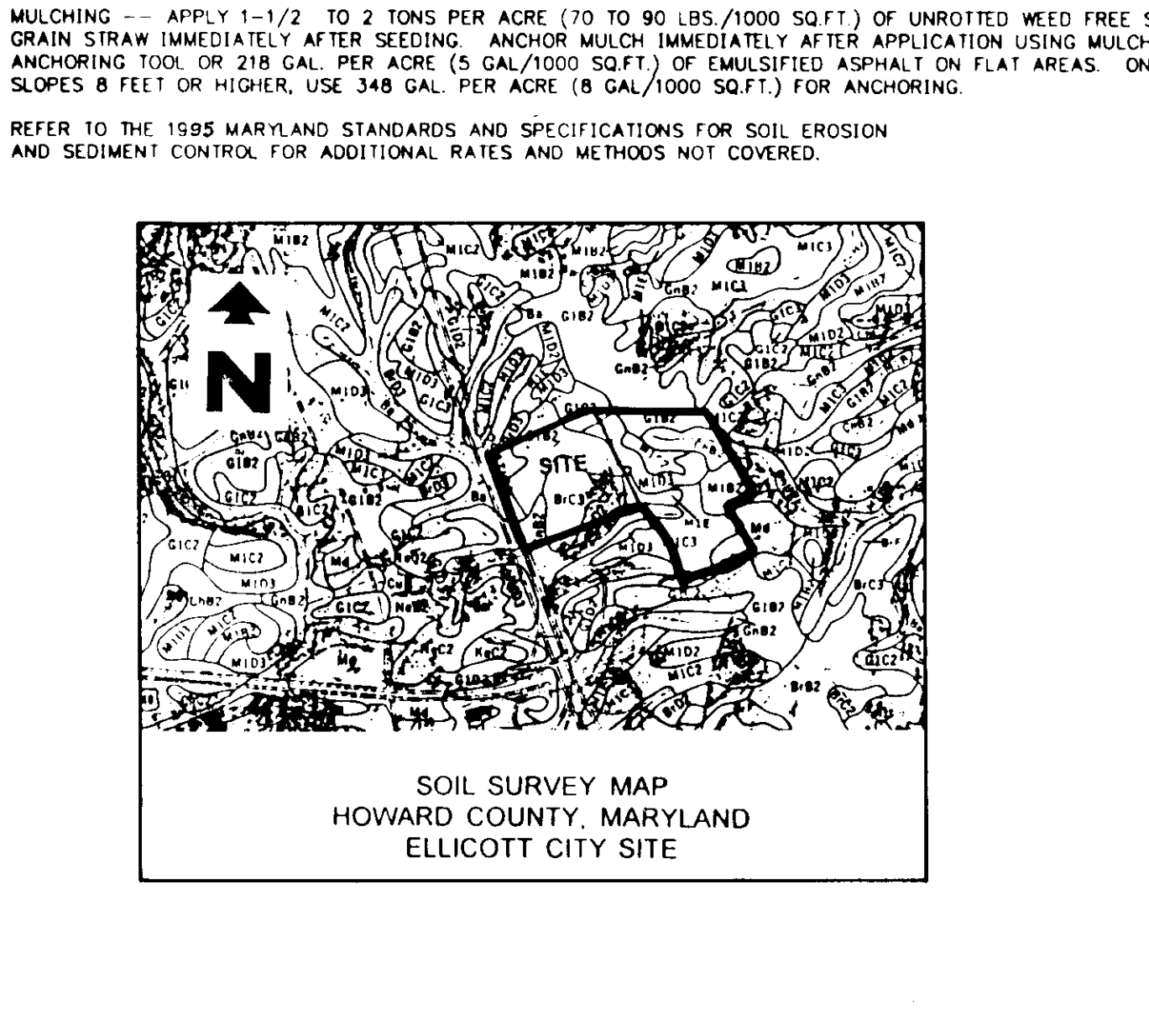
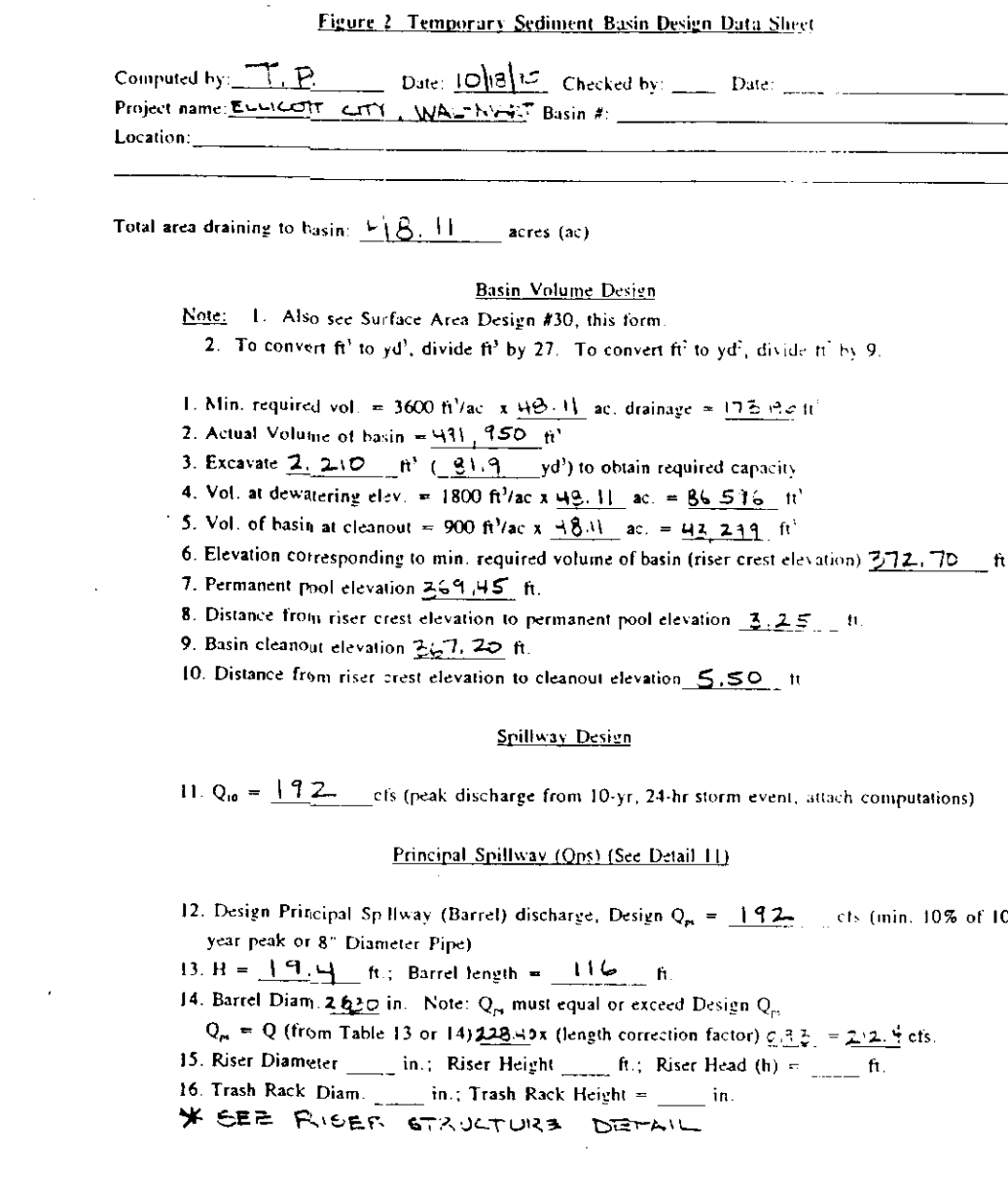
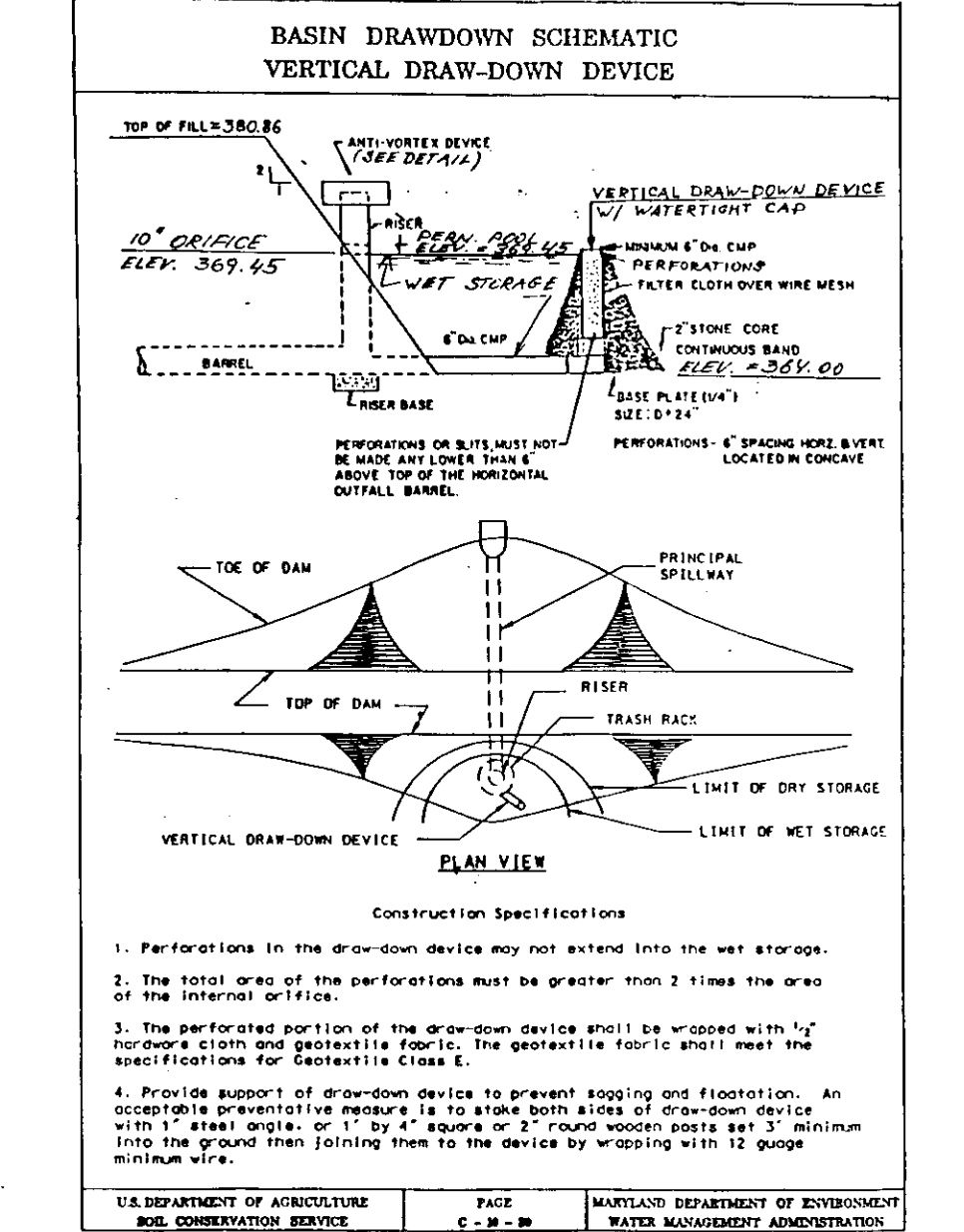
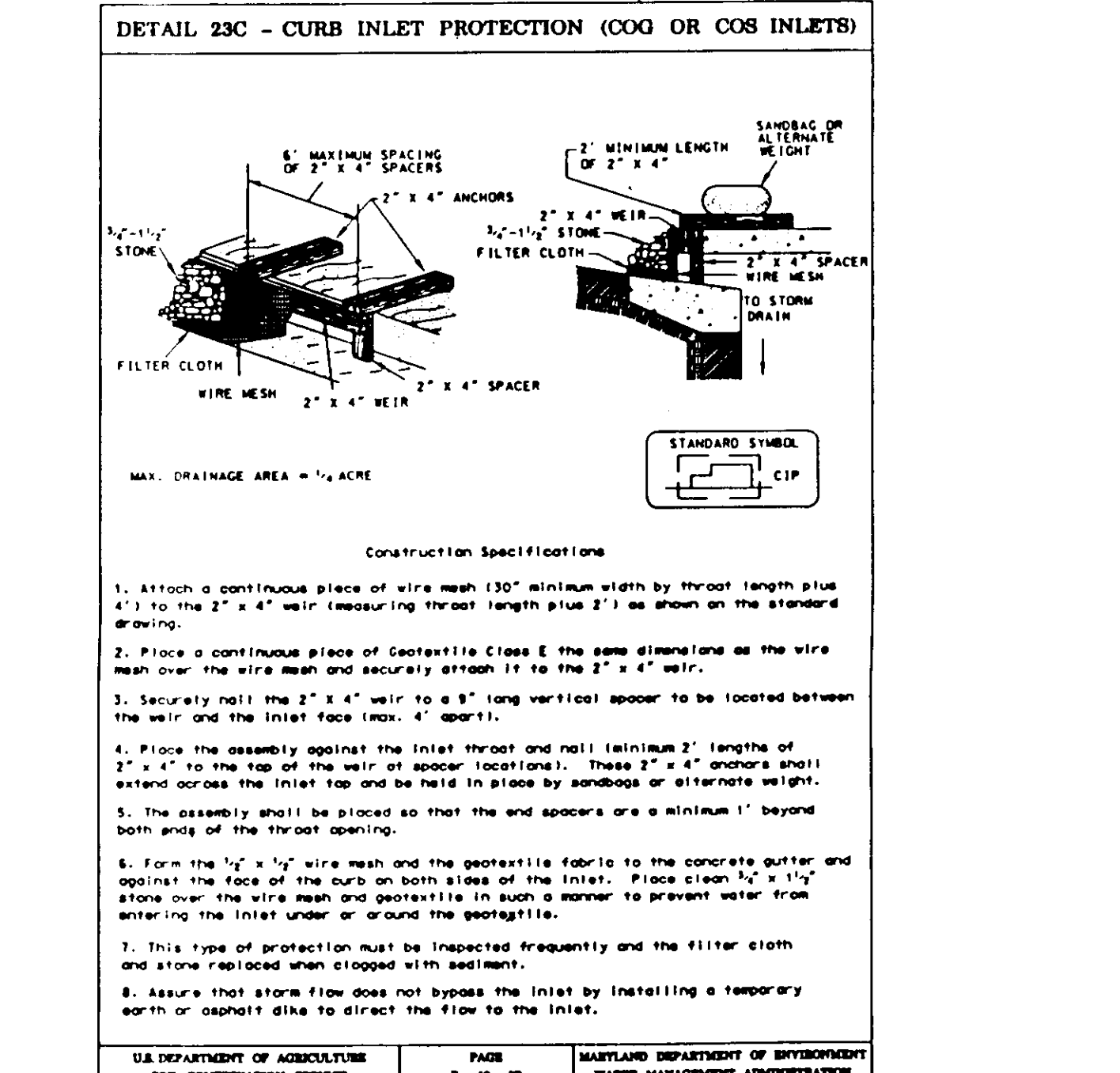
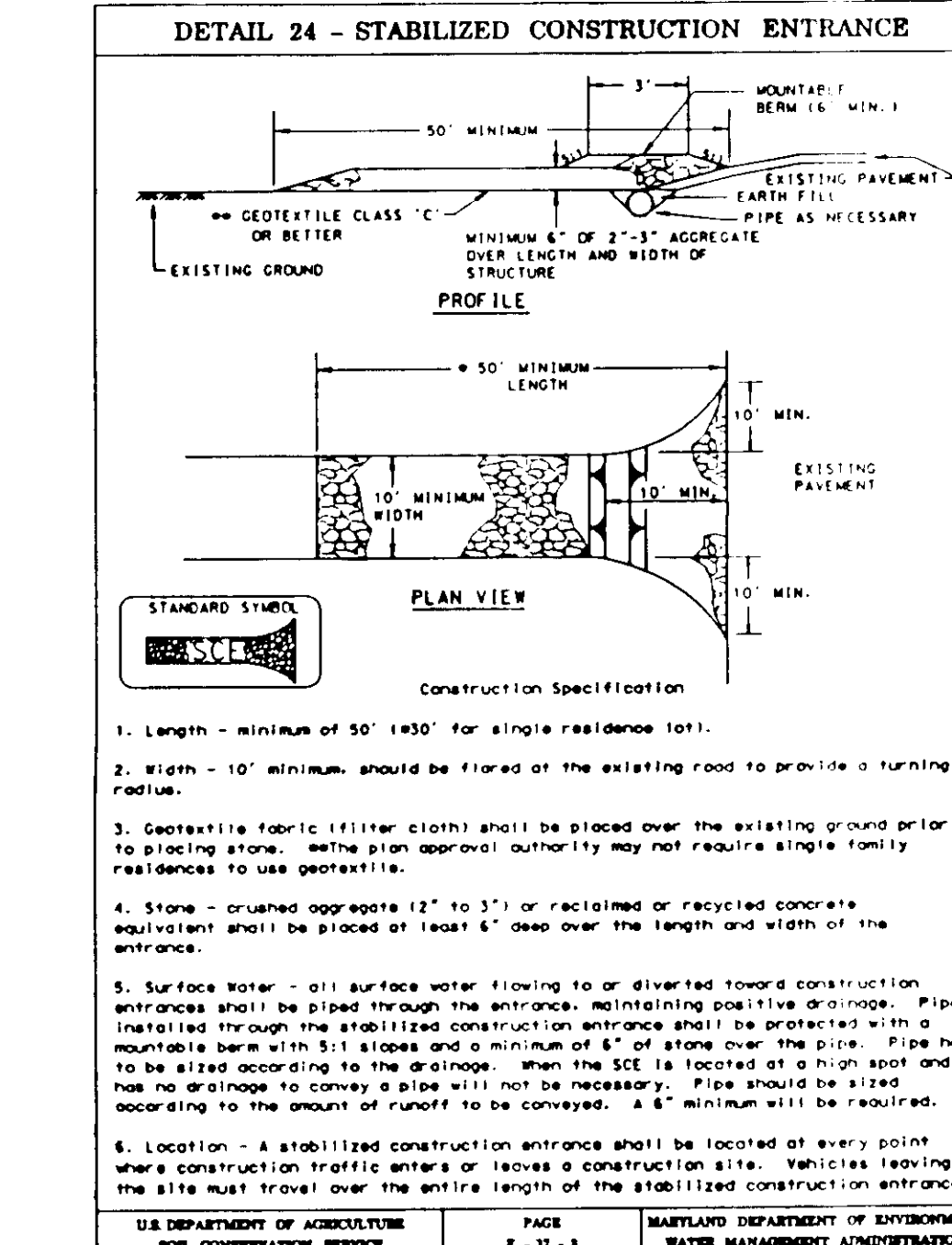
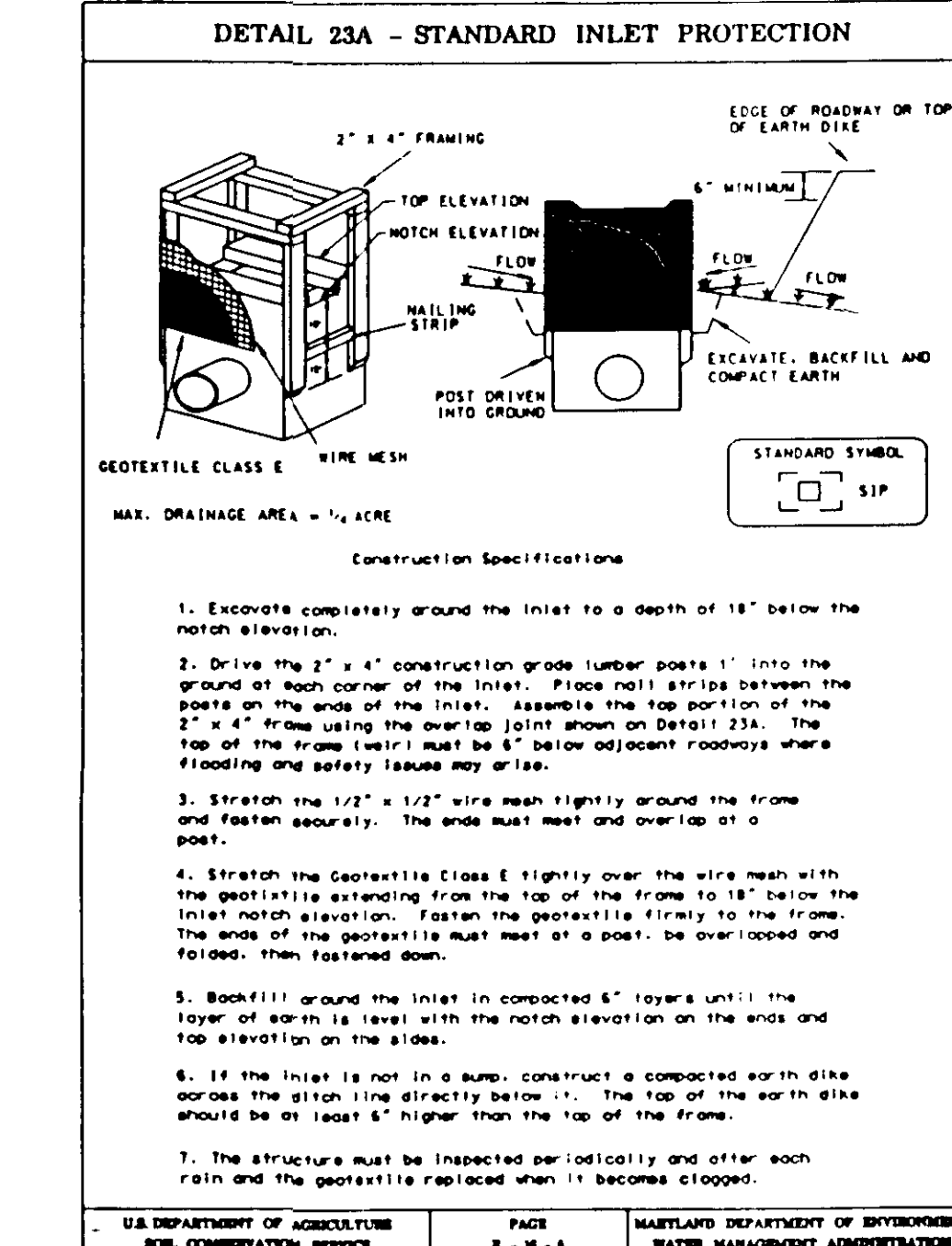
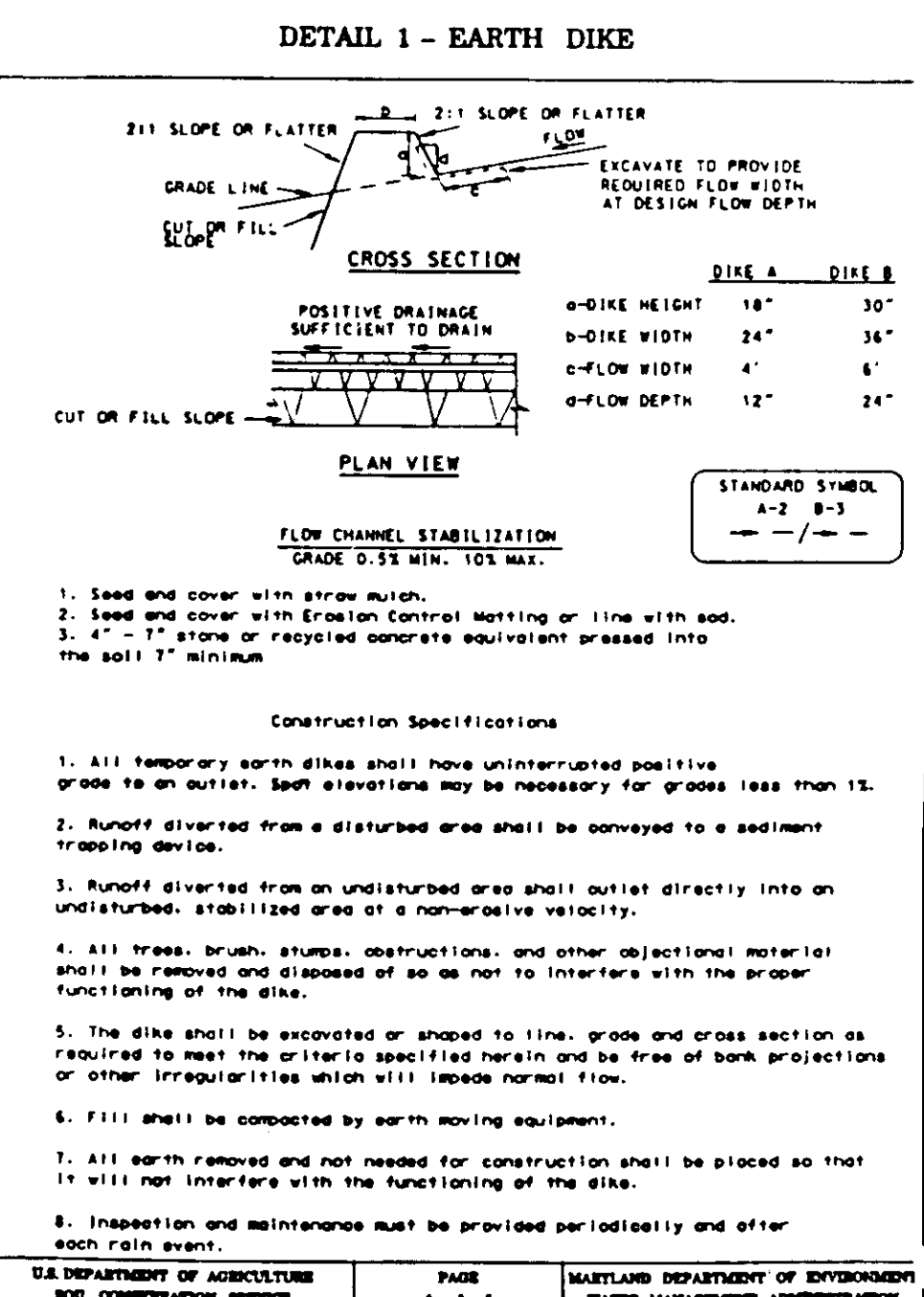
SEEDBED PREPARATION -- LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

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

SEEDING -- FOR PERIODS MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH OCTOBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ. FT.). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.7 LBS./1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 THROUGH 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 SOO.

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

REFER TO THE 1995 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.



OWNER OF DEVELOPMENT  
LEONORA K. HOENES  
8668 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MD 21043  
(410) 465-2321

SUBDIVISION "ELLICOTT CITY WAL-MART"  
ELECTION DISTRICT NO. 2  
TAX MAP 17 & 24  
REZONING CASE NUMBER ZB-941  
SKETCH PLAN S-95-01  
PRELIMINARY PLAN P-95-21

DATED: OCTOBER 18, 1993  
APPROVED: 12-2-1994  
DATE: SEPTEMBER 6, 1995

STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5a AND SECTION 10.2.6.6a.

INITIAL DESIGN	8-29-95	LD	KLM	TMP	TVV
DATE	PRN	PM	DRW		

WAL-MART STORES, INC.  
WAL-MART STORE #2412

ENGINEERING ASSOCIATES, INC.  
ENGINEERS PLANNERS SURVEYORS

9175 Guilford Road, Suite 306 (301) 490-4145 JOB NO: 9146  
Columbia, MD 21046 FAX (301) 490-4149 DWG NAME: 9146/PROP

ELLICOTT CITY WAL-MART  
EROSION AND SEDIMENT DETAILS

DATE: 7.5-95 SHEET NO: 12 OF 25

SDP-96-01



I 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.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 10/25/96  
 DATE: 7/21/96  
 DATE: 7/21/96  
 DATE: 7/21/96

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 DATE: 6/17/96  
 HOWARD SOIL CONSERVATION DISTRICT

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.  
 DATE: 6/27/96  
 USDA NATURAL RESOURCES CONSERVATION SERVICE

THIS SHEET WILL SUPERSEDE SHEET NUMBER 11 (DATED 11/7/95) APPROVED BY HOWARD COUNTY.

SIGNATURE OF DEVELOPER  
 DATE: 6/6/96  
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.  
 SENIOR PROFESSIONAL ENGINEER  
 DATE: 6/6/96

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL D"  
 PLAT NO. 9419  
 ZONED RA-15

FUTURE DEVELOPED  
 DA = 2.05  
 A = 4.10 AC  
 C = 0.22

PARCEL 'B'  
 ZONED B-2  
 A = 1.88 AC  
 C = 0.28

PARCEL 'C'  
 ZONED B-2  
 A = 0.84 AC  
 C = 0.63  
 A = 0.46 AC  
 C = 0.78  
 A = 0.84 AC  
 C = 0.64  
 A = 1.11 AC  
 C = 0.67  
 A = 1.09 AC  
 C = 0.73  
 A = 2.14 AC  
 C = 0.80

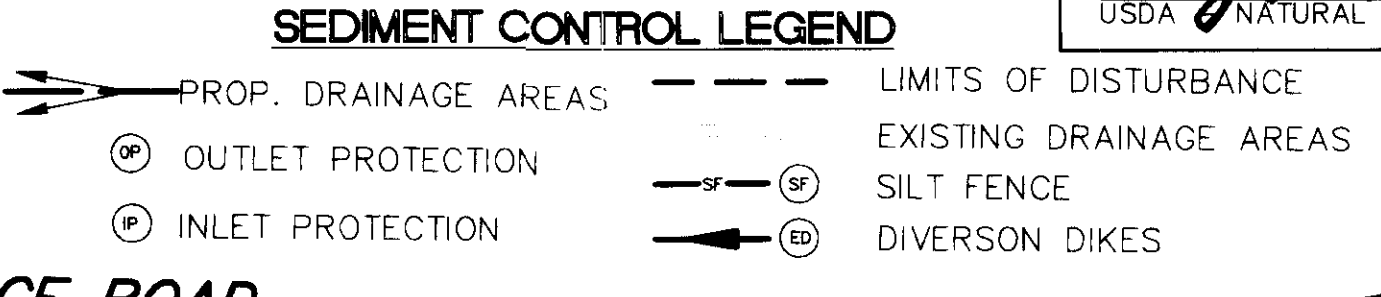
BULK PARCEL 'D'  
 ZONED P.O.R.  
 A = 0.36 AC  
 C = 0.86  
 A = 0.45 AC  
 C = 0.85  
 A = 0.37 AC  
 C = 0.86  
 A = 0.04 AC  
 C = 0.85

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL C"  
 PLAT NO. 7847  
 ZONED RA-15

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL D"  
 PLAT NO. 9419  
 ZONED RA-15

SUBDIVISION "ELLCOTT CITY WAL-MART"  
 HOWARD COUNTY, MARYLAND  
 P/O PARCEL B48  
 DATED: OCTOBER 18, 1993  
 APPROVED: 12-2-1994  
 DATE: NOVEMBER 17, 1995  
 DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5a AND SECTION 10.2.6.6.a.

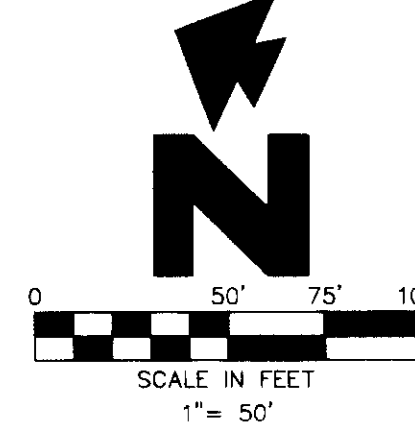
EX. PERPETUAL EASEMENT FOR INLET DITCH



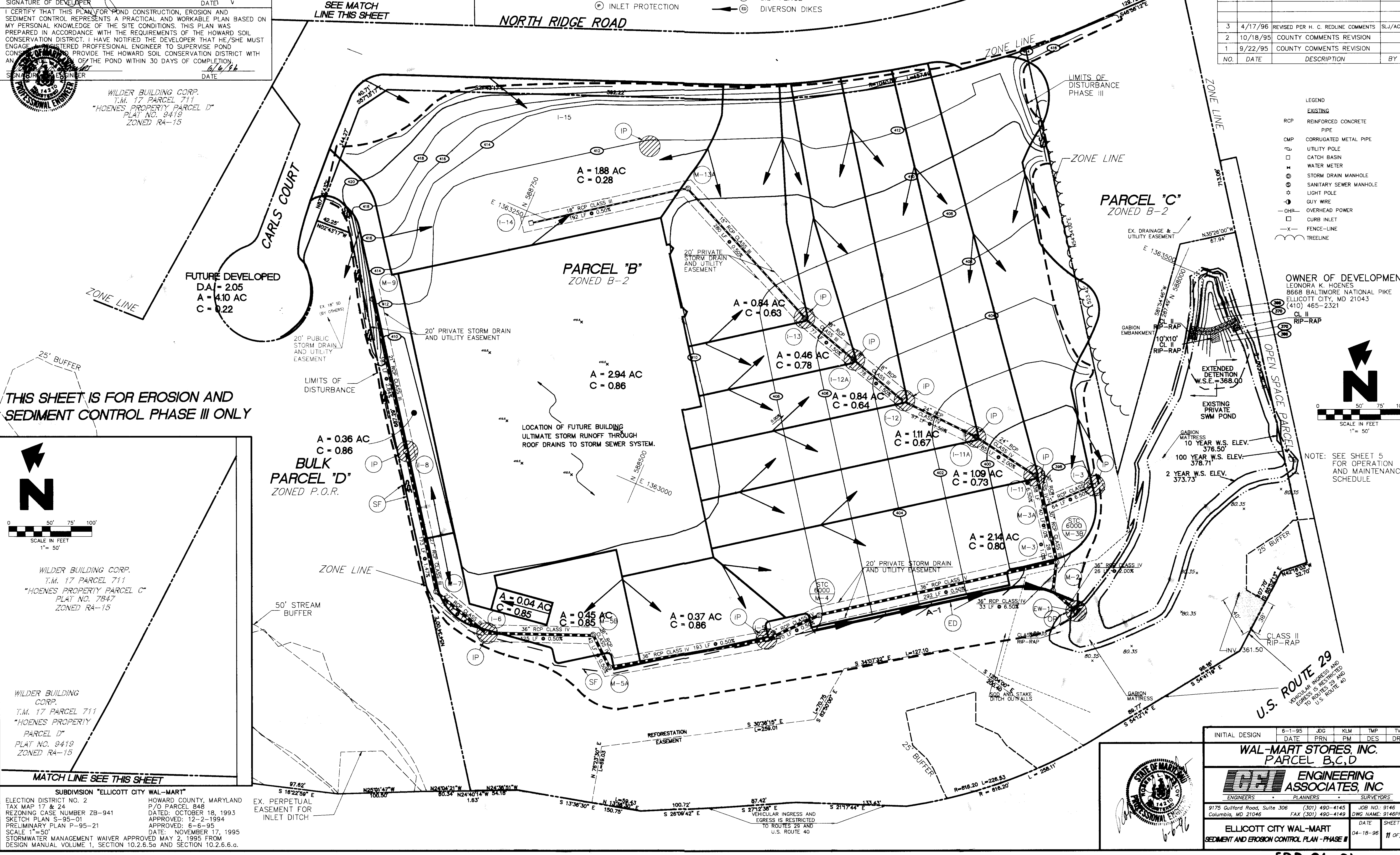
NO.	DATE	DESCRIPTION	BY
3	4/17/96	REVISED PER H. C. REDLINE COMMENTS	SLJ/ACL
2	10/18/95	COUNTY COMMENTS REVISION	
1	9/22/95	COUNTY COMMENTS REVISION	

- LEGEND
- EXISTING
  - RCP REINFORCED CONCRETE
  - PIPE
  - CMP CORRUGATED METAL PIPE
  - UTILITY POLE
  - CATCH BASIN
  - WATER METER
  - STORM DRAIN MANHOLE
  - SANITARY SEWER MANHOLE
  - LIGHT POLE
  - GUY WIRE
  - OVERHEAD POWER
  - CURB INLET
  - FENCE-LINE
  - TREELINE

OWNER OF DEVELOPMENT  
 LEONORA K. HOENES  
 8668 BALTIMORE NATIONAL PIKE  
 ELLCOTT CITY, MD 21043  
 (410) 465-2321



NOTE: SEE SHEET 5 FOR OPERATION AND MAINTENANCE SCHEDULE



INITIAL DESIGN	6-1-95	JDG	KLM	TMP	TVV
DATE	PRN	PM	DES	DRW	
<b>WAL-MART STORES, INC.</b>					
<b>PARCEL B,C,D</b>					
<b>ENGINEERING ASSOCIATES, INC.</b>					
ENGINEERS		PLANNERS		SURVEYORS	
9175 Guilford Road, Suite 306 Columbia, MD 21046	(301) 490-4145 FAX (301) 490-4149	JOB NO: 9146 DWG NAME: 9146PR.J1	DATE	SHEET NO.	
ELLCOTT CITY WAL-MART			04-18-96	11 of 25	
SEDIMENT AND EROSION CONTROL PLAN - PHASE II					

P: 13000(01)46555(IMP)0146PR.J1 Thu May 10 09:04:06 1996 STATION 2008 - 1TC

SDP-96-01



I 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.

DATE: 3/6/96

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 4/1/96

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
 DATE: 4/13/96

APPROVED: DIRECTOR  
 DATE: 4/13/96

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

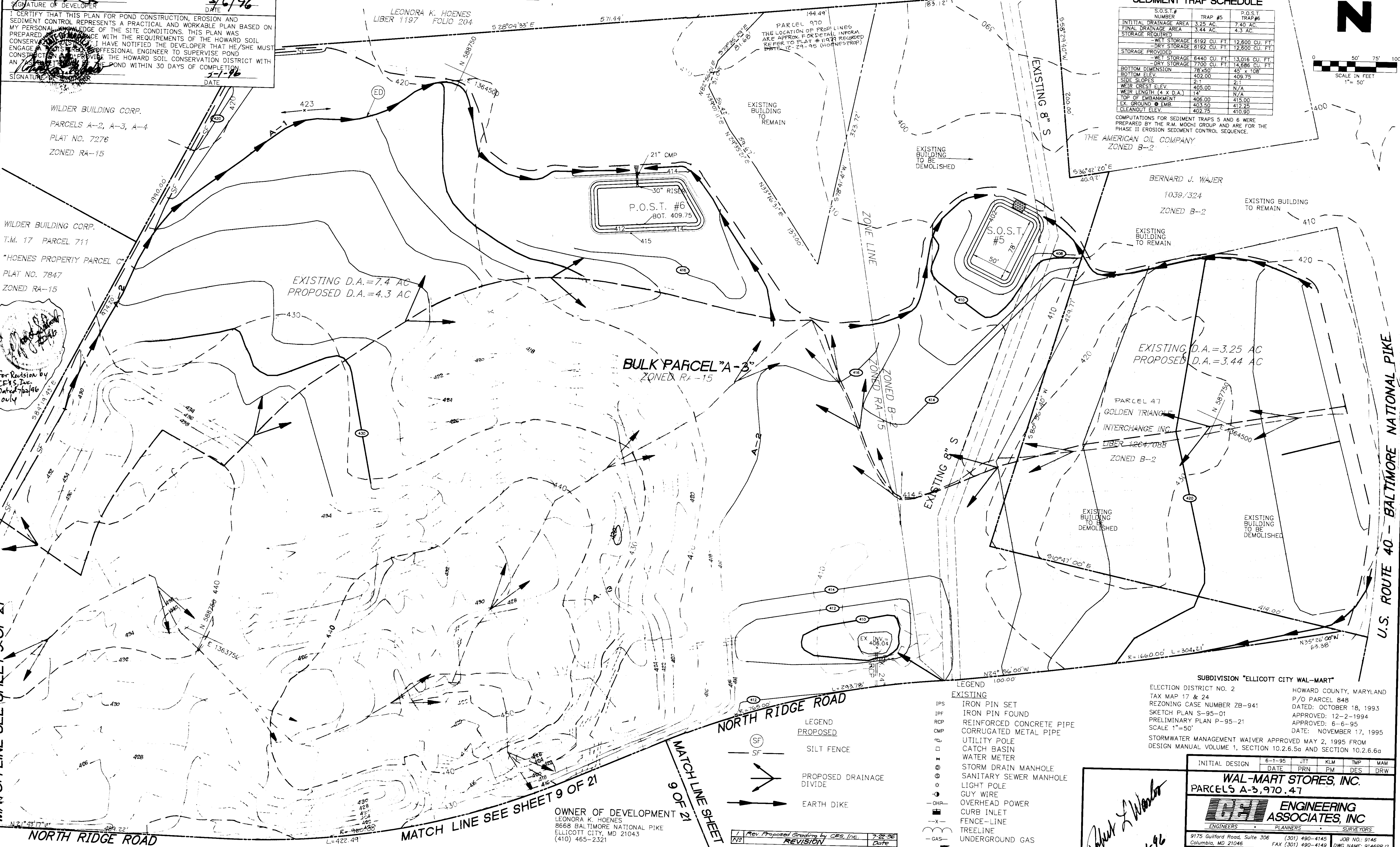
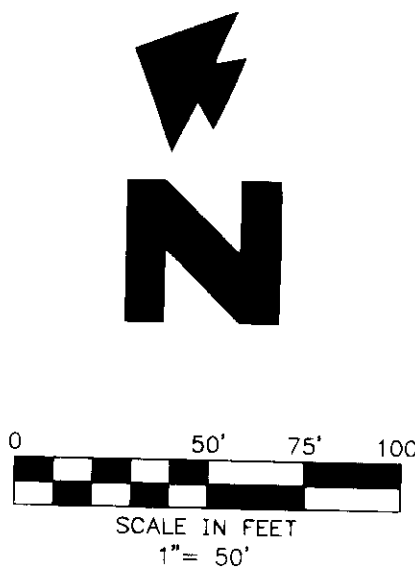
DATE: 3/24/96

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

DATE: 3/24/96

**SEDIMENT TRAP SCHEDULE**

S.O.S.T. #	TRAP #	P.O.S.T. TRAP #
INITIAL DRAINAGE AREA	3.25 AC.	7.40 AC.
FINAL DRAINAGE AREA	3.44 AC.	4.3 AC.
STORAGE REQUIRED		
- WET STORAGE	6192 CU. FT.	12,600 CU. FT.
- DRY STORAGE	6192 CU. FT.	12,600 CU. FT.
STORAGE PROVIDED		
- WET STORAGE	8440 CU. FT.	13,016 CU. FT.
- DRY STORAGE	7700 CU. FT.	14,686 CU. FT.
BOTTOM DIMENSION	78"x50"	45" x 108"
BOTTOM ELEV.	402.00	409.75
SIDE SLOPES	2:1	2:1
WEIR CREST ELEV.	405.00	N/A
WEIR LENGTH (L x D.A.)	14'	N/A
TOP OF EMBANKMENT	406.00	415.00
EX. GROUND @ EMB.	403.50	412.25
CLEANOUT ELEV.	402.75	410.90



MATCH LINE SEE SHEET 9 OF 21

MATCH LINE SHEET 9 OF 21

U.S. ROUTE 40 - BALTIMORE NATIONAL PIKE

OWNER OF DEVELOPMENT  
 LEONORA K. HOENES  
 8668 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21043  
 (410) 465-2321

1 Rev. Proposed Grading by CFS, Inc. 7-22-96  
 2/8 REVISION Date

- LEGEND**
- EXISTING**
- IPFS IRON PIN SET
  - IPF IRON PIN FOUND
  - RCP REINFORCED CONCRETE PIPE
  - CMP CORRUGATED METAL PIPE
  - U UTILITY POLE
  - C CATCH BASIN
  - W WATER METER
  - SM STORM DRAIN MANHOLE
  - SS SANITARY SEWER MANHOLE
  - L LIGHT POLE
  - G GUY WIRE
  - OHP OVERHEAD POWER
  - CI CURB INLET
  - FL FENCE-LINE
  - T TREELINE
  - UG UNDERGROUND GAS
- PROPOSED**
- SF SILT FENCE
  - PD PROPOSED DRAINAGE DIVIDE
  - ED EARTH DIKE
  - EDD EXISTING DRAINAGE DIVIDES

**SUBDIVISION "ELLICOTT CITY WAL-MART"**

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND  
 TAX MAP 17 & 24 P/O PARCEL 848  
 REZONING CASE NUMBER ZB-941 DATED: OCTOBER 18, 1993  
 SKETCH PLAN S-95-01 APPROVED: 12-2-1994  
 PRELIMINARY PLAN P-95-21 APPROVED: 6-6-95  
 SCALE 1"=50' DATE: NOVEMBER 17, 1995

STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5a AND SECTION 10.2.6.6a

INITIAL DESIGN	6-1-95	JTT	KLM	TMP	MAM
DATE	PRN	PM	DES	DRW	
<b>WAL-MART STORES, INC.</b>					
PARCELS A-3, 970, 47					
<b>ENGINEERING ASSOCIATES, INC.</b>					
ENGINEERS PLANNERS SURVEYORS					
9175 Guilford Road, Suite 306 Columbia, MD 21046			(301) 490-4145 FAX (301) 490-4140		
ELLICOTT CITY WAL-MART EROSION AND SEDIMENT CONTROL PLAN - PHASE I			JOB NO.: 9146 DWG. NAME: 9146PRJ2		
			DATE: 11-17-95 SHEET NO.: 10 OF 25		

*John L. Winters*  
 3-1-96

**THIS SHEET IS FOR EROSION AND SEDIMENT CONTROL PHASE II ONLY !!!**

SDP-96-01

Copyright 1994 by CFS Engineering Assoc., Inc.



I 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.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 4/1/96  
 CHIEF, DIVISION OF PLANNING AND DEVELOPMENT AND RESEARCH  
 DATE: 4/3/96

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 HOWARD SOIL CONSERVATION DISTRICT  
 DATE: 3/26/96

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.  
 USFS - NATURAL RESOURCES CONSERVATION SERVICE  
 DATE: 3/26/96

**SEDIMENT TRAP SCHEDULE**

TRAP NUMBER	TYPE	DRAINAGE AREA	STORAGE REQUIRED	STORAGE PROVIDED	WIER LENGTH	CLEANOUT PIPE SIZE	CLEANOUT ELEV.	STORAGE DEPTH	EMBANKMENT HEIGHT/ELEV.	TRAP BOTTOM	WET STORAGE LIMIT	CREST ELEV.
1	ST-II	4.93	17,748	20,864	20'	366.70	4'	2.0'	366.00	387.25	390.00	
3	ST-II	4.05	14,380	20,864	20'	366.82	4'	2.0'	366.00	387.64	370.00	
4	ST-II	4.69	16,884	18,084	20'	360.93	4'	2.0'	360.00	381.87	364.00	
-	TSB	48.11	173,196	491,950	SEE DETAIL	367.20	5.45'	19.36'	364.00	369.45	376.60	

**SEDIMENT CONTROL LEGEND**

- SSF SUPER SILT FENCE - 3.05
- LIMITS OF DISTURBANCE
- EARTH DIKE
- EXISTING DRAINAGE AREAS

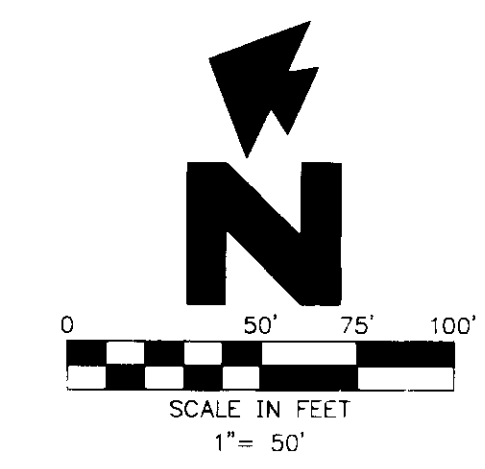
NO.	DATE	DESCRIPTION	BY
3	7-20-95	Final Approval	
2	10/18/95	COUNTY COMMENTS REVISION	
1	9/22/95	COUNTY COMMENTS REVISION	

**LEGEND**

EXISTING

- RCP REINFORCED CONCRETE PIPE
- CMP CORRUGATED METAL PIPE
- U UTILITY POLE
- C CATCH BASIN
- W WATER METER
- S STORM DRAIN MANHOLE
- SW SANITARY SEWER MANHOLE
- L LIGHT POLE
- G GUY WIRE
- OHV OVERHEAD POWER
- CI CURB INLET
- x- FENCE-LINE
- o- TREELINE

**OWNER OF DEVELOPMENT**  
 LEONORA K. HOENES  
 8668 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21043  
 (410) 465-2321



NOTE: SEE SHEET 5 FOR OPERATION AND MAINTENANCE SCHEDULE

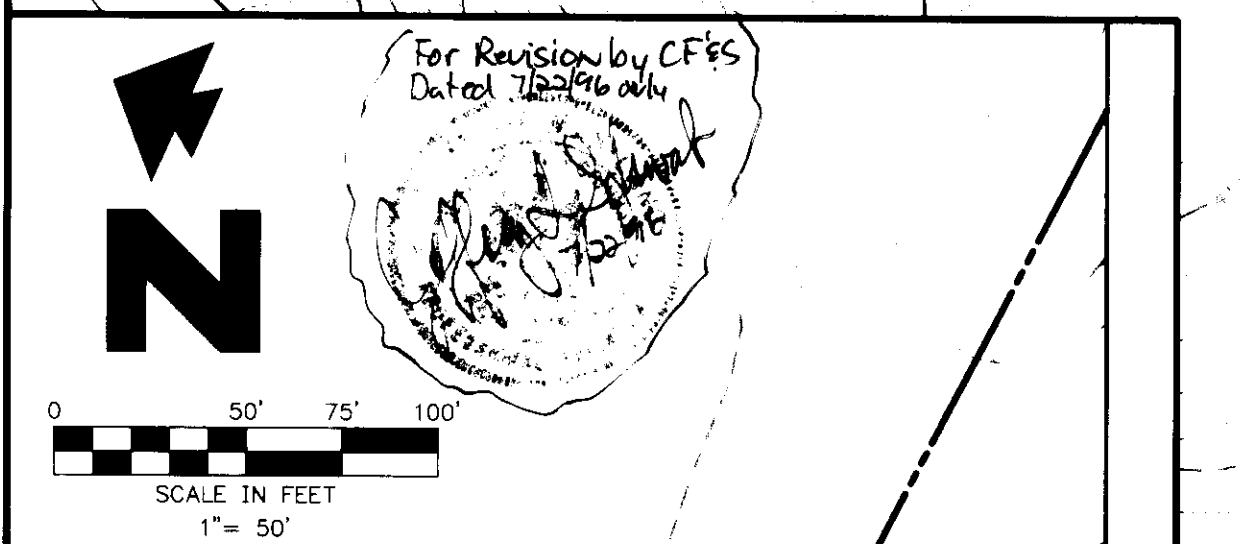
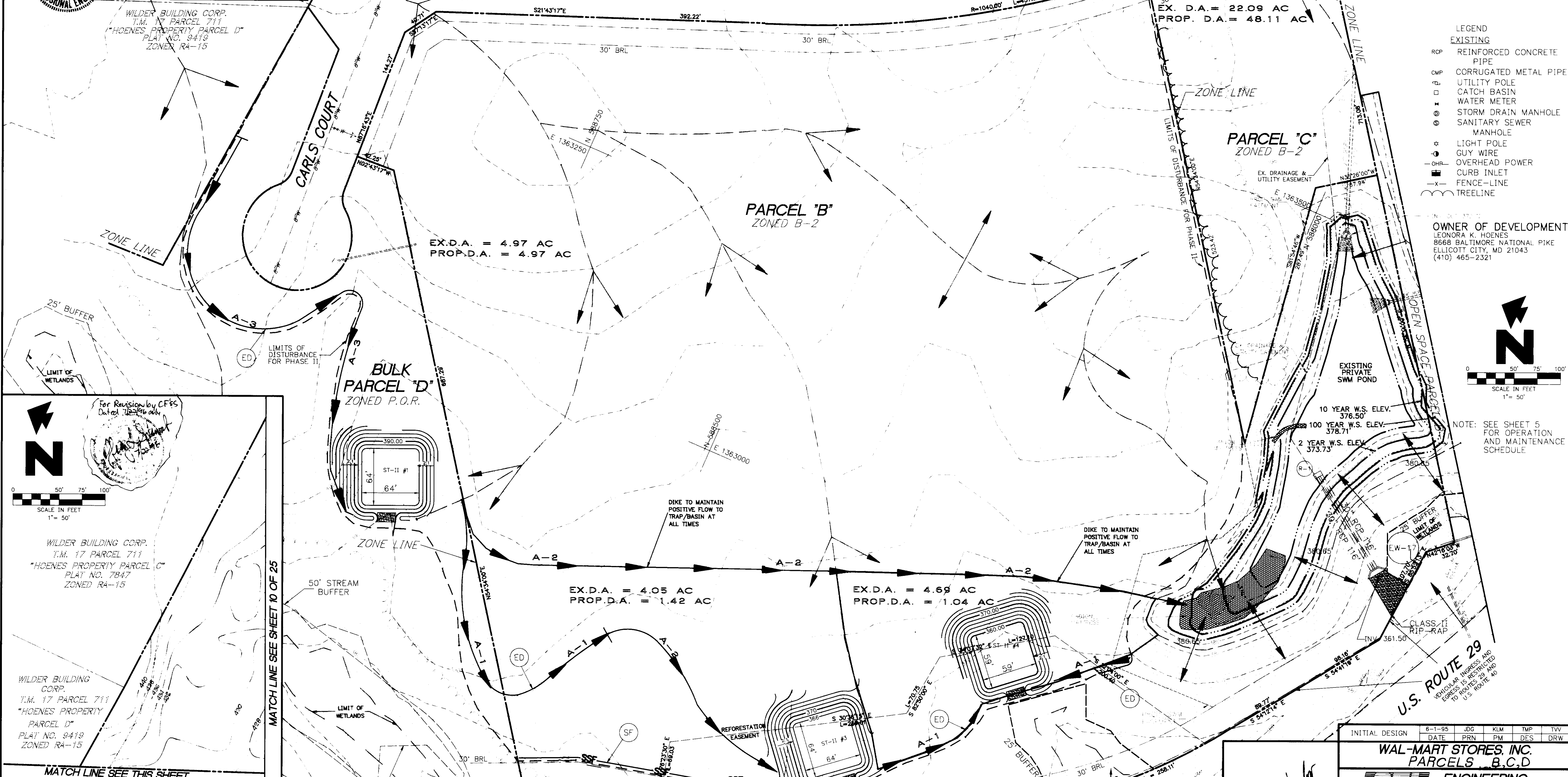
SIGNATURE OF DEVELOPER  
 DATE: 3/6/96

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN COMPLIANCE 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.

SEE MATCH LINE THIS SHEET

SEE MATCH LINE SHEET 10 OF 25 NORTH RIDGE ROAD

SEE MATCH LINE SHEET 10 OF 25



WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL C"  
 PLAT NO. 7847  
 ZONED R4-15

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL D"  
 PLAT NO. 9418  
 ZONED R4-15

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL C"  
 PLAT NO. 7847  
 ZONED R4-15

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL D"  
 PLAT NO. 9418  
 ZONED R4-15

SUBDIVISION "ELLICOTT CITY WAL-MART"  
 ELECTION DISTRICT NO. 2  
 TAX MAP 17 & 24  
 REZONING CASE NUMBER ZB-941  
 SKETCH PLAN S-95-01  
 PRELIMINARY PLAN P-95-21  
 SCALE 1"=50'  
 STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.3g AND SECTION 10.2.6.6.g

HOWARD COUNTY, MARYLAND  
 P/O PARCEL 848  
 DATED: OCTOBER 18, 1993  
 APPROVED: 12-2-1994  
 APPROVED: 6-6-95  
 DATE: NOVEMBER 17, 1995

EX. PERPETUAL EASEMENT FOR INLET DITCH

THIS SHEET IS FOR EROSION AND SEDIMENT CONTROL PHASE II ONLY

VEHICULAR INGRESS AND EGRESS IS RESTRICTED TO ROUTES 29 AND U.S. ROUTE 40

INITIAL DESIGN	6-1-95	JDC	KLM	TMP	TVV
	DATE	PRN	PM	DES	DRW

**WAL-MART STORES, INC. PARCELS B,C,D**

**ENGINEERING ASSOCIATES, INC.**

ENGINEERS PLANNERS SURVEYORS

9175 Guilford Road, Suite 306 Columbia, MD 21046 (301) 490-4145 FAX (301) 490-4149

JOB NO: 9146 DWG NAME: 9146PRJ1

DATE: 11-17-95 SHEET NO: 9 OF 25

ELLICOTT CITY WAL-MART  
 SEDIMENT AND EROSION CONTROL PLAN - PHASE I



I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]*  
SIGNATURE OF DEVELOPER  
3/6/96  
DATE

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

*[Signature]*  
SIGNATURE OF ENGINEER  
3-1-96  
DATE

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

*[Signature]*  
HOWARD SOIL CONSERVATION DISTRICT  
3/26/96  
DATE

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

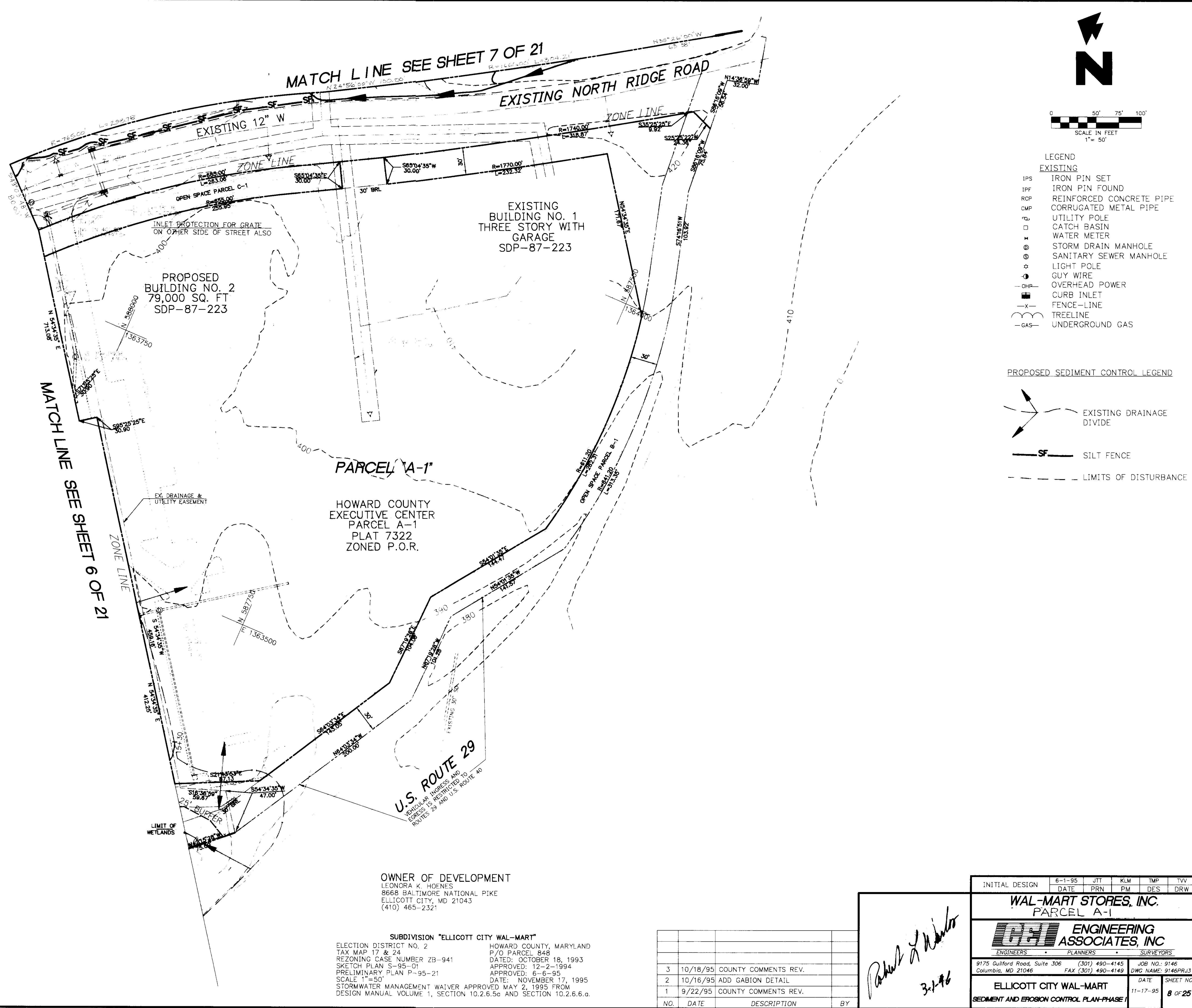
*[Signature]*  
USDA NATURAL RESOURCES CONSERVATION SERVICE  
3/26/96  
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
4/1/96  
DATE

*[Signature]*  
CHIEF, DIVISION AND LAND DEVELOPMENT AND RESEARCH  
4/3/96  
DATE

*[Signature]*  
DIRECTOR  
4/3/96  
DATE



INITIAL DESIGN	6-1-95	JTT	KLM	TMP	TVV
DATE	PRN	PM	DES	DRW	
<b>WAL-MART STORES, INC.</b> PARCEL A-1					
<b>WAL-MART ENGINEERING ASSOCIATES, INC.</b> ENGINEERS PLANNERS SURVEYORS					
9175 Guilford Road, Suite 306 Columbia, MD 21046		(301) 490-4145 FAX (301) 490-4149		JOB NO.: 9146 DWG NAME: 9146PRJ3	
<b>ELLICOTT CITY WAL-MART</b>				DATE	SHEET NO.
SEDIMENT AND EROSION CONTROL PLAN-PHASE I				11-17-95	8 OF 25

NO.	DATE	DESCRIPTION	BY
3	10/18/95	COUNTY COMMENTS REV.	
2	10/16/95	ADD GABION DETAIL	
1	9/22/95	COUNTY COMMENTS REV.	

*[Signature]*  
3-1-96

SDP-96-01



I 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.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHIEF, DIVISION AND DEVELOPMENT AND RESEARCH  
 DIRECTOR

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

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

SIGNATURE OF DEVELOPER  
 DATE

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SIGNATURE OF ENGINEER  
 DATE

WILDER BUILDING CORP.  
 PARCELS A-2, A-3, A-4  
 PLAT NO. 7276  
 ZONED RA-15

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL C"  
 PLAT NO. 7847  
 ZONED RA-15

TOP SOIL STOCKPILE AREA

BULK PARCEL A-3  
 ZONED RA-15

APPROXIMATE LOCATION OF POSSIBLE DENSE MATERIAL AS IS INDICATED IN THE SOIL REPORT THIS MATERIAL MAY BE USED IN THE AREAS PROVIDED BY COMPLES WITH THE SIZE AS SPECIFIED BY COUNTY REQUIREMENTS AND SPECIFIED BY GEOTECHNICAL ENGINEER. CONTRACTOR TO VERIFY ACTUAL LOCATION AND LIMITS OF MATERIAL.

APPROXIMATE AREA OF POSSIBLE CORE TRENCH MATERIAL THIS AREA HAS NOT BEEN FIELD LOCATED RECENTLY AND INFORMATION IS TAKEN FROM SOIL BORING AS PREPARED BY ATEC & ASSOC., DATED FEBRUARY 13, 1992 AND LIMITS OF MATERIAL THE INFORMATION MUST BE VERIFIED BY CONTRACTOR.

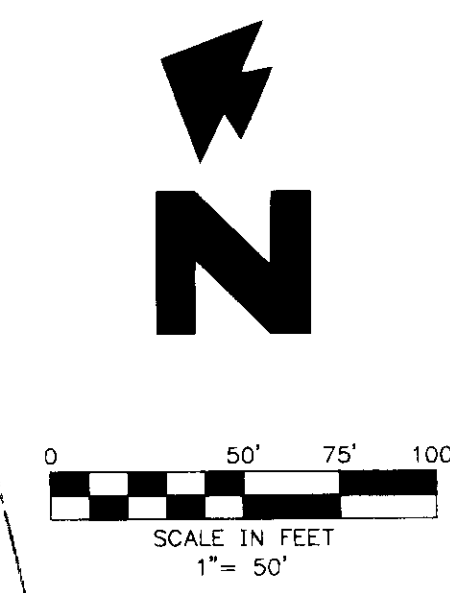
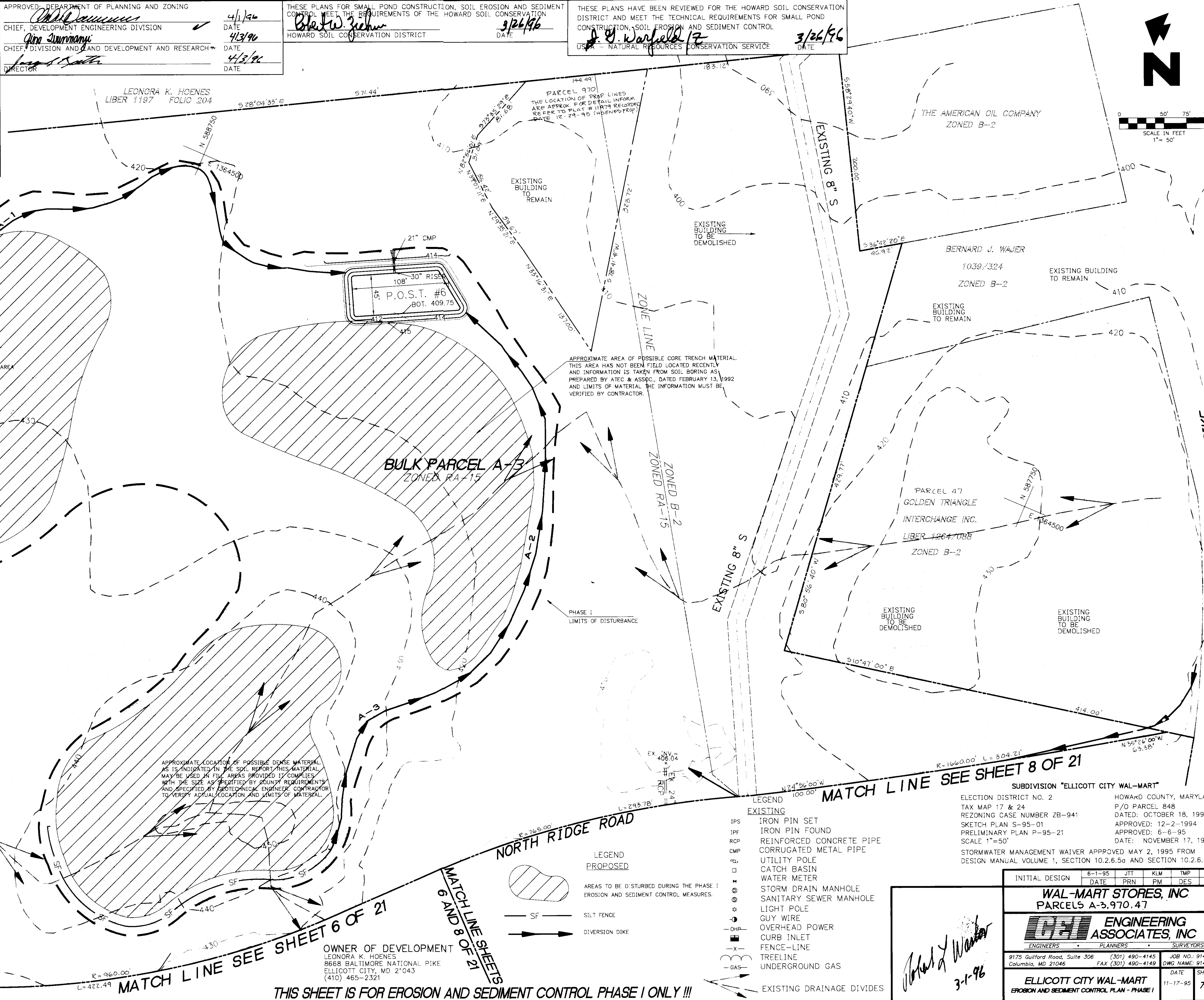
PHASE I LIMITS OF DISTURBANCE

LEGEND PROPOSED  
 AREAS TO BE DISTURBED DURING THE PHASE I EROSION AND SEDIMENT CONTROL MEASURES.

LEGEND EXISTING  
 IRON PIN SET  
 IRON PIN FOUND  
 REINFORCED CONCRETE PIPE  
 CORRUGATED METAL PIPE  
 UTILITY POLE  
 CATCH BASIN  
 WATER METER  
 STORM DRAIN MANHOLE  
 SANITARY SEWER MANHOLE  
 LIGHT POLE  
 GUY WIRE  
 OVERHEAD POWER  
 CURB INLET  
 FENCE-LINE  
 TREE-LINE  
 UNDERGROUND GAS

OWNER OF DEVELOPMENT  
 LEONORA K. HOENES  
 8668 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21043  
 (410) 465-2321

THIS SHEET IS FOR EROSION AND SEDIMENT CONTROL PHASE I ONLY !!!



MATCH LINE SEE SHEET 6 OF 21

MATCH LINE SEE SHEET 8 OF 21

MATCHLINE SHEETS 6 AND 8 OF 21

SUBDIVISION "ELLCOTT CITY WAL-MART"  
 ELECTION DISTRICT NO. 2  
 TAX MAP 17 & 24  
 REZONING CASE NUMBER ZB-941  
 SKETCH PLAN S-95-01  
 PRELIMINARY PLAN P-95-21  
 SCALE 1"=50'  
 STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5a AND SECTION 10.2.6.6c

INITIAL DESIGN	6-1-95	JTI	KLM	TMP	MAM
DATE	PRN	PM	DES	DRW	

**WAL-MART STORES, INC**  
 PARCELS A-3, 970.47

**ENGINEERING ASSOCIATES, INC**  
 ENGINEERS PLANNERS SURVEYORS  
 9175 Guilford Road, Suite 306 (301) 490-4145 (301) 490-4149  
 Columbia, MD 21046  
 DATE: 11-17-95  
 SHEET NO: 7 OF 25

*Robert J. Warner*  
 3-1-96

SDP-96-01



I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER  
DATE 3/6/96

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SIGNATURE OF ENGINEER  
DATE 3-1-96

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE 4/1/96

CHIEF, DIVISION AND LAND DEVELOPMENT AND RESEARCH  
DATE 4/3/96

SEE MATCH LINE SHEET 7 OF 25  
NORTH RIDGE ROAD

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

SEDIMENT CONTROL LEGEND

STABILIZED CONSTRUCTION ENTRANCE - 3.02  
EARTH DIKE  
OUTLET PROTECTION  
SUPER SILT FENCE - 3.05  
LIMITS OF DISTURBANCE  
EXISTING DRAINAGE AREAS  
PROPOSED DRAINAGE AREAS

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.

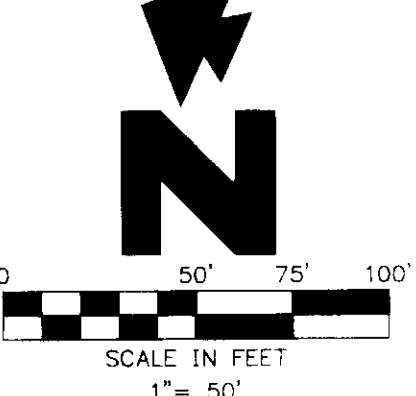
DATE 3/26/96  
DATE 3/26/96

NO.	DATE	DESCRIPTION	BY
2	10/18/95	COUNTY COMMENTS REVISION	
1	9/22/95	COUNTY COMMENTS REVISION	

- LEGEND  
EXISTING
- RCP REINFORCED CONCRETE PIPE
  - CMP CORRUGATED METAL PIPE
  - UTILITY POLE
  - CATCH BASIN
  - WATER METER
  - STORM DRAIN MANHOLE
  - SANITARY SEWER MANHOLE
  - LIGHT POLE
  - GUY WIRE
  - OVERHEAD POWER
  - CURB INLET
  - FENCE-LINE
  - TREELINE

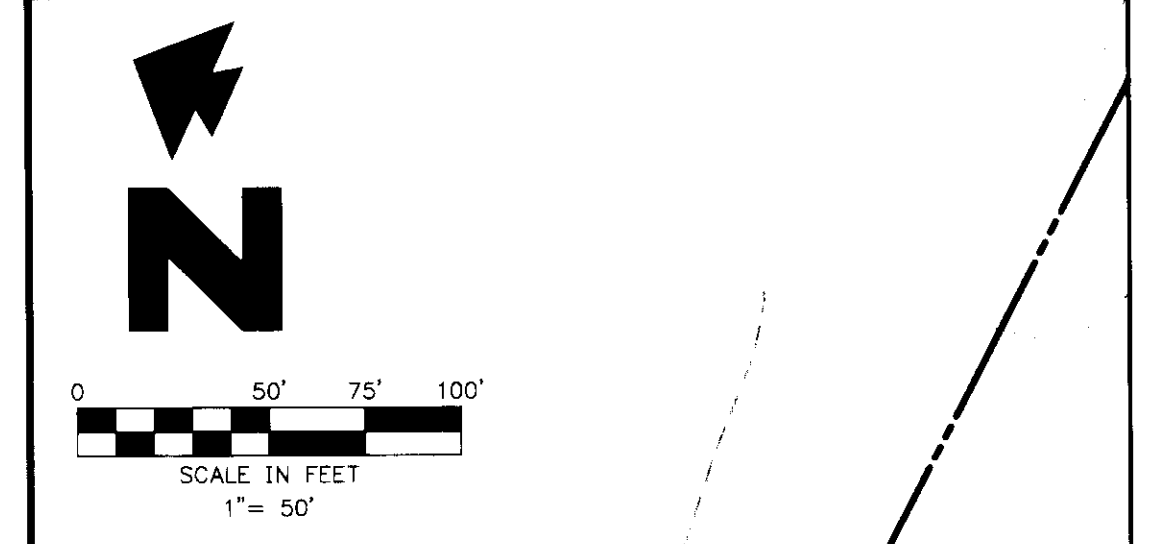
OWNER OF DEVELOPMENT  
LEONORA K. HOENES  
8668 BALTIMORE NATIONAL PIKE  
ELlicOTT CITY, MD 21043  
(410) 465-2321

DEWATERING OF THE COFFER DAM STORAGE AREA SHALL BE DONE BY PUMPING



NOTE: SEE SHEET 5 FOR OPERATION AND MAINTENANCE SCHEDULE

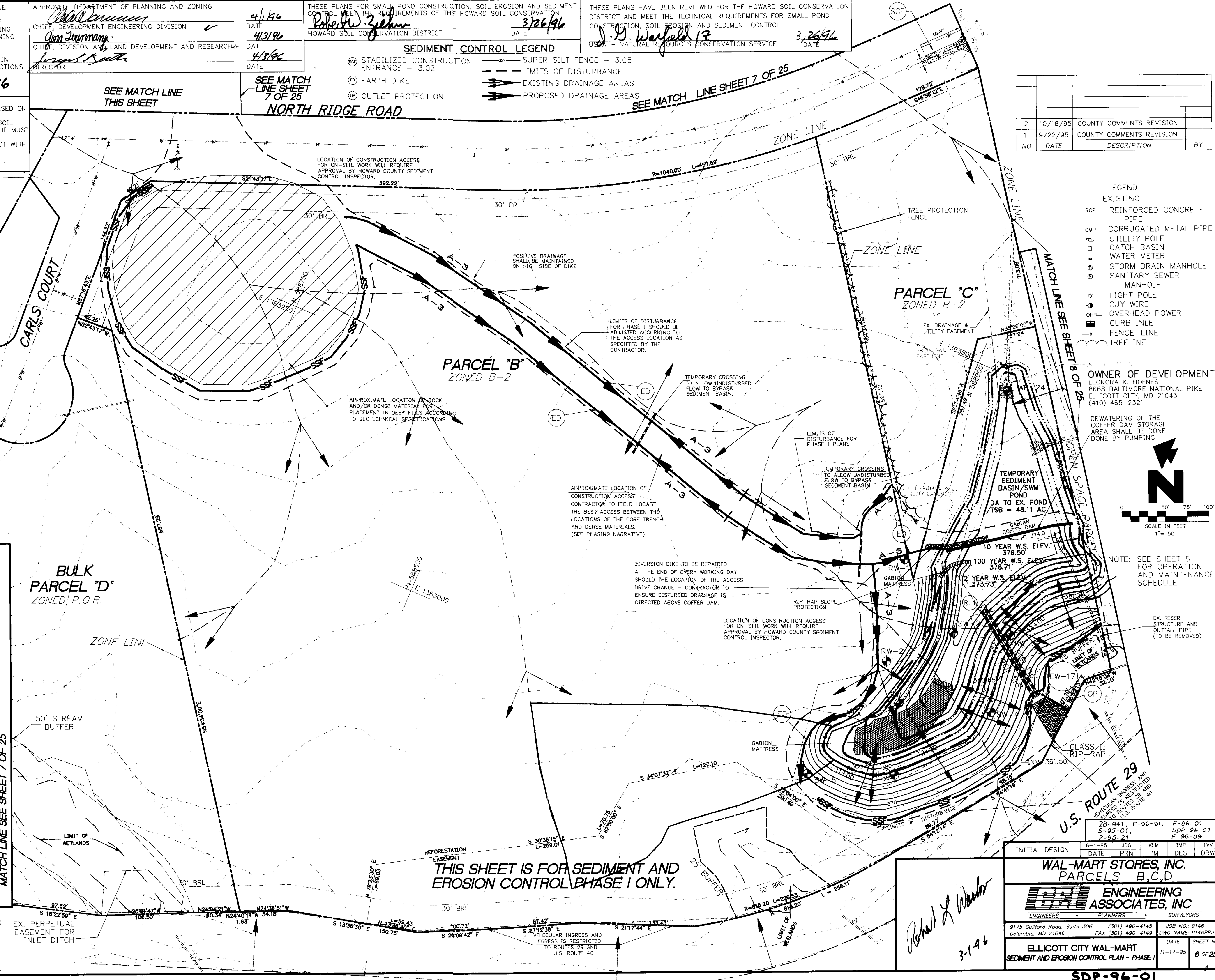
EX. RISER STRUCTURE AND OUTFALL PIPE (TO BE REMOVED)



WILDER BUILDING CORP.  
T.M. 17 PARCEL 711  
"HOENES PROPERTY PARCEL C"  
PLAT NO. 7847  
ZONED RA-15

WILDER BUILDING CORP.  
T.M. 17 PARCEL 711  
"HOENES PROPERTY PARCEL D"  
PLAT NO. 9419  
ZONED RA-15

SUBDIVISION "ELlicOTT CITY WAL-MART"  
ELECTION DISTRICT NO. 2  
HOWARD COUNTY, MARYLAND  
P/O PARCEL 848  
REZONING CASE NUMBER ZB-941  
DATED: OCTOBER 18, 1993  
SKETCH PLAN S-95-01  
APPROVED: 12-2-1994  
PRELIMINARY PLAN P-95-21  
APPROVED: 6-6-95  
SCALE 1"=50'  
DATE: NOVEMBER 17, 1995  
STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUA. VOLUME 1, SECTION 10.2.6.5c AND SECTION 10.2.6.6.c



THIS SHEET IS FOR SEDIMENT AND EROSION CONTROL PHASE I ONLY.

INITIAL DESIGN	DATE	JOB	KLM	TMP	TIV
ZB-941	F-96-91	F-96-01			
S-95-01		SDP-96-01			
P-95-21		F-96-09			

WAL-MART STORES, INC.  
PARCELS B,C,D

ENGINEERING ASSOCIATES, INC.  
ENGINEERS PLANNERS SURVEYORS

9175 Guilford Road, Suite 308  
Columbia, MD 21046  
(301) 490-4145  
FAX (301) 490-4149  
JOB NO. 9146  
DWG NAME: 9146PRJ1

ELlicOTT CITY WAL-MART  
SEDIMENT AND EROSION CONTROL PLAN - PHASE I  
DATE 11-17-95  
SHEET NO. 6 OF 25

SDP-96-01



I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]*  
SIGNATURE OF DEVELOPER  
3/6/96  
DATE

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*[Signature]*  
SIGNATURE OF ENGINEER  
3-1-96  
DATE

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

*[Signature]*  
HOWARD SOIL CONSERVATION DISTRICT  
3/26/96  
DATE

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

*[Signature]*  
USDA NATURAL RESOURCES CONSERVATION SERVICE  
3/26/96  
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
4/1/96  
DATE

*[Signature]*  
CHIEF, DIVISION AND LAND DEVELOPMENT AND RESEARCH  
4/3/96  
DATE

*[Signature]*  
DIRECTOR  
4/3/96  
DATE

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

ROUTINE MAINTENANCE

1. FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.
2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. VEGETATION GROWING ON THE EMBANKMENT TOP AND FACES SHALL NOT EXCEED 18 INCHES IN HEIGHT AT ANY TIME. OTHER SIDE SLOPES, THE BOTTOM OF THE POND, AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
3. DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
4. VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS RIPRAP OUTLET AREA SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

NON-ROUTINE MAINTENANCE

1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
2. SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, 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 WORKS. IN ADDITION, REMOVAL OF SILT SHALL OCCUR WHEN THE ACCUMULATION EXCEEDS FOUR (4) INCHES IN THE FOREBAY.
3. CORRECTIVE MAINTENANCE WILL BE COMPLETED ANY TIME AN EXTENDED DETENTION BASIN DOES NOT DRAIN THE EQUIVALENT OF THE WATER QUALITY VOLUME WITHIN 60 HOURS, SO AS NOT TO ALLOW ANY STANDING WATER. IN ADDITION, CORRECTIVE MAINTENANCE WILL BE COMPLETED ANY TIME THE FOREBAY DOES NOT DRAIN DOWN COMPLETELY WITHIN 60 HOURS.

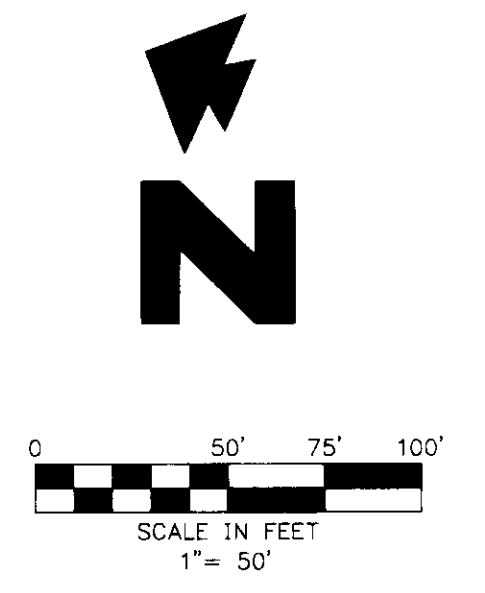
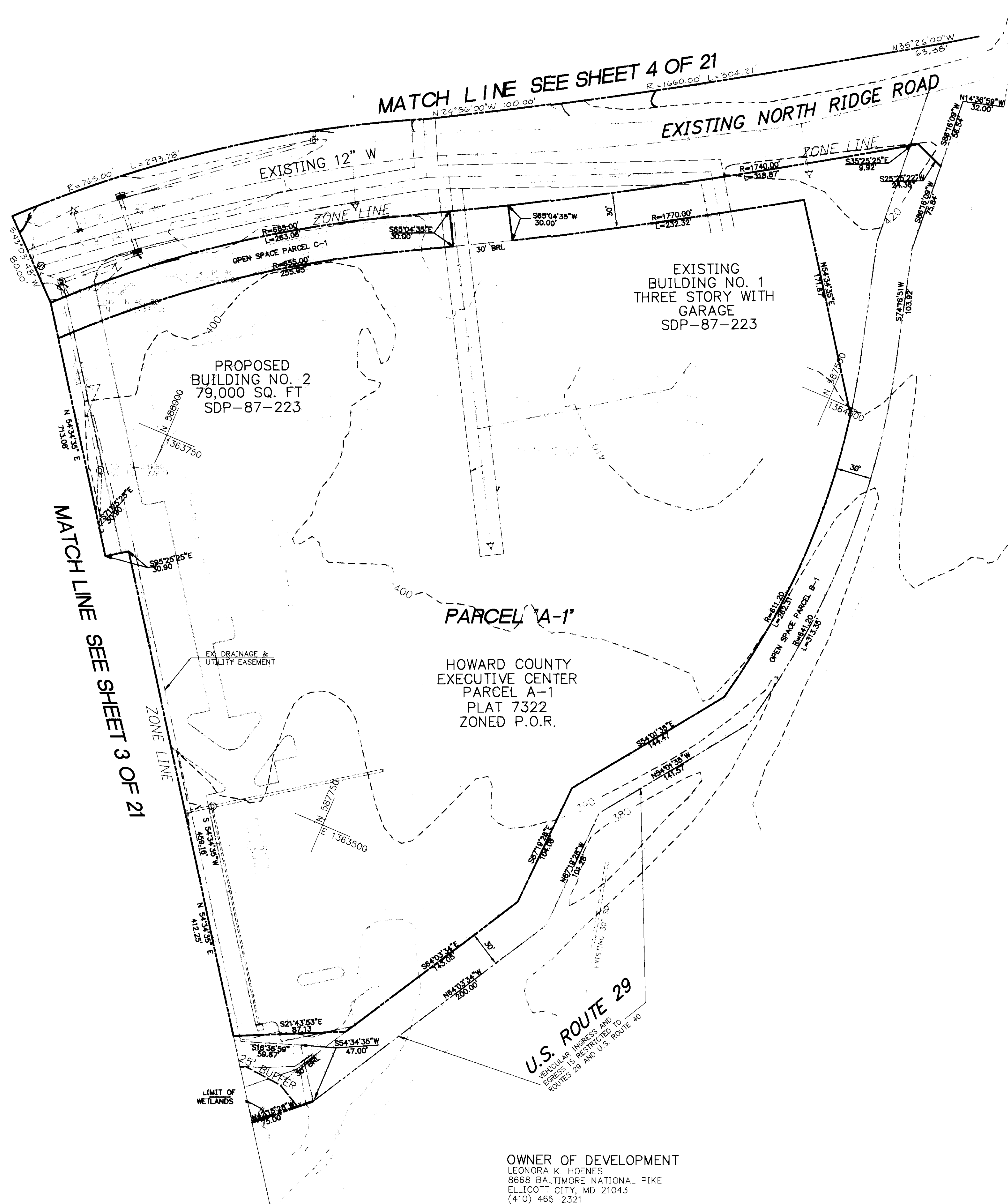
OPERATION AND MAINTENANCE SCHEDULE STORMCEPTOR DEVICES

AS RECOMMENDED BY THE MANUFACTURER OF THE STORMCEPTOR SYSTEM, THE SYSTEM WILL BE MAINTAINED TO CLEANING ON AN ANNUAL BASIS INITIALLY. AFTER THE SITE IS STABILIZED THE SYSTEM WILL BE MONITORED TO DETERMINE THE FREQUENCY OF MAINTENANCE BASED ON THE LOCAL SITE CONDITIONS.

SHOULD SOME TYPE OF SPILL OCCUR, THE STORMCEPTOR SHALL BE CLEANED IMMEDIATELY AFTER THE SPILL OCCURS. APPROPRIATE REGULATORY AGENCIES WILL ALSO BE NOTIFIED IN THE EVENT OF A SPILL.

THE SEDIMENT FROM THE STORMCEPTOR SHALL BE TESTED TO DETERMINE THE DISPOSAL OPTIONS. THE HAZARDOUS MATERIALS (OIL/CHEMICAL/FUELS) WILL BE REMOVED BY A LICENSED WASTE MANAGEMENT COMPANY AND DISPOSED OF ACCORDINGLY. ALL METHODS OF DISPOSAL SHALL BE APPROVED BY THE PROPER LOCAL AND STATE AGENCIES.

ALL INSPECTIONS AND MAINTENANCE PROCEDURES OF THE STORMCEPTOR SYSTEM SHALL BE COMPLETED USING THE ATTACHED FORM.



LEGEND

EXISTING

- IPS IRON PIN SET
- IPF IRON PIN FOUND
- RCP REINFORCED CONCRETE PIPE
- CMP CORRUGATED METAL PIPE
- UP UTILITY POLE
- CB CATCH BASIN
- WM WATER METER
- SM STORM DRAIN MANHOLE
- SS SANITARY SEWER MANHOLE
- LP LIGHT POLE
- GW GUY WIRE
- OHP OVERHEAD POWER
- CI CURB INLET
- FL FENCE-LINE
- TL TREELINE
- UG UNDERGROUND GAS

PARCEL A-1  
HOWARD COUNTY EXECUTIVE CENTER  
PARCEL A-1  
PLAT 7322  
ZONED P.O.R.

OWNER OF DEVELOPMENT  
LEONORA K. HOENES  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MD 21043  
(410) 465-2321

SUBDIVISION "ELLCOTT CITY WAL-MART"  
ELECTION DISTRICT NO. 2  
TAX MAP 17 & 24  
REZONING CASE NUMBER ZB-941  
SKETCH PLAN S-95-01  
PRELIMINARY PLAN P-95-21  
SCALE 1"=50'  
STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.5.5c AND SECTION 10.2.6.6.a.

HOWARD COUNTY, MARYLAND  
P/O PARCEL 848  
DATED: OCTOBER 18, 1993  
APPROVED: 12-2-1994  
DATE: 6-6-95  
DATE: NOVEMBER 17, 1995

NO.	DATE	DESCRIPTION	BY
3	10/18/95	COUNTY COMMENTS REV.	
2	10/16/95	ADD GABION DETAIL	
1	9/22/95	COUNTY COMMENTS REV.	

*[Signature]*  
3-1-96

INITIAL DESIGN	6-1-95	JTT	KLM	TMP	TVV
	DATE	PRN	PM	DES	DRW
<b>WAL-MART STORES, INC.</b> PARCEL A-1					
<b>ENGINEERING ASSOCIATES, INC.</b>					
9175 Guilford Road, Suite 306 Columbia, MD 21046		(301) 490-4145 FAX (301) 490-4149		JOB NO.: 9146 DWG NAME: 9146PRJ3	
<b>ELLCOTT CITY WAL-MART</b> MASS GRADING PLAN				DATE 11-17-95	SHEET NO. 5 OF 25

SDP-96-01



I 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.

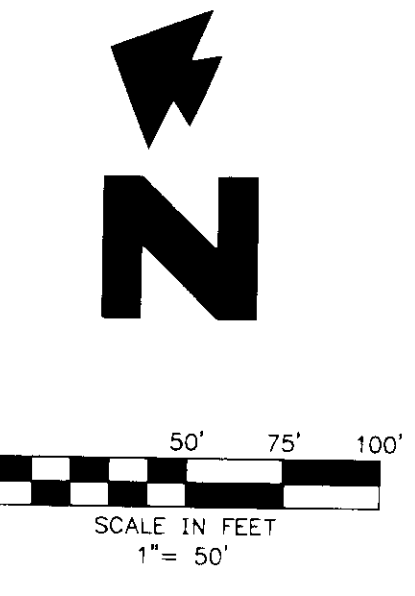
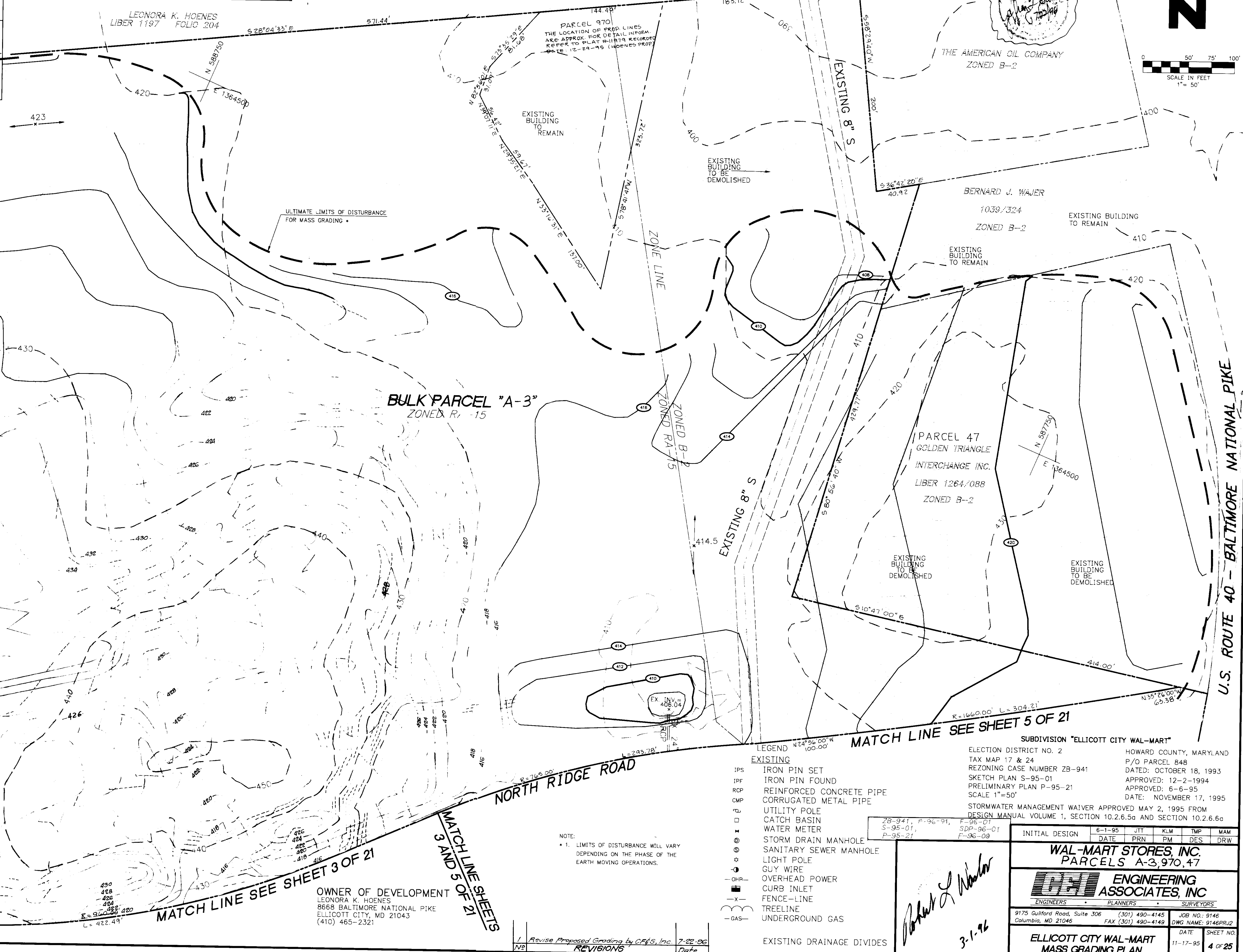
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 4/1/96  
 DATE: 4/3/96  
 DATE: 4/3/96  
 DATE: 4/3/96

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

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.

SIGNATURE OF DEVELOPER  
 DATE: 3/6/96

SIGNATURE OF ENGINEER  
 DATE: 3-1-96



WILDER BUILDING CORP.  
 PARCELS A-2, A-3, A-4  
 PLAT NO. 7276  
 ZONED RA-15

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL C"  
 PLAT NO. 7847  
 ZONED RA-15

MATCH LINE SEE SHEET 3 OF 21

NORTH RIDGE ROAD

MATCH LINE SEE SHEET 3 OF 21

MATCH LINE SHEETS 3 AND 5 OF 21

OWNER OF DEVELOPMENT  
 LEONORA K. HOENES  
 8668 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21043  
 (410) 465-2321

- LEGEND
- IPS EXISTING IRON PIN SET
  - IPF IRON PIN FOUND
  - RCP REINFORCED CONCRETE PIPE
  - CMP CORRUGATED METAL PIPE
  - U UTILITY POLE
  - D CATCH BASIN
  - W WATER METER
  - S STORM DRAIN MANHOLE
  - SM SANITARY SEWER MANHOLE
  - L LIGHT POLE
  - G GUY WIRE
  - OHP OVERHEAD POWER
  - CIL CURB INLET
  - F-FENCE-LINE
  - T TRELISE
  - GAS UNDERGROUND GAS
- EXISTING DRAINAGE DIVIDES

NOTE:  
 1. LIMITS OF DISTURBANCE WILL VARY DEPENDING ON THE PHASE OF THE EARTH MOVING OPERATIONS.

LEGEND

28-941, P-96-91, F-96-01  
 S-95-01, SDP-96-01  
 P-95-21, F-96-09

SUBDIVISION "ELLICOTT CITY WAL-MART"		HOWARD COUNTY, MARYLAND	
ELECTION DISTRICT NO. 2		P/O PARCEL 848	
TAX MAP 17 & 24		DATED: OCTOBER 18, 1993	
REZONING CASE NUMBER ZB-941		APPROVED: 12-2-1994	
SKETCH PLAN S-95-01		APPROVED: 6-6-95	
PRELIMINARY PLAN P-95-21		DATE: NOVEMBER 17, 1995	
SCALE 1"=50'		STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5g AND SECTION 10.2.6.6g	
INITIAL DESIGN	6-1-95	JIT	KLM
DATE	PRN	PM	DES
<b>WAL-MART STORES, INC.</b> <b>PARCELS A-3, 970, 47</b>			
<b>ENGINEERING ASSOCIATES, INC.</b> ENGINEERS • PLANNERS • SURVEYORS			
9175 Guilford Road, Suite 306 Columbia, MD 21046		(301) 490-4145 FAX (301) 490-4149	
JOB NO.: 9146 DWG NAME: 9146PRJ2		DATE: 11-17-95 SHEET NO.: 4 OF 25	
<b>ELLICOTT CITY WAL-MART</b> <b>MASS GRADING PLAN</b>			

*Robert J. Walker*  
 3-1-96

1. Revise Proposed Grading by C&S, Inc. 7-22-96  
 REVISIONS Date

SDP-96-01

Copyright 1996 by C&S Engineering Associates, Inc.



I 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.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 7/27/96  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
 DATE: 7/27/96  
 DIRECTOR  
 DATE: 7/27/96

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.  
 DATE: 6/27/96

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.  
 DATE: 6/27/96

POND SUMMARY TABLE				
DA TO SWM POND =	48.11 AC	2 YEAR	10 YR	100 YR
ALLOWABLE RELEASE RATES (EXISTING CFS)	25.6	99.5	203.2	
PEAK INFLOW (CFS)	114.2	205.1	305.9	
DISCHARGE RELEASE RATES (DEVELOPED CFS)	23.59	97.93	224.92	
DISCHARGE ELEVATION	373.73	376.61	378.65	
STORAGE VOLUME (CU. FT.)	206,509	322,954	417,653	

SIGNATURE OF DEVELOPER  
 DATE: 6/6/96

SEE MATCH LINE THIS SHEET  
 SEE MATCH LINE SHEET 4 OF 25  
 NORTH RIDGE ROAD

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL D"  
 PLAT NO. 9419  
 ZONED RA-15

HAZARD CLASSIFICATION  
 CLASS "A" - STRUCTURES LOCATED IN RURAL, AGRICULTURAL OR URBAN AREAS DEDICATED TO REMAIN IN FLOOD TOLERANT USAGES WHERE FAILURE MAY DAMAGE NON-INHABITED BUILDINGS, AGRICULTURAL LAND, FLOODPLAINS OR COUNTY ROADS.

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL C"  
 PLAT NO. 7847  
 ZONED RA-15

WILDER BUILDING CORP.  
 T.M. 17 PARCEL 711  
 "HOENES PROPERTY PARCEL D"  
 PLAT NO. 9419  
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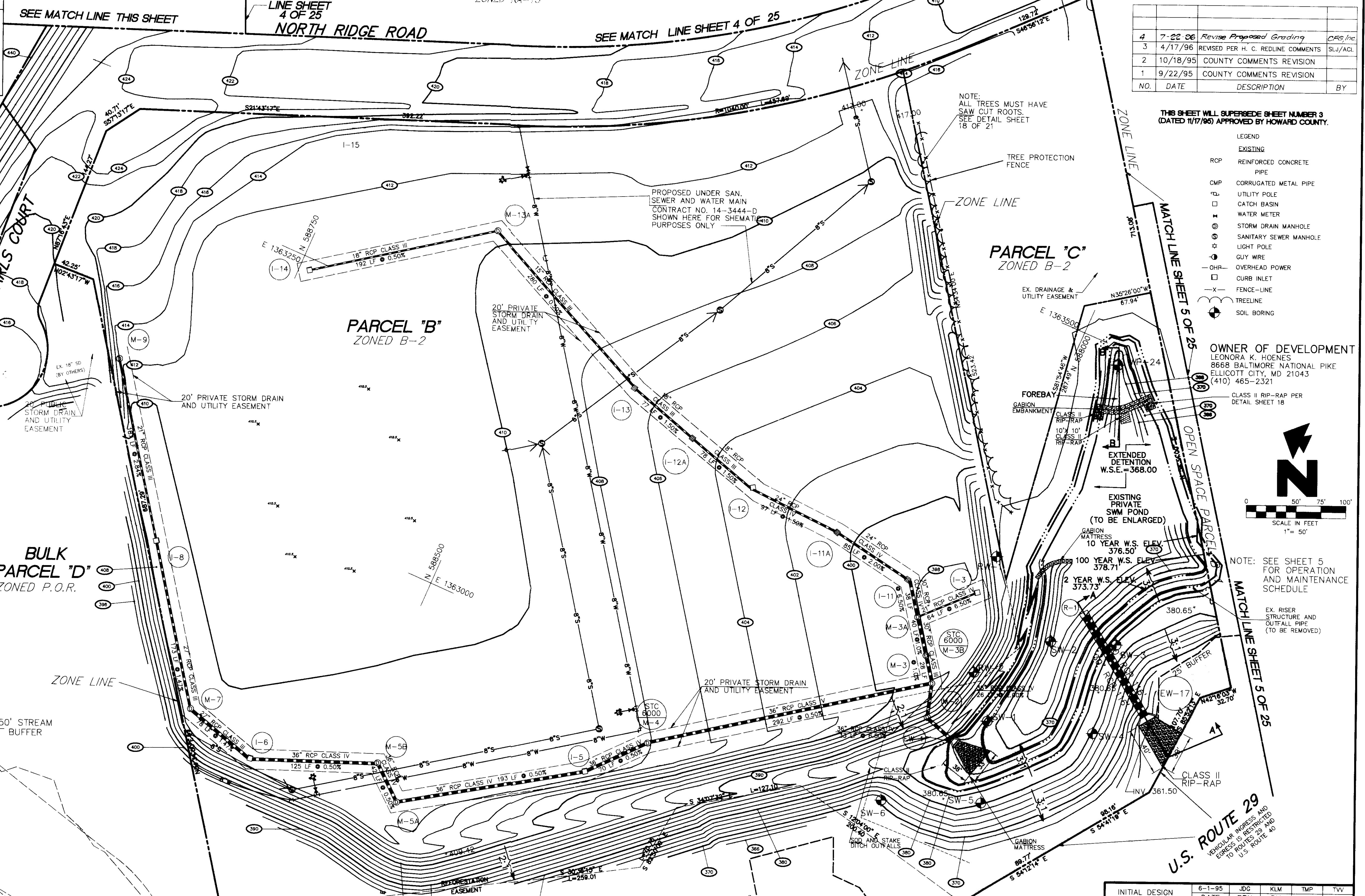
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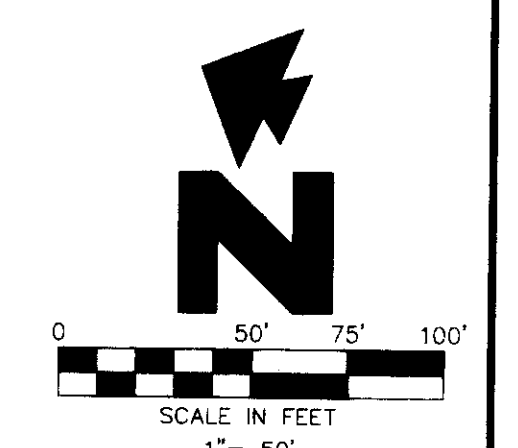


NO.	DATE	DESCRIPTION	BY
4	7-22-96	Revise Proposed Grading	CAS/Inc
3	4/17/96	REVISED PER H. C. REDLINE COMMENTS	SLJ/ACL
2	10/18/95	COUNTY COMMENTS REVISION	
1	9/22/95	COUNTY COMMENTS REVISION	

THIS SHEET WILL SUPERSEDE SHEET NUMBER 3 (DATED 1/17/95) APPROVED BY HOWARD COUNTY.

- LEGEND
- EXISTING
  - RCP REINFORCED CONCRETE PIPE
  - CMP CORRUGATED METAL PIPE
  - UTILITY POLE
  - CATCH BASIN
  - WATER METER
  - STORM DRAIN MANHOLE
  - SANITARY SEWER MANHOLE
  - LIGHT POLE
  - GUY WIRE
  - OVERHEAD POWER
  - CURB INLET
  - FENCE-LINE
  - TREELINE
  - SOIL BORING

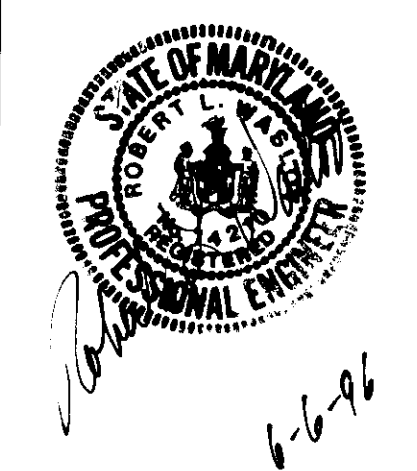
OWNER OF DEVELOPMENT  
 LEONORA K. HOENES  
 8668 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21043  
 (410) 465-2321



NOTE: SEE SHEET 5 FOR OPERATION AND MAINTENANCE SCHEDULE  
 EX. RISER STRUCTURE AND OUTFALL PIPE (TO BE REMOVED)

SUBDIVISION "ELICOTT CITY WAL-MART"  
 ELECTION DISTRICT NO. 2  
 TAX MAP 17 & 24  
 REZONING CASE NUMBER ZB-941  
 SKETCH PLAN S-95-01  
 PRELIMINARY PLAN P-95-21  
 SCALE 1"=50'  
 STORMWATER MANAGEMENT WAIVER APPROVED MAY 2, 1995 FROM DESIGN MANUAL VOLUME 1, SECTION 10.2.6.5g AND SECTION 10.2.6.6.c.

EX. PERPETUAL EASEMENT FOR INLET DITCH



INITIAL DESIGN: 6-1-95 JDC KLM TMP TvV  
 DATE: PRN PM DES DRW

**WAL-MART STORES, INC.**  
**PARCEL B,C,D**

**ENGINEERING ASSOCIATES, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS

9175 Quilford Road, Suite 306 (301) 490-4145 JOB NO. 9146  
 Columbia, MD 21046 FAX (301) 490-4149 DWG NAME: 9146PR.1

ELICOTT CITY WAL-MART  
 MASS GRADING PLAN  
 DATE: 04-18-96 SHEET NO. 3 OF 25

SDP-96-01



