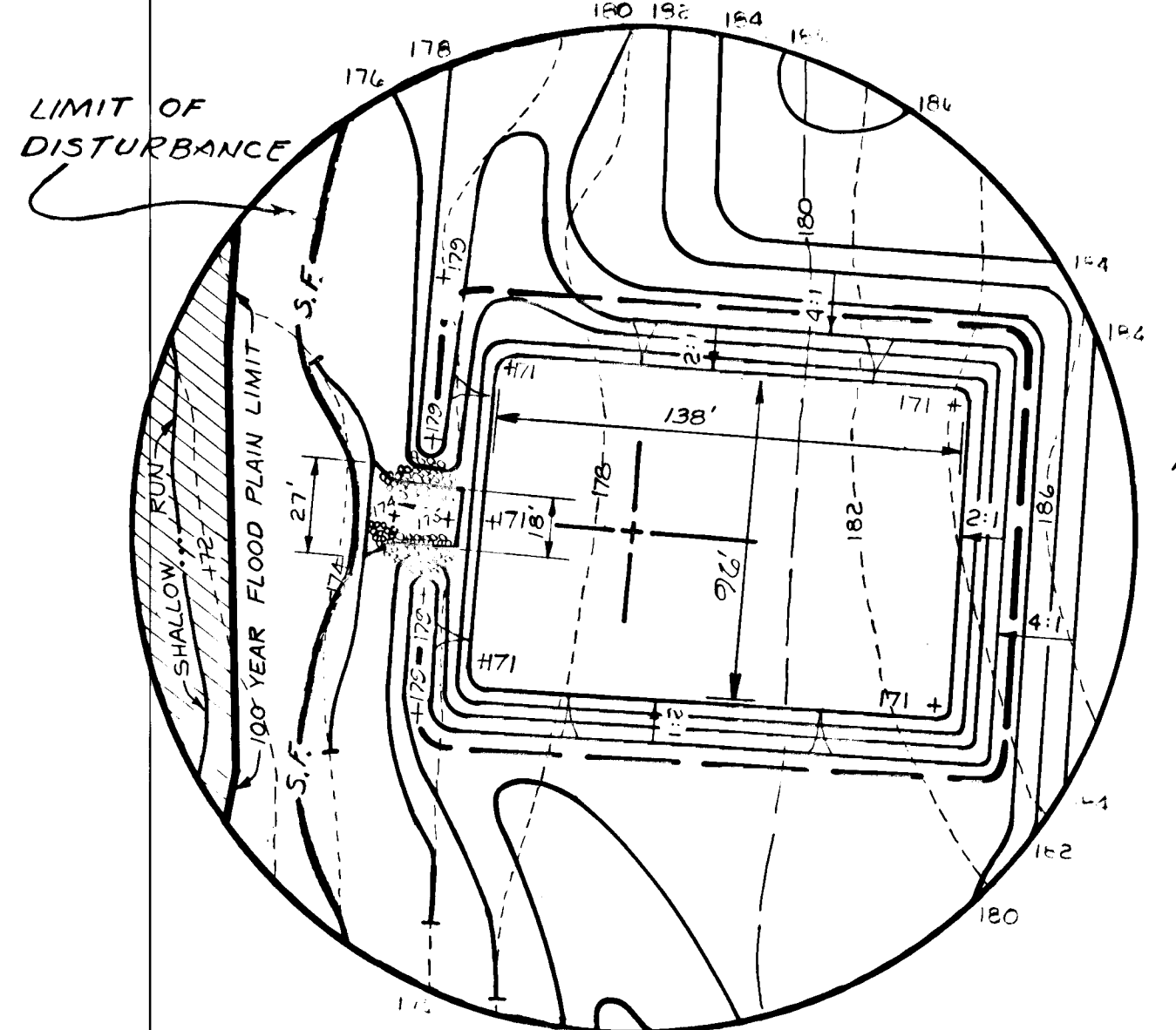
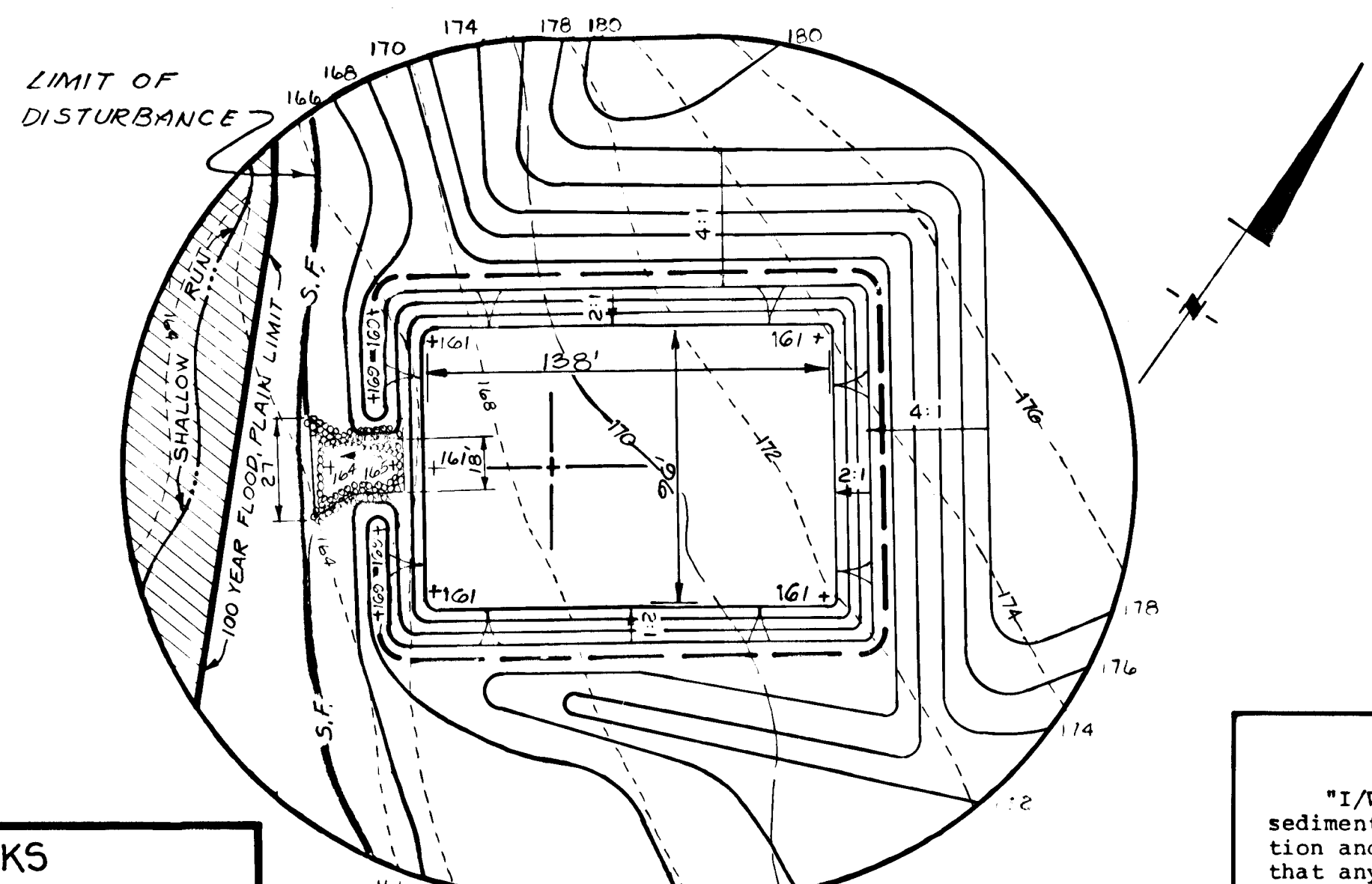


SEDIMENT TRAP No. 1
PLAN VIEW
SCALE: 1" = 50'



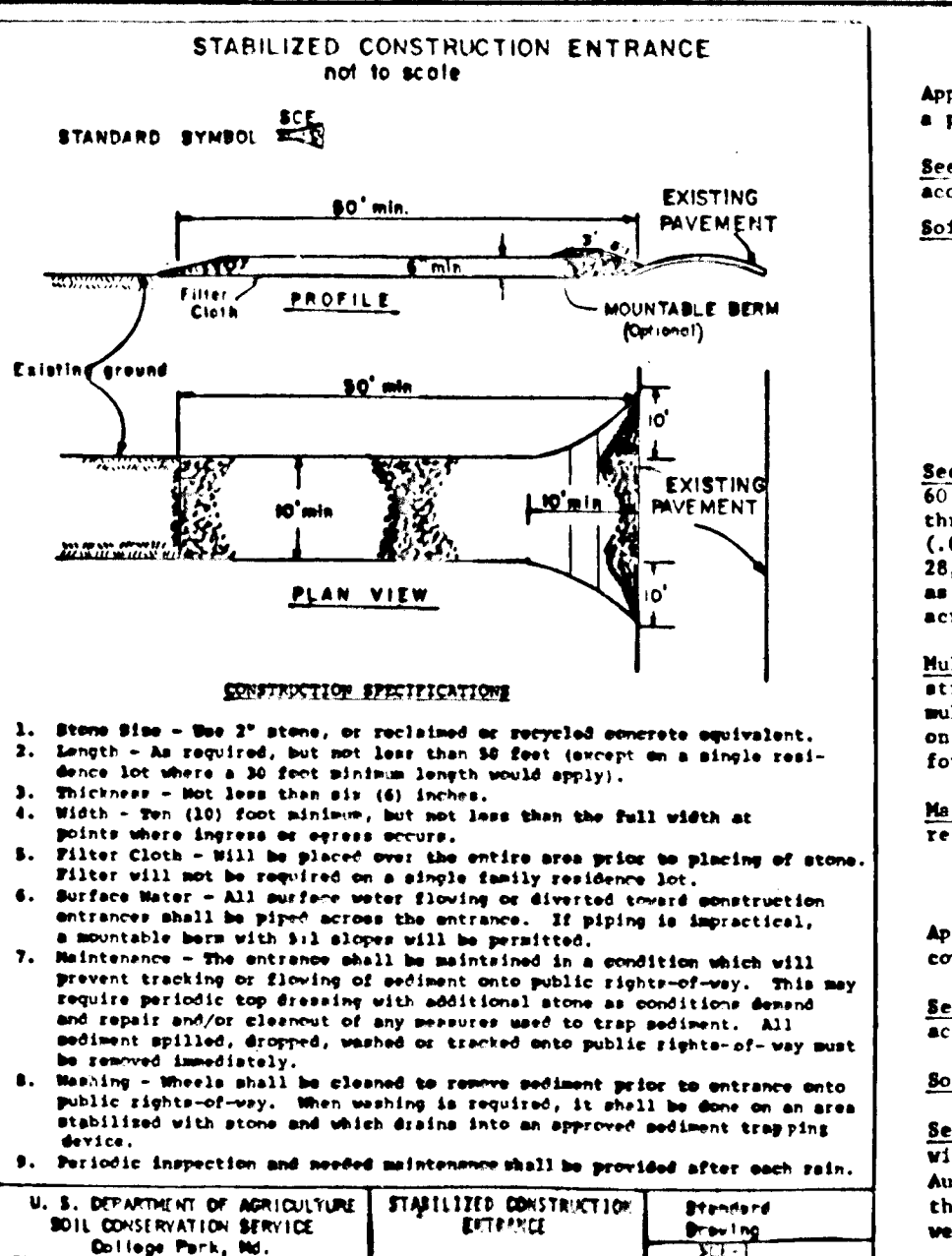
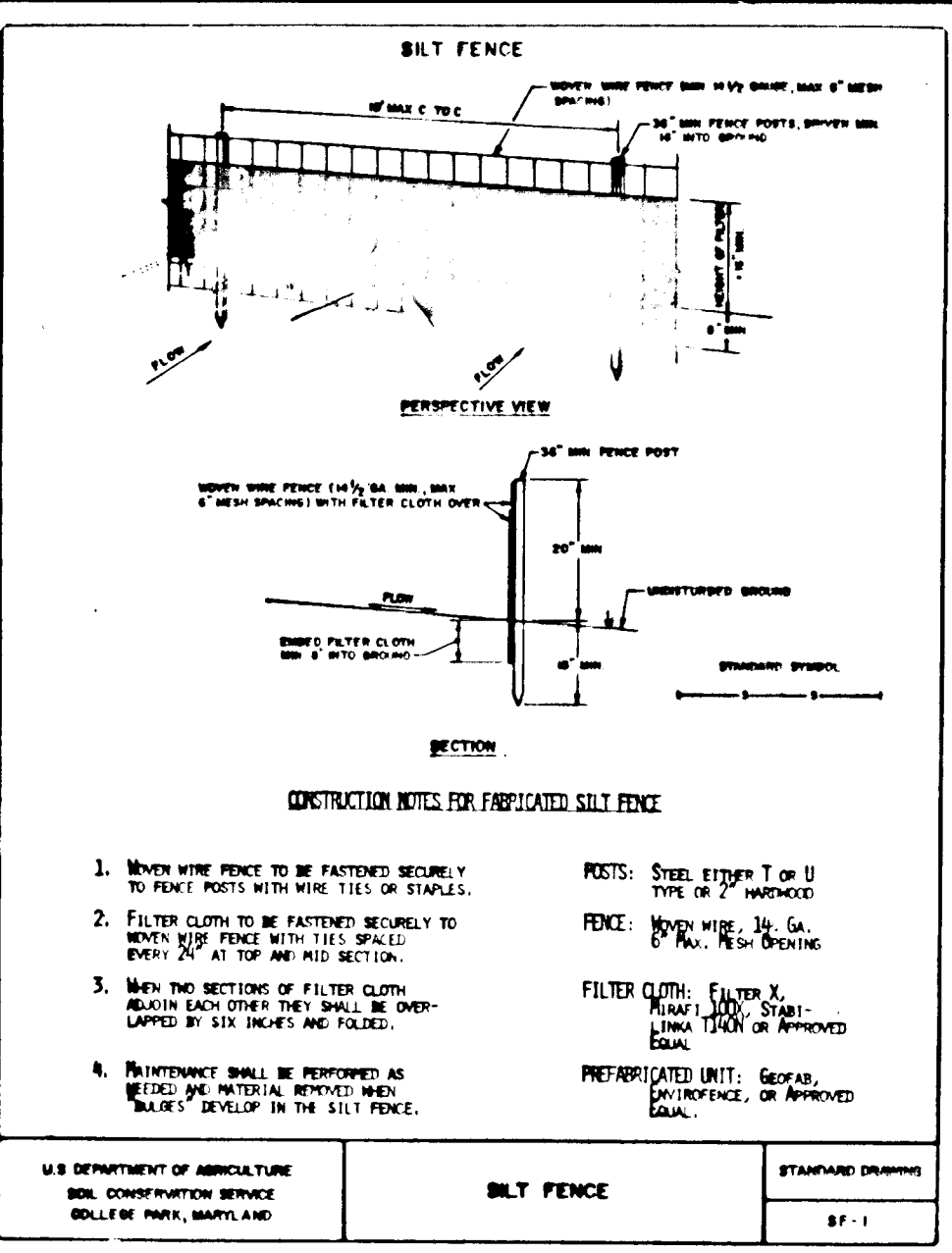
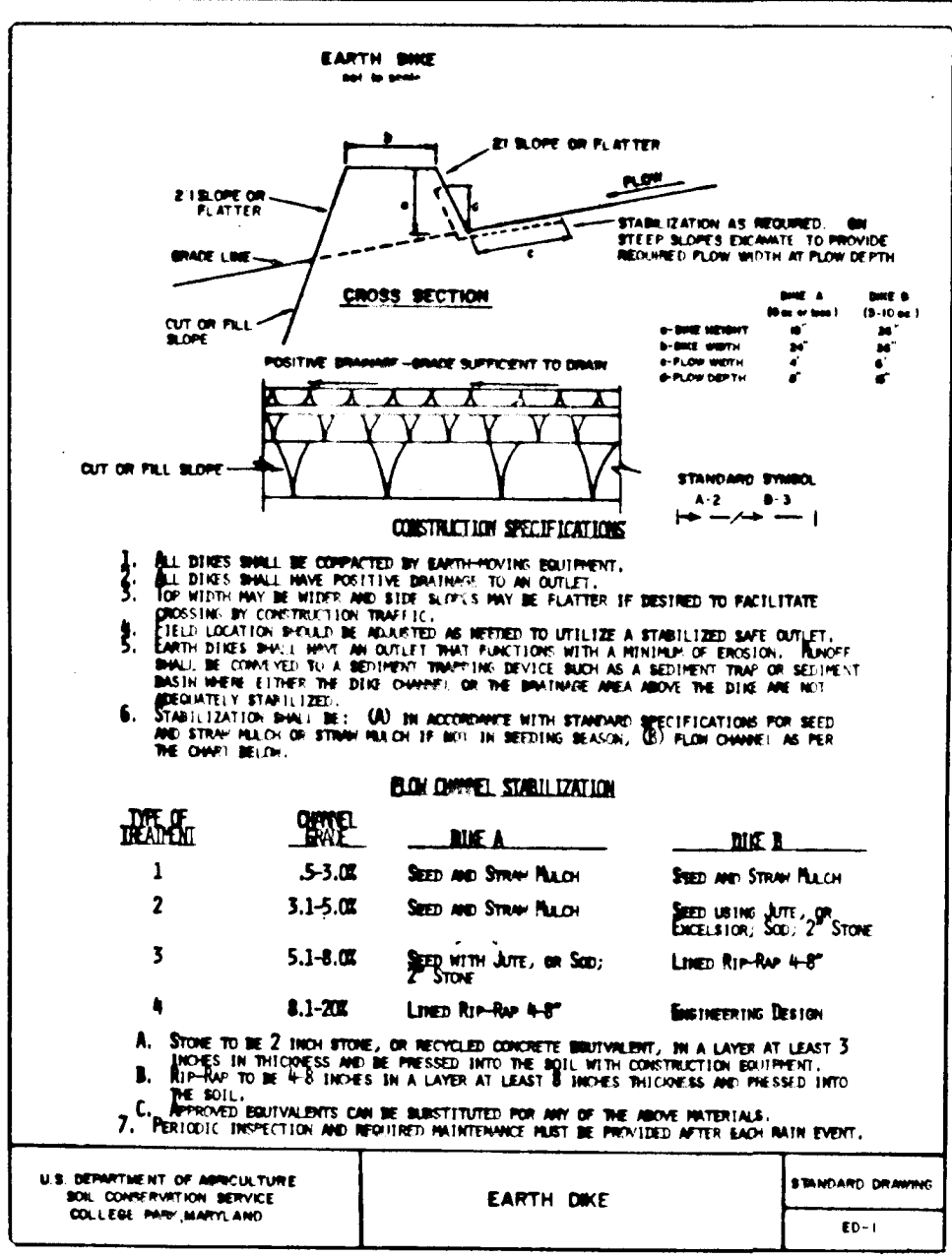
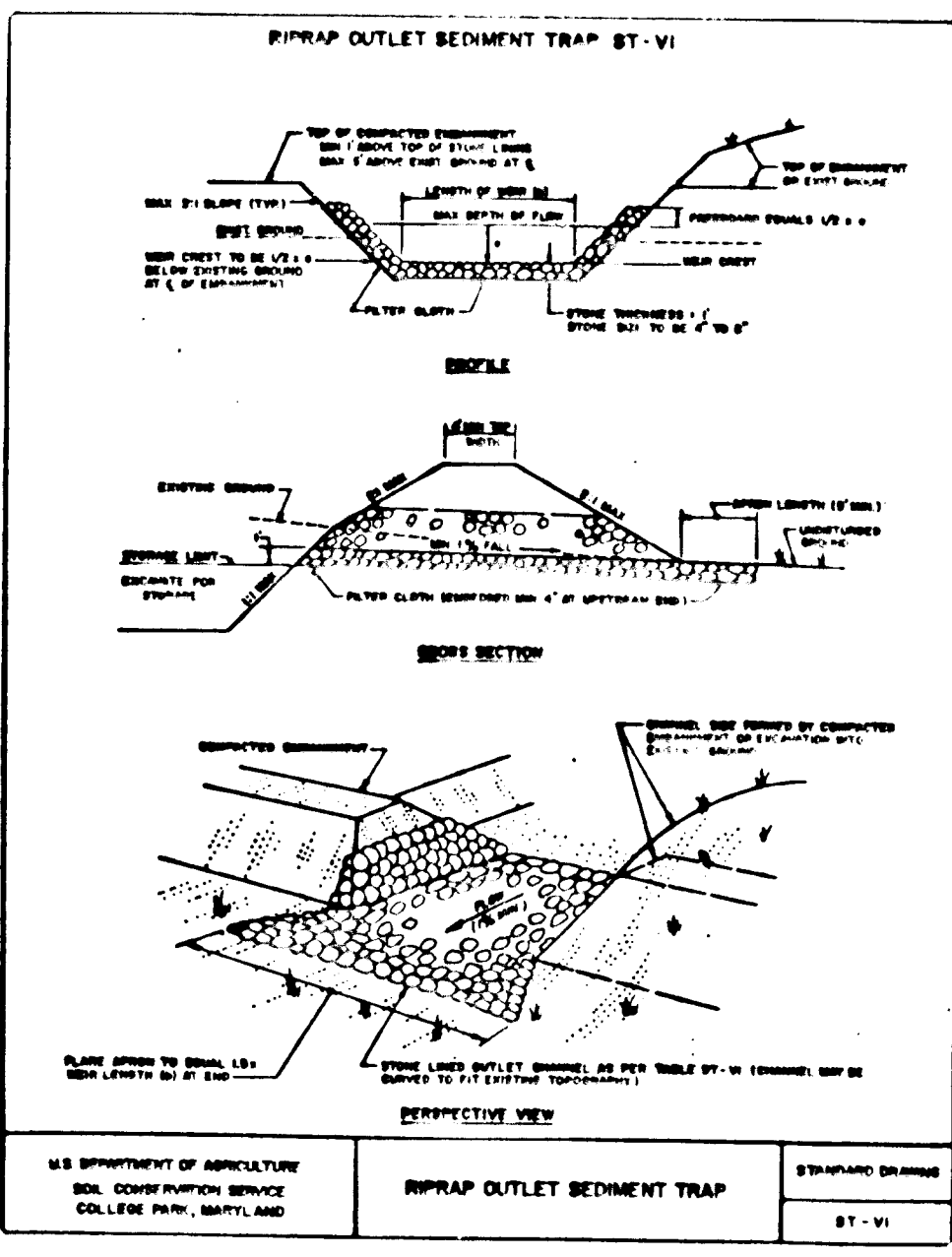
SEDIMENT TRAP No. 2
PLAN VIEW
SCALE: 1" = 50'

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 Signature: *James M. Nelson* DATE: 8-5-86
 U.S. SOIL CONSERVATION SERVICE
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *Stephen L. Flaherty* DATE: 8/6/86
 Approved: Howard S.C.D.



SEDIMENT TRAP No. 3
PLAN VIEW
SCALE: 1" = 50'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Signature: *James F. Newmyer* DATE: 9-9-86
 CHIEF, BUREAU OF ENGINEERING
 Signature: *Walter J. Pizore* DATE: 9/2/86
 CHIEF, LAND DEVELOPMENT DIV.



ALL DETAILS NOT TO SCALE

SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (Sec. 54), temporary seedings (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	39.81 Acres
Area Disturbed	35.96 Acres
Area to be roofed or paved	0 Acres
Area to be vegetatively stabilized	35.96 Acres
Total Cut	26,000 Cu. yds
Total Fill	45,000 Cu. yds
Offsite waste/borrow area location	#
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- BORROW AREA TO BE DESIGNATED BY OWNER / DEVELOPER.

CONSTRUCTION SPECIFICATIONS FOR ST-1

- The area under construction shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- The fill material for the embankment shall be free of roots or other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The embankment shall be constructed by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at vertical of embankment.
- All fill slopes shall be 3:1 or flatter; on slopes 3:1 or flatter.
- Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
- Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level weir crest.
- Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
- Stone used in the outlet channel shall be four (4) to eight (8) inches (crisp). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
- Outlet shall be removed and trap returned to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The structure shall be inspected after each rain and repaired as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
- Drainage area for this practice is limited to 15 acres or less.

Stair-Outlet Sediment Trap

ST-1 (for Stone Liner Channel)

Contributing Drainage Area (Acres)	Depth of Channel (Feet)	Length of Trap (Feet)
1	1.5	4.0
2	1.5	5.0
3	1.5	6.0
4	1.5	8.0
5	1.5	12.0
6	1.5	16.0
7	1.5	20.0
8	1.5	24.0
9	1.5	28.0
10	1.5	32.0
11	1.5	36.0
12	1.5	40.0
13	1.5	44.0
14	1.5	48.0
15	1.5	52.0

NOTE:
 SNOW FENCING AND WARNING SIGNS AS DICTATED BY SECTION 12.5, ITEMS 1 AND 2, DESIGN MANUAL VOL. I.

OWNER'S/DEVELOPER'S CERTIFICATION
 "I/We hereby certify that I have reviewed this erosion and sediment control plan and that all clearing, grading, construction and/or development will be done pursuant to this plan 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."
 Signature: *John L. Patmore* Date: JUNE 6, 1986
 Name: JOHN L. PATMORE Title: VICE PRES. Phone No. 557-8608
 Firm: POSNER-STROMBERG ASSOC. INC. Complete Address: SAME AS ABOVE.

ENGINEERS CERTIFICATE
 "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Signature: *John L. Patmore* Date: 8/14/86
 Name: JOHN L. PATMORE Title: VICE PRES. Phone No. 557-8608
 Firm: POSNER-STROMBERG ASSOC. INC. Complete Address: SAME AS ABOVE.
 Registered Professional Engineer # 8978

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.
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 square ft) and 400 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Narrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (92 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. Narrow or disc into upper three inches of soil.
Seeding - For the periods March 1 thru April 30, and August 1 thru October 15, seed with 50 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru 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 seed. 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 to 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 seeded areas and make needed repairs, replacements and reseedings.
TEMPORARY SEEDING NOTES
 Apply to graded or cleared areas likely to be redistributed under a short-term vegetative cover is needed.
Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding.
Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).
Seeding - For periods March 1 thru April 30 and from August 15 thru November 15, seed with 24 bushel per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 15 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use seed.
Mulching - Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.
 Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.
 On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be required 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.

DETAIL SHEET FOR MASS GRADING PLAN
 HUNT CLUB ESTATES
 SECTION 5, AREAS 1, 2 & 3

GP-86-77
KIDDE CONSULTANTS, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 1100 WEST STREET, SUITE 100, LAUREL, MD 20707
 (Wash.) (301) 953-1821 • 782-8086 (Halt.)
 HUNT CLUB ESTATES
 DATE: MAY 27, 1986
 SCALE: AS SHOWN

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

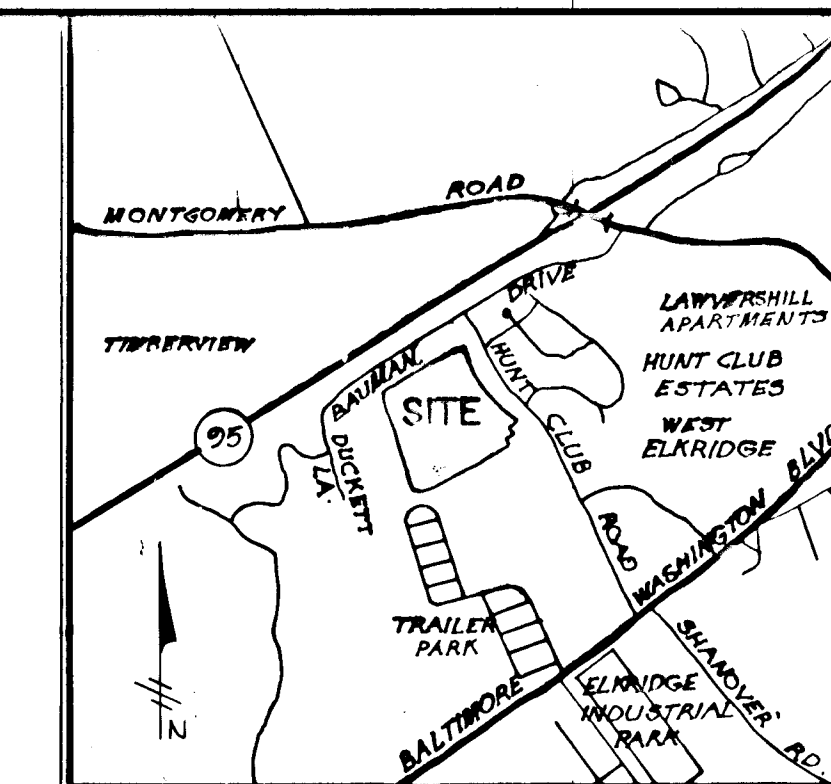
Stephen L. Rubin 8-5-86
SIGNATURE DATE

U.S. SOIL CONSERVATION SERVICE
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Stephen L. Rubin 8/5/86
Approved Howard S.C.D. DATE

SEDIMENT CONTROL TRAP SCHEDULE													
TRAP NO.	TRAP TYPE	TRAP DEPTH	DRAINAGE AREA (Ac.)	DISTURBED AREA (Ac.)	VOLUME (cf)	BOTTOM DIMENSION	BOTTOM ELEVATION	CLEANOUT ELEVATION	EMBANKMENT ELEV.	10 YR. H.W.	OUTLET WIDTH	WEIR CREST ELEV.	
1	ROST	3'-0"	9.27	9.27	22,970	28'200	96' x 88'	179.0'	181.0'	187.0'	174.84'	12'	183.0'
2	ROST	3'-0"	14.28	14.28	43,755	44,100	96' x 138'	171.0'	172.9'	179.0'	175.84'	18'	175.0'
3	ROST	3'-0"	14.77	14.77	40,320	44,100	96' x 138'	161.0'	162.9'	169.0'	165.97'	18'	165.0'

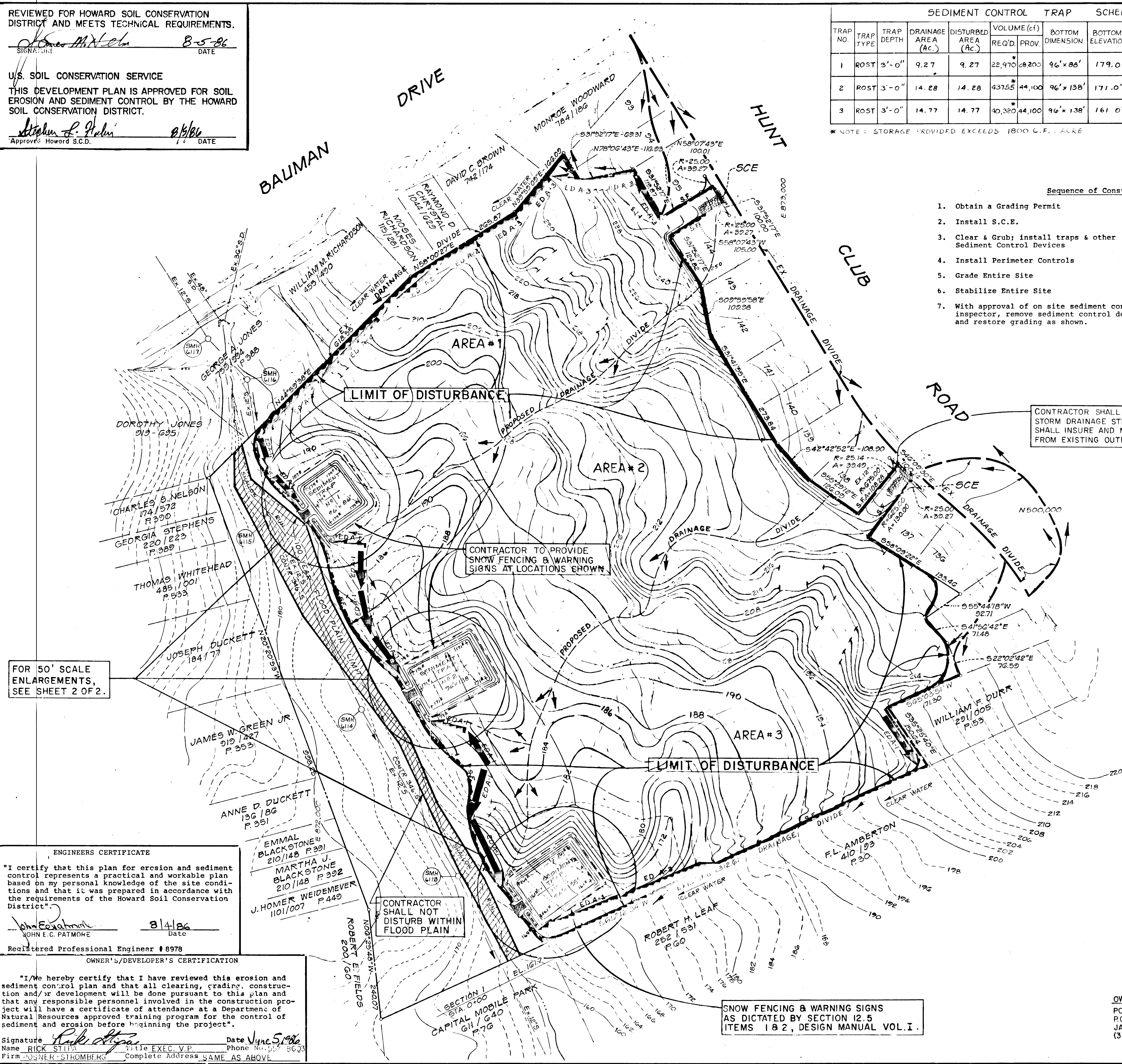
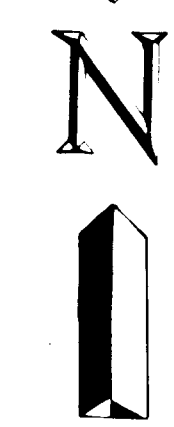
* NOTE: STORAGE PROVIDED EXCEEDS 1800 C.F. PER ACRE



VICINITY MAP
SCALE: 1" = 2000"

Sequence of Construction

- Obtain a Grading Permit Week 1
- Install S.C.E. 1 Day
- Clear & Grub; install traps & other Sediment Control Devices Week 2
- Install Perimeter Controls Week 3
- Grade Entire Site Week 3-4
- Stabilize Entire Site Week 5
- With approval of on site sediment control inspector, remove sediment control devices, and restore grading as shown. Week 6



CONTRACTOR SHALL NOT DISTURB EXISTING STORM DRAINAGE STRUCTURES. THE CONTRACTOR SHALL INSURE AND MAINTAIN POSITIVE DRAINAGE FROM EXISTING OUTFALL TO SEDIMENT TRAP #3.

CONTRACTOR TO PROVIDE SNOW FENCING & WARNING SIGNS AT LOCATIONS SHOWN

CONTRACTOR SHALL NOT DISTURB WITHIN FLOOD PLAIN

SNOW FENCING & WARNING SIGNS AS DICTATED BY SECTION 12.5 ITEMS 1 & 2, DESIGN MANUAL VOL. I.

FOR 50' SCALE ENLARGEMENTS, SEE SHEET 2 OF 2.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

George E. Neumeier 9-9-86
DIRECTOR OF PUBLIC WORKS DATE

William F. ... 8-22-86
CHIEF BUREAU OF ENGINEERING DATE
CHIEF LAND DEVELOPMENT DIV. DATE

MASS GRADING PLAN
SECTION 5
HUNT CLUB ESTATES

1ST ELEC. DIST., HUNT CLUB RD., HOWARD CO. MD
TAX MAP 38 PARCEL 515

SHEET 1 OF 2
GP-86-77

KIDDE CONSULTANTS, INC.

DATE	BY	REVISION
7/15/86	KCI	PER COUNTY COMMENTS
8/12/86	MSS	ADD D.P.W. SIGN. BLOCK
8/12/86	MWG	RTIR

ENGINEERS • PLANNERS • SURVEYORS
1100 WEST STREET / SUITE 100 / LAUREL, MD 20707
(Wash.) (301) 953-1821 / 792-8086 (Balt.)

OWNER / DEVELOPER
POSNER - STROMBERG ASSOC. INC.
P.O. BOX 349
JARRETTSVILLE, MD. 21084
(301) 557-8603

1684151

DATE APR. '86 SCALE 1" = 100'

ENGINEERS CERTIFICATE
"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
John E. C. Patmore 8/4/86
JOHN E. C. PATMORE DATE
Registered Professional Engineer # 8978

OWNER'S/DEVELOPER'S CERTIFICATION
"I/We hereby certify that I have reviewed this erosion and sediment control plan and that all clearing, grading, construction and/or development will be done pursuant to this plan 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."
Signature *Rick Stipp* Date *June 5, 1986*
Name RICK STIPP Title EXEC. V.P. Phone No. 557-8633
Firm POSNER-STROMBERG Complete Address SAME AS ABOVE

EMMAL BLACKSTONE 210/148 P.391
MARTHA J. BLACKSTONE 210/148 P.392
J. HOMER WEIDEMEYER 1101/007 P.449
ROBERT E. FIELDS 200/100

JAMES W. GREEN JR. 919/227 P.353
ANNE D. DUCKETT 136/186 P.351

THOMAS WHITEHEAD 485/1001 P.533
GEORGIA STEPHENS 220/1223 P.388

DOROTHY JONES 919-625
CHARLES S. NELSON 174/572 P.390
GEORGE A. JONES 799/994 P.388

WILLIAM M. RICHARDSON 459/1490

DAVID C. BROWN 742/174
RAYMOND D. CHRISTIAN 1041/129

MONROE WOODWARD 784/186

DAVID C. BROWN 742/174
RAYMOND D. CHRISTIAN 1041/129

WILLIAM F. DURR 291/009 P.153
FL. AMBERTON 410/193 P.30

ROBERT H. LEAF 252/531 P.60

SECTION 1 STA. 0+00
CAPITAL MOBILE PARK G11/G40 P.76