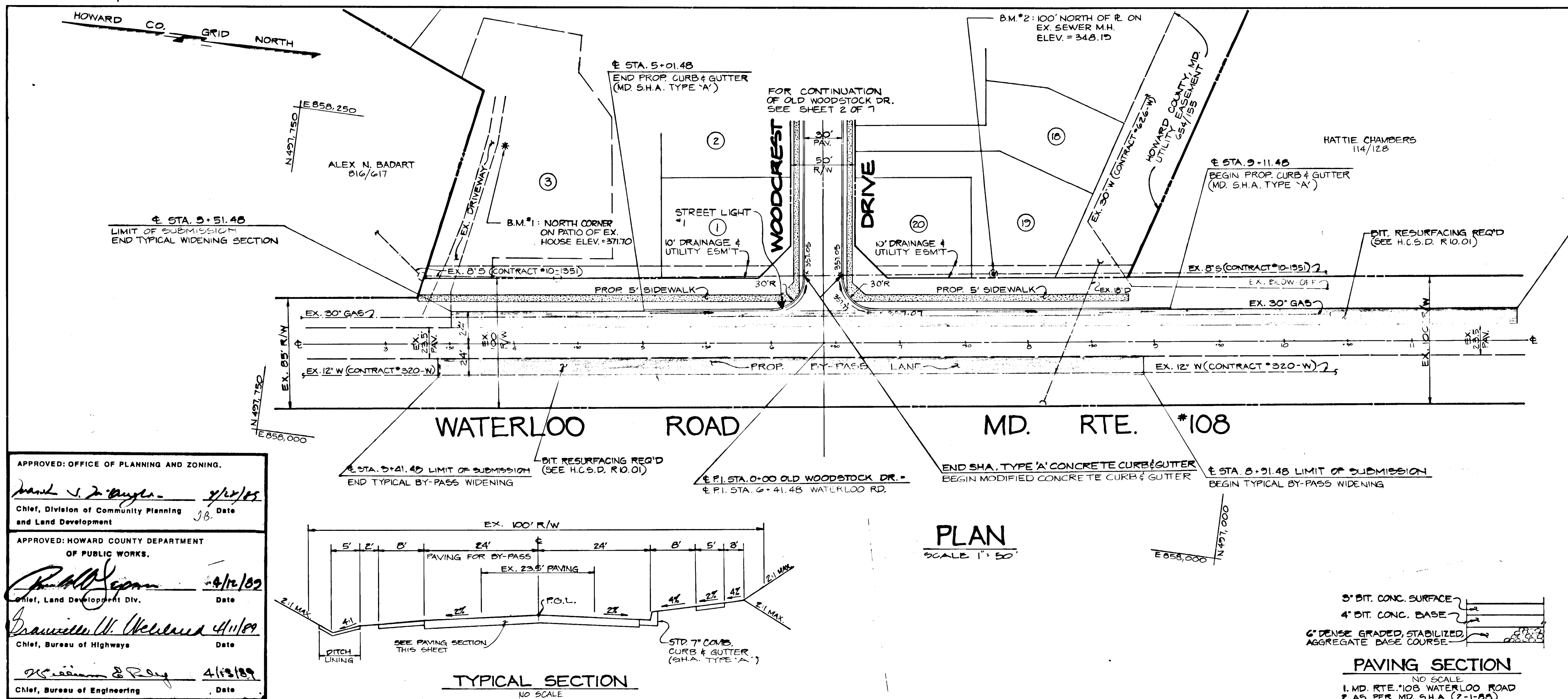
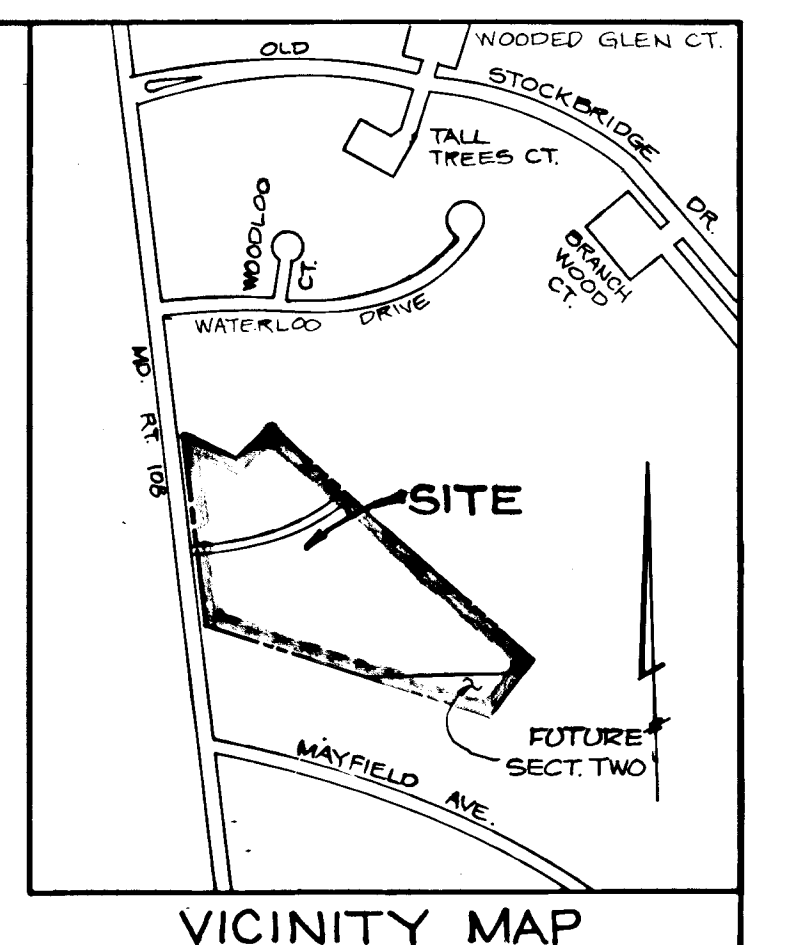


DATE: \_\_\_\_\_  
 PLAN  
 REVISIONS  
 NO. \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NO. \_\_\_\_\_

DATE: \_\_\_\_\_  
 PROFILE  
 REVISIONS  
 NO. \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NO. \_\_\_\_\_



No.	DESCRIPTION	BY	DATE



**GENERAL NOTES**  
 1. TAX MAP: 27 PARCELS: 114 & 115  
 2. DEED REFERENCES: P 124 - L 247 / F 112  
 P 125 - L 239 / F 155  
 3. STATIONS SHOWN ON WATERLOO ROAD ARE BASED ON ASSUMED DATUM.  
 4. ▲ DENOTES STREET LIGHT

**GENERAL NOTES FOR CONSTRUCTION**  
 SEE SHEET 3 OF 7

**DEVELOPER**  
 CHATEAU BUILDERS INC.  
 810 WOODD GLEN CT.  
 ELLICOTT CITY, MD 21043  
 (301) 700-6001

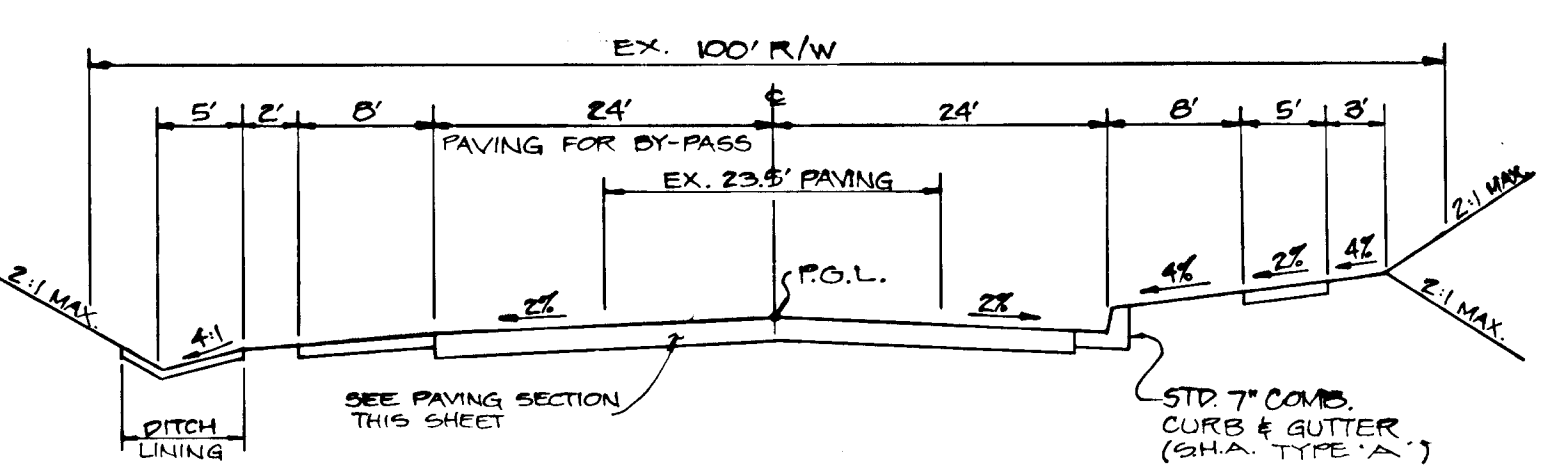
**OWNER**  
 WILLIAM & HELEN WHITFIELD  
 6213 WATERLOO RD.  
 ELLICOTT CITY, MD 21043

APPROVED: OFFICE OF PLANNING AND ZONING.  
*[Signature]* 4/12/82  
 Chief, Division of Community Planning and Land Development

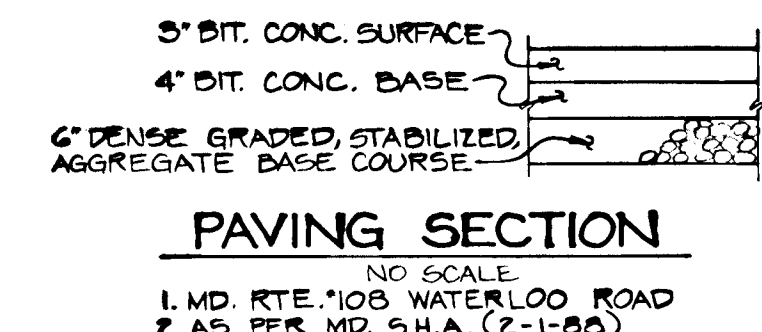
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*[Signature]* 4/12/82  
 Chief, Land Development Div.

*[Signature]* 4/13/89  
 Chief, Bureau of Highways

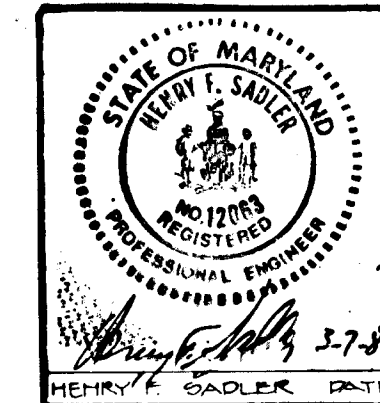
*[Signature]* 4/13/89  
 Chief, Bureau of Engineering



**PLAN**  
 SCALE 1" = 50'

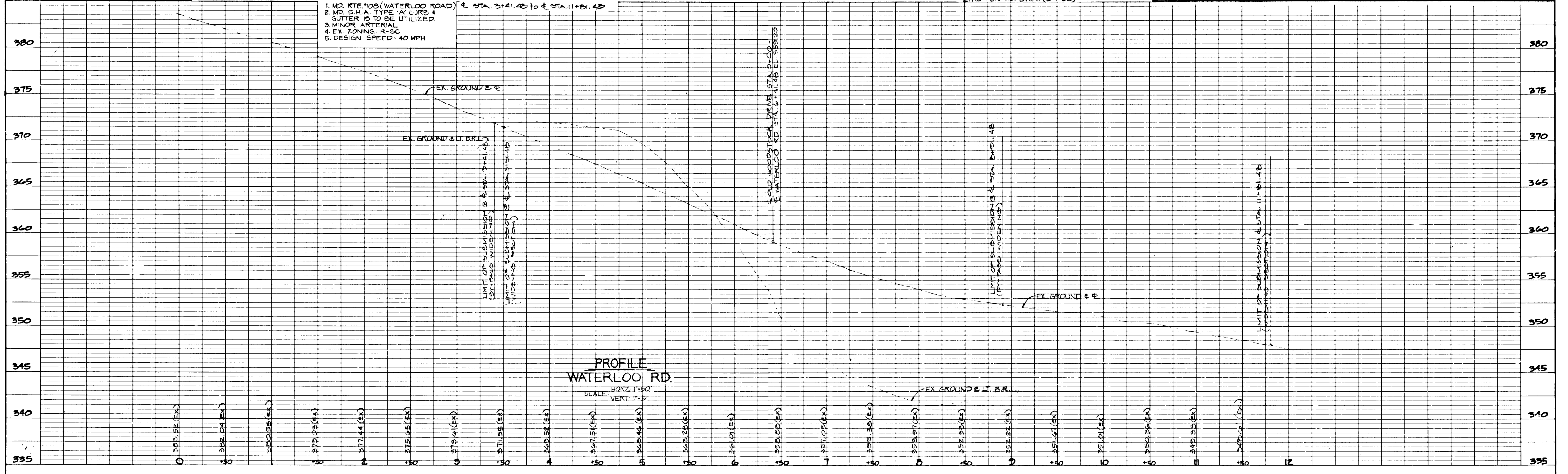


**PAVING SECTION**  
 NO SCALE  
 1. MD. RTE. #108 WATERLOO ROAD  
 2. AS PER MD. S.H.A. (2-1-88)



TITLE: **WATERLOO ROAD PLAN & PROFILE**  
 PROJECT: **WOODCREST** SECT. ONE  
 O.P. & Z. FILE NOS.: 6-88-10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100  
 TAX MAPS: BLOCK 14, PARCELS 114 & 115  
 1<sup>ST</sup> ELECTION DISTRICT: HOWARD COUNTY, MD.  
 DES. BY: ELC/JTN DRAWN BY: JLC CHKD. BY: JTN DATE: 1/1989  
 DESIGNED BY: HENRY K. SADLER DATE: 3/7/89

Civil Engineer & Site Planner  
**Thaler & Associates, Inc.**  
 11 WARREN ROAD  
 BALTIMORE, MD. 21208  
 (301) 484-4100  
 SCALE: NOTED SHEET 1 OF 7



**PROFILE**  
**WATERLOO RD.**  
 SCALE: HORIZ 1" = 50'  
 VERT. 1" = 5'

1413

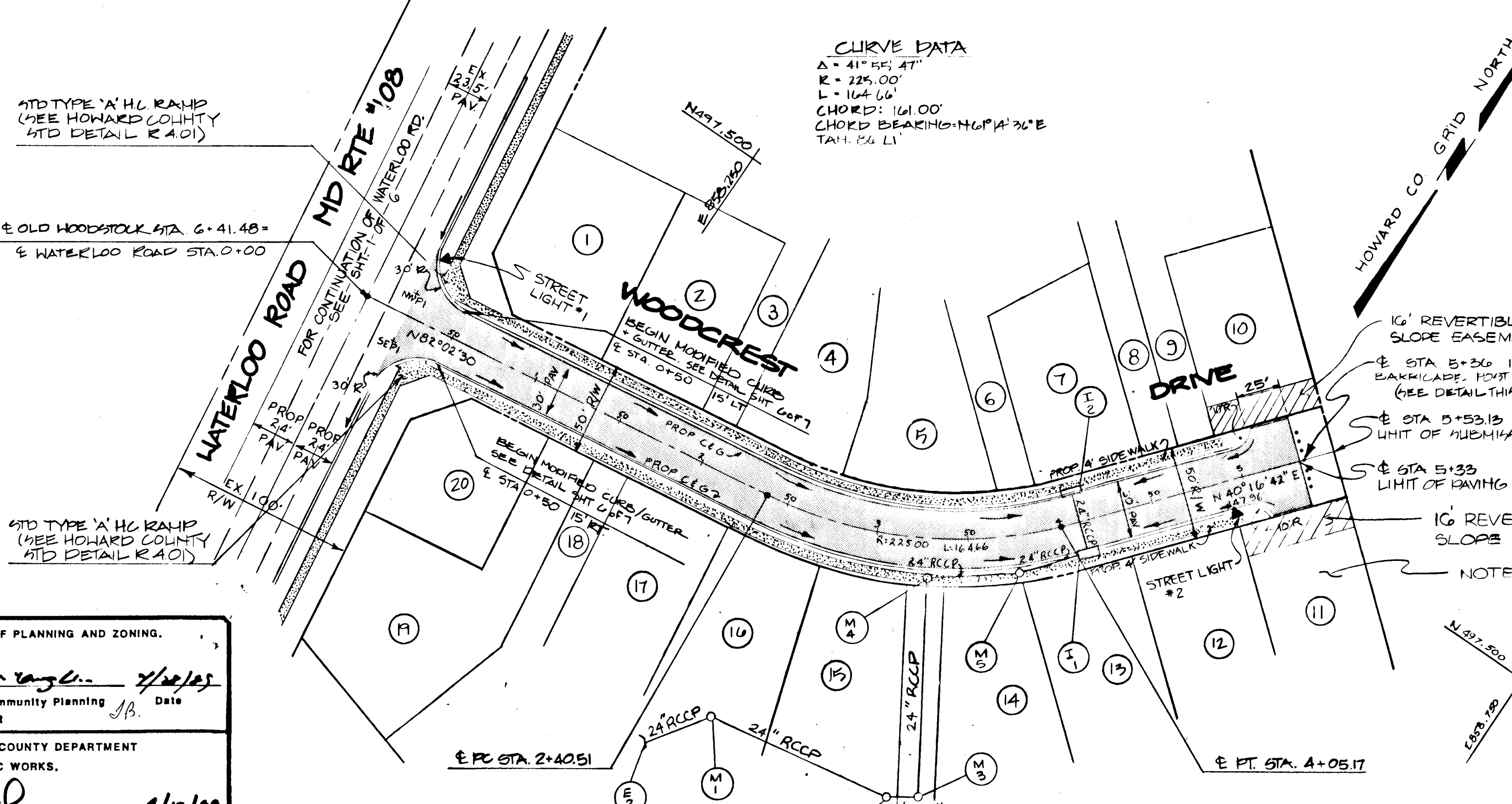
DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_  
 PLAN NOTE BOOK: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 BY: \_\_\_\_\_

APPROVED: OFFICE OF PLANNING AND ZONING.  
*James J. Anzalone* 4/12/82  
 Chief, Division of Community Planning and Land Development  
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Donald Degan* 4/12/82  
 Chief, Land Development Div.  
 Date

*Francis W. McKeown* 4/11/82  
 Chief, Bureau of Highways  
 Date

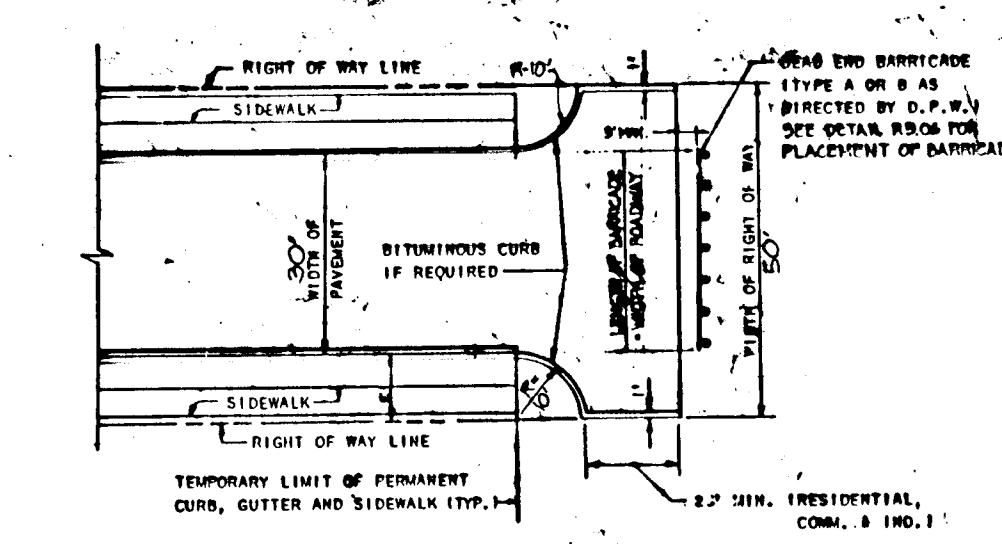
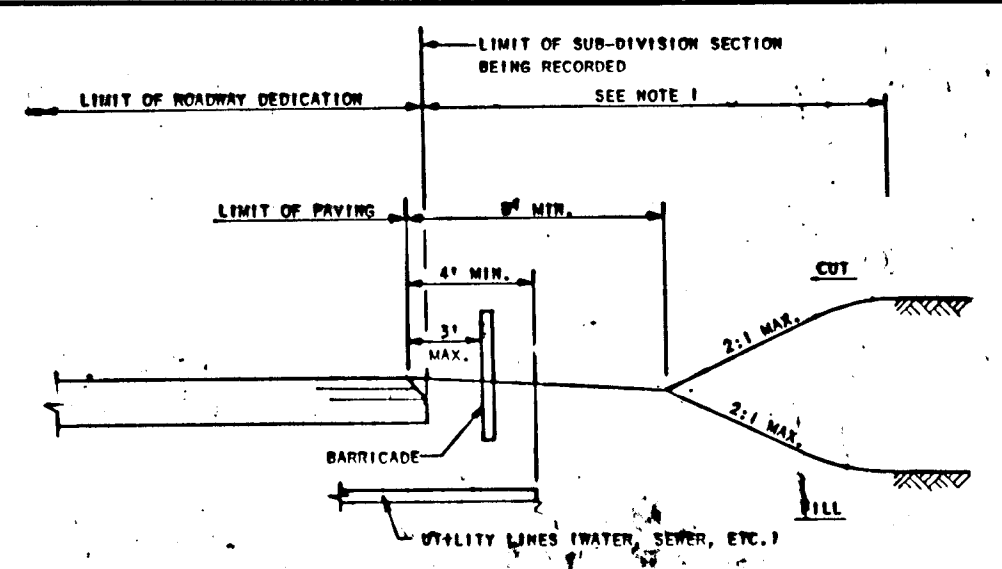
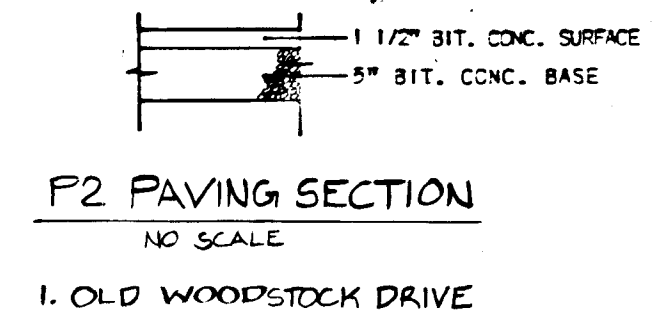
*William S. P. O'G* 4/12/82  
 Chief, Bureau of Engineering  
 Date



**PLAN**  
 SCALE: 1" = 50'-0"

**REVISIONS**

NO.	DESCRIPTION	BY	DATE



**OWNER / DEVELOPER**  
 WILLIAM & HELEN WHIPPS  
 6213 WATERLOO RD  
 ELLICOTT CITY, MD. 21043

CHATEAU BUILDERS INC.  
 8100 WOODD GLEN CT  
 ELLICOTT CITY MD. 21043  
 (301) 799-5001

**STATE OF MARYLAND**  
 PROFESSIONAL ENGINEER

**PROJECT: OLD WOODSTOCK DR. PLAN & PROFILE**

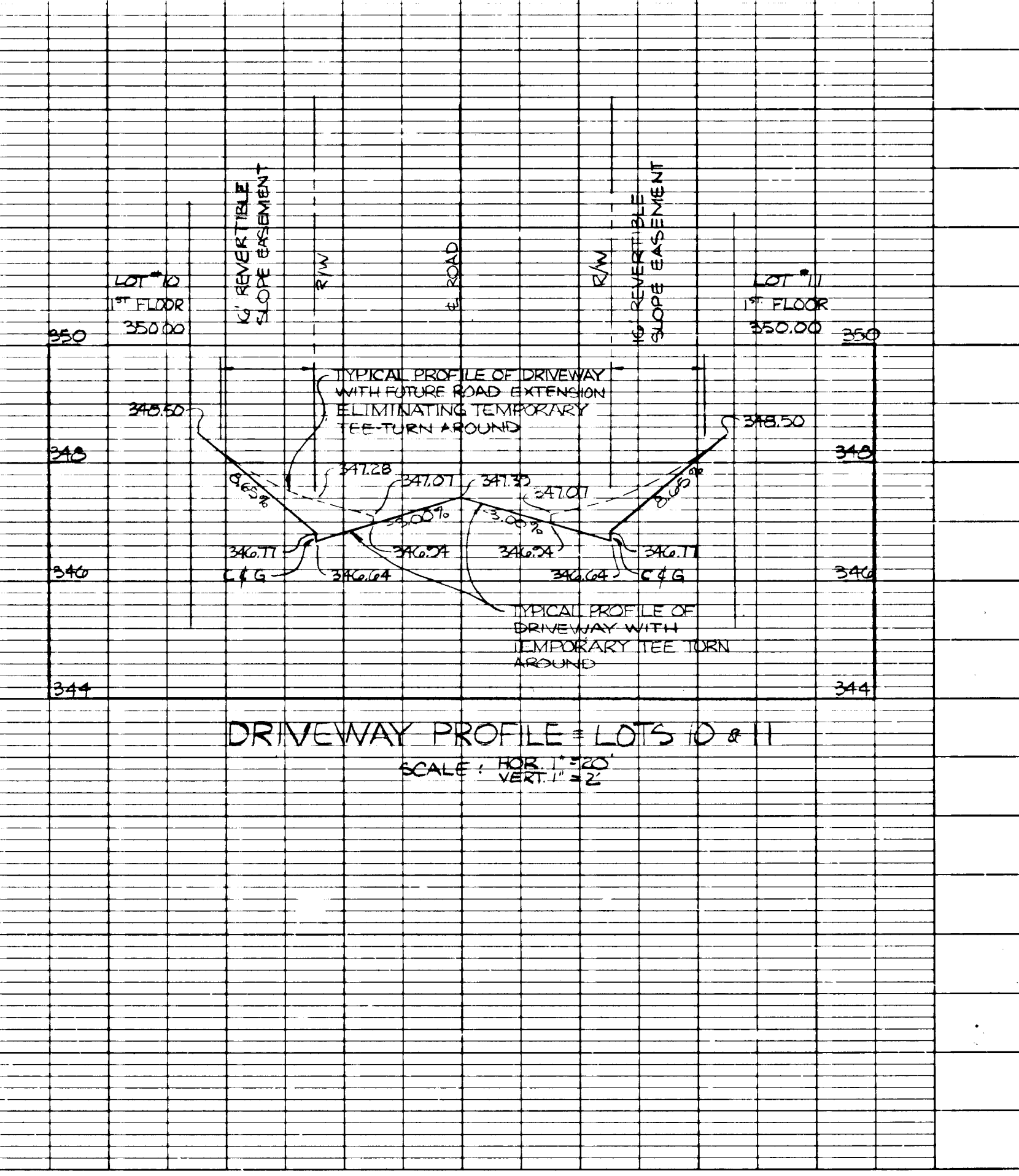
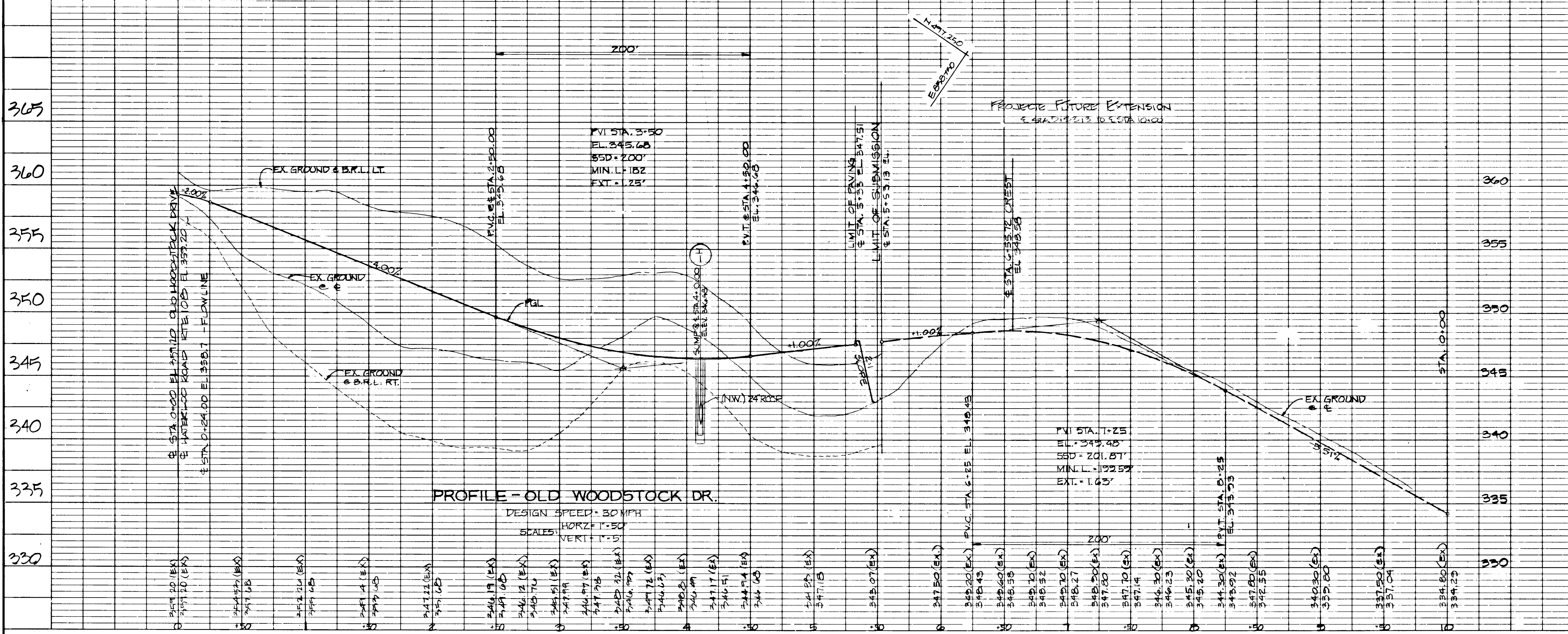
**WOODCREST**

O.P.B.Z. FILE NOS.: 41-88-10; P. 22-43; P. 28-88-63  
 TAX MAP: 37, BLOCK: 14, PARCEL: 124 (124)  
 ELECTION DISTRICT: HOWARD COUNTY, MD.

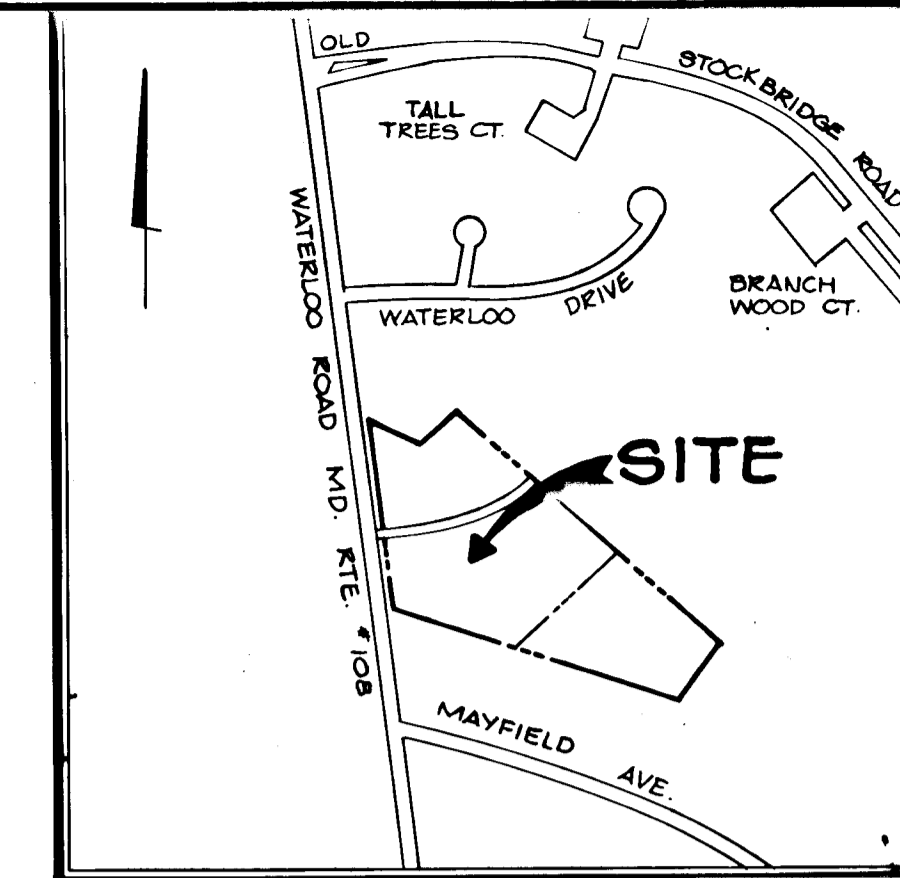
DES. BY: *Exc/STH* MDE  
 DRAWN BY: *CHKD* JTN  
 DATE: 1/10/82

SCALE: NOTED SHEET 2 OF 7

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_  
 PROFILE NOTE BOOK: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 BY: \_\_\_\_\_



1413



**VICINITY MAP**  
SCALE: 1" = 600'

AREA NO	AREA	C FACTOR	INTENSITY	FLOW(Q)
1	0.43	0.84	11.76	4.25
2	3.33	0.62	10.35	21.35
3	0.36	0.84	11.67	0.41
4	0.54	0.80	11.80	5.10

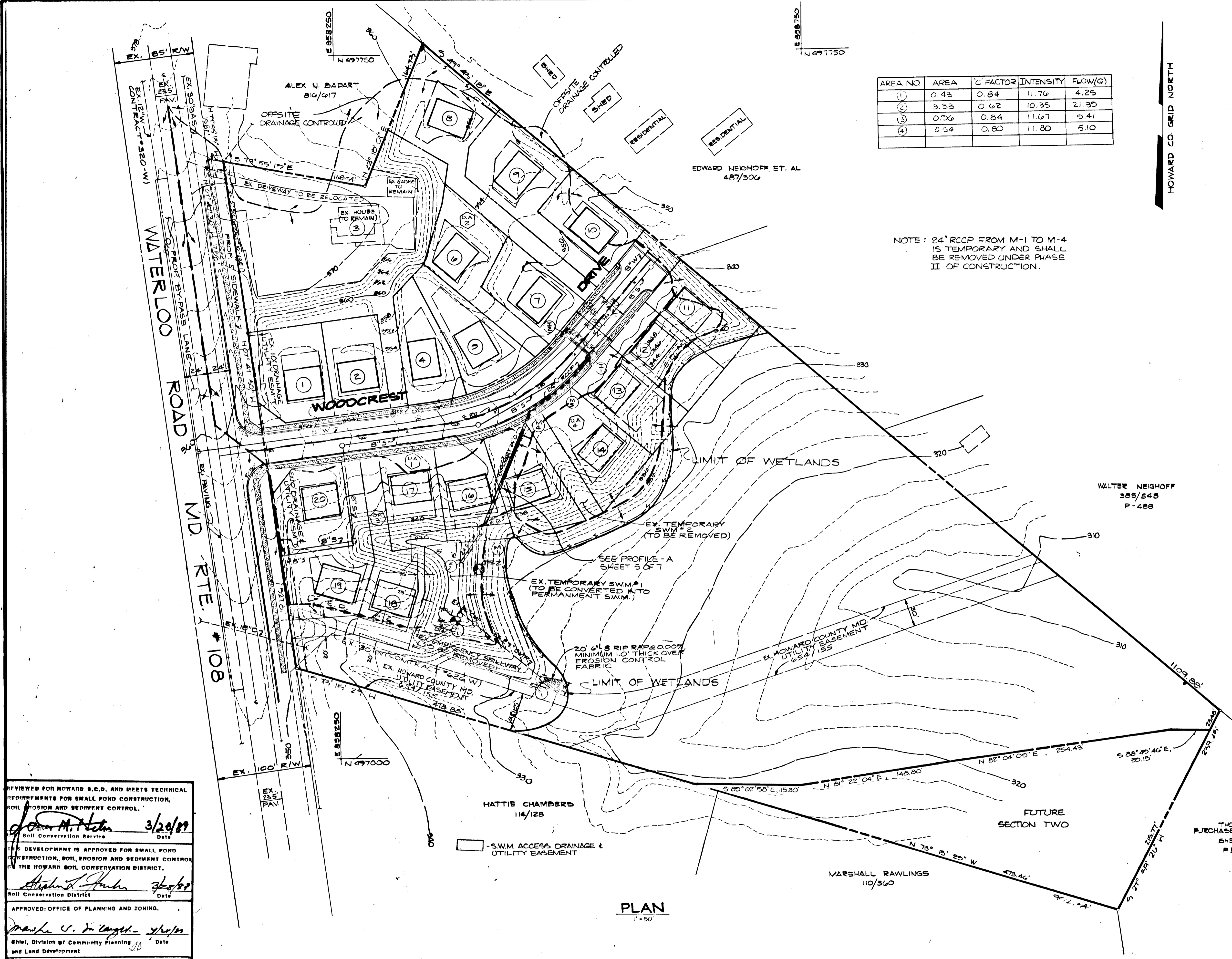
NOTE: 24" RCP FROM M-1 TO M-4 IS TEMPORARY AND SHALL BE REMOVED UNDER PHASE II OF CONSTRUCTION.

**GENERAL NOTES OF CONSTRUCTION**

- All work shall be performed in accordance with the Howard County Design Manual, Vol. IV, i.e., standard specifications and details for construction. Approximate location of existing utilities are shown. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
- The contractor shall test pit for existing utilities at least five (5) days prior to starting work shown on these drawings.
- Contractor shall notify the following utilities at least five (5) days prior to beginning work shown on these drawings.  
Miss utility ..... 559-0100  
Bell telephone system ..... 393-3649  
Long distance cable division ..... 393-3553/3554  
Baltimore Gas & Electric Company ..... 539-8000  
Howard County Bureau of Utilities ..... 992-2366  
Howard County Construction/Inspection Survey Division (24 hours notice prior of commencement of work) ..... 792-7272
- All inlets shall be constructed in accordance with Howard County standards.
- All street curb returns shall have 30' radii unless otherwise noted.
- Storm drain trenches within road rights-of-way shall be backfilled and compacted in accordance with Howard County Design Manual, Vol. IV, i.e., standard specifications and details for construction.
- Installation of traffic control devices, marking, and signing shall be in accordance with the manual of uniform traffic control devices, 1978 edition (revised).
- Pipe shall be installed by contractor until the length called for at each station has been approved by the engineer in the field.
- Designed traffic speed in accordance with the American Association of State Highway official standards.  
Waterloo Road - Ex. 100' R/W (minor arterial)  
Old Woodstock Drive - 50' R/W (local road)
- All elevations shown are based on U.S.C. and G.S. mean sea level datum, 1929.
- All fill areas within roadways and/or under structures to be compacted to a minimum 95% compaction.
- All pipe elevations shown are invert elevations.
- Profile stations shall be adjusted as necessary to confirm to plan dimensions.
- Subject property zoned R-10 per '08-02-85 comprehensive zoning plan.
- No pipe shall be laid in place until lines of excavation have been brought to within six (6) inches of finished grade elevations.
- All storm drain pipe bedding shall be class "B" as shown in fig. 11.4 of the Howard County design manual, Vol. I, unless otherwise noted.
- EXISTING HOUSE ON LOT 2 TO REMAIN

**OWNER / DEVELOPER**

WILLIAM & HELEN WHIPPS CHATEAU BUILDERS, INC.  
6213 WATERLOO RD. 8100 WOODED GLEN CT.  
ELLICOTT CITY, MD. 21043 ELLICOTT CITY, MD. 21043  
(301) 799-5001



**PLAN**  
1" = 50'

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.  
*John M. [Signature]* 3/28/89  
Soil Conservation Service Date

THE DEVELOPMENT IS APPROVED FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Alvin [Signature]* 3/28/89  
Soil Conservation District Date

APPROVED: OFFICE OF PLANNING AND ZONING.  
*Frank C. [Signature]* 4/1/89  
Chief, Division of Community Planning Date  
and Land Development

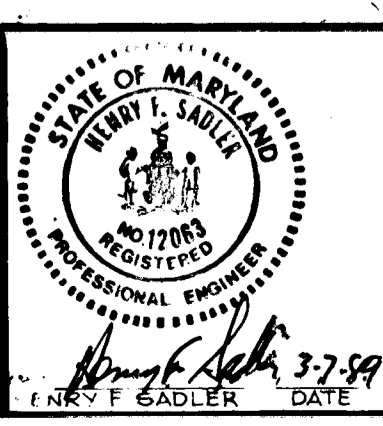
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Donald [Signature]* 4/12/89  
Chief, Land Development Date

*Lawrence W. [Signature]* 4/1/89  
Chief, Bureau of Highways Date

*[Signature]* 4-13-89  
Chief, Bureau of Engineering Date

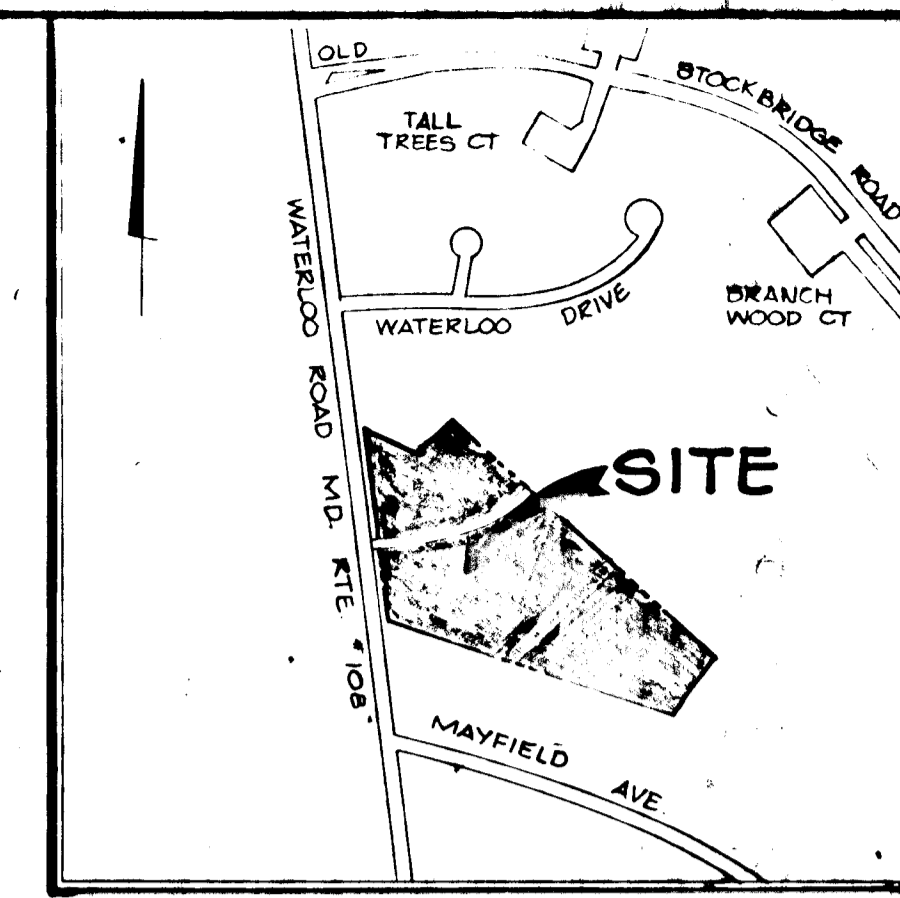
**DEVELOPER'S CERTIFICATION**  
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.  
*Richard [Signature]* 3/27/89  
DEVELOPER DATE

**ENGINEER'S CERTIFICATE**  
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD 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 30 DAYS OF COMPLETION.  
*Kevin [Signature]* 2-7-89  
ENGINEER DATE



TITLE: GRADING, SEDIMENT CONTROL PLAN & DRAINAGE AREA MAP-PHASE I  
PROJECT: **WOODCREST** SECT. ONE  
O.P. & Z. FILE NOS.: 6-88-10, P-88-43, 6P-88-63  
TAX MAP: 27, BLOCK: 14, PARCEL: 1247125  
1ST ELECTION DISTRICT: HOWARD COUNTY, MD.  
DES. BY: J.T.N. DATE: JAN. 1989  
CHKD. BY: L.R.G. DATE: J.T.N.  
B.L.C.

CIVIL ENGINEERS & SITE PLANNERS SURVEYORS  
**PAT & A** Inc.  
11 WARREN ROAD  
BALTIMORE, MD. 21208  
(301) 484-4100  
SCALE: 1" = 50' SHEET 3 OF 7



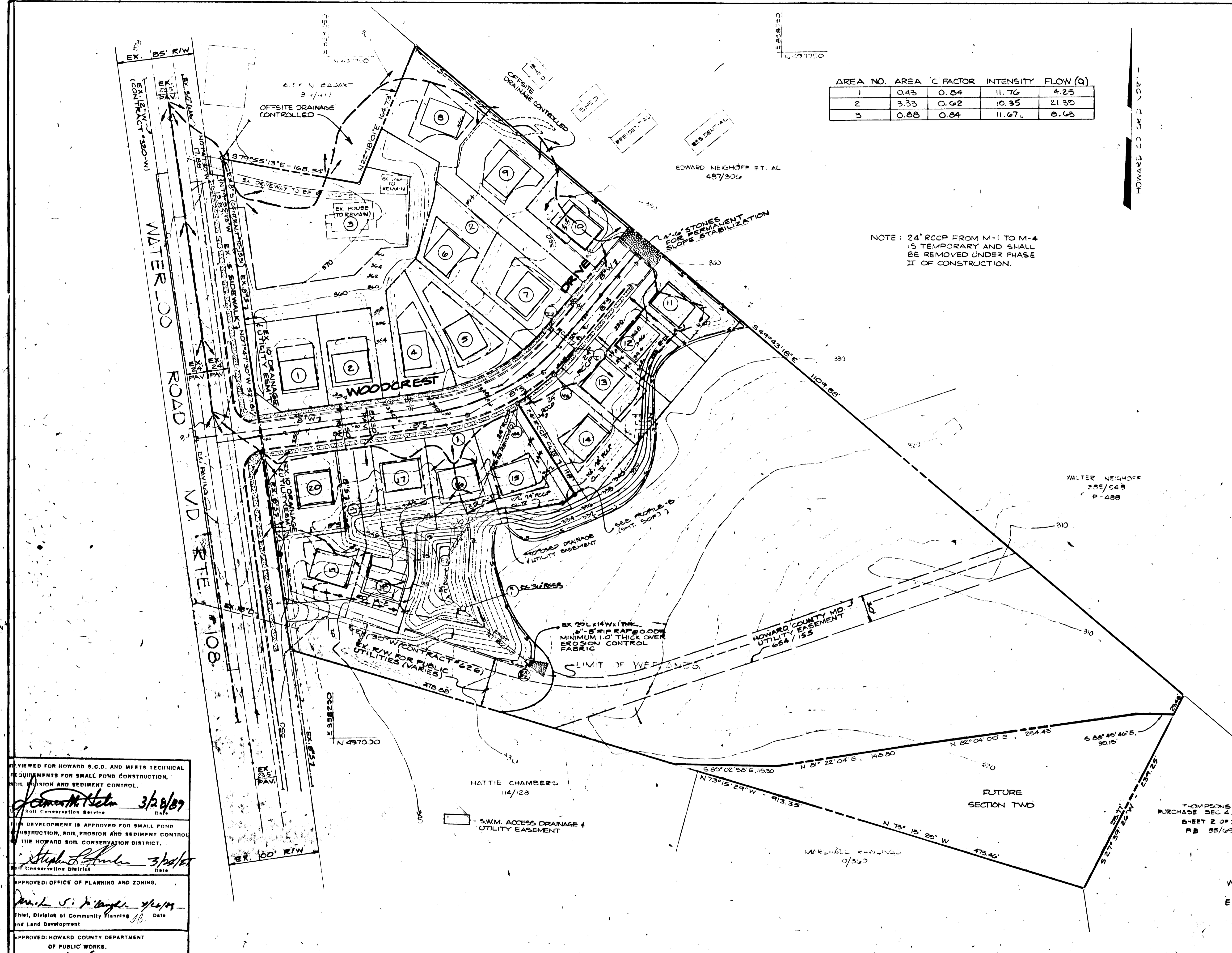
VICINITY MAP  
SCALE 1" = 600'

AREA NO.	AREA	C FACTOR	INTENSITY	FLOW (Q)
1	0.43	0.84	11.76	4.25
2	3.33	0.62	10.35	21.35
3	0.88	0.84	11.67	8.63

NOTE: 24" RCCP FROM M-1 TO M-4 IS TEMPORARY AND SHALL BE REMOVED UNDER PHASE II OF CONSTRUCTION.

LOCATIONS		STRUCTURE SCHEDULE					
NORTH	EAST	STRUCT	DESCRIPTION	LOC. STD DET.	INV IN	INV OUT	TOP EL.
407213.073	858382.256	E-2	CONC. ENDSCT.	S.D. 5/11	320.02	328.00	-
407241.515	858402.102	M-1	PRECAST MH	G 2/11	320.00	320.00	342.0
407250.056	858502.565	M-2	"	"	324.04	324.04	340.5
407268.021	858510.204	M-3	"	"	325.10	325.10	"
E STA. 3+20 - OFFSET 20' RIGHT		M-4	"	"	340.12	339.92	347.63
E STA. 3+74 - OFFSET 20' RIGHT		M-3	"	"	340.04	340.04	346.97
E STA. 4+10 - OFFSET 15' RIGHT		I-1	A-10 INLET	S.D. 4/02	341.23	341.03	346.05
E STA. 4+10 - OFFSET 15' RIGHT		I-2	"	"	-	342.15	346.05
407083.5	858466.5	E-1	VERT. ENDSCT.	S.D. 5/11	326.07	326.07	-
407143.1	858355.0	R-1	42" CMP RISER	N/A	327.10	327.10	-

\* DENOTES THROAT ELEV.

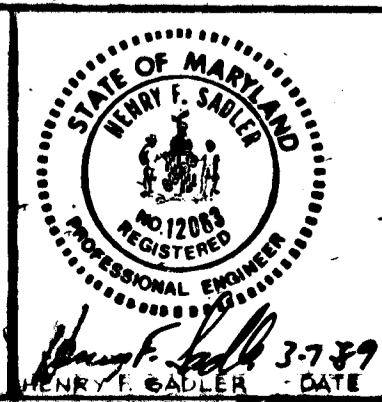


REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.  
*John M. Stelm* 3/28/89  
 Soil Conservation Service  
 THIS DEVELOPMENT IS APPROVED FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Stephen S. Stelm* 3/28/89  
 Soil Conservation District  
 APPROVED: OFFICE OF PLANNING AND ZONING.  
*Mark S. Stelm* 4/2/89  
 Chief, Division of Community Planning and Land Development  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Ronald L. Sporn* 4/12/89  
 Chief, Land Development Div.  
*William W. Williams* 4/16/89  
 Chief, Bureau of Highways  
*William S. Riley* 4-13-89  
 Chief, Bureau of Engineering

NO.	DESCRIPTION	BY	DATE
REVISIONS			

DEVELOPER'S CERTIFICATION  
 I CERTIFY THAT THE DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS WHO ARE DEPT. NOTIFICATION. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.  
*William W. Williams* 3/7/89  
 DEVELOPER DATE

OWNER'S CERTIFICATE  
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD 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 30 DAYS OF COMPLETION.  
*William W. Williams* 3-7-89  
 OWNER DATE



OWNER / DEVELOPER  
 WILLIAM / HELEN WHIPPS 8100 WOODED GLEN RD. ELLICOTT CITY, MD. 21043  
 CHATEAU BUILDERS, INC. 8100 WOODED GLEN CT. ELLICOTT CITY, MD. 21043 (301) 799-3001

TITLE: S.W.M. ACCESS EXHIBIT  
 PROJECT: WOODCREST SECT. ONE  
 O.P. & Z. FILE NO.: B-68-10 P. 28-45 GP-88-68  
 (TAX MAP 27, BLOCK 16, PARCEL 124.7.12.5)  
 (BY ELECTION DISTRICT) HOWARD COUNTY, MD.  
 DTS. BY: J.T.N. DATE: JAN 1989  
 E.L.C. L.R.C. CHYD BY: J.T.N. DATE: JAN 1989  
 DRAWN BY: J.T.N. DATE: JAN 1989  
 CHECKED BY: J.T.N. DATE: JAN 1989

11 WARREN ROAD  
 BALTIMORE, MD. 21288  
 (800) 684-6100  
 SCALE: 1" = 50' SHEET 4 OF 7

1413

F-89-141

I. SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objects shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

II. EARTH FILL

The fill material shall be taken from approved designed borrow areas or areas. It shall be free of rocks, stumps, wood, rubbish, oversize stone, frozen or other objectionable materials.

III. CONCRETE

Materials - Cement - Normal Portland cement shall conform to the latest ASTM specification. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.

Design Mix - The concrete shall be mixed in the following proportions, measured by weight, and uniform consistency. The minimum mixing time is predicated on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer.

Forms - The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.

Reinforcing Steel - All reinforcing material shall be free of dirt, rust, scale, oil, paint or any other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

IV. PIPE CONDUITS

Materials (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands.

Materials (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-190 or M-246. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal.

Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

Backfilling shall conform to structural backfill as shown above. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

B. Reinforced Concrete Pipe

- 1. Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. An approved equivalent is AWWA Specification C-301.
2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3" or as shown on the drawings.
3. Laying pipe - Bell and spigot pipe shall be placed with the bell and upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all space under the pipe is filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe.
4. Backfilling shall conform to the structural backfill as shown above.
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

C. For pipes of other materials, specific specifications shall be shown on the drawings.

V. CONCRETE

- 1. Materials
a. Cement - Normal Portland cement shall conform to the latest ASTM specification.
b. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.
c. Sand - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.
d. Coarse Aggregate - The coarse aggregate shall be clean, hard, strong and durable, and shall be well graded with a maximum size of one and one-half (1-1/2) inches.
2. Design Mix - The concrete shall be mixed in the following proportions, measured by weight, and uniform consistency. The minimum mixing time is predicated on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer.
3. Mixing - The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicated on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer.
4. Forms - The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.
5. Reinforcing Steel - All reinforcing material shall be free of dirt, rust, scale, oil, paint or any other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.
6. Consolidating - Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be supplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and under embedded items.
7. Finishing - Defective concrete, honeycombed areas, voids left by the removal of the forms, and all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar.
8. Protection and Curing - Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also be used.
9. Placing Temperature - Concrete may not be placed at temperatures below 32 degrees F with the temperature falling, or 34 degrees with the temperature rising.

Stabilization - All borrow areas shall be graded to provide proper drainage and be stabilized by seeding. All exposed surfaces of the embankment, spillway, and borrow areas, berms shall be stabilized by seeding, liming, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications or as shown on the accompanying drawings.

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

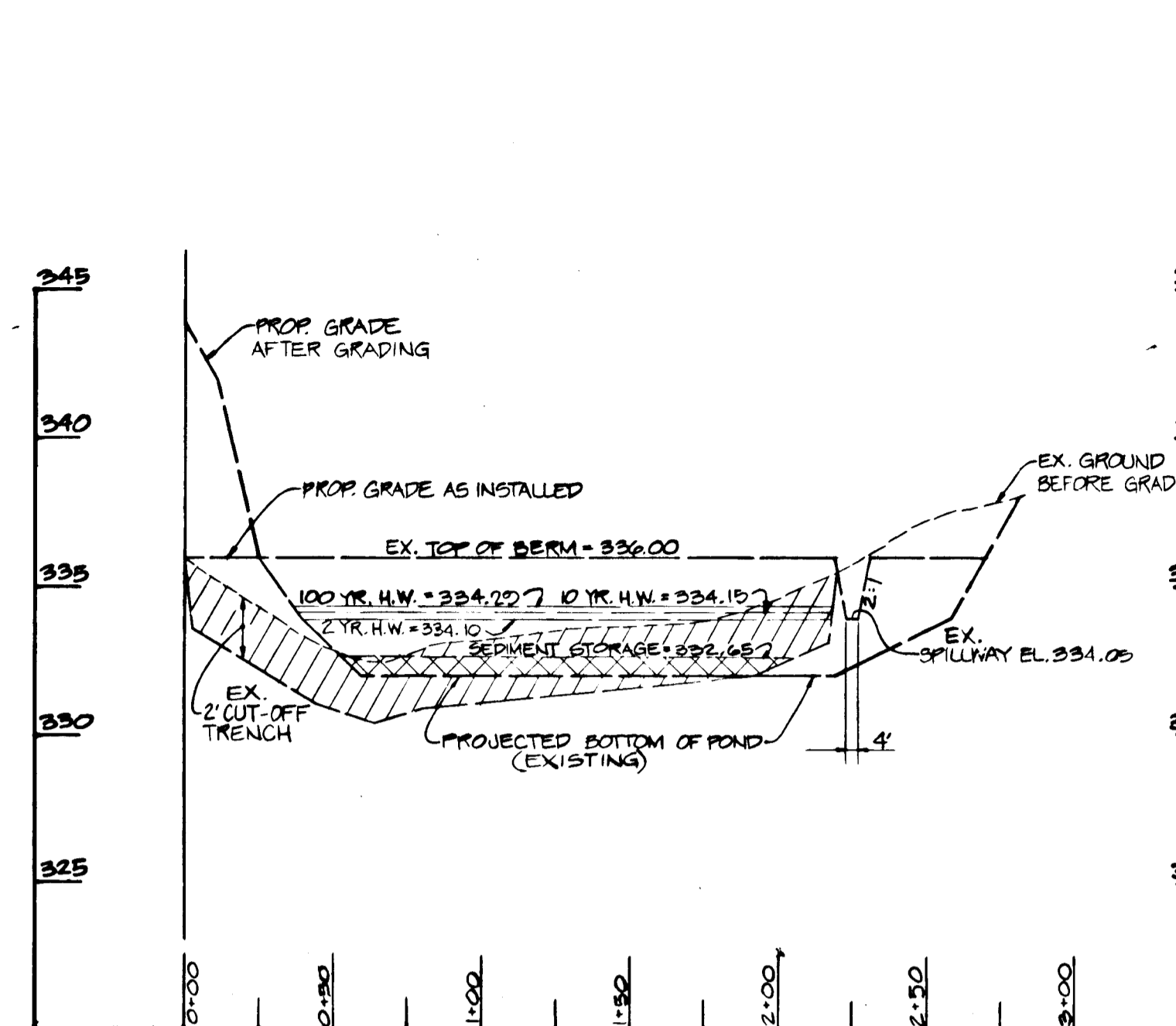
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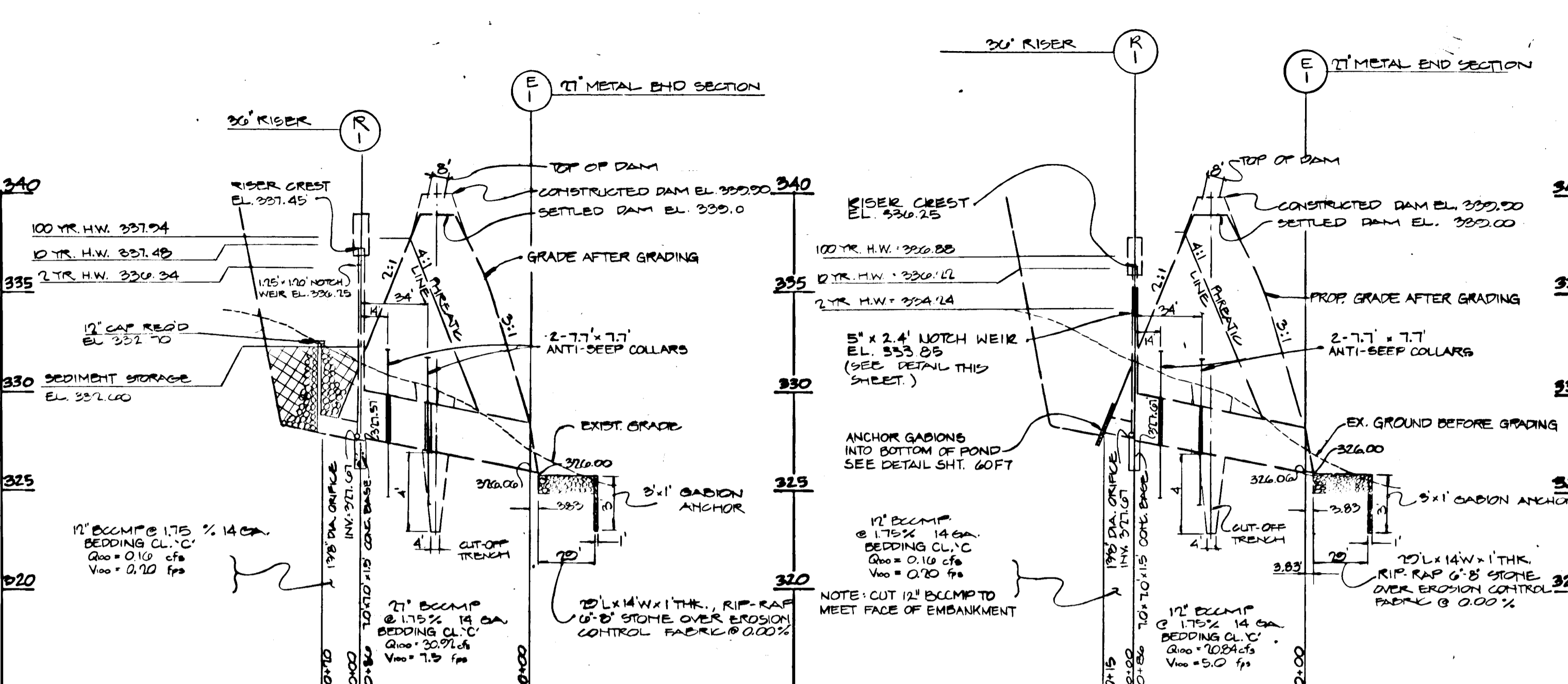
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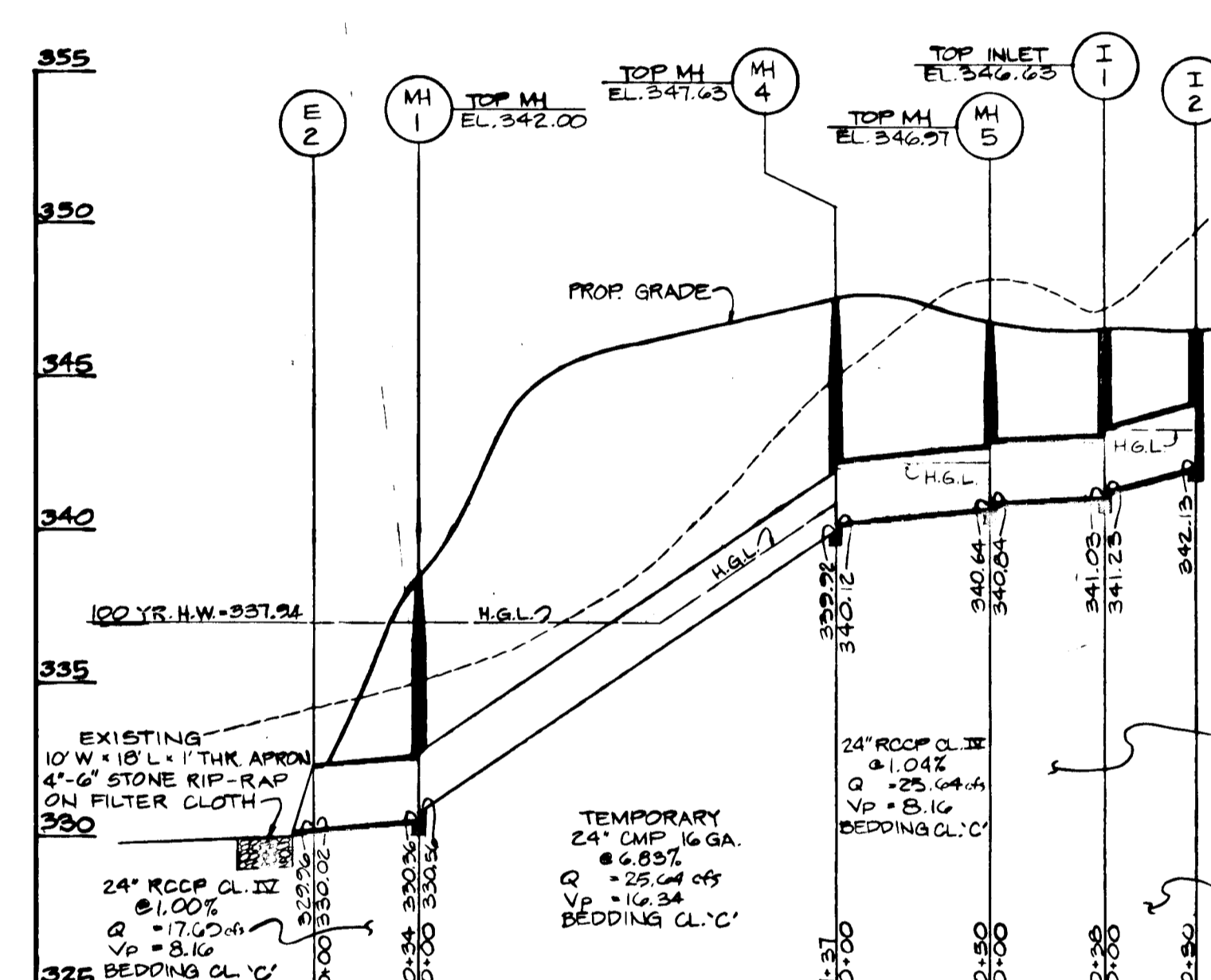


PROFILE ALONG DAM-S.W.M.#2

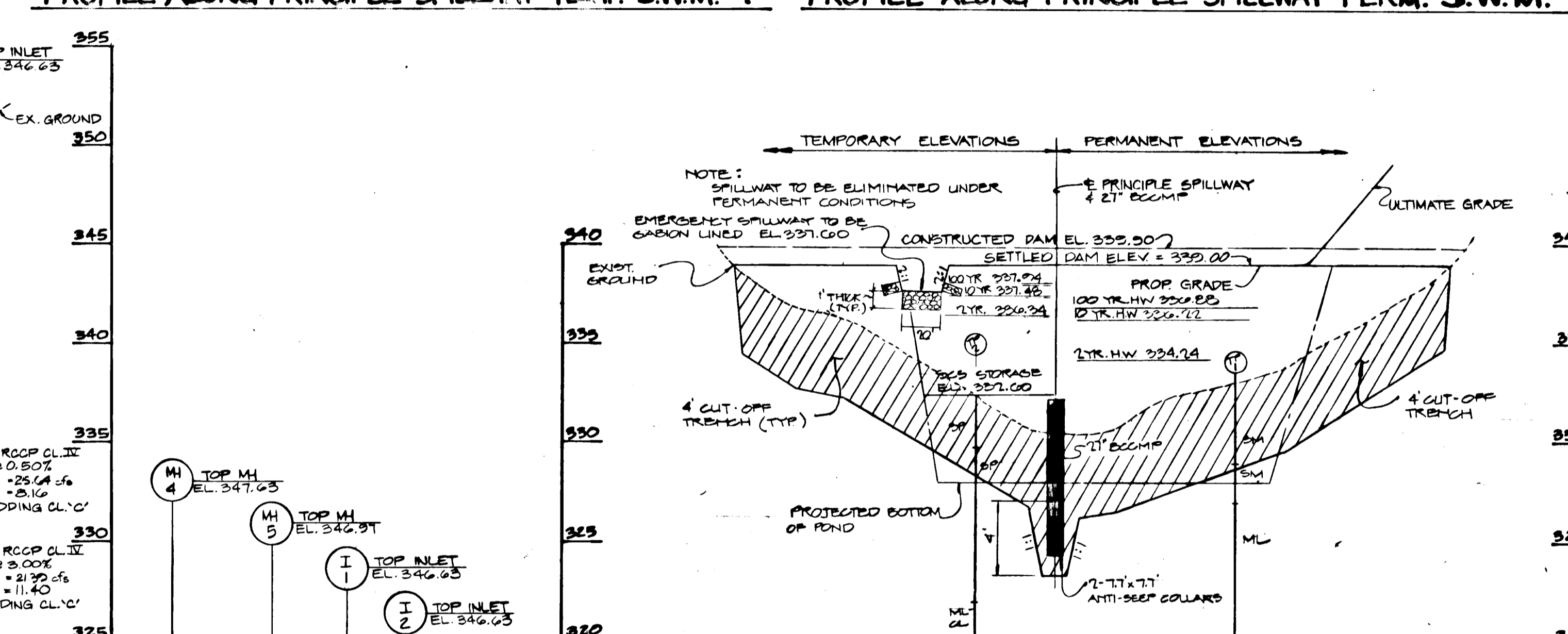


TYPICAL CROSS-SECTION OF DAM #1 PROFILE ALONG PRINCIPLE SPILLWAY-TEMP. S.W.M.#1

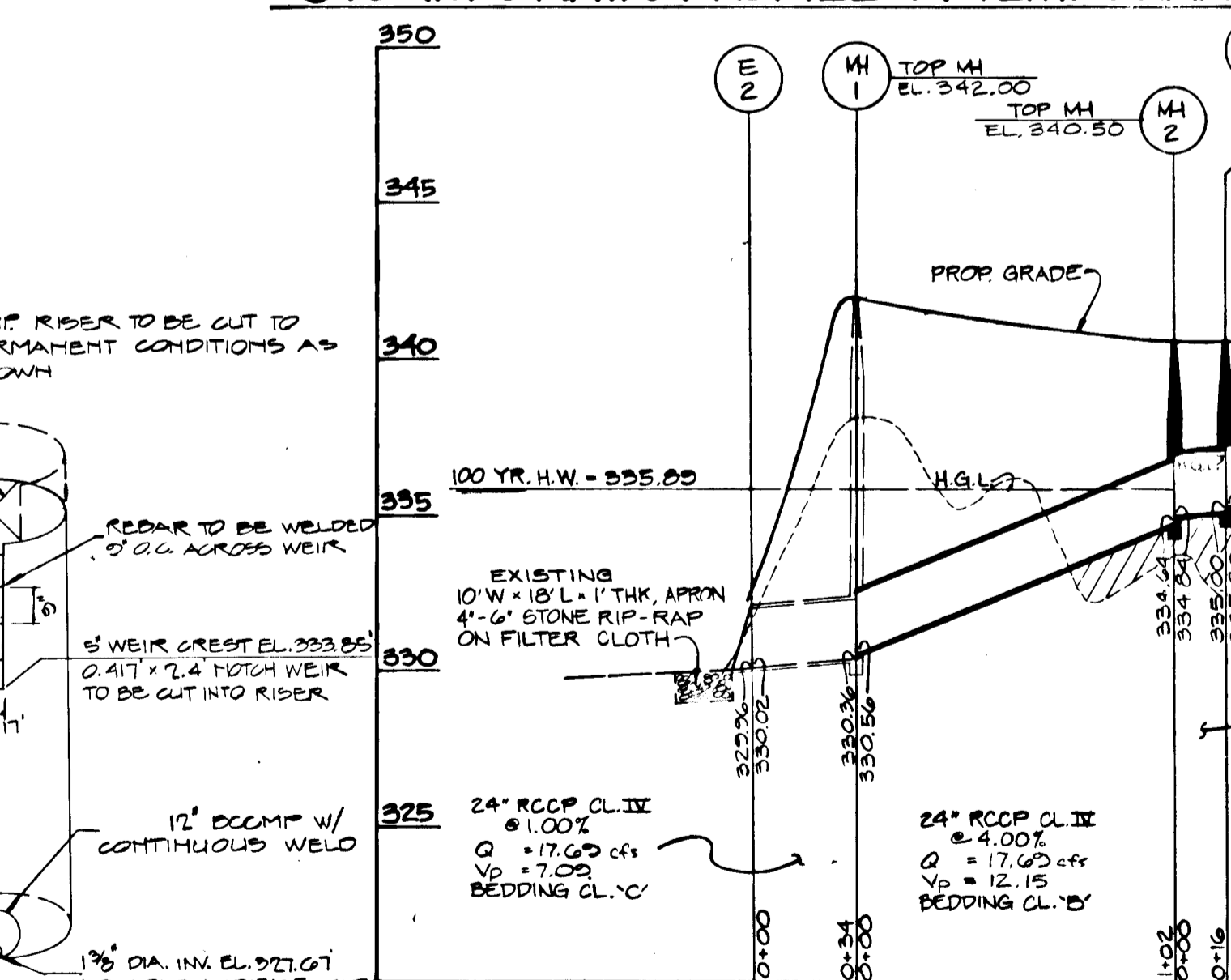
TYPICAL CROSS-SECTION OF DAM #1 PROFILE ALONG PRINCIPLE SPILLWAY-PERM. S.W.M.



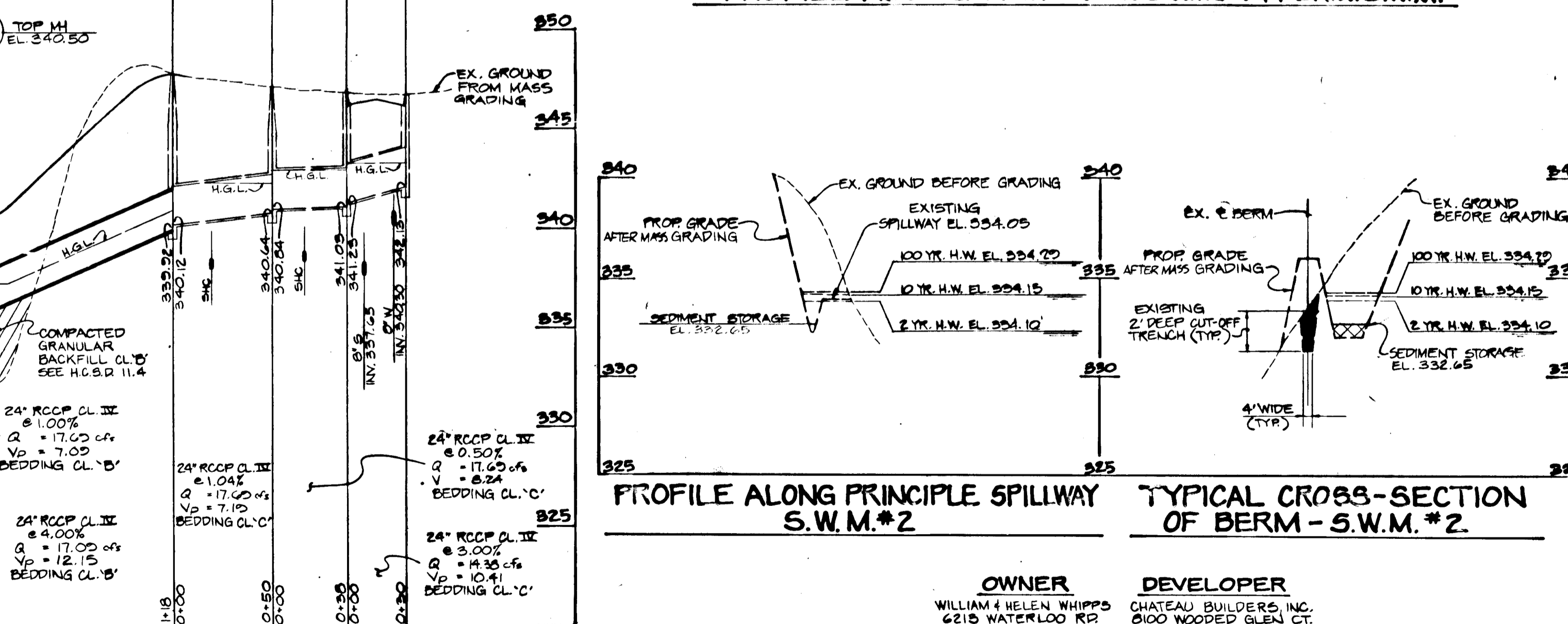
STORM DRAIN PROFILE-A TEMPORARY



PROFILE ALONG DAM-TEMP. S.W.M.#1 & PERM. S.W.M. PROFILE ALONG PRINCIPLE SPILLWAY S.W.M.#2

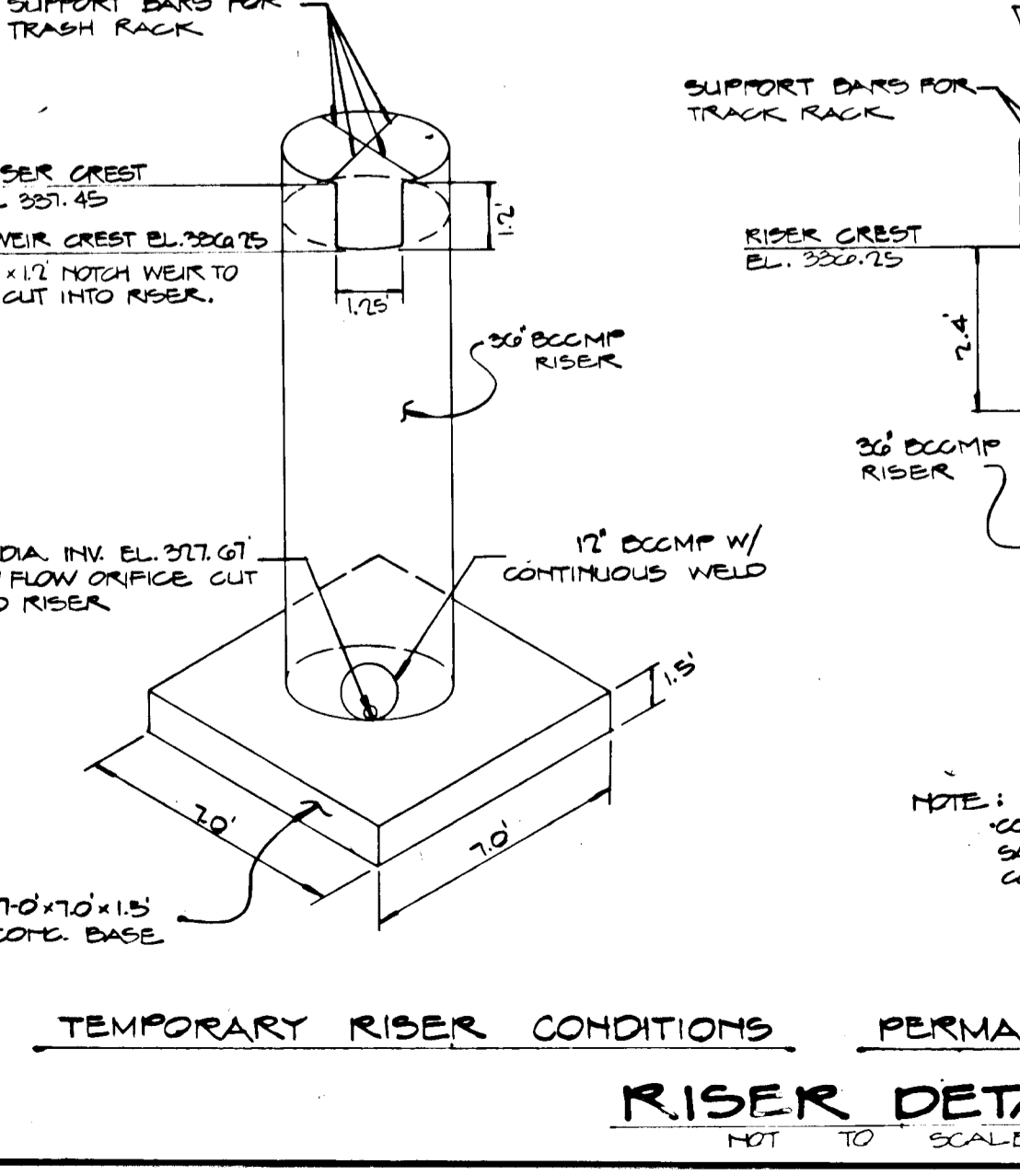


STORM DRAIN PROFILE-B PERMANENT



TYPICAL CROSS-SECTION OF BERM-S.W.M.#2

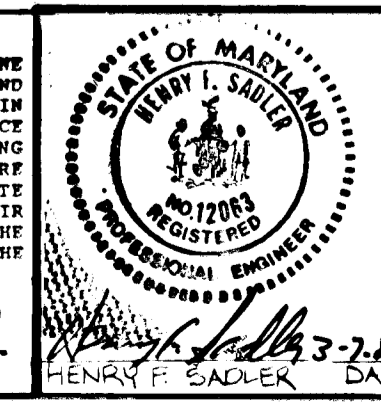
REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
James M. Helm 3/2/89
DATE: 3/2/89
APPROVED: OFFICE OF PLANNING AND ZONING.
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
Chief, Division of Community Planning and Land Development
Chief, Bureau of Highways
Chief, Bureau of Engineering



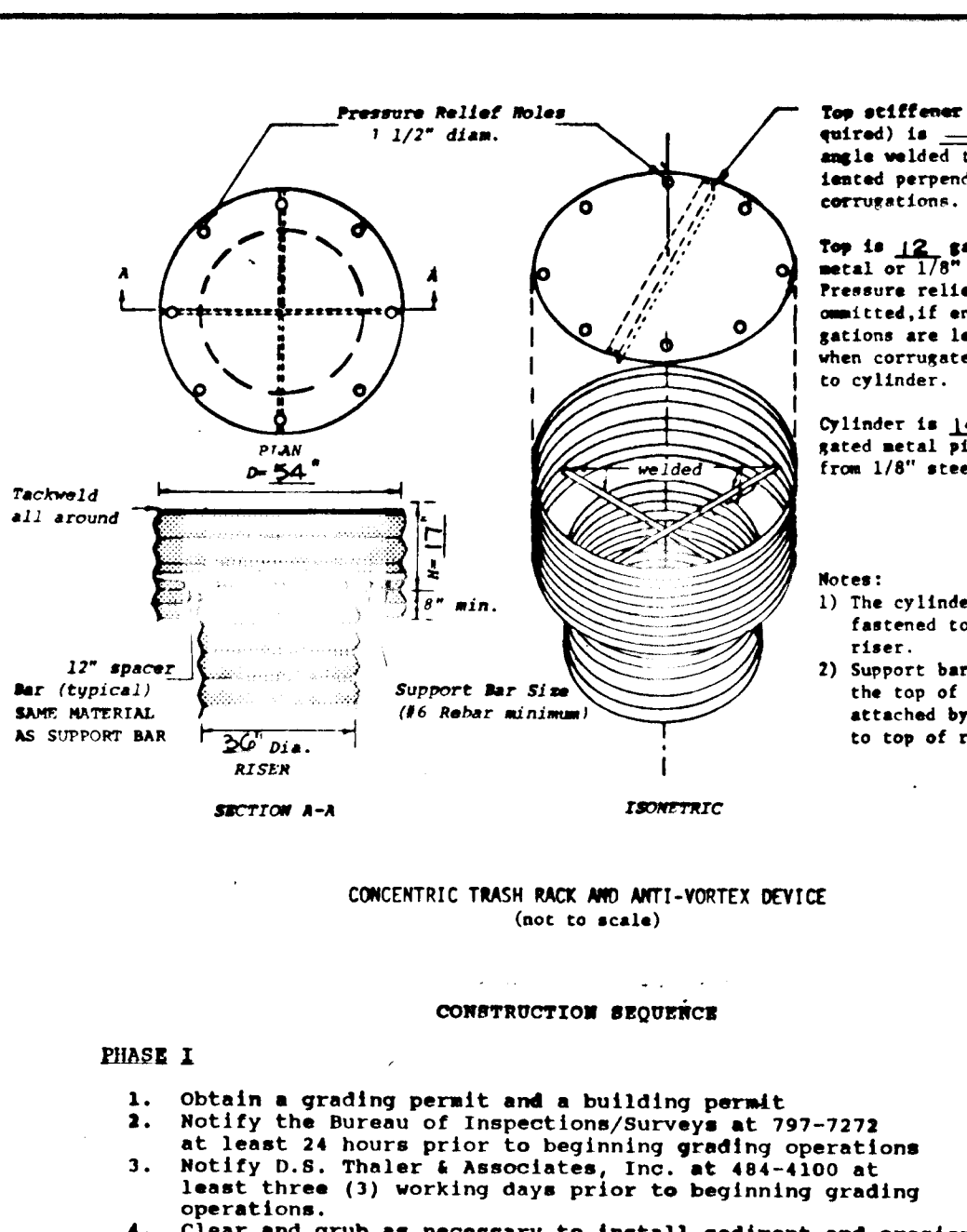
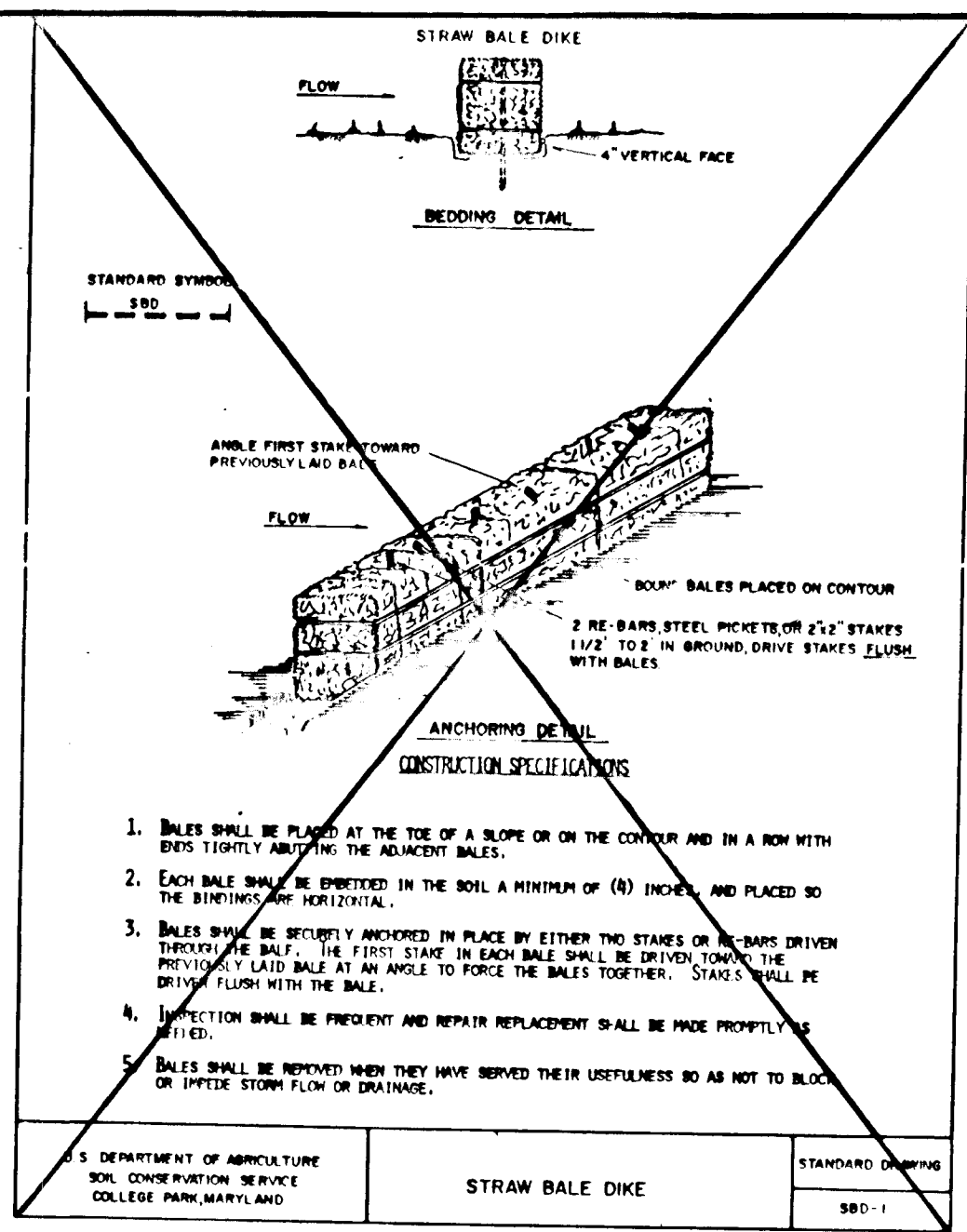
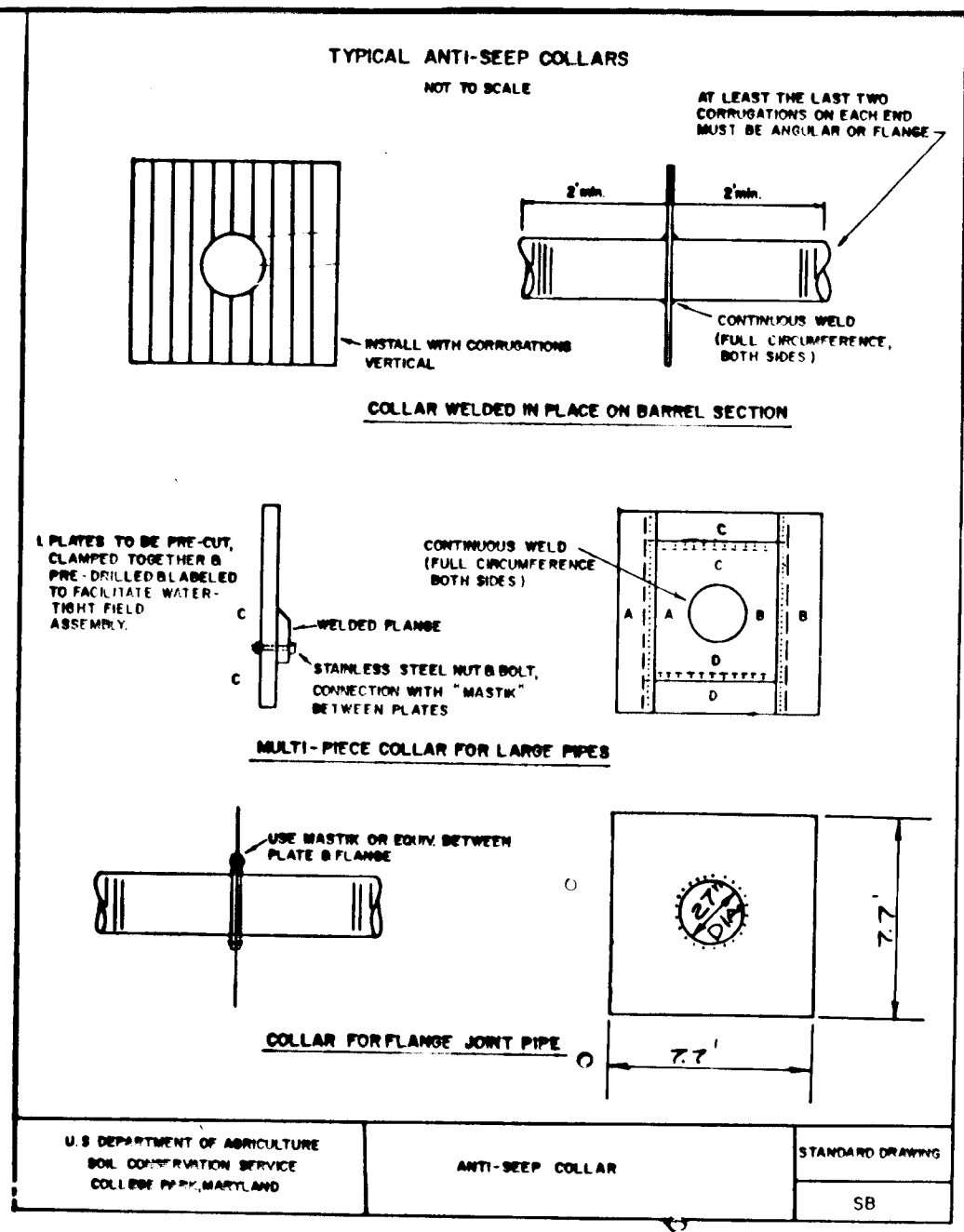
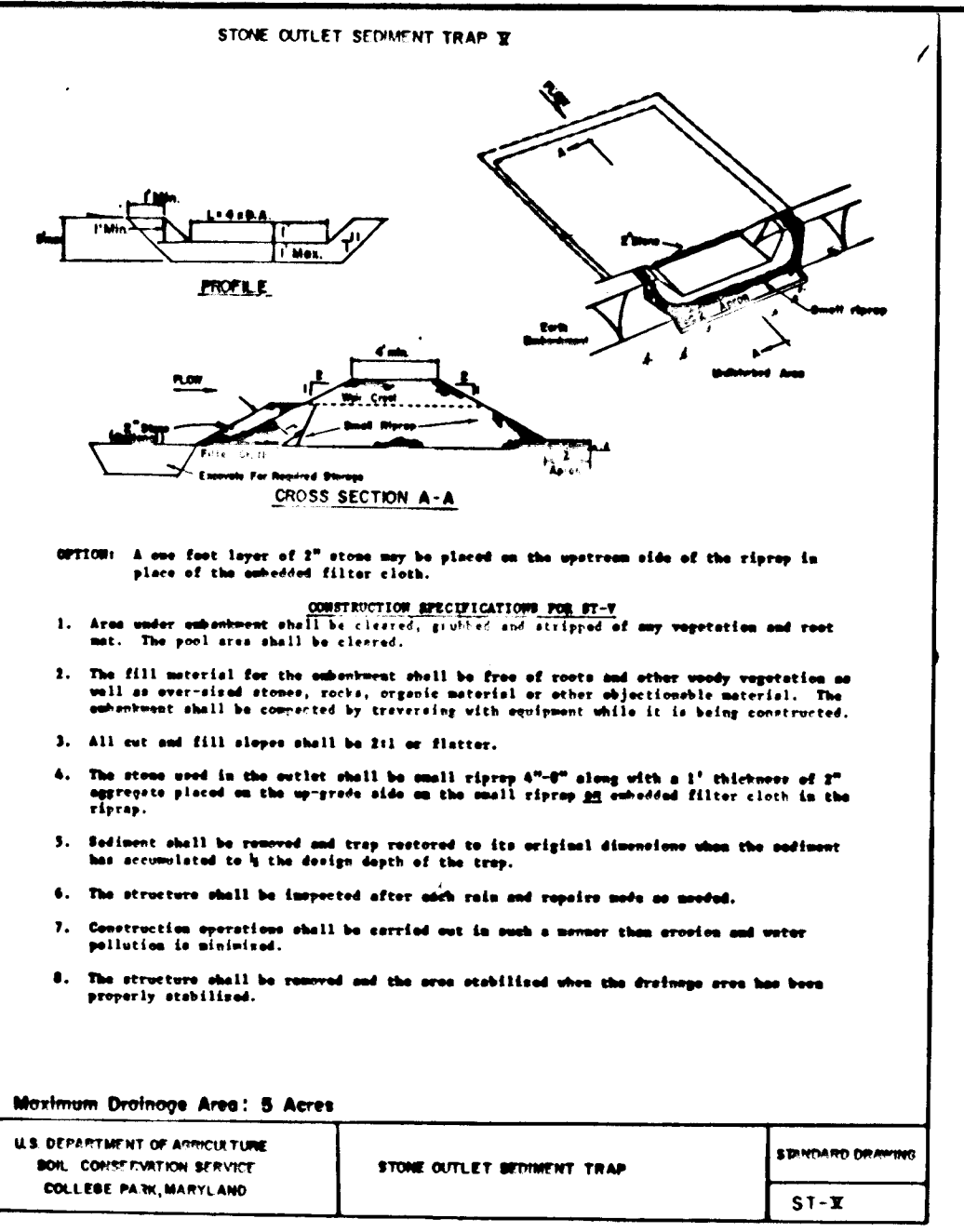
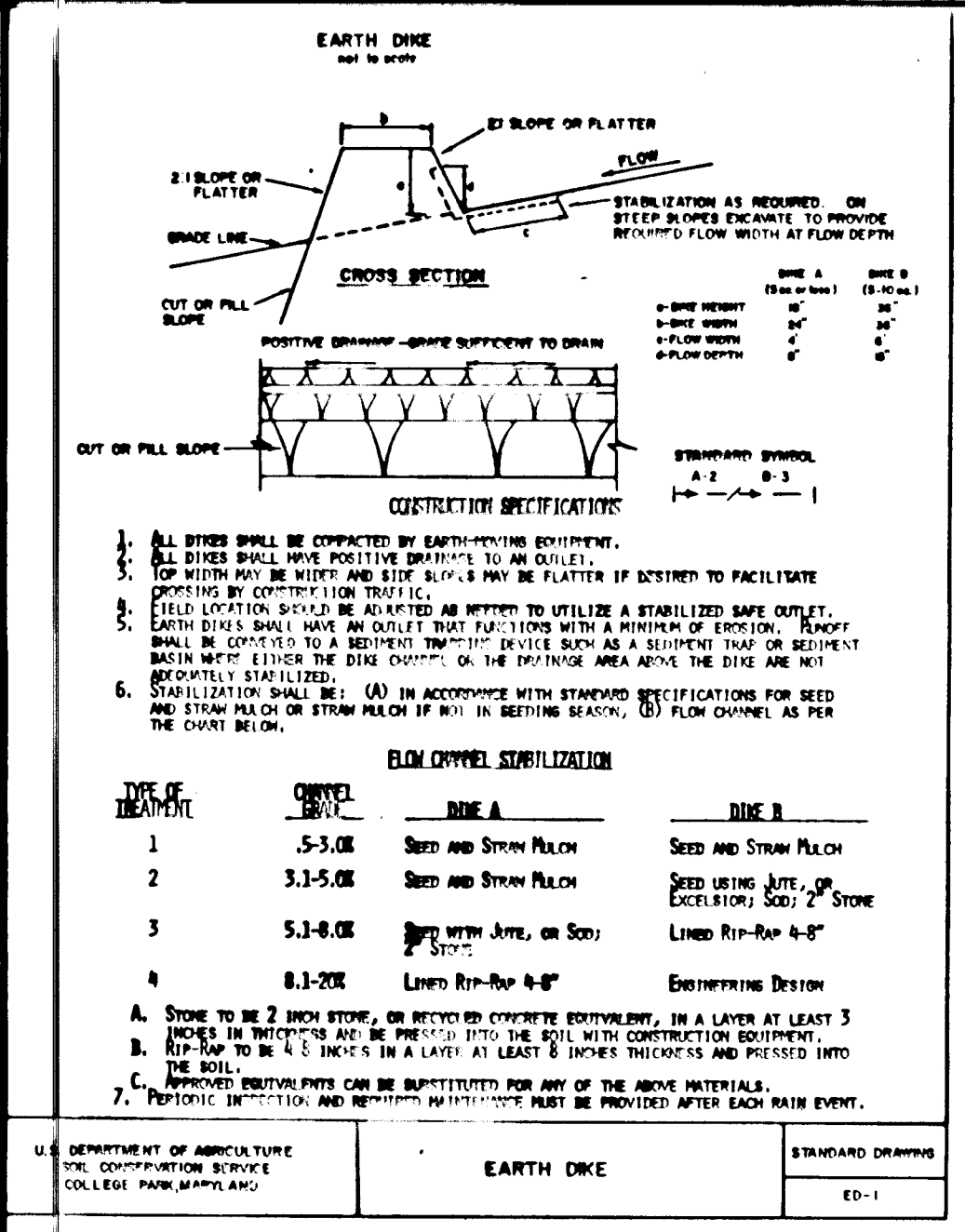
RISER DETAIL NOT TO SCALE

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD 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 30 DAYS OF COMPLETION.
Henry F. Sadler 3-7-89
ENGINEER DATE

DEVELOPER'S CERTIFICATE
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
William H. Whipp 3-7-89
DEVELOPER DATE



PROFILES
WOODCREST SECT. ONE
O.P.&F. FILE NOS.: 3-00-10, P-28-43
TAX MAP: 20, BLOCK: 14, PARCEL: 124125
ELECTION DISTRICT: HOWARD COUNTY, MD.
DES. BY: JLC
DRAWN BY: JLC
CHKD. BY: J.T.N.
DATE: 1/1989
OWNER: WILLIAM & HELEN WHIPPS, 6218 WATERLOO RD, ELLICOTT CITY, MD 21043
DEVELOPER: CHATEAU BUILDERS, INC., 8100 WOODED GLEN CT, ELLICOTT CITY, MD 21043
11 WARREN ROAD, BALTIMORE, MD. 21208
(301) 484-4100
SCALE: 1/8\"/>



**SEEDING CONTROL NOTES**

1. 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.
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. Following initial soil disturbance or redistribution, within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days for all other disturbed or graded areas on the project site.
4. All seedling trays/bins shall be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, EROSION CONTROL.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MANAGEMENT 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.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis:
  - Total Area of Site: 12.32 Acres
  - Area to be roofed or paved: 0.00 Acres
  - Area to be vegetatively covered: 12.32 Acres
  - Total C.U.: 12.32 C.U. Yds.
  - Total Fill: 0.00 C.U. Yds.
  - Offsite waste/borrow location: 0.00
8. Any disturbed control practices which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control Inspector.
10. 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 disturbances or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

**APPROPRIATE SPECIFIC NOTES**

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

**Grading Preparation:** Loosen upper three inches of soil by using disc, or other acceptable means before seeding if not previously loosened.

**Soil Amendment:** In lieu of soil test recommendations, use one of the following:

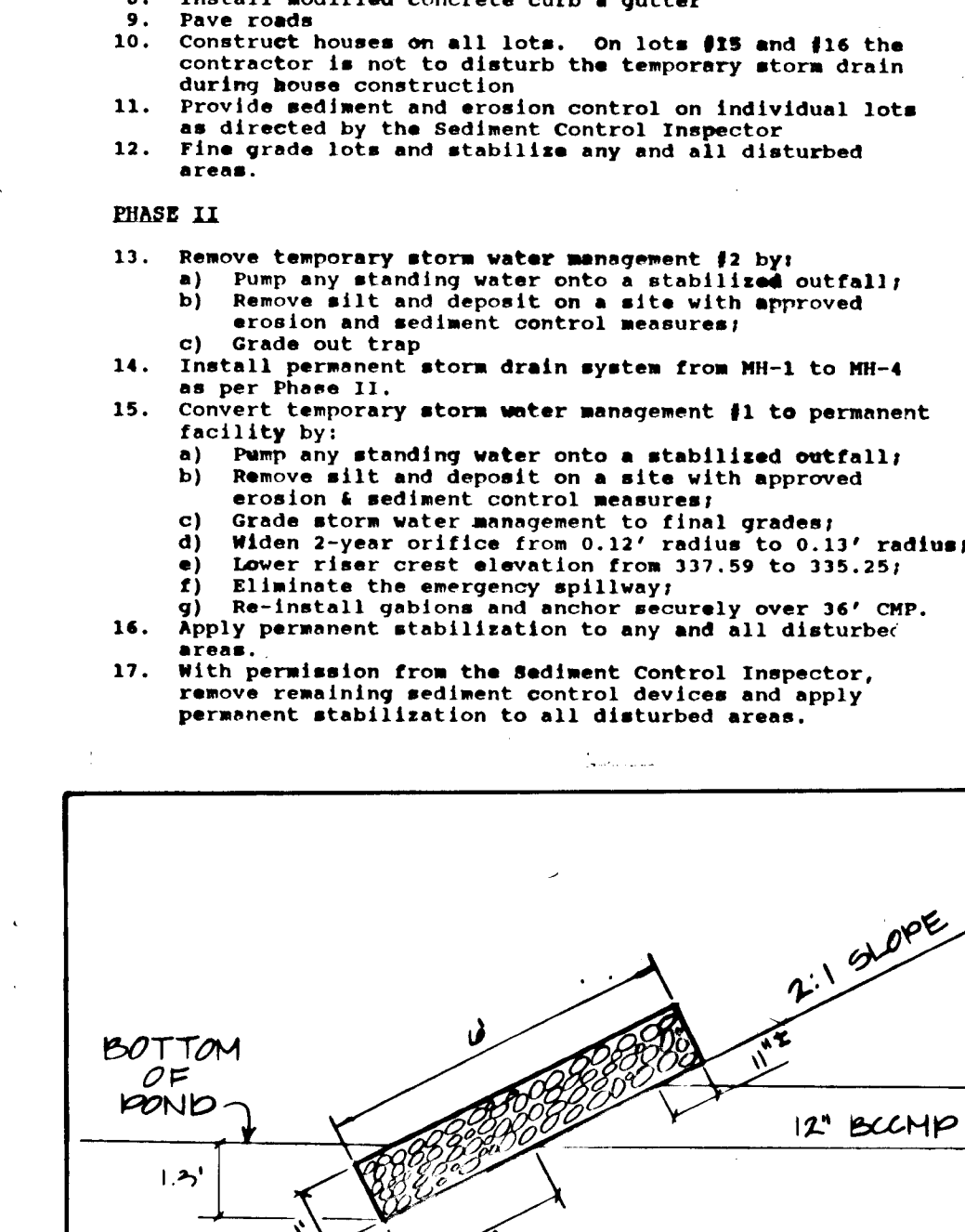
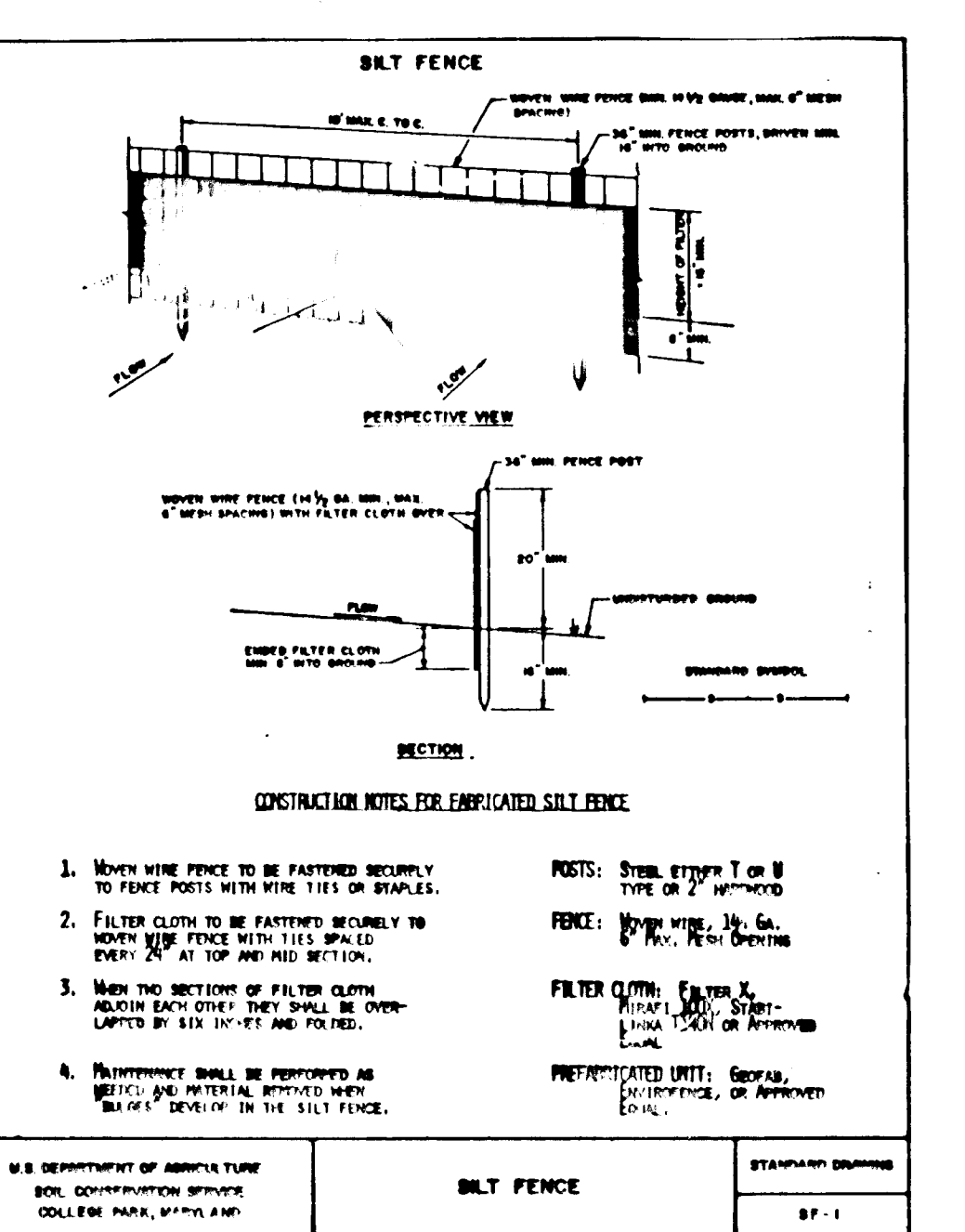
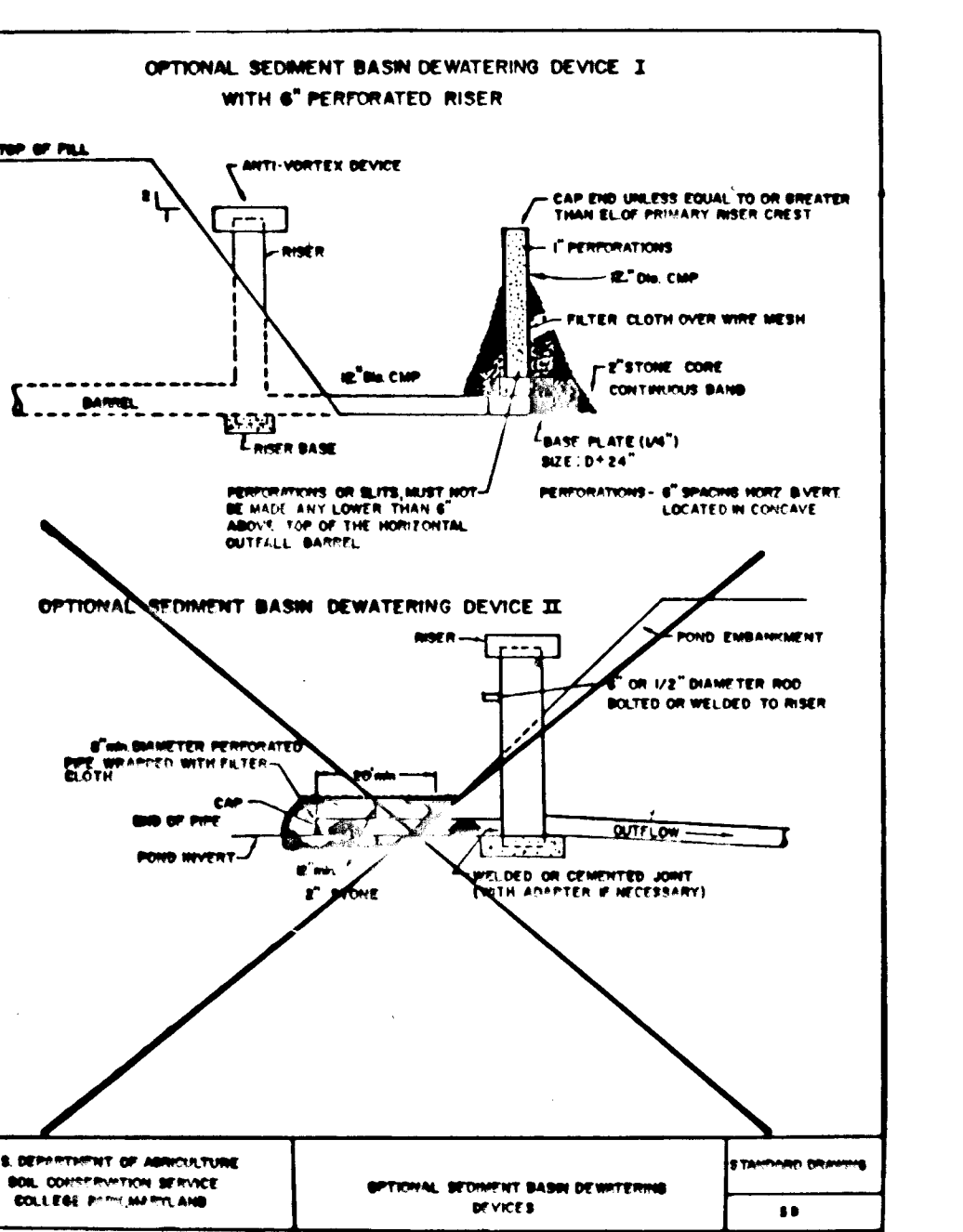
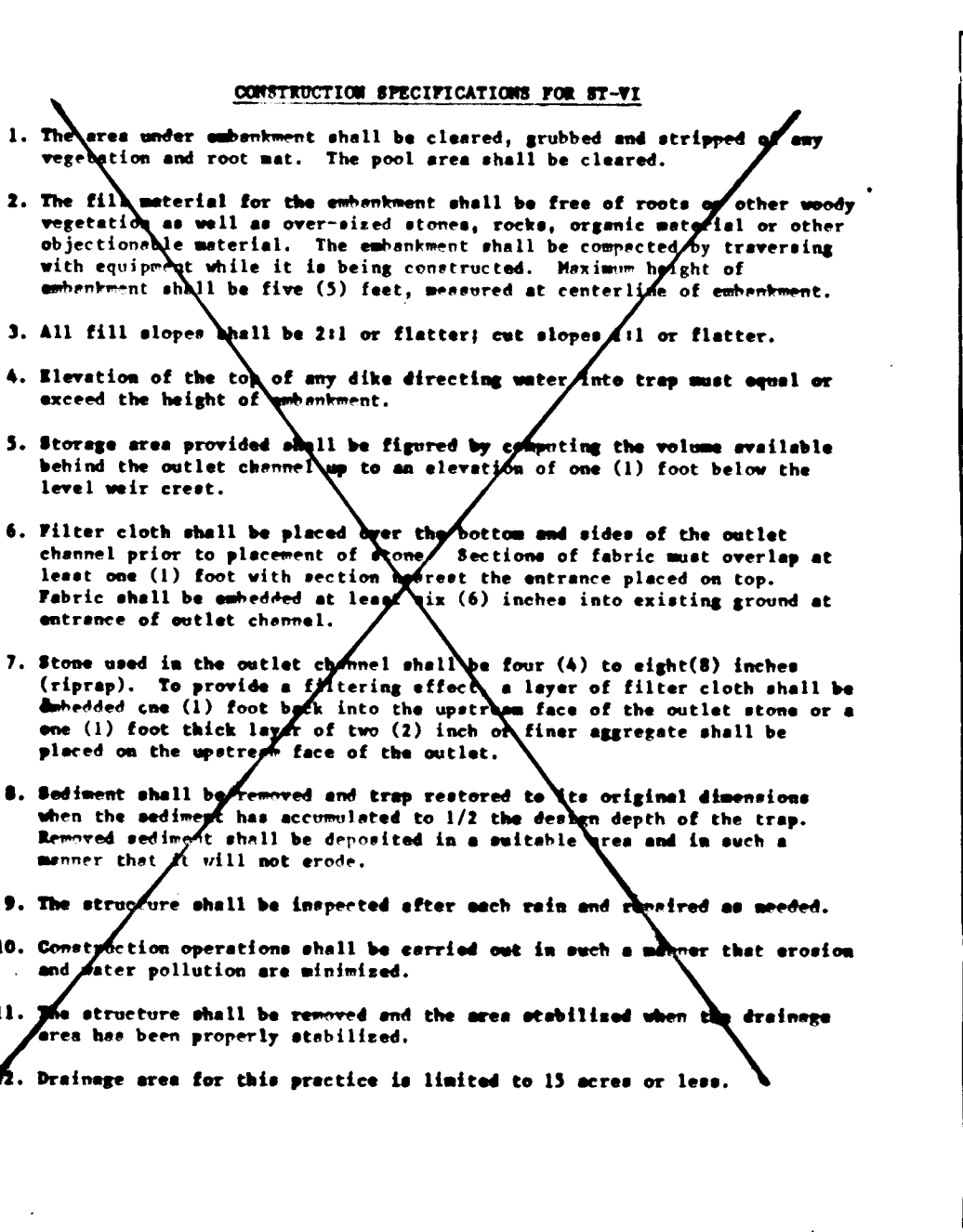
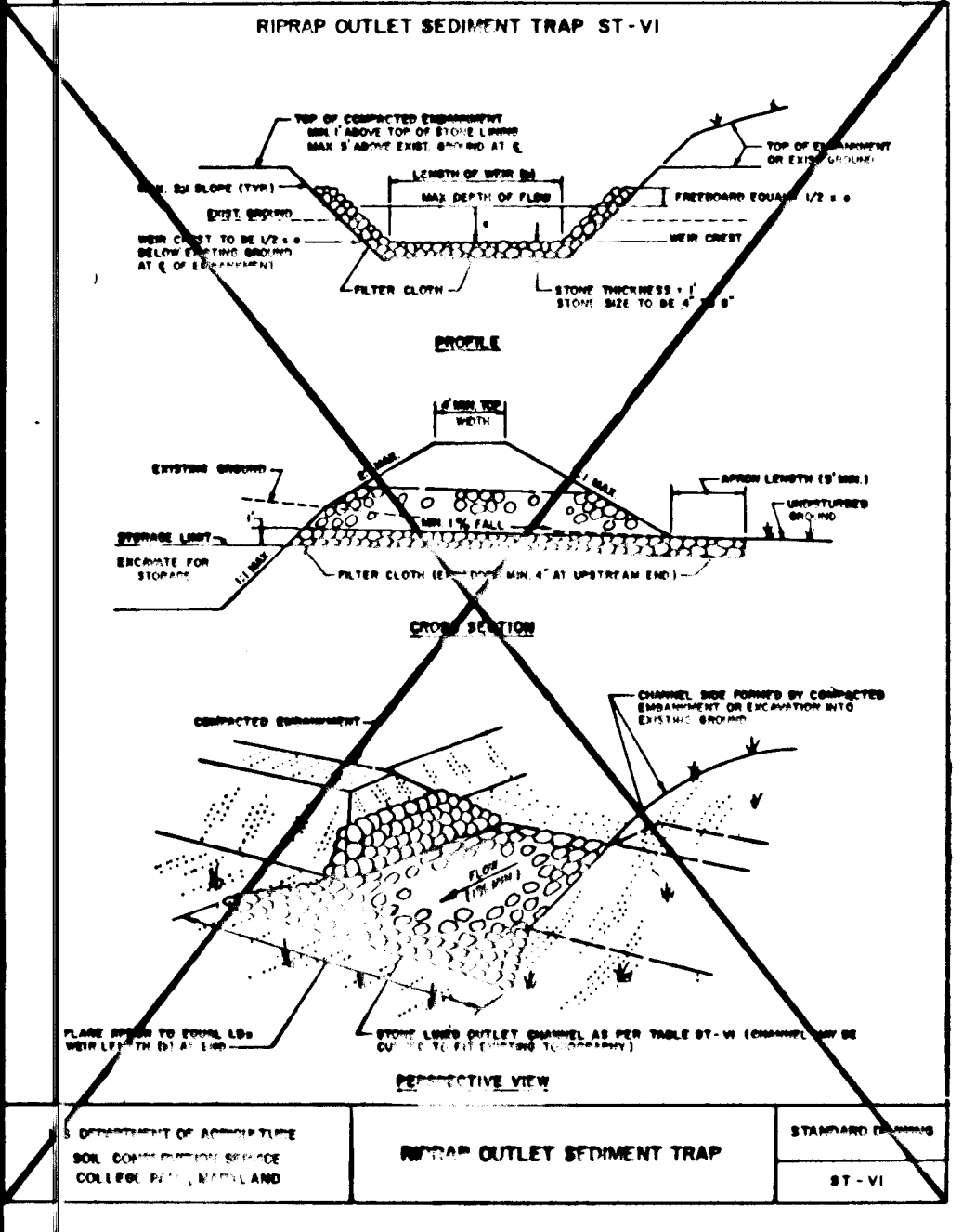
1. Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Narrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaformaldehyde fertilizer (13 lbs/1000 sq. ft.) before seeding. Narrow or disc into upper three inches of soil.
2. Acceptable - Apply 3 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs per acre 10-10-10 fertilizer (13 lbs/1000 sq. ft.) before seeding. Narrow or disc 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 3 lbs per acre (.08 lbs/1000 sq. ft.) of seeding lovegrass. During the period of October 16 through February 28, protect site by: Option (1) 2 tons per acre of well anchored straw and seed as soon as possible in the Spring. Option (2) Uss sod. Option (3) Seed with 60 lbs/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 2 1/2 gallon per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 348 gallon per acre (8 gal/1000 sq. ft.) for anchoring.

**Maintenance:** Inspect all seeded areas and make needed repairs, replacements and reseedings.

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



**OWNER / DEVELOPER**  
WILLIAM & HELEN WHIPPS  
6213 WATERLOO ROAD  
ELLCOTT CITY, MD. 21043

**CHATEAU BUILDERS, INC.**  
8100 WOODDLE GLEN CT.  
ELLCOTT CITY, MD 21043

**DETAILS**  
PROJECT: WOODCREST SECT ONE  
O.P.#2, FILE NOS. S-88-10, P-88-43, GP-88-68  
TAX MAP 37, BLOCK 14, PARCEL 124-125  
FIRST ELECTION DISTRICT: HOWARD COUNTY, MD.  
DES. BY: J.T.N. LRC  
DRAWN BY: J.T.N.  
CHKD. BY: J.T.N.  
DATE: JAN. 1989

**11 WARREN ROAD**  
BALTIMORE, MD. 21208  
13011 484-4100  
SCALE: AS NOTED SHEET 6 OF 7

**F-87-14**

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

*John M. Hill* 3/24/89  
Soil Conservation District

DEVELOPMENT IS APPROVED FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Stephen L. Shuler* 3/20/89  
Soil Conservation District

APPROVED: OFFICE OF PLANNING AND ZONING.

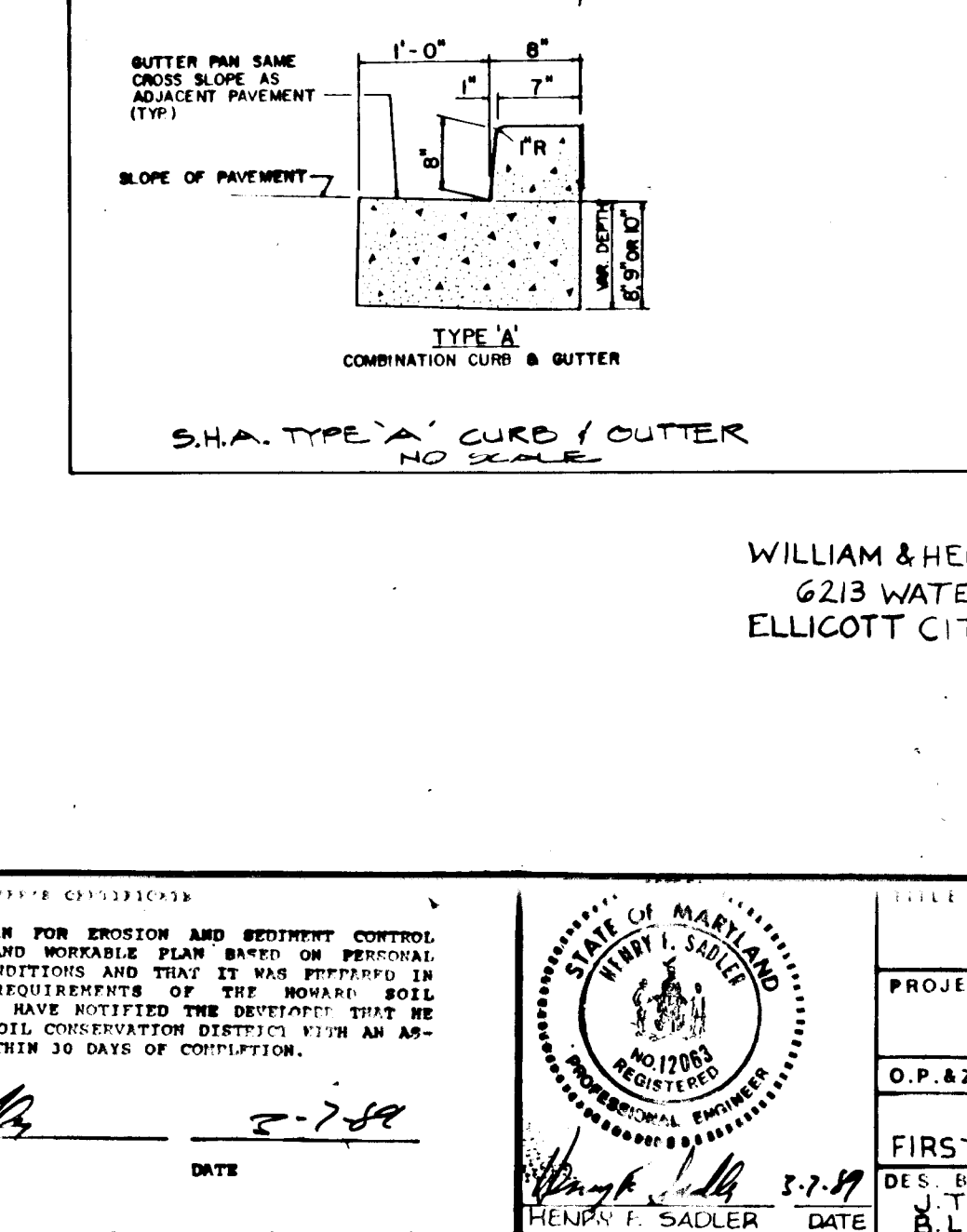
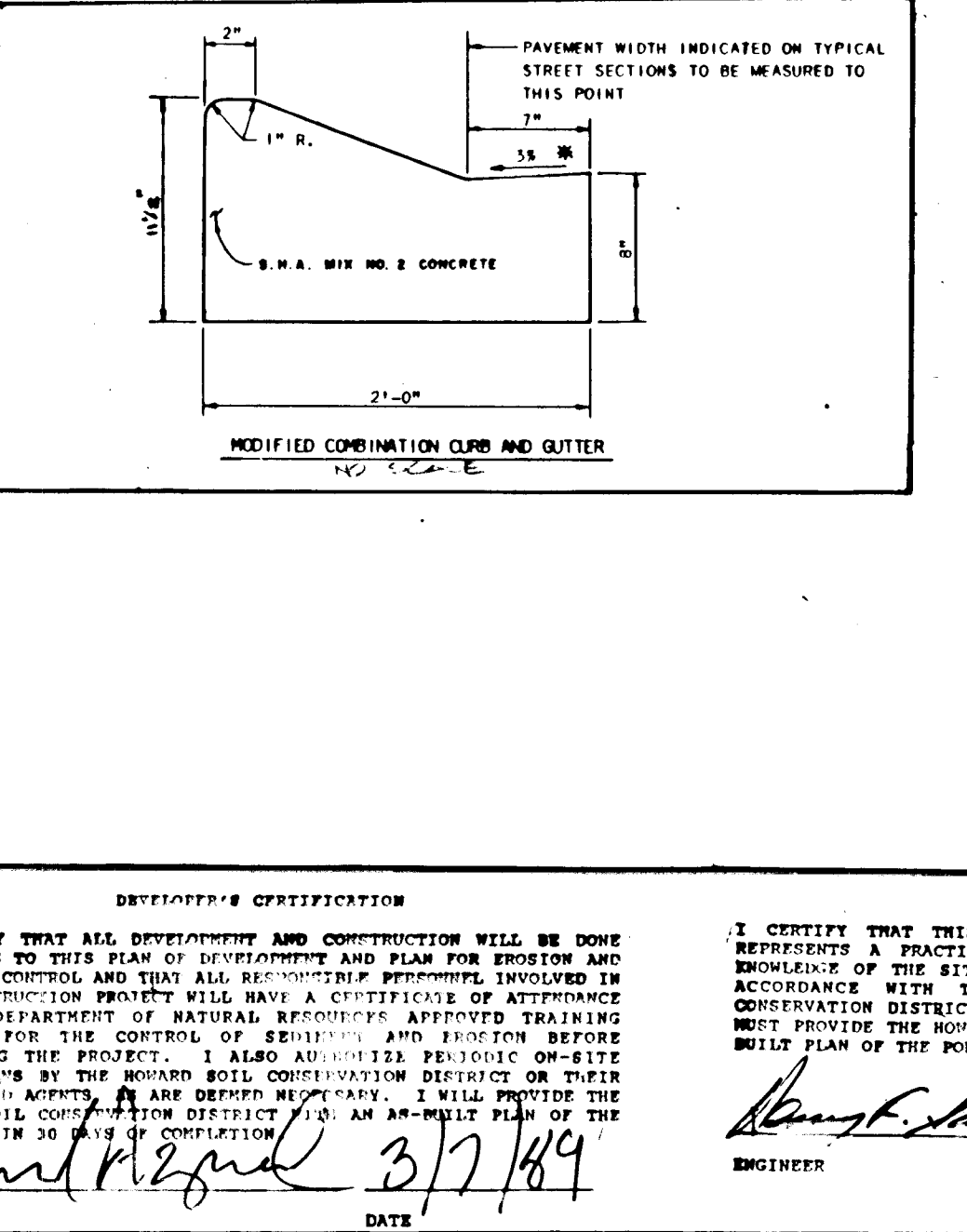
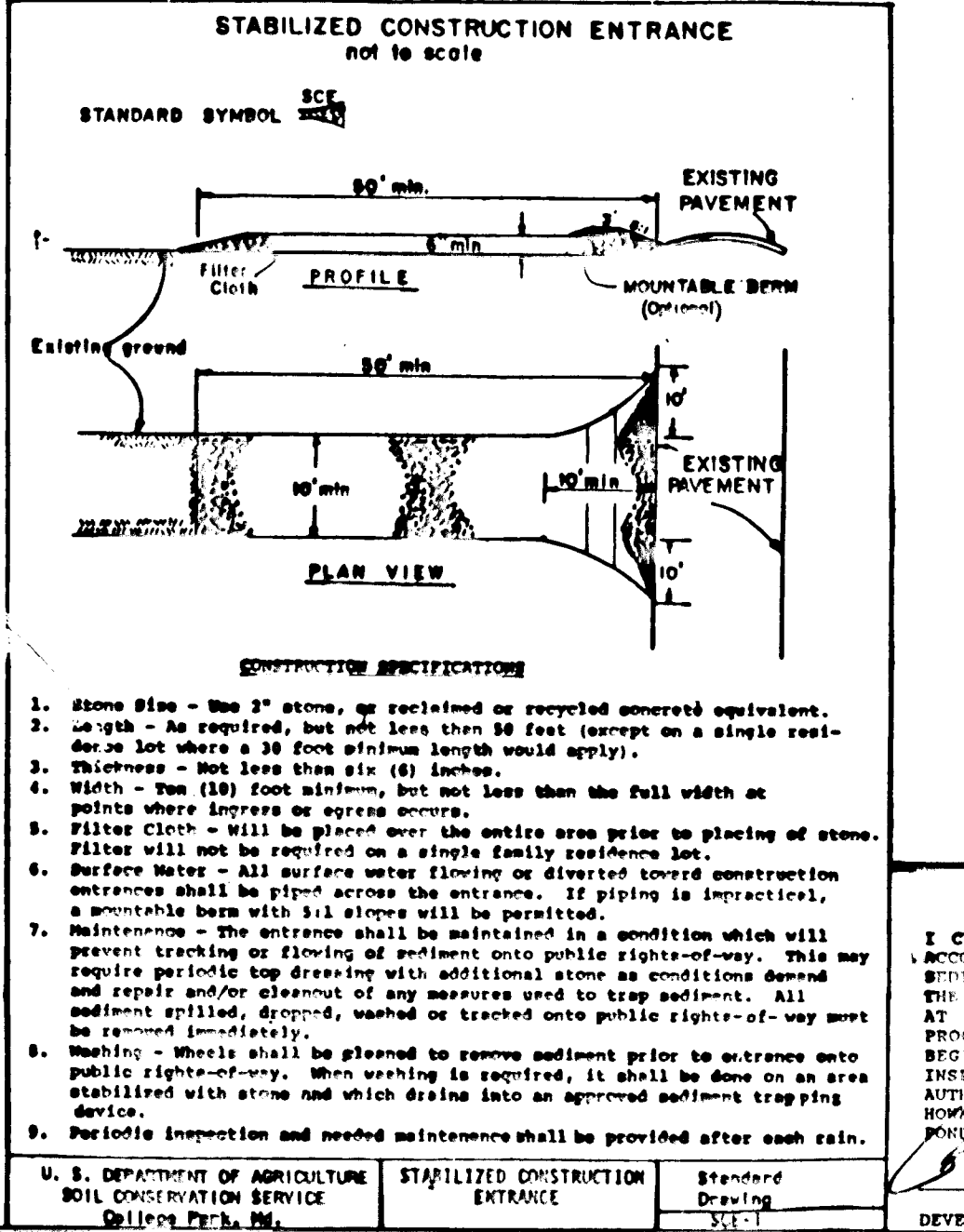
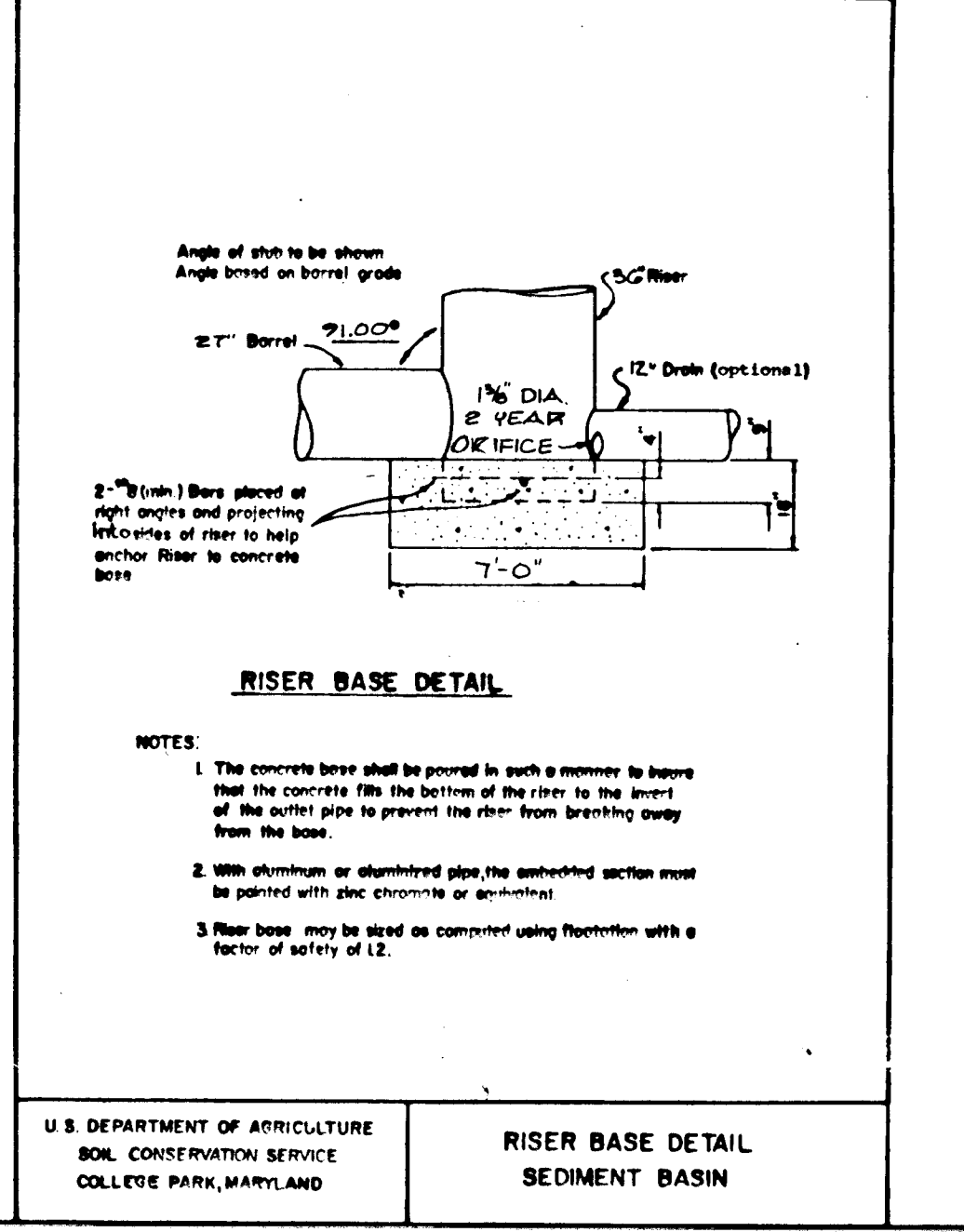
*Frank V. Young* 4/1/89  
Chief, Division of Community Planning and Land Development

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*Robert M. Moran* 4/12/89  
Chief, Land Development

*William W. Howard* 4/11/89  
Chief, Bureau of Highways

*William E. Kelly* 4/13/89  
Chief, Bureau of Engineering



**STATE OF MARYLAND**  
DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

**DEVELOPER'S CERTIFICATION**

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL. I HAVE BEEN ADVISED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS THAT THIS PLAN IS IN CONFORMANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DISTRICT THAT I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN ANNUAL PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*William W. Howard* 3/27/89  
DEVELOPER

*Robert M. Moran* 4/12/89  
ENGINEER

DATE: 4-7-89

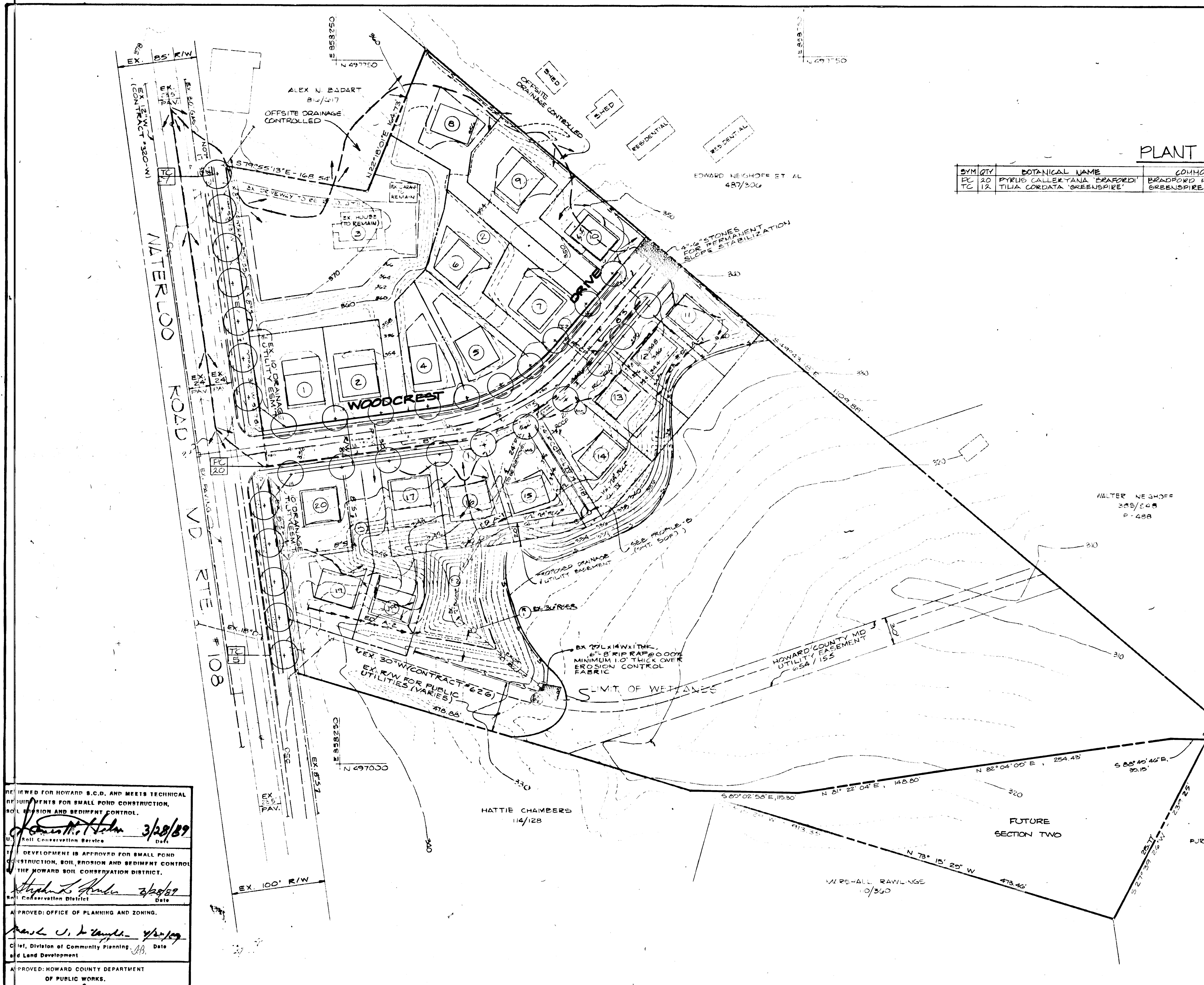
**STATE OF MARYLAND**  
DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

**ENGINEER'S CERTIFICATION**

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DISTRICT THAT I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN ANNUAL PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

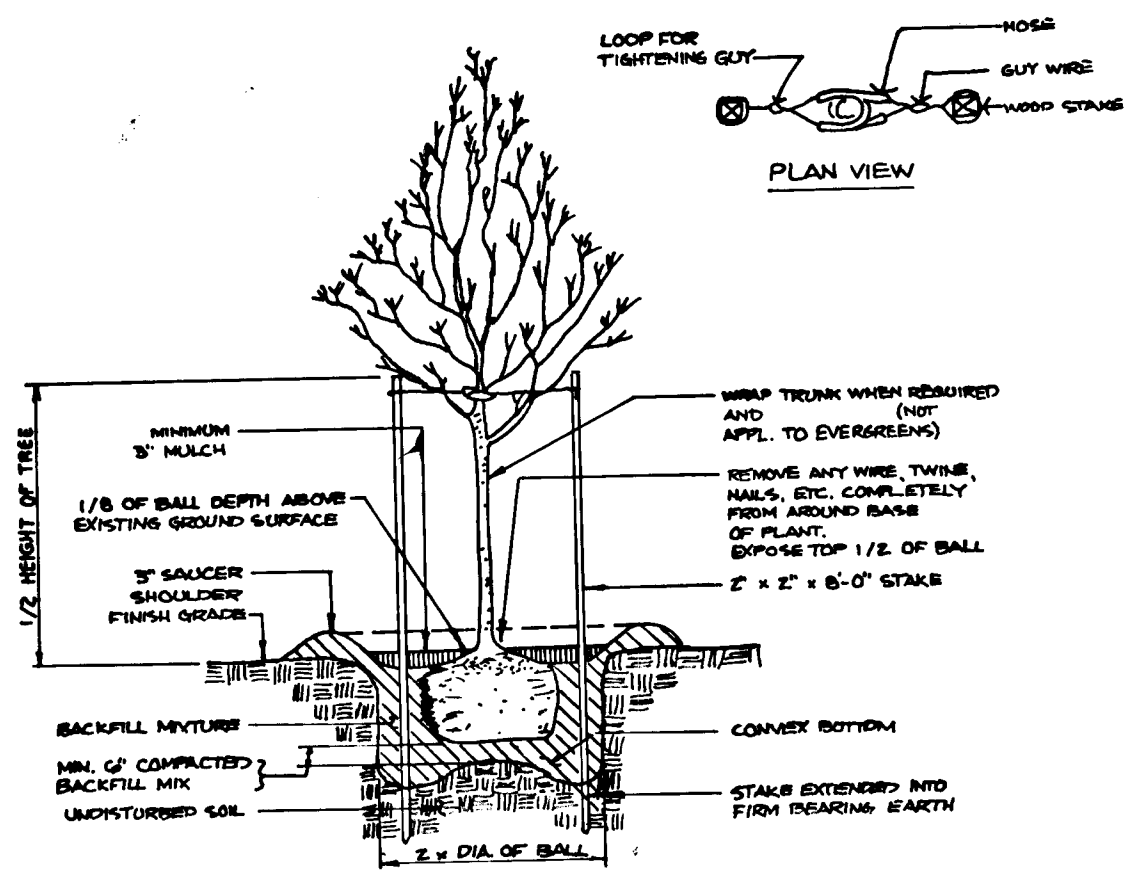
*Robert M. Moran* 4/12/89  
ENGINEER

DATE: 4-7-89



**PLANT LIST**

SYM	QTY	BOTANICAL NAME	COMMON NAME	TYPE	SIZE	SPACING	COMMENTS
PC	20	PYRUS CALLERYANA 'BRADFORD'	BRADFORD PEAR		2 1/2" CAL.	AS SHOWN	6' BRANCHING HGT.
TC	12	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN		"	"	"



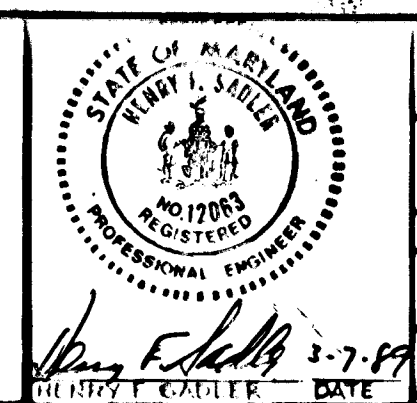
PLANTING DETAIL FOR TREES LESS THAN 2 1/2" CALIFER NO SCALE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.  
*James H. Hahn* 3/28/89  
 Soil Conservation Service  
 DEVELOPMENT IS APPROVED FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Stephen S. Hahn* 3/28/89  
 Soil Conservation District  
 APPROVED: OFFICE OF PLANNING AND ZONING.  
*Charles J. Campbell* 4/2/89  
 Chief, Division of Community Planning and Land Development  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Paul L. Ripan* 4/16/89  
 Chief, Land Development Div.  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*William W. Chelmsford* 4/16/89  
 Chief, Bureau of Highways  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*William W. Chelmsford* 4-3-89  
 Chief, Bureau of Engineering

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DEVELOPER'S CERTIFICATION  
 I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS DEEMED NECESSARY. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.  
*James H. Hahn* 3/17/89  
 DEVELOPER DATE

ENGINEER'S CERTIFICATE  
 I CERTIFY THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD 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 30 DAYS OF COMPLETION.  
*James F. Hahn* 3-7-89  
 ENGINEER DATE



TITLE: LANDSCAPE PLAN  
 PROJECT: WOODCREST SECT. ONE  
 O.P. & Z. FILE NOS.: 6-68-10 P-20-25 60-88-68  
 TAX MAP 22, BLOCK 18, PARCEL 127-133  
 1ST ELECTION DISTRICT, HOWARD COUNTY, MD.  
 DES. BY: MDE  
 DRAWN BY: MDE  
 CHECKED BY: JTN  
 DATE: JAN. 1989

OWNER / DEVELOPER  
 WILLIAM / HELEN WHIPPS 8100 WOODD GLEN CT. ELLICOTT CITY, MD. 21043  
 CHATEAU BUILDERS, INC. 8100 WOODD GLEN CT. ELLICOTT CITY, MD. 21043 (301) 799-5001

11 WARREN ROAD BALTIMORE, MD 21208 (301) 484-4100  
 SCALE: 1" = 50'  
 SHEET 7 OF 7