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NOTE BOOK NO.

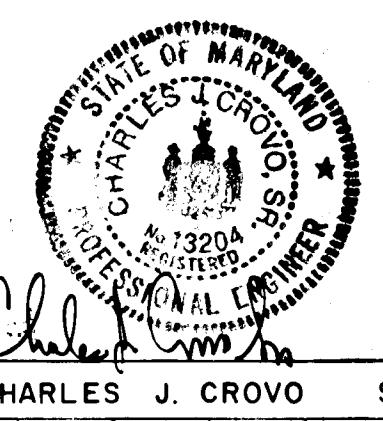
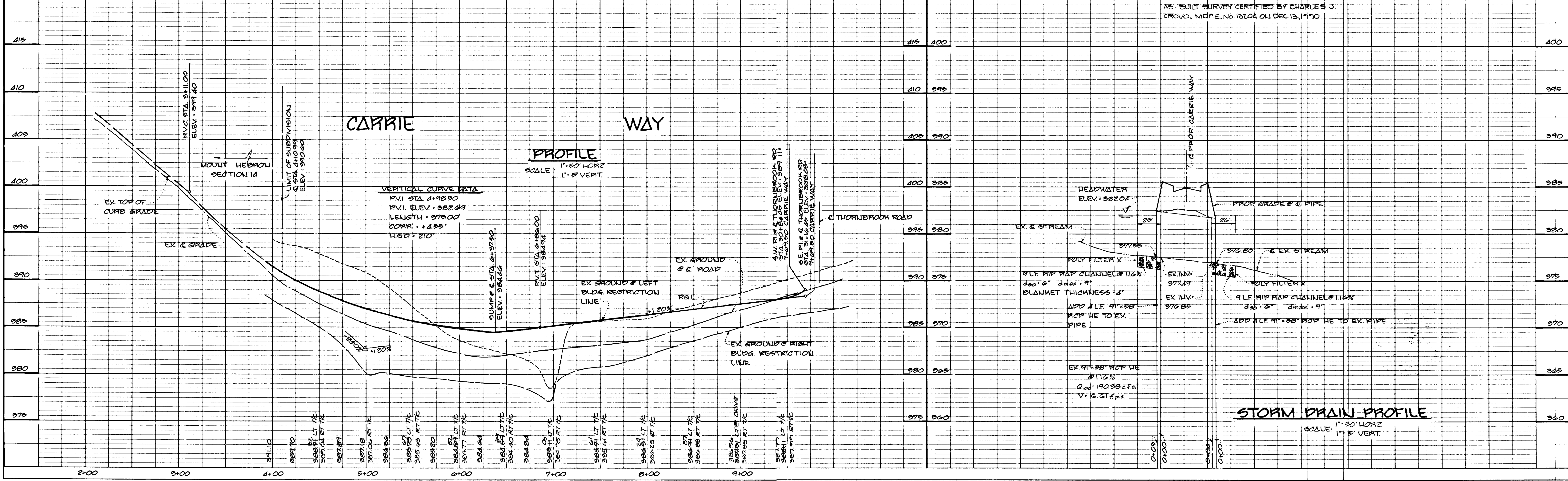
DATE  
BY  
SURVEYED  
GRADES CHECKED  
PLOTTED  
STRUCTURE NOTATIONS CHECKED  
NOTE BOOK NO.

APPROVED  
DEPARTMENT OF PUBLIC WORKS  
*Donald W. Johnson* 3/29/88  
CHIEF, LAND DEVELOPMENT DIVISION  
DATE

*Granville W. Williams* 3-29-88  
CHIEF, BUREAU OF HIGHWAYS  
DATE

*W. S. ...* 3-29-88  
CHIEF, BUREAU OF ENGINEERING  
DATE

APPROVED  
OFFICE OF PLANNING AND ZONING  
*Harshie J. ...* 9-1-88  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
DATE



MT. HEBRON SECTION 19  
LOTS 1-53  
2ND. ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
**CARRIE WAY**  
PLAN & PROFILE  
OWNER AND DEVELOPER  
FORTY WEST BUILDERS, INC.  
1007 LESLIE AVENUE  
CATONSVILLE, MARYLAND 21228  
SCALEAS SHOWN DATE MAR 31, 1988 DWG. NO. 3 OF 9  
DES. D. VANDE RYT DAN C. BAUER CHK. C. CROVO  
FISHER, COLLINS AND CARTER, INC.  
CIVIL ENGINEERS AND LAND SURVEYORS  
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

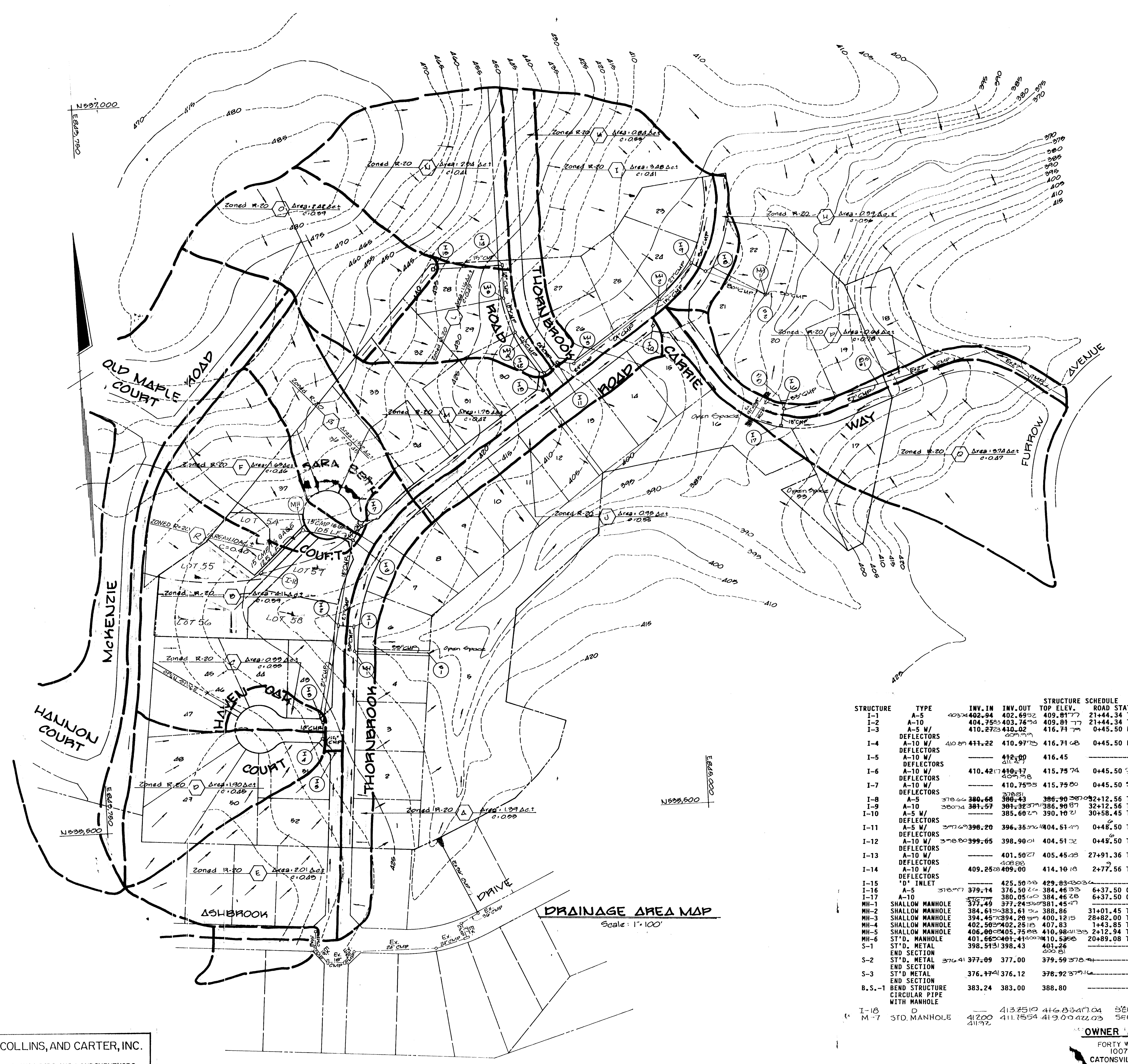


APPROVED  
DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 3/21/00  
CHIEF, LAND DEVELOPMENT DIVISION DATE

APPROVED  
DEPARTMENT OF PUBLIC WORKS  
*[Signature]*  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED  
DEPARTMENT OF PUBLIC WORKS  
*[Signature]*  
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED  
OFFICE OF PLANNING AND ZONING  
*[Signature]* 3-1-00  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



STRUCTURE	TYPE	INV. IN	INV. OUT	TOP ELEV.	ROAD STATION	REMARKS
I-1	A-5	403.74	402.94	409.81	21+44.34 THORNBROOK ROAD	S.D. 4.01
I-2	A-10	404.75	403.76	409.81	21+44.34 THORNBROOK ROAD	S.D. 4.02
I-3	A-5 W/ DEFLECTORS	410.27	410.02	416.71	0+45.50 HAVEN OAK COURT	S.D. 4.01 & 4.83
I-4	A-10 W/ DEFLECTORS	410.87	411.22	416.71	0+45.50 HAVEN OAK COURT	S.D. 4.02 & 4.83
I-5	A-10 W/ DEFLECTORS	---	---	416.45	---	S.D. 4.02 & 4.83
I-6	A-10 W/ DEFLECTORS	410.42	410.17	415.75	0+45.50 SARA BETH COURT	S.D. 4.02 & 4.83
I-7	A-10 W/ DEFLECTORS	---	---	415.75	0+45.50 SARA BETH COURT	S.D. 4.02 & 4.83
I-8	A-5	378.66	380.68	386.90	32+12.56 THORNBROOK ROAD	S.D. 4.01
I-9	A-10	380.74	381.57	386.90	32+12.56 THORNBROOK ROAD	S.D. 4.02
I-10	A-5 W/ DEFLECTORS	378.66	385.60	390.10	30+58.45 THORNBROOK ROAD	S.D. 4.01 & 4.83
I-11	A-5 W/ DEFLECTORS	378.66	396.20	404.51	0+45.50 THORNBROOK ROAD	S.D. 4.01 & 4.83
I-12	A-10 W/ DEFLECTORS	378.66	399.65	398.98	0+45.50 THORNBROOK ROAD	S.D. 4.02 & 4.83
I-13	A-10 W/ DEFLECTORS	---	---	405.45	27+91.36 THORNBROOK ROAD	S.D. 4.02 & 4.83
I-14	A-10 W/ DEFLECTORS	409.25	409.00	414.10	2+77.56 THORNBROOK ROAD	S.D. 4.02 & 4.83
I-15	10" INLET	---	---	425.50	---	S.D. 4.11
I-16	A-5	379.14	376.50	384.46	6+37.50 CARRY WAY	S.D. 4.01
I-17	A-10	---	---	380.05	6+37.50 CARRY WAY	S.D. 4.02
MH-1	SHALLOW MANHOLE	377.49	---	377.24	---	G. 5.05
MH-2	SHALLOW MANHOLE	384.61	---	383.61	31+01.45 THORNBROOK ROAD	G. 5.05
MH-3	SHALLOW MANHOLE	394.45	---	394.20	28+82.00 THORNBROOK ROAD	G. 5.05
MH-4	SHALLOW MANHOLE	402.50	---	402.25	1+43.85 THORNBROOK ROAD	G. 5.05
MH-5	SHALLOW MANHOLE	406.00	---	405.75	2+12.94 THORNBROOK ROAD	G. 5.05
MH-6	ST'D. MANHOLE	401.66	---	401.41	20+89.08 THORNBROOK ROAD	G. 5.02
S-1	ST'D. METAL END SECTION	398.51	---	398.43	---	S.D. 5.61
S-2	ST'D. METAL END SECTION	376.41	---	377.09	---	S.D. 5.61
S-3	ST'D. METAL END SECTION	376.47	---	376.12	---	S.D. 5.61
B.S.-1	BEND STRUCTURE CIRCULAR PIPE WITH MANHOLE	383.24	---	383.00	---	S.D. 1.01
I-18	A-5	---	413.25	416.83	SEE PLAN	S.D. 4.39
M-7	ST'D. MANHOLE	411.72	---	411.75	SEE PLAN	G.S.-11

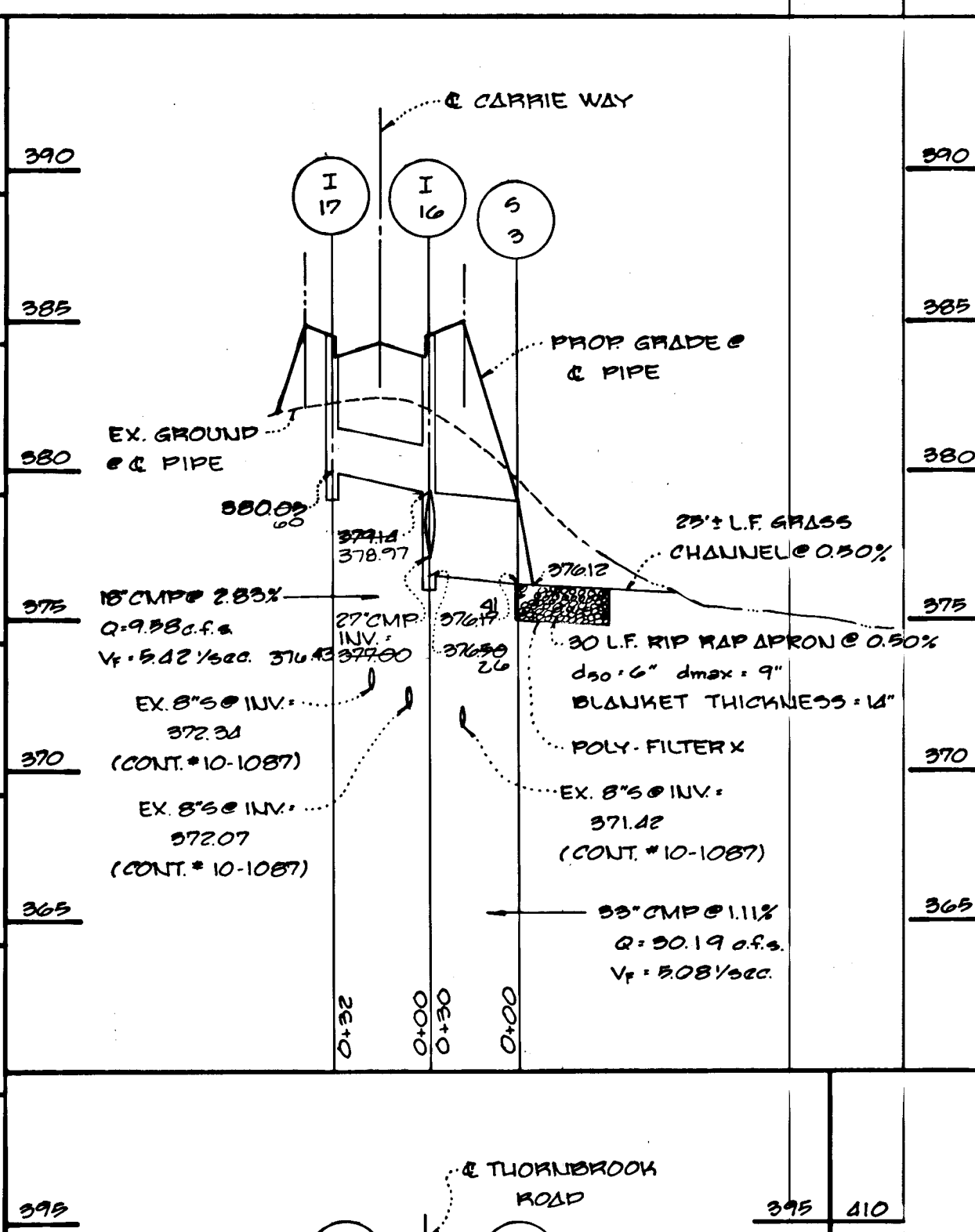
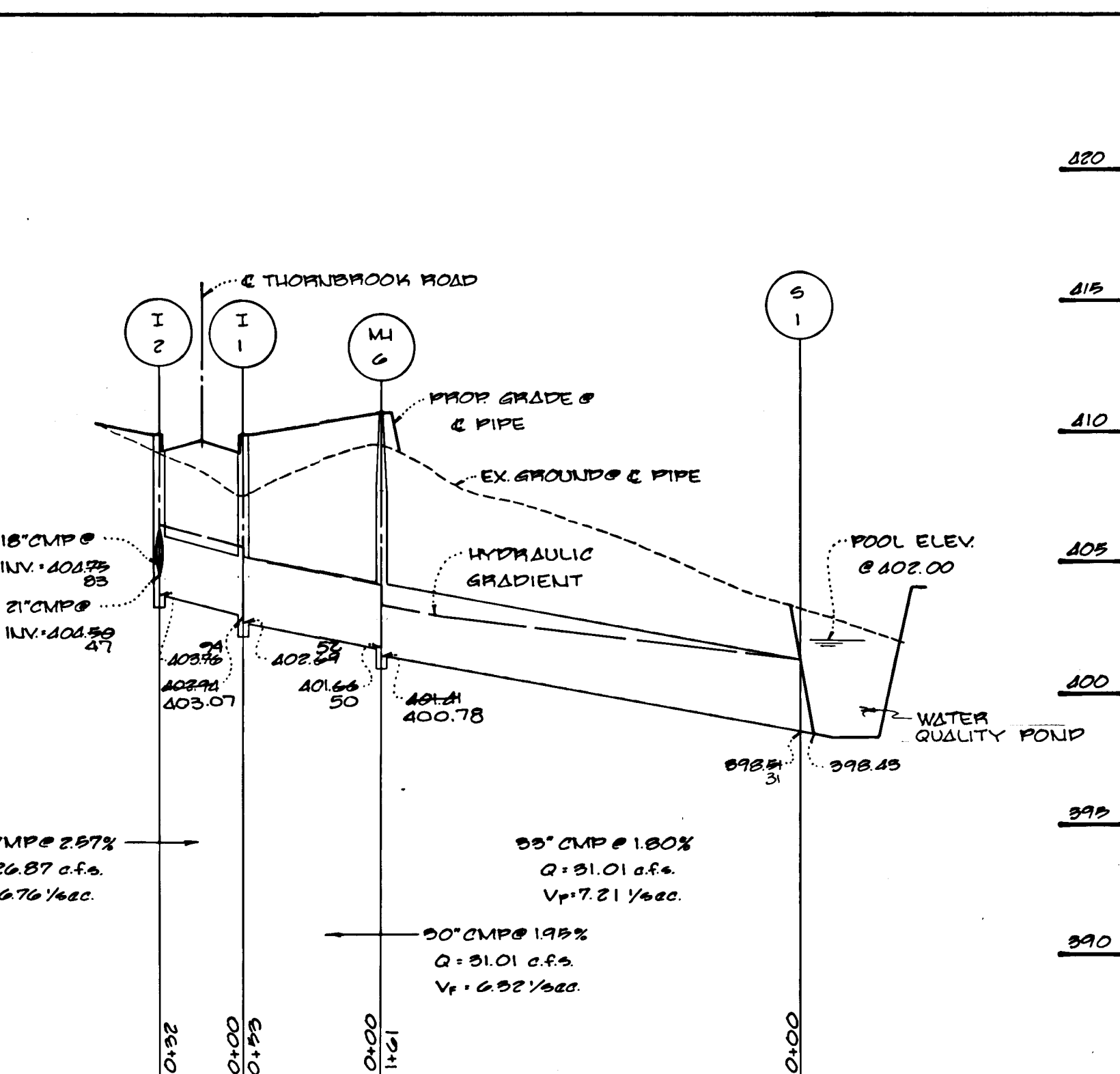
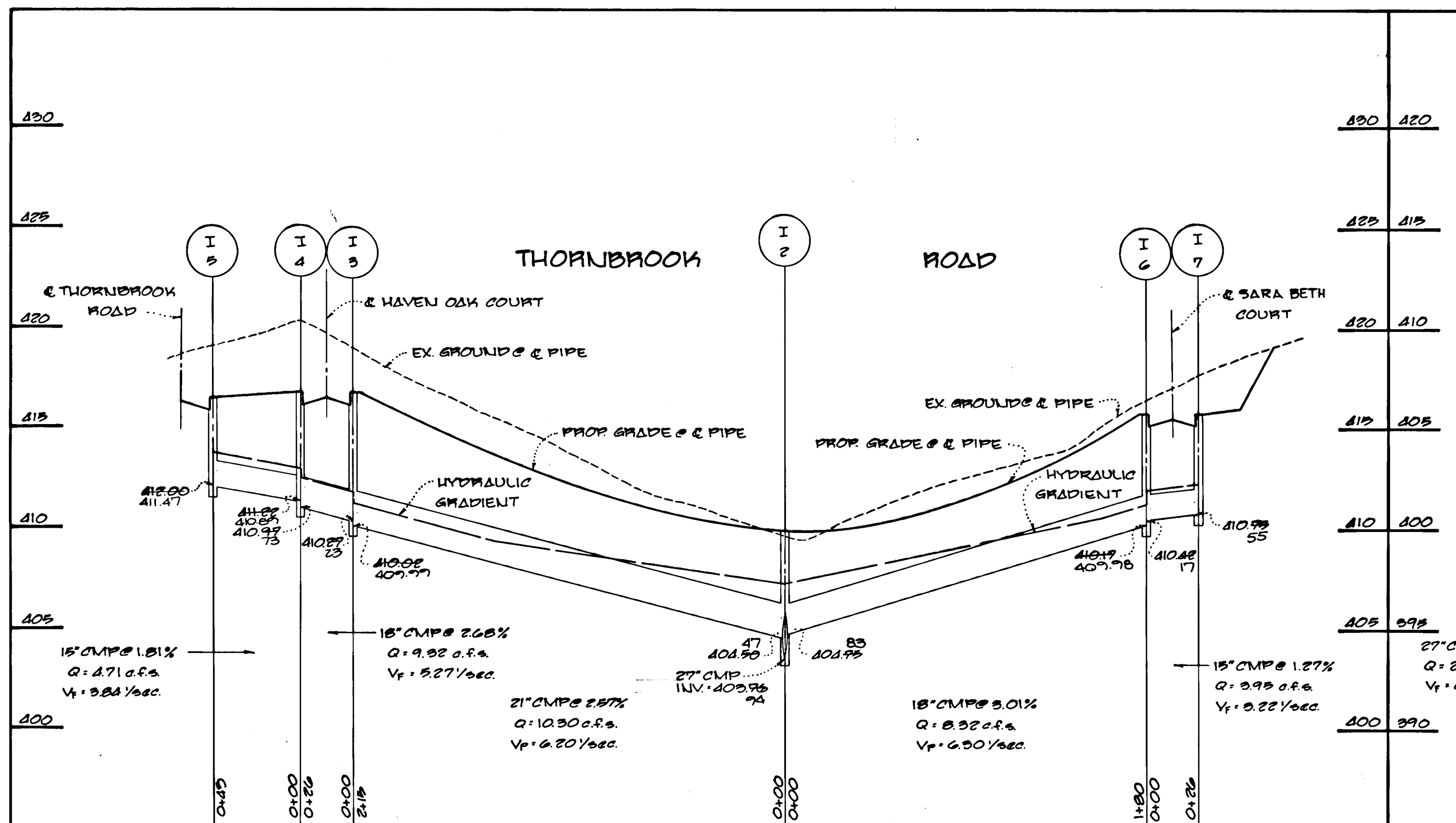
FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LANDSURVEYORS  
8388 COURT AVENUE  
ELLICOTT CITY, MARYLAND 21043

OWNER AND DEVELOPER  
FORTY WEST BUILDERS, INC.  
1007 LESLIE AVENUE  
CATONSVILLE, MARYLAND 21228

Drainage Area Map  
**Mount Hebron**  
Section 19  
Lots 1-93  
2nd Election District Scale: 1"=100'  
Howard County, Md. March 31, 1990  
Sheet 4 of 9

AS-BUILT SURVEY CERTIFIED BY CHARLES J. CROVO, MD. PE. No. 13204. C.J. DEC. 13, 1990.

AS-BUILT F88-227

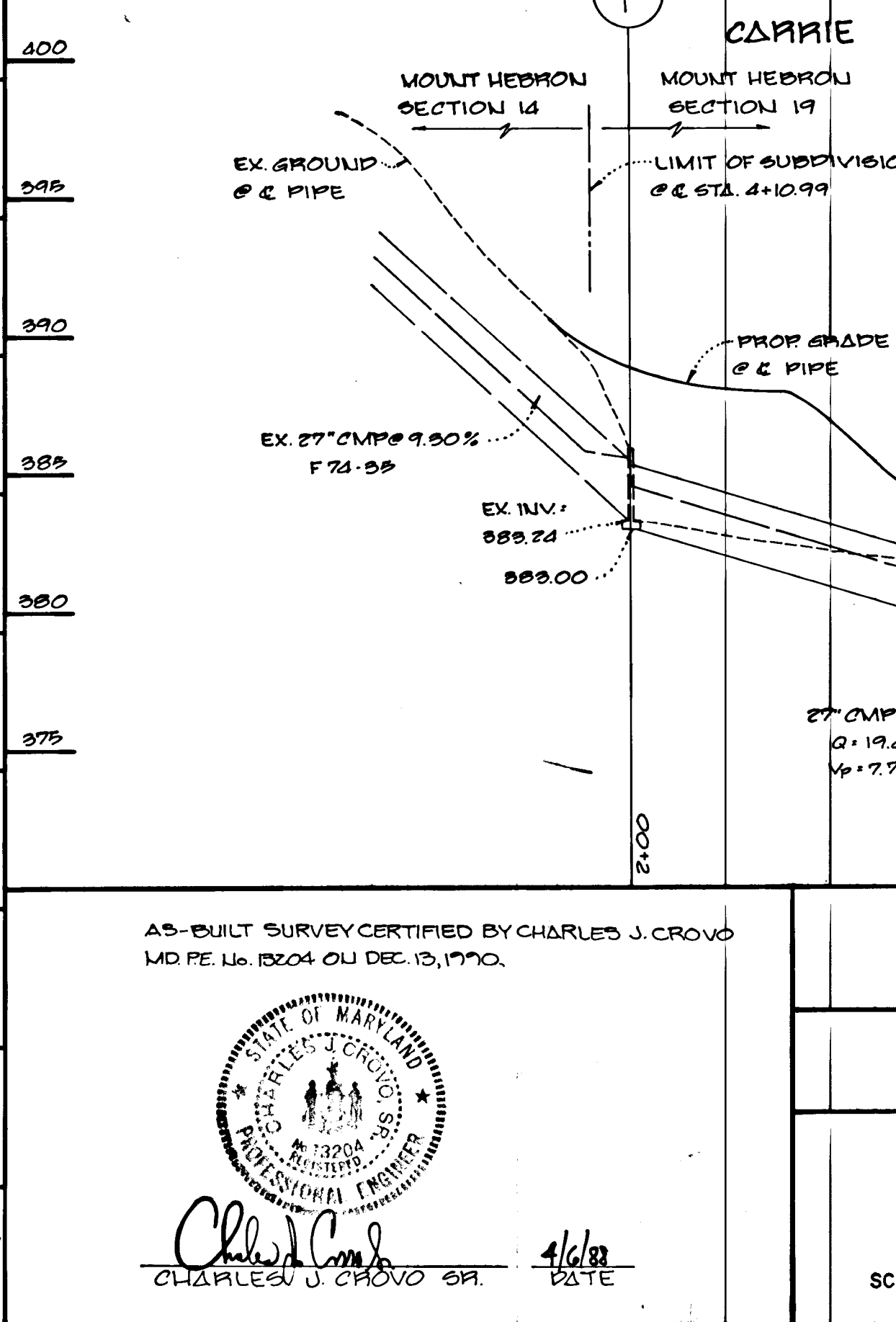
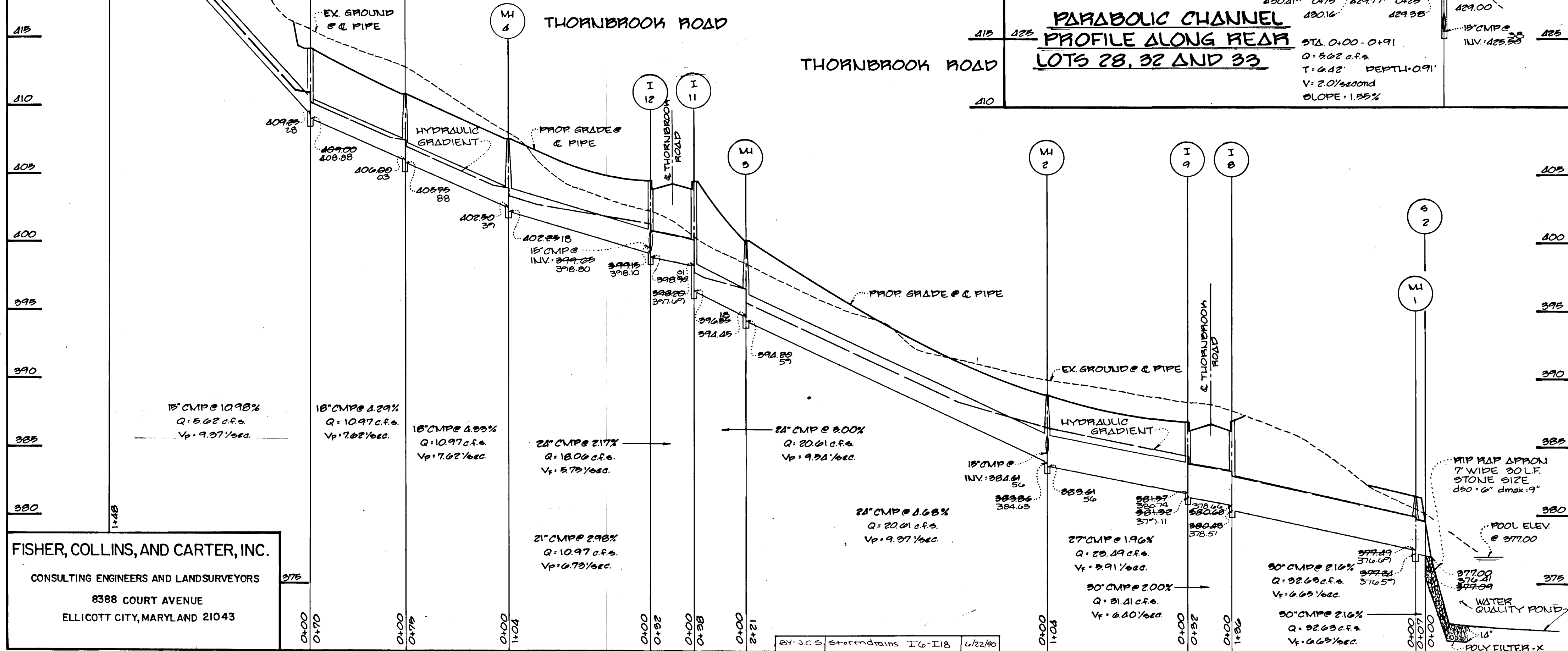
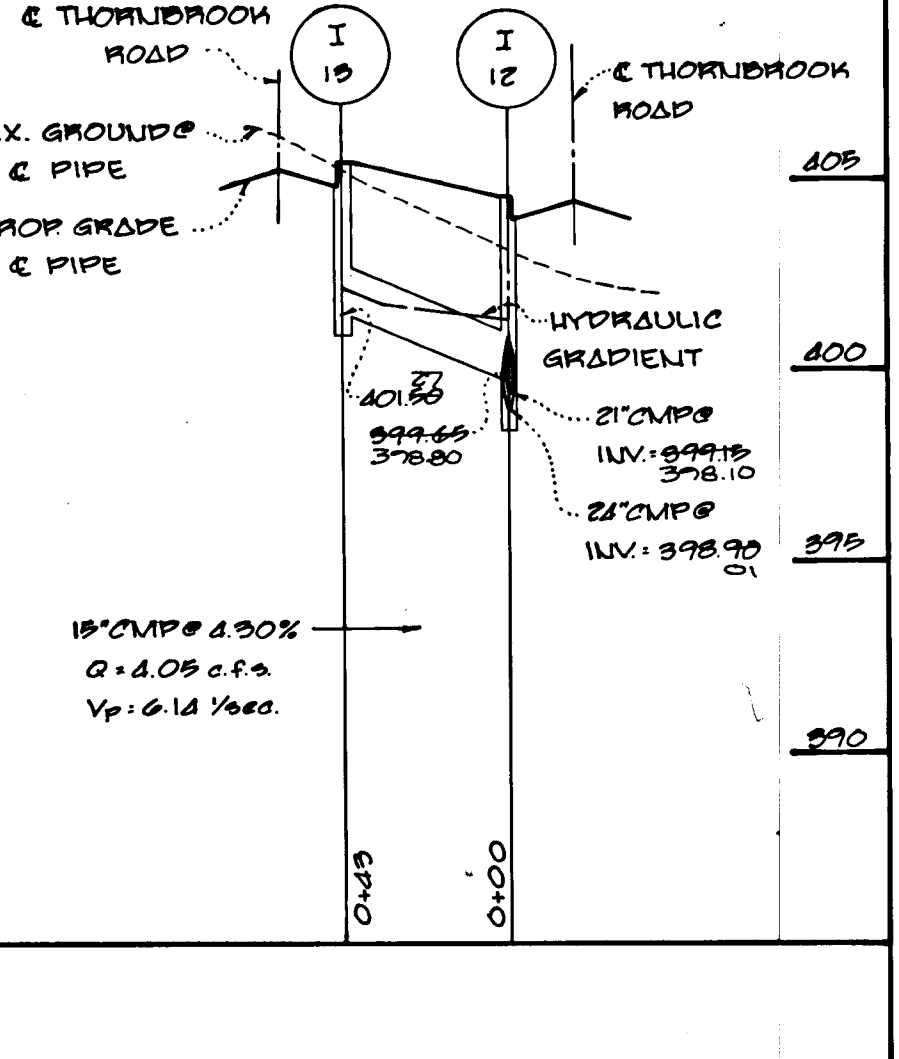
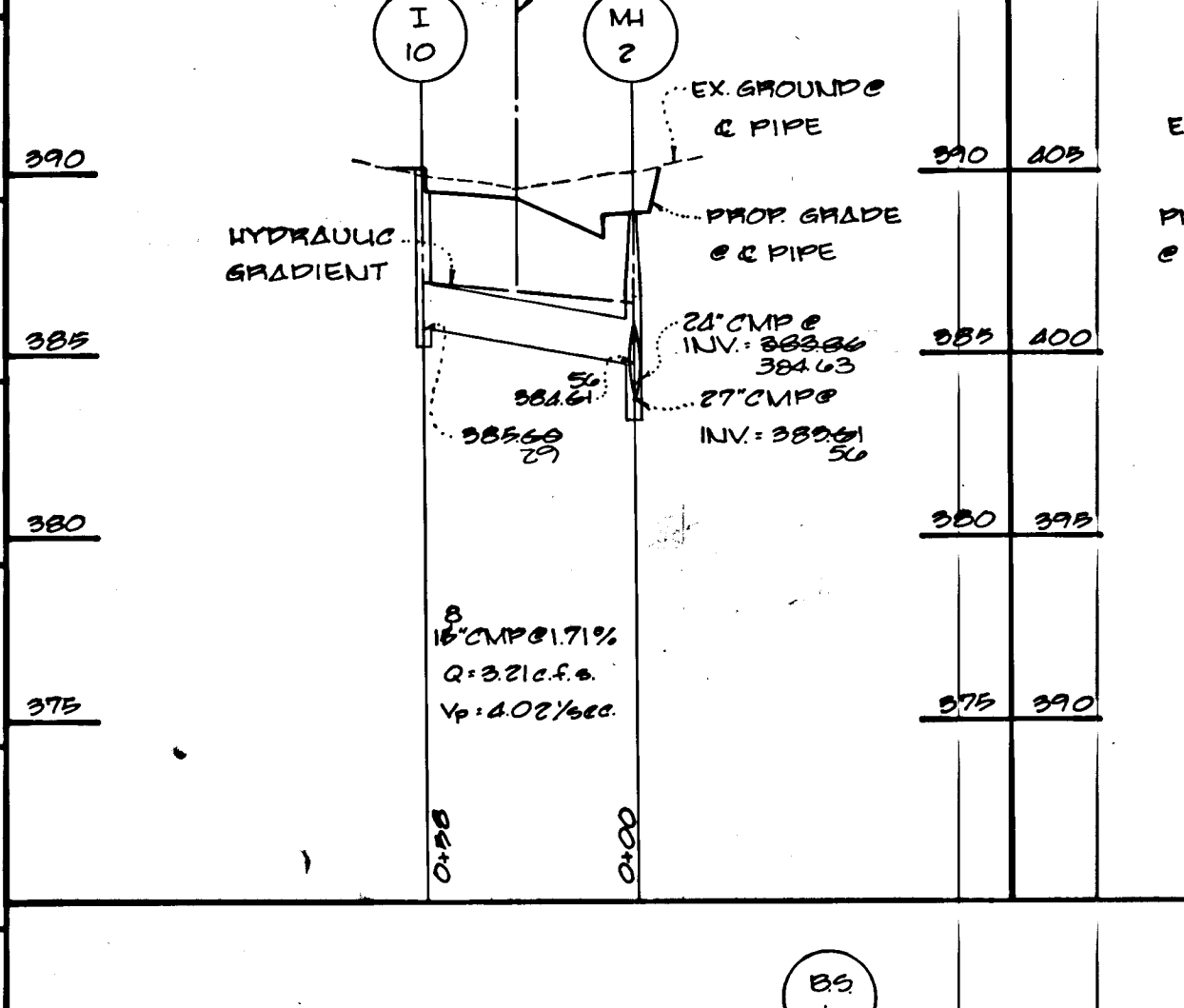
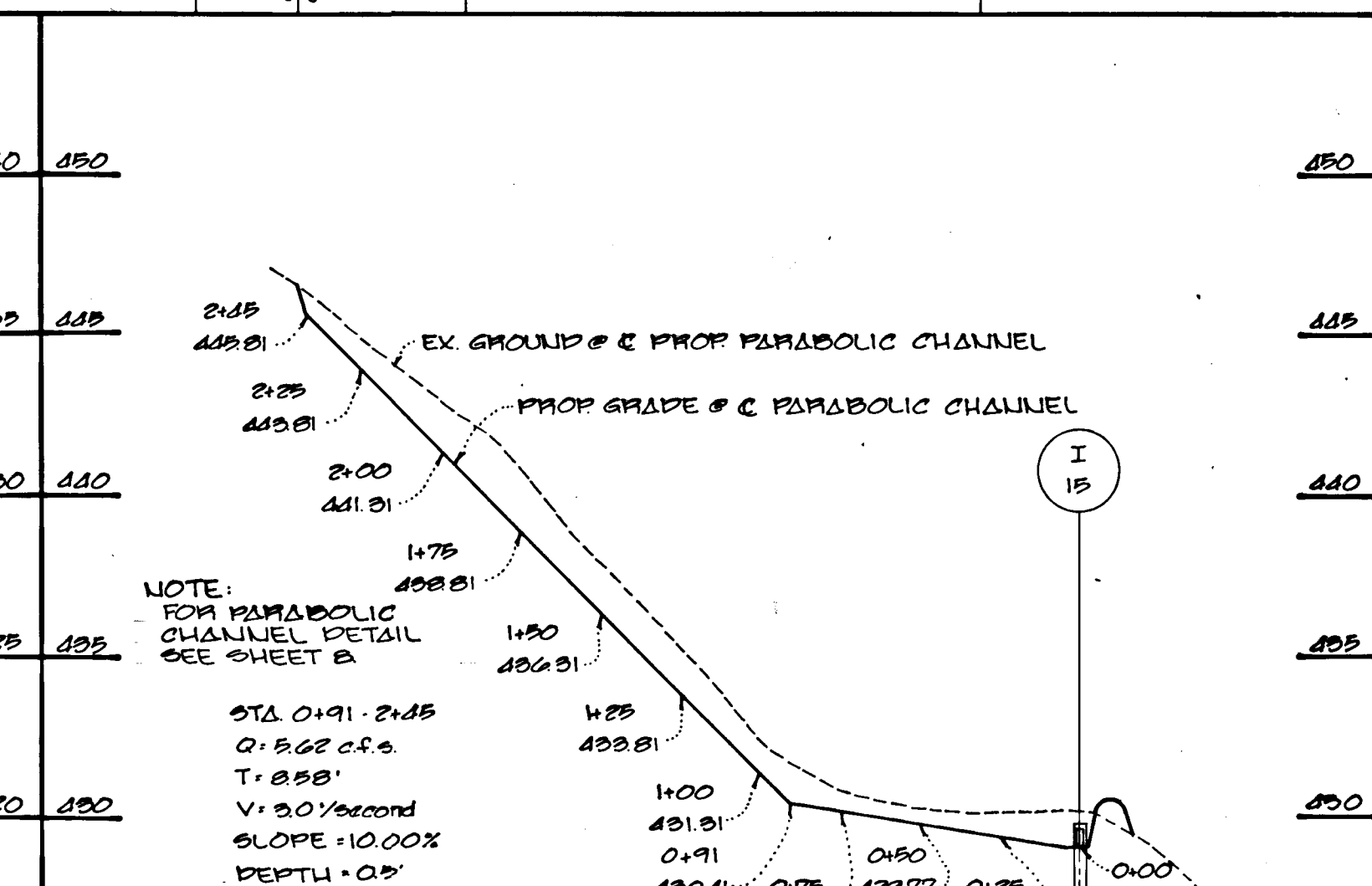
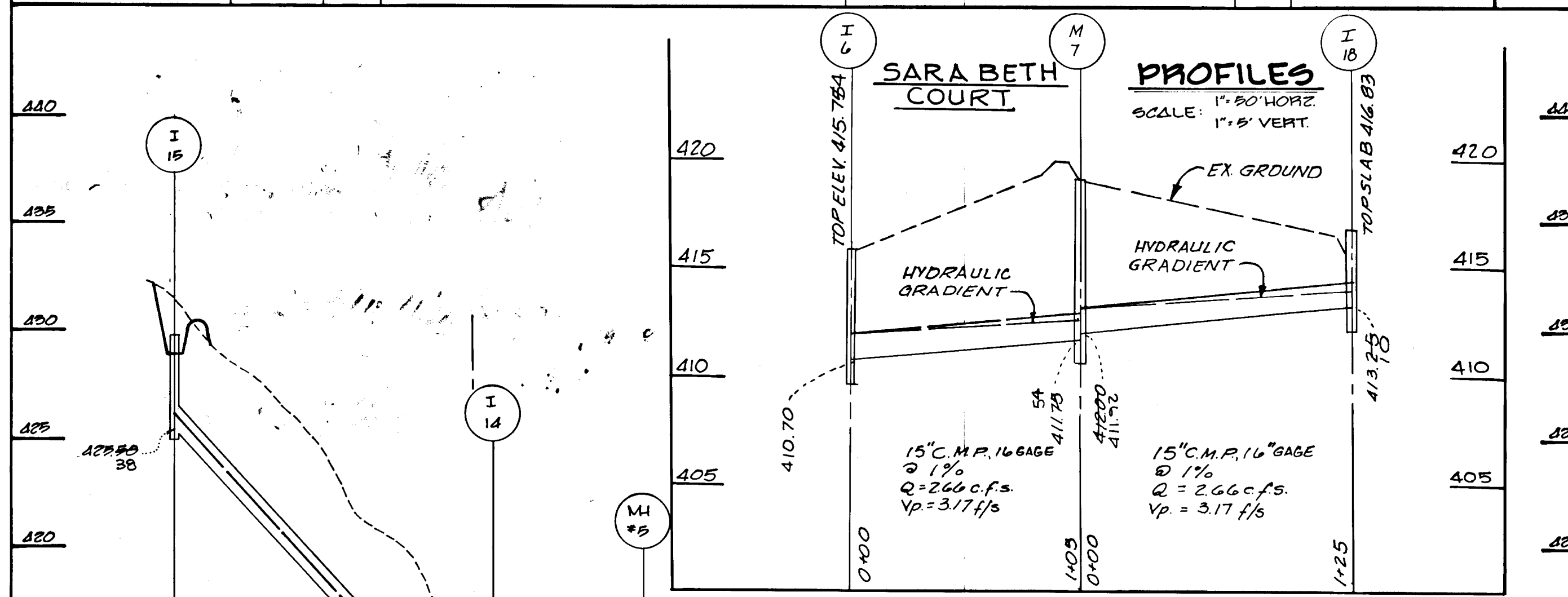


APPROVED  
 DEPARTMENT OF PUBLIC WORKS  
*James J. Sepp* 3/23/88  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

DEPARTMENT OF PUBLIC WORKS  
*Granville W. Weiland* 4/29/88  
 CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PUBLIC WORKS  
*William E. Day* 5-2-88  
 CHIEF, BUREAU OF ENGINEERING DATE

OFFICE OF PLANNING AND ZONING  
*Frank S. Langlin* 3-1-88  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



OWNER AND DEVELOPER  
 FORTY WEST BUILDERS, INC.  
 1007 LESLIE AVENUE  
 CATONSVILLE, MARYLAND 21228

STORM DRAIN PROFILES

MT. HEBRON  
 SECTION 19, LOTS 1-53  
 2ND. ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN SHEET 5 OF 9 MARCH 31, 1988

16  
 FISHER, COLLINS, AND CARTER, INC.  
 CONSULTING ENGINEERS AND LANDSURVEYORS  
 8388 COURT AVENUE  
 ELLICOTT CITY, MARYLAND 21043

AS-BUILT SURVEY CERTIFIED BY CHARLES J. CROVO  
 MD PE No. 18204 OLD DEC. 13, 1990.

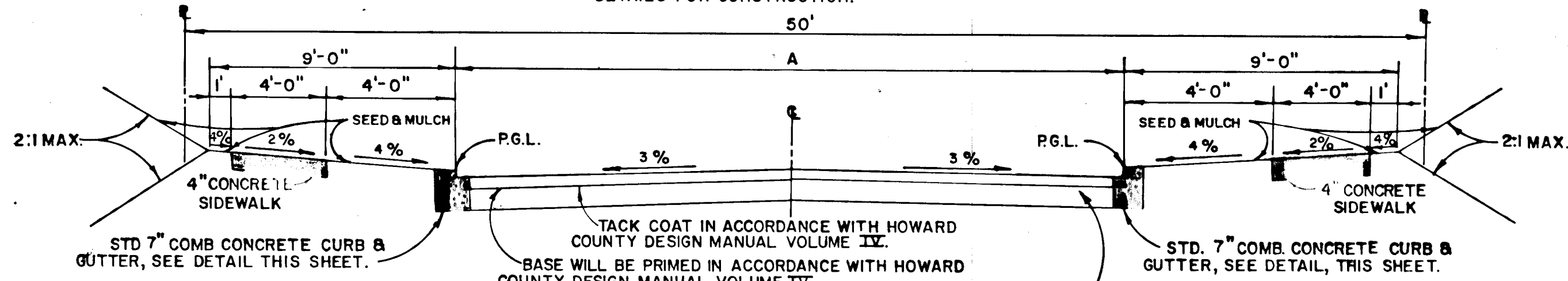
STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 CHARLES J. CROVO SR. 4/6/88  
 DATE



**TYPICAL ROADWAY SECTION**

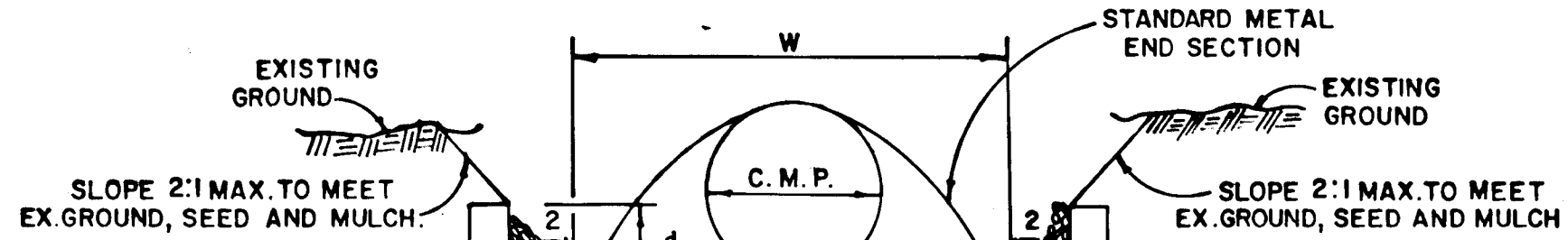
NO SCALE

ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IX, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.



PAVING SECTION SHALL BE IN ACCORDANCE WITH SECTION NUMBER P-2 DRWG 2.01

ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	± STA. LIMITS	A
THORNBROOK ROAD	LOCAL ROAD	30 M.P.H.	R-20	16+45 TO 33+72	30'
THORNBROOK ROAD	LOCAL ROAD	30 M.P.H.	R-20	0+00 TO 2+89.73	30'
CARRIE WAY	LOCAL ROAD	30 M.P.H.	R-20	4+09.90 TO 9+84.50	30'
HAVEN OAK COURT	CUL-DE-SAC	25 M.P.H.	R-20	0+00 TO 1+16.55	24'
TOWWOOD COURT	CUL-DE-SAC	25 M.P.H.	R-20	0+00 TO 0+58.69	24'



**RIP-RAP CHANNEL DESIGN DATA**

Struct.	A <sup>0</sup>	P <sup>1</sup>	R	R 2/3	s	s 1/2	n	Q	V	d	w	Rip Rap Size	b
												d 50' d max	
S-3	11.88	12.59	0.9436	0.9620	0.50%	0.0707	.04	30.1 c.f.s.	2.53 f.p.s.	1.25'	7'	6" 9" 14"	

DATE  
BY  
SURVEYED  
PLOTTED  
ALIGNMENT CHECKED  
NOTE BOOK NO.

PLAN

APPROVED DEPARTMENT OF PUBLIC WORKS

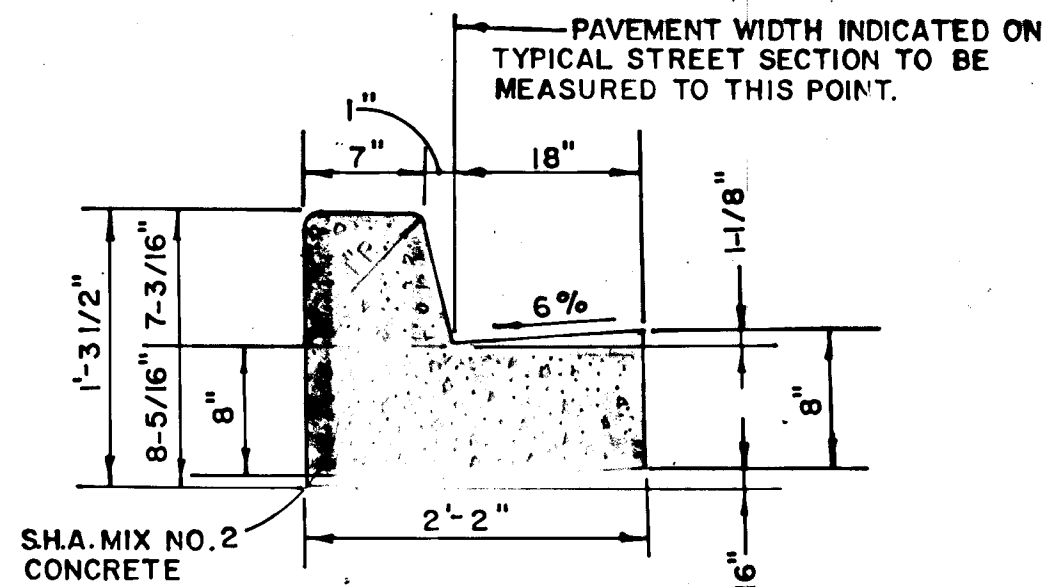
*Paul W. Johnson* 8/30/88  
CHIEF, LAND DEVELOPMENT DIVISION DATE

*Granville W. Woodard* 8/30/88  
CHIEF, BUREAU OF HIGHWAYS DATE

*Charles J. Crovo* 8/24/88  
CHIEF, BUREAU OF ENGINEERING DATE

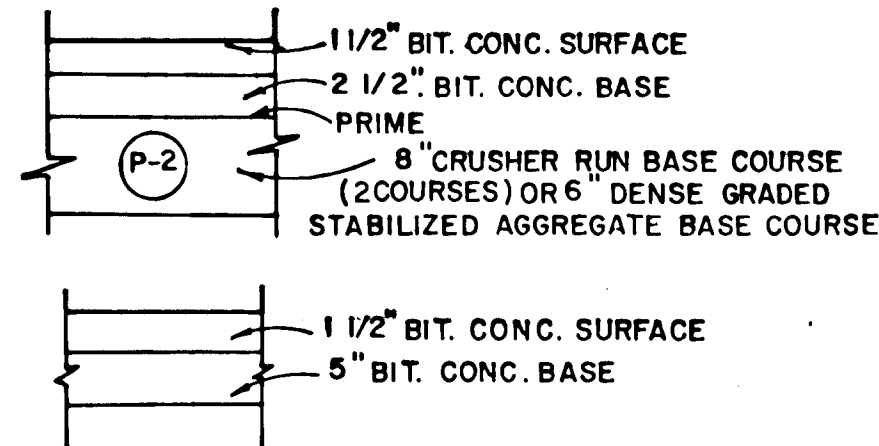
APPROVED OFFICE OF PLANNING AND ZONING

*Frank J. Taylor* 9-1-88  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



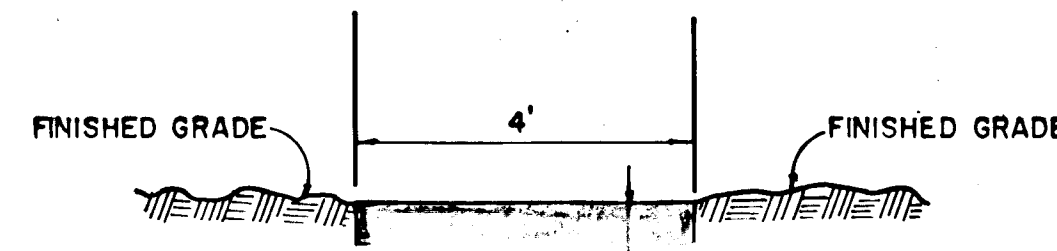
**STANDARD 7" COMB. CONC. CURB & GUTTER**

NO SCALE



**PAVING SECTION P-2**

NO SCALE



**MACADAM WALKWAY DETAIL**

NO SCALE



CHARLES J. CROVO SR. DATE 8/16/88

MT. HEBRON SECTION 19 LOTS  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

ROAD SECTIONS, DETAILS AND THORNBROOK ROAD PROFILE

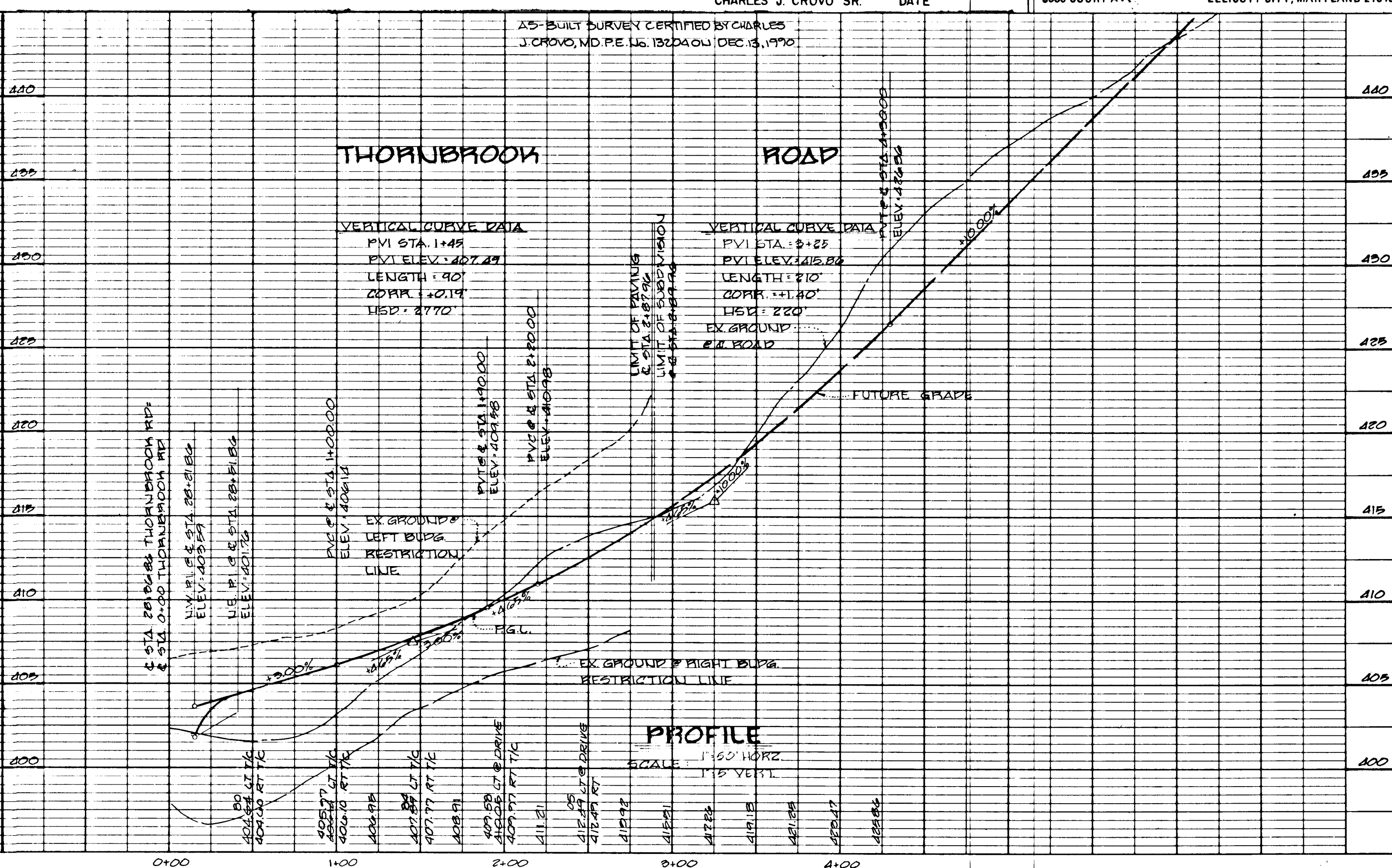
OWNER AND DEVELOPER  
FORTY WEST BUILDERS, INC.  
1007 LESLIE AVENUE  
CATONSVILLE, MARYLAND 21228

SCALE AS SHOWN DATE MAR. 31, 1988 DWG. NO. 6 OF 9  
DES. D. VANDE RYT DRN. C. BAUER CHK. C. CROVO

FISHER, COLLINS AND CARTER, INC.  
CIVIL ENGINEERS AND LAND SURVEYORS  
8388 COURT AVE ELLICOTT CITY, MARYLAND 21043

DATE  
BY  
SURVEYED  
PLOTTED  
GRADES CHECKED  
NOTE BOOK NO.  
STRUCTURE NOTATIONS OK'D

PROFILE



AS-BUILT SURVEY CERTIFIED BY CHARLES J. CROVO, MD. PE. No. 13224041 DEC. 13, 1990

**THORNBROOK ROAD**

VERTICAL CURVE DATA  
PVI STA: 1+48  
PVI ELEV: 407.49  
LENGTH: 90'  
CDPM: +0.14  
HSD: 2770'

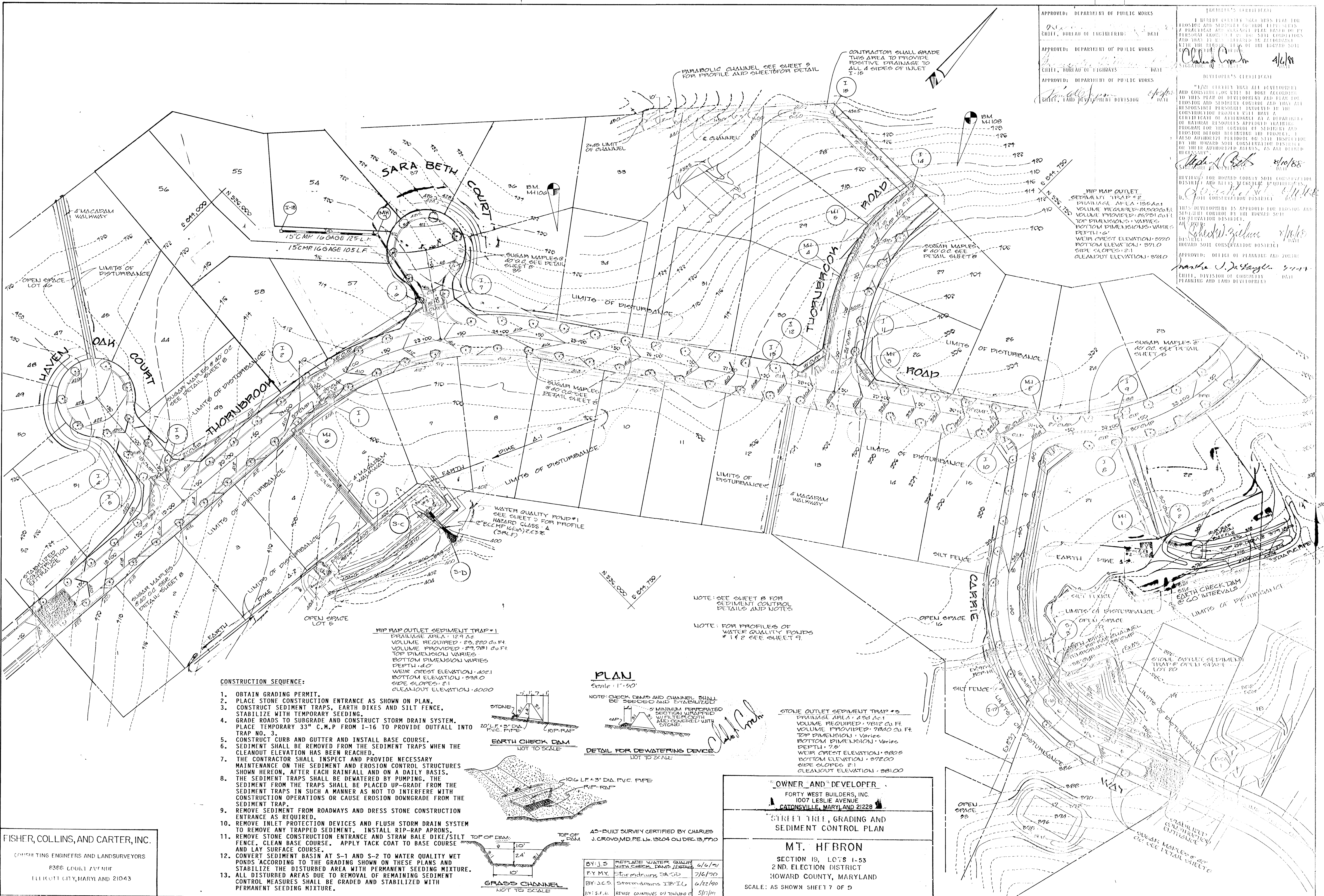
VERTICAL CURVE DATA  
PVI STA: 3+25  
PVI ELEV: 415.86  
LENGTH: 70'  
CDPM: +1.40  
HSD: 220'  
EX. GROUND: 2 1/2' ROAD

**PROFILE**

SCALE: 1" = 50' HORIZ  
1" = 5' VERT.

16





APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF ENGINEERING

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, LAND DEVELOPMENT DIVISION

DEVELOPER'S CERTIFICATION  
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND THAT THE EROSION AND SEDIMENT CONTROL MEASURES AND RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ADEQUACY AS A PARTICIPANT OF NATURAL RESOURCES APPROVED GRADING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZED PERSONNEL TO BE INSPECTED BY THE HOWARD COUNTY CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ALL BEING NECESSARY.

DATE: 4/6/98

DEVELOPER: FORTY WEST BUILDERS, INC.  
 1007 LESLIE AVENUE  
 CATONSVILLE, MARYLAND 21228

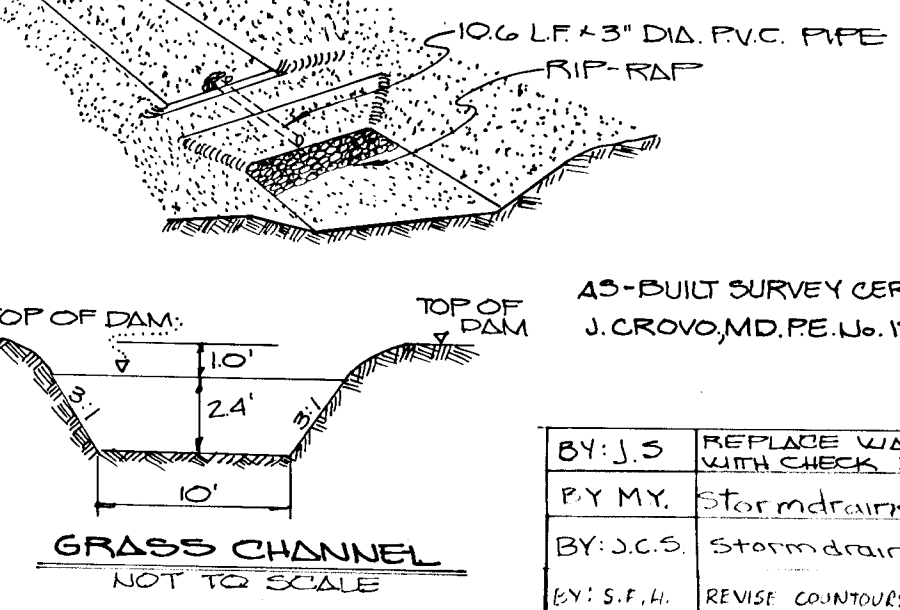
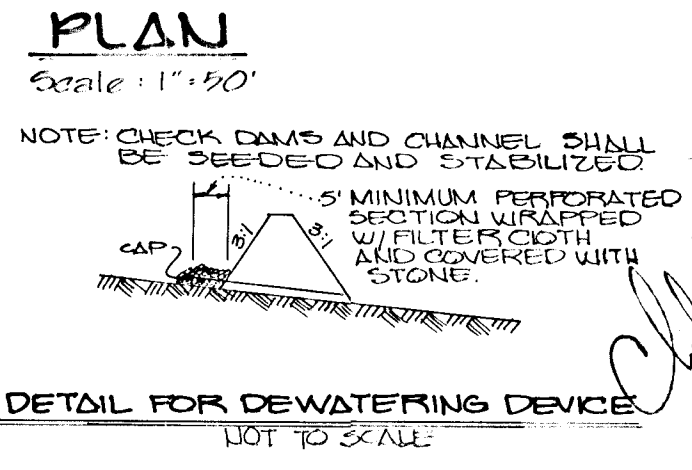
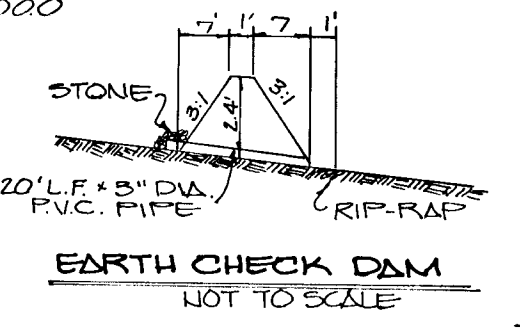
DATE: 4/6/98

APPROVED: OFFICE OF PLANNING AND ZONING  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

**CONSTRUCTION SEQUENCE:**

1. OBTAIN GRADING PERMIT.
2. PLACE STONE CONSTRUCTION ENTRANCE AS SHOWN ON PLAN.
3. CONSTRUCT SEDIMENT TRAPS, EARTH DIKES AND SILT FENCE, STABILIZE WITH TEMPORARY SEEDING.
4. GRADE ROADS TO SUBGRADE AND CONSTRUCT STORM DRAIN SYSTEM. PLACE TEMPORARY 33" C.M.P FROM I-16 TO PROVIDE OUTFALL INTO TRAP NO. 3.
5. CONSTRUCT CURB AND GUTTER AND INSTALL BASE COURSE. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAPS WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED.
7. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON, AFTER EACH RAINFALL AND ON A DAILY BASIS. THE SEDIMENT TRAPS SHALL BE DEWATERED BY PUMPING. THE SEDIMENT FROM THE TRAPS SHALL BE PLACED UP-GRADE FROM THE SEDIMENT TRAPS IN SUCH A MANNER AS NOT TO INTERFERE WITH CONSTRUCTION OPERATIONS OR CAUSE EROSION DOWNGRADE FROM THE SEDIMENT TRAP.
9. REMOVE SEDIMENT FROM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED.
10. REMOVE INLET PROTECTION DEVICES AND FLUSH STORM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT. INSTALL RIP-RAP APRONS.
11. REMOVE STONE CONSTRUCTION ENTRANCE AND STRAW BALE DIKE/SILT FENCE. CLEAN BASE COURSE. APPLY TACK COAT TO BASE COURSE AND LAY SURFACE COURSE.
12. CONVERT SEDIMENT BASIN AT S-1 AND S-2 TO WATER QUALITY WET PONDS ACCORDING TO THE GRADING SHOWN ON THESE PLANS AND STABILIZE THE DISTURBED AREA WITH PERMANENT SEEDING MIXTURE.
13. ALL DISTURBED AREAS DUE TO REMOVAL OF REMAINING SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED WITH PERMANENT SEEDING MIXTURE.

**RIP-RAP OUTLET SEDIMENT TRAP #1**  
 DRAINAGE AREA: 12.9 AC  
 VOLUME REQUIRED: 20,820 CU. FT.  
 VOLUME PROVIDED: 29,781 CU. FT.  
 TOP DIMENSION VARIES  
 BOTTOM DIMENSION VARIES  
 DEPTH: 1.0'  
 WEIR CREST ELEVATION: 402.1  
 BOTTOM ELEVATION: 398.0  
 SIDE SLOPES: 2:1  
 CLEANOUT ELEVATION: 400.0



NOTE: SEE SHEET 8 FOR SEDIMENT CONTROL DETAILS AND NOTES

NOTE: FOR PROFILES OF WATER QUALITY PONDS #1 & 2 SEE SHEET 9.

**PLAN**  
 Scale: 1" = 40'

NOTE: CHECK DAMS AND CHANNEL SHALL BE SEEDED AND STABILIZED

NOTE: MINIMUM PERFORATED SECTION WIDTHS WITH FILTER CLOTH AND COVERED WITH STONE.

**STONE OUTLET SEDIMENT TRAP #2**  
 DRAINAGE AREA: 4.84 AC  
 VOLUME REQUIRED: 9810 CU. FT.  
 VOLUME PROVIDED: 7840 CU. FT.  
 TOP DIMENSION VARIES  
 BOTTOM DIMENSION VARIES  
 DEPTH: 7.5'  
 WEIR CREST ELEVATION: 382.5  
 BOTTOM ELEVATION: 378.0  
 SIDE SLOPES: 2:1  
 CLEANOUT ELEVATION: 381.00

**FISHER, COLLINS, AND CARTER, INC.**  
 CONSULTING ENGINEERS AND LANDSURVEYORS  
 8388 COURT AVENUE  
 FELLICOTT CITY, MARYLAND 21043

**OWNER AND DEVELOPER**  
 FORTY WEST BUILDERS, INC.  
 1007 LESLIE AVENUE  
 CATONSVILLE, MARYLAND 21228

**STREET TREE, GRADING AND SEDIMENT CONTROL PLAN**

**MT. HEBRON**  
 SECTION 19, LOTS 1-53  
 2ND. ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN SHEET 7 OF 9

BY: J.S.	REPLANE WATER QUALITY WITH CHECK DAMS (DISTRICT)	6/6/97
BY: M.Y.	Storm drains SA-30	7/6/97
BY: J.C.S.	Storm drains IIR-IL	6/22/90
BY: S.F.H.	REVISE CONTROLES ON TOWN	5/1/97



**PERMANENT SEEDING NOTES:**  
 APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT 1000-LEVEL VEGETATIVE COVER IS REQUIRED.

**SEEDING PREPARATIONS:** LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NO PREVIOUSLY EXISTING SOIL AMENDMENTS, IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:  
 1) FERTILIZER - APPLY 2 TONS PER ACRE DIAMMONIUM LIME-SULFATE (92 LBS/1000 SQ.FT.) BEFORE SEEDING.  
 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DIAMMONIUM LIME-SULFATE (92 LBS/1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW 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 60 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 (0.6 LBS./1000 SQ.FT.) OF WHEAT COVER CROPPING. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, FERTILIZE SOIL BY OPTION (1) 2 TONS PER ACRE OF ROTTEN STEAM SLUDGE AND 500 LBS. POSSIBLE IN THE SPRING, OPTION (2) USE 300, 0/10/0, (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND 1000 LBS. 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) UNROTATED SOILS. RAKING SHOULD BE IMMEDIATELY AFTER SEEDING. ANCHOR PUNCH IMMEDIATELY AFTER APPLICATION USING PUNCH ANCHORING TOOL OR 2 1/2 CALIBERS PER ACRE (6 CAL./1000 SQ. FT.) OF UNSULFATED ASPHALT OR FLAK ASPHALT, OR SLOPES, B.F.I. OR HIGHER, USE 300 GAL PER ACRE (6 GAL./1000 SQ.FT.) FOR ANCHORING. REPAIRS: INSPECT ALL SEEDING AREAS AND MAKE REPAIRS, REPLACEMENTS AND RESEEDINGS.

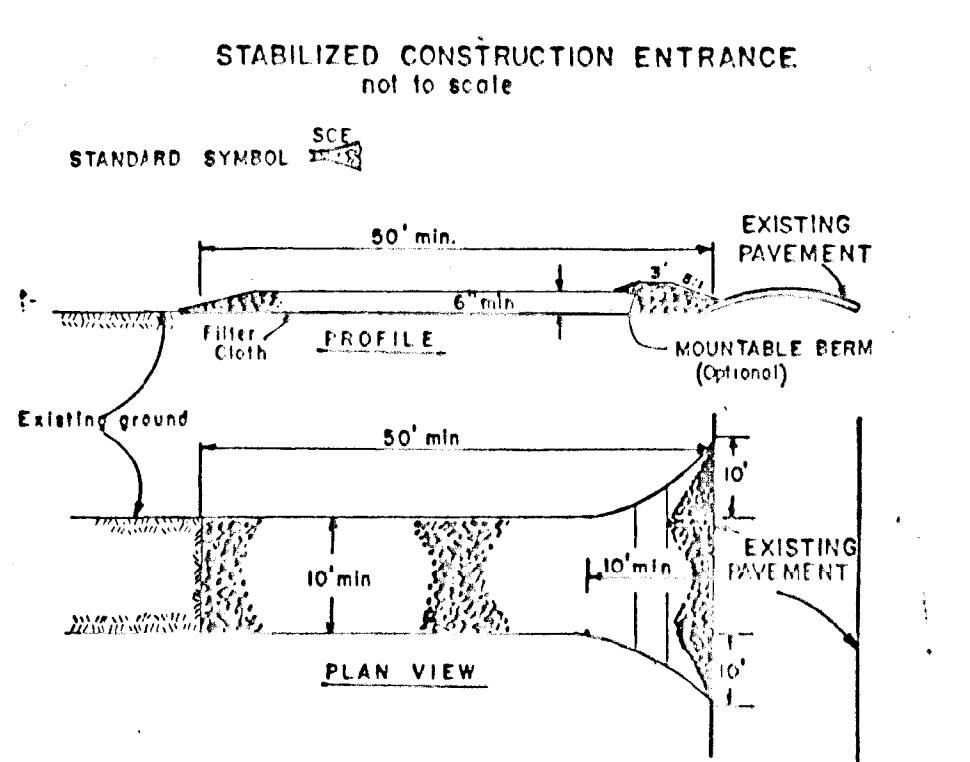
**TEMPORARY SEEDING NOTES:**  
 APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS REQUIRED.

**SEEDING PREPARATIONS:** LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NO PREVIOUSLY EXISTING 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 2 1/2 TONS PER ACRE OF KENTUCKY 31 (1.4 LBS./1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WHEAT COVER CROPPING (0.7 LBS./1000 SQ.FT.). FOR THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, FERTILIZE SOIL BY OPTION (1) 2 TONS PER ACRE OF ROTTEN STEAM SLUDGE AND 500 LBS. POSSIBLE IN THE SPRING, OPTION (2) USE 300, 0/10/0, (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND 1000 LBS. 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) UNROTATED SOILS. RAKING SHOULD BE IMMEDIATELY AFTER SEEDING. ANCHOR PUNCH IMMEDIATELY AFTER APPLICATION USING PUNCH ANCHORING TOOL OR 2 1/2 CALIBERS PER ACRE (6 CAL./1000 SQ. FT.) OF UNSULFATED ASPHALT OR FLAK ASPHALT, OR SLOPES, B.F.I. OR HIGHER, USE 300 GAL PER ACRE (6 GAL./1000 SQ.FT.) FOR ANCHORING.

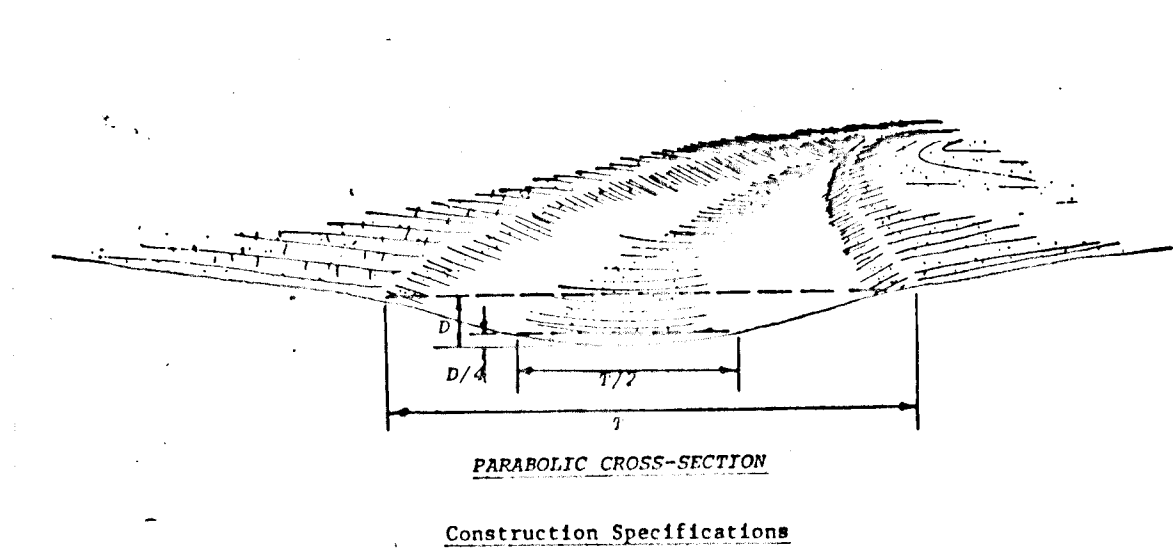
REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

- SEDIMENT CONTROL NOTES:**  
 A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (895-2937).
- 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 REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, b) 14 DAYS AS TO 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. 511) 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: 26.4 ACRES  
 AREA DISTURBED: 7.1 ACRES  
 AREA TO BE ROUTED OR PAVED: 4.7 ACRES  
 AREA TO BE VEGETATIVELY STABILIZED: 14.6 ACRES  
 TOTAL CUT: 12,000 CU.YDS.  
 TOTAL FILL: 12,000 CU.YDS.  
 OFFSITE WASTE/BORROW AREA LOCATION: CU.YDS.

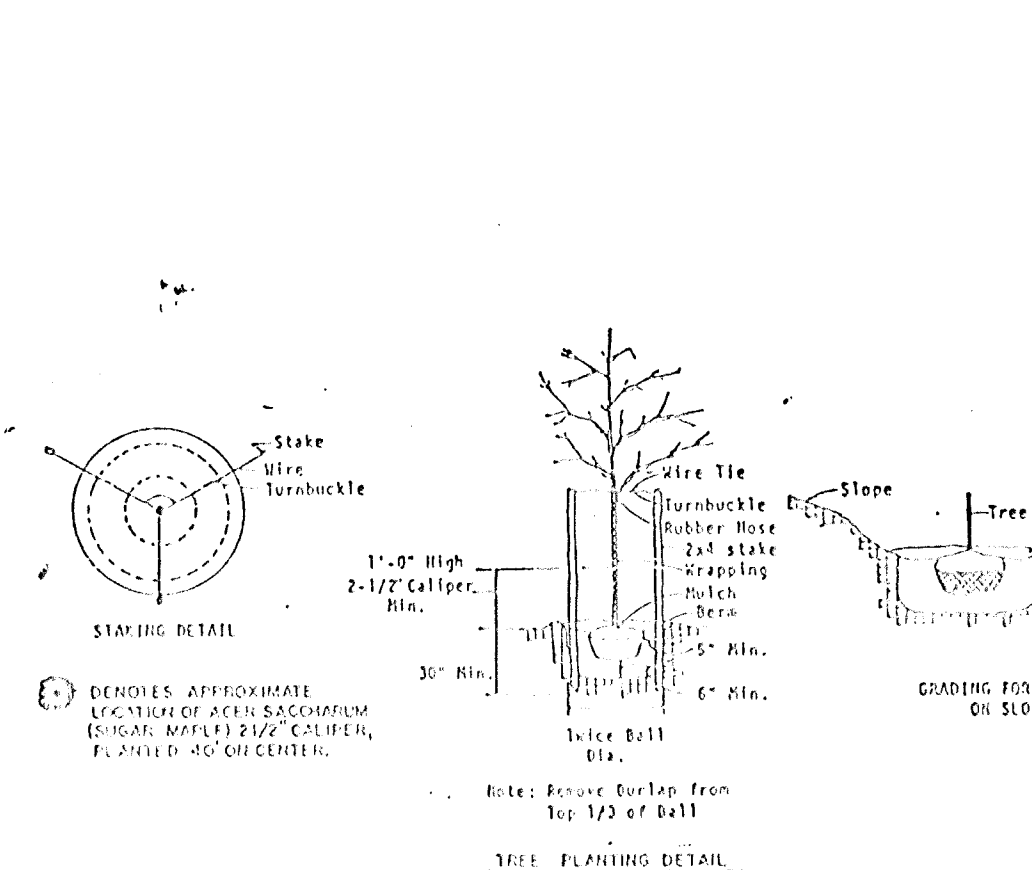
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MEASURES MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DWS SEDIMENT CONTROL INSPECTOR.
- 100% ALL SITES WITH DISTURBED 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.



- CONSTRUCTION SPECIFICATIONS**
- Stone filter - Use 3" stone, or recycled or recycled concrete equivalent. Length - As required, but not less than 50 feet (except on a single road-ditch lot where a 30 foot minimum length would apply).
  - Thickness - Not less than six (6) inches.
  - Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
  - Filter cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
  - Surface Water - All surface water flowing or diverted toward construction entrance shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slope will be permitted.
  - Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flooding of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanup of any pressures used to trap sediment. All sediment applied, dropped, washed or tracked onto public rights-of-way must be removed immediately.
  - Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
  - Periodic inspection and needed maintenance shall be provided after each rain.

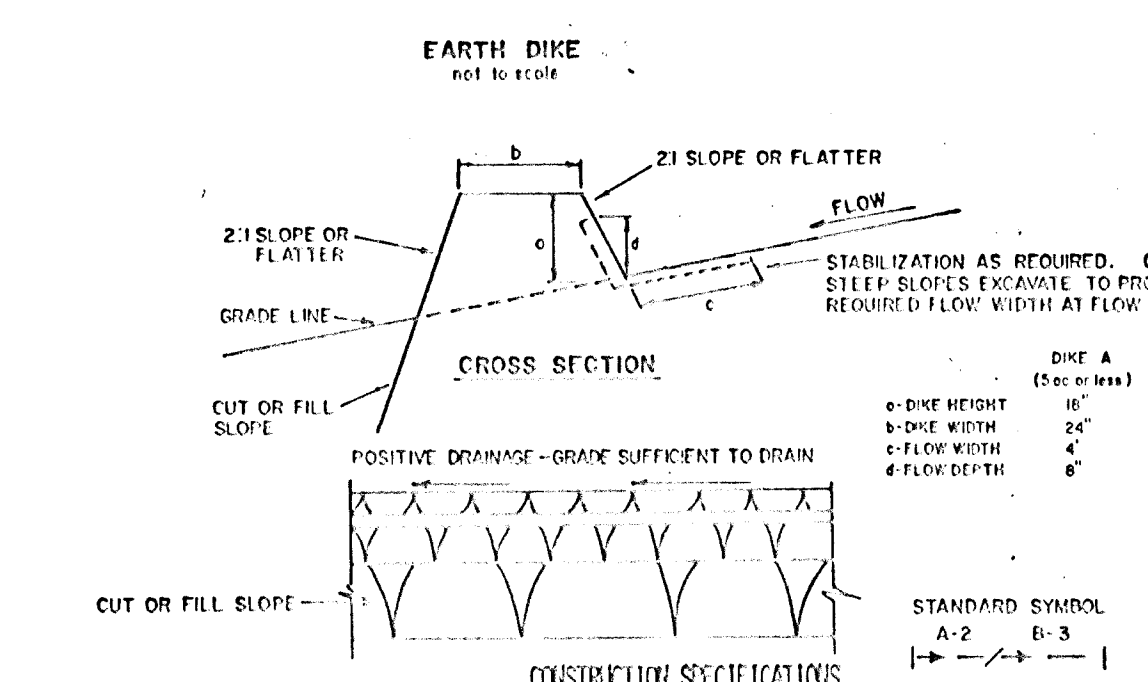


- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**
- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
  - Filter cloth to be fastened securely to woven wire fence with wire ties or staples every 24" at top and mid-section.
  - When top sections of filter cloth align each other they shall be overlapped by six inches and folded.
  - Maintenance shall be performed as needed and reported when "bulges" develop in the silt fence.



- CONSTRUCTION SPECIFICATIONS**
- All dikes shall be constructed by earthmoving equipment.
  - All dikes shall have positive drainage to an outlet.
  - Top width may be wider and side slopes may be flatter if desired to facilitate processing by concrete pump trucks.
  - Field location shall be adjusted as needed to utilize a stabilized safe outlet.
  - Large dikes shall have an outlet trap located with a minimum of 100 feet from the dike. The outlet trap shall be a sediment trapping device such as a sediment trap or sediment basin with the dike crown or the drainage area above the dike are not immediately stabilized.
  - Stabilizing shall be (A) in accordance with standard specifications for seed and straw mulch or straw mulch if not in seeding season, (B) flow control as per the design, (C) flow control.

**NOTE:** WHERE THE DISTANCE BETWEEN THE CURB AND SIDEWALK IS LESS THAN 8 FEET, THE PROPOSED STREET TREES SHOULD BE PLANTED 2 FEET FROM THE SIDEWALK. IF THE DISTANCE BETWEEN THE CURB AND THE SIDEWALK IS GREATER THAN 8 FEET THE PROPOSED TREES SHALL BE PLANTED 2 FEET BEHIND THE CURB.

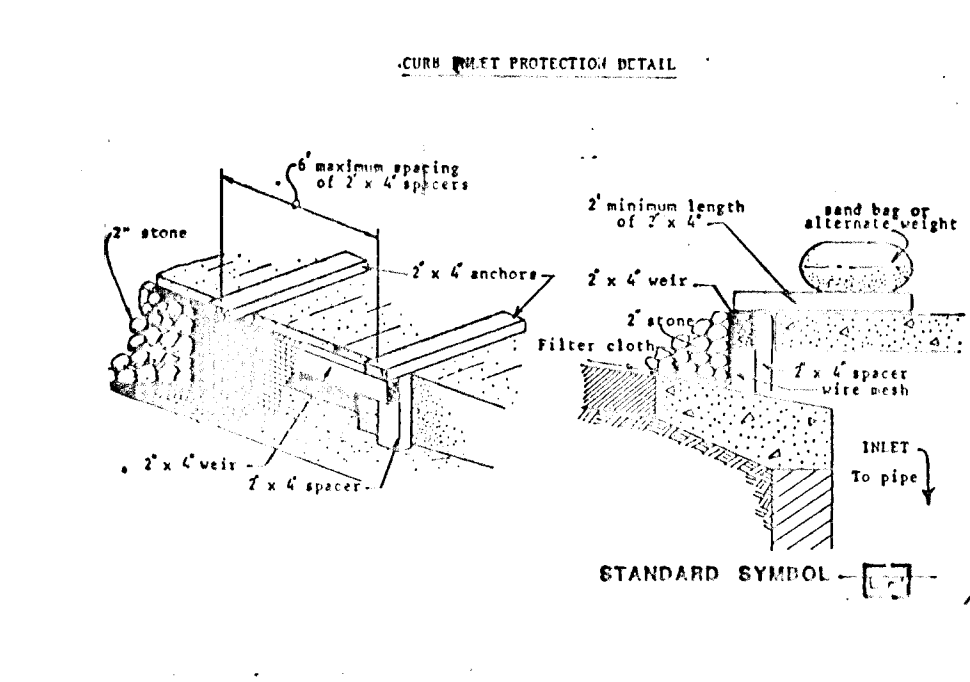


- CONSTRUCTION SPECIFICATIONS**
- Attach a continuous piece of wire mesh (30" min. width by about length plus 4") to the 2" x 4" wire protruding above length plus 2" as shown on the standard drawing.
  - Place a piece of approved filter cloth (40-85 stone) of the same dimension as the wire mesh over the wire mesh and securely attach to the 2" x 4" wire.
  - Securely nail the 2" x 4" wire to 9" long vertical supports to be located between the inlet and inlet face (max. 6' apart).
  - Place the assembly against the inlet throat and nail (galvanneal 2" lengths of 2" x 4" to the top of the inlet at approx. locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by anchors or alternate weight device.
  - The assembly shall be placed so that the end appears to be a minimum 1" beyond both ends of the throat opening.
  - From the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 3" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet unless or around the filter cloth.
  - This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
  - Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dike directing flow into inlet.

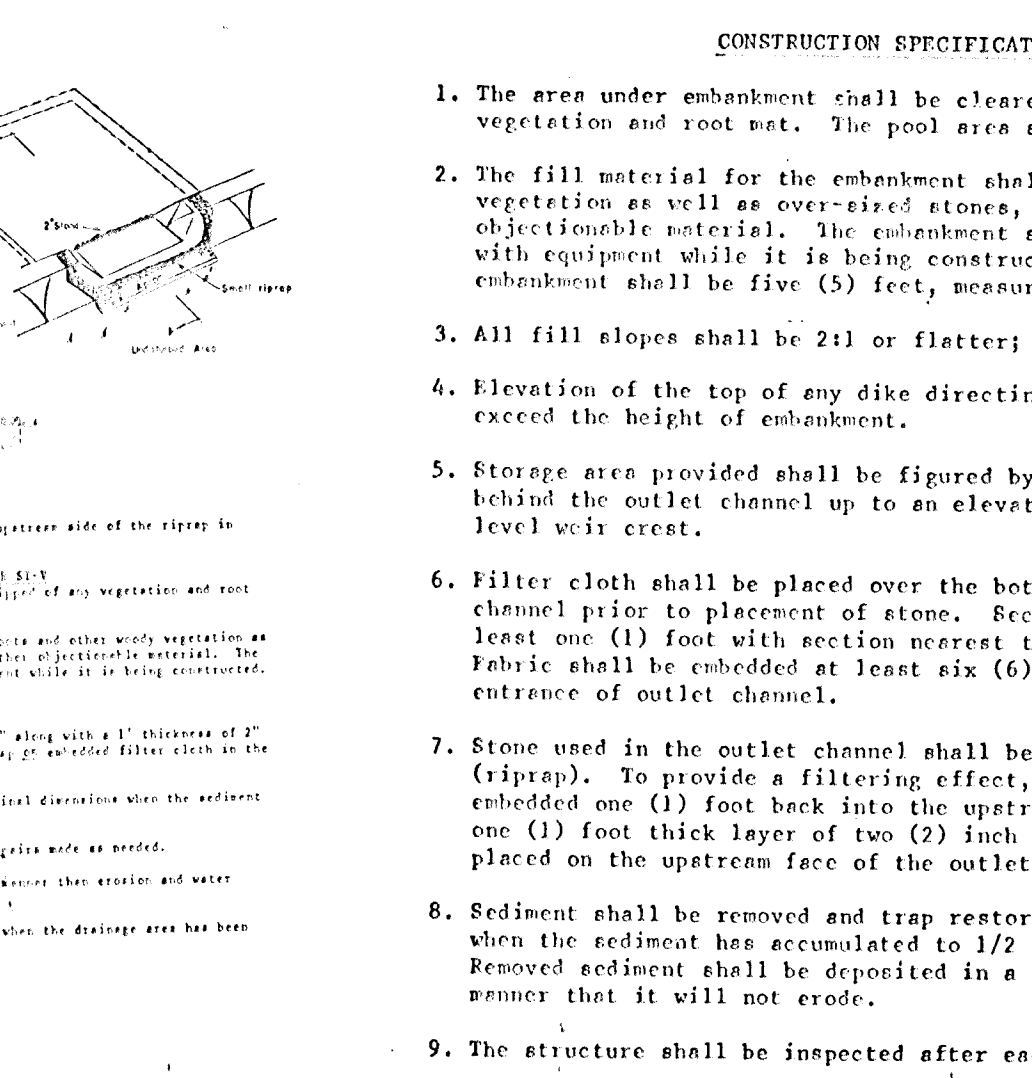
**FLOW CHANNEL STABILIZATION**

TYPE OF CHANNEL	CHANNEL COVER	DIKE A	DIKE B
1	5-3-00	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3-1-5-00	SEED AND STRAW MULCH	SEED USING LIME OR EXTERIOR SOOZ 2" STONE
3	5-1-8-00	SEED WITH LIME OR SOOZ 2" STONE	LINED RIP-RAP 4-8"
4	8-1-2-00	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

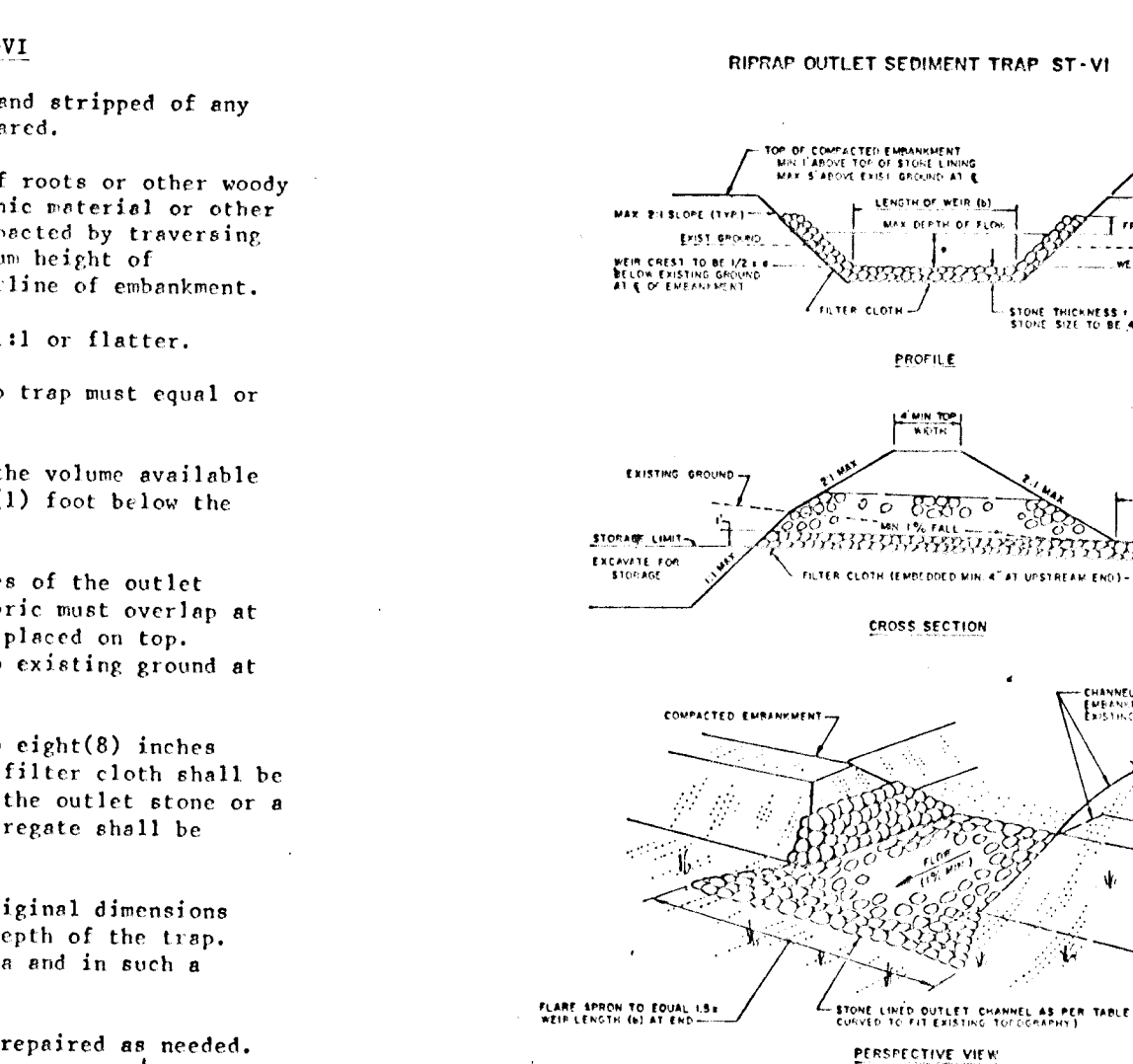
A. Stone to be 2" inch stone, or recycled concrete equivalent, in a layer at least 3 inches in thickness and be pressed into the soil with construction equipment.  
 B. Rip-rap to be 4-8 inches in a layer at least 8 inches thickness and pressed into the soil.  
 C. Approved equivalents can be substituted for any of the above materials.  
 7. Periodic inspection and required maintenance must be provided after each rain event.



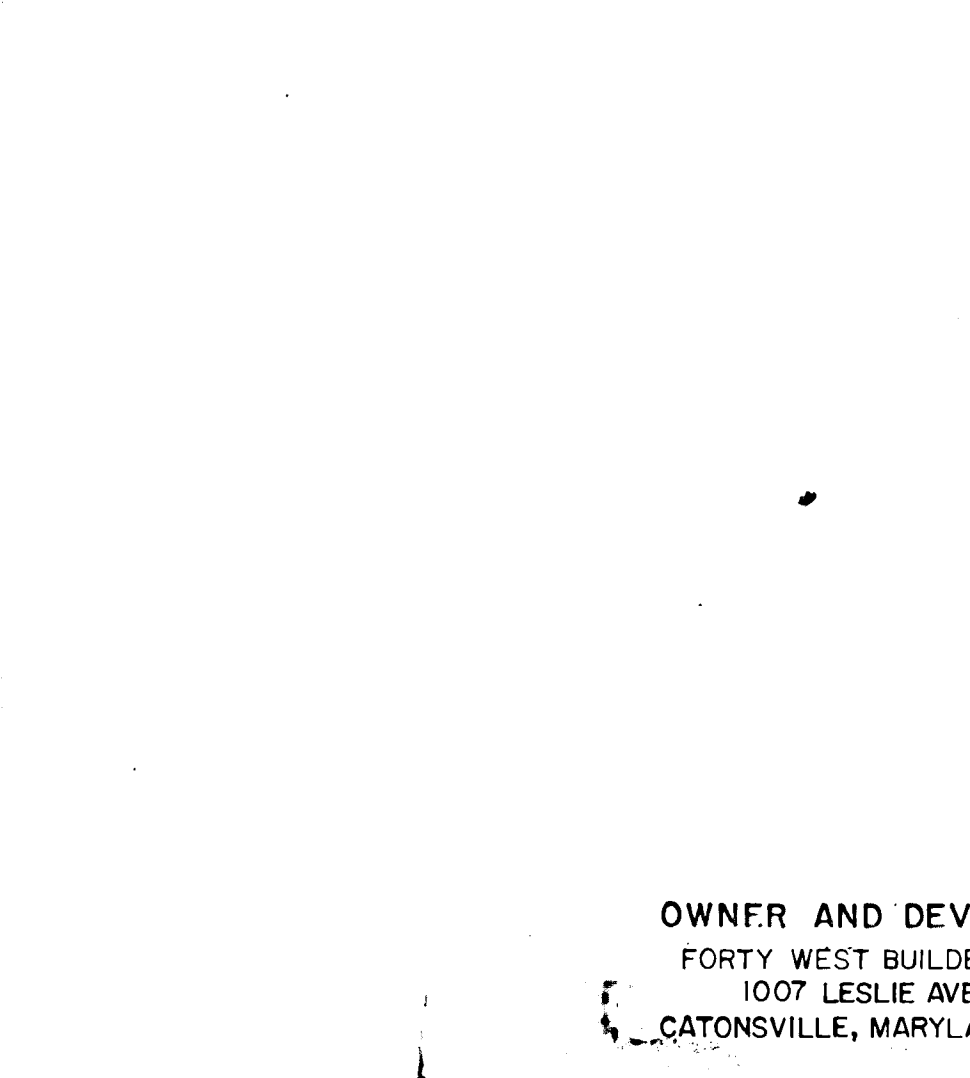
- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**
- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
  - Filter cloth to be fastened securely to woven wire fence with wire ties or staples every 24" at top and mid-section.
  - When top sections of filter cloth align each other they shall be overlapped by six inches and folded.
  - Maintenance shall be performed as needed and reported when "bulges" develop in the silt fence.



- CONSTRUCTION SPECIFICATIONS FOR ST-VI**
- The area under embankment 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 over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
  - All fill slopes shall be 2:1 or flatter; cut slopes 1:1 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 adjacent 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 (rip-rap). 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 a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
  - Sediment shall be removed and trap restored 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 established.
  - Drainage area for this practice is limited to 15 acres or less.



- CONSTRUCTION SPECIFICATIONS**
- The area under embankment 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 over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
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  - Drainage area for this practice is limited to 15 acres or less.



**OWNER AND DEVELOPER**  
 FORTY WEST BUILDERS, INC.  
 1007 LESLIE AVENUE  
 CATONSVILLE, MARYLAND 21228

**ENGINEER'S CERTIFICATE**  
 I HEREBY 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 OF ENGINEER: Charles J. Crovo Sr. DATE: 4/6/88

**DEVELOPER'S CERTIFICATE**  
 I/WE 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 A 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 ARE DEEMED NECESSARY.  
 SIGNATURE OF DEVELOPER: [Signature] DATE: 8/10/88

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
 SIGNATURE OF DISTRICT CHIEF: [Signature] DATE: 8/10/88

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 APPROVED: [Signature] DATE: 8/10/88

DISTRICT CHIEF, HOWARD SOIL CONSERVATION DISTRICT

APPROVED: OFFICE OF PLANNING AND ZONING  
 SIGNATURE: [Signature] DATE: 5-1-88  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 SIGNATURE: [Signature] DATE: 8/10/88  
 CHIEF, BUREAU OF ENGINEERING

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 SIGNATURE: [Signature] DATE: 8/10/88  
 CHIEF, LAND DEVELOPMENT DIVISION

**FISHER, COLLINS AND CARTER, INC.**  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 8200 COURT AVENUE  
 FORT COCKER, MD, MARYLAND 21043  
 TELEPHONE: (301) 461-2855

**CHARLES J. CROVO SR.**  
 DATE: 4/6/88

**SEDIMENT CONTROL NOTES AND DETAILS**  
**MT. HEBRON**  
 SECTION 19  
 LOTS 1-53  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 SCALE AS SHOWN MARCH 31, 1988  
 SHEET 8 OF 9



