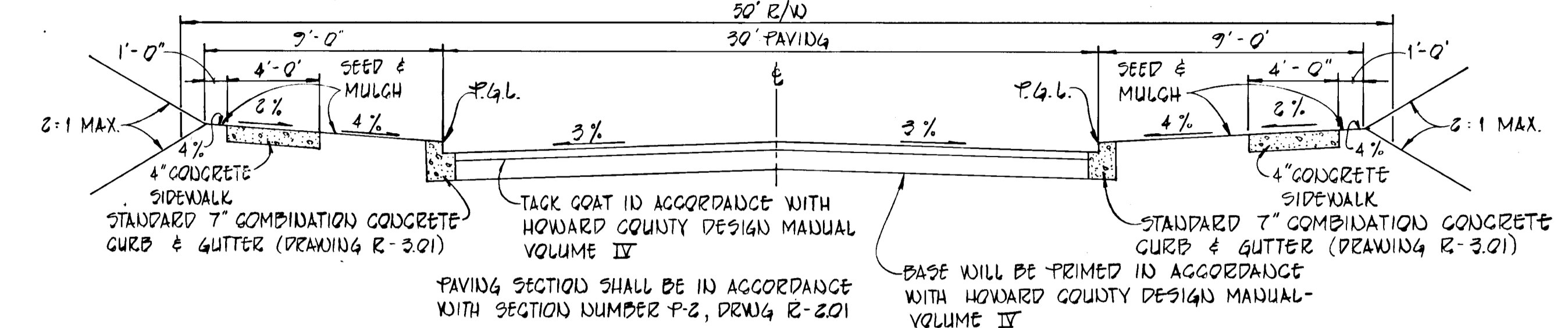


TYPE OF TRAFFICWAY - LOCAL RESIDENTIAL, ZONED: R-20, DESIGN SPEED - 30 MPH.



BENCH MARKS

B.M. #1
IRON PIPE SET 30' NORTHEAST OF EX. SAN. MAN #7617
ELEV. 384.33

B.M. #2
IRON PIPE SET 50' NORTHWEST OF PROP. CORNER OF LOT 20 # 21
ELEV. 389.66

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HOURS IN ADVANCE OF ANY CONSTRUCTION.
3. ALL INLETS SHALL BE HOWARD COUNTY STANDARD UNLESS OTHERWISE SHOWN. ALL 'A' INLETS SHALL BE DEPRESSED.
4. STORM DRAIN TRENCHES WITHIN ROAD RIGHTS-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
5. ANY DAMAGE TO PUBLIC RIGHTS-OF-WAYS OR PAVING WILL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
6. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES WHERE DIRECTED BY THE ENGINEER A MINIMUM OF TWO WEEKS IN ADVANCE OF ANY CONSTRUCTION.
8. CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPT. OF INSPECTIONS AND PERMITS AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE: 992-2436.

TAYLOR PROPERTY SECTION ONE

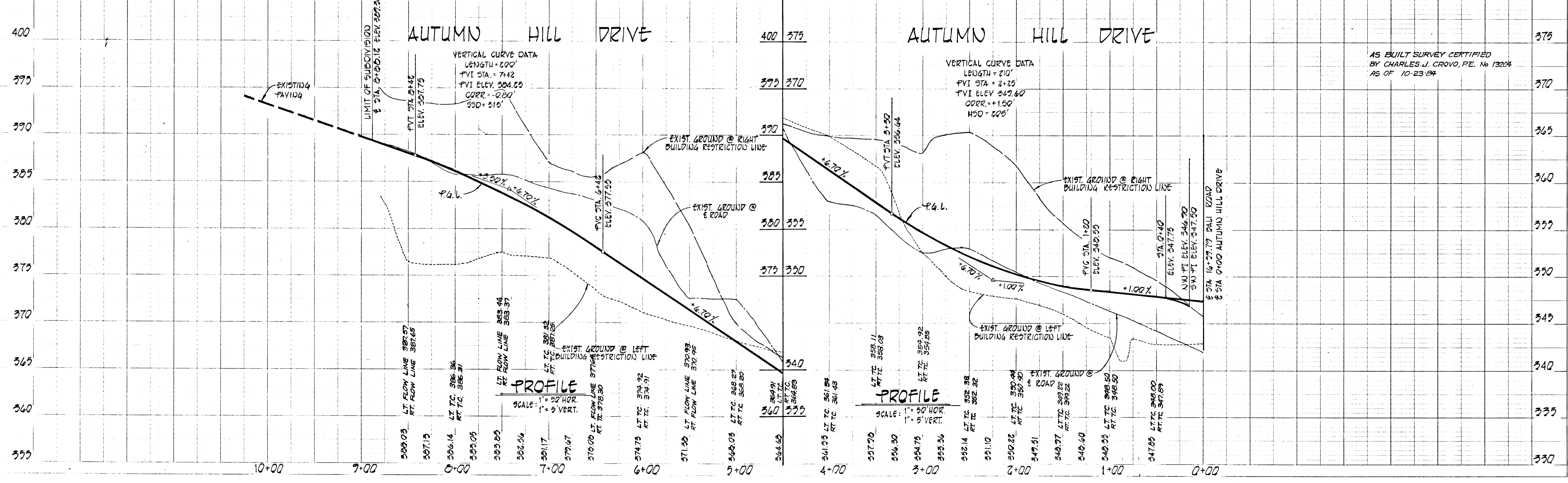
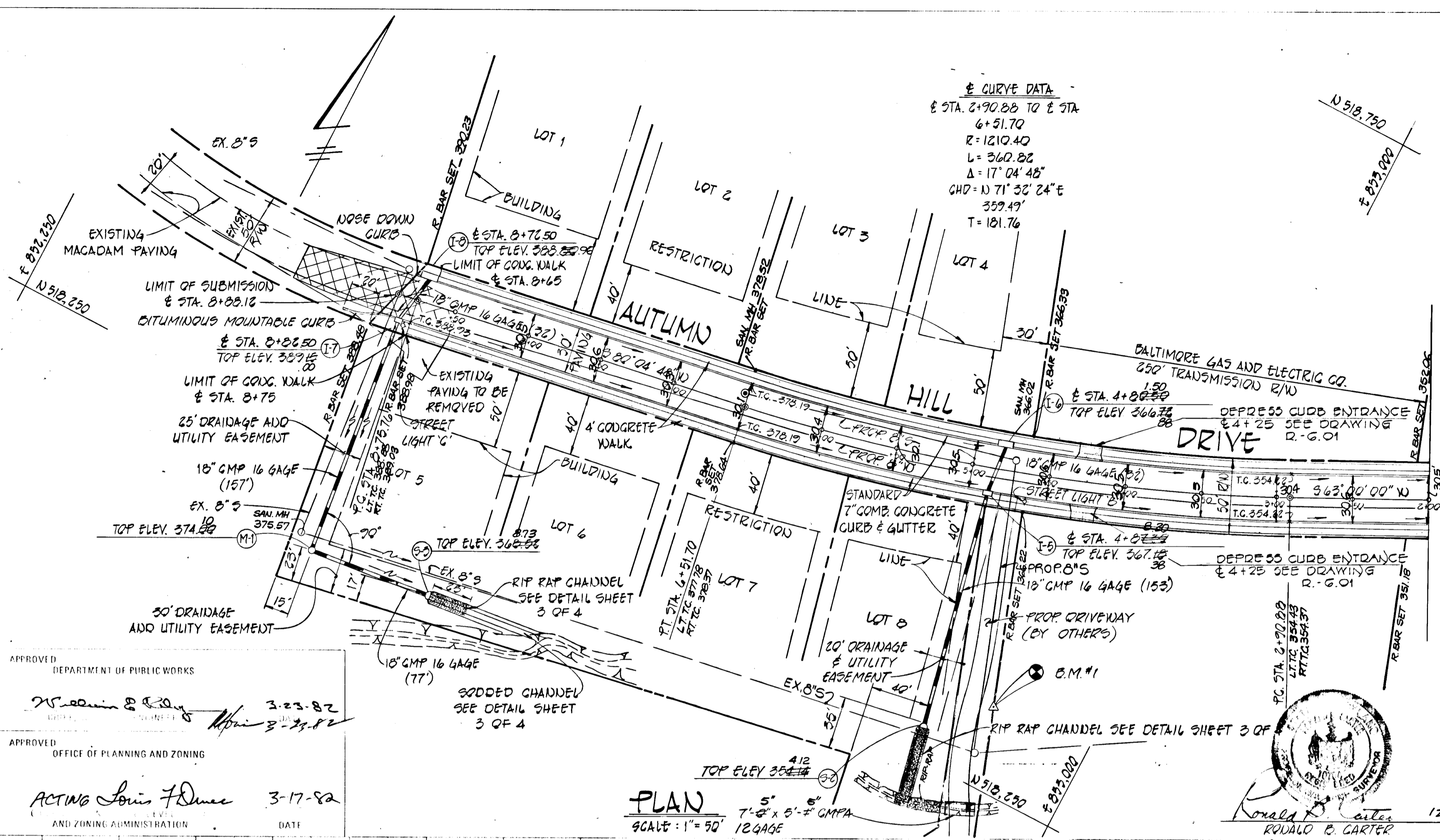
2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

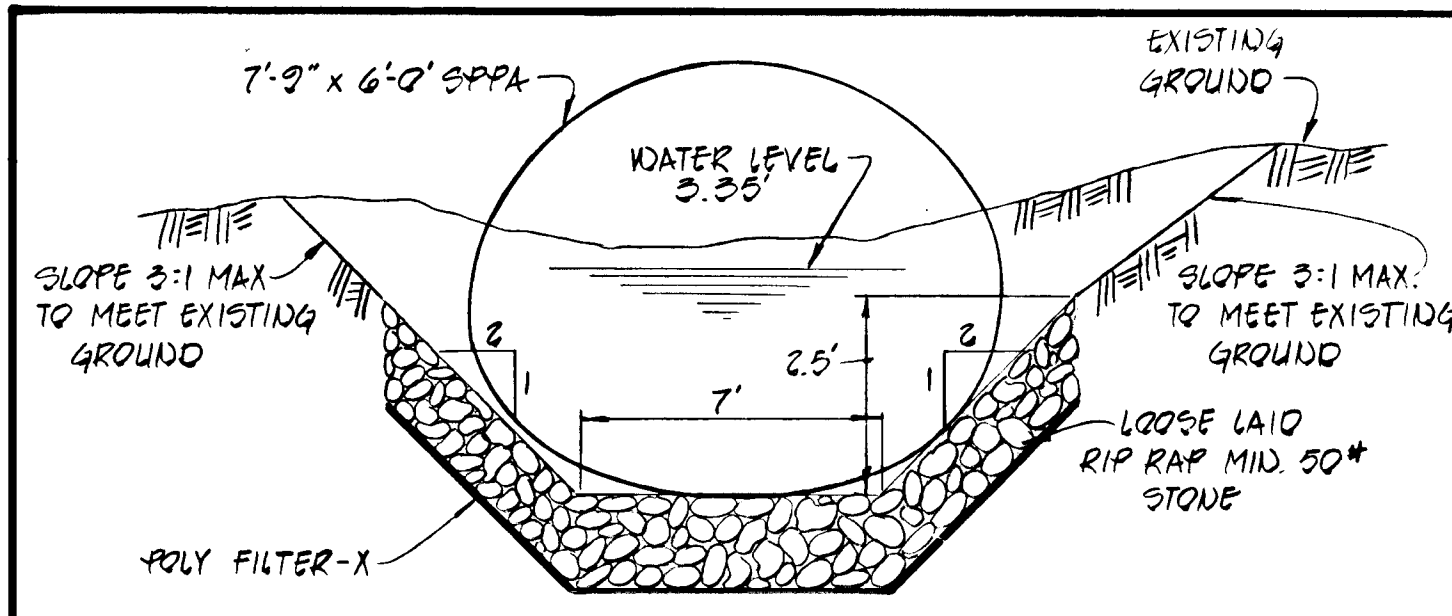
AUTUMN HILL DRIVE PLAN AND PROFILE

OWNER AND DEVELOPER
TAYLOR JOINT VENTURE
P.O. BOX 272
COLLEGE AVENUE
ELLCOTT CITY, MARYLAND 21043

SCALE: AS SHOWN DATE: 10/16/81 DWG. NO. 2 OF 4
DES.: C. GROVO DRN.: A. BOGDAN CHK.: R. B. CARTER

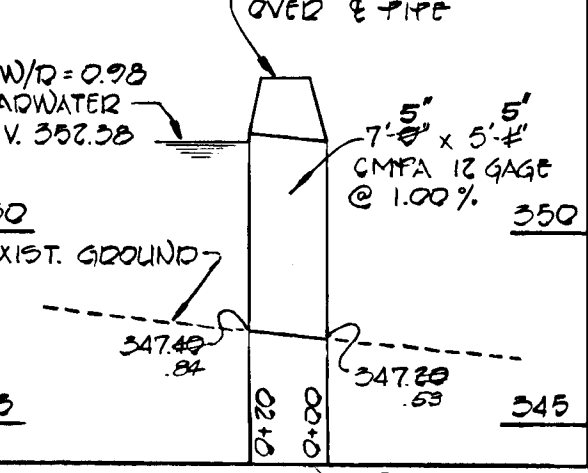
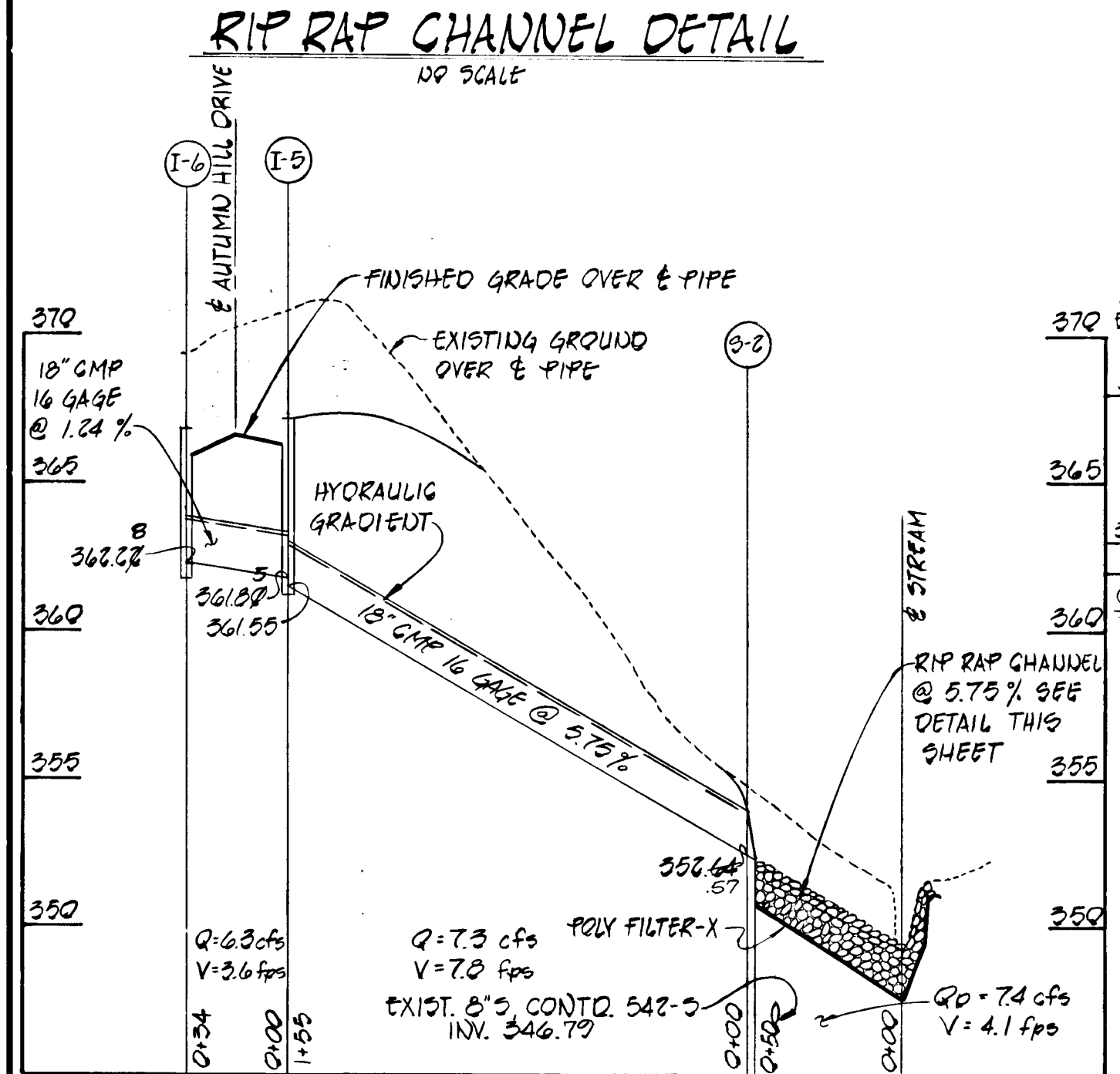
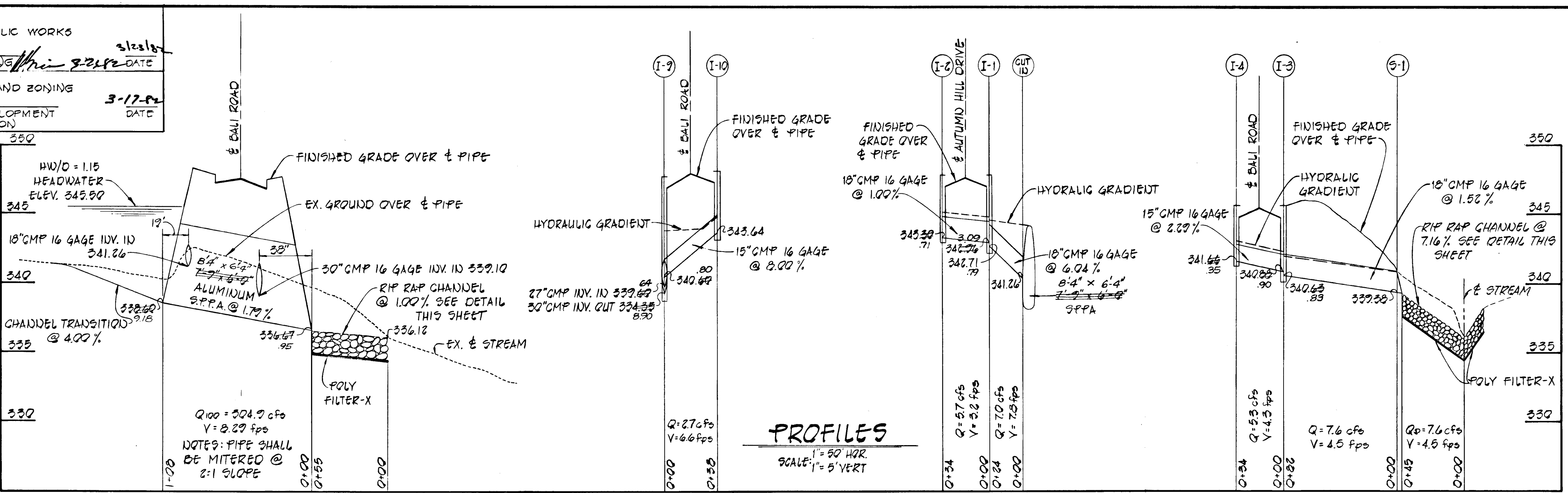
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043





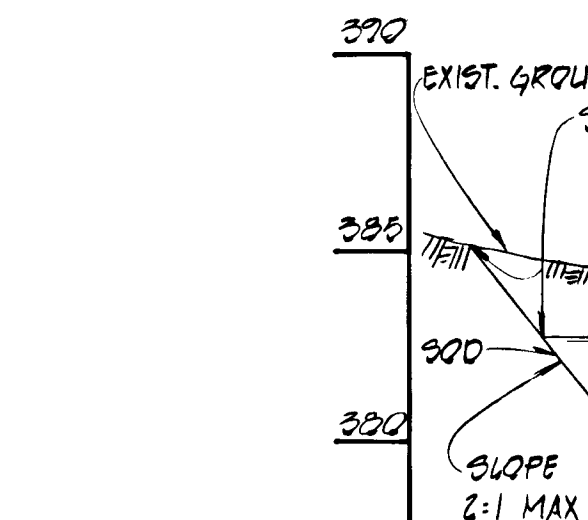
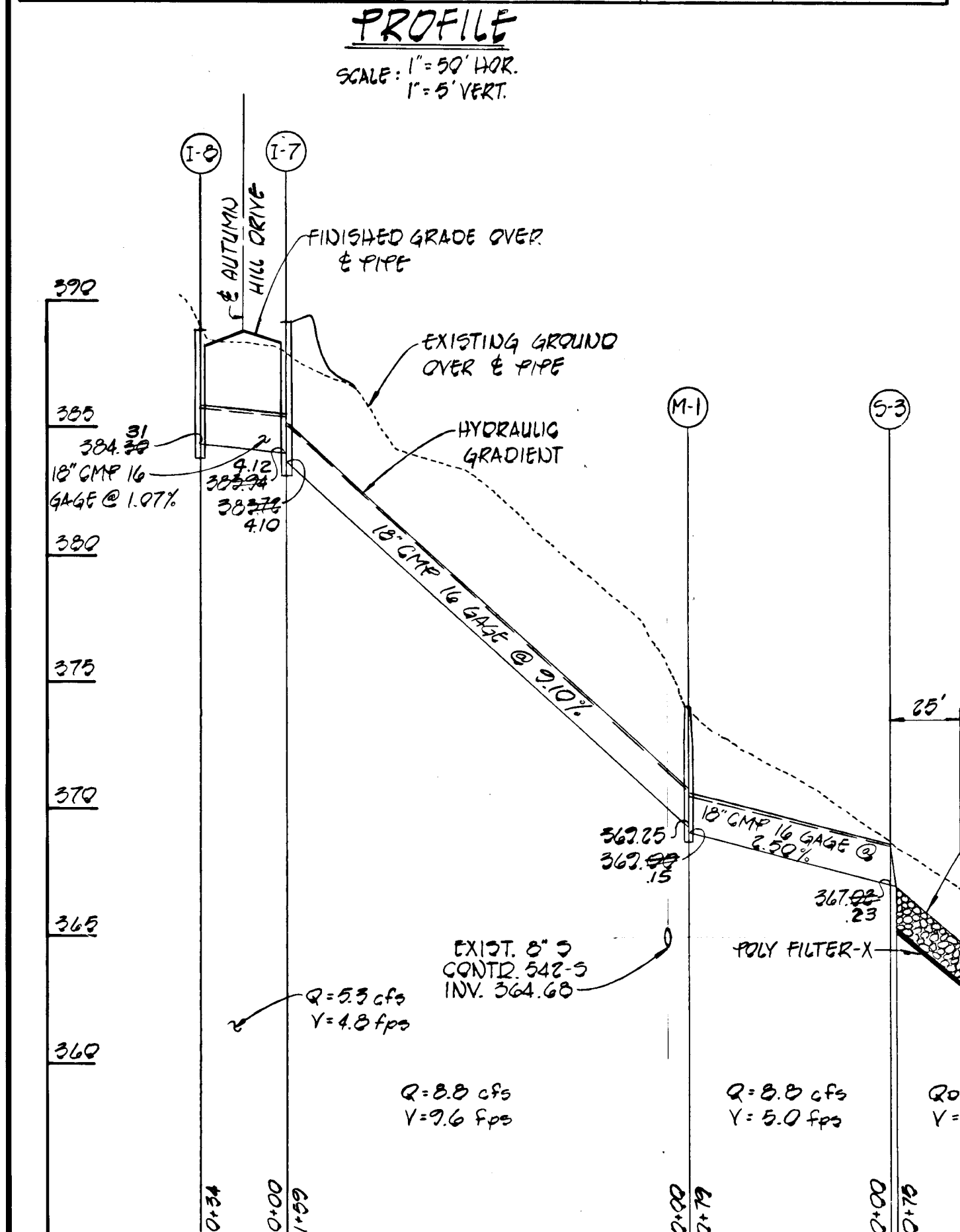
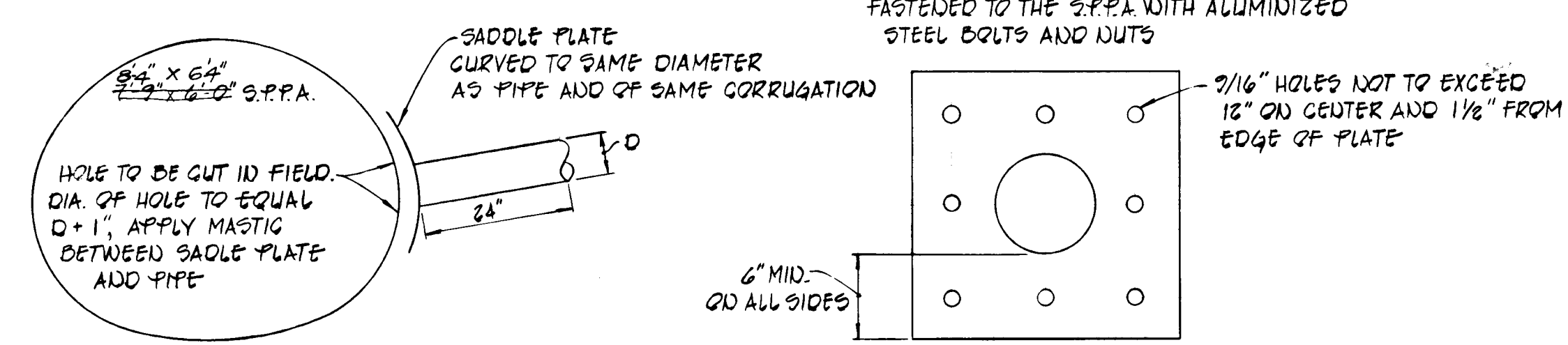
APPROVED: DEPARTMENT OF PUBLIC WORKS
W. J. ... & ...
 CHIEF, BUREAU OF ENGINEERING
 APPROVED: *...*
 CHIEF, OFFICE OF PLANNING AND ZONING
 ACTIVE *...*
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
 DATE: 3-12-84

CHANNEL DESIGN DATA @ 5-2
 A=45.9' S=1.00%
 P=21.75' S_{1/2}=0.1000
 R=2.025 n=0.035
 R_{1/2}=1.65
 V=1.425 x 1.65 x 0.1000 = 6.9 fps
 Q=0.235 x 1.65 x 6.9 fps = 317 cfs
 Q=A x V = 45.9 x 6.9 fps = 317 cfs

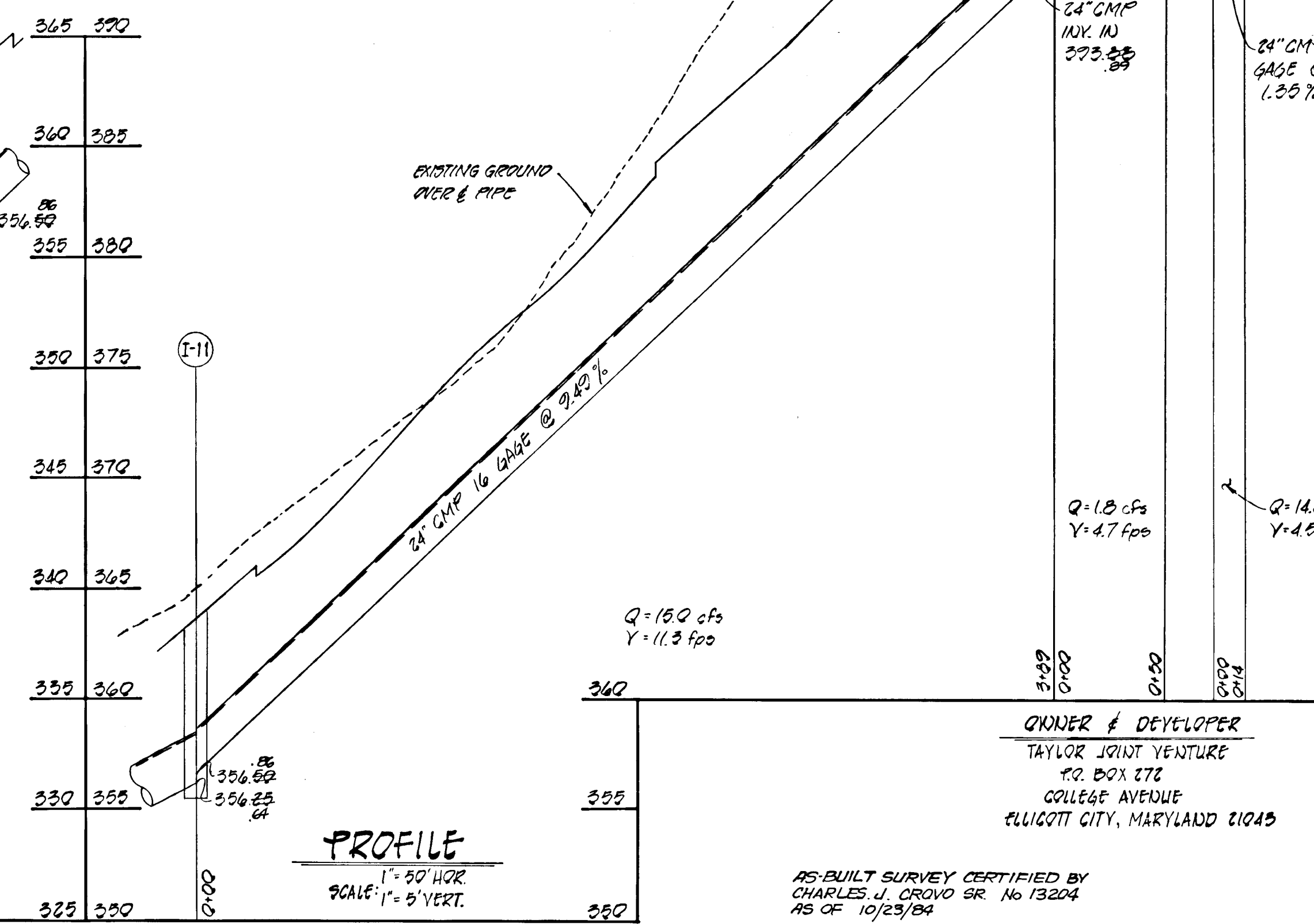
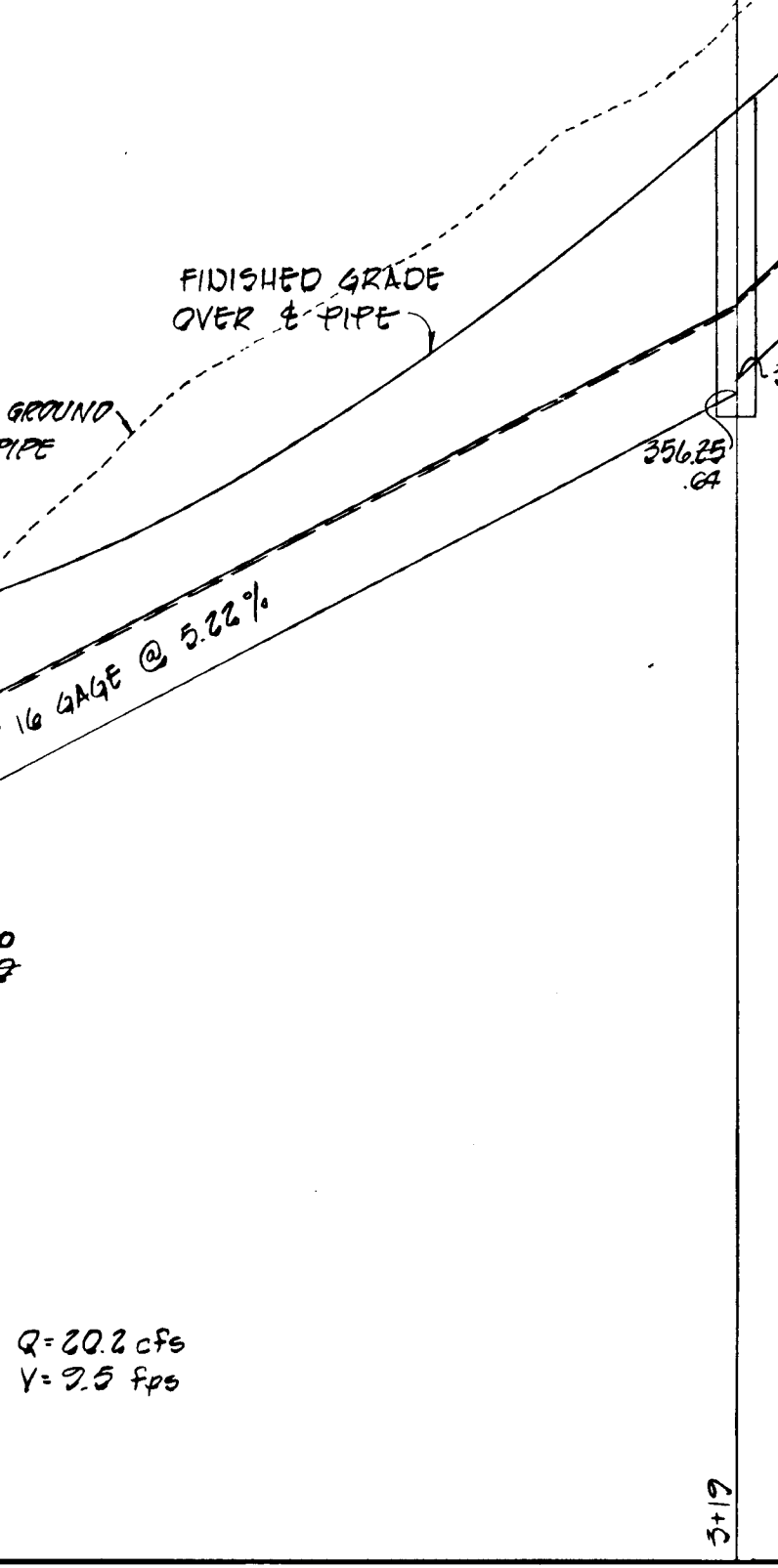
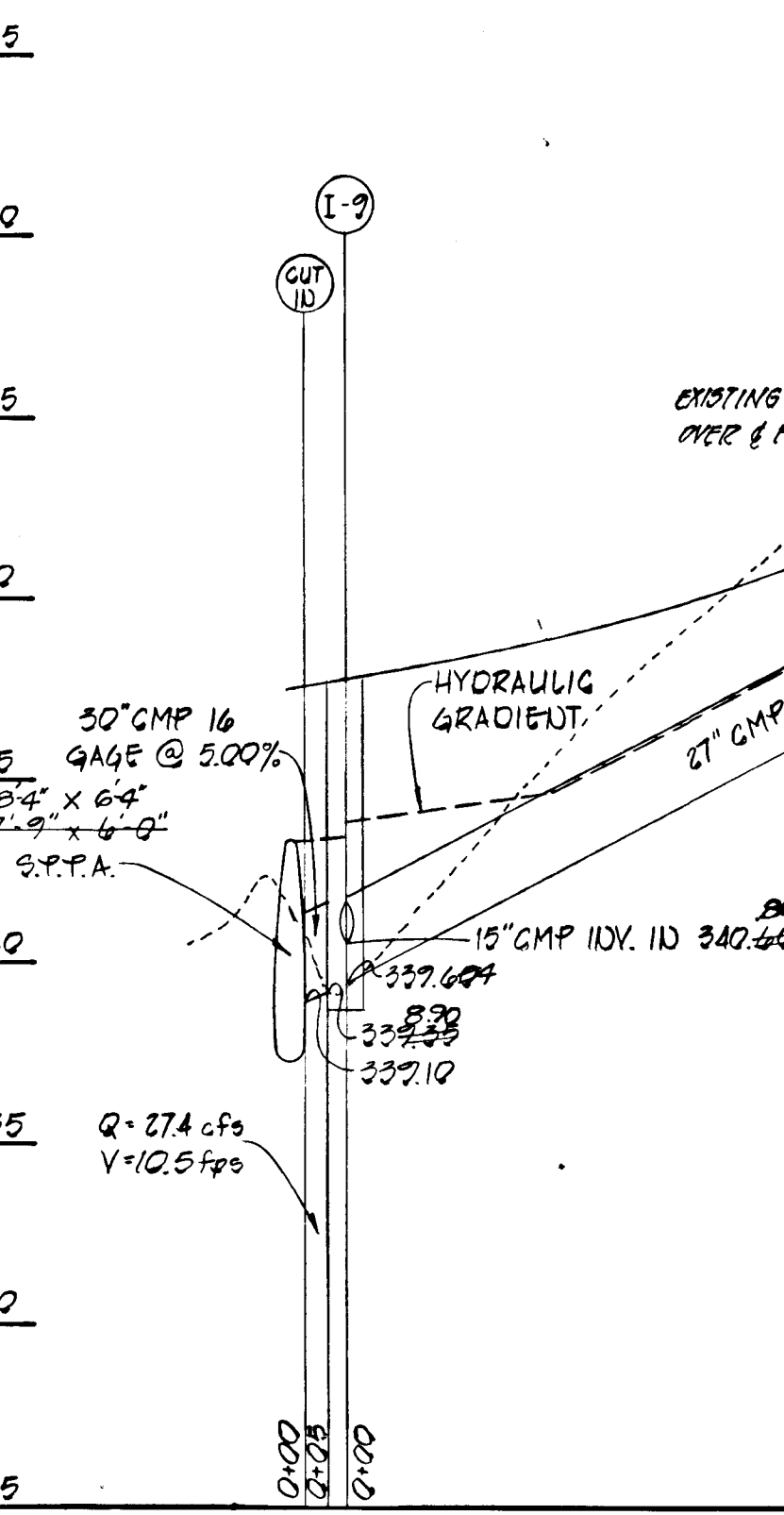
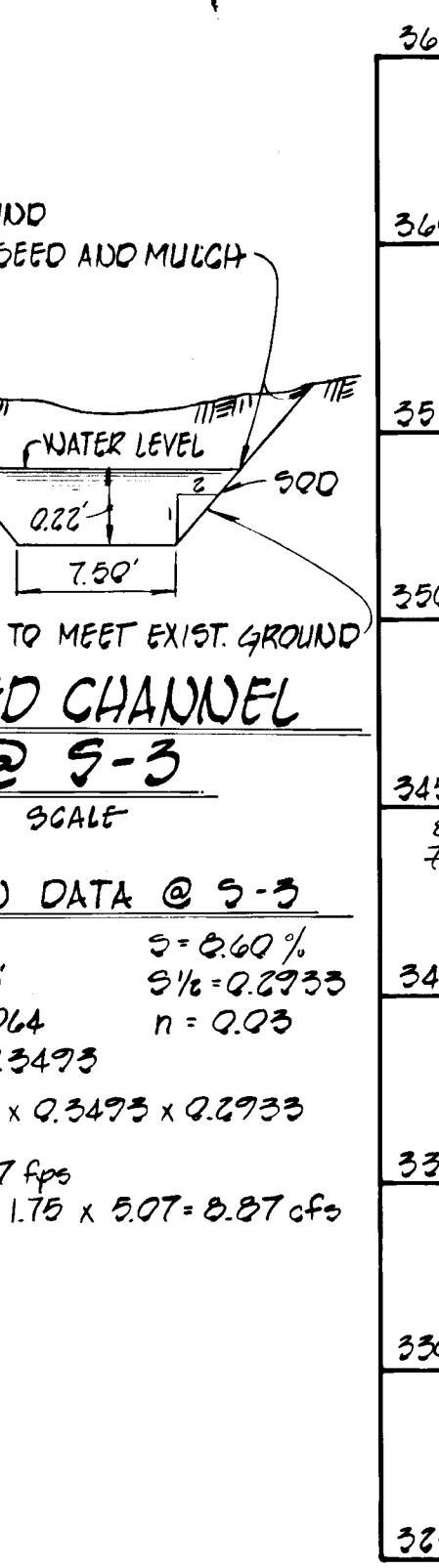


NO	TYPE	INVERT IN.	INVERT OUT	TOP ELEV.	REMARKS
I-1	A-5	342.71-349	342.71-79	347.81-99	DRAWING 5.0-4.01
I-2	A-10	-	343.30-71	347.51-86	DRAWING 5.0-4.02
I-3	A-5	340.60-70	340.60-83	345.66-90	DRAWING 5.0-4.01
I-4	A-5	-	341.66-35	345.66-38	DRAWING 5.0-4.01
I-5	A-5 W/ DEFLECTORS	361.00	361.25	361.25	DRAWINGS 5.0-4.01 & 5.0-4.83
I-6	A-10 W/ DEFLECTORS	-	362.25-28	366.16-88	DRAWINGS 5.0-4.02 & 5.0-4.83
I-7	A-5 W/ DEFLECTORS	363.00-412	363.00-410	369.25-00	DRAWINGS 5.0-4.01 & 5.0-4.83
I-8	A-10 W/ DEFLECTORS	-	364.50-31	369.25-36	DRAWINGS 5.0-4.02 & 5.0-4.83
I-9	A-10	342.60-80	342.60-80	347.82-05	DRAWING 5.0-4.01
I-10	A-5 W/ DEFLECTORS	-	345.04	349.17-99	DRAWINGS 5.0-4.01 & 5.0-4.83
I-11	A-10 W/ DEFLECTORS	356.50-86	356.50-86	360.25-92	DRAWING 5.0-4.02 & 5.0-4.83
I-12	A-10 W/ DEFLECTORS	354.15-04	353.40-63	359.88-87	DRAWINGS 5.0-4.02 & 5.0-4.83
I-13	A-5 W/ DEFLECTORS	-	356.44-62	360.25-60	DRAWINGS 5.0-4.01 & 5.0-4.83
I-14	TYPE 'X' (GATE 5)	-	354.07-35	358.50-16	DRAWING 5.0-4.15
M-1	TYPE 'B' SHALLOW MANHOLE	360.00	360.00-15	364.00-10	DRAWING 5.0-3.03
5-1	METAL END SECTION	350.00	359.15	349.20-66	DRAWING 5.0-3.61
5-2	METAL END SECTION	352.64	352.64	354.14-12	DRAWING 5.0-3.61
5-3	METAL END SECTION	367.23	367.23	366.52-78	DRAWING 5.0-3.61

* INLET I-14 TO HAVE 5' CONCRETE CHANNEL ON EAST SIDE



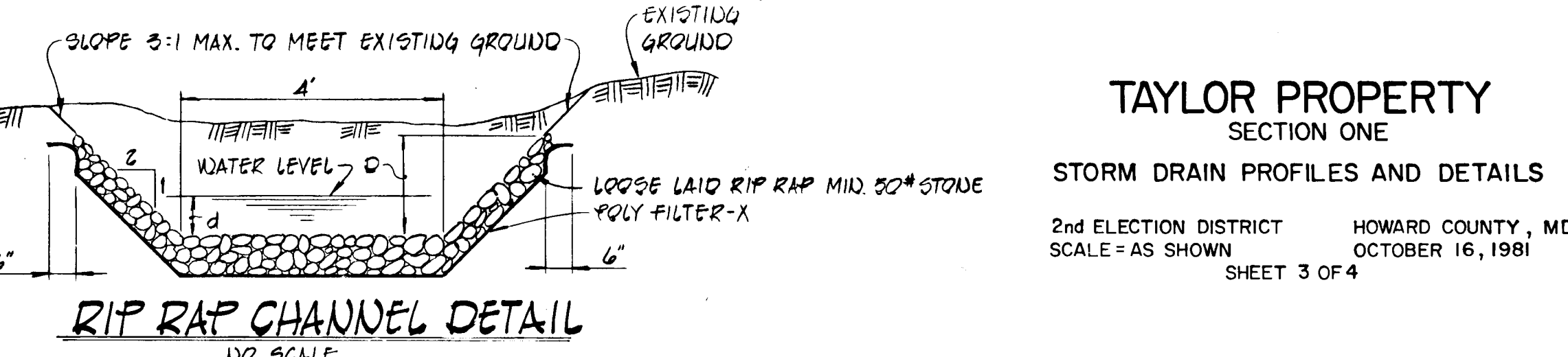
DESIGN DATA @ 5-3
 A=1.75' S=0.60%
 P=5.45' S_{1/2}=0.2353
 R=0.2064 n=0.03
 R_{1/2}=0.3475
 V=1.425 x 0.3475 x 0.2353 = 0.113 fps
 Q=0.23 x 0.113 fps = 0.026 cfs
 Q=A x V = 1.75 x 0.113 fps = 0.198 cfs



CHANNEL DESIGN DATA @ 5-3
 A=1.75' S=0.60%
 P=5.45' S_{1/2}=0.2353
 R=0.2064 n=0.03
 R_{1/2}=0.3475
 V=1.425 x 0.3475 x 0.2353 = 0.113 fps
 Q=0.23 x 0.113 fps = 0.026 cfs
 Q=A x V = 1.75 x 0.113 fps = 0.198 cfs

CHANNEL DESIGN DATA @ 5-2
 A=1.01' S=5.75%
 P=5.70' S_{1/2}=0.2353
 R=0.3175 n=0.04
 R_{1/2}=0.4654 d=0.25'
 D=1'
 V=1.425 x 0.4654 x 0.2353 = 4.1 fps
 Q=0.04 x 4.1 fps = 0.164 cfs
 Q=A x V = 1.01 x 4.1 fps = 4.14 cfs

CHANNEL DESIGN DATA @ 5-1
 A=1.70' S=7.16%
 P=5.60' S_{1/2}=0.2676
 R=0.3036 n=0.04
 R_{1/2}=0.4517 d=0.26'
 D=1'
 V=1.425 x 0.4517 x 0.2676 = 4.47 fps
 Q=0.04 x 4.47 fps = 0.179 cfs
 Q=A x V = 1.70 x 4.47 fps = 7.6 cfs



OWNER & DEVELOPER
 TAYLOR JOINT VENTURE
 P.O. BOX 172
 COLLEGE AVENUE
 ELLICOTT CITY, MARYLAND 21045

AS-BUILT SURVEY CERTIFIED BY
 CHARLES J. GROVO SR No 13204
 AS OF 10/23/84

TAYLOR PROPERTY
 SECTION ONE
 STORM DRAIN PROFILES AND DETAILS
 2nd ELECTION DISTRICT HOWARD COUNTY, MD.
 SCALE=AS SHOWN OCTOBER 16, 1981
 SHEET 3 OF 4

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8988 COURT AVENUE
 ELLICOTT CITY, MARYLAND 21045
 RONALD B. CARTER DATE: 10-26-1981

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 erosion before beginning the project. I also authorize periodic onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."
 [Signature] 3/15/82

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 [Signature] 3-17-82
 U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature] 3-17-82
 DISTRICT ADMINISTRATOR DATE
 HOWARD SOIL CONSERVATION DISTRICT

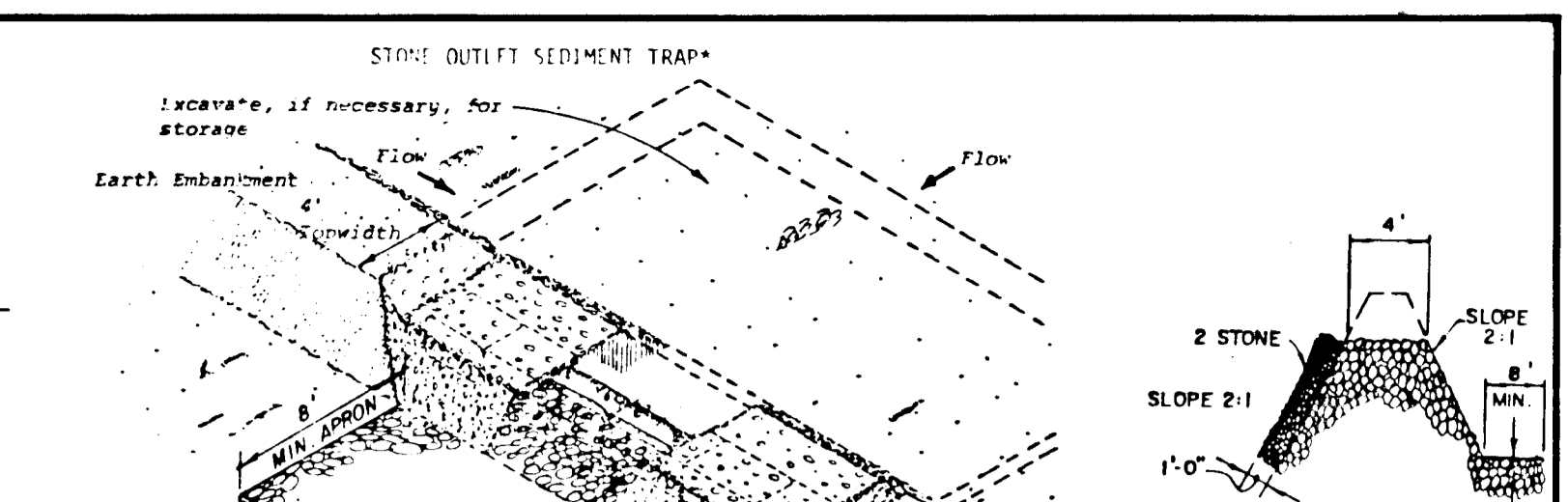
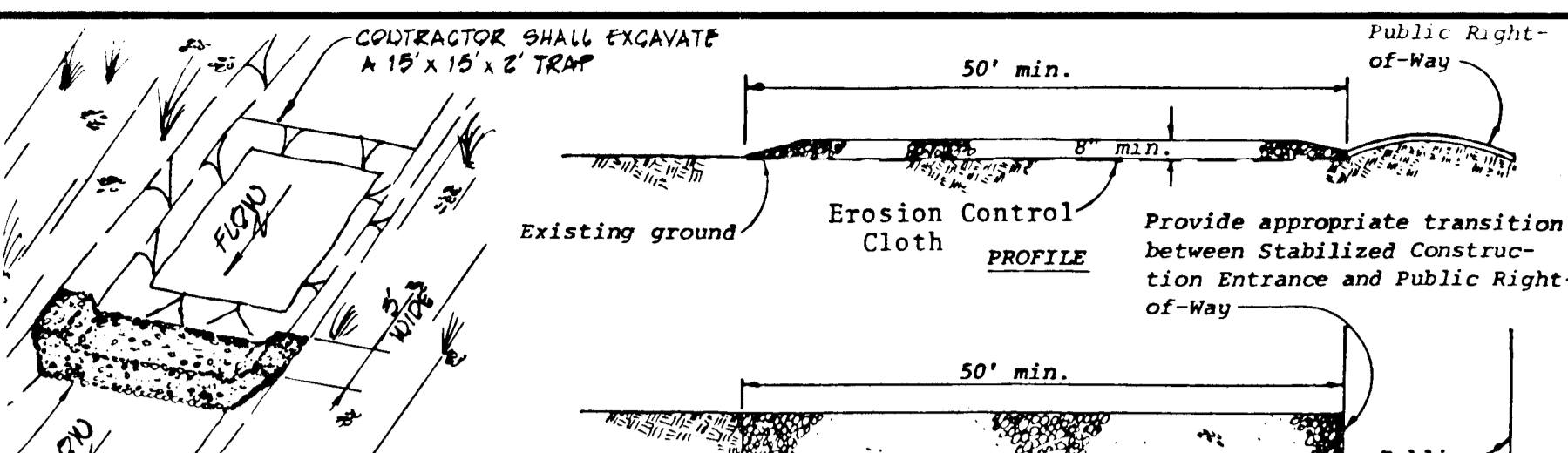
ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature] 3/15/82
 PHIL D. COLLINS P.E. REG. NO. 9753 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 3/22/82
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: OFFICE OF PLANNING AND ZONING
 [Signature] 3-17-82
 ACTING CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

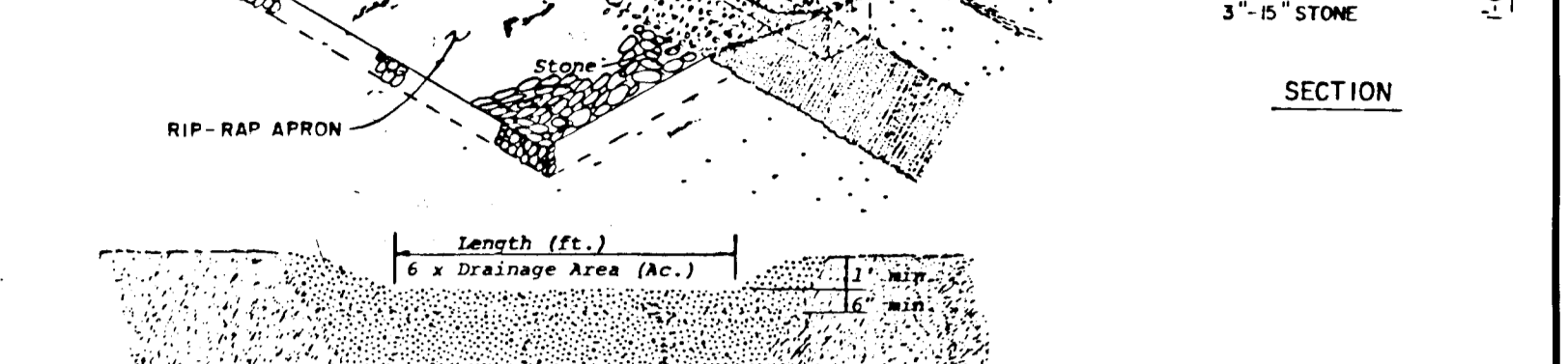
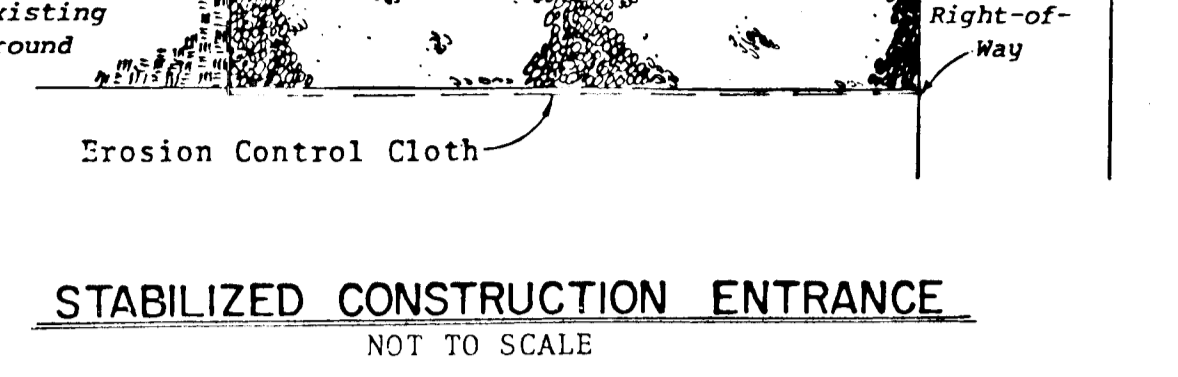
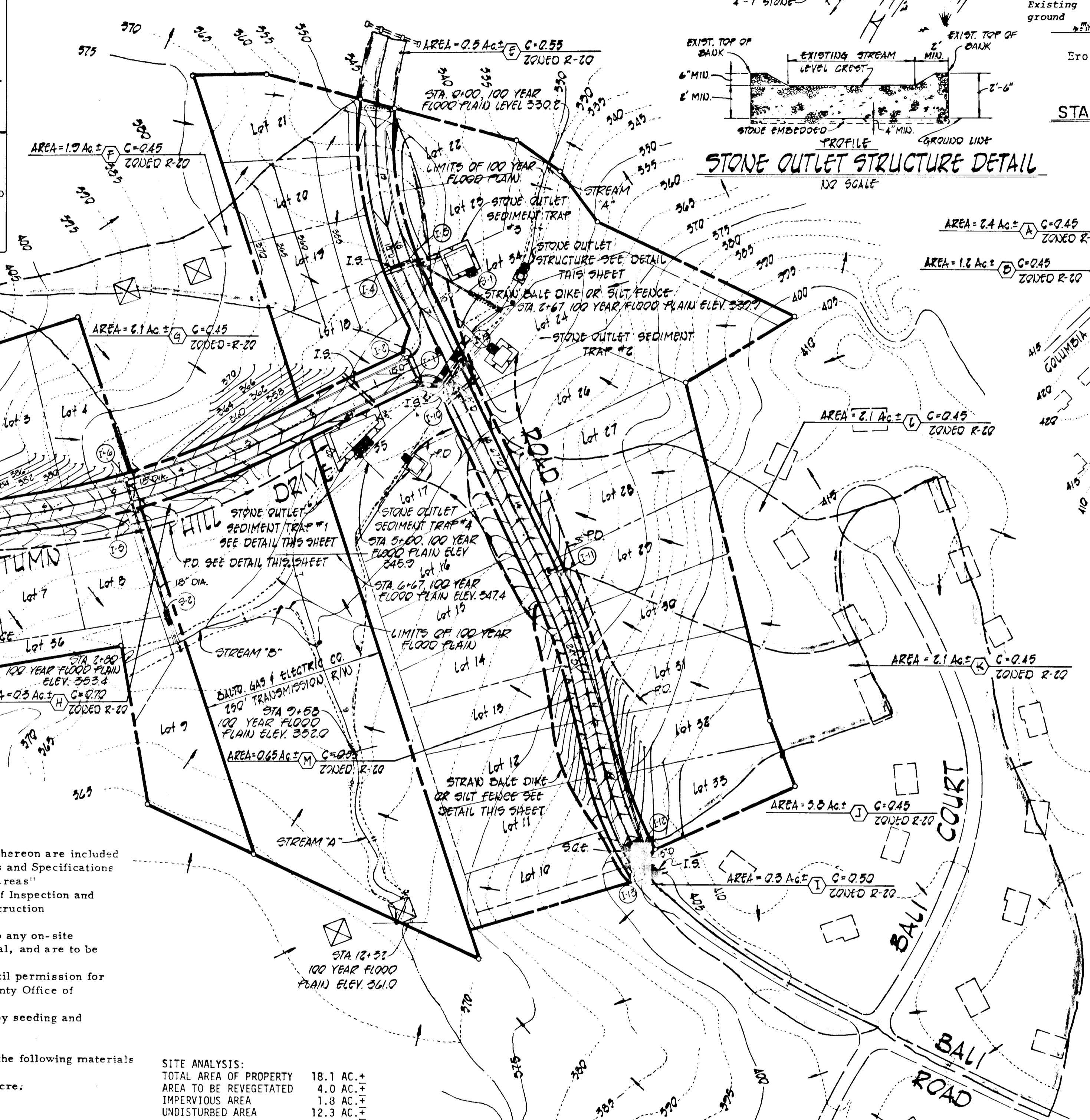
STONE OUTLET SEDIMENT TRAP DATA

	TRAP #1	TRAP #2	TRAP #3	TRAP #4
DRAINAGE AREA	4.9 AC. +	1.3 AC. +	2.4 AC. +	0.6 AC. +
STORAGE REQUIRED	329.3 CU. YDS.	87.1 CU. YDS.	160.8 CU. YDS.	40.2 CU. YDS.
STORAGE PROVIDED	342.0 CU. YDS.	90.1 CU. YDS.	164.4 CU. YDS.	43.1 CU. YDS.
BOTTOM DIMENSION	--	19' x 25'	32' x 32'	16' x 16'
TOP DIMENSION	SEE PLAN	31' x 37'	44' x 44'	26' x 26'
DEPTH	3'	3'	3'	2.5'
SIDE SLOPES	2:1	2:1	2:1	2:1
BOTTOM ELEVATION	341.5	339.5	340.5	346.0
STONE CREST ELEVATION	345.0	343.0	344.0	349.0
	29.4'	7.8'	14.4'	3.6'



SEDIMENT CONTROL NOTES

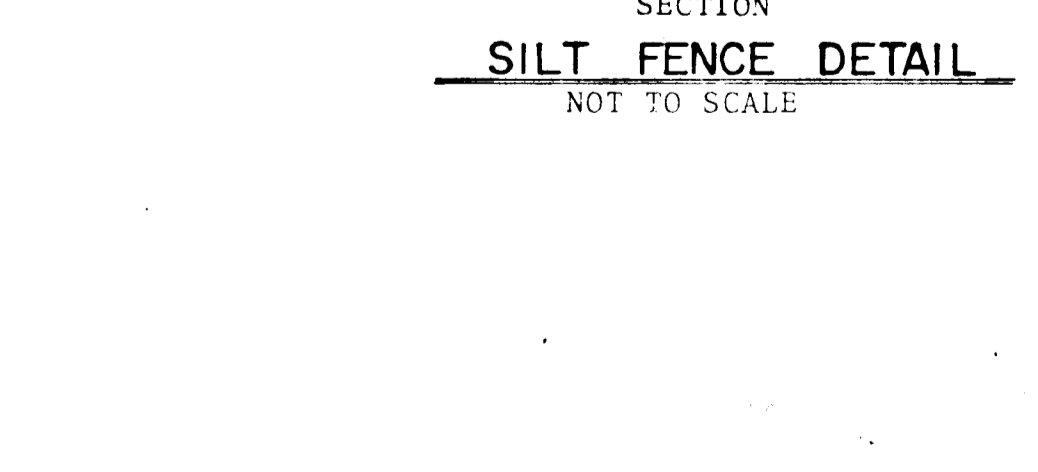
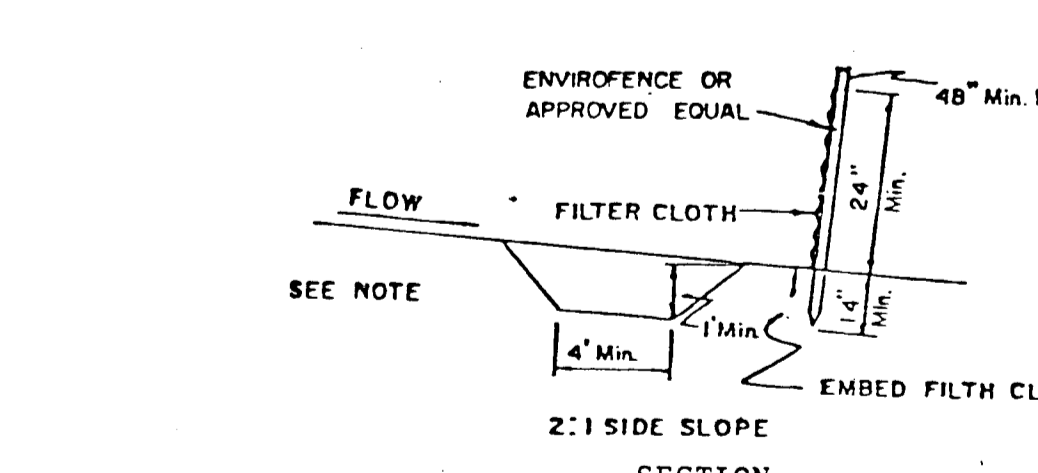
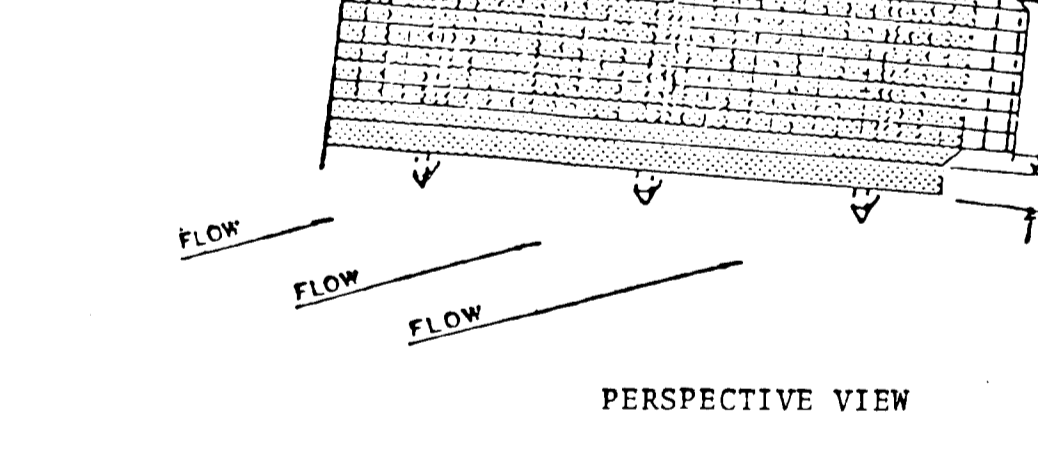
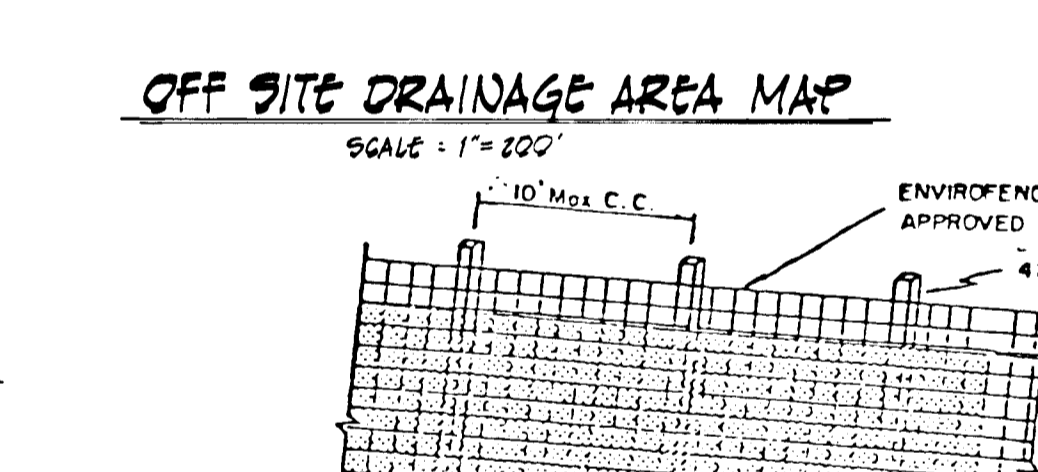
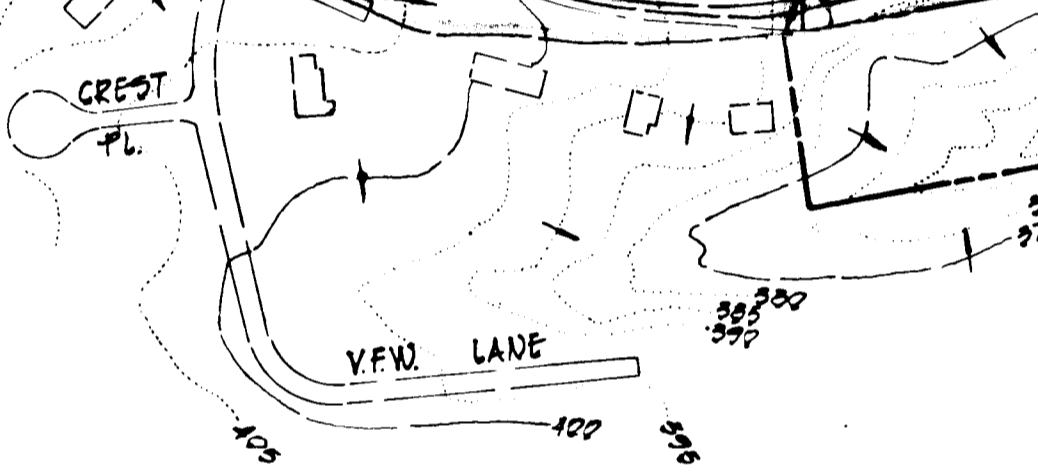
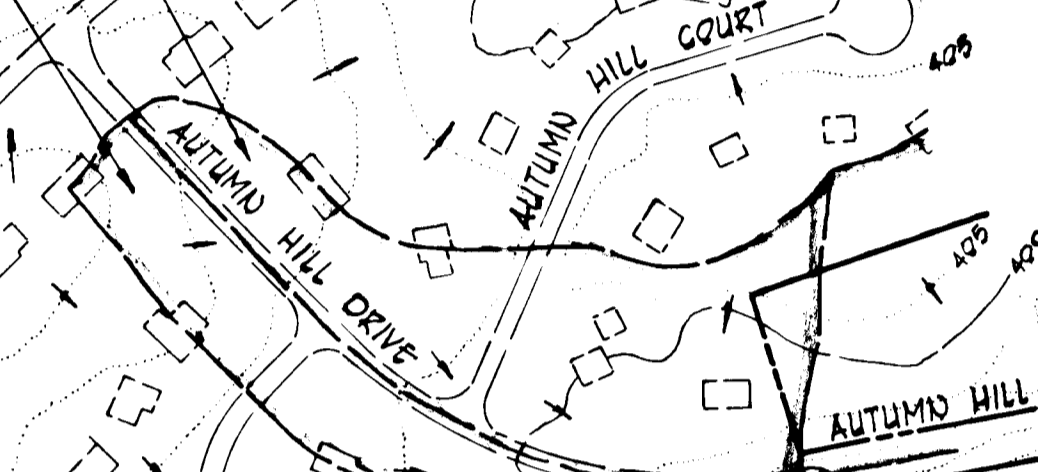
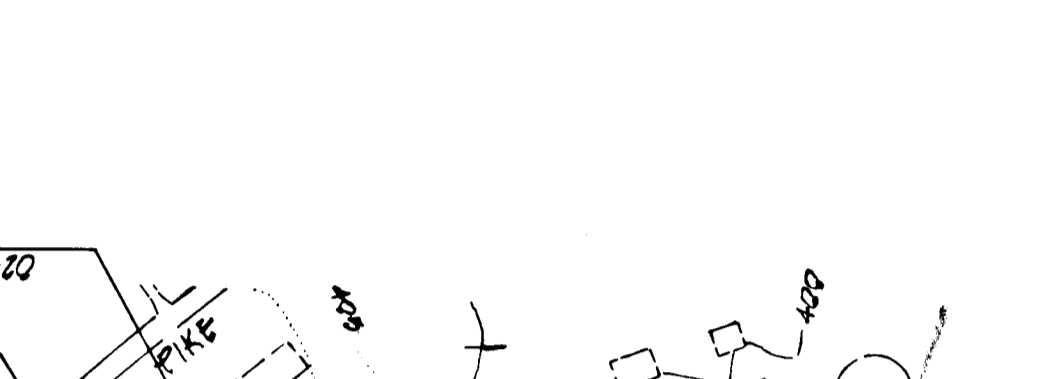
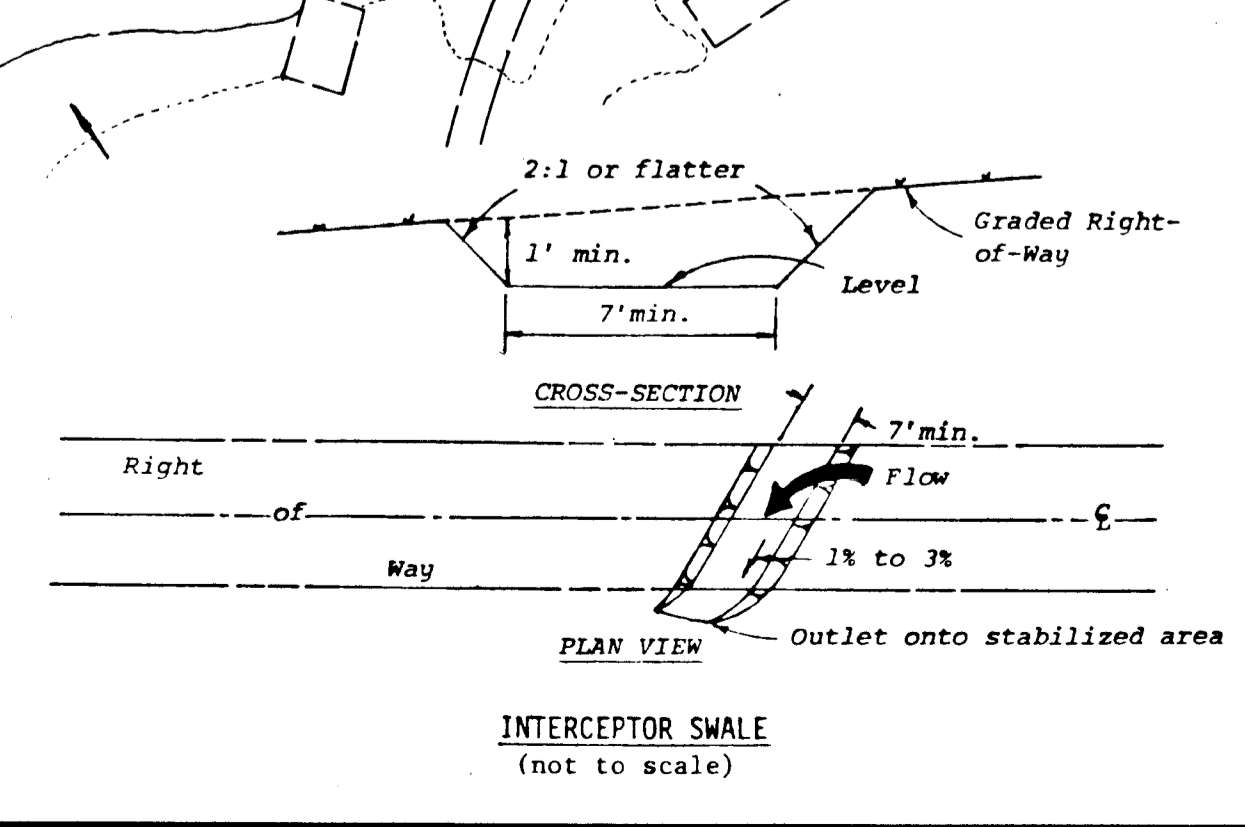
- Specifications for the Sediment Control Details shown hereon are included in the U.S. D.A. Soil Conservation Service "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas"
- The developer shall notify the Howard County Office of Inspection and Permits at least 24 hours prior to beginning any construction shown hereon (992-2433).
- Sediment control structures to be constructed prior to any on-site grading or disturbance to any existing surface material, and are to be stabilized as soon as constructed.
- All sediment control structures to remain in place until permission for their removal has been obtained from the Howard County Office of Inspection and Permits (992-2433).
- All graded areas not to be sodded shall be stabilized by seeding and mulching in accordance with the following:
 - Site Preparation
 - Harrow or disc in areas proposed to be seeded the following materials:
 - Pulverized limestone at 2 tons/acre.
 - Commercial fertilizer 10-10-10 at 3/4 tons/acre.
 - Super phosphate at 600 lbs./acre.
 - Seeding
 - Sow the following seed mixture at the rate of 200 lbs./acre with a mechanical spreader:
 - Temporary: Italian or Perennial Rye Grass
 - Permanent: 40% Merion Blue Grass, 40% South Dakota Blue Grass and 20% Penn Lawn Creeping Fescue.
 - The seeded area shall then be raked with a York Rake (a minimum of 2 passes) covered and compacted with Cultipacker or other approved method.
 - Mulching
 - Seeded areas shall be uniformly mulched immediately after seeding with unweathered small grain straw at the rate of 1-1/2 - 2 tons/acre.
 - Tie mulch down with liquid asphalt at 0.1 gal./s.y. or emulsified asphalt at 0.04 gal./s.y. or mulch netting.
- A grading plan must be developed by the builder and approved before beginning construction of dwellings.



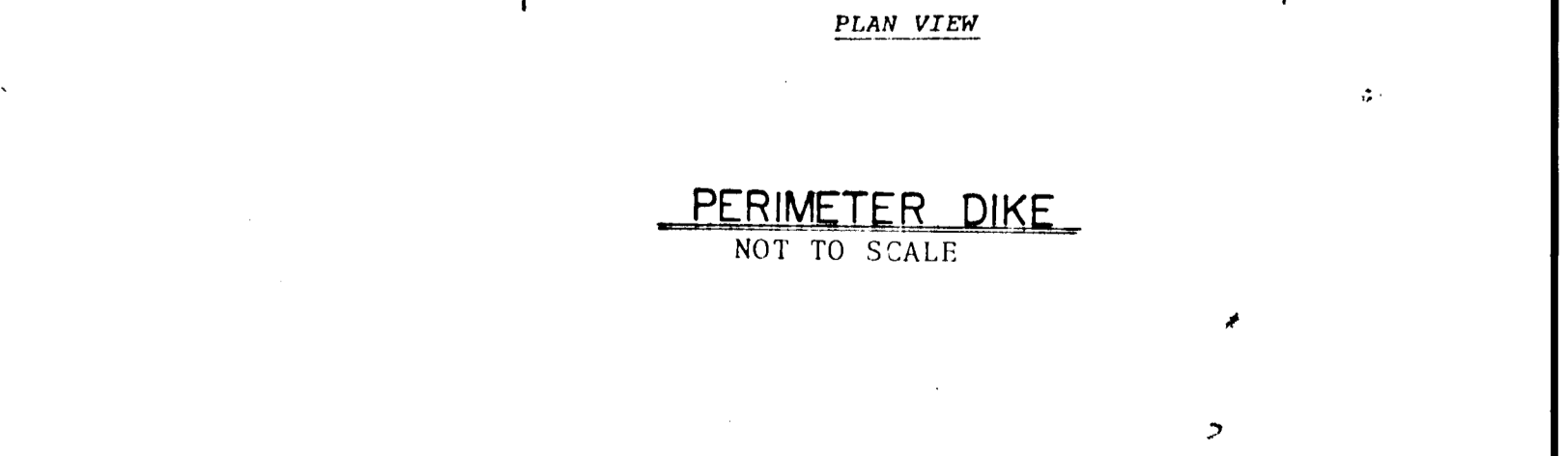
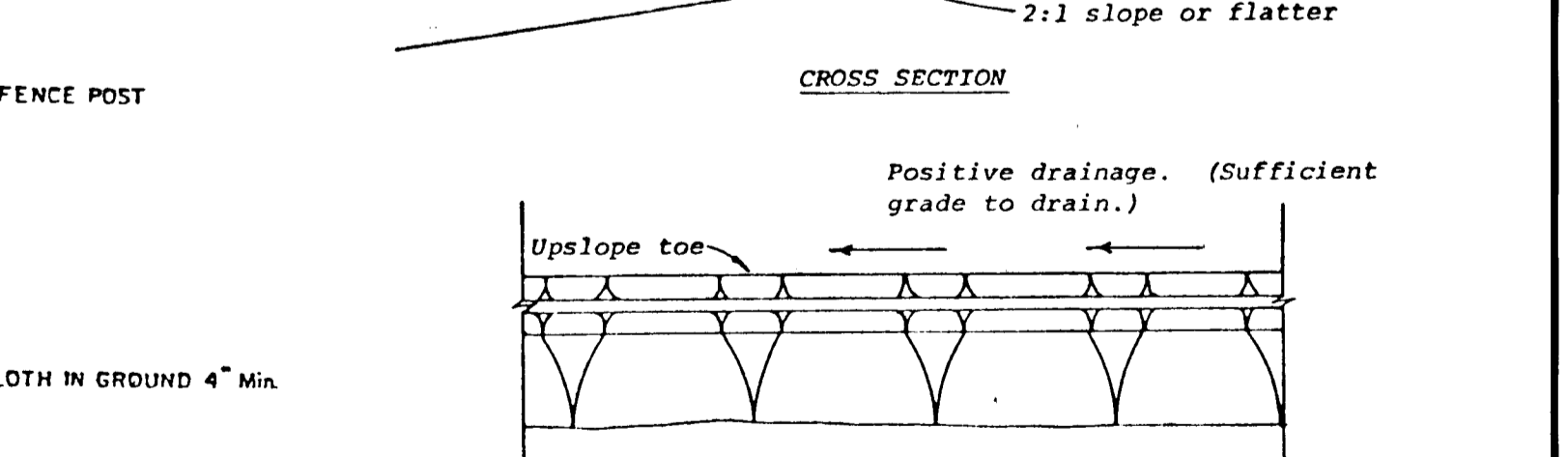
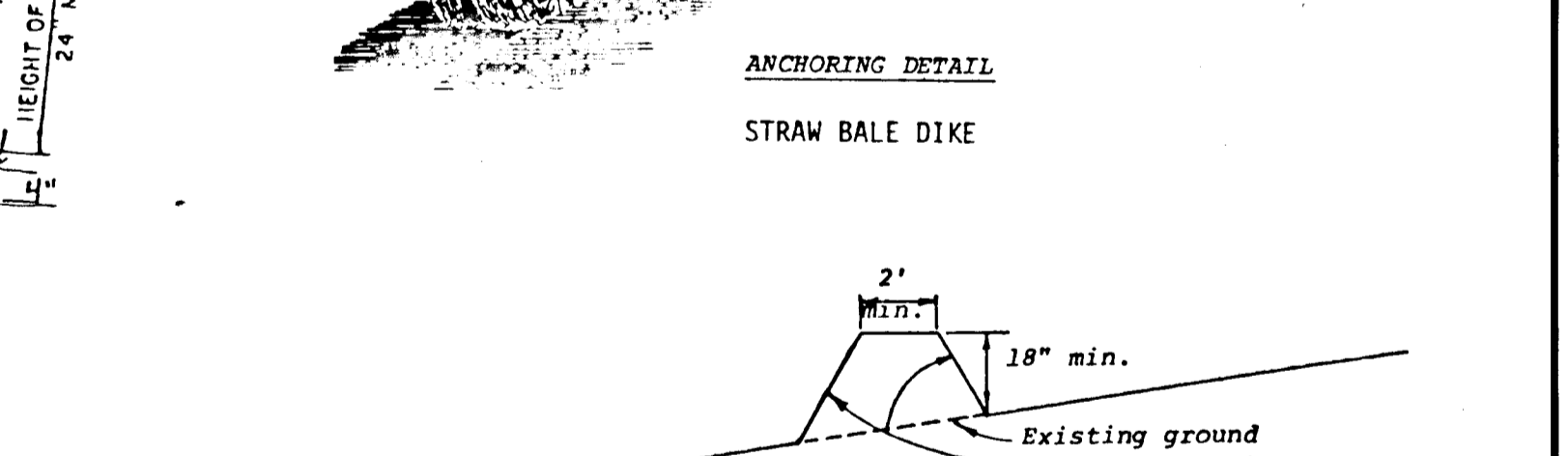
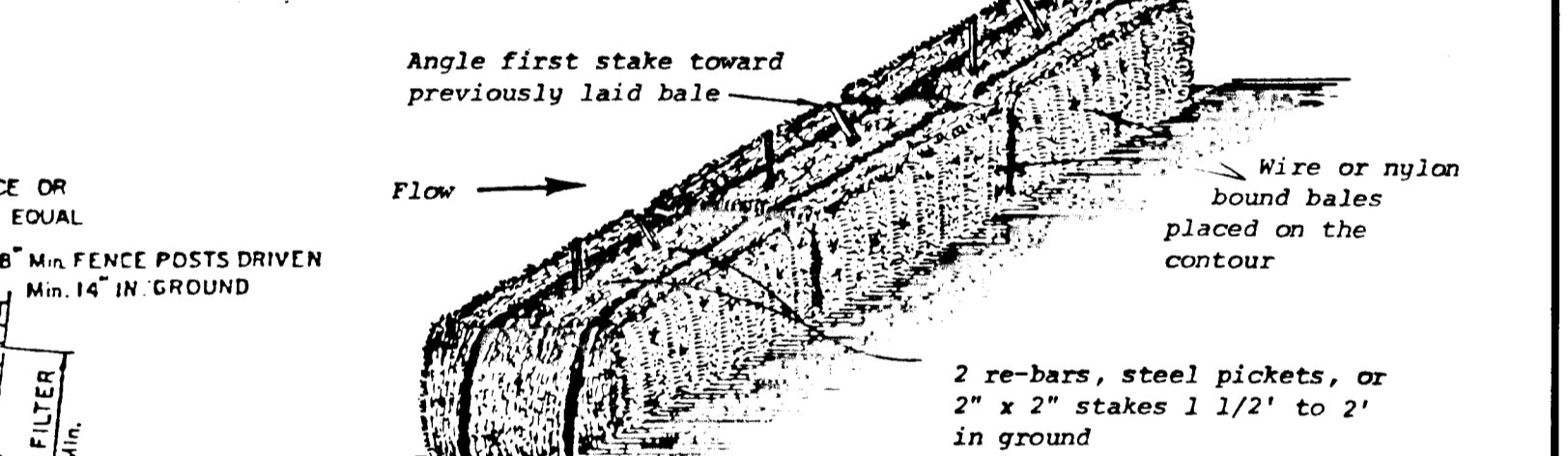
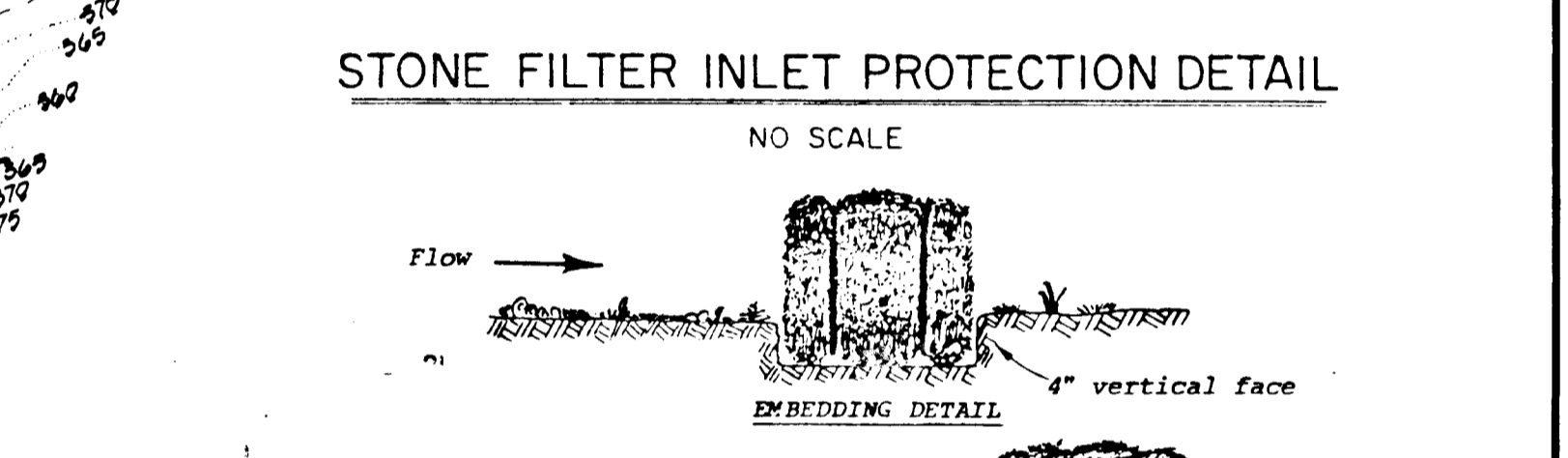
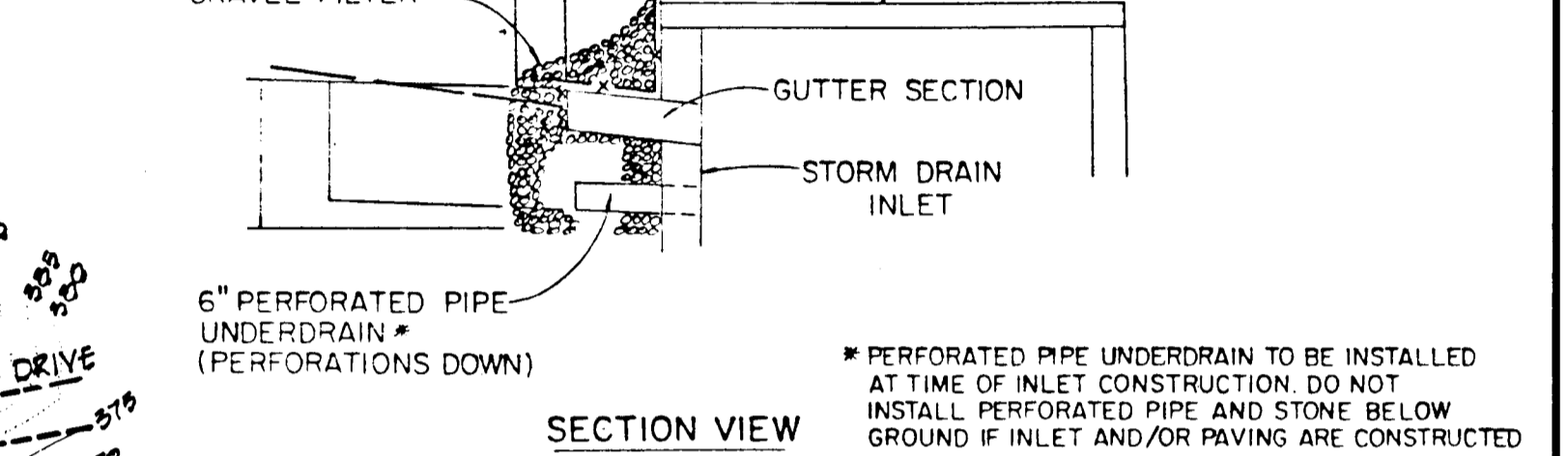
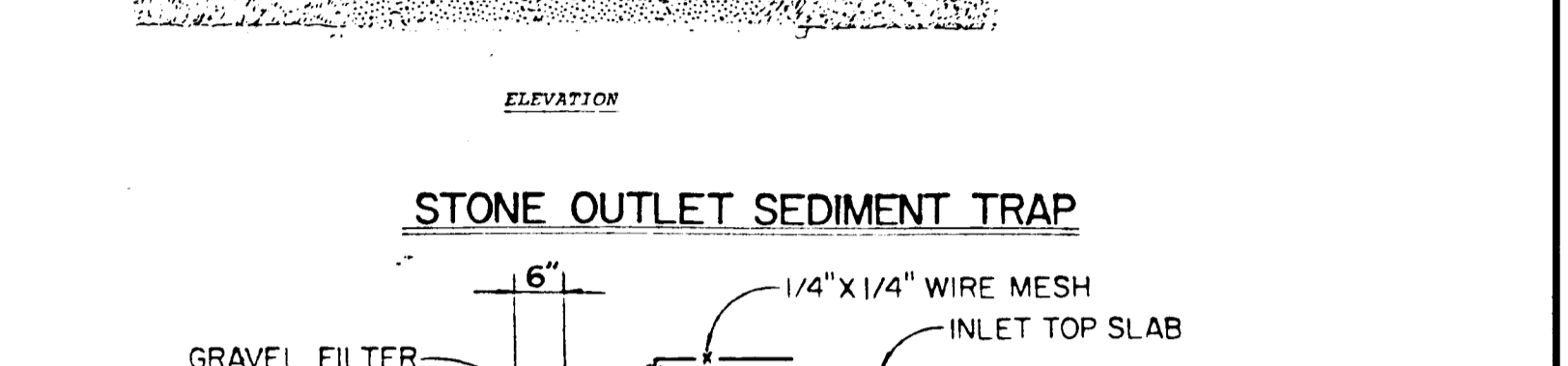
SEDIMENT CONTROL NOTES (continued)

- Site Preparation
 - Harrow or disc in areas proposed to be seeded the following materials:
 - Pulverized limestone at 2 tons/acre.
 - Commercial fertilizer 10-10-10 at 3/4 tons/acre.
 - Super phosphate at 600 lbs./acre.
- Seeding
 - Sow the following seed mixture at the rate of 200 lbs./acre with a mechanical spreader:
 - Temporary: Italian or Perennial Rye Grass
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 - The seeded area shall then be raked with a York Rake (a minimum of 2 passes) covered and compacted with Cultipacker or other approved method.
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 - Tie mulch down with liquid asphalt at 0.1 gal./s.y. or emulsified asphalt at 0.04 gal./s.y. or mulch netting.
- A grading plan must be developed by the builder and approved before beginning construction of dwellings.

- CONSTRUCTION SEQUENCE
- OBTAIN GRADING PERMIT.
 - CONSTRUCT STONE CONSTRUCTION ENTRANCES AT BALI ROAD AND AUTUMN HILL DRIVE AND STORM DRAIN SYSTEM FROM 1-8 TO 5-3.
 - INSTALL STONE OUTLET STRUCTURE IN STREAM.
 - INSTALL 7'-9"x6'-0" STRUCTURAL PLATE PIPE ARCH.
 - CONSTRUCT STONE OUTLET SEDIMENT TRAPS, PERIMETER DIKES, STRAW BALE DIKES OR SILT FENCES. STABILIZE PERIMETER DIKES WITH TEMPORARY SEEDING.
 - PLACE BALI ROAD AND AUTUMN HILL DRIVE TO SUBGRADE AND STABILIZE SLOPE AREAS BETWEEN EXISTING GROUND AND BACK OF CURB USING PERMANENT SEEDING.
 - CONSTRUCT STORM DRAIN SYSTEM.
 - LAY BASE COURSE.
 - DURING CONSTRUCTION, SEDIMENT SHALL BE REMOVED FROM THE STONE OUTLET TRAPS WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED.
 - DURING CONSTRUCTION AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON.
 - CLEAN BASE COURSE, APPLY TACK COAT TO BASE COURSE, LAY SURFACE COURSE, CONCRETE CURB AND SIDEWALK. STABILIZE SHOULDERS.
 - THE SEDIMENT FROM THE TRAPS AND STRAW BALE DIKES SHALL BE SPREAD ON LOT 26 AND STABILIZED WITH PERMANENT SEEDING.
 - ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.



OWNER & DEVELOPER
 TAYLOR JOINT VENTURE
 P.O. BOX 276
 COLLEGE AVENUE
 ELLICOTT CITY, MARYLAND 21043



DRAINAGE AREA MAP AND SEDIMENT CONTROL PLAN
 TAYLOR PROPERTY
 SHEET ONE
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"=100' SHEET 4 OF 4 OCTOBER 16, 1981