

**ENGINEER'S CERTIFICATE**  
 I HEREBY CERTIFY THAT THE PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A 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.

CHARLES J. CROVO SR.  
 DATE 2/1/87

**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 COUNTY SOIL CONSERVATION DISTRICT OR ITS AUTHORIZED AGENTS AS DEEMED NECESSARY.

James M. Johns  
 DATE 1/15/87

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS.  
 James M. Johns  
 DATE 4-28-87

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
 Stephen R. Fuchs  
 DATE 4/25/87

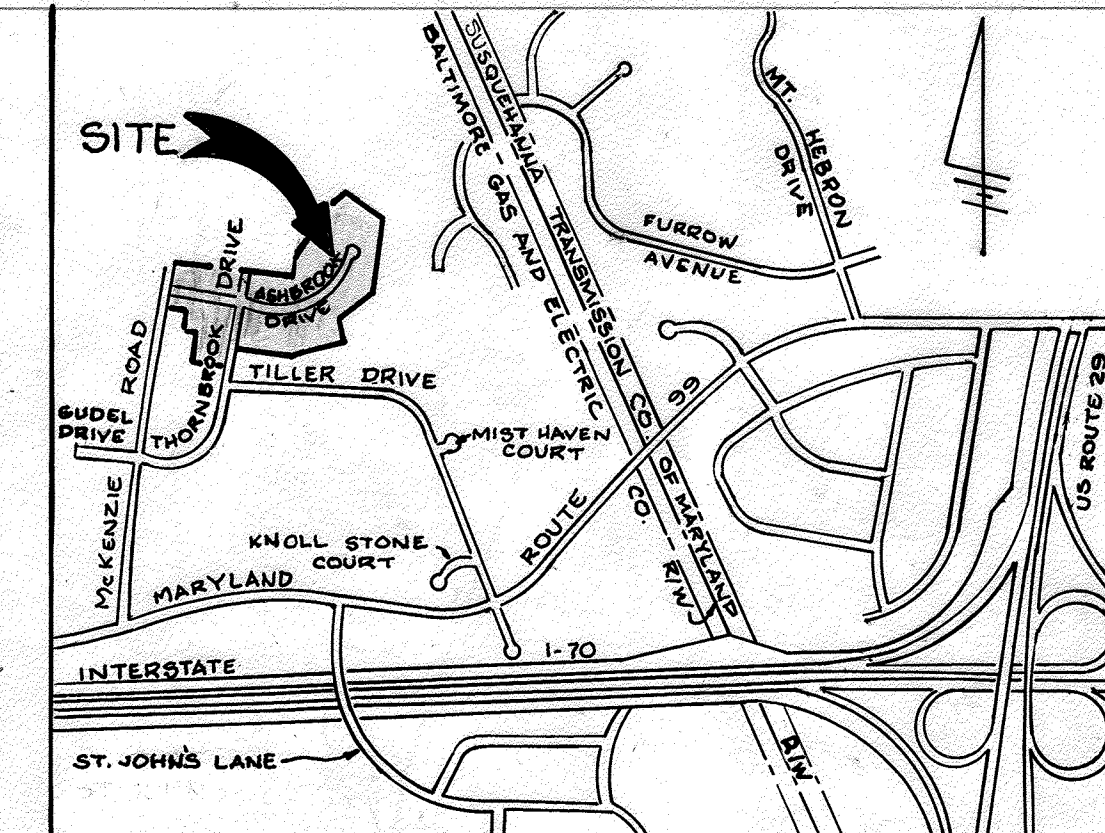
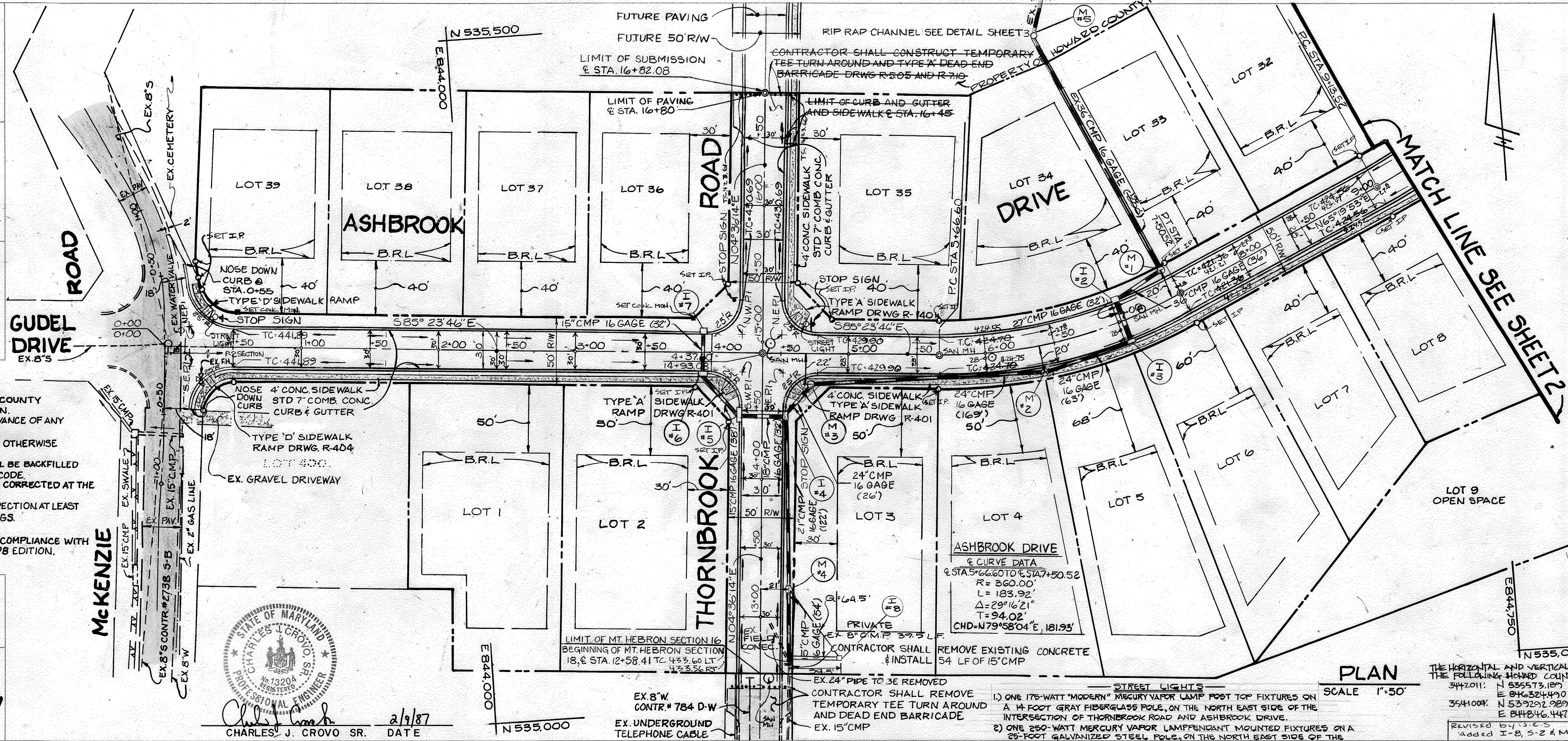
**GENERAL NOTES**

- 1) ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARD 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 CONTRACTOR'S EXPENSE.
- 6) CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPT. OF INSPECTION AT LEAST 5 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE 792-7272
- 7) ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 1978 EDITION.

APPROVED  
 DEPARTMENT OF PUBLIC WORKS  
 William B. Kelly  
 DATE 5-15-87  
 CHIEF, BUREAU OF ENGINEERING

APPROVED  
 OFFICE OF PLANNING AND ZONING  
 Louis F. Duma  
 DATE 4-28-87  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

PROFESSIONAL ENGINEER  
 STATE OF MARYLAND  
 CHARLES J. CROVO SR.  
 DATE 2/1/87



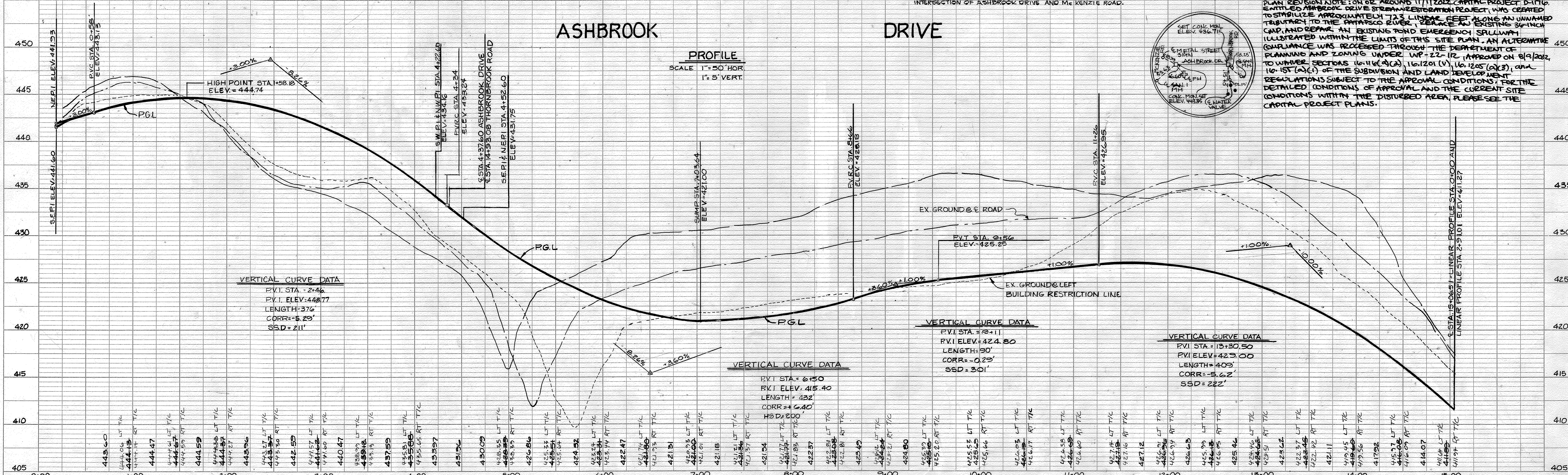
**MT. HEBRON SECTION 18**  
 LOTS 1 - 39  
 2ND. ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**ASHBROOK DRIVE THORNBROOK ROAD PLAN & PROFILE**

OWNER AND DEVELOPER  
 MT. HEBRON INC  
 2106 MT. HEBRON DRIVE  
 ELLICOTT CITY, MARYLAND 21043

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

SCALE AS SHOWN DATE JAN. 15, 1987 DWG. NO. 1 OF 6  
 DES. R. ISAACS DRN. D. PARRAN CHK. C. CROVO



16

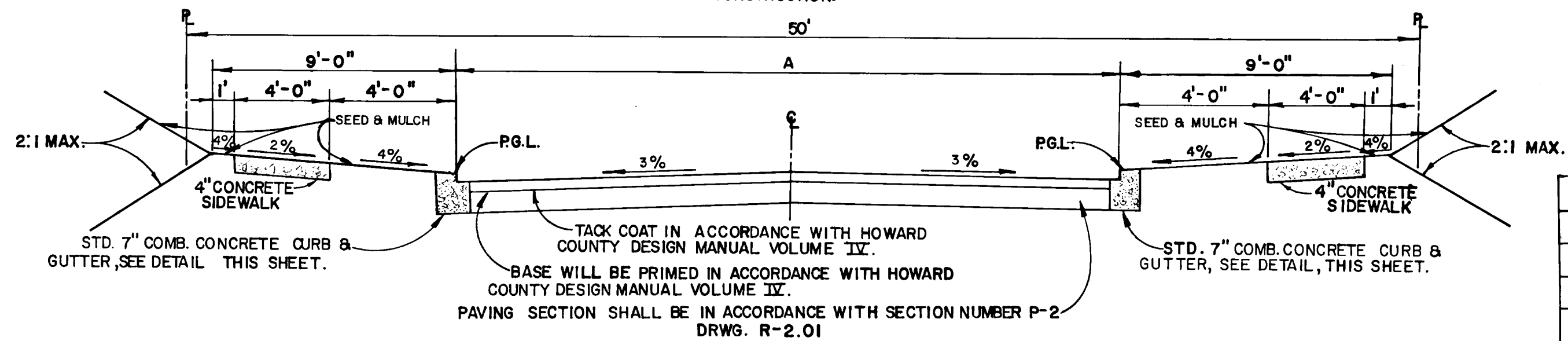




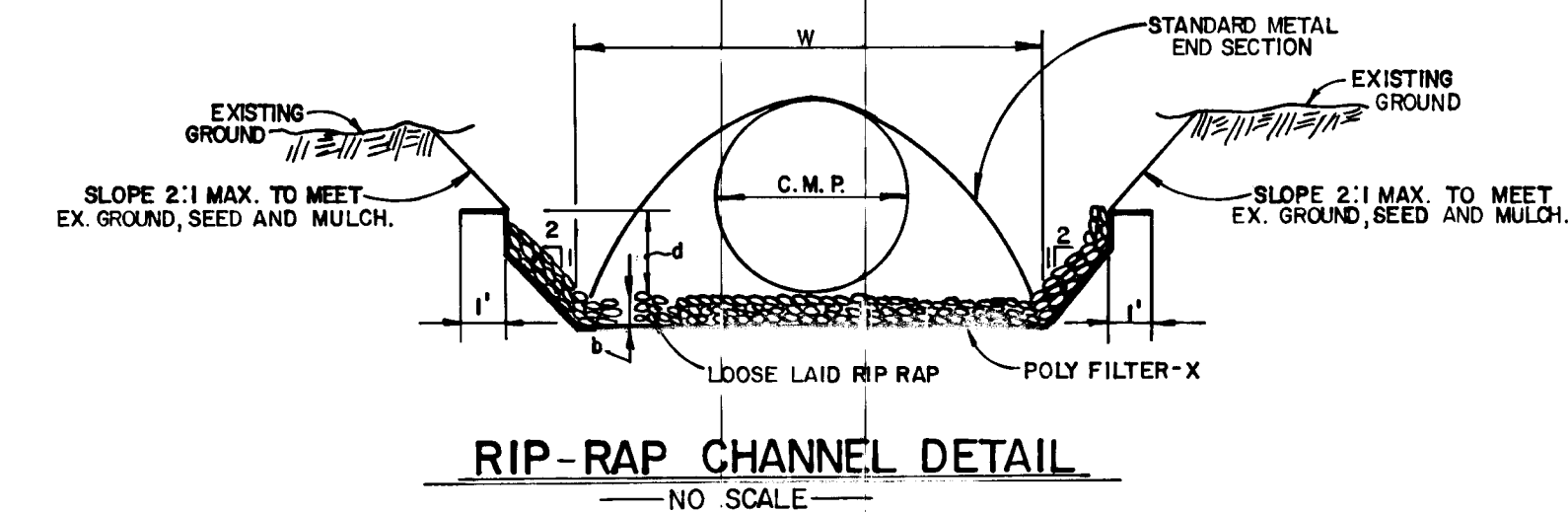
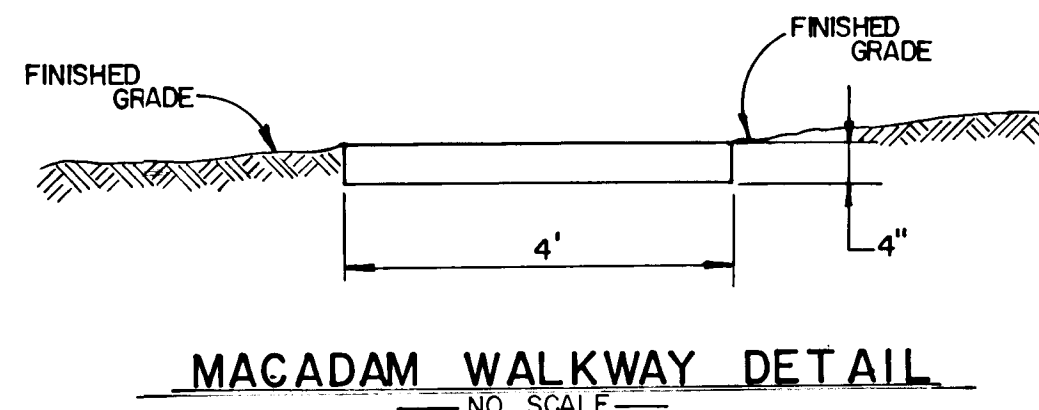


**TYPICAL ROADWAY SECTION**  
NO SCALE

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



ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	± STA. LIMITS	A
THORNBROOK ROAD	LOCAL ROAD	30 M.P.H.	R-20	12+58.41 TO 16+82.08	30'
ASHBROOK DRIVE	LOCAL ROAD	30 M.P.H.	R-20	0+00 TO 4+37.60	30'
ASHBROOK DRIVE	CUL-DE-SAC	30 M.P.H.	R-20	4+37.60 TO 15+06.51	28'

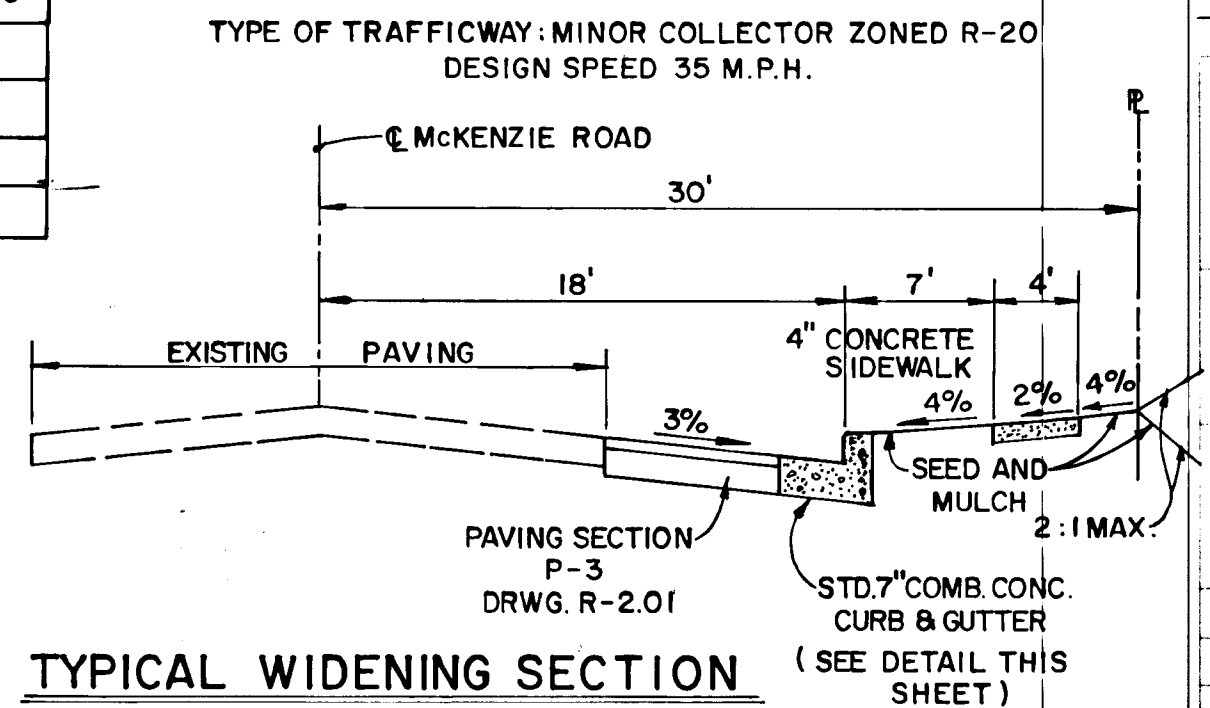
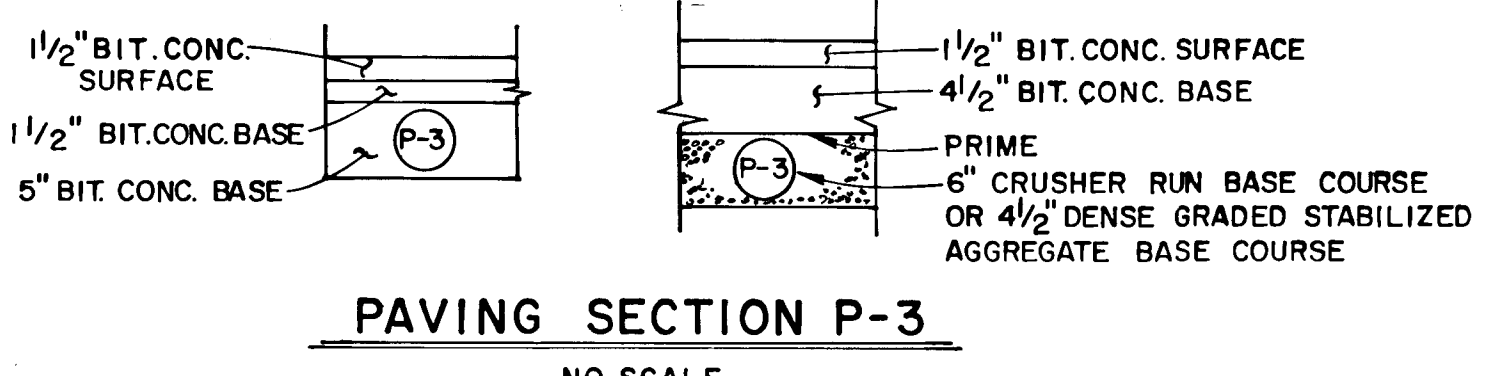
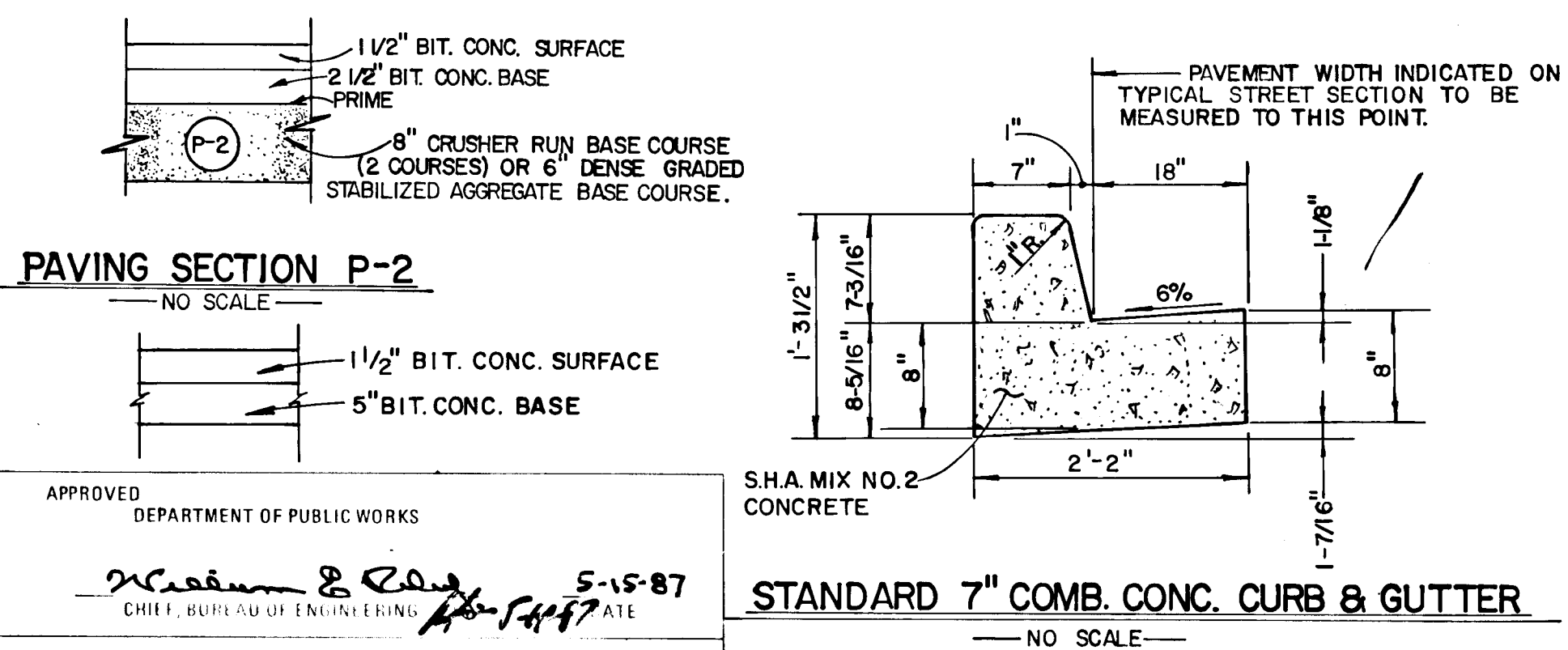


**RIP RAP CHANNEL DESIGN DATA**

Struct.	A <sup>1</sup>	P <sup>1</sup>	R	R2/3	S	S1/2	n	Q	V	d	w	Rip Rap Size (50' diam.)	b
S-1	3.25	6.77	.4797	.6113	1.00%	.100	.04	7.38 c.f.s.	2.27 f.p.s.	.62'	4.00'	6"	9" 14"
S-2	10.50	12.97	.8094	.8679	1.00%	.100	.04	33.81 c.f.s.	3.22 f.p.s.	1.00'	8.50'	6"	9" 14"

**STRUCTURE SCHEDULE**

NO.	TYPE	INVERT IN	INVERT OUT	± TOP ELEV.	± ROAD STATION	REMARKS
M-1	STANDARD MANHOLE	411.67	411.42	421.57	7+45.75	ASHBROOK DR. G.5.02
M-2	STANDARD MANHOLE	415.92	415.68	422.34	6+40.03	ASHBROOK DR. G.5.01
M-3	STANDARD MANHOLE	420.72	420.47	430.44	11+71.50	THORNBROOK RD. G.5.01
M-4	STANDARD MANHOLE	426.84	422.60	432.86	13+20.00	THORNBROOK RD. G.5.01
I-1	A-5	---	398.78	402.70	LP STA. 1+20.07	ASHBROOK DRIVE S.D.4.01
I-2	A-5	415.65	414.86	421.00	7+108.64	ASHBROOK DR. S.D.4.01
I-3	A-10	414.83	413.78	421.60	7+103.64	ASHBROOK DR. S.D.4.02
I-4	A-5	424.41	421.37	431.79	14+47.58	THORNBROOK RD. S.D.4.01
I-5	A-10	427.00	426.77	431.79	14+47.58	THORNBROOK RD. S.D.4.02
I-6	A-5 W/DEFLECTORS	430.49	429.79	436.26	3+94.60	ASHBROOK DR. S.D.4.01 & S.D.4.83
I-7	A-5 W/DEFLECTORS	---	430.70	436.26	3+94.60	ASHBROOK DR. S.D.4.01 & S.D.4.83
S-1	STANDARD METAL END SECTION	388.55	389.41	389.89	---	S.D.5.61
S-2	STANDARD METAL END SECTION	410.17	408.90	411.88	---	S.D.5.61
I-8	INLET	---	428.74	429.81	40+12.00	TO HOENBROOK ROAD
M-5	STD MANHOLE	409.37	408.77	417.65	---	SEE PLAN G.5.01



STATE OF MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
DESIGN DIVISION

CHARLES C. GROVO SR. DATE 2/9/87

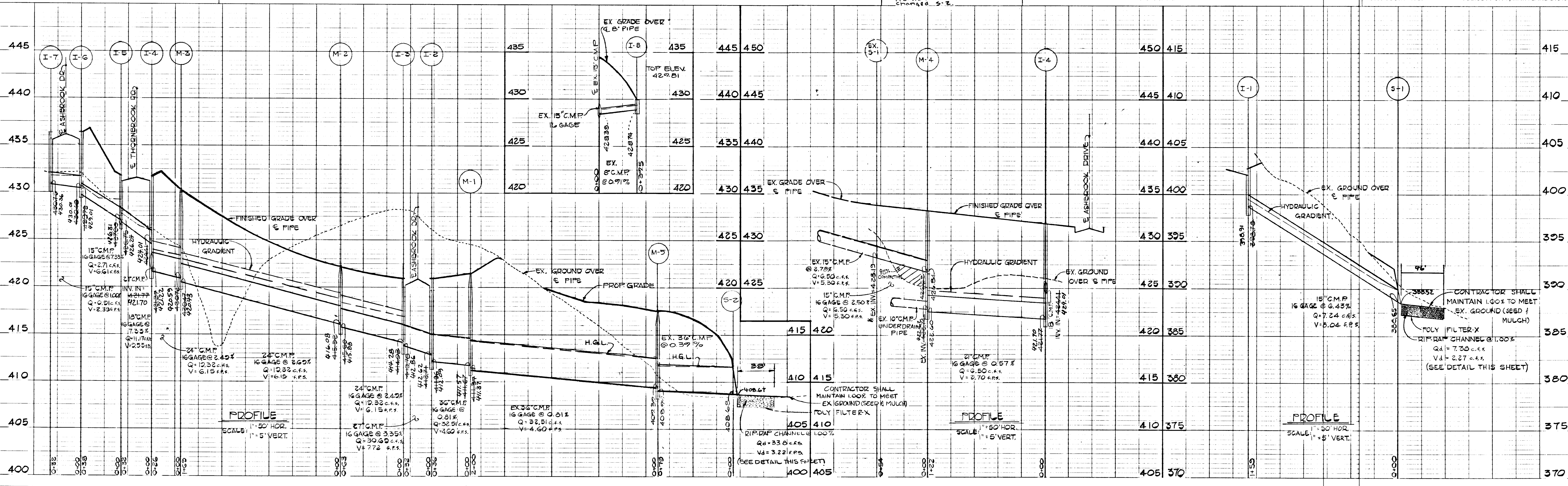
**MT. HEBRON SECTION 18**  
LOTS 1-39  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**STORM DRAIN PROFILES, ROADWAY SECTION AND DETAILS**

OWNER AND DEVELOPER  
**MT. HEBRON INC.**  
2106 MT. HEBRON DRIVE  
ELLCOTT CITY, MARYLAND 21043

SCALE AS SHOWN DATE JAN. 15, 1987 DWG. NO. 3 OF 6  
DES. D. VANDE RYT DRN. R. ISAACS CHK. C. GROVO

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



DATE  
BY  
SURVEYED  
CHECKED  
ALIGNED  
NOTED  
NO.

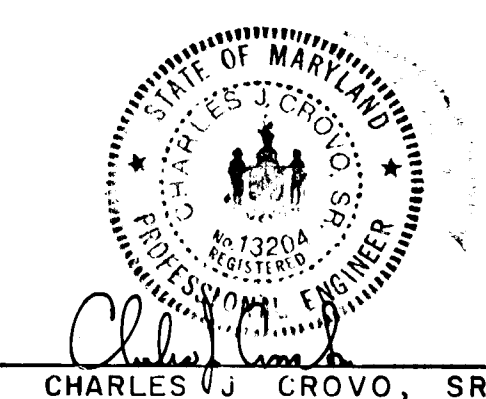
DATE  
BY  
SURVEYED  
CHECKED  
ALIGNED  
NOTED  
NO.



APPROVED  
 DEPARTMENT OF PUBLIC WORKS  
*William S. [Signature]* 5-15-87  
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED  
 OFFICE OF PLANNING AND ZONING  
*Lois [Signature]* 4-28-87  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

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



Revised by [Signature] 2/15/87  
 Charles V. Crovo, Sr. DATE

OWNER AND DEVELOPER  
 MT. HEBRON, INC.  
 2106 MT. HEBRON DRIVE  
 ELLICOTT CITY, MARYLAND 21043

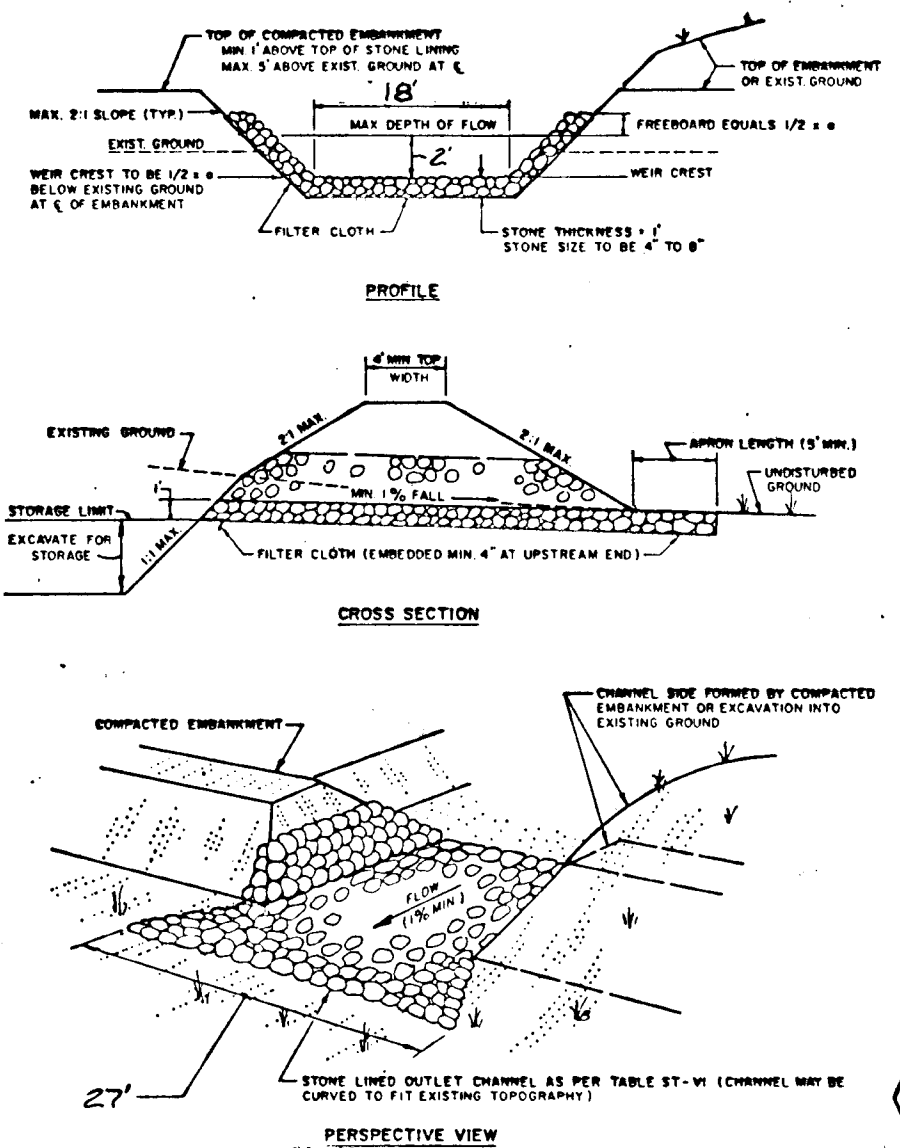
DRAINAGE AREA MAP

MT. HEBRON  
 SECTION 18, LOTS 1-39  
 2ND. ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN SHEET 4 OF 6 JAN. 15, 1987



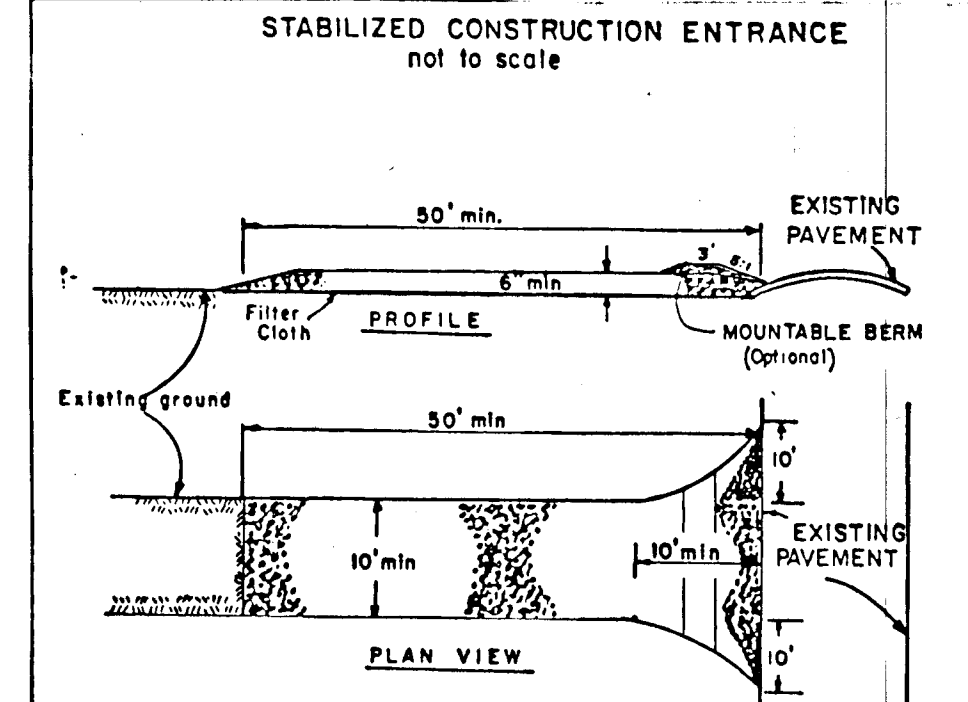
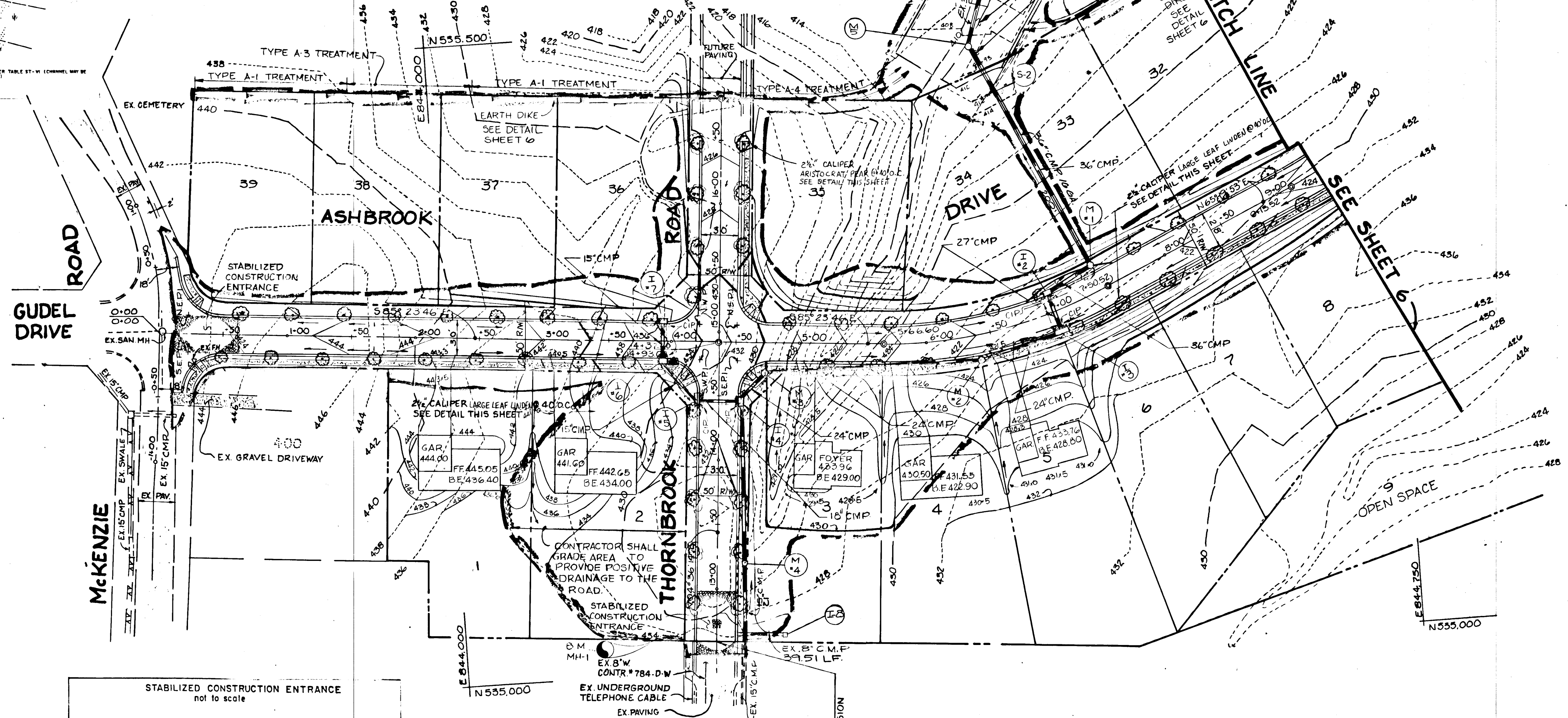
RIPRAP OUTLET SEDIMENT TRAP ST-VI



- 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 oversized 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 nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
- Stone used in the outlet channel shall be four (4) to eight (8) inches (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
- 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 stabilized.
- Drainage area for this practice is limited to 15 acres or less.

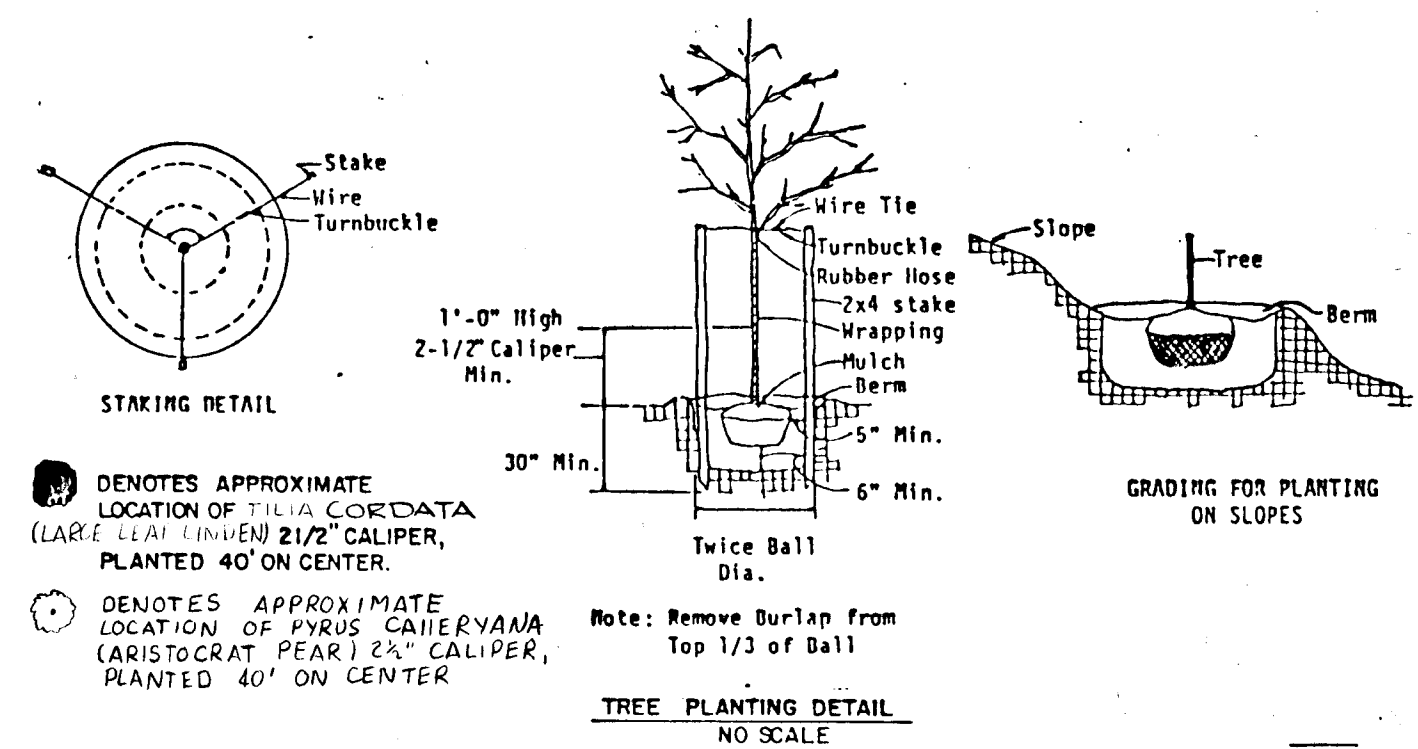
**RIP RAP OUTLET SEDIMENT TRAP**

DRAINAGE AREA	14.9 AC. ±
VOLUME REQUIRED	993 CU.YDS.
VOLUME PROVIDED	997 CU.YDS.
TOP DIMENSIONS	VARIABLES
BOTTOM DIMENSIONS	VARIABLES
SIDE SLOPES	1:1
DEPTH	3.5'
WEIR CREST ELEVATION	404.80
BOTTOM ELEVATION	404.25
CLEANOUT ELEVATION	406.25



- CONSTRUCTION SPECIFICATIONS**
- Stone Size - Use 3" stone, or recycled or recycled concrete equivalent.
  - Length - As required, but not less than 50 feet (except on a single residence 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 entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
  - Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing 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 measures 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 SEQUENCE:**
- OBTAIN GRADING PERMIT.
  - CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND STRAW BALE DIKES/SILT FENCE AS SHOWN ON PLAN.
  - INSTALL EARTH DIKES AND CONSTRUCT SEDIMENT TRAPS AS SHOWN.
  - CONSTRUCT STORM DRAIN SYSTEM.
  - THE CONTRACTOR SHALL PLACE STRAW BALE DIKES OR SILT FENCE DOWNGRADE OF ANY DISTURBED AREA DURING CONSTRUCTION OF THE STORM DRAIN SYSTEM.
  - GRADE ROADS TO SUBGRADE.
  - INSTALL INLET PROTECTION DEVICES.
  - BEGIN BUILDING CONSTRUCTION. CONSTRUCT CURB AND GUTTER AND INSTALL BASE COURSE.
  - SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAPS WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED.
  - 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 TRAP SHALL BE DETERMINED 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 TRAPS.
  - REMOVE SEDIMENT FROM ROWWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED.
  - REMOVE INLET PROTECTION DEVICES AND FLUSH STORM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT. INSTALL RIP RAP APRONS.
  - REMOVE STONE CONSTRUCTION ENTRANCE AND STRAW BALE DIKE/SILT FENCE. CLEAN BASE COURSE. APPLY TACK COAT TO BASE COURSE AND LAY SURFACE COURSE.
  - ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED WITH PERMANENT SEEDING MIXTURE.



NOTE: CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITIES PRIOR TO DIGGING. FINAL LOCATIONS OF TREES MAY BE ADJUSTED SLIGHTLY TO ACCOMMODATE FIELD CONDITIONS. PLANTING PROCEDURES SHALL COMPLY WITH "LANDSCAPE SPECIFICATIONS FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS". SUBSTITUTIONS TO THE ABOVE SPECIES MAY BE PERMITTED, PROVIDED THAT THE PLANTING IS IN ACCORDANCE WITH THE STREET TREE AND LANDSCAPE REQUIREMENTS AS SPECIFIED IN SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS.

**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: 2/1/87

**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: James M. Helm DATE: 4-28-87

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
Signature of Developer: Stephen L. Hulmer DATE: 4/28/87

APPROVED: DEPARTMENT OF PUBLIC WORKS.  
Signature of Engineer: William S. Helm DATE: 5-15-87

APPROVED: OFFICE OF PLANNING AND ZONING  
Signature of Engineer: Louis F. Damm DATE: 4-28-87

**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 (992-2437).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- FOLLOWING INITIAL SOIL DISTURBANCE OR 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. 51) SOO (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

**SITE ANALYSIS:**

TOTAL AREA OF SITE	24.856 ACRES
AREA TO BE ROOFED OR PAVED	5.581 ACRES
AREA TO BE VEGETATIVELY STABILIZED	17.458 ACRES
TOTAL CUT	5,522 CU.YDS.
TOTAL FILL	1,100 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	1,100 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 CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.

ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

BY: S.F.H. REVISE TREE DETAIL AND RAN s/h/87  
BY: J.C.S. Added I-B, S-2+M-15 e/l/80

FISHER, COLLINS AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
8366 COURT AVENUE  
ELlicott CITY, MARYLAND 21043  
TELEPHONE: (301) 461-2855

OWNER AND DEVELOPER  
MT. HEBRON, INC.  
2106 MT. HEBRON DRIVE  
ELlicott CITY, MARYLAND 21043

STREET TREE, GRADING AND SEDIMENT CONTROL PLAN

MT. HEBRON  
SECTION 18, LOTS 1-39  
2ND. ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN SHEET 5 OF 6 JANUARY 15, 1987

AS-BUILT DEC. 11, 1991 F87-122



**PERMANENT SEEDING NOTES:**

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

SEEDBED PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULE:

- 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQUARE FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE-INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.).
- 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE-INCHES OF SOIL.

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 50 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ. FT.) OF WEeping LONGGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 50 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

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

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

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

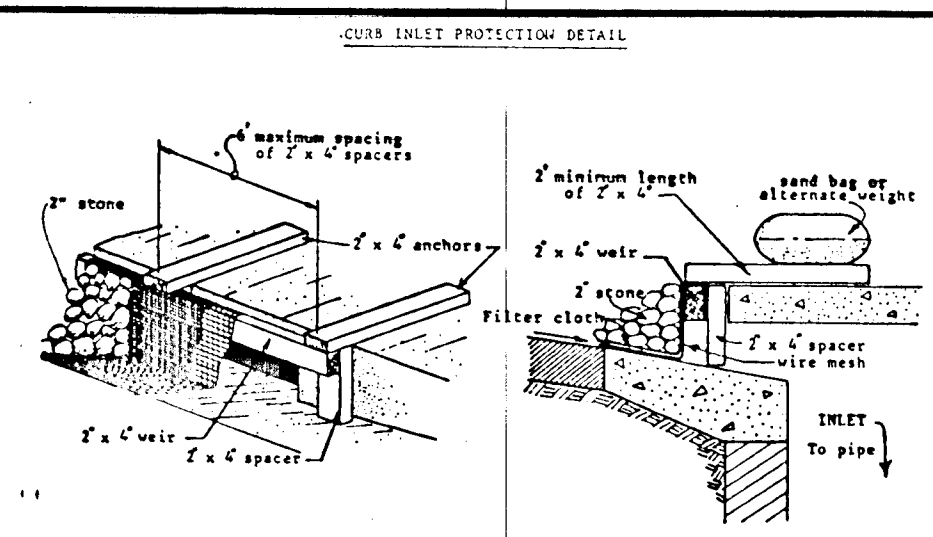
SEEDBED PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

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

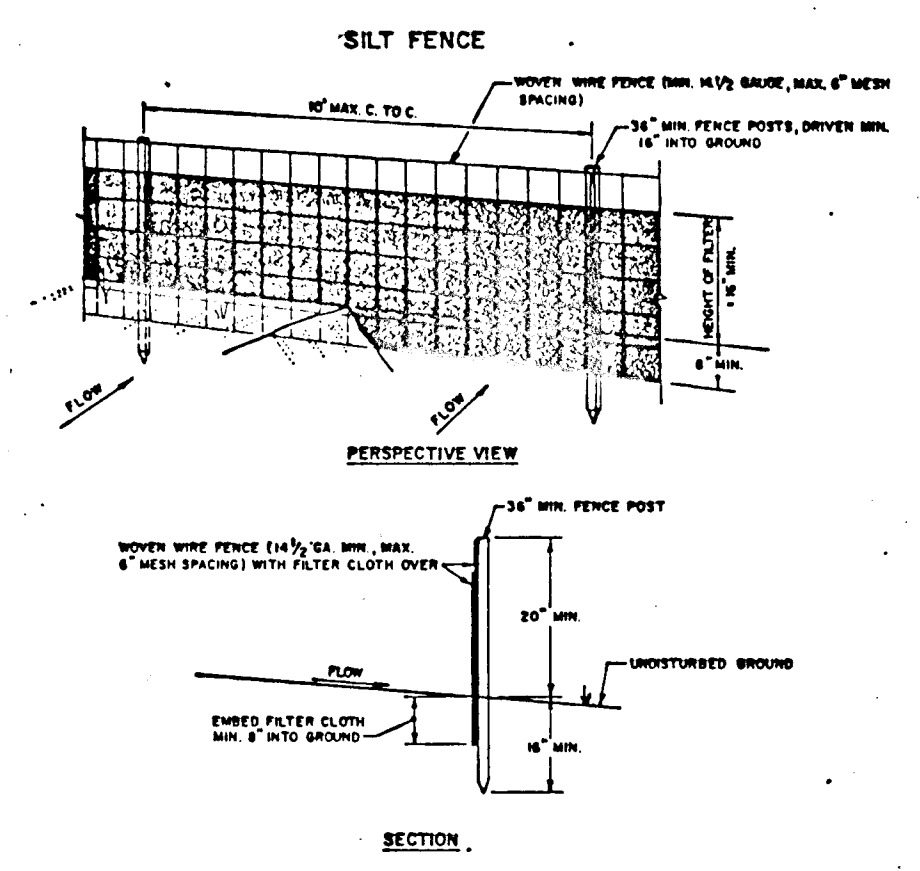
SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 50 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF WEeping LONGGRASS. DURING THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEeping LONGGRASS (.07 LBS/1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

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

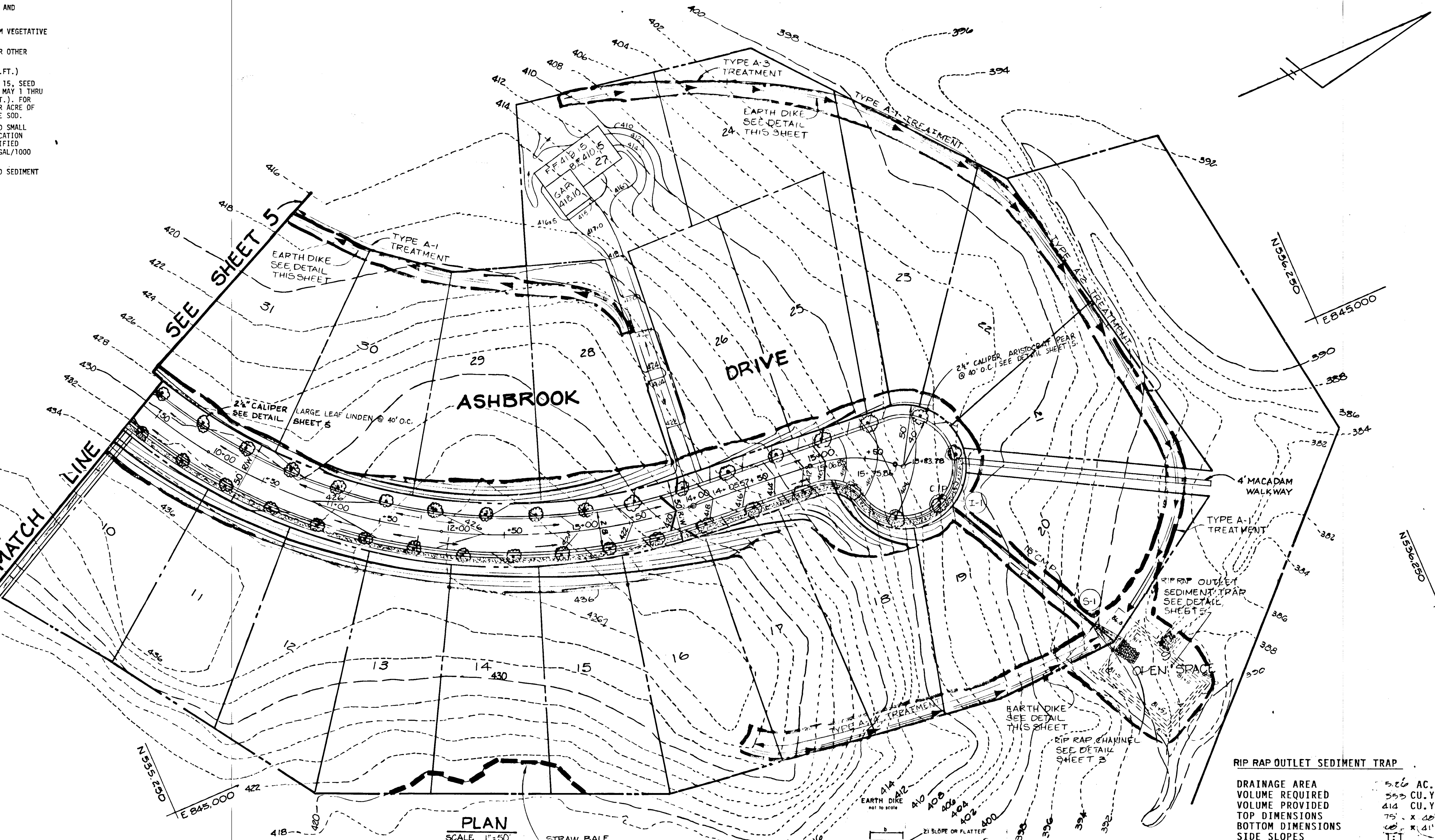
REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



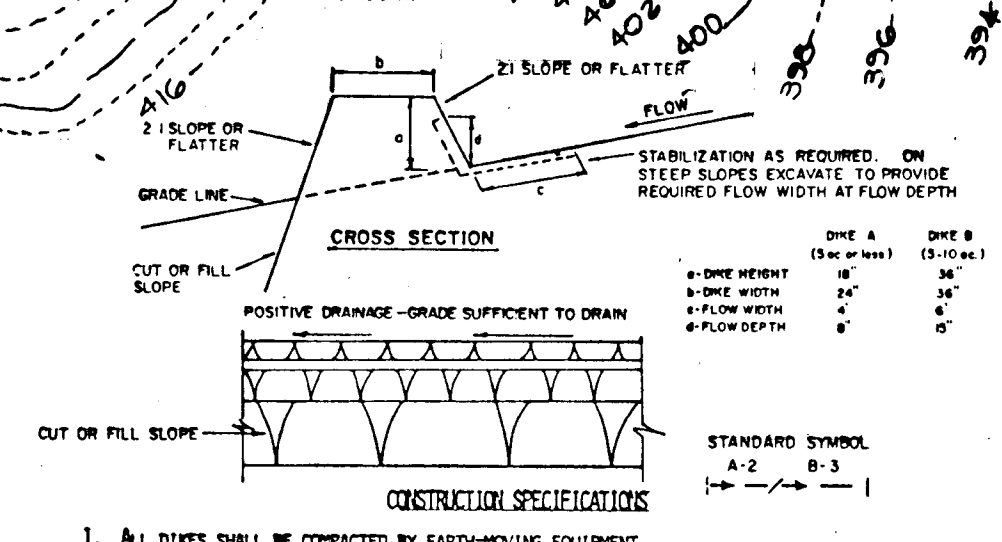
- Curb Inlet Protection.**
1. Attach a continuous piece of wire mesh (30" dia. which by throat length plus 4" to the 2" x 4" wire (measuring throat length plus 2") as shown on the standard drawing.
  2. Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" wire.
  3. Securely nail the 2" x 4" wire to 9" long vertical spacers to be located between the wire and inlet face (max. 4" apart).
  4. Place the assembly against the inlet throat and nail (minimum 2" lengths of 2" x 4" to the top of the wire at spacer locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
  5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
  6. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
  7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediments.
  8. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.



- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE:**
1. WOODEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
  2. FILTER CLOTH TO BE FASTENED SECURELY TO WOODEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
  3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
  4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BALE'S DEVELOP IN THE SILT FENCE.
- POSTS:** STEEL EITHER T OR U TYPE OR 2" WOODOOD
- FENCE:** WOODEN WIRE, 1/2 GAL. P.V. PEEL OPENING
- FILTER CLOTH:** FILTER X, TERAFLEX, STABIL-LINA, LAMON OR APPROVED EQUAL
- PREFABRICATED UNIT:** GEOTAF, INTERFORCE, OR APPROVED EQUAL



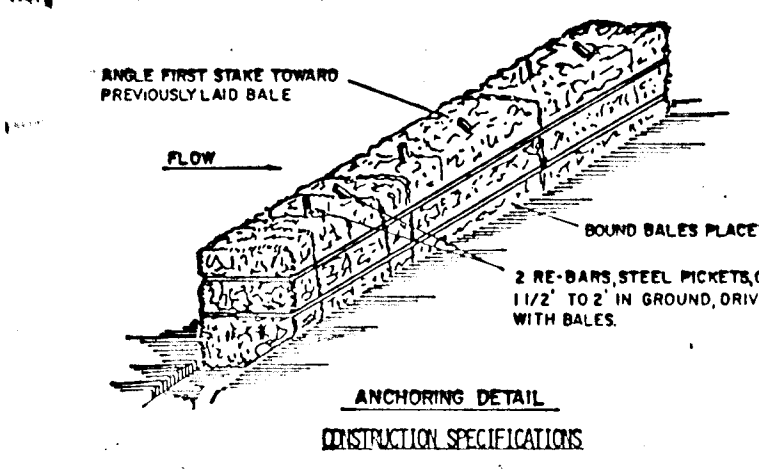
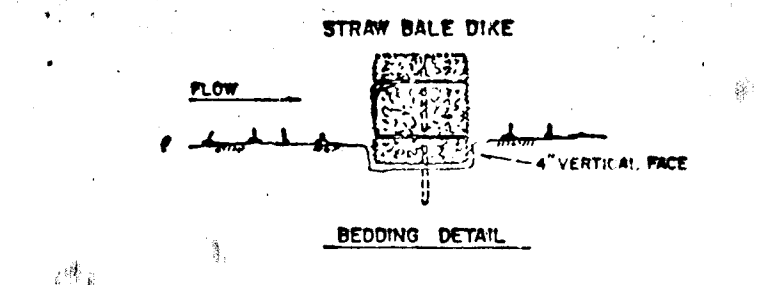
**PLAN**  
SCALE: 1"=50'



- CONSTRUCTION SPECIFICATIONS**
1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
  2. DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
  3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
  4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
  5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. SAFETY SHALL BE PROVIDED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
  6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE DRAWING BELOW.
- | TYPE OF TREATMENT | CURB INLET PROTECTION | FLUM CHANNEL STABILIZATION       |
|-------------------|-----------------------|----------------------------------|
| 1                 | 5-3.0X                | SEED AND STRAW MULCH             |
| 2                 | 3.1-5.0X              | SEED AND STRAW MULCH             |
| 3                 | 5.1-8.0X              | SEED WITH JUTE, OR SOD, 2" STONE |
| 4                 | 8.1-20X               | LINED RIP-RAP 4-8"               |
- FLUM CHANNEL STABILIZATION**
- 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 3 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.

**DRAINAGE AREA VOLUME REQUIRED**

500 AC.	2500 CU. YDS.
414 AC.	2070 CU. YDS.
75' x 40'	100' x 40'
3.5'	3.5'
WEIR CREST ELEVATION	200.00
BOTTOM ELEVATION	201.50
CLEANOUT ELEVATION	202.25



1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH BAYS TIGHTLY ABUTTING THE ADJACENT BAYS.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (6) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPREDE STORM FLOW OR DRAINAGE.

**OWNER AND DEVELOPER**  
MT. HEBRON, INC.  
2106 MT. HEBRON DRIVE  
ELLCOTT CITY, MARYLAND 21043

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

**MT. HEBRON**  
SECTION 18, LOTS 1-39  
2ND. ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN SHEET 6 OF 6 JANUARY 15, 1987

**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.

*Charles U. Crovo, Sr.* 1/15/87  
SIGNATURE OF ENGINEER DATE

**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.

*James Baker Jr.* 1/15/87  
SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS.

*James M. Helms* 4-28-87  
U.S. SOIL CONSERVATION DISTRICT DATE

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

*William L. Huber* 4/28/87  
DISTRICT DATE

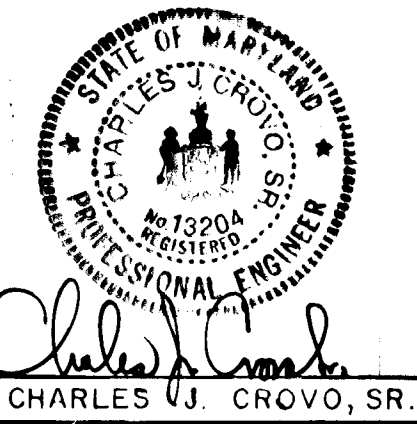
HOWARD SOIL CONSERVATION DISTRICT  
APPROVED: DEPARTMENT OF PUBLIC WORKS

*William L. Huber* 5-15-87  
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: OFFICE OF PLANNING AND ZONING

*William L. Huber* 4-28-87  
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

BY: S.H. REVISE TREES ON ASHBROOK DRIVE 5/1/89



*Charles U. Crovo, Sr.* 2/9/87  
CHARLES U. CROVO, SR. DATE