

ENGINEER'S CERTIFICATE
 I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MARYLAND AND I HEREBY CERTIFY THAT THE WORK SHOWN ON THESE DRAWINGS WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A MEMBER OF THE PROFESSIONAL ENGINEERS SOCIETY OF MARYLAND.
 CHARLES J. CROVO SR. REG. # 13204 DATE 5/12/83

DEVELOPER'S CERTIFICATE
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLANS 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 AND SEDIMENT 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.
 ANDREW A. SOELLNER JR. DATE 8-1-83

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 JAMES M. DELANEY DATE 8-1-83
 U.S. SOIL CONSERVATION SERVICE
 THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
 HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE 8-1-83

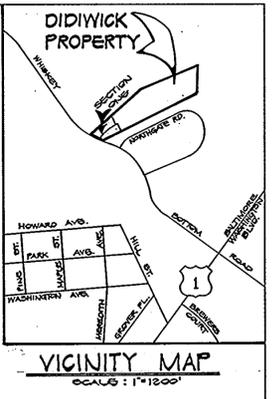
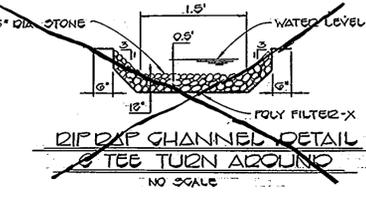
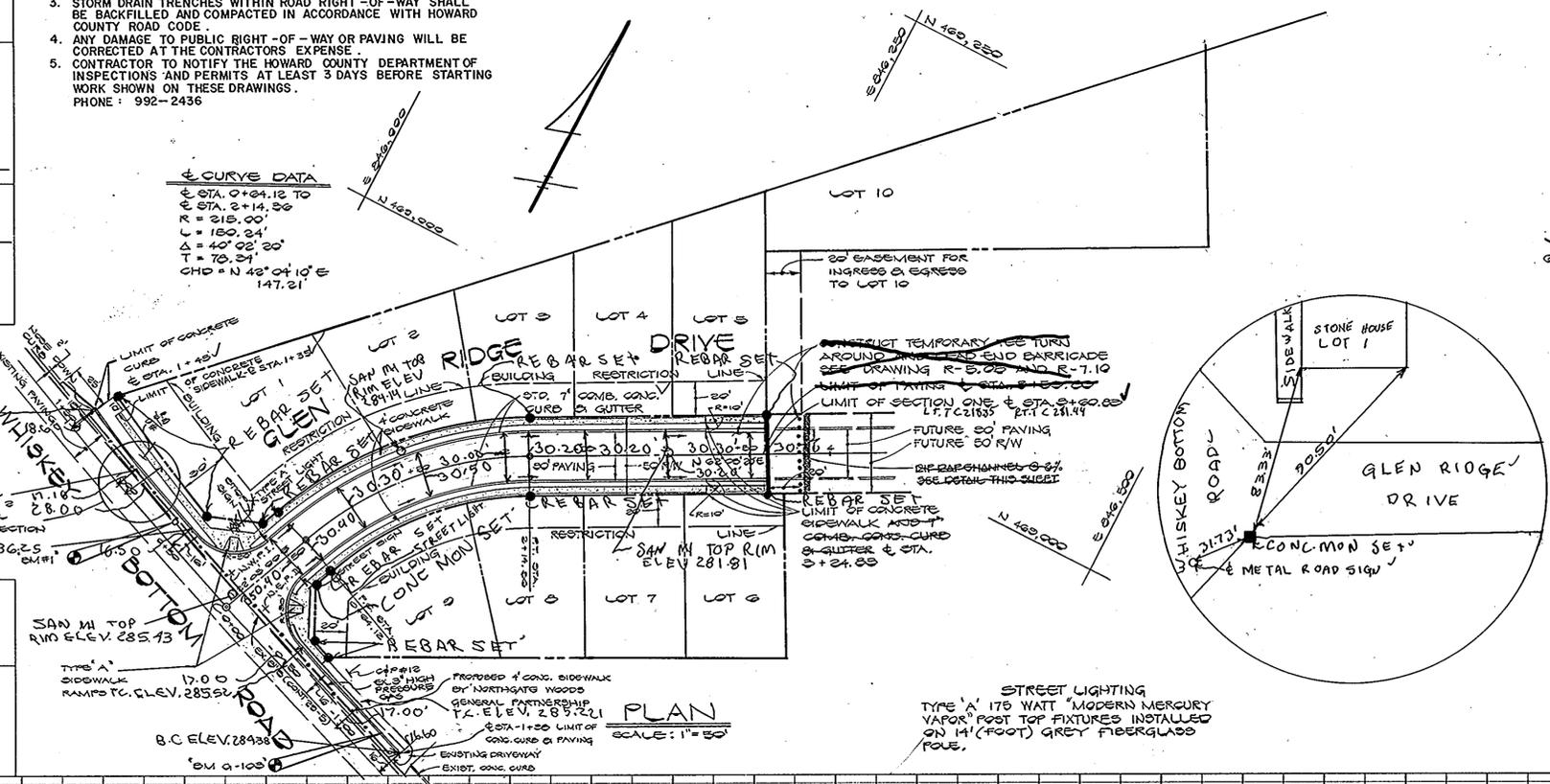
BENCH MARKS
 "B.M. 6-103" ELEV. 284.22
 RAIL ROAD SPIKE SET 18'± FROM E OF WHISKEY BOTTOM ROAD AND 42'± SOUTH EAST FROM C & P #12
 "B.M. #1" ELEV. 286.04
 TOP RIM ELEVATION OF SANITARY MANHOLE

APPROVED DEPARTMENT OF PUBLIC WORKS
 R. S. O'DONNELL JR. DATE 8-4-83
 CHIEF, BUREAU OF ENGINEERING

APPROVED OFFICE OF PLANNING AND ZONING
 Louis F. Adams DATE 8-2-83
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

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. STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
 4. ANY DAMAGE TO PUBLIC RIGHT-OF-WAY OR PAVING WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
 5. CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
 PHONE: 992-2436

CURVE DATA
 STA. 0+04.12 TO STA. 2+14.26
 R = 215.00'
 L = 150.24'
 Δ = 40° 02' 30"
 T = 70.31'
 CHD = N 42° 04' 10" E 147.21'



| REVISION DATE | DESCRIPTION | REVISED BY |
|---------------|-------------------------------------|------------|
| 7/26/85 | REMOVE S.W.M. POND & S.W.M. DETAILS | R.A.I. |

NORTH RIDGE SECTION ONE
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

GLEN RIDGE DRIVE
 PLAN AND PROFILE

OWNER AND DEVELOPER
 HILLRIDGE DEVELOPMENT COMPANY
 4206 SOUTHFIELD RD.
 ELLICOTT CITY, MARYLAND 21043

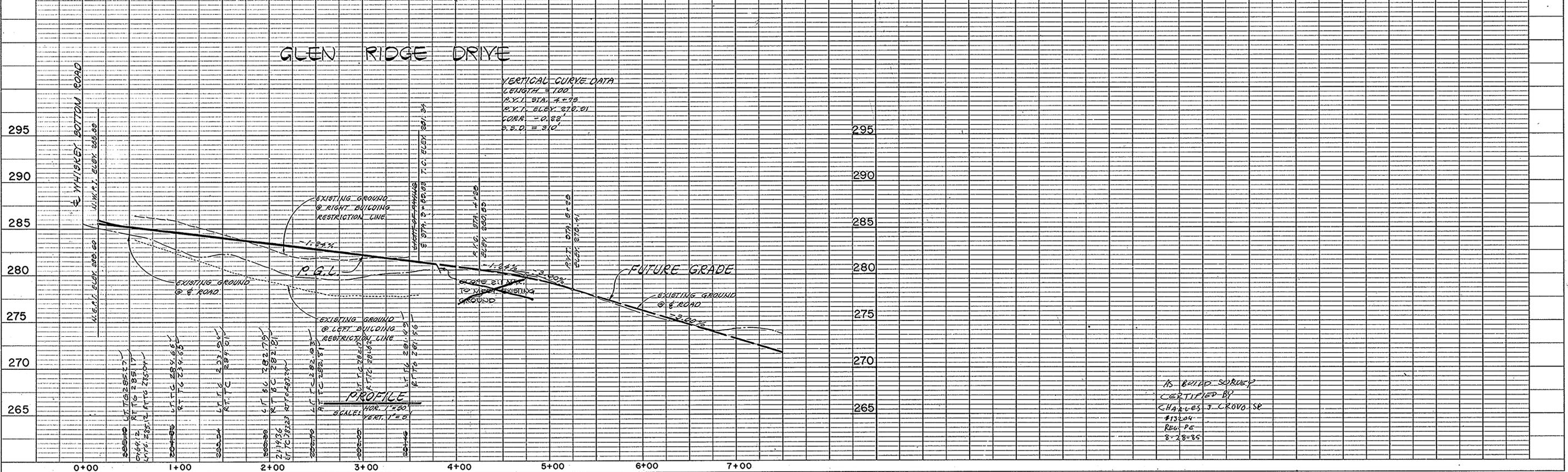
| SCALE AS SHOWN | DATE MAY 12, 1983 | DWG. NO. 1 OF 2 |
|----------------|-------------------|-----------------|
| DES. C. CROVO | DRN. B. O'DONNELL | CHK. R. CARTER |

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

APPROVED PROFESSIONAL ENGINEER
 CHARLES J. CROVO SR. REG. # 13204 DATE 5/12/83

DATE _____ BY _____
 SURVEYED _____
 PLOTTED _____
 ALIGNED _____
 CHECKED _____
 RT. OF WAY CHECKED _____
 NO. _____

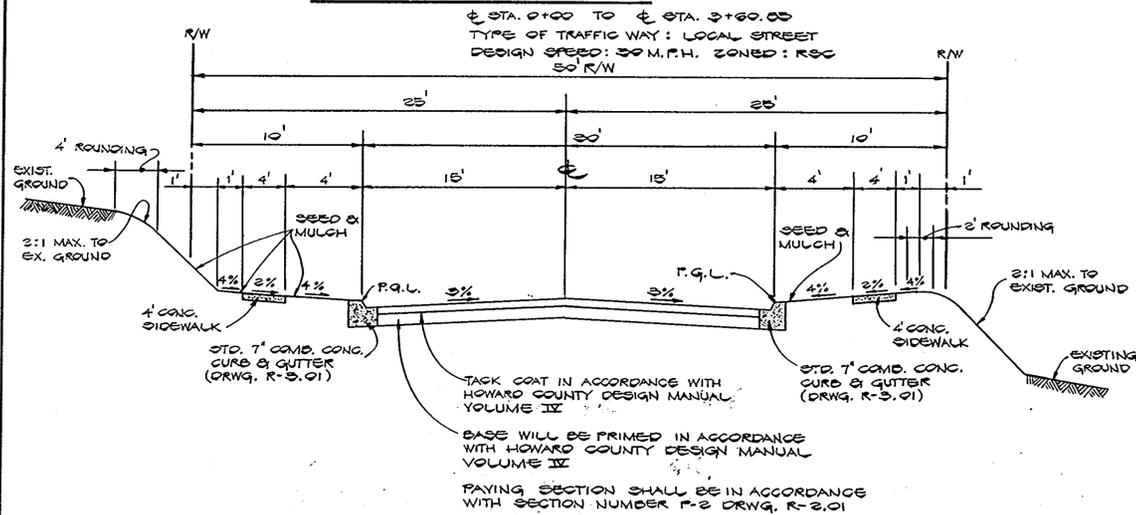
DATE _____ BY _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 STRUCTURE NOTATION CHFD _____
 NO. _____



AS BUILT SURVEY
 CERTIFIED BY
 CHARLES J. CROVO SR.
 #13204
 REG. P.E.
 8-28-85

987

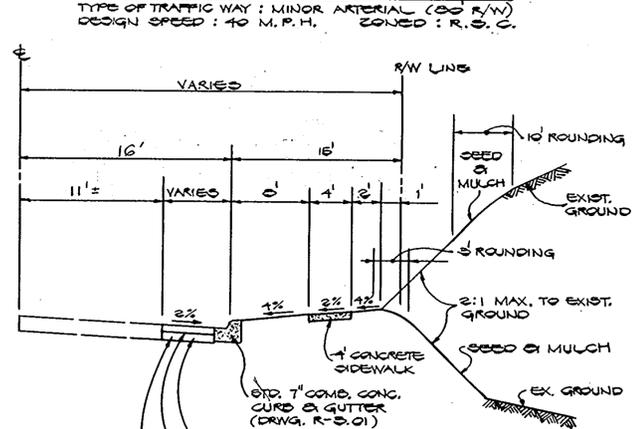
GLEN RIDGE DRIVE



TYPICAL SECTION
 NO SCALE

ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL - VOLUME III - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION

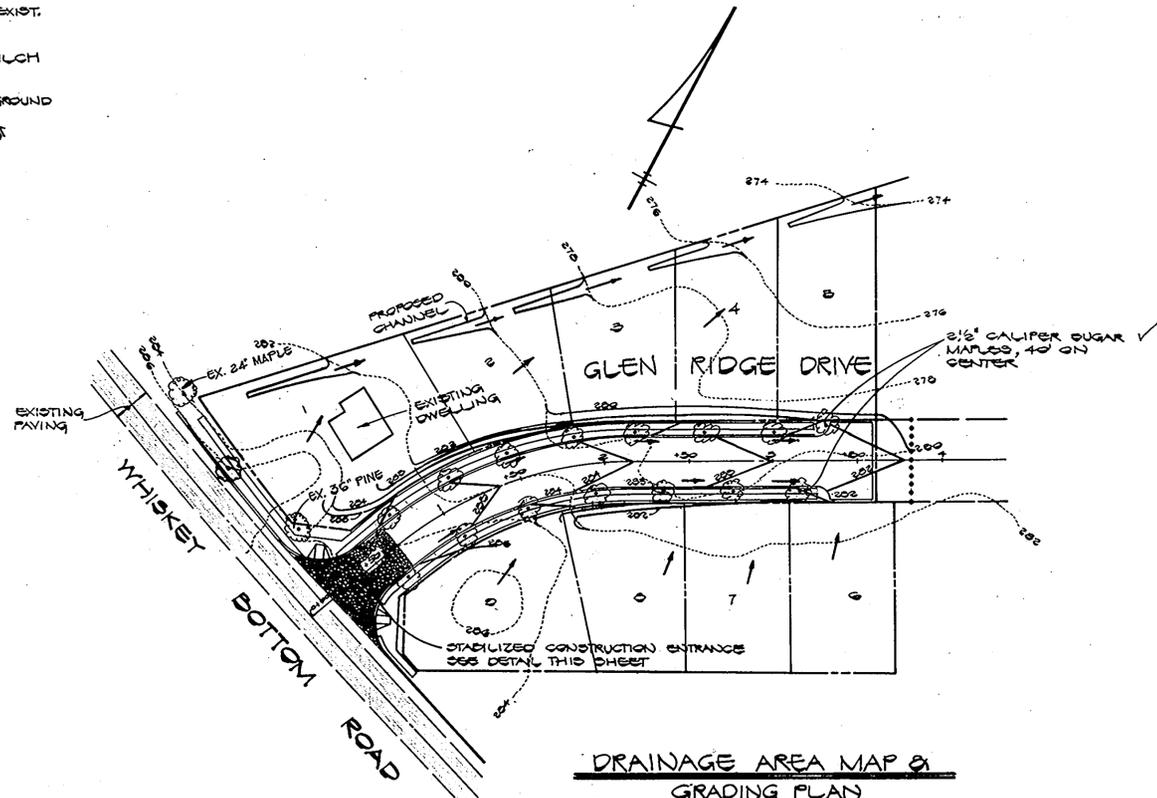
WHISKEY BOTTOM ROAD



WIDENING SECTION
 NO SCALE

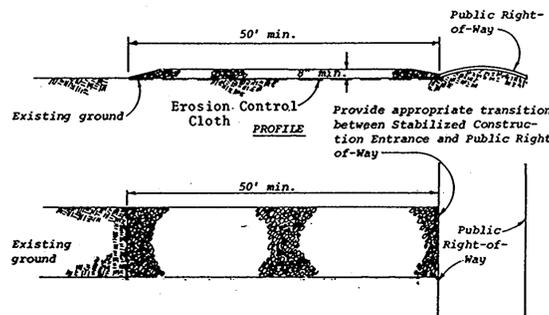
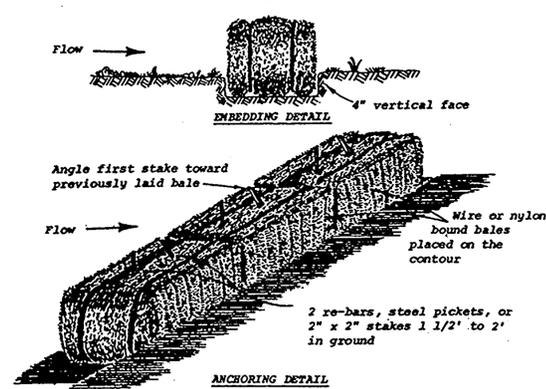
SITE ANALYSIS

- 1) TOTAL AREA OF SUBDIVISION 2.4 AC ±
- 2) TOTAL AREA TO BE DISTURBED 0.8 AC ±
- 3) IMPERVIOUS AREA 0.36 AC ±
- 4) AREA TO BE VEGETATED 0.45 AC ±



DRAINAGE AREA MAP & GRADING PLAN
 SCALE: 1"=50'

STRAW BALE DIKE



STABILIZED CONSTRUCTION ENTRANCE
 NOT TO SCALE

CONSTRUCTION SEQUENCE

1. OBTAIN GRADING PERMIT.
2. CONSTRUCT STONE CONSTRUCTION ENTRANCE AS SHOWN ON PLAN.
3. CONSTRUCT STORM WATER MANAGEMENT POND AND STABILIZE USING TEMPORARY SEEDING.
4. THE 15" CMP SHALL BE BLOCKED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET. THE 15" CMP SHALL REMAIN BLOCKED UNTIL SUCH TIME WHEN THE SEDIMENT BASIN TRANSITIONS TO FUNCTION AS A STORM WATER MANAGEMENT POND.
5. CONSTRUCT CHANNEL ALONG THE REAR OF LOTS 1-5 AND STABILIZE USING SOO.
6. GRADE ROADS TO SUBGRADE STABILIZING SLOPE AREAS BETWEEN EXISTING GROUND AND BACK OF CURB USING PERMANENT SEEDING.
7. THE CONTRACTOR SHALL PLACE STRAW BALE DIKES ALONG WHISKEY BOTTOM ROAD DOWNGRADE OF ANY DISTURBED AREAS AT THE END OF EACH WORKING DAY.
8. CONSTRUCT CONCRETE CURB AND LAY BASE COURSE.
9. DURING CONSTRUCTION, SEDIMENT SHALL BE REMOVED FROM THE STORM WATER MANAGEMENT POND WHEN THE CLEANOUT ELEVATION 269.35 HAS BEEN REACHED.
10. DURING CONSTRUCTION AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON.
11. REMOVE STONE CONSTRUCTION ENTRANCE.
12. CLEAN BASE COURSE, APPLY TACK COAT TO BASE COURSE, LAY SURFACE COURSE AND INSTALL CONCRETE SIDEWALK. STABILIZE ALL SHOULDERS USING PERMANENT SEEDING.
13. THE SEDIMENT BASIN SHALL BE DEWATERED BY PUMPING.
14. THE SEDIMENT FROM THE STORM WATER MANAGEMENT POND SHALL BE PLACED ON LOT 5.

15. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.

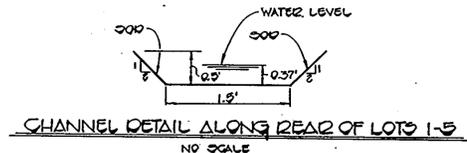
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 APPROVED: *James M. Elissa* 8-1-83
 U.S. SOIL CONSERVATION SERVICE DATE
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *Dan Thomas* 8-1-83
 DISTRICT DATE
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS
William E. Kraft 8-4-83
 CHIEF, BUREAU OF ENGINEERING DATE
 APPROVED: OFFICE OF PLANNING AND ZONING
Louis F. Dwyer 8-2-83
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

SEDIMENT CONTROL NOTES

1. SPECIFICATIONS FOR THE SEDIMENT CONTROL DETAILS INCLUDED IN THE U.S.D.A. SOIL CONSERVATION SERVICE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS."
2. 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).
3. 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.
4. 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).
5. ALL GRADED AREAS NOT TO BE SODED SHALL BE STABILIZED BY SEEDING AND MULCHING IN ACCORDANCE WITH THE FOLLOWING:
 1. SITE PREPARATION
 - A. HARROW OR DISC IN AREAS PROPOSED TO BE SEED THE FOLLOWING MATERIALS
 - 1) PULVERIZED LIMESTONE AT 2 TONS/ACRE.
 - 2) COMMERCIAL FERTILIZER 10-10-10 AT 3/4 TONS/ACRE.
 - 3) SUPER PHOSPHATE AT 600 LBS./ACRE.
 2. SEEDING
 - A. SOW THE FOLLOWING SEED MIXTURE AT THE RATE OF 200 LBS./ACRE WITH A MECHANICAL SPREADER.
 - 1) TEMPORARY: ITALIAN OR PERENNIAL RYE GRASS.
 - 2) PERMANENT: 40% MARION BLUE GRASS, 40% DAKOTA BLUE GRASS AND 20% PENN LAWN CREEPING FESCUE.
 - B. THE SEEDING AREA SHALL THEN BE RAKED WITH A YORK RATE (A MINIMUM OF 2 PASSES) COVERED AND COMPACTED WITH MULTIPACKER OR OTHER APPROVED METHOD.
 3. MULCHING
 - A. SEEDING AREAS SHALL BE UNIFORMLY MULCHED IMMEDIATELY AFTER SEEDING WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1 1/2-2 TONS/ACRE.
 - B. TIE MULCH DOWN WITH LIQUID ASPHALT AT 0.1 GAL./S.Y. OR EMULSIFIED ASPHALT AT 0.04 GAL./S.Y. OR MULCH NETTING.
6. A GRADING PLAN MUST BE DEVELOPED BY THE BUILDER AND APPROVED BEFORE BEGINNING CONSTRUCTION OF DWELLINGS.

| REVISION DATE | DESCRIPTION | REVISED BY |
|---------------|---|------------|
| 7/26/83 | REVISE STREET TREES, REMOVE S.W.M. POND DETAILS | R.A.I. |



CHANNEL DESIGN DATA
 A=0.037
 P=3.19'
 S=0.0007
 Q=0.4106
 V=1.406
 Q=AV=0.03 x 0.4106 x 0.1001 = 0.0042
 Q=AV=0.03 x 3.2 x 27.66

STREET TREE PLAN, SEDIMENT CONTROL PLAN, AND DETAILS

NORTH RIDGE SECTION ONE

6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN MAY 12, 1983
 SHEET 2 OF 2



Charles J. Grovo Sr.
 CHARLES J. GROVO SR. DATE

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FISHER, COLLINS AND CARTER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 6300 COURT AVENUE
 BELLICOTT CITY, MARYLAND 21040
 TELEPHONE: (301) 461-2000