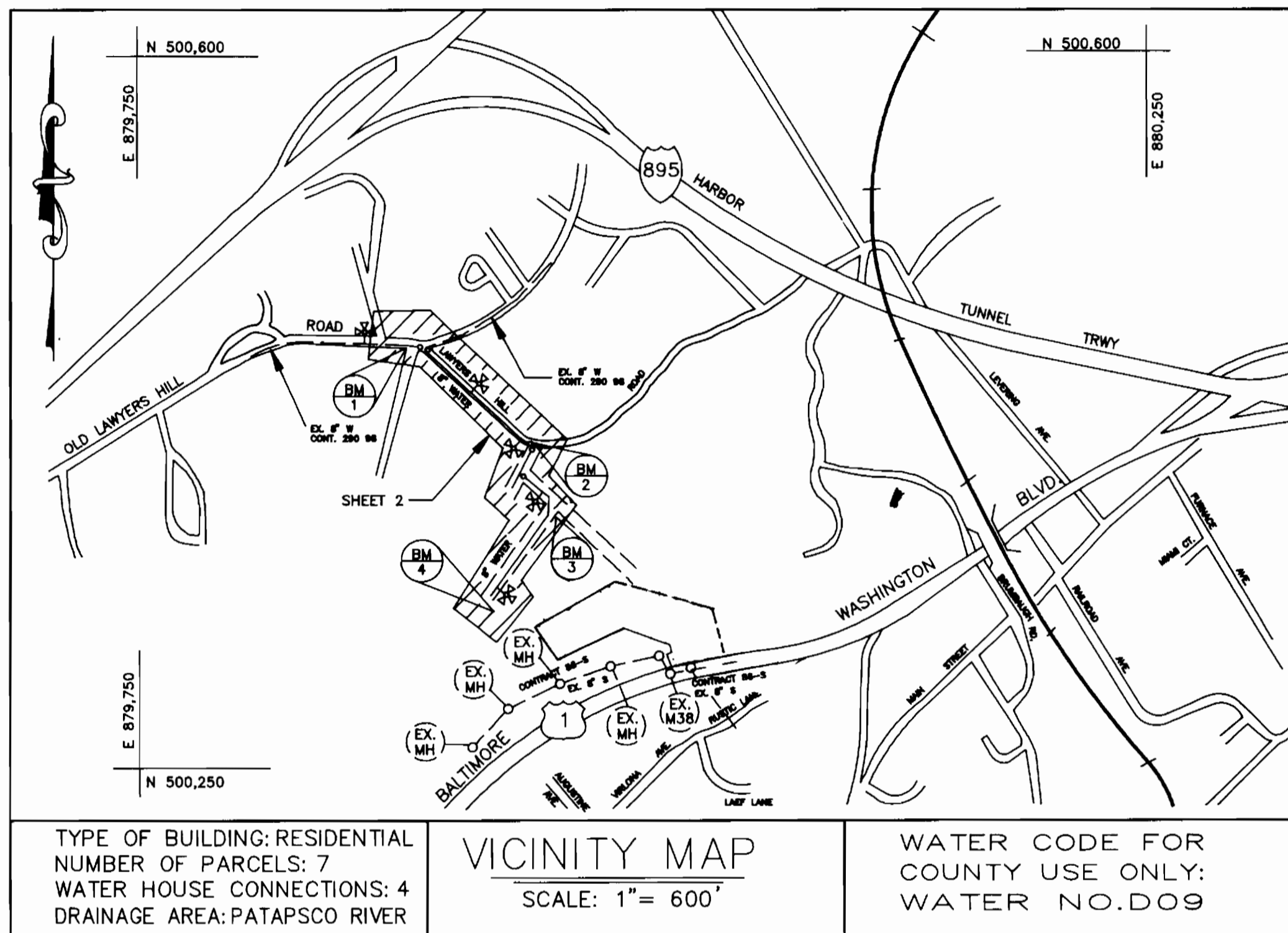


WATER HOWARD COUNTY, MARYLAND LAWYERS HILL ROAD DEPARTMENT OF PUBLIC WORKS

| ITEM | UNIT | QUANTITIES | | TYPE MATERIAL | SUPPLIER |
|--------------------------------|------|------------|----------|---------------|------------------|
| | | ESTIM. | AS BUILT | | |
| 8" WATER | L.F. | 1494' | 1607' | D.I. | ATLANTIC |
| 6" WATER FOR F.H. | L.F. | 50' | 50' | " | " |
| 8" VALVE (R.S.G.V.) | EACH | 4 | 4 | " | KENNEDY |
| 8" X 8" TEE | EACH | 3 | 3 | " | GRIFFIN |
| 8" X 6" TEE | EACH | 4 | 4 | " | " |
| 8" CAP & BUTTRESS | EACH | 3 | 3 | " | " |
| 6" VALVE | 4 | 4 | 4 | " | KENNEDY |
| 1" AIR RELEASE VALVE & M.H. | EACH | 1 | 1 | BRASS | BIRMINGHAM YOUNG |
| 3/4" WATER HOUSE CONNECTION | L.F. | 75' | 75' | COPPER | CAMBRIDGE LEE |
| 8"-45 BEND | EACH | 2 | 2 | D.I. | GRIFFIN |
| FIRE HYDRANT | EACH | 4 | 4 | C.I. | WOOD RENAULT |
| 8" X 8" TAPPING SLEEVE & VALVE | EACH | 1 | 1 | D.I. | " |
| | | | | | |
| | | | | | |
| | | | | | |



- GENERAL NOTES:
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS & SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - ALL HORIZONTAL CONTROLS BASED ON MARYLAND STATE COORDINATES.
 - ALL VERTICAL CONTROLS BASED ON U.S.G.S. DATA.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
 - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORK DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
STATE HIGHWAY ADMINISTRATION - 531-5533
BALTO. GAS & ELECTRIC CO.-CONTRACTOR SERVICES - 850-4620
BALTO. GAS & ELECTRIC CO.- UNDERGROUND DAMAGE CONTROL - 859-9004
BALTO. GAS & ELECTRIC CO.- TROUBLE SHOOTING - 298-9040
MISS UTILITY- 1-800-257-7777
BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
CHESAPEAKE AND POTOMAC TELEPHONE CO. - 597-8585
COLONIAL PIPELINE CO. - 795-1390
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
 - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH D.P.W. REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.
 - ALL WATER MAINS SHALL BE DUTILE IRON PIPE CLASS 52 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
 - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 - DURING CONSTRUCTION OF THE WATER MAINS THE CONTRACTOR SHALL NOT OPEN MORE THAN 3 PIPE LENGTHS OF TRENCH OR ANY MORE TRENCH THAN THAT WHICH WILL BE BACKFILLED AND STABILIZED IN 1 DAY.

NOTE:
"SEDIMENT CONTROL TO BE IMPLEMENTED IN ACCORDANCE WITH VOLUME 4, SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND THESE PLANS."

| INDEX OF SHEETS | |
|-----------------|--|
| SHEET NO. | DESCRIPTION |
| 2 | WATER PLAN LAWYERS HILL RD. |
| 3 | WATER PROFILE LAWYERS HILL RD. |
| 4 | SEDIMENT CONTROL MEASURES & TRAVERSE INFO. |

DEVELOPER'S CERTIFICATION

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT 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."

[Signature] DATE 3-26-93
SIGNATURE OF DEVELOPER
PRINT NAME BELOW SIGNATURE

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 COUNTY SOIL CONSERVATION DISTRICT."

[Signature] DATE 3/15/93
DATE

504 BALTIMORE/ANNAPOLIS BLVD.
SEVERNA PARK, MD 21146
TEL (410)647-2727

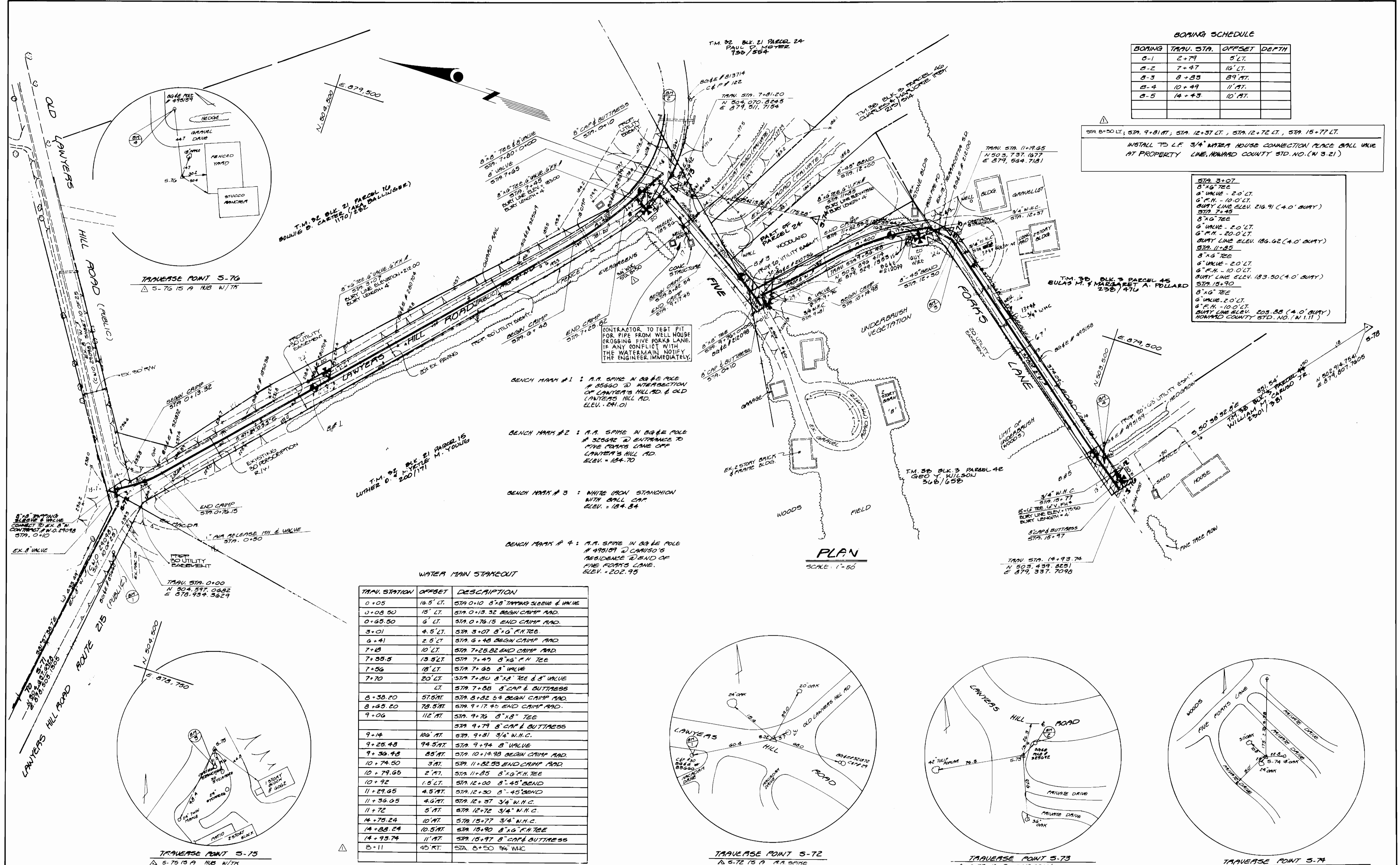
REVIEWED FOR HOWARD COUNTY S.C.D. MEETS TECHNICAL REQUIREMENTS

[Signature] DATE 3/15/93
U.S. SOIL CONSERVATION SERVICE

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

[Signature] DATE 3/15/93
APPROVED HOWARD S.C.D. DATE

| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 3-1-93 DATE Chief, Bureau of Engineering: <i>[Signature]</i> 2-24-93 DATE Chief, Bureau of Utilities: <i>[Signature]</i> 3-1-93 DATE Chief, Water & Sewer Design Division: <i>[Signature]</i> 2-24-93 DATE | | CONSULTING ENGINEERS, SURVEYORS AND LAND PLANNERS dfi 504 BALTIMORE/ANNAPOLIS BLVD. SEVERNA PARK, MD 21146 647-2727 | DES: N.T. DRN: N.T. CHK: S.T.A. DATE: 6/92 | <table border="1"> <tr> <th>BY</th> <th>NO.</th> <th>REVISION</th> </tr> <tr> <td>D.F.I.</td> <td>1</td> <td>ELIMINATE EXISTING EXTENSION</td> </tr> <tr> <td>D.F.I.</td> <td>2</td> <td>ADDED W/L TO PARCEL 24. ADDED M.H. # 107 11 AND ADDED S.H.C. TO PARCEL 24.</td> </tr> </table> | BY | NO. | REVISION | D.F.I. | 1 | ELIMINATE EXISTING EXTENSION | D.F.I. | 2 | ADDED W/L TO PARCEL 24. ADDED M.H. # 107 11 AND ADDED S.H.C. TO PARCEL 24. | TITLE SHEET INDEX OF DRAWINGS GENERAL NOTES 600' SCALE MAP NO. 38 BLOCK NO. | LAWYERSHILL ROAD WATER EXTENSION CAPITAL PROJECT W-8179 CONTRACT NO. 14-3208 ELECTION DISTRICT ELKRIDGE # 1 HOWARD COUNTY, MARYLAND | SCALE AS SHOWN SHEET 1 OF 4 |
|--|-----|--|---|---|----|-----|----------|--------|---|------------------------------|--------|---|--|---|--|--------------------------------|
| BY | NO. | REVISION | | | | | | | | | | | | | | |
| D.F.I. | 1 | ELIMINATE EXISTING EXTENSION | | | | | | | | | | | | | | |
| D.F.I. | 2 | ADDED W/L TO PARCEL 24. ADDED M.H. # 107 11 AND ADDED S.H.C. TO PARCEL 24. | | | | | | | | | | | | | | |



BORING SCHEDULE

| BORING | TRAV. STA. | OFFSET | DEPTH |
|--------|------------|---------|-------|
| B-1 | 2+79 | 5' LT. | |
| B-2 | 7+47 | 16' LT. | |
| B-3 | 8+85 | 89 FT. | |
| B-4 | 10+49 | 11' RT. | |
| B-5 | 14+43 | 10' RT. | |

STA 8+50 LT.; STA 9+81 RT.; STA 12+57 LT.; STA 12+72 LT.; STA 15+77 LT.
 INSTALL TO L.F. 3/4" WATER HOUSE CONNECTION PLACE BALL VALVE AT PROPERTY LINE, HOWARD COUNTY STD. NO. (N 3-21)

STA 3+07
 8" x 6" TEE
 6" VALVE - 2.0' LT.
 6" F.H. - 10.0' LT.
 BURY LINE ELEV. 216.91 (4.0' BURY)
 STA 7+45
 8" x 6" TEE
 6" VALVE - 2.0' LT.
 6" F.H. - 20.0' LT.
 BURY LINE ELEV. 186.62 (4.0' BURY)
 STA 11+89
 8" x 6" TEE
 6" VALVE - 2.0' LT.
 6" F.H. - 10.0' LT.
 BURY LINE ELEV. 183.50 (4.0' BURY)
 STA 15+90
 8" x 6" TEE
 6" VALVE - 2.0' LT.
 6" F.H. - 10.0' LT.
 BURY LINE ELEV. 205.58 (4.0' BURY)
 HOWARD COUNTY STD. NO. (N 1-11)

CONTRACTOR TO TEST PIT FOR PIPE FROM WELL HOUSE CROSSING FIVE ROCKS LANE. IF ANY CONFLICT WITH THE WATERMAIN, NOTIFY THE ENGINEER IMMEDIATELY.

BENCH MARK #1 : A.A. SPIKE IN 8" x 6" POLE # 495642 @ INTERSECTION OF LAWYERS HILL RD. & OLD LAWYERS HILL AD. ELEV. = 241.01

BENCH MARK #2 : A.A. SPIKE IN 8" x 6" POLE # 495642 @ ENTRANCE TO FIVE POINTS LANE OFF LAWYERS HILL AD. ELEV. = 184.70

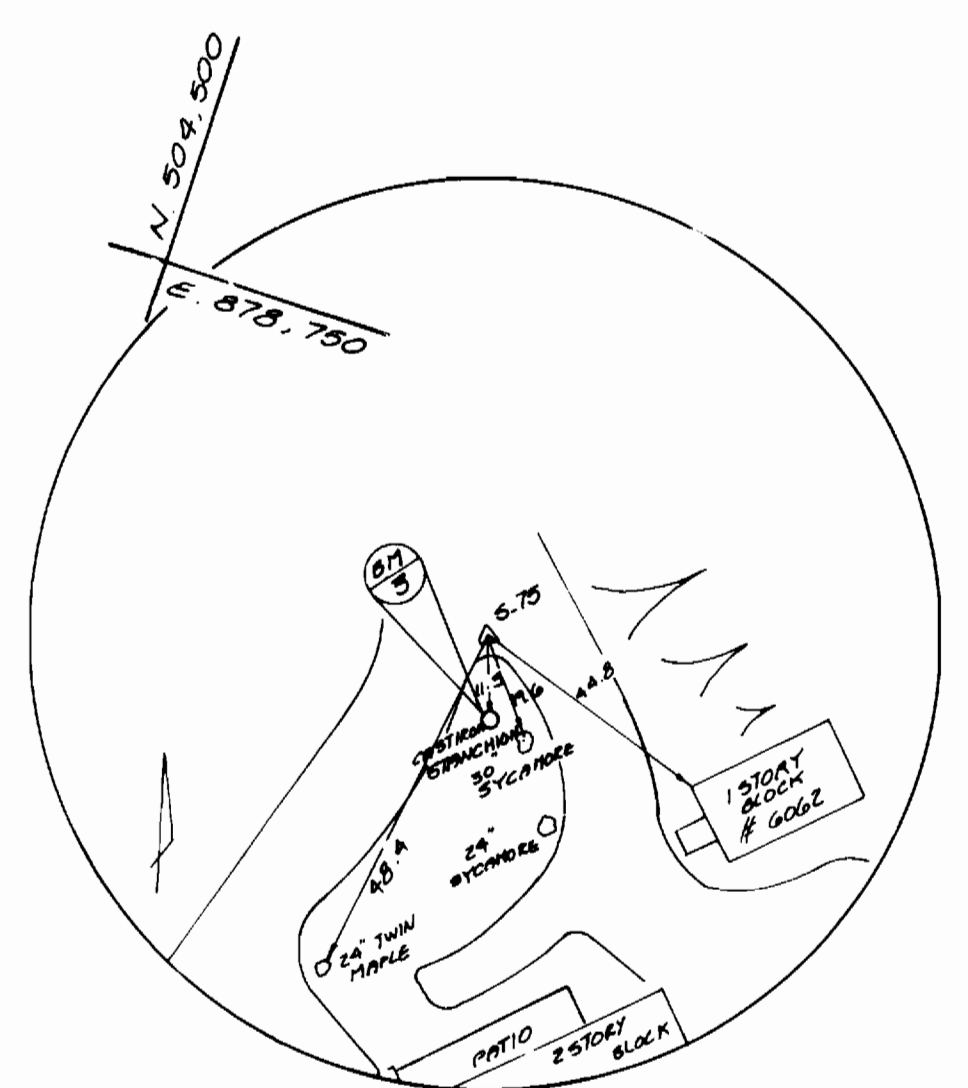
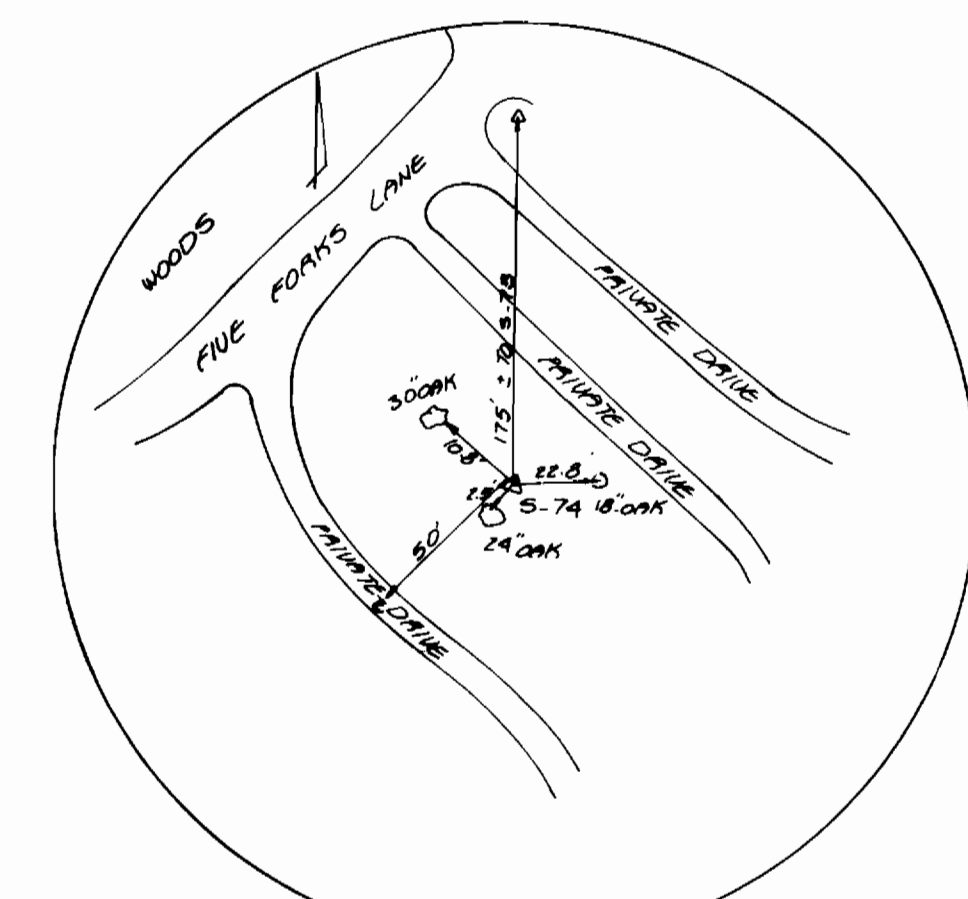
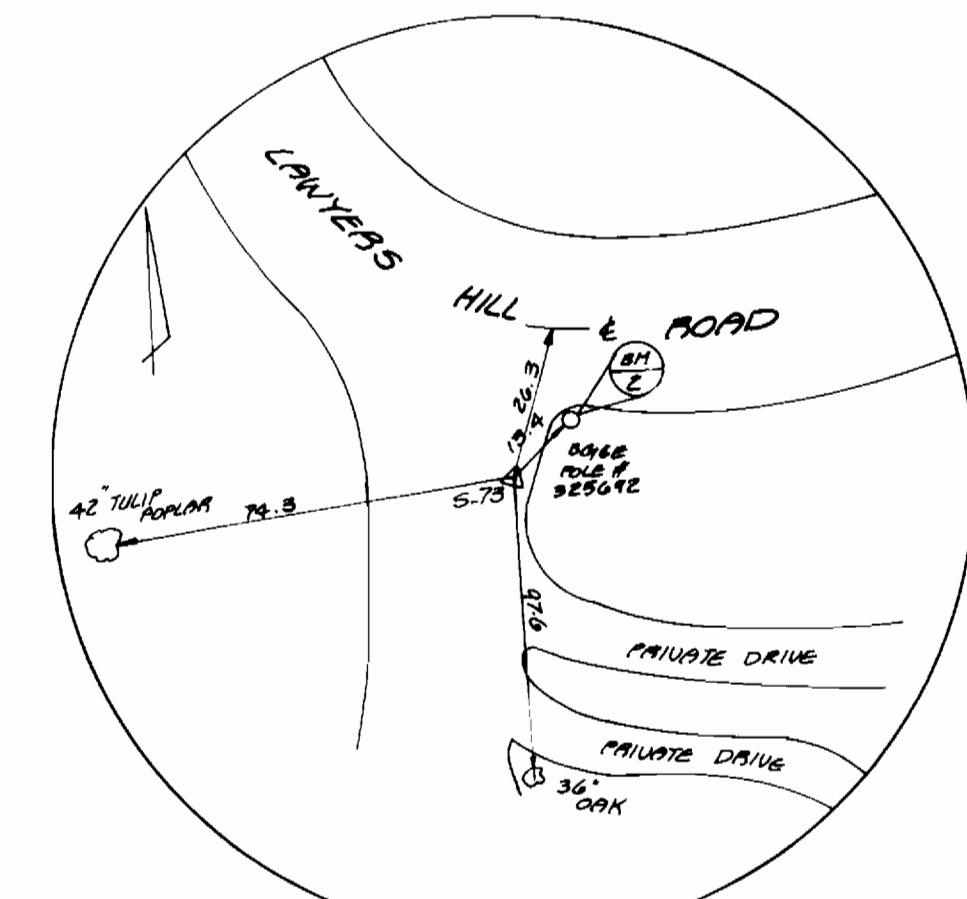
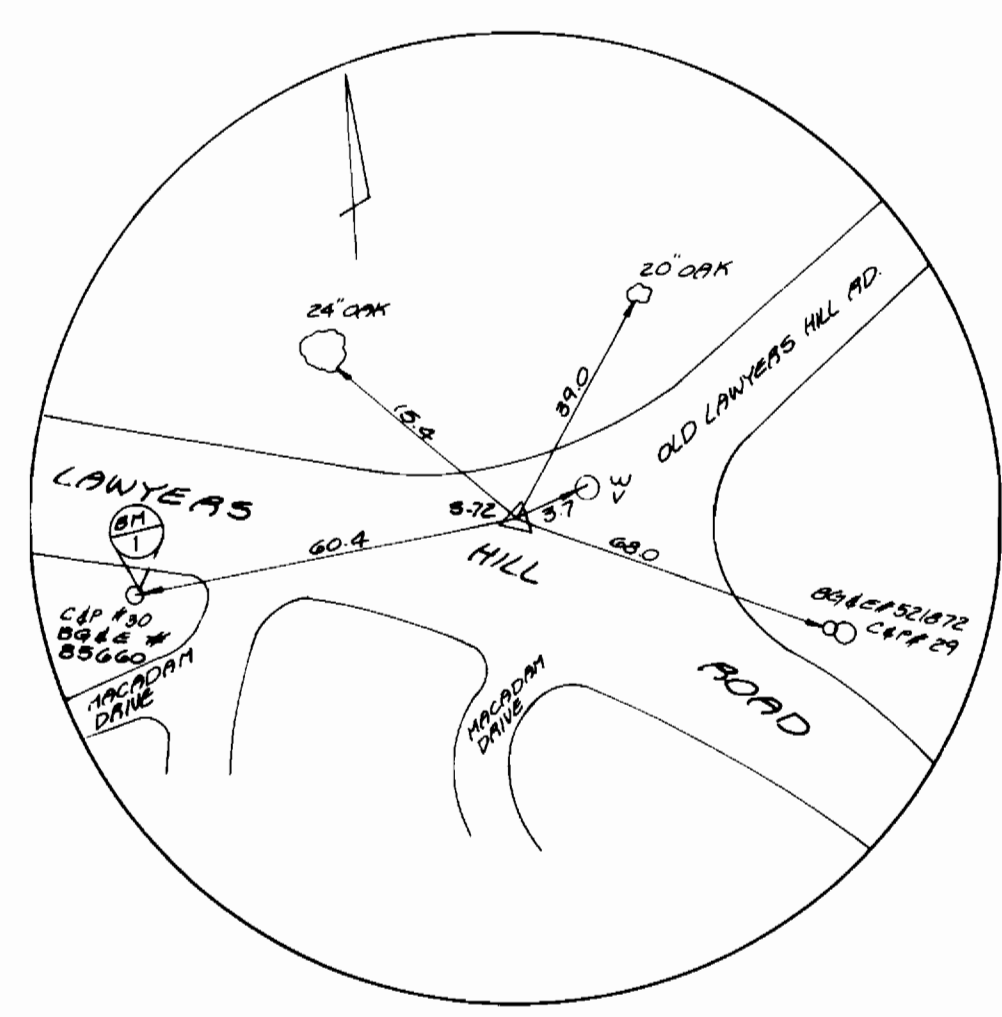
BENCH MARK #3 : WHITE IRON STATIONERY WITH BALL CAP ELEV. = 184.84

BENCH MARK #4 : A.A. SPIKE IN 8" x 6" POLE # 495189 @ CAUSO'S RESIDENCE @ END OF FIVE POINTS LANE. ELEV. = 202.95

PLAN
 SCALE: 1" = 50'

WATER MAIN STAKEOUT

| TRAV. STATION | OFFSET | DESCRIPTION |
|---------------|-----------|---|
| 0+05 | 16.5' LT. | STA 0+10 8" x 8" TAPPING SLEEVE & VALVE |
| 0+08.50 | 15' LT. | STA 0+13.32 BEGIN CAMP ROAD |
| 0+65.50 | 6' LT. | STA 0+76.15 END CAMP ROAD |
| 3+01 | 4.5' LT. | STA 3+07 8" x 6" F.H. TEE |
| 6+41 | 2.5' LT. | STA 6+43 BEGIN CAMP ROAD |
| 7+23 | 10' LT. | STA 7+25.82 END CAMP ROAD |
| 7+35.5 | 13.5' LT. | STA 7+47 8" x 6" F.H. TEE |
| 7+56 | 18' LT. | STA 7+68 8" VALVE |
| 7+70 | 20' LT. | STA 7+80 8" x 8" TEE & 8" VALVE |
| | LT. | STA 7+88 8" CAP & BUTTRESS |
| 8+38.20 | 57.5 RT. | STA 8+82.54 BEGIN CAMP ROAD |
| 8+65.50 | 78.5 RT. | STA 9+17.45 END CAMP ROAD |
| 9+06 | 112' RT. | STA 9+76 8" x 8" TEE |
| | | STA 9+79 8" CAP & BUTTRESS |
| 9+14 | 106' RT. | STA 9+81 3/4" W.H.C. |
| 9+25.48 | 94.5 RT. | STA 9+94 8" VALVE |
| 9+36.48 | 85' RT. | STA 10+14.98 BEGIN CAMP ROAD |
| 10+74.50 | 3' RT. | STA 11+82.53 END CAMP ROAD |
| 10+79.65 | 2' RT. | STA 11+85 8" x 6" F.H. TEE |
| 10+92 | 1.5' LT. | STA 12+00 8" x 45" BEND |
| 11+29.65 | 4.5' RT. | STA 12+30 8" x 45" BEND |
| 11+36.05 | 4.6' RT. | STA 12+37 3/4" W.H.C. |
| 11+72 | 5' RT. | STA 12+72 3/4" W.H.C. |
| 14+75.24 | 10' RT. | STA 15+77 3/4" W.H.C. |
| 14+88.24 | 10.5' RT. | STA 15+90 8" x 6" F.H. TEE |
| 14+93.74 | 11' RT. | STA 15+97 8" CAP & BUTTRESS |
| 8+11 | 45' RT. | STA 8+50 3/4" W.H.C. |



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James J. Sullivan 3-1-93
 DIRECTOR OF PUBLIC WORKS DATE

Robert J. Sullivan 3-1-93
 CHIEF, BUREAU OF UTILITIES DATE

Richard J. Sullivan 3-24-93
 CHIEF, BUREAU OF ENGINEERING DATE

Richard J. Sullivan 3-24-93
 CHIEF, WATER & SEWER DIVISION DATE

dfi CONSULTING ENGINEERS, SURVEYORS AND LAND PLANNERS

884 BALTIMORE / ANAPOLIS BLVD.
 P.O. BOX 984
 BETHESDA PARK, MD 21116
 PHONE (301) 847-3787

DES: N.T.
 DRN: N.T.
 CHK: S.T.A.
 DATE: 6/92

D.F.I.
 BY NO. DATE: 2/94

ADDED W.H.C. TO PARCEL 24, ADDED M.H.C. TO 4 11 AND ADDED S.H.C. TO PARCEL 24

WATER EXTENSION PLAN
 LAWYERS HILL ROAD

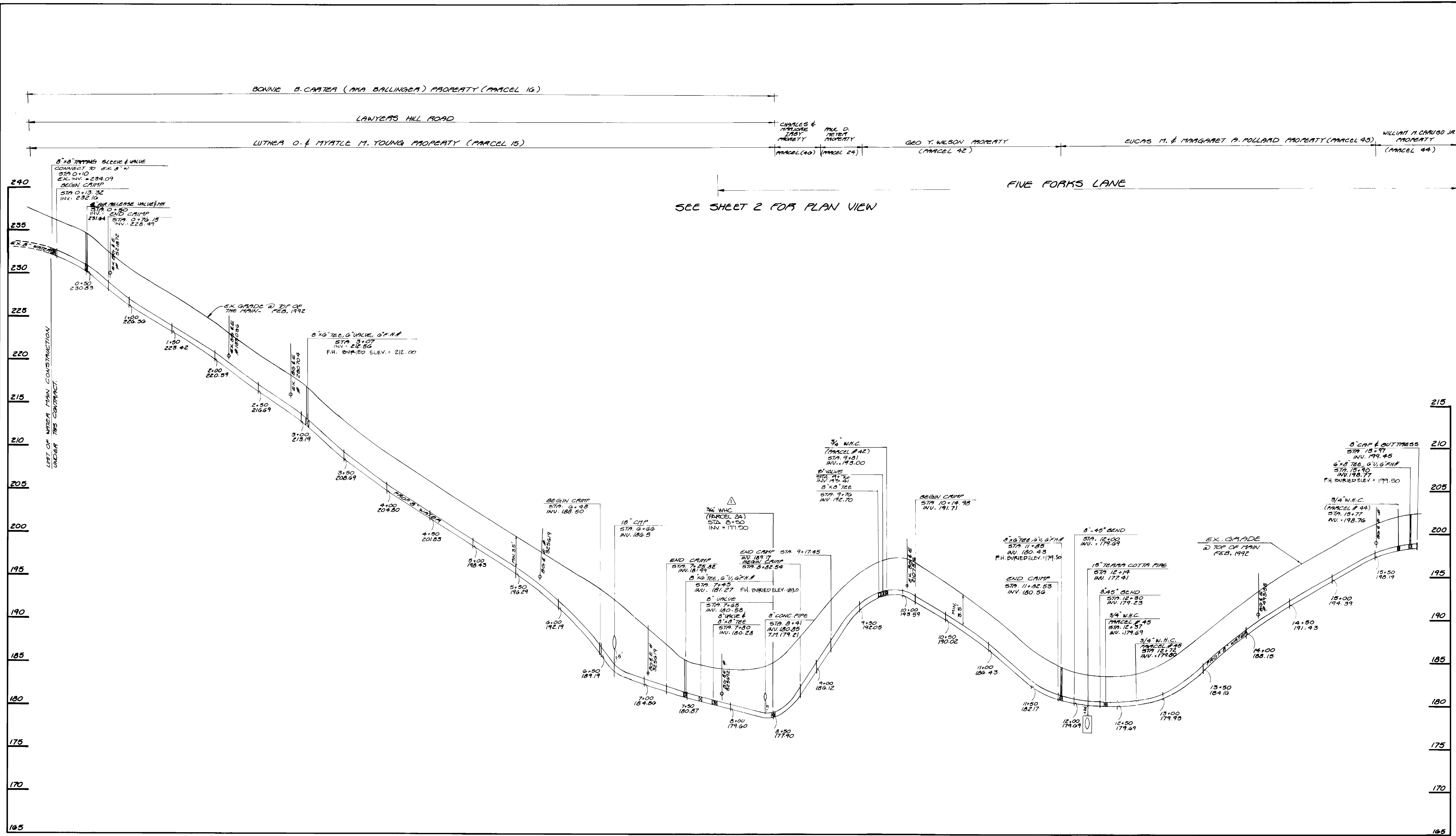
600' SCALE MAP NO. 38 BLOCK NO.

LAWYERS HILL ROAD WATER EXTENSION

CAPITAL PROJECT W-8179
 CONTRACT NO. 14-3208
 ELECTION DISTRICT ELKRIDGE #1
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 2 OF 4



WATER PROFILE ALONG LAWYERS HILL ROAD
 SCALE HORIZ 8" = 50' VERT 1" = 5'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James W. Slavin 3/3/93
 DIRECTOR OF PUBLIC WORKS DATE

Richard J. Brown 3-1-93
 CHIEF, BUREAU OF UTILITIES DATE

William J. Reidy 2-24-93
 CHIEF, BUREAU OF ENGINEERING DATE

John DeLeon 2-21-93
 CHIEF, WATER & SEWER DESIGN DIVISION DATE

dfi CONSULTING ENGINEERS, SURVEYORS
 AND LAND PLANNERS

804 BALTIMORE / ANNAPOLIS BLVD.
 P.O. BOX 984
 BETHESDA PARK, MD 21148
 PHONE (301) 847-3787

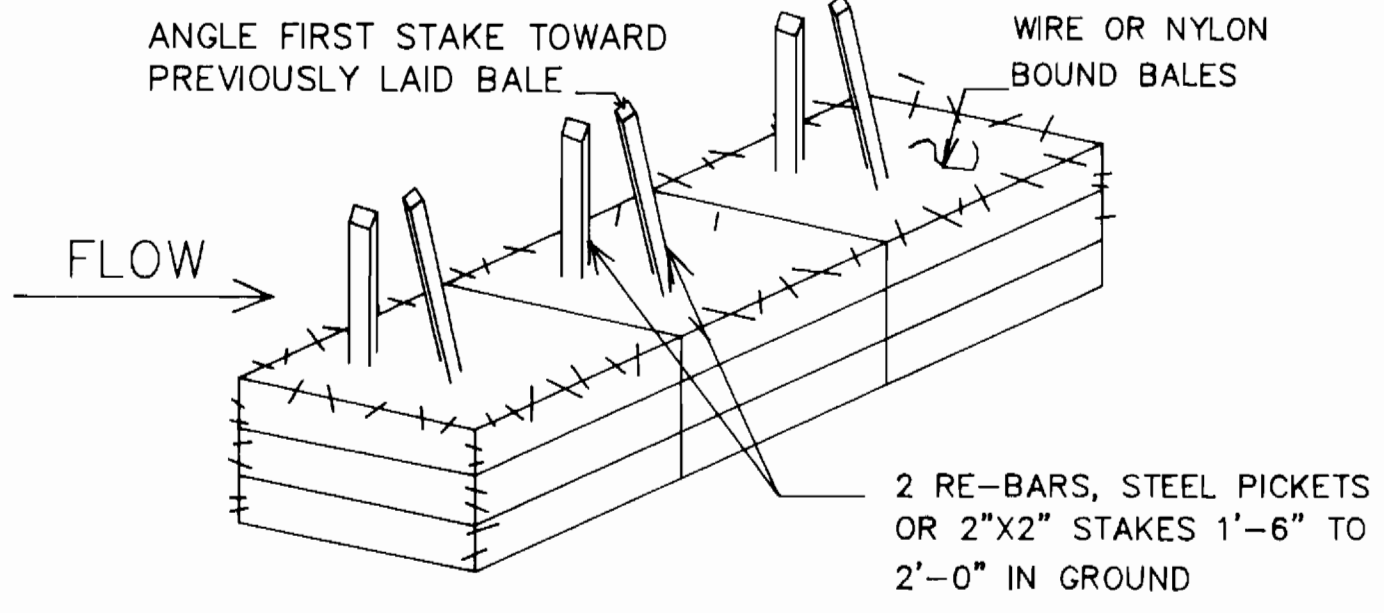
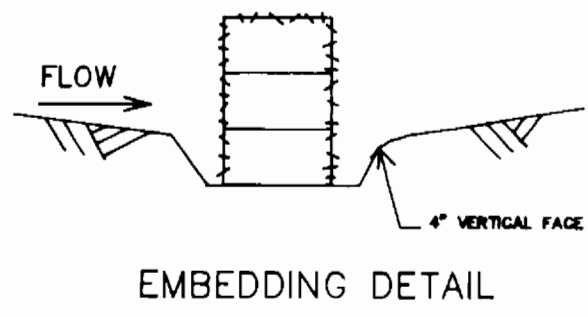
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|-------------|----|-----|--|------|--|
| DES: M.T. | | | | | |
| DRN: M.T. | | | | | |
| CHK: S.T.A. | | | | | |
| DATE: 6/92 | | | | | |
| D.F.I. | BY | NO. | REVISION | DATE | |
| | | | ADDED W.H.C. TO PARCEL 24, ADDED M.H. #10 & #11 AND ADDED S.H.C. TO PARCEL 24. | 2/04 | |

WATER EXTENSION PROFILE
 LAWYERS HILL ROAD

600' SCALE MAP NO. 38 BLOCK NO.

LAWYERS HILL ROAD WATER EXTENSION
 CAPITAL PROJECT W-8179
 CONTRACT NO. 14-3208
 ELECTION DISTRICT ELKCRIDGE #1
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 4



ANCHORING DETAIL

| TRAVERSE DESCRIPTION | | | | |
|----------------------|--------------|--------------|---------------|-----------|
| POINT NO. | NORTH | EAST | BEARING | DISTANCE |
| S-72 | 504,597.0682 | 878,934.3629 | | |
| | | | S47 39'05.5"E | 781.1967' |
| S-73 | 504,070.8245 | 879,511.7154 | | |
| | | | S05 42'13.1"E | 175.2809' |
| S-74 | 503,896.4114 | 879,529.1353 | | |
| | | | S12 35'44.7"E | 163.1707' |
| S-75 | 503,737.1677 | 879,564.7181 | | |
| | | | S37 21'36.6"W | 374.0928' |
| S-76 | 503,439.8251 | 879,337.7098 | | |
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PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS 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,DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

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

- 1) PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK 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 DISK 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 (0.05 LBS/1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 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 GRAIN 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 SEEDED AREAS AND MAKE NEEDED REPAIRS,REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

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,DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS - APPLY 60 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 OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (0.07 LBS/1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLING 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 GRAIN 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.

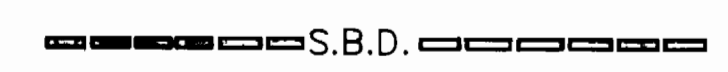
SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (313-1050)
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH SEC. 219 OF VOL. IV OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
3. 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.
4. 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.
5. 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) SOD (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.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:
 TOTAL AREA OF SITE ----- ACRES
 AREA DISTURBED ----- 0.25 ----- ACRES
 AREA TO BE ROOFED OR PAVED ----- 0.03 ----- ACRES
 AREA TO BE VEGETATIVELY STABILIZED ----- 0.02 ----- ACRES
 TOTAL CUT ----- 475 ----- CU.YDS.
 TOTAL FILL ----- 475 ----- CU.YDS.
 OFFSITE WASTE/BORROW AREA LOCATION ----- NONE -----
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED,IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES,APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS,BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. ALL TRENCH MATERIAL SHOULD BE PLACED ON THE HIGHER SIDE OF THE TRENCH, ABOVE THE TOP-OF-CURB.

CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THRU THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTON SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STANDARD SYMBOL



STRAW BALE DIKE DETAIL

NOT TO SCALE

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. LAYOUT ALIGNMENT AT SITE.
3. INSTALL SEDIMENT CONTROL DEVICE(STRAW BALES) PERPENDICULAR TO THE CURB ON THE DOWN-SLOPE SIDE OF CONSTRUCTION.
4. EXCAVATE DITCH TO THE GRADE SPECIFIED ON THE PROFILE.
5. INSTALL WATER MAIN
6. BACKFILL TRENCH AND RESURFACE WITH TEMPORARY BITUMINOUS PAVING WHERE NEEDED.
7. CLEAN UP CONSTRUCTION SITE.
8. REMOVE SEDIMENT CONTROL DEVICES AFTER PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR.

| RESTORATION SCHEDULE | | |
|----------------------|--------|----------|
| LOCATION | LENGTH | MATERIAL |
| WATER | | |
| STA.0+10TO STA.7+88 | 778' | PAVEMENT |
| STA.7+80TO STA.15+97 | 817' | GRAVEL |

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature] 3/2/93
 DIRECTOR OF PUBLIC WORKS DATE

[Signature] 2-24-93
 CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 3-1-93
 CHIEF, BUREAU OF UTILITIES DATE

[Signature] 2-11-93
 CHIEF, WATER AND SEWER DESIGN DIVISION DATE

CONSULTING ENGINEERS, SURVEYORS AND LAND PLANNERS

dfi

504 BALTIMORE/ANNAPOLIS BLVD.
 SEVERNA PARK, MD 21146 647-2727

| | | | | |
|-------------|--------|-----|----------|------|
| DES: N.T. | | | | |
| DRN: N.T. | | | | |
| CHK: S.T.A. | | | | |
| DATE: 6/92 | D.P.I. | NO. | REVISION | 2/04 |

SEDIMENT CONTROL MEASURES
 & TRAVERSE INFORMATION

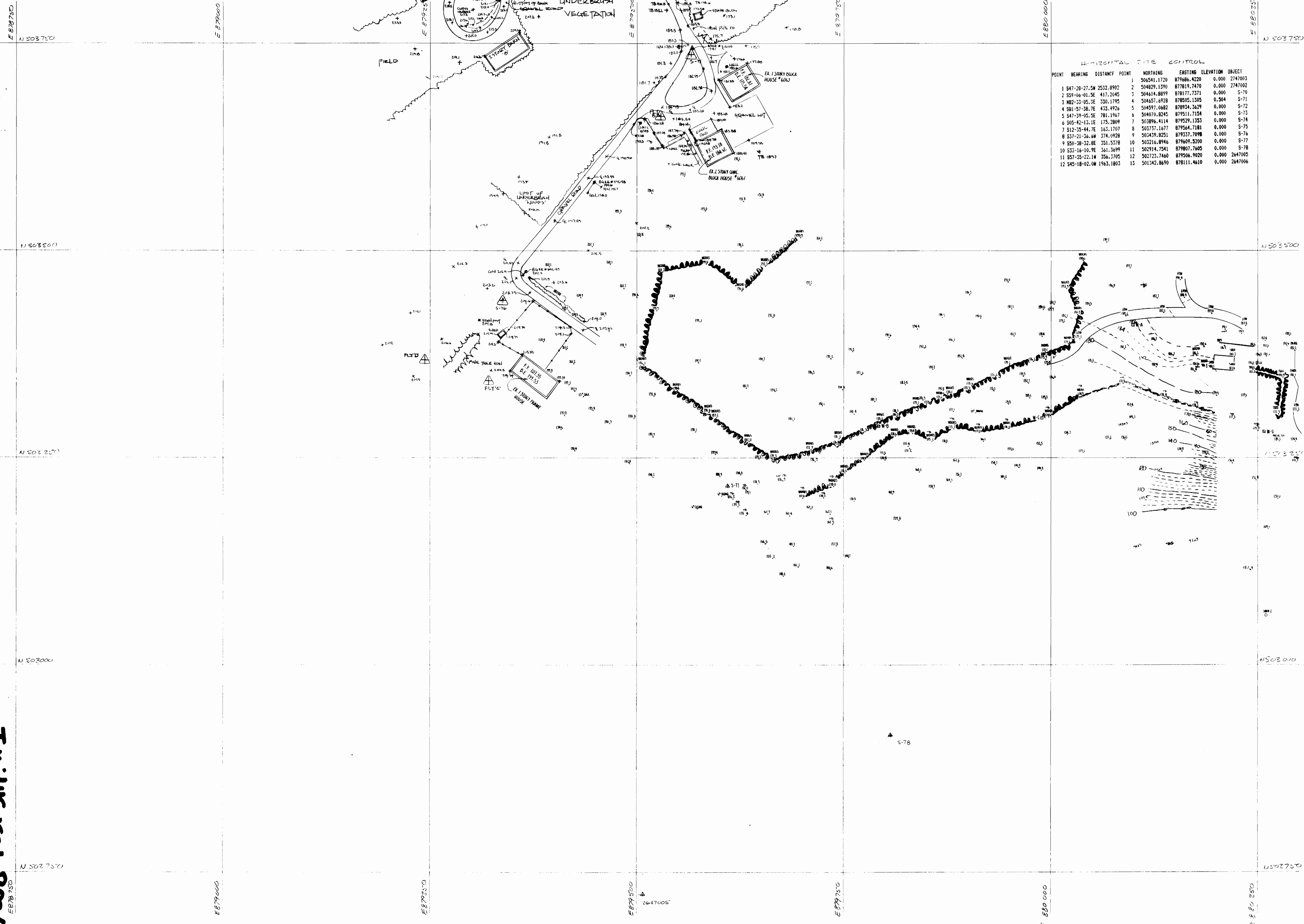
600' SCALE MAP NO. 38 BLOCK NO. _____

LAWYERSHILL ROAD WATER EXTENSION
 CAPITAL PROJECT W-8179
 CONTRACT NO. 14-3208
 ELECTION DISTRICT ELKRIDGE # 1
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 4 OF 4

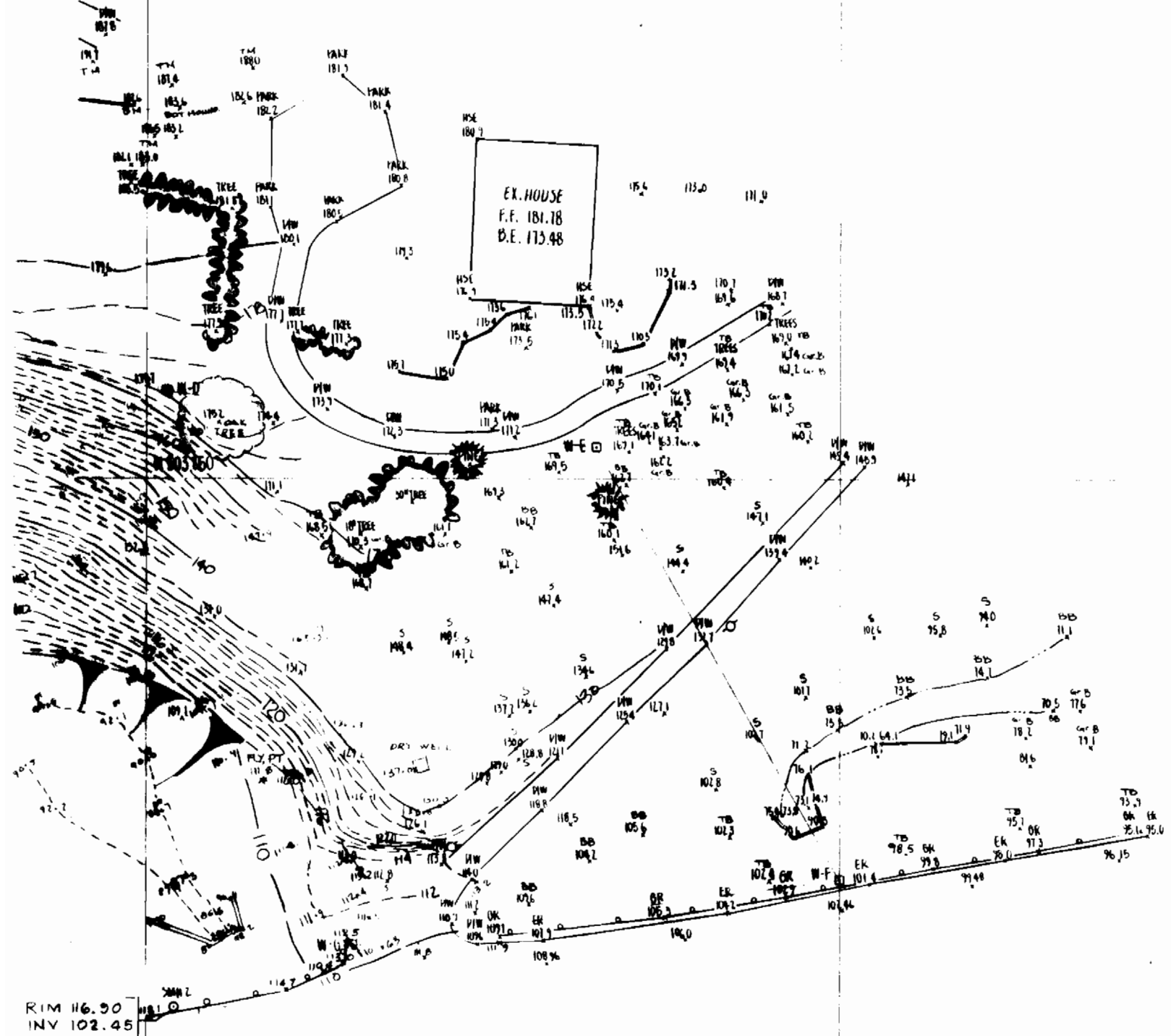
3208 POS. SHIT. #1



HORIZONTAL SITE CONTROL

| POINT | BEARING | DISTANCE | POINT | NORTHING | EASTING | ELEVATION | OBJECT |
|-------|--------------|-----------|-------|-------------|-------------|-----------|---------|
| 1 | S47-28-27.5W | 2532.8902 | 2 | 504541.1720 | 879486.4220 | 0.000 | 2747003 |
| 2 | S39-04-01.5E | 417.2045 | 3 | 504629.1390 | 878119.7470 | 0.000 | 2747002 |
| 3 | N82-33-05.3E | 330.1795 | 4 | 504614.8899 | 878177.7371 | 0.000 | S-70 |
| 4 | S81-57-38.7E | 433.4926 | 5 | 504657.4928 | 878505.1305 | 0.504 | S-71 |
| 5 | S47-39-05.5E | 781.1967 | 6 | 504597.0682 | 878934.3629 | 0.000 | S-72 |
| 6 | S05-42-13.1E | 175.2809 | 7 | 504070.8245 | 879511.7154 | 0.000 | S-73 |
| 7 | S12-35-44.7E | 163.1707 | 8 | 503896.4114 | 879529.1353 | 0.000 | S-74 |
| 8 | S37-21-36.6W | 374.0928 | 9 | 503757.1677 | 879584.7181 | 0.000 | S-75 |
| 9 | S50-38-32.8E | 351.5278 | 10 | 503439.8231 | 879537.7098 | 0.000 | S-76 |
| 10 | S33-16-10.7E | 341.3499 | 11 | 503216.8946 | 879409.5290 | 0.000 | S-77 |
| 11 | S27-25-22.1W | 356.3705 | 12 | 502914.7541 | 879807.7605 | 0.000 | S-78 |
| 12 | S45-18-02.0W | 1963.1803 | 13 | 501342.8690 | 878111.4610 | 0.000 | 2847006 |

WORK SHEET
 HOWARD COUNTY
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SURVEY & DRAFTING DIVISION
 LAUYERS HILL ROAD
 WATER EXTENSION
 Scale: 1" = 50'
 SHEET 1 OF 4
 FB#177#162 Map No.



$\frac{1}{2}$ IN. = 100 FT.
 1" = 200 FT.

1. ...
 2. ...
 3. ...
 4. ...

3208 POS. SHT. #2
 E 001 150
 188000

WORK SHEET
 HOWARD COUNTY
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SURVEY & DRAFTING DIVISION
 LAYIERS HILL ROAD
 WADSWORTH

Scale: 1" = 50'
 SHEET 4 OF 4
 PB# 177 6162 Map No.