

**QUANTITIES**

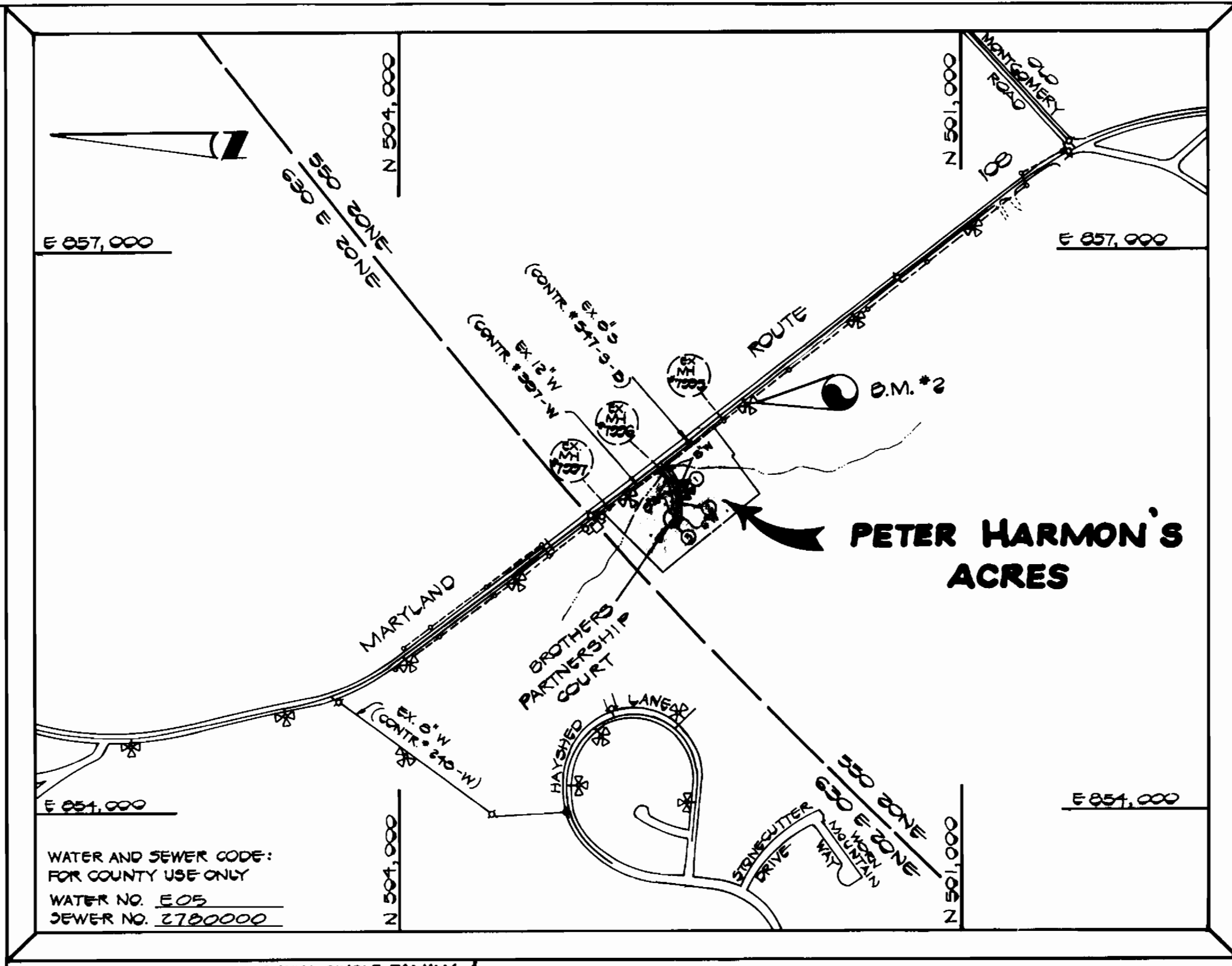
ITEM	ESTIMATED	AS BUILT	SUPPLIER
8" WATER	170 L.F.	181 L.F.	ATLANTIC STATE
6" WATER	122 L.F.	174 L.F.	"
1/2" WATER	25 L.F.	17 L.F.	A & P
1" WATER	170 L.F.	170 L.F.	A & P
3/4" WATER	10 L.F.	174 L.F.	A & P
6" VALVE	1 EACH	1 EA	A & P MUELLER
6" VALVE (PH)	1 EACH	1 EA	A & P MUELLER
6" FITTEE	1 EACH	1 EA	A & P MUELLER
1/2" BLOWOFF	1 EACH	1 EA	A & P
6" REDUCER	1 EACH	1 EA	A & P H. S. F.
6" SEWER	236 L.F.	330 L.F.	A & P
6" SADDLE	5 EACH	3 EA	A & P
MANHOLES	3 EACH	3 EA	ATLANTIC STATE
18" VALVE	1 EACH	1 EA	A & P
FIRE HYDRANT	1 EACH	1 EA	A & P MUELLER

**MANHOLE TABULATION**

NUMBER	ROAD STATION	DISTANCE	RIM	SLOPE
EX.MH*7206	0+44 BROTHERS PARTNERSHIP COURT	12' RIGHT	+16.06	+1.00%
MH*1	11+27 BROTHERS PARTNERSHIP COURT	4' RIGHT	+17.13	+1.00%
MH*2	2+50 BROTHERS PARTNERSHIP COURT	6' RIGHT	+18.30	+1.00%
MH*3	CUL - DE - SAC	-	+18.36	+1.00%

**SEWER HOUSE CONNECTION INVERT - ft**

STATION	LOT	ELEV.
0+34 LEFT	EX.MH*7206 TO EX.MH*7206	408.45
0+30 LEFT	EX.MH*7206 TO EX.MH*7207	408.19
2+60 LEFT	17 @ 1%	411.94
0+07 LEFT	EX.MH*7206 TO MH*1	407.13
0+07 LEFT	MH*1 TO MH*2	408.03
0+25 RIGHT	MH*2 TO MH*3	408.01
0+55 LEFT	18 @ 1.00%	408.00
1+15 RIGHT	16	409.70
0+MH*3 LEFT	12 @ 1%	409.73
0+MH*3 RIGHT	14 @ 1%	408.61
0+42 RIGHT	EX.MH*7206 TO MH*1	406.20



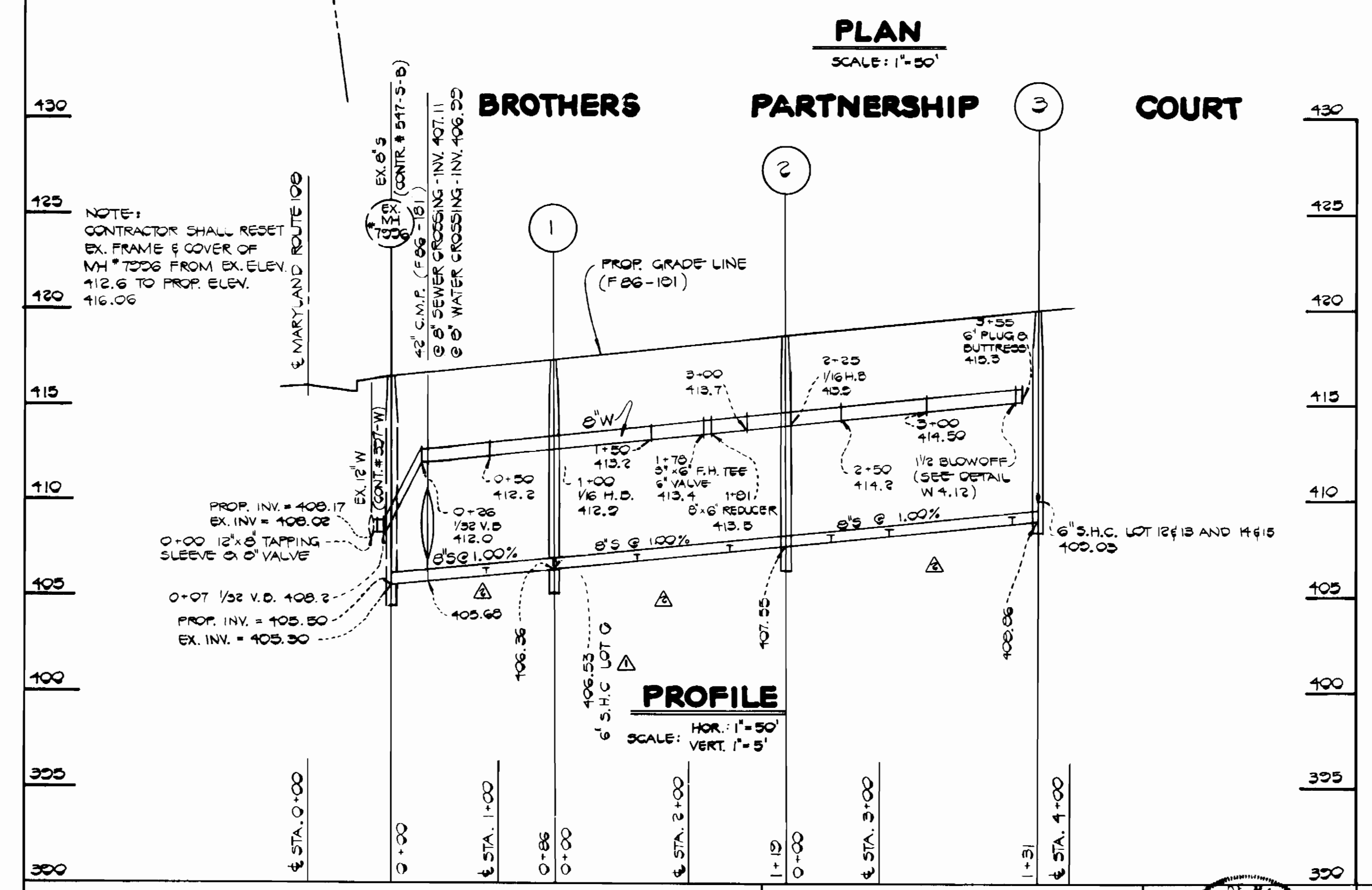
**UTILITY CODES**

WATER AND SEWER CODE:  
FOR COUNTY USE ONLY  
WATER NO. E05  
SEWER NO. 3720000

**VICINITY MAP**  
SCALE: 1"=600'

TYPE OF BUILDING	RESIDENTIAL SINGLE FAMILY
NUMBER OF LOTS	12 (14 BUILDABLE)
NUMBER OF WATER HOUSE CONN.	14
NUMBER OF SEWER HOUSE CONN.	14
DRAINAGE AREA	PATAPOCO

- GENERAL NOTES**
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
  - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
  - ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
  - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
  - CLEAR ALL UTILITIES BY A MINIMUM OF 6'. CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITIES 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 TO THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
  - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
BALTIMORE GAS & ELECTRIC COMPANY - CONTRACTOR SERVICES: 561-2500  
BALTIMORE GAS & ELECTRIC COMPANY - UNDER GROUND DAMAGE CONTROL: 231-5621  
BALTIMORE GAS & ELECTRIC COMPANY - TROUBLE SHOOTING: 230-9015  
MISS UTILITY: 1-520-0100  
CHESAPEAKE & POTOMAC TELEPHONE COMPANY: 725-2076  
BUREAU OF UTILITIES - HOWARD COUNTY: 292-2366
  - TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
  - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
  - PLACE REGULATION MEN WORKING AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.
  - ALL SEWER MAINS SHALL BE: C.S.P., R.C.S.P., V.C.R.X., VGPX, ACP CLASS 2400 OR PVC UNLESS OTHERWISE NOTED.
  - CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
  - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
  - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.
  - ALL WATER MAINS TO BE D.I.P. UNLESS OTHERWISE NOTED.
  - TOP OF WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
  - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
  - BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAIL 5014 AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 1008 AND 1008B OF THE STANDARD SPECIFICATIONS.
  - ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE-METER SETTING. (STD. DETAIL W 3.21)
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
  - WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
  - MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL G 5.51
  - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER STANDARD DETAIL G 5.52 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
  - FOR ALL COPPER WATER HOUSE CONNECTIONS, UTILIZE FLARED TYPE FITTINGS ONLY.
  - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IX, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IX 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.
  - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS PROVIDED FOR ON THE DRAWINGS.



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

APPROVED: *Stephen L. Fisher* 7/10/86  
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
*James M. Hill* 7-10-86  
U. S. SOIL CONSERVATION SERVICE DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert M. Brainerd* 7-16-86  
CHIEF, BUREAU OF UTILITIES DATE

*Michael S. Brainerd* 7/16/86  
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS

8398 COURT AVENUE  
ELLICOTT CITY, MARYLAND 21043

TERRELL A. FISHER, P.E. 975

DES: D.E.V.  
DRN: J.O.  
CHK: T.A.F.  
DATE: 5/1/86

REVISIONS:

J.O.	REVISE SEWER & WATER PROFILE (LOWER) ALSO MH. ELEV. AND MIN. CELLAR ELEV.	9/15/86
T.A.F.	RELOCATE S.H.C. LOT 9 TO STA. 0+90 BETWEEN MH*1 TO 2	9/10/86

**PLAN & PROFILE**  
**WATER AND SEWER MAINS**

600' SCALE MAP NO. 37 BLOCK NO. 1

**PETER HARMON'S ACRES**  
CONTRACT NO. 14-1457-D  
WATER AND SEWER MAIN EXTENSION

SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 1