

**GENERAL NOTES**

- PART 1 - GENERAL**
- 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. DATA.
  - 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 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 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 DETAIL 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. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
STATE HIGHWAY ADMINISTRATION.....531-5533  
BALTIMORE GAS & ELECTRIC CO.....850-4620  
BALTIMORE GAS & ELECTRIC CO.....850-4620  
UNDERGROUND DAMAGE CONTROL.....787-9068  
MISS UTILITY.....1-800-257-7777  
COLONIAL PIPELINE CO.....795-1390  
HOWARD CO. DEPT. OF PUBLIC WORKS  
BUREAU OF UTILITIES.....313-4900
  - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO 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 LINE OF EXCAVATION. 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 MAINTENANCE OPERATIONS.
  - 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 BORROW/HAULING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.

- PART 2 - WATER**
- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
  - TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" 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 RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
  - ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.

- PART 3 - SEWER**
- ALL SEWER MAINS SHALL BE DIP OR P.V.C. UNLESS OTHERWISE NOTED.
  - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2' - 0" OF EXTERIOR MANHOLE WALL.
  - ALL MANHOLES SHALL BE 4' - 0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
  - FORCE MAINS SHALL BE D.I.P. ONLY.
  - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
  - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL G5.52. WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1" - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
  - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

HOWARD SOIL CONSERVATION DISTRICT:  
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT  
AND MEETS TECHNICAL REQUIREMENTS

*Jim Meyer* 4/30/04  
NATURAL RESOURCES CONSERVATION SERVICE

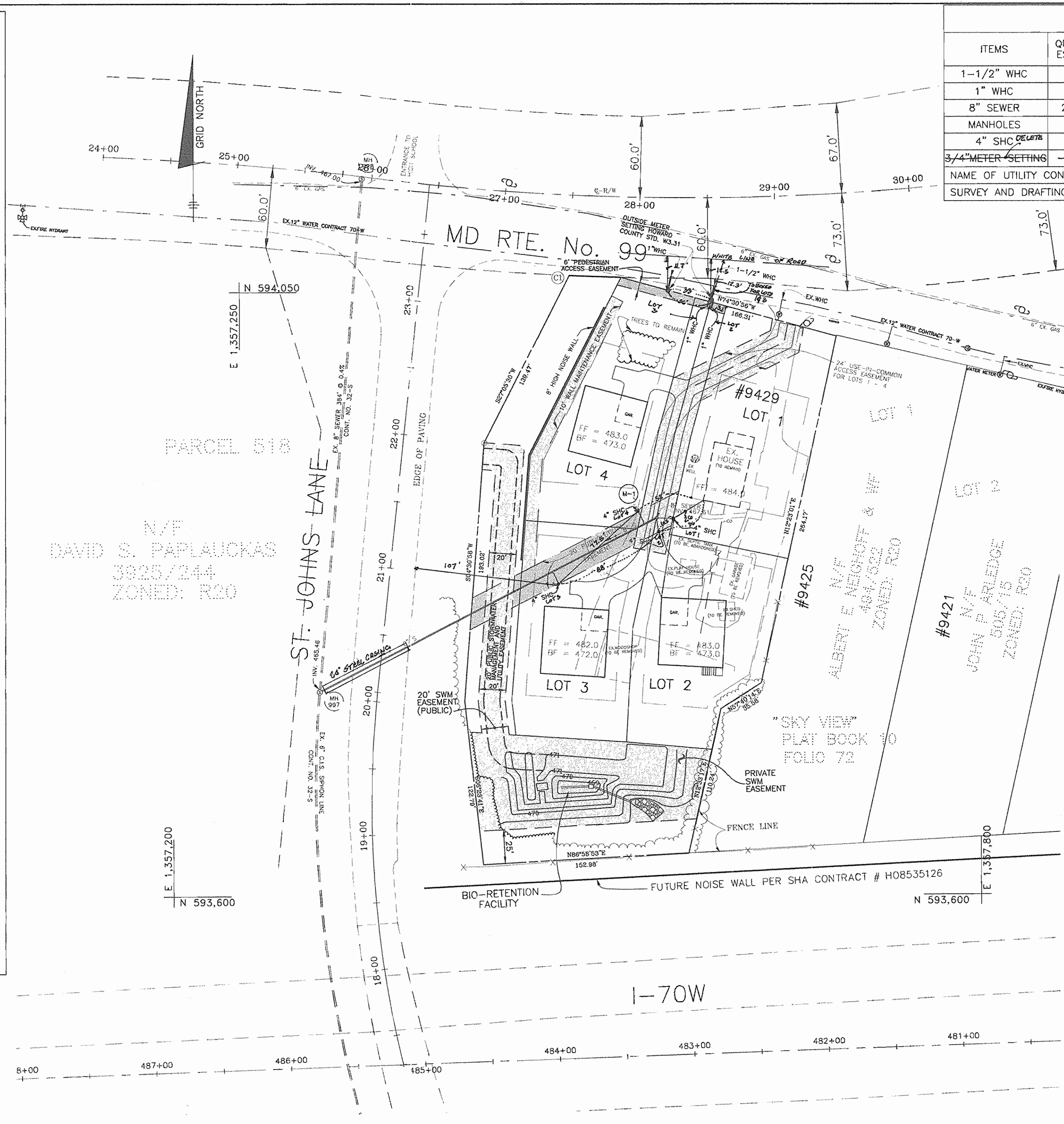
THIS PLAN IS APPROVED FOR SOIL CONSERVATION DISTRICT  
SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

*John K. Roston* 4/30/04  
HOWARD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE  
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE  
HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER  
ROAD CONSTRUCTION PLANS F-03-91.

**CONTRACTOR NOTES:**

- MAINTAIN A MINIMUM OF ONE LANE OPEN ON ST. JOHNS LANE AT ALL TIMES DURING CONSTRUCTION ACTIVITY.
- MAINTAIN ACCESS TO EX. HOUSE VIA EX. DRIVEWAY AT ALL TIMES DURING CONSTRUCTION ACTIVITY.
- EXERCISE EXTREME CAUTION WHEN WORKING IN THE AREA OF EX. OVERHEAD ELECTRIC LINES.
- CONTRACTOR SHALL REPAIR PAVING ALONG THE LINES OF EXCAVATION ON ST. JOHNS LANE AND MD RTE. 99 AFTER CONSTRUCTING PROPOSED WHC AND SEWER MAIN.



**QUANTITIES**

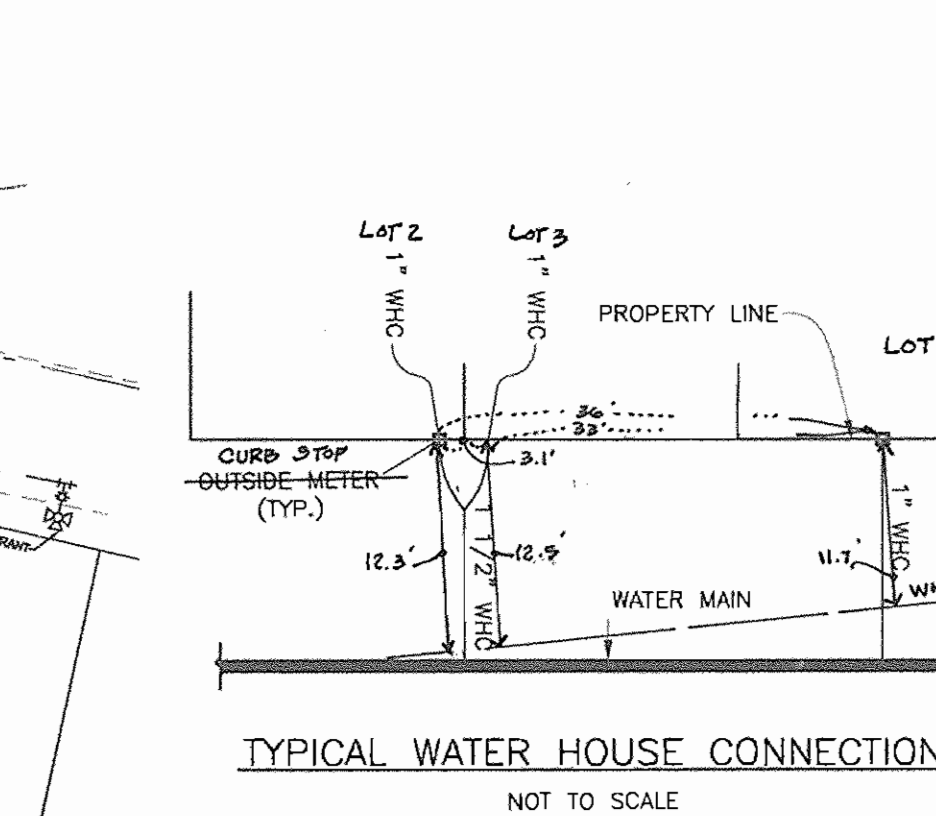
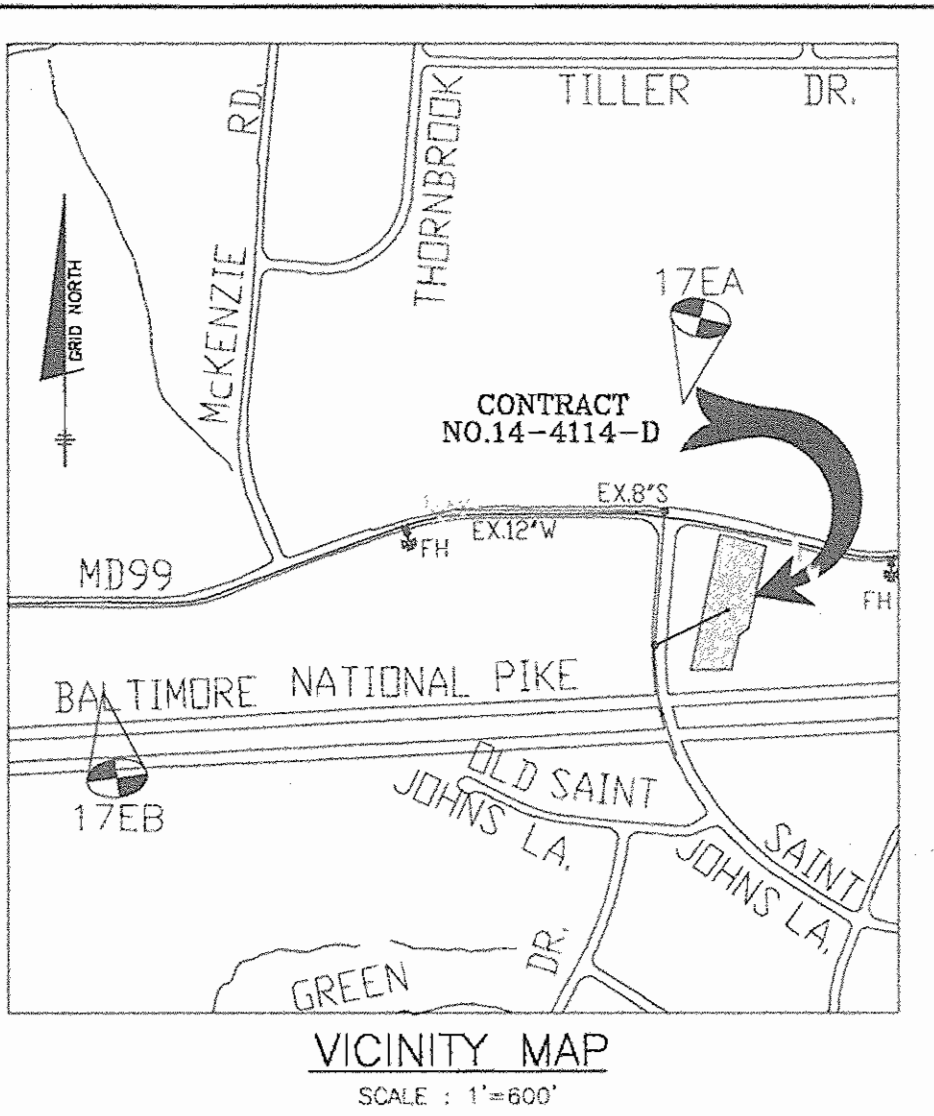
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUF./SUPPLIER
1-1/2" WHC	10 L.F.	9 L.F.	COPPER	CAMBRIDGE LBS
1" WHC	20 L.F.	18 L.F.	-	-
8" SEWER	282 L.F.	285 FT.	3 D.R. 95	M.J.
MANHOLES	1 EACH	1 EA.	PRECAST	ATLANTIC
4" SHC	40 L.F.	102 FT.	3 D.R. 95	M.J.
3/4" METER SETTINGS	-3 EACH	-	-	-

NAME OF UTILITY CONTRACTOR: W.F. WILSON AND SONS  
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:

**BENCH MARKS NAD'83**

HO. CO. #17EA ELEV. 479.48  
STAMPED BRASS DISK SET ON TOP OF CONC. (3" DEEP) CYLINDRICAL BASE LOCATED 22'4" WEST OF THE ENTRANCE TO BETHANY FIRE STATION 18' SOUTH OF THE CL. ON OLD FREDERICK ROAD AND 38.2' EAST OF G&E POLE #14651.  
N 594,357.726' E 1,357,519.3741'

HO. CO. #17EB ELEV. 454.18  
STAMPED BRASS DISK SET ON TOP OF CONC. (3" DEEP) CYLINDRICAL BASE LOCATED 22'4" WEST OF THE ENTRANCE TO BETHANY FIRE STATION 18' SOUTH OF THE CL. ON OLD FREDERICK ROAD AND 38.2' EAST OF G&E POLE #14651.  
N 593,814.0053' E 1,365,731.8846'



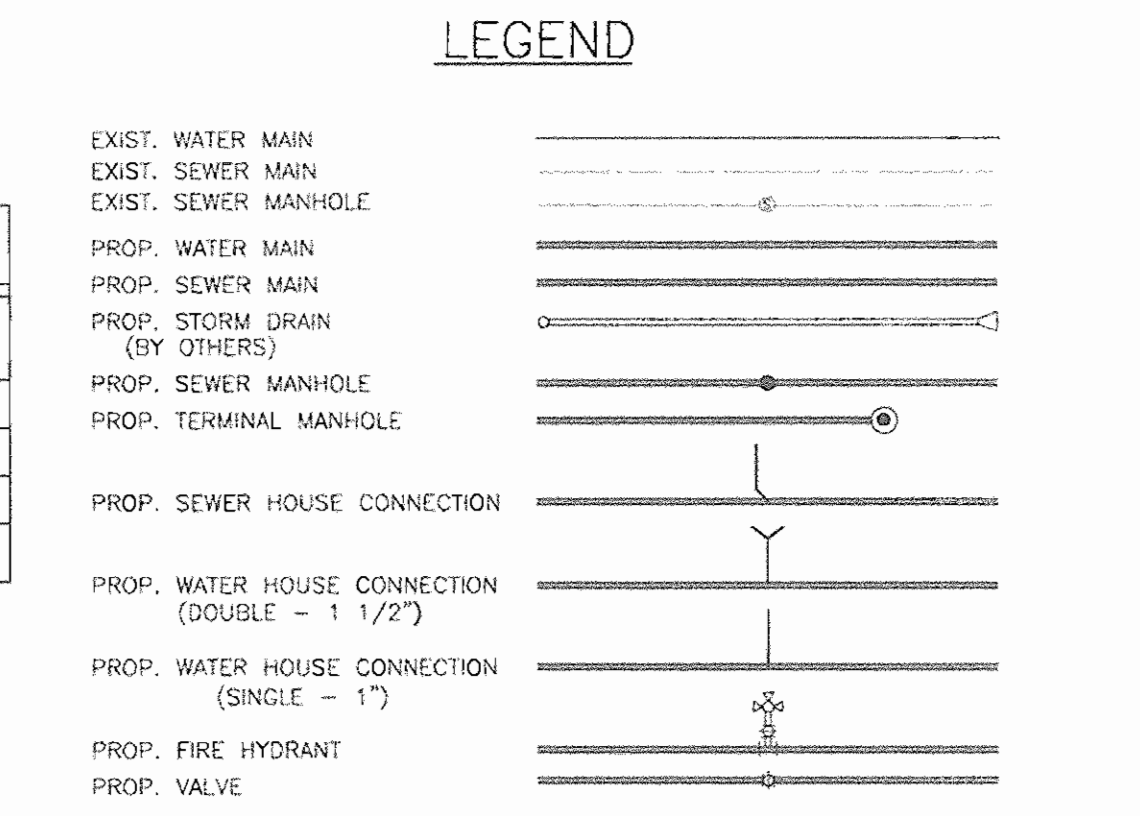
**SHC TABLE**

LOT NO.	INVERT AT MAIN	INVERT AT EASEMENT	MCE	REMARKS
1	467.76	467.96	472.46	-
2	467.76	467.96	472.66	-
3	466.95	467.15	471.25	-
4	467.51	467.71	472.21	-

(FOR COUNTY USE ONLY)  
WATER AND SEWER COUNTY CODE

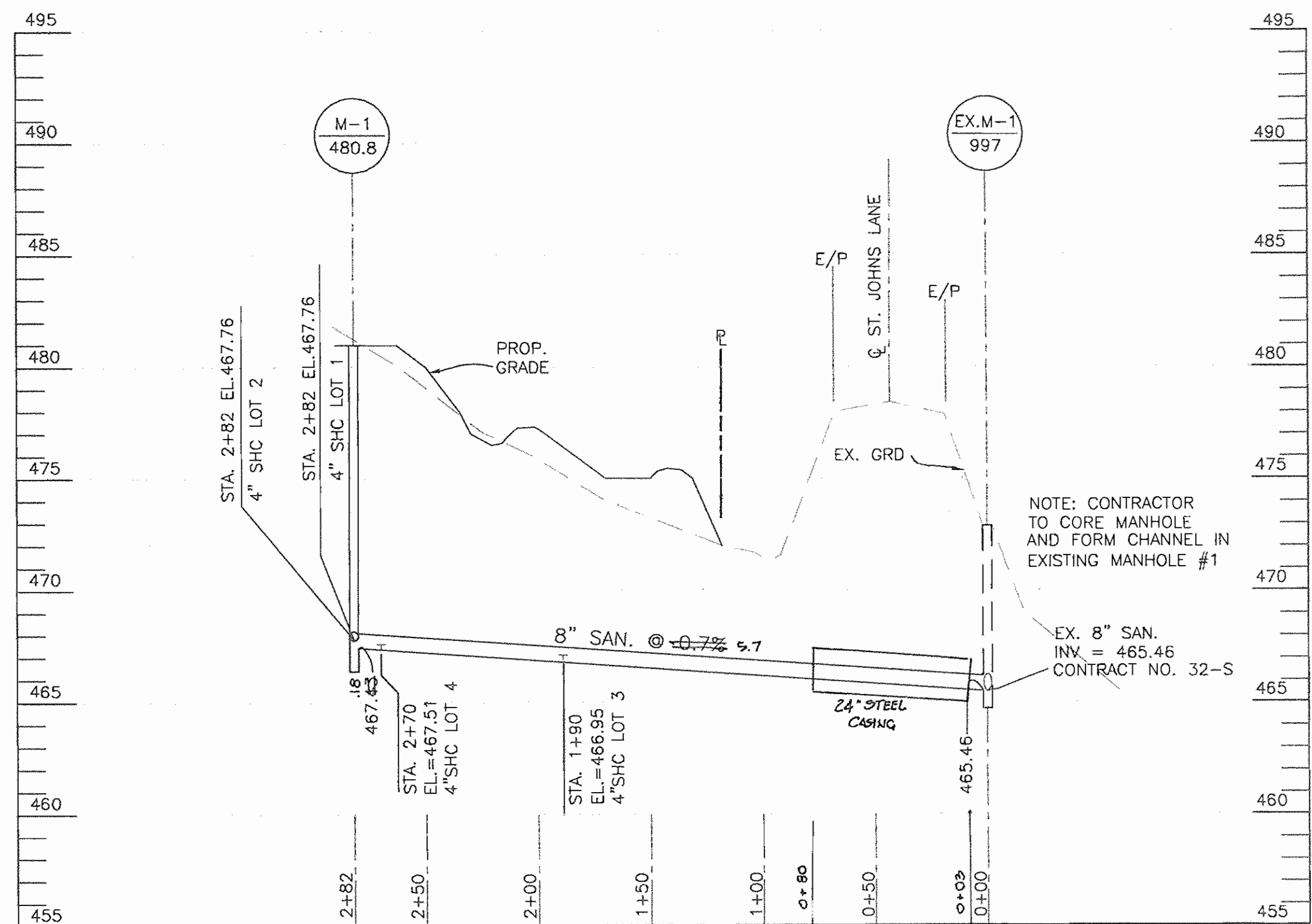
WATER CODE: H-03  
SEWER CODE: 1406900  
TEST GRADIENT: 780

TYPE OF BUILDING: SINGLE FAMILY DETACHED  
NUMBER OF LOTS: 4 BUILDABLE  
NUMBER OF SHC'S: 4  
NUMBER OF WHC'S: 3  
DRAINAGE AREA: PATAPSCO  
TREATMENT PLANT: PATAPSCO



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

- SEPTIC ABANDONMENT SEQUENCE**
- PROVISIONS SHALL BE MADE TO CONNECT THE EXISTING HOUSE ON LOT 1 TO THE PUBLIC SEWER SYSTEM PRIOR TO ANY DISTURBANCE OF THE EXISTING SEPTIC FIELD.
  - NOTIFY THE HOWARD COUNTY HEALTH DEPARTMENT THAT THE EXISTING SEPTIC SYSTEM IS READY TO BE ABANDONED.
  - HAVE THE TANK AND DRY WELL (IF PRESENT), PUMPED DRY BY A CERTIFIED SEPTIC HANDLER.
  - CRUSH THE TOP OF THE TANK AND FILL AS NEEDED WITH CLEAN FILL MATERIAL. IF ANY PORTION OF THE SYSTEM MUST BE DUG UP AND REMOVED TO CLEAR OTHER UTILITIES, DO SO AT THIS TIME.
  - NO PART OF THE SEPTIC SYSTEM SHALL BE TRANSPORTED OFF-SITE. THE CONTRACTOR SHALL NOTIFY THE HEALTH DEPARTMENT IF IT IS NECESSARY TO PROPOSE OFF-SITE DISPOSAL OF ANY PART OF THE SEPTIC SYSTEM.
- WELL ABANDONMENT SEQUENCE**
- THE WELL SHALL BE FILLED AND CAPPED PRIOR TO THE BEGINNING OF ANY ON-SITE CONSTRUCTION.
  - HAVE THE WELL FILLED AND CAPPED WITH CONCRETE BY A CERTIFIED WELL DRILLER.
  - THE WELL DRILLER SHALL FORWARD A COPY OF THE WELL DRILLER'S CERTIFICATE TO THE HOWARD COUNTY HEALTH DEPARTMENT.



**SEWER PROFILE**  
VERTICAL SCALE 1" = 5'  
HORIZONTAL SCALE 1" = 50'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John K. Roston* 4/30/04  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Donald Mean* 5/1/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**BENCHMARK**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**  
8680 BALTIMORE NATIONAL PIKE & SUITE 418  
ELLSWORTH CITY, MARYLAND 21043  
PHONE: 410-665-6105 FAX: 410-665-8644

DES: MLV  
DRN: EDD/MAN  
CHK: DAM  
DATE: 04/04

KCI 1 APPROX DATA 8/15/07

BY NO. REVISIONS DATE

**FULTON PROPERTY**  
LOTS 1 THROUGH 4  
AND OPEN SPACE LOT 5  
ELECTION DISTRICT NO.2  
CONTRACT NO.14-4114-D

SCALE: AS SHOWN  
SHEET NO. 1 OF 1