



- GENERAL NOTES**
- PART 1**
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICE 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 ARE INVERT ELEVATIONS UNLESS NOTED OTHERWISE.
  - 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 DAMAGE SHALL BE DEDUCTED FROM THE MONEY OWED TO THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF POLES.
  - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOL. IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND 1984 AMENDMENTS.
  - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES THEY ARE NOTED BY THE SYMBOL (S) AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING RESULTS OF THE TEST 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 UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS: STATE HIGHWAY ADMINISTRATION 531-5533, BALTO. GAS & ELECTRIC COMPANY - CONTRACTOR SERVICES 850-4620, BALTO. GAS & ELECTRIC COMPANY - UNDERGROUND DAMAGE CONTROL 859-9004, BALTO. GAS & ELECTRIC COMPANY - TROUBLE SHOOTING 298-9001, MISS UTILITY 1-(301) 559-0100, COLONIAL PIPELINE 795-1390 BUREAU OF UTILITIES, HOWARD COUNTY DEPT. OF PUBLIC WORKS 992-2366, C & P TELEPHONE 1-(800) 257-7777.
  - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE DAMAGED OR REMOVED 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 OR THE MAIN.
  - PLACE REGULATION "MEN WORKING" WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATIONS MANUAL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.
- PART 2 - WATER**
- ALL WATER MAINS TO BE D.I.P. UNLESS OTHERWISE NOTED.
  - TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3.5 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 ON THE DRAWINGS.
  - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1003 AND 1008 OF THE STANDARD SPECIFICATIONS.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
  - ALL WATER HOUSE CONNECTIONS SHALL BE INSIDE METER SETTINGS UNLESS OTHERWISE NOTED.
  - ALL FIRE HYDRANTS TO BE SET THREE FEET BEHIND FACE OF CURB UNLESS NOTED OTHERWISE.
  - ALL WATER HOUSE CONNECTIONS SHALL COMPLY WITH HOWARD CO. STD. 3.21 AS SHOWN ON ART. 40, SPECIAL PROVISIONS.
  - MINIMUM CRIMP RADIUS WILL BE SPECIFIED BY PIPE MANUFACTURER.
  - WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
  - SERVICE CLAMPS ARE TO HAVE STAINLESS STRAPS.
  - ALL D.I.P. FITTINGS SHALL BE ACCORDANCE WITH ANWA SPECIFICATION C-153 DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
  - THE CONTRACTOR SHALL ARRANGE TO HAVE THE EX. 12" SAN. MAIN FIELD LOCATED PRIOR TO ANY EXCAVATION FOR THE WATER MAIN CONNECTION.
- PART 3 - SEWER**
- ALL SEWER MAINS SHALL BE 60% R.C.S.P., V.C.P., A.C.P. CLASS 4000 OR P.I.G. UNLESS OTHERWISE NOTED.
  - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 8'-0" OF EXTERIOR MANHOLE WALL.
  - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
  - MANHOLES SHOWN WITH 12" WALLS ARE BRICK MANHOLES ONLY.
  - MANHOLES DESIGNATED W.T. IN THE PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVER, STANDARD DETAIL G.5.B. WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-0" ABOVE FINISHED GRADE UNLESS NOTED ON DRAWINGS.
  - MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD MANHOLE FRAME AND COVER, STANDARD DETAIL G.5.B.1.

TYPE OF BUILDINGS: RETAIL  
 NUMBER OF LOTS: 2  
 NUMBER OF WATER H.C.'S: 5  
 DRAINAGE AREA: PATAPSCO  
 WATER CODE: D04  
 SEWER CODE: 2024500

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

QUANTITIES			
ITEM	ESTIMATED	AS BUILT	MATERIAL/SUPPLIER
12" X 12" TAPPING SLEEVE	1	1	KENNEDY / MUNICIPAL
8" X 8" TAPPING SLEEVE	1	1	KENNEDY / MUNICIPAL
12" X 6" TEE	1	1	GRIFFIN / MUNICIPAL
12" X 6" TEE	5	5	GRIFFIN / MUNICIPAL
8" X 6" TEE	2	2	GRIFFIN / MUNICIPAL
12" VALVE	1	1	KENNEDY / MUNICIPAL
8" VALVE	2	2	KENNEDY / MUNICIPAL
12" VALVE	6	7	KENNEDY / MUNICIPAL
18" 1/2 BEND	2	2	GRIFFIN / MUNICIPAL
8" 1/2 BEND	2	2	GRIFFIN / MUNICIPAL
8" CAP + BUTTRESS	1	1	GRIFFIN / MUNICIPAL
12" D.I.P.	140 L.F.	738	GRIFFIN PIPE
8" D.I.P.	465 L.F.	684	GRIFFIN PIPE
12" D.I.P.	129 L.F.	95	GRIFFIN PIPE
F.H.	4	4	KENNEDY / MUNICIPAL
12" X 8" REDUCER	1	1	GRIFFIN / MUNICIPAL
2" TAPPED TEE	1	1	FORD / MUNICIPAL
2" VALVE	1	1	FORD / MUNICIPAL
2" COPPER PIPE	10 L.F.	10	CAMBRIDGE / MUNICIPAL
8" SANITARY SEWER	8 L.F.	8	HUNTER / MUNICIPAL
4" SANITARY H.C.	19 L.F.	15	HUNTER / MUNICIPAL
6" 1/2 VERT BEND	2	2	GRIFFIN / MUNICIPAL

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

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
 [Signature]  
 SOIL CONSERVATION SERVICES DATE

THE DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 [Signature]  
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION AND SDP 89-205

**DEPARTMENT OF PUBLIC WORKS**  
 Director of Public Works  
 DATE: 8-15-89  
 Chief, Bureau of Utilities Date

Chief, Bureau of Engineering Date: 8-16-89  
 Chief, Land Development Date: 8/15/89

**GEORGE WILLIAM STEPHENS JR. AND ASSOCIATES INC.**  
**GWS**  
 CIVIL ENGINEERS & LAND SURVEYORS  
 303 ALLEGHENY AVENUE  
 TOWSON, MARYLAND 21204  
 (301) 825-8120

DESIGNED: GWS  
 DRAWN: JWE  
 CHECKED: PRC  
 P.N. 5040

BY NO. DATE  
 GWS 1 REVISED WATER CONN. LOC. BLDG. B.C. & D. 4/9/90

**PLAN FOR PROPOSED WATER MAIN CONTRACT No. 14-1961-D**

600 SCALE MAP NO. 38 BLOCK 8

**ELKRIDGE CORNERS**  
 PARCELS A-1 AND B-1  
 HOWARD COUNTY, MARYLAND

MAY 18, 1989  
**AS-BUILT**

SCALE: 1" = 50'  
 SHEET 1 OF 2

