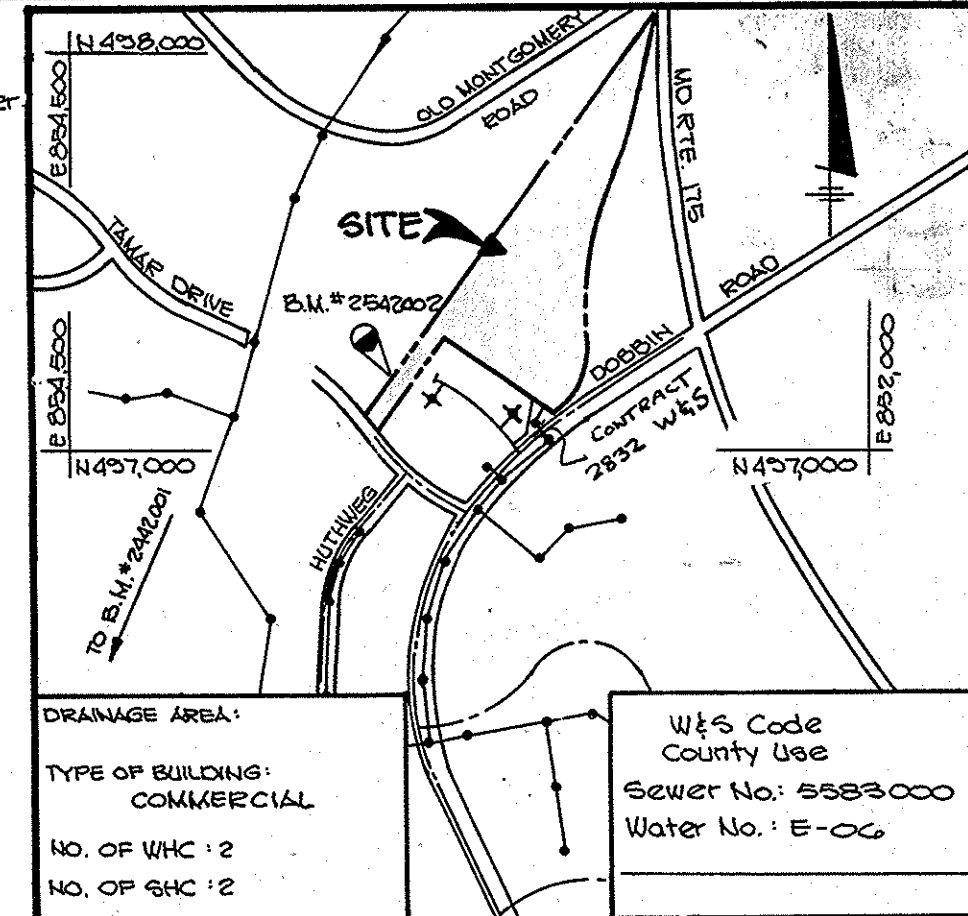


**BENCH MARKS**  
 B.M.#2442001 Elev. 370.67  
 Concrete monument 0.1' below surface located in back of the G&E Sub-Station in Owen Brown Village near Oakland Mill Road.  
 N 425,670.42 E 845,303.57

B.M.#2542002 Elev. 369.64  
 Concrete monument 0.5' below surface located 1000' West of rte. 175 on transmission line at G&E tower 10-E near restaurant entrance.  
 N 427,235.44 E 850,516.04

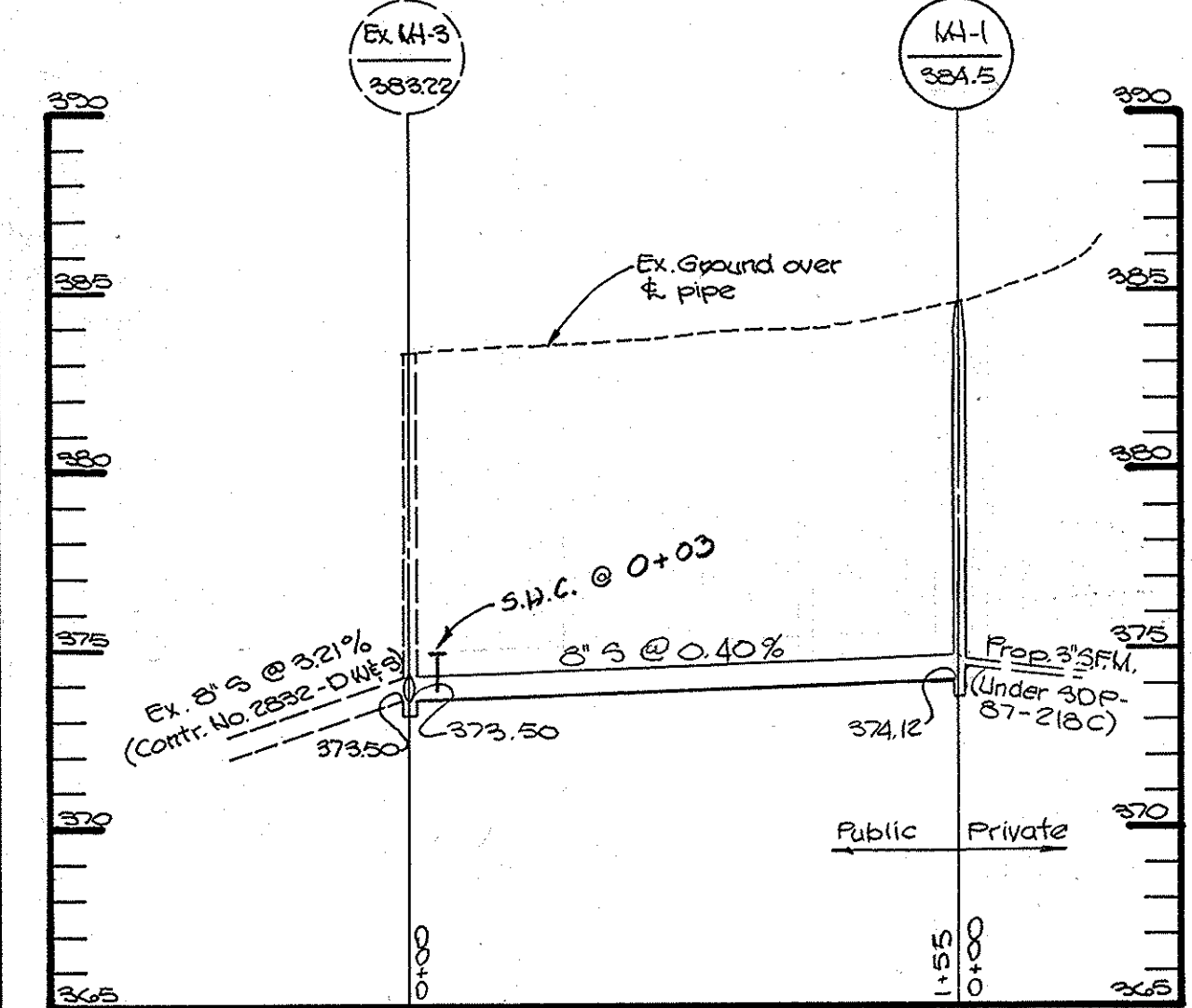


**GENERAL NOTES**

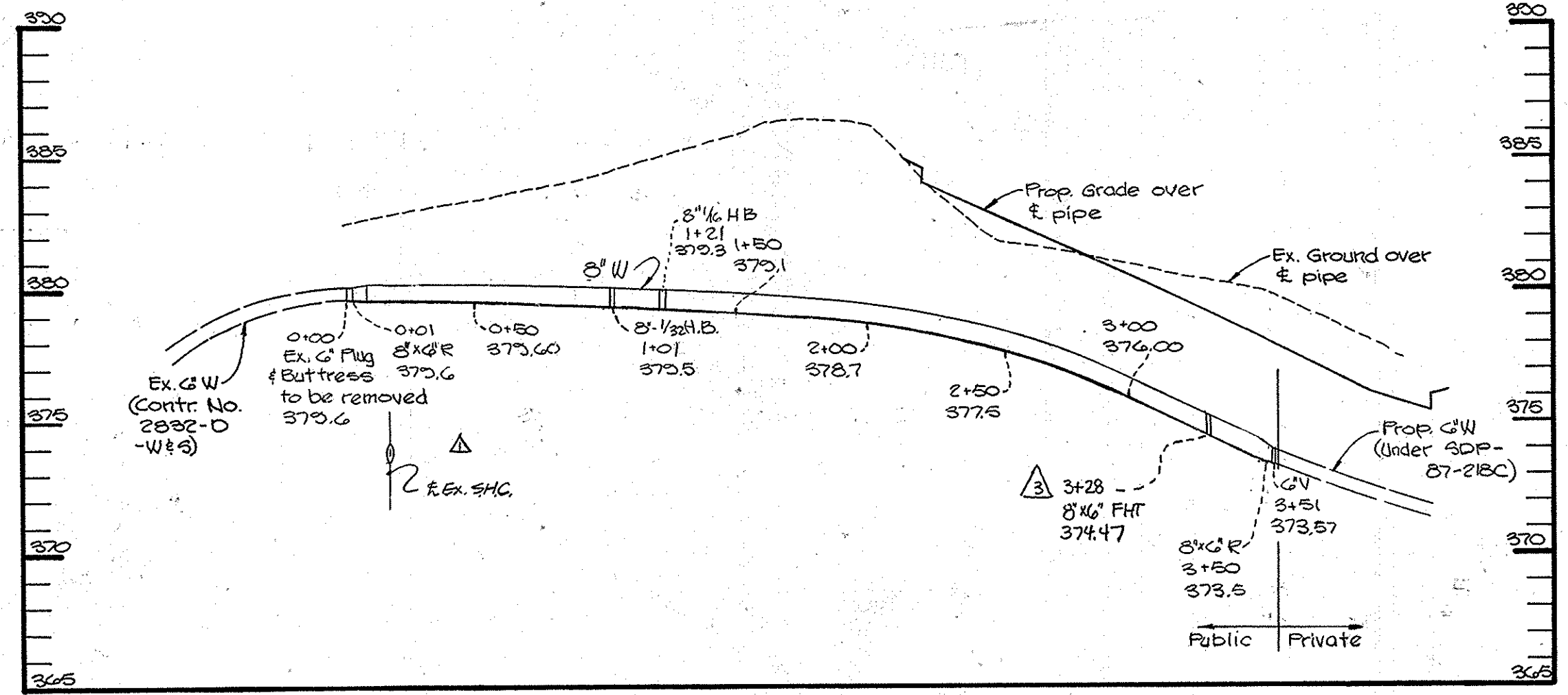
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6".
- 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 CONSTRUCTIONS. 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 [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 VERIFIED BY THE CONTRACTOR TO HIS OWN PERSONAL SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE 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
BALTIMORE GAS AND ELECTRIC CO. - CONTRACTOR SERVICES	850-4620
BALTIMORE GAS AND ELECTRIC CO. - UNDERGROUND DAMAGE CONTROL	859-9004
BALTIMORE GAS AND ELECTRIC CO. - TROUBLE SHOOTING	298-9001
MISS UTILITY	1-559-0100
COLONIAL PIPELINE CO.	795-1390
BUREAU OF UTILITIES, HO.CO. DEPARTMENT OF PUBLIC WORKS	992-2366
C & P TELEPHONE CO.	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 REMOVED OR DAMAGED BY THE CONTRACTOR.
- THE 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.
- 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 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 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 THE PLANS OR IN THE SPECIFICATIONS.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., A.C.P. CLASS 2400 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 WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52. WHERE WATERTIGHT 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 THE CELLAR CANNOT BE SERVED.
- THE SERVICE CLAMPS ARE TO HAVE STAINLESS STEEL STRAPS.



**SEWER PROFILE**  
 SCALE: HOR: 1"=50' VERT: 1"=5'



**WATER PROFILE**  
 SCALE: HOR: 1"=50' VERT: 1"=5'

Item	Quantities		Material Supplier
	Estimated	As Built	
8" W	352 LF	352	C. 52 / U.S. Pipe
8" x 6" R	2 ea.	2	U.S. Pipe
8" x 6" Wye	1 ea.	1	U.S. Pipe
8" x 6" FHT	1 ea.	1	U.S. Pipe
6" FH	1 ea.	1	U.S. Pipe
6" V	2 ea.	2	U.S. Pipe
8" S	155 LF	155	National Pipe / SDR 35
4" Manhole	10.5 V.F.	10.5 V.F.	Atlantic

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND AS SHOWN ON SDP-87-216-C AND AS SHOWN ON PLAN.

HOWARD SOIL CONSERVATION DISTRICT :  
 REVIEW FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION SERVICE  
 DATE: 8/21/87

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

HOWARD SOIL CONSERVATION DISTRICT  
 DATE: 8/21/87

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND

Director of Public Works: [Signature] DATE: 8/25/87  
 Chief, Bureau of Engineering: [Signature] DATE: [Signature]  
 Chief, Bureau of Utilities: [Signature] DATE: 5-24-87  
 Chief, Land Development Division: [Signature] DATE: [Signature]

**THE RIEMER GROUP, INC.**  
 3105 NORTH RIDGE ROAD  
 ELLICOTT CITY, MARYLAND 21043



DES: J.K.B.	PHRA	2	ADDED WMC and SHC	9/1/80
DRN: M.A.D.	PAI	3	RELOCATE FIRE HYDRANT	2-24-85
CHK:				
DATE: 5-6-87	BY	NO.	REVISION	DATE

**PLAN AND PROFILE OF A WATER AND SEWER MAIN**

600' SCALE MAP NO. 36 BLOCK NO. 17 & 18

**DOBBIN SQUARE**  
 COLUMBIA AUTO PARK  
 PARCEL L-2  
 ELECTION DISTRICT NO. 6  
 CONTRACT NO. 24-1681-D

SCALE AS SHOWN  
 SHEET 1 OF 1