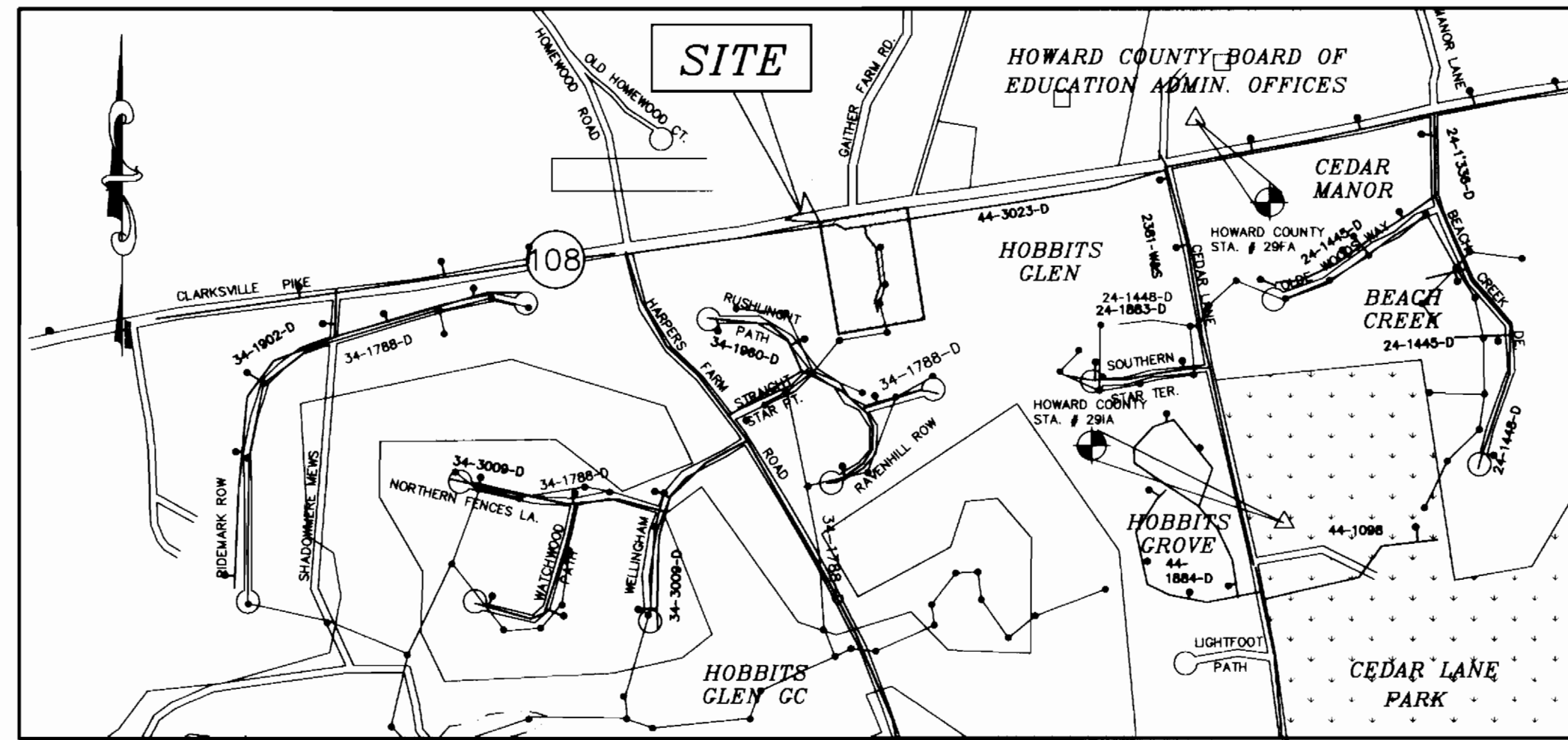


# QUANTITY TABLE

ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
STANDARD MH	5	5	PRE-CAST	ATLANTIC CONC. PROD.
8" SEWER MAIN	544 L.F.	547 L.F.	PVC SDR35	J&M MFG BELAIR RD SUPPLY
4" SEWER HOUSE CONNECTION	100 L.F.	100 L.F.	PVC SDR35	J&M MFG BELAIR ROAD SUPPLY
# SEWER HOUSE CONNECTIONS	7	7	SINGLE	
8" DIP WATER	14 L.F.	16 L.F.	D.I.P. CL 52	U.S. PIPE FOUNDRY BELAIR ROAD SUPPLY
6" DIP WATER	13 L.F.	22 L.F.	D.I.P. CL 52	U.S. PIPE FOUNDRY BELAIR ROAD SUPPLY
4" DIP WATER	370 L.F.	370 L.F.	D.I.P. CL 52	U.S. PIPE FOUNDRY BELAIR ROAD SUPPLY
F.H.	1	1	SUPER CENTURION	MUELLER CO. BELAIR ROAD SUPPLY
8"x6" F.H.T. & V.	1	1	D.I.P. CL 52	U.S. PIPE FOUNDRY BELAIR ROAD SUPPLY
16"x8" TS&V	1	1	POWER SEAL	MUELLER CO. BELAIR ROAD SUPPLY
4" CAP & BUTTRESS	1	1	D.I.P. M.J.	U.S. PIPE FOUNDRY BELAIR ROAD SUPPLY
# WATER HOUSE CONNECTIONS	1	1	SINGLE	
# TWIN WATER HOUSE CONNECTIONS	3	3	TWIN	
3/4" WATER HOUSE CONNECTION	48 L.F.	66 L.F.	TYPE K	READING TUBE BELAIR ROAD SUPPLY
1" WATER HOUSE CONNECTION	33 L.F.	26 L.F.	TYPE K	READING TUBE BELAIR ROAD SUPPLY
8"x4" REDUCER	1	1	D.I.P. M.J.	U.S. PIPE FOUNDRY BELAIR ROAD SUPPLY
8"-1/16 H.B.	1	1	D.I.P. M.J.	U.S. PIPE FOUNDRY BELAIR ROAD SUPPLY
4"-1/16 H.B.	3	3	D.I.P. M.J.	U.S. PIPE FOUNDRY BELAIR ROAD SUPPLY
4" V.	1	1	RESISTANT SEAT	MUELLER CO. BELAIR ROAD SUPPLY
NAME OF UTILITY CONTRACTOR: CONSOLIDATED CONSTRUCTION SERVICES				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE MAY 12, 1998				



## VICINITY MAP

SCALE: 1"=600'

WATER CODE 103  
SEWER CODE 6740000  
TEST GRADIENT 780

TYPE OF BUILDING	SINGLE FAMILY
No. OF UNITS	7
No. OF WATER HOUSE CONNECTIONS	7
No. OF SEWER HOUSE CONNECTIONS	7
DRAINAGE AREA	
TREATMENT PLANT	LITTLE PATUXENT

## 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". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL 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
  - BG & E CO. CONTRACTOR SERVICES 850-4620
  - BG & E CO. UNDERGROUND DAMAGE CONTROL 787-9068
  - MISS UTILITY 1-800-257-7777
  - COLONIAL PIPELINE CO. 795-1390
  - HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES 313-4900
- 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 WITHOUT APPROVAL.
- 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 ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED 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.
- ALL SEWER MAINS SHALL BE P.V.C. OR D.I.P. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITH 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.
- ALL WATER METERS TO BE LOCATED INSIDE PROPOSED UNITS.
- STATIONING SHOWN IS WATER MAIN STATIONING.
- ALL CLEANOUTS AND BALL VALVES ARE TO BE LOCATED AT THE WATER, SEWER AND UTILITY EASEMENT LINE.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- SEDIMENT CONTROL TO BE PROVIDED BY F-97-99. ALL WATER AND SEWER CONSTRUCTION TO BE INSIDE F-97-99'S LIMIT OF DISTURBANCE.
- STORM DRAIN SYSTEM INDICATED FOR INFORMATIONAL PURPOSES ONLY. SEE ROAD PLANS FOR CONSTRUCTION DATA.

CONTRACT NO. 34-3572-D:

# GAITHER HUNT II

LOTS 1 THRU 9

WATER AND SEWER MAIN EXTENSIONS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

## SHEET INDEX

NO.	DESCRIPTION
1	TITLE SHEET
2	WATER AND SEWER PLAN AND PROFILES

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.

DEVELOPER'S SIGNATURE: J. Thomas Scrivener  
DATE: 10/28/97

I HEREBY 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 SOIL CONSERVATION DISTRICT.

ENGINEER'S SIGNATURE: J. Thomas Scrivener  
DATE: 10/28/97

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT MEET TECHNICAL REQUIREMENTS.

USDA-NATURAL RESOURCES CONSERVATION SERVICE  
DATE: 11/3/97

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

HOWARD SOIL CONSERVATION DISTRICT  
DATE: 11/3/97

**OWNER**  
VERNON HUGH CARROLL WRIGHT  
MBNA AMERICA  
400 CHRISTIANA ROAD  
NEWARK, DE 19713

**DEVELOPER**  
J. THOMAS SCRIVENER  
5026 DORSEY HALL DR. SUITE 204  
ELLCOTT CITY, MD 21044

CONTRACT NO.: 34-3572-D  
GAITHER HUNT II, LOTS 1 THRU 9  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

WATER & SEWER AS-BUILTS

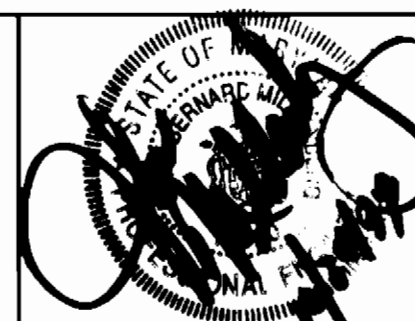
9/23/97 (DME)/MMS/CSO/DWG

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors

5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 987-0296 Fax: (301) 621-5521 Wash. (410) 987-0298 Fax



engineering SD					
illustration SD					
approval					
project	97038	AMY	1	CHANGE SUBDIVISION NAME FROM CEDAR VILLAS II	010898
date	SEPT 1997	BY	NO.	REVISION	DATE

TITLE SHEET

GAITHER HUNT II

LOTS 1 THRU 9

CONTRACT NO.: 34-3572-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

scale AS SHOWN

1 of 2

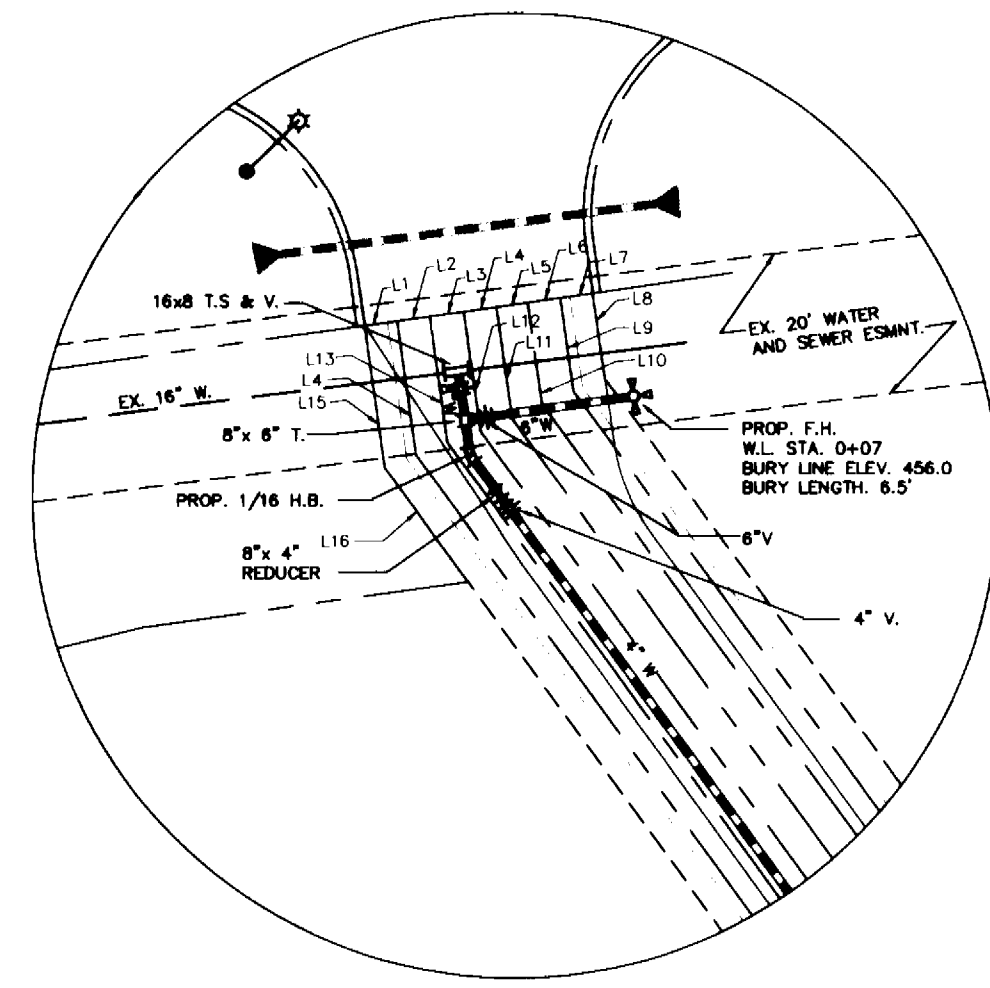
Chief, Bureau of Utilities  
DATE: 10-30-97

Chief, Development Engineering Division  
DATE: 11/3/97

600' SCALE MAP NO. 38 29 BLOCK NO. 8 16

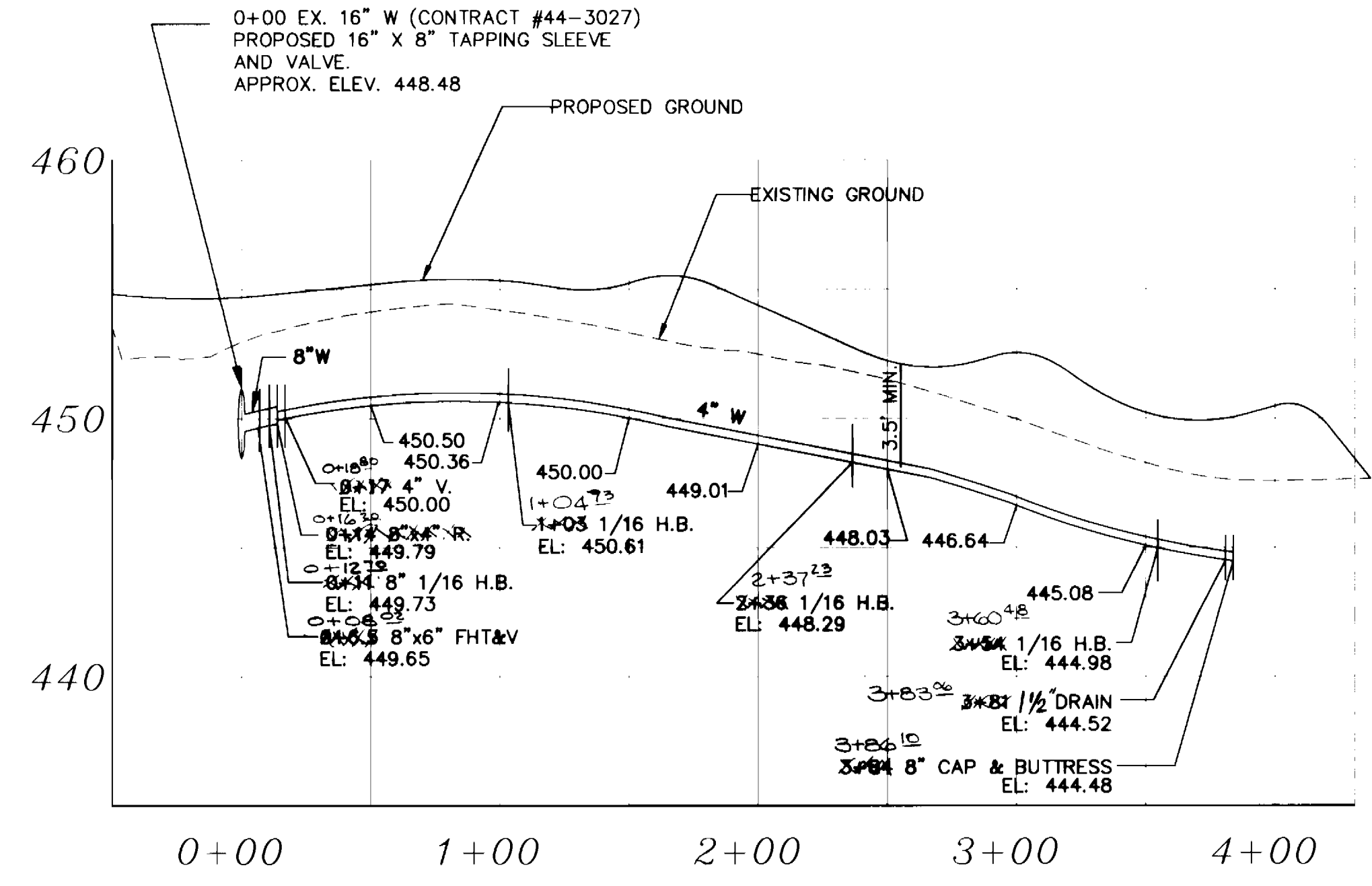
WATER MAIN TABULATION CHART		
NORTHING	EASTING	APPURTENANCE
570,707.6369	1,341,998.1644	8"x8" TS&V
570,700.1625	1,341,993.1132	8"x6" F.H.T.&V
570,703.4587	1,342,014.5139	F.H.
570,695.7011	1,341,993.8393	1/16 H.B.
570,693.1668	1,341,995.8894	8"x6" REDUCER
570,690.7551	1,341,997.5799	4" VALVE
570,621.1770	1,342,047.8296	1/16 H.B.
570,490.2042	1,342,067.9057	1/16 H.B.
570,374.9582	1,342,039.6766	1/16 H.B.
570,348.4490	1,342,043.6788	1/2" DRAIN
570,345.4670	1,342,044.2757	8" C&B

SANITARY SEWER FROM: TO: DIST:
MH5 7 35.1'
LOT 7 6 97.9'
LOT 6 1 29.5'
MH5 1 123.7'
MH4 1 17.0'
MH4 6 25.2'
MH4 5 104.5'
MH4 4 99.4'
MH3 2 24.5'
MH3 3 75.8'
MH2 3 21.1'
MH2 4 118.7'
MH1 4 73.0'

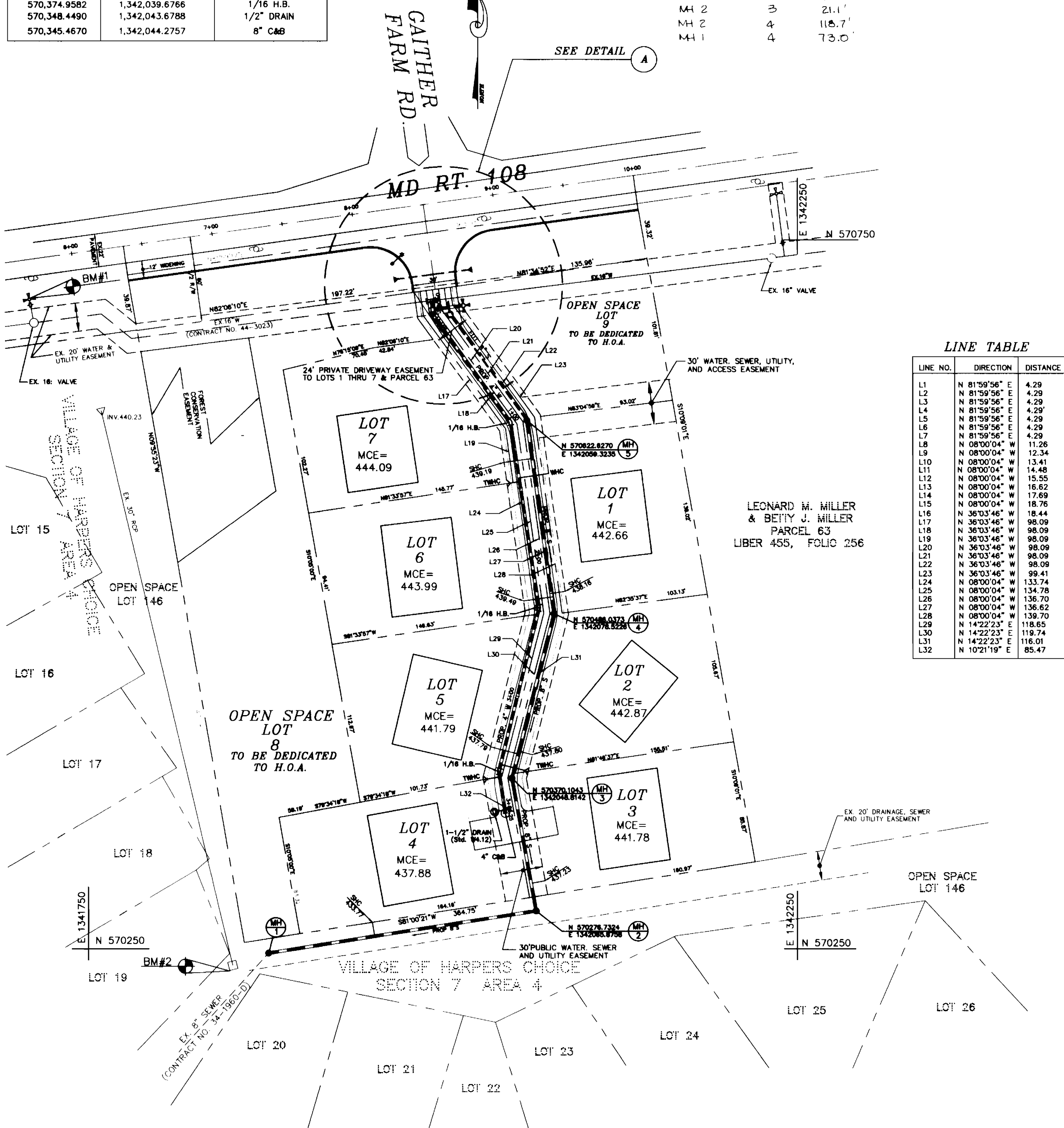


DETAIL A

WATER FROM: TO: DIST:	WATER FROM: TO: DIST:
MH5 LOT 1 35.2'	MH5 LOT 7 46.2'
MH4 LOT 1 100.2'	MH4 LOT 7 98.9'
MH3 LOT 2 15.0'	MH3 1 1/2" DR 27.6'
MH LOT 2 101.0'	MH2 1 1/2" DR 75.5'
MH3 LOT 3 12.3'	MH3 16"x8" TS&V FH STA. CHOT 22.1'
MH LOT 3 96.0'	MH 16"x8" TS&V G.V. 4.4'
MH3 LOT 4 19.0'	MH3 G.V. FH STA. CHOT 20.3'
MH2 LOT 4 20.7'	MH2 4" V. FH STA. CHOT 21.3'
MH3 LOT 5 20.0'	MH3 4" V. G.V. 10.0'
MH2 LOT 5 101.0'	
MH4 LOT 6 94.8'	
MH5 LOT 6 50.6'	

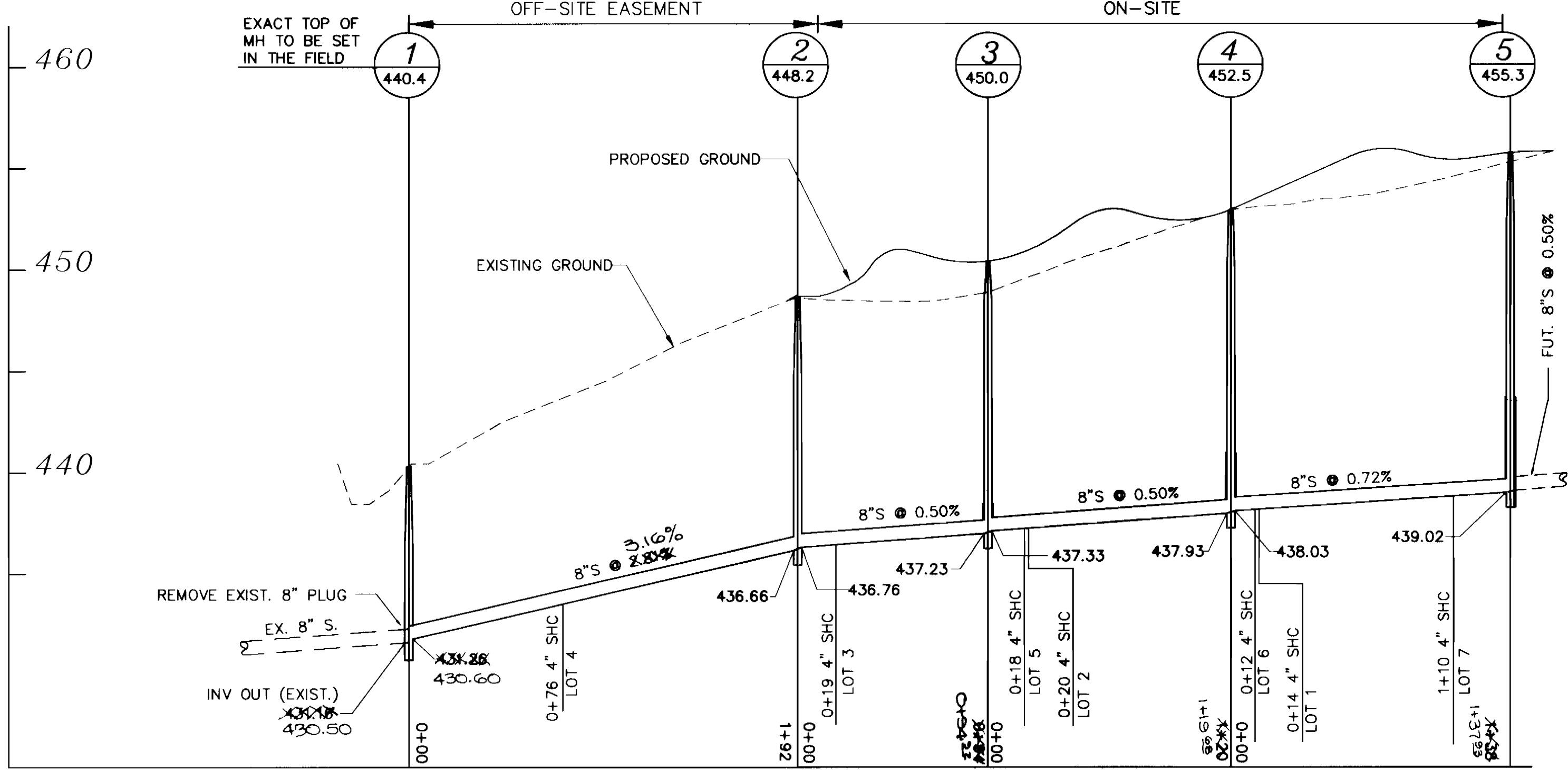


8" WATER MAIN PROFILE  
SCALE: HOR.: 1"=50'  
VERT.: 1"=5'



LINE TABLE

LINE NO.	DIRECTION	DISTANCE
L1	N 81°59'56" E	4.29
L2	N 81°59'56" E	4.29
L3	N 81°59'56" E	4.29
L4	N 81°59'56" E	4.29
L5	N 81°59'56" E	4.29
L6	N 81°59'56" E	4.29
L7	N 81°59'56" E	4.29
L8	N 08°00'04" W	11.26
L9	N 08°00'04" W	12.34
L10	N 08°00'04" W	13.41
L11	N 08°00'04" W	14.48
L12	N 08°00'04" W	15.55
L13	N 08°00'04" W	16.62
L14	N 08°00'04" W	17.69
L15	N 08°00'04" W	18.76
L16	N 36°03'46" W	18.44
L17	N 36°03'46" W	98.09
L18	N 36°03'46" W	98.09
L19	N 36°03'46" W	98.09
L20	N 36°03'46" W	98.09
L21	N 36°03'46" W	98.09
L22	N 36°03'46" W	98.09
L23	N 36°03'46" W	99.41
L24	N 08°00'04" W	133.74
L25	N 08°00'04" W	134.78
L26	N 08°00'04" W	136.70
L27	N 08°00'04" W	136.82
L28	N 08°00'04" W	139.70
L29	N 14°22'23" E	118.65
L30	N 14°22'23" E	119.74
L31	N 14°22'23" E	116.01
L32	N 10°21'19" E	85.47



8" SEWER MAIN PROFILE  
SCALE: HOR.: 1"=50'  
VERT.: 1"=5'

BENCHMARKS	
BM#1 CUT IN F.H.	EL.: 465.69
BM#2 CUT AT CORNER OF EXISTING INLET	EL.: 438.01

**OWNER**  
VERNON HUGH CARROLL WRIGHT  
MBNA AMERICA  
400 CHRISTIANA ROAD  
NEWARK, DE 19713

**DEVELOPER**  
J. THOMAS SCRIVENER  
5026 DORSEY HALL DR. SUITE 204  
ELLICOTT CITY, MD 21044

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

CONTRACT NO.: 34-3572-D  
GAITHER HUNT II, LOTS 1 THRU 9  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

**WATER & SEWER AS-BUILTS**

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND	MILDENBERG, BOENDER & ASSOC., INC. Engineers Planners Surveyors 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0296 Toll (301) 821-5211 Wash. (410) 997-0298 Fax	engineering SD illustration SD approval SD project 97038 date SEPT 1997	AMY 1 BY NO. 1 REVISION CHANGE SUBDIVISION NAME FROM CEDAR VILLAS II DATE 010898	60' SCALE MAP NO. 29 BLOCK NO. 16	scale 1"=50' 2 OF 2
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**WATER AND SEWER PLAN AND PROFILES**

**GAITHER HUNT II  
LOTS 1 THRU 9**  
CONTRACT NO.: 34-3572-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND