

**GENERAL NOTES**

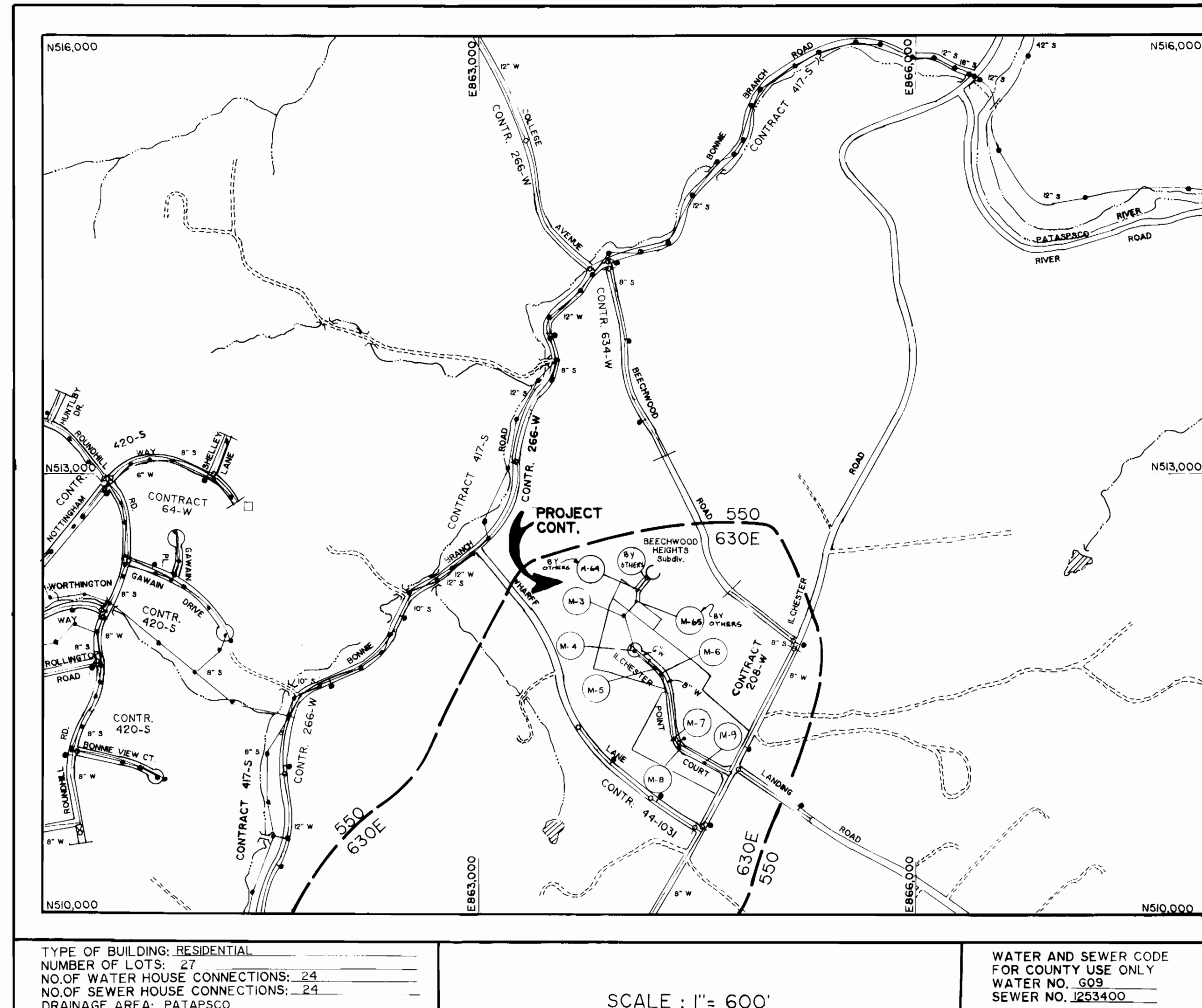
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.C. DATUM.
- 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 CONSTRUCTION, 1989 AMENDMENTS. 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 PIT'S 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 SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORK DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
 STATE HIGHWAY ADMINISTRATION: 531-5533  
 BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICED: 850-4620  
 BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL: 859-9004  
 BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING: 298-3001  
 MISS UTILITY: 1-559-0100  
 COLONIAL PIPELINE COMPANY: 795-1390  
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS: 992-2366  
 C & P TELEPHONE COMPANY: 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.
- 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 CONSTRUCTION & MAINTENANCE OPERATIONS.

**WATER NOTES**

- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-11/2" 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 1003 AND 1008 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVED ON THE EXISTING WATER SYSTEM.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153. DUCTILE IRON COMPACT FITTINGS: 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTINGS, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS. (STD. DETAIL W.3.21).
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE FLAGGED SO AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.

**SEWER NOTES**

- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS STANDARD DETAIL 65.52. WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., 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.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL 65.51.



QUANTITIES				MANUFACTURER
ITEM	EST'D	AS-BUILT	SUPPLIER	
8" S (PVC)	922 L.F.	925	BELAIR RS. CO.	JM MANUFACTURING CO.
8" S (DIP)	540 L.F.	544	"	GRIFFIN PIPE PRODUCTS
4" SHC	610 L.F.	620	"	GRIFFIN PIPE PRODUCTS
MANHOLES	7 EA.	7	"	"
8" W (DIP)	1045 L.F.	1050	BELAIR CO.	GRIFFIN PIPE PRODUCTS
6" W (DIP)	830 L.F.	850	"	GRIFFIN PIPE PRODUCTS
8"x6" REDUCER	1 EA.	1	"	GRIFFIN PIPE PRODUCTS
FIRE HYDRANT	2 EA.	3	"	"
3/4" WHC	650 L.F.	650	"	HOWELL METALS
6" VALVES	2 EA.	2	"	"
8"x6" TEE	2 EA.	2	"	"
22.5" BENDS(90°)	2 EA.	2	"	GRIFFIN PIPE PRODUCTS
8" TAPPING SLEEVE & VALVE	1 EA.	1	"	MUELLER CO.
AIR RELEASE MH & VALVE	1 EA.	1	"	MUELLER CO.

TYPE OF BUILDING: RESIDENTIAL  
 NUMBER OF LOTS: 27  
 NO. OF WATER HOUSE CONNECTIONS: 24  
 NO. OF SEWER HOUSE CONNECTIONS: 24  
 DRAINAGE AREA: PATAPSCO

WATER AND SEWER CODE FOR COUNTY USE ONLY  
 WATER NO. 609  
 SEWER NO. J253400

SCALE: 1" = 600'

# CONTRACT NO. 14-1942-D ILCHESTER LANDING LOTS 1-27 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F-89-240 & SDP-89-279

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND METRO TECHNICAL REQUIREMENTS  
 [Signature] 7-18-89  
 U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY CONSERVATION DISTRICT.  
 [Signature] 1/15/89  
 HOWARD COUNTY CONSERVATION DISTRICT DATE

PLAN REFERENCE NUMBERS	
S 89-25	SDP-89-279
P 89-41	
F 89-240	

CONTRACT NO. 14-1942-D  
 ILCHESTER LANDING  
 LOTS 1-27  
 WATER AND SEWER MAIN EXTENSION  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 [Signature] 9-20-89  
 DIRECTOR OF PUBLIC WORKS  
 [Signature] 9/17/89  
 CHIEF, BUREAU OF ENGINEERING  
 [Signature] 9/17/89  
 CHIEF, LAND DEVELOPMENT DIVISION

**MILDENBERG MOCHI & ASSOCIATES, INC.**  
 ENGINEERS • SURVEYORS • PLANNERS  
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350  
 (301) 461-0078 D.C. Metro No. (301) 621-5768



REV.	BY	DATE	DESCRIPTION	DATE
1	CAM	7/28/89	REDLINE REVISION TO SEWER MAIN ON BEECHWOOD	2/28/89
2	CAM		REVISED PER DPW	1/24/89
3	CAM		100% SUBMITTED FOR REVIEW	6/6/89
4	CAM		75% SUBMITTED TO DPW	5/20/89

TITLE SHEET  
 600' SCALE MAP NO. 21  
 BLOCK NO. 10

ILCHESTER LANDING  
 LOTS 1-27  
 CONTRACT NO. 14-1942-D  
 ELECTION DISTRICT NO. 1  
 HOWARD COUNTY, MARYLAND  
 SCALE AS SHOWN  
 SHEET 1 OF 3

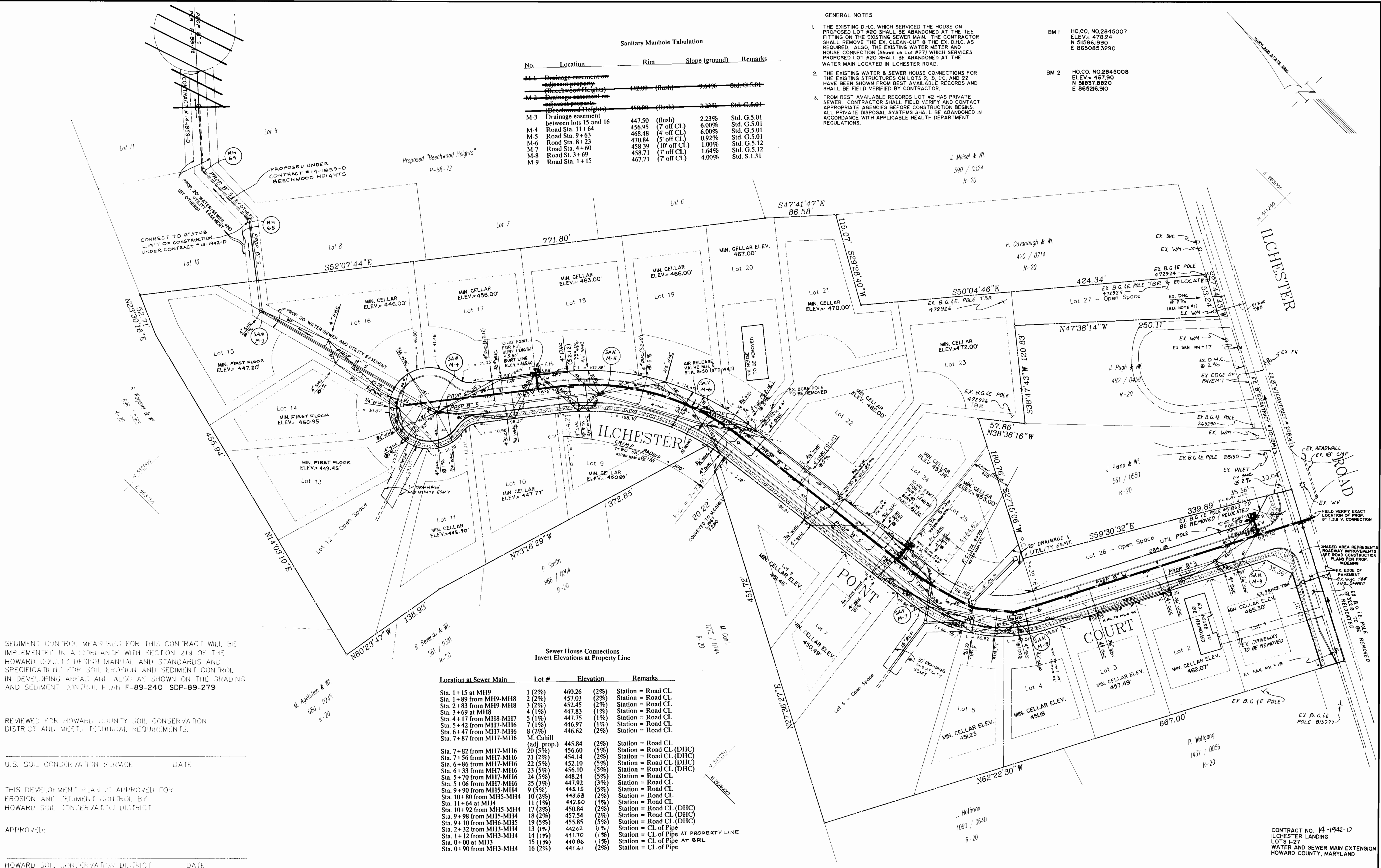
Sanitary Manhole Tabulation

No.	Location	Rim	Slope (ground)	Remarks
M-1	Drainage easement on adjacent property (Beechwood Heights)	442.00 (flush)	9.64%	Std. G.5.01
M-2	Drainage easement on adjacent property (Beechwood Heights)	450.00 (flush)	2.33%	Std. G.5.01
M-3	Drainage easement between lots 15 and 16	447.50 (flush)	2.23%	Std. G.5.01
M-4	Road Sta. 11+64	456.95 (7' off CL)	6.00%	Std. G.5.01
M-5	Road Sta. 9+63	468.48 (4' off CL)	6.00%	Std. G.5.01
M-6	Road Sta. 8+23	470.84 (5' off CL)	0.92%	Std. G.5.01
M-7	Road Sta. 4+60	458.39 (10' off CL)	1.00%	Std. G.5.12
M-8	Road Sta. 3+69	458.71 (7' off CL)	1.64%	Std. G.5.12
M-9	Road Sta. 1+15	467.71 (7' off CL)	4.00%	Std. S.1.31

- GENERAL NOTES
- THE EXISTING D.H.C. WHICH SERVICED THE HOUSE ON PROPOSED LOT #20 SHALL BE ABANDONED AT THE TEE FITTING ON THE EXISTING SEWER MAIN. THE CONTRACTOR SHALL REMOVE THE EX. CLEAN-OUT & THE EX. D.H.C. AS REQUIRED. ALSO, THE EXISTING WATER METER AND HOUSE CONNECTION SHOWN ON LOT #21 WHICH SERVICED PROPOSED LOT #20 SHALL BE ABANDONED AT THE WATER MAIN LOCATED IN ILCHESTER ROAD.
  - THE EXISTING WATER & SEWER HOUSE CONNECTIONS FOR THE EXISTING STRUCTURES ON LOTS 2, 3, 20, AND 22 HAVE BEEN SHOWN FROM BEST AVAILABLE RECORDS AND SHALL BE FIELD VERIFIED BY CONTRACTOR.
  - FROM BEST AVAILABLE RECORDS LOT #2 HAS PRIVATE SEWER. CONTRACTOR SHALL FIELD VERIFY AND CONTACT APPROPRIATE AGENCIES BEFORE CONSTRUCTION BEGINS. ALL PRIVATE DISPOSAL SYSTEMS SHALL BE ABANDONED IN ACCORDANCE WITH APPLICABLE HEALTH DEPARTMENT REGULATIONS.

BM 1 HO.CO. NO.2845007  
ELEV.: 478.24  
N 51586.990  
E 865085.3290

BM 2 HO.CO. NO.2845008  
ELEV.: 467.90  
N 51837.8920  
E 865216.910



SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F-89-240 SDP-89-279

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION SERVICE DATE

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

APPROVED:

HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

Sewer House Connections  
Invert Elevations at Property Line

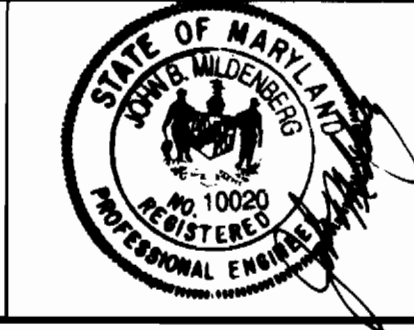
Location at Sewer Main	Lot #	Elevation	Remarks
Sta. 1+15 at MH9	1 (2%)	460.26 (2%)	Station = Road CL
Sta. 1+89 from MH9-MH8	2 (2%)	457.03 (2%)	Station = Road CL
Sta. 2+83 from MH9-MH8	3 (2%)	452.45 (2%)	Station = Road CL
Sta. 3+69 at MH8	4 (1%)	447.83 (1%)	Station = Road CL
Sta. 4+17 from MH8-MH7	5 (1%)	447.75 (1%)	Station = Road CL
Sta. 5+42 from MH7-MH6	7 (1%)	446.97 (1%)	Station = Road CL
Sta. 6+47 from MH7-MH6	8 (2%)	446.62 (2%)	Station = Road CL
Sta. 7+87 from MH7-MH6	M. Cahill (adj. prop.)	445.84 (2%)	Station = Road CL
Sta. 7+82 from MH7-MH6	20 (5%)	456.60 (5%)	Station = Road CL (DHC)
Sta. 7+56 from MH7-MH6	21 (2%)	454.14 (2%)	Station = Road CL (DHC)
Sta. 6+86 from MH7-MH6	22 (5%)	452.10 (5%)	Station = Road CL (DHC)
Sta. 6+33 from MH7-MH6	23 (5%)	456.10 (5%)	Station = Road CL (DHC)
Sta. 5+70 from MH7-MH6	24 (5%)	448.24 (5%)	Station = Road CL
Sta. 5+06 from MH7-MH6	25 (3%)	447.92 (3%)	Station = Road CL
Sta. 9+90 from MH5-MH4	9 (5%)	445.15 (5%)	Station = Road CL
Sta. 10+80 from MH5-MH4	10 (2%)	443.53 (2%)	Station = Road CL
Sta. 11+64 at MH4	11 (1%)	442.50 (1%)	Station = Road CL
Sta. 10+92 from MH5-MH4	17 (2%)	450.84 (2%)	Station = Road CL (DHC)
Sta. 9+98 from MH5-MH4	18 (2%)	457.54 (2%)	Station = Road CL (DHC)
Sta. 9+10 from MH6-MH5	19 (5%)	455.85 (5%)	Station = Road CL (DHC)
Sta. 2+32 from MH3-MH4	13 (1%)	442.62 (1%)	Station = CL of Pipe
Sta. 1+12 from MH3-MH4	14 (1%)	441.70 (1%)	Station = CL of Pipe AT PROPERTY LINE
Sta. 0+00 at MH3	15 (1%)	440.86 (1%)	Station = CL of Pipe AT B.R.L.
Sta. 0+90 from MH3-MH4	16 (2%)	441.61 (2%)	Station = CL of Pipe

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 7/26/89  
Chief, Bureau of Engineering: *[Signature]* 8/20/89  
Chief, Bureau of Utilities: *[Signature]* 7/14/89  
Chief, Bureau of Development Division: *[Signature]* 7/12/89

**MILDENBERG, MOCHI & ASSOCIATES, INC.**  
ENGINEERS • ARCHITECTS • PLANNERS

3200 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350  
(301) 461-0078 D.C. Metro No. (301) 621-5168



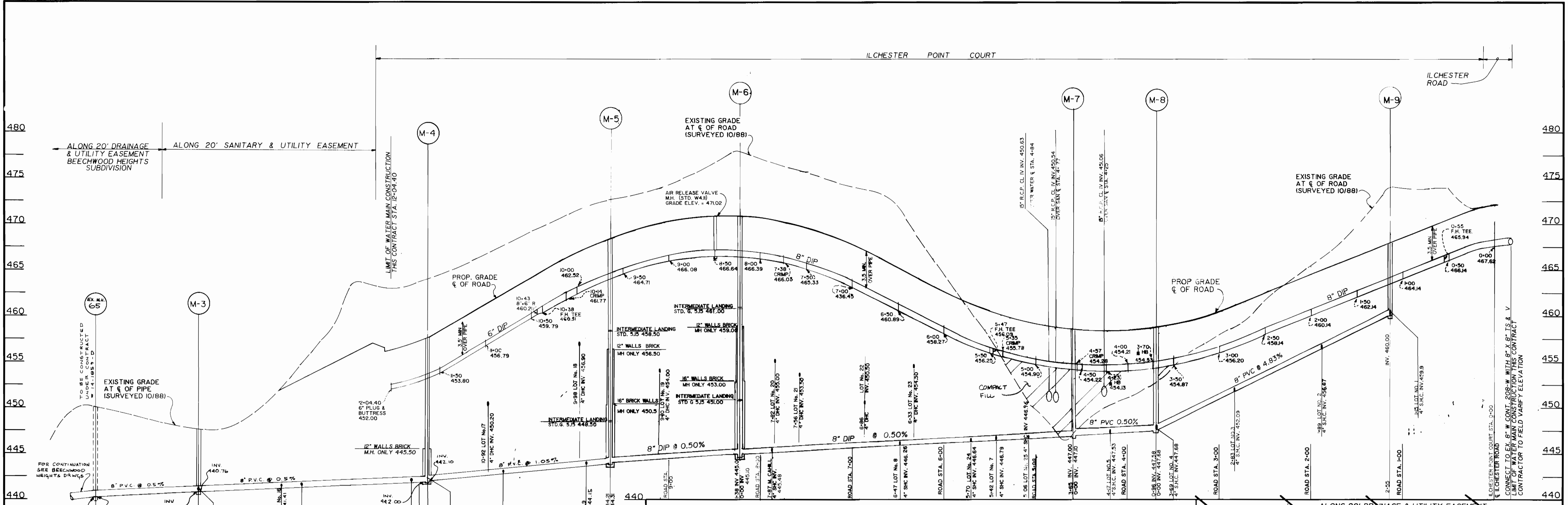
DES.	CAM	DATE	REVISION
DES.	CAM		
CHK.	CAM	4	REDLINE REVISION TO SEWER MAIN ON BEECHWOOD
CHK.	RAM	3	REVISED PER DPW
PROJ.	88045-00		100% PRELIMINARY
DATE:	2/28/89		
BY:	NO.		

PLAN  
WATER AND SEWER MAINS

DATE: 2/28/89 BY: NO.

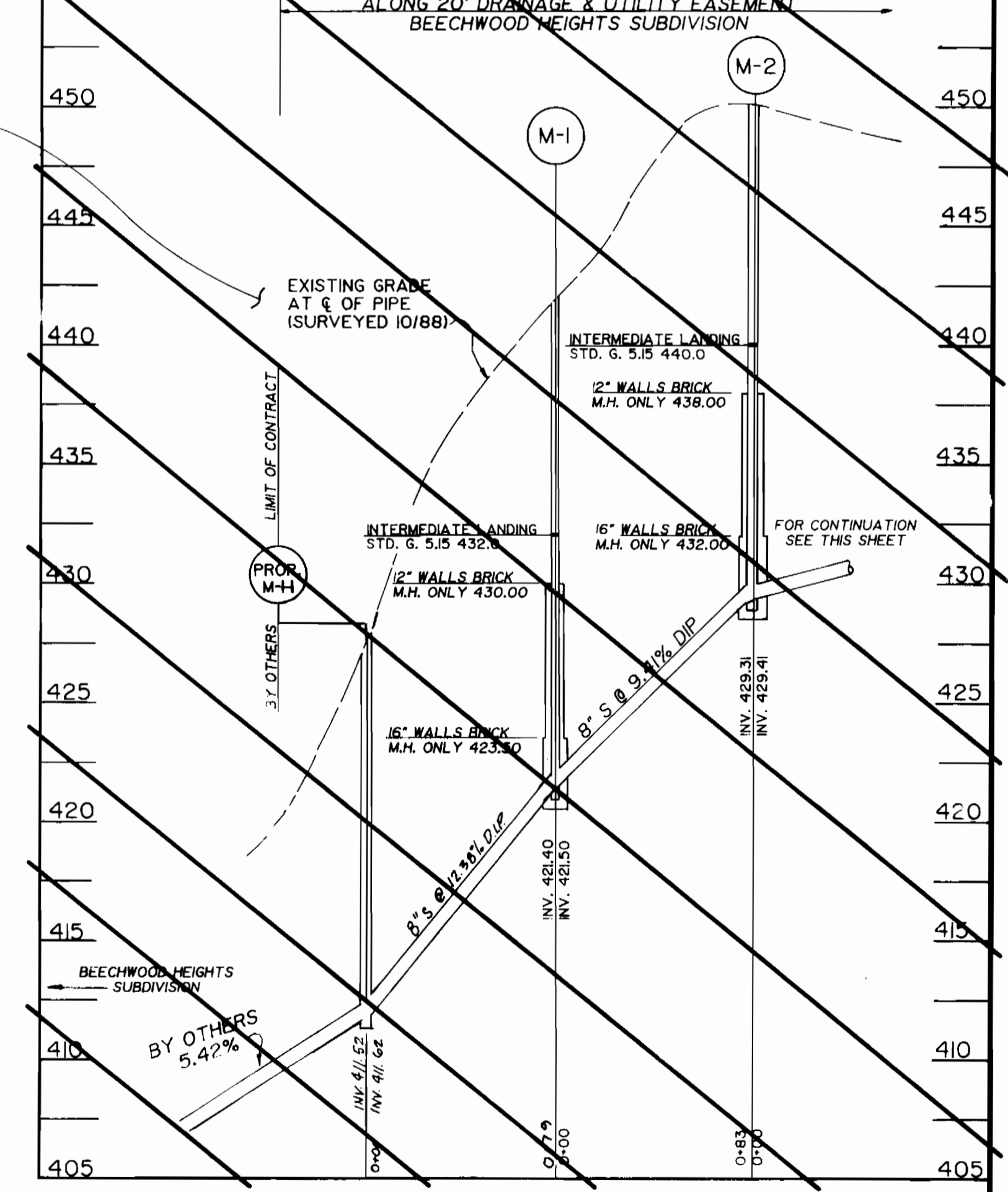
ILCHESTER LANDING  
LOTS 1-27  
CONTRACT NO. 14-1942-D  
ELECTION DISTRICT NO. 1  
HOWARD COUNTY, MARYLAND

SCALE: 1" = 50'  
SHEET: 2 OF 3



**PROFILES**  
 SCALE: 1" = 50' HORIZ.  
 1" = 5' VERT.  
 SEE SHEET 2 OF 3 FOR PLAN VIEW

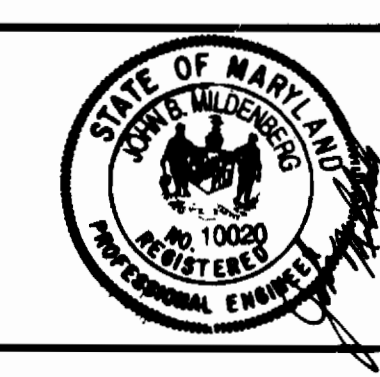
TO BE INCLUDED ON  
 BEECHWOOD HEIGHTS  
 DRAWINGS CONTRACT  
 # 14-1059-D



CONTRACT NO. 14 - 1942 - D  
 ILCHESTER LANDING  
 LOTS 1-27  
 WATER AND SEWER MAIN EXTENSION  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works: *James P. Lane* 9/26/89  
 Chief, Bureau of Engineering: *William E. Ryan* 9-20-89  
 Chief, Bureau of Utilities: *Michael A. Swanson* 9-14-89  
 Chief, Land Development Division: *Donald Eason* 9/19/89

**MILDBERG MOCHI & ASSOCIATES, INC.**  
 ENGINEERS • SURVEYORS • PLANNERS  
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350  
 (301) 461-0078 D.C. Metro No. (301) 621-5768



DES:	CHK:	PROJ:	DATE:	BY:	NO.	REVISION
CAM			2/28/89		1	REDLINE REVISION TO SEWER MAIN ON BEECHWOOD
LSM			7/24/89		2	REVISED PER DPW
RMM			6/9/89		3	100% SUBMITTAL
			3/20/89		4	75% SUBMITTED TO DPW

WATER AND SEWER  
 EXTENSION  
 PROFILES

ILCHESTER LANDING  
 LOTS 1-27  
 CONTRACT NO. 14 - 1942 - D  
 ELECTION DISTRICT NO. 1  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 3 OF 3

AS-BUILT 10-04-90