

LOT	SEWER MAIN STATION FOR SHK	INVERT @ FE	MINIMUM C.E.
1	@MH	428.90	433.00
2	1+65	425.04	429.54
3	1+11	422.47	427.11
4	0+38	419.40	424.04
5	@MH	417.74	422.74
6	@MH	416.86	422.02
7	2+30	415.92	420.12
8	1+42	415.40	419.96
9	0+55	415.40	420.12
10	0+59	419.42	424.68
11	0+57	419.76	424.68
12	1+01	421.72	426.42
13	1+60	424.53	429.03
14	1+07	427.60	432.08
15	0+50	426.97	431.47
16	0+40	426.26	431.05
17	0+90	426.26	430.94
18	@MH	430.48	435.02
19	@MH	428.26	432.76

BENCH MARKS

BM NO. 1 ELEV. = 434.05
RAILROAD SPIKE SET IN C&P POLE # 203

BM NO. 2 ELEV. = 444.61'
RAILROAD SPIKE SET IN C&P POLE # 200

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-20-102

Review for Howard Soil Conservation District and meets technical requirements.

James M. Hillman 6/21/87
U.S. SOIL CONSERVATION SERVICE DATE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

Stephen L. Hillman 6/21/87
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

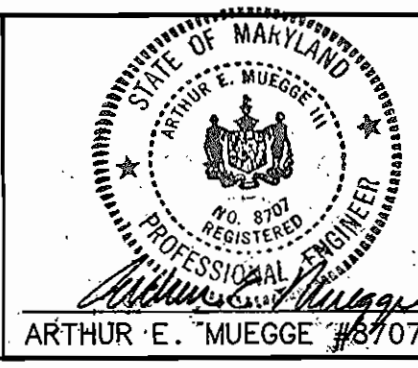
James M. Hillman 6-3-89
DIRECTOR OF PUBLIC WORKS DATE

Robert M. Swinger 6-3-89
CHIEF, BUREAU OF UTILITIES DATE

RIEMER, MUEGGE & ASSOCIATES, INC.
3105 NORTH RIDGE ROAD
ELLCOTT CITY, MARYLAND
(301) 461-2690

Arthur E. Muegge 6/20/89
CHIEF, BUREAU OF ENGINEERING DATE

Arthur E. Muegge 6/20/89
CHIEF, LAND DEVELOPMENT DATE



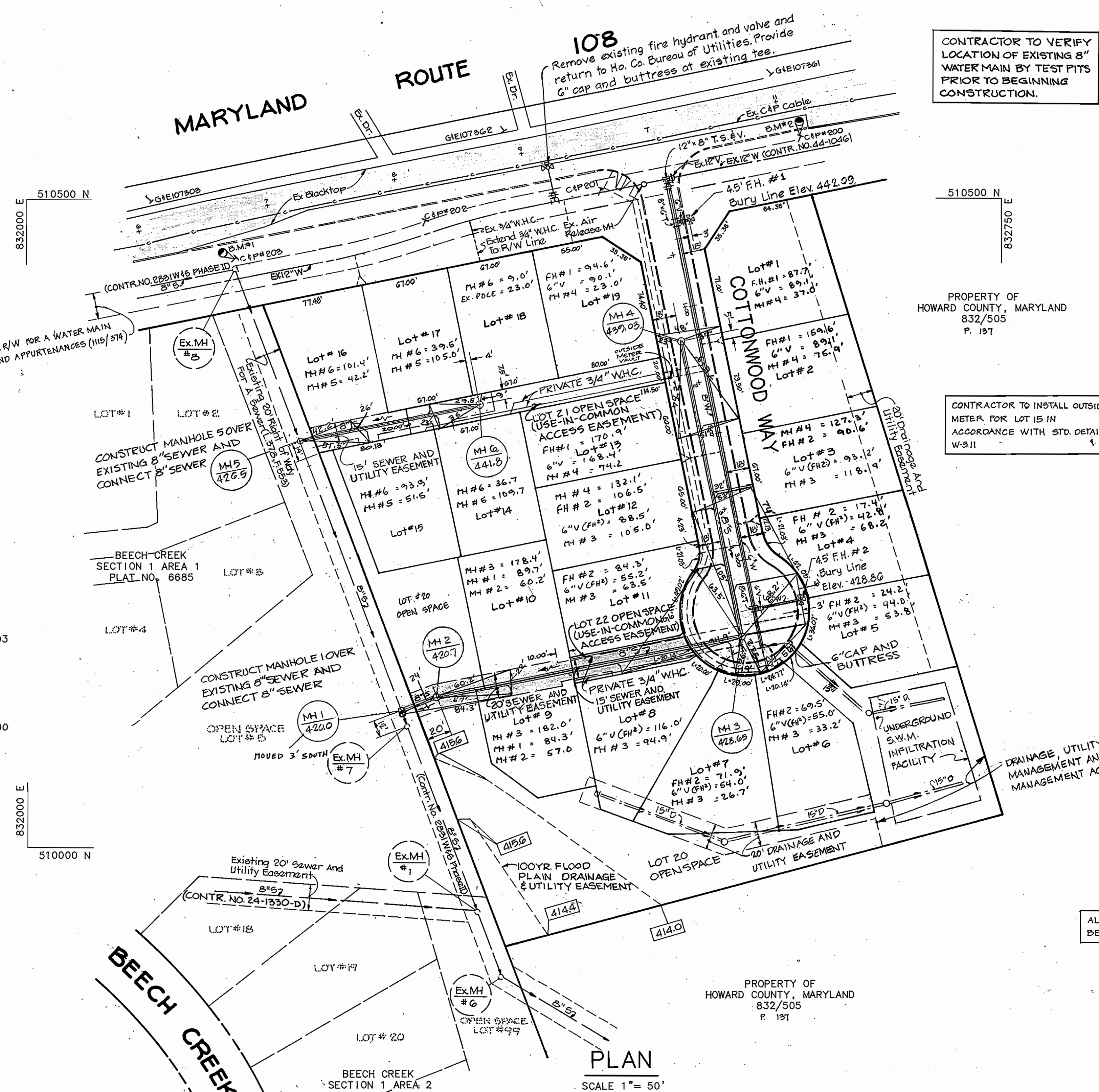
DES: L.J.D.	
DRN: M.G.Y.	
CHK:	
DATE: 06/20/89	
BY: M.M.	AS-BUILT
NO.:	
REVISION:	
DATE: 9-20-91	

PLAN OF
WATER AND SEWER MAINS

600' SCALE MAP NO. 29 BLOCK NO. 11

CEDAR MANOR
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-1863-D

SCALE AS SHOWN
SHEET 1 OF 2
AS-BUILT

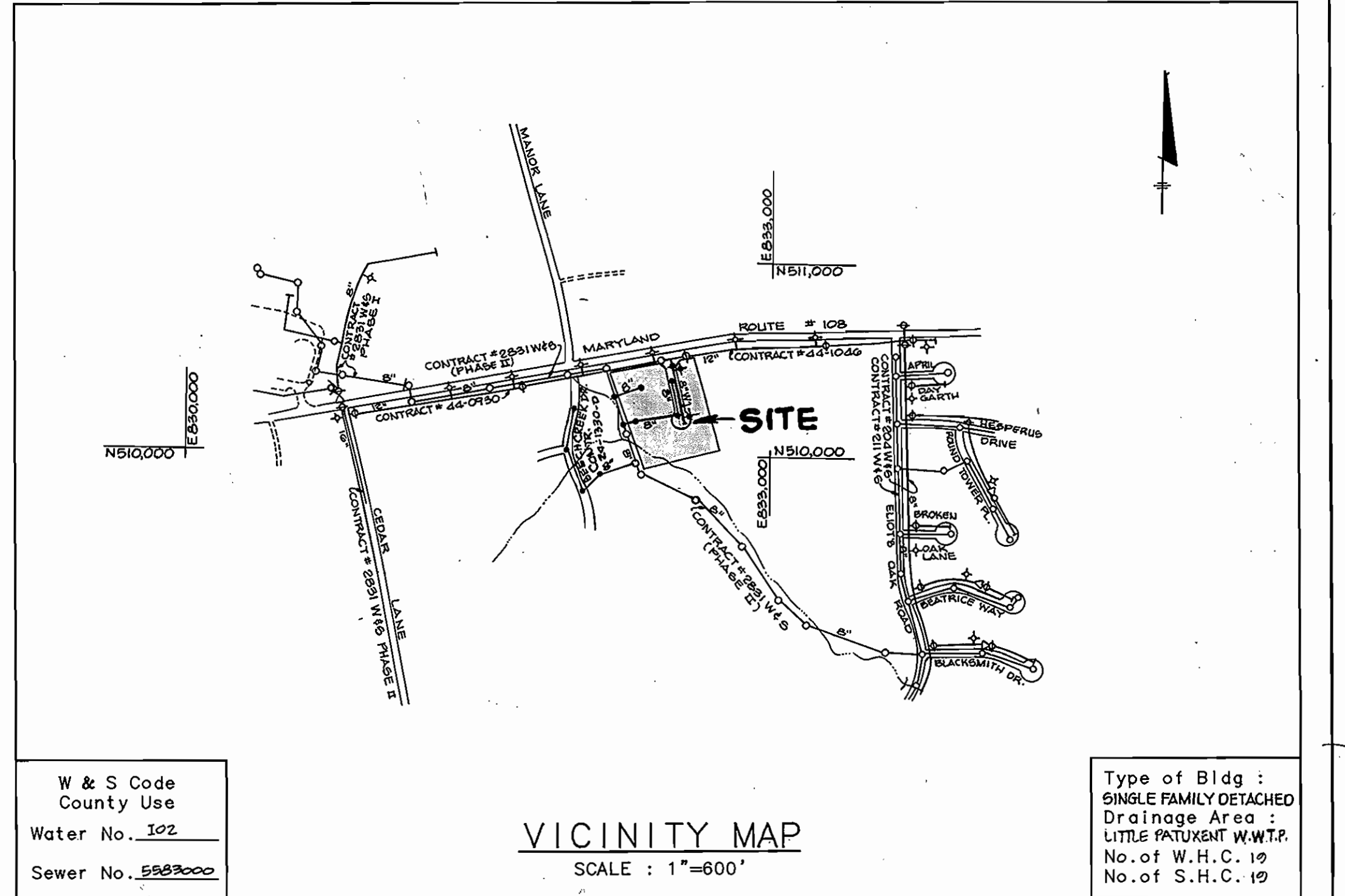


CONTRACTOR TO VERIFY LOCATION OF EXISTING 8" WATER MAIN BY TEST PITS PRIOR TO BEGINNING CONSTRUCTION.

PROPERTY OF HOWARD COUNTY, MARYLAND
832/505
P. 197

CONTRACTOR TO INSTALL OUTSIDE METER FOR LOT 15 IN ACCORDANCE WITH STD. DETAIL W-311

ALL SEWER HOUSE CONNECTIONS ARE TO BE 4" UNLESS OTHERWISE NOTED.



W & S Code
County Use
Water No. 102
Sewer No. 5833000

VICINITY MAP
SCALE: 1"=600'

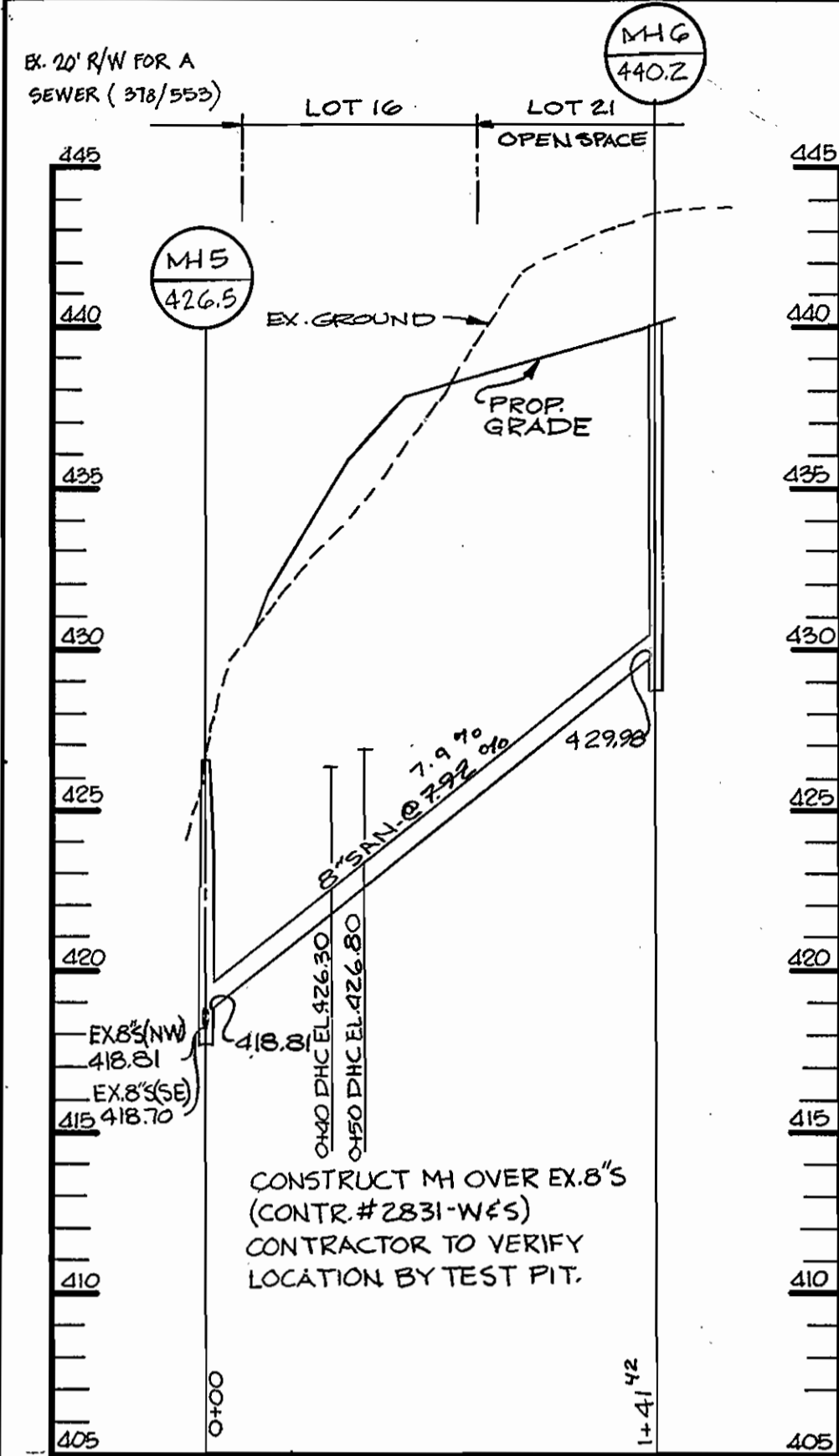
Type of Bldg :
SINGLE FAMILY DETACHED
Drainage Area :
LITTLE PATUXENT W.W.T.P.
No. of W.H.C. : 19
No. of S.H.C. : 19

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 Construction. The contractor shall have a copy of Volume IV on the job, 1989 AMENDMENTS.
- 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 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 Gas Damage Control 859-9004
 - Baltimore Gas and Electric Co. - Trouble Shooting 298-8001
 - Mesa 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 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 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 65.52. 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.

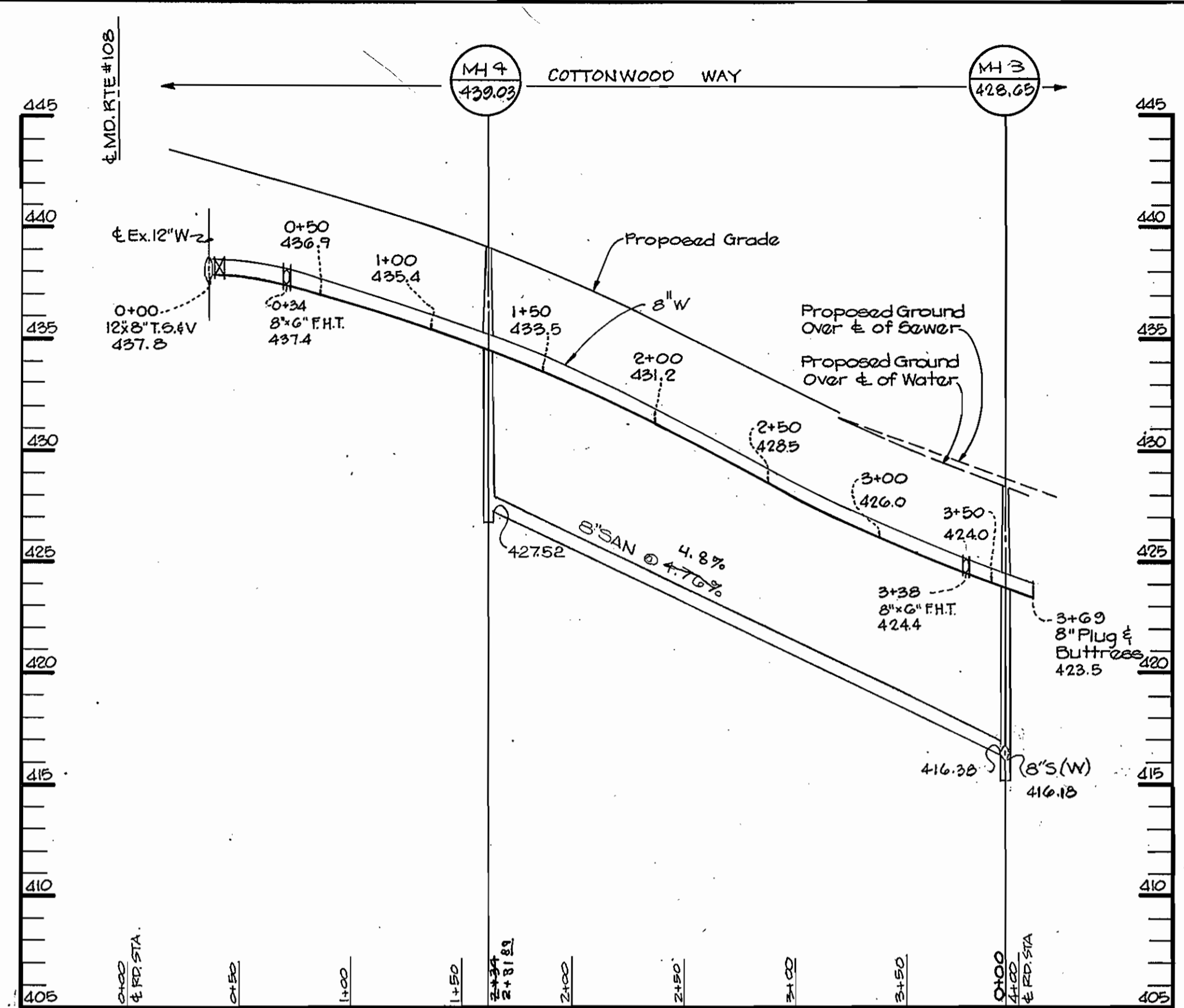
Item	Quantities		Material Supplier
	Estimated	As Built	
12", 8" Top Release Valve	1 EA.	1	MUELLER
8" Water	309 L.F.	358	GRIFFIN
6" Water	46 L.F.	47	GRIFFIN
Fire Hydrant	2 EA.	2	CENTURION
1" W.H.C.	107 L.F.	112	HOWEL METALS
3/4" W.H.C.	372 L.F.	415	HOWEL METALS
4" S.H.C.	413 L.F.	563	J-M MANUFACTURING
8" Sewer	643 L.F.	625	J-M MANUFACTURING
Manholes	54 V.F.	6	ATLANTIC
METER VAULT	1 EA.	1	ATLANTIC

25. ALL DIP FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 PUSTLE IRON COMPACT FITTINGS, 3" THROUGH 12" FOR WATER AND OTHER LIQUIDS.



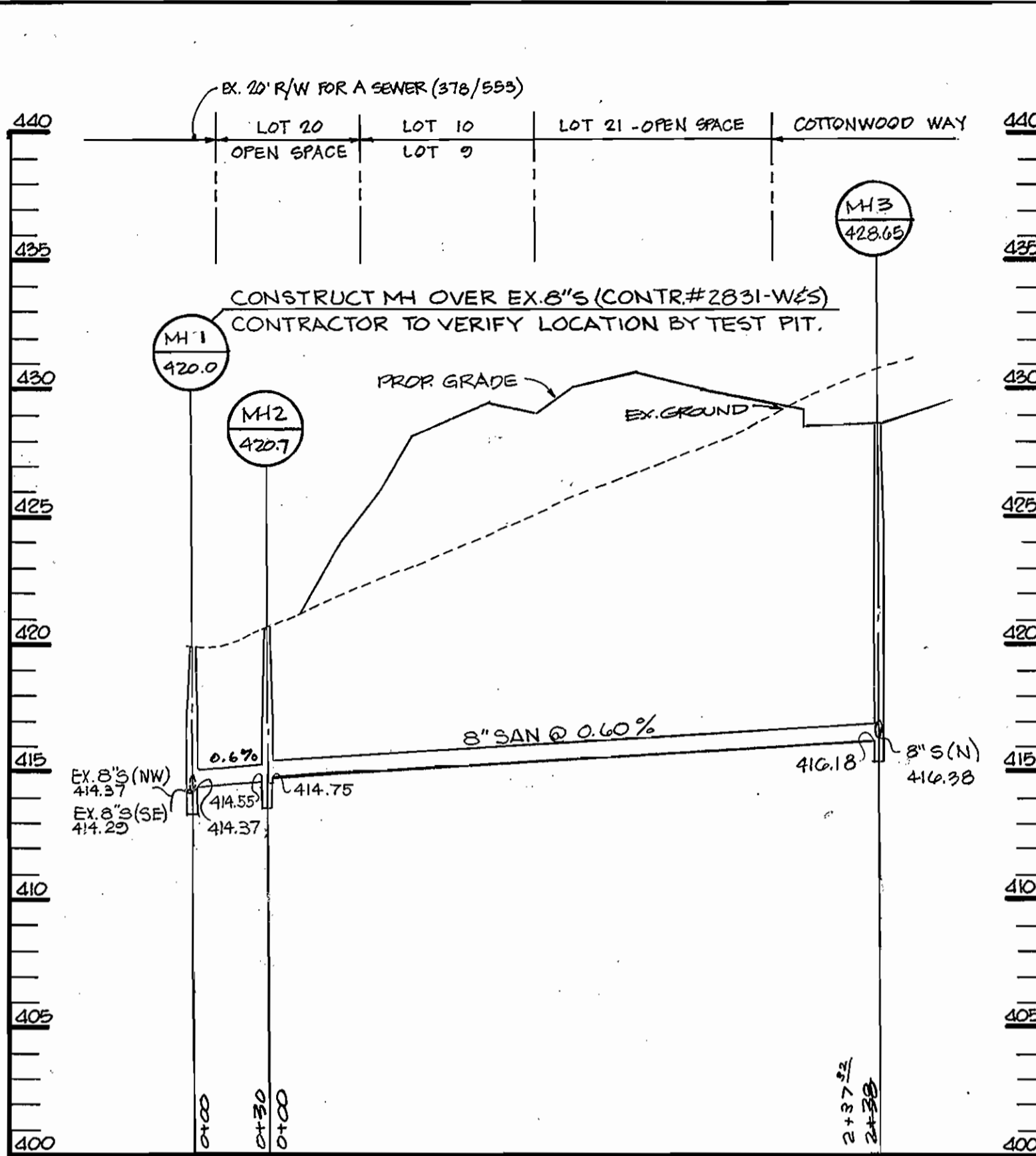
SEWER PROFILE

SCALE: HORIZ. 1"=50'
VERT. 1"=5'



WATER AND SEWER PROFILE

SCALE: HORIZ. 1"=50'
VERT. 1"=5'



SEWER PROFILE

SCALE: HORIZ. 1"=50'
VERT. 1"=5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James P. Lewis 4/22/89
DIRECTOR OF PUBLIC WORKS DATE

Elizabeth Antonio-Pelic 4/22/89
CHIEF, BUREAU OF ENGINEERING DATE

Edith W. Bainger 6-3-89
CHIEF, BUREAU OF UTILITIES DATE

Arthur E. Muegge 4/22/89
CHIEF, LAND DEVELOPMENT DATE

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ELLCOTT CITY, MARYLAND
(301) 461-2690



DES: L.J.D.				
DRN: M.G.Y.				
CHK:				
DATE: DEC, 1988				
M.M.	AS-BUILT			
BY	NO.	REVISION	DATE	

PROFILES OF
WATER AND SEWER MAINS

600' SCALE MAP NO. 29 BLOCK NO. 11

CEDAR MANOR
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-1863-D

SCALE AS SHOWN
SHEET 2 OF 2

AS-BUILT