


SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN OF WATER AND SEWER MAINS
3	PROFILE OF WATER AND SEWER MAINS

WATER AND SEWER EXTENSIONS ILCHESTER MANOR

1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 14-4171-D

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 service. 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, NAD 83/91.
- All vertical controls are based on NAVD 88.
- All pipe elevations shown are invert elevations unless otherwise noted on the plans.
- Clear all utilities by a minimum of 12 inches. Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted. 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 damages shall be deducted from monies 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.
- The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

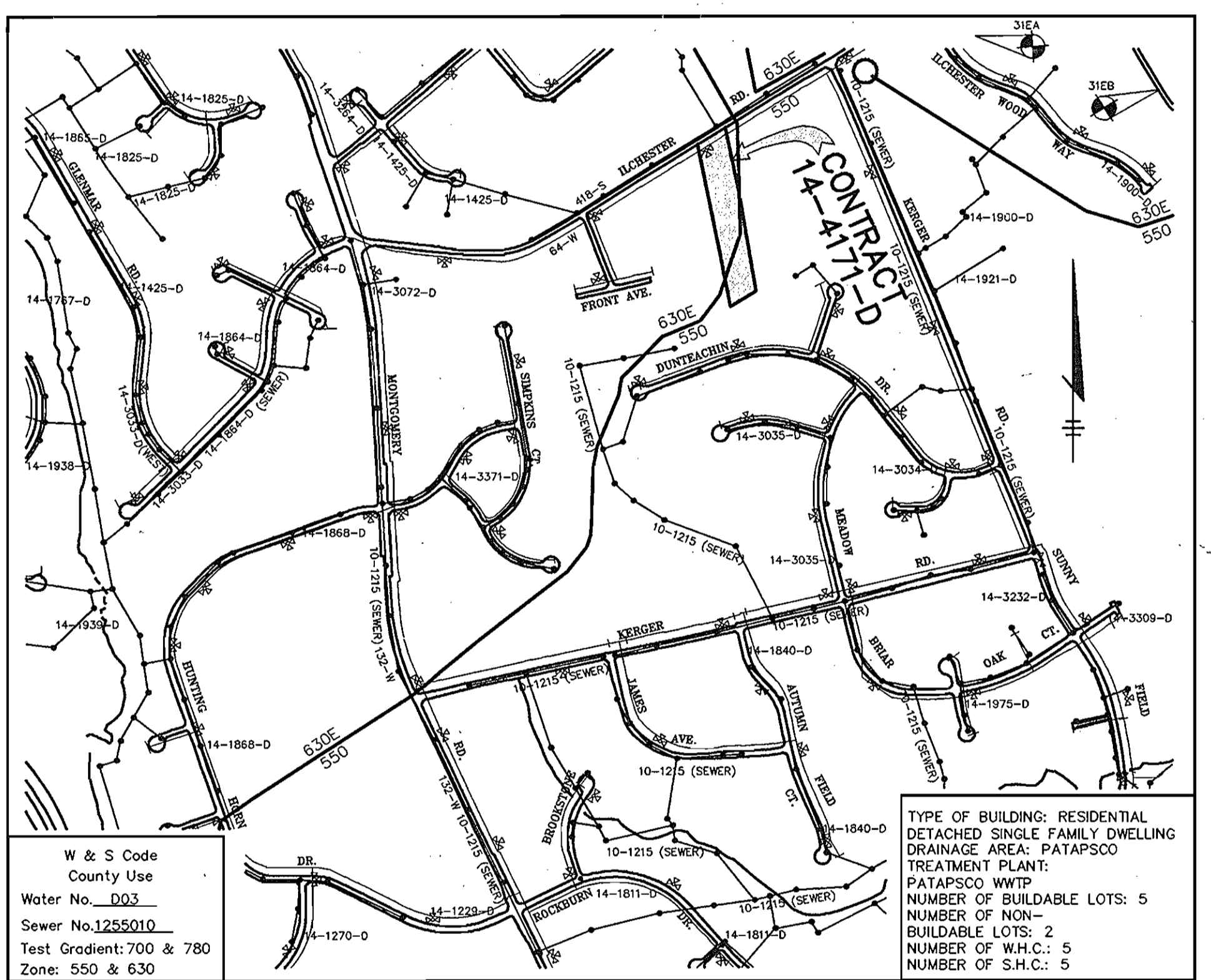
AT&T	1-800-252-1133
BGE (Contractor Services)	410-850-4620
BGE (Underground Damage Control)	410-787-9068
Bureau of Utilities	410-313-4900
Colonial Pipeline Co.	410-795-1390
Miss Utility	1-800-257-7777
State Highway Administration	410-531-5533
Verizon	1-800-743-0033 / 410-224-9210
- Trees and shrubs are 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.
- The 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 of the main.
- The contractor shall notify the Bureau of Highways, Howard County, at 410-313-7450 at least five working days before open cutting or boring/jacking of any County road for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirements per Section 18.114(a) of the Howard County Code.

WATER NOTES

- All water mains shall be D.I.P. Class 52 unless otherwise noted.
- Tops of all water mains shall have a minimum of 3'-6" of 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 installed in accordance with Standard Details. The 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.

SEWER NOTES

- All sewer mains shall be D.I.P. and P.V.C. unless otherwise noted.
- 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 frames and covers 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 cellar cannot be served.



VICINITY MAP
SCALE: 1"=600'

BENCH MARK

CONTROL STATION 31EA
ELEVATION 469.604
N 569,641.124
E 1,374,815.936

CONTROL STATION 37EB
ELEVATION 453.398
N 568,730.984
E 1,376,273.491

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" WATER	444 LF	446 L.F.	CL 52 D.I.P.	U.S. PIPE / BRS
6" WATER	313 LF	315 L.F.	" "	" "
1" WHC	93 LF	95 L.F.	KCOPPER	BRS
8" SEWER	755 LF	754 L.F.	S.D.R. 35	U.S. PIPE / BRS
4" SHC	55 LF	56 L.F.	S.D.R. 35	" "
FIRE HYDRANTS	2 EA.	# 2	HYDRANTS	MUELLER CO. / BRS
8"xB" TSV	1 EA.	1	TAP BUREAU, D.R. VM	JCM MUELLER / BRS
6" VALVES	2 EA.	2	R.S. OR GATE VAL.	MUELLER CO. / BRS
SEWER MANHOLES	4 EA.	4	PRECAST	ATLANTIC / CONCO.

NAME OF UTILITY CONTRACTOR: **W.F. WILSON**

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-04-151	CHECKBOX
	AS-BUILT DATE
	SURVEY AND DRAFTING DIVISION

Review for Howard Soil Conservation District and meets technical requirements.

Jim Meyer 11/1/04
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John R. Robertson 11/1/04
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND
<i>Robert Bowers</i> 11-12-04 CHIEF, BUREAU OF UTILITIES DATE	<i>John Robertson</i> 11/2/04 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
3815 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

PHRA

CHRISTOPHER J. REID #19949

DES: C.J.R.				
DRN: D.A.M.				
CHK: C.J.R.	K.C.I.	2	AS-BUILT DATA	10/15/04
DATE: 10/21/04	ACR	1	REVISED QUANTITIES AND SHEET INDEX	11-29-04
	BY	NO.	REVISION	DATE

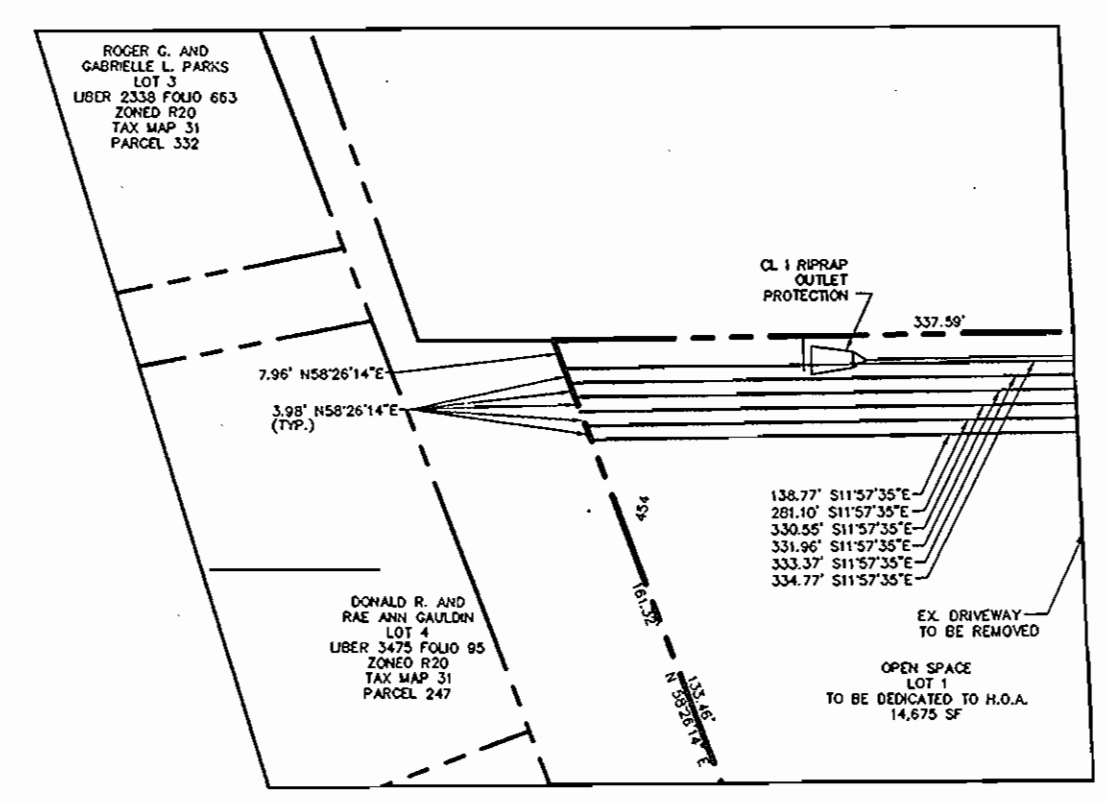
TITLE SHEET

600' SCALE MAP NO. 31 BLOCK NO. 15

ILCHESTER MANOR
LOTS 1 THRU 7
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 14-4171-D

SCALE AS SHOWN
SHEET 1 OF 3

FIRE HYDRANT REMOVAL PROCEDURES:
 1. CONTACT BUREAU OF UTILITIES.
 2. REMOVE EXHYDRANT ASSEMBLY, EX. METER AND METER BOX.
 3. RETURN TO BUREAU OF UTILITIES.



PLAN OF LOT FRONTS
 SCALE: 1"=50'

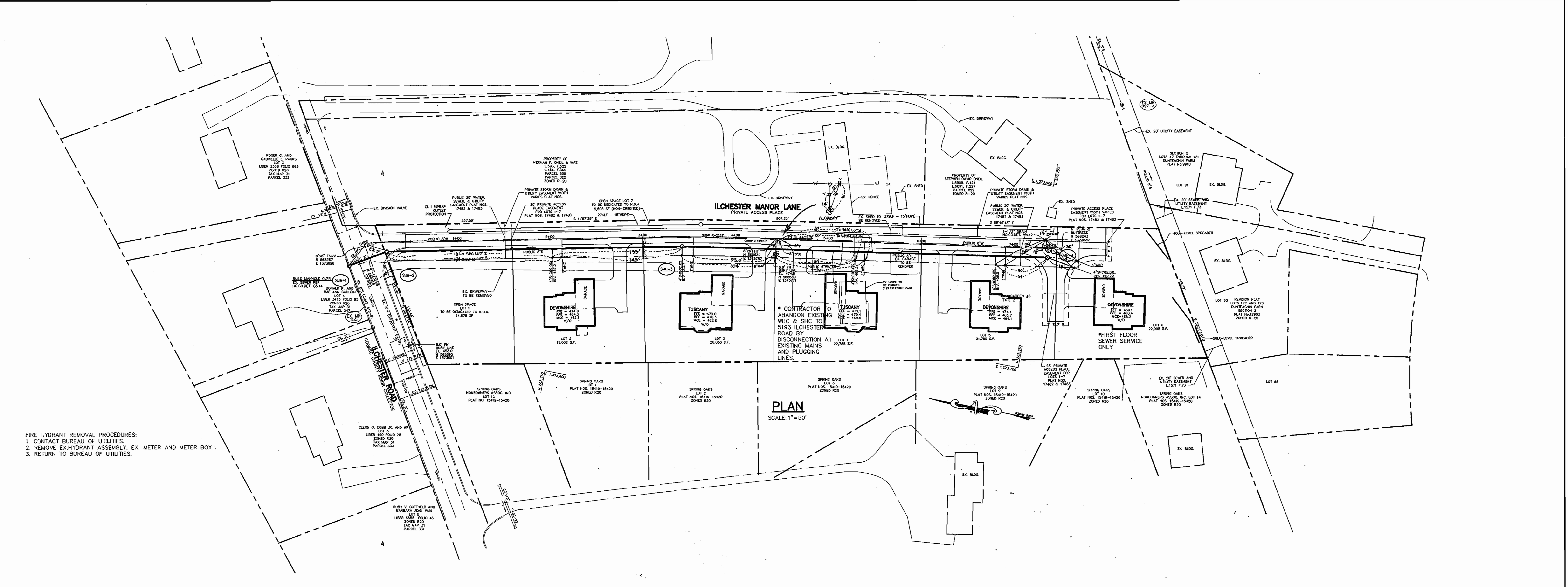
MANHOLE CHART

NO.	LOCATION	RIM ELEV.
SMH-1	N 568978 E 1373671	451.9
SMH-2	N 568941 E 1373694	452.6
SMH-3	N 568630 E 1373760	471.9
SMH-4	N 568241 E 1373823	464.3

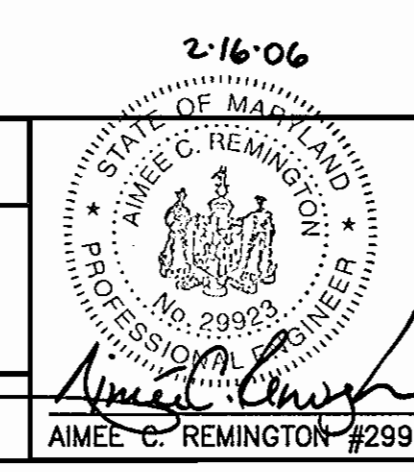
SHC CHART

LOT NO.	MCE	BSMT EL.	INV. @ PL
2	462.1	464.3	457.2
3	468.6	470.3	463.7
4	469.5	470.4	465.2
5	464.1	465.7	459.8
6	465.2	460.4*	460.4

*FIRST FLOOR GRAVITY SEWER SERVICE ONLY



PLAN
 SCALE: 1"=50'



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

RHR
 CHIEF, BUREAU OF UTILITIES
 3-1-06
 DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

Madison
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 2/15/06
 DATE

Patton Harris Rust & Associates, p.c.
 Engineers, Surveyors, Planners, Landscape Architects.
P.H.R.A.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9292

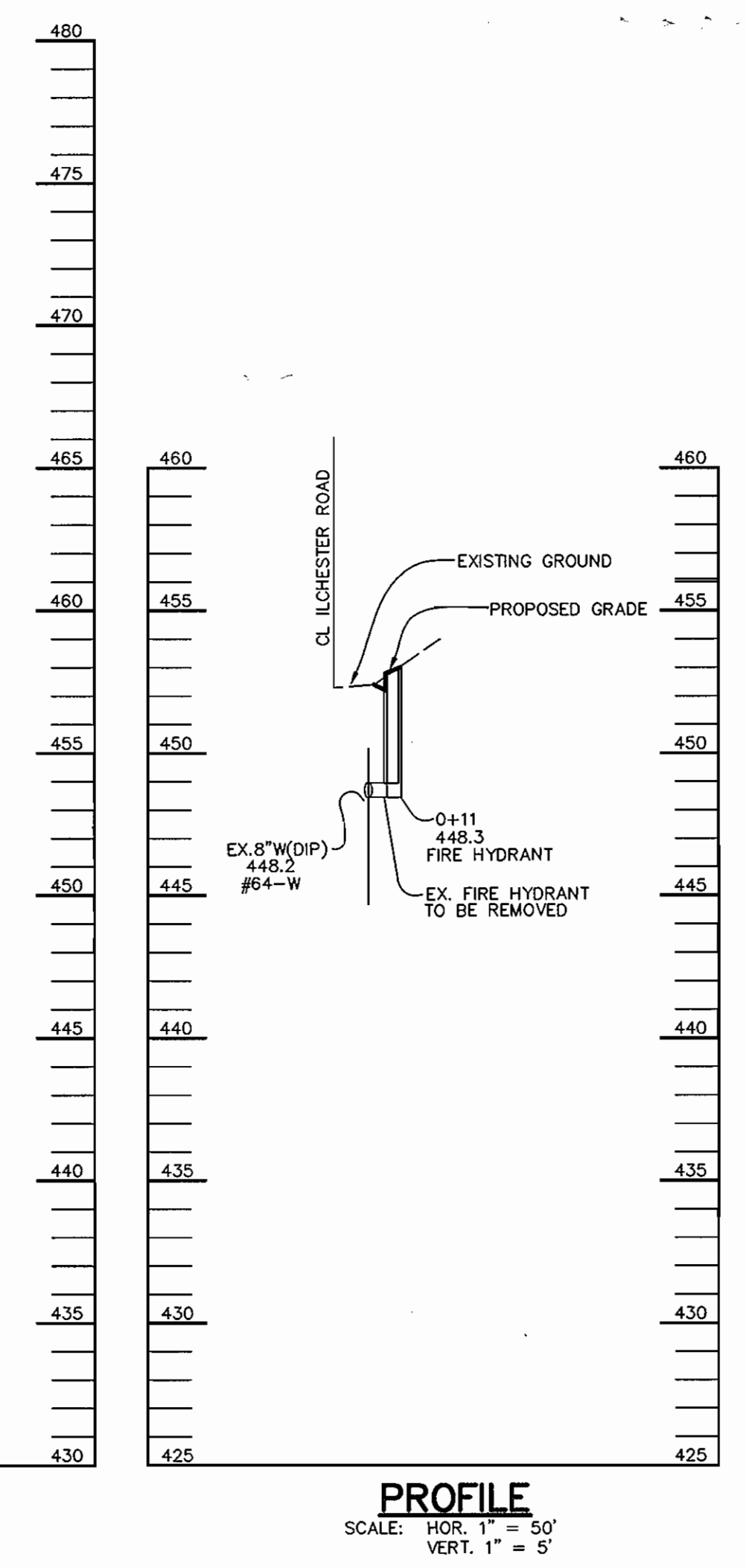
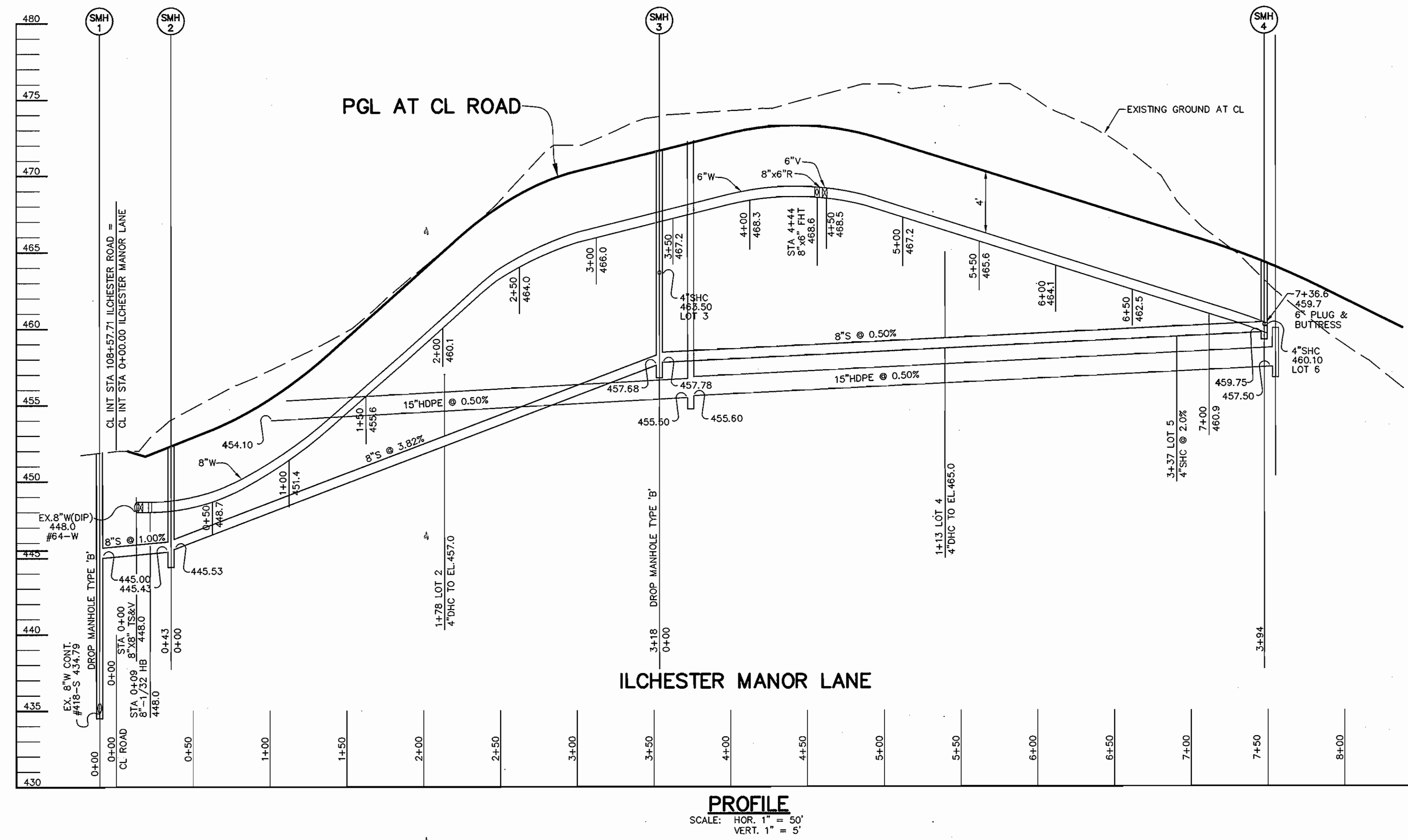
DES: ACR			
DRN: ACR			
DATE: 1/16/06			
BY: K.C.1	2	ASBUILT DATA	10/5/00
BY: ACR	1	REVISED WATER AND SEWER DUE TO REV. GRADING & ROAD LAYOUT	12/01/05
BY: NO.		REVISION	DATE

PLAN OF WATER AND SEWER MAINS

600' SCALE MAP NO. 31 BLOCK NO. 15

ILCHESTER MANOR
 LOTS 1 THRU 7
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CONTRACT 14-4171-D

SCALE AS SHOWN
 SHEET 2 OF 3

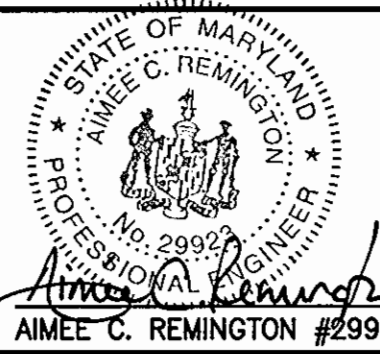


FIRE HYDRANT REMOVAL PROCEDURES:
 1. CONTACT BUREAU OF UTILITIES.
 2. REMOVE EX-HYDRANT ASSEMBLY.
 3. RETURN EX-HYDRANT TO BUREAU OF UTILITIES.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 R. H. Remington
 CHIEF, BUREAU OF UTILITIES
 DATE: 3-1-06

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 3/1/06

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 PHRA
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.397.2800
 F 410.397.2282



DES:	ACR				
DRN:	ACR				
DATE:	1/16/08				
ACR:	1	REVISED WATER AND SEWER PROFILE DUE TO REV. GRADING & ROAD LAYOUT	12/1/05		
BY:	NO.	REVISION	DATE		

WATER AND SEWER PROFILE
 600' SCALE MAP NO. 31 BLOCK NO. 15

ILCHESTER MANOR
 LOTS 1 THRU 7
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CONTRACT 14-4171-D

SCALE AS SHOWN
 SHEET 3 OF 3