

SHEET INDEX

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

WATER AND SEWER EXTENSIONS


CHAPEL MANOR

1st ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

CONTRACT NO. 14-4172-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:

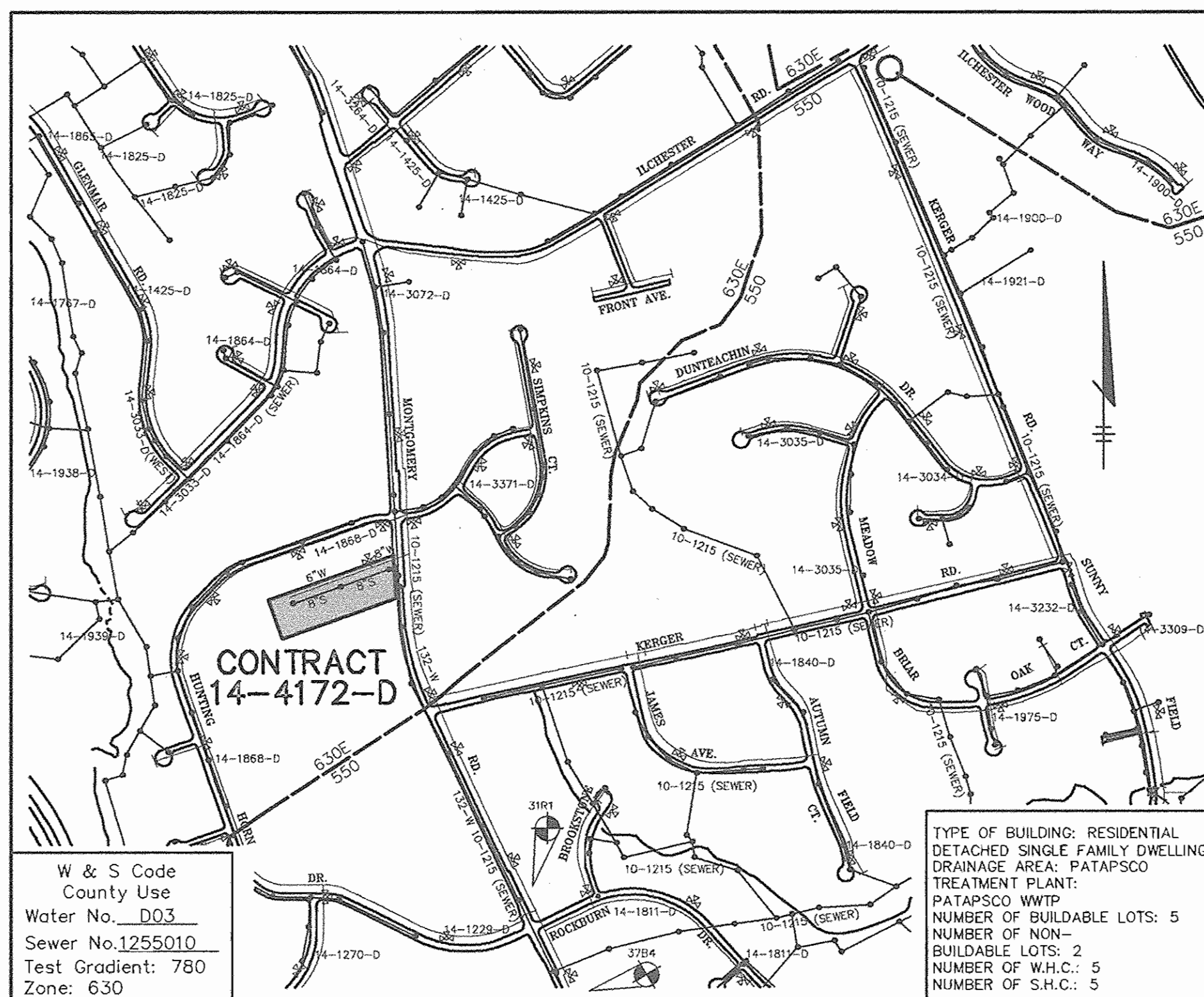
AT&T	1-800-252-1133
BGE (Contractor Services)	410-850-4620
BGE (Underground Damage Control)	410-787-9088
Bureau of Utilities	410-313-4900
Colonial Pipeline Co.	410-795-1390
Miss Utility	1-800-257-7777
State Highway Administration	410-531-5533
Verizon	1-800-743-0033 / 410-224-9210
- Trees and shrubs are 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(c) 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 GS.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'

QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		MANUFACTURER / SUPPLIER
		QUANTITIES	TYPE	
8" WATER	165 LF	105 LF	TYTON JOINT D.I.P. CL. 52	GRIFFIN PIPE PRODUCTS
6" WATER	451 LF	449 LF	TYTON JOINT D.I.P. CL. 52	GRIFFIN PIPE PRODUCTS
1" WHC	95 LF	111 LF	TYPE K COPPER	HUGHES
8" SEWER	573 LF	504 LF	SDR 35 PIPE	J.M. MANUFACT./ HUGHES
SEWER MANHOLES	4 EA.	4 EA.	PRECAST	FREDERICK PRECAST CONC.
4" SHC	51 LF	50 LF	SDR 35 PIPE	J.M. MANUFACT./ HUGHES
FIRE HYDRANTS	1 EA.	1 EA.	5'-0" F/HYD.	KENNEDY VALVE/ HUGHES
12"x8" TSV	1 EA.	1 EA.	T.S. VALVE	FORD/HUGHES KENNEDY V/HUGHES
6" VALVES	2 EA.	2 EA.	GATE VALVE	KENNEDY VALVE/ HUGHES

NAME OF UTILITY CONTRACTOR : **GAINES AND COMPANY, INC.**

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-04-152

CHECKBOX

AS-BUILT DATE: **DEC. 2000**

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 K. Reinhart 11/1/04
HOWARD SOIL CONSERVATION DISTRICT DATE

OWNER	DEVELOPER
WILLIAM McFARLAND, JR. TRUST VIOLA McFARLAND TRUST 5386 MONTGOMERY ROAD ELLCOTT CITY, MD 21043	CORNERSTONE HOLDINGS, LLC ATTN: BRIAN BOY 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565

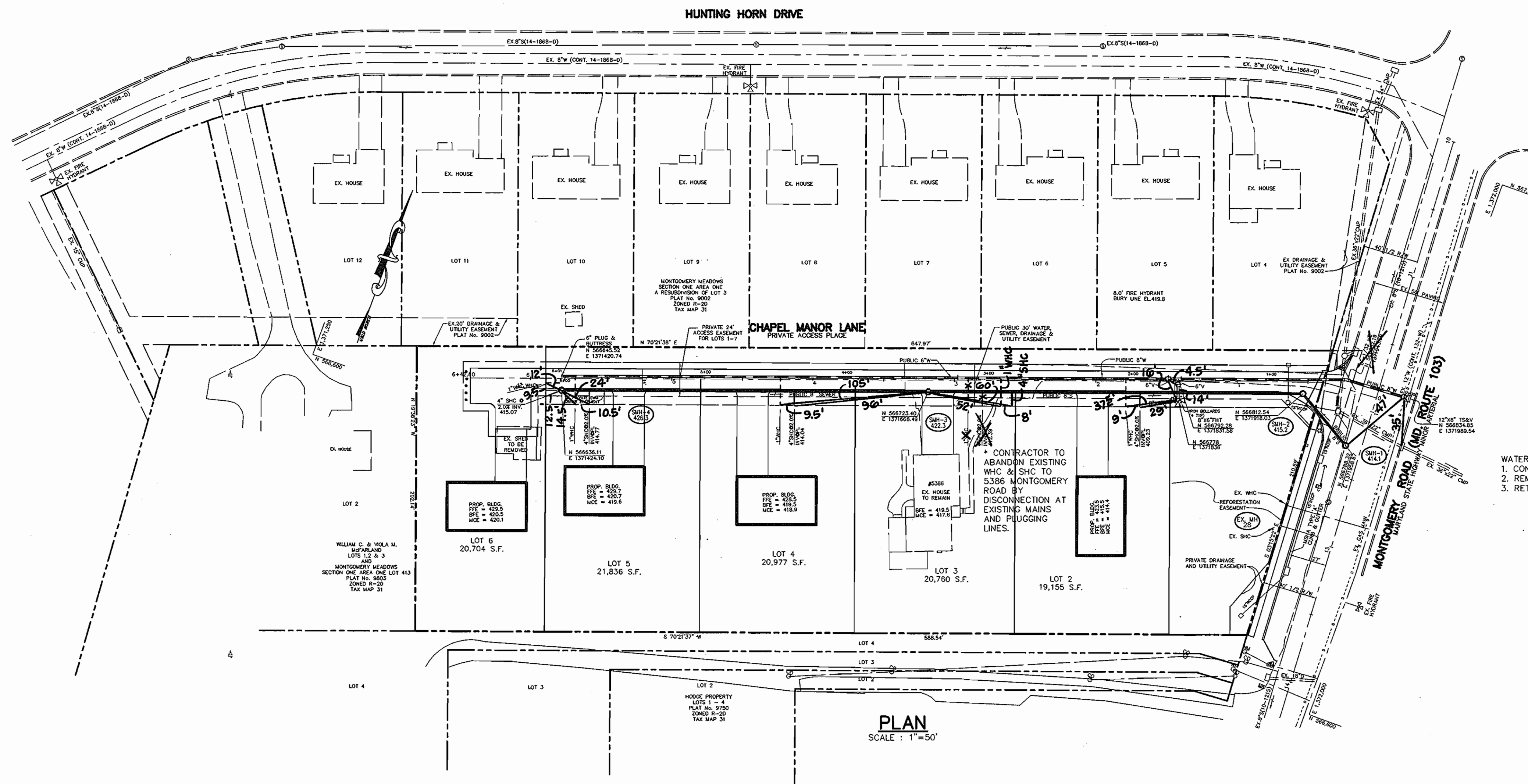
BENCH MARK

CONTROL STATION 31R1
ELEVATION 401.748
N 565,303.465
E 1,372,517.678

CONTROL STATION 37B4
ELEVATION 402.115
N 563,928.548
E 1,373,109.059

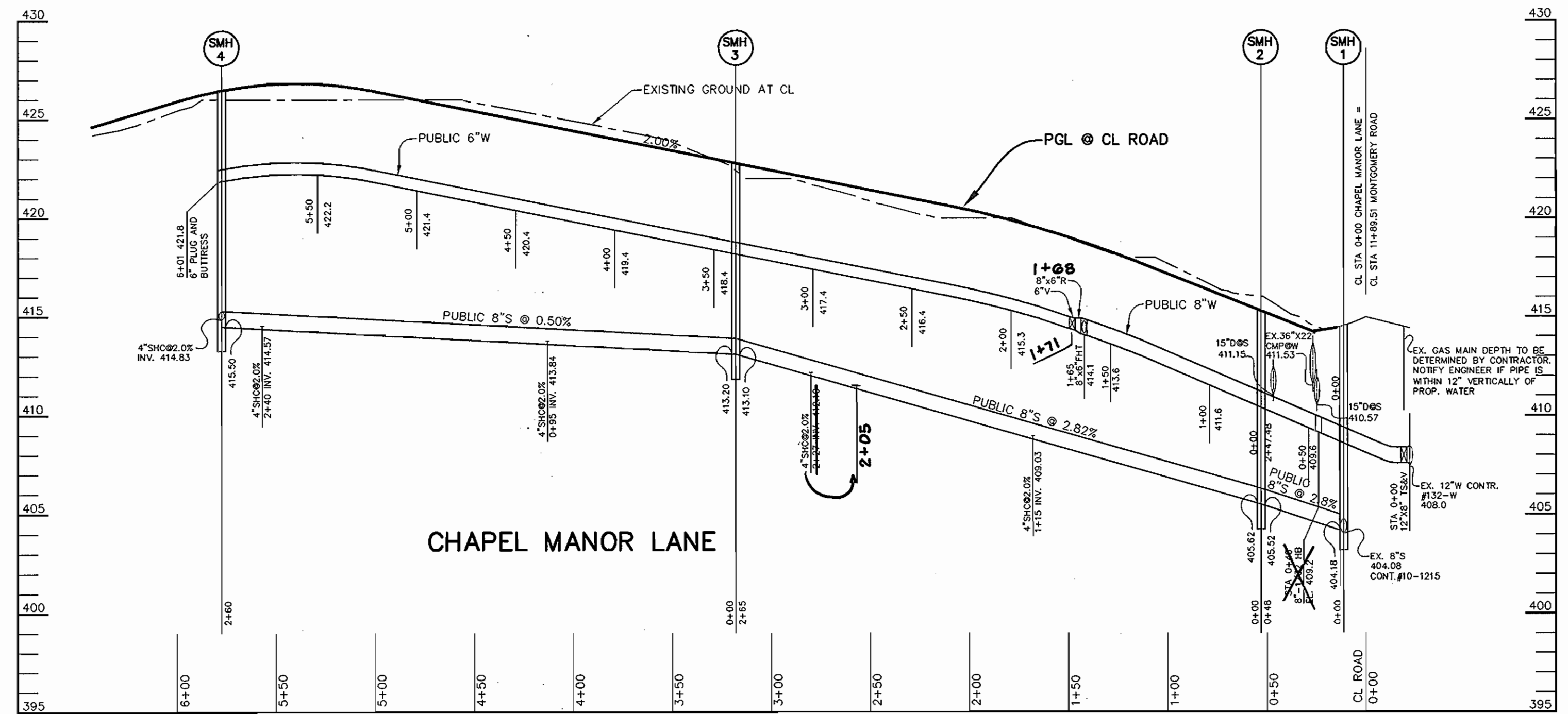
AS BUILT
DATE: **DEC. 2000**

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>R. J. ...</i> 11-12-04 CHIEF, BUREAU OF UTILITIES DATE	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>M. ...</i> 11/2/04 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE	Patton Harris Rust & Associates, PC Engineers, Surveyors, Planners, Landscape Architects. PHRA 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	STATE OF MARYLAND PROFESSIONAL ENGINEER CHRISTOPHER J. REID #19949	DES: C.J.R. DRN: D.A.M. CHK: C. J. R. DATE: 10/21/04	TITLE SHEET	CHAPEL MANOR LOTS 1 THRU 7 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT 14-4172-D	SCALE AS SHOWN SHEET 1 OF 2
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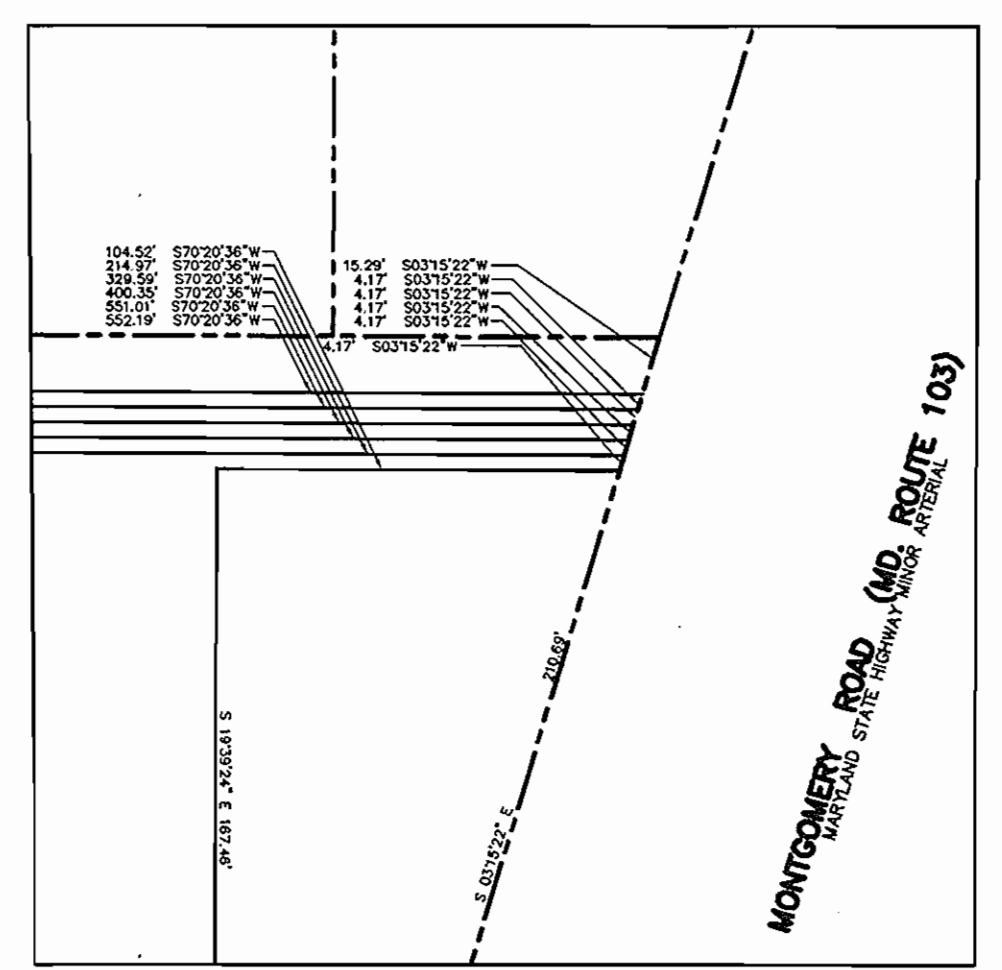


WATER METER REMOVAL PROCEDURES:
 1. CONTACT BUREAU OF UTILITIES.
 2. REMOVE EX. METER AND METER BOX.
 3. RETURN TO BUREAU OF UTILITIES.

PLAN
 SCALE: 1"=50'



PROFILE
 SCALE:
 HOR. - 1"=50'
 VERT. - 1"=5'



PLAN
 SCALE: 1"=50'
AS BUILT
 DATE: DEC. 2000

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 R. J. Dennis
 CHIEF, BUREAU OF UTILITIES
 11-12-04
 DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
 P. H. R. A.
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 11/22/04
 DATE

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.8282

STATE OF MARYLAND
 PROFESSIONAL REGISTERED SURVEYOR
 CHRISTOPHER J. REID #19949

DES: D.A.M.					
DRN: D.A.M.					
CHK: C.J.R.					
DATE: 10/21/04	BY NO.	REVISION	DATE		

PLAN AND PROFILE
 600' SCALE MAP NO. 31 BLOCK NO. 20

CHapel Manor
 LOTS 1 THRU 7
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CONTRACT 14-4172-D

SCALE AS SHOWN
 SHEET 2 OF 2