

| SHEET INDEX |   |
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| 3           | PROFILE OF WATER AND SEWER MAINS          |
| 4           | PVC WATER LINE SPECIFICATIONS AND DETAILS |

# WATER AND SEWER EXTENSIONS

# TROTTER POINT

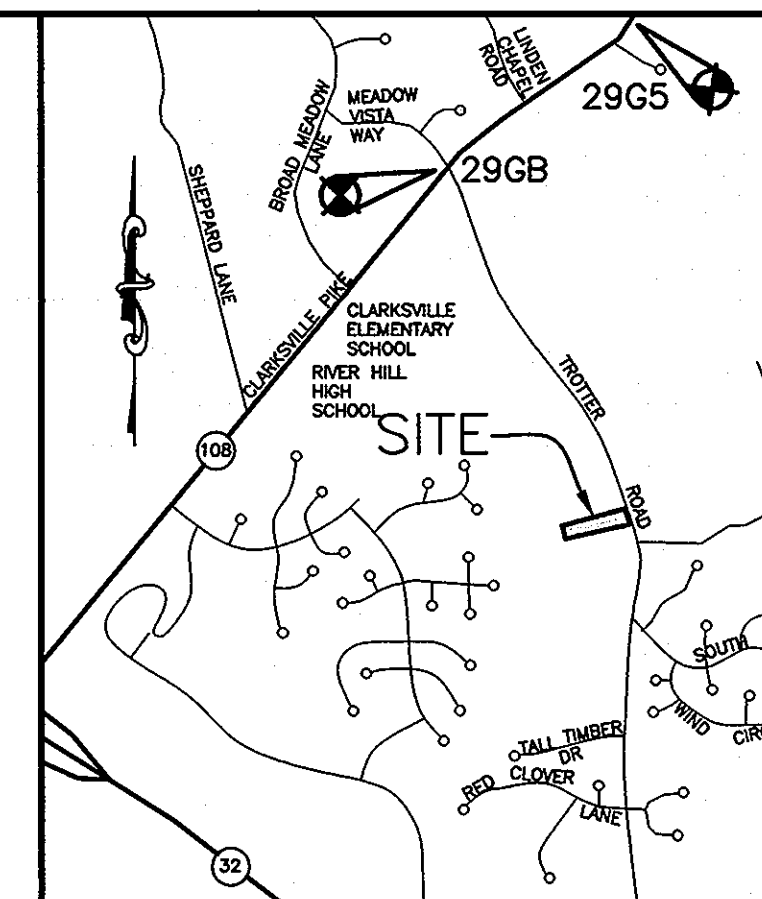
## PARCEL 8

## A RESUBDIVISION OF FOREST HILLS LOT 15

## 5TH ELECTION DISTRICT

## HOWARD COUNTY, MARYLAND

## CONTRACT NO. 34-4497-D



**VICINITY MAP**  
SCALE: 1"=2000'  
COPYRIGHT ADC THE MAP PEOPLE  
PERMITTED USE NO. 2071188  
HOWARD COUNTY ADC MAP 14 : H6 AND H7

**BENCH MARK**

HOWARD COUNTY CONTROL  
STATION 29G5  
N 566,867.4644  
E 1,333,325.6268  
ELEV. 450.033

HOWARD COUNTY CONTROL  
STATION 29G6  
N 568,341.1963  
E 1,335,392.4511  
ELEV. 387.398

**GENERAL NOTES**

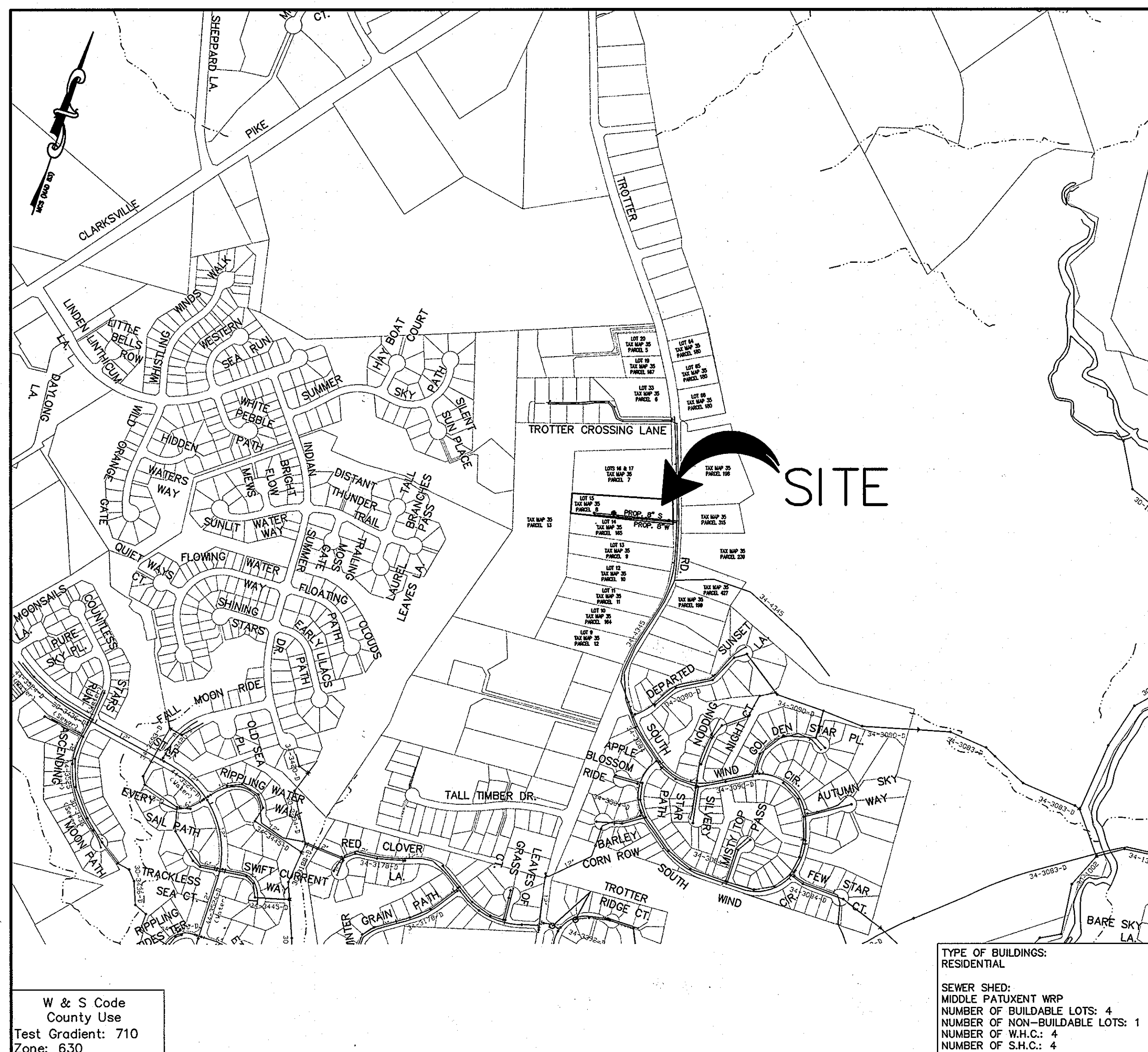
- Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
- Topographic field survey work performed on January 2003 by Patton, Harris, Rust & Associates.
- The coordinate system on the drawings are based on Maryland State Reference System, NAD 83/91 as projected by Howard County Geodetic Control System Nos. 29GA and 29G5.
- All vertical controls are based on NAVD 88. Vertical controls provided on the drawings are NAVD 29, by PHRA.
- All pipe elevations shown are invert elevations unless otherwise noted on the plans.
- Clear all utilities by a minimum of 6 inches. Clear all poles by 2'-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 (Emergency) 410-885-1400
  - Bureau of Utilities 410-313-4900
  - Colonial Pipeline Co. 410-795-1390
  - Miss Utility 1-800-257-7777
  - State Highway Administration 410-531-5633
  - 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 410-313-2450 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.
- Sketch Preliminary Plan No. SP-07-012.
- The contractor shall abandon the well and septic to 5770 Trotter Road. They shall be abandoned in accordance with all state and local regulations.

**WATER NOTES**

- All water mains shall be C900 P.V.C. 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.
- All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
- For sprinkler system for all townhomes or multi-family dwelling units should have a minimum of 1" connection with 3/4" meter.
- Water zone division valves shall be provided when directed by Howard County.

**SEWER NOTES**

- All sewer mains shall be D.I.P. 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.



W & S Code  
County Use  
Test Gradient: 710  
Zone: 630

TYPE OF BUILDINGS:  
RESIDENTIAL  
SEWER SHED:  
MIDDLE PATUXENT WRP  
NUMBER OF BUILDABLE LOTS: 4  
NUMBER OF NON-BUILDABLE LOTS: 1  
NUMBER OF W.H.C.: 4  
NUMBER OF S.H.C.: 4

**LOCATION MAP**  
SCALE: 1"=600'

| QUANTITIES          |                      |            |      |                         |
|---------------------|----------------------|------------|------|-------------------------|
| ITEMS               | QUANTITIES ESTIMATED | AS-BUILT   |      |                         |
|                     |                      | QUANTITIES | TYPE | MANUFACTURER / SUPPLIER |
| 8" WATER (C900 PVC) | 443 LF               |            |      |                         |
| 6" WATER (C900 PVC) | 134 LF               |            |      |                         |
| 6" WATER (DIP)      | 22 LF                |            |      |                         |
| 6" VALVE            | 2 EA.                |            |      |                         |
| 8"x6" TEE           | 1 EA.                |            |      |                         |
| 8"x6" REDUCER       | 1 EA.                |            |      |                         |
| 6" PLUG & BUTTRESS  | 1 EA.                |            |      |                         |
| 1 1/2" WHC          | 70 LF                |            |      |                         |
| FIRE HYDRANTS       | 1 EA.                |            |      |                         |
| 8" SEWER            | 575 LF               |            |      |                         |
| SEWER MANHOLES      | 3 EA.                |            |      |                         |
| 4" SHC              | 35 LF                |            |      |                         |
| SHC CLEANOUTS       | 4 EA.                |            |      |                         |

NAME OF UTILITY CONTRACTOR :

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-05-067

OWNER: TROTTER POINT LLC  
ATTN: BRIAN BOY  
11807 WOLLINGFORD CT  
CLARKSVILLE, MD 21029  
T: 410.792.2565

DEVELOPER: TROTTER POINT LLC  
ATTN: BRIAN BOY  
9695 NORFOLK AVENUE  
LAUREL, MD 20723  
T: 410.792.2565

DATE: 9/19/09

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

Patton Harris Rust & Associates  
Engineers, Surveyors, Planners, Landscape Architects.  
8818 Centre Park Drive  
Suite 200  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

PHRA PROFESSIONAL ENGINEERS

DES: JWC  
DRN: PHRA  
FILE:  
DATE: 08/20/09

BY: [Signature]

REVISION

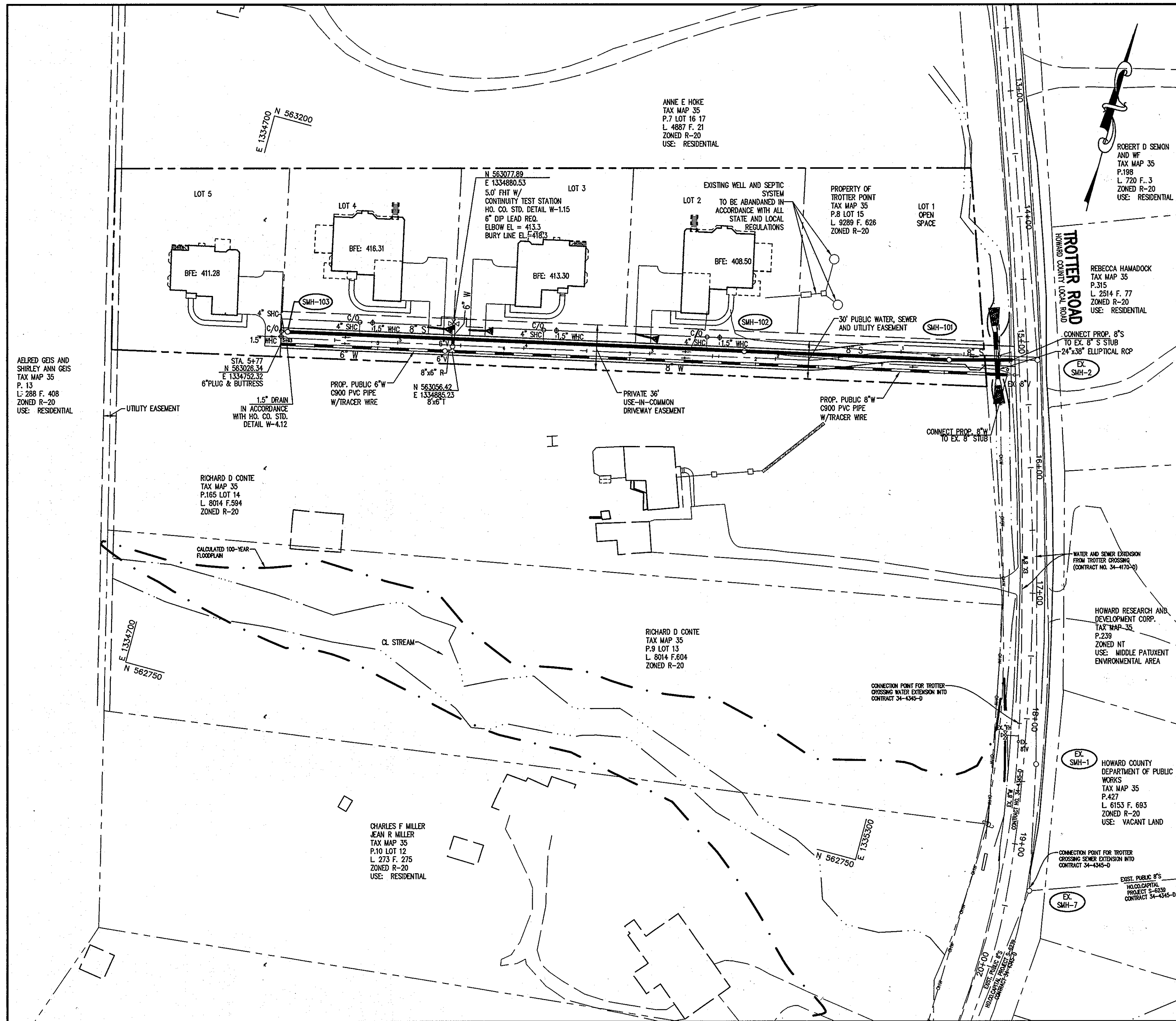
DATE

600' SCALE MAP NO. 35 BLOCK NO. 2

TROTTER POINT  
PARCEL 8  
A RESUBDIVISION OF FOREST HILLS LOT 15  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 34-4497-D

SCALE AS SHOWN

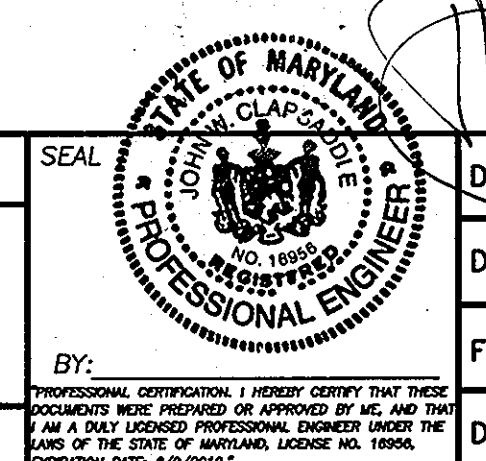
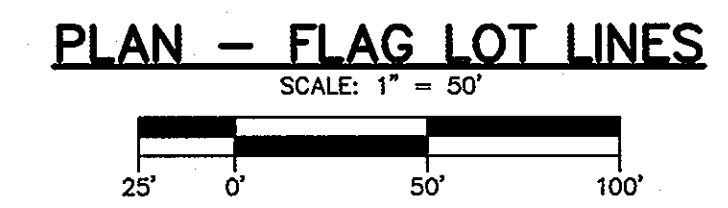
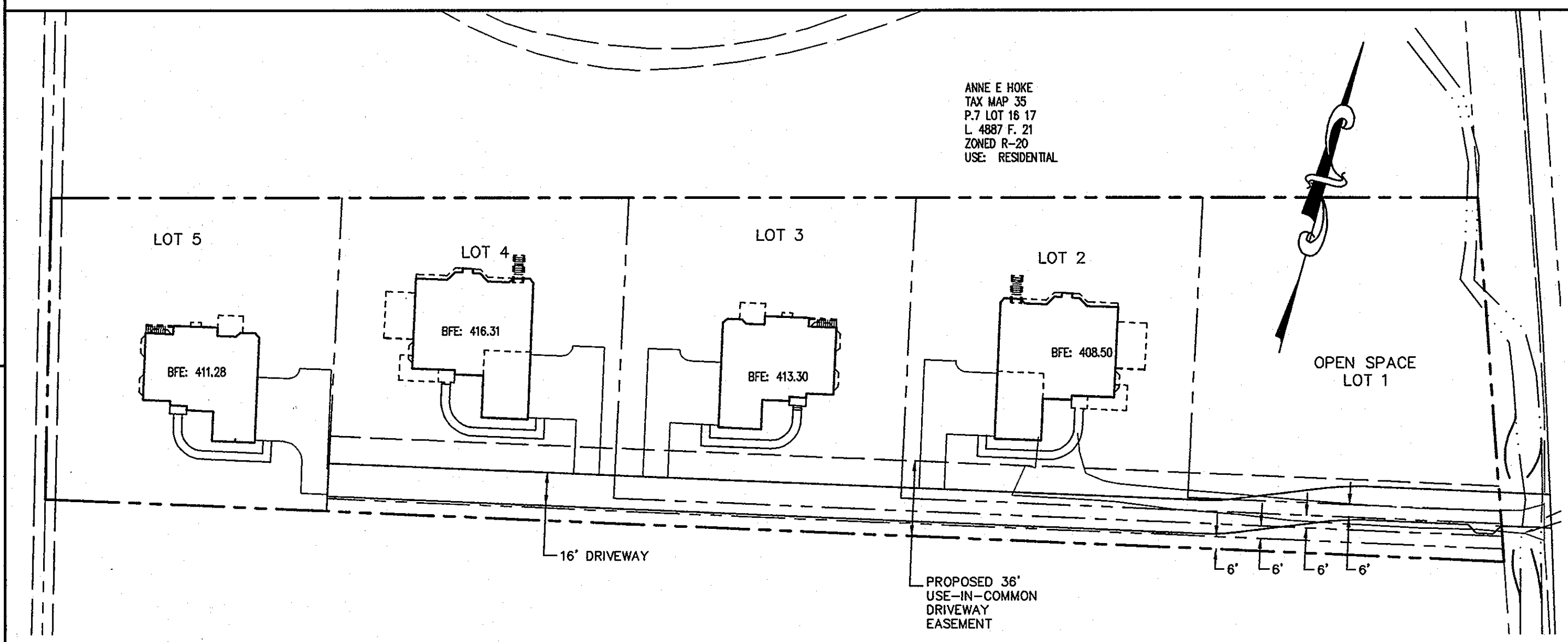
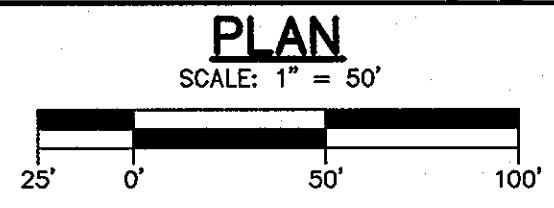
SHEET 1 OF 4



| LOT INFORMATION |                |                      |                      |                   |              |                        |
|-----------------|----------------|----------------------|----------------------|-------------------|--------------|------------------------|
| LOT NO.         | SQUARE FOOTAGE | FINISHED FLOOR ELEV. | BASEMENT FLOOR ELEV. | MIN. CELLAR ELEV. | 4" SHC SLOPE | 4" SHC INV. PROP. LINE |
| 1               | 20,569         | ---                  | ---                  | ---               | ---          | ---                    |
| 2               | 20,899         | 417.20               | 408.50               | 407.50            | 2%           | 403.30                 |
| 3               | 21,721         | 422.00               | 413.30               | 412.50            | 2%           | 408.10                 |
| 4               | 22,543         | 425.01               | 416.31               | 415.50            | 2%           | 411.11                 |
| 5               | 23,365         | 419.98               | 411.28               | 410.30            | 2%           | 406.10                 |

| LEGEND                    |            |
|---------------------------|------------|
| PROPERTY LINE             | ---        |
| LOT LINE                  | ---        |
| PROPOSED WATER MAIN       | —          |
| PROPOSED TEE              | ⊥          |
| PROPOSED VALVE            | ○          |
| PROPOSED FIRE HYDRANT     | ⊗          |
| PROPOSED SEWER MAIN       | —          |
| PROPOSED WHC              | — 1-8" WHC |
| PROPOSED SHC              | — 4" SHC   |
| PROPOSED SEWER MANHOLE    | ○          |
| PROPOSED BALL VALVE       | ●          |
| PROPOSED SEWER CLEANOUT   | ○          |
| EXISTING WATER MAIN       | EX. 8" W   |
| EXISTING SEWER MAIN       | EX. 8" S   |
| EXISTING STORM DRAIN PIPE | ---        |

**NOTE:**  
CONTRACTOR SHALL PROVIDE INSIDE METERS FOR ALL WHC'S.



|                |                |
|----------------|----------------|
| DES: JWC       | DATE: 08/20/09 |
| DRN: PHRA      | BY: NO.        |
| FILE:          | REVISION       |
| DATE: 08/20/09 | DATE:          |

PLAN VIEW OF WATER AND SEWER MAINS  
600' SCALE MAP NO. 35 BLOCK NO. 2

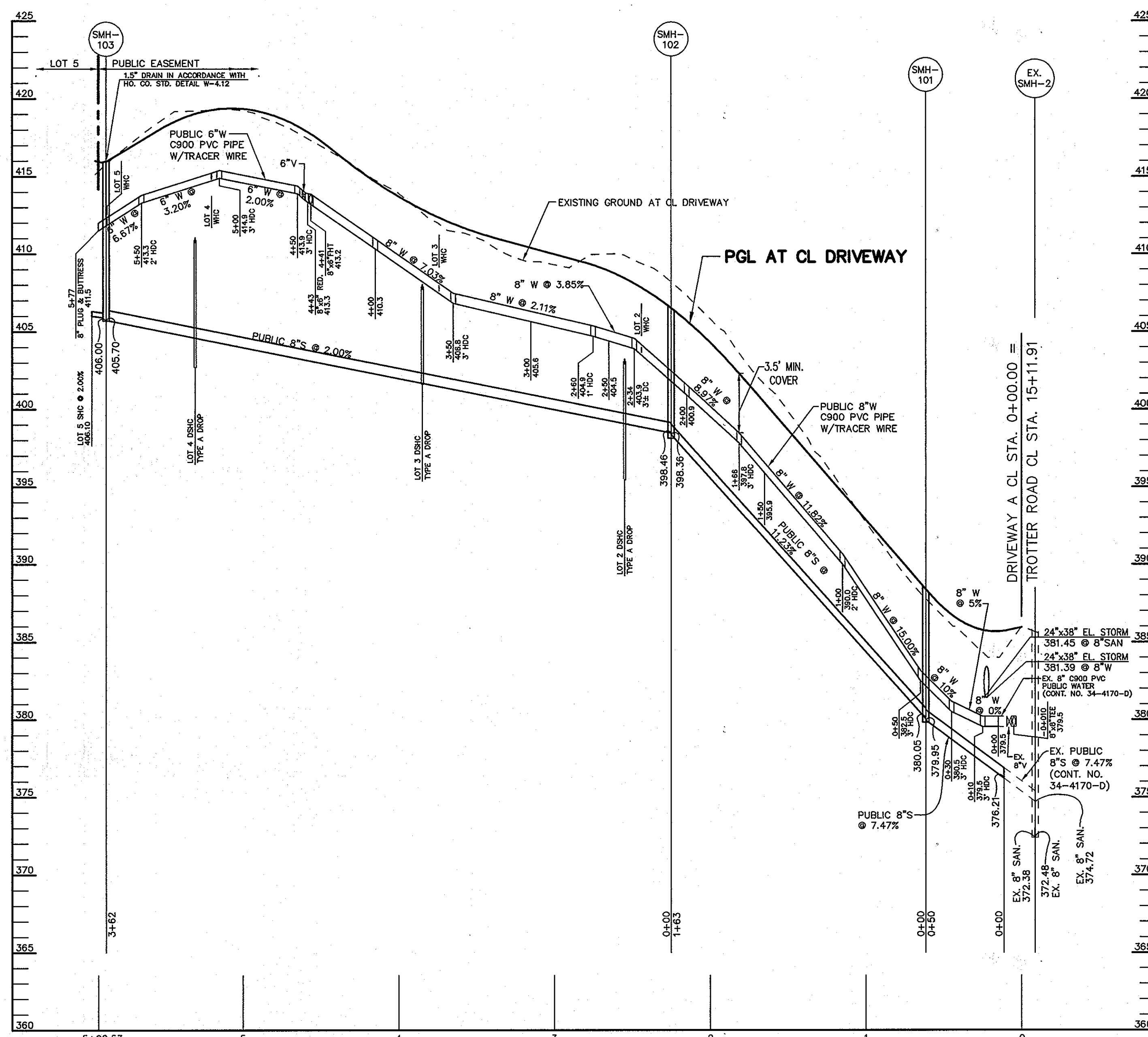
TROTTER POINT PARCEL 8  
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5th ELECTION DISTRICT  
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CONTRACT NO. 34-4497-D

SCALE AS SHOWN  
SHEET 2 OF 4

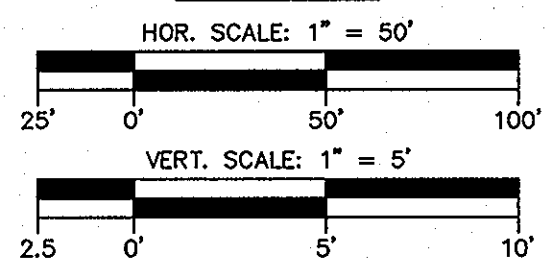
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Patton Harris Rust & Associates  
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8818 Centre Park Drive  
Suite 200  
Columbia, MD 21045  
T 410.997.8900  
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**PROFILE**



| LOT NO. | ROAD STATION | SEWER MAIN INV. @ SHC | SHC INV. @ MAIN | SHC INV. @ PL | BASEMENT FLOOR ELEV. | CONNECTION TYPE    | HOWARD COUNTY STANDARD DETAIL |
|---------|--------------|-----------------------|-----------------|---------------|----------------------|--------------------|-------------------------------|
| 1       | ---          | ---                   | ---             | ---           | ---                  | ---                | ---                           |
| 2       | 2+57         | 394.82                | 402.90          | 403.30        | 408.50               | SHC TYPE A         | S-2.12                        |
| 3       | 3+87         | 400.93                | 407.70          | 408.10        | 413.30               | SHC TYPE A         | S-2.12                        |
| 4       | 5+33         | 402.04                | 410.71          | 411.11        | 416.31               | SHC TYPE A         | S-2.12                        |
| 5       | 5+88         | 405.70                | 406.00          | 406.10        | 411.28               | MANHOLE CONNECTION | S-1.32                        |

| STRUCTURE | TYPE           | LOCATION           | RIM    | REMARKS                  |
|-----------|----------------|--------------------|--------|--------------------------|
| SMH 101   | 4" DIA MANHOLE | N 563153 E 1335267 | 388.38 | HOCO. STD. DETAIL G-5.11 |
| SMH 102   | 4" DIA MANHOLE | N 563117 E 1335109 | 406.40 | HOCO. STD. DETAIL G-5.11 |
| SMH 103   | 4" DIA MANHOLE | N 563037 E 1334755 | 415.83 | HOCO. STD. DETAIL G-5.11 |

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

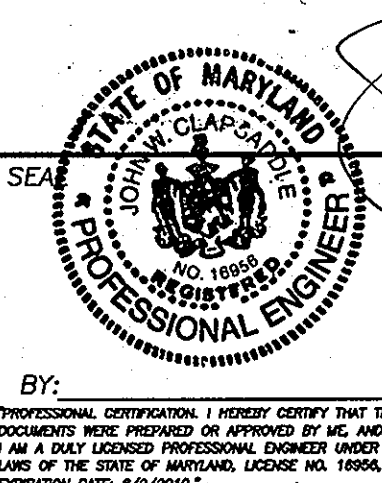
*Shane C. Green*  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*Michael J. ...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Patton Harris Rust & Associates  
Engineers, Surveyors, Planners, Landscape Architects.

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DES: JWC  
DRN: PHRA  
FILE:  
DATE: 08/20/09

BY: [Signature]  
NO. [ ]  
REVISION [ ]  
DATE [ ]

PROFILE OF WATER AND SEWER MAINS

600' SCALE MAP NO. 35 BLOCK NO. 2

TROTTER POINT  
PARCEL 8  
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SCALE AS SHOWN

SHEET 3 OF 4

