

**GENERAL NOTES**

**PART I :**

- 1 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.
- 2 All horizontal controls are based on Maryland State Coordinates.
- 3 All vertical controls are based on U.S.G.S. data.
- 4 All pipe elevations shown are invert elevations.
- 5 Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnel as required. 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 bracing of additional poles or damages shall be deducted from money owed the contractor. The contractor shall coordinate with the Utility Companies to schedule the bracing of the poles.
- 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 (Latest Edition). The contractor shall have a copy of Volume IV on the job.
- 7 Where test pits have been made on existing utilities, they are noted by the symbol  $\odot$  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.
- 8 Contractor shall notify the following Utility Companies or agencies at least five working days before starting work shown on these plans:
 

|  |                |
|--|----------------|
| State Highway Administration                                 | 531-5533       |
| Baltimore Gas & Electric Company Contractor Services         | 850-4620       |
| Baltimore Gas & Electric Company Under Ground Damage Control | 787-9068       |
| Mies Utility   | 1-800-257-7777 |
| Colonial Pipeline Company                                    | 795-1390       |
| Howard County Dept of Public Works Bureau of Utilities       | 313-4900       |
- 9 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.
- 10 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.
- 11 95% Compaction in fill areas to be determined by  $\overline{A}SSHTO$  T-180

**PART II - WATER:**

- 1 All water mains to be D.I.P. Class 52 unless otherwise noted.
- 2 Taps of all water mains to have a minimum of 3 1/2' cover unless otherwise noted.
- 3 Valves adjacent to tees shall be strapped to tees.
- 4 All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
- 5 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 1000 and 1005 of the Standard Specifications.
- 6 The contractor shall not operate any water main valves on the existing water system.
- 7 All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.

**PART III - SEWER:**

- 1 All sewer mains to be D.I.P., and P.V. unless otherwise noted.
- 2 The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall.
- 3 All manholes shall be 4'-0" inside diameter unless otherwise noted.
- 4 Force mains shall be D.I.P. only.
- 5 Manholes designated W.T. in plan and profile shall have watertight frame and covers. Standard Detail G5-52. Where water tight manhole frame and cover is used, set top of frame 1'-6" above finished grade unless otherwise noted on the drawings.
- 6 House(s) with the symbol "C.N.S." indicates that cellar cannot be served.
- 7 Manholes shown with 12" and 16" walls are for brick manholes only.

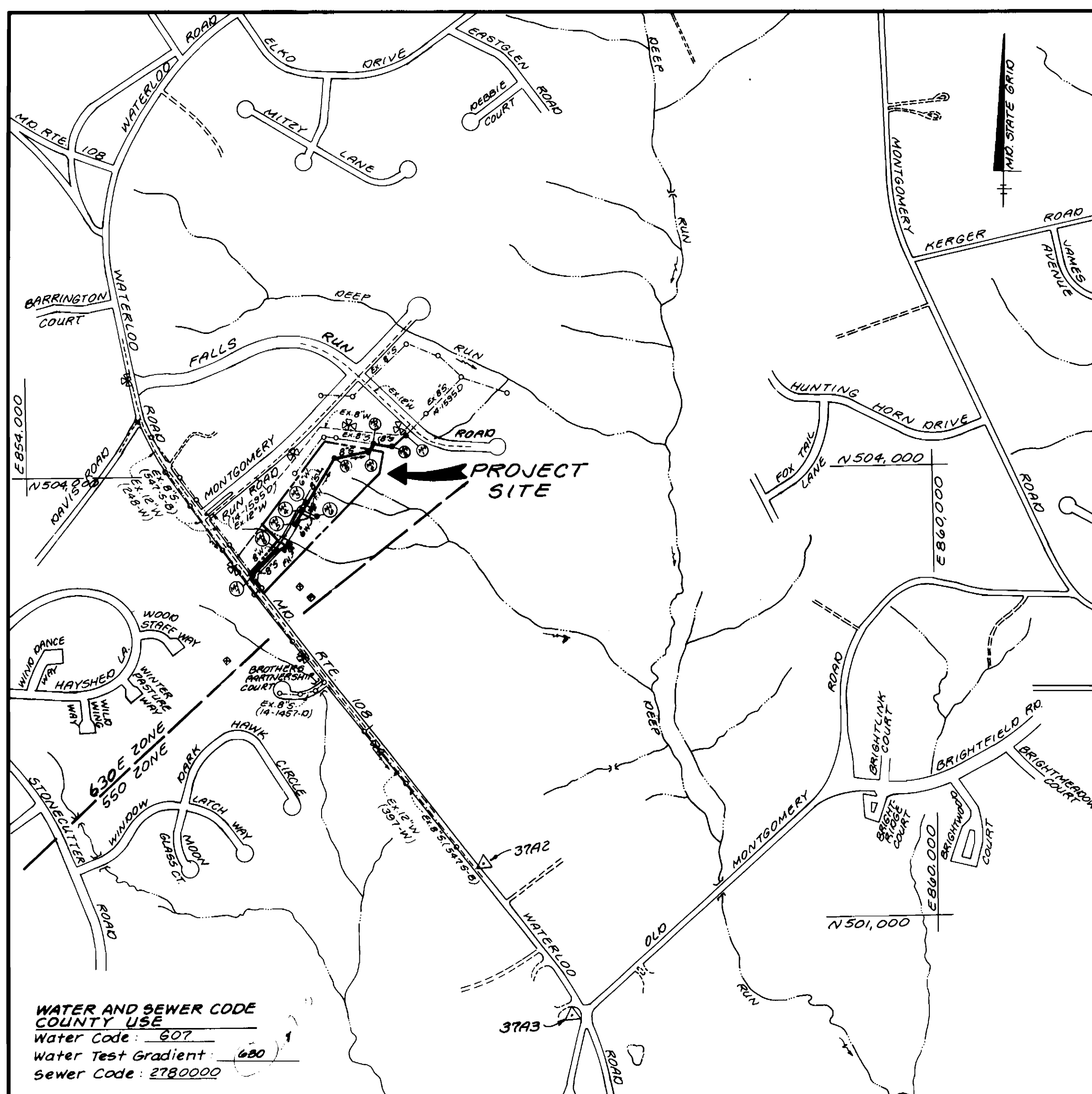
**WATER AND SEWER AS-BUILTS**

| QUANTITIES            |               | AS BUILT   |                        |                            |  |
|-----------------------|---------------|------------|------------------------|----------------------------|--|
| ITEM                  | ESTIMATED QTY | QUANTITIES | TYPE                   | MANUFACTURER/SUPPLIER      |  |
| 12"x 8" B.T.S. + V    | 1 EA.         | 1 EA.      | D.I.P.                 | MUELLER CO.                |  |
| 3" Blowoff            | 1 EA.         | 1 EA.      | CAST IRON PLASTIC      | KUPFERLE                   |  |
| 4" W.                 | 113 LF        | 113 LF     | D.I.P.                 | GRIFFIN PIPE PRODUCTS      |  |
| 4" V.                 | 2 EA.         | 2 EA.      | CAST IRON GATE VALVE   | MUELLER CO.                |  |
| 4"x 3" Reducer        | 1 EA.         | 1 EA.      | D.I.P.                 | GRIFFIN PIPE PRODUCTS      |  |
| 8" Water              | 495 LF        | 505 LF     | "                      | "                          |  |
| 6" Water              | 495 LF        | 493 LF     | "                      | "                          |  |
| 1" W.H.C. / 2" W.H.C. | 647 LF        | 523 LF     | "K" COPPER             | HOWELL METALS              |  |
| 1 1/2" W.H.C.         | 460 LF        | 588 LF     | "                      | "                          |  |
| Fire Hydrants         | 2 EA.         | 2 EA.      | CAST IRON              | MUELLER CO.                |  |
| 8" Valve              | 1 EA.         | 1 EA.      | CAST IRON GATE VALVE   | "                          |  |
| 6" Valve              | 3 EA.         | 3 EA.      | "                      | "                          |  |
| 6"x 4" Tee            | 2 EA.         | 2 EA.      | D.I.P.                 | GRIFFIN PIPE CO.           |  |
| 8"x 6" FHT            | 2 EA.         | 2 EA.      | "                      | "                          |  |
| 8"x 6" Reducer        | 1 EA.         | 1 EA.      | "                      | "                          |  |
| 6" Cap                | 1 EA.         | 1 EA.      | "                      | "                          |  |
| 6" Sewer              | 285 LF        | 285 LF     | P.V.C.                 | EYS                        |  |
| 4" SHC                | 1445 LF       | 1445 LF    | P.V.C. & D.I.P.        | ATLANTIC CONCRETE PRODUCTS |  |
| Manholes              | 12 EA.        | 12 EA.     | PRECAST CONC. CONCRETE | ATLANTIC CONCRETE PRODUCTS |  |
| 4" SHC                | 1445 LF       | 1445 LF    | P.V.C. & D.I.P.        | ATLANTIC CONCRETE PRODUCTS |  |

NAME OF CONTRACTOR: DEVELOPMENT CONTRACTORS INC. CHECK BOX: SURVEY & DRAFTING DIV. AS BUILT DATE

**BENCH MARKS:**

1. 37A2: ELEV. 403.707  
CONCRETE MONUMENT 0.1 FT. BELOW SURFACE AT TOP OF SLOPE NORTH SIDE OF WATERLOO ROAD NEAR #5866
2. 37A3: ELEV. 385.659  
CONCRETE MONUMENT 0.3 FT. BELOW SURFACE AT TOE OF SLOPE SOUTHWEST QUADRANT OF WATERLOO ROAD AND OLD MONTGOMERY ROAD INTERSECTION.



**VICINITY MAP**

SCALE: 1" = 600'

|                         |                                     |
|-------------------------|-------------------------------------|
| Type of Building:       | Single Family Attached              |
| Number of Lots/Parcels: | 52 (51 SFPA/1 OS)                   |
| Number of W.H.C.'s:     | 51                                  |
| Number of S.H.C.'s:     | 51                                  |
| Drainage Area:          | Deep Run                            |
| Treatment Plant:        | Potapoco Wastewater Treatment Plant |

**QUANTITIES (Cont'd)**

| ITEM                | ESTIMATED QTY | QTY'S | TYPE       | MANUFACTURER/SUPPLIER |
|---------------------|---------------|-------|------------|-----------------------|
| 24" R.I.P. (Sleeve) | 55 LF         |       |            |                       |
| 6" DHC              | 20 LF         | 20 LF | PVC        |                       |
| 4" Cap              | 1 EA.         | 1 EA. | D.I.P.     |                       |
| 24" STEEL SLEEVE    |               | 40 LF | STEEL      |                       |
| 24" CONC. SLEEVE    |               | 10 LF | RCCP CL. 5 |                       |

NAME OF CONTRACTOR: DEVELOPMENT CONTRACTORS INC. CHECK BOX: SURVEY & DRAFTING DIVISION AS BUILT

MONTGOMERY TOWNSHIP WS/1 3437

**WATER & SEWER CONSTRUCTION PLANS**

# MONTGOMERY TOWNSHIP

## LOTS 1 THRU 52

1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
CONTRACT No. 14 - 3437 - D

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
*Patricia Engle/1/12/195*  
SIGNATURE DATE  
NATURAL RESOURCES CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT  
*John P. Robertson* 12/1/95  
DATE  
HOWARD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION AND FINAL ROAD CONSTRUCTION PLANS: F95-136

DEPARTMENT OF PUBLIC WORKS

DEPARTMENT OF PLANNING & ZONING

LDE INC.

9250 RUMSEY ROAD  
SUITE 106  
COLUMBIA, MARYLAND 21045  
PHONE: (410) 715-1070

Designed KBW

Drawn KBW

Checked BOB

Date June, 1995

TITLE SHEET

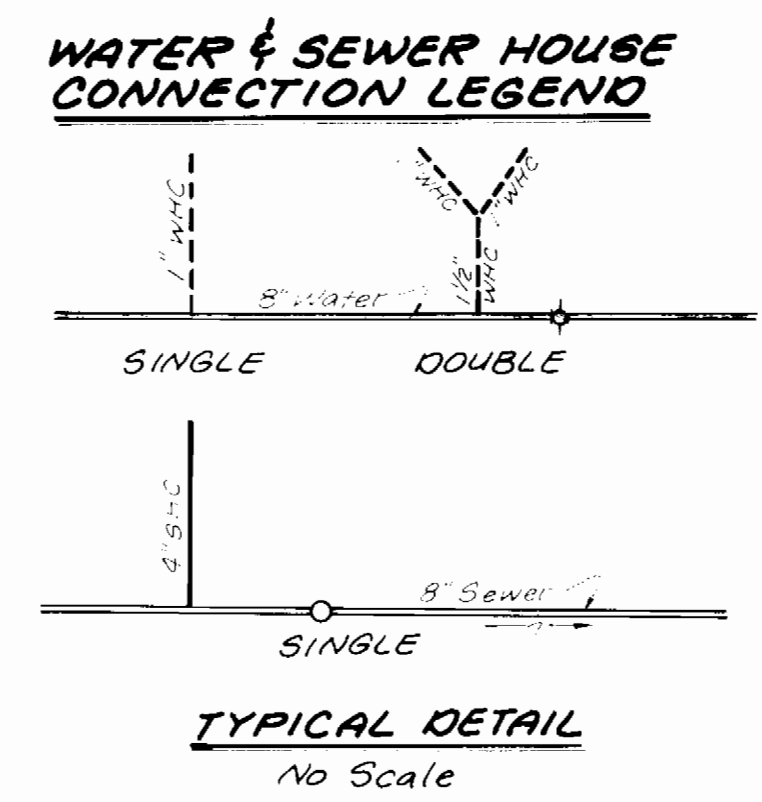
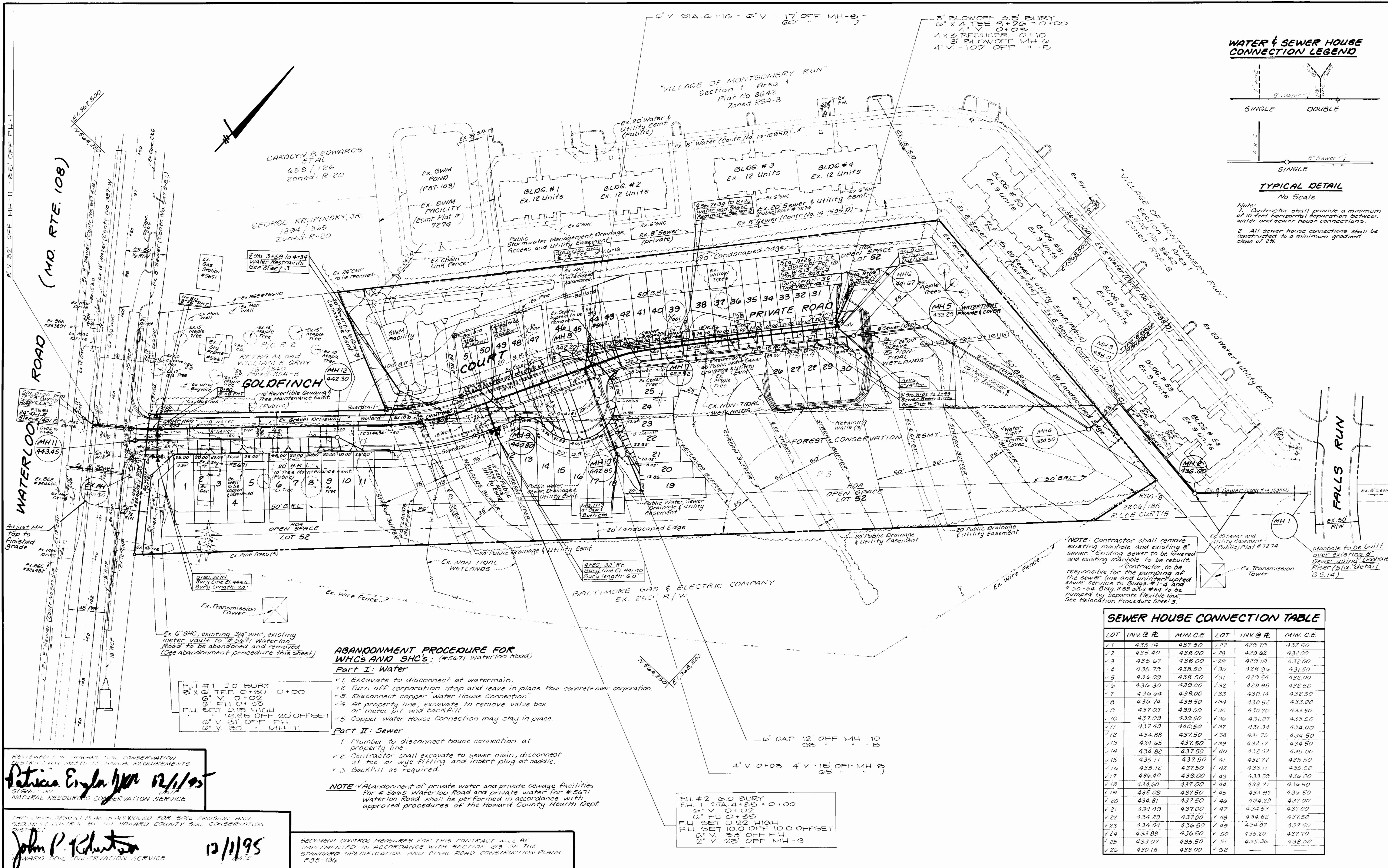
MONTGOMERY TOWNSHIP  
LOTS 1 THRU 52

1st ELECTION DISTRICT HOWARD COUNTY, MD.  
CONTRACT No. 14-3437-D

SCALE AS SHOWN

SHEET 1 OF 3

3437 WS/2 MONTGOMERY TOWNSHIP



ABANDONMENT PROCEDURE FOR WHCS AND SHCS: (#5671 Waterloo Road)

- Part I: Water**
- Excavate to disconnect at watermain.
  - Turn off corporation stop and leave in place. Pour concrete over corporation.
  - Disconnect copper Water House Connection.
  - At property line, excavate to remove valve box or meter pit and backfill.
  - Copper Water House Connection may stay in place.
- Part II: Sewer**
- Plumber to disconnect house connection at property line.
  - Contractor shall excavate to sewer main, disconnect at tee or wye fitting and insert plug at saddle.
  - Backfill as required.

**NOTE:** Abandonment of private water and private sewage facilities for #5671 Waterloo Road and private water for #5671 Waterloo Road shall be performed in accordance with approved procedures of the Howard County Health Dept.

**NOTE:** Contractor shall remove existing manhole and existing 8" sewer. Existing sewer to be lowered and existing manhole to be rebuilt. Contractor to be responsible for the pumping of the sewer line and uninterrupted sewer service to Blots #1-4 and #50-54. Blot #53 and #54 to be pumped by separate flexible line. See Relocation Procedure Sheet 3.

| LOT | INV @ R | MIN @ E | LOT | INV @ R | MIN @ E |
|-----|---------|---------|-----|---------|---------|
| 1   | 435.14  | 437.50  | 27  | 429.79  | 432.50  |
| 2   | 435.40  | 438.00  | 28  | 429.62  | 432.00  |
| 3   | 435.67  | 438.00  | 29  | 429.19  | 432.00  |
| 4   | 435.79  | 438.50  | 30  | 428.96  | 431.50  |
| 5   | 434.09  | 438.50  | 31  | 429.54  | 432.00  |
| 6   | 434.30  | 439.00  | 32  | 429.95  | 432.50  |
| 7   | 434.64  | 439.00  | 33  | 430.14  | 432.50  |
| 8   | 434.74  | 439.50  | 34  | 430.50  | 433.00  |
| 9   | 437.03  | 439.50  | 35  | 430.70  | 433.50  |
| 10  | 437.09  | 439.50  | 36  | 431.07  | 433.50  |
| 11  | 437.49  | 440.50  | 37  | 431.34  | 434.00  |
| 12  | 434.88  | 437.50  | 38  | 431.75  | 434.50  |
| 13  | 434.65  | 437.50  | 39  | 432.17  | 434.50  |
| 14  | 434.82  | 437.50  | 40  | 432.57  | 435.00  |
| 15  | 435.11  | 437.50  | 41  | 432.77  | 435.50  |
| 16  | 435.12  | 437.50  | 42  | 433.11  | 435.50  |
| 17  | 436.40  | 439.00  | 43  | 433.59  | 436.00  |
| 18  | 434.60  | 437.00  | 44  | 433.77  | 436.50  |
| 19  | 435.09  | 437.50  | 45  | 433.97  | 436.50  |
| 20  | 434.81  | 437.50  | 46  | 434.29  | 437.00  |
| 21  | 434.49  | 437.00  | 47  | 434.55  | 437.00  |
| 22  | 434.29  | 437.00  | 48  | 434.82  | 437.50  |
| 23  | 434.04  | 436.50  | 49  | 434.97  | 437.50  |
| 24  | 433.89  | 436.50  | 50  | 435.20  | 437.70  |
| 25  | 433.07  | 435.50  | 51  | 435.36  | 438.00  |
| 26  | 430.18  | 433.00  | 52  |         |         |

Patricia Engler 12/1/95  
NATURAL RESOURCES CONSERVATION SERVICE

John P. Robertson 12/1/95  
HOWARD SOIL CONSERVATION SERVICE

DEPARTMENT OF PUBLIC WORKS  
DEPARTMENT OF PLANNING & ZONING

**LDE INC.**  
3250 RUMSEY ROAD  
SUITE 106  
COLUMBIA, MARYLAND 21045  
PHONE: (410) 715-1070

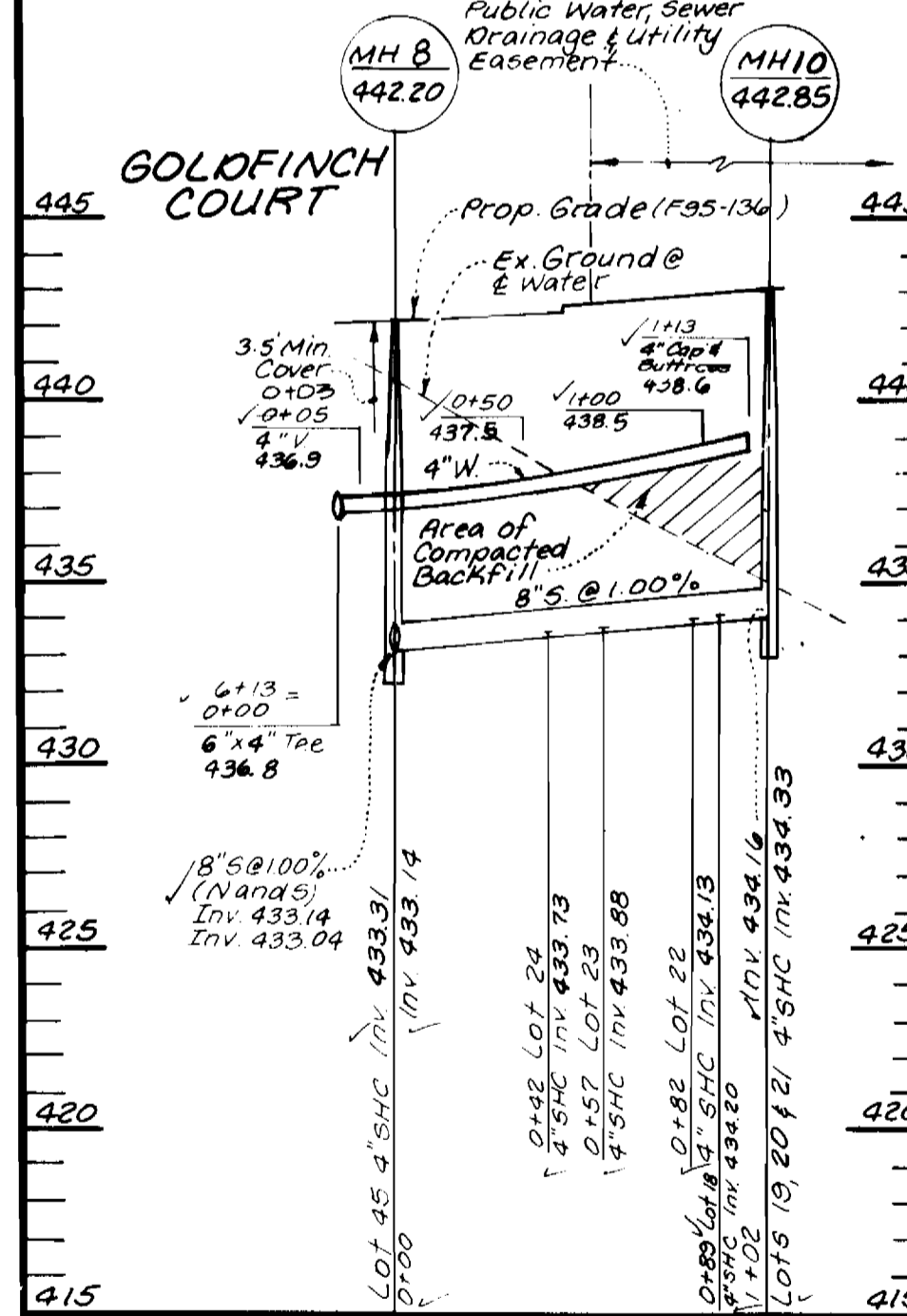
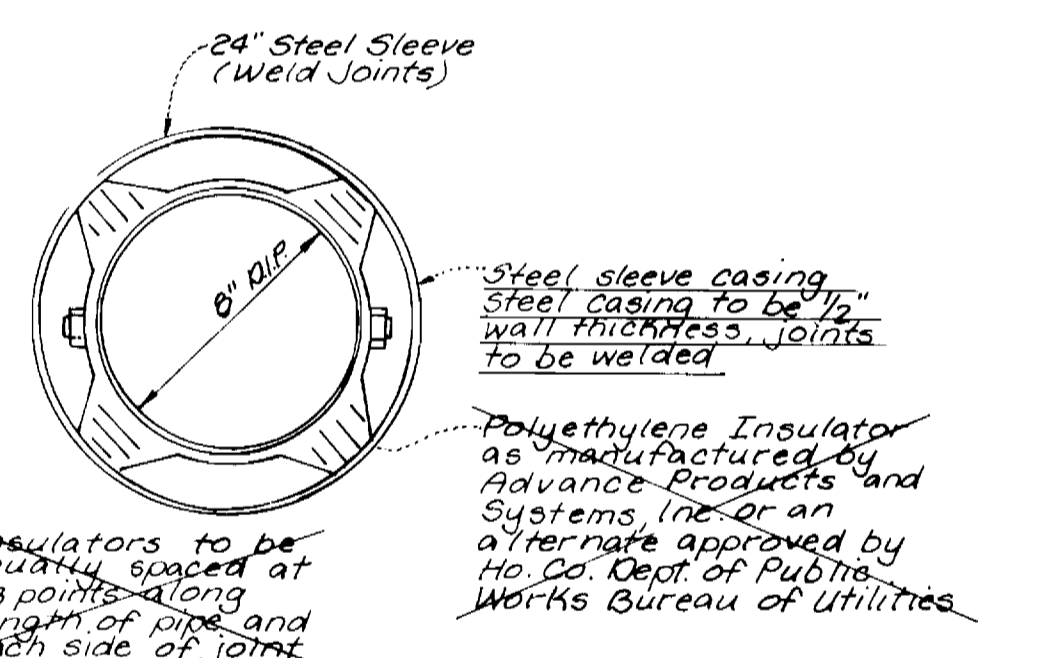
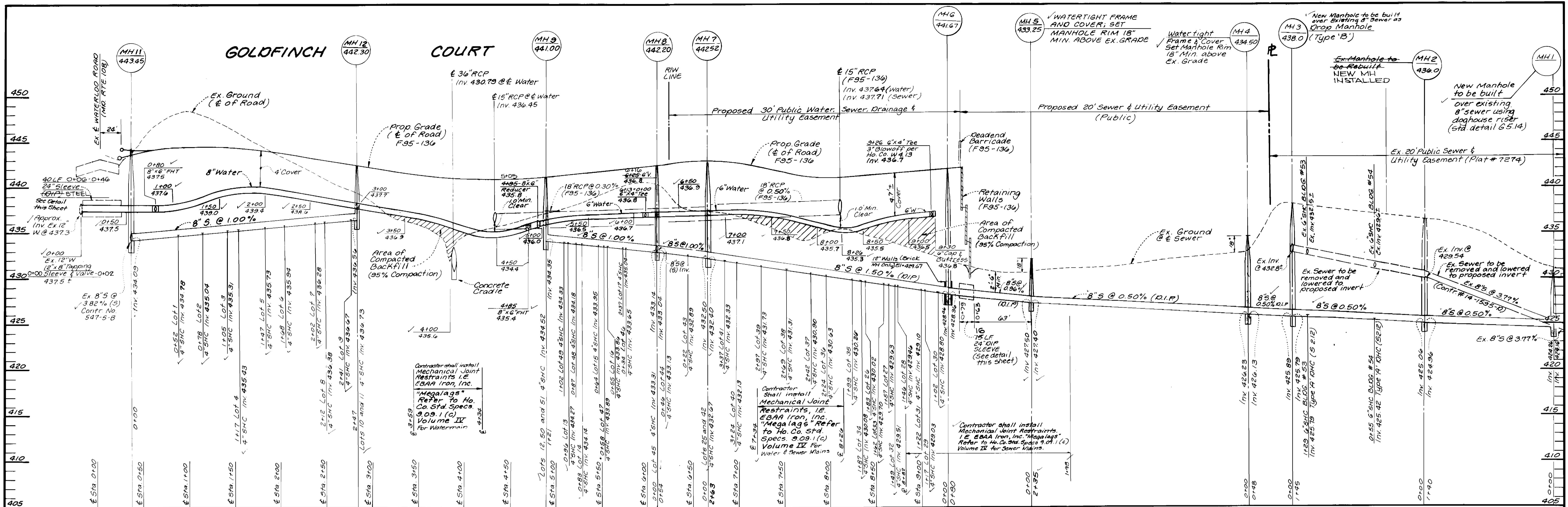
Designed: KBW  
Drawn: KBW  
Checked: BOB  
Date: June, 1995

**PLAN**  
REVISION  
DATE: 4-23-97

**MONTGOMERY TOWNSHIP**  
LOTS 1 THRU 52  
1ST ELECTION DISTRICT HOWARD COUNTY, MD  
CONTRACT No. 14-3437-10

SCALE: AS SHOWN  
SHEET: 2 OF 3

443 WS/3 MONTGOMERY TOWNSHIP



REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

*Patricia Engler* / 12/1/95  
SIGNATURE DATE  
NATURAL RESOURCES CONSERVATION SERVICE

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

*John R. Reuter* / 12/1/95  
SIGNATURE DATE  
THIRD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION AND FINAL ROAD CONSTRUCTION PLANS F-95-136

DEPARTMENT OF PUBLIC WORKS  
*John R. Reuter* 11-30-95  
CHIEF-BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
*John R. Reuter* 12/4/95  
CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

**LDE, INC.**  
3250 RUMSEY ROAD  
SUITE 106  
COLUMBIA, MARYLAND 21045  
PHONE: (410) 715-1070  
*Robert J. Burrell* 11/1/95  
DATE

Designed KBW  
Drawn KBW  
Checked BOB  
Date June, 1995  
BY No. REVISION DATE

**PROFILES**  
600 SCALE MAP NO. 37 BLOCK NO. 1

**MONTGOMERY TOWNSHIP**  
LOTS 1 THRU 52  
1st ELECTION DISTRICT HOWARD COUNTY, MD  
CONTRACT No. 14-3437-R

SCALE AS SHOWN  
SHEET 3 OF 3

3437 WS/3A MONTGOMERY TOWNSHIP

WATER AS-BUILT

| LOT | FROM             | TO            | DISTANCE |
|-----|------------------|---------------|----------|
| 1   | MH-11            | CURE-STOP BOX | 68'      |
| 1   | FH #1            | "             | 33'      |
| 2   | MH-11            | "             | 30'      |
| 3   | FH #1            | "             | 35'      |
| 3   | FH #1            | "             | 66'      |
| 4   | FH #1            | "             | 102'     |
| 4   | G.V.-FH#1        | "             | 102'     |
| 5   | FH #1            | "             | 109'     |
| 5   | G.V.-FH#1        | "             | 107'     |
| 6   | MH-12            | "             | 69'      |
| 6   | SAN BONED LOT-6  | "             | 16'      |
| 7   | MH-12            | "             | 70'      |
| 7   | SAN BONED LOT-6  | "             | 22'      |
| 8   | MH-12            | "             | 29'      |
| 8   | SAN BONED LOT-7  | "             | 22'      |
| 9   | MH-12            | "             | 25'      |
| 9   | SAN BONED LOT-7  | "             | 25'      |
| 10  | MH-12            | "             | 24'      |
| 10  | SAN BONED LOT-10 | "             | 11'      |
| 11  | MH-12            | "             | 20'      |
| 11  | SAN BONED LOT-10 | "             | 17'      |
| 12  | MH-12            | "             | 21'      |
| 12  | FH #2            | "             | 29'      |
| 13  | MH-12            | "             | 24'      |
| 13  | FH #2            | "             | 33'      |
| 14  | FH #2            | "             | 69'      |
| 14  | MH-10            | "             | 36'      |
| 15  | FH #2            | "             | 91'      |
| 16  | MH-10            | "             | 102'     |
| 16  | MH-10            | "             | 60'      |
| 17  | FH #2            | "             | 107'     |
| 17  | MH-10            | "             | 20'      |
| 18  | SAN BONED LOT-21 | "             | 34'      |
| 19  | MH-10            | "             | 46'      |
| 19  | SAN BONED LOT-21 | "             | 18'      |
| 20  | MH-10            | "             | 17'      |
| 20  | SAN BONED LOT-21 | "             | 18'      |
| 21  | MH-10            | "             | 12'      |
| 21  | SAN BONED LOT-21 | "             | 78'      |
| 22  | MH-8             | "             | 89'      |
| 22  | MH-7             | "             | 74'      |
| 23  | MH-8             | "             | 85'      |
| 23  | MH-7             | "             | 37'      |
| 24  | MH-8             | "             | 32'      |
| 24  | MH-7             | "             | 34'      |
| 25  | MH-8             | "             | 30'      |
| 25  | MH-7             | "             | 30'      |
| 26  | MH-8             | "             | 30'      |
| 26  | 4" BLOWOFF       | "             | 77'      |
| 27  | MH-6             | "             | 69'      |
| 27  | 4" BLOWOFF       | "             | 59'      |
| 28  | MH-6             | "             | 46'      |
| 28  | 4" BLOWOFF       | "             | 43'      |
| 29  | MH-6             | "             | 40'      |
| 29  | 4" BLOWOFF       | "             | 40'      |
| 30  | MH-6             | "             | 33'      |
| 30  | 4" BLOWOFF       | "             | 29'      |
| 31  | MH-6             | "             | 54'      |
| 31  | 4" BLOWOFF       | "             | 25'      |
| 32  | MH-6             | "             | 60'      |
| 32  | 4" BLOWOFF       | "             | 35'      |
| 33  | MH-6             | "             | 30'      |
| 33  | 4" BLOWOFF       | "             | 68'      |
| 34  | MH-6             | "             | 35'      |
| 34  | 4" BLOWOFF       | "             | 73'      |
| 35  | MH-6             | "             | 128'     |
| 35  | 4" BLOWOFF       | "             | 108'     |
| 36  | MH-6             | "             | 133'     |
| 36  | 4" BLOWOFF       | "             | 113'     |
| 37  | MH-7             | "             | 103'     |
| 37  | MH-8             | "             | 150'     |
| 38  | MH-7             | "             | 99'      |
| 38  | MH-8             | "             | 152'     |
| 39  | MH-7             | "             | 32'      |
| 39  | MH-8             | "             | 104'     |
| 40  | MH-7             | "             | 49'      |
| 40  | MH-8             | "             | 100'     |
| 41  | MH-7             | "             | 30'      |
| 41  | MH-8             | "             | 68'      |
| 42  | MH-7             | "             | 32'      |
| 42  | MH-8             | "             | 69'      |
| 43  | MH-7             | "             | 47'      |
| 43  | MH-8             | "             | 47'      |
| 44  | MH-7             | "             | 52'      |
| 44  | MH-8             | "             | 45'      |
| 45  | MH-7             | "             | 82'      |
| 45  | MH-8             | "             | 49'      |
| 46  | MH-7             | "             | 87'      |
| 46  | MH-8             | "             | 45'      |
| 47  | MH-9             | "             | 65'      |
| 47  | MH-8             | "             | 63'      |
| 48  | MH-9             | "             | 60'      |
| 48  | MH-8             | "             | 57'      |
| 49  | MH-12            | "             | 43'      |
| 49  | FH #2            | "             | 69'      |
| 50  | MH-12            | "             | 43'      |
| 50  | FH #2            | "             | 67'      |
| 51  | MH-12            | "             | 55'      |
| 51  | FH #2            | "             | 65'      |

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, BUREAU OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_

|       |    |     |          |      |
|-------|----|-----|----------|------|
| DES:  |    |     |          |      |
| DRN:  |    |     |          |      |
| CHK:  |    |     |          |      |
| DATE: | BY | NO. | REVISION | DATE |

WATER AS-BUILT ADDITIONAL INFORMATION

600' SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

MONTGOMERY TOWNSHIP  
LOTS 1 THRU 52

1ST ELECTION DISTRICT HOWARD COUNTY, MD.  
CONTRACT No. 14-3437-D

SCALE AS SHOWN

SHEET 2A OF 2A

3437 WS/3A MONTGOMERY TOWNSHIP