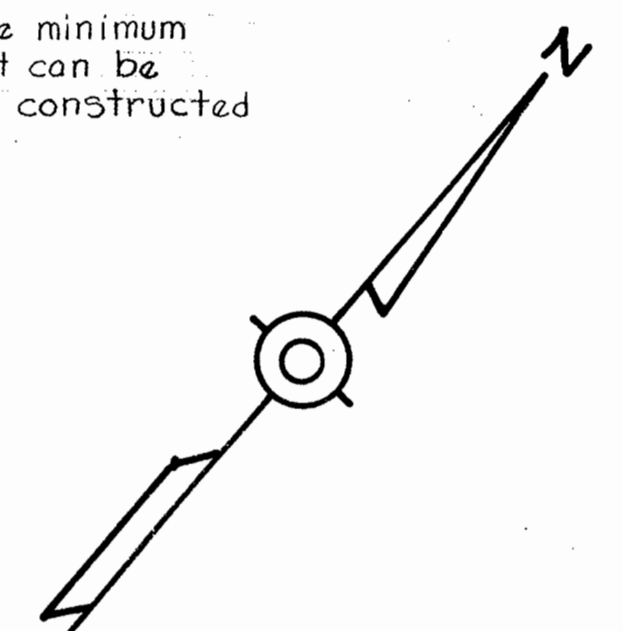
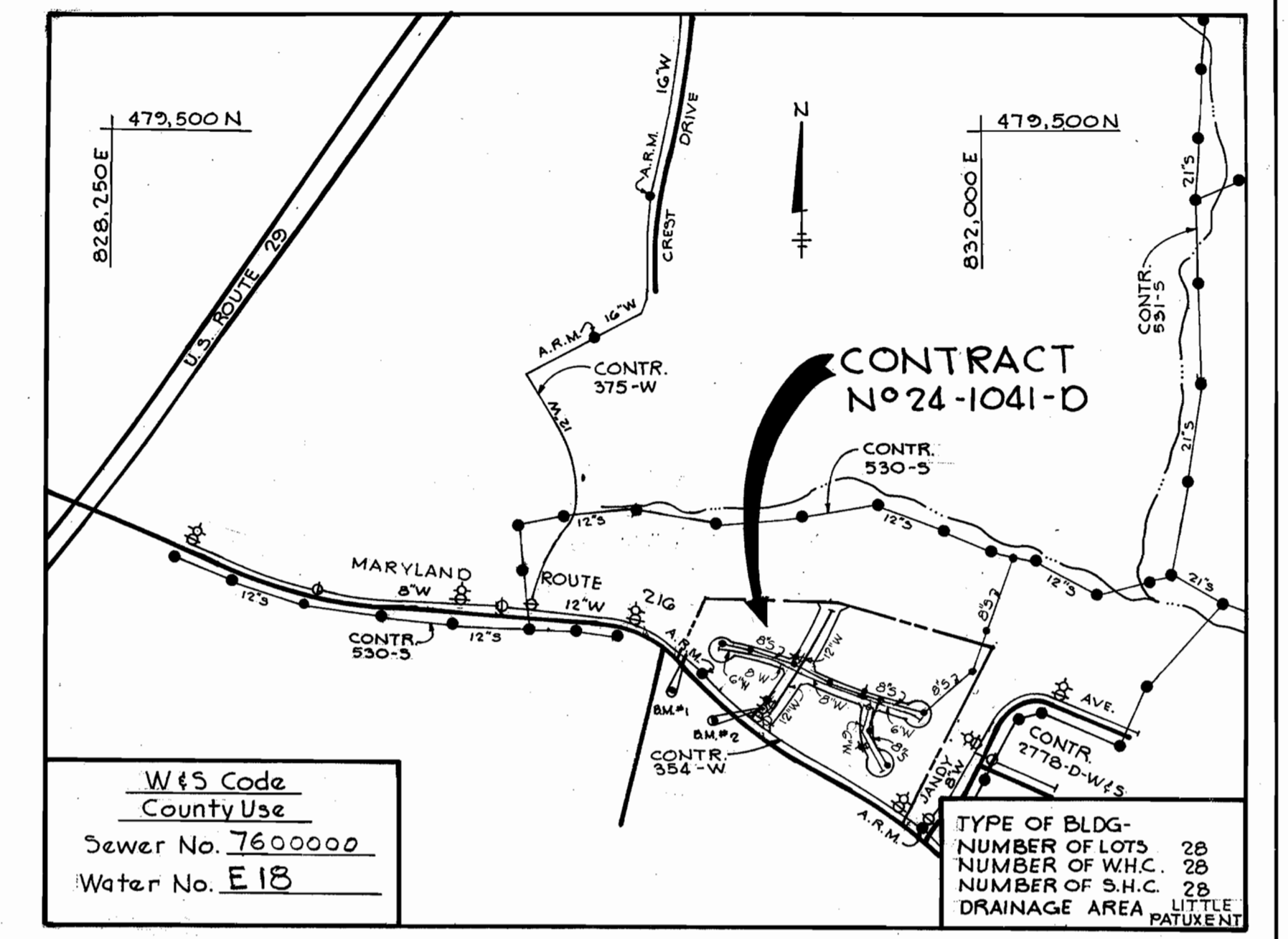


1041/1 WS

Note  
Elevations shown on each lot indicates the minimum basement floor elevation for said lot that can be gravity served by 8" sanitary line to be constructed under this contract.



|                    |             |
|--------------------|-------------|
| Test Pit #1        |             |
| Top of G" Pipeline | Elev 374.44 |
| Test Pit #2        |             |
| Top of G" Pipeline | Elev 383.00 |
| Test Pit #3        |             |
| Top of G" Pipeline | Elev 380.43 |
| Test Pit #4        |             |
| Top of G" Pipeline | Elev 378.80 |
| Test Pit #5        |             |
| Top of G" Pipeline | Elev 381.50 |

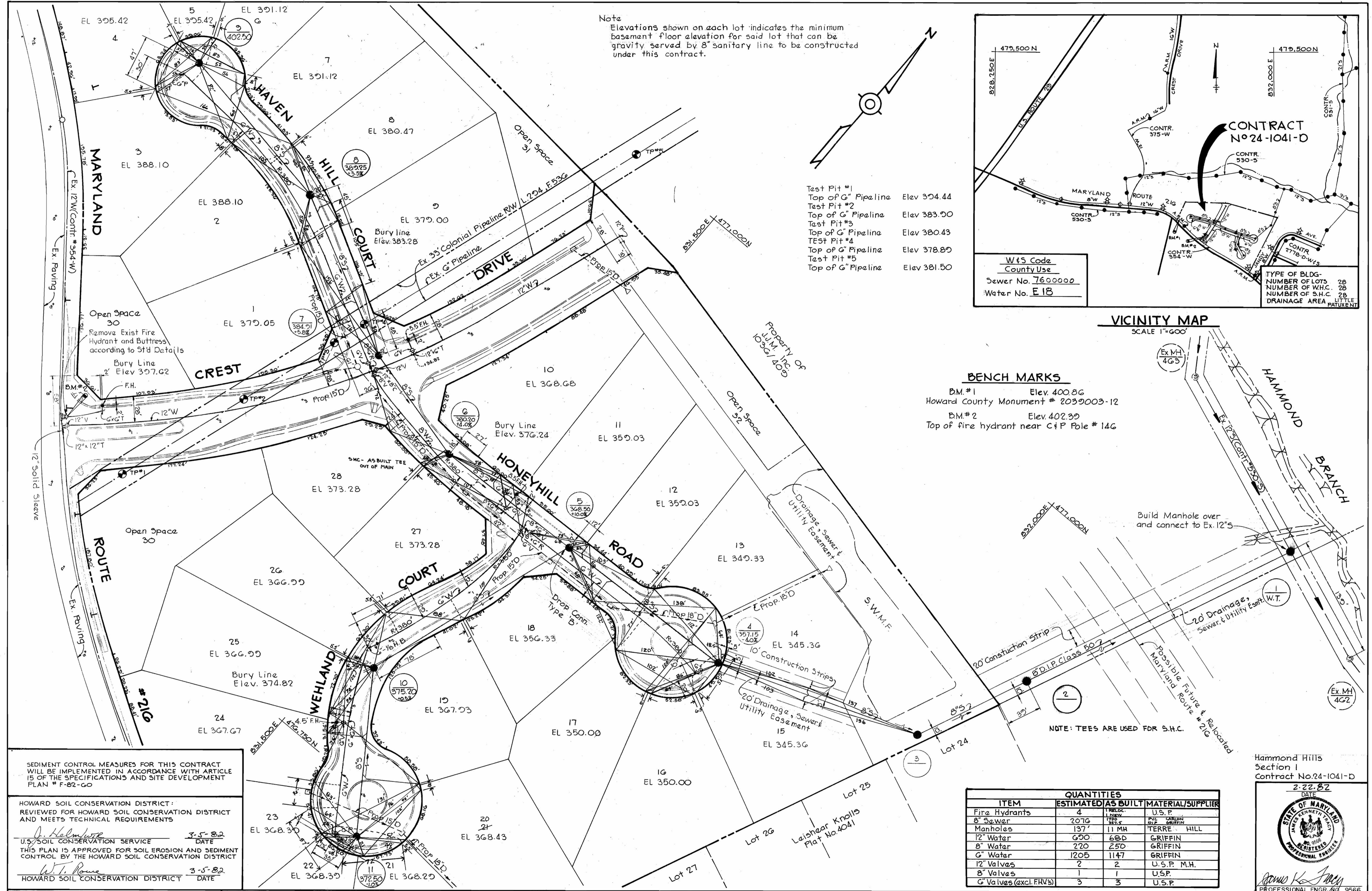


**W & S Code**  
County Use  
Sewer No. 7600000  
Water No. E 18

**TYPE OF BLDG - NUMBER OF LOTS - NUMBER OF W.H.C. - NUMBER OF S.H.C. - LITTLE DRAINAGE AREA PATIENT**  
28  
28  
28  
28

**VICINITY MAP**  
SCALE 1"=600'

**BENCH MARKS**  
BM #1 Elev. 400.86  
Howard County Monument # 2039003-12  
BM #2 Elev. 402.30  
Top of fire hydrant near C & P Pole # 146



SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THE SPECIFICATIONS AND SITE DEVELOPMENT PLAN # F-82-60

HOWARD SOIL CONSERVATION DISTRICT: REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

U.S. SOIL CONSERVATION SERVICE DATE 3-5-82  
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT DATE 3-5-82

**QUANTITIES**

| ITEM                      | ESTIMATED | AS BUILT | MATERIAL    | SUPPLIER |
|---------------------------|-----------|----------|-------------|----------|
| Fire Hydrants             | 4         | 4        | U.S.P.      |          |
| 8" Sewer                  | 2076      | 1982     | BYE         | GRIFFIN  |
| Manholes                  | 137       | 11 MH    | TERRE HILL  |          |
| 12" Water                 | 600       | 600      | GRIFFIN     |          |
| 8" Water                  | 220       | 250      | GRIFFIN     |          |
| G" Water                  | 1205      | 1147     | GRIFFIN     |          |
| 12" Valves                | 2         | 2        | U.S.P. M.H. |          |
| 8" Valves                 | 1         | 1        | U.S.P.      |          |
| G" Valves (excl. F.H.V's) | 3         | 3        | U.S.P.      |          |

Hammond Hills  
Section I  
Contract No. 24-1041-D

DATE 2-22-82

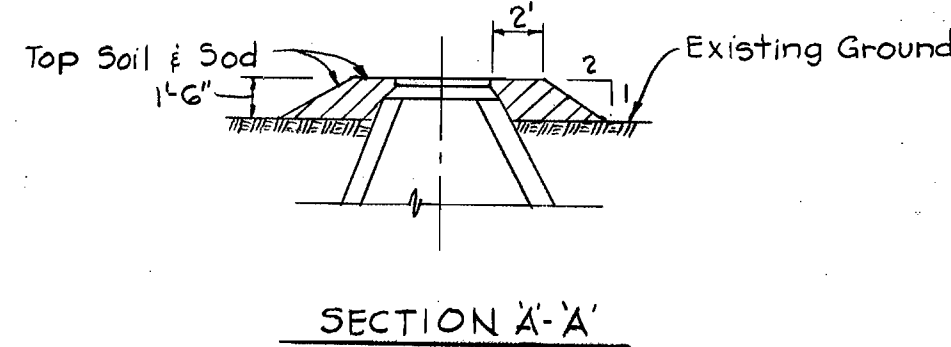
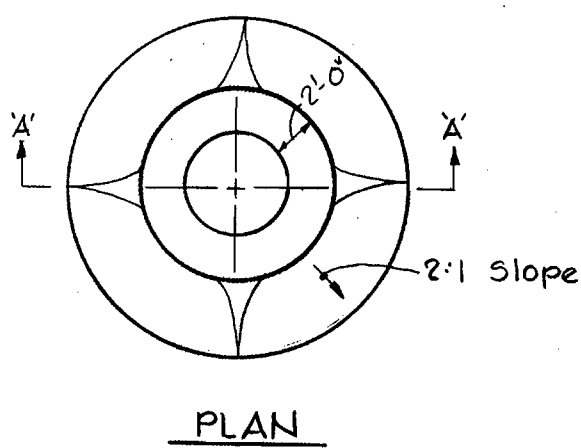
STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER  
RODOLPH K. JACOBY  
PROFESSIONAL ENGR. NO. 9566

|   |  |                        |                               |  |                    |              |
|---|--|------------------------|-------------------------------|--|--------------------|--------------|
| RIEMER-TRACY & ASSOCIATES, INC.<br>8659 BALTIMORE NATIONAL PIKE<br>ELLCOTT CITY, MARYLAND 21043 | DEPARTMENT OF PUBLIC WORKS<br>HOWARD COUNTY, MARYLAND<br>3-15-82 | CONTRACT NO. 24-1041-D | PLAN OF WATER AND SEWER MAINS | HAMMOND HILLS - SECTION I<br>ELECTION DISTRICT<br>GUILFORD NO. 6 | DRAWING NO. 1 OF 2 | SCALE 1"=50' |
|---|--|------------------------|-------------------------------|--|--------------------|--------------|

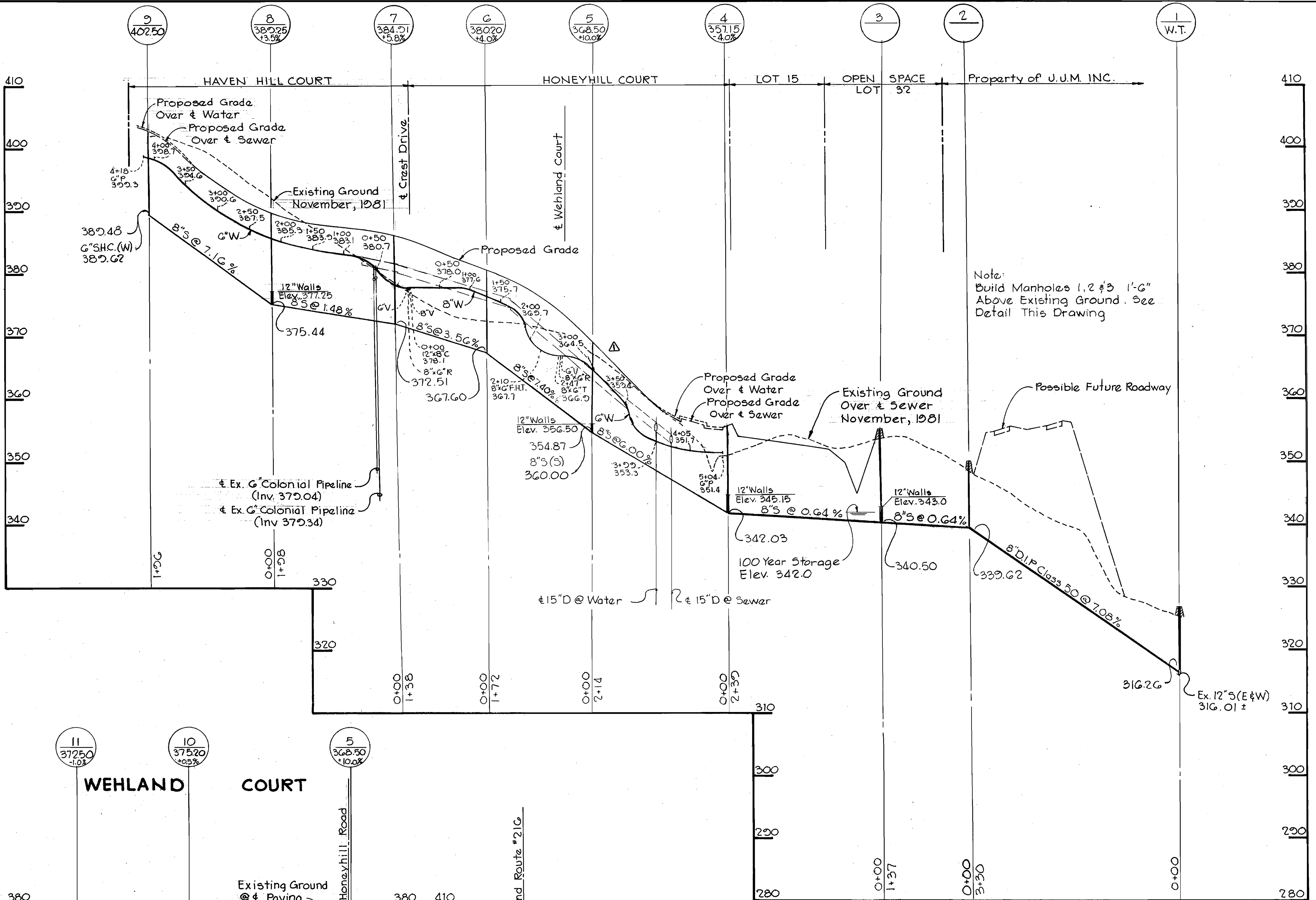
# GENERAL NOTES

- 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.C.S. Datum.
- All pipe elevations shown are invert elevations.
- Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnel as required. Any cost incurred to the Contractor for tunneling or bracing at poles shall be included in unit prices bid for excavation and backfill.
- For details not shown on the drawings use Howard County Standard Details.
- For materials and construction methods use Howard County Standard Specifications.
- Contractor shall locate existing utilities a minimum of two (2) weeks in advance of construction operations in the vicinity of proposed utilities at his own expense.
- Contractor shall notify the following utilities or agencies at least five (5) working days before starting work shown on these plans:
 

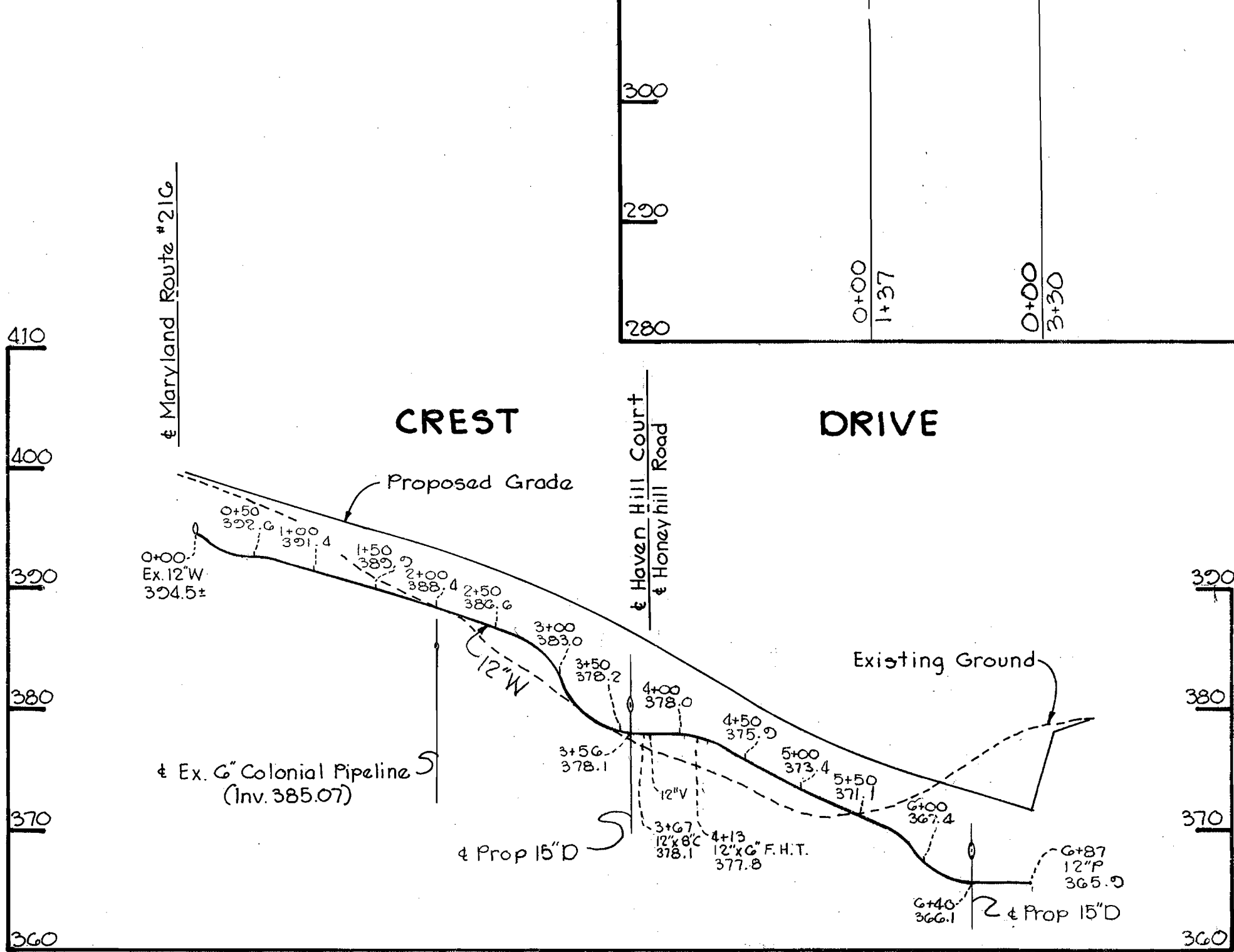
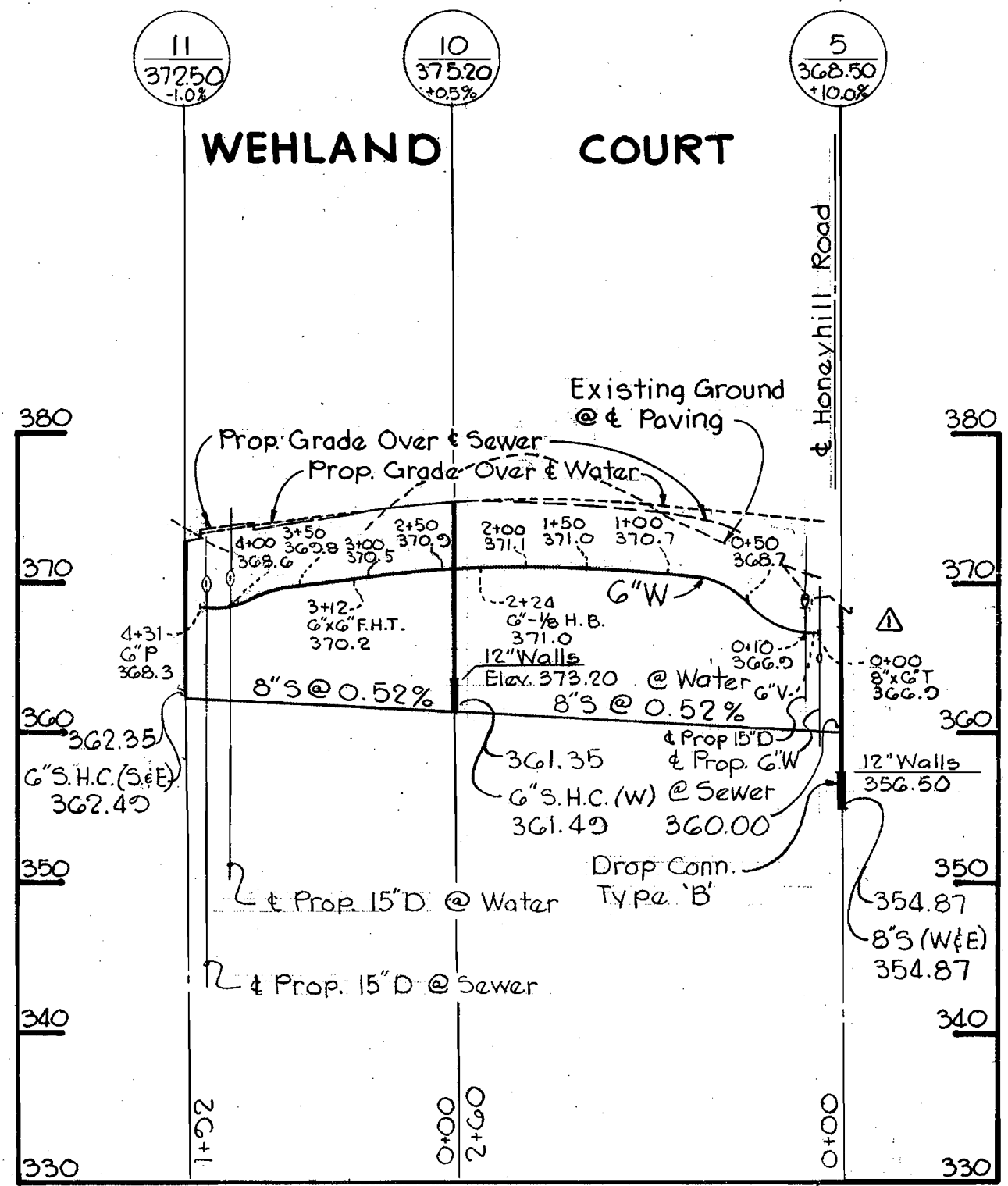
|   |            |
|---|------------|
| a. State Highway Administration   | 531-5533   |
| b. Baltimore Gas and Electric Company<br>Underground Electric Distribution Customer Service | 685-0123   |
| c. Baltimore Gas and Electric Company<br>Underground Gas Distribution Customer Service      | 685-0123   |
| d. Engineering "Damage Control"   | 234-5621   |
| e. Miss Utility   | 1-552-0100 |
| f. Chesapeake and Potomac Telephone Company   | 725-2276   |
| g. American Telephone and Telegraph<br>Cable Location Division                              | 323-3553   |
| h. Colonial Pipeline Company  | 781-4641   |
| i. Bureau of Utilities, Howard County   | 292-2366   |
- Trees are to be protected from damage to maximum extent. Trees located within the construction strip are not to be removed or damaged by the contractor.
- Contractor shall remove trees, stumps and roots along line of excavation as directed by the Engineer. Payment for such removal shall be included in the unit price bid for excavation and backfill.
- Place regulation "Men Working" and warning signs as required to comply with Maryland State Highway Administration Manual of Traffic Control for Highway Construction and Maintenance Operations.
- All water mains to be C.I.P. or D.I.P. unless otherwise noted.
- Top of all water mains to have a minimum of 3'-1/2" cover unless otherwise noted.
- Valves adjacent to trees shall be strapped to trees.
- Block all fittings with concrete.
- Bury line elevations on fire hydrants shall be set to the 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 to be compacted in accordance with Section 5-15 of the Standard Specifications.
- All water house connections shall be for an inside meter setting.
- The contractor shall not operate any water main valves on the existing system.
- All sewer mains shall be C.S.P.X., V.C.P.X., PVC or A.C.P. Class 2400 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 brick manholes only.
- Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail 5-12 (RCR-G3A). Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade.
- House(s) with the symbol "C.N.S." indicates that cellar can not be served.
- All water house connections shall have a minimum vertical clearance of 12" above all sanitary sewer crossings.
- All sanitary sewer connections shall have a minimum vertical clearance of 12" below all water main crossings.
- Profile stations shall be adjusted as necessary to conform to plan dimensions.



FILL AROUND MANHOLES  
No Scale



Note:  
Build Manholes 1, 2 #3 1'-6"  
Above Existing Ground. See  
Detail This Drawing



| No. | Date    | Revision                              |
|-----|---------|---------------------------------------|
| 1   | 5-10-82 | Revised Tee Size @ 0+00 Wehland Court |

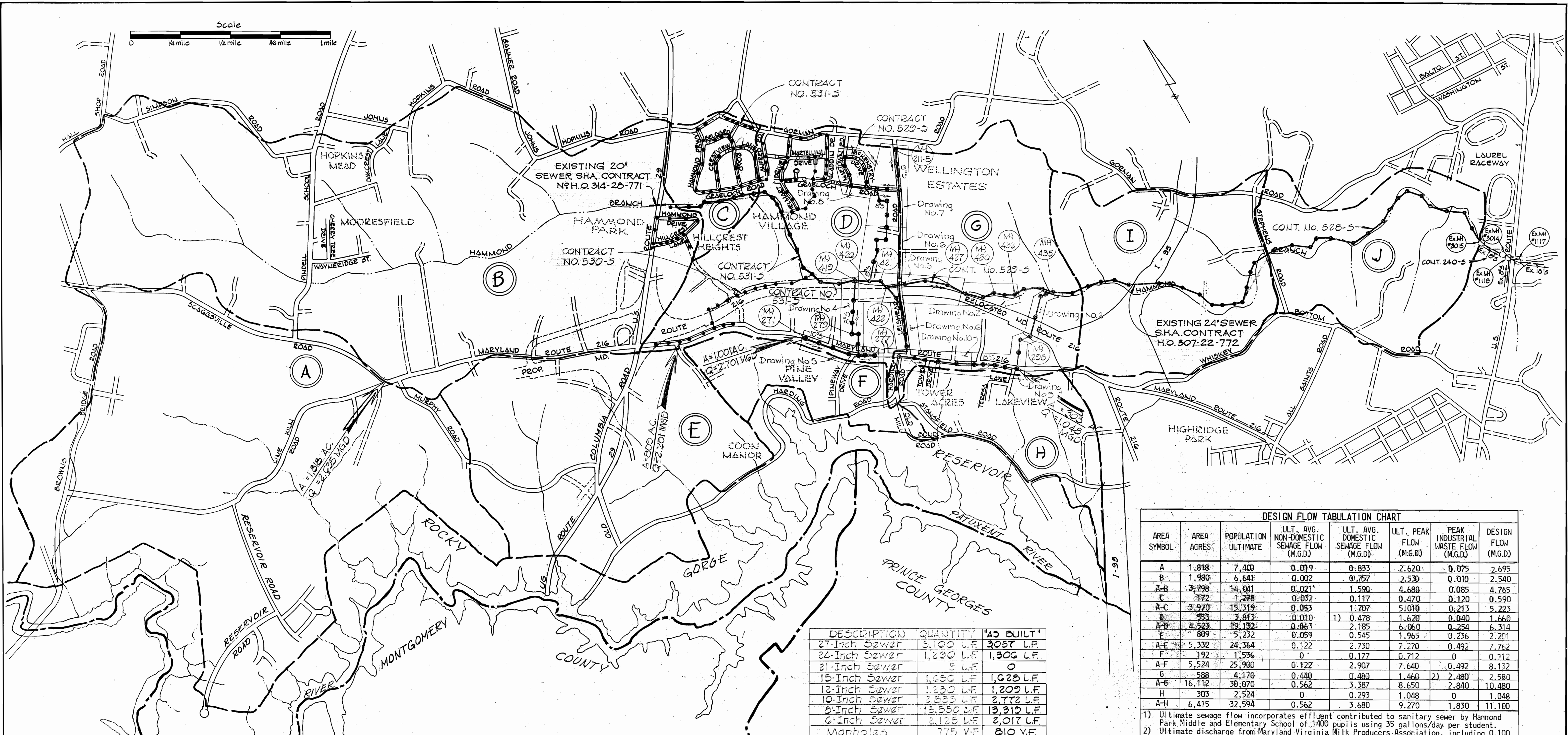
Hammond Hills  
Section I  
Contract No. 24-1041-D

2-22-82  
DATE

Dennis H. Tracy  
PROFESSIONAL ENGR. NO. 9888

|  |  |  |                           |                                      |  |                          |                                |  |
|--|--|--|---------------------------|--------------------------------------|--|--------------------------|--------------------------------|--|
| RIEMER-TRACY & ASSOCIATES, INC.<br>8659 BALTIMORE NATIONAL PIKE<br>ELLICOTT CITY, MARYLAND 21043 | DEPARTMENT OF PUBLIC WORKS<br>HOWARD COUNTY, MARYLAND<br>3-15-82<br>DIRECTOR OF PUBLIC WORKS | CHIEF, LAND DEVELOPMENT DIVISION<br>DATE 3-15-82 | CONTRACT<br>NO. 24-1041-D | PROFILES OF<br>WATER AND SEWER MAINS | HAMMOND HILLS - SECTION I<br>ELECTION DISTRICT<br>GUILFORD NO. 6 | DRAWING<br>NO. 2<br>OF 2 | SCALE<br>H:1"=100'<br>V:1"=10' | 44-477/891.5<br>44-476/891.5<br>44-475/891.5<br>44-474/891.5<br>44-473/891.5 |
|--|--|--|---------------------------|--------------------------------------|--|--------------------------|--------------------------------|--|

1041/2 WS



| DESCRIPTION   | QUANTITY    | "AS BUILT"  |
|---------------|-------------|-------------|
| 27-Inch Sewer | 3,100 L.F.  | 3,057 L.F.  |
| 24-Inch Sewer | 1,230 L.F.  | 1,306 L.F.  |
| 21-Inch Sewer | 5 L.F.      | 0           |
| 15-Inch Sewer | 1,050 L.F.  | 1,028 L.F.  |
| 12-Inch Sewer | 1,330 L.F.  | 1,209 L.F.  |
| 10-Inch Sewer | 2,335 L.F.  | 2,772 L.F.  |
| 8-Inch Sewer  | 13,550 L.F. | 13,319 L.F. |
| 6-Inch Sewer  | 2,125 L.F.  | 2,017 L.F.  |
| Manholes      | 775 V.F.    | 810 V.F.    |

| AREA SYMBOL | AREA ACRES | POPULATION ULTIMATE | ULT. AVG. NON-DOMESTIC SEWAGE FLOW (M.G.D.) | ULT. AVG. DOMESTIC SEWAGE FLOW (M.G.D.) | ULT. PEAK FLOW (M.G.D.) | PEAK INDUSTRIAL WASTE FLOW (M.G.D.) | DESIGN FLOW (M.G.D.) |
|-------------|------------|---------------------|---|---|-------------------------|-------------------------------------|----------------------|
| A           | 1,818      | 7,400               | 0.079                                       | 0.833                                   | 2.620                   | 0.075                               | 2.695                |
| B           | 1,980      | 6,641               | 0.002                                       | 0.757                                   | 2.530                   | 0.010                               | 2.540                |
| A-B         | 3,798      | 14,041              | 0.021                                       | 1.590                                   | 4.680                   | 0.085                               | 4.765                |
| C           | 172        | 1,278               | 0.032                                       | 0.117                                   | 0.470                   | 0.120                               | 0.590                |
| A-C         | 3,970      | 15,319              | 0.053                                       | 1.707                                   | 5.010                   | 0.213                               | 5.223                |
| D           | 353        | 3,813               | 0.010                                       | 0.478                                   | 1.620                   | 0.040                               | 1.660                |
| A-D         | 4,523      | 19,132              | 0.063                                       | 2.185                                   | 6.060                   | 0.254                               | 6.314                |
| E           | 809        | 5,232               | 0.059                                       | 0.545                                   | 1.965                   | 0.236                               | 2.201                |
| A-E         | 5,332      | 24,364              | 0.122                                       | 2.730                                   | 7.270                   | 0.492                               | 7.762                |
| F           | 192        | 1,536               | 0   | 0.177                                   | 0.712                   | 0                                   | 0.712                |
| A-F         | 5,524      | 25,900              | 0.122                                       | 2.907                                   | 7.640                   | 0.492                               | 8.132                |
| G           | 588        | 4,170               | 0.440                                       | 0.480                                   | 1.460                   | 2.480                               | 2.580                |
| A-G         | 16,112     | 30,070              | 0.562                                       | 3.387                                   | 8.650                   | 2.840                               | 10.480               |
| H           | 303        | 2,524               | 0   | 0.293                                   | 1.048                   | 0                                   | 1.048                |
| A-H         | 6,415      | 32,594              | 0.562                                       | 3.680                                   | 9.270                   | 1.830                               | 11.100               |

1) Ultimate sewage flow incorporates effluent contributed to sanitary sewer by Hammond Park Middle and Elementary School of 1,400 pupils using 35 gallons/day per student.  
 2) Ultimate discharge from Maryland Virginia Milk Producers Association, including 0.100 m.g.d. per 100 acres considering future development of M-R Zoning.

Note: Sewer Pipes - Johns-Manville ACP Class 2400-unless noted otherwise

# CONTRACT NO. 529-S

## HAMMOND BRANCH SANITARY SEWERS

### HOWARD COUNTY, MARYLAND

#### DEPARTMENT OF PUBLIC WORKS



**PURDUM & JESCHKE**  
 ENGINEERS  
 1023 N. CALVERT ST.  
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 DATE: 8-7-73  
 CHIEF - BUREAU OF ENGINEERING

CONTRACT NO. 529-S

LOCATION MAP OF  
 SANITARY SEWERS

ELECTION DISTRICT NO. 6

DRAWING NO. 1 OF 16  
 SCALE AS SHOWN

POS. SHEETS  
 15, 19, 20, 24  
 27, 28, 29, 30  
 31, 32, 33, 34  
 35, 36, 37, 38, 39

"AS BUILT" 10-22-76