

**CONTRACT 31 S**  
**SEWER MAIN EXTENSIONS**  
**HOWARD COUNTY METROPOLITAN COMMISSION**  
**ELLICOTT CITY SUB-DISTRICT**



*Kenneth A. McLeod*

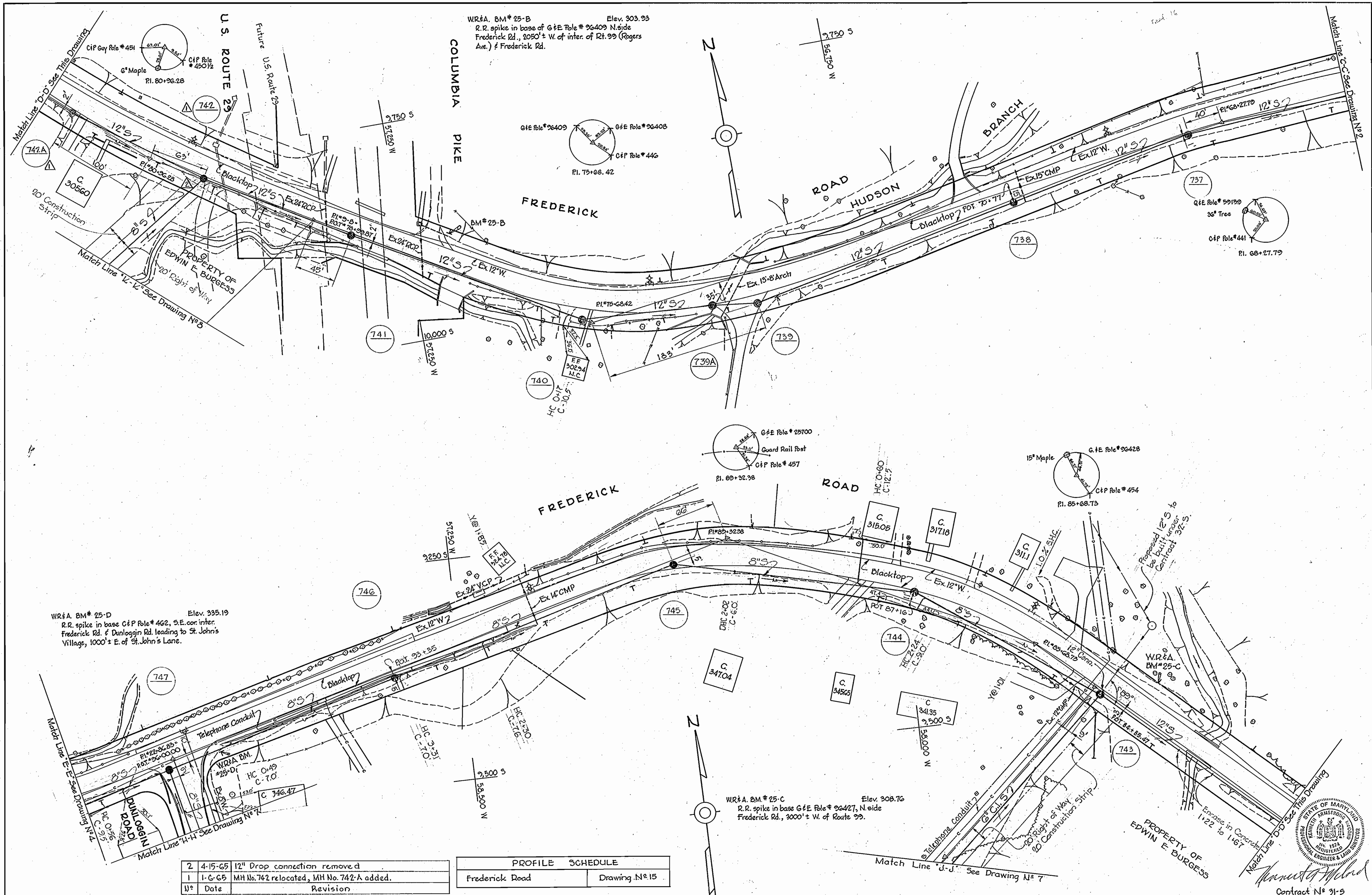
|   |  |                          |              |                            |   |
|---|--|--------------------------|--------------|----------------------------|---|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>DATE <u>Dec. 16, 1963</u><br><i>Carl W. Meyer</i><br>CHIEF ENGINEER | CONTRACT NO. <u>31-S</u> | LOCATION MAP | ELLICOTT CITY SUB-DISTRICT | DRAWING NO. <u>1</u> OF <u>24</u><br>SCALE AS SHOWN |
|---|--|--------------------------|--------------|----------------------------|---|

W. O. 5010-2

AS BUILT 28 FEB. 66

1/516 W





WR&A BM# 25-D Elev. 335.19  
 R.R. spike in base of G&E Pole # 462, S.E. cor. inter.  
 Frederick Rd. & Dunlaggin Rd. leading to St. John's  
 Village, 1000' ± E. of St. John's Lane.

WR&A BM# 25-B Elev. 303.93  
 R.R. spike in base of G&E Pole # 96409 N. side  
 Frederick Rd., 2050' ± W. of inter. of Rt. 99 (Rogers  
 Ave.) & Frederick Rd.

WR&A BM# 25-C Elev. 308.76  
 R.R. spike in base of G&E Pole # 96427, N. side  
 Frederick Rd., 3000' ± W. of Route 99.

| No. | Date    | Revision                                  |
|-----|---------|---|
| 2   | 4-15-65 | 12" Drop connection removed               |
| 1   | 1-6-65  | MH No. 742 relocated, MH No. 742-A added. |

| PROFILE SCHEDULE |               |
|------------------|---------------|
| Frederick Road   | Drawing N# 15 |

|   |   |                   |                        |                            |                           |                   |
|---|---|-------------------|------------------------|----------------------------|---------------------------|-------------------|
| <b>WHITMAN, REQUARDT &amp; ASSOCIATES</b><br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND. | <b>HOWARD COUNTY METROPOLITAN COMMISSION</b><br>Dec. 16, 1963<br>DATE<br><br>CHIEF ENGINEER | CONTRACT NO. 31-S | PLAN OF<br>SEWER MAINS | ELLICOTT CITY SUB-DISTRICT | DRAWING<br>NO. 3<br>OF 24 | SCALE<br>1" = 50' |
|   |   |                   |                        |                            | AS BUILT 28 FEB 66        |                   |

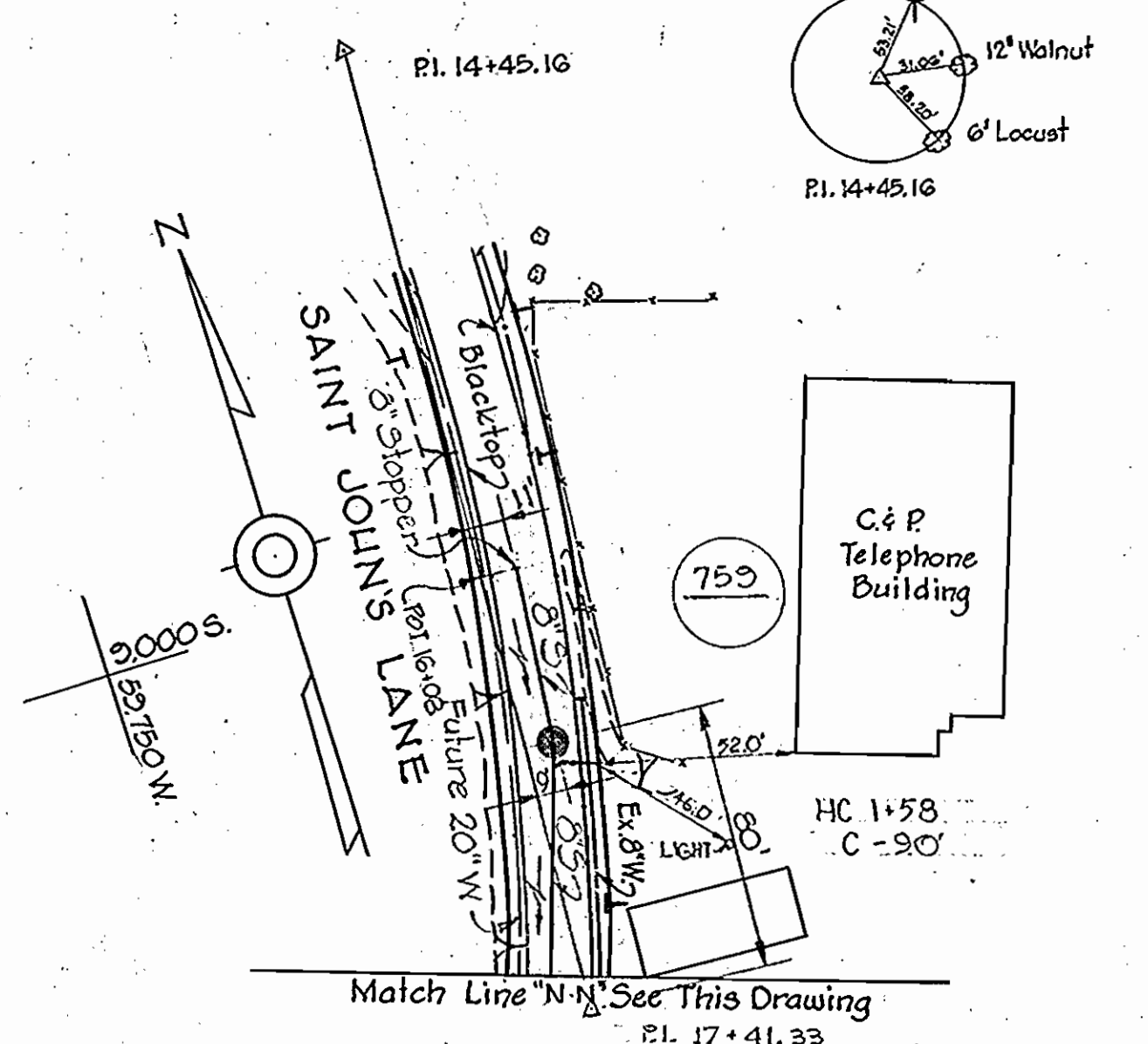
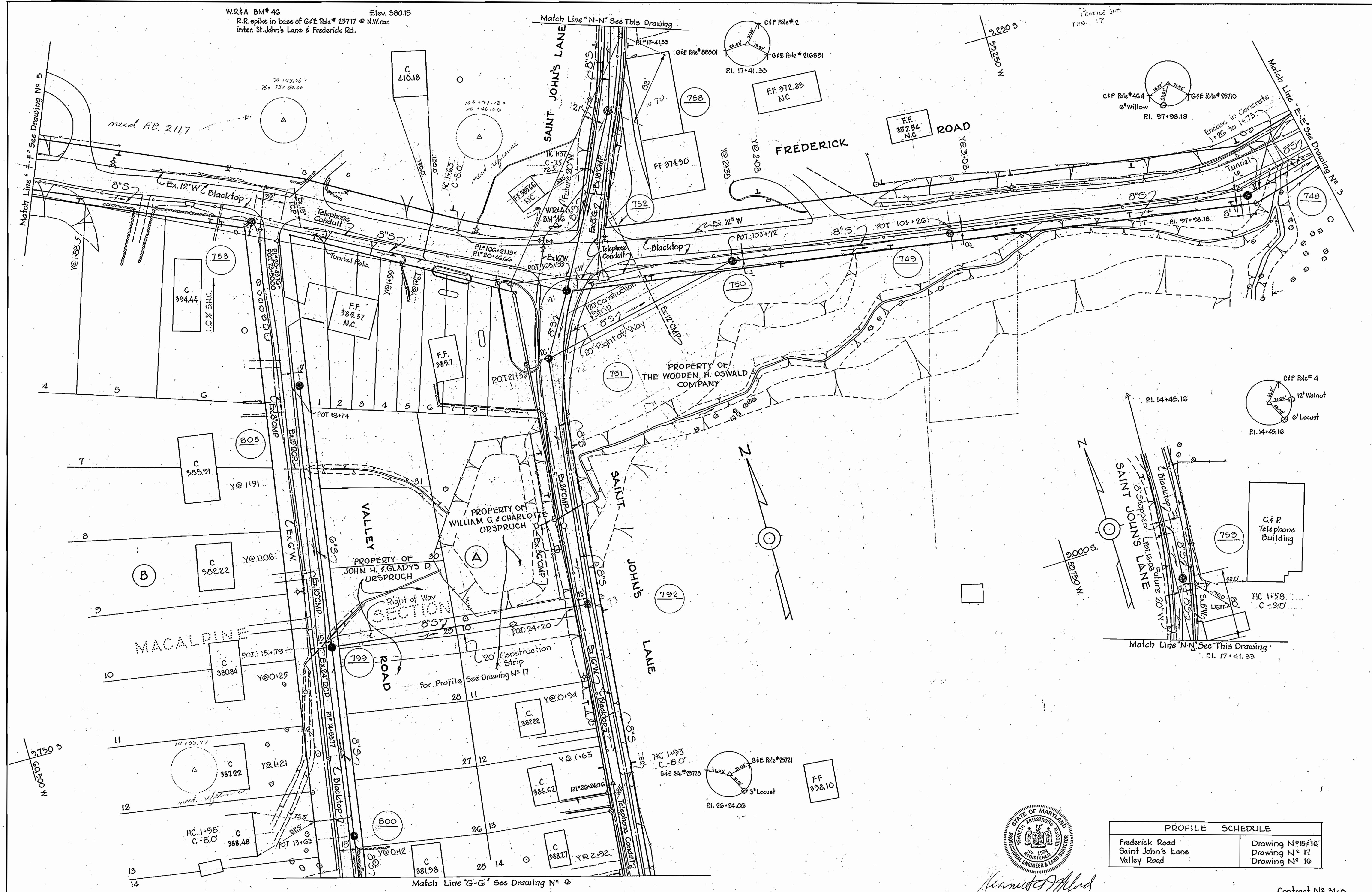


WS 31-S/3

W.O. 5010-2

105W303240  
 11 SW 38  
 PB 2161, 2165

W.D.A. BM# 46 Elev. 380.15  
 R.R. spike in base of G&E Pole # 25717 @ N.W. cor.  
 inter. St. John's Lane & Frederick Rd.



| PROFILE SCHEDULE  |                    |
|-------------------|--------------------|
| Frederick Road    | Drawing N# 15 & 16 |
| Saint John's Lane | Drawing N# 17      |
| Valley Road       | Drawing N# 18      |

Contract N# 31-S

|   |   |                   |                        |                            |                           |  |
|---|---|-------------------|------------------------|----------------------------|---------------------------|--|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>Dec. 16, 1963<br>DATE<br><i>Carl W. Neugebauer</i><br>CHIEF ENGINEER | CONTRACT NO. 31-S | PLAN OF<br>SEWER MAINS | ELLICOTT CITY SUB-DISTRICT | DRAWING<br>NO. 4<br>OF 24 | SCALE<br>1" = 50'<br><small>9.5W40<br/>10.5W41, 10.5W42<br/>11.5W41, 11.5W42<br/>F.B. 2493</small> |
|---|---|-------------------|------------------------|----------------------------|---------------------------|--|

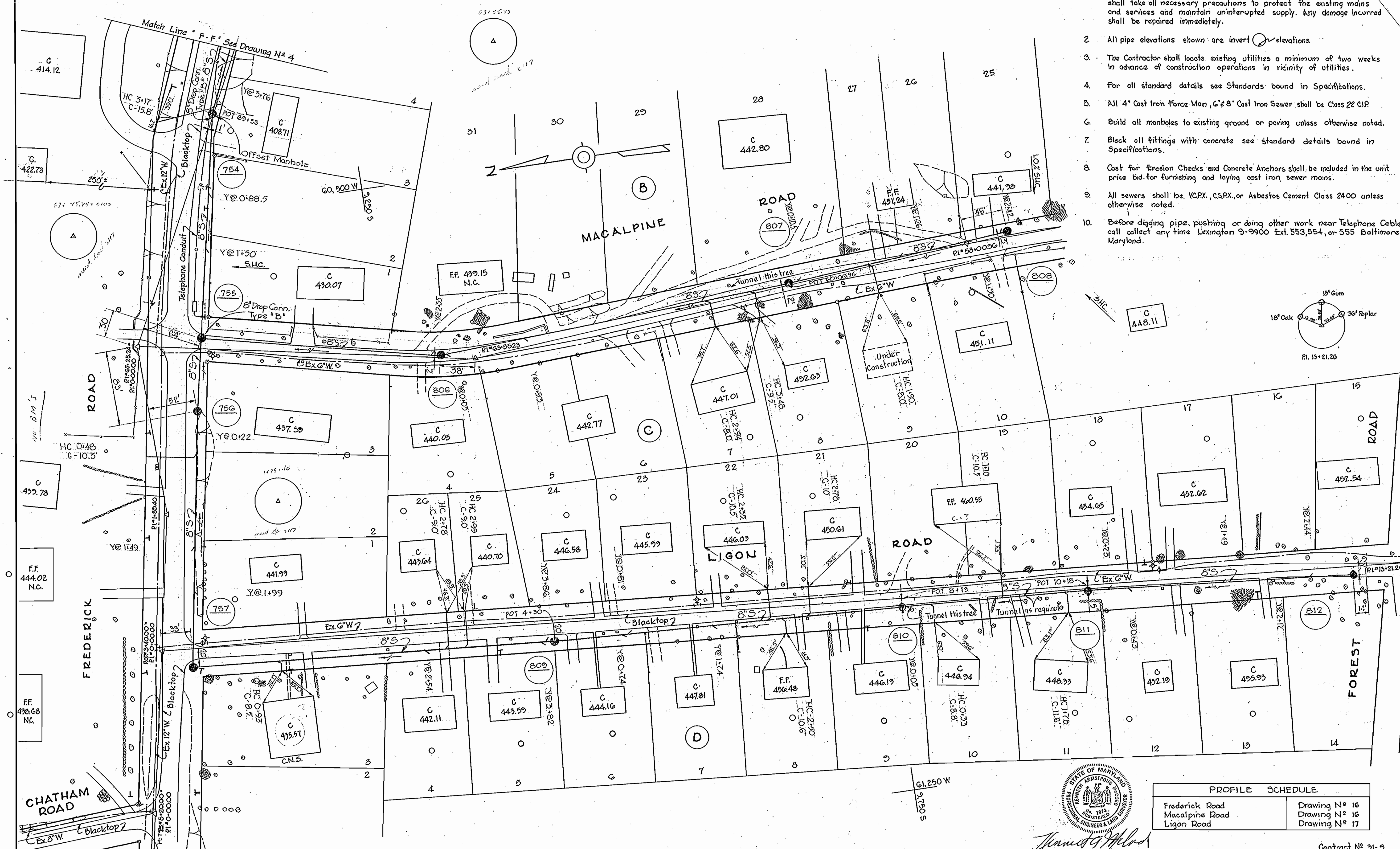
W. O. 5010-2

AS BUILT 28 FEB. 66

WS 31-S/4

**GENERAL NOTES**

1. Approximate location of existing mains are shown. The Contractor shall take all necessary precautions to protect the existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately.
2. All pipe elevations shown are invert elevations.
3. The Contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in vicinity of utilities.
4. For all standard details see Standards bound in Specifications.
5. All 4" Cast Iron Force Main, 6" & 8" Cast Iron Sewer shall be Class 22 CIP.
6. Build all manholes to existing ground or paving unless otherwise noted.
7. Block all fittings with concrete see standard details bound in Specifications.
8. Cost for Erosion Checks and Concrete Anchors shall be included in the unit price bid for furnishing and laying cast iron sewer mains.
9. All sewers shall be V.C.P.X., C.S.P.X., or Asbestos Cement Class 2400 unless otherwise noted.
10. Before digging pipe, pushing or doing other work near Telephone Cables call collect any time Lexington 9-9900 Ext. 553,554, or 555 Baltimore, Maryland.



| PROFILE SCHEDULE |               |
|------------------|---------------|
| Frederick Road   | Drawing N° 16 |
| Macalpine Road   | Drawing N° 16 |
| Ligon Road       | Drawing N° 17 |

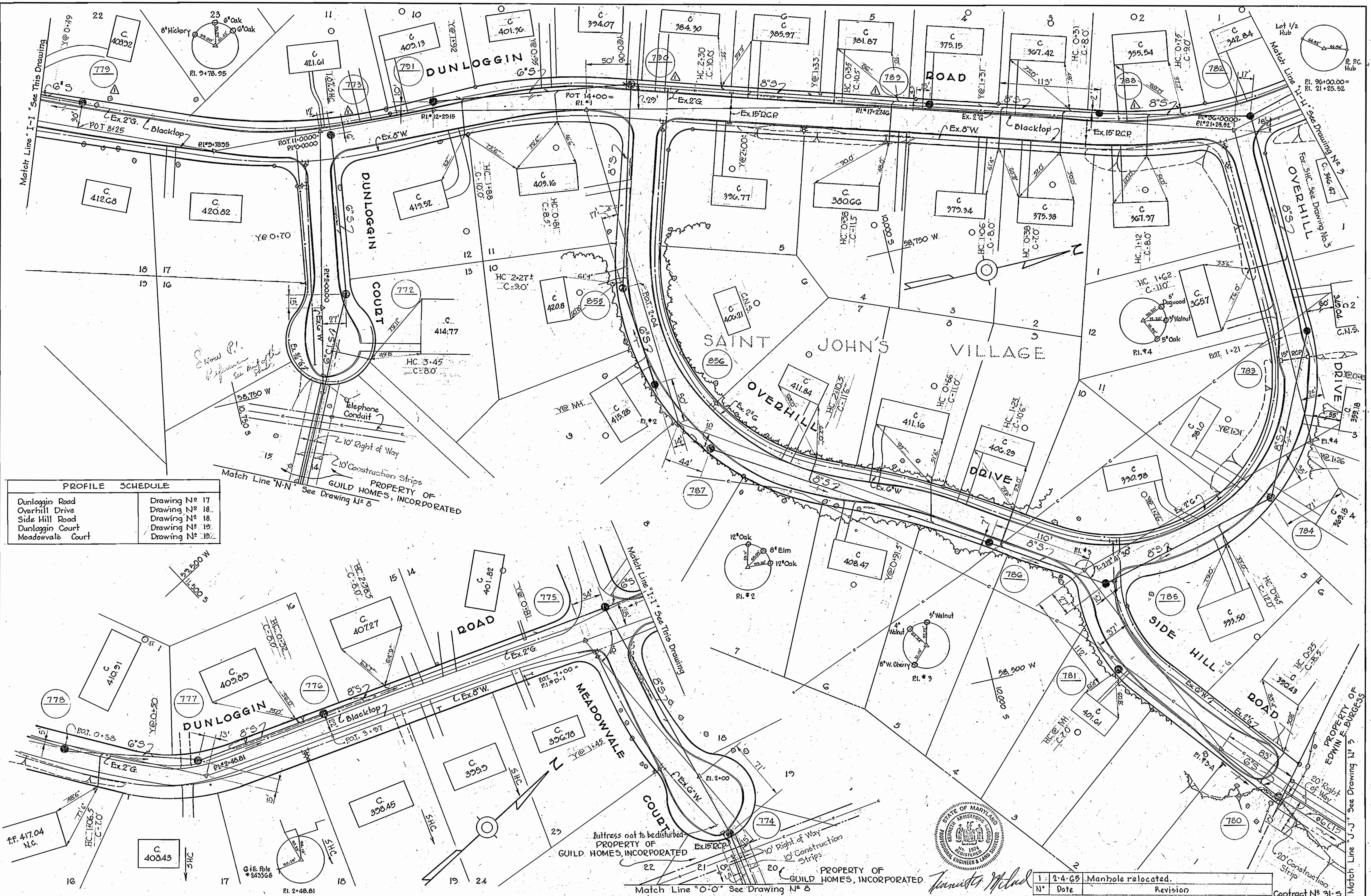
STATE OF MARYLAND  
 REGISTERED PROFESSIONAL ENGINEER & ARCHITECT  
 No. 1974  
 Howard County  
 James G. McLeod

|   |   |                   |                        |                            |                     |                                |                  |
|---|---|-------------------|------------------------|----------------------------|---------------------|--------------------------------|------------------|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>DATE: Dec. 16, 1963<br>Carl W. Meyer<br>CHIEF ENGINEER | CONTRACT NO. 31-S | PLAN OF<br>SEWER MAINS | ELLICOTT CITY SUB-DISTRICT | DRAWING NO. 5 OF 24 | SCALE 1"=50'<br>3/10, 11, 5W41 | Contract N° 31-S |
|---|---|-------------------|------------------------|----------------------------|---------------------|--------------------------------|------------------|

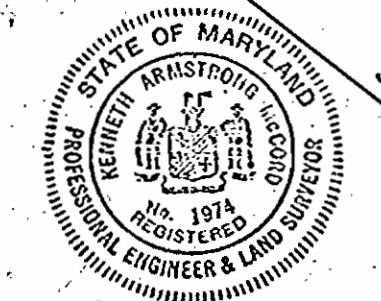
W.O. 5010-2 AS BUILT 28 FEB. 66

WS 31-S/5





| PROFILE SCHEDULE |               |
|------------------|---------------|
| Dunloggin Road   | Drawing No 17 |
| Overhill Drive   | Drawing No 18 |
| Side Hill Road   | Drawing No 18 |
| Dunloggin Court  | Drawing No 19 |
| Meadowvale Court | Drawing No 19 |



| No. | Date   | Revision           |
|-----|--------|--------------------|
| 1   | 2-4-65 | Manhole relocated. |

WHITMAN, REQUARDT & ASSOCIATES  
ENGINEERS  
1304 ST. PAUL ST.  
BALTIMORE, MARYLAND

HOWARD COUNTY METROPOLITAN COMMISSION  
Dec. 16, 1963  
DATE  
Chief Engineer

CONTRACT NO. 31-S

PLAN OF SEWER MAINS

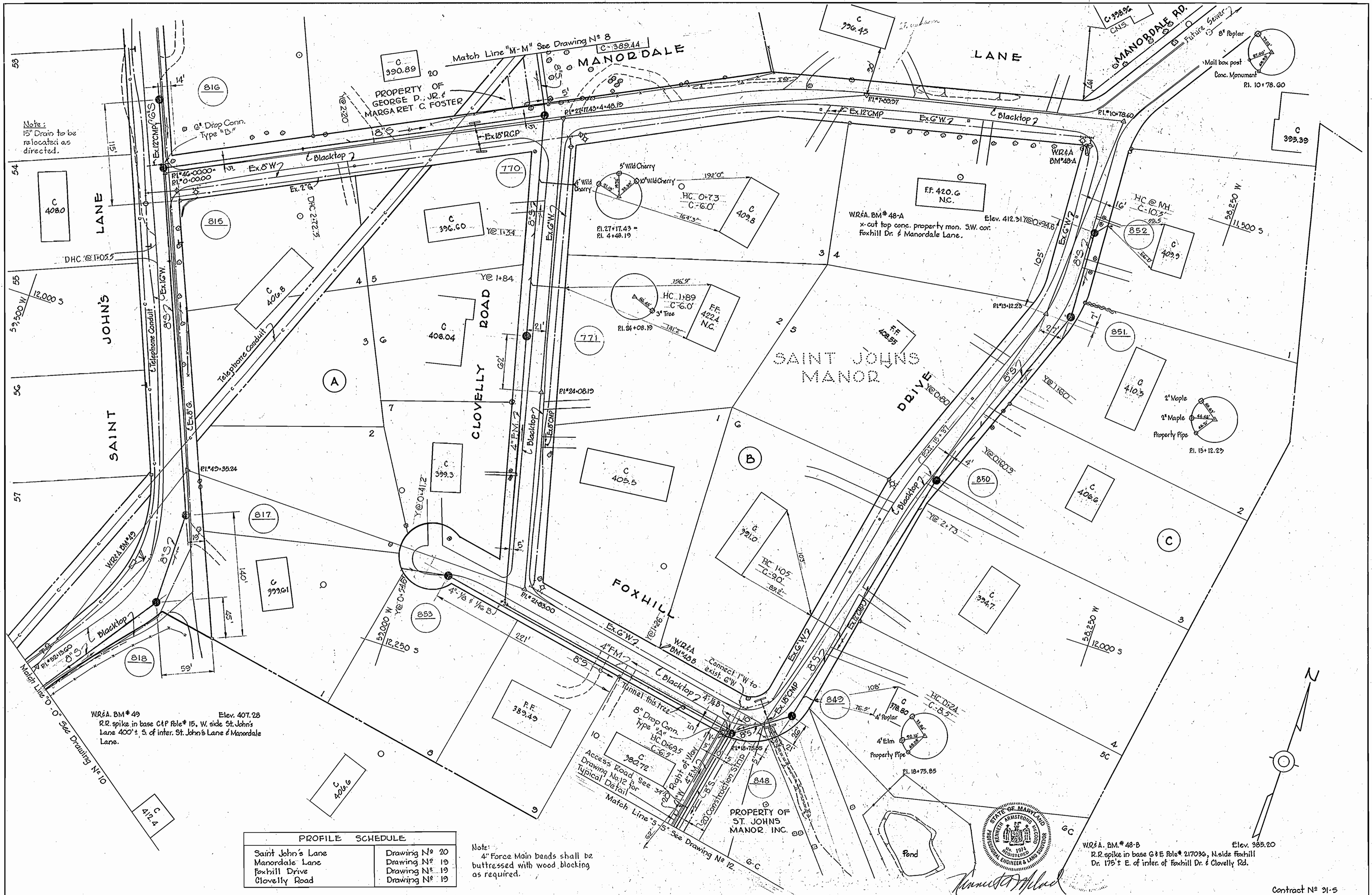
ELLICOTT CITY SUB-DISTRICT

DRAWING NO. 7 OF 24  
SCALE 1" = 50'

WS 31-57







Note:  
15' Drain to be relocated as directed.

WR&A. BM# 49  
Elev. 407.28  
R.R. spike in base of Pole # 15, W. side St. John's Lane 400'± S. of inter. St. John's Lane & Manordale Lane.

WR&A. BM# 48-B  
Elev. 385.20  
R.R. spike in base of Pole # 217036, N. side Foxhill Dr. 175'± E. of inter. of Foxhill Dr. & Clovelly Rd.

| PROFILE SCHEDULE  |               |
|-------------------|---------------|
| Saint John's Lane | Drawing No 20 |
| Manordale Lane    | Drawing No 19 |
| Foxhill Drive     | Drawing No 19 |
| Clovelly Road     | Drawing No 19 |

Note:  
4" Force Main bands shall be buttressed with wood blocking as required.

WHITMAN, REQUARDT & ASSOCIATES  
ENGINEERS  
1304 ST. PAUL ST.  
BALTIMORE, MARYLAND

HOWARD COUNTY METROPOLITAN COMMISSION  
DATE: Dec 16, 1963  
CHIEF ENGINEER

CONTRACT NO. 31-S

PLAN OF SEWER MAINS

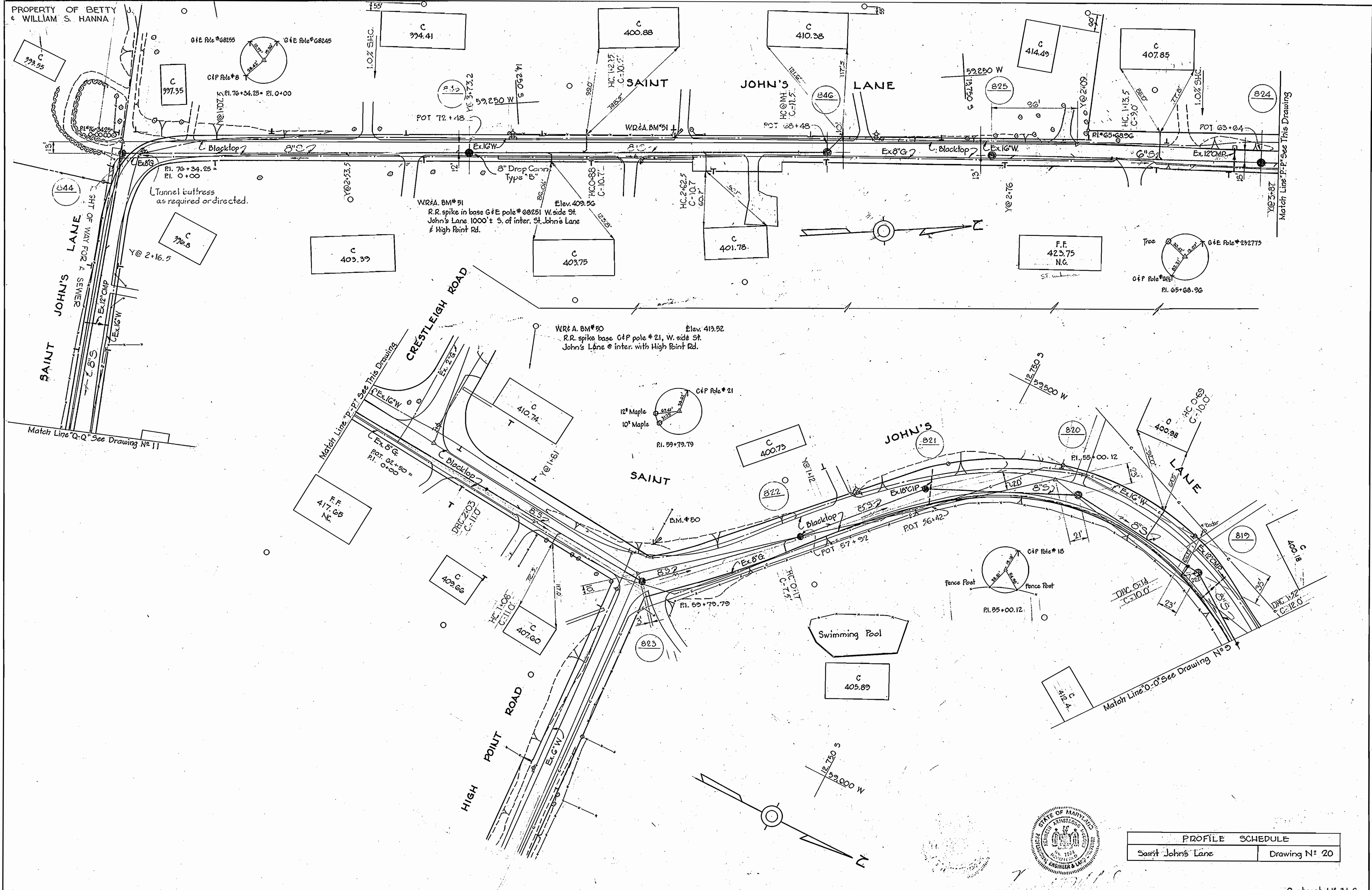
ELLCOTT CITY SUB-DISTRICT

DRAWING NO. 9 OF 24  
SCALE 1"=50'

Contract No 31-S

AS BUILT 28 FEB. 66

WS 31-S/9



| PROFILE SCHEDULE  |               |
|-------------------|---------------|
| Saint John's Lane | Drawing N° 20 |

WHITMAN, REQUARDT & ASSOCIATES  
 ENGINEERS  
 1304 ST. PAUL ST.  
 BALTIMORE, MARYLAND

HOWARD COUNTY METROPOLITAN COMMISSION  
 Dec. 16, 1963  
 DATE

CONTRACT NO. 31-S

PLAN OF SEWER MAINS

ELLICOTT CITY SUB-DISTRICT

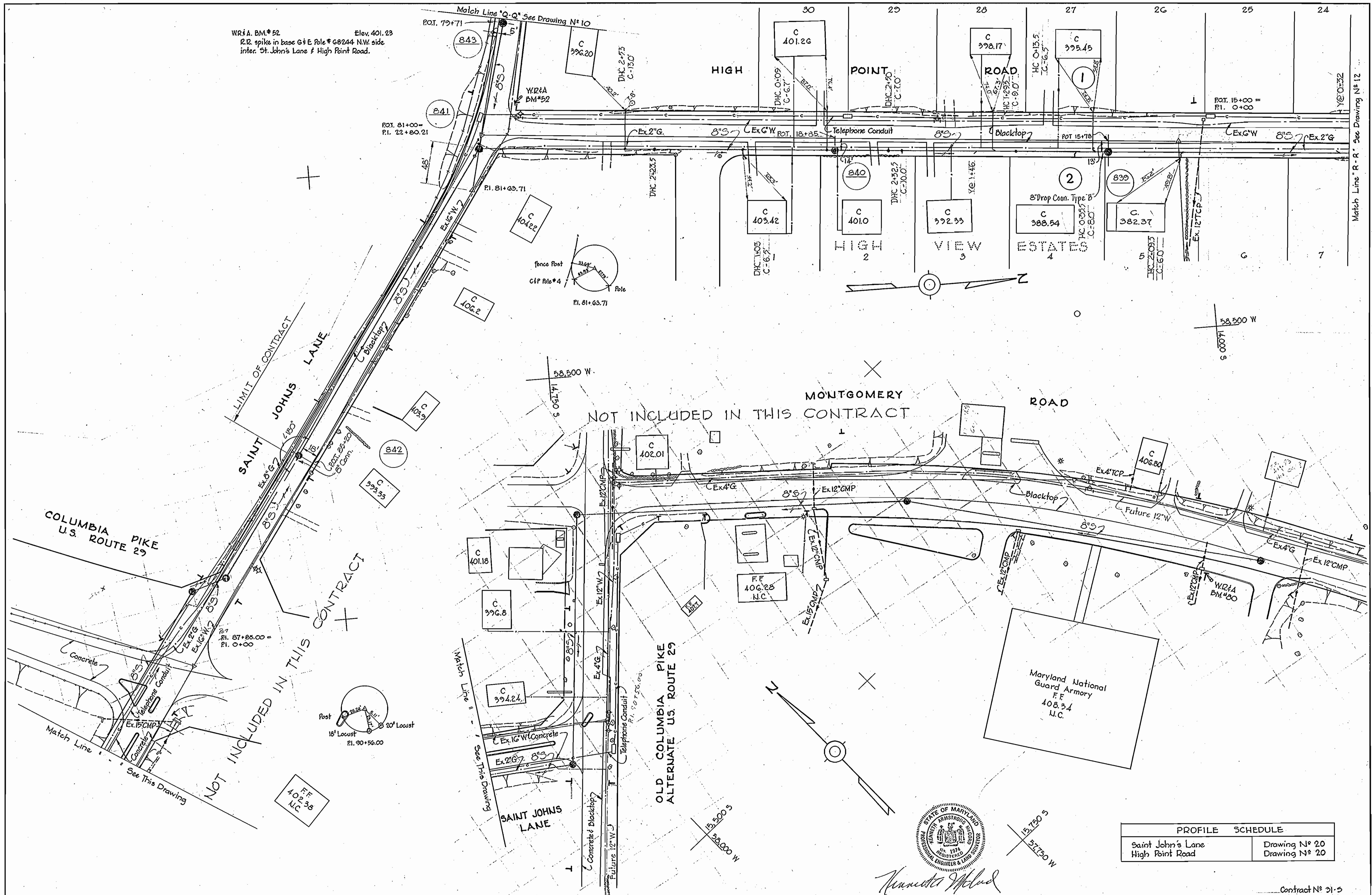
CONTRACT N° 31-S  
 DRAWING NO. 10 OF 24  
 SCALE 1"=50'

W. O. 5010-2

AS BUILT

31-S/10

W.R.A. BM#52 Elev. 401.23  
 R.R. spike in base of E Pole # G8244 NW side  
 inter. St. John's Lane & High Point Road.

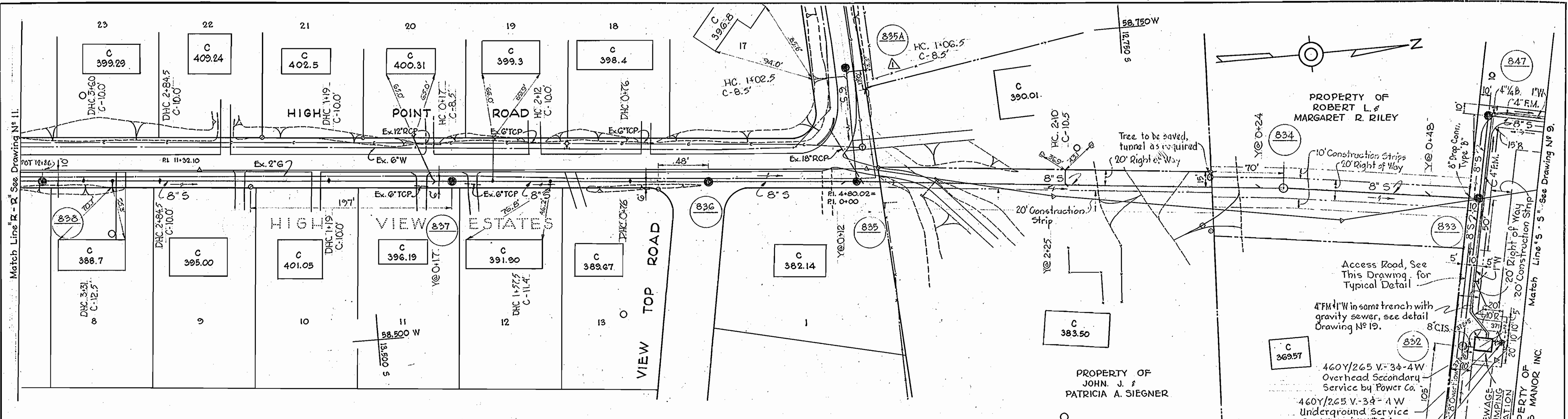


| PROFILE SCHEDULE  |               |
|-------------------|---------------|
| Saint John's Lane | Drawing N° 20 |
| High Point Road   | Drawing N° 20 |

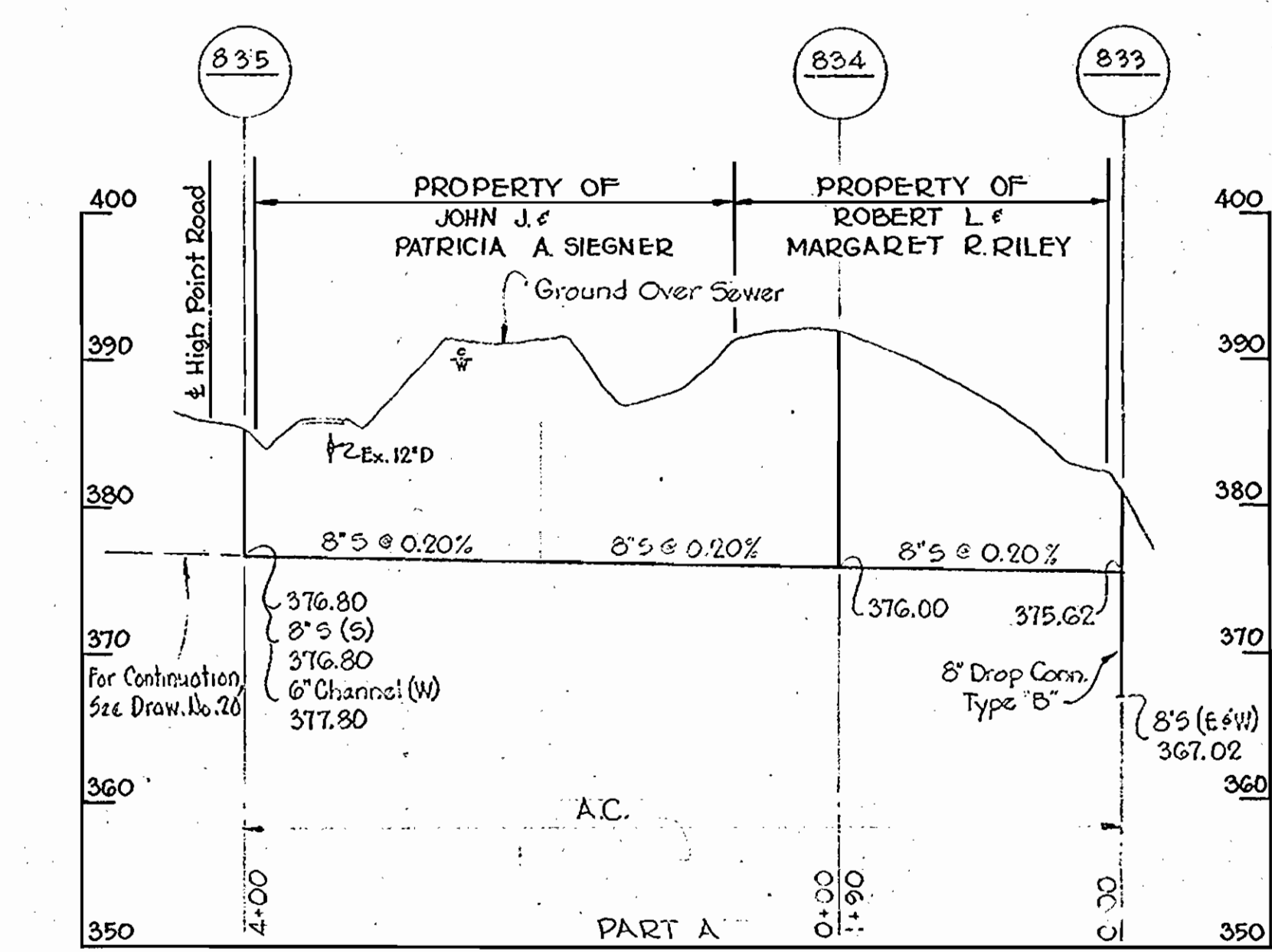
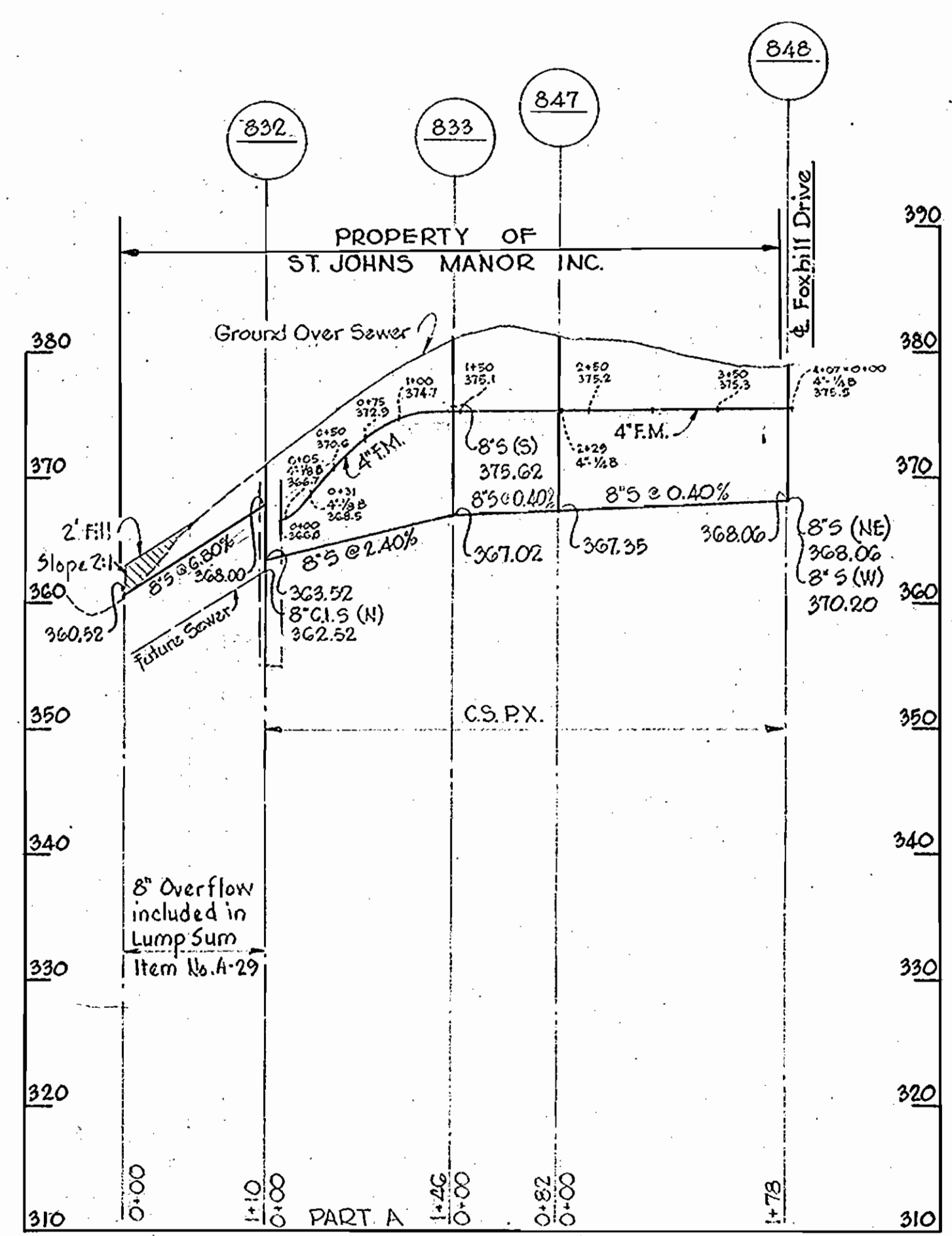
Contract N° 31-S

|   |   |                   |                        |                            |                            |   |
|---|---|-------------------|------------------------|----------------------------|----------------------------|---|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>Dec 16, 1963<br>DATE<br><i>Carl W. Meyer</i><br>CHIEF ENGINEER | CONTRACT NO. 31-S | PLAN OF<br>SEWER MAINS | ELLICOTT CITY SUB-DISTRICT | DRAWING<br>NO. 11<br>OF 24 | SCALE<br>1" = 50'<br><small>15 5/16" 15 5/16" 15 5/16" 15 5/16"</small> |
|---|---|-------------------|------------------------|----------------------------|----------------------------|---|

WS 31-S/11

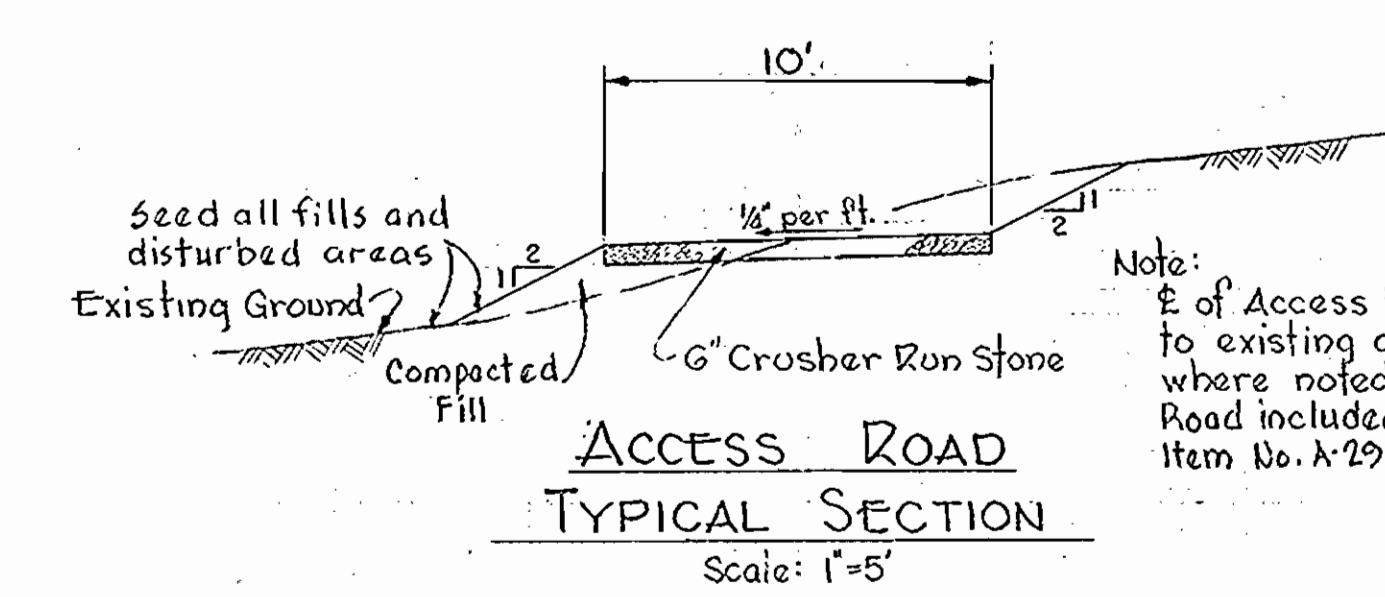


**PLAN**  
Scale: 1" = 50'



**PROFILE**  
Scale: H: 1" = 100'  
V: 1" = 10'

| PROFILE SCHEDULE |                |
|------------------|----------------|
| High Point Road  | Drawing No. 20 |



**ACCESS ROAD**  
TYPICAL SECTION  
Scale: 1" = 5'

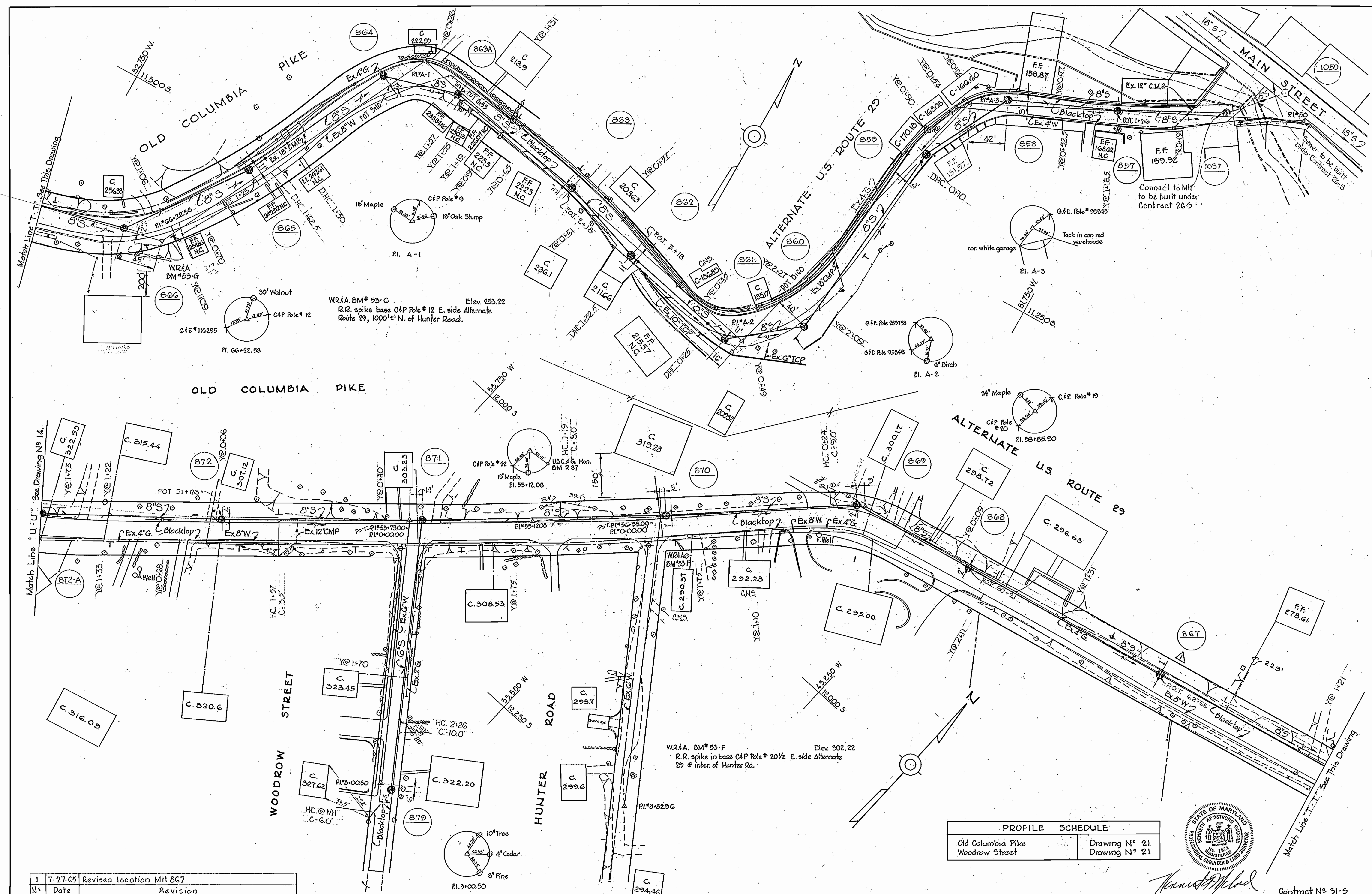
| No. | Date    | Revision             |
|-----|---------|----------------------|
| 1   | 6-28-65 | Manhole 835-A added. |



*Kenneth McLeod*  
CHIEF ENGINEER

|   |  |                   |                                  |                            |                         |                |                   |
|---|--|-------------------|----------------------------------|----------------------------|-------------------------|----------------|-------------------|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>Dec. 16, 1963<br>DATE<br><i>Carl W. Meyer</i><br>CHIEF ENGINEER | CONTRACT NO. 31-S | PLAN & PROFILE OF<br>SEWER MAINS | ELLICOTT CITY SUB-DISTRICT | DRAWING NO. 12<br>OF 24 | SCALE AS SHOWN | Contract No. 31-S |
|---|--|-------------------|----------------------------------|----------------------------|-------------------------|----------------|-------------------|

WS 31-S/12



|   |         |                         |
|---|---------|-------------------------|
| 1 | 7-27-65 | Revised location MH 867 |
| N | Date    | Revision                |

| PROFILE SCHEDULE  |               |
|-------------------|---------------|
| Old Columbia Pike | Drawing N° 21 |
| Woodrow Street    | Drawing N° 21 |



*Handwritten signature*

Contract N° 31-5

**WHITMAN, REQUARDT & ASSOCIATES**  
ENGINEERS  
1304 ST. PAUL ST.  
BALTIMORE, MARYLAND

**HOWARD COUNTY METROPOLITAN COMMISSION**  
Dec. 16, 1963  
DATE  
*Handwritten signature*  
CHIEF ENGINEER

CONTRACT NO. 31-S

PLAN OF  
SEWER MAINS

ELLICOTT CITY SUB-DISTRICT

DRAWING  
NO. 13  
OF 24  
SCALE  
1"=50'

W.O. 5010-2

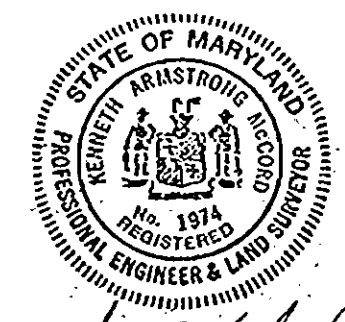
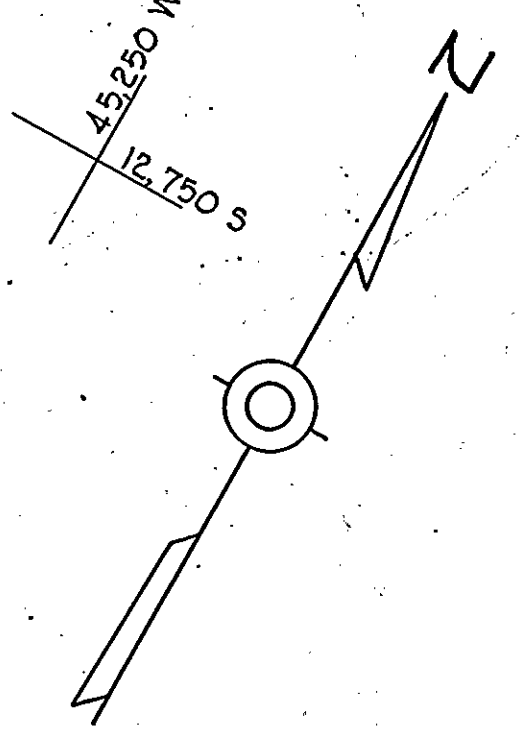
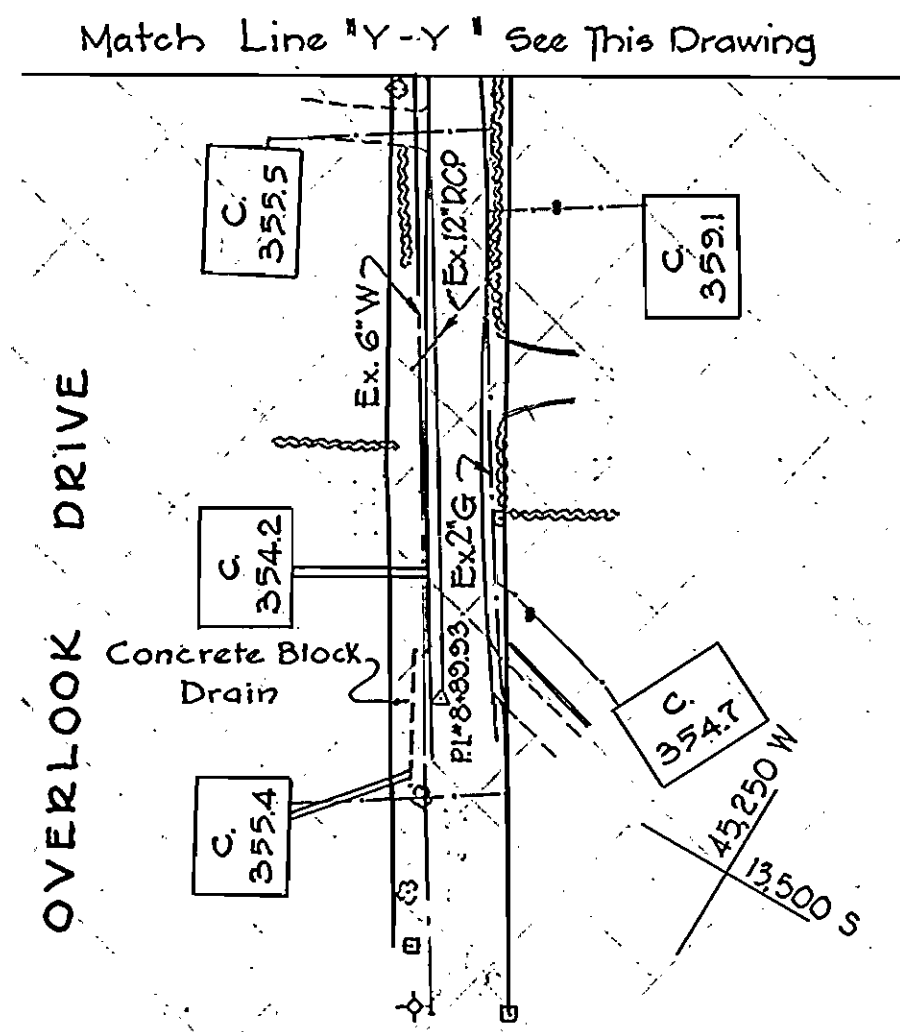
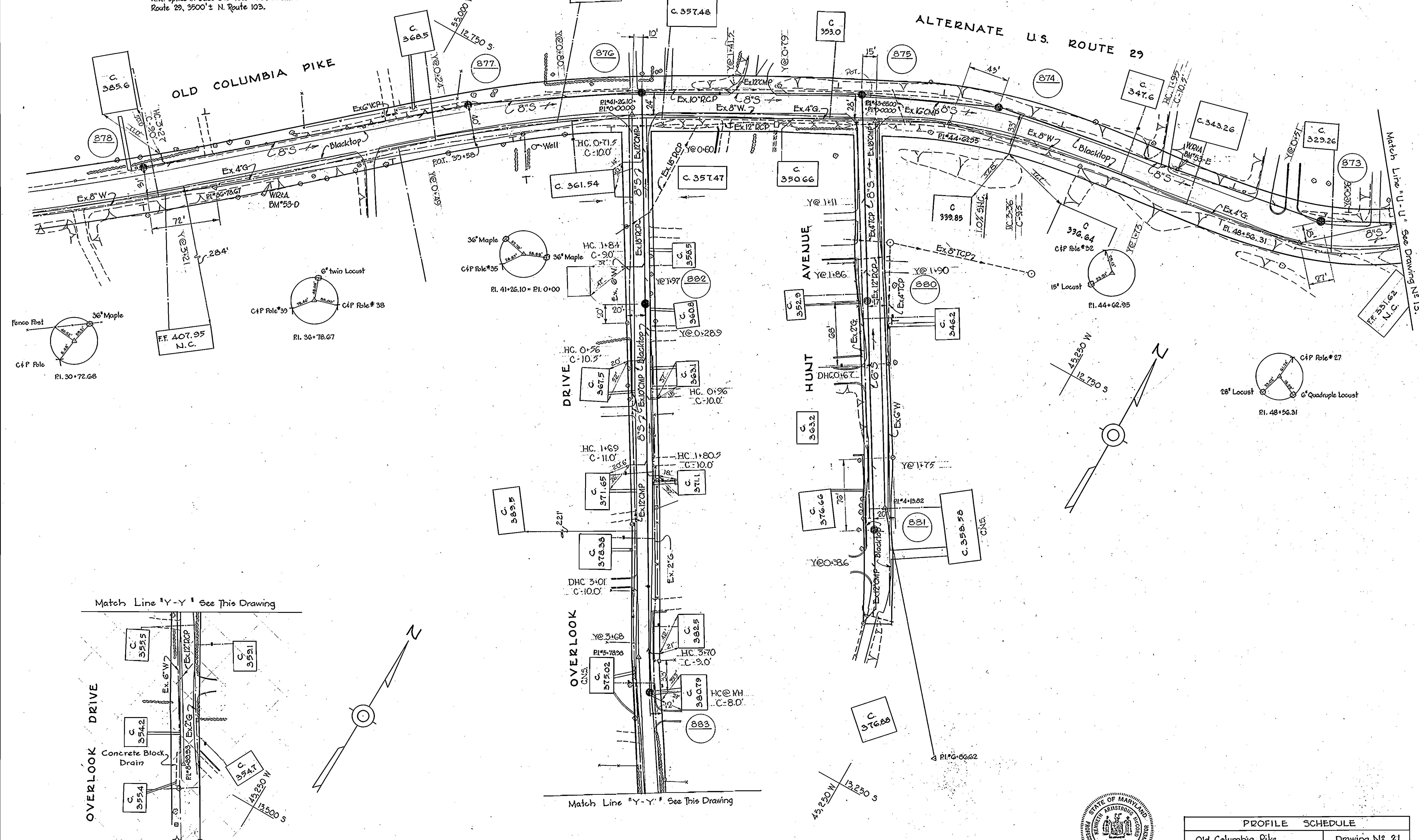
AS BUILT 28 FEB 66

12 SW 35, 12 SW 36  
12 SW 36, 12 SW 37  
FD. 2175, 2637

WS 31-S/13

WR & A. BM # 53-D Elev. 384.68  
 R.R. spike in base C&P Pole # 28, E. side Alternate  
 Route 29, 3500' ± N. Route 103.

WR & A. BM # 53-E Elev. 343.81  
 R.R. spike base C&P Pole # 29 W. side Alternate  
 Route 29, 4500' ± N. of Route #103, 325' ± N. of  
 Hunt Ave.



| PROFILE SCHEDULE  |                |
|-------------------|----------------|
| Old Columbia Pike | Drawing N° 21  |
| Overlook Drive    | Drawing N° 21  |
| Hunt Avenue       | Drawing N° 21. |

Contract N° 31-S

|   |  |                   |                        |                           |                            |                 |
|---|--|-------------------|------------------------|---------------------------|----------------------------|-----------------|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>Dec. 16, 1963<br>DATE<br><i>Carl W. Meyer</i><br>CHIEF ENGINEER | CONTRACT NO. 31-S | PLAN OF<br>SEWER MAINS | ELLCOTT CITY SUB-DISTRICT | DRAWING<br>NO. 14<br>OF 24 | SCALE<br>1"=50' |
|---|--|-------------------|------------------------|---------------------------|----------------------------|-----------------|

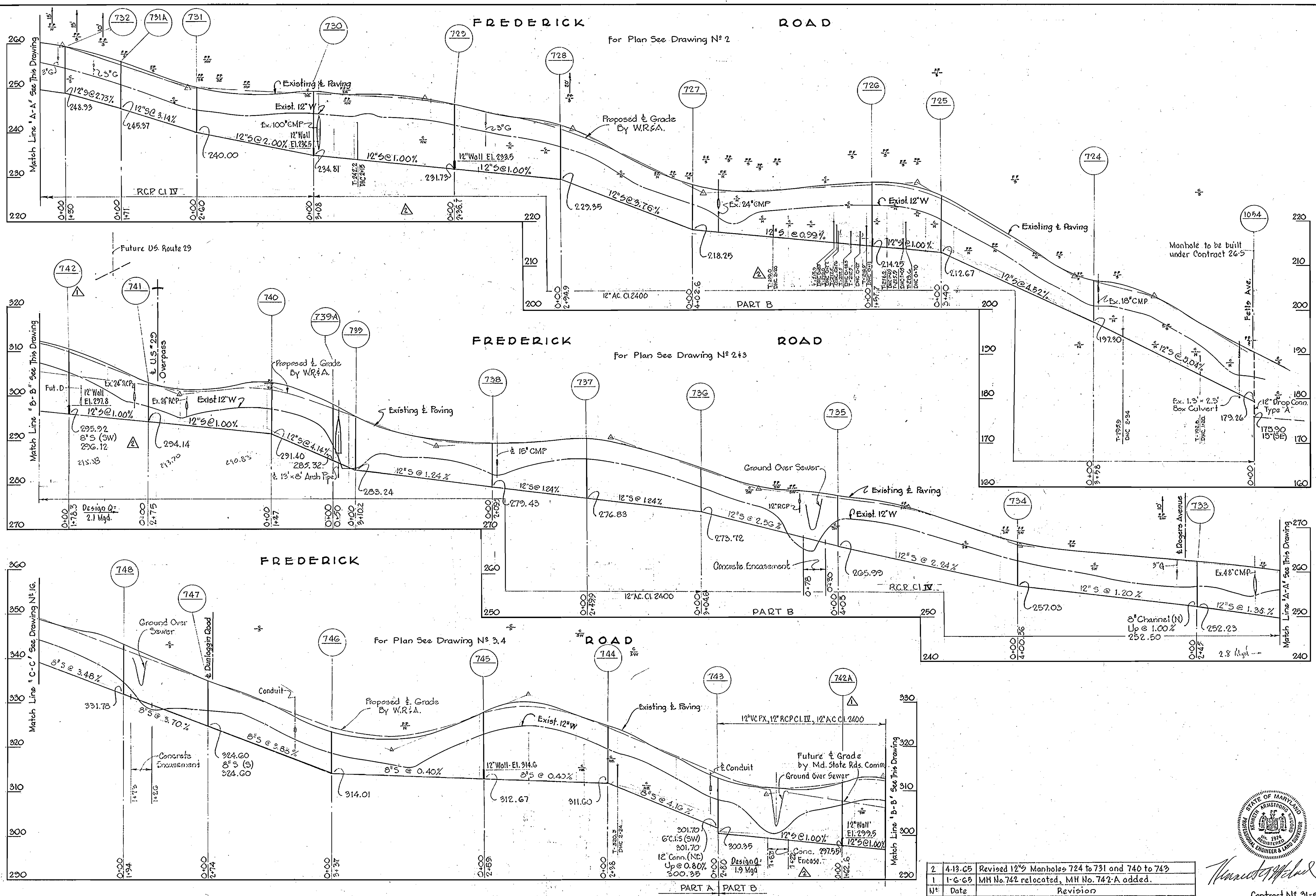
W.O. 5010-2

AS BUILT 28 FEB 66

2175

WS 31-S/14

10



| No. | Date    | Revision                                       |
|-----|---------|--|
| 2   | 4-13-65 | Revised 12" Manholes 724 to 731 and 740 to 743 |
| 1   | 1-6-65  | MH No. 742 relocated, MH No. 742-A added.      |

Contract No. 31-5

|   |  |                   |                            |                            |                            |                                |
|---|--|-------------------|----------------------------|----------------------------|----------------------------|--------------------------------|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>Dec. 16, 1963<br>DATE<br>CHIEF ENGINEER | CONTRACT NO. 31-S | PROFILES OF<br>SEWER MAINS | ELLICOTT CITY SUB-DISTRICT | DRAWING<br>NO. 15<br>OF 24 | SCALE<br>H-1"=100'<br>V-1"=10' |
|---|--|-------------------|----------------------------|----------------------------|----------------------------|--------------------------------|

WS 31-S/15

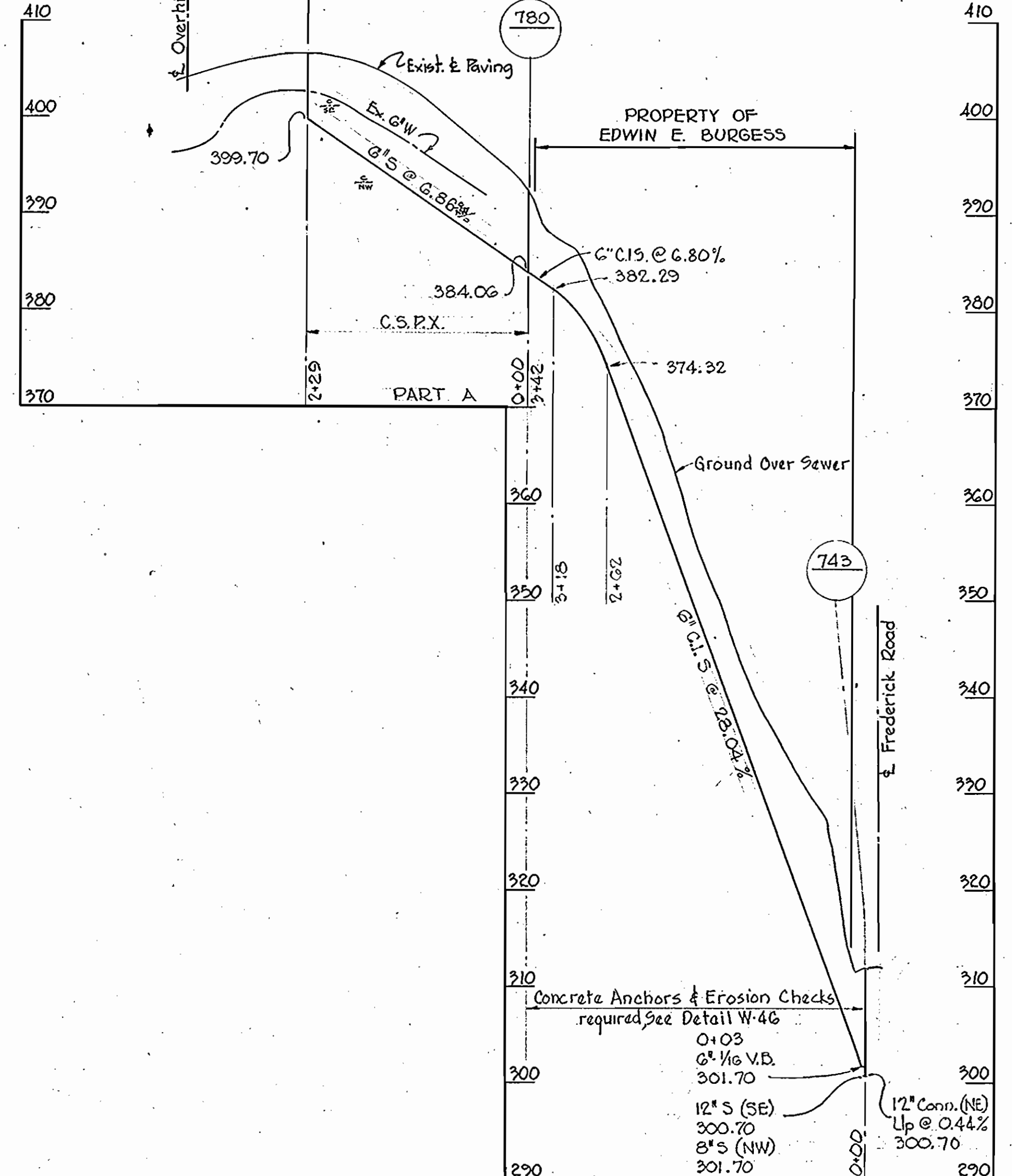
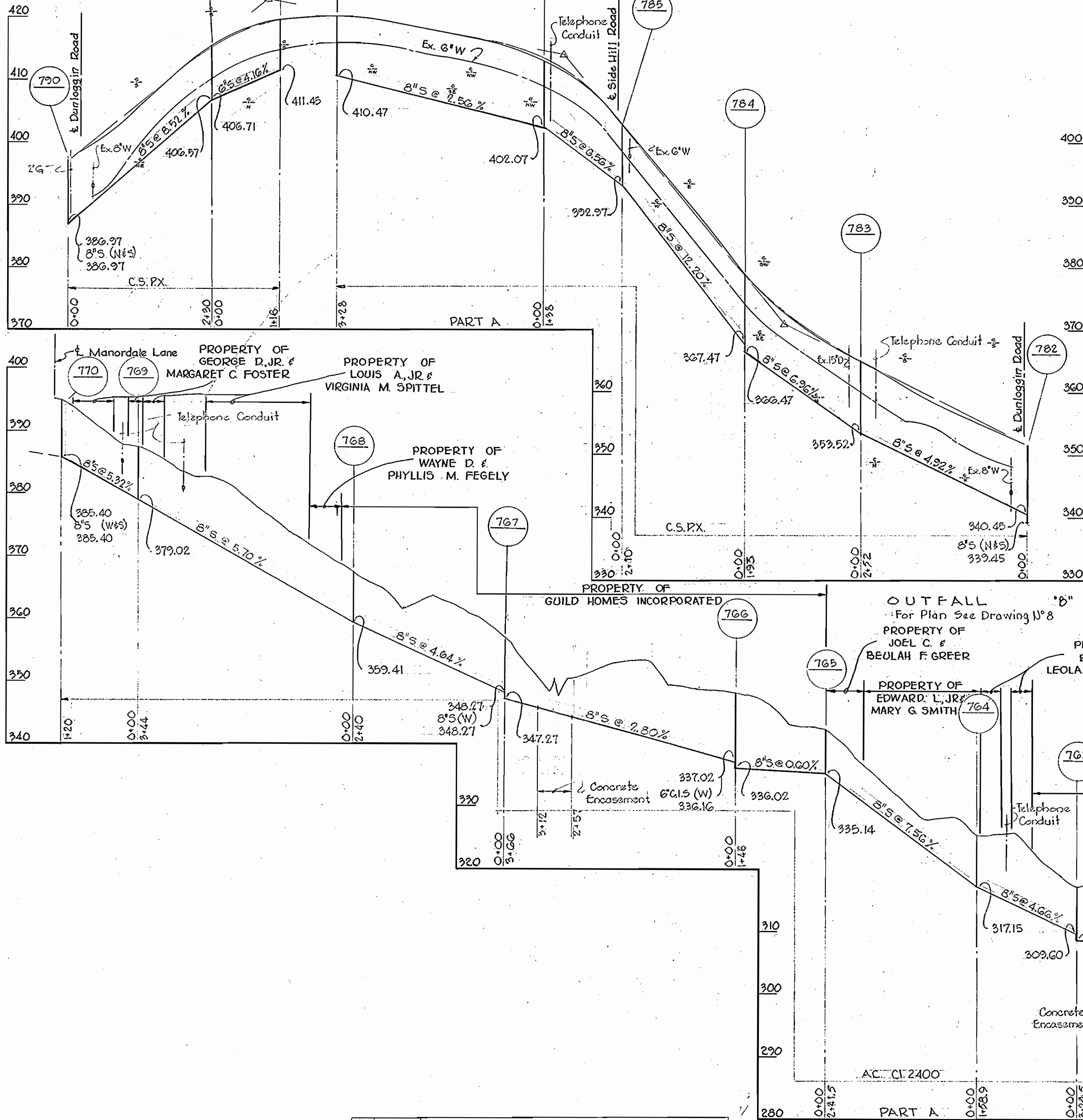






**OVERHILL DRIVE**  
For Plan See Drawing N° 7

**SIDE HILL ROAD**  
For Plan See Drawing N° 747



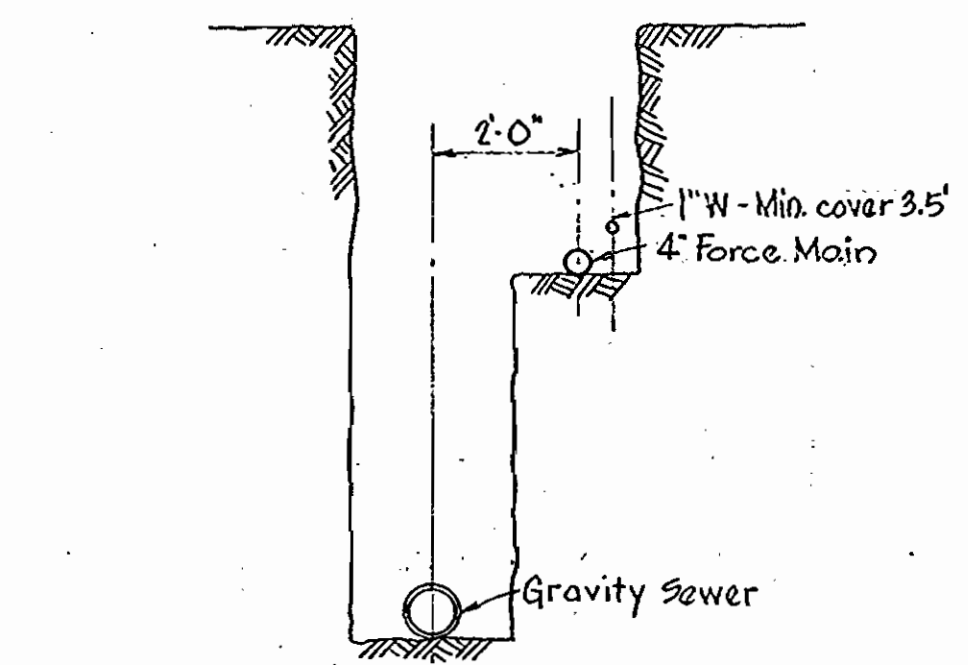
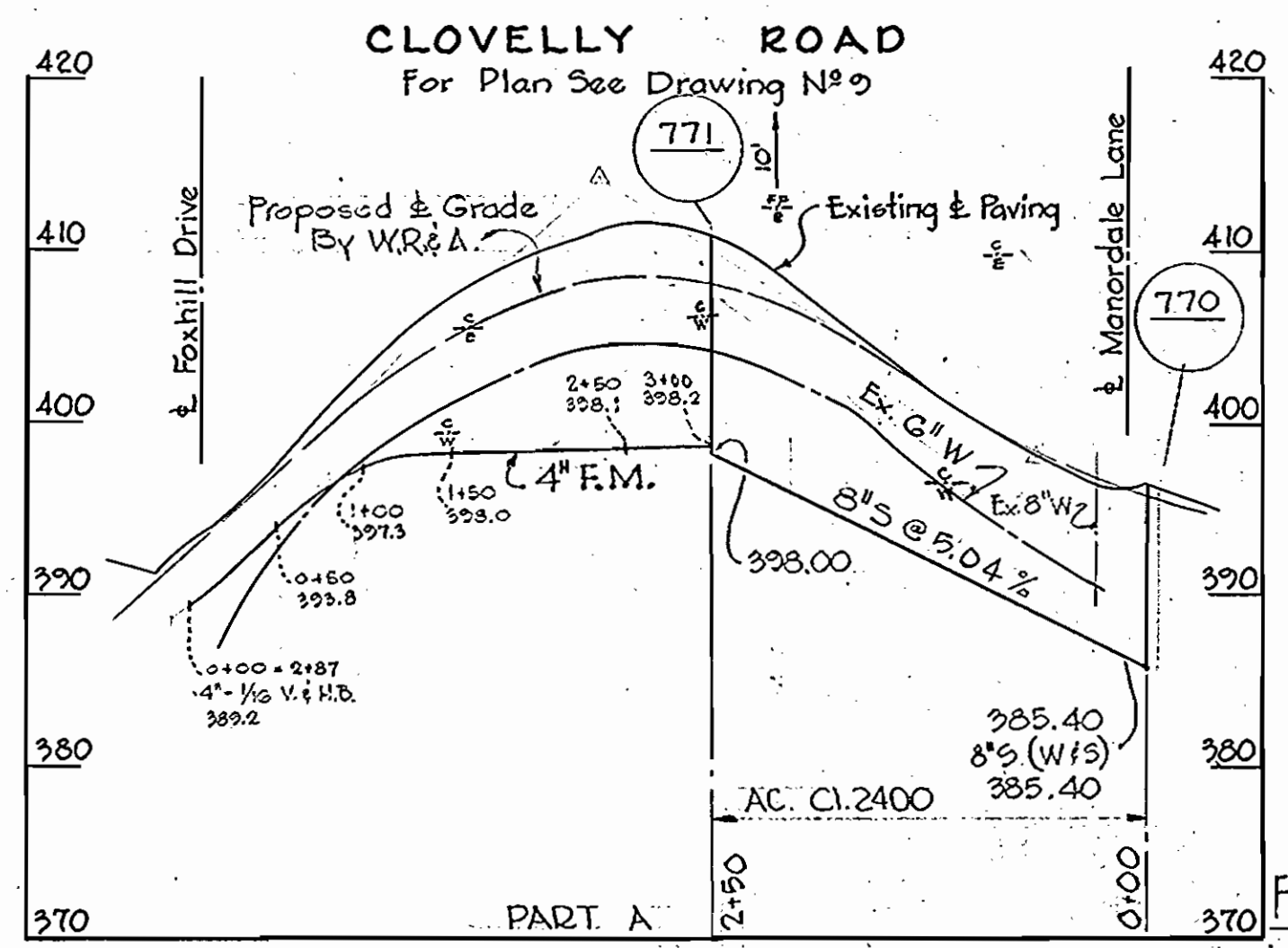
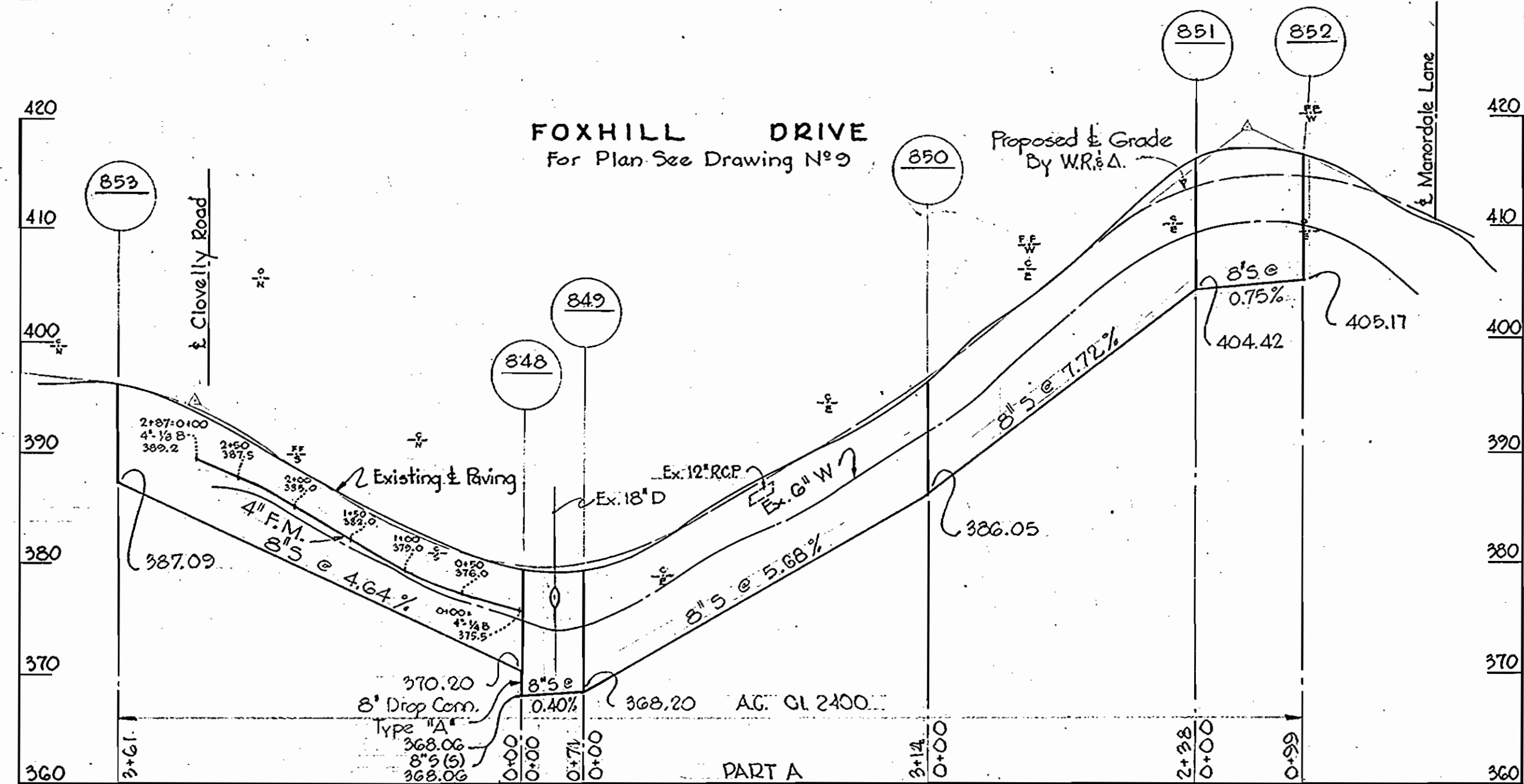
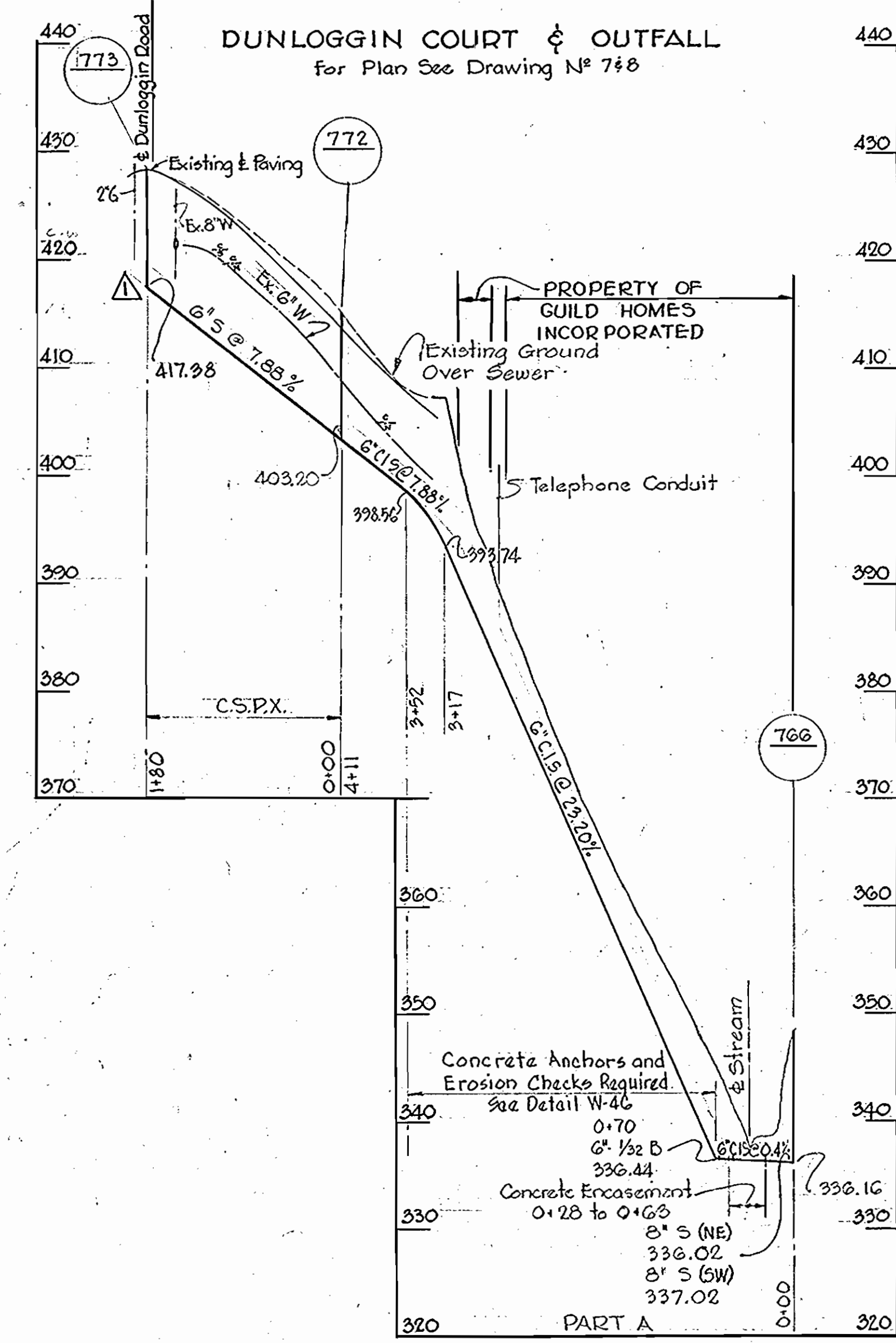
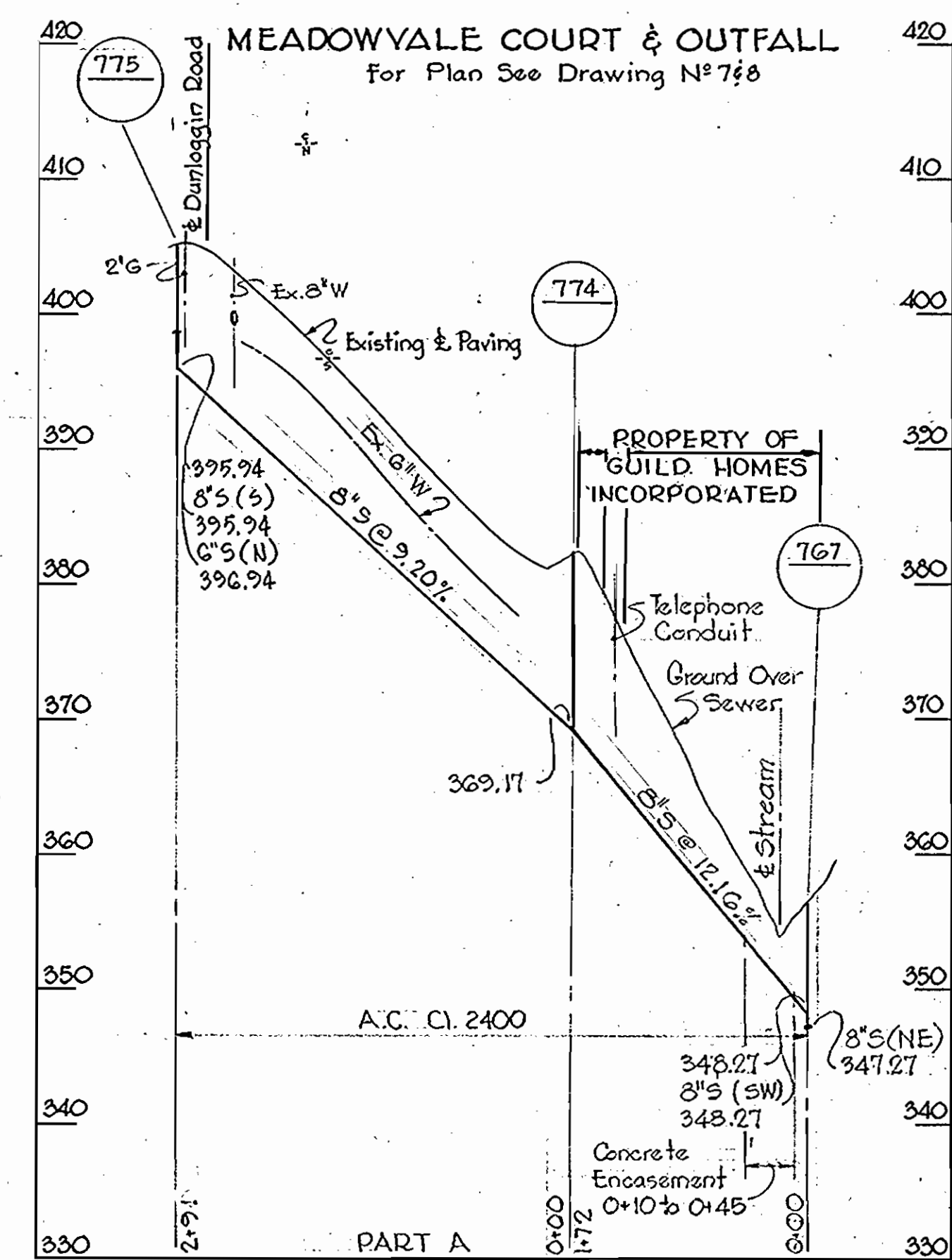
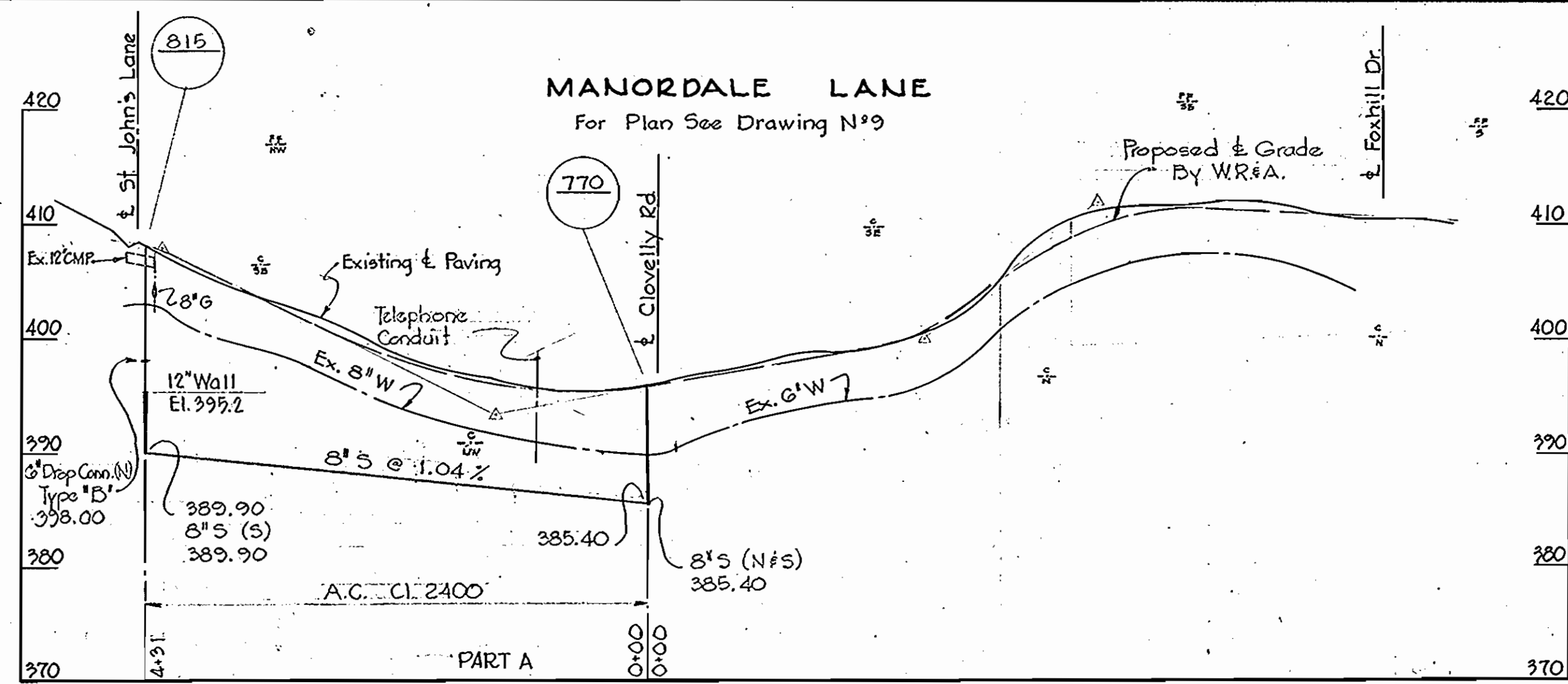
| N° | Date   | Revision                  |
|----|--------|---------------------------|
| 1  | 1-6-65 | Manhole No. 742 relocated |

|   |  |                   |                            |                            |                      |                                |
|---|--|-------------------|----------------------------|----------------------------|----------------------|--------------------------------|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>DATE: Dec. 16, 1963<br>Chief Engineer: <i>Carl W. Meyer</i> | CONTRACT NO. 31-S | PROFILES OF<br>SEWER MAINS | ELLICOTT CITY SUB-DISTRICT | DRAWING NO. 18 OF 24 | SCALE<br>H-1"=100'<br>V-1"=10' |
|   |  |                   |                            |                            | Contract N° 31-S<br> |                                |

W. O. 5010-2

AS BUILT FEB 28 1966

WS 31-S/18



DETAIL GRAVITY SEWER & FORCE MAIN IN THE SAME TRENCH  
Scale: 3/8" = 1'-0"

|                |        |                    |
|----------------|--------|--------------------|
| 1              | 2-4-65 | Manhole relocated. |
| N <sup>o</sup> | Date   | Revision           |

*Handwritten signature*  
Contract No 31-5

WHITMAN, REQUARDT & ASSOCIATES  
ENGINEERS  
1304 ST. PAUL ST.  
BALTIMORE, MARYLAND

HOWARD COUNTY METROPOLITAN COMMISSION  
DATE: Dec 16, 1963  
*Handwritten signature*  
CHIEF ENGINEER

CONTRACT NO. 31-S

PROFILES OF SEWER MAINS

ELLCOTT CITY SUB-DISTRICT

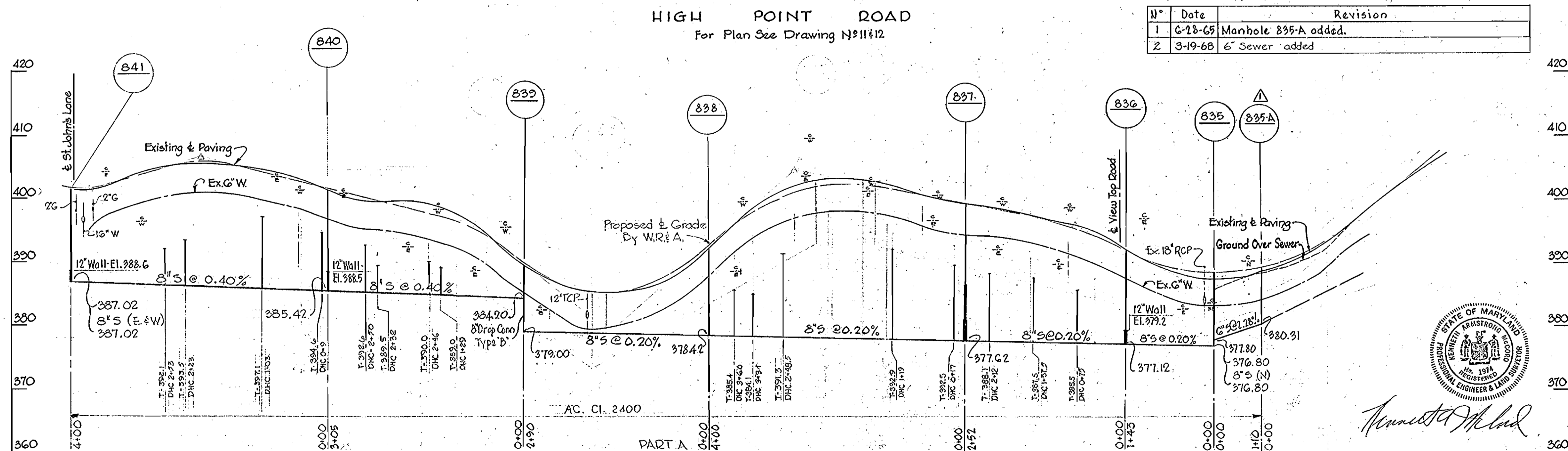
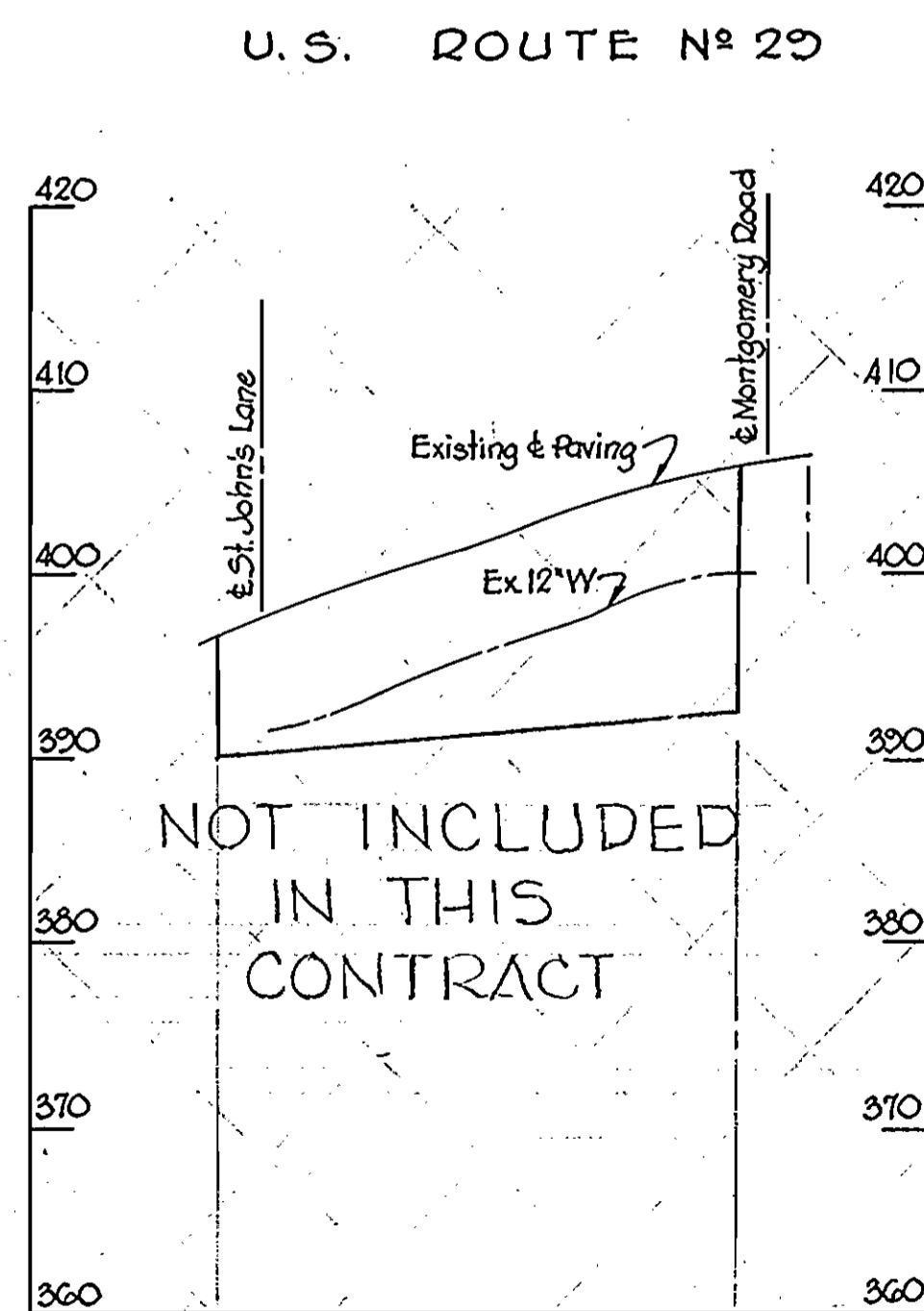
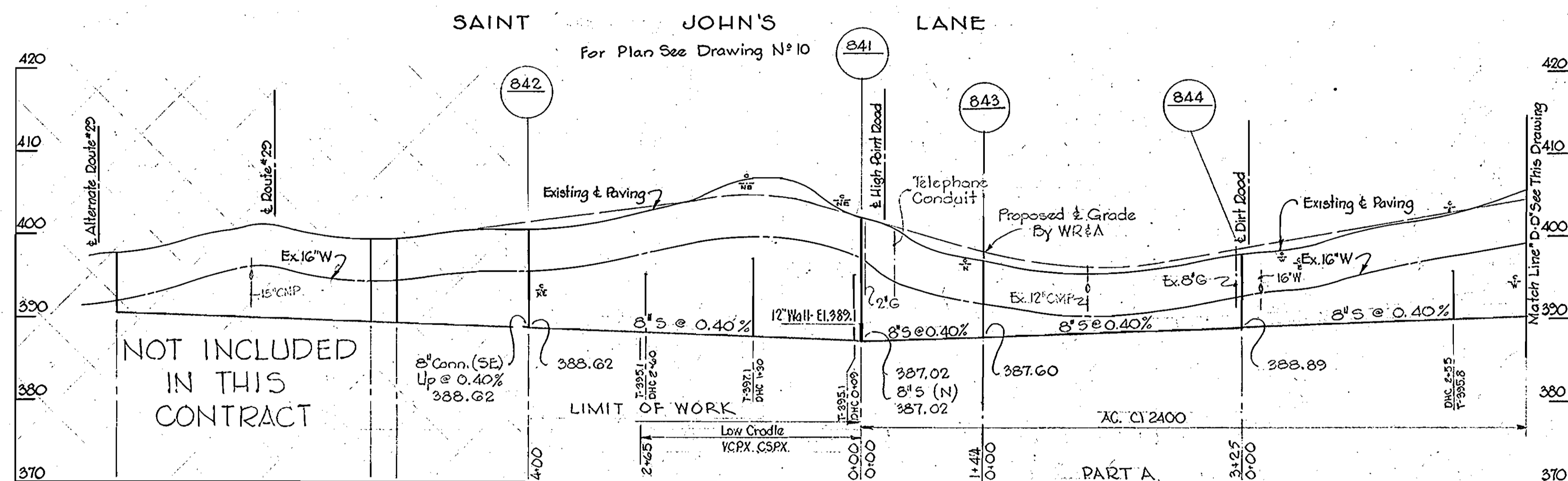
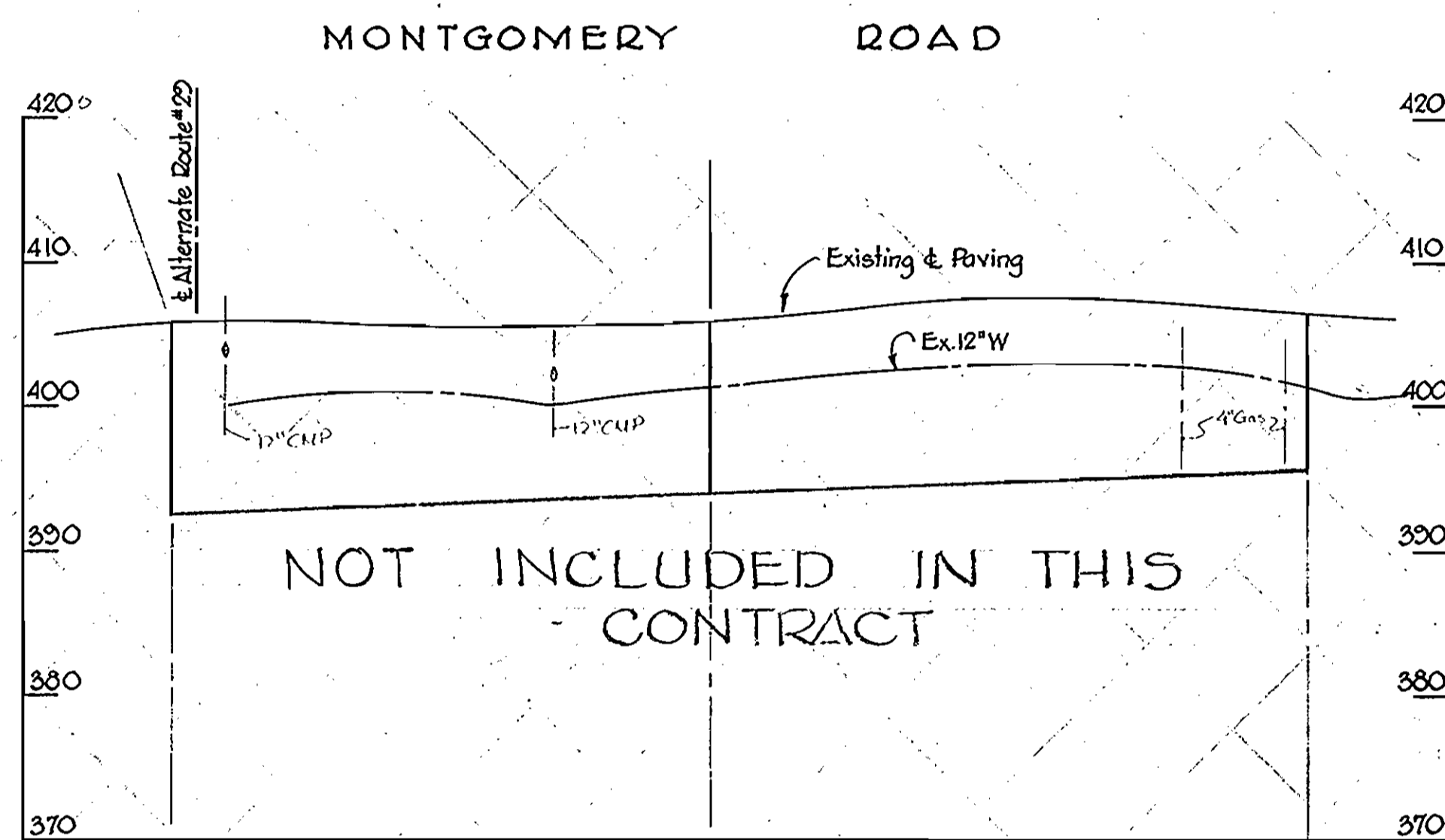
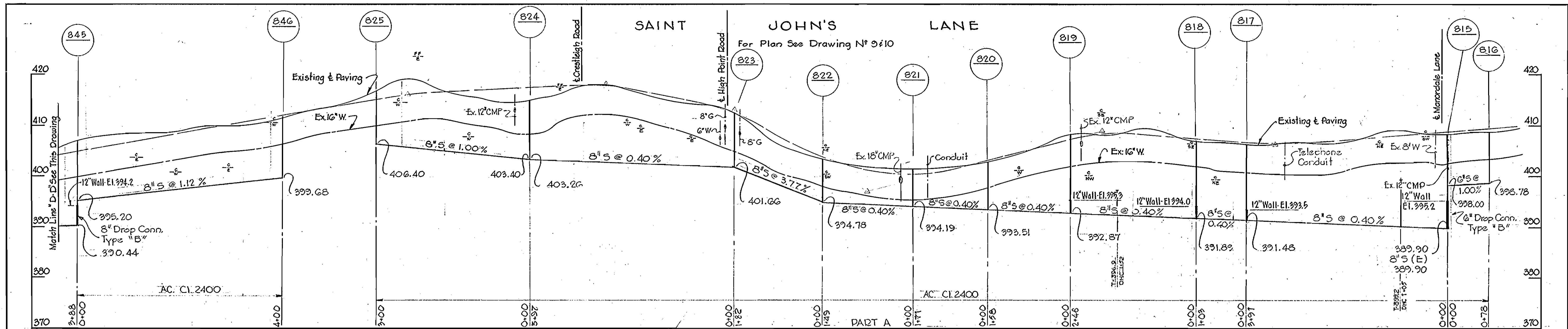
DRAWING NO. 19 OF 24  
SCALE H-1"=100' V-1"=10'

AS BUILT FEB. 28 FEB. 66

WS 31-S/19

W. O. 5010-2

ELLIOTT CO., PITTSBURGH REORDER A-3970



| No. | Date    | Revision             |
|-----|---------|----------------------|
| 1   | 6-18-65 | Manhole 835-A added. |
| 2   | 3-19-68 | 6" Sewer added       |

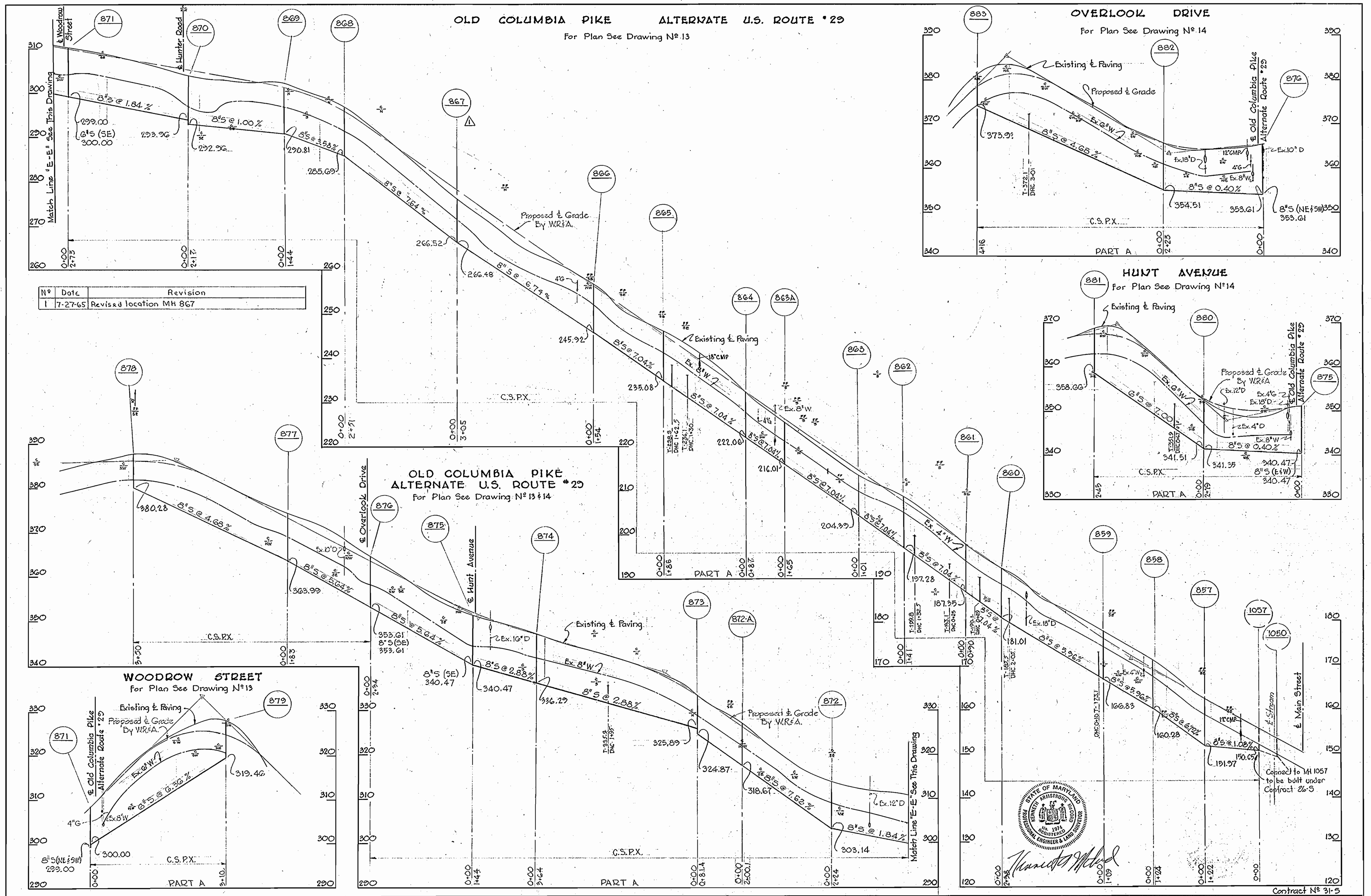


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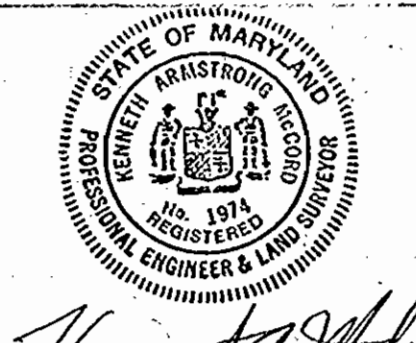
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|---|---|-------------------|----------------------------|----------------------------|----------------------|
| WHITMAN, REARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>DATE: Dec. 16, 1963<br><i>Chief Engineer Signature</i><br>CHIEF ENGINEER | CONTRACT NO. 31-S | PROFILES OF<br>SEWER MAINS | ELLICOTT CITY SUB-DISTRICT | Contract No. 31-5    |
|   |   |                   |                            |                            | DRAWING NO. 20 OF 24 |

WS 31-S/20

WS 31-S/21



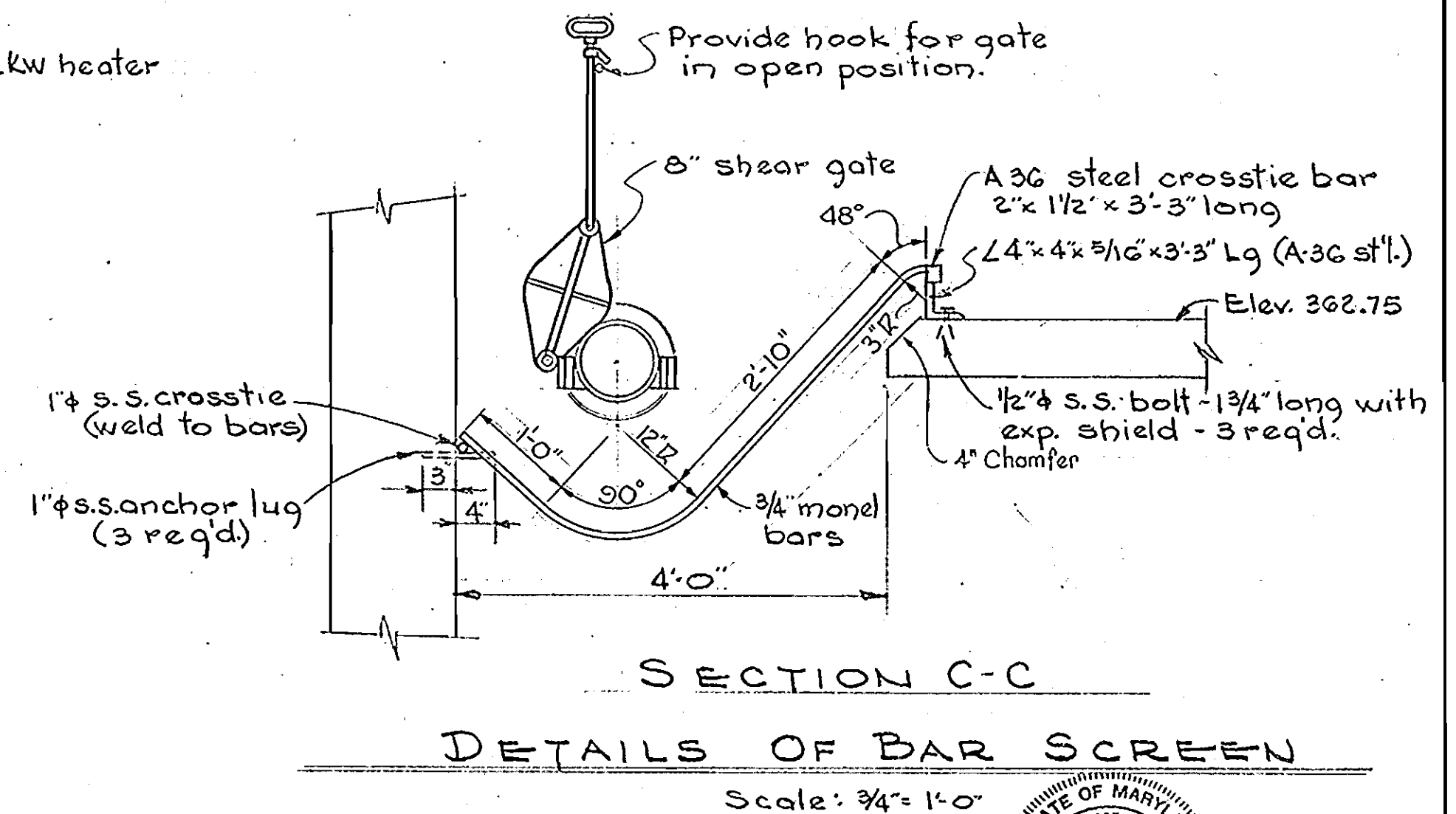
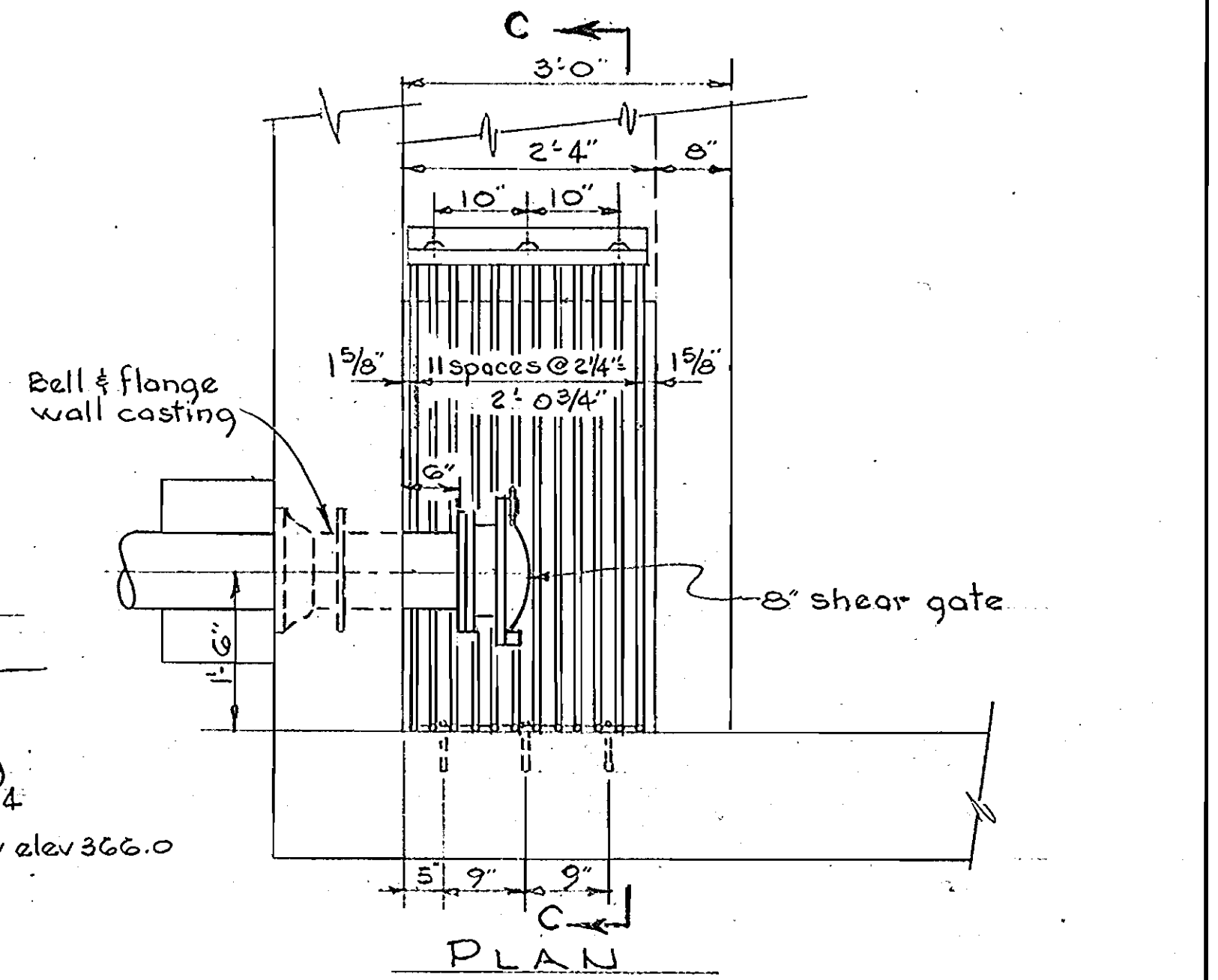
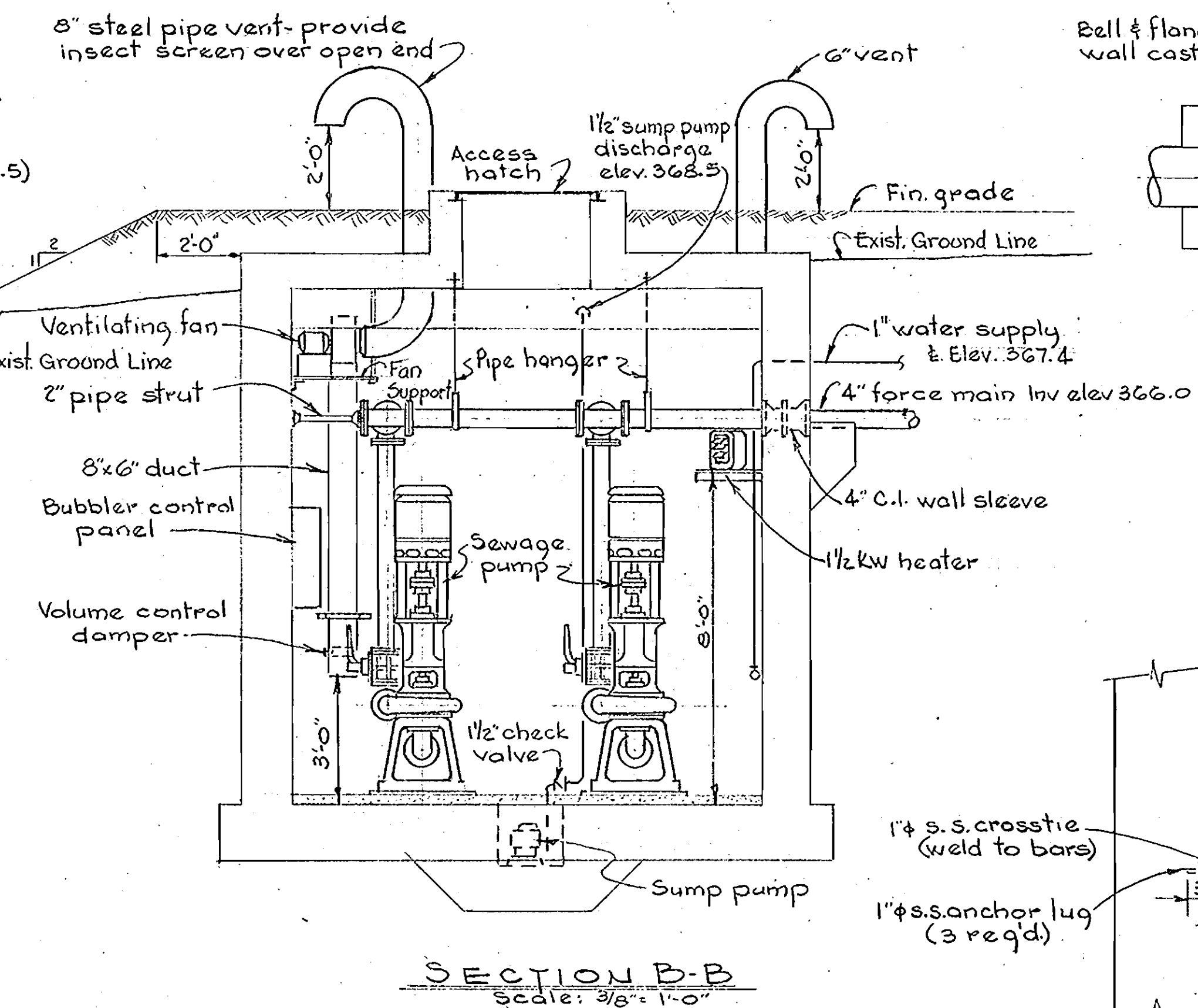
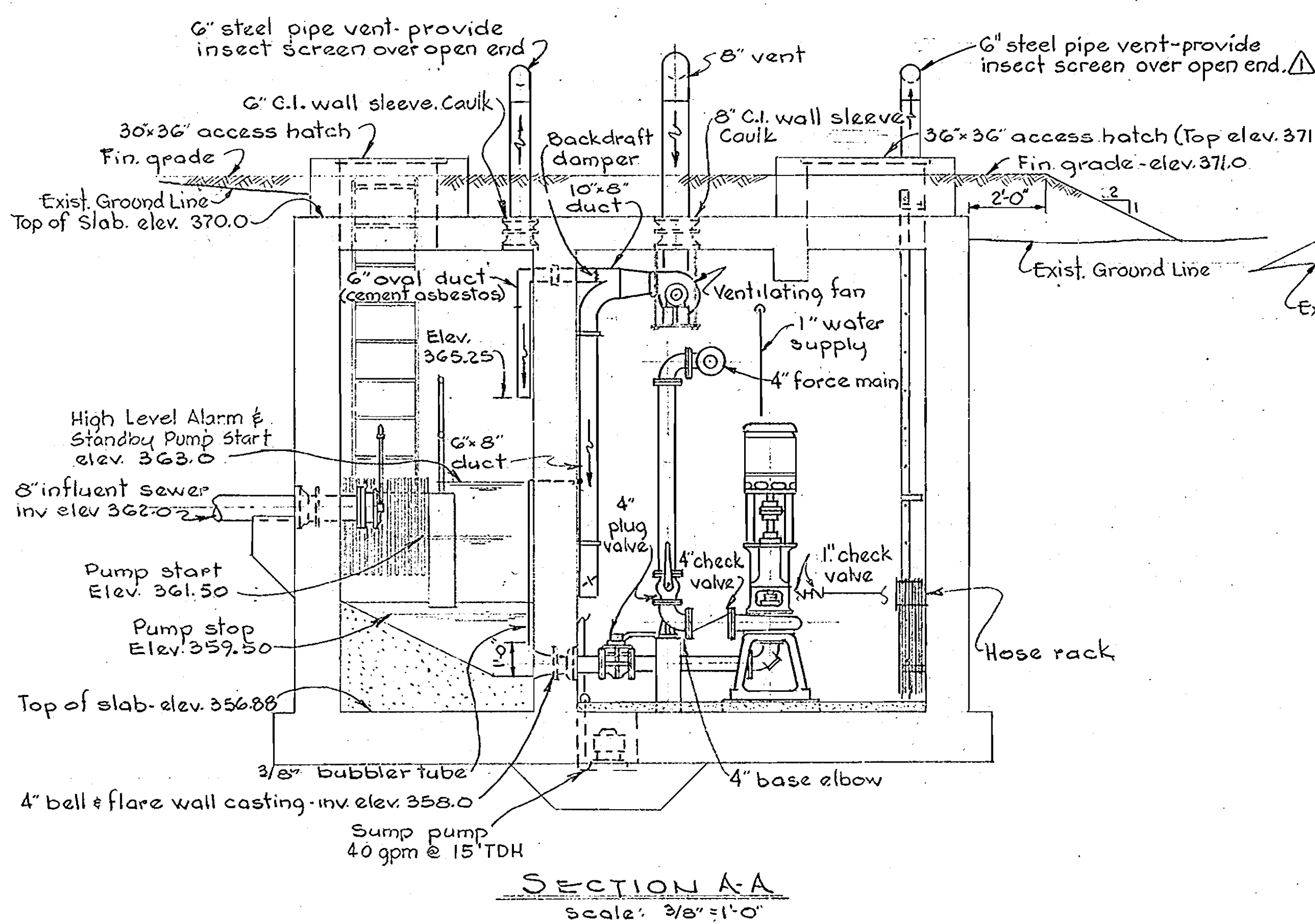
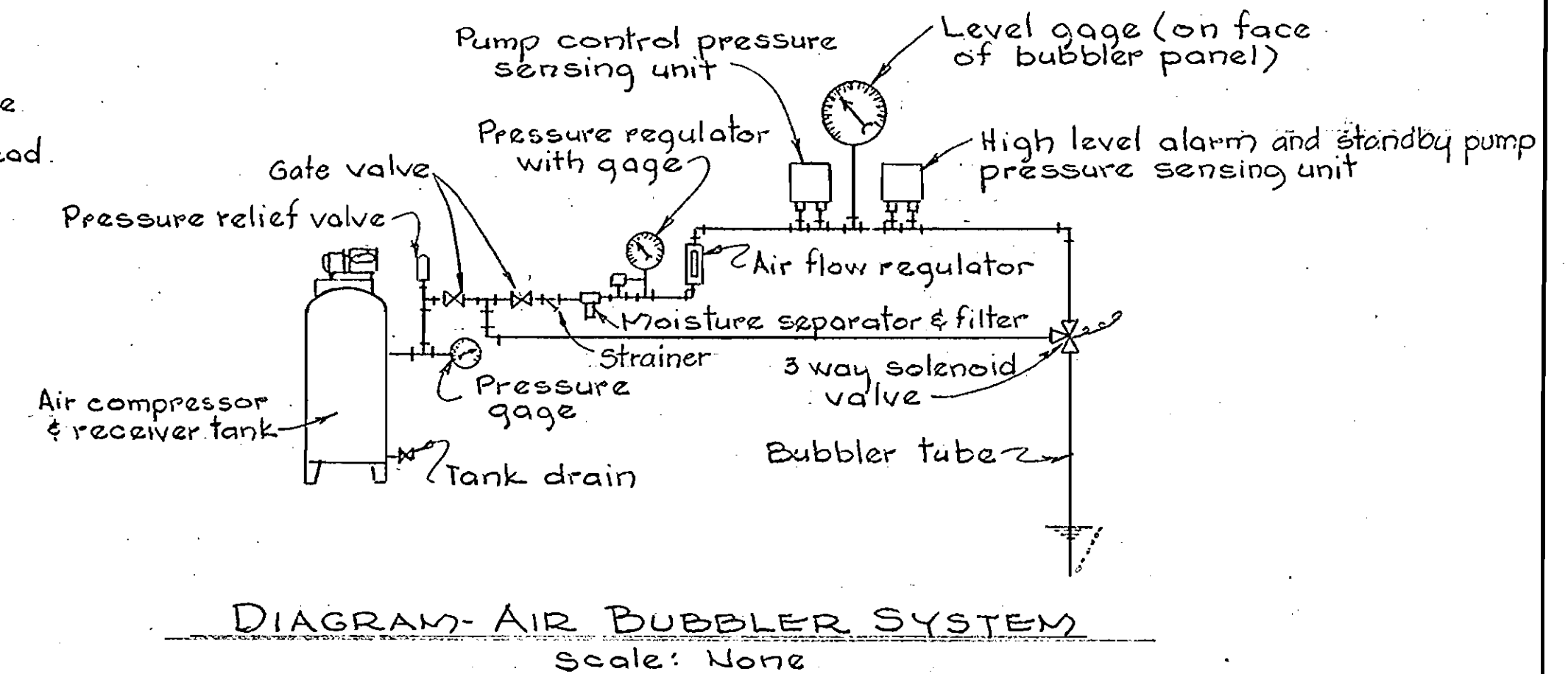
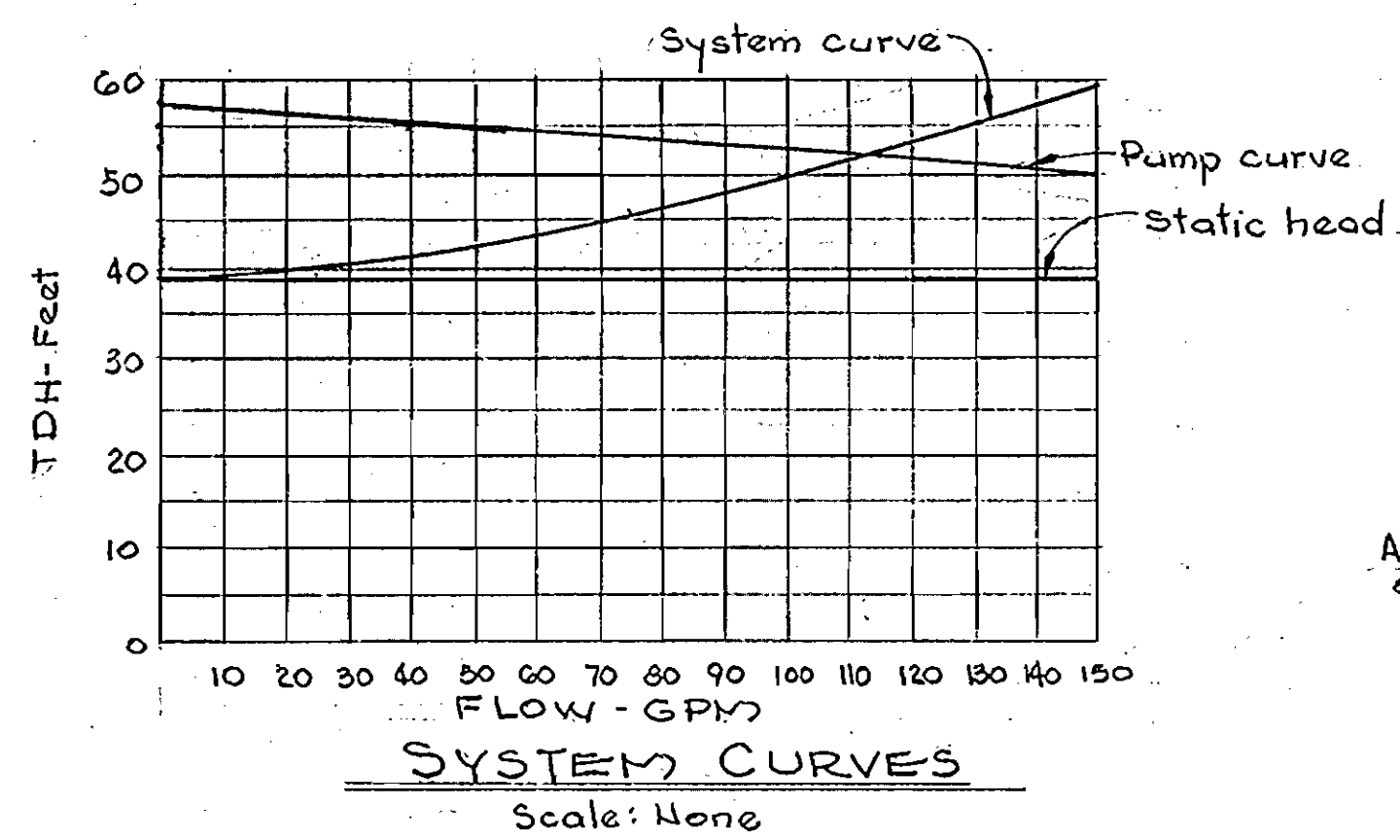
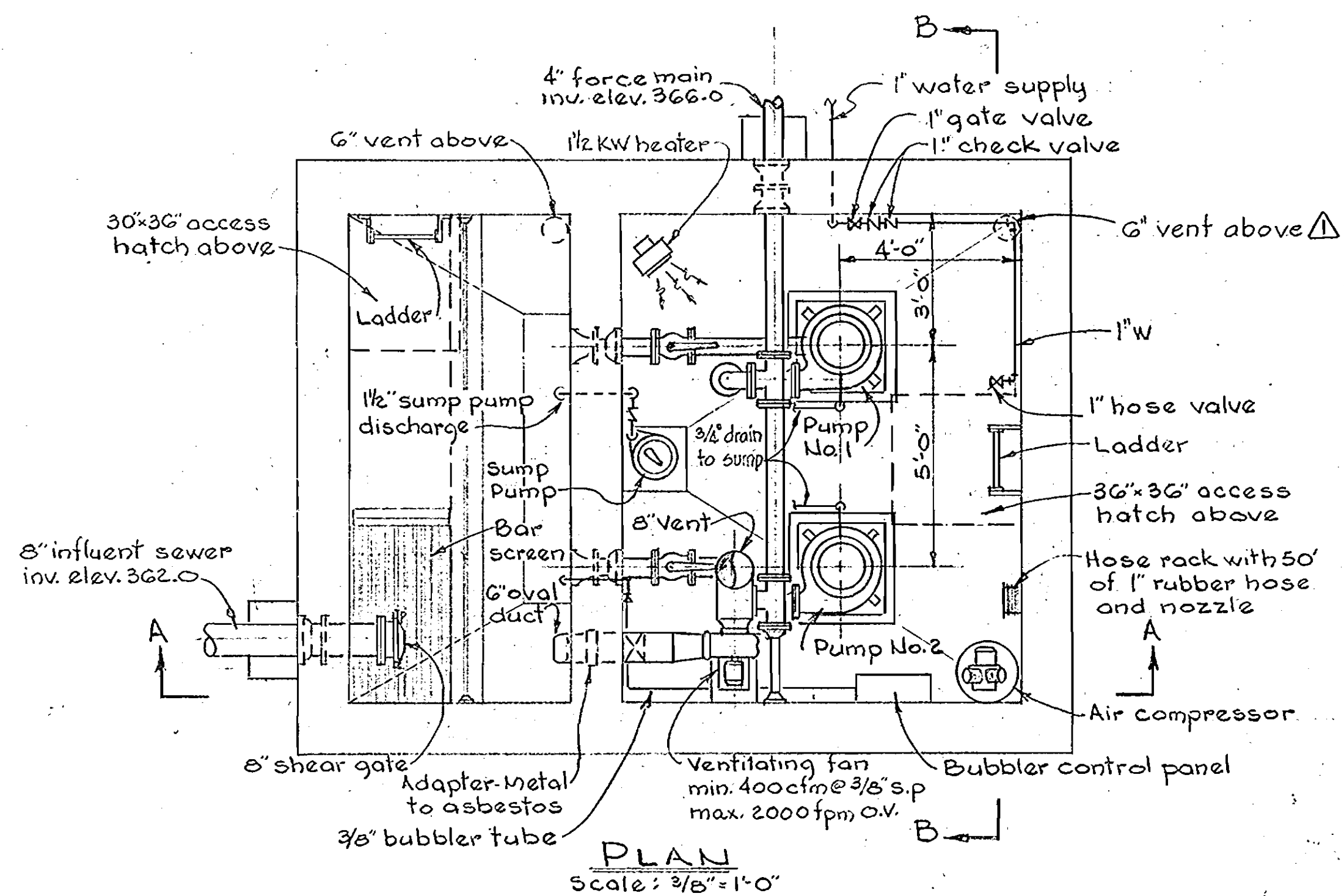
| N° | Date    | Revision                |
|----|---------|-------------------------|
| 1  | 7-27-65 | Revised location MH 867 |



|   |   |                   |                            |                            |                            |                                |                  |
|---|---|-------------------|----------------------------|----------------------------|----------------------------|--------------------------------|------------------|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>DATE: Dec. 16, 1963<br><i>Chief Engineer</i><br>CHIEF ENGINEER | CONTRACT NO. 31-S | PROFILES OF<br>SEWER MAINS | ELLICOTT CITY SUB-DISTRICT | DRAWING<br>NO. 21<br>OF 24 | SCALE<br>H-1"=100'<br>V-1"=10' | Contract N° 31-S |
|---|---|-------------------|----------------------------|----------------------------|----------------------------|--------------------------------|------------------|

W. O. 5010-2

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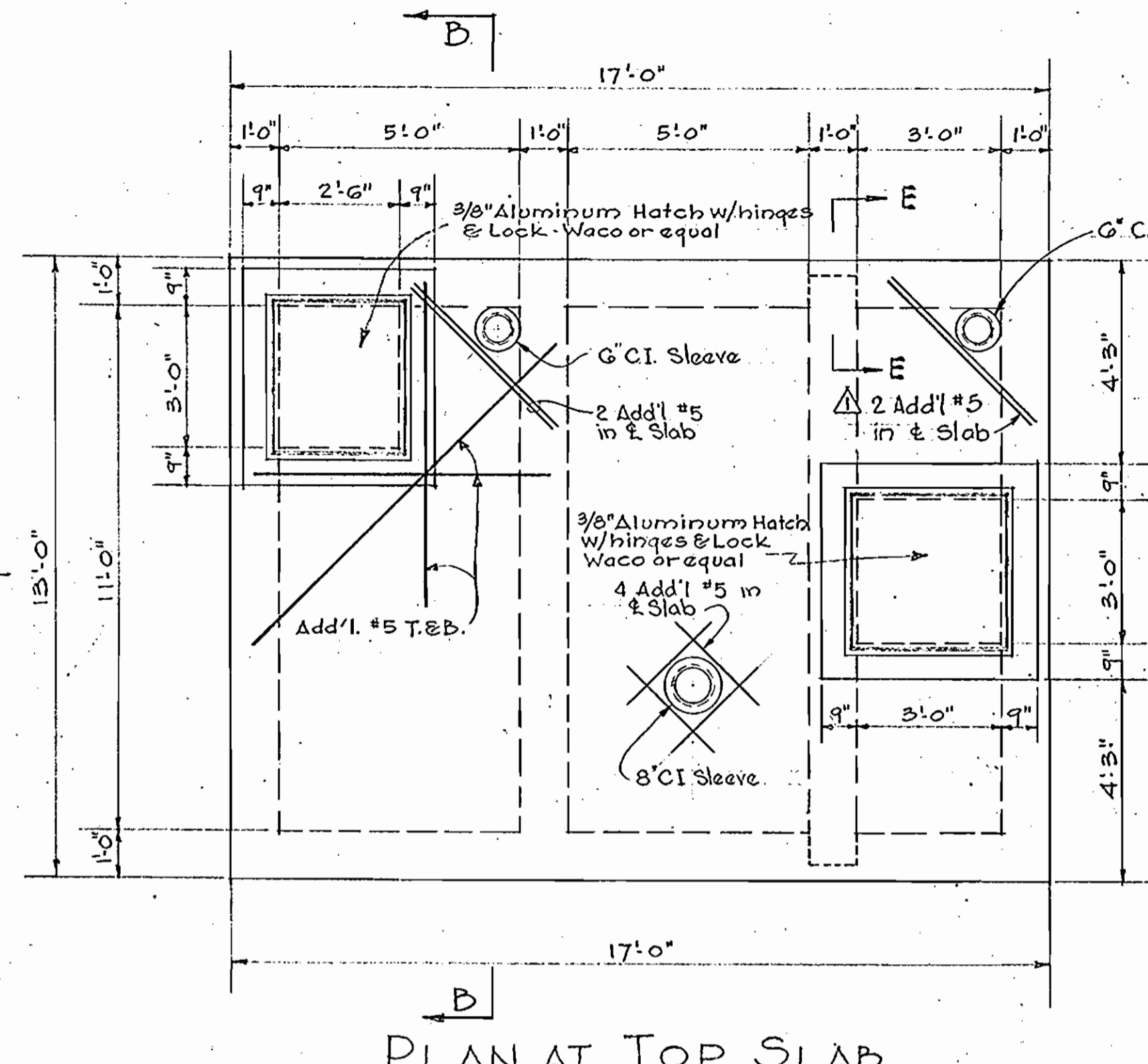


| No. | Date    | Revision                    |
|-----|---------|-----------------------------|
| 1   | 1-18-65 | Added 6" vent to motor room |

Contract No. 31-S

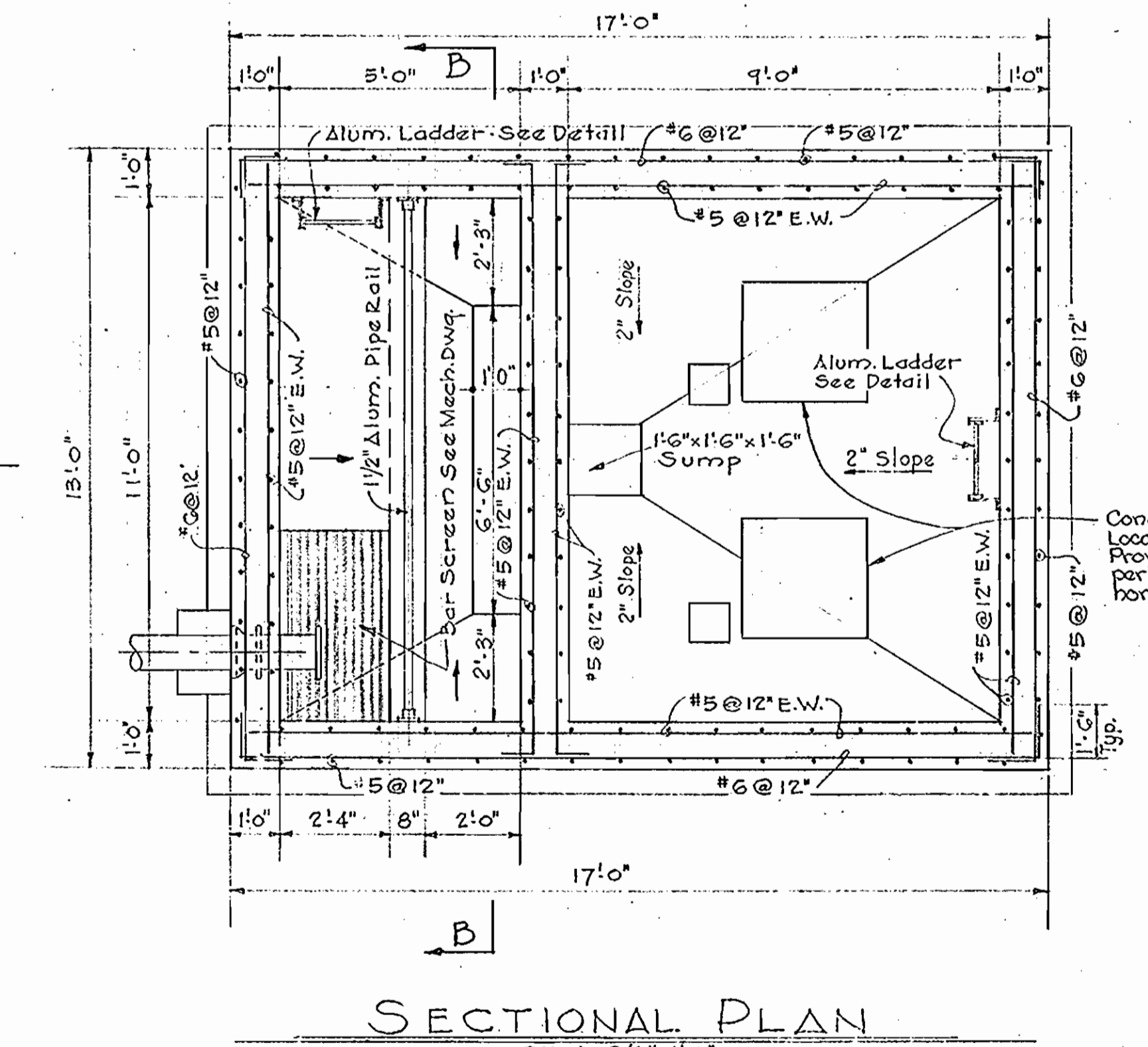
|   |  |                   |                                       |                            |                         |                |
|---|--|-------------------|---------------------------------------|----------------------------|-------------------------|----------------|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>DATE: Dec. 16, 1963<br><br>CHIEF ENGINEER | CONTRACT NO. 31-S | PUMPING STATION<br>MECHANICAL DETAILS | ELLICOTT CITY SUB-DISTRICT | DRAWING NO. 22<br>OF 24 | SCALE AS SHOWN |
|---|--|-------------------|---------------------------------------|----------------------------|-------------------------|----------------|

22/S-12  
 SW

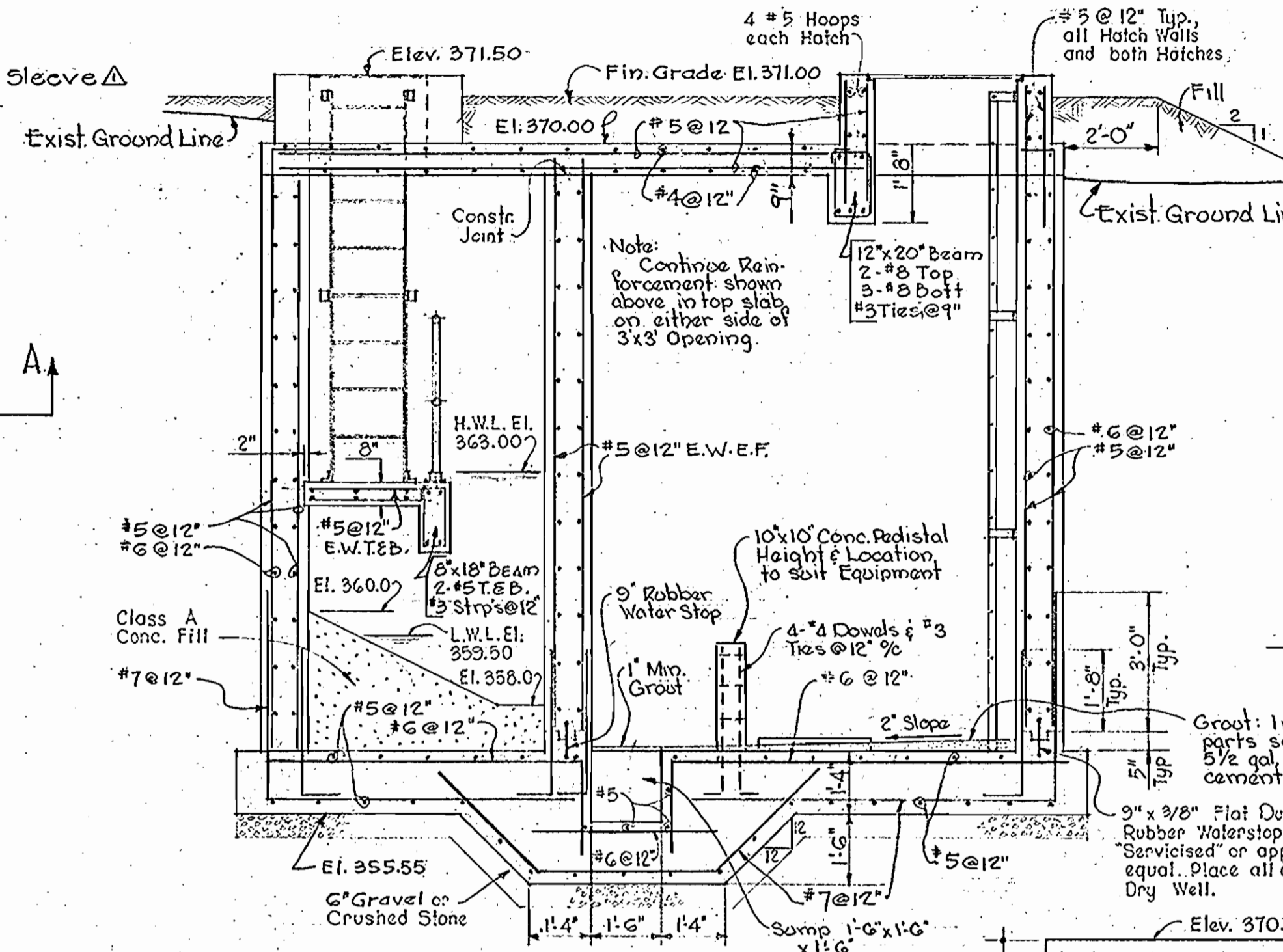


PLAN AT TOP SLAB  
Scale: 3/8" = 1'-0"

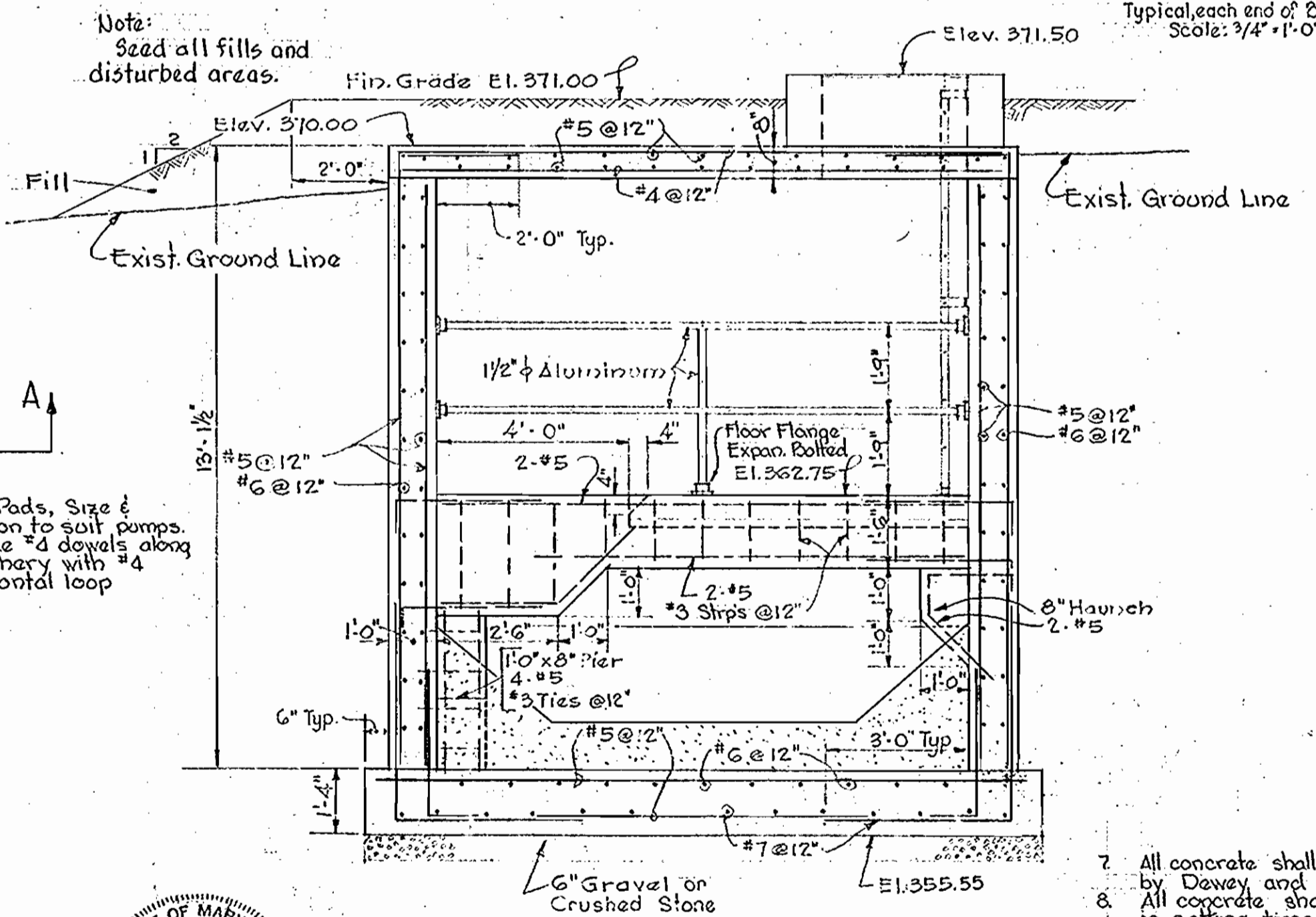
- STRUCTURAL NOTES**
- All Concrete shall be Class A with Compressive Strength of 28 Days of 3500 psi. For admixtures see Notes 7, 8, & 9.
  - Base Slab shall be poured on one layer of Siso-Lock "Mistop" (or approved equal) placed on a 6" min. Sub-Base of well compacted Gravel or Crushed Stone.
  - All Reinforcing Steel shall be Intermediate Grade (ASTM-A-18) with deformations conforming to ASTM Spec. A-305. Laps, Splices, and Bends not indicated on the Drawings shall be as spaced.
  - Concrete Cover for Reinforcing shall be as follows:
    - Bottom of Footings, Slabs and Walls poured against Earth, Rock, Gravel or Crushed Stone: 3"
    - Formed Walls, Top of Footings and Base Slabs, Submerged Slabs and Bottom of Slabs over water: 2"
    - Beam Stirrups and Ties: 1/2"
  - Aluminum shall be 6061 T6.
  - All rubber water stops shall be made continuous by using pre-molded fittings & sleeves cemented with an adhesive in strict accordance with the manufacturer's recommendations.



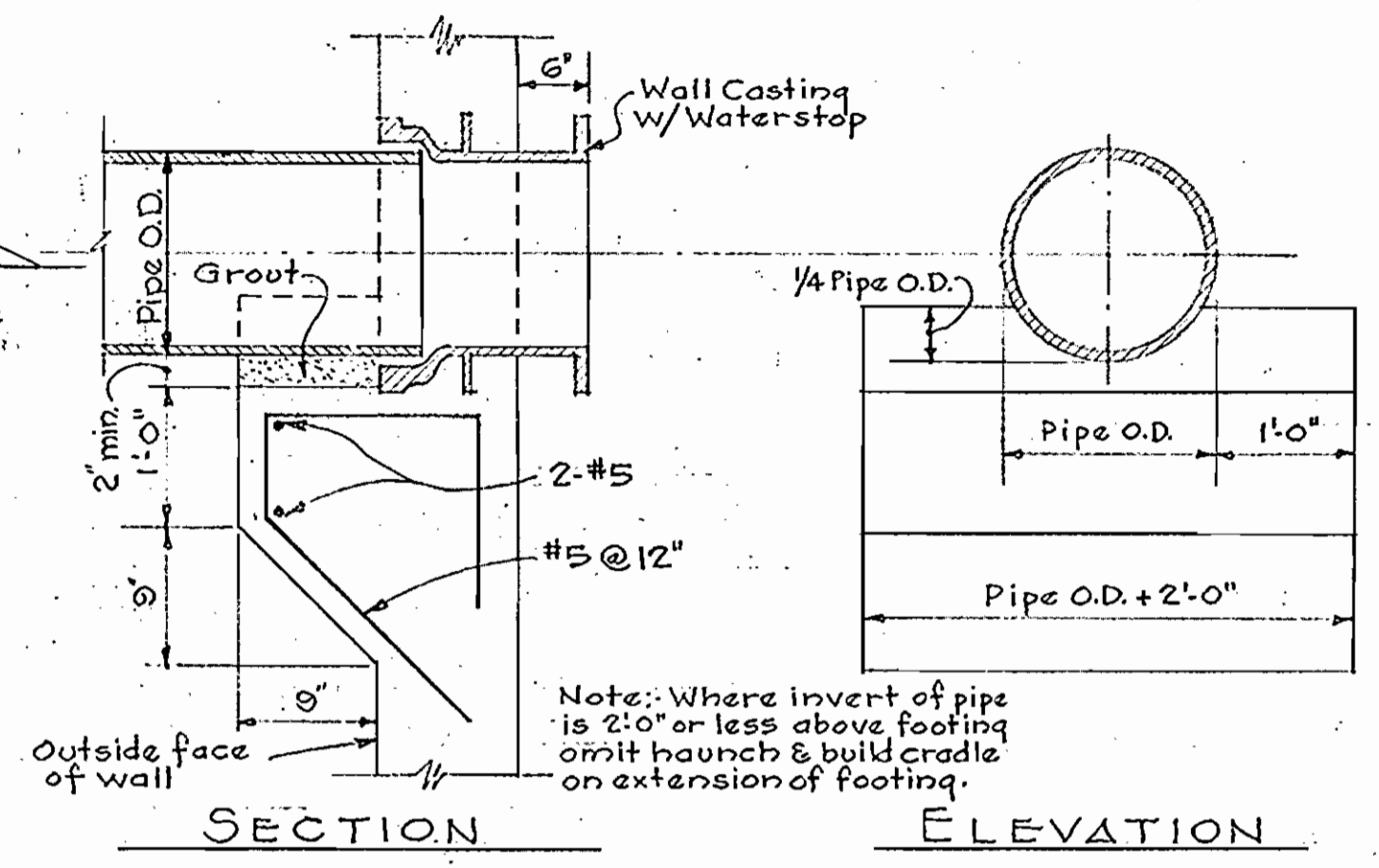
SECTIONAL PLAN  
Scale: 3/8" = 1'-0"



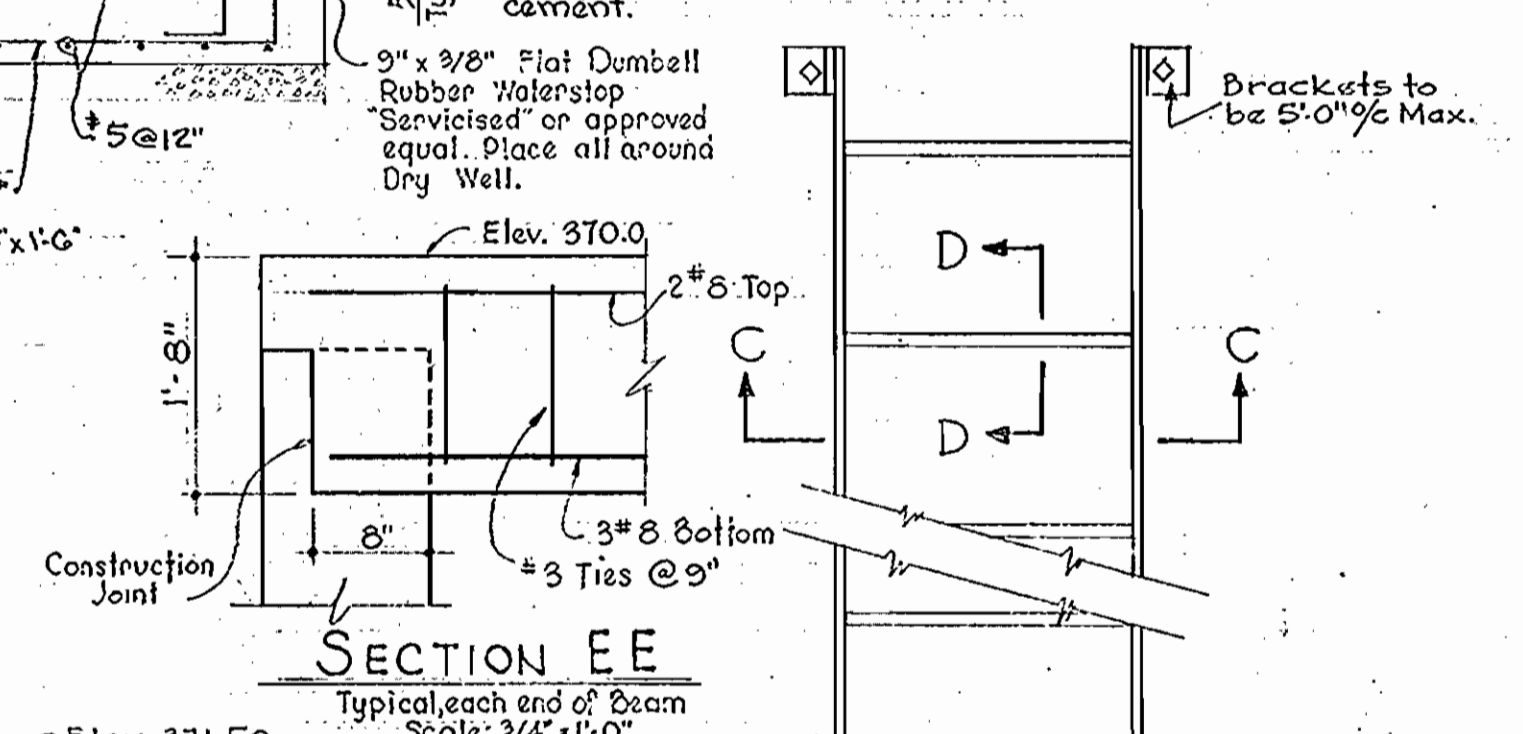
SECTION A-A  
Scale: 3/8" = 1'-0"



SECTION B-B  
Scale: 3/8" = 1'-0"

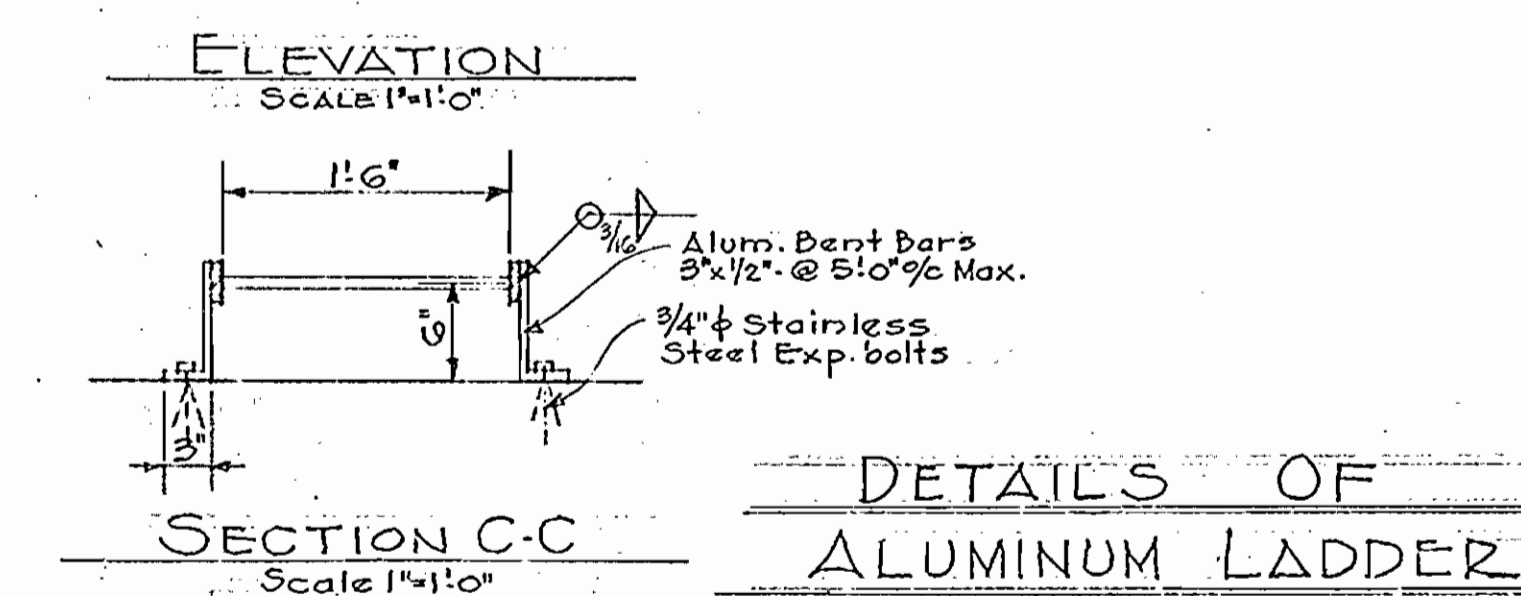


PIPE HAUNCH AT EXTERIOR WALLS  
FOR PIPE SIZE & LOCATION SEE MECHANICAL DWGS.



SECTION C-C  
Scale: 1/4" = 1'-0"

SECTION D-D  
FULL SIZE



DETAILS OF ALUMINUM LADDER

- STRUCTURAL NOTES (CONT.)**
- All concrete shall contain 45% ± by volume of entrained air. Air entraining admixture shall be "Darex" as manufactured by Dawey and Almy Chemical Division, W.R. Grace and Co., or approved equal.
  - All concrete shall contain a water reducing and retarding admixture to result in a retardation of 2 to 3 hours in setting time. The admixture shall be "Plastiment" as manufactured by the Sika Chemical Corporation, or approved equal.
  - All admixture solutions shall be considered as part of the quantity of mixing water specified.
  - The Contractor shall submit shop details of reinforcing steel before proceeding with fabrication.
  - Chamfer all exposed edges of concrete 3/4"

|    |         |  |
|----|---------|--|
| 1  | 1-13-68 | G.C.I. Sleeve & add'l reinf. for G' vent added |
| Nº | Date:   | Revision                                       |



*Handwritten signature*

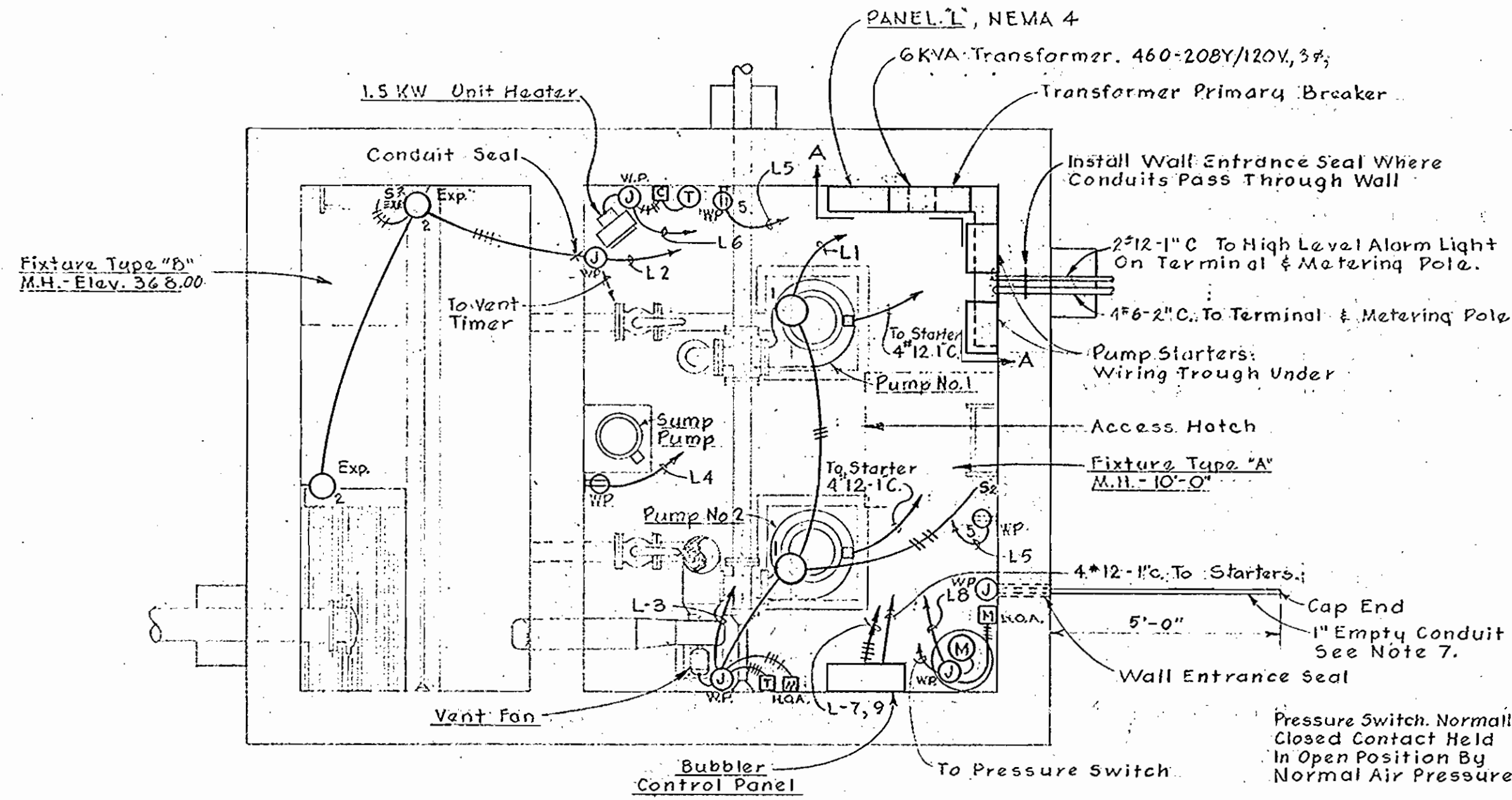
PART-A

|   |  |                   |                                       |                           |                         |                |                   |
|---|--|-------------------|---------------------------------------|---------------------------|-------------------------|----------------|-------------------|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>Dec. 16, 1963<br>DATE | CONTRACT NO. 31-S | PUMPING STATION<br>STRUCTURAL DETAILS | ELLCOTT CITY SUB-DISTRICT | DRAWING NO. 23<br>OF 24 | SCALE AS SHOWN | Contract No. 31-S |
|---|--|-------------------|---------------------------------------|---------------------------|-------------------------|----------------|-------------------|

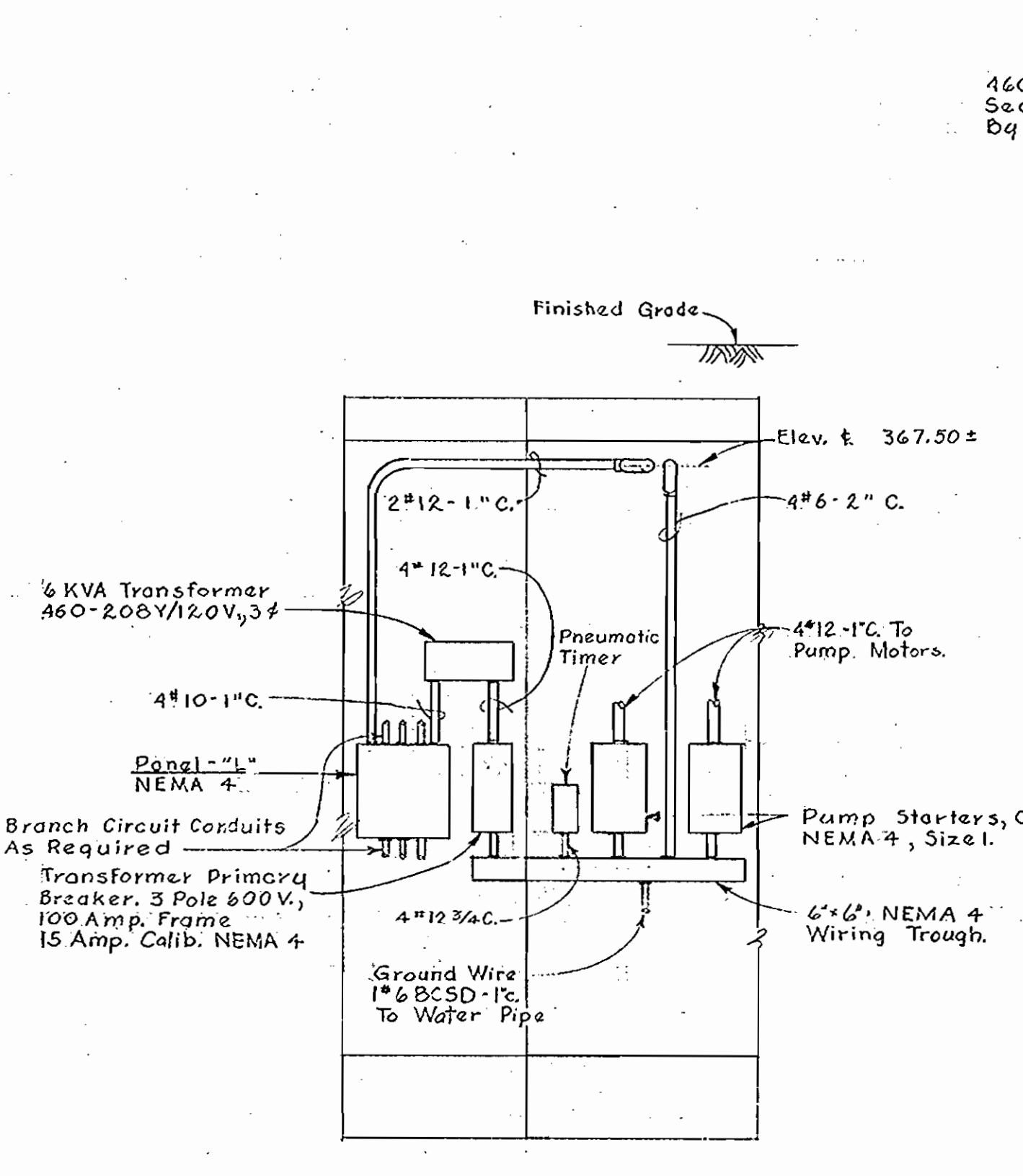
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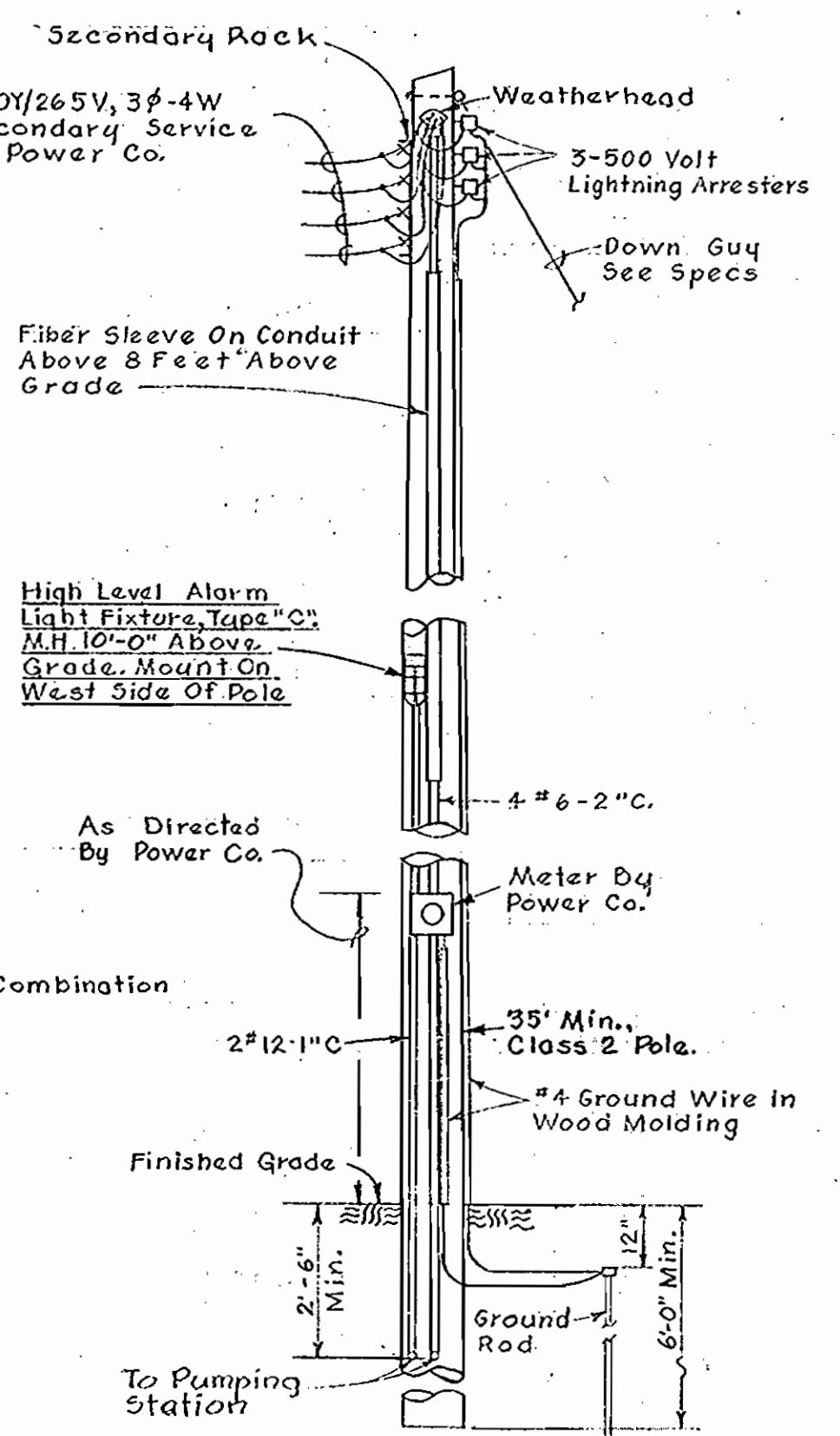
WS 31-S/23



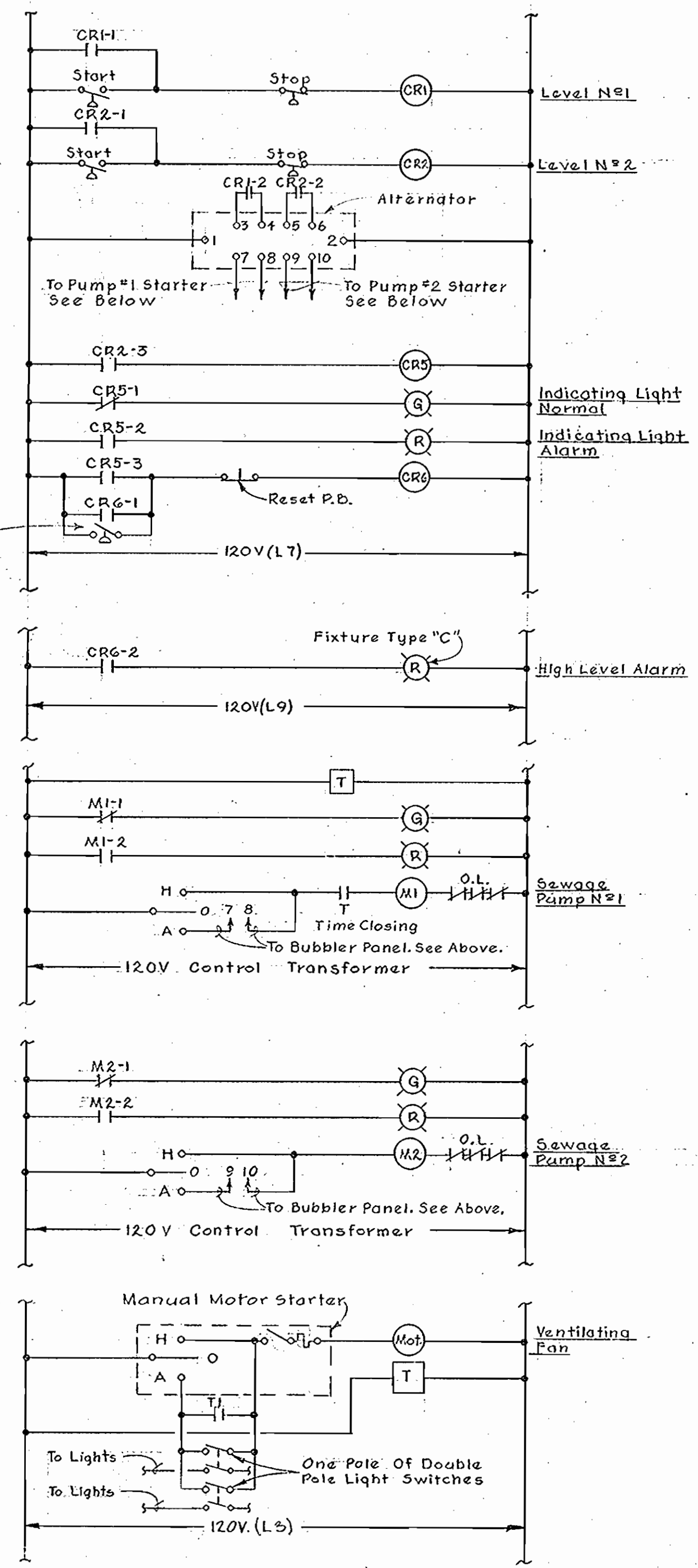
**PUMP ROOM - PLAN**  
Scale: 3/8"=1'-0"



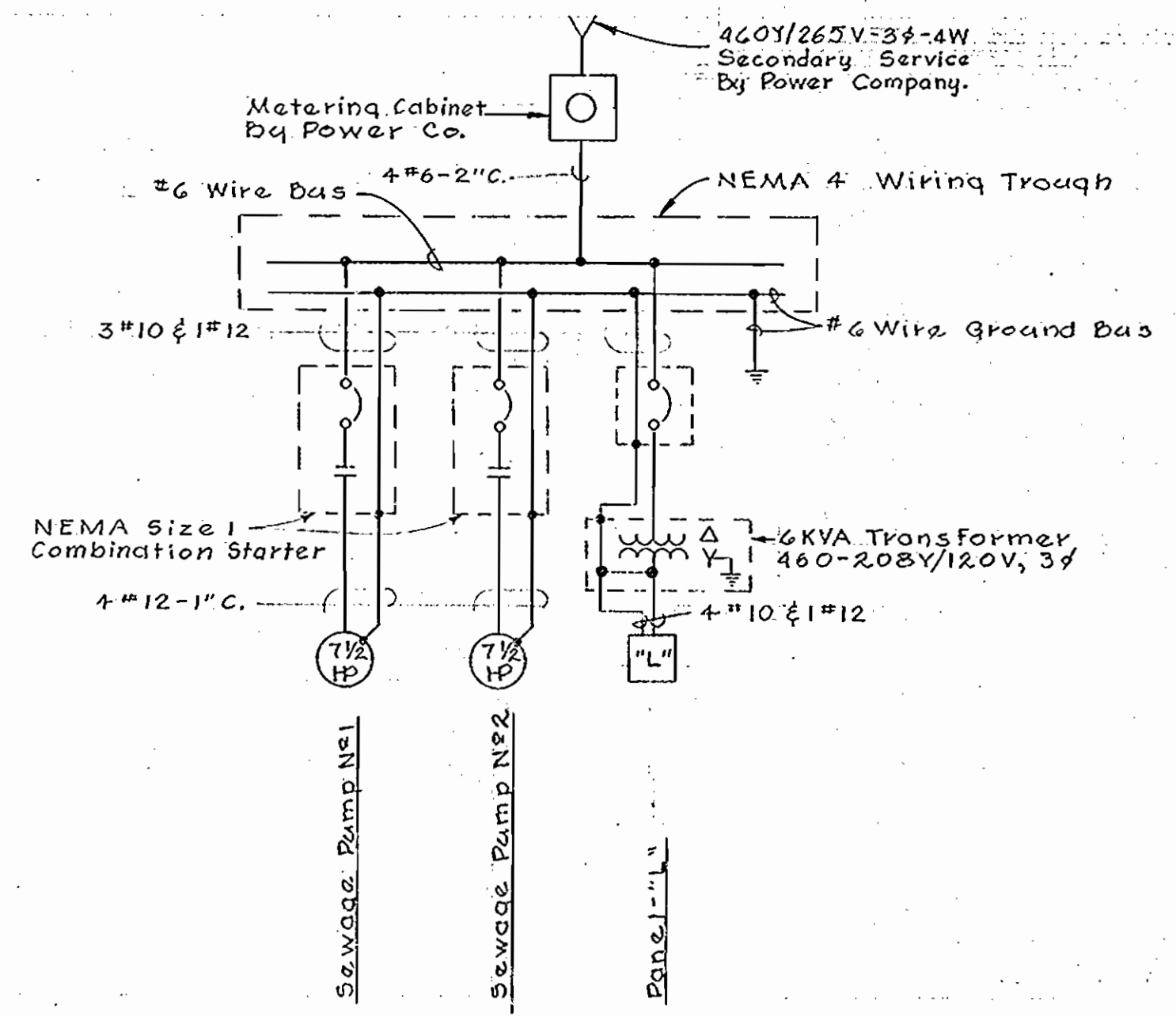
**SECTION A-A**  
Scale: 3/8"=1'-0"



**POLE - DETAIL**  
Scale: 3/8"=1'-0"



**ELEMENTARY CONTROL WIRING DIAGRAMS**  
No Scale



**ONE LINE WIRING DIAGRAM**  
No Scale

- LEGEND**
- H - Outlet, Incandescent, Ceiling-Wall.
  - J - Junction Box, Ceiling-Wall.
  - ⊖ WP - Outlet, Single Convenience, Weatherproof-M.H. 4'-0".
  - S<sub>2</sub> 5<sub>2</sub> - Switch, Double Pole-Explosionproof.
  - ⊖ T - Thermostat
  - M HOA - Starter, Manual With Hand-Off-Auto; Switch.
  - ⊖ C - Contactor
  - ⊖ CR - Conduit On Ceiling Or Wall.
  - ⊖ CR - Control Relay
  - ⊖ - Home Run To Panelboard-Nº OF Arrows Indicates Nº OF Circuits; Nº OF Cross Lines Indicates Nº OF Wires. Where No Cross Lines Appear, 2 Conductors Are Implied.
  - ⊖ - Pressure Operated Switch, Normally Open, Closes On Rise.
  - ⊖ - Pressure Operated Switch, Normally Closed, Opens On Fall.
  - ⊖ T - Timer
  - WP - Weatherproof
  - EXP - Explosion Proof

- ELECTRICAL NOTES**
1. Wire Size Shall Be #12 A.W.G. Minimum Unless Otherwise Noted.
  2. Conduit Shall Be 3/4" Minimum Unless Otherwise Noted.
  3. For Location Map, See Dwg. No. 1 of 24.
  4. For Outside Utilities, See Dwg. No. 12 of 24.
  5. Wall Mounted Electrical Equipment Shall Be Spaced One Inch From Wall.
  6. All Interior Conduits Shall Be Run Exposed On Ceiling Or Walls.
  7. Install 1" Empty Conduit At Elev. 367.50±. Terminate In Junction Box.



*Howard County*  
Contract No. 31-S

PART-A

|   |  |                   |                                       |                            |  |
|---|--|-------------------|---------------------------------------|----------------------------|--|
| WHITMAN, REQUARDT & ASSOCIATES<br>ENGINEERS<br>1304 ST. PAUL ST.<br>BALTIMORE, MARYLAND | HOWARD COUNTY METROPOLITAN COMMISSION<br>Dec. 16, 1963<br><i>Carl W. Meyer</i><br>CHIEF ENGINEER | CONTRACT NO. 31-S | PUMPING STATION<br>ELECTRICAL DETAILS | ELLICOTT CITY SUB-DISTRICT | DRAWING NO. 24 OF 24<br>SCALE AS SHOWN |
|---|--|-------------------|---------------------------------------|----------------------------|--|

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WS 31-S/24