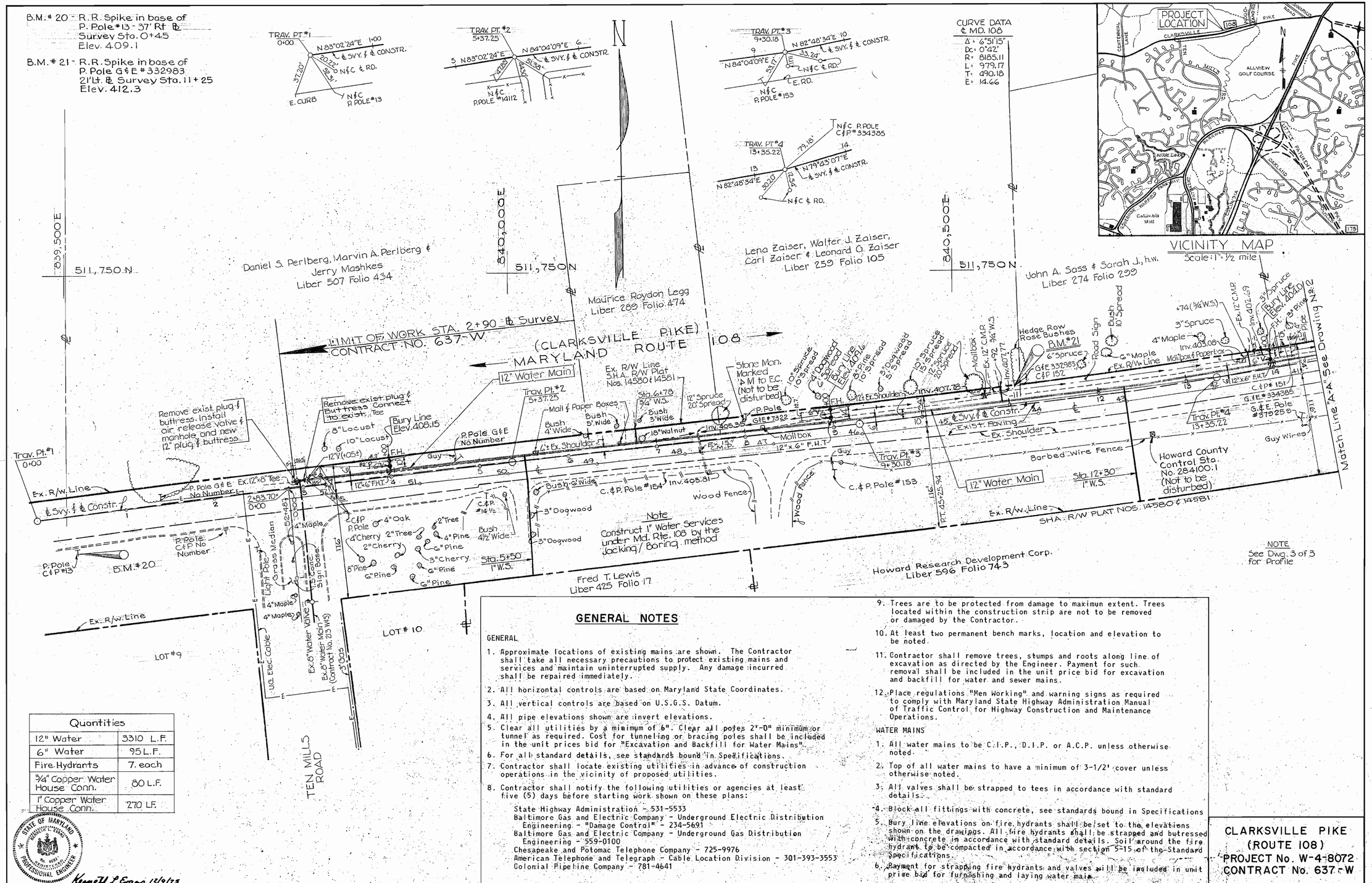


Quantities	
12" Water	3310 L.F.
6" Water	95 L.F.
Fire Hydrants	7. each
3/4" Copper Water House Conn.	80 L.F.
1" Copper Water House Conn.	270 L.F.

GENERAL NOTES

GENERAL

1. Approximate locations 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.
2. All horizontal controls are based on Maryland State Coordinates.
3. All vertical controls are based on U.S.G.S. Datum.
4. All pipe elevations shown are invert elevations.
5. Clear all utilities by a minimum of 6". Clear all poles 2'-0" minimum or tunnel as required. Cost for tunneling or bracing poles shall be included in the unit prices bid for "Excavation and Backfill for Water Mains".
6. For all standard details, see standards bound in Specifications.
7. Contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
8. Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these plans:

   State Highway Administration - 531-5533
   Baltimore Gas and Electric Company - Underground Electric Distribution Engineering - "Damage Control" - 234-5691
   Baltimore Gas and Electric Company - Underground Gas Distribution Engineering - 559-0100
   Chesapeake and Potomac Telephone Company - 725-9976
   American Telephone and Telegraph - Cable Location Division - 301-393-3553
   Colonial Pipeline Company - 781-4641

9. Trees are to be protected from damage to maximun extent. Trees located within the construction strip are not to be removed or damaged by the Contractor.
10. At least two permanent bench marks, location and elevation to be noted.
11. 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 for water and sewer mains.
12. Place regulations "Men Working" and warning signs as required to comply with Maryland State Highway Administration Manual of Traffic Control for Highway Construction and Maintenance Operations.

WATER MAINS

1. All water mains to be C.I.P., D.I.P. or A.C.P. unless otherwise noted.
2. Top of all water mains to have a minimum of 3-1/2' cover unless otherwise noted.
3. All valves shall be strapped to tees in accordance with standard details.
4. Block all fittings with concrete, see standards bound in Specifications
5. Bury line elevations on fire hydrants shall be set to the elevations shown on the drawings. All fire hydrants shall be strapped and butressed 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.
6. Payment for strapping fire hydrants and valves will be included in unit price bid for furnishing and laying water main.

STATE OF MARYLAND — KENNETH L. EVANS — No. 6037 — REGISTERED PROFESSIONAL ENGINEER

Kenneth L. Evans 12/9/73

CLARKSVILLE PIKE (ROUTE 108)
PROJECT No. W-4-8072
CONTRACT No. 637-W

THE WILSON T. BALLARD COMPANY CONSULTING ENGINEERS OWINGS MILLS MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND — DIRECTOR OF PUBLIC WORKS 2-25-77 DATE — CHIEF-BUREAU OF ENGINEERING 2-25-77 DATE	CONTRACT NO. 637-W	PLAN OF 12" WATER MAIN	CLARKSVILLE PIKE (ROUTE 108) TEN MILLS ROAD TO WOODLAND ROAD ELECTION DISTRICT 2 & ELECTION DISTRICT 5	DRAWING NO. 1 OF 3	SCALE 1"=50'

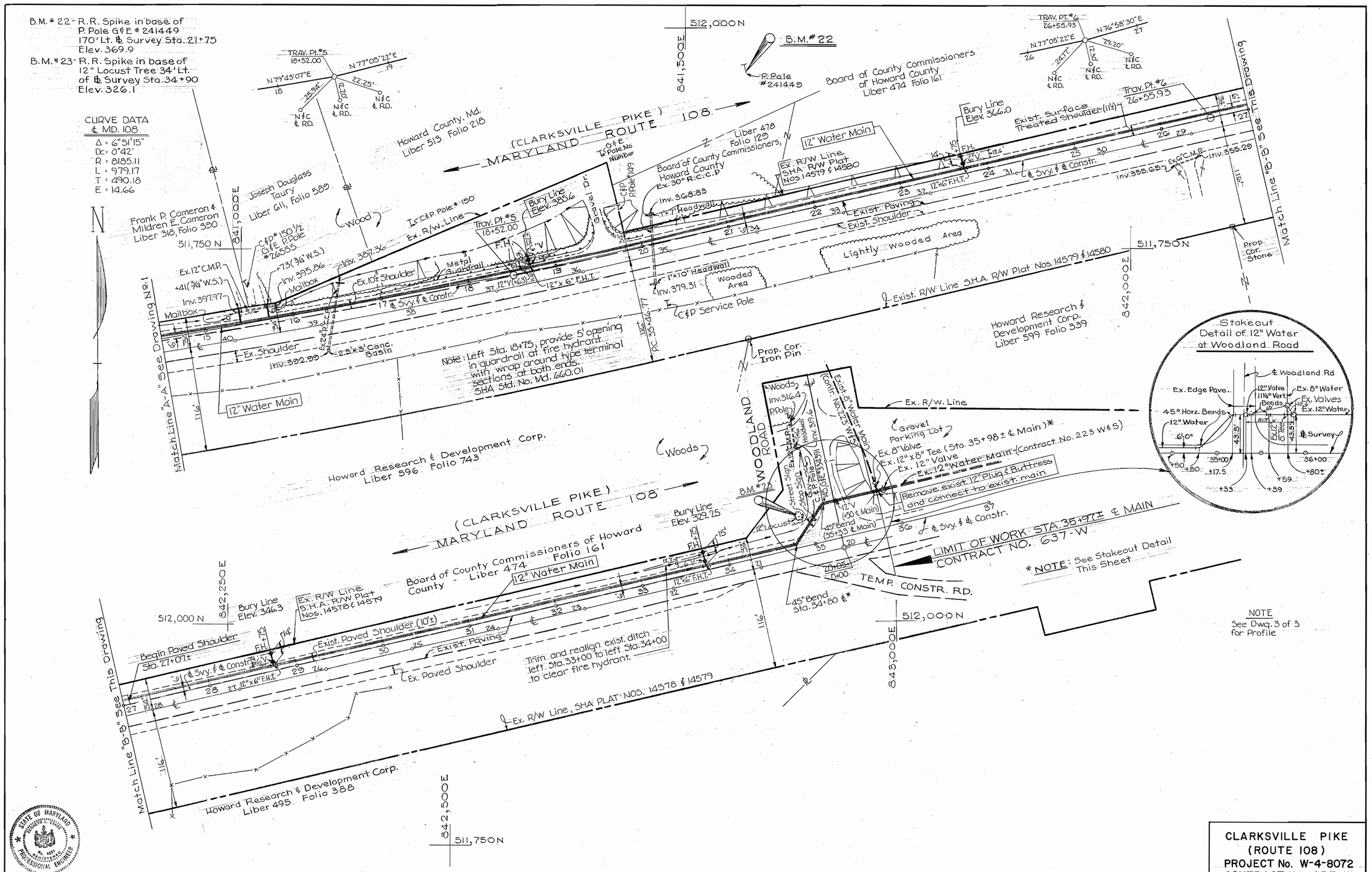
DATE: Ao. Built 3/19/79 M.W. Feb. 22, 1977

WS 637-W/1

B.M. # 22 - R.R. Spike in base of P. Pole G&E # 241449 170' Lt. ℄ Survey Sta. 21+75 Elev. 369.9

B.M. # 23 - R.R. Spike in base of 12" Locust Tree 34' Lt. of ℄ Survey Sta. 34+90 Elev. 326.1

CURVE DATA
℄ MD. 108
Δ = 6°51'15"
Dc = 0°42'
R = 8185.11
L = 979.17
T = 490.18
E = 14.66



NOTE
See Dwg. 3 of 3 for Profile

STATE OF MARYLAND — KENNETH L. EVANS — No. 4891 — REGISTERED PROFESSIONAL ENGINEER

Kenneth L. Evans 12/9/75

CLARKSVILLE PIKE
(ROUTE 108)
PROJECT No. W-4-8072
CONTRACT No. 637-W

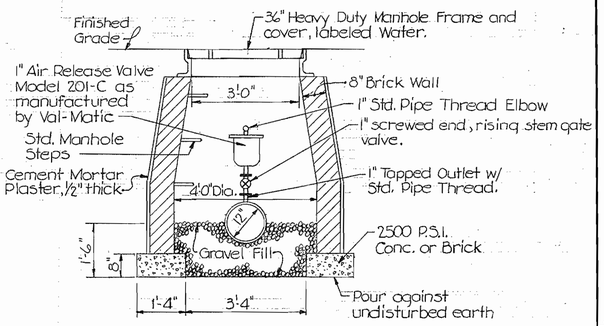
THE WILSON T. BALLARD COMPANY CONSULTING ENGINEERS OWINGS MILLS MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND — DIRECTOR OF PUBLIC WORKS DATE 2-25-77 — CHIEF—BUREAU OF ENGINEERING DATE 2-25-77	CONTRACT NO. 637-W	PLAN OF 12" WATER MAIN	CLARKSVILLE PIKE (ROUTE 108) TEN MILLS ROAD TO WOODLAND ROAD ELECTION DISTRICT 2 & ELECTION DISTRICT 5	DRAWING NO. 2 OF 3	SCALE 1"=50'

As Built 3/19/79 MW.
DATE: Feb. 22, 1977

WS 637-W/2

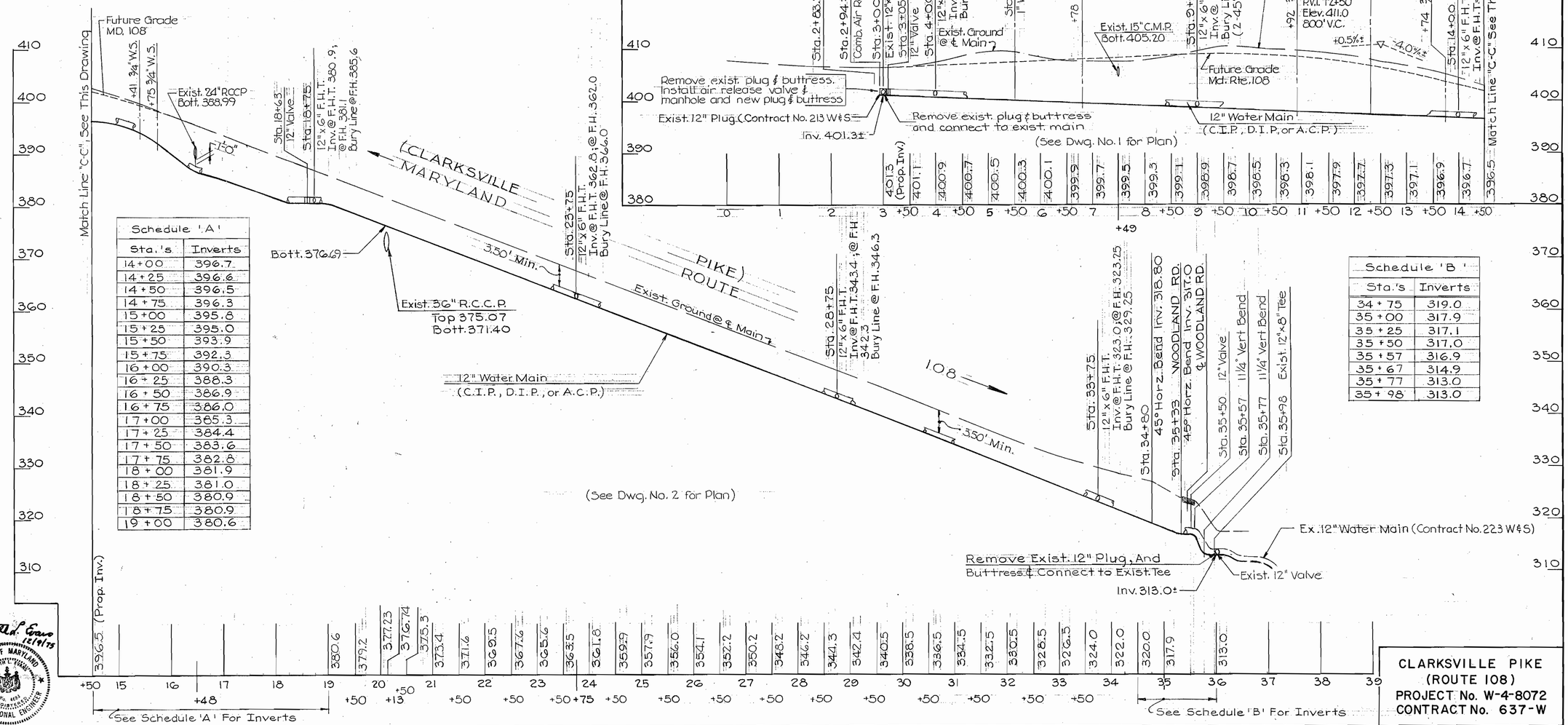
NOTES

1. Manhole frame & cover to be Richard Foundry Corp., Design No. B-2310 or approved equal with 4-1" dia. holes in cover.
2. Joints shall be provided in the water main within 1 ft. of the exterior walls of the manhole.



AIR RELEASE VALVE AND MANHOLE DETAILS

SCALE: 1/2"=1'-0"



Schedule 'A'	
Sta.'s	Inverts
14+00	396.7
14+25	396.6
14+50	396.5
14+75	396.3
15+00	395.8
15+25	395.0
15+50	393.9
15+75	392.3
16+00	390.3
16+25	388.3
16+50	386.9
16+75	386.0
17+00	385.3
17+25	384.4
17+50	383.6
17+75	382.8
18+00	381.9
18+25	381.0
18+50	380.9
18+75	380.9
19+00	380.6

Schedule 'B'	
Sta.'s	Inverts
34+75	319.0
35+00	317.9
35+25	317.1
35+50	317.0
35+57	316.9
35+67	314.9
35+77	313.0
35+98	313.0

Kenneth A. Evans 12/9/75
STATE OF MARYLAND KENNETH A. EVANS No. 10 REGISTERED PROFESSIONAL ENGINEER

CLARKSVILLE PIKE
(ROUTE 108)
PROJECT No. W-4-8072
CONTRACT No. 637-W

THE WILSON T. BALLARD COMPANY CONSULTING ENGINEERS OWINGS MILLS MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS — DATE 2-25-77 CHIEF-BUREAU OF ENGINEERING — DATE 2-25-77	CONTRACT NO. 637-W	PROFILE OF 12" WATER MAIN	CLARKSVILLE PIKE (ROUTE 108) TEN MILLS ROAD TO WOODLAND ROAD ELECTION DISTRICT 2 & ELECTION DISTRICT 5	DRAWING NO. 3 OF 3	SCALE H: 1"=100' V: 1"=10'

DATE: Feb 22, 1977 — As Built 3/19/79 M.W.

WS 637-W/3