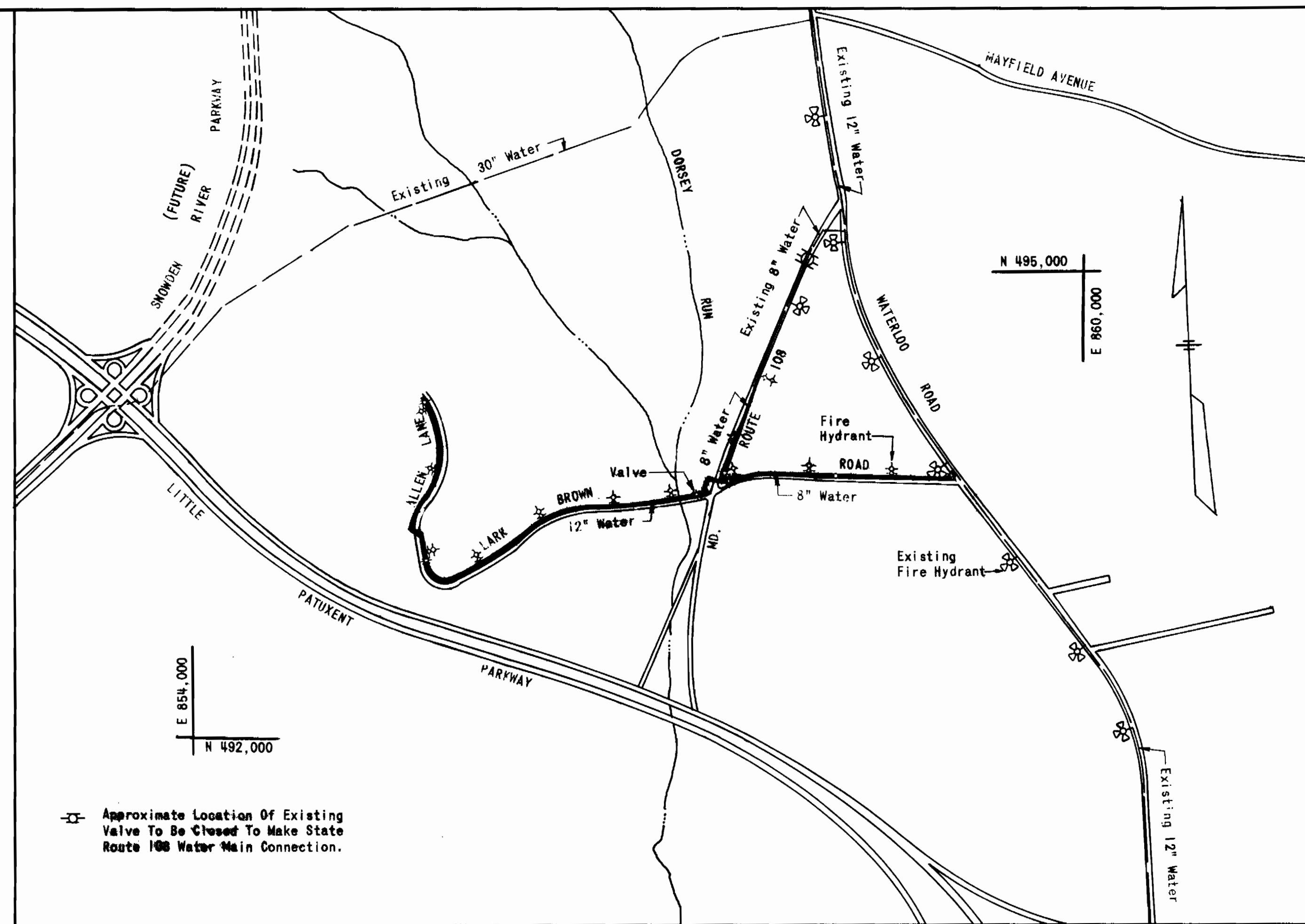


QUANTITIES			
ITEM DESCRIPTION	SIZE	ESTIMATED QUANTITY	AS-BUILT QUANTITY
Water Main	6"	80 L.F.	68 L.F.
Water Main	8"	2380 L.F.	2326 L.F.
Water Main	12"	3640 L.F.	3621 L.F.
Fire Hydrants	6"	12 Each	12 ea.
Bore & Jacked Sleeve Beneath State Road	16"	47 L.F.	47 L.F.
Air Valve Manhole	-	2 Each	2 ea.
Water House Service Lines	3/4" - 1"	240 L.F. - 130 L.F.	515 L.F. - 51 L.F.
Curb Service Box, Cover And Curb Stop	-	86 Each	26 ea.

**GENERAL NOTES**

- For All Standard Details, See Standards Bound In Specifications.
- The Contractor Shall Locate Existing Utilities In Advance Of Construction Operations In The Vicinity Of Proposed Utilities.
- The 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 Co. - 725-9976
  - American Telephone And Telegraph - Cable Location Division - 301-383-3553
  - Colonial Pipeline Company - 781-4641
  - Miss Utility - 393-3648
- Approximate Locations Of Existing Mains Are Shown. The Contractor Shall Take All Necessary Precautions To Protect Existing Utilities And Services And Maintain Uninterrupted Supply. Any Damage Incurred To A Utility Shall Be Immediately Reported To The Utility Owner. Such Damage Shall Be Repaired As Directed By The Utility Owner, At No Additional Cost To Howard County.
- The Contractor Shall 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.
- Clear All Existing Utilities By A Minimum Of 6" Vertical. Clear All Poles 2'-0" Horizontal Minimum Or Tunnel As Required.
- Trees And Shrubby Shall Be Protected From Damage To The Maximum Extent. Trees Located Within The Construction Strips Are Not To Be Removed Or Damaged By Contractor.
- All Horizontal Controls Are Based On Maryland State Plane Coordinate System.
- All Vertical Controls Are Based On Maryland State Datum.
- Elevations Shown To Right Of Profile Stationing Are Invert Elevations Of Proposed Water Main.
- Proposed Water Mains Shall Have 3.5 Feet Minimum Cover, Measured From Existing Grade Unless Otherwise Shown On Contract Drawing Profiles.
- "Bury Lines" 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 Shall Be Compacted In Accordance With Section 5-15 Of The Standard Specifications. The Cost Of Strapping Fire Hydrants And Valves To Be Included In The Unit Bid Price For Furnishing And Installing Fire Hydrants.
- All Fittings Shall Be Buttressed With Concrete In Accordance With Standard Details Unless Otherwise Noted In Special Provisions Or On The Contract Drawings.
- All Water Mains To Be C.I.P., D.I.P., Or A.C.P. Unless Otherwise Noted.



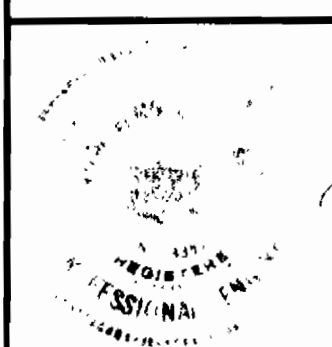
LOCATION PLAN

Scale: 1" = 600'

# LARK BROWN ROAD WATER MAINS

CONTRACT NO. 671-W  
CAPITAL PROJECT NO. W-4-8061

HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS



RALPH E. MARQUISS

RUMMEL, KLEPPER & KAHL  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Richard E. Brudeney 5/24/78  
DIRECTOR OF PUBLIC WORKS / DATE

W. O. Lambert 5-23-78  
CHIEF-BUREAU OF ENGINEERS / DATE

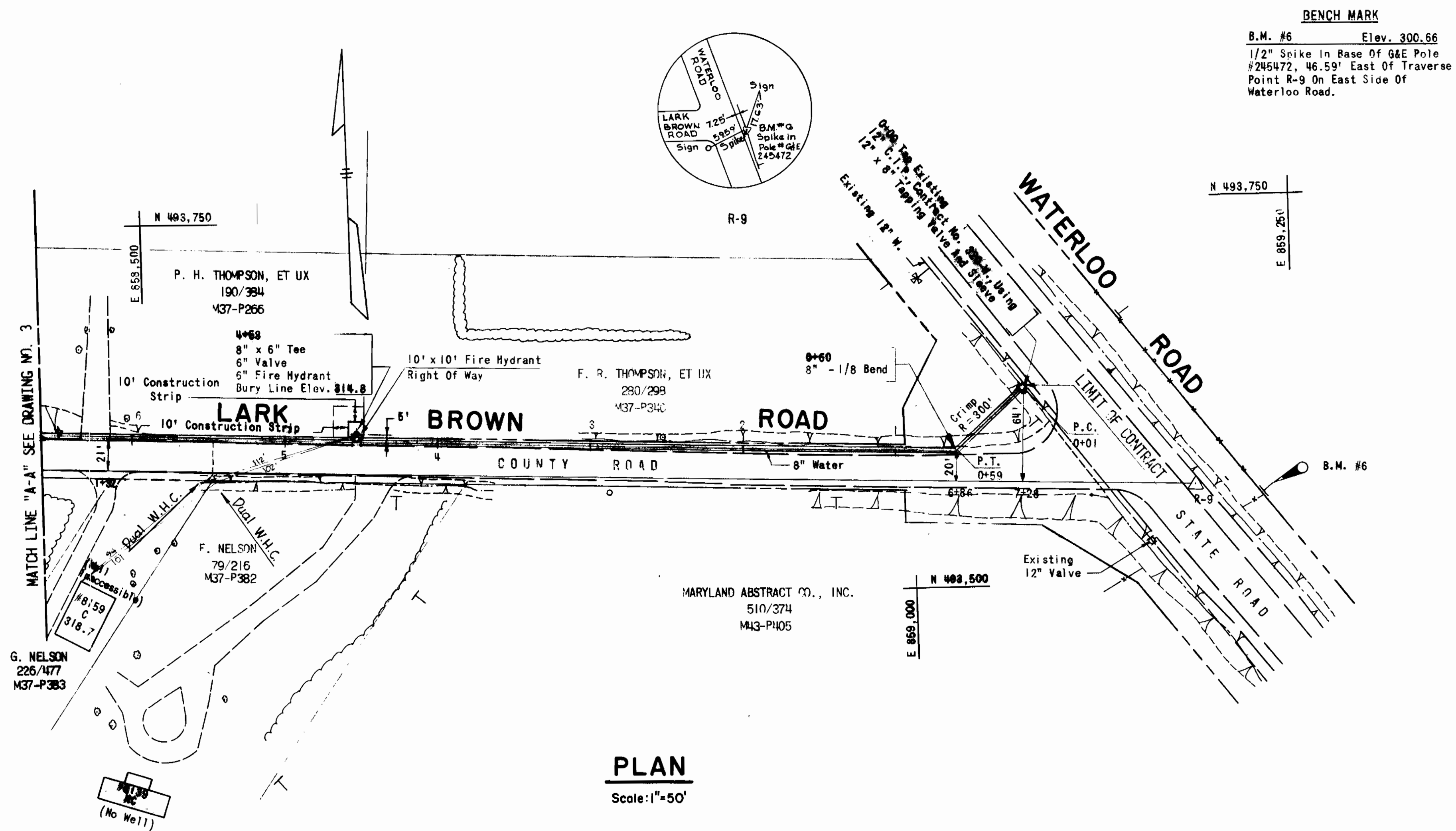
CONTRACT NO. 671-W  
CAPITAL PROJECT NO. W-4-8061

WATER MAIN  
LOCATION PLAN

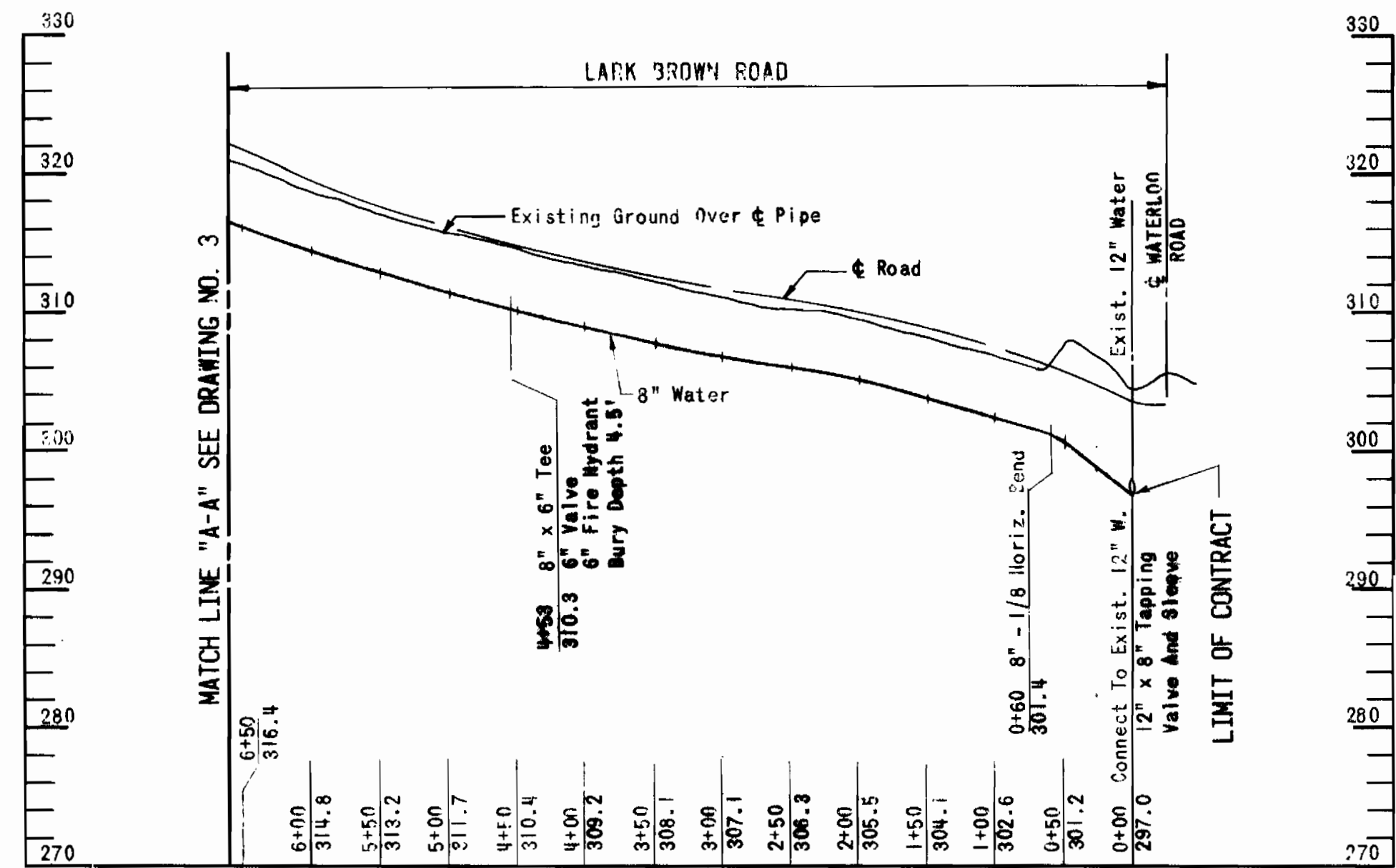
LARK BROWN ROAD  
SIXTH ELECTION DISTRICT

DRAWING NO. 1 OF 7  
SCALE AS SHOWN

CONTRACT NO. 671-W  
LARK BROWN ROAD WATER MAINS  
SIXTH ELECTION DISTRICT  
PROJECT NO. W-4-8061



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



**PROFILE**  
Scale: Horiz. 1"=100'  
Vert. 1"=10'

RALPH E. MARQUISS  
No. 73261

**RUMMEL, KLEPPER & KAHL**  
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BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Richard E. Brundage* 5/26/78  
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 671-W  
CAPITAL PROJECT NO. W-4-8061

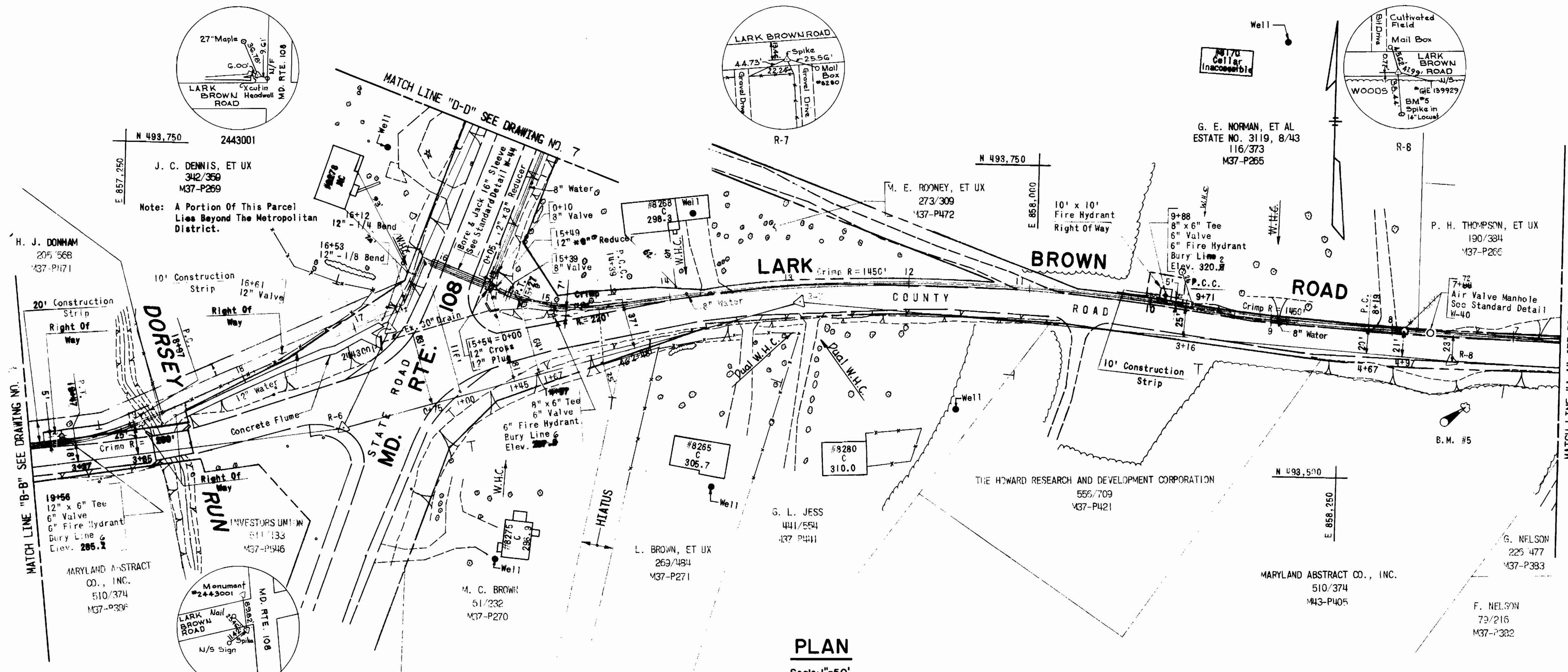
**WATER MAIN  
PLAN AND PROFILE**

**LARK BROWN ROAD  
SIXTH ELECTION DISTRICT**

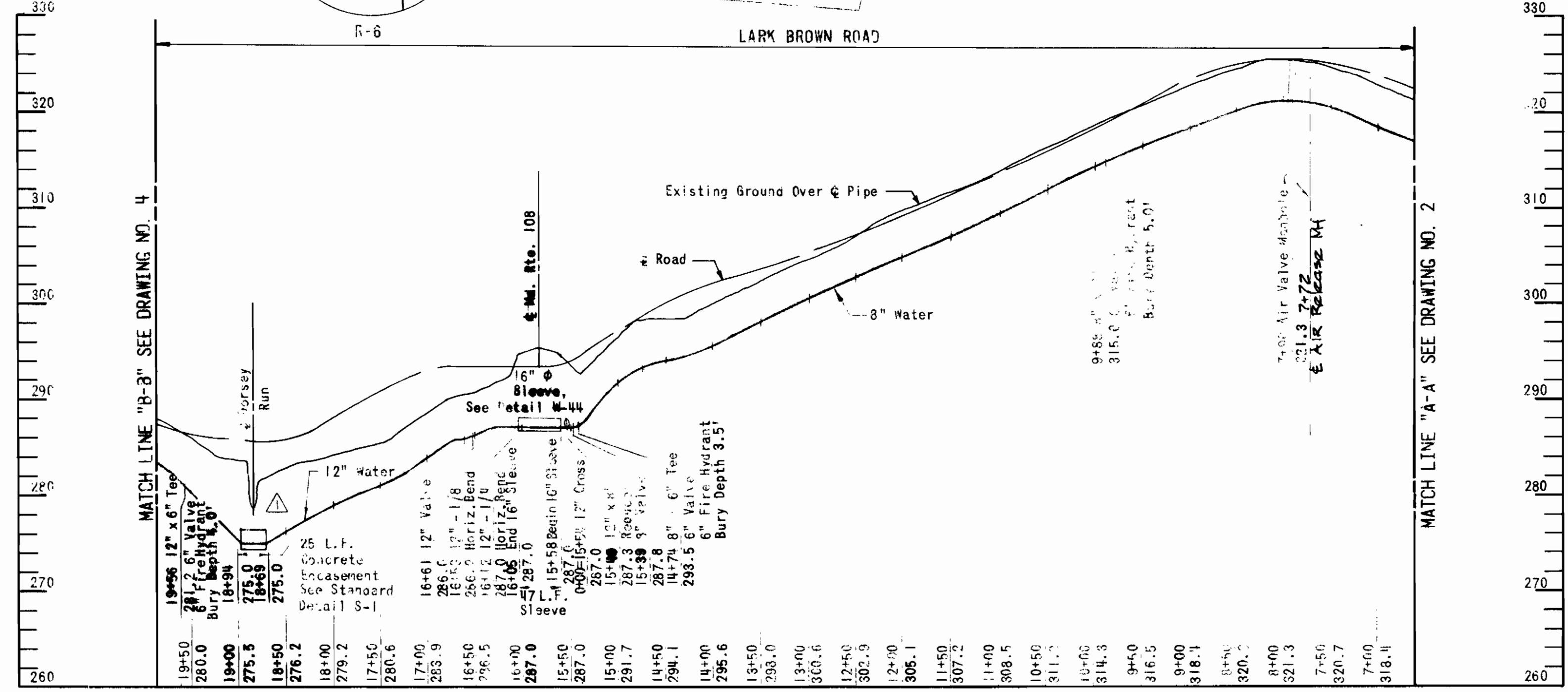
DRAWING NO. 2 OF 7 SCALE AS SHOWN

CONTRACT NO. 671-W  
LARK BROWN ROAD WATER MAINS  
SIXTH ELECTION DISTRICT  
PROJECT NO. W-4-8061





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



**PROFILE**  
Scale: Horiz. 1"=100'  
Vert. 1"=10'

**BENCH MARK**  
B.M. #5 Elev. 329.05  
1/2" Spike in Base of 14" Locust  
38.44' Southeast of Traverse Point  
R-8 On South Side of Lark Brown  
Road.

RALPH E. MARQUISS  
No. 235

**RUMMEL, KLEPPER & KAHL**  
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BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Richard E. Sanderford 5/26/78  
DIRECTOR OF PUBLIC WORKS DATE

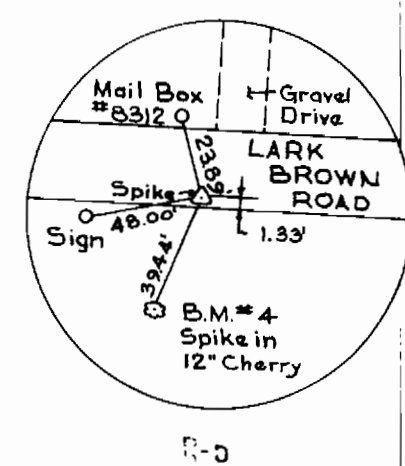
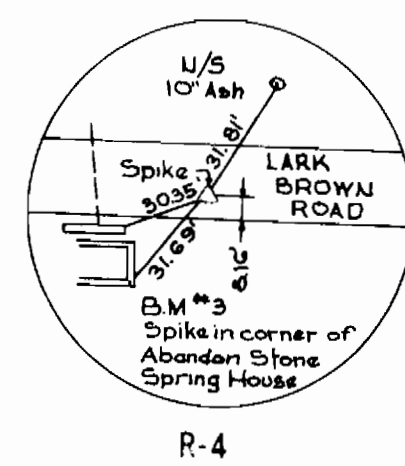
CONTRACT NO. 671-W  
CAPITAL PROJECT NO. W-4-8061  
W.O. Gilbert 5-23-78  
CHIEF - BUREAU OF ENGINEERING DATE

**WATER MAIN  
PLAN AND PROFILE**

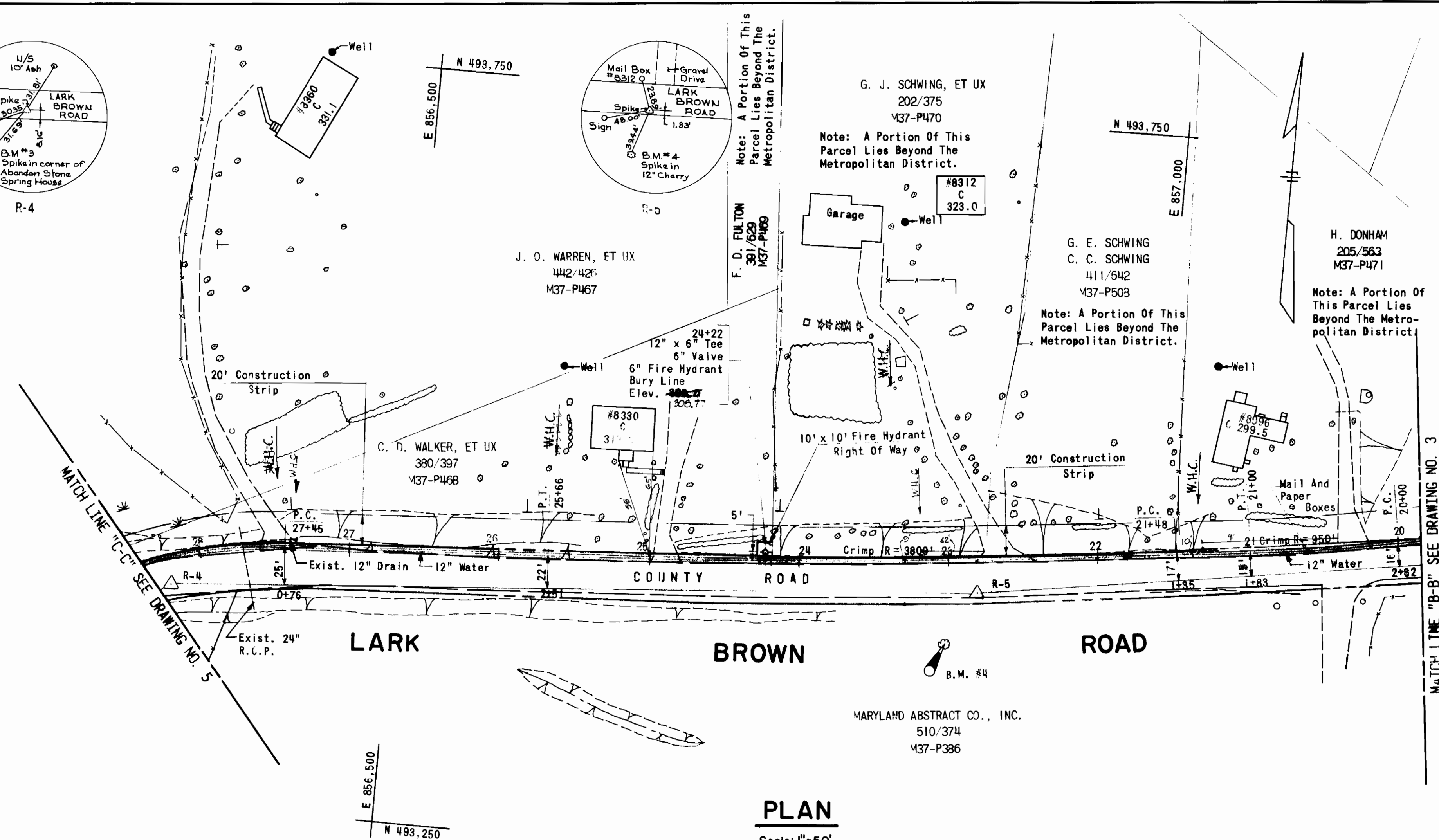
**LARK BROWN ROAD  
SIXTH ELECTION DISTRICT**

DRAWING NO. 3 OF 7  
SCALE AS SHOWN

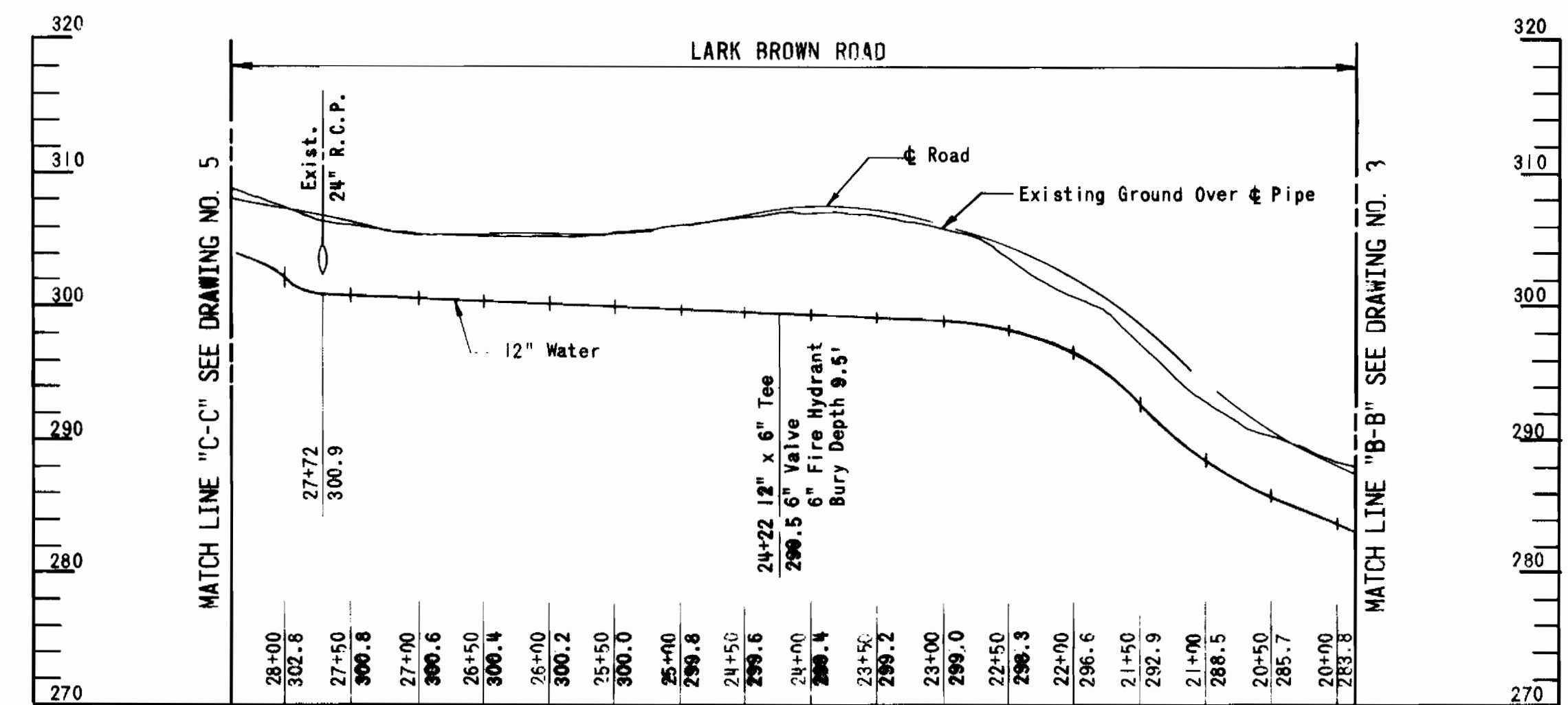
CONTRACT NO. 671-W  
LARK BROWN ROAD WATER MAINS  
SIXTH ELECTION DISTRICT  
PROJECT NO. W-4-8061



**BENCH MARK**  
 B.M. #4 Elev. 306.46  
 1/2" Spike In Base Of 12" Cherry Tree 39.44' Southwest Of Traverse Point R-5 On South Side Of Lark Brown Road.



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



**PROFILE**

Scale: Horiz. 1"=100'  
 Vert. 1"=10'

RALPH E. MARQUISS  
 P.E. # 2281

**RUMMEL, KLEPPER & KAHL**  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Richard S. Freudenberger 5/26/78 W. O. Sillert 5-23-78  
 DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE

CONTRACT NO. 671-W  
 CAPITAL PROJECT NO. W-4-8061

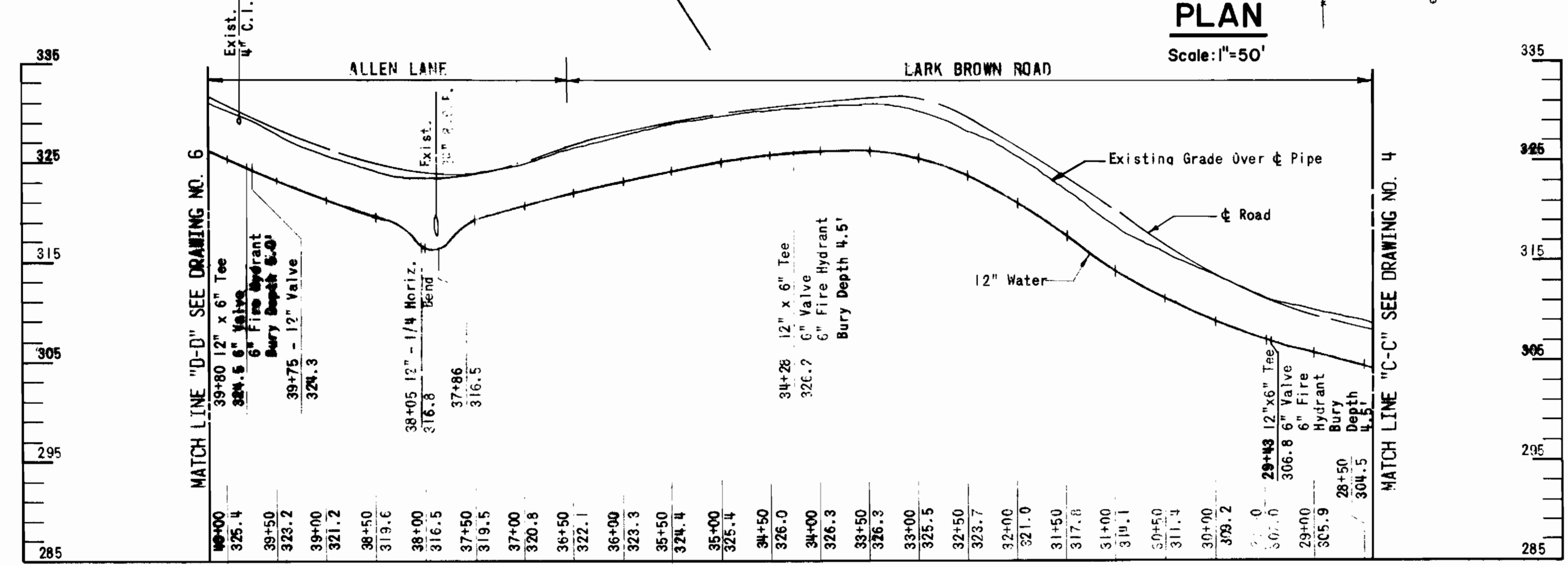
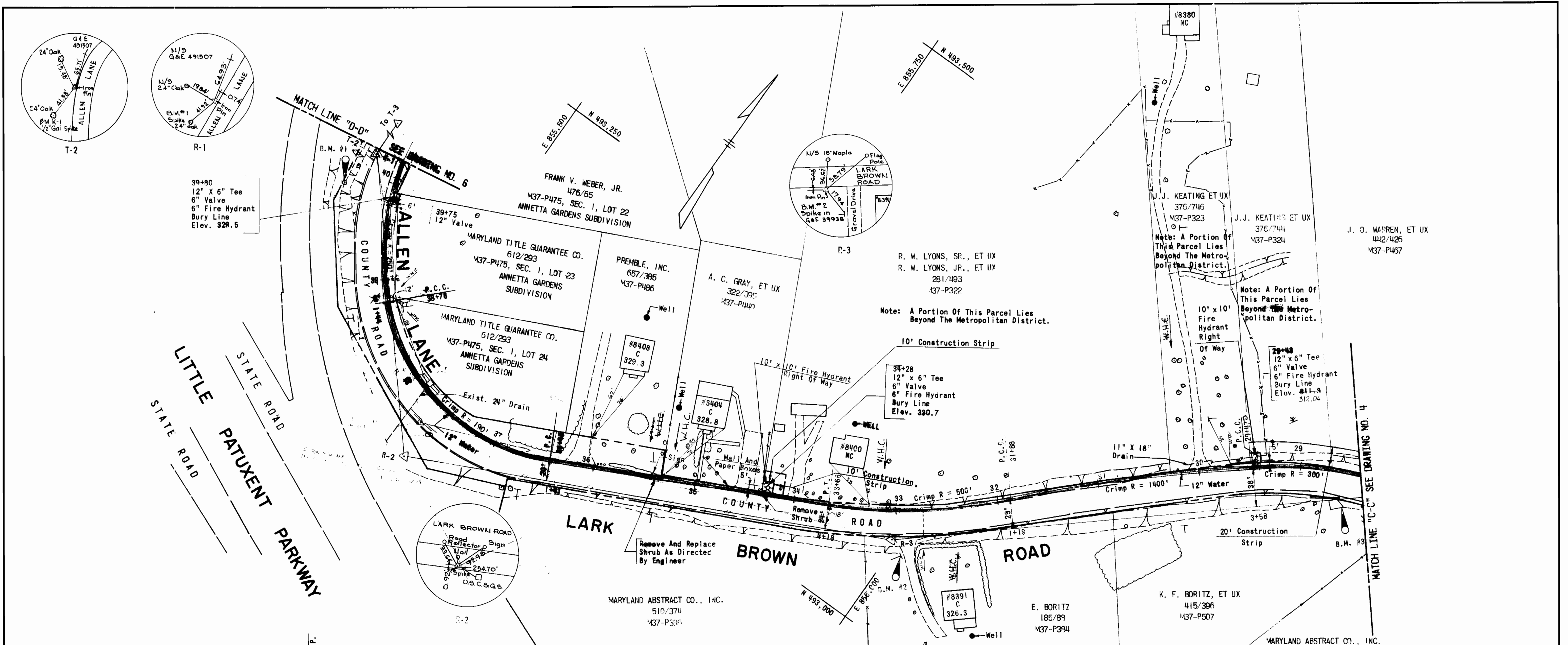
**WATER MAIN**  
**PLAN AND PROFILE**

**LARK BROWN ROAD**  
**SIXTH ELECTION DISTRICT**

DRAWING NO. 4  
 OF 7  
 SCALE AS SHOWN

CONTRACT NO. 671-W  
 LARK BROWN ROAD WATER MAINS  
 SIXTH ELECTION DISTRICT  
 PROJECT NO. W-4-8061





**PROFILE**

Scale: Horiz. 1"=100'  
Vert. 1"=10'

**BENCH MARKS**

B.M. #1	Elev. 331.86
1/2" Spike In Base Of 24" Oak 41.92' Southwest Of Traverse Point R-1 On West Side Of Allen Lane.	
B.M. #2	Elev. 330.36
1/2" Spike In Base Of G&E Pole #39938, 17.94' Southeast Of Traverse Point R-3 On South Side Of Lark Brown Road.	
B.M. #3	Elev. 307.14
1/2" Spike In Corner Of Abandoned Springhouse 31.69' Southwest Of Traverse Point R-4 On South Side Of Lark Brown Road.	

RALPH E. MARQUISS  
P.E.

**RUMMEL, KLEPPER & KAHL**  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

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HOWARD COUNTY, MARYLAND  
Richard E. Sweeney 5/22/78  
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 671-W  
CAPITAL PROJECT NO. W-4-806I

**WATER MAIN  
PLAN AND PROFILE**

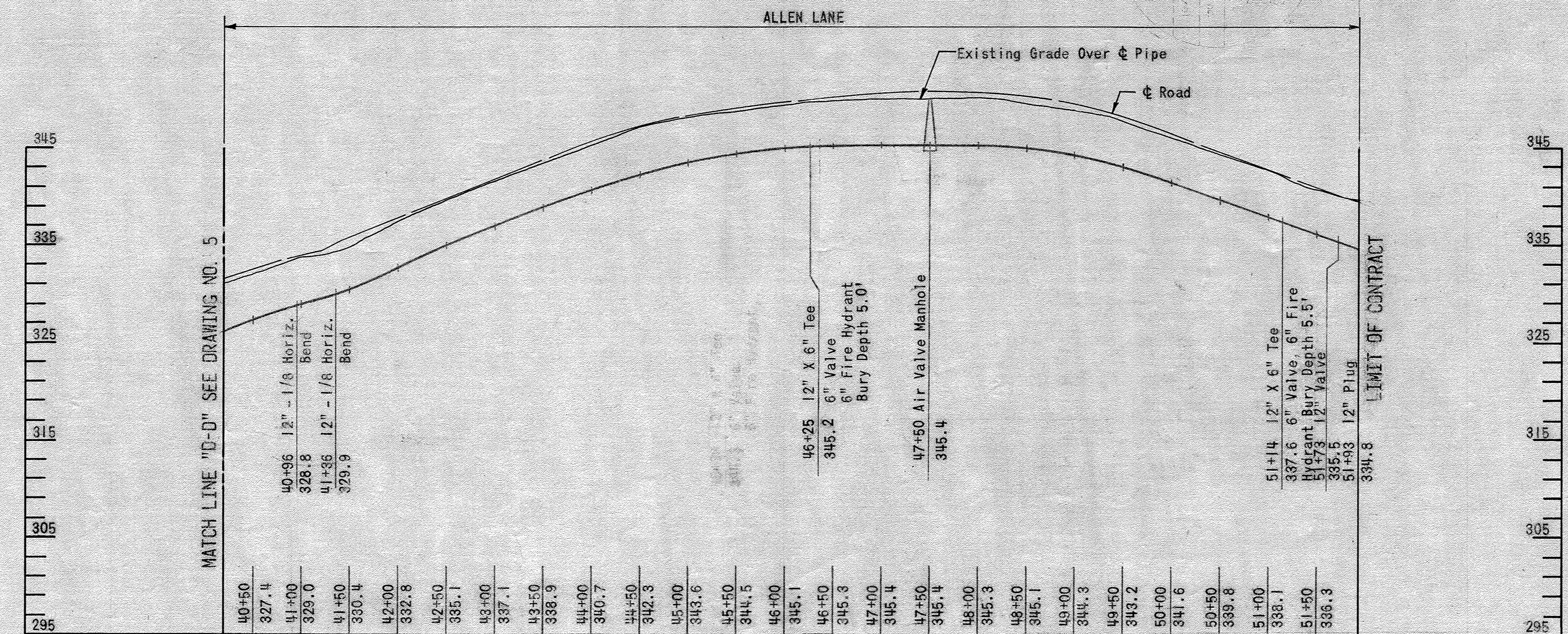
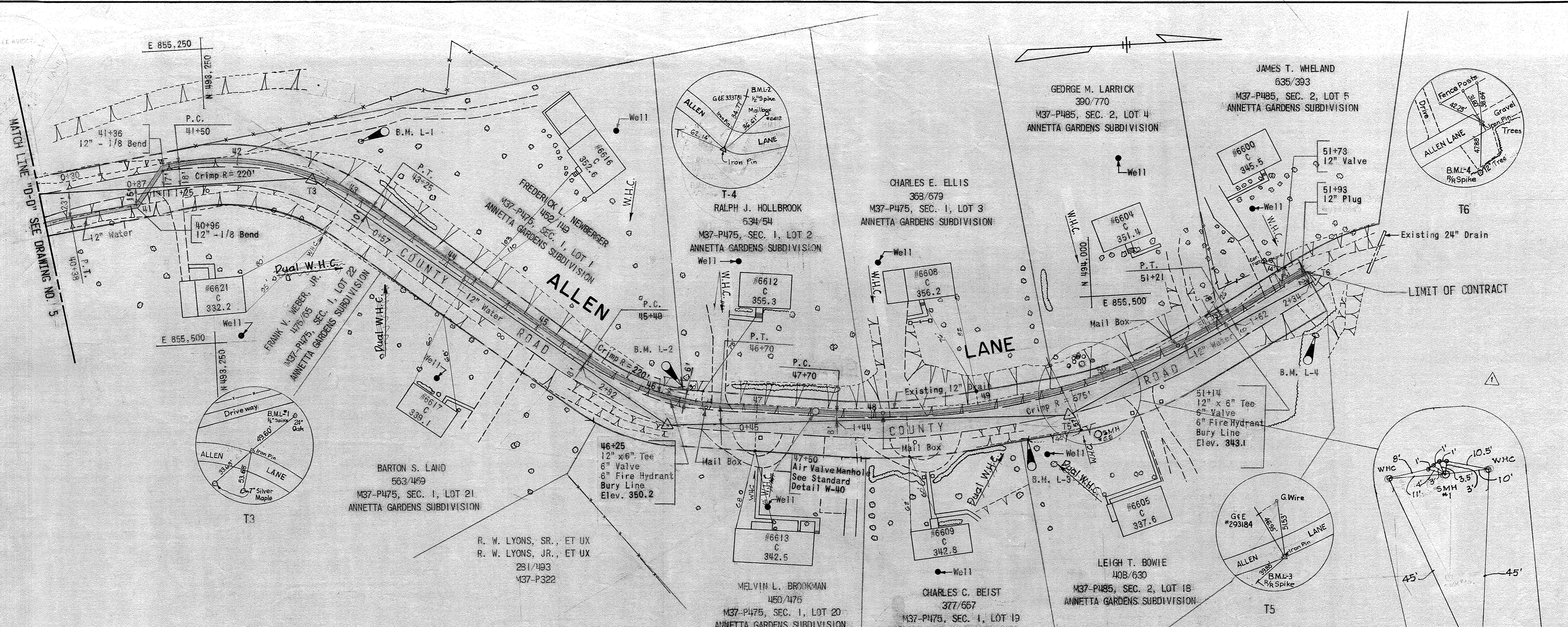
**LARK BROWN ROAD  
SIXTH ELECTION DISTRICT**

DRAWING NO. 5  
OF 7  
SCALE AS SHOWN

CONTRACT NO. 671-W  
LARK BROWN ROAD WATER MAINS  
SIXTH ELECTION DISTRICT  
PROJECT NO. W-4-806I



MATCH LINE "D-D" SEE DRAWING NO. 5



- BENCH MARKS**
- B.M. L-1 Elev. 343.48  
1/2" Galvanized Spike in 2 1/2" Oak 0.7' Above Ground, 49.60' Northwest of Traverse Point T3 On West Side Of Allen Lane.
  - B.M. L-2 Elev. 352.10  
1/2" Galvanized Spike in G&E Pole #333781 Flush With Ground, 34.77' Northwest of Traverse Point T4 On West Side Of Allen Lane.
  - B.M. L-3 Elev. 348.93  
Railroad Spike in Base Of Pole, No Number 39.85' Southeast Of Traverse Point T5 On East Side Of Allen Lane.
  - B.M. L-4 Elev. 340.22  
Railroad Spike in 12" Tree 1.82' Above Ground, 47.88' East Of Traverse Point T6 On East Side Of Allen Lane.

*Ralph E. Marquiss*  
RALPH E. MARQUISS  
MD # 3381

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CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Richard E. Brudenien 5/26/78  
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 671-W  
CAPITAL PROJECT NO. W-4-8061  
W. A. Gilbert 5-23-78  
CHIEF-BUREAU OF ENGINEERING DATE

WATER MAIN  
PLAN AND PROFILE

LARK BROWN ROAD  
SIXTH ELECTION DISTRICT

DRAWING NO. 6 OF 7  
SCALE AS SHOWN

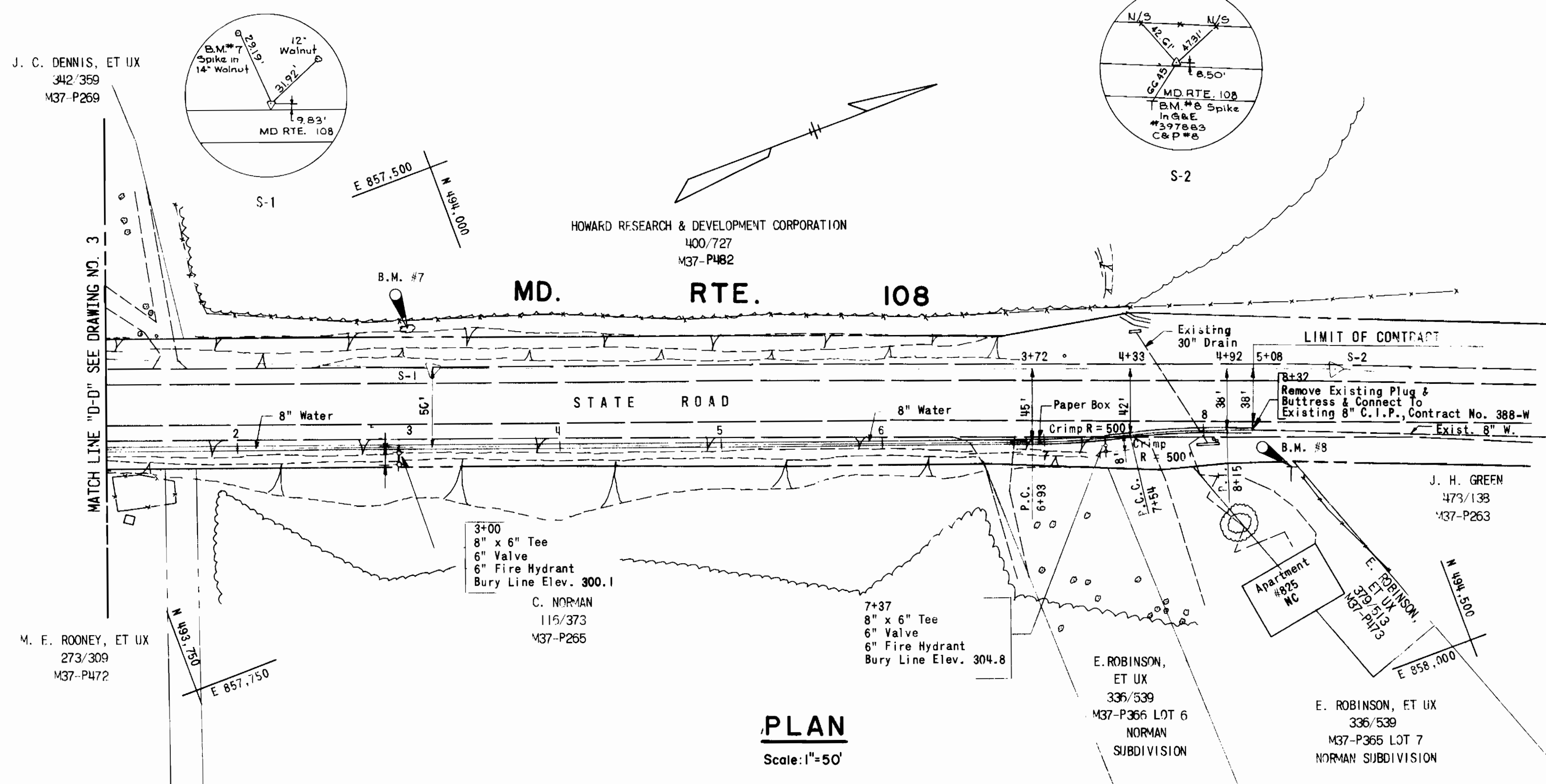
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LARK BROWN ROAD WATER MAINS  
SIXTH ELECTION DISTRICT  
PROJECT NO. W-4-8061

WRA AS BUILT PREPARATION 7/2/21

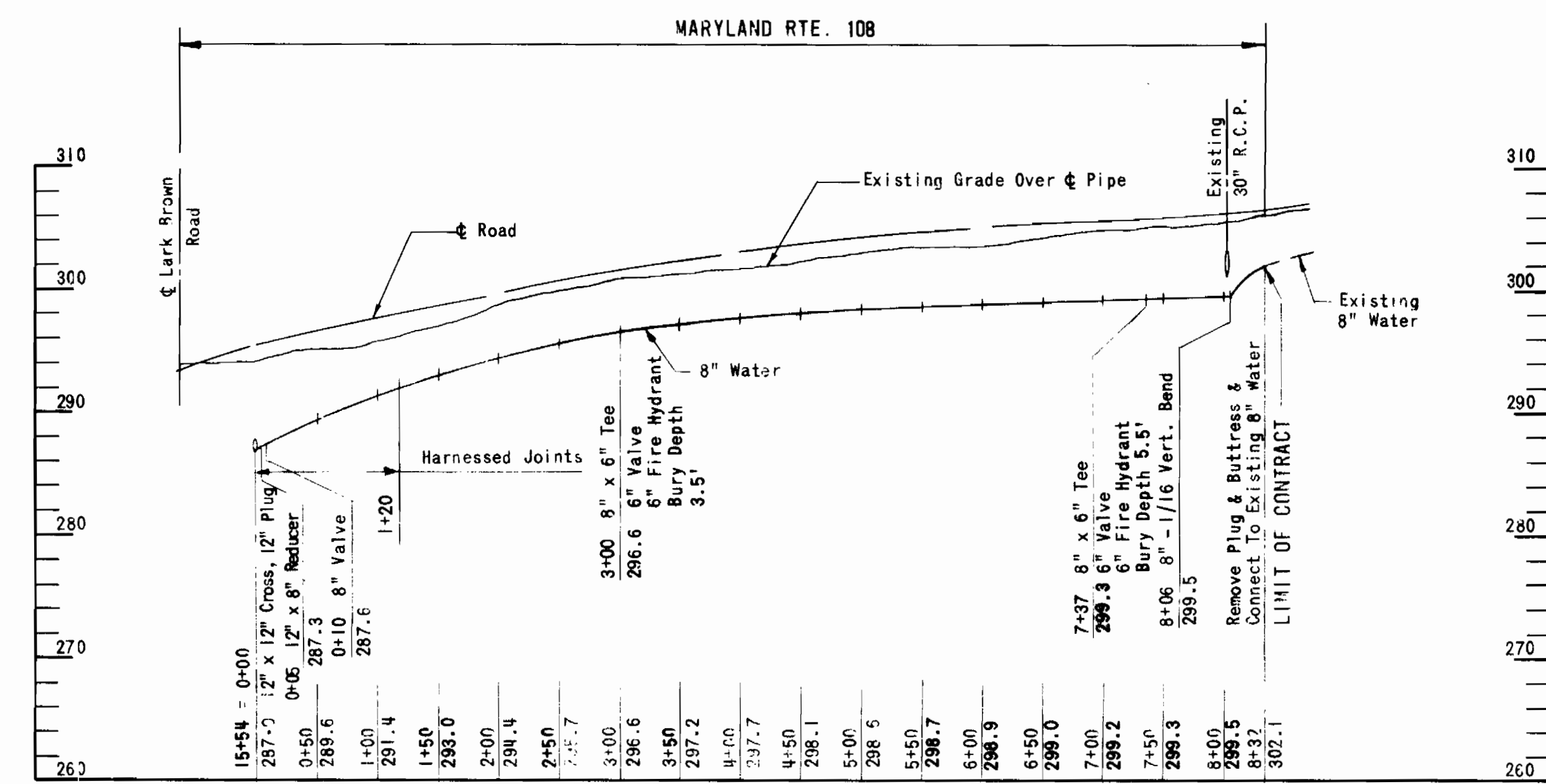
AS BUILT 3/18/80

WS 671 W/6





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



**PROFILE**  
Scale: Horiz. 1"=100'  
Vert. 1"=10'

- BENCH MARKS**
- B.M. #7 Elev. 305.01  
1/2" Spike In Base Of 14" Walnut  
29.19' West Of Traverse Point S-1  
On West Side Of Maryland Route 108
  - B.M. #8 Elev. 307.10  
1/2" Spike In Base Of G&E Pole  
+397883, C&P #8, 66.115' Southeast  
Of Traverse Point S-2 On East Side  
Of Maryland Route 108

- NOTES**
- Harness All Pipe And Fittings Along Maryland Route 108 From Station 0+00 Thru 1+20 Inclusive, Or To Nearest Joint Beyond Station 1+20 Including Plug In Cross Fitting.
  - Future Extension By Others Of 12" Water Southward From Cross Fitting Along Maryland Route 108 Will Require Harnessing To Counteract Thrust Resulting From 12" x 8" Reducer.

RALPH E. MARQUISS  
(C.E. #2375)

**RUMMEL, KLEPPER & KAHL**  
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BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Richard E. ... 5/26/78  
DIRECTOR OF PUBLIC WORKS / DATE

CONTRACT NO. 671-W  
CAPITAL PROJECT NO. W-4-8061

**WATER MAIN  
PLAN AND PROFILE**

**LARK BROWN ROAD  
SIXTH ELECTION DISTRICT**

DRAWING NO. 7	SCALE AS SHOWN
OF 7	