

AS-BUILT 3401 WS/1 M.J.F. FARMS Sect. 1, Ph. II Units 59-109

# WATER AND SEWER EXTENSION

## M.J.F. FARMS

### SECTION I PHASE II

## CONTRACT NO. 24-3401-D

## 2nd ELECTION DISTRICT

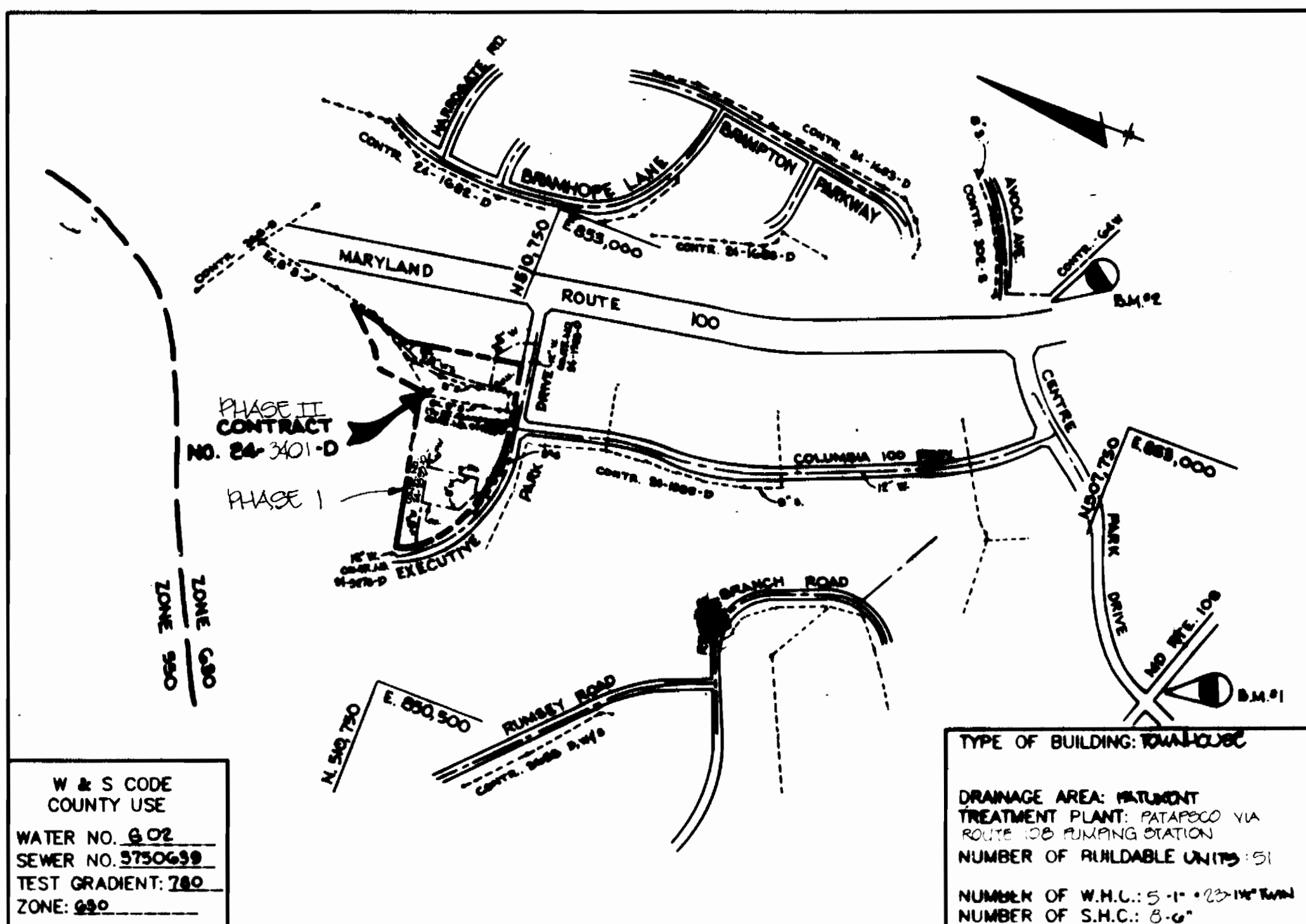
QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" SEWER MAIN	870 LF	885 LF	8" 13' SPIR SANDS SEWER PIPE	J&M MANUFACTURING CO. GRIFFIN PIPE PRODUCTS
4" SAN. MANHOLE	9	9	8" 13' DUCTILE IRON PIPE CL52	GRIFFIN PIPE PRODUCTS
6" S.H.C.	192 LF	280 LF	24" SEWER MANHOLE FRAME & COVER	CAMPBELL FOUNDRY
8" WATER MAIN	921 LF	964 LF	18" D.V.	J&M MANUFACTURING CO.
6" WATER MAIN	40 LF	40 LF	8" T.J. DUCTILE IRON PIPE CL52	GRIFFIN PIPE PRODUCTS
FIRE HYDRANT	2	2	5'-6" METROPOLITAN	U.S. PIPE & FOUNDRY
1" W.H.C.	140 LF			
1 1/2" W.H.C.	507 LF			
8" VALVE	4	4	8" RESILIENT SEAT OR M.J. GATE VALVE	MUELLER CO.
6" VALVE	2	2	6" RESILIENT SEAT OR M.J. GATE VALVE	MUELLER CO.
8"X8" TEE	4	3	8" X 8" M.J. COMPACT D.I. TREE	GRIFFIN PIPE PRODUCTS
8"X6" TEE	1	2	8" X 6" COMPACT D.I. HYDRANT TEE	GRIFFIN PIPE PRODUCTS
0" PLUG + BUTTWELD	9	3	8" D.I.	GRIFFIN PIPE PRODUCTS
8" SEWER (D.I.P.)	319 LF			

NAME OF UTILITY CONTRACTOR: **KASCO (DHAABEAHE)**

CHECKBOX

AS-BUILT DATE

SURVEY AND DRAFTING DIVISION



VICINITY MAP  
SCALE: 1"=600'

**BENCH MARKS**

B.M. #1 ELEV. 488.89  
 HO. CO. 2745010-R  
 3/4" REBAR 0.4' BELOW SURFACE, 34.7' SOUTH  
 OF CURB ON MARYLAND ROUTE 100, 175'  
 EAST OF E. PHELPS LUCK DRIVE.

B.M. #2 ELEV. 525.51  
 NAIL IN STONE AT PROPERTY CORNER  
 COLUMBIA 100 OFFICE RESEARCH PARK.

**GENERAL NOTES**

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.C.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 Detail 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 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 Co. Contractor Services	850-4820
Mesa Utility	787-9068
Columbia Gas System	1-800-257-7777
Columbia Pipeline Co.	785-1380
Bureau of Utilities, Howard County Department of Public Works	313-4800
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. All water mains to be D.I.P. Class 52 unless otherwise noted.
12. Tops of all water mains to have a minimum of 3'-1/2" cover unless otherwise noted.
13. Valves adjacent to tees shall be strapped to tees.
14. All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
15. 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.
16. The contractor shall not operate any water main valves on the existing water system.
17. All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
18. All sewer mains shall be DIP, RCP, VCPX, CSPX, RCCP AND P.V.C. unless otherwise noted.
19. All manholes shall be 4'-0" inside diameter unless otherwise noted.
20. Force mains shall be D.I.P. only.
21. Manholes shown with 12" and 18" walls are for brick manholes only.
22. Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight manhole frame and cover is used, set top of frame 1'-0" above finished grade unless otherwise noted on the drawings.
23. House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on SDP-3401.

Review for Howard Soil Conservation District and meets technical requirements.

*Patricia Engle* / U.S. SOIL CONSERVATION SERVICE / 12/20/94 DATE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

*John P. Robertson* / HOWARD SOIL CONSERVATION DISTRICT / 12/20/94 DATE

<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND <i>James M. Lewis</i> / DIRECTOR OF PUBLIC WORKS / 12/21/94 DATE <i>Robert M. Bennett</i> / CHIEF, BUREAU OF UTILITIES / 12-19-94 DATE	<b>RIEMER MUEGGE &amp; ASSOCIATES, INC.</b> Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md 21046 410-997-8900 FAX: 410-997-9282 <i>Paul Muegge</i> / CHIEF, BUREAU OF ENGINEERING / 12/20/94 DATE <i>John M. Muegge</i> / CHIEF, LAND DEVELOPMENT / 12/20/94 DATE	DES: JGO DRW: RJC CHK: DKT DATE: 12/20/94	<b>TITLE SHEET</b>	<b>MJF FARMS, SECTION I, PHASE II</b> UNITS 59-109 TAX MAP: 30 PARCEL: W 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 24 3401-D	SCALE AS SHOWN SHEET 1 OF 1
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CRIMP DATA					
CURVE NO	RADIUS	LENGTH	TANGENT	CHORD B & D	DELTA
1	293.00'	37.46'	16.25'	N 23°14'58" E 32.44'	06°20'12"
2	280.00'	35.05'	17.55'	S 23°14'14" W 35.02'	07°10'17"
3	280.00'	38.16'	19.11'	N 30°43'40" E 38.14'	07°43'34"

NOTE: CONTRACTOR TO REMOVE TOP ELLIPTICAL SECTION OF EXISTING MANHOLES 102 THROUGH 105 AND FILL WITH STONE

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

**COLUMBIA 100 PARKWAY**  
HOWARD COUNTY PUBLIC ROAD (MINOR COLLECTOR)

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Jan 21 2004*  
DIRECTOR OF PUBLIC WORKS

*12/20/04*  
CHIEF, BUREAU OF ENGINEERING

*12/19/04*  
CHIEF, LAND DEVELOPMENT

**RIEMER MUEGGE & ASSOCIATES, INC.**  
Planners • Engineers • Surveyors  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8900 FAX: 410-997-9282

RAYKANT D. PAREKH 11/14/04

DES: J.C.O.	
DRN: J.C.O.	
CHK: D.K.E.	
DATE: 12/16/04	BY: NO.
REVISION	
DATE: 9/14/95	

**WATER & SEWER PLAN**

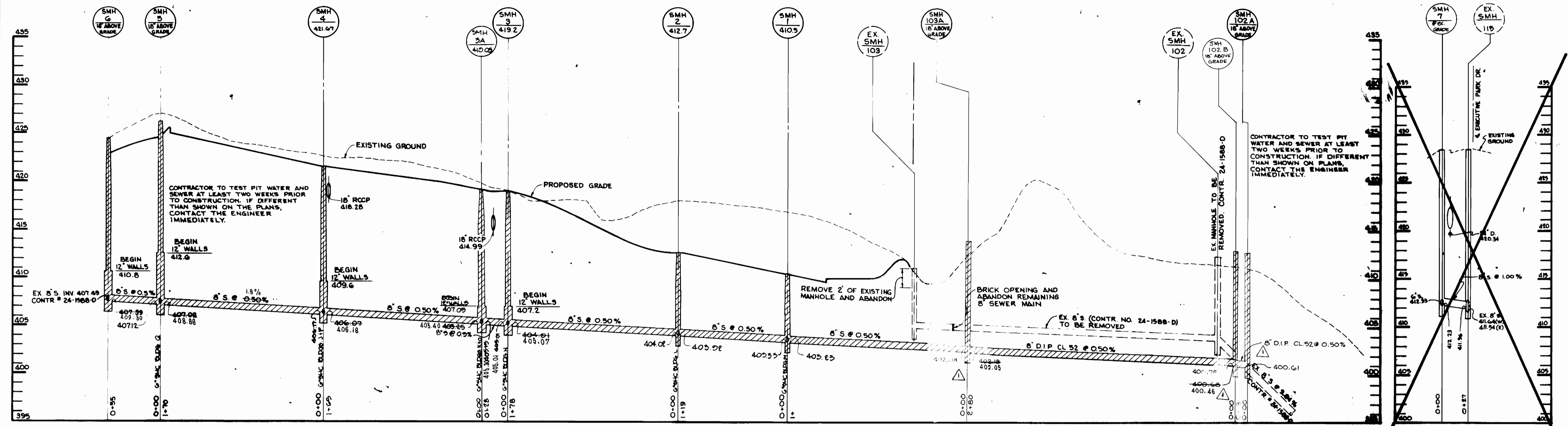
600' SCALE MAP NO. 50 BLOCK NO. 12

**MJF FARMS, SECTION I PHASE II**  
UNITS 50-109  
TAX MAP: 30 PARCEL: W  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 24-3401-D

SCALE AS SHOWN  
SHEET 2 OF 4

AS-BUILT  
 3401 WS/3 M.U.F. FARMS Sect. I, Ph. II

PHASE I CONTRACT NO. 24-3338-D



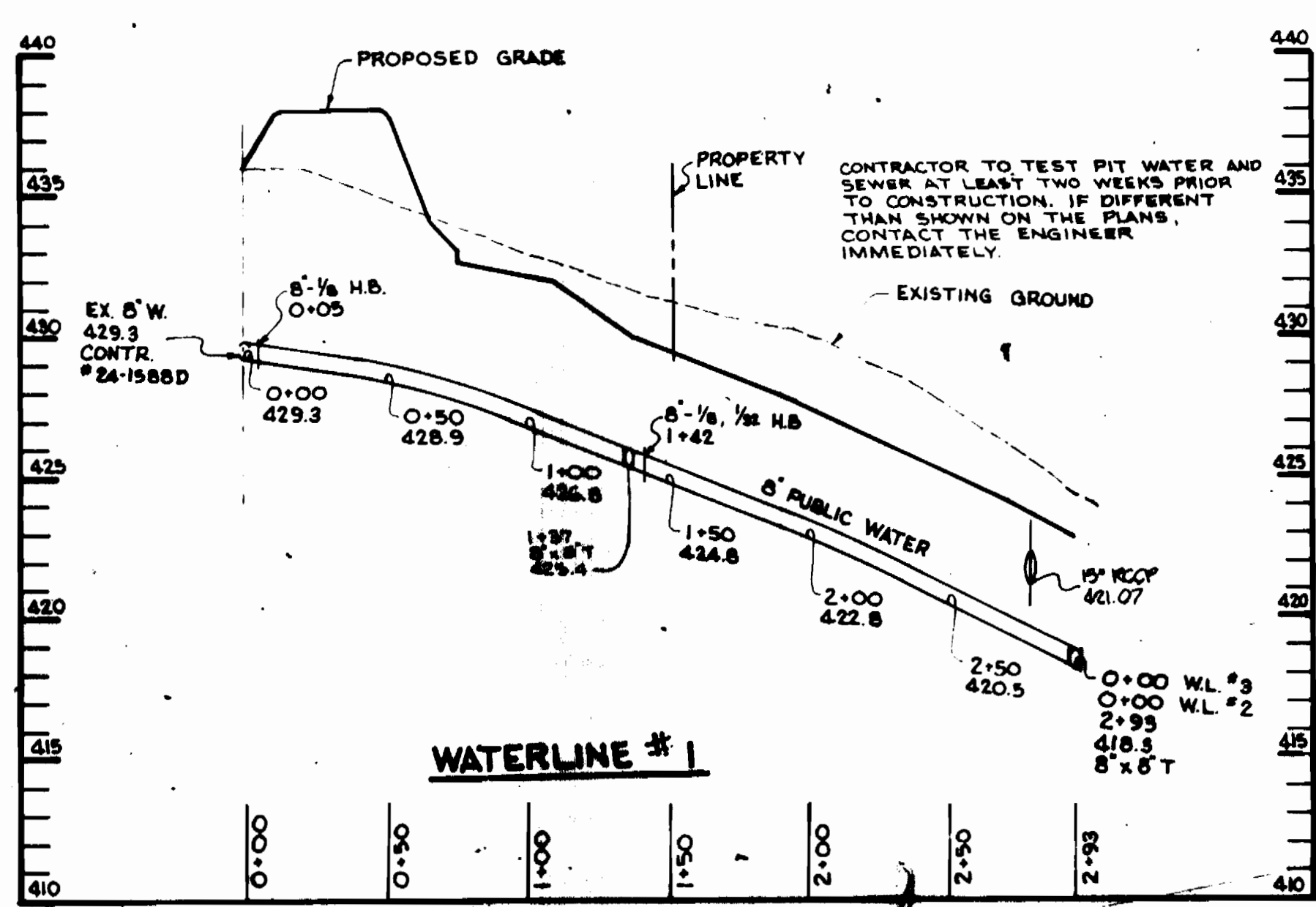
**SEWER PROFILE**  
 SCALE: HOR: 1"=50'  
 VERT: 1"=5'

**SEWER PROFILE**  
 SCALE: HOR: 1"=50'  
 VERT: 1"=5'

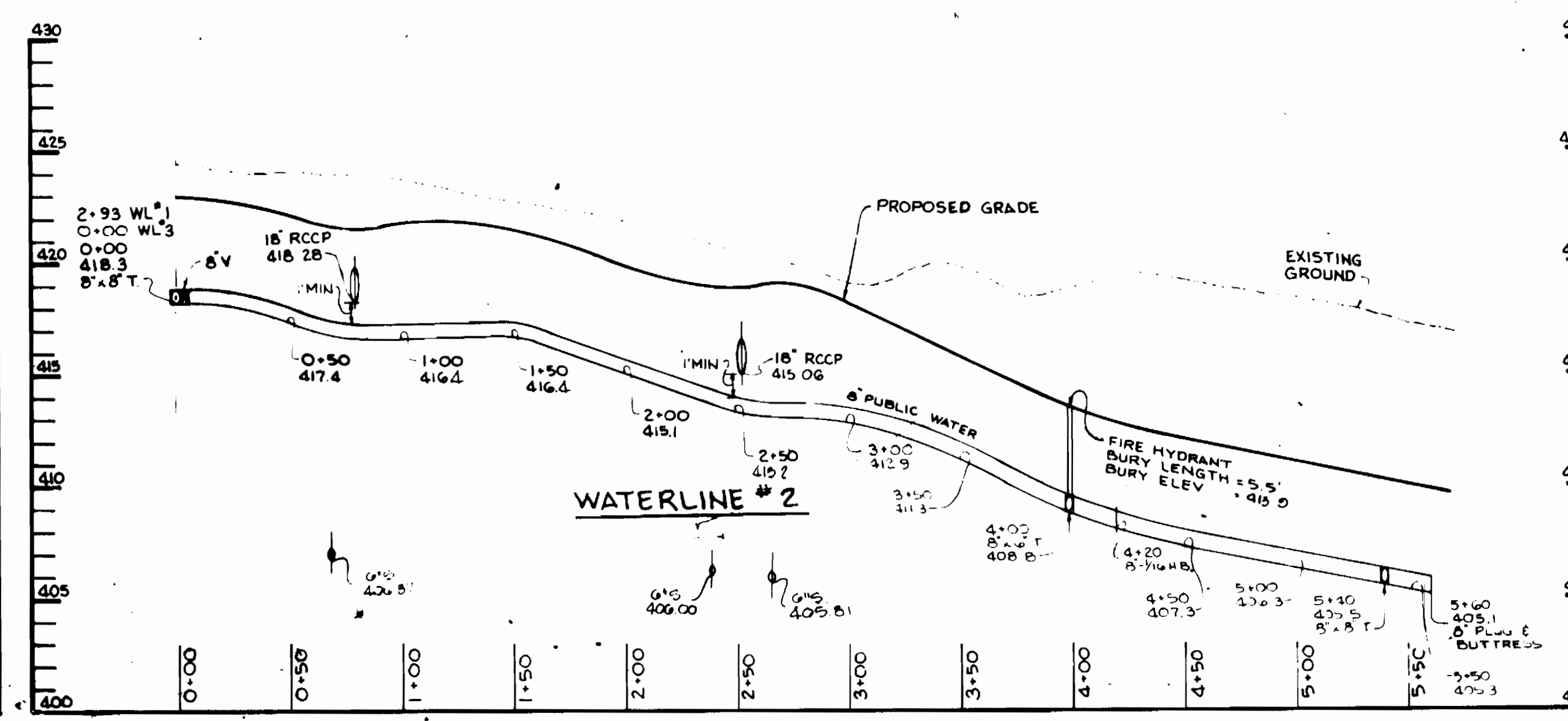
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 12/20/04 Chief, Bureau of Engineering: <i>[Signature]</i> 12/20/04 Chief, Bureau of Utilities: <i>[Signature]</i> 12/19/04 Chief, Land Development: <i>[Signature]</i> 12/20/04		RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md 21046 410-997-8900 FAX: 410-997-9282		DES: JCO DRN: RJC CHK: DRT DATE: 9/14/95 BY: NO. REVISION: RELOCATED M103A & 102A, ADDED 102B AND CONNECT 8" DIP.		<b>SEWER MAIN PROFILES</b> 600' SCALE MAP NO. 52 BLOCK NO. 18		MUF FARMS, SECTION I PHASE II UNITS 59-109 TAX MAP: 30 PARCEL: W 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 24-3401-D		SCALE AS SHOWN SHEET 5 OF 4
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3401 WS/4 M.J.F. FARMS sec.1, Ph.II

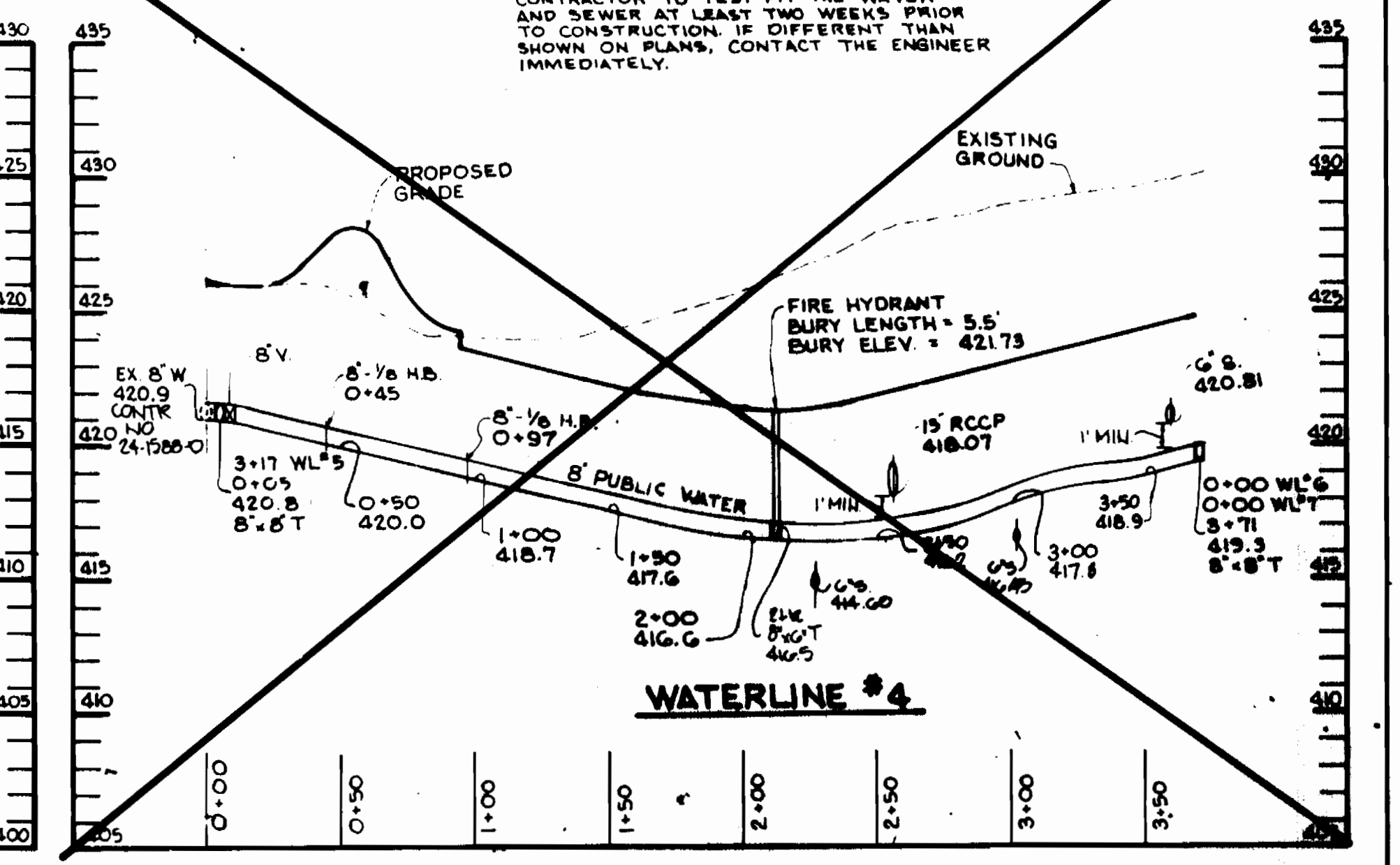
PHASE I CONTRACT NO. 24-3333-D



**WATER PROFILE**  
SCALE: HOR. 1"=50'  
VERT. 1"=5'

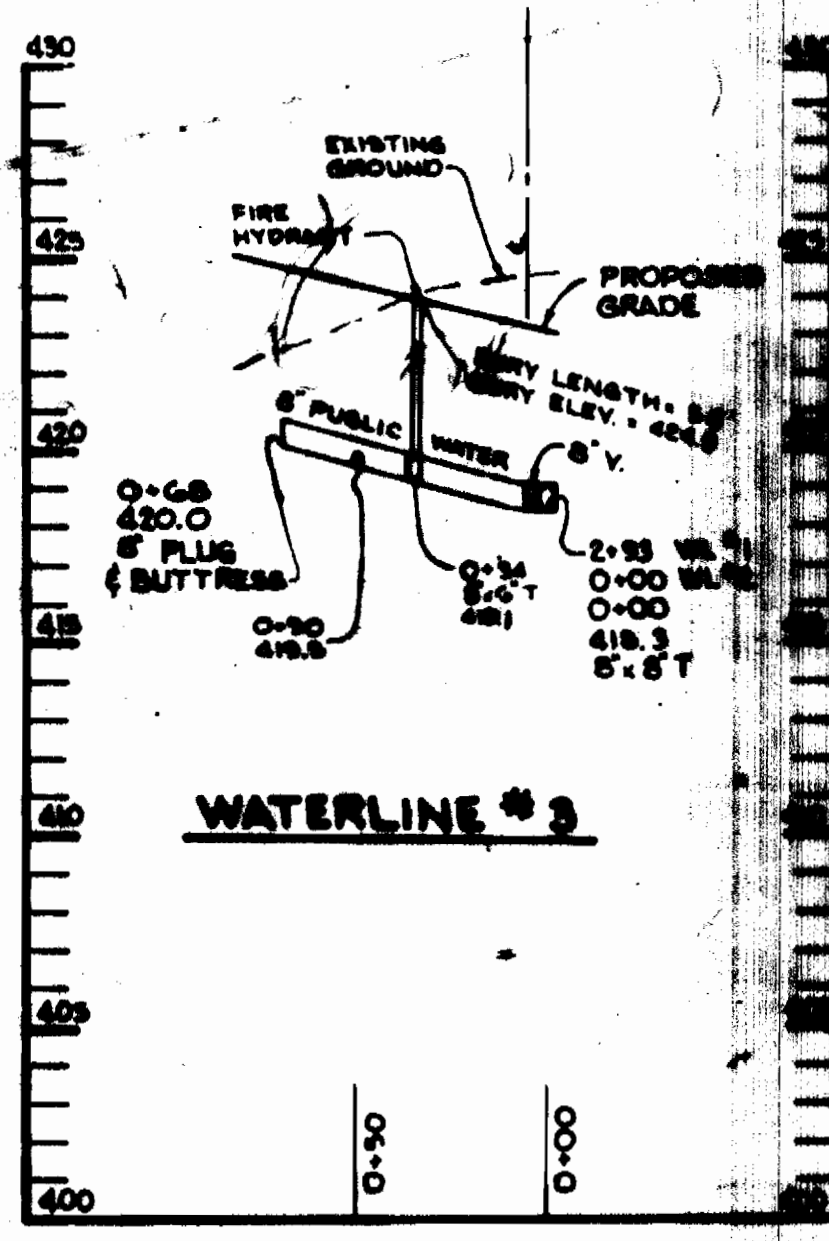


**WATER PROFILE**  
SCALE: HOR. 1"=50'  
VERT. 1"=5'

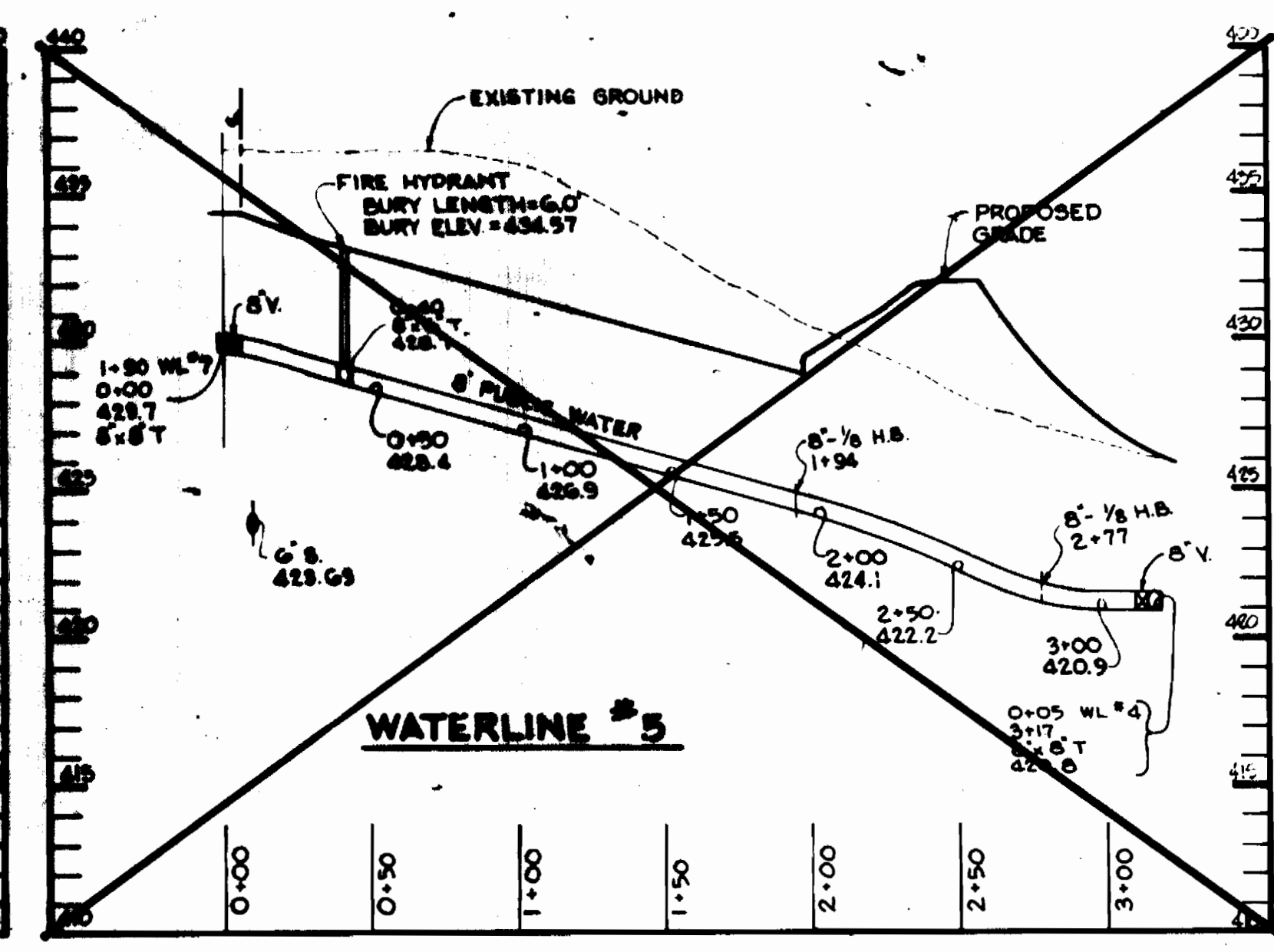


**WATER PROFILE**  
SCALE: HOR. 1"=50'  
VERT. 1"=5'

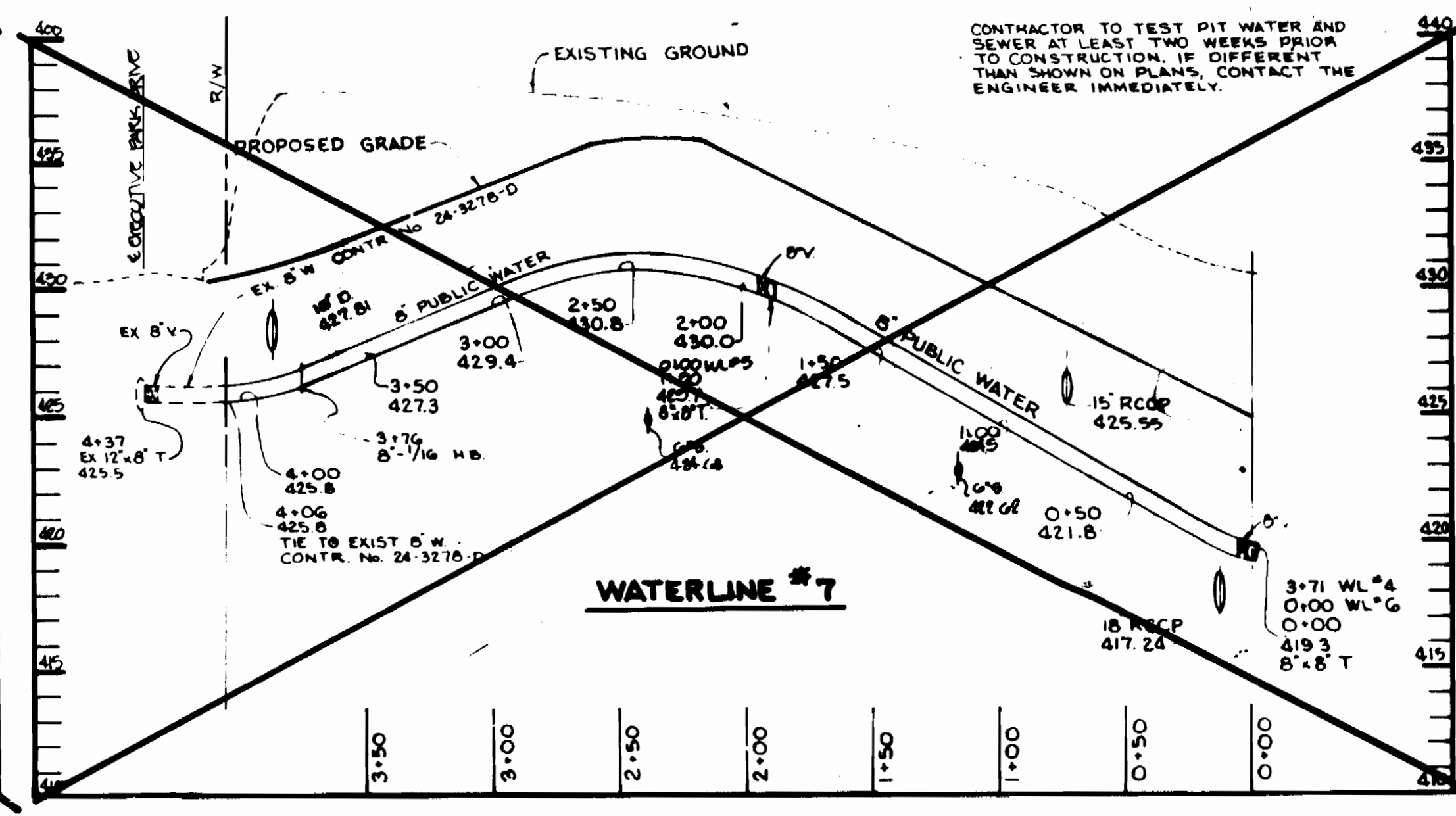
PHASE I CONTRACT NO. 24-3333-D



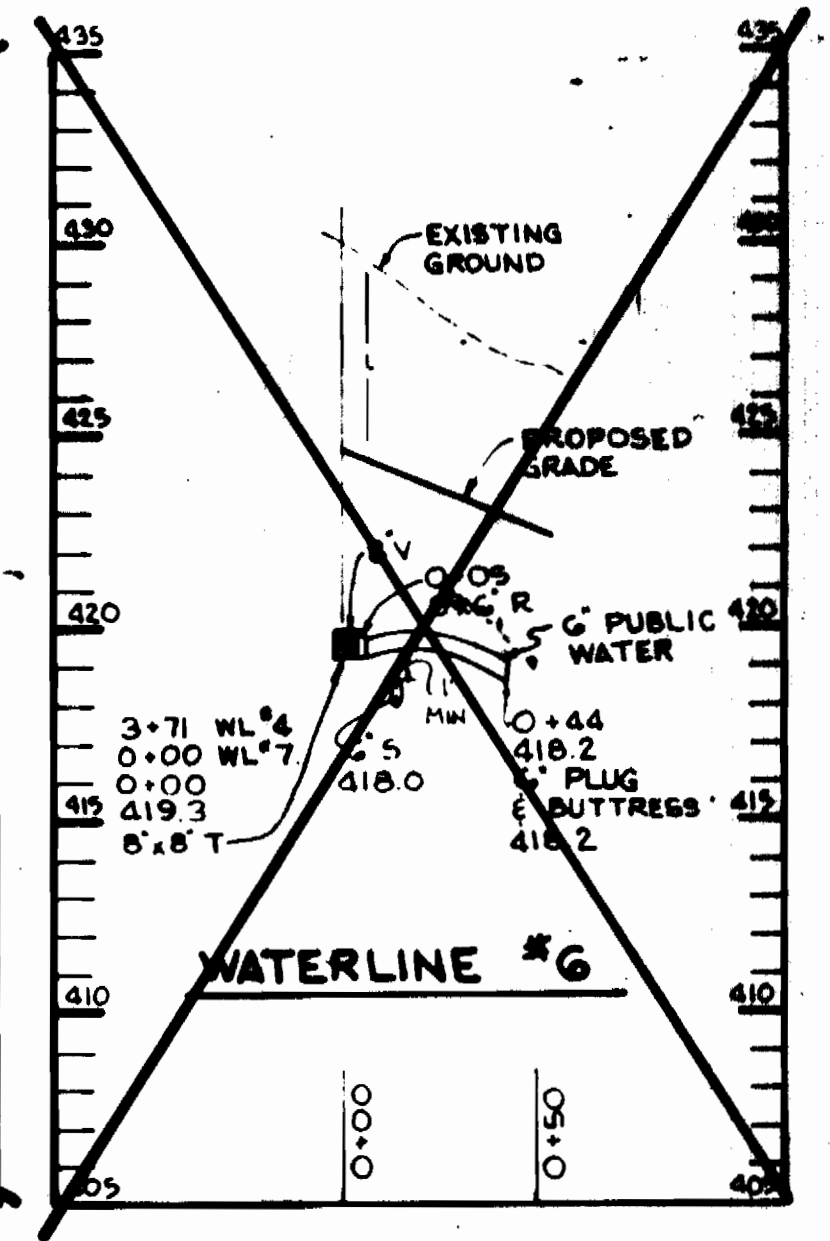
**WATER PROFILE**  
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VERT. 1"=5'



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SCALE: HOR. 1"=50'  
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SCALE: HOR. 1"=50'  
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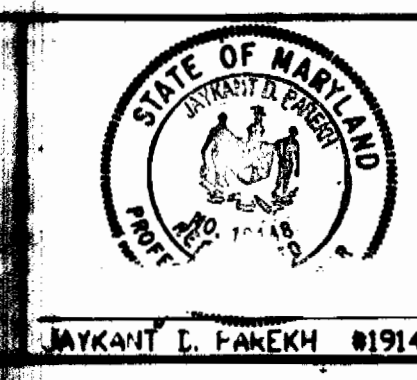
**WATER PROFILE**  
SCALE: HOR. 1"=50'  
VERT. 1"=5'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

12/20/04  
DIRECTOR OF PUBLIC WORKS

12/20/04  
CHIEF, BUREAU OF UTILITIES

HEMER MUEGGE & ASSOCIATES, INC.  
Engineers & Surveyors  
2400 South Park Drive • Suite 200 • Columbia, MD 21046  
410-297-2000 FAX: 410-297-2000



DES: J.C.O.	
DR: R.J.C.	
CHK: D.R.P.	
DATE: 12/20/04	

**WATER MAIN PROFILES**

MJF FARMS, SECTION I PHASE II  
UNITS 50-109  
TAX MAP: 30 PARCEL: W  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 24-3401-D

SCALE AS SHOWN  
SHEET 4 OF 4