

ORCHARD CROSSING

WS/1

3324

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
2" WATER	1092 L.F.	1097	TY K	CAMBRIDGE IND
FIRE HYDRANT	4 ea.	3	A 473	MUELLER
8" WATER MAIN	1258 L.F.	1258	PIP CL 92	TYLER PIPE
6" WATER	164 L.F.	167	" " "	" " "
8" PLUG + BUTTRESS	2 ea.	2	" " "	" " "
8" x 6" REDUCER	3 ea.	3	" " "	" " "
8" VALVE	3 ea.	3	M J R S	MUELLER
6" VALVE	15 ea.	4	" " "	" " "
8" x 6" TEE	12 ea.	6	DIP R S	TYLER PIPE
8" x 6" CROSS	8 ea.	2	" " "	" " "
8" x 6" CROSS	2 ea.	2	" " "	" " "
4" SAN. MANHOLE	3 ea.	2	PRECAST	ATLANTIC
6" SEWER	40 L.F.	42	PVC SOR 35	AI PIPE

NAME OF UTILITY CONTRACTOR: \_\_\_\_\_

CHECKBOX \_\_\_\_\_

AS-BUILT DATE \_\_\_\_\_

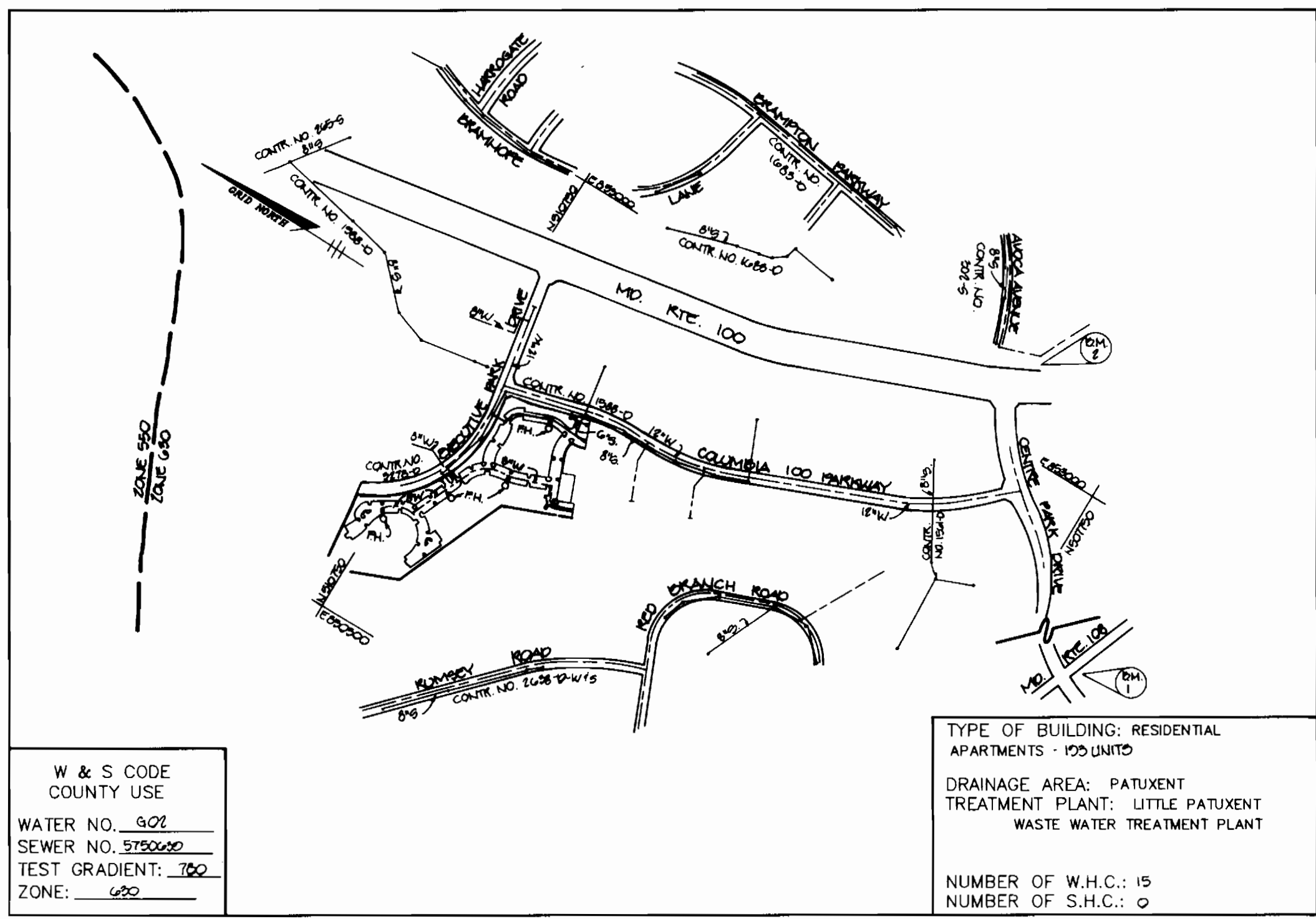
SURVEY AND DRAFTING DIVISION \_\_\_\_\_

# WATER AND SEWER EXTENSION ORCHARD CROSSING CONTRACT NO. 24-3324-D 2nd ELECTION DISTRICT

### 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.G.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	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-9068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	785-1390
Bureau of Utilities, Howard County Department of Public Works	313-4900
9. Trees 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. Taps 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. Manholes shown with 12" and 16" walls are for brick manholes only.
21. 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'-6" above finished grade unless otherwise noted on the drawings.
22. House(s) with the symbol "C.N.S." indicates that cellar cannot be served.



W & S CODE COUNTY USE

WATER NO. 602

SEWER NO. 5750600

TEST GRADIENT: 700

ZONE: 620

TYPE OF BUILDING: RESIDENTIAL APARTMENTS - 100 UNITS

DRAINAGE AREA: PATUXENT TREATMENT PLANT: LITTLE PATUXENT WASTE WATER TREATMENT PLANT

NUMBER OF W.H.C.: 15

NUMBER OF S.H.C.: 0

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

### BENCHMARKS

B.M. #1 ELEV. 482.29  
HO. CO. 2743010-R  
3/4" REBAR 0.4' BELOW SURFACE, 34.7" SOUTH OF CUR. ON MARYLAND ROUTE 108, 175' EAST OF G. PHELPS LUCK DRIVE

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

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on SDP-93.

HOWARD COUNTY CONSERVATION DISTRICT

Review for Howard Soil Conservation District and meets technical requirements.

*Patricia Engler* / *W.H.* 12/29/93  
U.S. SOIL CONSERVATION SERVICE DATE

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

*John R. Reuter* 12/29/93  
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James J. ...* 12/29/93 DIRECTOR OF PUBLIC WORKS DATE

*John ...* 12/29/93 CHIEF, BUREAU OF ENGINEERING DATE

*John ...* 12/29/93 CHIEF, BUREAU OF UTILITIES DATE

*John ...* 12/29/93 CHIEF, LAND DEVELOPMENT DATE

RIEMER MUEGGE & ASSOCIATES, INC.  
Planners Engineers Surveyors  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8800 FAX: 410-997-9282

*J. Parekh* 12-29-93  
JAYKANT D. PAREKH # 19148

DES: J.C.D.				
DRN: J.C.D.				
CHK: D.F.				
DATE: 10-25-99	BY:	NO.:	REVISION:	DATE:

TITLE SHEET

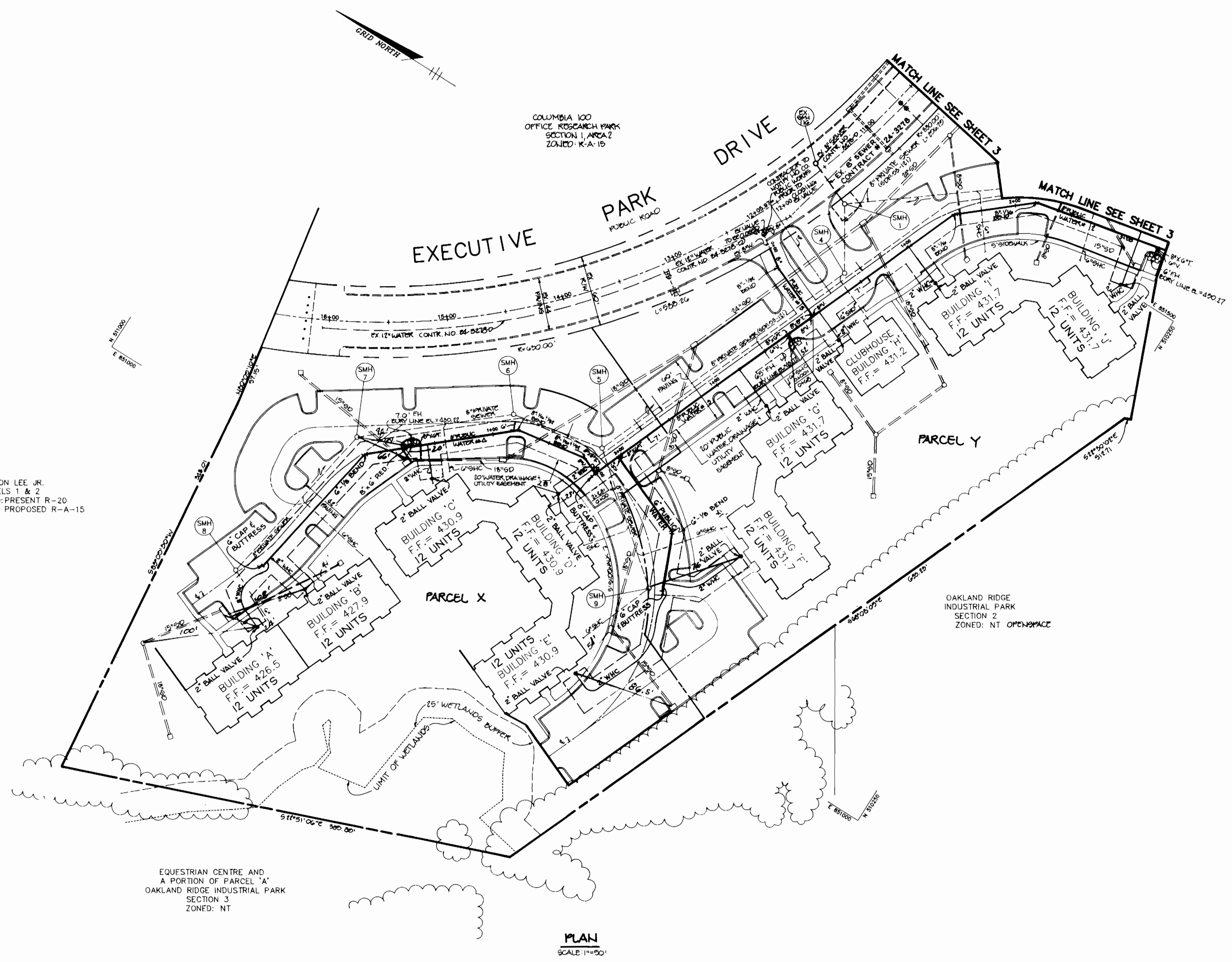
600' SCALE MAP NO. 20 BLOCK NO. 14

**ORCHARD CROSSING**  
COLUMBIA 100 OFFICE RESEARCH PARK  
TAX MAP 30 PARCEL X, Y & Z  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 24-3324-D

SCALE AS SHOWN

SHEET 1 OF 4

3324 WS/2 ORCHARD CROSSING



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James P. Lee* 12/28/93  
DIRECTOR OF PUBLIC WORKS DATE

*John J. ...* 12/29/93  
CHIEF, BUREAU OF ENGINEERING DATE

*Robert ...* 12/28/93  
CHIEF, BUREAU OF UTILITIES DATE

*...* 12/29/93  
CHIEF, LAND DEVELOPMENT DATE

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410-997-8900 FAX: 410-997-9282

*J. ...* 12.29.93  
JAYKANT D. PAKKIH #10460

DES: J.C.O.					
DRN: J.C.O.					
CHK: D.P.					
DATE: 10-25-93					
BY: RJC	NO. 1	REVISION	DATE		
		REVISED 2" BALL VALVES, ALL BLDG WNC LINES, TO BEARY OF UTILITY EASEMENTS, MOVED ONE ON OLD 6" E.I. 5" D. Bldg Face	4/22/94		

**WATER AND SEWER PLAN**

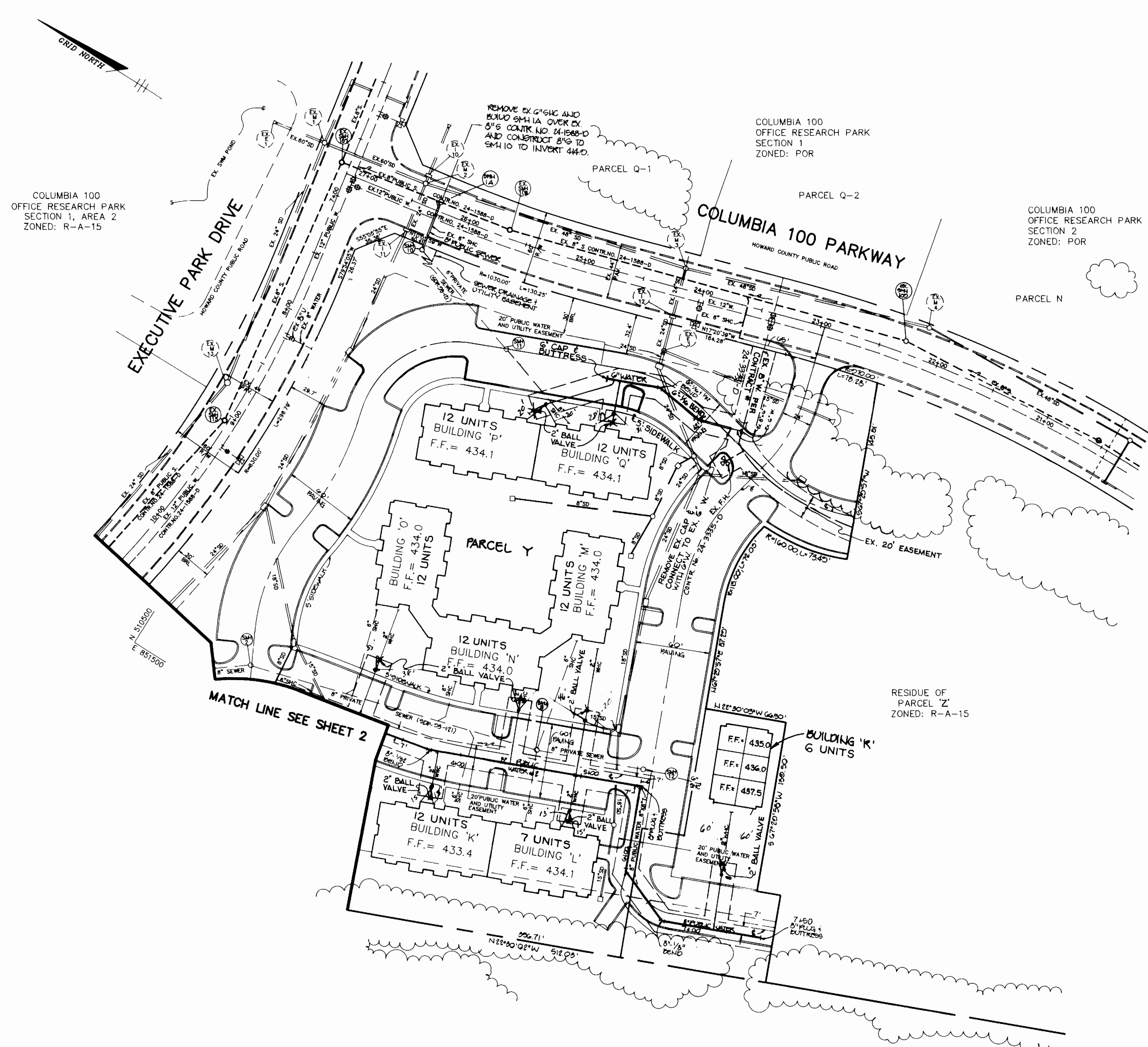
600' SCALE MAP NO. 22 BLOCK NO. 12

**ORCHARD CROSSING**  
COLUMBIA 100 OFFICE RESEARCH PARK  
TAX MAP 30 PARCEL X, Y & Z  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 24-3324-D

SCALE AS SHOWN  
SHEET 2 OF 4



3324 WS/3 ORCHARD CROSSING



**PLAN**  
SCALE: 1" = 50'  
OAKLAND RIDGE INDUSTRIAL PARK SECTION 2 ZONED: NT - OPENSAPCE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Thomas P. Shea* 12/29/93  
DIRECTOR OF PUBLIC WORKS DATE

*Michael A. Howard* 12/29/93  
CHIEF, BUREAU OF UTILITIES DATE

*John J. Smith* 12/29/93  
CHIEF, BUREAU OF ENGINEERING DATE

*John J. Smith* 12/29/93  
CHIEF, LAND DEVELOPMENT DATE

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*J. Sanchez*  
12-29-93  
JAYKALIT 0 PARC4#10145

DES: JCO					
DRN: JCO					
CHK: O.P.					
DATE: 10-29-93					
RJC: 1	REVISION	DATE			
BY: NO.					

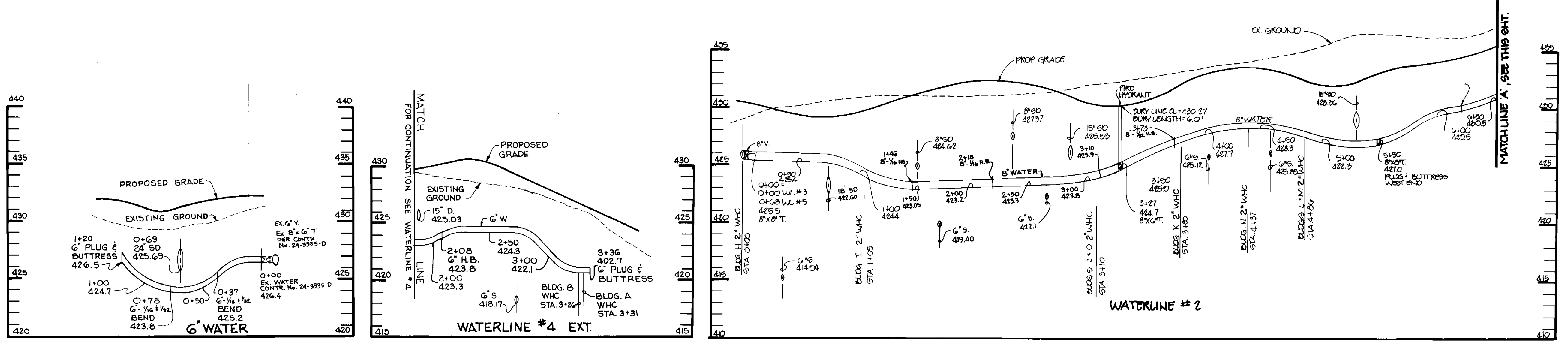
**WATER AND SEWER PLAN**

60' SCALE MAP NO. 30 BLOCK NO. 12

**ORCHARD CROSSING**  
COLUMBIA 100 OFFICE RESEARCH PARK  
TAX MAP 30 PARCEL X, Y & Z  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 24-3324-D

SCALE AS SHOWN  
SHEET 3 OF 4

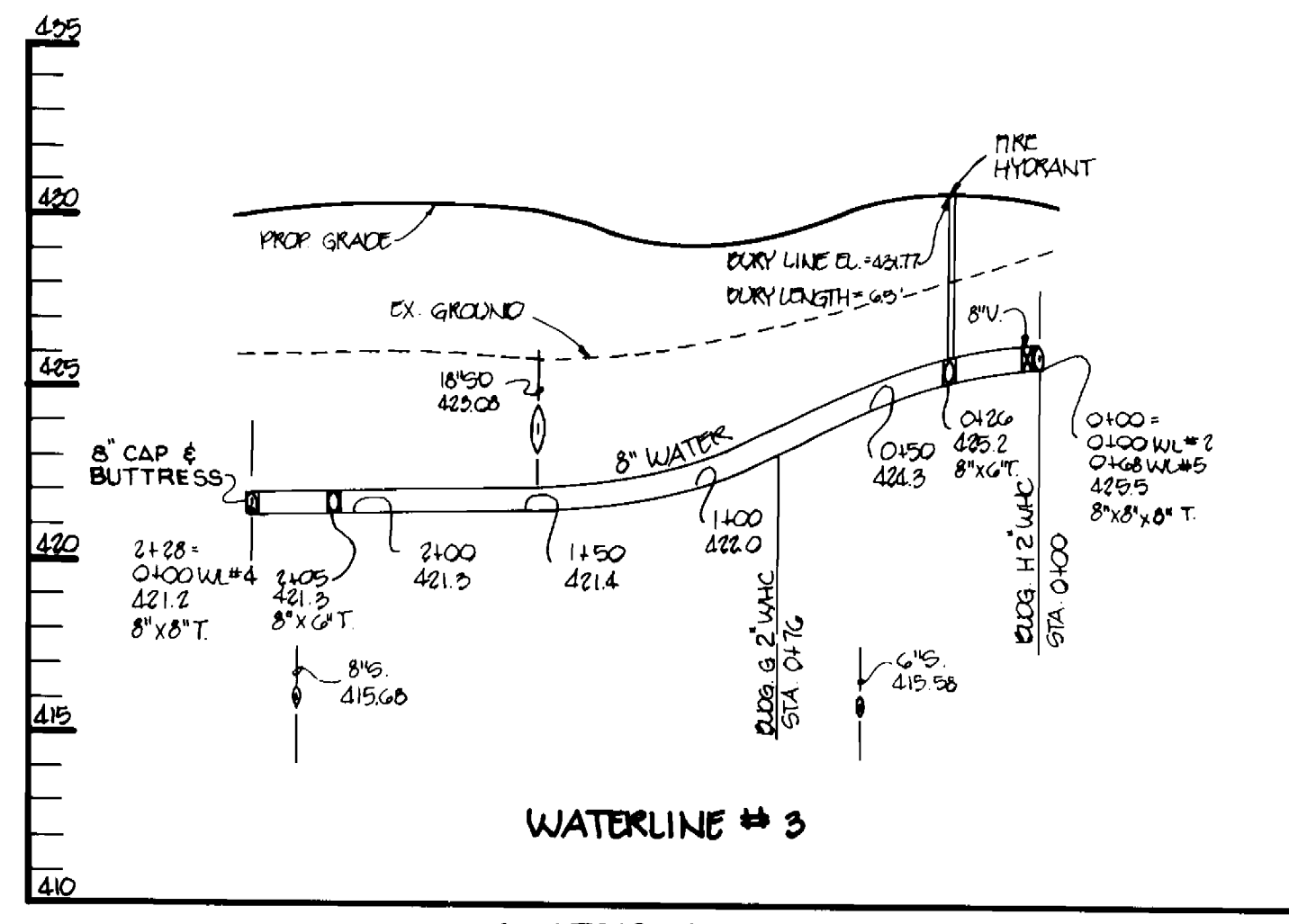
3324 ws/4 ORCHARD CROSSING



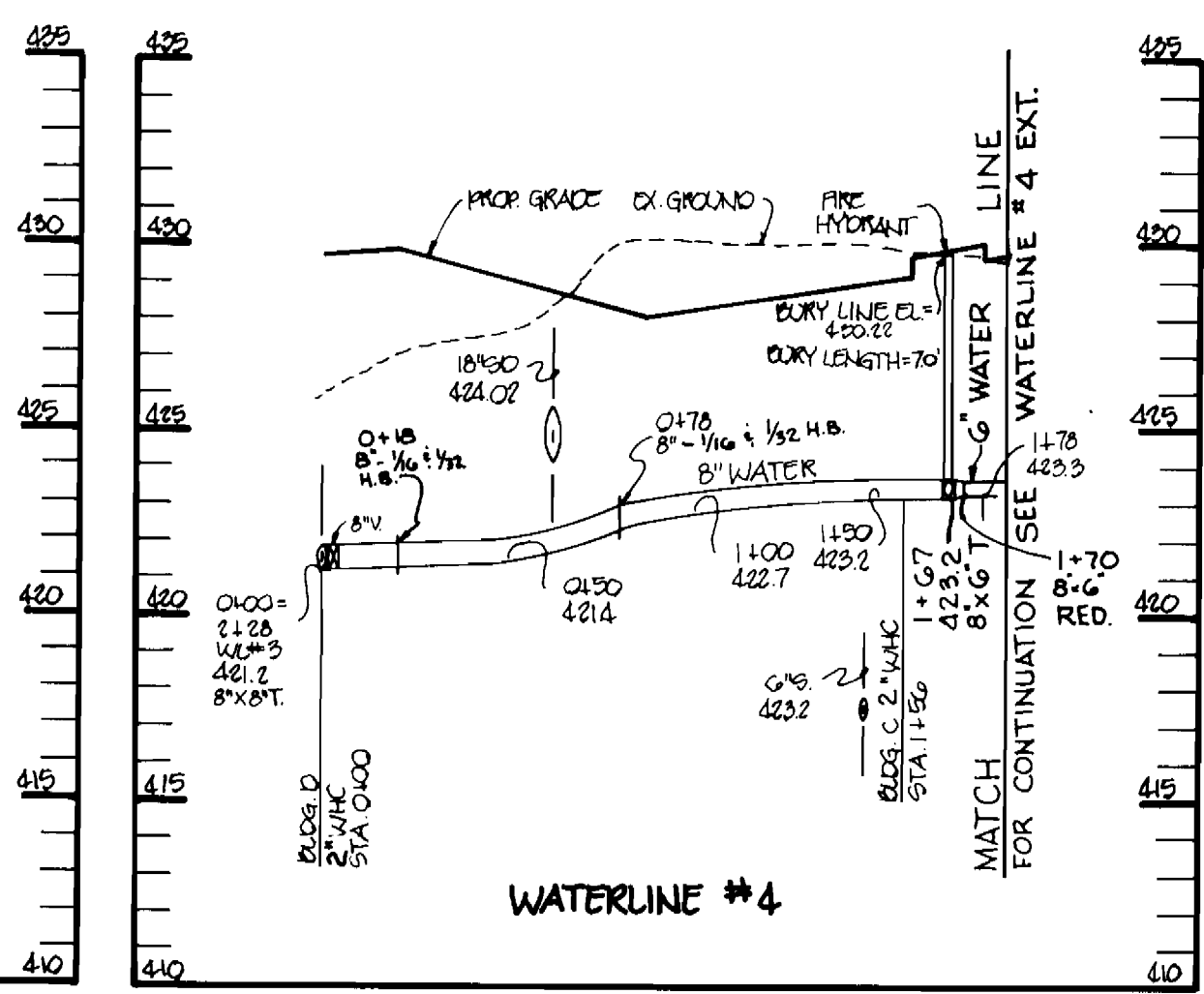
**WATER PROFILE**  
SCALE: HOR. 1"=50'  
VERT. 1"=5'

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

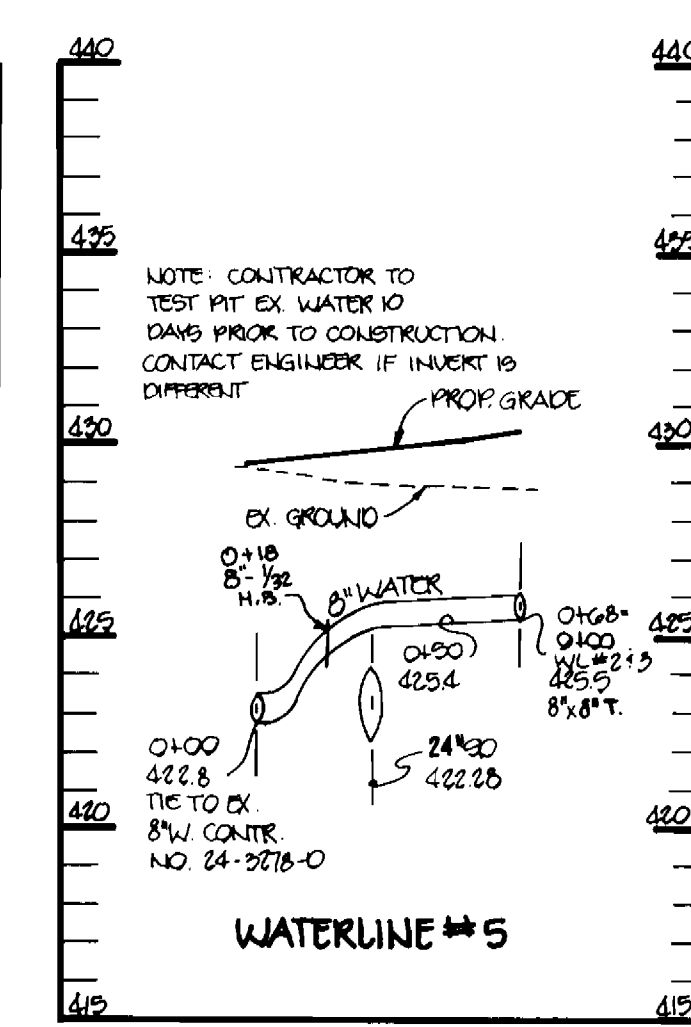
**WATER PROFILE**  
SCALE: HOR. 1"=50'  
VERT. 1"=5'



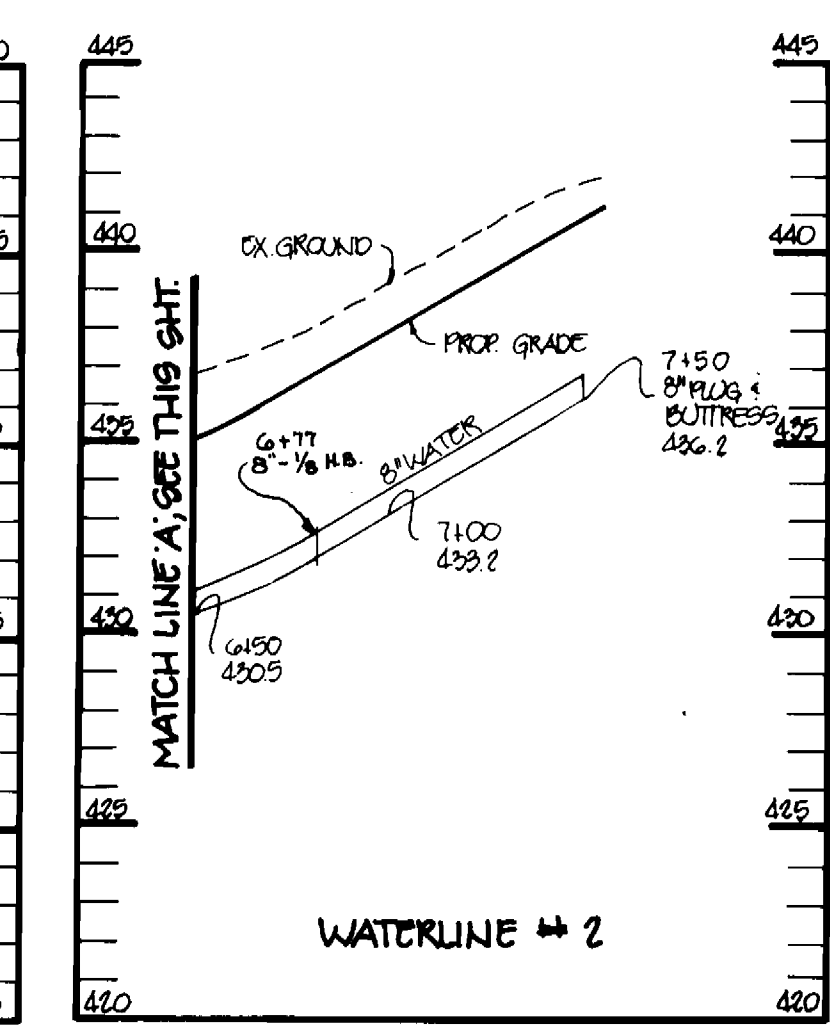
**WATER PROFILE**  
SCALE: HOR. 1"=50'  
VERT. 1"=5'



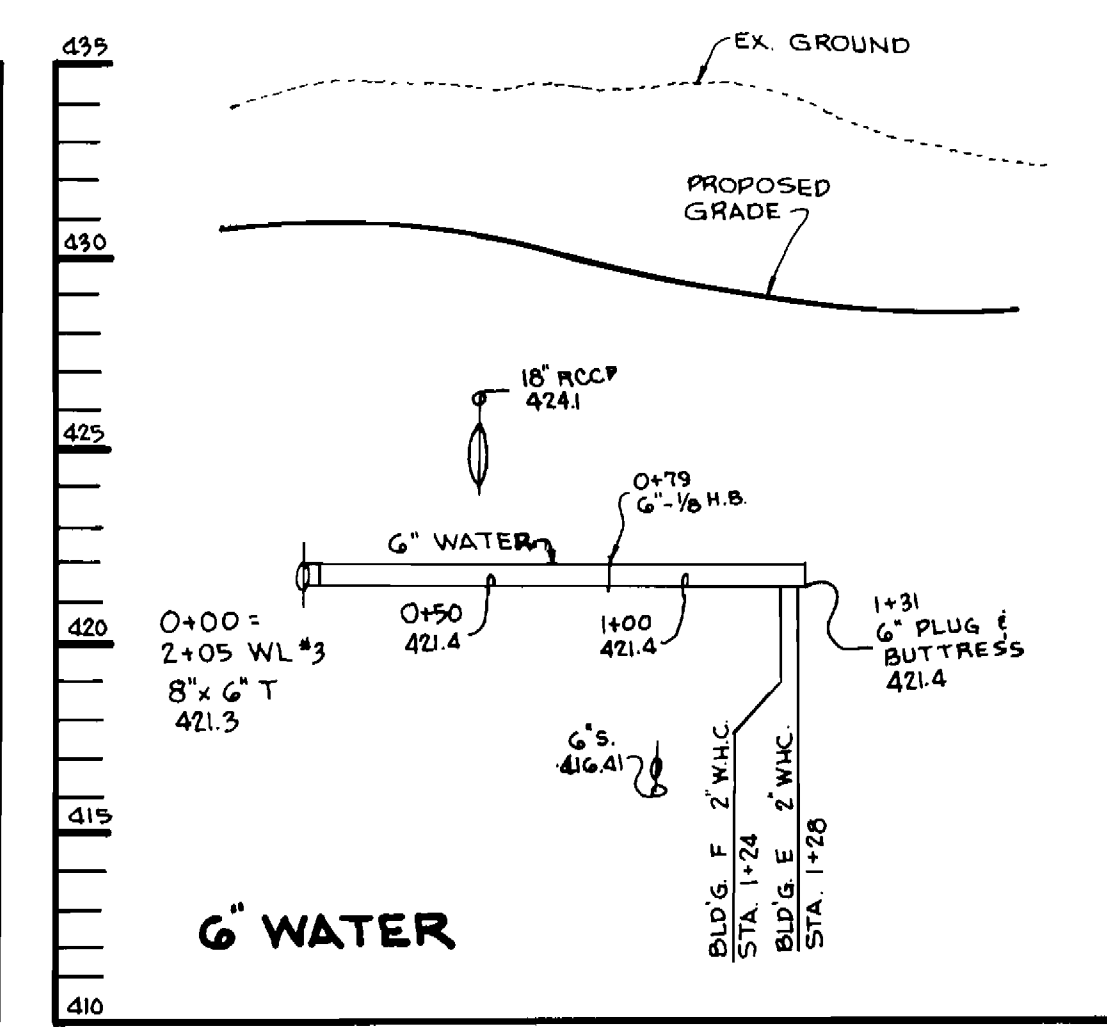
**WATER PROFILE**  
SCALE: HOR. 1"=50'  
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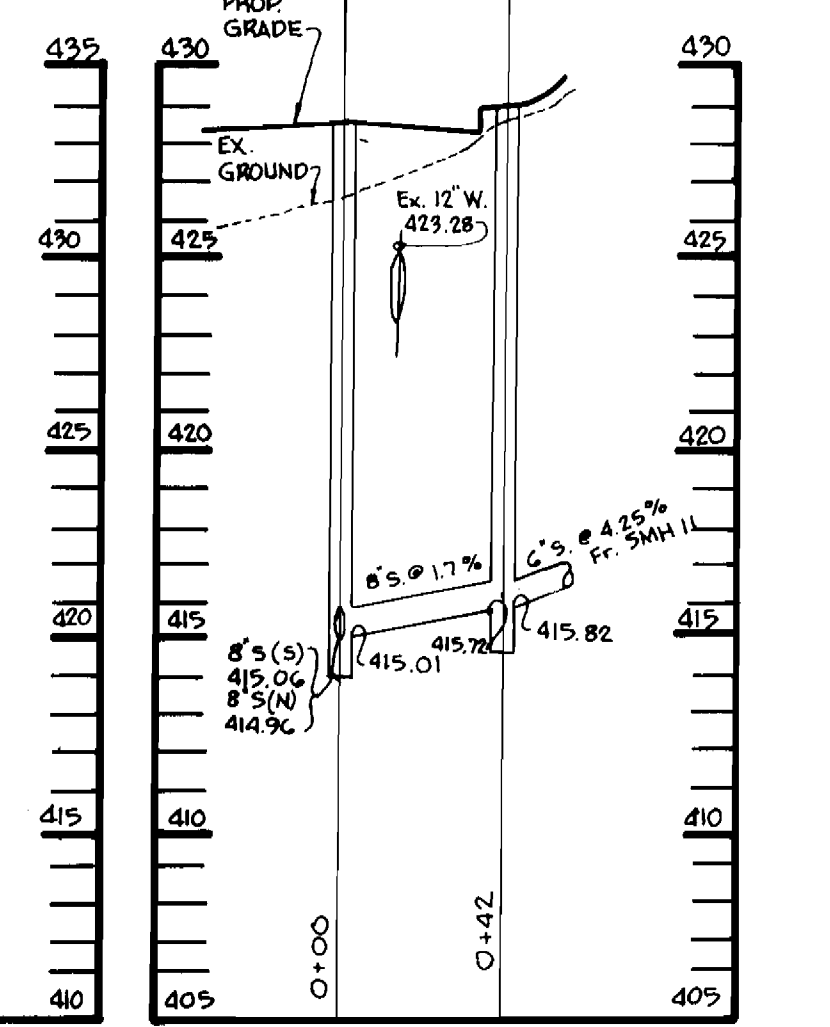
**WATER PROFILE**  
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**WATER PROFILE**  
SCALE: HOR. 1"=50'  
VERT. 1"=5'



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



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

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* DIRECTOR OF PUBLIC WORKS  
*[Signature]* CHIEF, BUREAU OF ENGINEERING  
*[Signature]* CHIEF, BUREAU OF UTILITIES  
*[Signature]* CHIEF, LAND DEVELOPMENT

DATE: 12/29/93  
DATE: 12/29/93  
DATE: 1/4/94

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STATE OF MARYLAND  
*[Signature]*  
JAYKANT D PAREKH #10145  
DATE: 10-25-93

DES: J.C.O.					
DRN: J.C.O.					
CHK: D.F.					
DATE: 10-25-93					
BY: NO.					
REVISION					
DATE					

WATER AND SEWER PROFILES

600' SCALE MAP NO. 30 BLOCK NO. 12

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TAX MAP 30 PARCEL X, Y & Z  
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CONTRACT NO. 24-3324-D

SCALE AS SHOWN  
SHEET 4 OF 4