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2	PLAN AND PROFILES OF WATER & SEWER MAINS

WATER AND SEWER EXTENSIONS

COLUMBIA 100

OFFICE RESEARCH PARK

PARCEL J-2

2nd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-4128-D

BENCH MARK

HOWARD COUNTY CONTROL
STATION 30FB
N 570,134.286 (NAD83) N 509,385 (NAD27)
E 1,365,194.137 (NAD 83) E 852,776 (NAD 27)
ELEV. 500.63

HOWARD COUNTY CONTROL
STATION 30FC
N 572,916.535 (NAD 83) N 512,168 (NAD 27)
E 1,364,670.171 (NAD 83) E 852,252 (NAD 27)
ELEV. 386.93

GENERAL NOTES

- Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
- All horizontal controls are based on Maryland State Coordinates, NAD 83/91 as projected by Howard County Horizontal and Vertical Geodetic Control Station Numbers 3482 and 34CA.
- All vertical controls are based on NAVD 88.
- All pipe elevations shown are invert elevations unless otherwise noted on the plans.
- Clear all utilities by a minimum of 12 inches. Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted. 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 the 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.
- 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.
- Where test pits have been made on existing utilities, they are noted by the symbol \oplus 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.
- The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

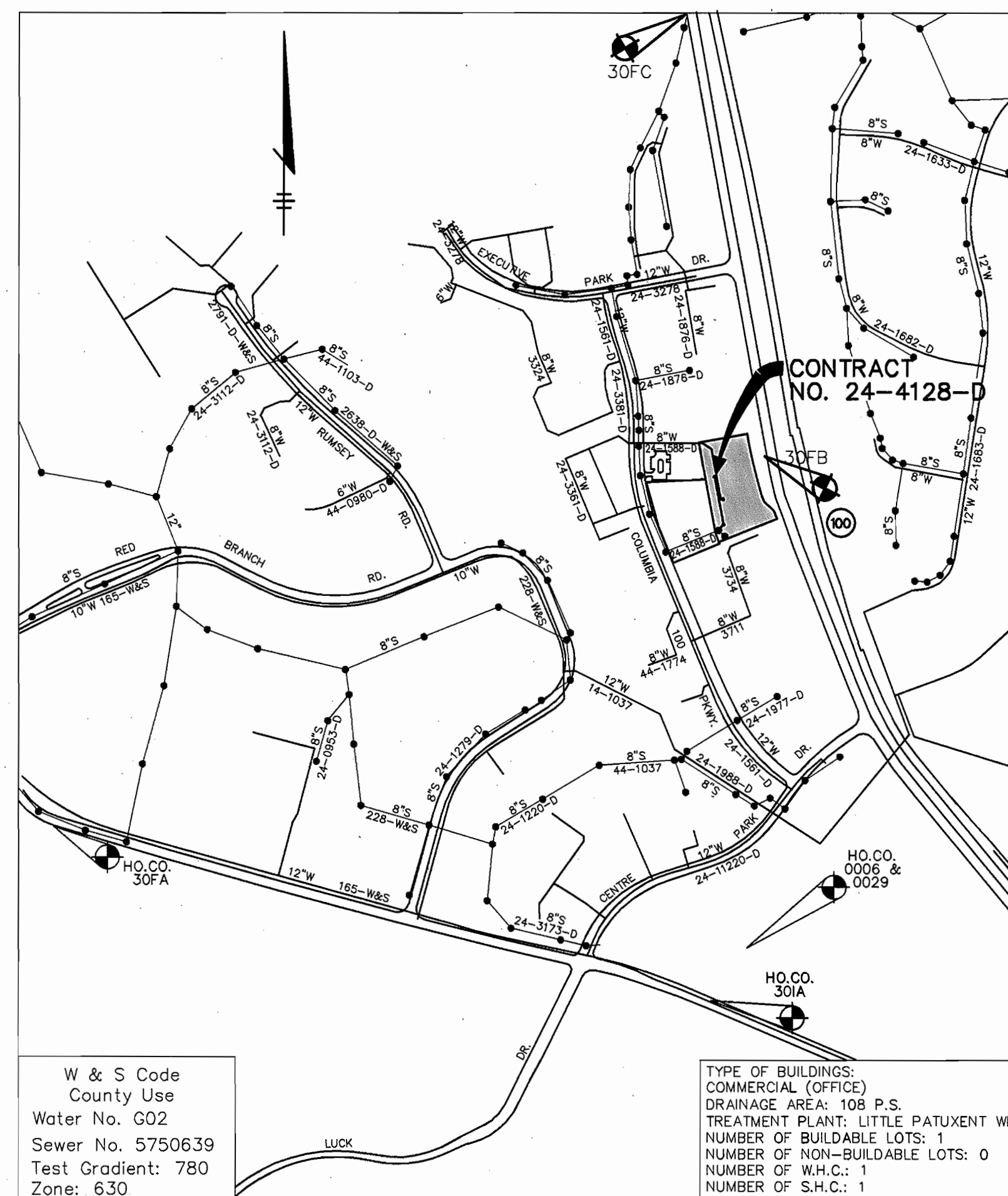
AT&T	1-800-252-1133
BGE (Contractor Services)	410-850-4620
BGE (Underground Damage Control)	410-787-9065
Bureau of Utilities	410-313-4900
Colonial Pipeline Co.	410-795-1390
Miss Utility	1-800-257-7777
State Highway Administration	410-531-5533
Verizon	1-800-743-0033 / 410-224-9210
- Trees and shrubs are to be protected from damage to the maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
- The contractor shall remove trees, stumps and roots along the line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
- The contractor shall notify the Bureau of Highways, Howard County, at 410-313-7450 at least five working days before open cutting or boring/jacking of any County road for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirements per Section 18.114(a) of the Howard County Code.

WATER NOTES

- All water mains shall be D.I.P. Class 52 unless otherwise noted.
- Tops of all water mains shall have a minimum of 3'-6" of cover unless otherwise noted.
- Valves adjacent to tees shall be strapped to tees.
- All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
- Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be installed in accordance with Standard Details. The soil around the fire hydrant shall be compacted in accordance with Section 1000 and 1005 of the Standard Specifications.
- The contractor shall not operate any water main valves on the existing water system.
- All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
- For sprinkler systems for all town homes or multi-family dwelling units should have a minimum of 1' connection with a 3/4" meter.

SEWER NOTES

- All sewer mains shall be D.I.P. and P.V.C. unless otherwise noted.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- Force mains shall be D.I.P. only.
- Manholes shown with 12" and 16" walls are for brick manholes only.
- Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight manhole frames and covers is used, set top of frame 1'-6" above finished grade unless otherwise noted on the drawings.
- House(s) with the symbol "C.N.S." indicates that cellar cannot be served.



VICINITY MAP

SCALE: 1"=600'

QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
6" WATER	8 LF			
8" WATER	185 LF			
8" SEWER	11 LF			
8"x6" T	2 EA.			
8"x8" T	2 EA.			
8" PLUG & BUTTRESS	2 EA.			
8" 1/8HB	2 EA.			
6" VALVE	1 EA.			
8" VALVE	2 EA.			
FIRE HYDRANTS	1 EA.			

NAME OF UTILITY CONTRACTOR:

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on SDP-04-038.

CHECKBOX

AS-BUILT DATE

SURVEY AND DRAFTING DIVISION

Review for Howard Soil Conservation District and meets technical requirements.

Jim Meyer 10-22-03
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John R. Roberts 10-22-03
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Patton Harris Rust & Associates, PC
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282



DES: DAM
DRN: DAM
CHK: CJR
DATE: 10/1/03

TITLE SHEET

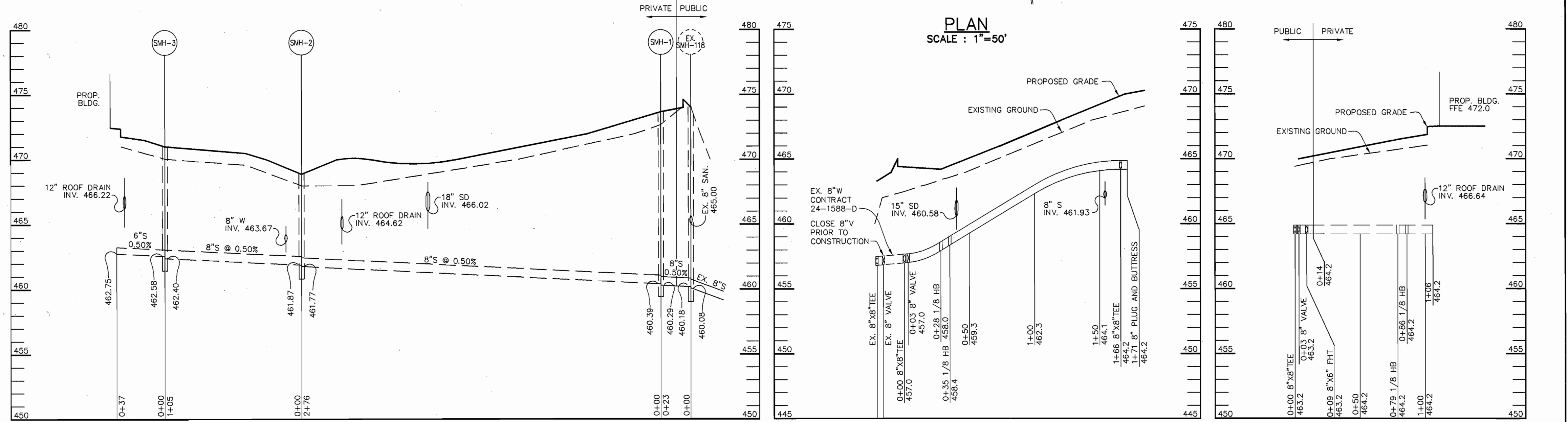
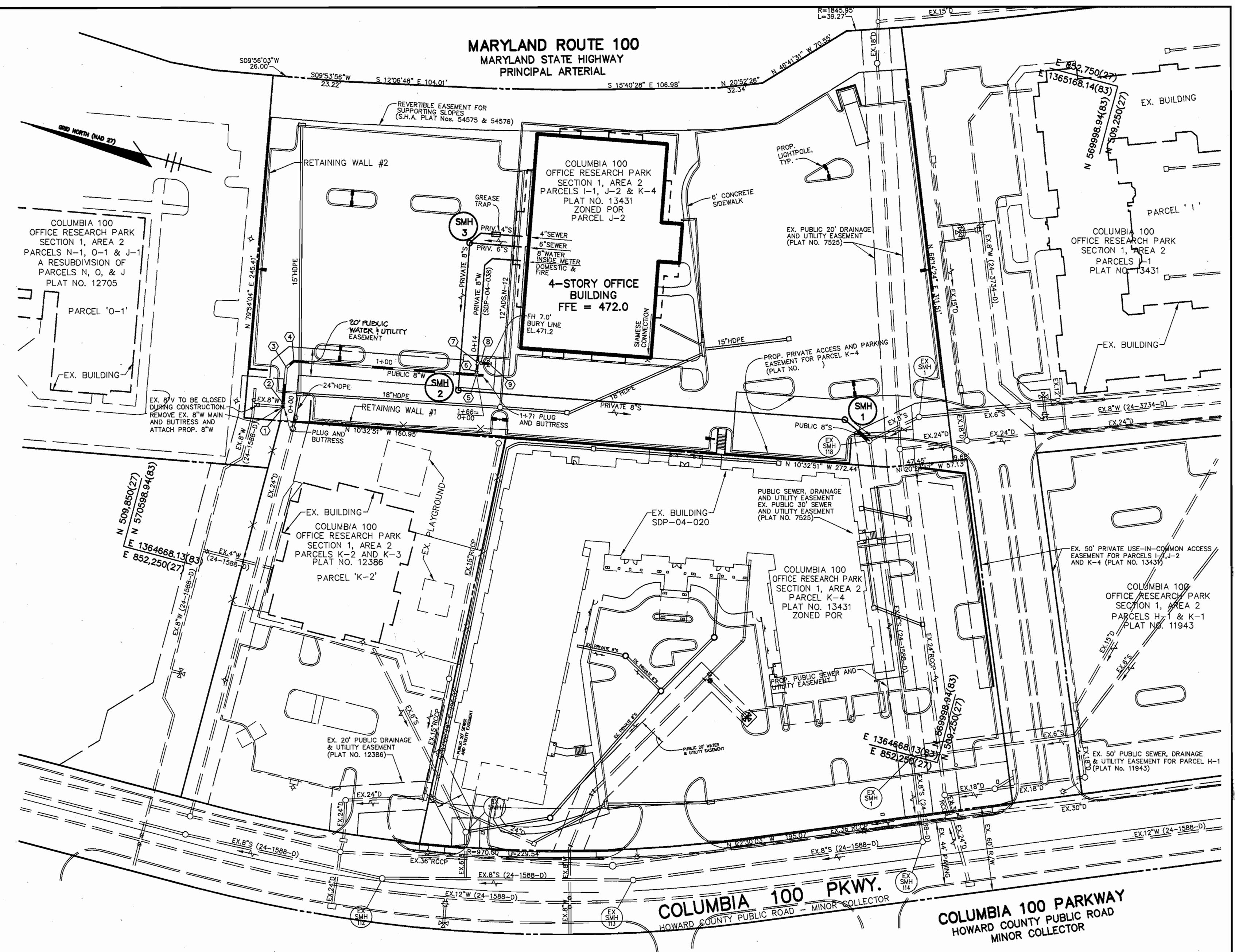
COLUMBIA 100 OFFICE RESEARCH PARK
SECTION ONE, AREA TWO, PARCEL J-2
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-4128-D

SCALE AS SHOWN

SHEET 1 OF 2

600' SCALE MAP NO. 30 BLOCK NO. 18

WATER LINE STAKEOUT CHART		
NO.	DESCRIPTION	COORDINATES
1	8"x8" T	N 509,766 E 852,375
2	8" V	N 509,766 E 852,378
3	8" 1/8 HB	N 509,771 E 852,404
4	8" 1/8 HB	N 509,767 E 852,409
5	8"x8" T	N 509,638 E 852,433
6	8" V	N 509,639 E 852,436
7	8"x6" T	N 509,640 E 852,442
8	6" V	N 509,638 E 852,442
9	FIRE HYDRANT	N 509,632 E 852,443



SEWER 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'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
R. H. B...
CHIEF, BUREAU OF UTILITIES
10-10-03
DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
C. D. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION
10/24/03
DATE

Patton Harris Rust & Associates, PC
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

STATE OF MARYLAND
DEPARTMENT OF PUBLIC WORKS
CHIEF ENGINEER
CHRISTOPHER J. REID #19949
10-1-03
DATE: 10/1/03

DES: DAM				
DRN: DAM				
CHK: CJR				
BY NO.		REVISION		DATE

**PLAN AND PROFILES OF
WATER AND SEWER MAINS**
600' SCALE MAP NO. 30 BLOCK NO. 18

COLUMBIA 100 OFFICE RESEARCH PARK
SECTION ONE, AREA TWO, PARCEL J-2
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-4128-D

SCALE AS SHOWN
SHEET 2 OF 2