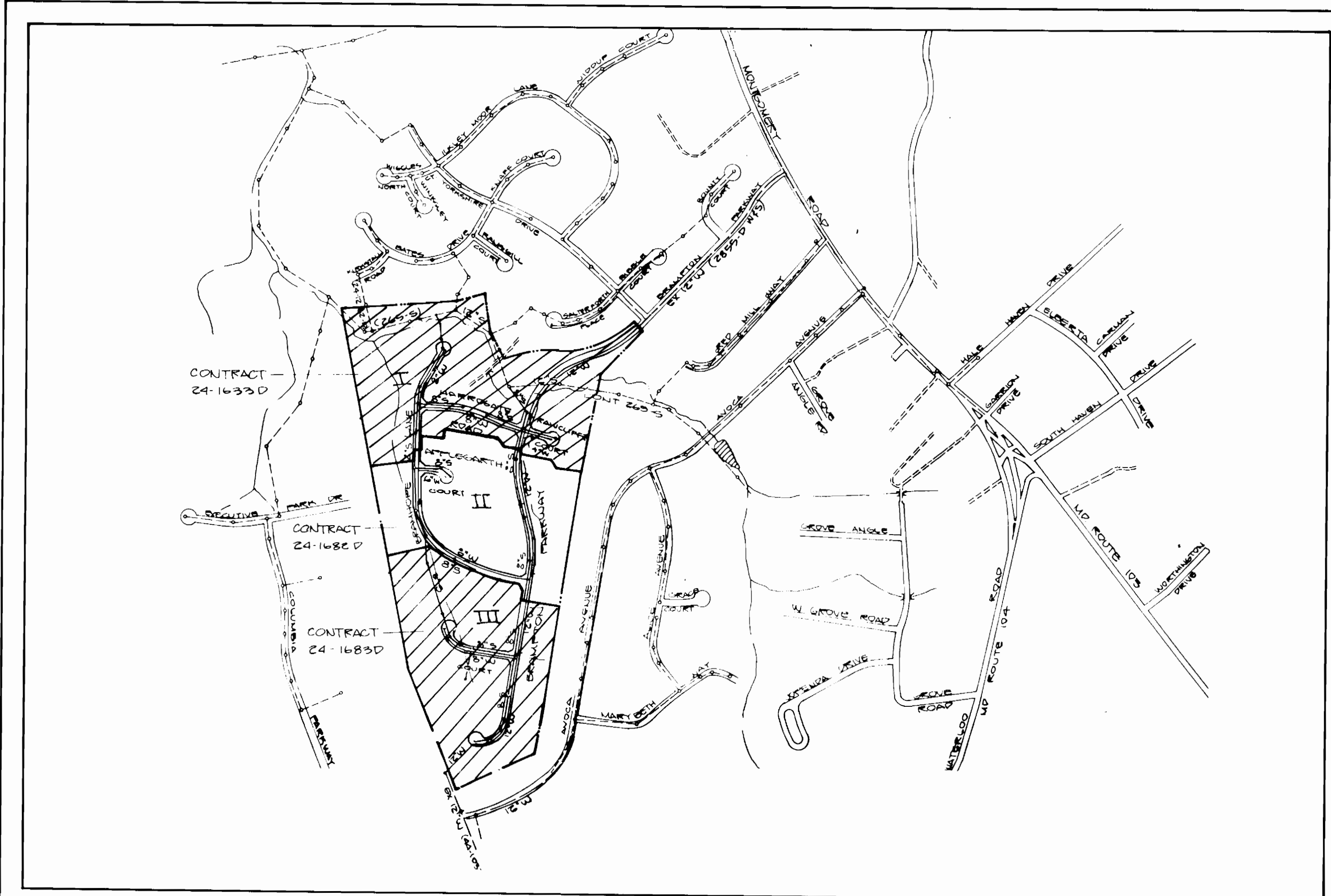


QUANTITIES				
ITEM	ESTIMATED	ACTUAL	ITEM	ESTIMATED
12" WATER MAIN	262 L.F.	146 1/2	8" x 6" TEE	1
8" WATER MAIN	1377 L.F.	100 1/2	1/2" HD x 6"	1
6" WATER MAIN	209 L.F.	365 1/4	1/4" HD x 6"	1
3/4" W.H.C.	590 L.F.	188 1/2	AIR RELEASE VALVE	1
1" W.H.C.	425 L.F.	34	BLOW OFF (44 1/2)	1
12" VALVE	1	1		
8" VALVE	2	2		
6" VALVE	1	1		
FIRE HYDRANT	5	5		
12" x 6" TEE W/CV	2	2		
8" x 6" TEE W/CV	3	3		
8" SAN SEWER	2375 L.F.	2388		
S.H.C.	795 L.F.	1037		
MAN HOLES	46	11		
12" x 8" TEE	1	1		

SEWER HOUSE CONNECT INVERT @ IC		
STATION	LOT	INVERT @ IC
MH4 / 1+52	118	422 30
MH4 / 1+75	119	422 30
MH5 / 0+68	120	422 30
MH5 / 0+68	121	422 30
MH5 / 1+75	122	440 30
MH5 / 1+75	123	440 30
MH6 / 0+17	124	447 30
MH6 / 0+17	125	447 30
MH6 / 1+14	126	454 30
MH6 / 1+14	127	454 30
MH7 / 0+65	128	462 30
MH7 / 0+65	129	462 30
MH7 / 2+21	130	472 30
MH7 / 2+21	131	472 30
MH7 / 0+74	141	462 30
MH6 / 1+74	140	452 30
MH6 / 1+74	139	452 30
MH6	138	446 30
MH6	137	446 30
MH5 / 1+77	136	420 30
MH5 / 0+27	135	422 30
MH5 / 0+27	134	422 30
MH4 / 1+13	133	410 30
MH4 / 0+35	132	410 30
MH15 / 2+22	161	400 30
MH24 / 0+35	160	426 30
MH24 / 0+35	159	426 30
MH25 / 0+35	158	427 30
MH25	157	427 30
MH25	156	425 30
MH25	155	425 30
MH16 / 1+25	154	415 30
MH16 / 1+25	153	415 30
MH16 / 2+33	152	417 30
MH16 / 2+33	151	417 30
MH17 / 0+51	150	410 30
MH17 / 0+44	149	420 30
MH18 / 0+44	148	421 30
MH19 / 0+43	147	425 30
MH19 / 0+43	146	425 30
MH19 / 1+62	145	445 30
MH19 / 1+62	144	445 30
MH20 / 1+62	143	425 30
MH20	142	425 30
MH16	141	412 30
MH16	140	412 30
MH16 / 1+72	139	415 30
MH16 / 1+72	138	415 30
MH17 / 2+47	211	440 30
MH2	212	477 30
MH7 / 2+45	213	473 30
MH20	214	429 30
MH12 / 0+32	215	420 30
MH8	147	477 30

NOTE:  
INVERT @ R  
CORRECTED  
PER CIV. ENGR.



TYPE OF BLDG. SINGLE FAMILY HOMES  
NO. OF LOTS 52  
NO. OF WATER HOUSE CONN. 55  
NO. OF SEWER HOUSE CONN. 52  
DRAINAGE AREA 2.47 AC. (APPROX. VIA SET JOB FORMULA)

SCALE: 1" = 600'

WATER AND SEWER CODE:  
FOR COUNTY USE ONLY  
WATER NO. 602  
SEWER NO. 2720633

**CONTRACT NO. 24-1682D**  
**BRAMPTON HILLS**  
**SECTION 4 AREA 2**  
**WATER AND SEWER MAIN EXTENSIONS**  
**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS**

- 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 supply. 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.
  - All vertical controls are based on U.S.G.S. data.
  - All pipe elevations shown are invert @ elevations.
  - 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 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 Details for Construction. The contractor shall have a copy of Volume IV on the job.
  - Where test pits have been made on existing utilities, they are by the symbol  $\odot$  at the location of the test pits. 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 construction 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.
  - Contractor shall notify the following utilities or agencies at least five working days before starting work shown on those plans:  
State Highway Administration - 531-5533  
Baltimore Gas & Electric Co. - Contractor Services - 561-2585  
Baltimore Gas & Electric Co. - Underground Damage Control - 234-5621  
Miss Utility - 1-800-257-7777  
Colonial Pipeline Co. - 795-1390  
Bureau of Utilities, Howard County Department of Public Works - 992-2366
  - Trees are to be protected from damages to maximum extent. Trees located within the construction strip are not to be removed or damaged by the contractor.
  - 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.
  - 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.
  - All water mains to be D.I.P. unless otherwise noted.
  - Top of all water mains to have minimum of 3 1/2' cover unless otherwise noted.
  - Valves adjacent to tees shall be strapped to tees.
  - Block all fittings with concrete.
  - Bury line elevation 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 to be compacted in accordance with Section 1003 & 1008 of the General Requirements for Water & Sewer.
  - All water house connections shall be for an inside meter setting.
  - The contractor shall not operate any water main valves on the existing system.
  - All sewer mains shall be C.S.P.X., V.C.P.X., P.V.C. or A.C.P. Class 2400 unless otherwise noted.
  - The contractor shall provide a joint in all sewer mains with 2'-0" of exterior manhole wall.
  - All manholes shall be 4'-0" inside diameter, unless otherwise noted.
  - Manholes shown with 12" and 16" walls are brick manholes only.
  - Manholes designated W.T. in plan and profile shall have water tight frame and covers, Standard Detail G5 52 volume IV. Where watertight manhole frame and cover is used, set top of frame 1' 6" above finished grade.
  - House (S) with the symbol "CNB" indicates cellar can not be served.
  - All water house connections shall have a minimum vertical clearance of 12" above all sanitary sewer crossings.
  - All sanitary sewer house connections shall have a minimum vertical clearance of 12" below all water main crossings.
  - Profile stations shall be adjusted as necessary to conform to plan dimensions.
  - No pipe shall be laid until lines of excavations have been brought to subgrade.
  - Lot grading to be shown on a separate S.D.P. to be done at a later date.

\* SHC @ 1.0%  
SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSIONS AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F88-50

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*James M. Nelson*  
US SOIL CONSERVATION SERVICE  
8-10-87  
DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:  
*Stephen J. Miller*  
HOWARD SOIL CONSERVATION DISTRICT  
8/10/87  
DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

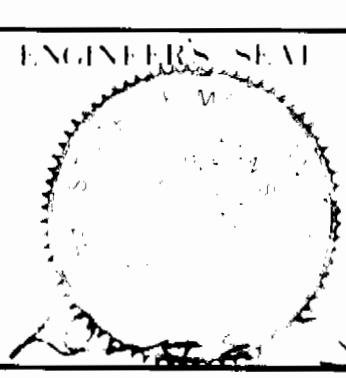
*James M. Nelson* 8/10/87  
DIRECTOR OF PUBLIC WORKS DATE

*Richard R. Miller* 8-13-87  
CHIEF, BUREAU OF ENGINEERING DATE

*Richard R. Miller* 8-13-87  
CHIEF, BUREAU OF UTILITIES DATE

DEVELOPMENT CONSULTANTS  
GROUP, INC.

17904 GEORGETOWN  
OFTENY, MD 20832  
301-924-1570



DES	DATE	BY	NO.	REVISION
MAM	8-10-87	DAVE G.	1	ISSUE
MAM	8-10-87	MAM	2	REVISED AS PER ENGINEERING DEPT COMMENTS
MAM	8-10-87	MAM	3	CHANGE MING (T) TO FU 20
MAM	8-10-87	MAM	4	LOT NO. CHANGES

TITLE SHEET

600 SCALE MAP NO. 30431 BLOCK NO.

WATER & SEWER AS-BUILTS COMBINED

**BRAMPTON HILLS**

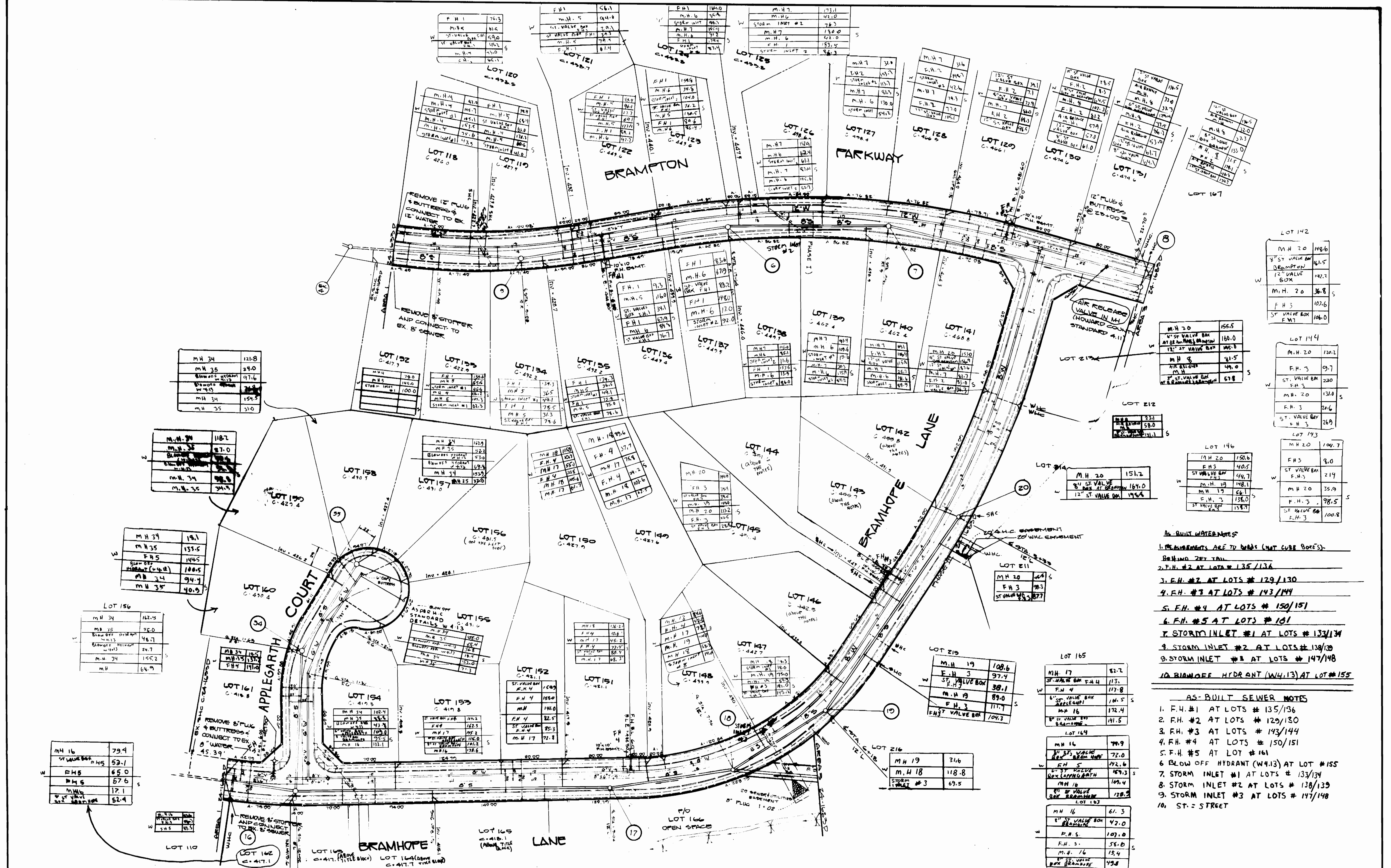
SECTION 4 AREA 2

CONTRACT NO. 24-1682D

ELLCOTT CITY (2nd) ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 of 3



LOT 142

M.H. 20	198.6
8" ST. VALVE BOX AT BRAMPTON PARKWAY	161.5
12" ST. VALVE BOX	142.2
M.H. 20	36.8
F.H. 3	102.6
ST. VALVE BOX F.H. 3	106.0

LOT 144

M.H. 20	120.2
F.H. 3	97.7
ST. VALVE BOX F.H. 3	220
M.H. 20	130.0
F.H. 3	24.6
ST. VALVE BOX F.H. 3	26.9

LOT 143

M.H. 20	104.7
F.H. 3	9.0
ST. VALVE BOX F.H. 3	21.9
M.H. 20	35.9
F.H. 3	98.5
ST. VALVE BOX F.H. 3	100.8

LOT 146

M.H. 20	150.6
F.H. 3	40.5
ST. VALVE BOX F.H. 3	49.7
M.H. 19	148.1
M.H. 19	66.1
F.H. 3	136.0
ST. VALVE BOX F.H. 3	138.7

LOT 147

M.H. 20	151.2
8" ST. VALVE BOX AT BRAMPTON PARKWAY	164.0
12" ST. VALVE BOX	145.6

- AS-BUILT WATER NOTES**
1. MEASUREMENTS ARE TO BENCH (NOT CURB CORNERS).
  2. REMAINING 2" TAIL
  3. F.H. #2 AT LOTS # 135/136
  4. F.H. #2 AT LOTS # 129/130
  5. F.H. #3 AT LOTS # 143/144
  6. F.H. #4 AT LOTS # 150/151
  7. F.H. #5 AT LOTS # 161
  8. STORM INLET #1 AT LOTS # 133/134
  9. STORM INLET #2 AT LOTS # 138/139
  10. STORM INLET #3 AT LOTS # 147/148
  11. BLOWOFF HYDRANT (W4.13) AT LOT #155

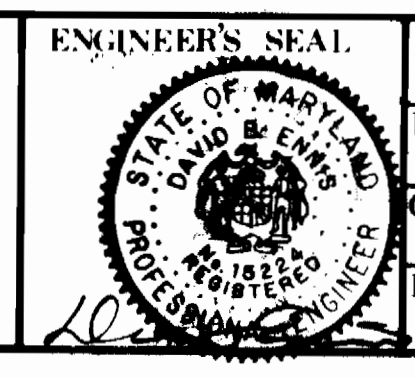
- AS-BUILT SEWER NOTES**
1. F.H. #1 AT LOTS # 135/136
  2. F.H. #2 AT LOTS # 129/130
  3. F.H. #3 AT LOTS # 143/144
  4. F.H. #4 AT LOTS # 150/151
  5. F.H. #5 AT LOT # 161
  6. BLOW OFF HYDRANT (W4.13) AT LOT # 155
  7. STORM INLET #1 AT LOTS # 133/134
  8. STORM INLET #2 AT LOTS # 138/139
  9. STORM INLET #3 AT LOTS # 147/148
  10. ST. = STREET

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

Director of Public Works: *James L. ...* DATE: 8-13-87  
 Chief, Bureau of Engineering: *...* DATE: *...*  
 Chief, Bureau of Utilities: *...* DATE: 8-13-87  
 Chief, Land Development Div.: *...* DATE: *...*

**DEVELOPMENT CONSULTANTS GROUP, INC.**

17904 GEORGIA AVE.  
OLNEY, MD. 20832  
301-824-4570



DES:	DAVE E.
DRN:	M.A.M.
CHK:	DAVE E.
DATE:	AUG. 1987
BY:	NO.
REVISION:	

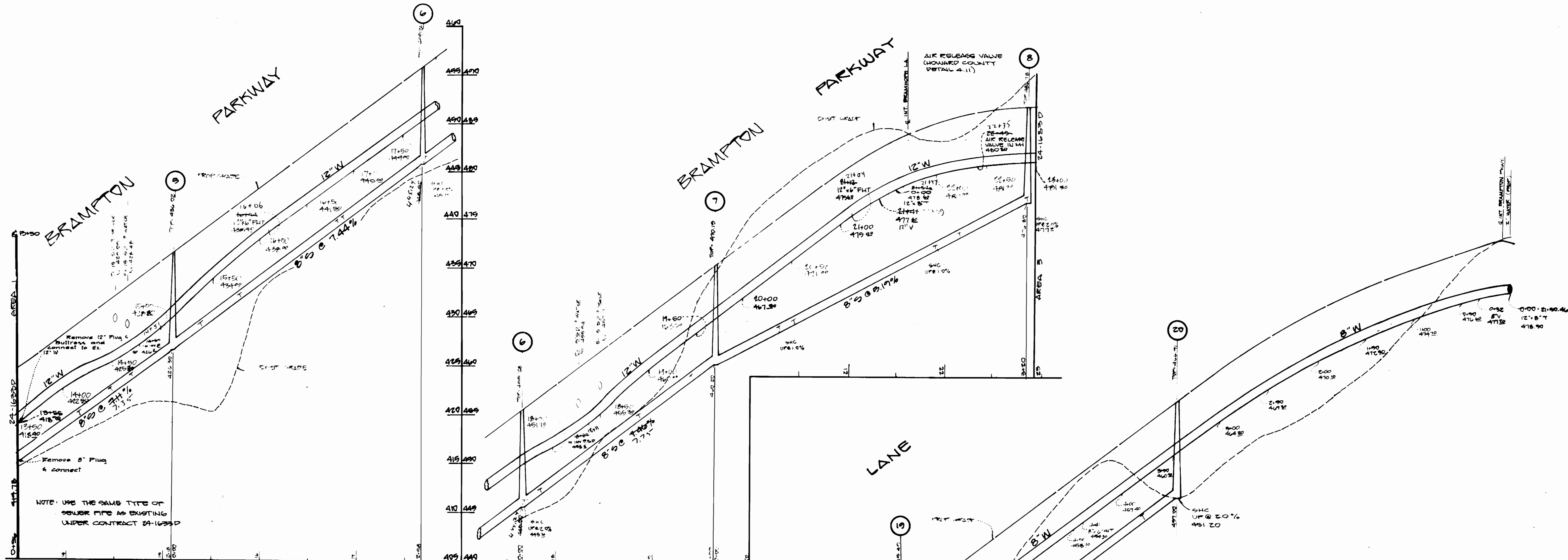
**PLAN OF WATER & SEWER MAINS**

DATE: 800 SCALE MAP NO. 30431 BLACK NO.

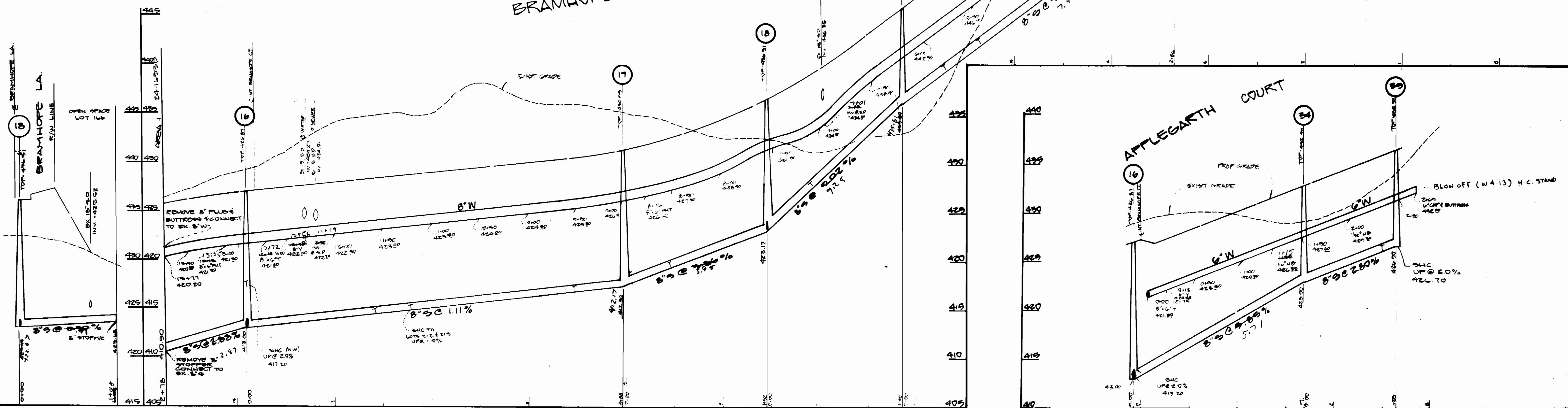
**BRAMPTON HILLS**

SECTION 4 AREA 2  
CONTRACT NO. 84-1422  
BULLCOTT CITY (2ND) ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE: 1"=50'  
SHEET 2 of 2



PROFILES  
SCALE: HORIZONTAL 1"=50'  
VERTICAL 1"=5'



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *James J. Jernigan* 813 07  
Date: 8-13-97

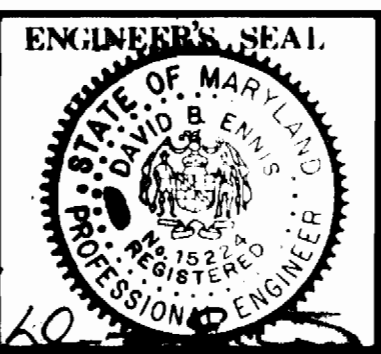
Chief, Bureau of Engineering: *William R. Zelen*  
Date: 8-13-97

Chief, Bureau of Utilities: *Robert B. ...* 8213787  
Date: 8-13-97

Chief, Land Development Div.: *...*  
Date: 8-13-97

DEVELOPMENT CONSULTANTS  
GROUP, INC.

17904 GEORGIA AVE.  
OLNEY, MD. 20832  
301-924-4570



DES:	DAVE E.				
DRN:	MAM.				
CHK:	DAVE E.	MAM	Z	MOVED N.H.'S 17 THRU 20	
DATE:	MAM	1	LOT NO. CHANGED & POWER LINE @ FH 13	11-10-87	
AUG, 1987	BY	NO.	REVISION	DATE	800 SCALE MAP NO. 30 & 31 BLOCK NO.

PROFILES OF  
WATER & SEWER MAINS

BRAMPTON HILLS  
SECTION 4 AREA 2  
CONTRACT NO. 24-168D  
ELLCOTT CITY (2<sup>ND</sup>) SUBURBAN DISTRICT  
HOWARD COUNTY, MARYLAND