

PART I

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 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.
6. 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.

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. - Under Ground Damage Control - 859-9004
 Baltimore Gas & Electric Co. - Trouble Shooting - 298-9001
 Miss Utility - 1-559-0100
 Colonial Pipeline Co. - 795-1390
 Bureau of Utilities, Howard County Dept. of Public Works - 992-2366

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.

PART II - WATER

1. All water mains to be D.I.P. Class 52 unless otherwise noted.
2. Tops of all water mains to have a minimum of 3-1/2' cover unless otherwise noted.
3. Valves adjacent to tees shall be strapped to tees.
4. All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
5. 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 1003 of the Standard Specifications.
6. The contractor shall not operate any water main valves on the existing water system.

PART II - SEWER

1. All sewer mains shall be C.S.P.X., R.C.S.P., V.C.P.X., A.C.P. Class 2400 or P.V.C. unless otherwise noted.
2. The contractor shall provide a joint in all sewer mains within 2' - 0" of exterior manhole wall.
3. All manholes shall be 4' - 0" inside diameter unless otherwise noted.

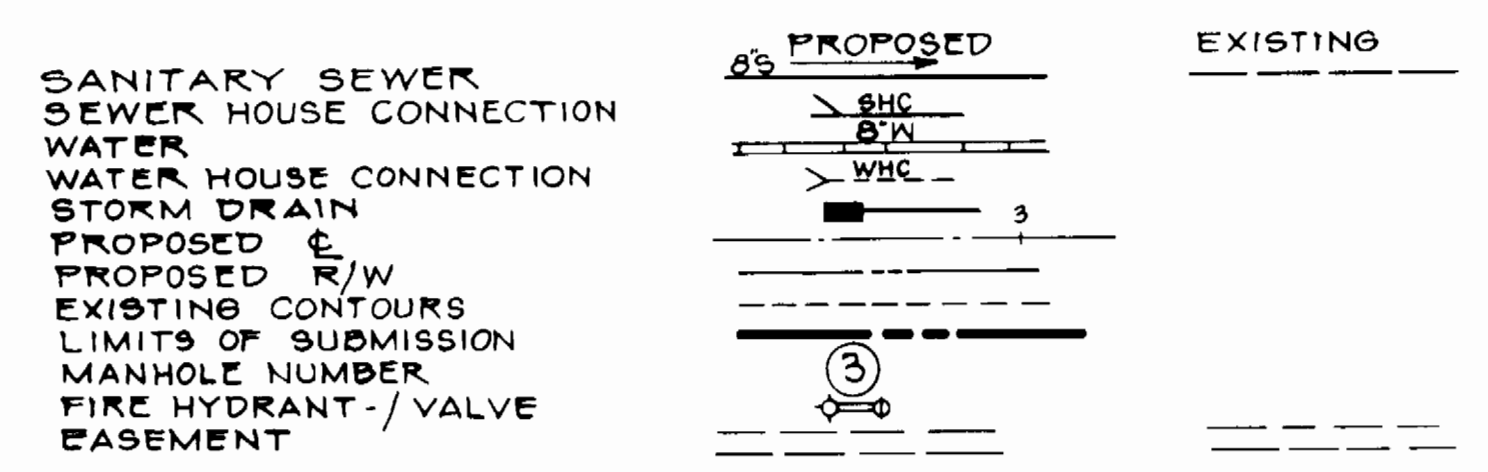
SEWER HOUSE CONNECTION
 INVERT ELEVATIONS & CELLAR ELEVATIONS

LOT NO.	INVERT	CELLAR	LOT NO.	INVERT	CELLAR
1	235.1	240.16	21	249.1	262.00
2	235.4	241.50	22	249.1	261.33
3	235.7	242.84	23	249.1	260.67
4	236.1	243.50	24	249.1	260.67
5	236.4	244.84	25	248.7	254.32
6	236.8	246.17	26	248.2	253.66
7	237.1	247.50	27	247.6	252.98
8	237.5	248.84	28	247.1	252.32
9	246.0	256.67	29	246.6	251.65
10	246.4	257.33	30	246.1	250.98
11	247.0	258.00	31	245.6	250.32
12	247.6	258.67	32	245.0	248.98
13	248.3	259.33	33	237.9	245.65
14	249.1	260.00	34	237.6	244.32
15	249.8	260.67	35	237.3	242.95
16	250.6	261.33	36	237.0	241.65
17	252.1	260.67	37	236.7	240.32
18	252.1	260.67	38	236.3	239.65
19	252.2	261.33	39	236.0	238.95
20	252.2	262.00	40	235.6	238.32

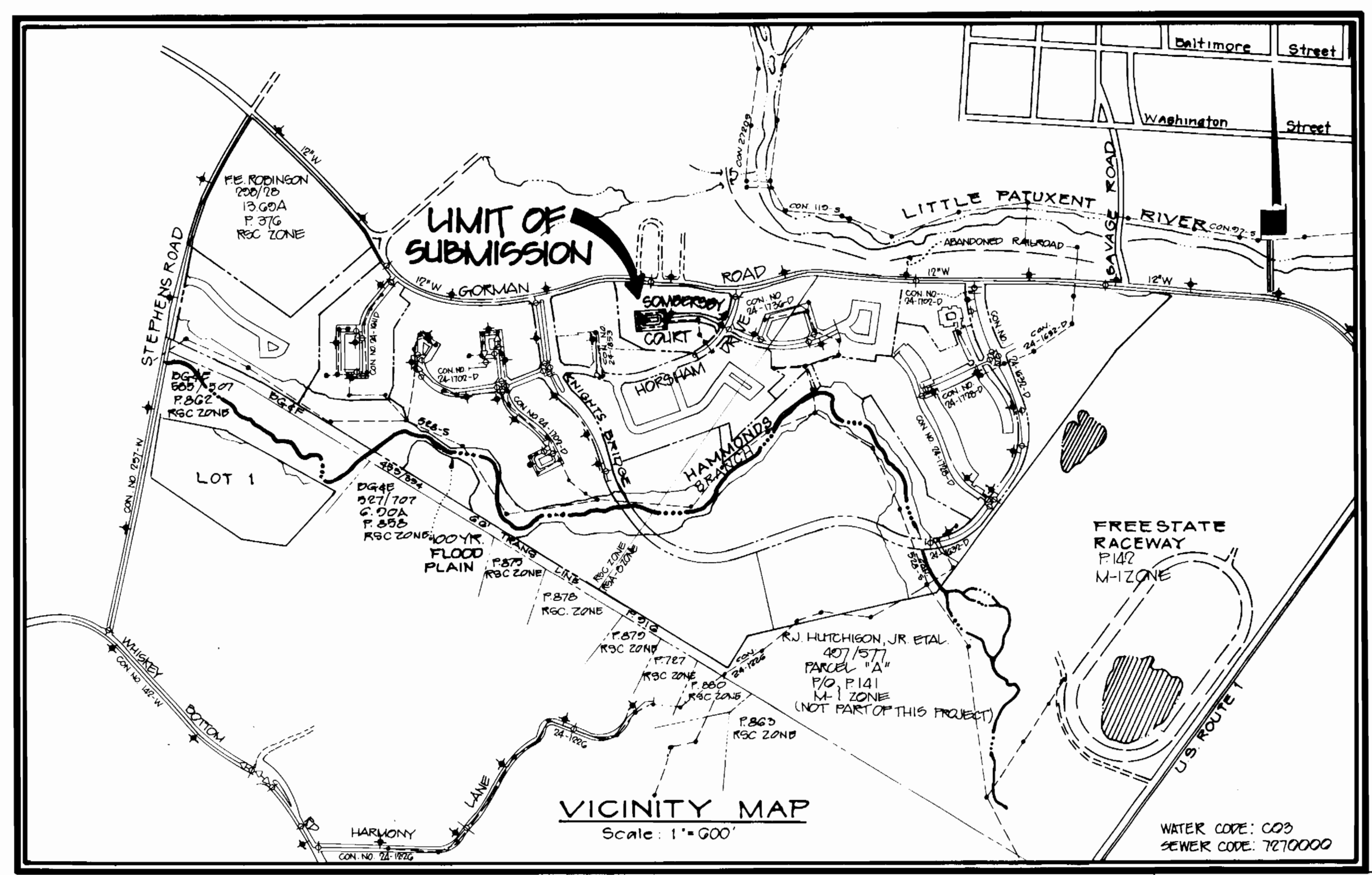
QUANTITIES

ITEM	ESTIMATED	AS BUILT	MATERIAL/SUPPLIER
8" SEWER	786 LF.		
MANHOLE	5		
4" SEWER	1,367 LF.		
8" WATER	394 LF.	395	A&P WATER, SEWER SUPPLY, INC.
8" VALVE	1		
12" VALVE			
FIRE HYDRANT	2	2	A&P WATER, SEWER SUPPLY, INC.
AIR RELEASE MANHOLE			
1 1/2" WATER	48 LF.	39	A&P WATER, SEWER SUPPLY, INC.
6" WATER	362 LF.	342	A&P WATER, SEWER SUPPLY, INC.
1" WATER	1,702 LF.	1924	A&P WATER, SEWER SUPPLY, INC.
6" VALVE	2	2	A&P WATER, SEWER SUPPLY, INC.

LEGEND



PARCEL F
 LOTS F-1 THRU F-42
BOWLING BROOK FARMS
 HOWARD COUNTY, MARYLAND



TYPE OF BUILDINGS	TOWNHOUSES
NUMBER OF LOTS	40
NUMBER OF WATER HOUSE CONNECTIONS	40
NUMBER OF SEWER HOUSE CONNECTIONS	40
DRAINAGE AREA	LITTLE PATUXENT

CONTRACT NO. 24-1870-D
 WATER AND SEWER
 CONSTRUCTION PLANS

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 EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F-89-227

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT
John L. Robertson
 SIGNATURE DATE 12/15/09

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

APPROVED *James M. Nelson*
 HOWARD SCD DATE 12/15/09

OWNER/DEVELOPER
 GORMAN ROAD LIMITED PARTNERSHIP
 C/O JAMES F. KNOTT DEVELOPMENT CORPORATION
 118 WEST ROAD, SUITE 203
 TOWSON, MARYLAND 21284
 (881) 321-6436

AS-BUILT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James M. Nelson 12/15/09
 DIRECTOR OF PUBLIC WORKS DATE

Robert H. Berman 12-11-09
 CHIEF, BUREAU OF UTILITIES DATE

Richard S. Eising 12-14-09
 CHIEF, BUREAU OF ENGINEERING DATE

Paul J. Ryan 12/16/09
 CHIEF, LAND DEVELOPMENT DIVISION DATE

PHR&A
 PATTON, HARRIS, RUST & ASSOCIATES, PC
 7609 STANDISH PLACE
 ROCKVILLE, MARYLAND 20855
 METRO: 301-762-2220 BALT.: 301-792-7244

Professional Engineer
 DATE

DES: KOR			
DRN: FC			
CHK: KOR	3	REVISED SEWER MAIN & SHC PER HO CO COMMENTS	11-15-09
	2	REVISED AS PER HOWARD CO. COMMENTS	10-27-09
	1	ISSUED TO HOWARD CO. FOR REVIEW	5-10-09
DATE:	BY	NO.	REVISION

DATE	600' SCALE MAP NO.	BLOCK NO.
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BOWLING BROOK FARMS

A RESUBDIVISION OF PARCEL F
 LOTS F-1 THRU F-42
 CONTRACT NO. 24-1870-D
 TAX MAP 47 PARCEL 141
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

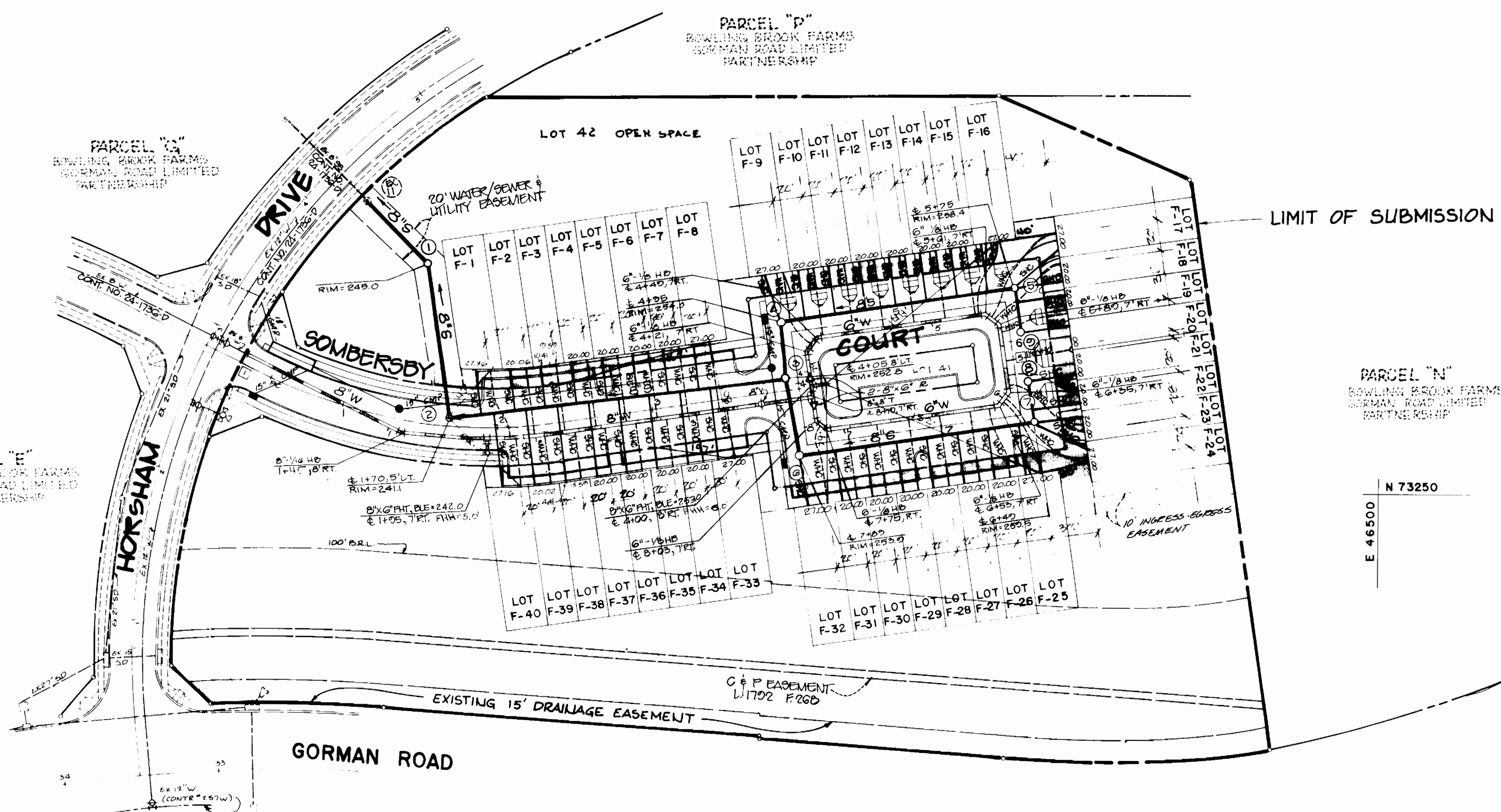
SCALE AS SHOWN
 SHEET 1 OF 3

SCALE: 1" = 50'

N 73000
E 47500

N 73250
E 47500

N 73250
E 46500



- NOTES:
1. ALL SEWER HOUSE CONNECTIONS TO BE 4"
 2. ALL WATER HOUSE CONNECTIONS TO BE 1" WITH 3/4" INSIDE METER SETTINGS.
 3. ALL LINES TO BE SPRINKLERED.
 4. ALL TWIN WATER POLLE CONNECTIONS SHALL BE 1 1/2" WITH 3/4" INSIDE METER SETTINGS PER W 3.23.

AS BUILT

BRUNING 68150

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Beninger 12-11-89
DIRECTOR OF PUBLIC WORKS DATE

Robert M. Beninger 12-11-89
CHIEF BUREAU OF UTILITIES DATE

Robert M. Beninger 12-11-89
CHIEF, BUREAU OF ENGINEERING DATE

Robert M. Beninger 12-11-89
CHIEF, LAND DEVELOPMENT DIVISION DATE

DES: KOR			
DRN: FC			
CHK: KOR	2	REVISED SEWER MAIN @ SHC PER HOOD COMMENTS	11-19-89
	2	REVISED AS PER HOWARD CO. COMMENTS	10-27-89
	1	ISSUED TO HOWARD CO. FOR REVIEW	5-10-89
DATE:	BY	NO	REVISION

PLAN

WATER & SEWER MAINS

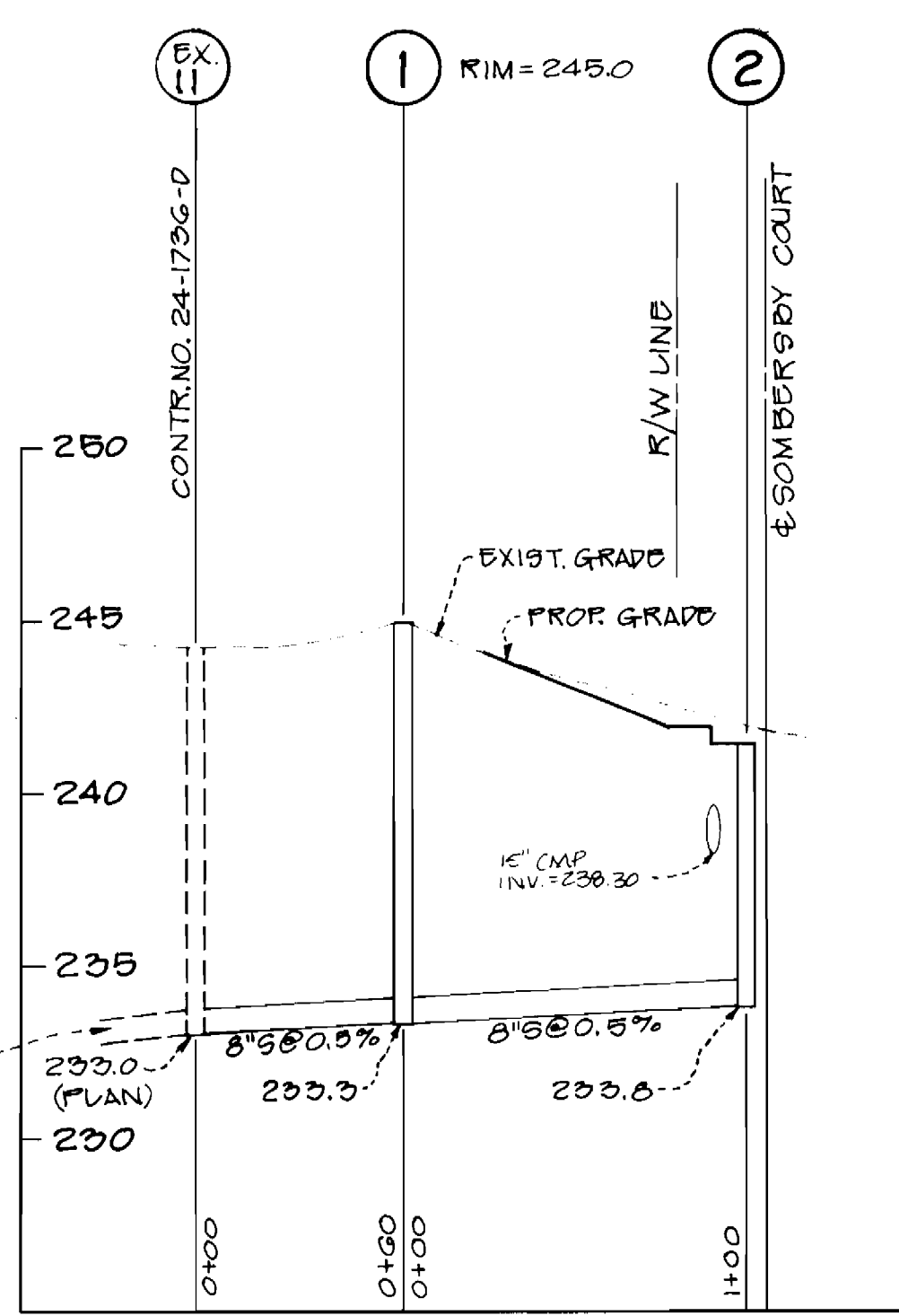
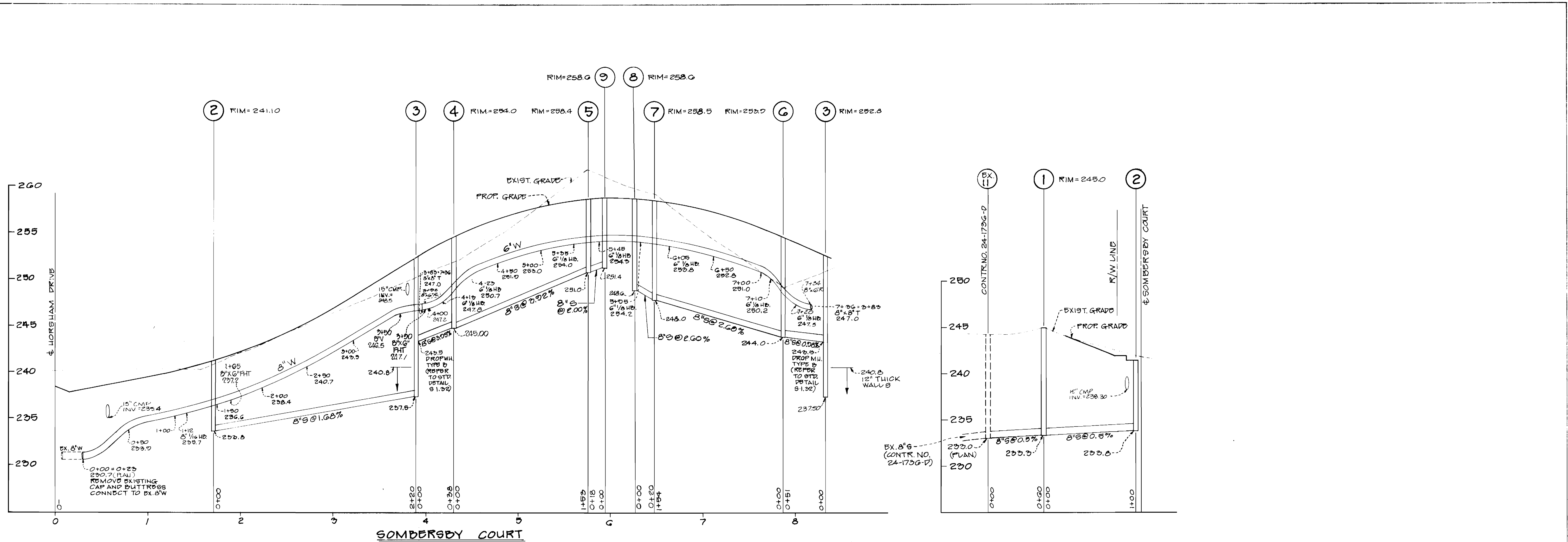
600' SCALE MAP NO. _____ BLOCK NO. _____

BOWLING BROOK FARMS

A RESUBDIVISION OF PARCEL F
LOTS F-1 THRU F-42
CONTRACT NO. 24-1870-D
TAX MAP 47 PARCEL 141
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 2 OF 3



PROFILE SCALE
 HORIZ: 1"=50'
 VERT: 1"=5'

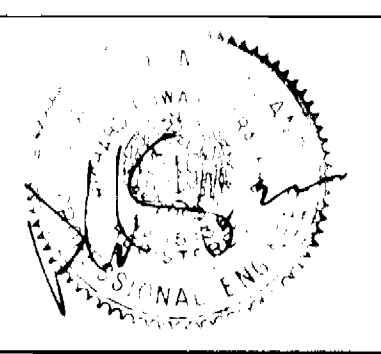
AS-BUILT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James J. ... 12/16/89
Robert H. ... 12-11-89

William ... 12-11-89
Paul ... 12/18/89

PHR&A
 PATTON, HARRIS, RUST & ASSOCIATES, PC
 7609 STANDISH PLACE
 ROCKVILLE, MARYLAND 20858
 METRO: 301-763-2320 BALT.: 301-763-7244



DESIGNED BY	KOR
CHECKED BY	FC
DATE	12-11-89
REVISIONS	3 REVISED SEWER MAIN & SHC PER HOWARD CO. COMMENTS 2 REVISED AS PER HOWARD CO. COMMENTS 1 ISSUED TO HOWARD CO. FOR REVIEW

PROFILES
 WATER & SEWER MAINS

BOWLING BROOK FARMS
 A RESUBDIVISION OF PARCEL F
 LOTS F-1 THRU F-42
 CONTRACT NO. 24-1870-D
 TAX MAP 47 PARCEL 141
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 3