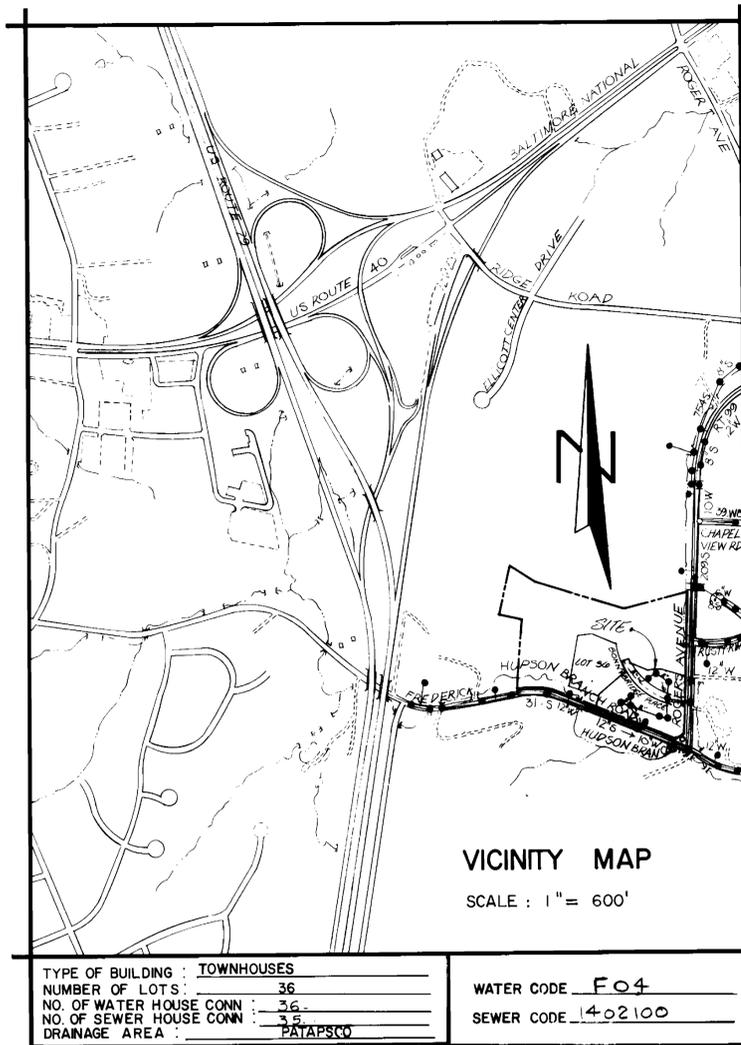


QUANTITIES			
ITEM	EST'D	AS BUILT	SUPPLIER
8" WATER	603 L.F.	587	GRIFFIN PIPE PROD.
6" WATER	702 L.F.	773	GRIFFIN PIPE PROD.
FIRE HYD	2 (1 RELOCATE EX)	2	BELAIR RD. SUPPLIER
1" WHC	204 L.F.	192	BELAIR RD. SUPPLIER
3/4" WHC	654 L.F.	668	BELAIR RD. SUPPLIER
8" VALVES	1	1	BELAIR RD. SUPPLIER
6" F.H. VALVES	2	2	BELAIR RD. SUPPLIER
8" SEWER	1116 L.F.	1117	BELAIR RD. SUPPLIER
6" SEWER	350 L.F.	303	BELAIR RD. SUPPLIER
MANHOLES	11	11	BELAIR RD. SUPPLIER
1/2" VALVES	3	4	BELAIR RD. SUPPLIER
1 1/2" BLOWOFF	1	1	BELAIR RD. SUPPLIER



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. DATUM.
- 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. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS FOR MATERIAL AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND GAS DISTRIBUTION CUSTOMER SERVICE : 685 - 0123
BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION CUSTOMER SERVICE : 685 - 0123
ENGINEERING " DAMAGE CONTROL " 234 - 5621
"MISS UTILITY" : 1 - 559 - 0100
CHESAPEAKE & POTOMAC TELEPHONE COMPANY : 725 - 9976
BUREAU OF UTILITIES - HOWARD COUNTY : 992 - 2366
- TREES ARE TO BE PROTECTED FROM DAMAGE 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 CONSTRUCTION OF THE MAIN.
- 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 OPERATION.
- ALL SEWER MAINS SHALL BE C.S.P.X., P.V.C.V.C.P.X. OR A.C.P CLASS 2400 UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.
- ALL WATER MAINS TO BE C.I.P. OR D.I.P. UNLESS OTHERWISE NOTED.
- TOP OF WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- BLOCK ALL FITTINGS WITH CONCRETE.
- BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE ELEVATION 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 SECTIONS 37.01 AND 37.05 THE STANDARD SPECIFICATIONS.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOVE IT.
- MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLES FRAME AND COVER STANDARD DETAIL 65.51
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS - STANDARD DETAIL 65.52 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE.
- FOR ALL COPPER WATER HOUSE CONNECTIONS UTILIZE FLARED TYPE FITTINGS ONLY.
- STANDARD PAYMENT DEPTH FOR SANITARY MANHOLES = 8.0'.

BRAEBROOKE SECTION I AREA I HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS CONTRACT NO. 14-1168-D

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THESE SPECIFICATIONS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F-84-54

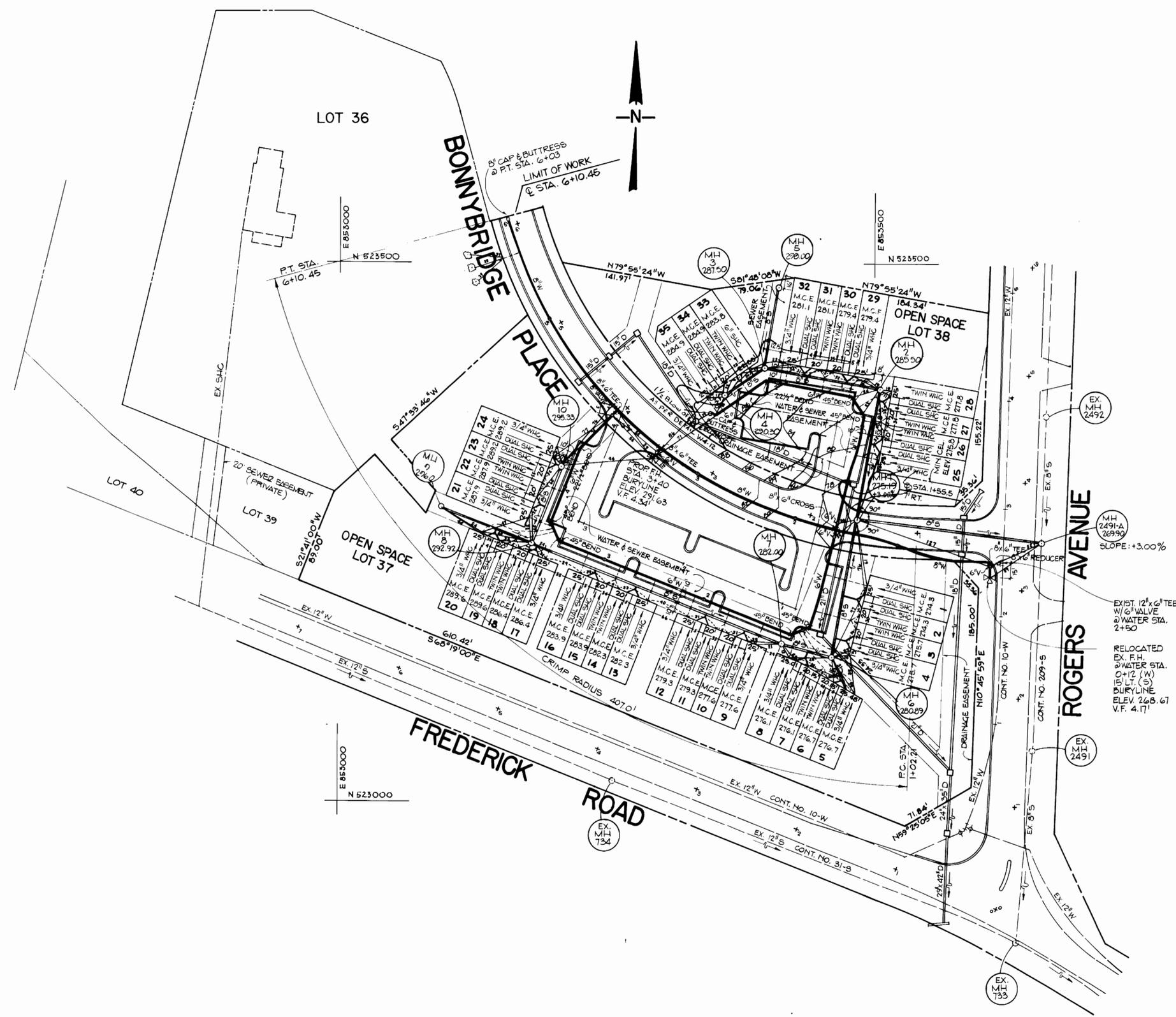
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
DATE: 7/10/83

APPROVED: [Signature] DATE: 1-10-83
HOWARD SOIL CONSERVATION DISTRICT

CONTRACT NO. 14-1168-D
SECTION I AREA I
WATER AND SEWER EXTENSION
HOWARD COUNTY, MARYLAND

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p>[Signature] DATE: 2-1-84 DIRECTOR OF PUBLIC WORKS</p> <p>[Signature] DATE: 2-1-84 CHIEF, BUREAU OF UTILITIES</p>	<p>EVANS, HAGAN & HOLDEFER, INC. ENGINEERS, PLANNERS & SURVEYORS</p> <p>1052 WEST STREET / LAUREL, MD. 20707 (301) / 792-8086</p>		<p>DES: BJ DRN: BJ CHK: AC DATE: Jan '84</p>	<p>COVER SHEET</p> <p>WATER AND SEWER MAINS</p>	<p>BRAEBROOKE SECTION I AREA I CONTRACT NO. 14-1168-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 OF 4</p>
---	---	--	--	---	--	---



PLAN
SCALE: 1"=50'

CONTRACT NO. 14-1168-D
SECTION I AREA I
WATER AND SEWER EXTENSION
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: Robert M. Beninger
Date: 2-1-84

Chief, Bureau of Engineering: [Signature]
Date: [Signature]

Chief, Land Development Division: [Signature]
Date: [Signature]

EVANS, HAGAN & HOLDEFER, INC.
ENGINEERS, PLANNERS & SURVEYORS
1052 WEST STREET / LAUREL, MD. 20707
(301) / 792-8068

[Signature]

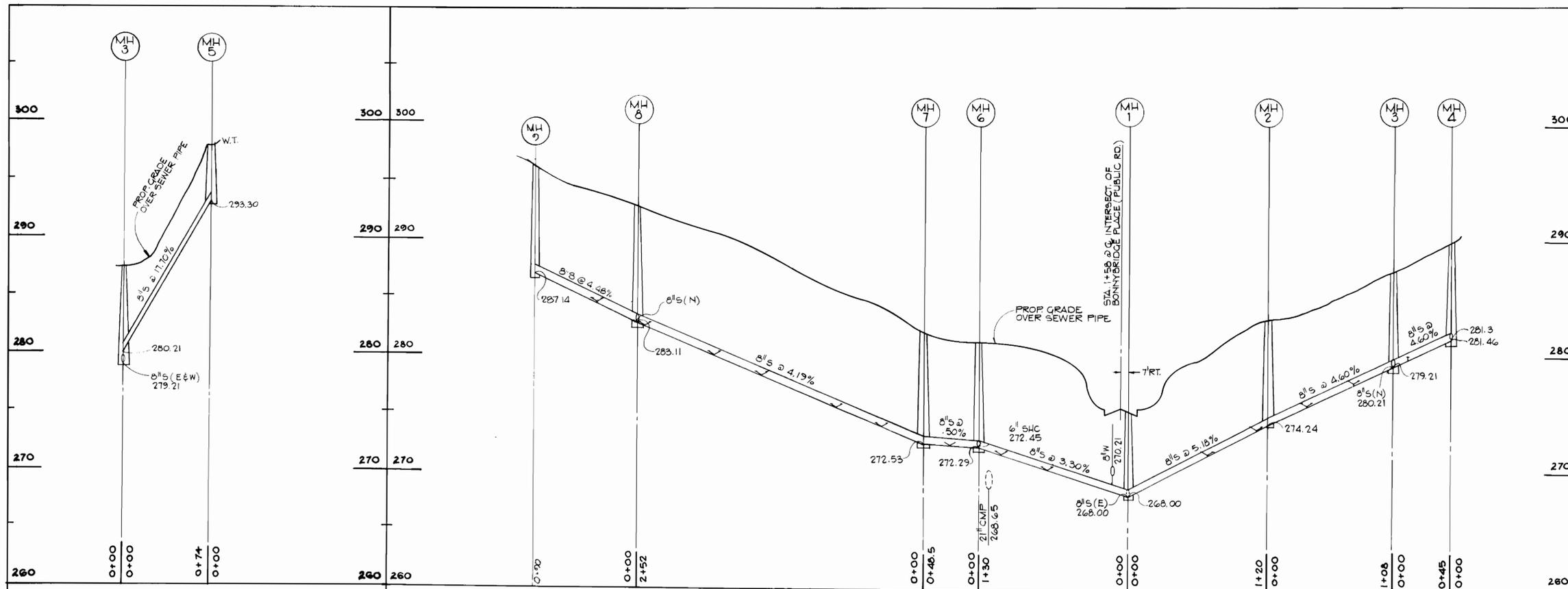
DES: BJ			
DRN: EJ			
CHK: HC			
DATE: Jan, 84	PER	GRADING - CHANGES (6-28-84)	7/6/84
BY	NO.	REVISION	DATE

PLAN
WATER AND SEWER MAINS

600' SCALE MAP NO. 24 BLOCK NO. 12

BRAEBROOKE
SECTION I AREA I
CONTRACT NO. 14-1168-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 4



SEWER HOUSE CONNECTIONS
INVERT ELEVATIONS AT PROPERTY LINES

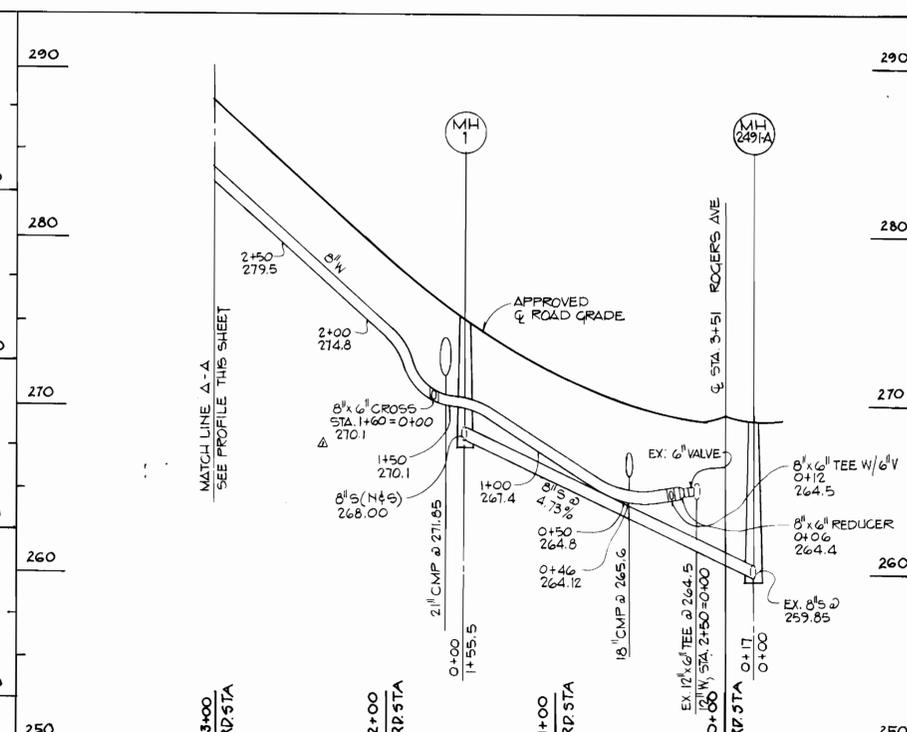
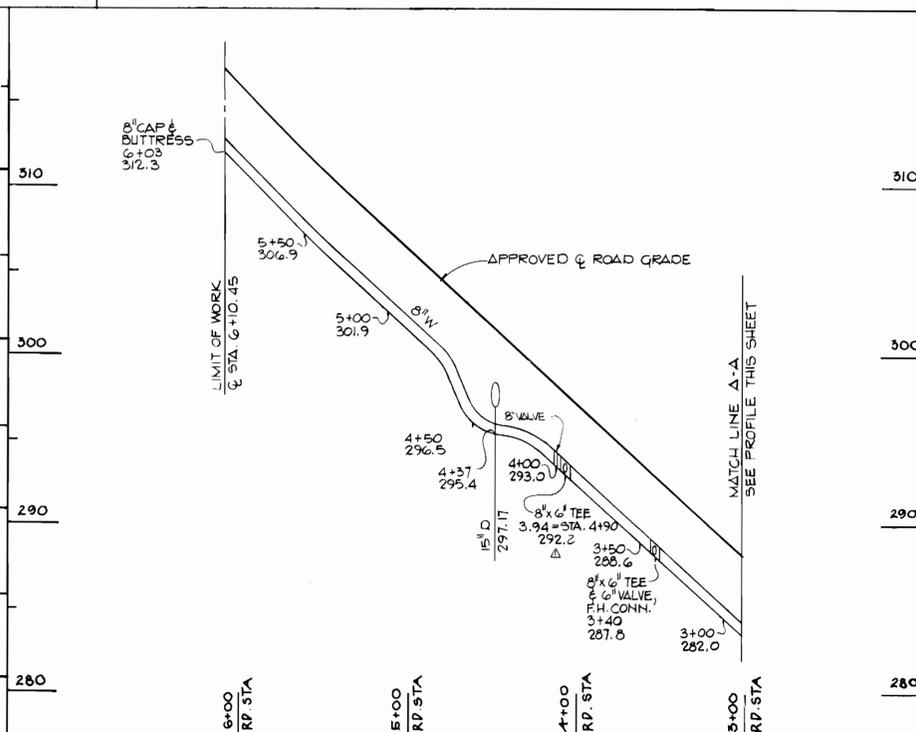
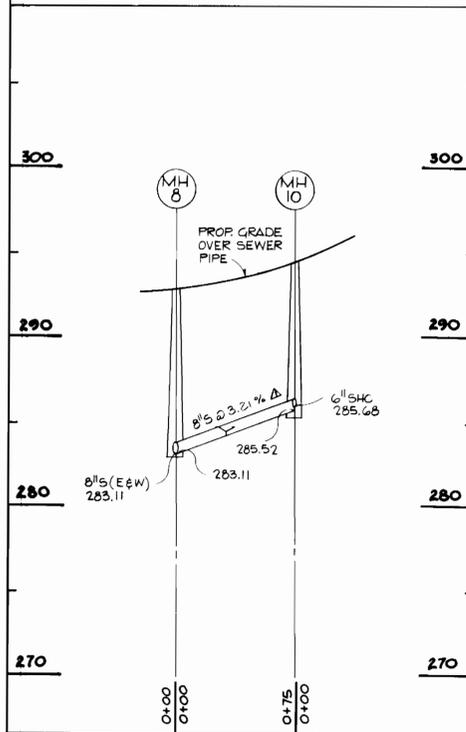
STATION	LOT	INVERT
MANHOLE 1 TO MANHOLE 2		
0+72 RT.	25 & 26	271.97
1+13 RT.	27 & 28	274.09
MANHOLE 2 TO MANHOLE 3		
0+32 RT.	29 & 30	275.91
0+72 RT.	31 & 32	277.75
MANHOLE 3 TO MANHOLE 4		
0+12 RT.	33	279.92
MH 4 RT.	34 & 35	281.46
MANHOLE 1 TO MANHOLE 6		
0+72 LT.	1 & 2	270.82
1+12 LT.	3 & 4	272.14
MH 6 LT.	5 & 6	273.11
MANHOLE 6 TO MANHOLE 7		
MH 6 LT.	5 & 6	273.11
0+23 LT.	7 & 8	272.71
MANHOLE 7 TO MANHOLE 8		
0+36 LT.	9 & 10	274.24
0+75 LT.	11 & 12	275.87
1+46 LT.	13 & 14	278.85
1+86 LT.	15 & 16	280.52
2+46 LT.	17 & 18	283.04
MANHOLE 8 TO MANHOLE 9		
0+33 LT.	19 & 20	286.18
MANHOLE 9 TO MANHOLE 10		
0+36 LT.	21 & 22	284.48
MH 10 LT.	23 & 24	285.94

SEWER PROFILE
MH3 TO MH5

SOUTH PRIVATE COURT

SEWER PROFILE
MH 9 TO MH 4

NORTH PRIVATE COURT



SEWER PROFILE
MH8 TO MH10

SEWER & WATER PROFILE: MH1 To MH 2491--A
BONNYBRIDGE PLACE TO ROGERS AVENUE

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

CONTRACT NO. 14-1168-D
SECTION 1 AREA 1
WATER AND SEWER EXTENSION
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DIRECTOR OF PUBLIC WORKS: [Signature]
DATE: 2-1-84
CHIEF, BUREAU OF UTILITIES

EVANS, HAGAN & HOLDEFER, INC.
ENGINEERS, PLANNERS & SURVEYORS
1052 WEST STREET / LAUREL, MD. 20707
(301) / 792 - 8086

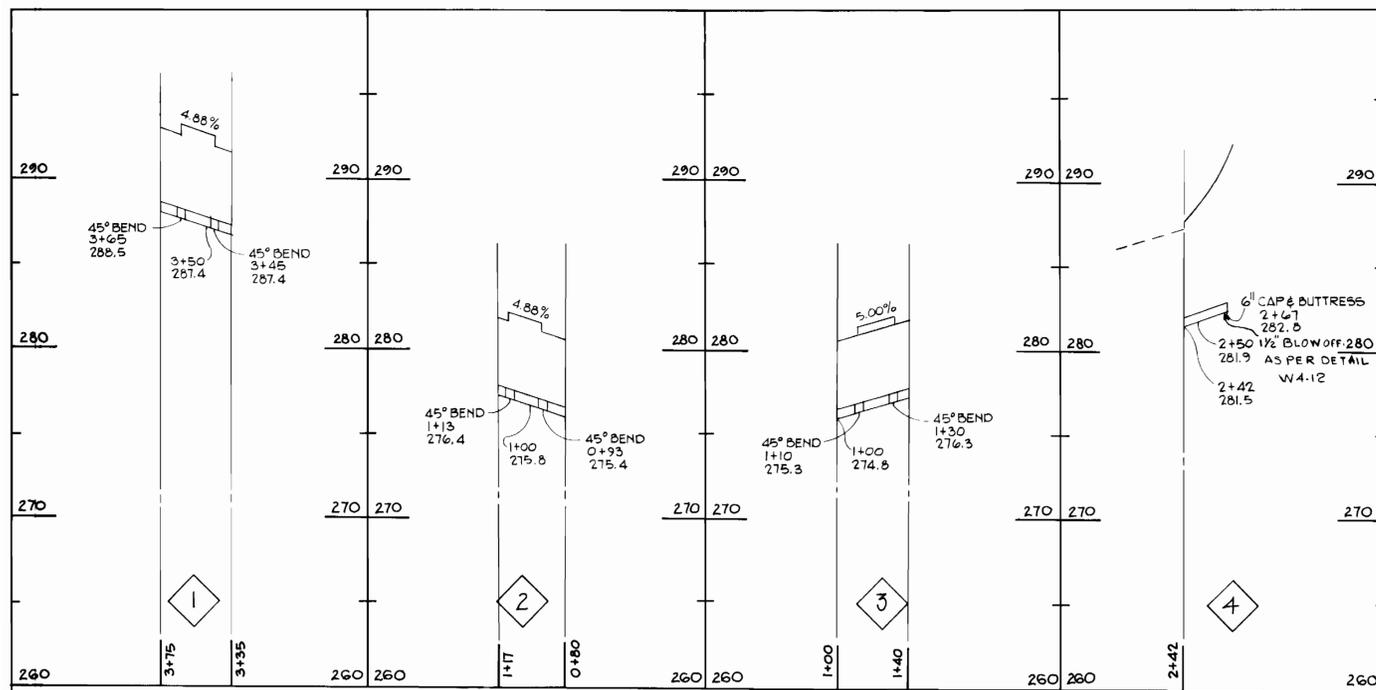
CHIEF, BUREAU OF ENGINEERING: [Signature]
DATE: [Signature]
CHIEF, LAND DEVELOPMENT DIVISION: [Signature]
DATE: [Signature]

DES: BJ					
DRN: BJ					
CHK: AC	PER	CORRECTED AS PER MARK-UP	7-6-84		
	PER	CORRECTED PER MARK-UP	4-12-84		
DATE: Jan 84	BY	NO.	REVISION	DATE	

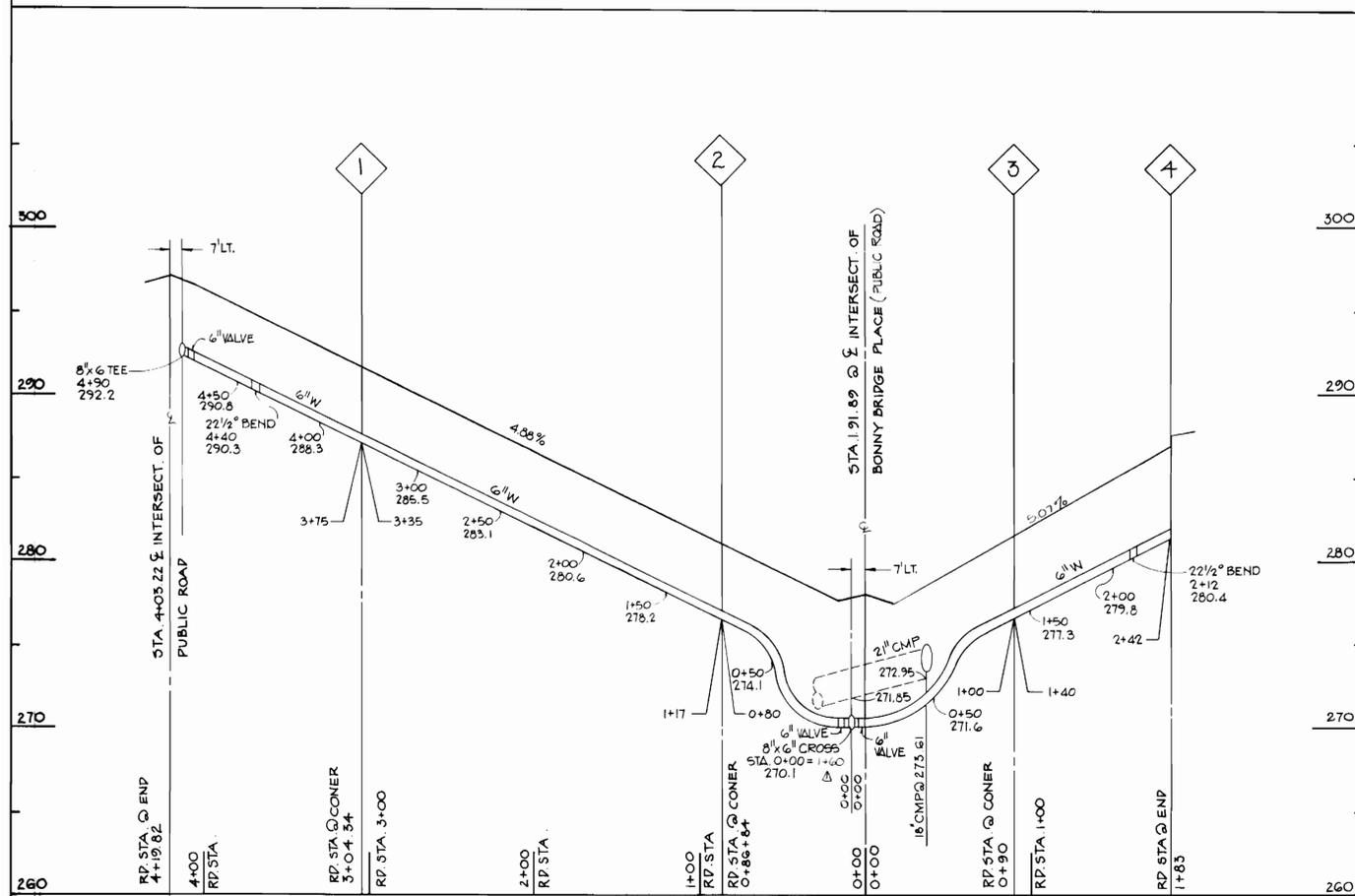
PROFILE
WATER AND SEWER MAINS
600' SCALE MAP NO. 24 BLOCK NO. 12

BRAEBROOKE
SECTION 1 AREA 1
CONTRACT NO. 14-1168-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 4



GRADE OVER \bar{C} WATERLINE PROFILE
(BEYOND \bar{C} ROAD STATIONS)



SOUTH PRIVATE COURT WATER PROFILE NORTH PRIVATE COURT
 \bar{C} ROAD STATIONS OVER \bar{C} WATER LINES

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

CONTRACT NO. 14-1168-D
SECTION 1 AREA 1
WATER AND SEWER EXTENSION
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DIRECTOR OF PUBLIC WORKS
CHIEF, BUREAU OF UTILITIES
DATE: 2-1-84

EVANS, HAGAN & HOLDERFER, INC.
ENGINEERS, PLANNERS & SURVEYORS
1052 WEST STEET / LAUREL, MD 20707
(301) / 792 - 8086

DES: BJ			
DRN: BJ			
CHK: AC	PER	CORRECTED AS PER MARK-UP	7-8-84
DATE: 10/1/84	BY	CORRECTED PER MARK-UP	3/21/84
	NO.	REVISION	DATE

PROFILE
WATER AND SEWER MAINS
600' SCALE MAP NO. 24 BLOCK NO. 12

BRAEBROOKE
SECTION 1 AREA 1
CONTRACT NO. 14-1168-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 4 OF 4