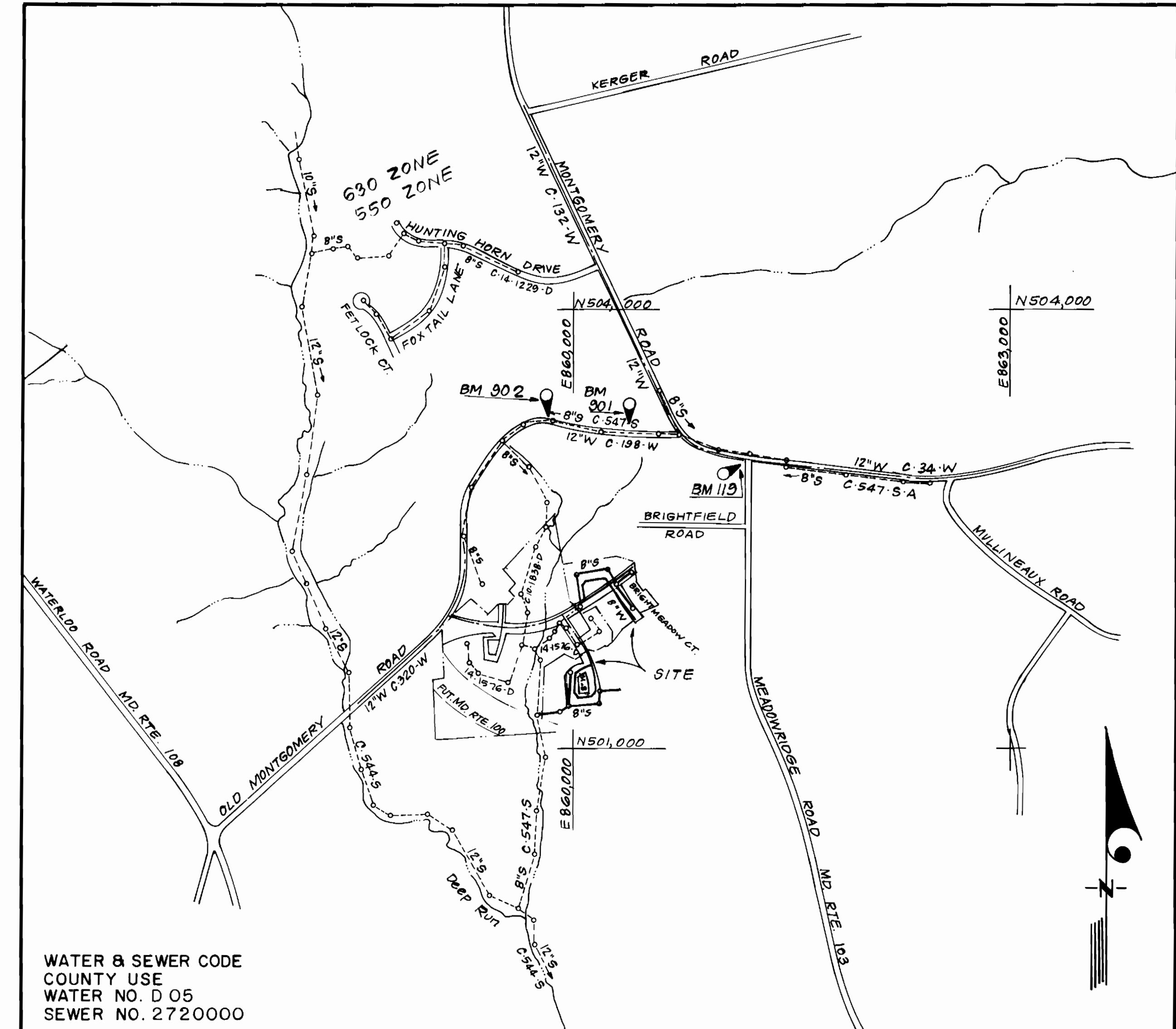


SEWER HOUSE CONNECTION TABLE					
LOTS	Inv. @ R.	Min. C	LOTS	Inv. @ R.	Min. C
63/64	365.5	368.7	102	361.4	364.6
65/66	363.9	367.1	103	361.5	364.7
67/68	362.1	365.4	104/105	364.0	367.2
69	360.9	364.1	106/107	364.2	367.4
70/71	359.0	362.2	108/109	364.4	367.7
72/73	356.9	360.0	110/111	364.8	368.0
74	354.7	357.8	112/113	365.3	368.5
75	353.2	356.3	114/115	366.6	369.8
76/77	351.9	355.0	116/117	368.7	372.1
78/79	351.2	354.4	118/119	370.2	373.5
80/81	351.8	355.0	120/121	371.9	375.2
82/83	350.8	354.0	122	372.1	375.3
84/85	350.6	353.8	123/124	378.7	382.4
86/87	350.4	353.6	125/126	380.6	384.2
88/89	350.3	353.5	127/128	382.6	386.2
90/91	348.5	351.7	129/130	383.7	387.1
92/93	350.0	353.2	131/132	383.4	387.0
94/95	352.3	355.6	133/134	382.5	385.9
96/97	355.3	358.6	135/136	380.8	384.2
98/99	357.3	360.5	137/138	379.0	382.3
100/101	359.8	363.1	-	-	-

TYPE OF BUILDING	76 Townhouses
NO. OF LOTS	76
NO. OF WHC's	77
NO. OF SHC's	76
DRAINAGE AREA	Patapsco Wastewater Treatment Plant

**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 Inspector, 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 excavation and backfill.
- For details not shown on the drawings use Howard County Standard Details.
- For materials and construction methods use Howard County Standard Specifications and Howard County Design Manual, Volume IV. The Contractor shall have Volume IV on the job.
- 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.
  - State Highway Administration - 531-5533
  - Baltimore Gas & Electric Company - Underground Damage Control - 859-9004
  - Baltimore Gas & Electric Company - Contractor Services - 850-4620
  - Baltimore Gas & Electric Company - Trouble Shooting - 298-9001
  - "Miss Utility" - 1-800-257-7777
  - Chesapeake & Potomac (C & P) Telephone Company - 1-800-257-7777
  - Bureau of Utilities Howard County - 992-2366
  - Colonial Pipeline Company - 795-1390
- 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 Inspector. 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. Class 52 unless otherwise noted.
- Top of all water mains to have a 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 elevations 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 Sections 1003 & 1008 of 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.
- All sewer mains shall be C.S.P.X., V.C.P.X., or P.V.C. unless otherwise noted.
- The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall.
- All manholes shall be 4'-0" inside diameter, unless otherwise noted.
- Water main and water house connection lines must have a minimum of one foot separation from the sanitary sewer and sewer house connections as they cross. Except at crossings, water and sewer lines shall have a minimum horizontal separation of 10'.
- Manholes designated thus: WT, shall have a Watertight Frame and Cover.
- All D.I.P. Fittings shall be in accordance with A.W.W.A. specification C-153 Ductile Iron Compact Fittings, 3 inch through 12 inch for water and other liquids.



VICINITY MAP  
SCALE: 1" = 600'

**CONTRACT NO.14-1911- D  
BRIGHTFIELD  
SECTION ONE AREA TWO  
LOTS 63 THRU 143 & PARCEL "B"  
HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS**

QUANTITIES			
ITEM	EST'D	AS BUILT	MATERIAL / SUPPLIER
12" W	530 LF	530	GRIFFIN PIPE PRODUCTS CO
8" W	894 LF	871	GRIFFIN PIPE PRODUCTS CO
6" W	593 LF	677	GRIFFIN PIPE PRODUCTS CO
8" S	1985 LF	1785	JIM MANUFACTURING CO / BELAIR RD
4" SHC	1215 LF	777.5	JIM MANUFACTURING CO / BELAIR RD
2" WHC	105 LF	76	HOWELL METALS / BELAIR RD
1" WHC	680 LF	722	HOWELL METALS / BELAIR RD
3/4" WHC	1225 LF	1285	HOWELL METALS / BELAIR RD
F.H.	4 EA	4	MUELLER CO / BELAIR RD
40" DIA. MH	13 EA	13	ATLANTIC CONCRETE PRODUCTS
12" V	1 EA	1	MUELLER CO / BELAIR RD
8" V	3 EA	3	MUELLER CO / BELAIR RD
6" V (excl. F.H.)	4 EA	4	MUELLER CO / BELAIR RD
6" SHC	-	361.5	JIM MANUFACTURING CO / BELAIR RD

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with Road Construction Plan F 99-93, Drawing, Sediment & Erosion Control.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.  
 Signature: \_\_\_\_\_ DATE: 4/3/89

U.S. SOIL CONSERVATION SERVICE

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED:  
 Signature: \_\_\_\_\_ DATE: \_\_\_\_\_  
 Howard S.C.D.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE: \_\_\_\_\_  
 Signature: \_\_\_\_\_ DATE: 3-30-89  
 CHIEF, BUREAU OF UTILITIES

Signature: \_\_\_\_\_ DATE: 4/10/89  
 CHIEF, BUREAU OF ENGINEERING

Signature: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHIEF, LAND DEVELOPMENT DIV.

CLARK FINEPROCK & SACKETT, INC.  
ENGINEERS - PLANNERS - SURVEYORS  
7135 MINSTREL WAY COLUMBIA MARYLAND 21045  
(301) 381-7500 BALTO. (301) 621-8100 WASH.

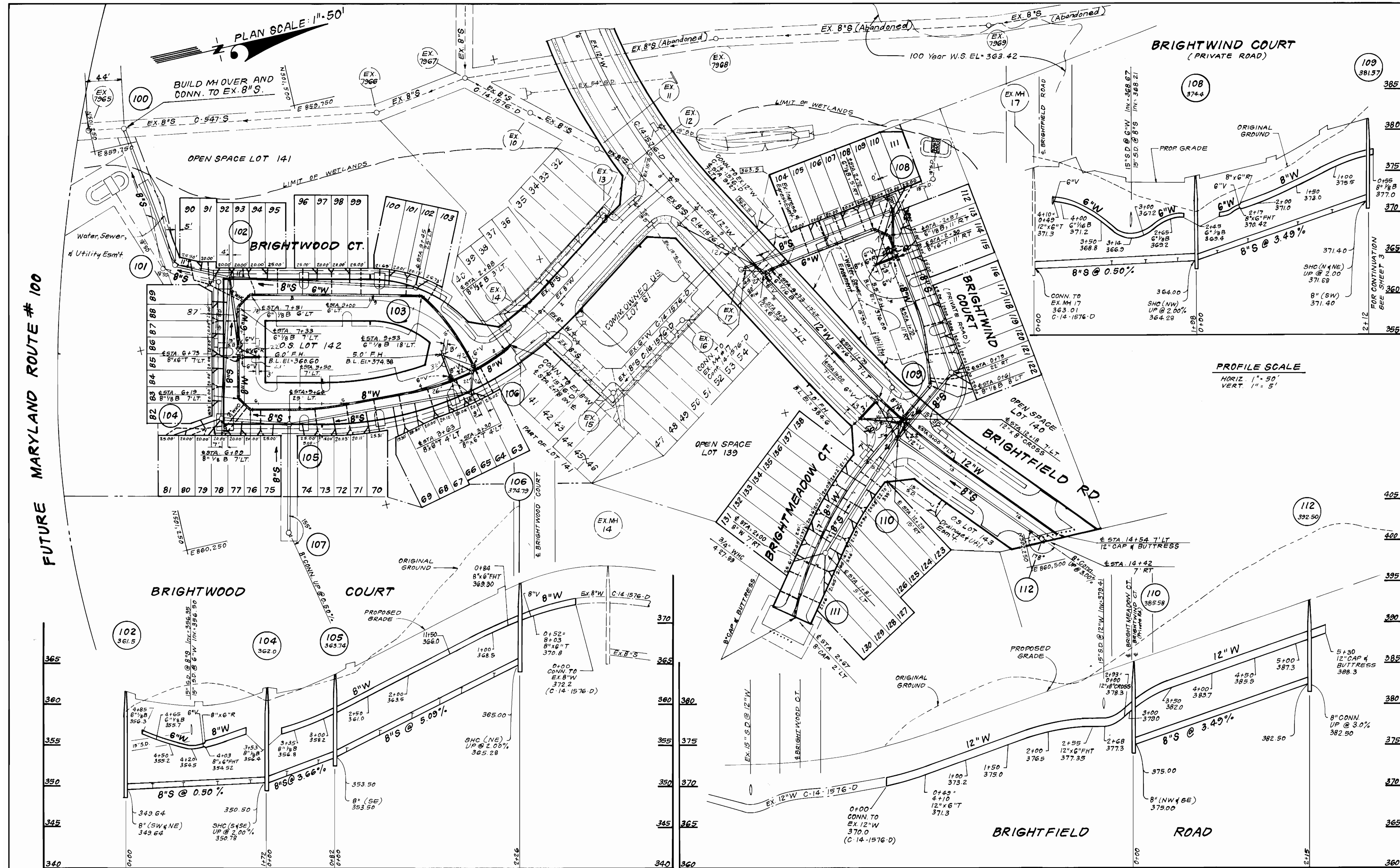


DES: JTR	JTR	1	Added WHC- Revised Quantities Box	5-10-89
DRN: VLM				
CHK: JTR				
DATE: 12-88	BY	NO.	REVISION	DATE

TITLE SHEET  
600' SCALE MAP NO. 37 BLOCK NO. \_\_\_\_\_

BRIGHTFIELD  
SECTION ONE AREA TWO  
LOTS 63 THRU 143 & PARCEL "B"  
1<sup>ST</sup> ELECTION DISTRICT  
CONTRACT NO.14-1911- D

SCALE AS SHOWN  
SHEET 1 OF 34  
ASBUILT OCT 2 1989



FUTURE MARYLAND ROUTE # 100

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

3-30-89

**CLARK · FINEROCK & SACKETT, INC.**  
 ENGINEERS · PLANNERS · SURVEYORS

7135 MINSTREL WAY COLUMBIA MARYLAND 21045  
 (301) 381-7500 BALTO. (301) 621-8100 WASH.



DES: JTR	JTR	1	Added WHO and Rev. 8" W alignment Brightmeadow	01-5-1081
DRN: VLM	GEB	2	Relocate FH near Str. 106	7-17-89
CHK: JTR				
DATE: 12-88	BY	NO.	REVISION	DATE

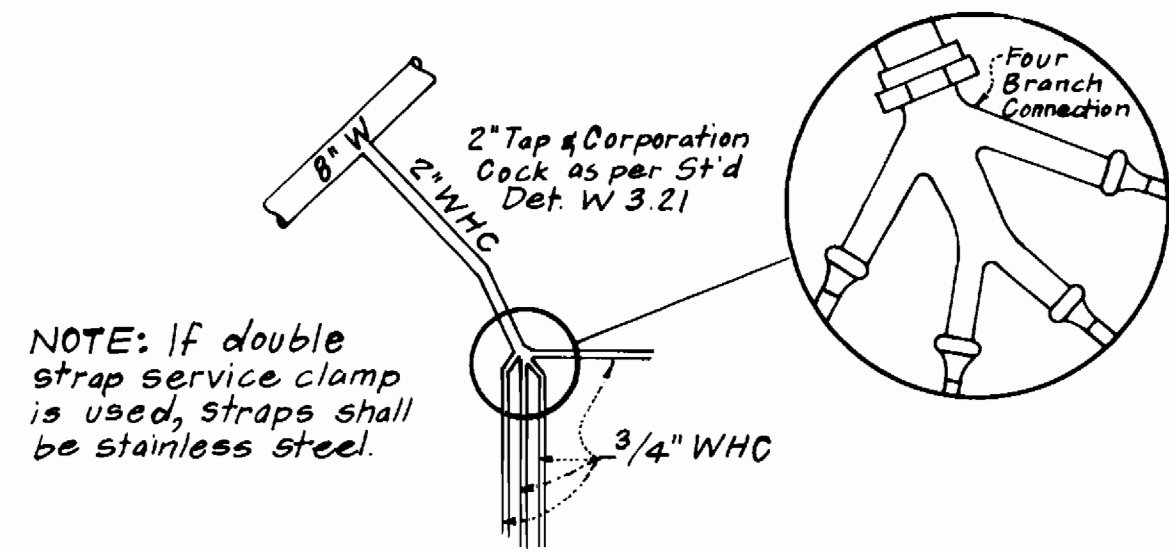
**PLAN & PROFILES OF WATER & SEWER MAINS**

600'S SCALE MAP NO. 37 BLOCK NO.

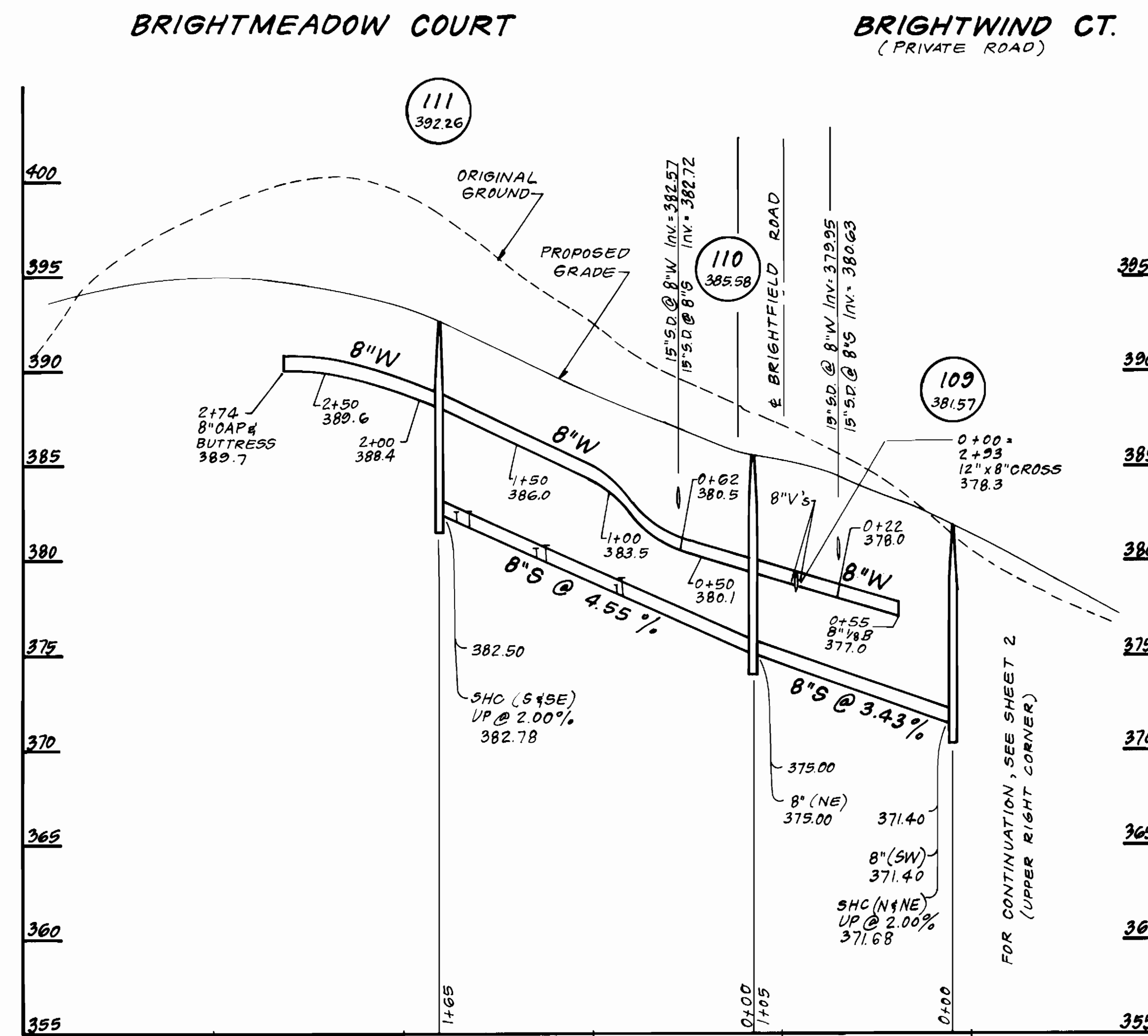
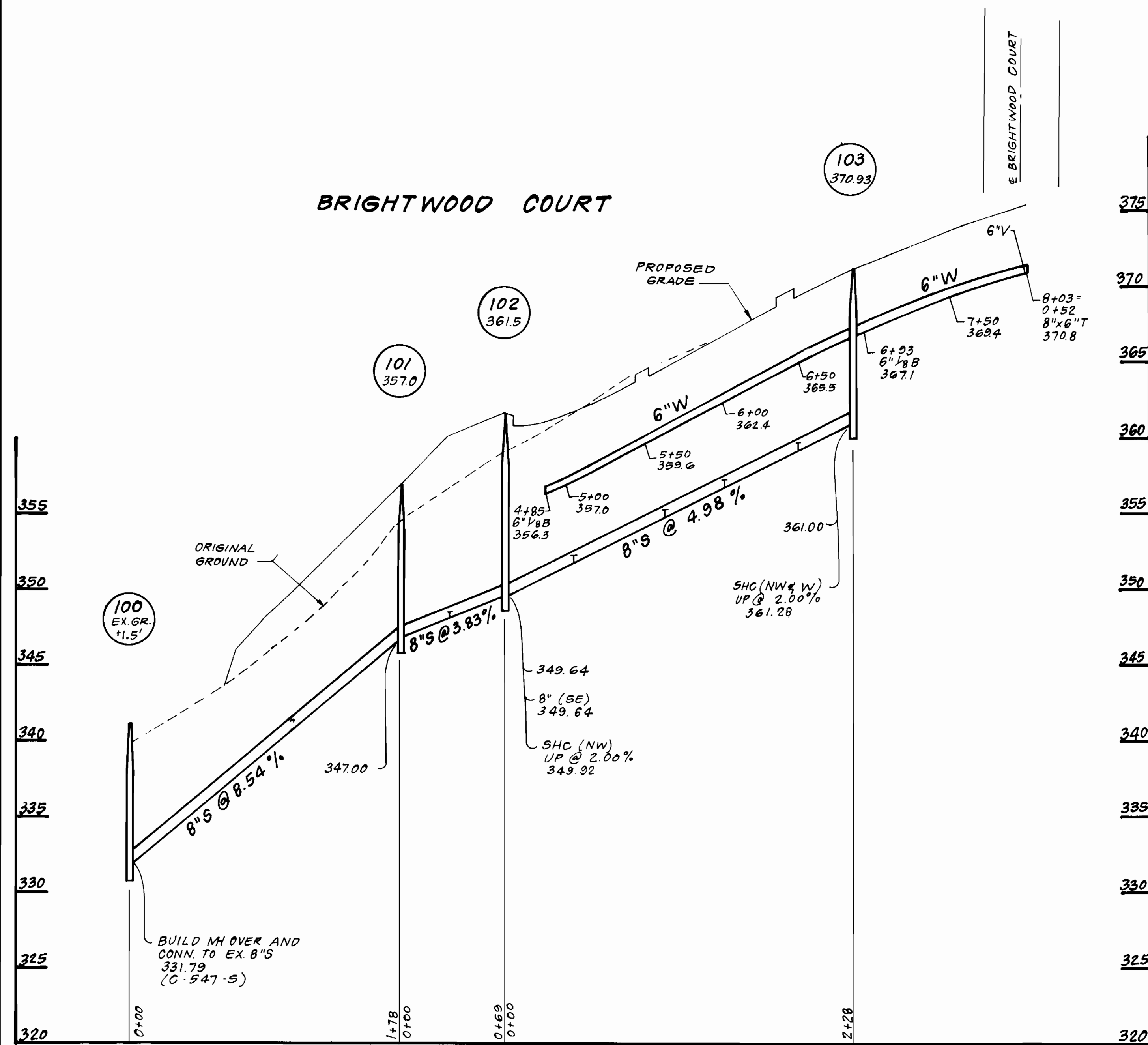
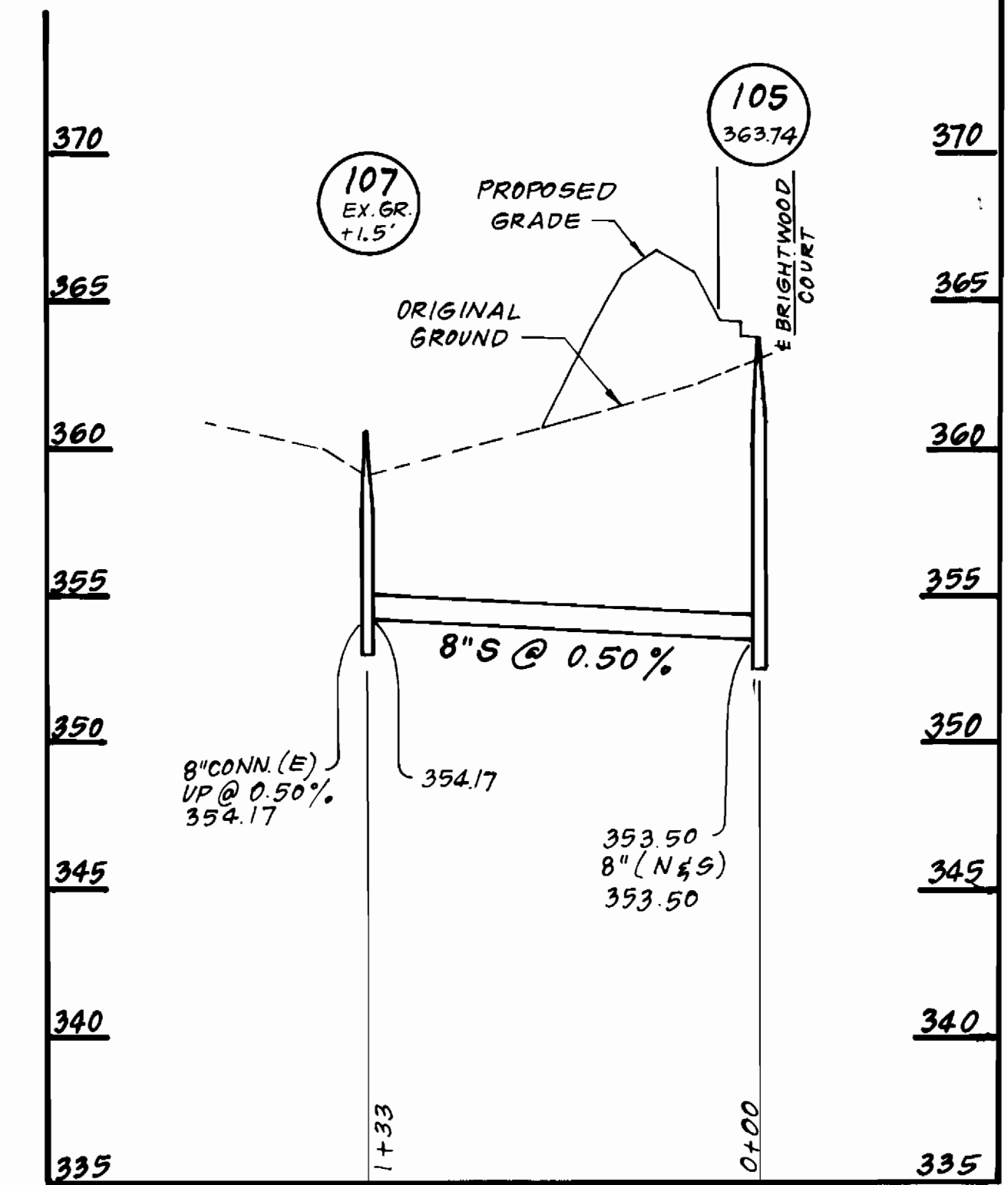
**BRIGHTFIELD SECTION ONE AREA TWO**  
 LOTS 63 THRU 143 & PARCEL "B"  
 19<sup>TH</sup> ELECTION DISTRICT  
 CONTRACT NO. 14-1911-D

SCALE AS SHOWN  
 SHEET 2 OF 3A

AS-BUILT OCT 2 1989



**4-WAY WHC DETAIL**  
 LOTS 79-82 AND 89-92  
 NO SCALE



**PROFILE SCALE**  
 HORIZONTAL: 1" = 50'  
 VERTICAL: 1" = 5'

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE  
*[Signature]* 4/2/89

CHIEF, BUREAU OF UTILITIES DATE  
*[Signature]* 3-30-89

CHIEF, LAND DEVELOPMENT DIV. DATE

**CFE** CLARK, FINEFROCK & SACKETT, INC.  
 ENGINEERS - PLANNERS - SURVEYORS

7135 MINSTREL WAY COLUMBIA MARYLAND 21045  
 (301) 381-7500 BALTO. (301) 621-8100 WASH.



DES: JTR			
DRN: VLM			
CHK: JTR			
DATE: 12-88			
BY: NO.		REVISION	DATE

PROFILES OF  
 WATER & SEWER MAINS

600 SCALE MAP NO. 37 BLOCK NO.

BRIGHTFIELD  
 SECTION ONE AREA TWO  
 LOTS 63 THRU 143 & PARCEL "B"  
 1<sup>ST</sup> ELECTION DISTRICT  
 CONTRACT NO. 14-1911-D

SCALE  
 AS SHOWN

SHEET  
 3 OF 3A

AS-BUILT 02 2 1987

WATER AS-BUILT

LOT #	LOCATION	DISTANCE	LOT #	LOCATION	DISTANCE
63	MH 106	23	101	MH 102	218
64	MH 106	18	102	MH 102	221
65	MH 106	20	103	MH 102	255
66	MH 106	51	104	EX MH 17	86
67	MH 106	55	105	EX MH 17	112
68	MH 106	90	106	EX MH 17	130
69	MH 106	94	107	EX MH 17	158
70	MH 106	123	108	EX MH 17	162
71	MH 106	155	109	EX MH 17	197
72	MH 106	159	110	EX MH 17	200
73	MH 106	195	111	EX MH 17	231
74	MH 100	199	111	MH 108	36
74	MH 105	36	110	MH 108	18
73	MH 105	40	109	MH 108	21
72	MH 105	75	108	MH 108	44
71	MH 105	79	107	MH 108	48
70	MH 105	109	106	MH 108	74
69	MH 105	143	105	MH 108	93
68	MH 105	147	104	MH 108	118
67	MH 105	179	112	MH 108	13
66	MH 105	182	113*	MH 108	48
65	MH 105	219	114	MH 108	52
64	MH 105	223	115	MH 108	84
63	MH 105	249	116	MH 108	117
75	MH 105	36	117	MH 108	149
76	MH 105	40	118	MH 108	153
77	MH 105	73	119	MH 108	189
78	MH 105	77	120	MH 108	193
79	MH 105	107	121	MH 108	193
80	MH 105	122	122	MH 108	222
81	MH 105	152	122	MH 108	239
81	MH 104	73	121	MH 109	26
80	MH 104	44	120	MH 109	17
79	MH 104	30	119	MH 109	30
78	MH 104	20	118	MH 109	34
77	MH 104	23	117	MH 109	68
76	MH 104	48	116	MH 109	72
75	MH 104	52	115	MH 109	104
82	MH 104	27	114	MH 109	134
83	MH 104	40	113	MH 109	167
84	MH 104	44	112	MH 109	171
85	MH 104	78	123	MH 110	213
86	MH 104	81	124	MH 110	65
87	MH 104	121	125	MH 110	96
88	MH 104	124	126	MH 110	100
89	MH 104	164	127	MH 110	140
90	MH 104	201	128	MH 110	144
90	MH 102	51	129	MH 110	183
89	MH 102	32	130	MH 110	186
88	MH 102	56	130	MH 110	225
87	MH 102	59	129	MH 111	61
86	MH 102	97	128	MH 111	29
85	MH 102	101	127	MH 111	26
84	MH 102	134	126	MH 111	31
83	MH 102	138	125	MH 111	33
82	MH 102	178	124	MH 111	69
103	MH 103	24	123	MH 111	73
102	MH 103	21	138	MH 110	104
101	MH 103	24	137	MH 110	64
100	MH 103	52	136	MH 110	95
99	MH 103	73	135	MH 110	98
98	MH 103	107	134	MH 110	133
97	MH 103	111	133	MH 110	137
96	MH 103	143	132	MH 110	173
95	MH 103	173	131	MH 110	177
94	MH 103	207	EXTRA	MH 110	213
93	MH 103	210	EXTRA	MH 110	238
92	MH 103	244	131	MH 111	66
91	MH 103	259	132	MH 111	65
91	MH 102	31	133	MH 111	64
92	MH 102	16	134	MH 111	63
93	MH 102	26	135	MH 111	63
94	MH 102	29	136	MH 111	64
95	MH 102	60	137	MH 111	65
96	MH 102	90	138	MH 111	66
97	MH 102	124	138	MH 111	67
98	MH 102	128	138	MH 110	68
99	MH 102	162	138	MH 110	69
100	MH 102	184	138	MH 106	70

SEWER AS-BUILT

LOT #	LOCATION	DISTANCE	LOT #	LOCATION	DISTANCE
72	MH 106	31	90	MH 101	31
73	MH 106	36	91	MH 101	36
74	MH 106	40	90	MH 102	40
104	EX MH 17	34	91	MH 102	34
105	EX MH 17	13	92	MH 102	13
106	EX MH 17	11	93	MH 102	11
107	EX MH 17	46	94	MH 102	46
108	EX MH 17	52	95	MH 102	52
109	EX MH 17	103	96	MH 102	103
110	EX MH 17	110	97	MH 102	110
111	EX MH 17	147	98	MH 102	147
111	MH 108	151	99	MH 102	151
110	MH 108	197	100	MH 102	197
109	MH 108	203	101	MH 102	203
108	MH 108	231	102	MH 102	231
107	MH 108	245	103	MH 102	245
106	MH 108	19	103	MH 102	19
105	MH 108	17	102	MH 103	17
104	MH 108	34	101	MH 103	34
112	MH 108	39	100	MH 103	39
113	MH 108	84	99	MH 103	84
114	MH 108	87	98	MH 103	87
115	MH 108	123	97	MH 103	123
116	MH 108	129	96	MH 103	129
117	MH 108	181	95	MH 103	181
118	MH 108	187	94	MH 103	187
119	MH 108	277	93	MH 103	277
120	MH 108	231	92	MH 103	231
121	MH 108	43	89	MH 102	43
122	MH 108	46	88	MH 102	46
122	MH 109	74	87	MH 102	74
121	MH 109	81	86	MH 102	81
120	MH 109	116	85	MH 102	116
119	MH 109	121	84	MH 102	121
118	MH 109	154	83	MH 102	154
117	MH 109	159	82	MH 102	159
116	MH 109	202	81	MH 102	202
115	MH 109	204	80	MH 102	204
114	MH 109	55	80	MH 104	55
113	MH 109	58	80	MH 104	58
112	MH 109	21	82	MH 104	21
123	MH 110	26	83	MH 104	26
124	MH 110	57	84	MH 104	57
125	MH 110	63	85	MH 104	63
126	MH 110	97	86	MH 104	97
127	MH 110	104	87	MH 104	104
128	MH 110	137	88	MH 104	137
129	MH 110	143	89	MH 104	143
130	MH 110	26	89	MH 104	26
130	MH 111	21	78	MH 104	21
129	MH 111	33	77	MH 104	33
128	MH 111	37	76	MH 104	37
127	MH 111	66	75	MH 104	66
126	MH 111	25	75	MH 105	25
125	MH 111	51	76	MH 105	51
124	MH 111	57	77	MH 105	57
123	MH 111	94	78	MH 105	94
131	MH 111	100	79	MH 105	100
132	MH 111	21	74	MH 105	21
133	MH 111	55	73	MH 105	55
134	MH 111	59	72	MH 105	59
135	MH 111	95	71	MH 105	95
136	MH 111	100	70	MH 105	100
137	MH 111	133	69	MH 105	133
138	MH 111	161	68	MH 105	161
138	MH 110	167	67	MH 105	167
137	MH 110	201	66	MH 105	201
136	MH 110	206	65	MH 105	206
135	MH 110	238	64	MH 105	238
134	MH 110	243	63	MH 105	243
133	MH 110	18	63	MH 106	18
132	MH 110	15	64	MH 106	15
131	MH 110	31	65	MH 106	31
131	MH 106	36	66	MH 106	36
132	MH 106	69	67	MH 106	69
133	MH 106	76	68	MH 106	76
134	MH 106	105	69	MH 106	105
139	MH 106	134	70	MH 106	134
139	MH 106	139	71	MH 106	139

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE

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

WATER & SEWERS  
AS-BUILTS

600' SCALE MAP NO. BLOCK NO.

BRIGHTFIELD  
SECTION ONE AREA TWO  
LOTS 63 THRU 144 & PARCEL B  
1ST ELECTION DISTRICT  
CONTRACT NO. 14-1911-D

SCALE  
AS  
SHOWN

SHEET  
3 OF 34