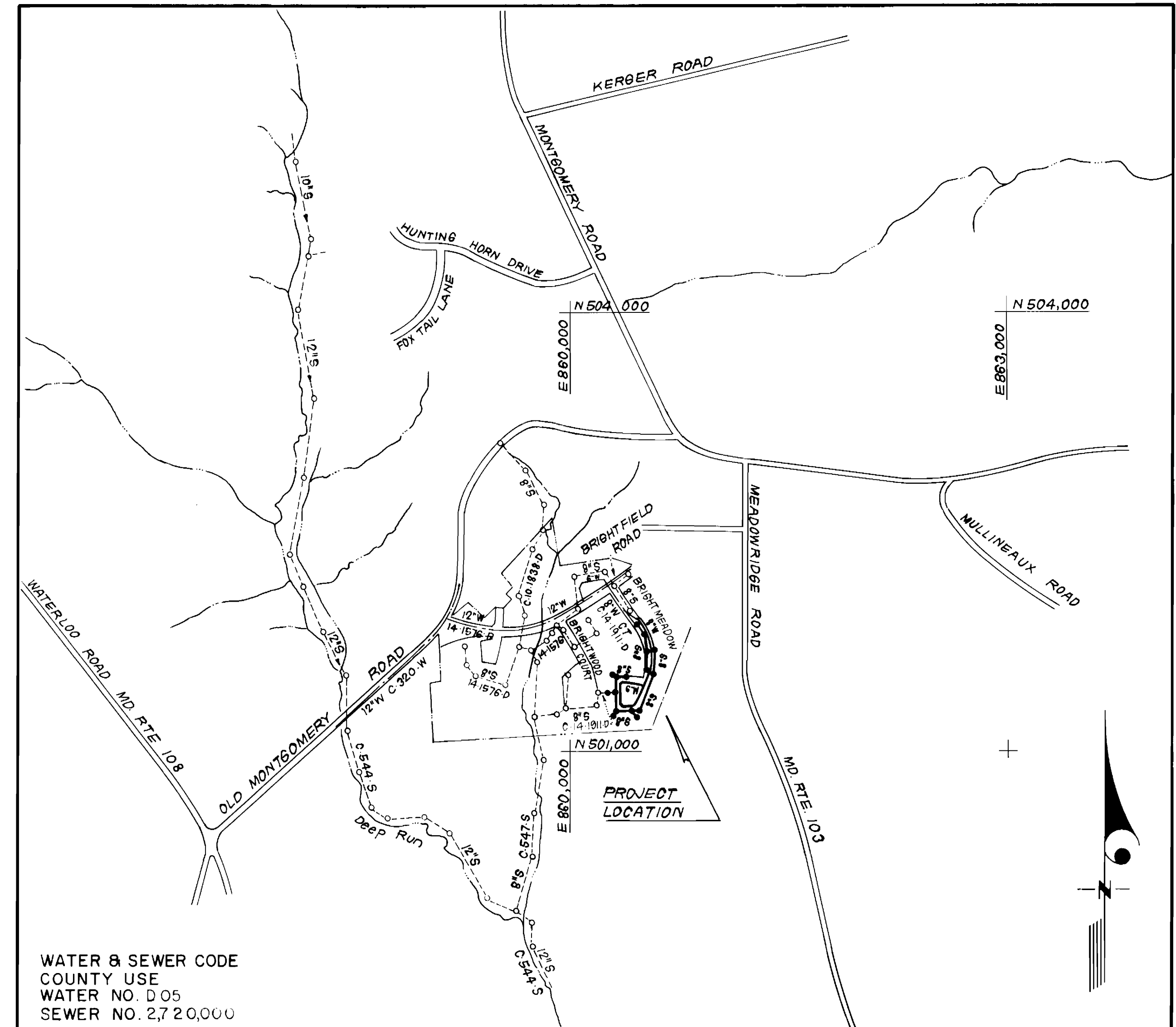


**SEWER HOUSE CONNECTION TABLE**

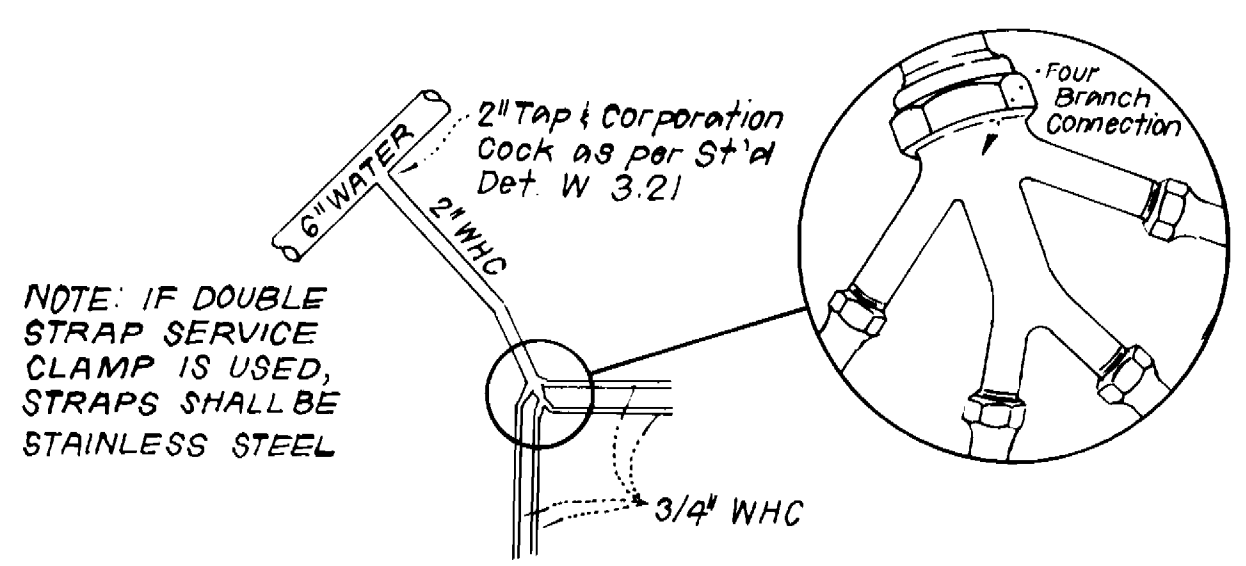
LOT	Inv. at R.	Min. C	LOT	Inv. at R.	Min. C
144	384.7	387.8	178	368.8	372.2
145	384.6	387.7	179	368.9	372.3
146	383.9	387.1	180	368.9	372.3
147	383.4	386.6	181	368.6	372.0
148	383.2	386.5	182	368.8	372.2
149	382.8	385.9	183	369.3	372.7
150	382.2	385.5	184	369.7	373.1
151	381.4	384.6	185	370.0	373.4
152	380.2	383.4	186	370.5	373.9
153	380.2	383.4	187	372.5	375.7
154	379.6	382.9	188	372.7	375.8
155	379.3	382.7	189	372.7	375.8
156	379.0	382.4	190	371.5	374.7
157	378.9	382.2	191	372.0	375.2
158	378.7	381.9	192	372.3	375.5
159	378.7	382.0	193	373.0	376.2
160	372.2	375.3	194	373.3	376.5
161	372.1	375.2	195	374.0	377.2
162	369.8	372.9	196	374.9	378.1
163	368.8	372.0	197	375.5	378.7
164	367.0	370.0	198	376.2	379.4
165	367.1	370.1	199	376.5	379.7
166	367.1	370.1	200	377.2	380.4
167	367.3	370.4	201	377.4	380.5
168	366.6	369.9	202	378.1	381.2
169	366.5	369.8	203	378.3	381.4
170	366.4	369.7	204	378.9	382.1
171	366.3	369.6	205	379.1	382.3
172	366.2	369.5	206	379.4	382.6
173	366.1	369.4	207	379.6	382.8
174	366.0	369.3	208	379.9	383.1
175	366.6	369.9	209	380.1	383.3
176	367.4	370.7	210	380.6	383.8
177	367.7	371.0	211	380.7	383.9

TYPE OF BUILDING	TOWNHOUSES
NO. OF LOTS	68
NO. OF WHC's	67
NO. OF SHC's	68
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, 1989 Amendments. The Contractor shall have Volume IV, 1989 Amend. on the job site.
- 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 CSPX, VCPX, 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.
- All sewer house connections shall be 4" dia.



**4-WAY WHC DETAIL**

NO SCALE  
 LOTS 165 THRU 188, 178 THRU 181 & 187 THRU 190  
 Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with Road Construction Plan F 88-198; Drawing Sediment & Erosion Control.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
 Signature: *[Signature]* DATE: 8/3/89  
 U.S. SOIL CONSERVATION SERVICE

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

APPROVED:  
 Signature: *[Signature]* DATE: 8/3/89  
 Howard S.C.D.

**CONTRACT NO.14-1967 - D**  
**BRIGHTFIELD**  
**SECTION ONE AREA THREE, LOTS 144 - 213 & PARCEL "C"**  
**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS**

QUANTITIES			
ITEM	EST'D	AS BUILT	MATERIAL / SUPPLIER
8" W	753 LF	1031 LF	GREEN PIPE (REAR)
6" W	429 LF	494 LF	"
8" S	1,610 LF	1533 LF	ST. MOUNTAIN CO. (REAR)
4" SHC	1,135 LF	1552 LF	"
2" WHC	125 LF	115 LF	HOWELL METALS / REAR
1" WHC	570 LF	780 LF	"
3/4" WHC	990 LF	876 LF	"
FIRE HYDRANT	3 EA	3 EA	MUELLER CO. (REAR)
4'-0" DIA. MH.	16 EA	16 EA	ATLANTIC CONCRETE
8" V	3 EA	3 EA	MUELLER CO. (REAR)
6" V (excl. F.H.)	2 EA	2 EA	"

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works: *[Signature]* DATE: 8/7/89  
 Chief, Bureau of Engineering: *[Signature]* DATE: 8/4/89  
 Chief, Bureau of Utilities: *[Signature]* DATE: 8-2-89  
 Chief, Land Development Div.: *[Signature]* DATE: 8/4/89

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



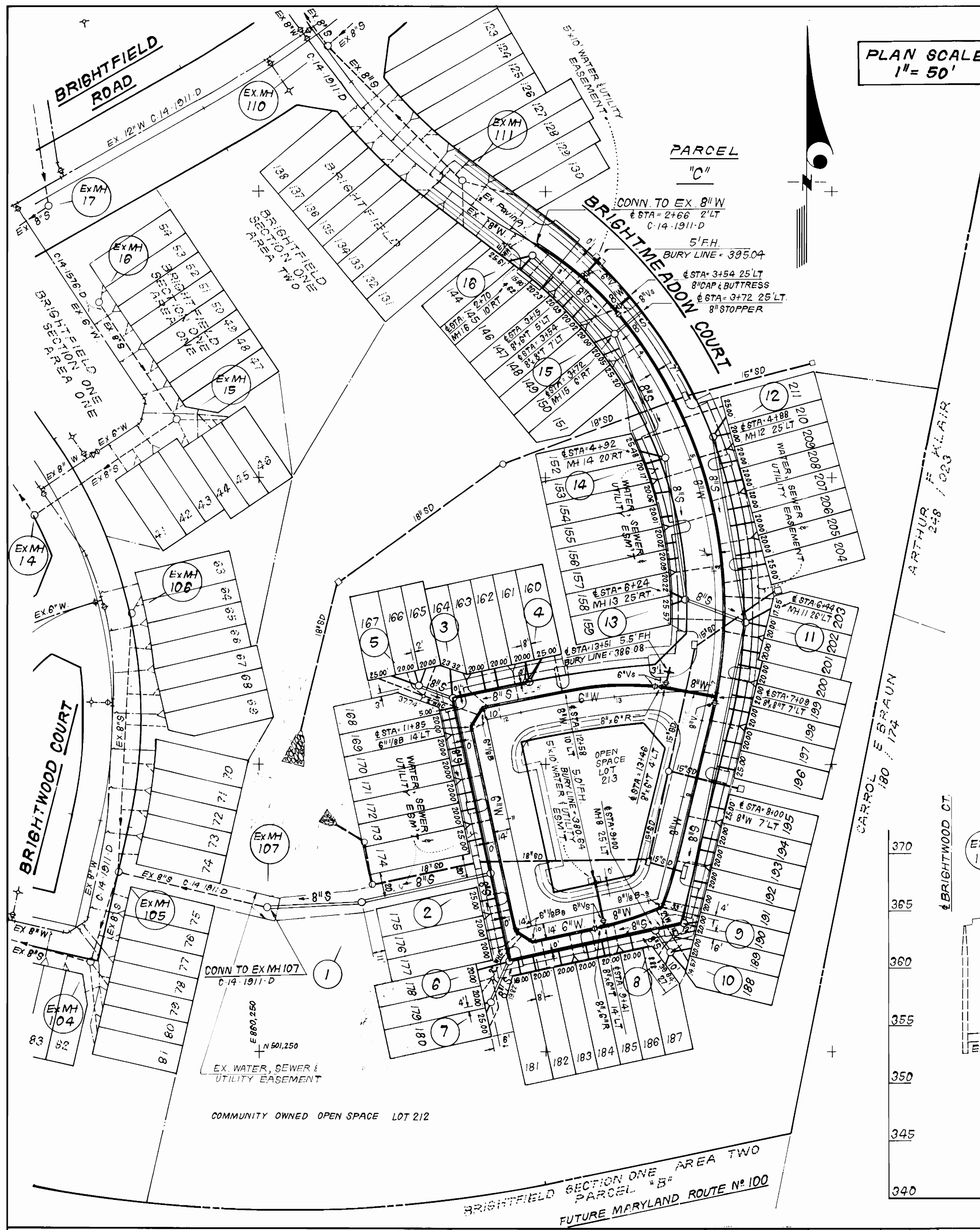
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DRN: JTR			
CHK: CCM			
DATE: MAY 89			

BY: NO.	REVISION	DATE

BRIGHTFIELD  
 SECTION ONE AREA THREE  
 LOTS 144 THRU 213 & PARCEL "C"  
 1ST ELECTION DISTRICT  
 CONTRACT NO.14-1967-D  
 SCALE AS SHOWN  
 SHEET 1 OF 3

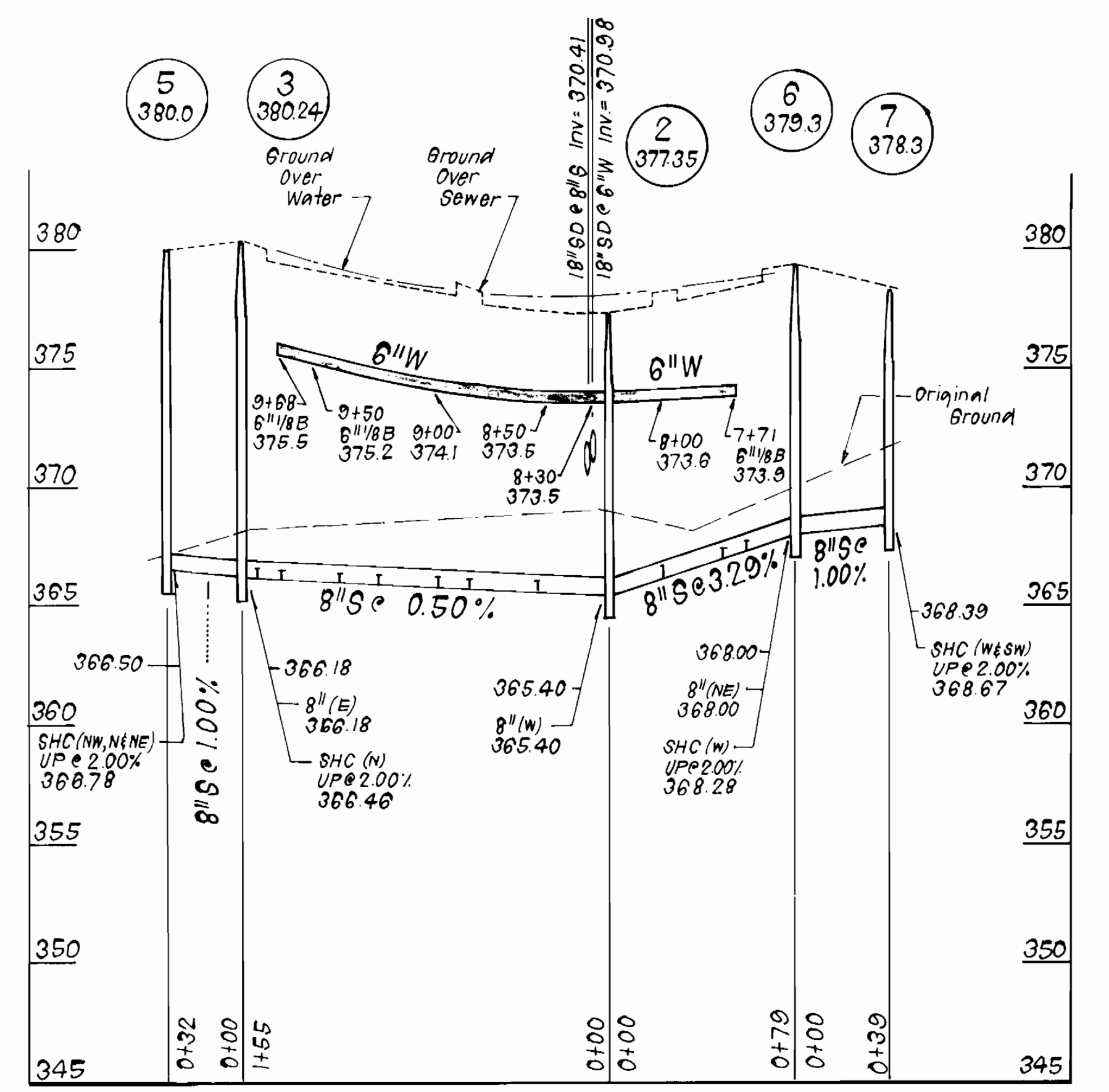
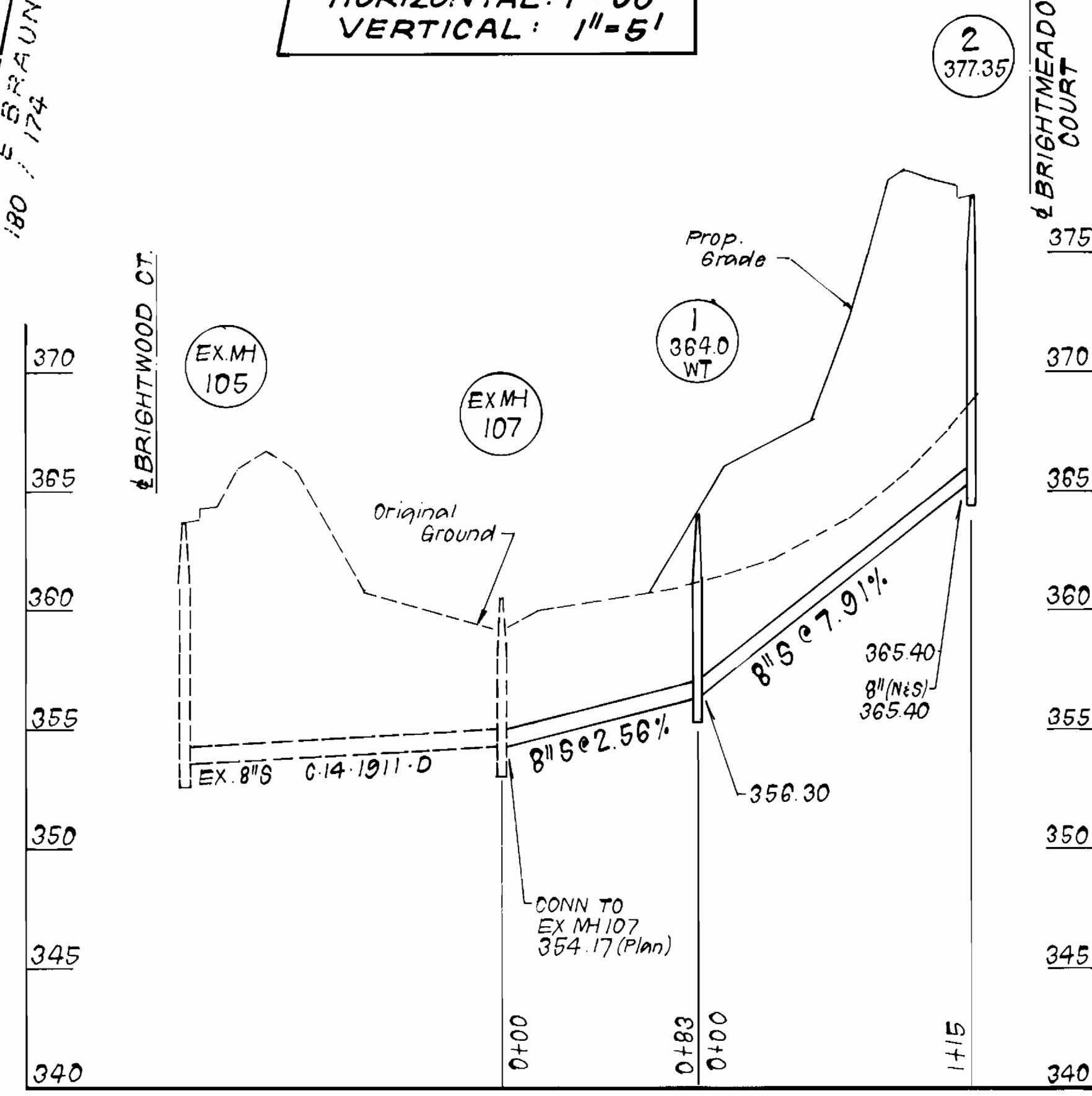
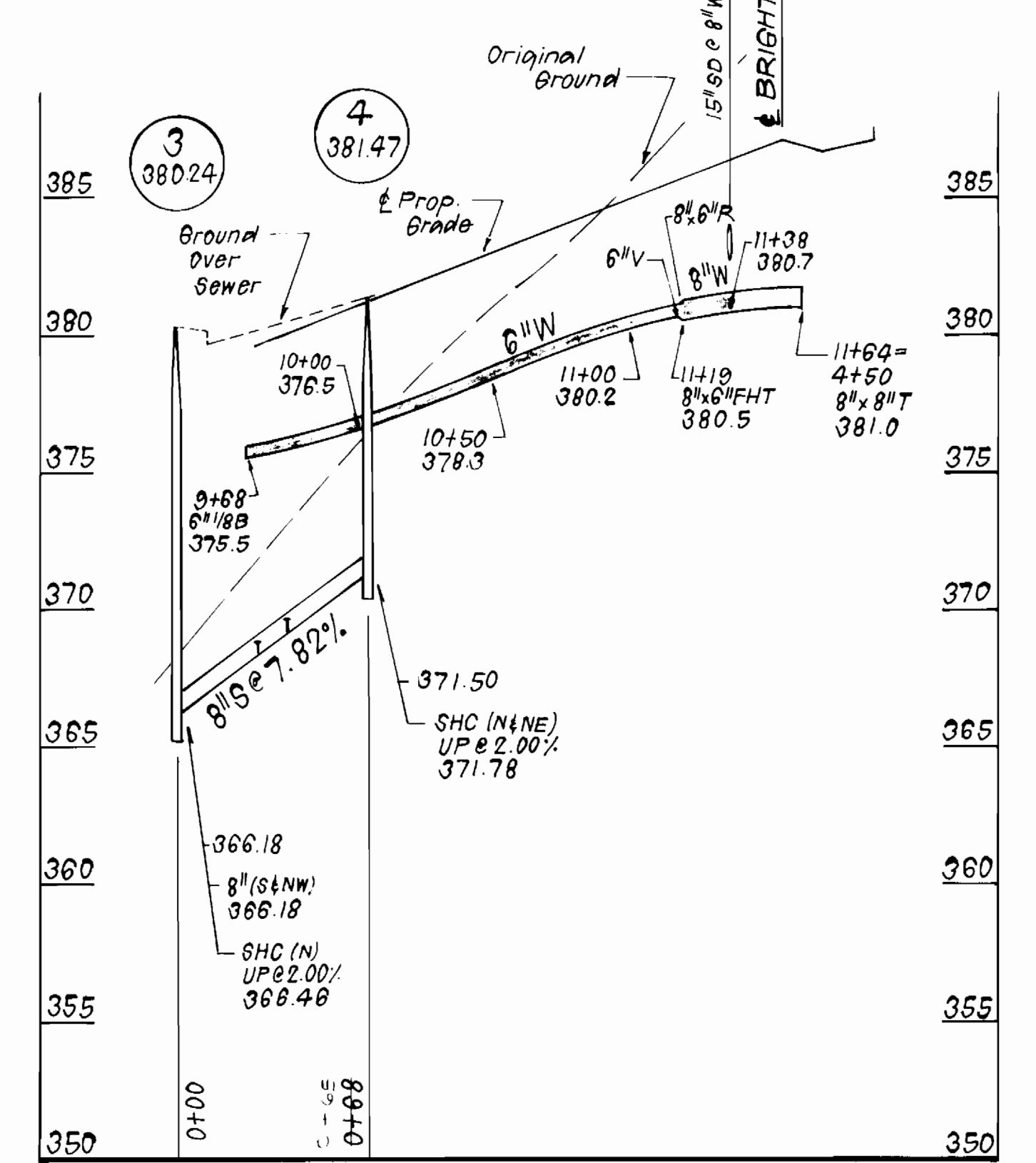
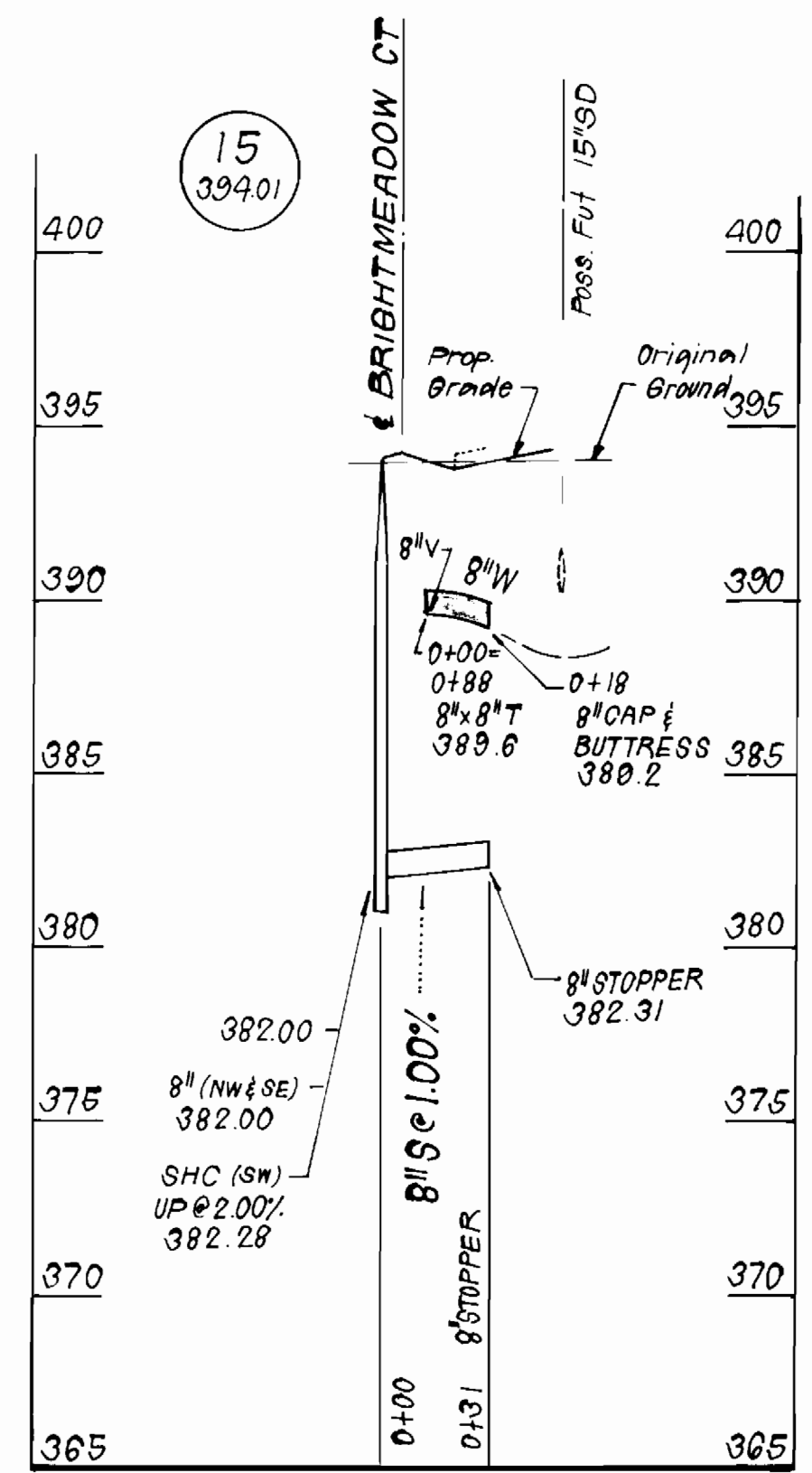
AS-BUILT





PLAN SCALE  
1" = 50'

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



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Braxwell W. Weiland* 8/1/89  
DIRECTOR OF PUBLIC WORKS DATE

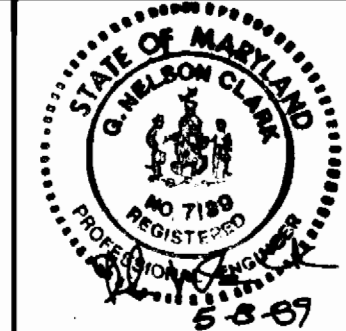
*Edna E. Ray* 8/1/89  
CHIEF, BUREAU OF ENGINEERING DATE

*Edna E. Ray* 8/2/89  
CHIEF, BUREAU OF UTILITIES DATE

*Paul W. Dean* 8/1/89  
CHIEF, LAND DEVELOPMENT DIV. DATE

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

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



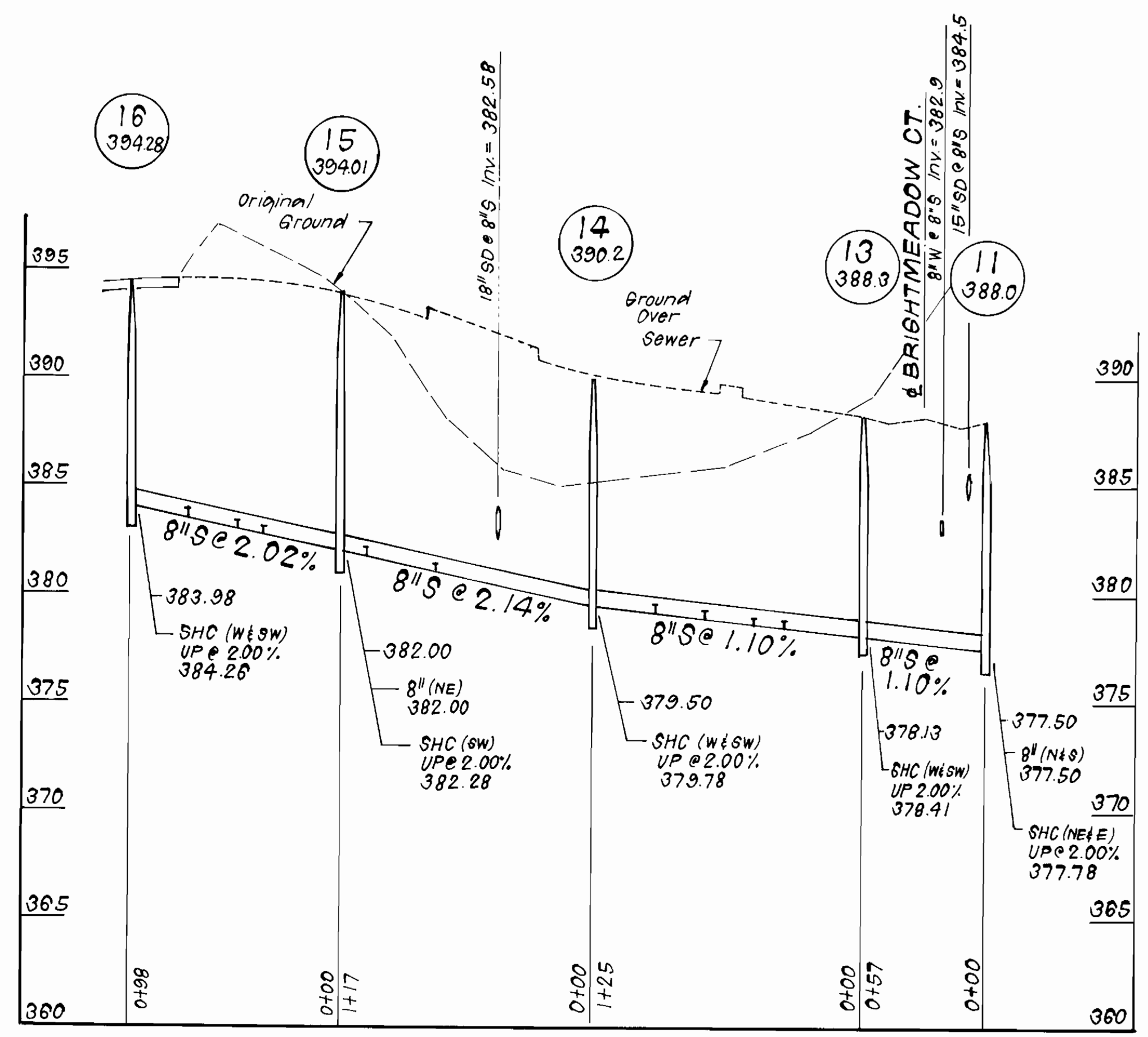
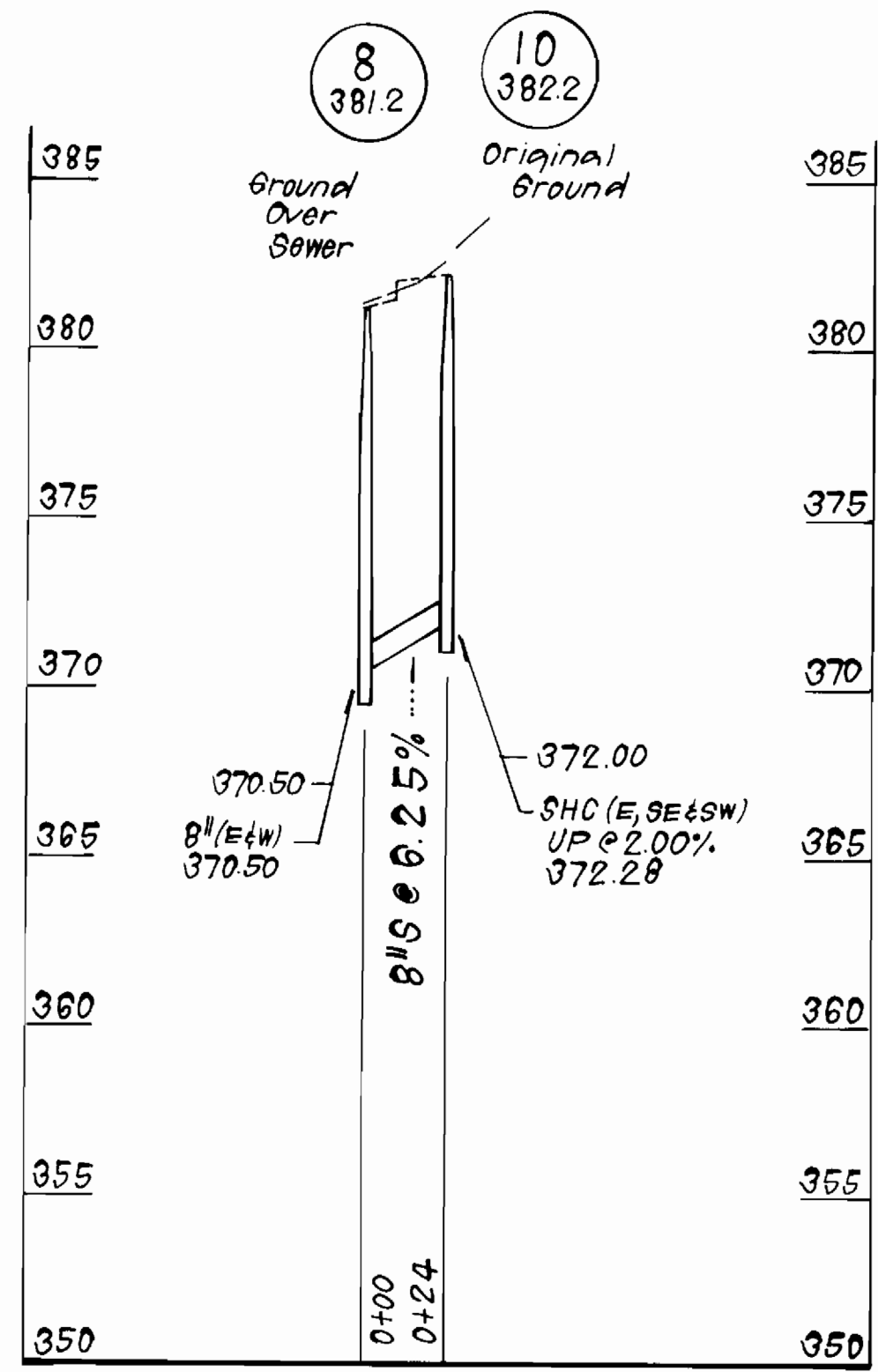
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DRN: JTR					
CHK: CCM					
DATE: MAY 89	BY: NO.	REVISION	DATE	600' SCALE MAP NO. 37	BLOCK NO.

PLAN & PROFILES OF  
WATER & SEWER MAINS

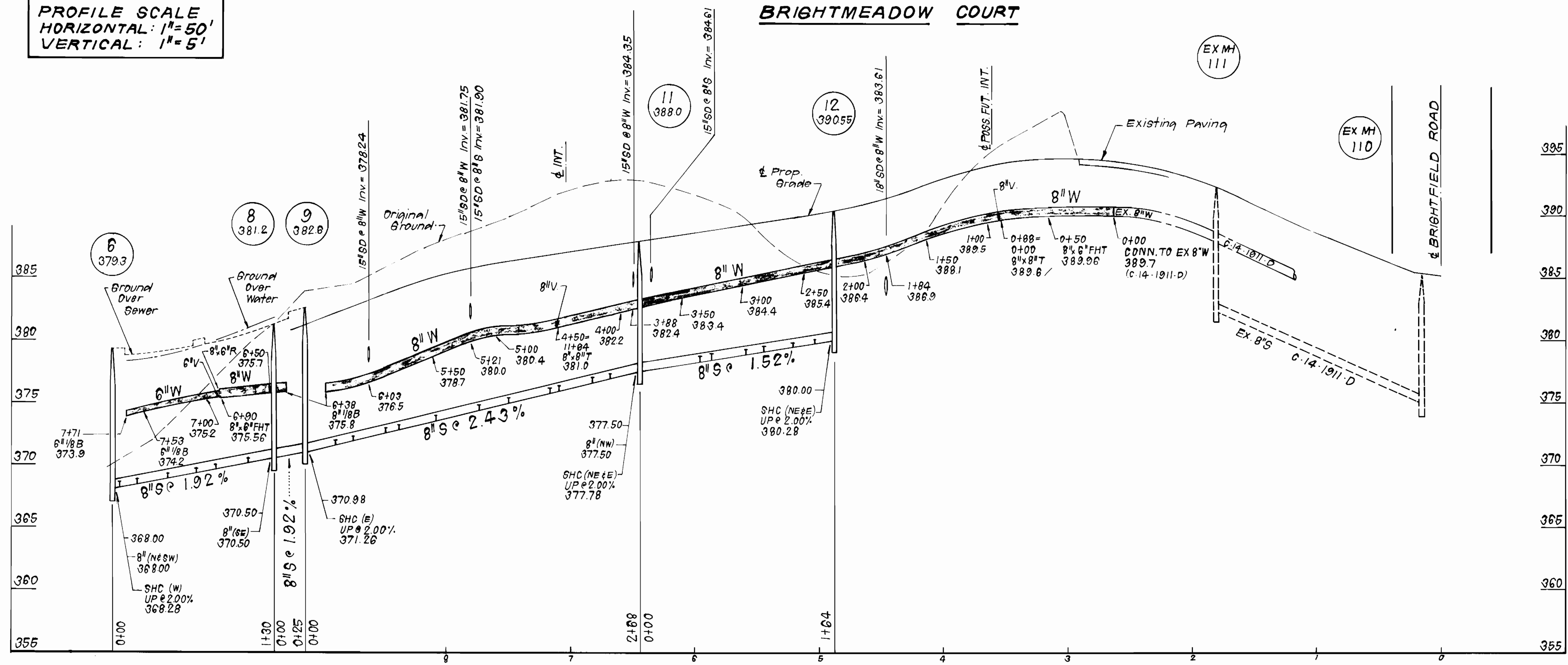
BRIGHTFIELD  
SECTION ONE AREA THREE  
LOTS 144 THRU 213 & PARCEL "C"  
1<sup>ST</sup> ELECTION DISTRICT  
CONTRACT NO. 14-1967-D

SCALE  
AS SHOWN

SHEET  
2 OF 3

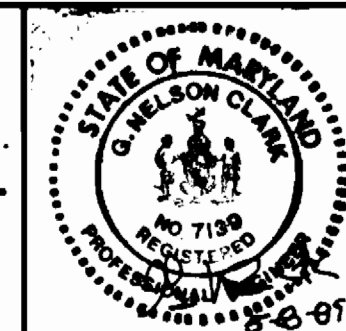


PROFILE SCALE  
 HORIZONTAL: 1"=50'  
 VERTICAL: 1"=5'



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works: *William W. McLeod* 8/14/89  
 Chief, Bureau of Engineering: *Robert J. Ryan* 8/14/89  
 Chief, Bureau of Utilities: *John J. ...* 8-2-89  
 Chief, Land Development Div.: *...* 8/14/89

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



DES: JTR			
DRN: JTR			
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DATE: MAY 89			
BY: NO.		REVISION	DATE

PROFILES OF  
 WATER & SEWER MAINS  
 600' SCALE MAP NO. 37 BLOCK NO.

BRIGHTFIELD  
 SECTION ONE AREA THREE  
 LOTS 144 THRU 213 & PARCEL "C"  
 1<sup>ST</sup> ELECTION DISTRICT  
 CONTRACT NO. 14-1967-D

SCALE  
 AS SHOWN  
 SHEET  
 3 OF 3

AS-BUILT