

**GENERAL NOTES**

**Part I**

1. Approximate locations 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.
2. All horizontal controls are based on Maryland State Coordinates.
3. All vertical controls are based on U.S.G.S. Datum.
4. All pipe elevations shown are invert elevations.
5. Clear all utilities by a minimum of 6". Clear all poles 2'-0" minimum or tunnel as required.
6. For all standard details see standards bound in specifications.
7. Contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
8. Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these plans:

State Highway Administration - 531-5533  
 Baltimore Gas and Electric Company - Underground Electric Distribution Engineering - "Damage Control" - 234-5691  
 Baltimore Gas and Electric Company - Underground Gas Distribution Engineering - 558-0100  
 Chesapeake and Potomac Telephone Co. - 725-9976  
 American Telephone and Telegraph - Cable Location Division - 301-393-3553  
 Colonial Pipeline Company - 781-4641

9. Trees are to be protected from damage to maximum extent. Tree 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 as directed by the Engineer. Payment for such removal shall be included in the unit price bid for excavation and backfill for water and sewer mains. 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.

**Part II**

1. All water mains to be C.I.P., D.I.P., or A.C.P. unless otherwise noted.
2. Top of all water mains to have a minimum of 3 1/2' cover unless otherwise noted.
3. All valves shall be strapped to trees in accordance with standard details where applicable.
4. Block all fittings with concrete, see standards bound in specifications.
5. 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 Section 5-15 of the Standard Specifications. Soil around the fire hydrant to be compacted in accordance with Section 5-15 of the Standard Specifications.
6. All water meter vaults to be for either twin 5/8" meters or single 5/8" meter unless otherwise noted. Meters furnished and installed by the County.

**Part III**

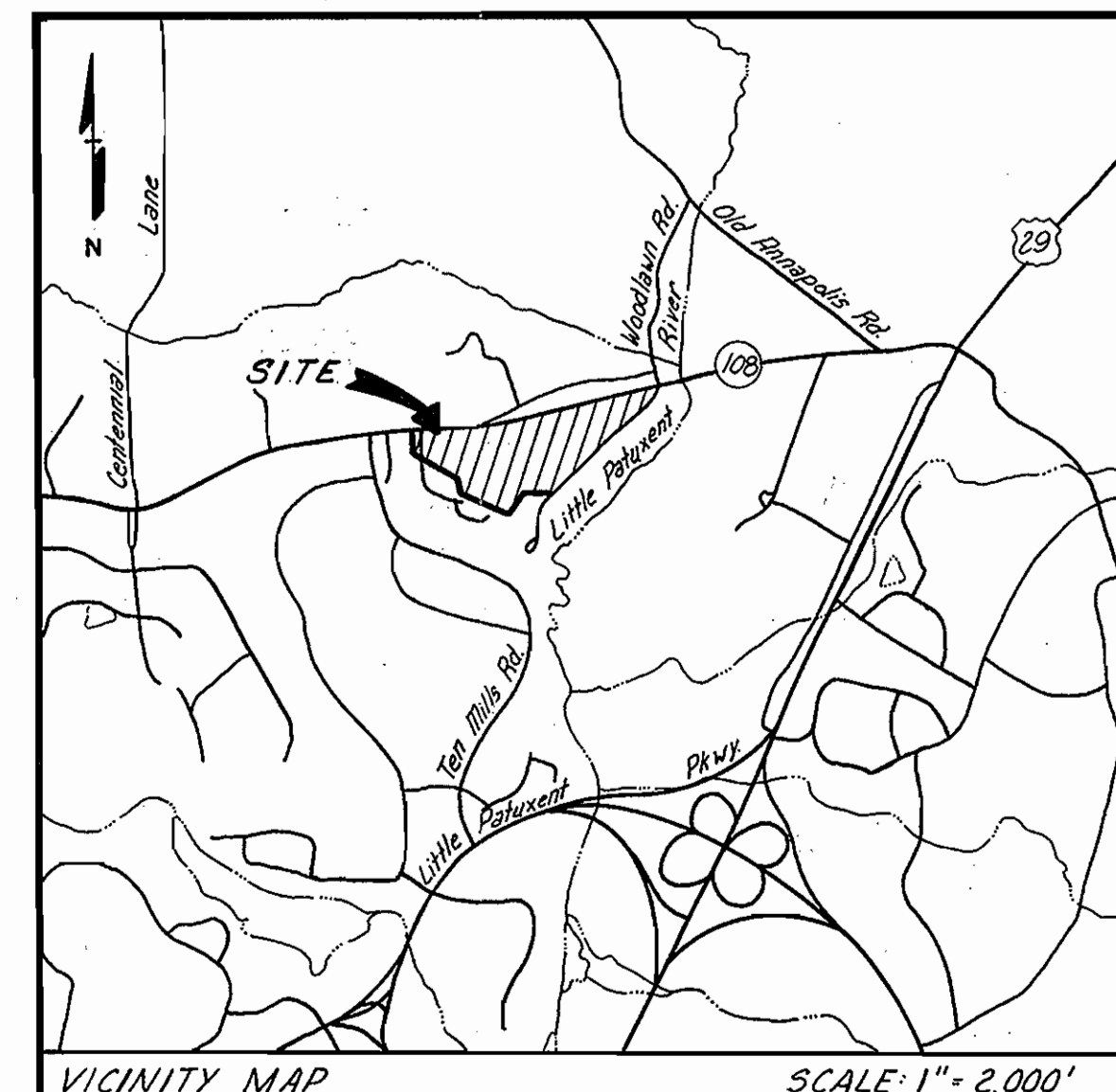
1. All sewer mains shall be C.S.P.X., V.C.P.X., or A.C.P. Class 2400 unless otherwise noted.
2. The contractor shall provide a joint in all sewer mains with 2'-0" of exterior manhole wall.
3. All manholes shall be 4'-0" inside diameter, unless otherwise noted.
4. Sodding to be provided in disturbed Flood Plain Area.
5. Watertight manhole frame and cover to be used where indicated on drawings. Standard Detail S-12 (RCR-63A). Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade.
6. All sewer house connections to be 6".
7. soil borings by others indicated thus:

**KEY MAP**  
SCALE: 1" = 200'

**WATER & SEWER CODE**  
(County Use)  
WATER No. E01  
SEWER No. 570000

B.M. #C-2 Elev. 410.07  
3/4" iron pin rod set flush with ground on South side of Md. 108.

B.M. #C-3 (not shown) Elev. 434.48  
3/4" iron rod set flush with ground on North side of Md. 108. Approx. 1.3 miles Southeast of the intersection of Md. 108 & Cedar Lane.

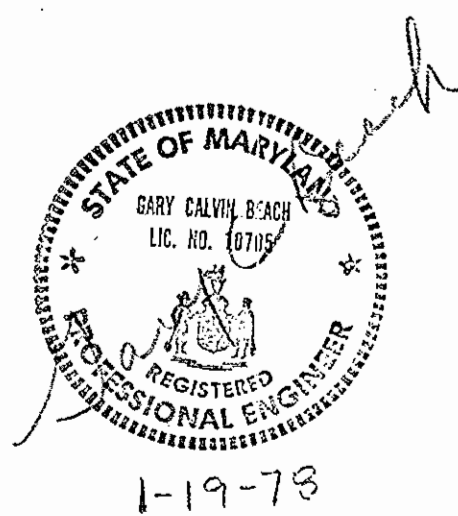


**TOWN OF CENTER**  
**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS**

**QUANTITIES**

ITEM	BID	AS BUILT	SUPPLIER
8" Sewer	2,538 L.F.	2,480 L.F.	
4" Water	750 L.F.	745.9 L.F.	
8" Water	600 L.F.	703.0 L.F.	
Fire Hydrants	3 Ea.	3 Ea.	

Elevation Gradient = 6.30'  
Test Gradient = 7.80'

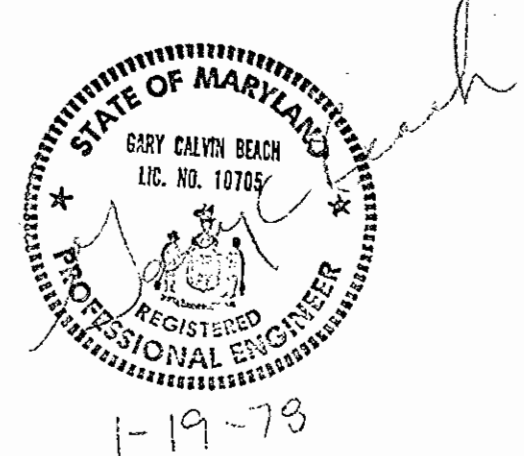
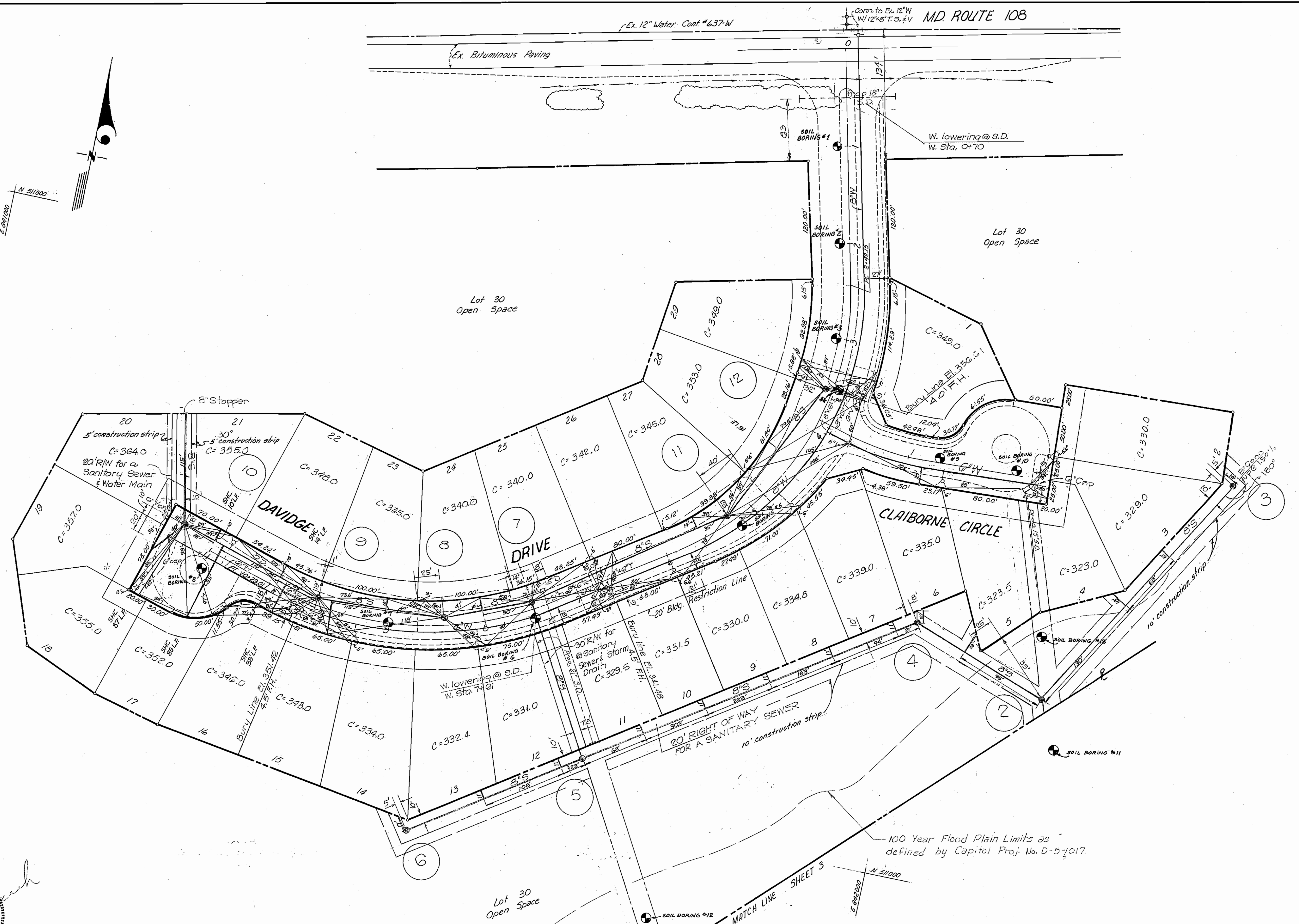
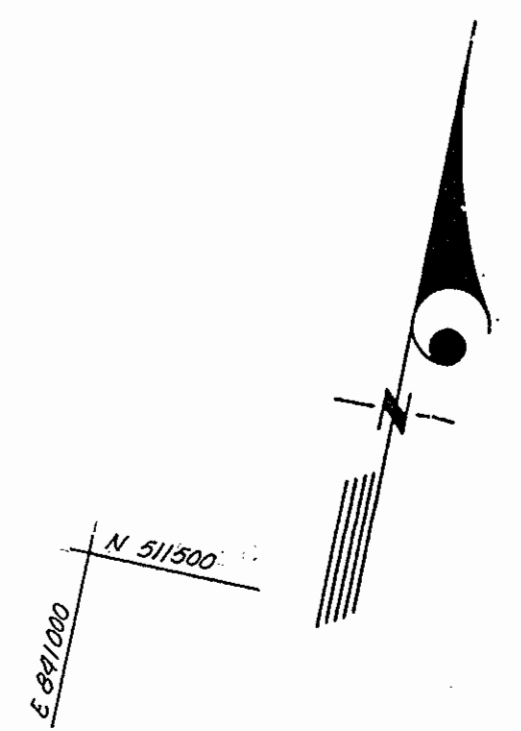


**COLUMBIA TOWN CENTER**  
Section 9 Area 1  
Lots 1-30  
Contract No. 2796-D-W-5

**DRAWING NO. OF** 1 OF 3  
**SCALE** As Shown  
1-30  
9-21-78

<b>GREENHORNE &amp; O'MARA, INC.</b> ENGINEERS - ARCHITECTS - PLANNERS - SURVEYORS 6715 KENILWORTH AVENUE RIVERDALE, MARYLAND	<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND Richard E. Sreudenberger 9/4/78 DIRECTOR OF PUBLIC WORKS DATE	<b>CONTRACT NO. 2796-D-W-5</b>	<b>PLAN FOR WATER &amp; SEWER MAINS</b>	<b>TOWN CENTER SECTION 9 AREA 1</b> 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
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WS 796-WS/1



GREENHORNE & O'MARA, INC.  
ENGINEERS - ARCHITECTS - PLANNERS - SURVEYORS  
6715 KENILWORTH AVENUE RIVERDALE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Richard E. Freudenberger, 8/4/78 WOT/Albert 8-4-78  
DIRECTOR OF PUBLIC WORKS CHIEF BUREAU OF ENGINEERING

CONTRACT NO. 796-D-WIS

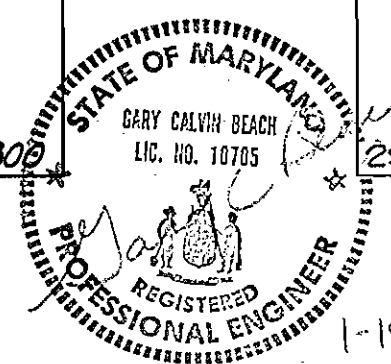
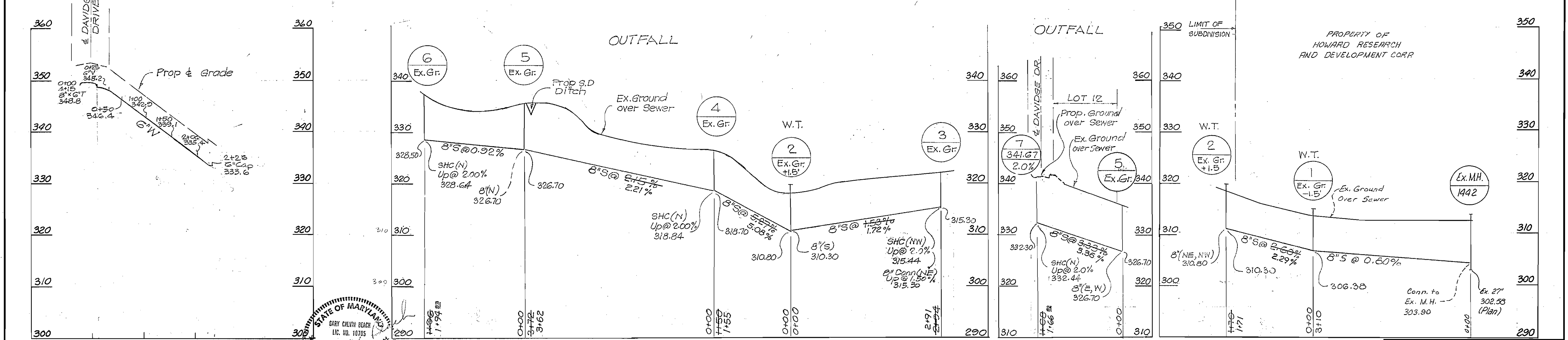
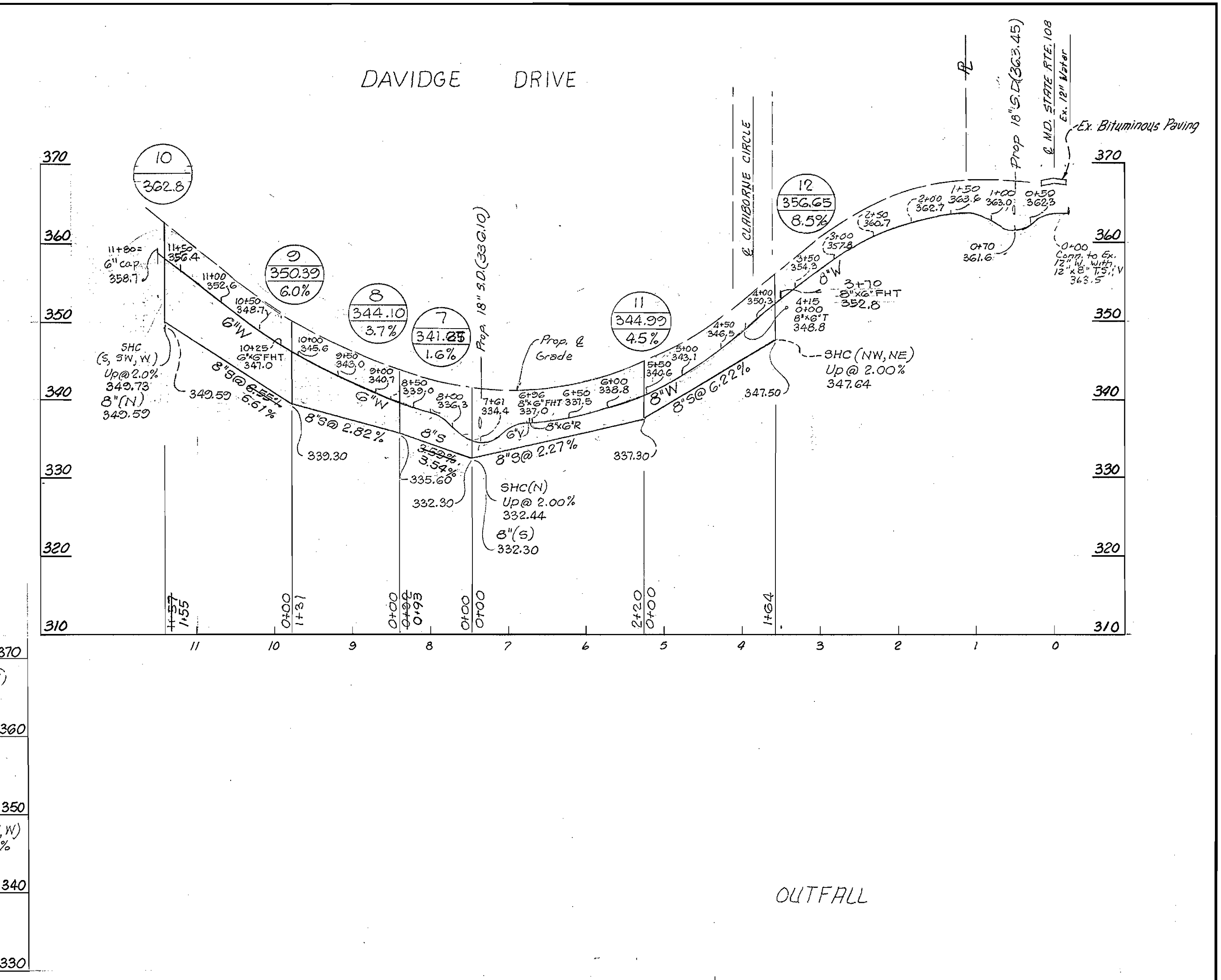
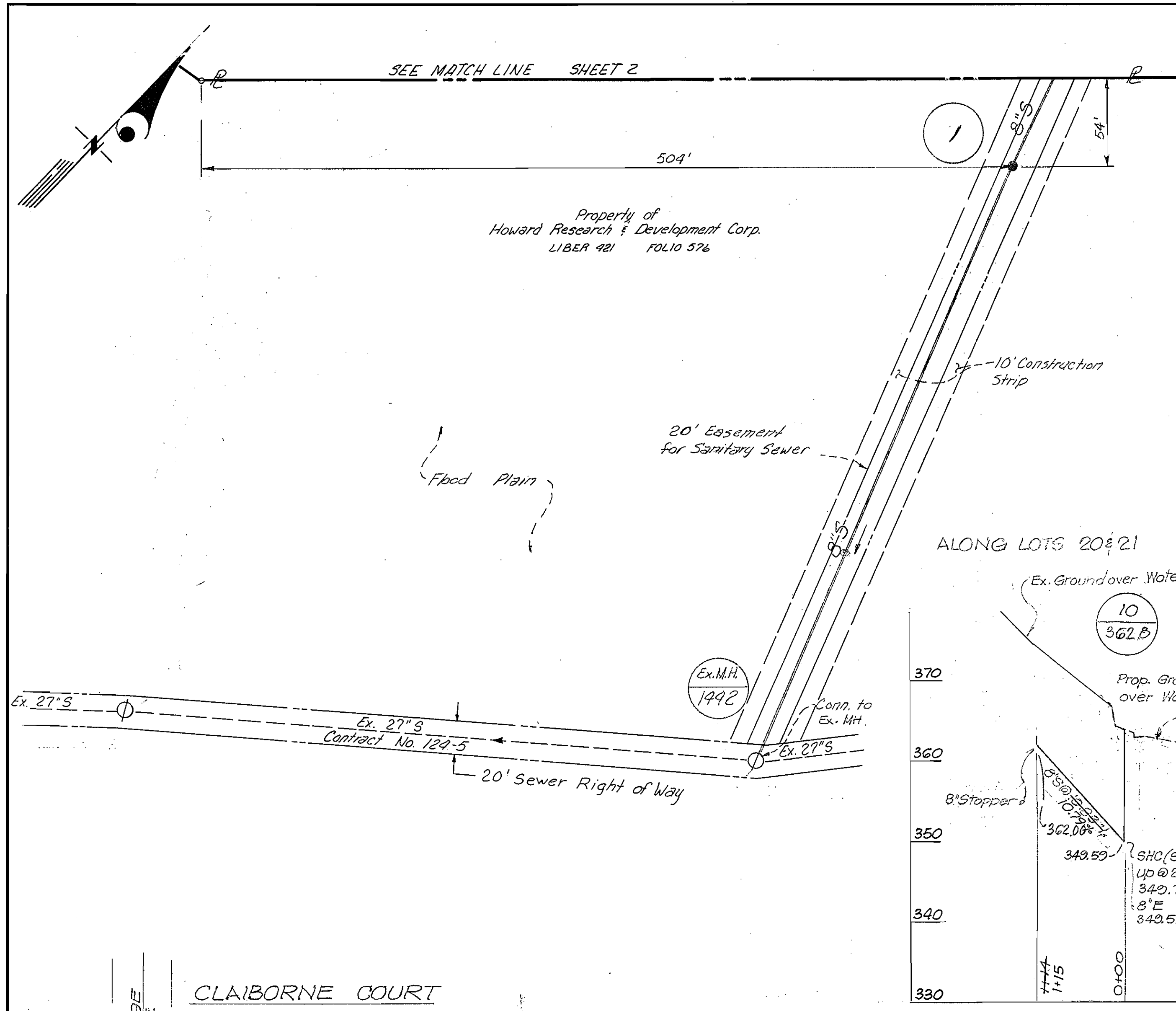
PLAN FOR  
WATER & SEWER MAINS

TOWN CENTER  
SECTION 9 AREA 1  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

COLUMBIA TOWN CENTER Section 9 Area 1	
Lots 1-30 Contract No. 2796-D-WIS	
DRAWING NO. 2 OF 3	SCALE 1"=50'
4-21-78	

WS 796 - WS/2





**GREENHORNE & O'MARA, INC.**  
 ENGINEERS · ARCHITECTS · PLANNERS · SURVEYORS  
 6715 KENILWORTH AVENUE RIVERDALE, MARYLAND

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND  
*Richard E. Freudenberg* 8/4/78 *W.O. Gilbert* 8-4-78  
 DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING

**CONTRACT NO. 796-D-W-5**

**PLAN FOR WATER & SEWER MAINS**

**TOWN CENTER SECTION 9 AREA 1**  
 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**COLUMBIA TOWN CENTER**  
 Section 9 Lots 1-30 Area 1  
 Contract No. 2796-D-W-5  
**DRAWING NO. 3 OF 3** **SCALE** 1" = 10'  
 5898-X-01 4-21-78

WS 796-W-13