

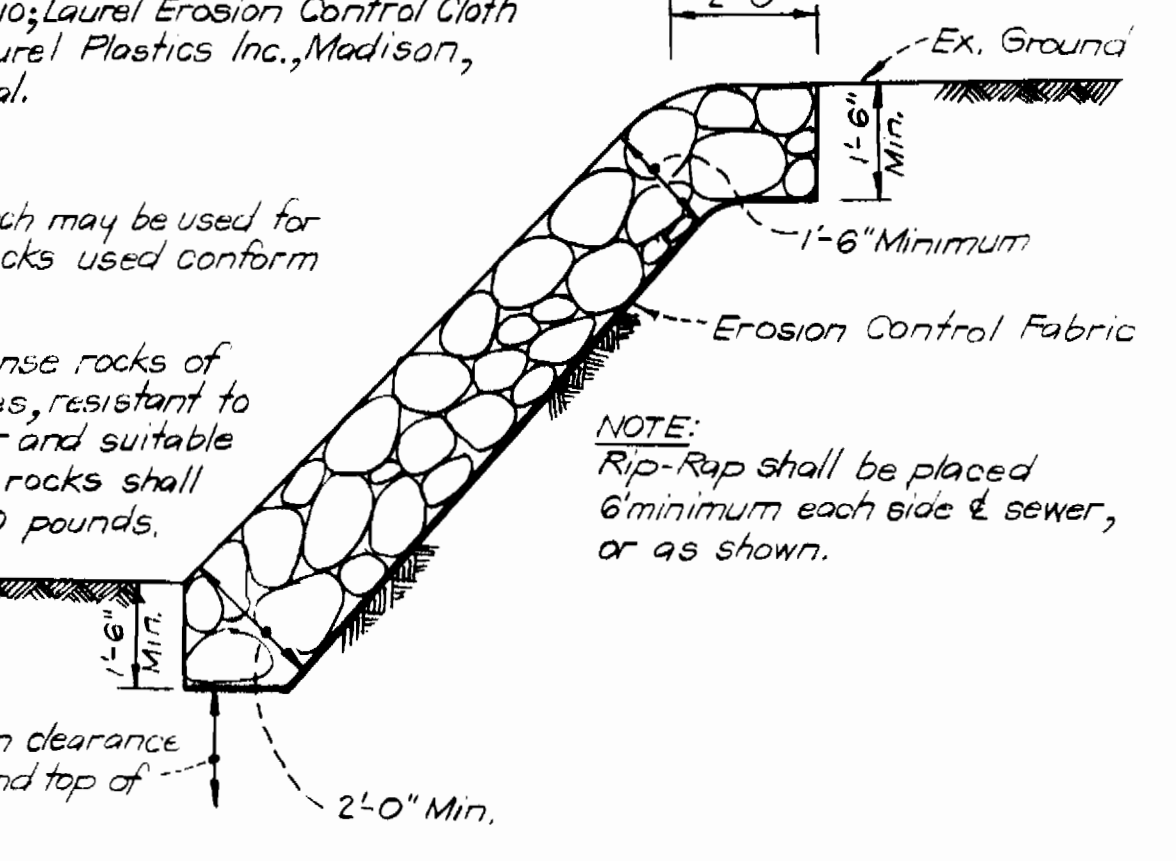
**GENERAL NOTES**

1. All water mains to be C.I.P., D.I.P. or A.C.P. unless otherwise shown.
2. Top of all water mains to have a minimum of 35 ft. cover unless otherwise noted.
3. All valves shall be strapped to tees in accordance with standard details.
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 standard details. Soil around the fire hydrants to be compacted in accordance with Section 5-15 of the Standard Specifications.
6. All sewer mains shall be C.S.P.X., V.C.P.X., or A.C.P. Class 2400 unless otherwise noted.
7. The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall.
8. All manholes shall be 4'-0" inside diameter, unless otherwise noted.
9. 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.
10. All horizontal controls are based on Maryland State Coordinates.
11. All vertical controls are based on U.S.G.S. Datum.
12. All pipe elevations shown are invert elevations.
13. Clear all utilities by a minimum of 6", clear all poles by 2'-0" minimum or tunnel as required.
14. For all standard details see standards bound in specifications.
15. Contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
16. 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" - 234-5601  
 Baltimore Gas and Electric Company - Underground Gas Distribution Engineering - 559-0100  
 Chesapeake and Potomac Telephone Co. - 725-9976  
 American Telephone and Telegraph - Cable Location Division - 301-393-3553  
 Colonial Pipeline Company - 701-4641
17. 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.
18. 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.
19. 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.

**NOTES:**  
 Erosion Control Fabric shall be Poly Filter-X as manufactured by Carthage Mills Inc. Erosion Control Division, 124 W. 66th Street, Cincinnati, Ohio; Laurel Erosion Control Cloth as manufactured by Laurel Plastics Inc., Madison, Maine, or approved equal.

Rock excavated from trench may be used for Rip-Rap provided the rocks used conform to the following:

Rip-Rap shall consist of dense rocks of random shapes and sizes, resistant to the action of air and water and suitable for bank protection. All rocks shall weigh a minimum of 150 pounds.



**RIP-RAP DETAIL**  
NO SCALE

QUANTITIES			
ITEM	BID	AS-BUILT	MATERIAL/SUPPLIER
6" WATER	865 L.F.		
8" WATER	1510 L.F.		
8" SEWER	3090 L.F.		
F.H.'s	7		



**OWEN BROWN ESTATES**  
 SECTION I AREA I  
 LOTS 1 THRU 43  
 CONTRACT NO 2806 D W&S

B.M. ELEV. 398.47  
Nail in 12" Poplar

HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
L-485 F-219

1500000 N  
835500 E

JIERS, INCORPORATED  
L-288 F-500

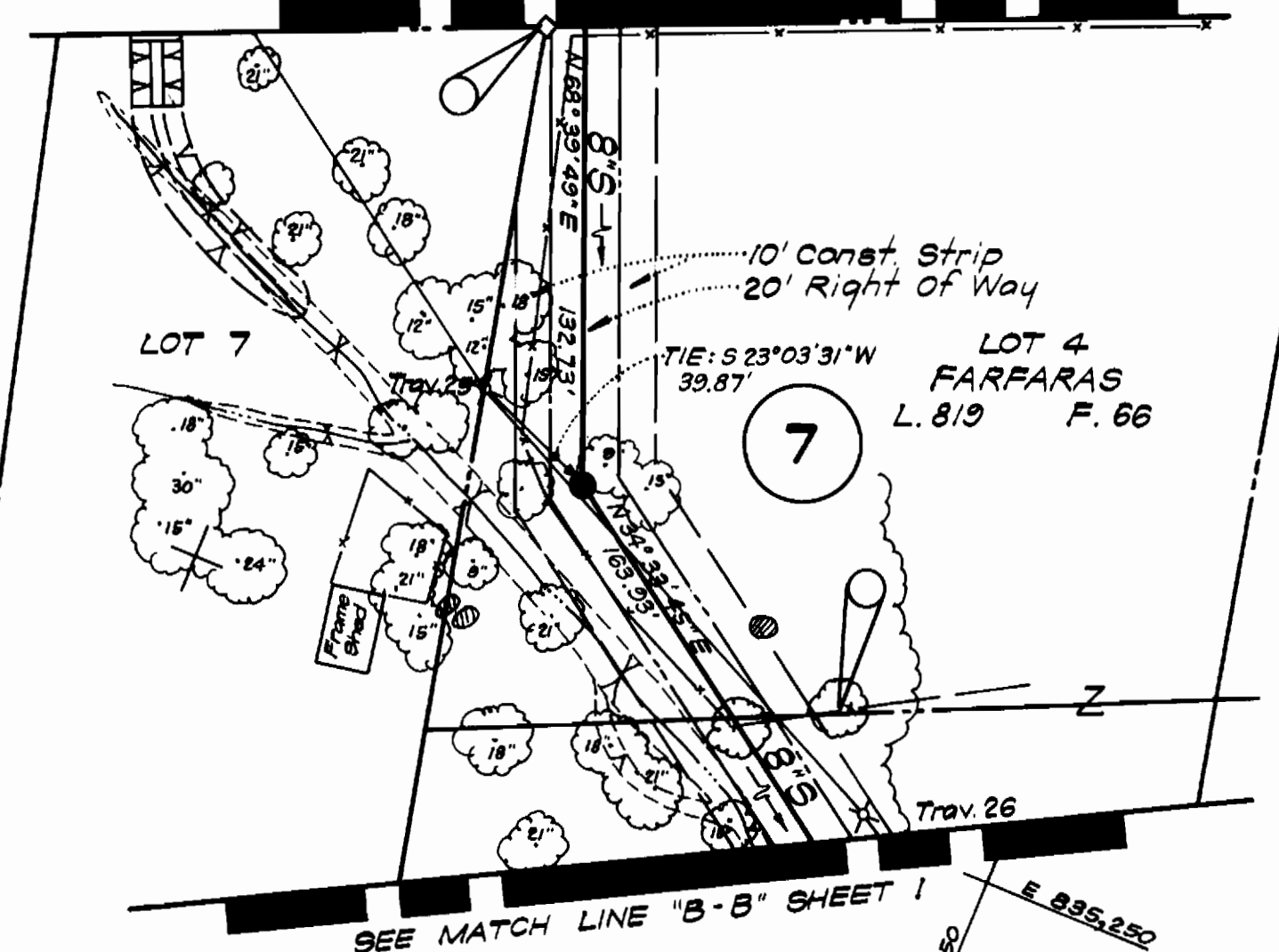
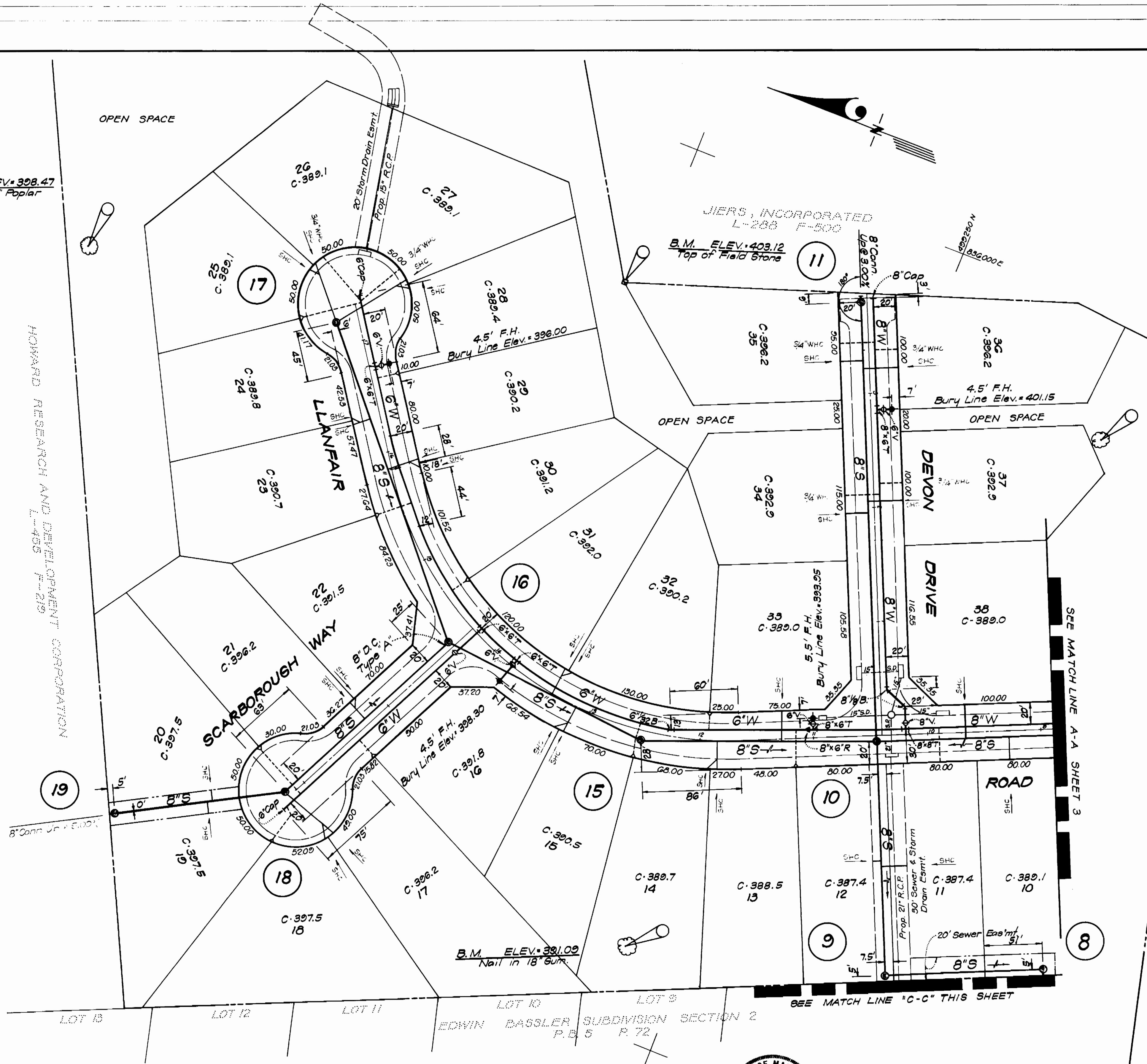
B.M. ELEV. 403.12  
Top of Field Stone

B.M. ELEV. 405.91  
Nail in 8" Oak

B.M. ELEV. 390.12  
Top of Conc. Monument

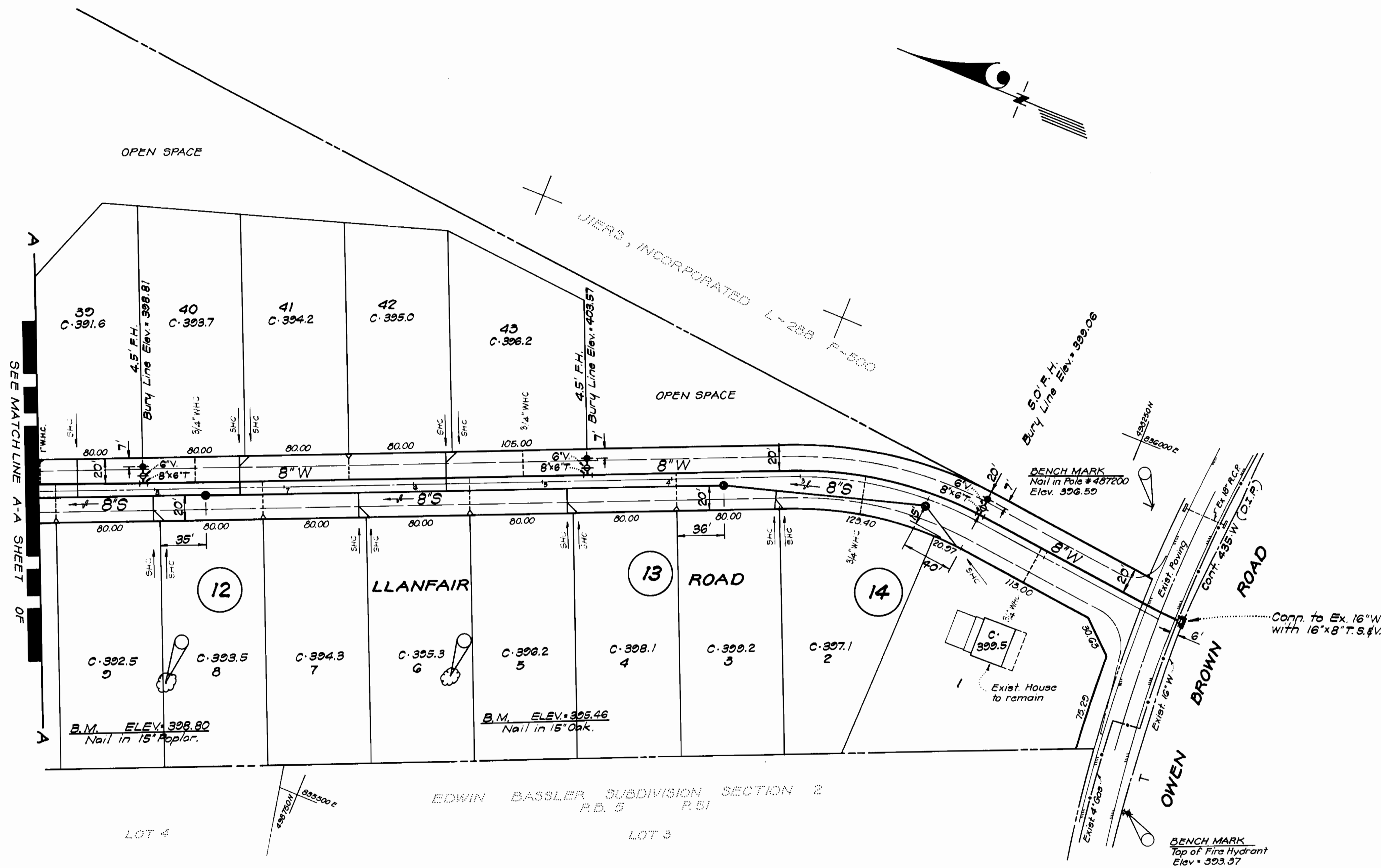
SEE MATCH LINE "C-C" THIS SHEET

B.M. ELEV. 384.22  
Small Spikes in 18" Poplar



*H. N. Cox*  
7-28-78

	CLARK • FINE • OAK & SACKEL, INC. ENGINEERS • PLANNERS • SURVEYORS 1161 N. HAMPSHIRE STREET • SPRING MAPLE, MD 20404	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Richard E. Freudenberg</i> 9/23/78 DIRECTOR OF PUBLIC WORKS DATE	CONTRACT NO. 1806 D W & S	PLAN OF WATER & SEWER MAINS	OWEN BROWN ESTATES SECTION I AREA I ELECTION DISTRICT - CLARKSVILLE No. 5	DRAWING NO. 2 OF 4	SCALE 1" = 50'
	<i>W. O. S. [Signature]</i> 8-22-78 CHIEF, BUREAU OF ENGINEERING DATE						



*S. M. Cook*  
7-28-78

**CLARK • FINEROCK & SAC ETT**  
ENGINEERS • PLANNERS SURVEYORS  
1200 N. WASHINGTON AVENUE • BALTIMORE, MARYLAND 21204

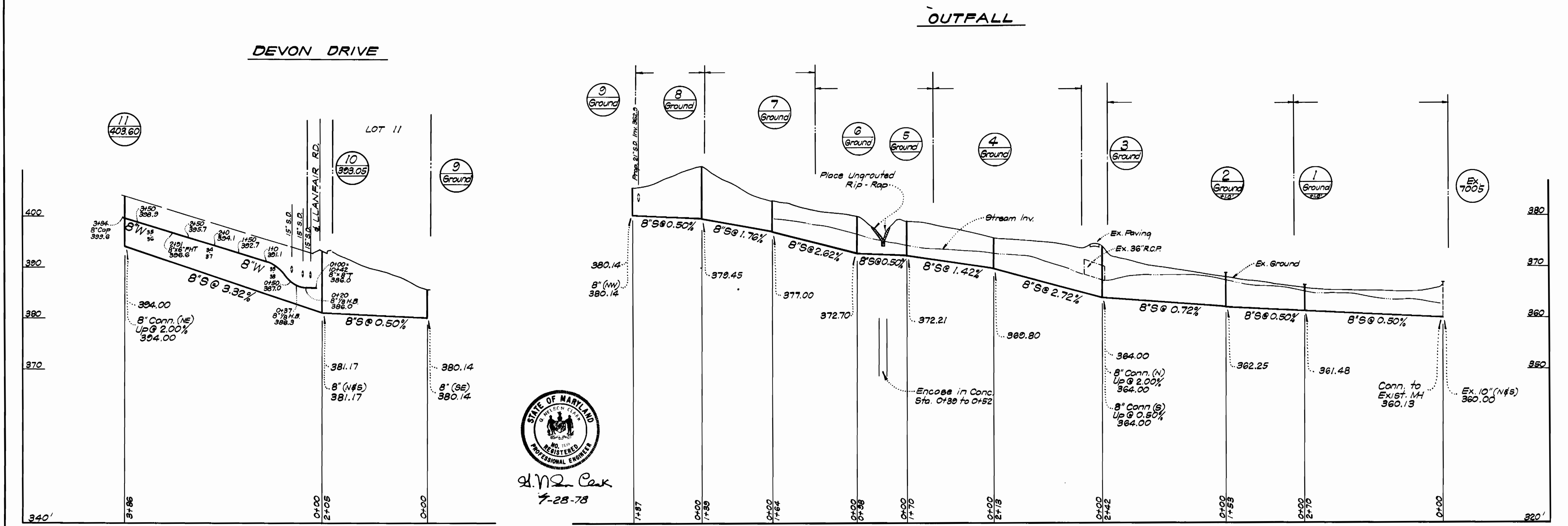
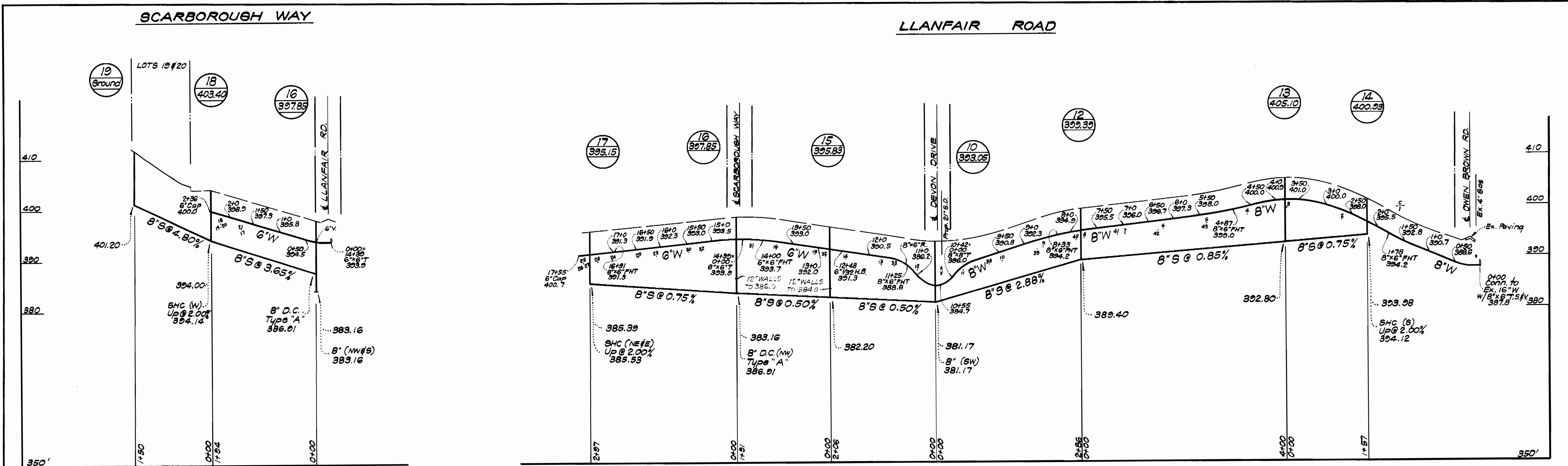
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Richard E. Brudenkamp* 8/23/78  
DIRECTOR OF PUBLIC WORKS DATE  
*W. O. Albert* 8-22-78  
CHIEF, BUREAU OF ENGINEERING DATE

CONTRACT NO. 2806 D WES

PLAN OF  
WATER & SEWER MAINS

OWEN BROWN ESTATES  
SECTION I AREA I  
ELECTION DISTRICT - CLARKSVILLE No. 5

DRAWING NO. <u>3</u> OF <u>4</u>	SCALE 1" = 50'
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W. O. Gilbert  
7-28-78

<p>CLARK • FINEROCK &amp; SACKE ENGINEERS • PLANNERS • SURVEYORS 1876 NEW HAMPSHIRE AVENUE • SUITE 505 • INC. 144317 • 20904</p>	<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Richard E. Brudenberg 8/23/78 DIRECTOR OF PUBLIC WORKS</p>	<p>CONTRACT NO. 2806 D W&amp;S</p>	<p>PROFILES OF WATER &amp; SEWER MAINS</p>	<p>OWEN BROWN ESTATES SECTION I AREA I ELECTION DISTRICT-CLARKVILLE No.5</p>	<p>DRAWING NO. 4 OF 4</p>	<p>SCALE HOR: 1"=100' VERT: 1"=10'</p>
	<p>W. O. Gilbert 8-22-78 CHIEF, BUREAU OF ENGINEERING</p>					