

**GENERAL NOTES**

1. Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. All 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 by 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. The Contractor shall notify the Baltimore Gas and Electric Company at least five (5) days prior to any construction in the vicinity of any gas and electric facilities by calling 796-8000. The Contractor shall notify the C.F.P. Telephone Company five (5) days prior to any construction in the vicinity of any Telephone Company facilities by calling collect 539-8000 in Baltimore.
9. Trees are to be protected from damage to maximum extent. All trees located within the construction strip are not to be removed or damaged by the Contractor.
10. All water services to be C.I.P., Copper or A.C.P. unless otherwise noted.
11. Top of all water services to have minimum of 3 1/2' cover unless otherwise noted.
12. All valves shall be strapped to trees in accordance with standard details.
13. Block all fitting with concrete, see standards bound in specifications.  
*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.*
14. All water meter shall be located inside building unless noted on the plans. (Water meters not a part of this contract).
15. All sewer mains shall be C.S.P.X., V.C.P.X., or A.C.P. Class 2400 unless otherwise noted.
16. The Contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole.
17. All manholes shall be 4'-0" inside diameter, unless otherwise noted.
18. Cost of polyfilter X and rip rap to be included in the unit price bid for furnishing and laying of sewer mains.

ESTIMATE OF QUANTITIES			
TYPE	QUANTITY	AS-BUILT	MATERIAL SUPPLIER
	PHASE 1		
8" SEWER MAIN	1403 LF		ACP -JM
8" WATER MAIN	---		
6" WATER MAIN	---		
FIRE HYDRANTS	---		

VILLAGE OF OWEN BROWN  
SECTION I, AREA 3  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

BENCH MARK # 905 EL. 323.64  
"X" on curb right of Sta. 78+00  
BENCH MARK # 906 EL. 315.22  
"X" on curb right of Sta. 83+00  
BENCH MARK # 910 EL. 325.73

Barry P. Rhoads, P.E., I.S.  
4/28/77

VILLAGE OF OWEN BROWN  
SECTION I, AREA 3  
CONTRACT No. 2622 D WFS  
PHASE 1

STOTTLER STAGG & ASSOCIATES / BREVARD ENGINEERING CO.  
ENGINEERS ARCHITECTS PLANNERS  
TEACHERS BUILDING COLUMBIA, MARYLAND

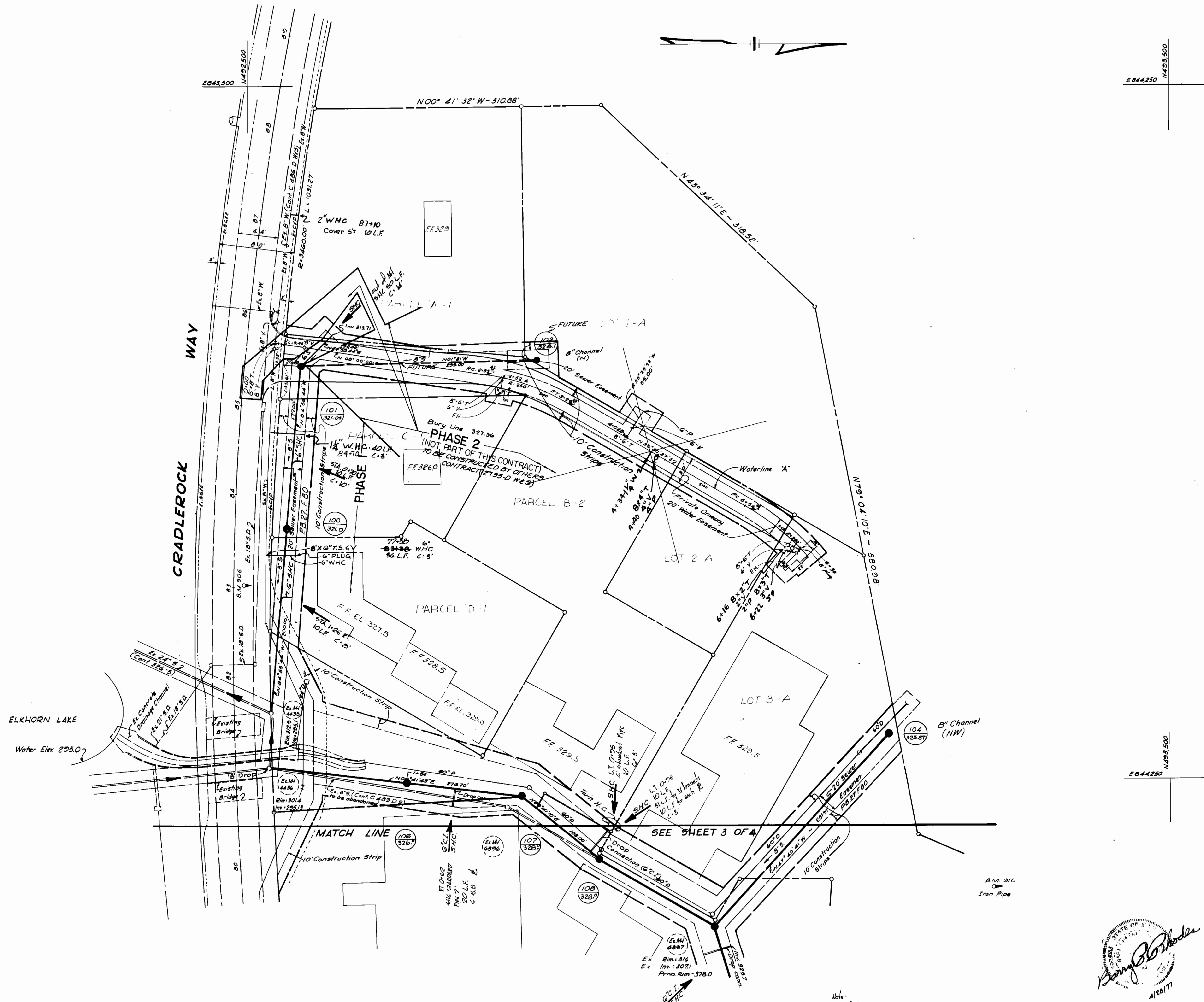
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
W. O. Gilbert 6-10-77  
DIRECTOR OF PUBLIC WORKS - DATE CHIEF BUREAU OF ENGINEERING - DATE

CONTRACT NO. 2622 D WFS

LOCATION MAP OF  
WATER AND SEWER MAINS

COLUMBIA  
VILLAGE OF OWEN BROWN  
ELECTION DISTRICT GUILFORD NO. 6

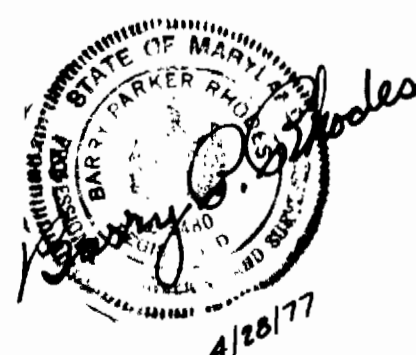
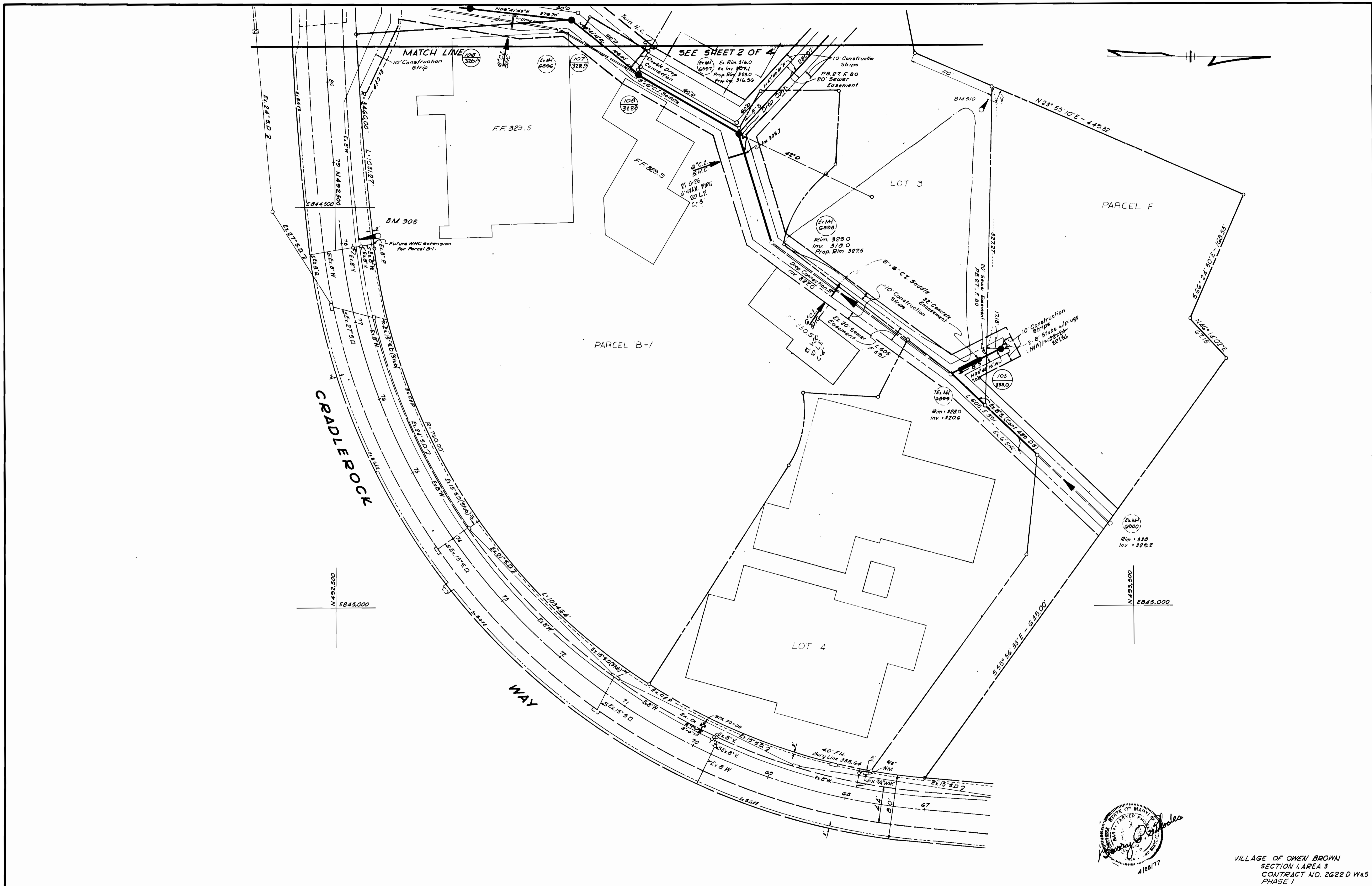
DRAWING  
NO. 1  
OF 4  
SCALE  
1"=600'



Barry D. Stagg

VILLAGE OF OWEN BROWN  
 SECTION 1, AREA 3  
 CONTRACT NO. 2622 D W&S  
 PHASE 1

STOTTLER STAGG & ASSOCIATES / BREVARD ENGINEERING CO. ENGINEERS ARCHITECTS PLANNERS TEACHERS BUILDING COLUMBIA, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND W. O. Moore 6-10-77 CHIEF BUREAU OF ENGINEERING - DATE	CONTRACT NO. 2622 D W&S	PLAN OF WATER AND SEWER MAINS	COLUMBIA VILLAGE OF OWEN BROWN ELECTION DISTRICT GUILFORD NO. 6	DRAWING NO. 2 OF 4	SCALE 1" = 50'
					DATE 5-5-77	



VILLAGE OF OWEN BROWN  
SECTION 1, AREA 3  
CONTRACT NO. 2622 D W&S  
PHASE 1

STOTTLER STAGG & ASSOCIATES / BREVARD ENGINEERING CO.  
ENGINEERS ARCHITECTS PLANNERS  
TEACHERS BUILDING COLUMBIA, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
P.P. Regan, Jr. 6-16-77  
DIRECTOR OF PUBLIC WORKS - DATE  
W.O. Lubat 6-16-77  
CHIEF - BUREAU OF ENGINEERING - DATE

CONTRACT NO. 2622 D W&S

PLAN OF  
WATER AND SEWER MAINS

COLUMBIA  
VILLAGE OF OWEN BROWN  
ELECTION DISTRICT GUILFORD NO. 6

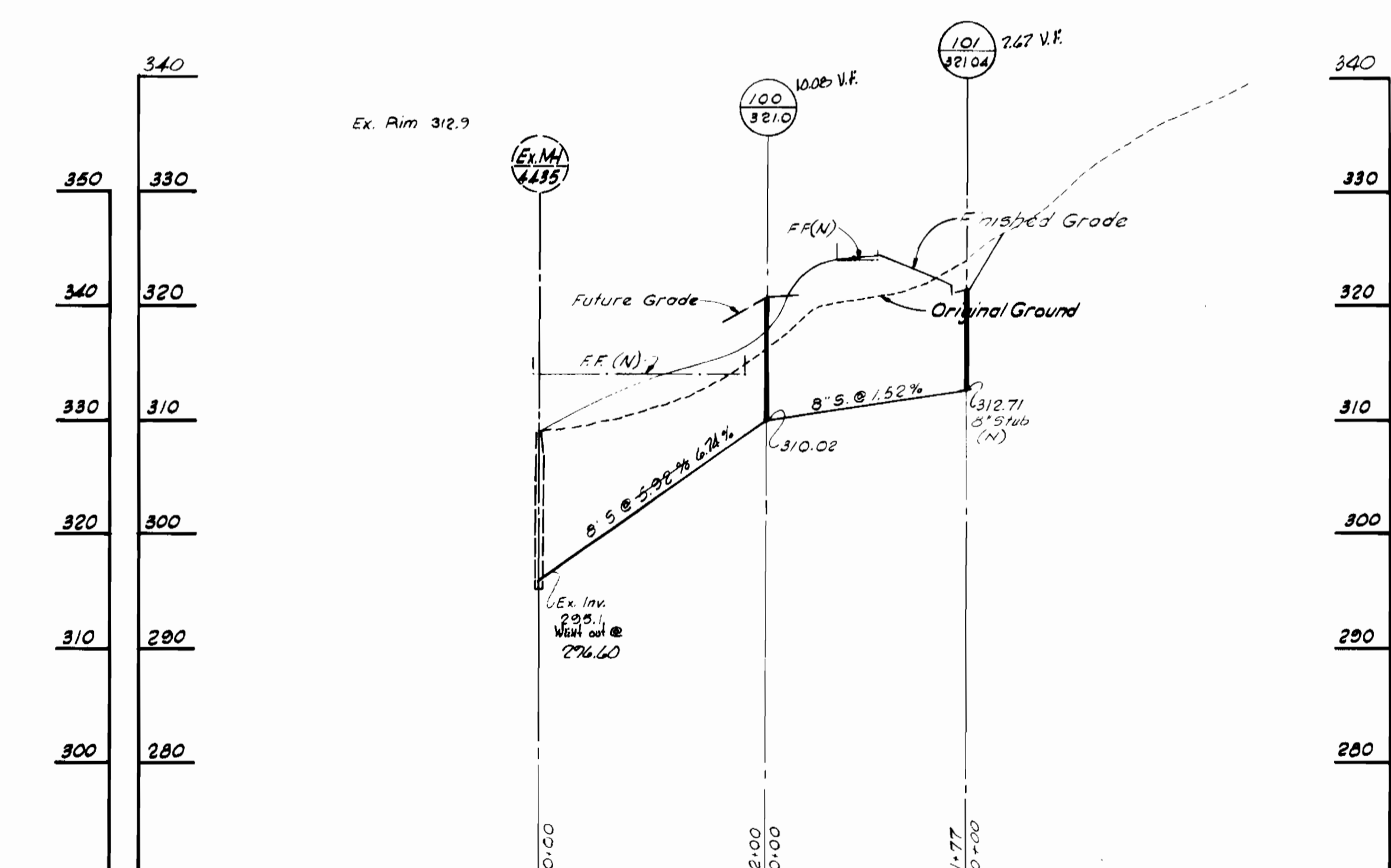
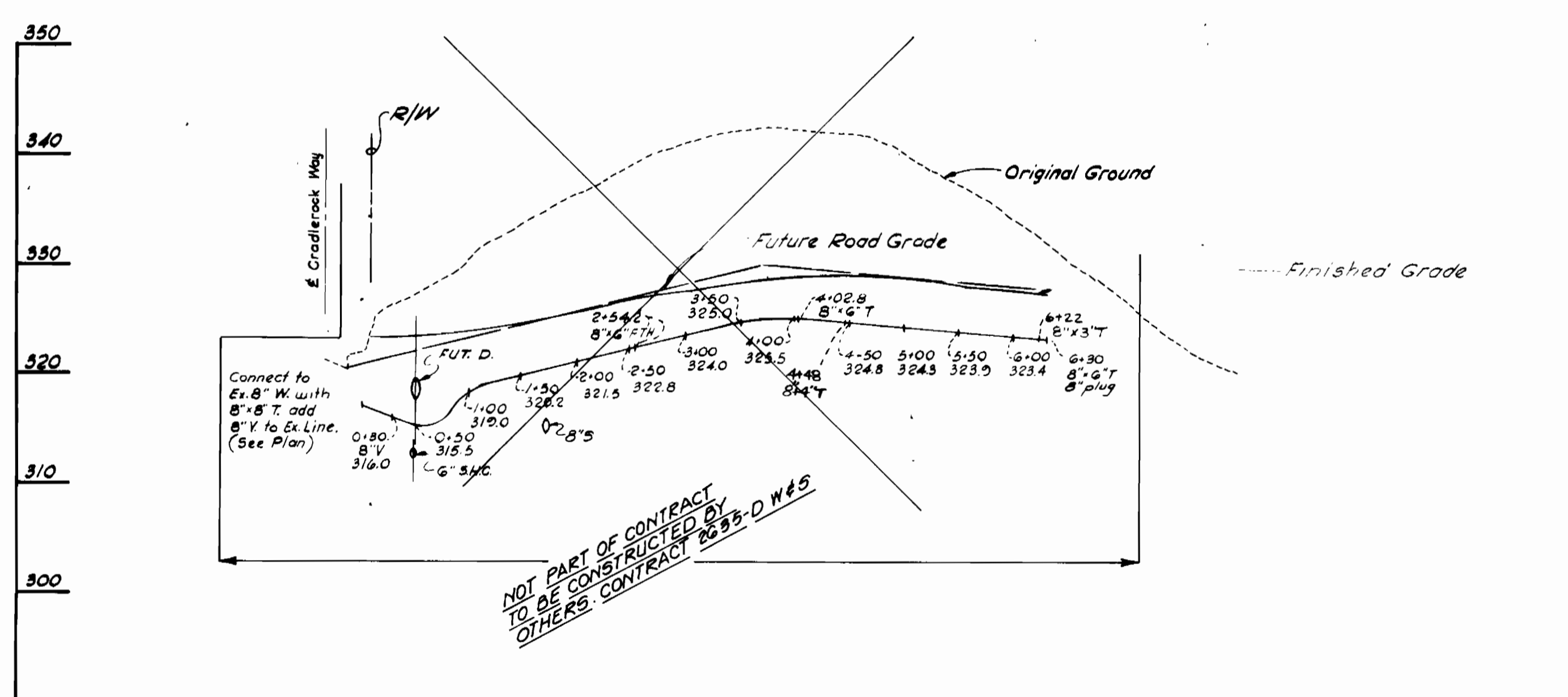
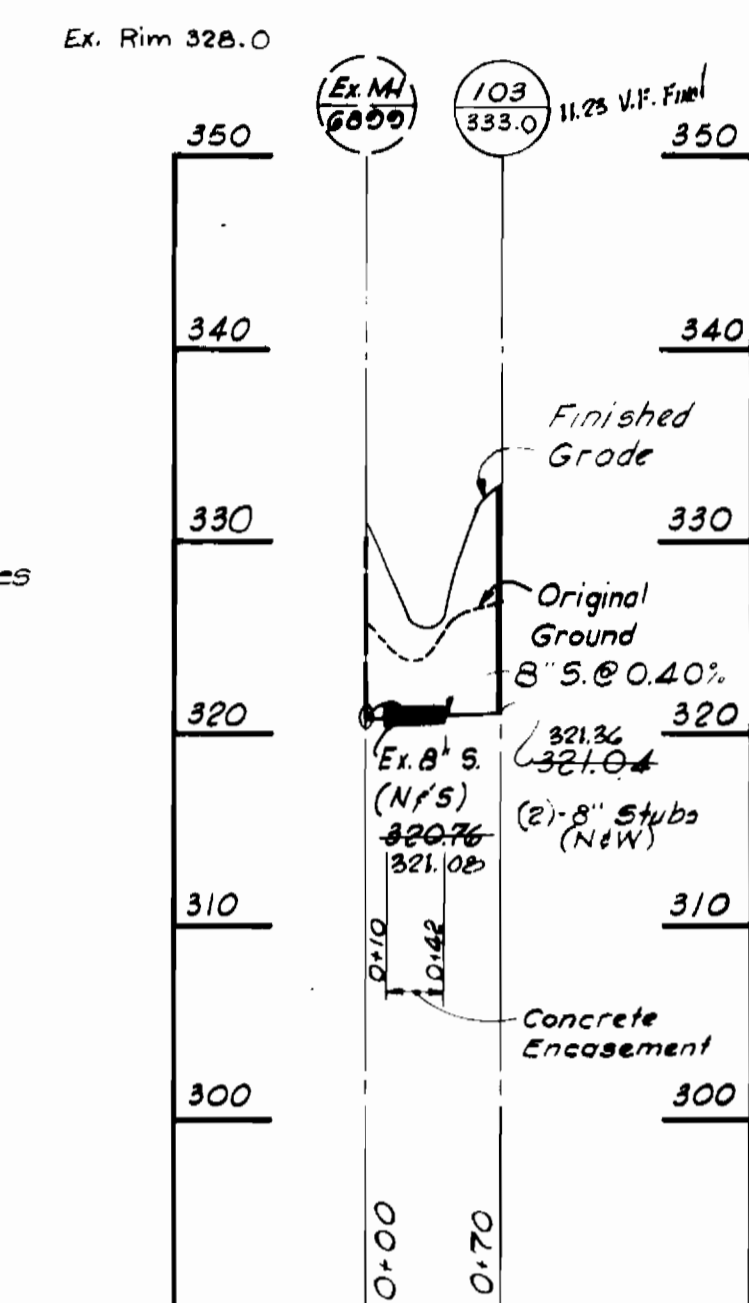
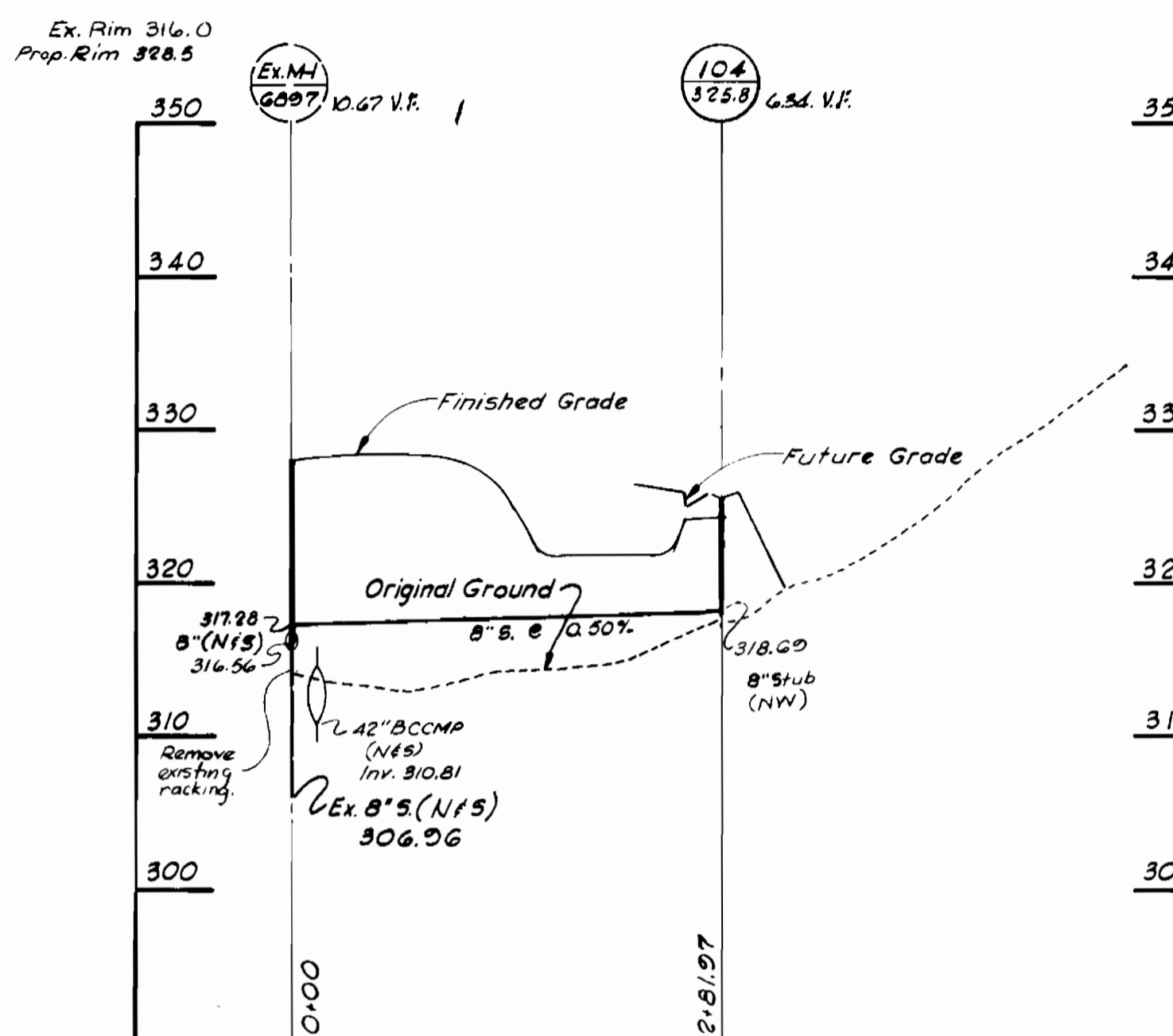
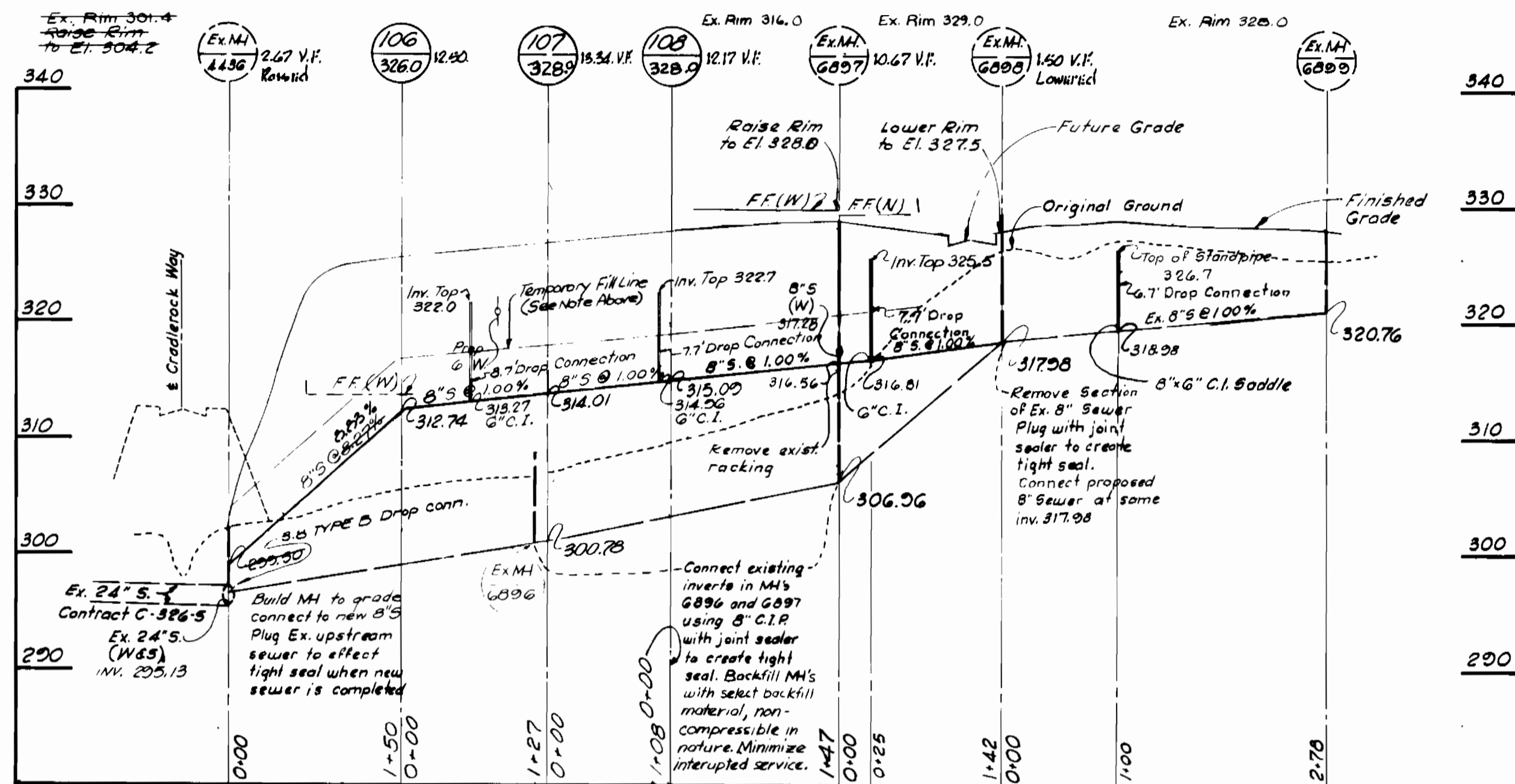
DRAWING NO. 3 OF 4	SCALE 1" = 50'
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**NOTE:**

A two (2) stage fill operation with the first stage in one (1) foot lifts compacted to 95% and the remainder in the prescribed manner. Compaction test will be made of one (1) foot lifts prior placing the next one (1) foot lift. First stage fill to be placed for construction of relocated 8" sewer line. Not to be exceeded until existing 8" sewer line, between MH # 106 and MH # 4436, is disconnected. CI 3000 AC (or equiv.) to be used between Ex. MH # 4436 and Ex. MH # 6099.

**SEQUENCE FOR CONSTRUCTION OF RELOCATED SANITARY SEWER BETWEEN MH 4436 & MH 6099**

- 1) Connect existing inverts (along the channel) within MH's 6096 & 6097 using 8" C.I.P. with joint sealer to create tight seal. Backfill MH's with select backfill material. Minimize interrupted service. Remove brick racking MH 6097.
- 2) A two (2) stage fill operation with the first stage in one (1) foot lifts compacted to 95% at T180 method, and the second stage as directed. Compaction tests will be made of one (1) foot lifts prior placing the next one (1) foot lift.
- 3) First stage fill to be placed for construction of relocated 8" sewer line up to "Temporary Fill Line" & then build new sewer line. Finished.
- 4) Build MH 4436 to the grade. Connect the new 8" line to sewer.
- 5) Remove section of existing 8" sewer of MH 6096. Plug with joint sealer to create tight seal. Connect new 8" sewer of same invert 317.28.
- 6) Also plug existing MH 4436 upstream sewer to effect tight seal.
- 7) Final grading to be performed after the existing 8" sewer line is disconnected and new sewer is put into operation.
- 8) Class 3000 type sewer pipe shall be used between MH 4436 & 6096.
- 9) Contractor shall notify Howard County Bureau of Utilities (465-3000, ext. 277) 48 hours prior to sewer relocation.



VILLAGE OF OWEN BROWN  
SECTION 1, AREA 3  
CONTRACT No. 2622 D W#5  
PHASE I

STOTTLER STAGG & ASSOCIATES / BREVARD ENGINEERING CO. ENGINEERS ARCHITECTS PLANNERS TEACHERS BUILDING COLUMBIA, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CONTRACT NO. 2622 D W#5	PROFILE OF WATER AND SEWER MAINS	COLUMBIA VILLAGE OF OWEN BROWN ELECTION DISTRICT GUILFORD NO. 6	DRAWING NO. 4	SCALE H 1"=100'
				OF 4	V 1"=10'