

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" SEWER	1040 LF	1,072		DRINKER STE PIPE FOUNDRY
4" SHC	801 LF	711		DRINKER STE PIPE & FOUNDRY
MANHOLES	7 EA			
8" WATER	711 LF	647		
6" WATER	417 LF	411		U.S. PIPE
4" WATER	32 LF	35		
3/4" WHC	808 LF	679		
FIRE HYDRANT	1 EA	1		
3" BLOWOFF	1 EA	1		

NAME OF UTILITY CONTRACTOR: CLINTON T. RAY, INC.

GENERAL NOTES	CHECKBOX
AS-BUILT DATE	
SURVEY AND DRAFTING DIVISION	

- 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 Engineer or the Contractor's expense.
- All horizontal controls are based on Maryland State Coordinates.
- All vertical controls are based on U.S.G.S. data.
- 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. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. In the event the contractor's work requires the bracing of additional poles, any cost incurred by the owner for bracing of additional poles or damages shall be deducted from money owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
- For details not shown on the drawings, and for materials and construction methods use Howard County Design Manual, Volume IV, Standard Specifications and Detail for Construction, (Latest Edition). The contractor shall have a copy of Volume IV on the job.
- Where test pits have been made on existing utilities, they are noted by the symbol at the location of the test pit. A note or notes containing the results of the test pit or pits is included on the drawings. Existing utilities in the vicinity of the proposed work for which test pits have not been dug shall be located by the contractor two weeks in advance of construction operations at his own expense.
- Contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:
 - State Highway Administration 531-5533
 - Baltimore Gas & Electric Co. Contractor Services 850-4820
 - Baltimore Gas & Electric Co. Underground Damage Control 787-8088
 - Water Utility 1-800-257-7777
 - Catalina Pipeline Co. 782-1390
 - Bureau of Utilities, Howard County Department of Public Works 313-4900
- Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs 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. Payment for such removal shall be included in the unit price bid for construction of the main.
- 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 trees shall be strapped to trees.
- All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
- Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be strapped and braced with concrete in accordance with Standard Details. Soil around the fire hydrant shall be compacted in accordance with Section 1000 and 1005 of the Standard Specifications.
- The contractor shall not operate any water main valves on the existing water system.
- All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
- All sewer mains shall be DIP, RCP, VOPX, CSPX, RCP and 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.
- Force mains shall be D.I.P. only.
- Manholes shown with 12" and 16" walls are for brick manholes only.
- Manholes designated W.F. in plan and profile shall have watertight frame and covers. Standard Detail 50-52. Where watertight manhole frame and cover is used, set top of frame 1"-8" above finished grade unless otherwise noted on the drawings.
- House(s) with the symbol "C.W.S." indicates that cellar cannot be served.

These approved water and sewer plans will replace previously approved Sunny Field Estates Section One Lots 1-25 Contract No. 14-1975-D, PART 5-21-1992.

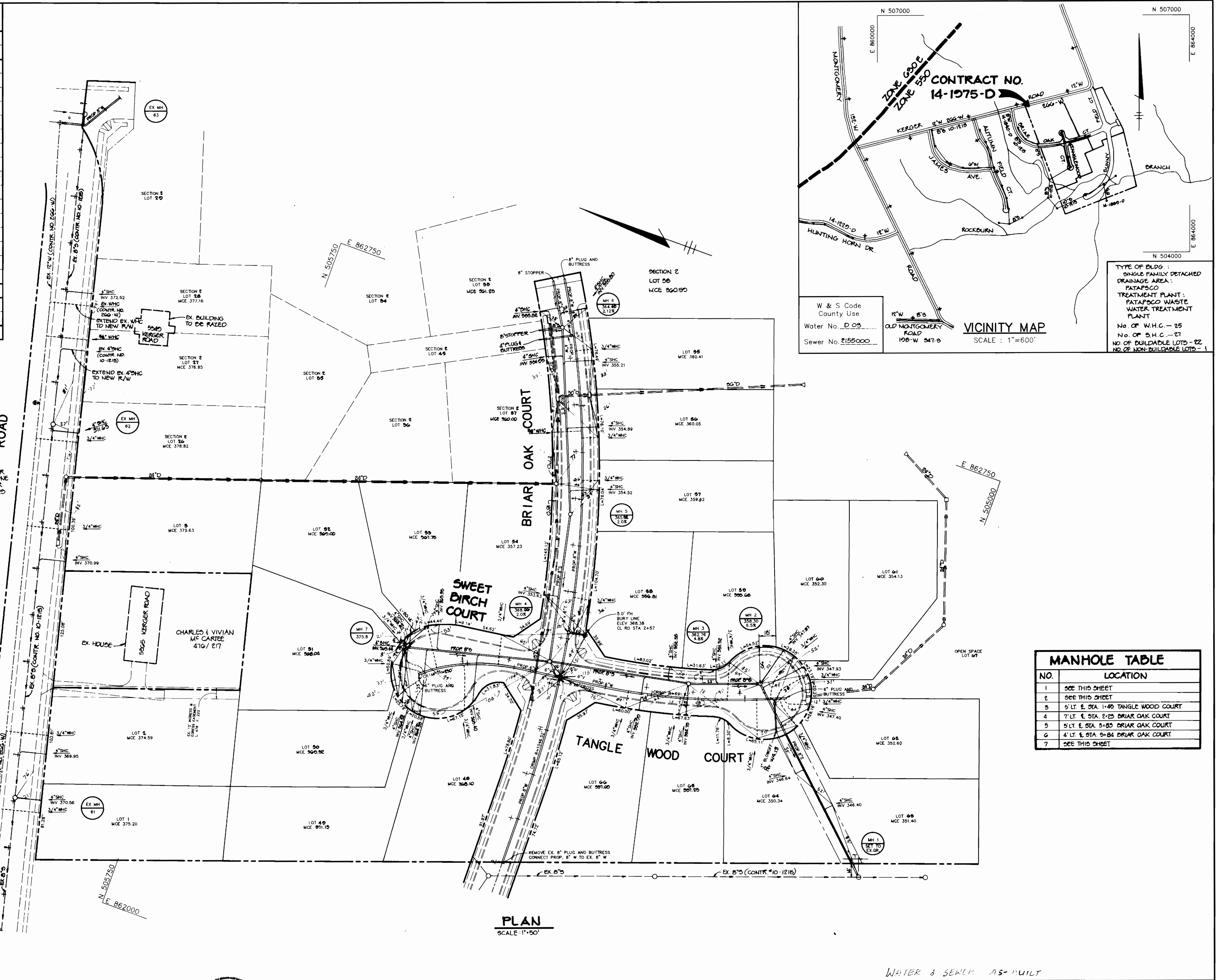
Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and is shown on F-89-232.

John L. Blanton
HOWARD SOIL CONSERVATION DISTRICT

Review for Howard Soil Conservation District and meet technical requirements.
John L. Blanton 3/12/93
U.S. SOIL CONSERVATION SERVICE DATE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

HOWARD SOIL CONSERVATION DISTRICT DATE



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James P. Ryan 3/4/93
DIRECTOR OF PUBLIC WORKS DATE

Robert Ryan 2-26-93
CHIEF, BUREAU OF UTILITIES DATE

Robert Ryan 3/1/93
CHIEF, LAND DEVELOPMENT DATE

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8616 Centre Park Drive • Suite 200 • Columbia, Md 21045
410-997-8000 FAX: 410-997-9282

J. Swarth
JAYKANT D. PAREKH # 10140



DES: C.J.R.	
DRN: WCW	
CHK:	
DATE: 2.25.93	
BY NO.	
REVISION	

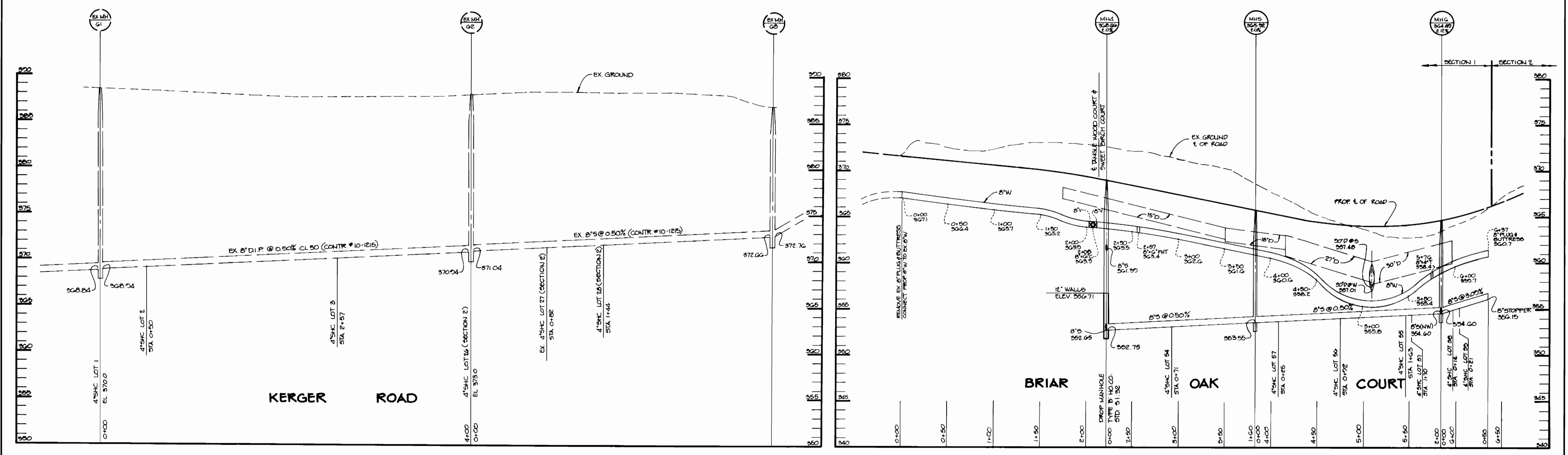
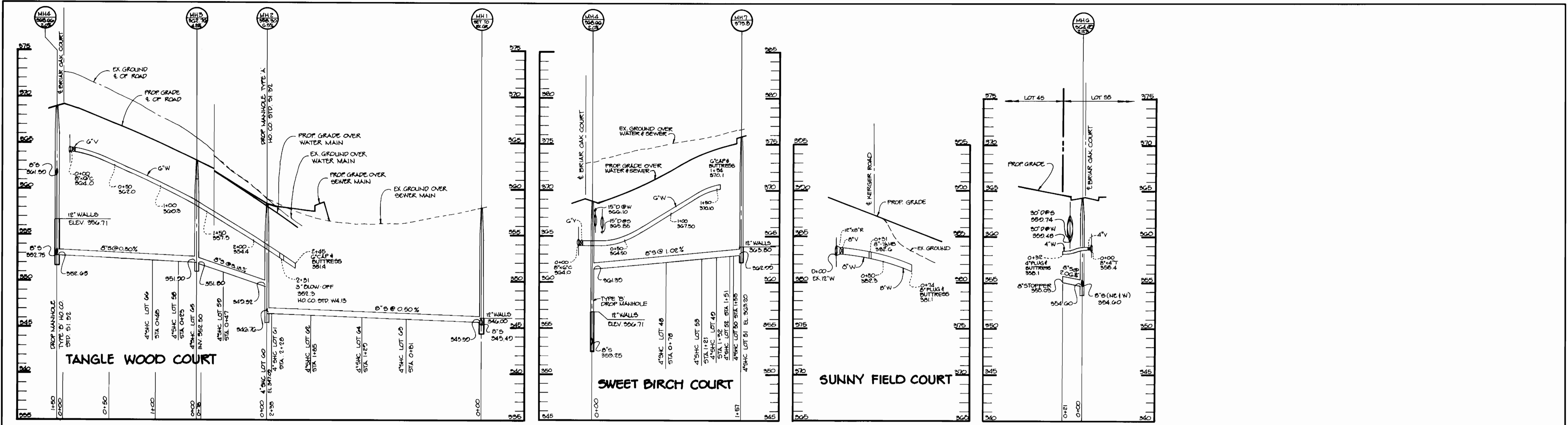
PLAN OF
WATER AND SEWER MAINS

600' SCALE MAP NO. 31 BLOCK NO. 21

WATER & SEWER AS-BUILT

SUNNY FIELD ESTATES
SECTION 1 LOTS 1-3
SECTION 1 LOTS 48-67
SECTION 2 LOTS 26-28 & 53, 57 & 58
1ST ELECTION DISTRICT
CONTRACT No. 14-1975-D

SCALE AS SHOWN
SHEET 1 OF 2
AS-BUILT



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

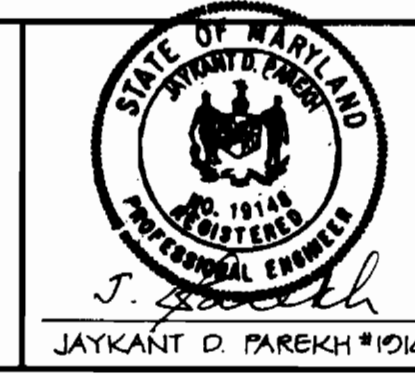
James M. Schum 2/4/93
DIRECTOR OF PUBLIC WORKS DATE

Richard S. Riley 3/4/93
CHIEF, BUREAU OF ENGINEERING DATE

Robert J. ... 2/26/93
CHIEF, BUREAU OF UTILITIES DATE

William ... 3/4/93
CHIEF, LAND DEVELOPMENT DATE

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
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410-997-8900 FAX: 410-997-8282



DES: CJR				
DRN: DAM				
CHK:				
DATE: 2.25.93	BY NO.	REVISION	DATE	

PROFILES OF
WATER AND SEWER MAINS

600' SCALE MAP NO. 31 BLOCK NO. 21

SUNNY FIELD ESTATES
SECTION 1 LOTS 1-5
SECTION 1A LOTS 4B-6G
SECTION 2 LOTS 26-28 & 35, 37 & 38
1ST ELECTION DISTRICT
CONTRACT No. 14-1975-D

SCALE
HOR: 1"=50'
VERT: 1"=5'

SHEET
2 OF 2

AS-BUILT