

**GENERAL NOTES**

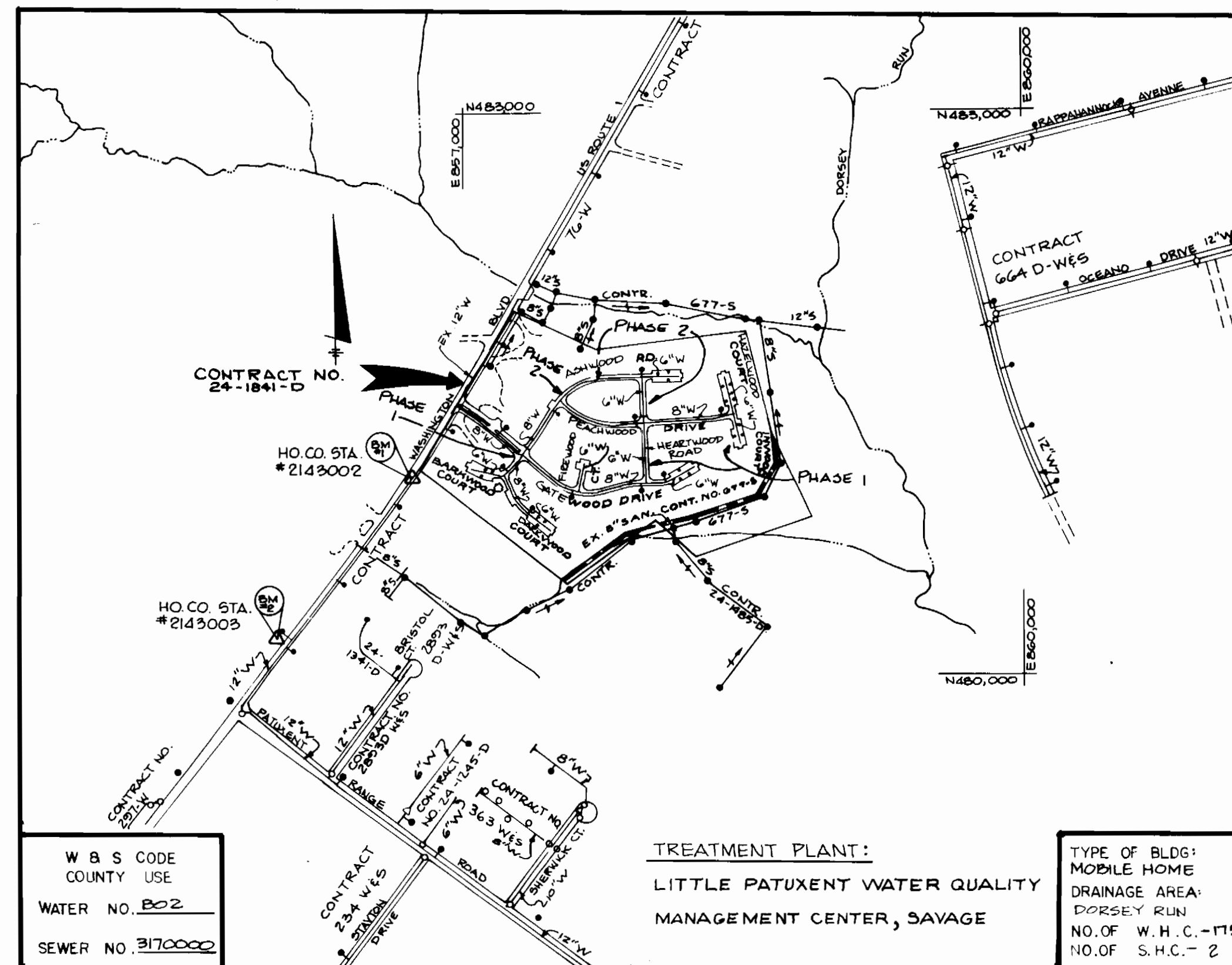
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE  $\ominus$  INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6".
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. 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  $\blacksquare$  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 VERIFIED BY THE CONTRACTOR TO HIS OWN PERSONAL SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 

STATE HIGHWAY ADMINISTRATION	531-5533
BALTIMORE GAS AND ELECTRIC CO. - CONTRACTOR SERVICES	850-4620
BALTIMORE GAS AND ELECTRIC CO. - UNDERGROUND DAMAGE CONTROL	859-9004
BALTIMORE GAS AND ELECTRIC CO. - TROUBLE SHOOTING	298-9001
MISS UTILITY	1-559-0100
COLONIAL PIPELINE CO.	795-1390
BUREAU OF UTILITIES, HO.CO. DEPARTMENT OF PUBLIC WORKS	313-4700
C & P TELEPHONE CO.	1-800-257-7777
- 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.
- THE 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.
- TOPS 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.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR IN THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1003 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 OUTSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- SERVICE CLAMPS ARE TO HAVE STAINLESS STRAPS.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH A.W.W.A. SPECIFICATION C-193, DUCTILE IRON COMPACT FITTINGS, 3" THROUGH 12" FOR WATER AND OTHER LIQUIDS.

# WATER MAIN EXTENSIONS BRENTWOOD MANOR CONTRACT NO. 24-1841-D 6TH ELECTION DISTRICT HOWARD COUNTY MARYLAND

**SHEET INDEX**

SHEET#	SHEET TITLE
1	TITLE SHEET
2	PLAN OF A WATER MAIN
3	PLAN OF A WATER MAIN
4	PROFILES OF A WATER MAIN
5	PROFILES OF A WATER MAIN
6	PROFILES OF A WATER MAIN



PHASE 1	PHASE 2	ITEM	Quantities		MATERIALS/SUPPLIER
			ESTIMATED	AS BUILT	
2,090 LF	1,280 LF	8" WATER	5,372 LF		
1,675 LF	519 LF	6" WATER	2,194 LF		
6 EA	3 EA	FIRE HYDRANTS	9 EA		
8 EA	2 EA	8" VALVES	10 EA		
9 EA	2 EA	6" VALVES (EXCL. FHYD)	11 EA		
1 EA	-	12" TAP SLEEVE VALVE	1 EA		
1,384 LF	445 LF	1" W.H.C.	1,789 LF		
284 LF	410 LF	3/4" W.H.C.	734 LF		
22 EA	10 EA	METER VAULT, SINGLE	33 EA		
49 EA	23 EA	METER VAULT, TWIN	71 EA		
6 EA	1 EA	3" BLOWOFFS	7 EA		
22 LF	-	PUBLIC SEWER 8"	22 LF		
94 LF	12 LF	4" WATER	106 LF		
6 EA	1 EA	4" VALVES	7 EA		
0 VF	-	MANHOLES	0 VF		

**SITES IN SERVICE**

PHASE 1 - 42 THRU 81, 96 THRU 127, 129 THRU 176  
 TOTAL: 119 MOBILE HOMES AND EX. MULTI-RESIDENCE HOUSE ON SITE 164.  
 PHASE 1 TOTAL CONNECTIONS: 120

PHASE 2 - 1 THRU 41, 82 THRU 95  
 TOTAL: 54 MOBILE HOMES AND EX. BUILDING TO BE USED AS A LAUNDRY FACILITY.  
 PHASE 2 TOTAL CONNECTIONS: 55

**BENCH MARKS**

- BM #1 - HO. CO. STA. #2143002 ELEV. = 243.15  
CONCRETE MONUMENT ON S.E. SIDE OF RTE #1  
1.4 MILES SW. OF RTE #175 (N48.041.15, E 856.244.8)
- BM #2 - HO. CO. STA. #2143003 ELEV. = 274.90  
CONCRETE MONUMENT ON N.E. SIDE OF RTE #1  
1107' NORTH OF BRIDGE ON RTE #1 OVER R.R. SPUR

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND AS SHOWN ON SDP-88-195

*Shirley L. ...* 8/3/87  
 HOWARD SOIL CONSERVATION DISTRICT DATE

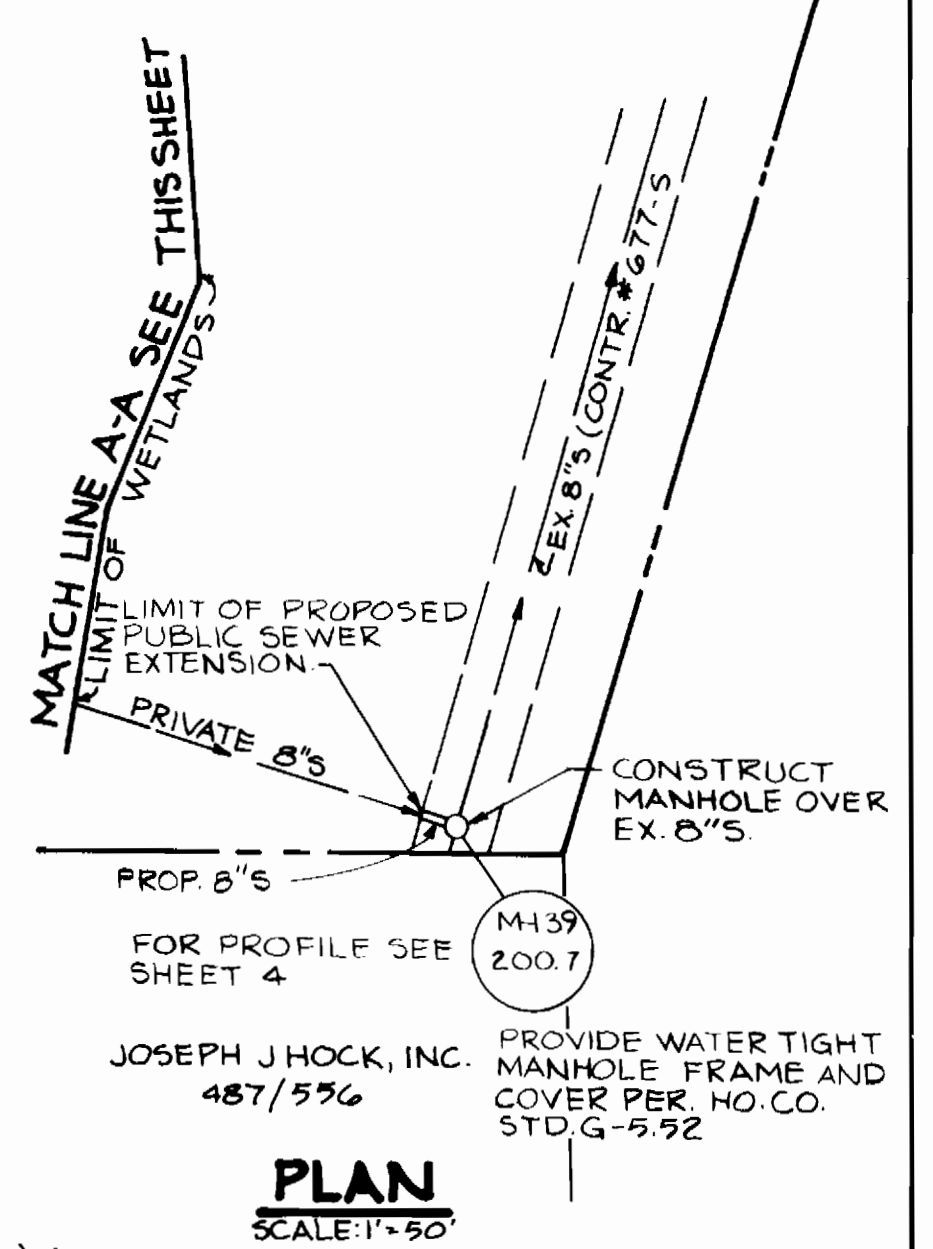
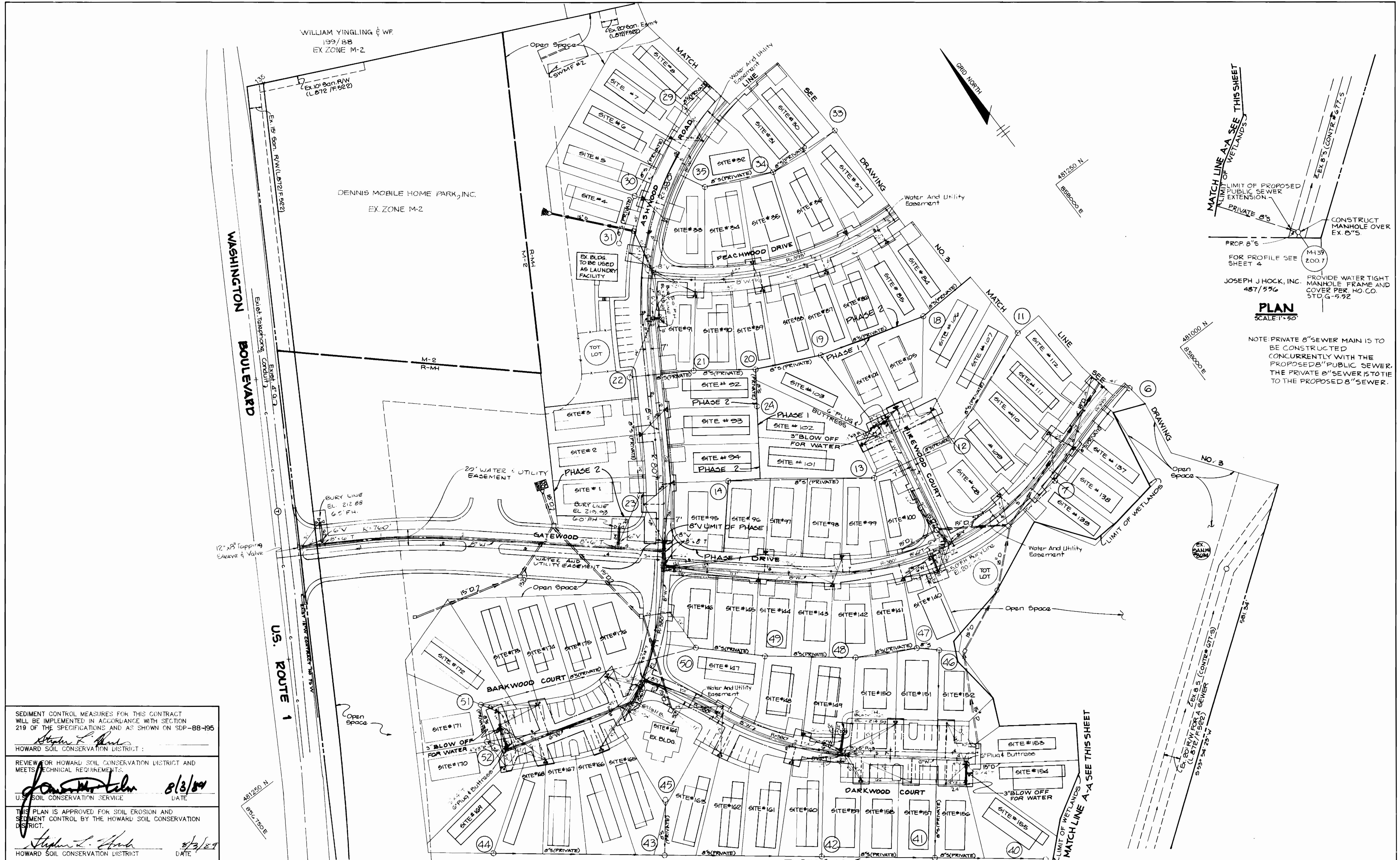
REVIEW FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*James M. ...* 8/3/89  
 U.S. SOIL CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Shirley L. ...* 8/3/87  
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>William W. ...</i> 8/2/89 DIRECTOR OF PUBLIC WORKS DATE <i>Richard ...</i> 8/1/89 CHIEF, BUREAU OF UTILITIES DATE	THE RIEMER GROUP INC. 3105 NORTH RIDGE ROAD ELLICOTT CITY, MARYLAND (301) 461-2690		DE. L.J.D. DRN: DOB CHK: JLB DATE: 12/16/88	SDK 1 BY NO. REVISION DATE: 10/4/91	TITLE SHEET 600' SCALE MAP NO. 43 BLOCK NO. 20	BRENTWOOD MANOR - PARCEL 'A' 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 24-1841-D AS-BUILT	SCALE AS SHOWN SHEET 1 OF 6
--	---	--	--	--	---	--	--------------------------------



**PLAN**  
SCALE: 1"=50'

NOTE: PRIVATE 8" SEWER MAIN IS TO BE CONSTRUCTED CONCURRENTLY WITH THE PROPOSED 8" PUBLIC SEWER. THE PRIVATE 8" SEWER IS TO TIE TO THE PROPOSED 8" SEWER.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND AS SHOWN ON SDP-88-495

*Stephen L. Hank*  
HOWARD SOIL CONSERVATION DISTRICT

REVIEW FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*Stephen L. Hank* 8/3/09  
U.S. SOIL CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Stephen L. Hank* 8/3/09  
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Franklin W. Wellwood* 8/2/09  
DIRECTOR OF PUBLIC WORKS DATE

*Paul J. Ryan* 8/1/09  
CHIEF, BUREAU OF ENGINEERING DATE

*Paul J. Ryan* 8/1/09  
CHIEF, BUREAU OF UTILITIES DATE

THE RIEMER GROUP INC.  
3105 NORTH RIDGE ROAD  
ELlicott CITY, MARYLAND  
(301) 461-2690

ARTHUR E. MUEGGE #5707

DES: L.J.D.	
DRN: J.L.B.	
CHK:	
DATE: 12/16/08	
BY: NO.	
NO. 1	RELOCATED 8" W. IN WATERWOOD DR. TO ASHWOOD RD., REVISED ROAD NAMES, SHOWED PHASE 1 & 2 LIMITS
10/4/09	

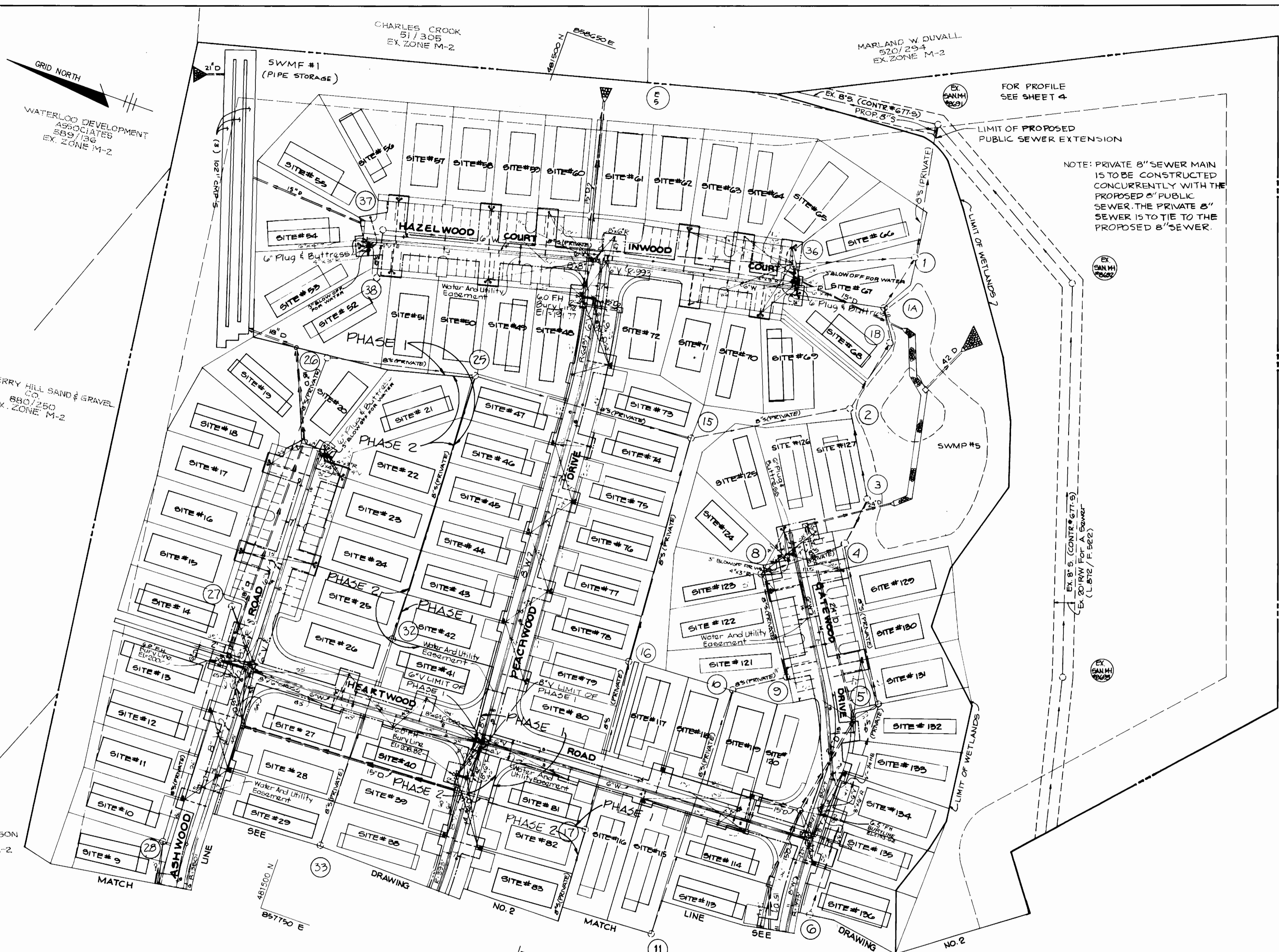
PLAN OF A WATER MAIN

600' SCALE MAP NO. 43 BLOCK NO. 20

BRENTWOOD MANOR - PARCEL 'A'  
6th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 24-1841-D

SCALE: 1"=50'  
SHEET 2 OF 6

AS-BUILT



GRID NORTH  
 WATERLOO DEVELOPMENT ASSOCIATES  
 589/136  
 EX. ZONE M-2

CHERRY HILL SAND & GRAVEL CO.  
 880/250  
 EX. ZONE M-2

JOHN J. JOHNSON  
 201/537  
 EX. ZONE M-2

MARLAND W. DUVAL  
 520/294  
 EX. ZONE M-2

FOR PROFILE  
 SEE SHEET 4

NOTE: PRIVATE 8" SEWER MAIN IS TO BE CONSTRUCTED CONCURRENTLY WITH THE PROPOSED 6" PUBLIC SEWER. THE PRIVATE 8" SEWER IS TO TIE TO THE PROPOSED 8" SEWER.

MARLAND W. DUVAL  
 520/294  
 EX. ZONE M-2

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND AS SHOWN ON SDF-88-195

HOWARD SOIL CONSERVATION DISTRICT:  
 REVIEW FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*John Matlock* 8/2/89  
 U.S. SOIL CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Stephen A. Huh* 8/2/89  
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*William W. Welland* 2/2/89  
 DIRECTOR OF PUBLIC WORKS DATE  
*Paul J. Brown* 8/1/89  
 CHIEF, BUREAU OF ENGINEERING DATE  
*Robert A. Adams* 7/8/89  
 CHIEF, BUREAU OF UTILITIES DATE  
*Paul J. Brown* 8/1/89  
 CHIEF, LAND DEVELOPMENT DATE

THE RIEMER GROUP INC.  
 3105 NORTH RIDGE ROAD  
 ELLICOTT CITY, MARYLAND  
 (301) 461-2690

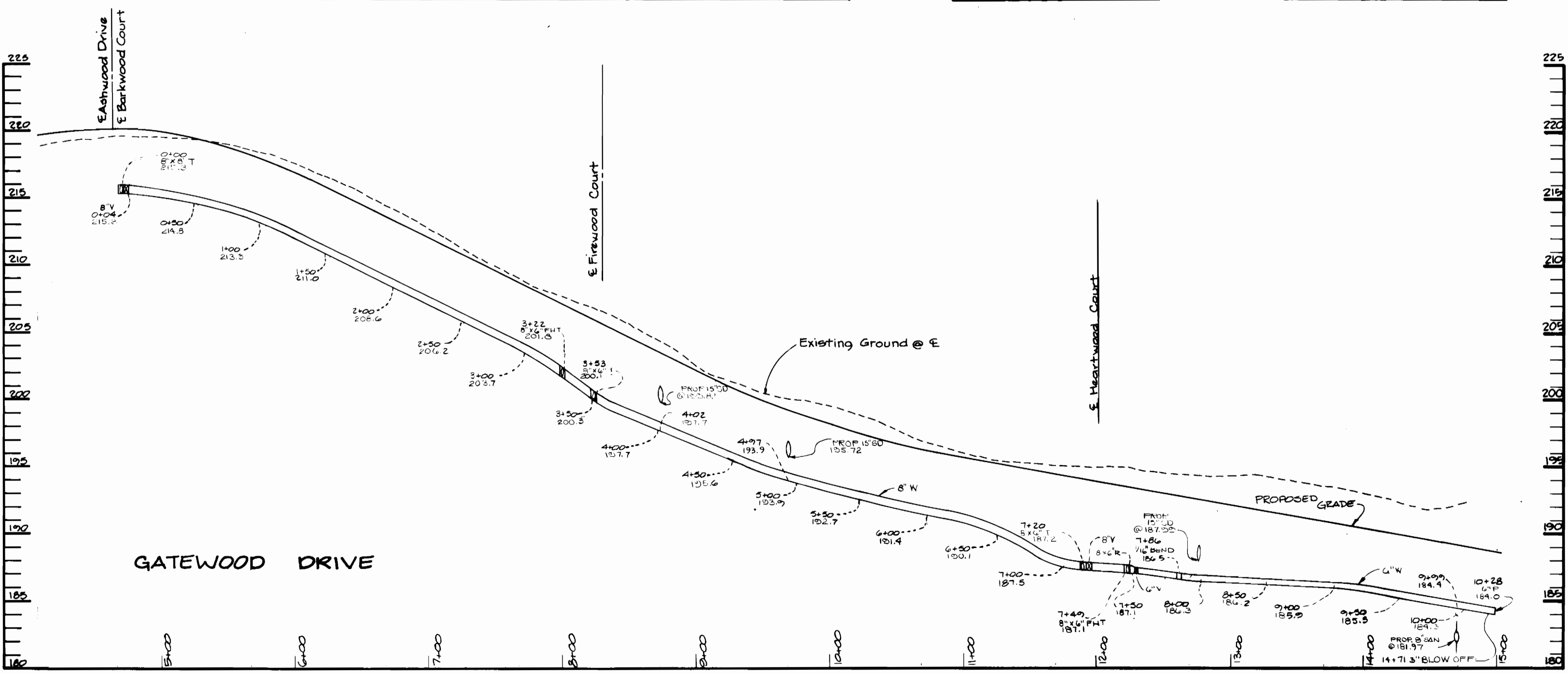
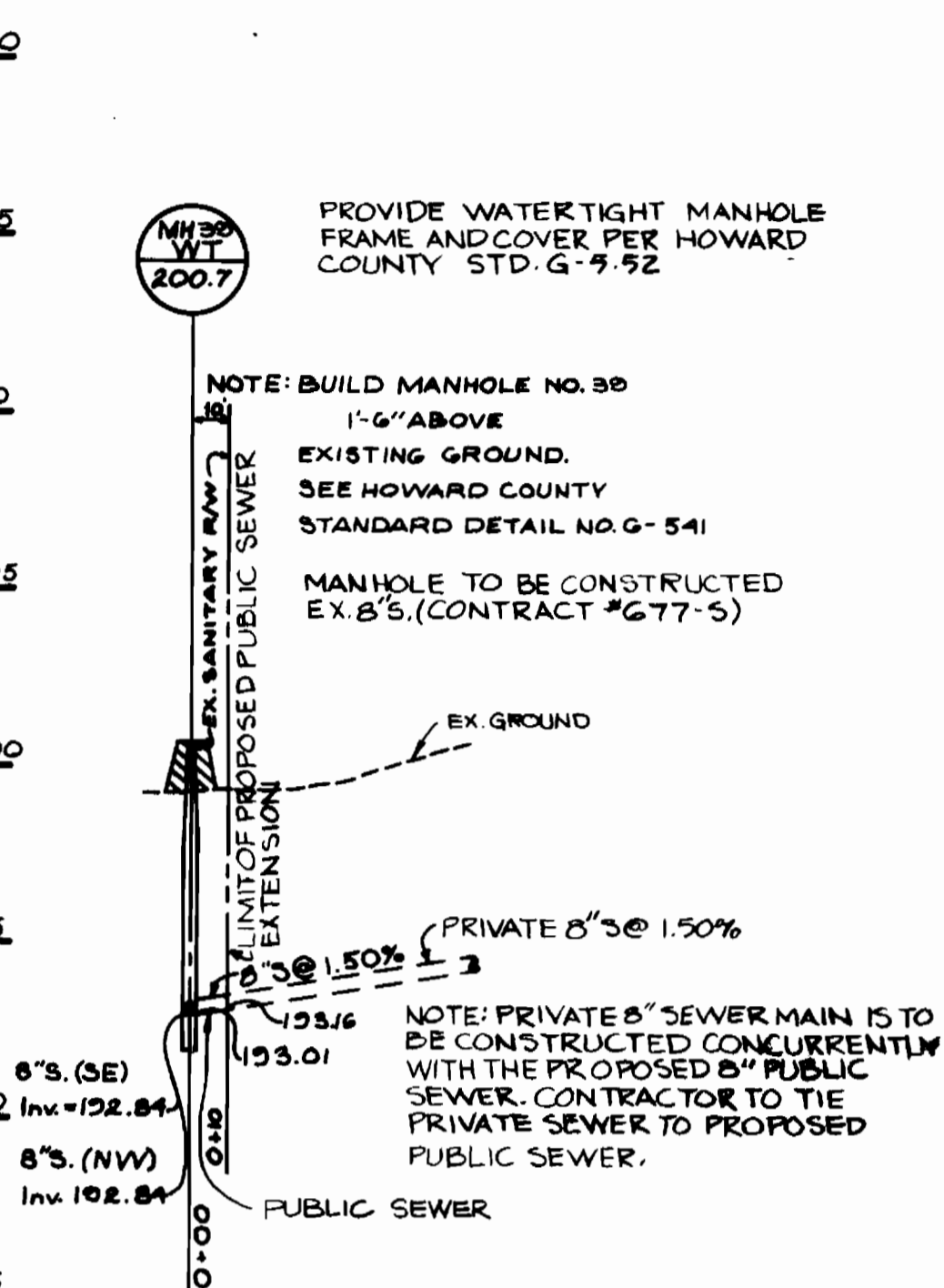
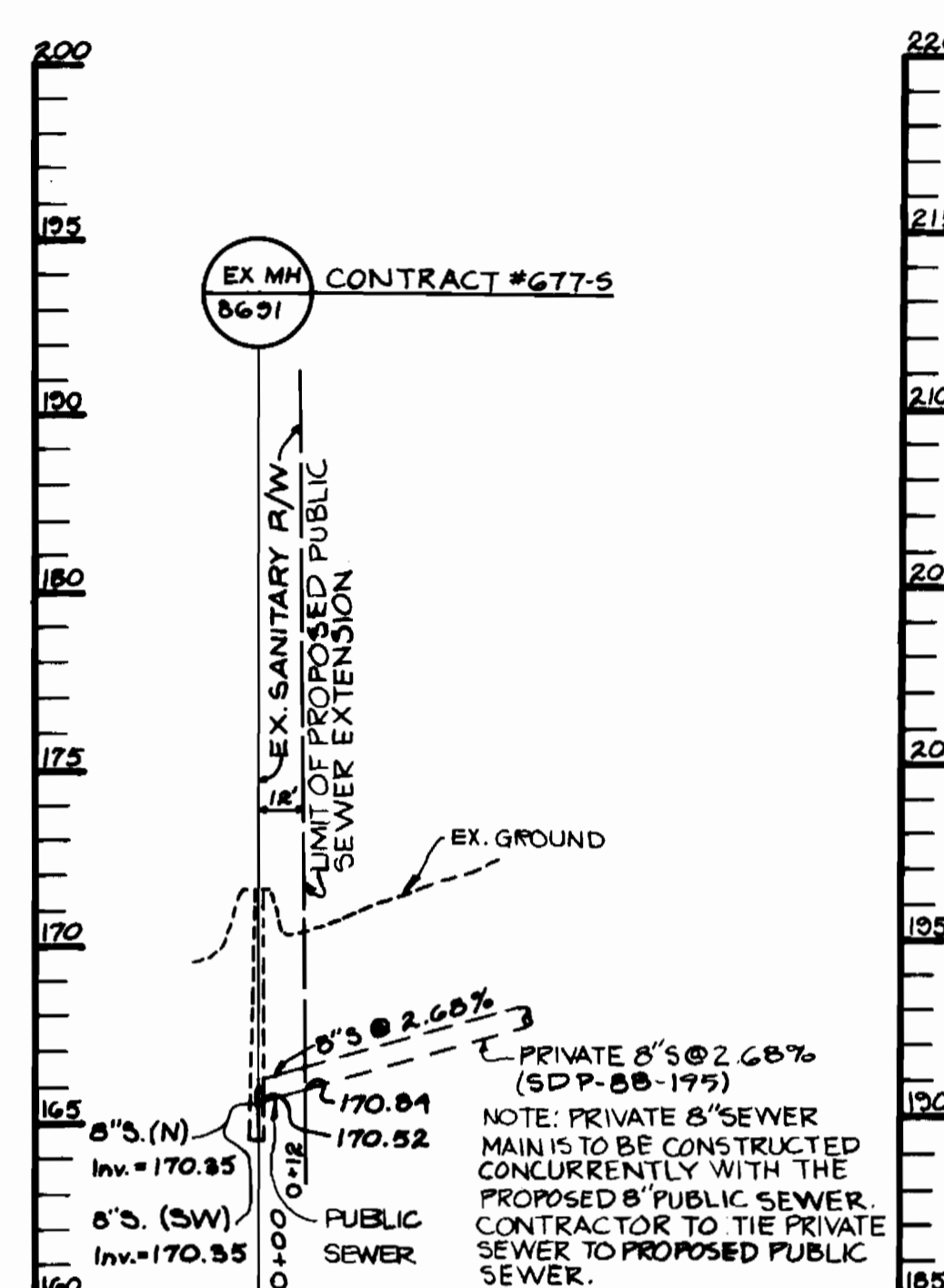
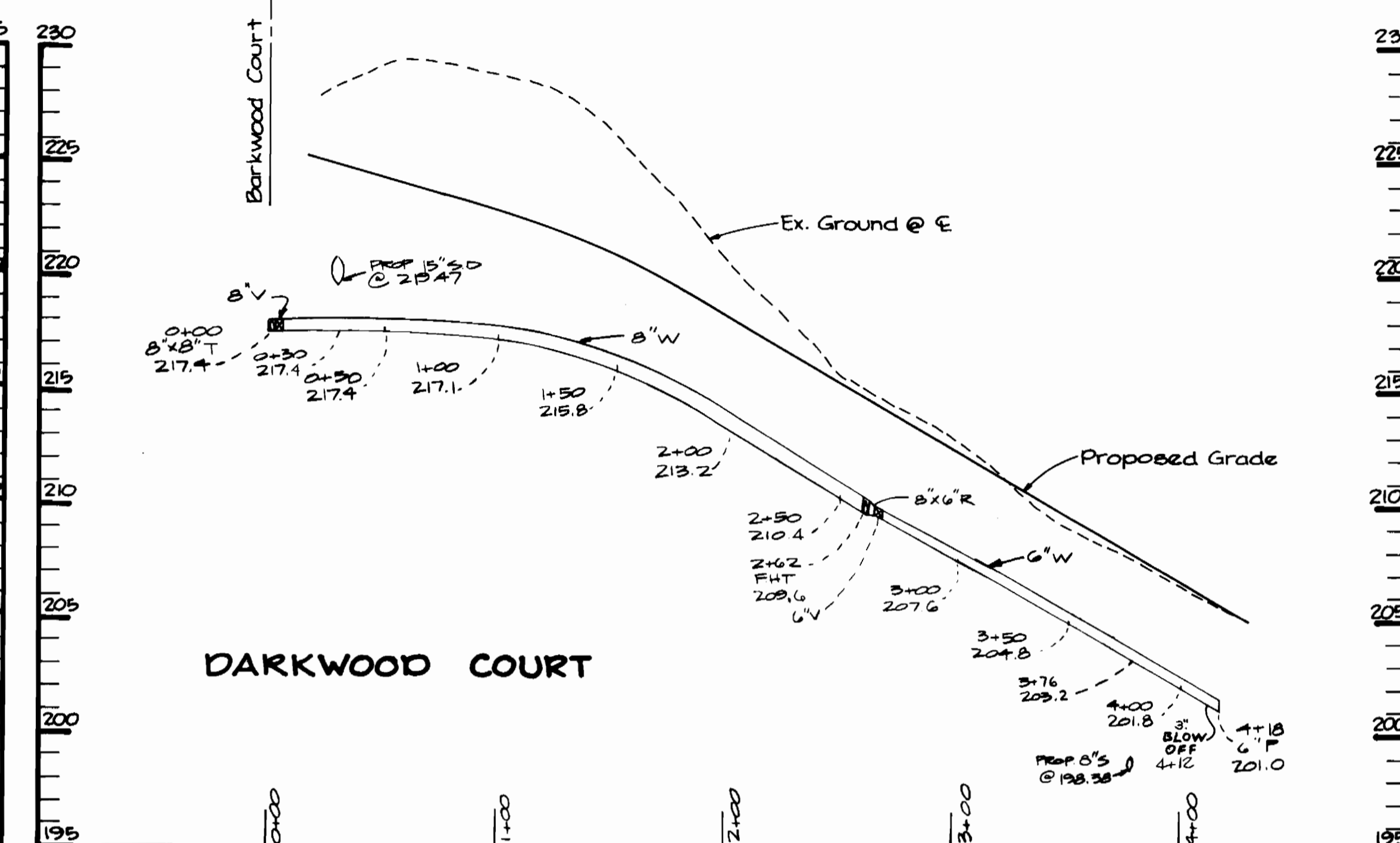
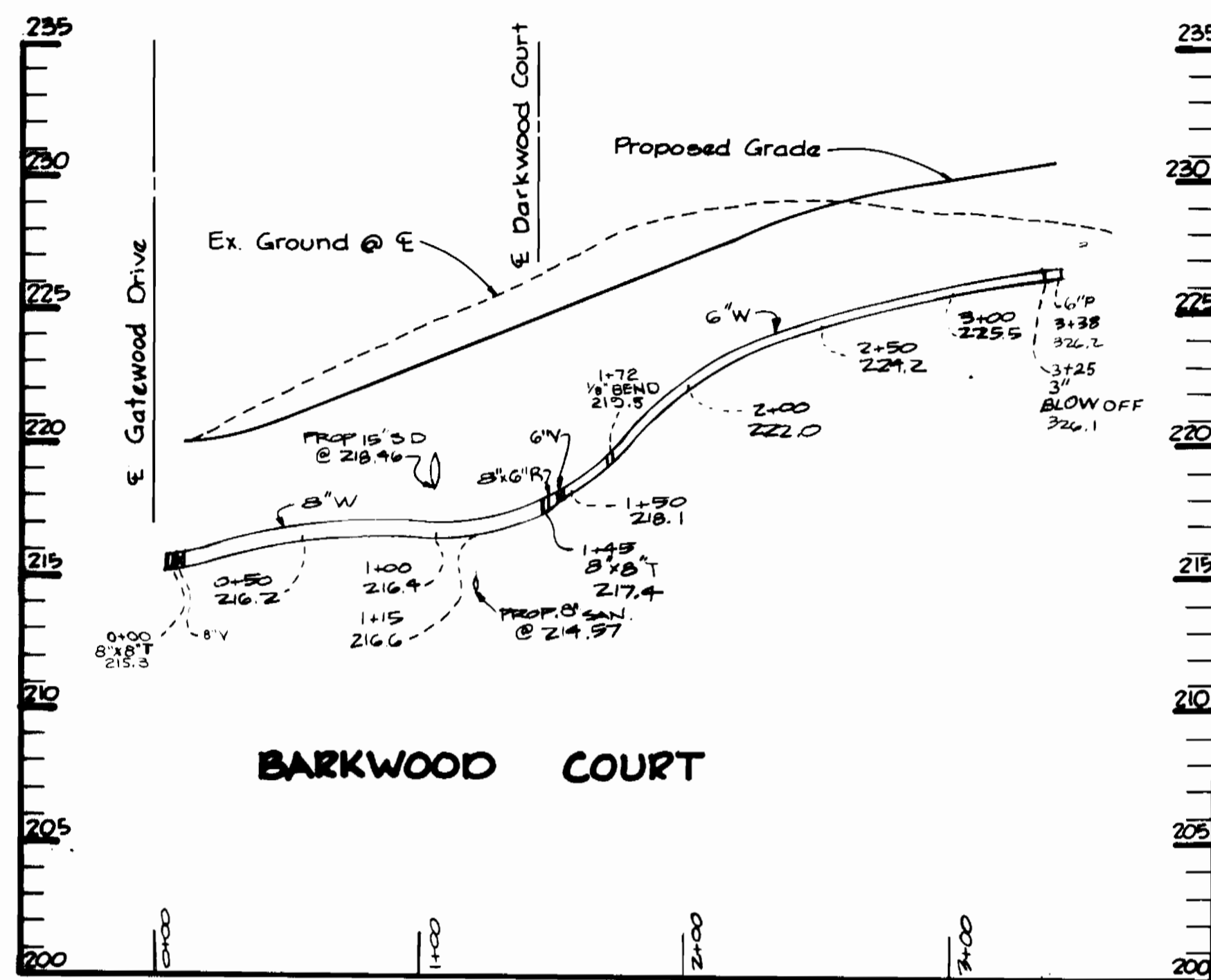
ARTHUR E. MUEGGE #8707

DES: L.J.D.  
 URN: J.L.B.  
 CHK: J.J.B.  
 DATE: 12/16/88  
 SDX 1  
 BY NO. REVISION DATE

PLAN OF A WATER MAIN  
 600' SCALE MAP NO. 43 BLOCK NO. 20

BRENTWOOD MANOR-PARCEL 'A'  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT NO. 24-1841-D

SCALE 1"=50'  
 SHEET 3 OF 6



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

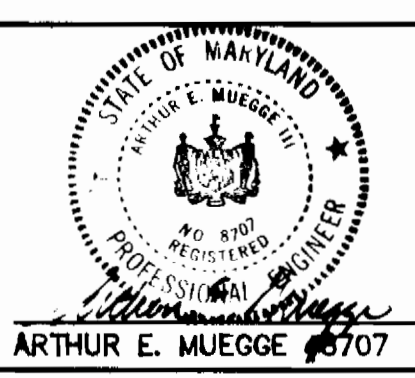
*Spencer W. Wickard* 2/12/87  
DIRECTOR OF PUBLIC WORKS DATE

*Paul J. Ryan* 2/12/87  
CHIEF, BUREAU OF ENGINEERING DATE

*Mark A. ...* 2/12/87  
CHIEF, BUREAU OF UTILITIES DATE

*Paul J. Ryan* 2/11/87  
CHIEF, LAND DEVELOPMENT DATE

THE RIEMER GROUP INC.  
3105 NORTH RIDGE ROAD  
ELLCOTT CITY, MARYLAND  
(301) 461-2690



DES:	L.J.D.			
DRN:	J.L.B.			
CHK:	J.J.B.			
DATE:	12/14/88			
BY:				
SOK:	1	REVISED PROFILE, CHANGED STREET NAMES	10/4/91	
NO.		REVISION	DATE	

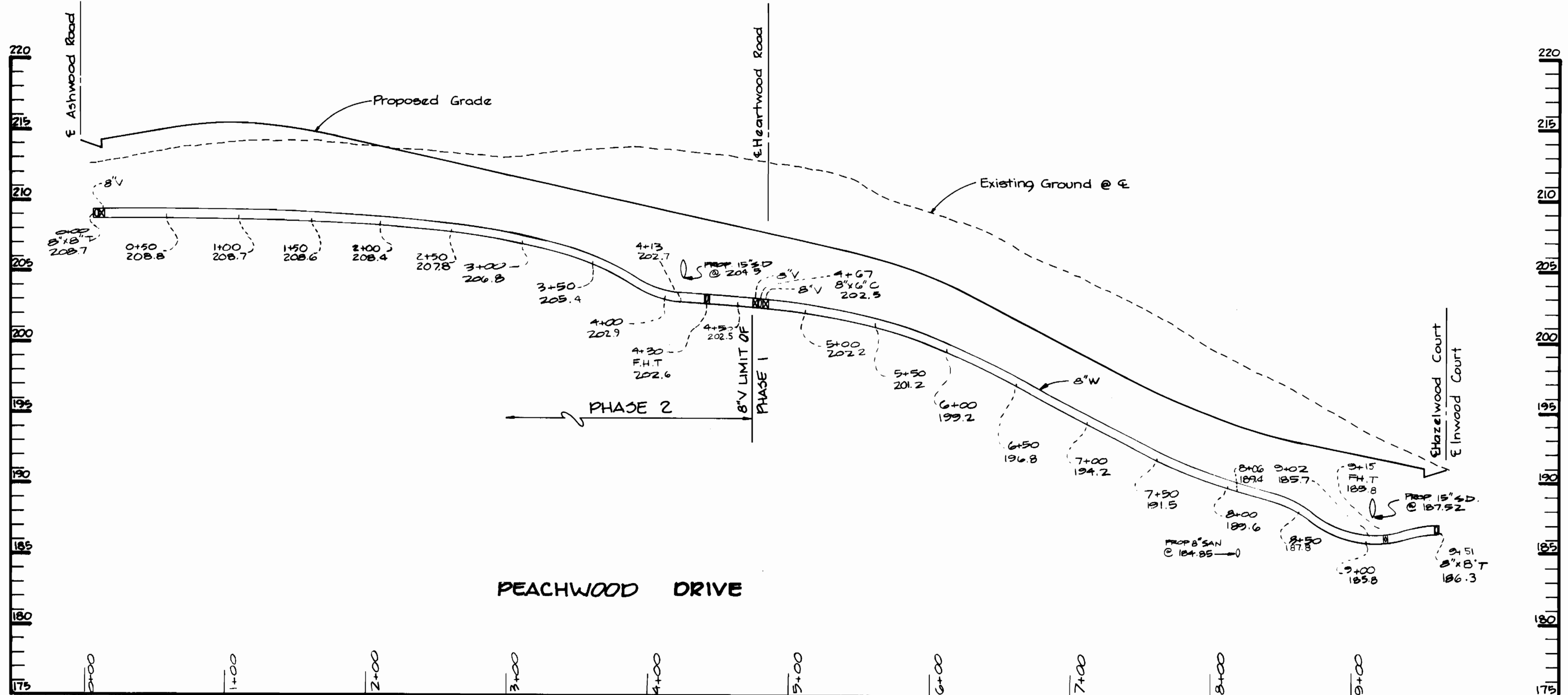
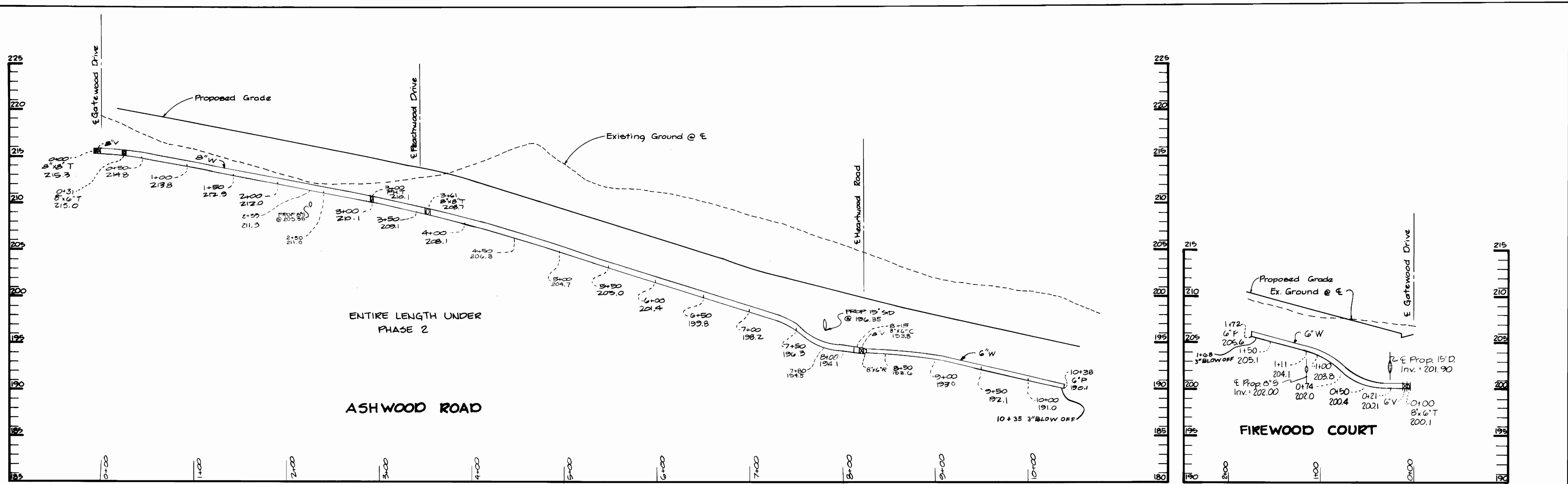
PROFILE OF A WATER MAIN

800' SCALE MAP NO. 43 BLOCK NO. 20

BRENTWOOD MANOR - PARCEL 'A'  
6th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 24-184I-D

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

SHEET  
4 OF 6



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*William W. Williams* 8/1/89  
 DIRECTOR OF PUBLIC WORKS  
*Michael A. ...* 7-11-89  
 CHIEF, BUREAU OF UTILITIES

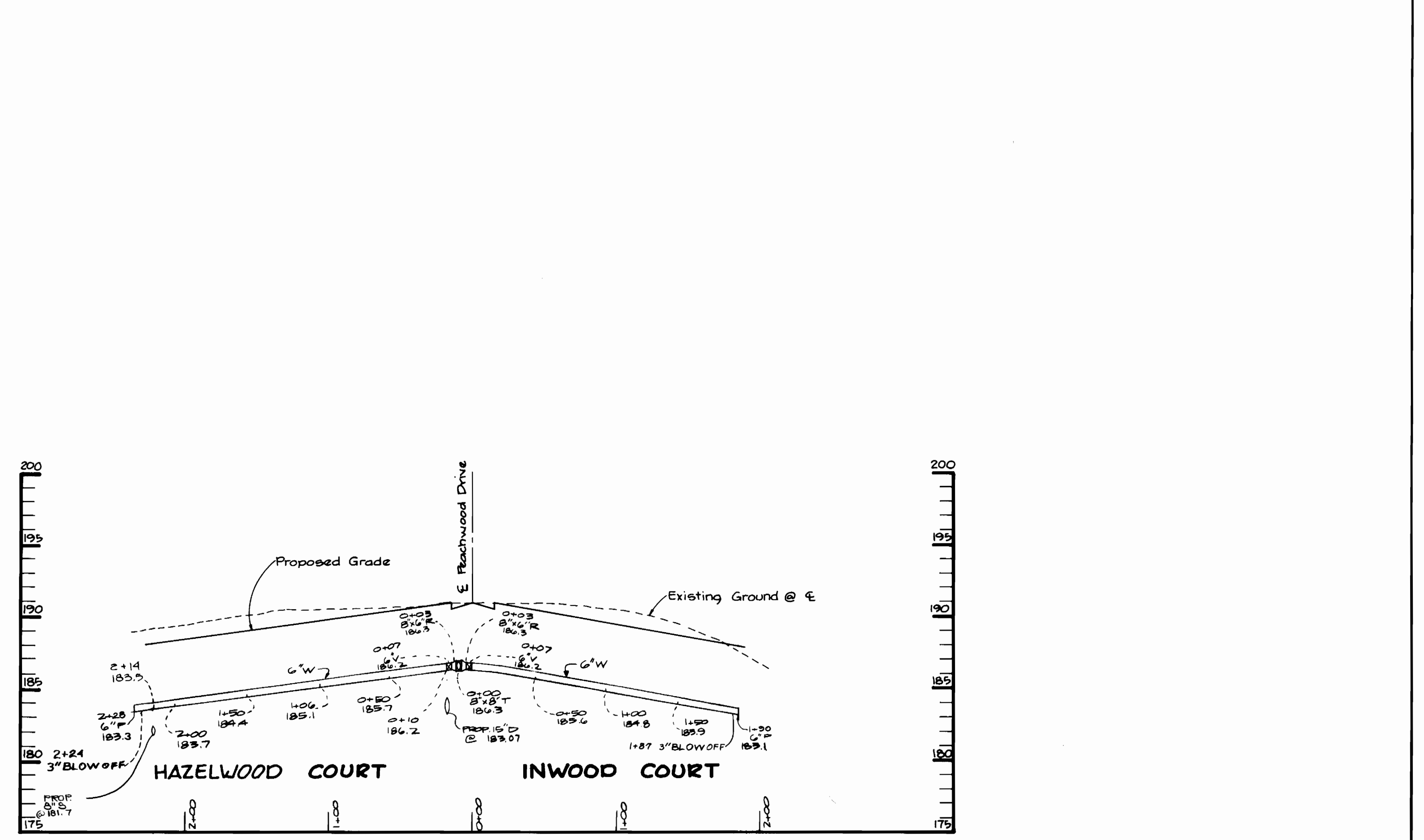
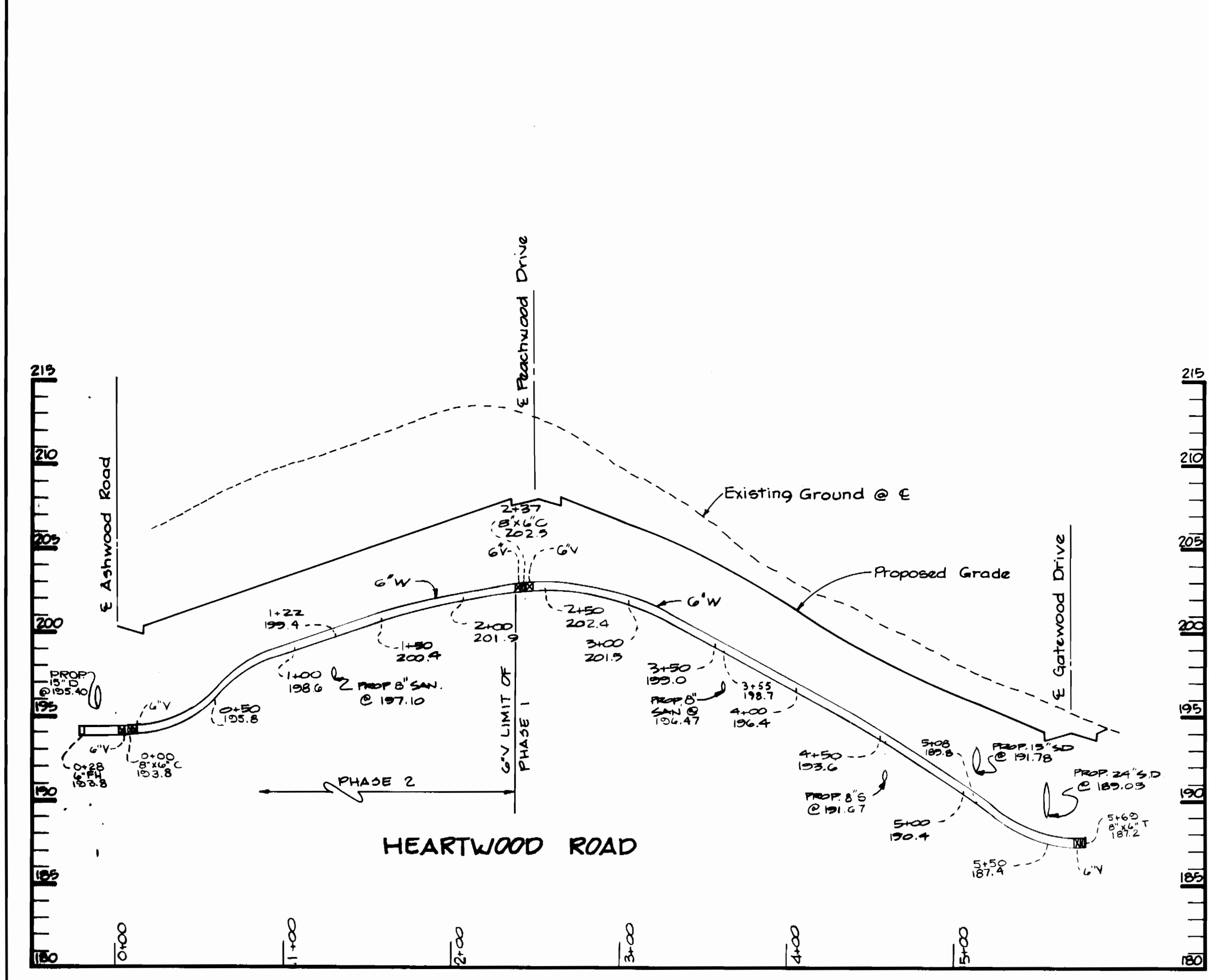
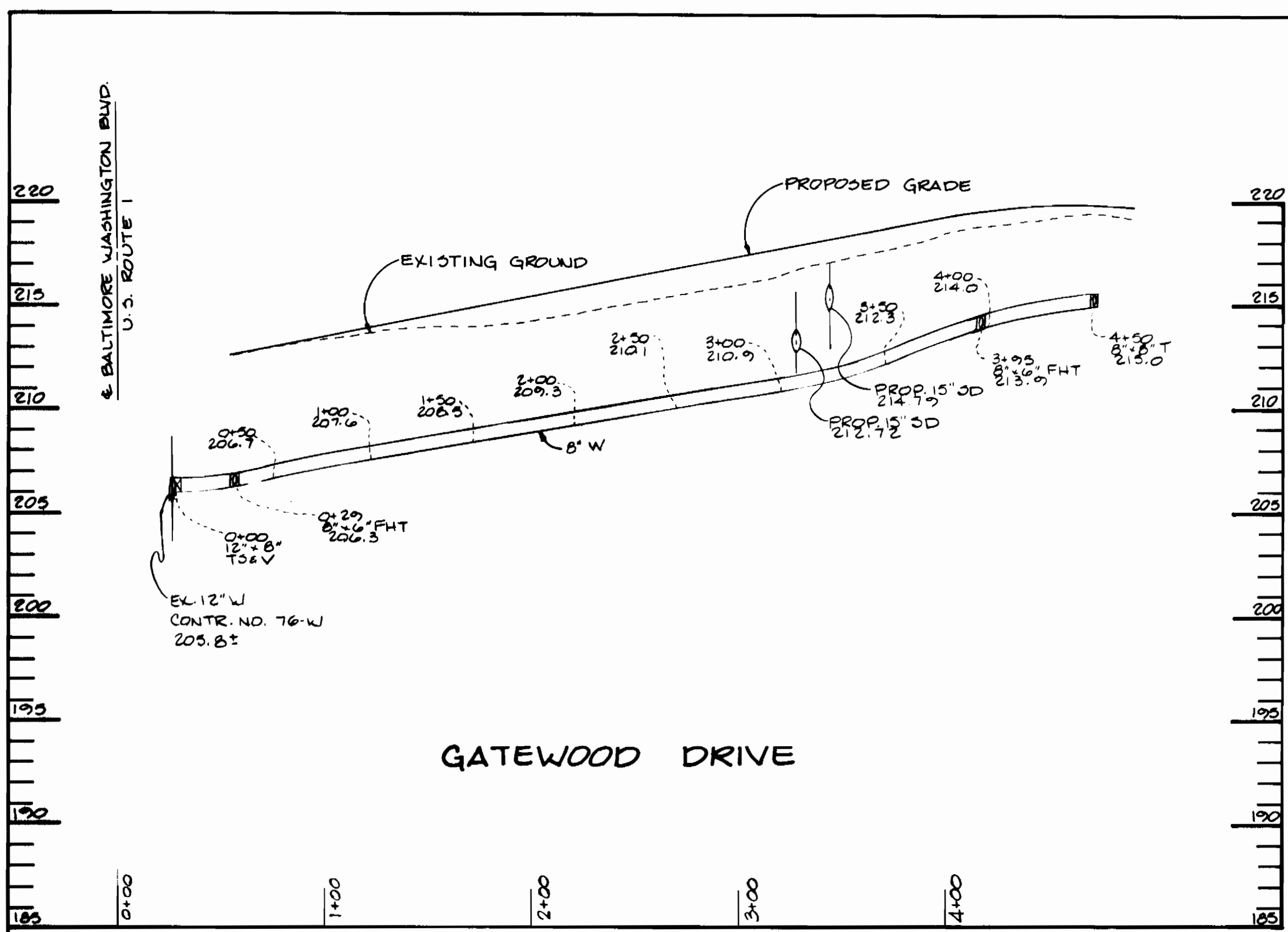
THE RIEMER GROUP INC.  
 3105 NORTH RIDGE ROAD  
 ELLICOTT CITY, MARYLAND  
 (301) 461-2690  
*Arthur E. Muegge* 8/1/89  
 CHIEF, LAND DEVELOPMENT



DES: L.J.D.	
DRN: J.L.B.	
CHK: J.J.B.	
DATE: 12/16/88	
BY: SDK	1
NO.:	
REVISION: REVISED ROAD NAMES, SHOWED LIMIT OF PHASE 1 & 2 ON PROFILE, ADDED CALCULATED 8\"/>	
DATE: 10/4/91	

PROFILE OF A WATER MAIN  
 800' SCALE MAP NO. 43 BLOCK NO. 20

BRENTWOOD MANOR - PARCEL 'A'  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT NO. 24-1841-D  
 SCALE: HORIZ. 1"=50' VERT. 1"=5'  
 SHEET 5 OF 6



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*William W. Williams*  
 SUPERVISOR OF PUBLIC WORKS DATE 7/11/85

*Paul J. ...*  
 CHIEF, BUREAU OF ENGINEERING DATE 8/1/85

*...*  
 CHIEF, BUREAU OF UTILITIES DATE 8/1/85

THE RIEMER GROUP INC.  
 3105 NORTH RIDGE ROAD  
 ELLICOTT CITY, MARYLAND  
 (301) 461-2690



DES: L.J.D.	
DRN: J.L.B.	
CHK: J.J.B.	
DATE: 12/16/85	
DOK: 1	REVISED STREET NAMES, ADDED PROFILE OF GATEWOOD E.D. ADDED UNITS OF PHASE 1 & 2 IN PROFILE
BY NO.	REVISION
	DATE

PROFILE OF A WATER MAIN

600' SCALE MAP NO. 45 BLOCK NO. 20

BRENTWOOD MANOR - PARCEL 'A'  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT NO. 24-1841-D

SCALE  
 HORIZ=50'  
 VERT=5'

SHEET  
 6 OF 6