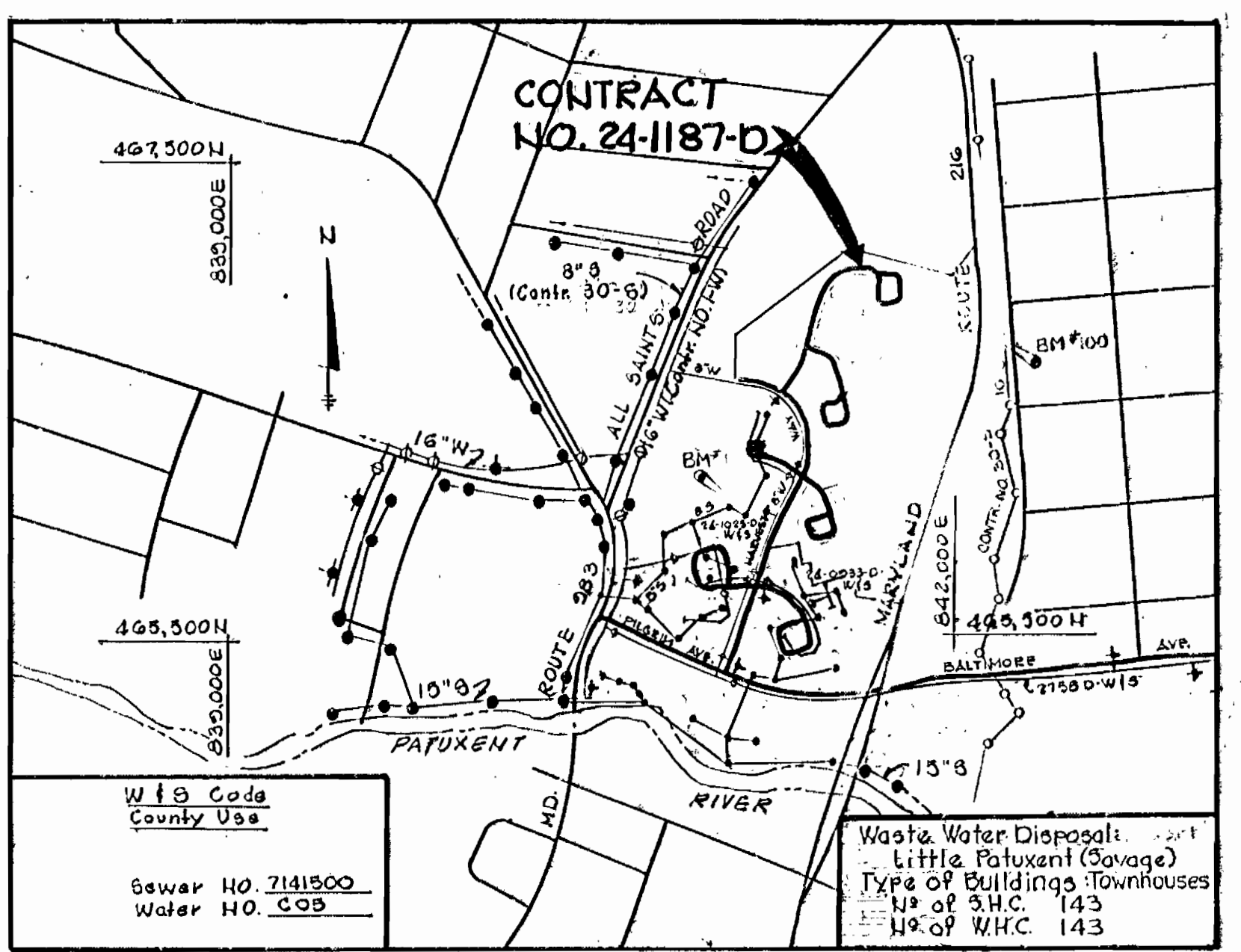


BENCH MARKS
 W.R. & B.M. #100 Elev. 177.21
 Cut in S. end of conc. headwall of 36" R.C.P. crossing Route 216, 1350'± S of intersection of All Saints & Route 216, East side of Route 216
 B.M. #1 Elev. 228.50
 Pin in a 12" Maple 5' South of existing fence line



VICINITY MAP
 SCALE: 1"=400'
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. Datum.
- 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. Any cost incurred to the contractor for tunneling or bracing at poles shall be included in unit prices bid for excavation and backfill.
- For details not shown on the drawings use Howard County Standard Details.
- For materials and construction methods use Howard County Standard Specifications.
- Contractor shall locate existing utilities a minimum of two (2) weeks in advance of construction operations in vicinity of proposed utilities at his own expense.
- Contractor shall notify the following utilities or agencies at least five (5) working days before starting work shown on these plans:

- State Highway Administration - 531-5333
- Baltimore Gas & Electric Company - Underground Electric Distribution Customer Service - 685-0123
- Baltimore Gas & Electric Company - Underground Gas Distribution Customer Service - 685-0123
- Engineering - "Damage Control" - 234-5621
- "Miss Utility" - 1-553-0100
- Chesapeake / Polomac (CIP) Telephone Company - 725-9976
- American Telephone and Telegraph - Cable Location Division - 393-3553
- Colonial Pipeline Company - 781-4641
- Bureau of Utilities Howard County - 992-2366

- 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.
- 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.
- 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.
- All water mains to be O.D.P. 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.
- Block all fittings with concrete.
- 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 hydrant to be compacted in accordance with section 1003.1000 of the General Requirements for W&S.
- All water house connections shall be for an inside meter setting.
- The contractor shall not operate any water main valves on the existing system.
- All sewer mains shall be C.S.P.X., V.C.P.X., P.V.C. or A.C.P. Class 2400 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.
- For all copper house connections utilize flared type fittings only.
- Manholes shown with 12" and 16" walls are brick manholes only.
- Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G-552 Volume IV. Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade.
- House(s) with the symbol "C.N.S." indicates that cellar can not be served.
- All water house connections shall have a minimum vertical clearance of 12" above all sanitary sewer crossings.
- All sanitary sewer house connections shall have a minimum vertical clearance of 12" below all water main crossings.
- Profile elevations shall be adjusted as necessary to conform to plan dimensions.
- No pipe shall be laid until lines of excavation have been brought to subgrade.
- If depth below brick manhole cover is between 12'-1" to 18" manhole wall thickness shall be 12-inch as per Standard Detail G-5.01.

ITEM	ESTIMATED	AS BUILT	MATERIAL/SUPPLIER
8" Sewer	2,978 LF	2573'	J.M. BELAIR
Manholes	262.5 V.F.	210'	TERRE HILL
8" Water	1102 LF	1049'	GRIFFIN
6" Water	1868 LF	678'	GRIFFIN
6" Valves	3	3	USP
6" Valves (excl. F.H.V.s)	3	3	USP
Fire Hydrants	4	4	USP
W.H.C. 3/4"	1947 LF	2166'	Howell
M.H.C. 1"	2003 LF	2268'	Howell
S.H.C. 6"	2211 LF	878 LF	J.M. GRIFFIN
O.D.P. 8" SEWER	739 LF	609'	GRIFFIN
BLOWOFF 1/2"	3	3	FORD

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 13 OF THE SPECIFICATIONS AND FINAL PLAN #P-84-22

HOWARD SOIL CONSERVATION DISTRICT REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS

US SOIL CONSERVATION SERVICE DATE: 3-16-85
 THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT DATE

Settler's Landing Section 2, Area 1 Plot No.

Plan Scale: 1"=50'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

4-25-85 DATE
 ROBERT M. BAUMEISTER CHIEF BUREAU OF UTILITIES
 3-30-84 DATE
 CHIEF BUREAU OF UTILITIES

3-16-85 DATE
 HOWARD SOIL CONSERVATION SERVICE

THE RIEMER GROUP, INC.
 8659 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21043

3/22/85 DATE
 ARTHUR E. MUEGGEL

DES:	DRW:	CHK:	DATE:	BY:	NO.	REVISIONS	DATE:
L J D	S R K	G M	10/14/83	W C W	1	RELOCATE M.H.'S AND CHANGE BURYING ELEV. ON E.H. @ STA 2165 REDBRIDGE COURT	9/17/84
					2	CHANGED ALIGNMENT OF PIPE FROM MH1 TO EXH212	9/11/84
					3	EXTENDED 20" CASING PIPE	9/11/84
					4	REVISED GENERAL NOTE NUMBER 17	9/11/84
					5	REVISED QUANTITIES TO REFLECT CO. COMMENTS	5-784
					6	REVISED LOTS 159 THRU 208 AND LOTS 222 THRU 224 TO AGREE WITH RECORD PLAN.	4-24-84

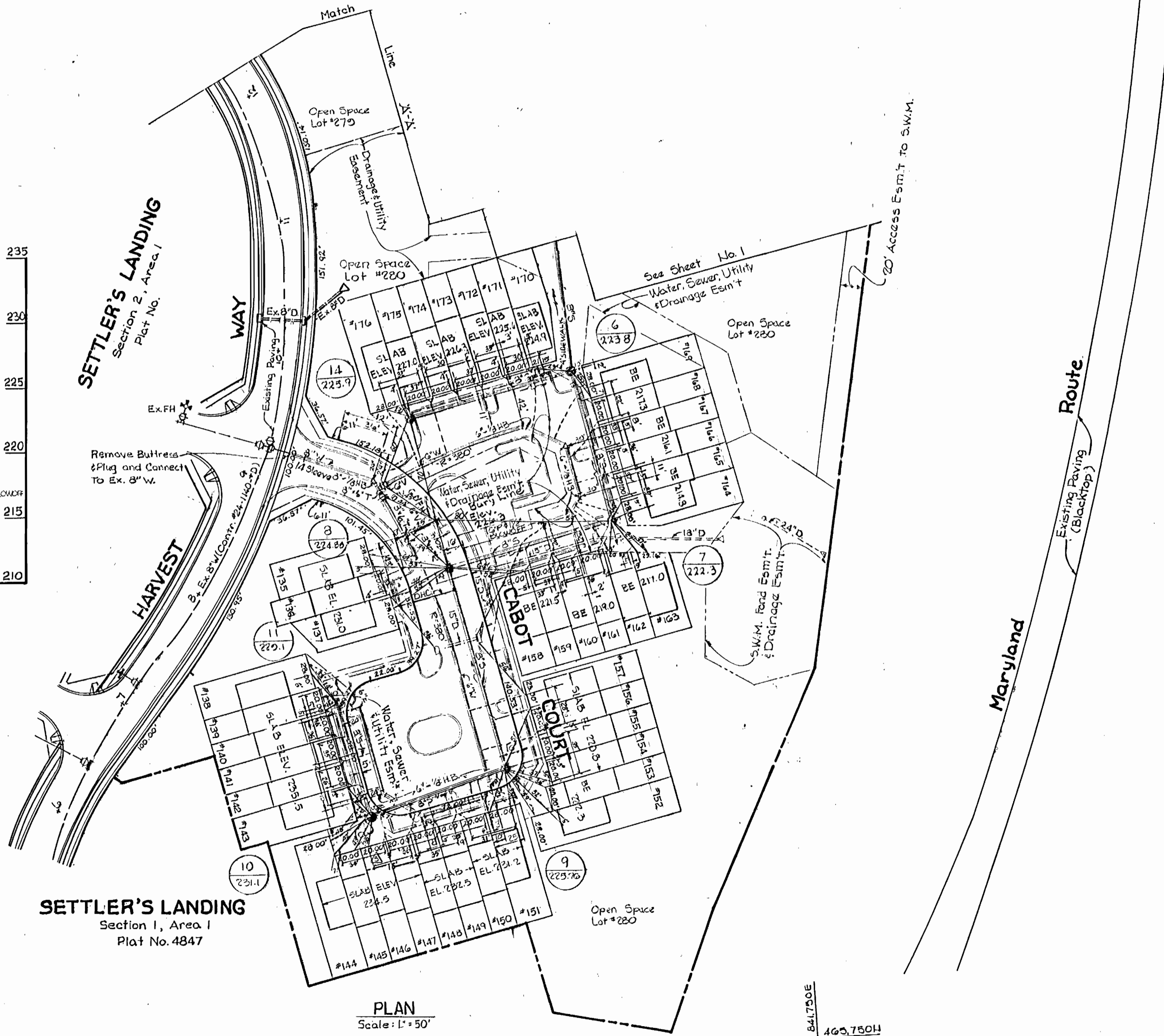
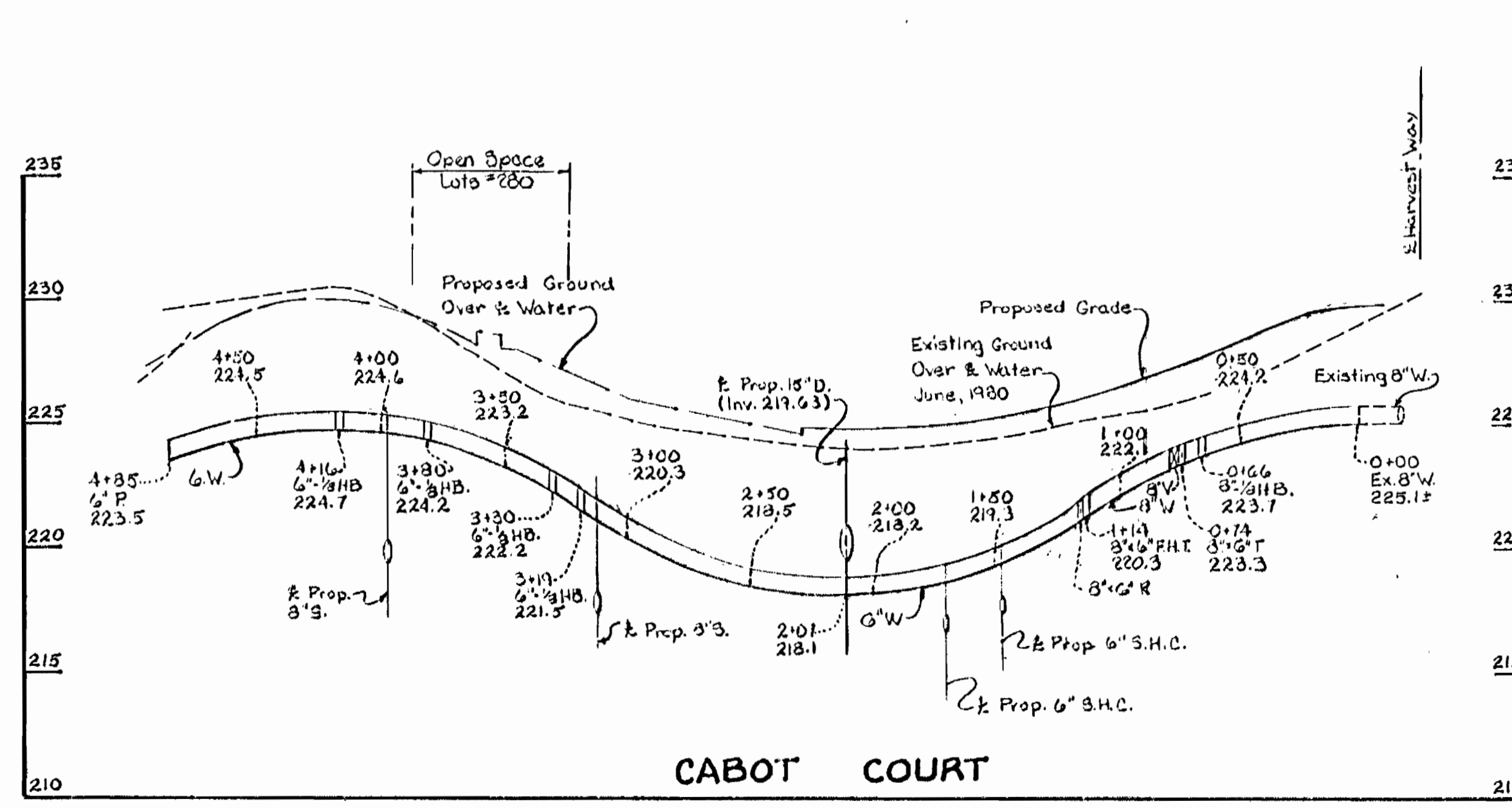
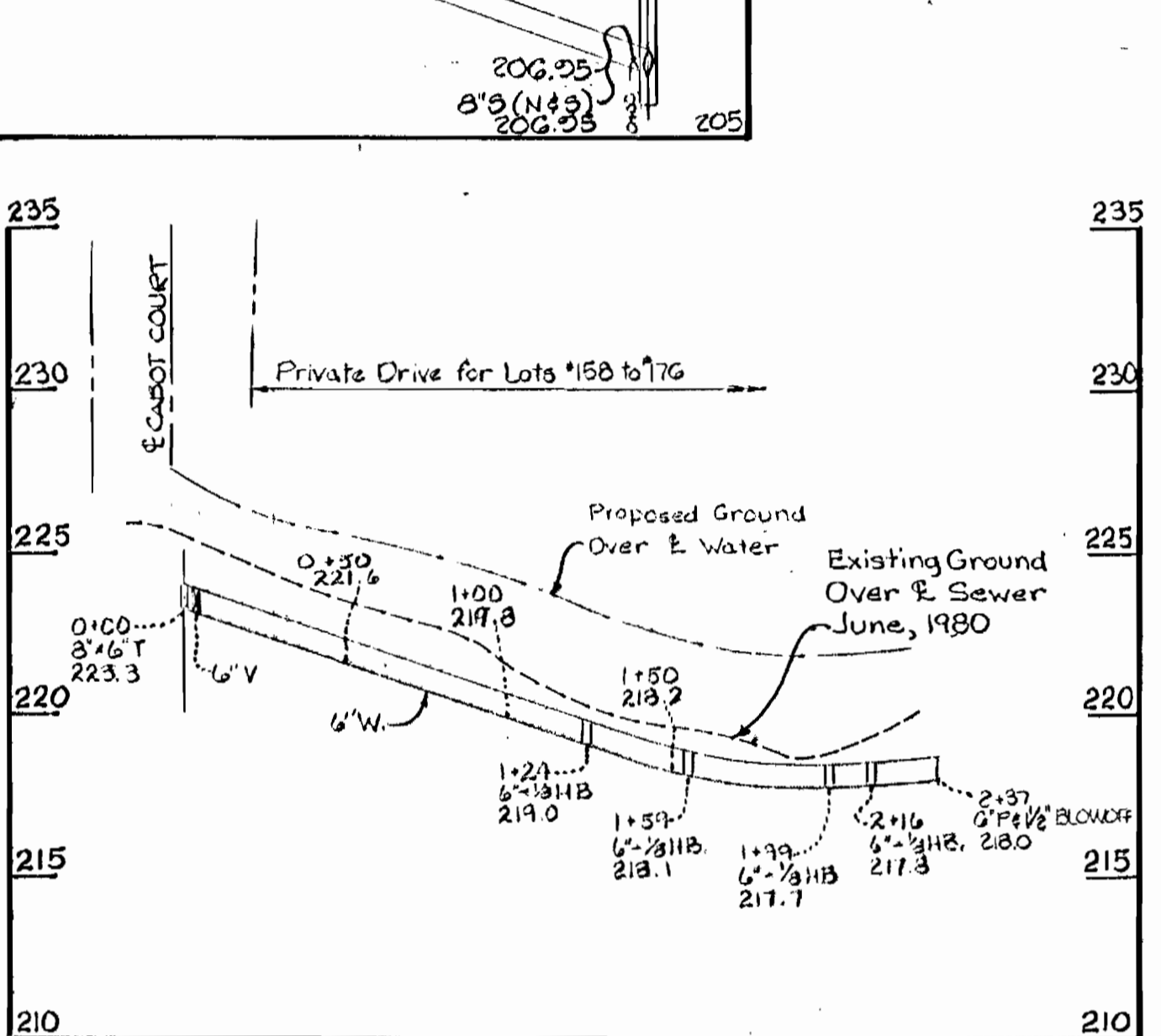
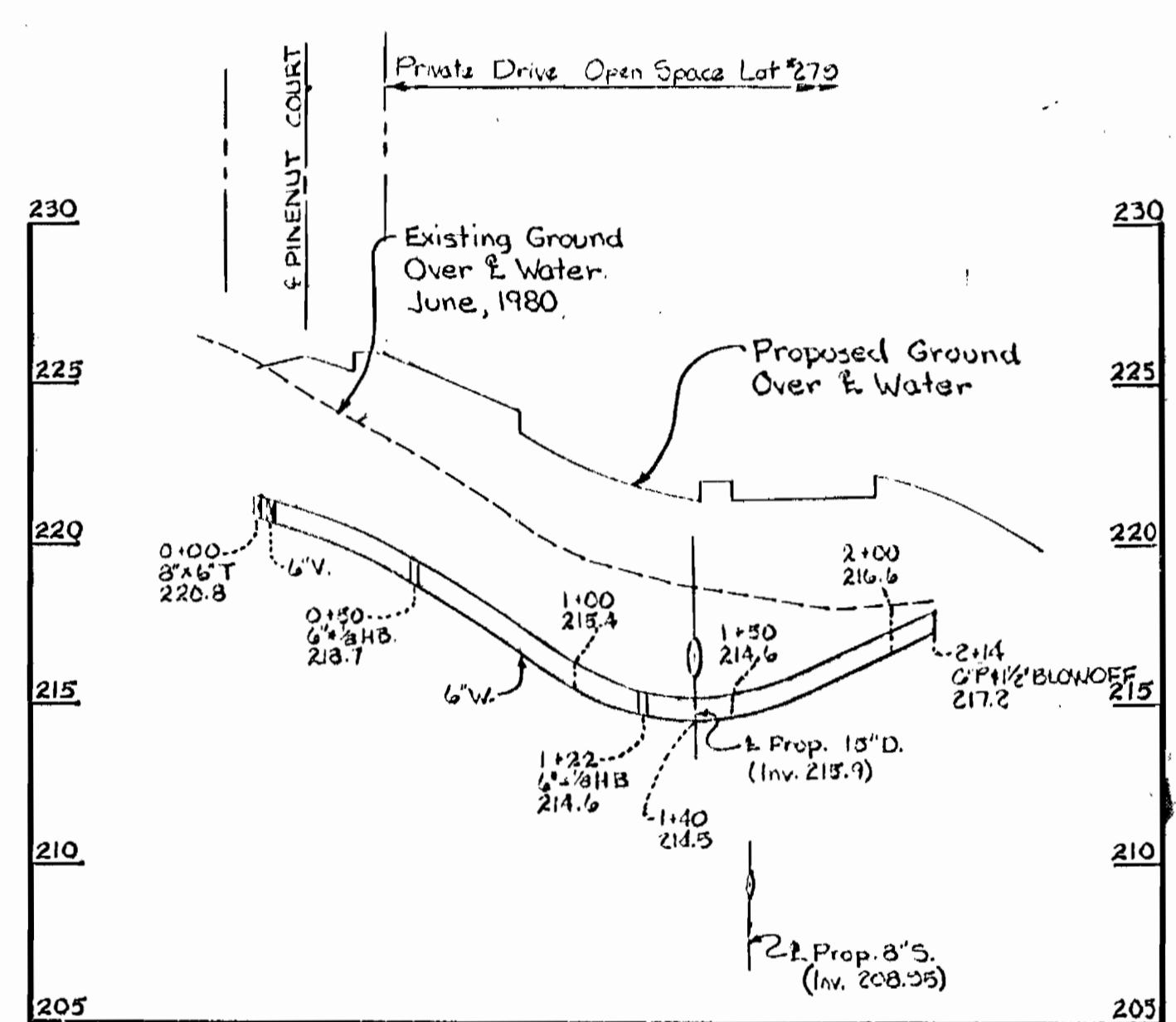
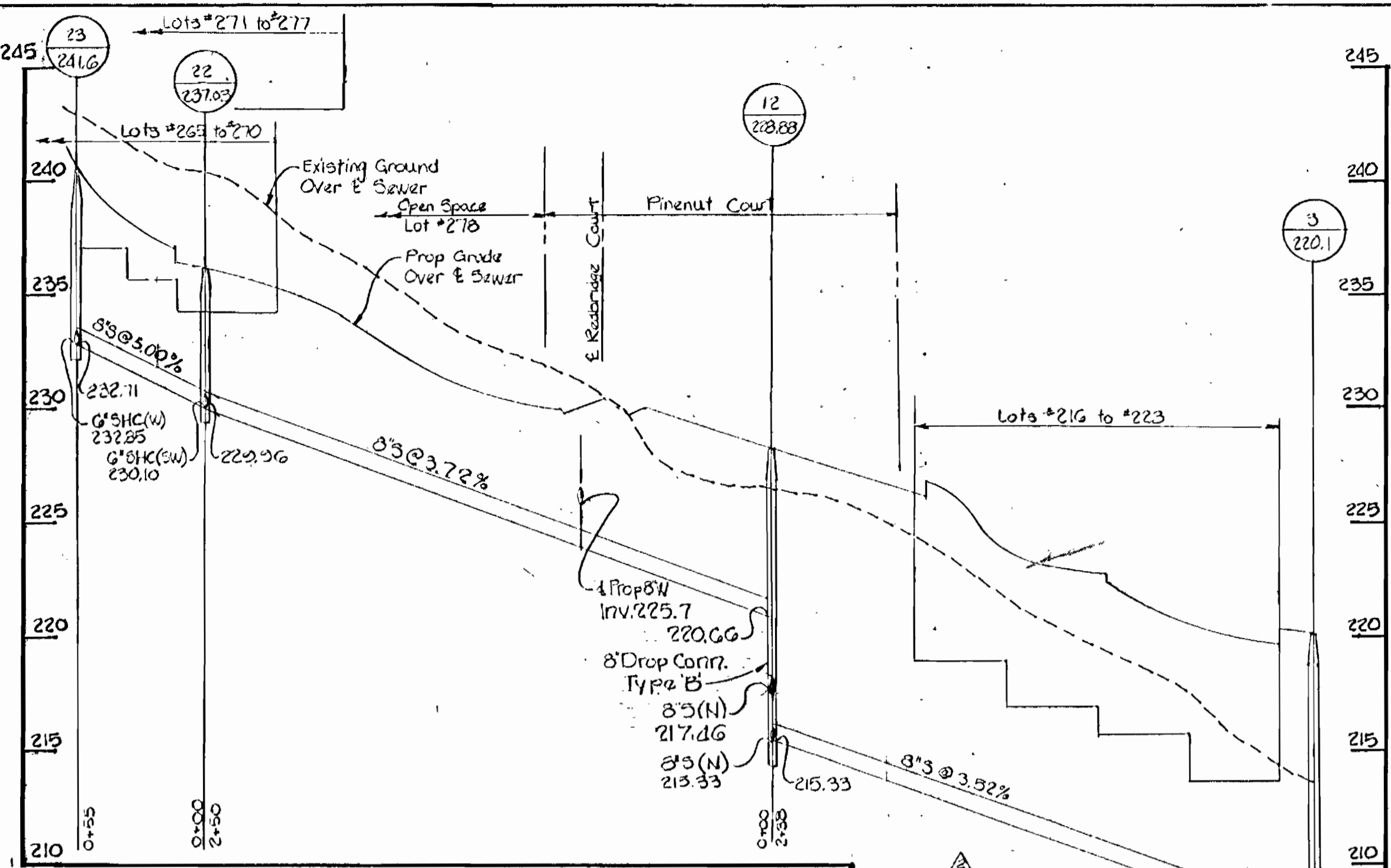
PLAN OF
 WATER & SEWER MAINS

600' SCALE MAP NO. 30 BLOCK NO.

SETTLER'S LANDING
 SECTION 2, AREA 2
 CONTRACT NO. 24-1187-D
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 4

AS-BUILT January 8, 1985
 OCTOBER 17, 1984



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert E. Neuma 4-25-84
DIRECTOR OF PUBLIC WORKS DATE

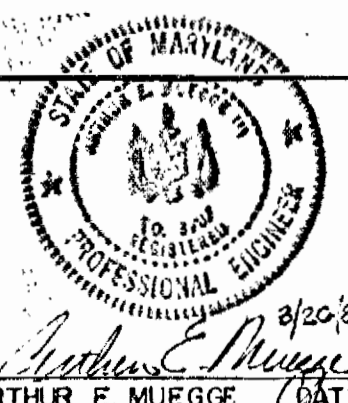
Robert E. Neuma 3-30-84
CHIEF BUREAU OF UTILITIES DATE

Richard B. R. ... 4-25-84
CHIEF BUREAU OF ENGINEERING DATE

... 4-25-84
CHIEF LAND DEVELOPMENT DIVISION DATE

THE RIEMER GROUP, INC.
8659 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

Arthur E. Muegge 8/20/83
ARTHUR E. MUEGGE / DATE



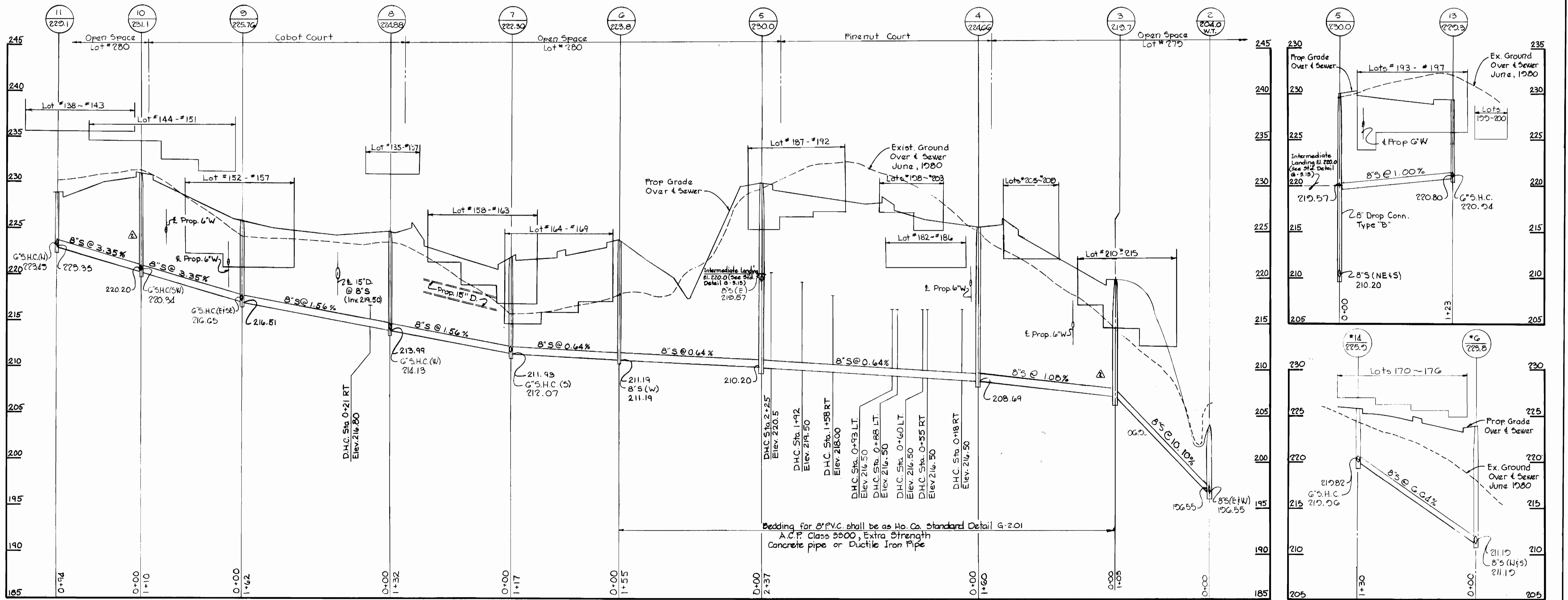
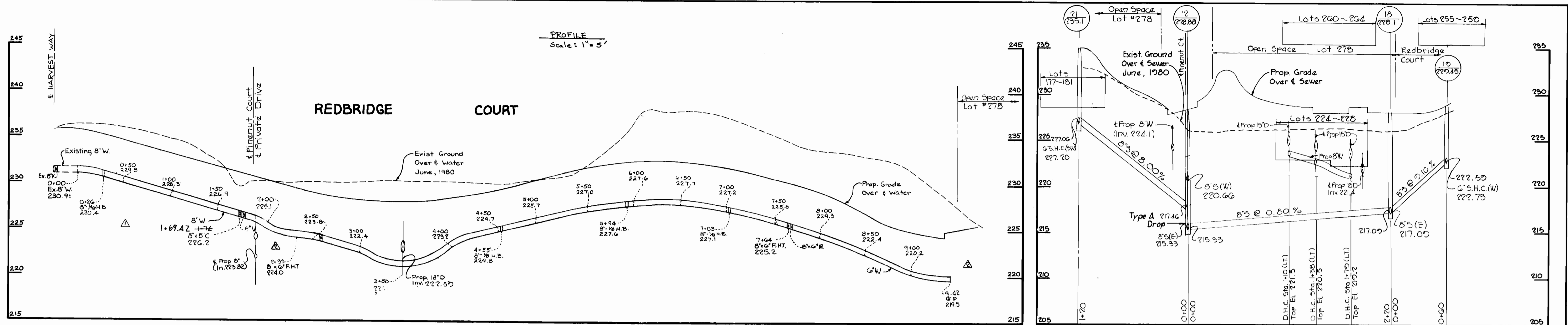
DES: LJD			
DRW: SRK			
CHK:	JCL	RELOCATE MANHOLE #10	0-178
	WDS	REVISED SLOPE OF PIPES BETWEEN PIPS 3+13	6/1/84
	WCW	REVISED INVERT OF 3'-3.50' IN PIP 2 TO 2+14.6	1-24-84
		REVISED LOTS 157 THRU 163 TO AGREE WITH RECORD PLAT	1-24-84
DATE: 10/14/83	BY NO.	REVISIONS	DATE

PLAN & PROFILES
OF WATER & SEWER MAINS

600 SCALE MAP NO. 50 BLOCK NO.

SETTLER'S LANDING
SECTION 2, AREA 2
CONTRACT NO. 24-1187-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 4



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *John F. Neely* 4-25-84
 Chief Bureau of Engineering: *William S. Davis* 4-25-84
 Chief Bureau of Utilities: *Robert Berman* 3-30-84
 Chief Land Development Division: *Walter J. F.* 4-20-84

THE RIEMER GROUP, INC.
 8659 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21043



DES: L J D	
DRW: S R K	
CHK: WDS	RELOCATED MANHOLES #210 AND REVISED STA. OF FITTINGS STA. 210.0 TO 210.25 REDBRIDGE COURT (6" P.I.) REPERCUSSOR CHANGE HB. @ STA. 212.6 REDBRIDGE COURT TO 216.6/1184
DATE: 10/14/83	DATE: 6/1/84
BY: NO.	REVISIONS

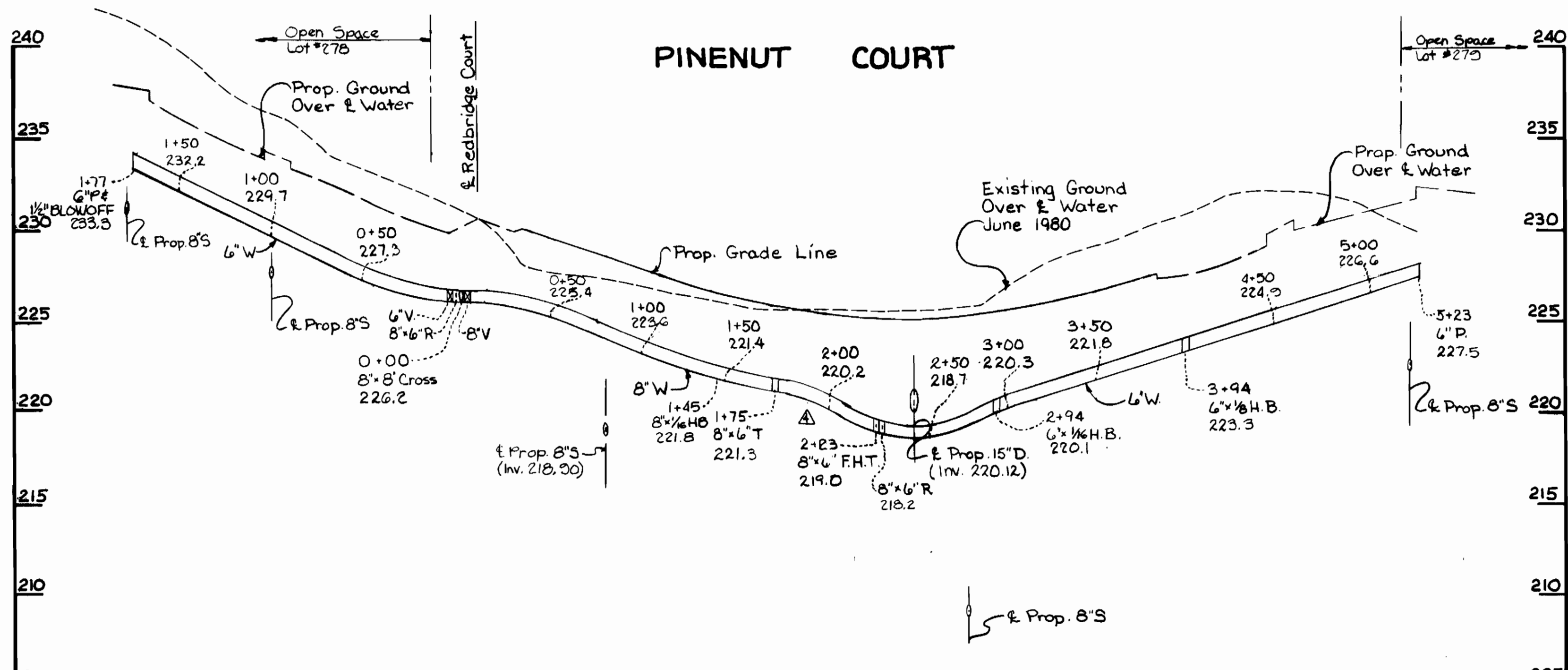
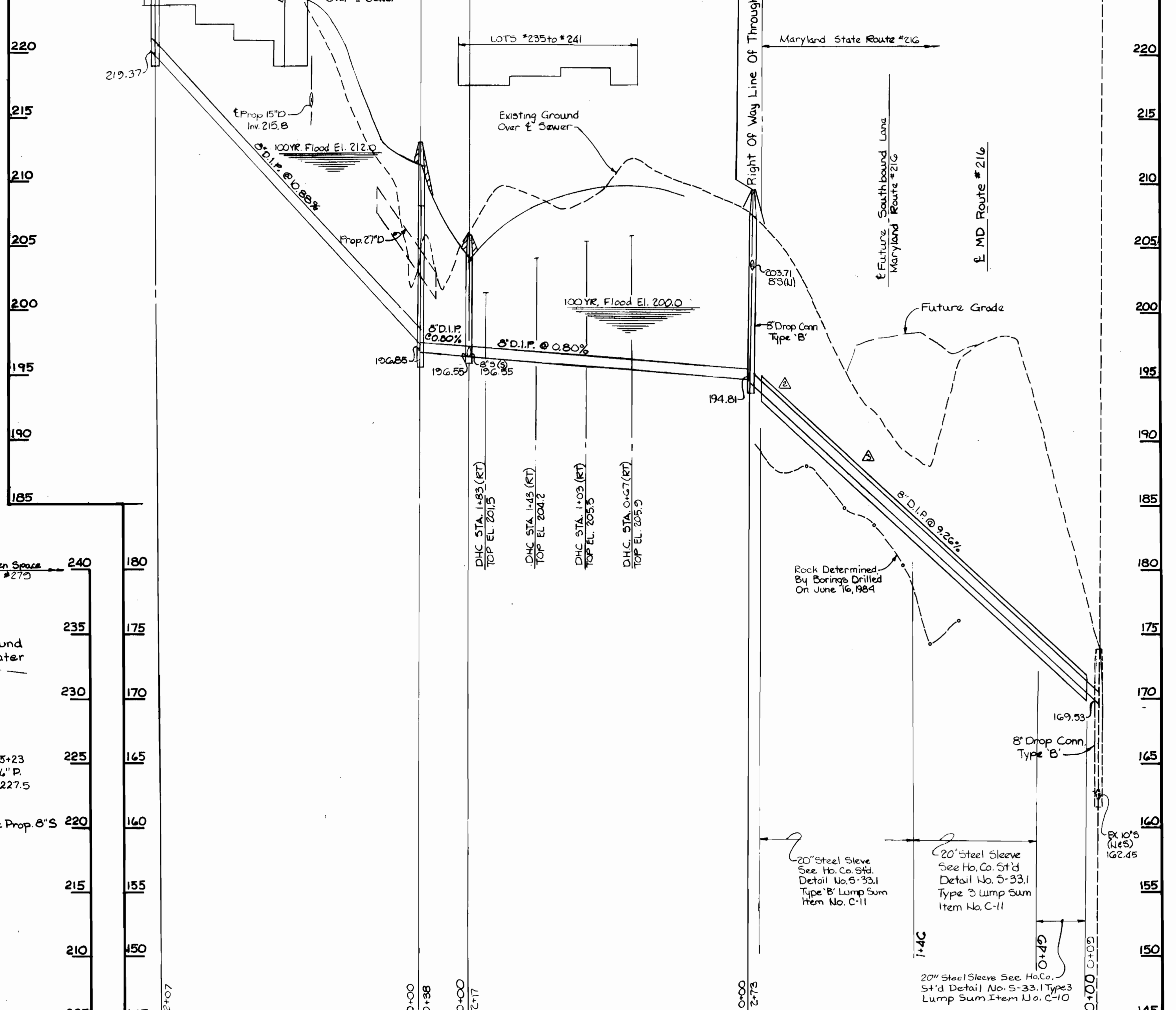
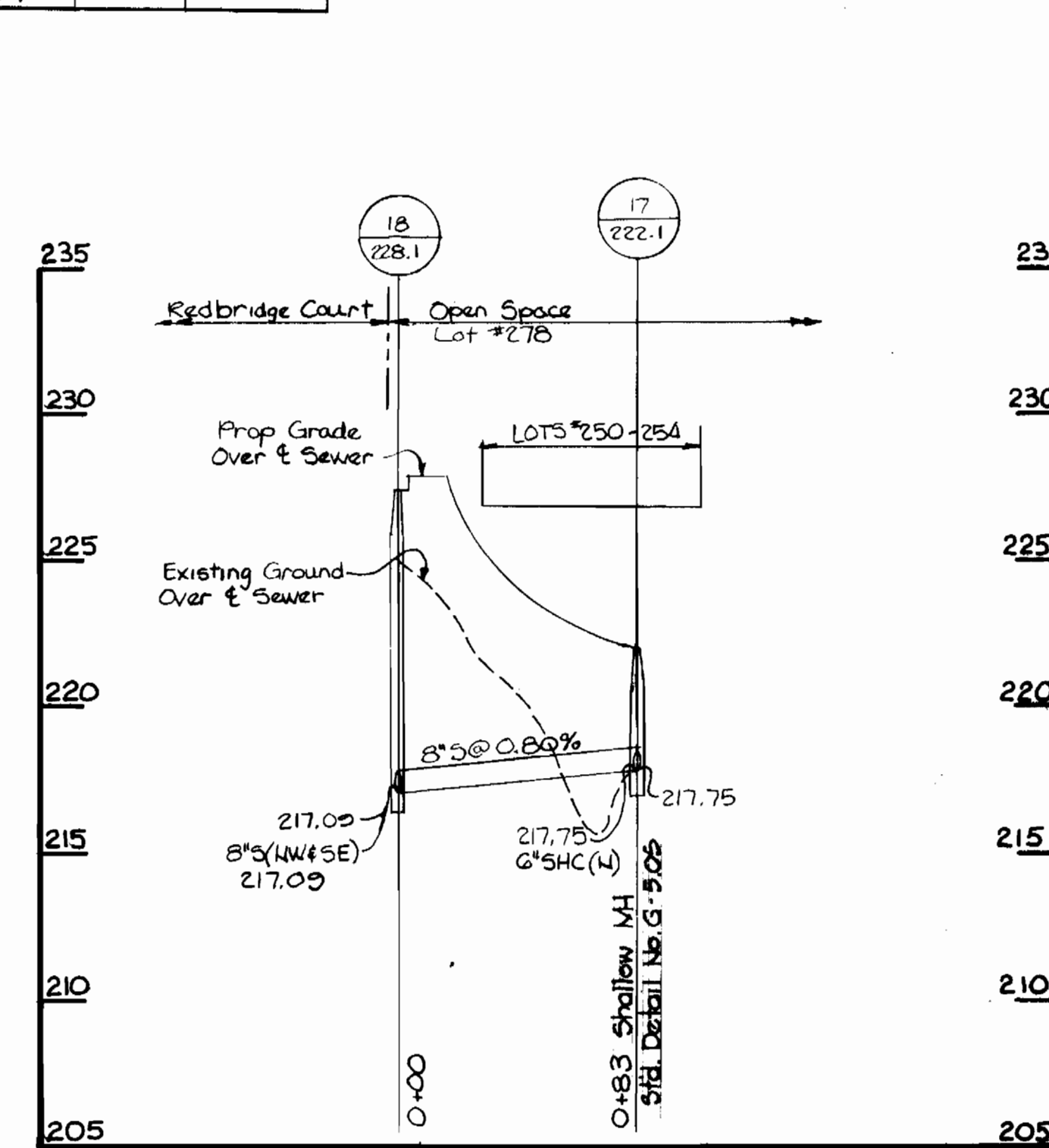
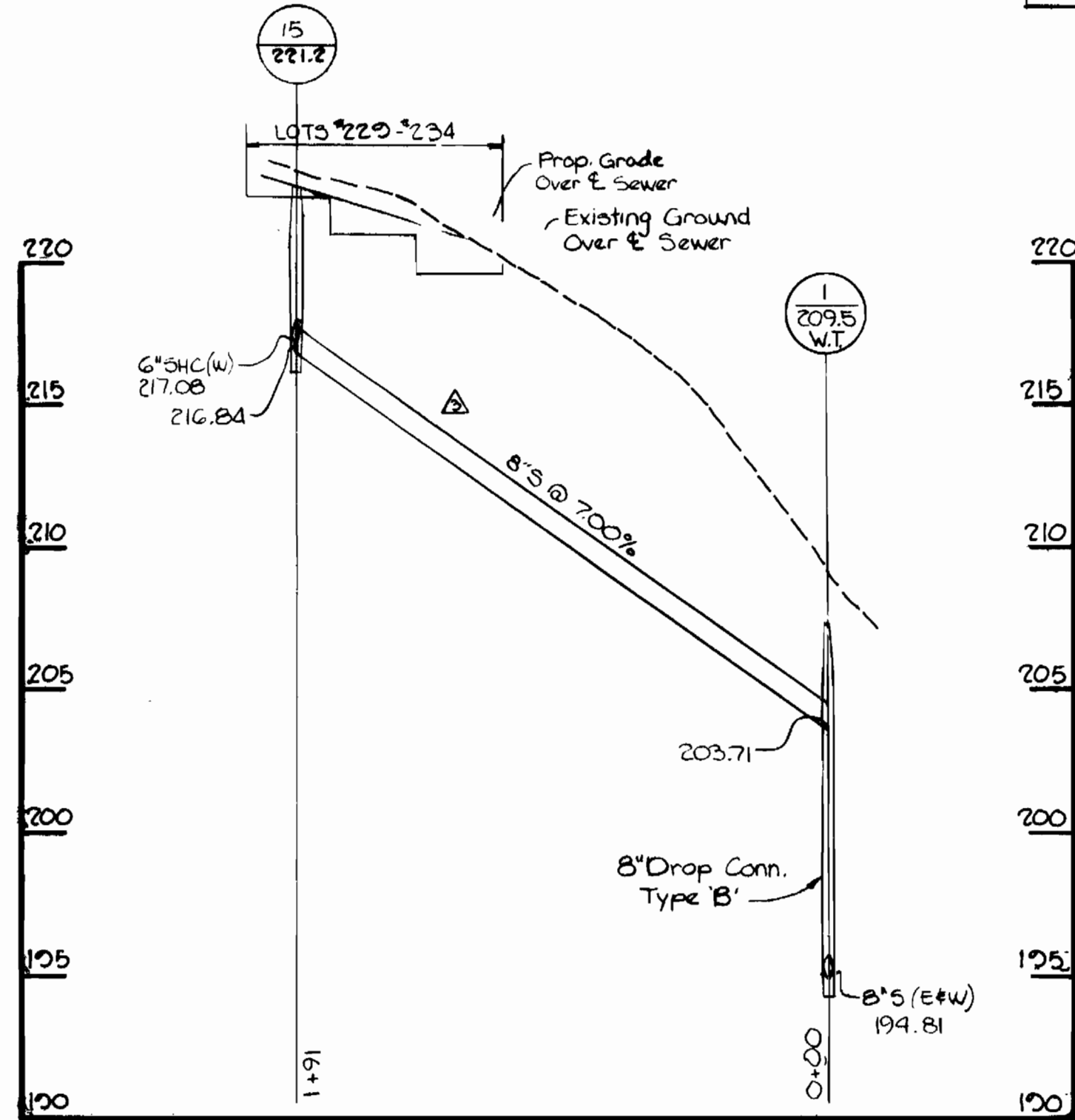
PROFILES OF
 WATER & SEWER MAINS
 60' SCALE MAP NO. 50 BLOCK NO.

SETTLER'S LANDING
 SECTION 2, AREA 2
 CONTRACT NO. 24-1187-D
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 4

INVERT ELEVATIONS OF S.H.C. @ PROPERTY LINE

MH TO MH	LOT NO.'s	TYPE	ELEVATION	MH TO MH	LOT NO.'s	TYPE	ELEVATION	MH TO MH	LOT NO.'s	TYPE	ELEVATION	MH TO MH	LOT NO.'s	TYPE	ELEVATION
1-5	234 & 235	DOUBLE	215.8	22-23	272 & 273	DOUBLE	231.2	3-4	212 & 213	DOUBLE	207.8	6-7	120 & 121	DOUBLE	211.5
	232 & 231	"	218.8		271	SINGLE	232.5		210 & 211	"	208.6		122 & 123	"	211.8
	230 & 229	"	217.5		267 & 268	DOUBLE	232.3		208 & 209	"	208.8		124 & 125	"	212.1
1-2	235	SINGLE	206.2		269 & 270	"	232.2		206 & 207	"	208.8	7-8	126 & 127	"	212.5
	236 & 237	DOUBLE	205.8		181	SINGLE	224.5		205	SINGLE	208.7		128 & 129	"	212.8
	238 & 239	"	204.5	12-21	180 & 179	DOUBLE	226.6	4-5	182 & 183	DOUBLE	217.7		130 & 131	"	213.4
	240 & 241	"	201.8		178 & 177	"	227.6		184 & 185	"	217.2		132 & 133	"	213.2
16-24	242 & 243	"	208.5	18-18	204	SINGLE	223.9		204 & 203	"	217.7	8-9	134 & 135	SINGLE	217.8
	244 & 245	"	211.7		224 & 225	DOUBLE	216.5		186	SINGLE	216.8		136 & 137	DOUBLE	217.5
	246 & 247	"	215.0		226 & 227	"	222.1		202 & 201	DOUBLE	218.1	9-10	138 & 139	"	217.6
	248 & 249	"	218.3		228 & 229	"	216.8		187 & 188	"	219.0		140 & 141	"	219.2
2-3	215 & 214	"	206.5		230 & 231	"	220.6		189 & 190	"	220.1		142 & 143	"	219.2
2-12	216 & 217	"	208.4		232 & 233	"	220.7		191 & 192	"	220.8		144 & 145	"	221.2
	218 & 219	"	211.1	10-10	234	SINGLE	217.8	5-13	193 & 194	"	220.2	10-11	146 & 147	"	220.4
	220 & 221	"	212.4		236 & 237	DOUBLE	222.5		195 & 196	"	221.0		148 & 149	"	222.6
	222 & 223	"	218.4		238 & 239	"	225.7		197 & 198	"	221.0		150 & 151	"	222.6
12-22	224 & 225	"	220.4	10-17	240	DOUBLE	217.2		170	SINGLE	212.7		152 & 153	"	222.6
	226 & 227	"	231.2		242 & 243	"	217.9		171 & 172	DOUBLE	214.6		154 & 155	"	222.6
	228 & 229	"	231.1		244 & 245	"	218.2		173 & 174	"	217.2		156 & 157	"	222.6
					246 & 247	"	218.2		175 & 176	"	220.2				



PROFILE scale: 1"=5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Director of Public Works: *John F. Newmyer* 4-25-84
Chief Bureau of Engineering: *William B. Kelly* 4-25-84
Chief Bureau of Utilities: *Robert H. Bringer* 3-30-84
Chief Land Development Division: *William B. Kelly* 4-25-84

THE RIEMER GROUP, INC.
8659 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21043
Professional Engineer: *Arthur E. Muegge* 4/16/84



DES. L J D					
DRW. S R K	J C J	△	CHANGE STA. OF F.H. IN PINENUT COURT FROM STA. 2220 TO STA. 2229	10/1/84	
CHK.	T J M	△	REVISED ALIGNMENT OF PIPE FROM MH 1 TO EX MH 642 AND PIPE FROM MH 15 TO MH 1	7/24/84	
	W D S	△	EXTENDED 20" CASING PIPE	6/1/84	
	W D S	△	REVISED MH #2 TO AGREE WITH PLAN ADDED DROP CONN. TO MH #1	6/1/84	
DATE: 10/14/83	BY NO.		REVISIONS	DATE	

PROFILES OF
WATER & SEWER MAINS
600' SCALE MAP NO. 50 BLOCK NO.

SETTLER'S LANDING
SECTION 2, AREA 2
CONTRACT NO. 24-1187-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 4 OF 4