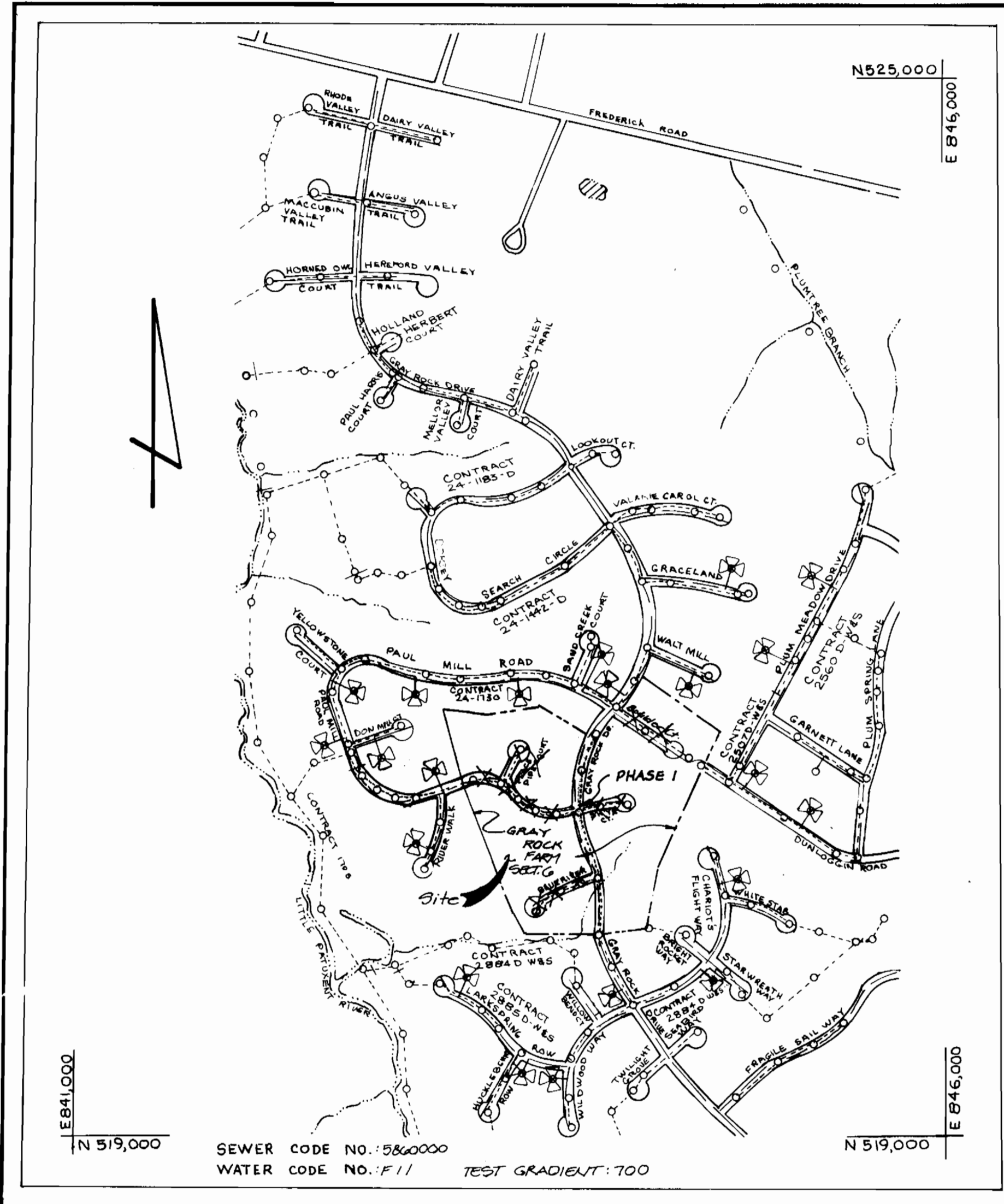


Lot No	Inv. S.W.C. @ 0' Dia	Inv. S.W.C. @ 6" Dia	Inv. S.W.C. @ 12" Dia	Min. Center Elevation	TYPE OF CONNECTION
263	366.75	367.07	371.07	371.07	SEWER HOUSE
264	366.72	366.12	372.72	372.72	SEWER HOUSE
265	370.40	370.50	376.50	376.50	SEWER HOUSE
266	371.84	372.74	374.14	374.14	SEWER HOUSE
267	376.00	377.20	384.00	384.00	SEWER HOUSE
268	376.10	377.70	381.50	381.50	SEWER HOUSE
269	377.37	377.37	376.17	376.17	SEWER HOUSE
270	377.70	377.70	377.50	377.50	DROP HOUSE
271	380.30	380.30	384.80	384.80	SEWER HOUSE
272	370.40	370.70	388.00	388.00	SEWER HOUSE
273	373.50	373.50	378.00	378.00	SEWER HOUSE
274	377.47	377.47	388.50	388.50	DROP HOUSE
275	378.11	378.20	388.00	388.00	SEWER HOUSE
276	376.60	376.70	387.00	387.00	SEWER HOUSE
277	374.54	374.74	376.54	376.54	SEWER HOUSE
278	377.72	377.82	379.82	379.82	SEWER HOUSE
279	380.30	380.30	374.80	374.80	SEWER HOUSE
280	363.30	363.80	367.60	367.60	SEWER HOUSE
281	362.10	362.60	360.00	360.00	SEWER HOUSE
282	357.00	357.00	363.00	363.00	DROP HOUSE
283	358.50	358.50	362.50	362.50	DROP HOUSE
284	357.80	357.80	355.50	355.50	DROP HOUSE
285	354.18	354.18	360.00	360.00	DROP HOUSE
286	351.75	351.75	366.00	366.00	SEWER HOUSE
287	354.77	354.77	366.57	366.57	SEWER HOUSE
288	358.50	358.50	364.76	364.76	SEWER HOUSE
289	358.16	358.16	366.00	366.00	SEWER HOUSE
290	353.54	353.54	366.54	366.54	SEWER HOUSE
291	353.60	353.60	367.00	367.00	SEWER HOUSE
292	353.60	353.60	367.00	367.00	SEWER HOUSE
293	362.21	363.67	367.67	367.67	SEWER HOUSE
294	366.37	367.00	370.40	370.40	SEWER HOUSE
295	364.44	364.60	368.60	368.60	SEWER HOUSE
296	353.22	353.22	363.00	363.00	SEWER HOUSE
297	356.35	356.35	360.00	360.00	SEWER HOUSE
298	356.07	356.07	360.00	360.00	SEWER HOUSE
299	356.07	356.07	360.00	360.00	SEWER HOUSE
300	353.50	353.50	360.00	360.00	SEWER HOUSE
301	353.50	353.50	360.00	360.00	SEWER HOUSE
302	353.50	353.50	360.00	360.00	SEWER HOUSE
303	353.50	353.50	360.00	360.00	SEWER HOUSE
304	353.50	353.50	360.00	360.00	SEWER HOUSE
305	353.50	353.50	360.00	360.00	SEWER HOUSE
306	353.50	353.50	360.00	360.00	SEWER HOUSE
307	353.50	353.50	360.00	360.00	SEWER HOUSE
308	353.50	353.50	360.00	360.00	SEWER HOUSE
309	353.50	353.50	360.00	360.00	SEWER HOUSE
310	353.50	353.50	360.00	360.00	SEWER HOUSE
311	353.50	353.50	360.00	360.00	SEWER HOUSE
312	353.50	353.50	360.00	360.00	SEWER HOUSE
313	353.50	353.50	360.00	360.00	SEWER HOUSE
314	353.50	353.50	360.00	360.00	SEWER HOUSE
315	353.50	353.50	360.00	360.00	SEWER HOUSE
316	353.50	353.50	360.00	360.00	SEWER HOUSE
317	353.50	353.50	360.00	360.00	SEWER HOUSE
318	353.50	353.50	360.00	360.00	SEWER HOUSE
319	353.50	353.50	360.00	360.00	SEWER HOUSE
320	353.50	353.50	360.00	360.00	SEWER HOUSE



SEWER CODE NO. 0860000  
WATER CODE NO. F11  
TEST GRADIENT: 700

Type of Building: Single Family Detached  
No. of Lots/Parcels: 12  
No. of Water House Connections: 12  
No. of Sewer House Connections: 12  
Drainage Area: Little Paxson  
Treatment Plant: Beltsville, VA RTD 108, RETURN SEWER

SCALE: 1"=60'

- BENCHMARK INFORMATION**
- HOWARD COUNTY CONTROL STA. 324,002  
CONC. MON. @ SURF 0.5' E OF  
EDGE OF RT. 40 EAST 11.3' E  
OF EAST END OF CONC. BRIDGE  
ELEV. = 354.002
  - HOWARD COUNTY CONTROL STA. 324,003  
CONC. MON. @ SURF 8' N. OF  
EDGE OF RT. 40 EAST 12' E OF  
E EDGE OF CROSSOVER @  
DORWOOD DRIVE  
ELEV. = 301.777

**GRAY ROCK FARM  
SECTION - 6**  
HOWARD COUNTY, MARYLAND  
CONTRACT NO:  
24-3194-D

SEDIMENT CONTROL MEASURES FROM THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 210 OF THE SPECIFICATIONS AND AS SHOWN ON F-32-104

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS  
*James M. Helms* 12/22/92  
S.O. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT IS APPROVED SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John L. Robertson* 12/22/92  
SOIL CONSERVATION DISTRICT DATE

- GENERAL NOTES**
- PART I - WATER
- 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.C.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 funnel as required. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. If 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  
BG&E Co. Contractor Services 850-4620  
BG&E Co. Under Ground Damage Control 787-9068  
Miss Utility 1-800-257-3777  
Colonial Pipeline Co. 789-1390  
Howard County Department of Public Works 313-4900  
Bureau of Utilities
  - 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.
- PART II - WATER
- All water mains to be D.I.P. Class 52 unless otherwise noted.
  - Tops of all water mains to have a minimum of 3' - 2" cover unless otherwise noted.
  - Valves adjacent to tees shall be strapped to tees.
  - 2" 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 restrained and buttressed with concrete in accordance with Standard Details W-1000. 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.
- PART III - SEWER
- All sewer mains shall be DIP, RCP, VCPX, CSPX, RCCP, 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.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight manhole frame and cover is used, set top of frame 1" - 6" above finished grade unless otherwise noted on the drawings.
  - House(s) with the symbol "C.N.S." indicates that cellar cannot be served.
- NOTE: THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY AT (410) 313-2822 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/LACKING OPERATION IN COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPM REQUIREMENTS PER SECTION 18.114 (a) OF THE HOWARD COUNTY CODE.**

ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
12" x 8" CROSBY	1 EA.	1 EA.		GRIFFEN
8" O.I.P.	343 LF.	343 LF.		GRIFFEN
8" SEWER	750 LF.	750 LF.		JOHN MANVILLE
3/4" W.H.C.	305 LF.	305 LF.		MUELLER
4" S.H.C.	317 LF.	317 LF.		JOHN MANVILLE
12" VALVE	4 EA.	4 EA.		MUELLER
6" VALVE	3 EA.	3 EA.		MUELLER
8" VALVE	3 EA.	3 EA.		MUELLER
DROP HOUSE CONNECTION	3 EA.	3 EA.		MUELLER
6" WATER	92 LF.	92 LF.		GRIFFEN
12" x 6" TEE	3 EA.	3 EA.		GRIFFEN
12" x 8" TEE	1 EA.	1 EA.		GRIFFEN
MAN MANHOLE	4 EA.	4 EA.		ATLANTIC
TERMINAL MH	1 EA.	1 EA.		ATLANTIC
FIRE HYDRANT	3 EA.	3 EA.		MUELLER
6" WATER	42 LF.	42 LF.		GRIFFEN
12" WATER	1130 LF.	1130 LF.		GRIFFEN

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James M. Helms* 12-23-92  
DIRECTOR OF PUBLIC WORKS DATE

*Robert B. Bunker* 12-15-92  
CHIEF ENGINEER DATE

**Boender Associates**  
3230 BETHANY LANE  
ELLICOTT CITY, MD 21043  
(301) 465-7777

DATE	BY	NO	REVISION	DATE
JULY, 1992				

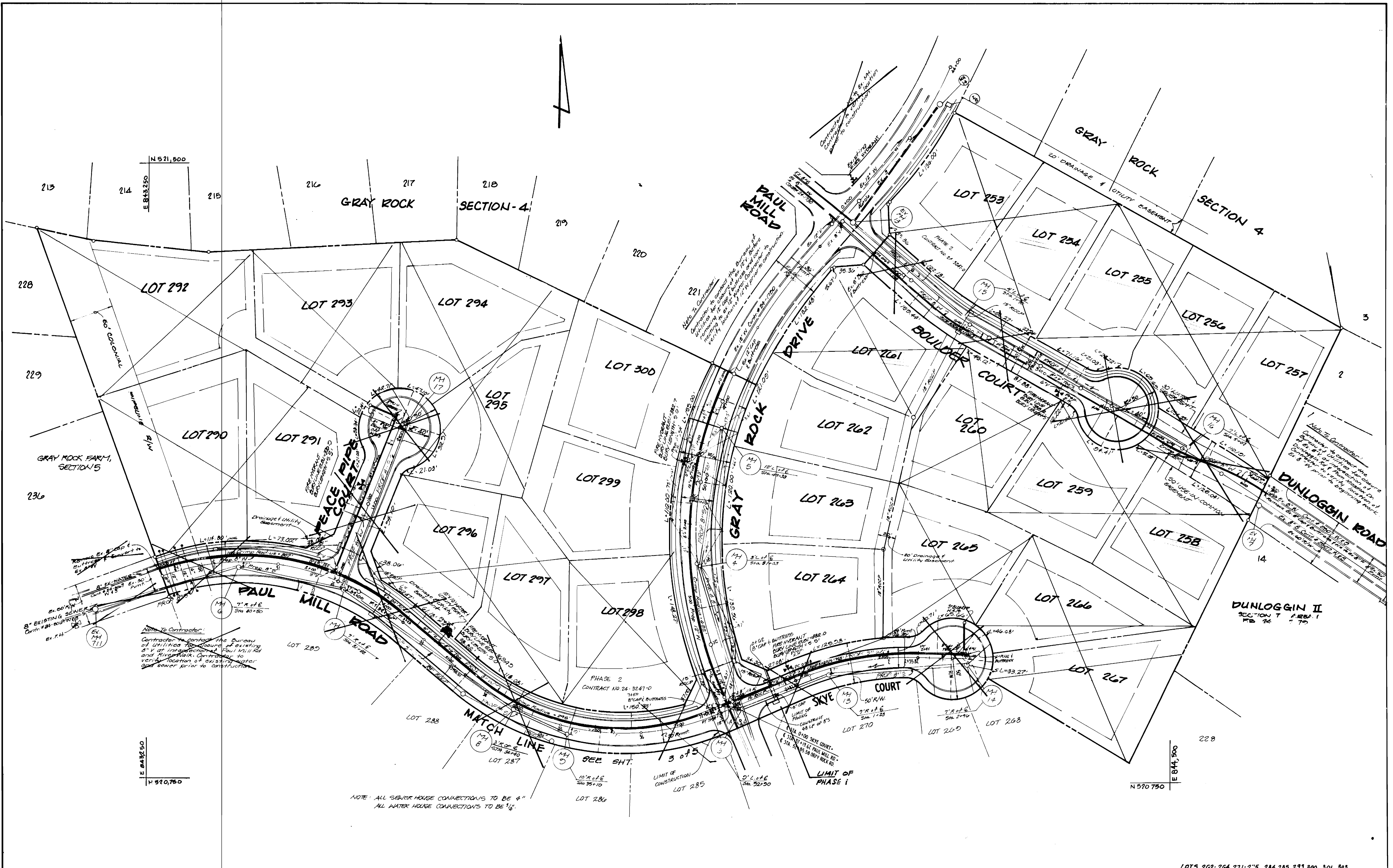
**TITLE SHEET**

600 SCALE MAP NO. 24, BLOCK 10

WATER & SEWER AS-BUILT  
LOTS 262-264, 271-275, 284, 285, 299, 300, 301, 303

**GRAY ROCK FARM, SECTION G, PHASE I  
2nd ELECTION DISTRICT  
CONTRACT NO. 24-3194-D**

SCALE AS SHOWN  
SHEET 1 OF 5  
5/10/94



NOTE: ALL SEWER HOUSE CONNECTIONS TO BE 4"  
ALL WATER HOUSE CONNECTIONS TO BE 1/2"

LOTS 292-294, 271-275, 284, 285, 299, 300, 301, 303

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

*James P. Lee* 12/28/92  
DIRECTOR OF PUBLIC WORKS DATE CHIEF BUREAU OF ENGINEERING

*Robert A. Bennett* 12-15-92  
CHIEF BUREAU OF UTILITIES DATE CHIEF LAND DEVELOPMENT DIVISION

**Boender Associates**  
ENGINEERS - PLANNERS - SURVEYORS  
3230 BETHANY LANE  
ELLCOTT CITY, MD. 21043  
(301) 465-7171

DES:	J.L.B./J.C.C.				
APP:	J.C.C.				
CHK:					
DATE:	JULY, 1992	BY:	NO.	REVISION	DATE

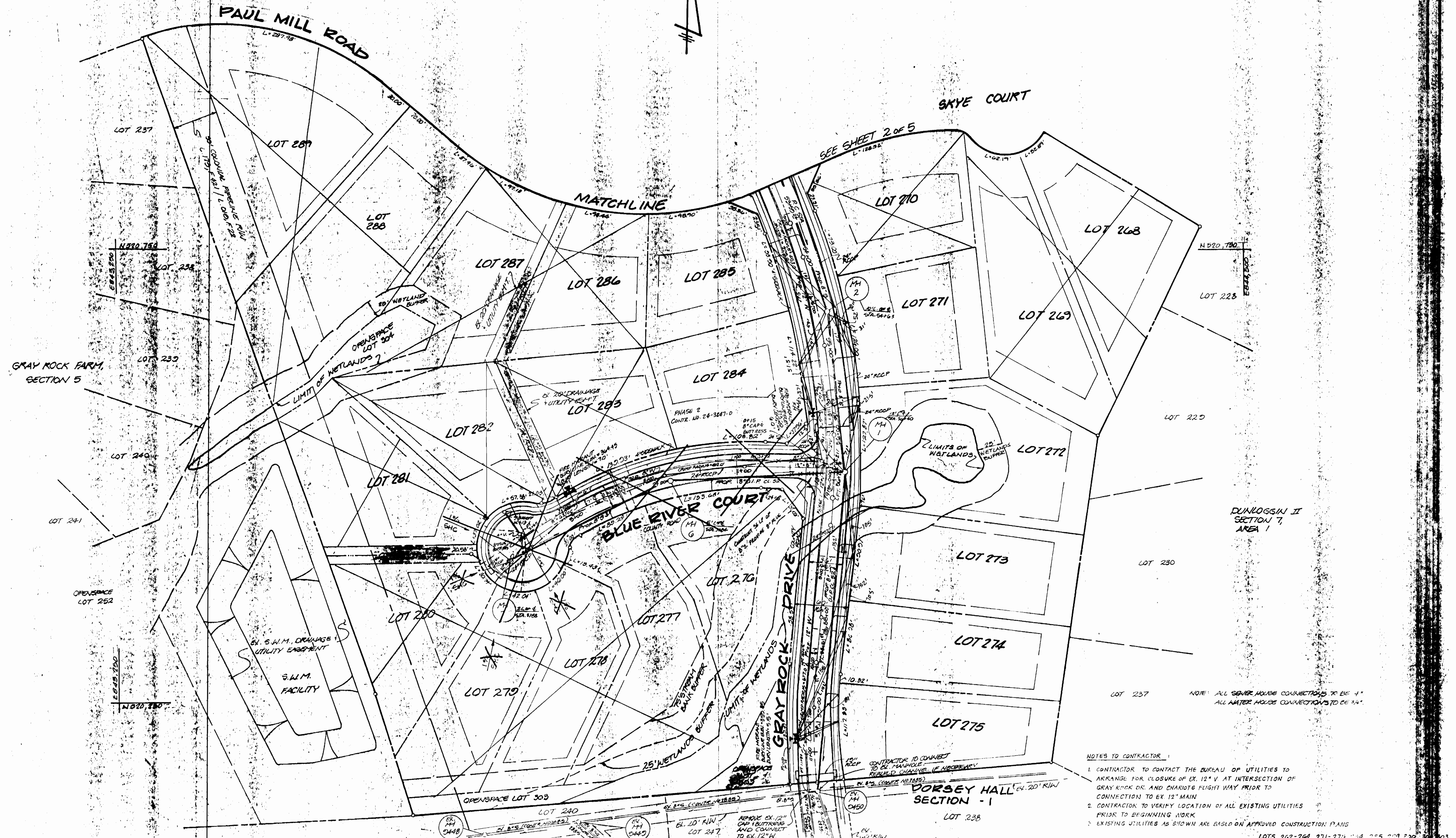
**WATER & SEWER PLAN**

600 SCALE MAP NO. 24, BLOCK 15

**GRAY ROCK FARM, SECTION 4, PHASE 1**  
**2<sup>ND</sup> ELECTION DISTRICT**  
**CONTRACT NO. 24-3124-D**

SCALE  
1" = 80'

SHEET  
2 OF 5



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

James M. Shaw 12/23/92 12/23/92  
 DIRECTOR OF PUBLIC WORKS DATE CHIEF BUREAU OF ENGINEERING DATE

Rolando B. Brown 12/15/92 12/15/92  
 CHIEF BUREAU OF UTILITIES DATE CHIEF LAND DEVELOPMENT DIVISION DATE

**Boender Associates**  
 INCORPORATED PLANNERS & SURVEYORS  
 3230 BETHANY LANE  
 ELLICOTT CITY, MD. 21043  
 (301) 465-7177

DES:	J.S.B./J.C.O.
CHK:	J.C.O.
DATE:	JULY 11, 1992
BY:	NO.
REVISION:	
DATE:	

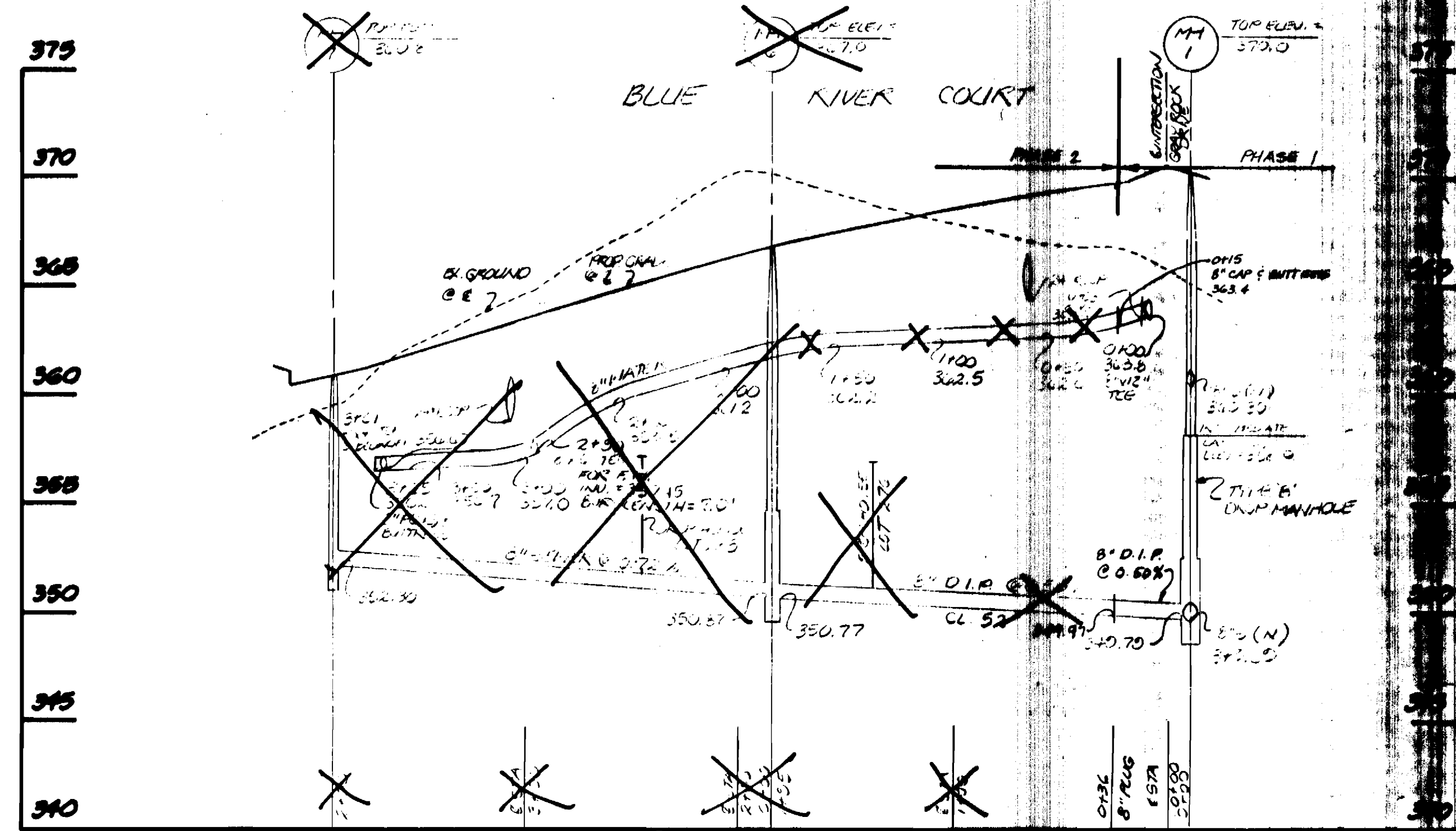
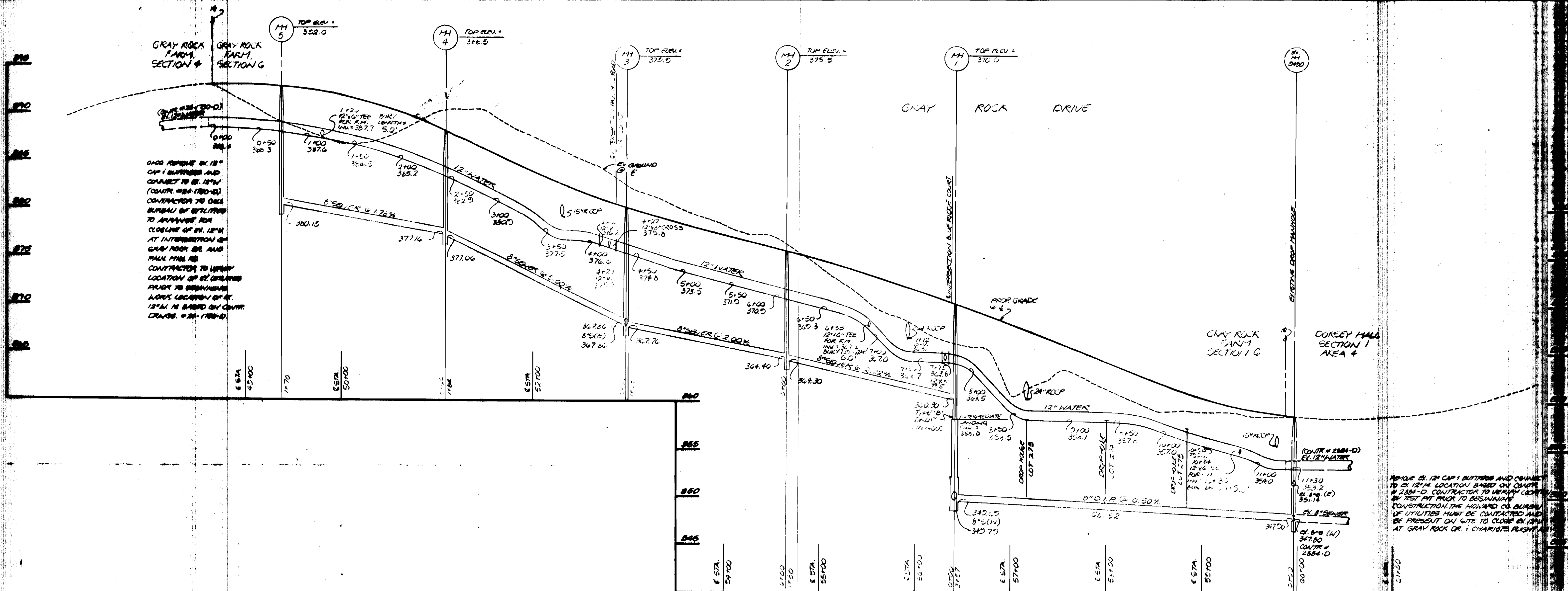
**WATER & SEWER PLAN**

600 SCALE MAP NO. 24, BLOCK 15

GRAY ROCK FARM, SECTION 5, PHASE 1  
 2ND ELECTION DISTRICT  
 CONTRACT NO. 24-3101-D

S.B.M.

5/10/94



LOTS 264, 271-275, 284, 285, 291, 300, 301, 302

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

12/23/92  
 12/23/92  
 12/15/92

DATE  
 DATE  
 DATE

**Boender Associates**  
 ENGINEERS - PLANNERS - SURVEYORS

3330 BETHANY LANE  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 485-7777 FAX: (410) 485-7966

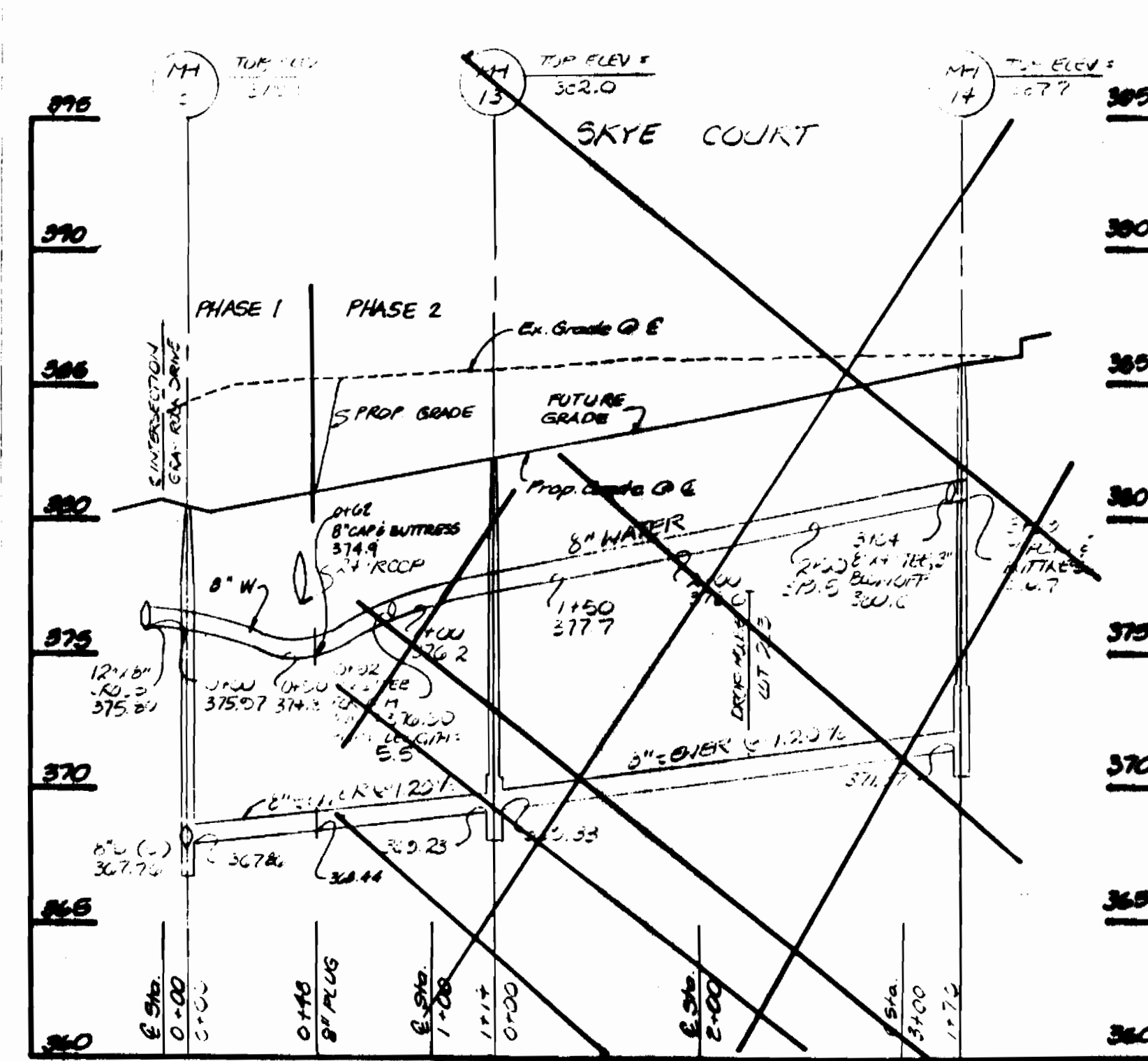
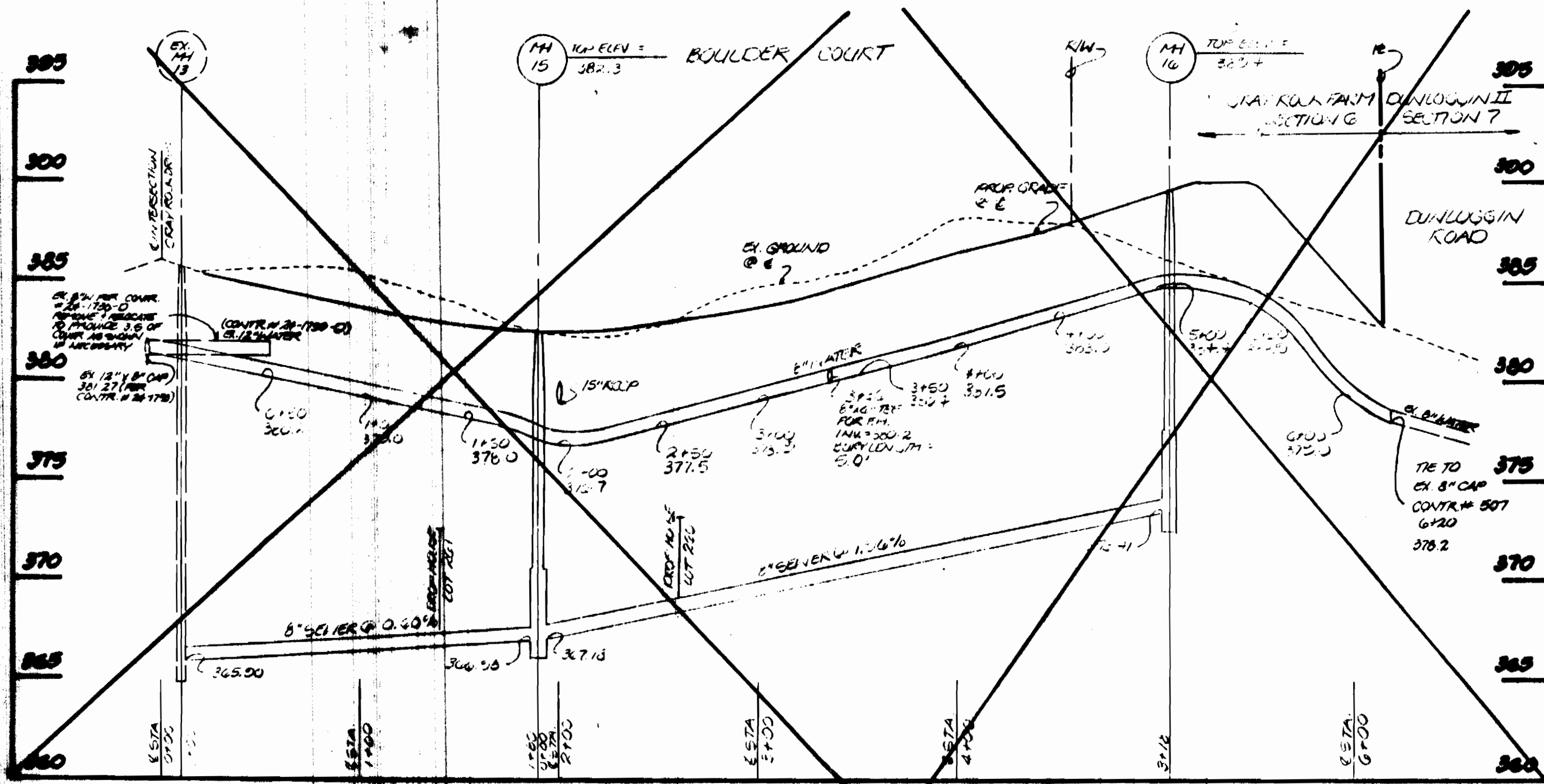
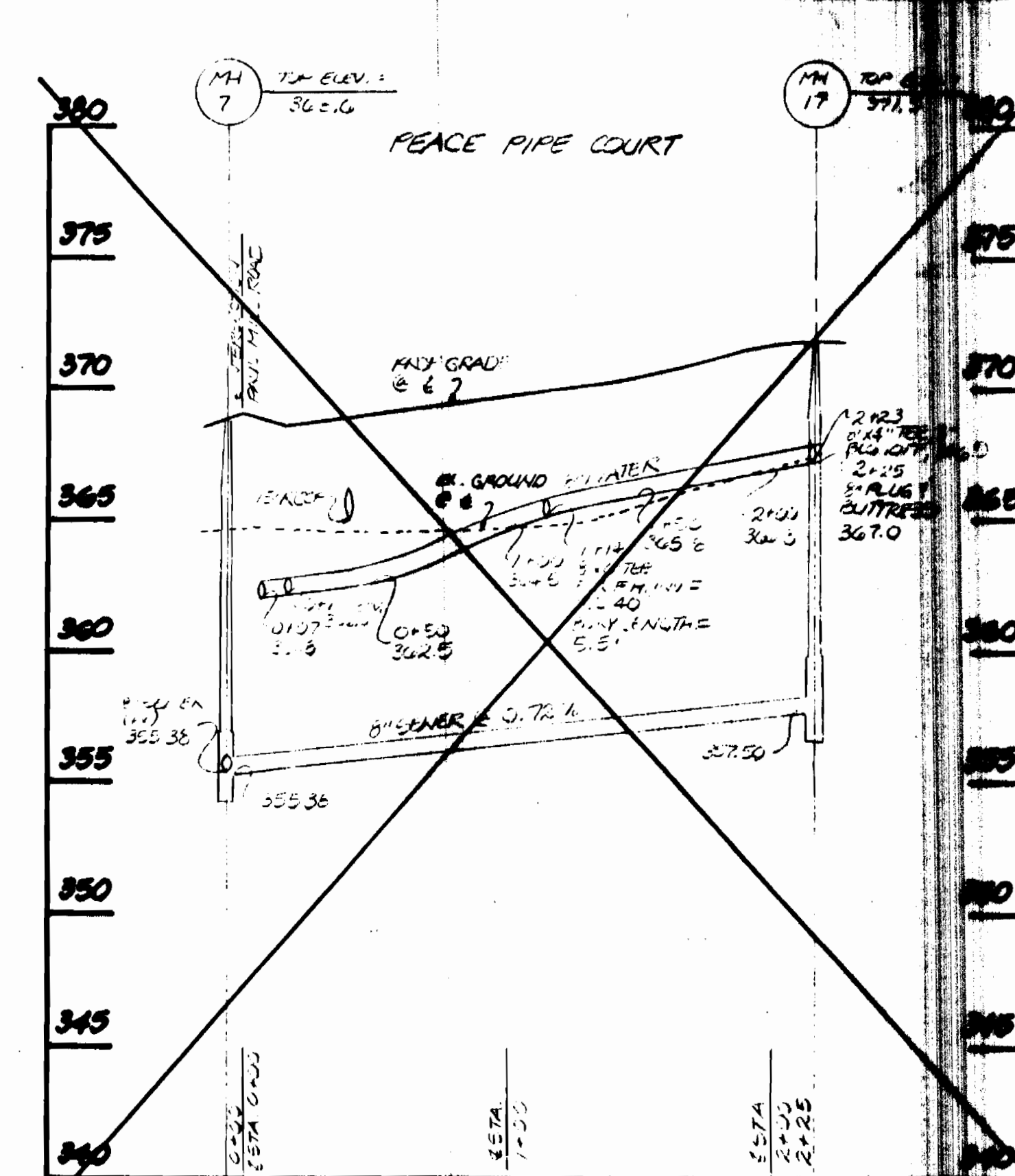
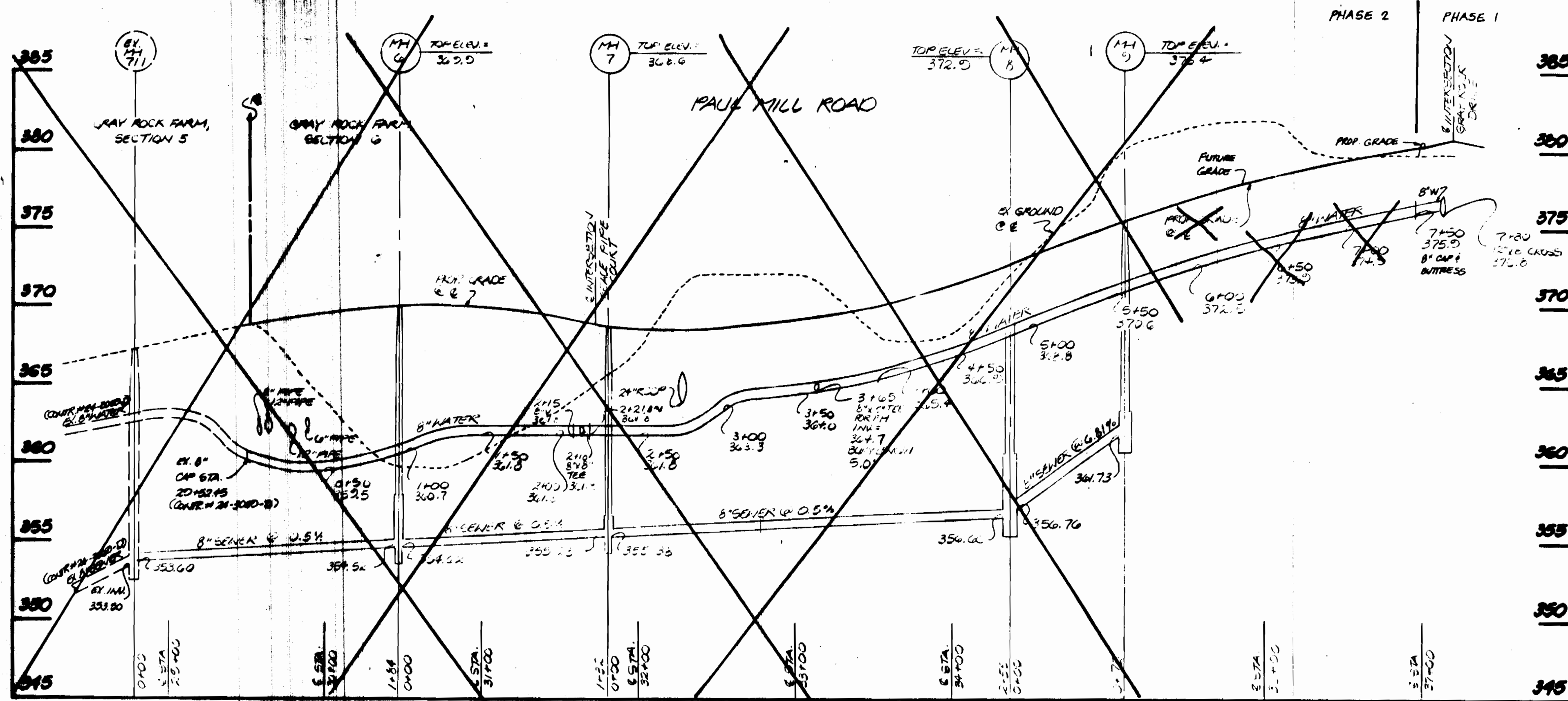
DES: J.J.B./J.C.O.  
 DRN: J.C.O.  
 CHK: J.C.O.  
 DATE: JULY 1992

**WATER AND SEWER PROFILES**

600 SCALE MAP NO. 24, BLOCK 15

**GRAY ROCK FARM, SECTION 6, PHASE 1**

2nd ELECTION DISTRICT  
 CONTRACT NO. 24-3104-D



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DATE: 12-15-92  
DATE: 12-23-92  
DATE: 12-23-92

CHIEF, BUREAU OF ENGINEERING  
CHIEF, LAND DEVELOPMENT DIVISION

**Boandar Associates**  
ENGINEERS - PLANNERS - SURVEYORS

3230 BETHANY LANE  
ELICOTT CITY, MARYLAND 21042  
(410) 461-7777 FAX: (410) 461-7988

DES: J.S.B./C.O.  
DRN: J.C.A.  
CHK: [Signature]  
DATE: JULY, 1992

**WATER AND SEWER PROFILES**

GRAY ROCK FARM, SECTION G, PHASE 2  
2ND. ELECTION DISTRICT  
CONTRACT NO. 24-3104-D

LOTS 264-264, 271-275, 284, 285, 299, 300, 301.