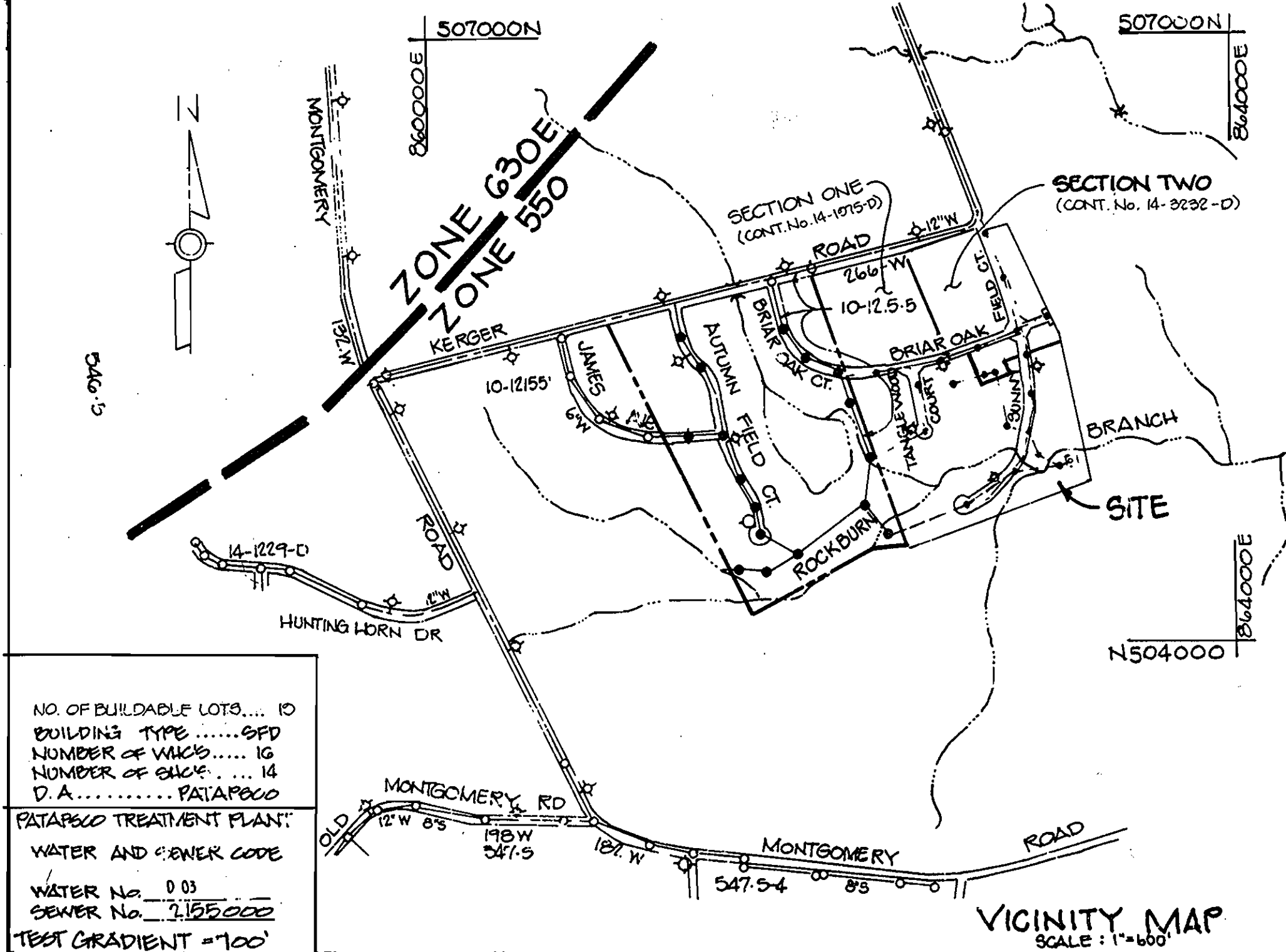
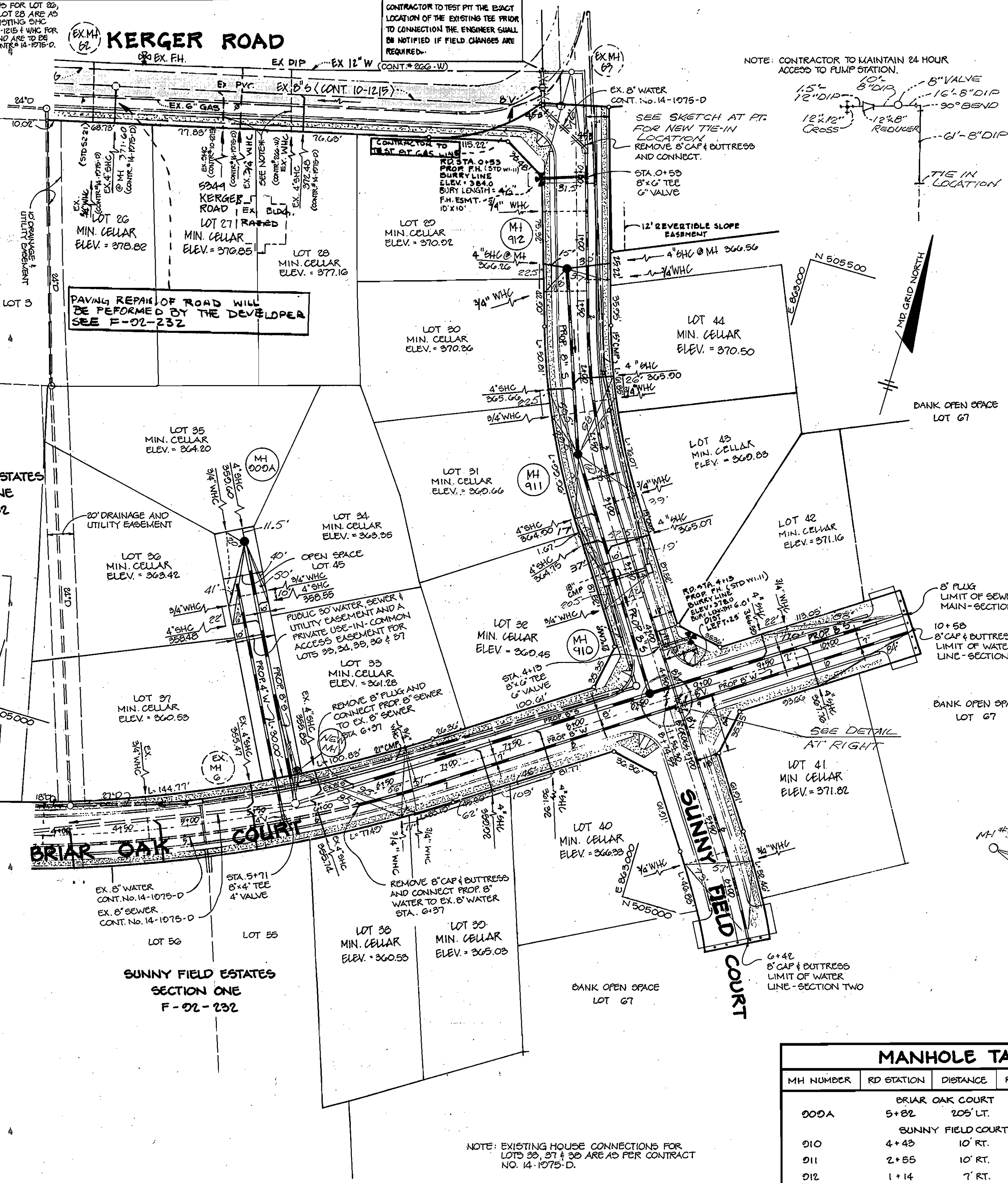


ITEMS	QUANTITIES ESTIMATED	QUANTITIES		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" WATER	1042 LF	1184 LF	DIP	ATLANTIC STATES
6" WATER	69 LF	46 LF	DIP	"
8" VALVES	3 EA.	4 EA.	DIP	MUELLER CO.
FIRE HYDRANTS	2 EA.	2 EA.	CAST IRON	MUELLER CO.
3/4" WHC	406 LF	403 LF	COPPER	CAMBRIDGE-LEE
4" WATER	182 LF	191 LF	DIP	ATLANTIC STATES
4" VALVES	1 EA.	—	DIP	—
6" VALVES	2 EA.	2 EA.	DIP	MUELLER CO.
4" SEWER	359 LF	432 LF	PVC	J.M. MANUFACTURING
MANHOLES	4 CA-GOVF	5 EA.	PRE-CAST CONCRETE	CAMPBELL FOUNDRY
8" SEWER	561 LF	326 LF	PVC	J.M. MANUFACTURING
12" 8" REDUCER	—	1 EA.	DIP	TYLER PIPES
12" DIP	—	15 LF	DIP	ATLANTIC STATES
1" WHC	—	10 LF	COPPER	CAMBRIDGE-LEE

NAME OF UTILITY CONTRACTOR: GRAY AND SON AS-BUILTS: KATHY WILSON
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: PREPARED BY: (EBA)



NO. OF BUILDABLE LOTS: 10
BUILDING TYPE: 10
NUMBER OF W/CS: 10
NUMBER OF S/WCS: 14
D.A.: PATAPSCO
PATAPSCO TREATMENT PLANT
WATER AND SEWER CODE
WATER No. 003
SEWER No. 1155000
TEST GRADIENT = 100'

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", AND ALL POLES BY A MINIMUM OF 2'-0".
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME FOUR, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME FOUR 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 BEEN MADE SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THIS PLAN:
 - STATE HIGHWAY ADMINISTRATION : 531-5533
 - BALTIMORE GAS & ELECTRIC CO. : CONTRACTOR SERVICES : 850-4620
 - UNDERGROUND DAMAGE CONTROL : 787-9068
 - TROUBLE SHOOTING : 298-9001
 - MISS UTILITY : 1-800-257-7777
 - COLONIAL PIPELINE COMPANY : 785-1390
 - C&P TELEPHONE COMPANY : 1-800-257-7777
 - 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.
- TOPS 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 BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS W/11 & W/12. 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 THE PLANS OR IN THE SPECIFICATIONS (STD. DETAIL W 3.21)
- WATER MAINS OR WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER TIGHT FRAME AND COVERS STANDARD DETAIL G 5.52 WHERE WATER TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X. OR 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.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL G 5.51
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 : DUCTILE IRON COMPACT FITTINGS, 3" THROUGH 12" FOR WATER & OTHER LIQUIDS.

MH NUMBER	RD STATION	DISTANCE	RIM ELEVATION	SLOPE
BRIAR OAK COURT				
000A	5+82	205' LT.	368.26	+ 2.0%
SUNNY FIELD COURT				
010	4+43	10' RT.	376.38	+ 1.0%
011	2+55	10' RT.	377.07	- 2.4%
012	1+14	7' RT.	382.48	- 4.0%

HOWARD COUNTY CONSERVATION DISTRICT:
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT
AND MEETS TECHNICAL REQUIREMENTS

James M. Helms 1/5/73
S.S. SOIL CONSERVATION SERVICE DATE

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

John R. Roberts 1/5/73
HOWARD COUNTY CONSERVATION DISTRICT DATE

HOCD BENCHMARK # 2744005
LOCATED 3155' S DOWN KERGER RD,
250' N NORTHWEST OF INTERSECTION
OF KERGER ROAD & MONTGOMERY RD.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND ROAD CONSTRUCTION DRAWINGS F-02-132 & F-03-08

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. Helms 1/5/73
DIRECTOR OF PUBLIC WORKS DATE

Michael A. Roberts 12-31-92
CHIEF, BUREAU OF UTILITIES DATE

Richard E. Relyea 1-8-93
CHIEF, BUREAU OF ENGINEERING DATE

Michael A. Roberts 1/1/93
CHIEF, LAND DEVELOPMENT DIVISION DATE

RIEMER MUEGGE AND ASSOCIATES, INC.
A LAND PLANNING, ENGINEERING AND CONSULTING FIRM
2810 CENTRE PARK DRIVE, SUITE 200, COLUMBIA, MD. 21045
(410) 501-0000 FAX: (410) 501-0282

DES: D.W.
DRN: R.T.
CHK: P.A.
DATE: 12-10-92

NO.	BY	NO.	REVISION	DATE
1	MAAD	1	REMOVE LOT 46, CHANGE LOT 47 TO 47 & REV. TITLE BLOCK	5-5-03

PLAN OF WATER AND SEWER MAINS

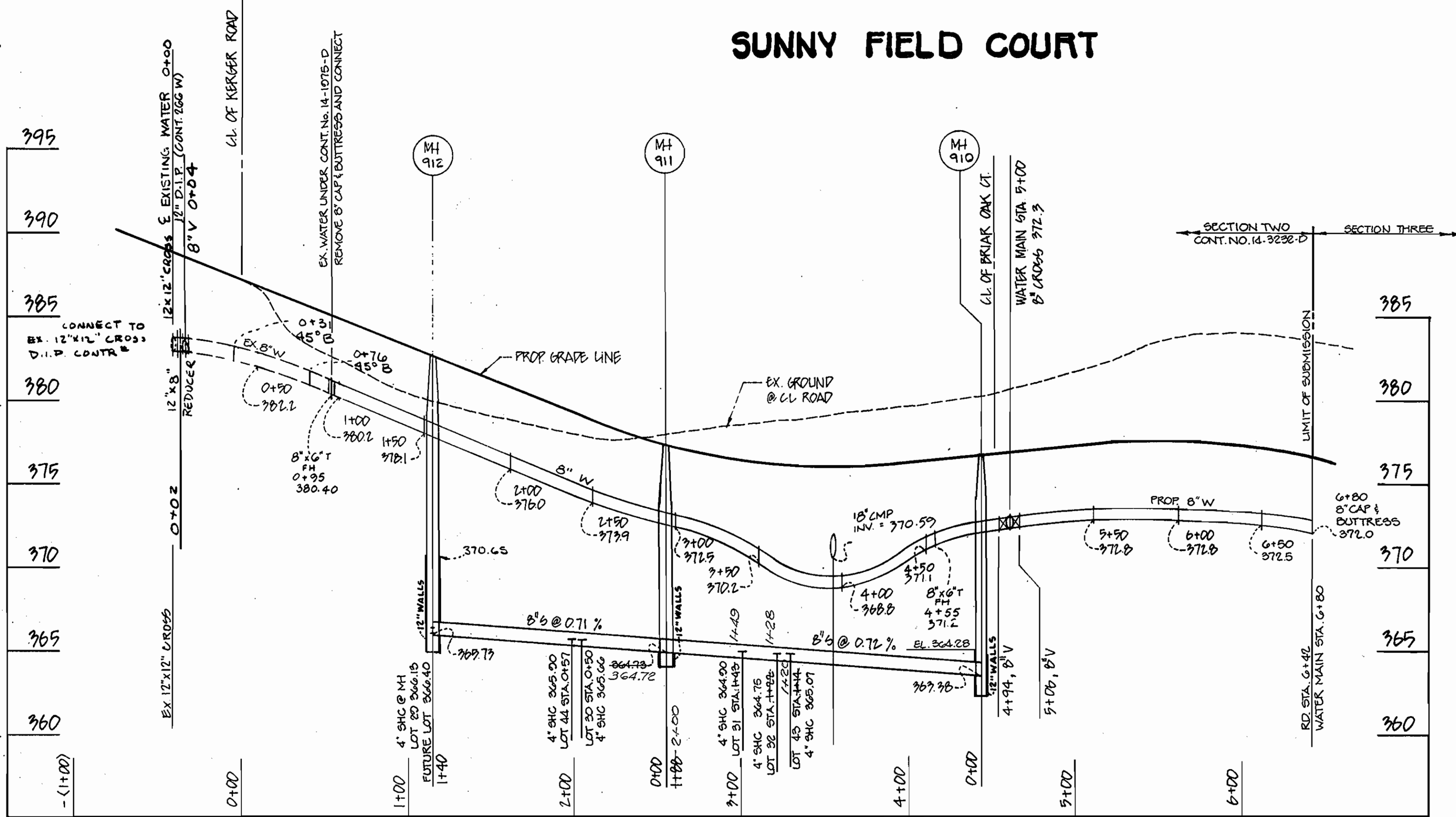
600' SCALE MAP NO. 31 BLOCK NO. 21

SUNNY FIELD ESTATES
SECTION 2
ELECTION DISTRICT NUMBER 1

CONTRACT NO. 14-3232-D

SCALE AS SHOWN
SHEET 1 OF 3

SUNNY FIELD COURT



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. Linn 1/2/93
DIRECTOR OF PUBLIC WORKS DATE

Michael J. Linn 12-31-92
CHIEF, BUREAU OF UTILITIES DATE

William J. Kelly 1-8-93
CHIEF, BUREAU OF ENGINEERING DATE

John J. Dammann 1/7/93
CHIEF, LAND DEVELOPMENT DIVISION DATE

RIEMER MUEGGE AND ASSOCIATES, INC.
A LAND PLANNING, ENGINEERING AND CONSULTING FIRM
8818 CENTRE PARK DRIVE, SUITE 200, COLUMBIA, MD 21046
(410) 227-8000 FAX: (410) 227-0222



DES: DCW			
DRN: RTJR			
CHK: RA			
DATE: 12-16-92	BY	NO.	REVISION

PROFILE OF WATER AND SEWER MAINS

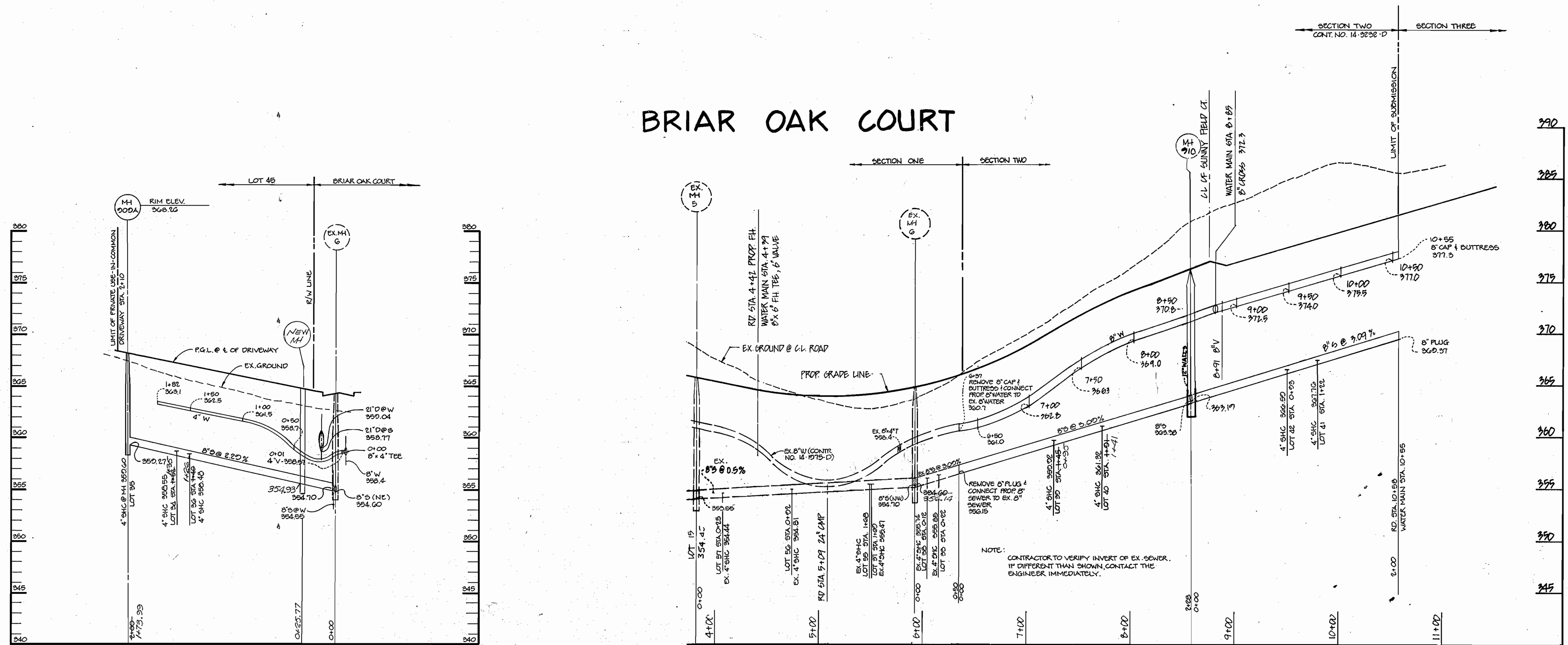
600' SCALE MAP NO. 31 BLOCK NO. 21

SUNNY FIELD ESTATES
SECTION 2 LOTS 26-47
ELECTION DISTRICT NUMBER 1

CONTRACT NO. 14-3232-D

SCALE AS SHOWN
SHEET 2 OF 3

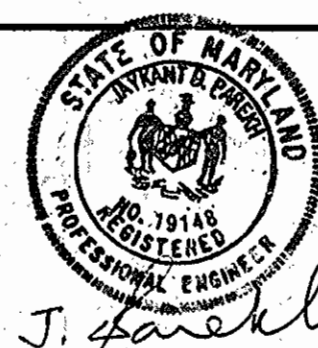
BRIAR OAK COURT



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 11/13/93
 Chief, Bureau of Engineering: *[Signature]* DATE: 1-8-93
 Chief, Bureau of Utilities: *[Signature]* DATE: 12/31/92
 Chief, Land Development Division: *[Signature]* DATE: 1/1/93

RIEMER MUEGGE AND ASSOCIATES, INC.
A LAND PLANNING, ENGINEERING AND CONSULTING FIRM
2818 CENTRE PARK DRIVE, SUITE 200, COLUMBIA, MD 21045
(410) 207-8000 FAX (410) 207-9282



DES: DW

DRN: RT

CHK: RA

DATE: 12-16-02

BY	NO.	REVISION	DATE

PROFILE OF WATER AND SEWER MAINS

DATE: 12-16-02 BY: NO. REVISION DATE: 12-16-02

SUNNY FIELD ESTATES
SECTION 2 LOTS 20-21
ELECTION DISTRICT NUMBER 1

CONTRACT NO. 14-3232-D

SCALE AS SHOWN

SHEET 3 OF 3