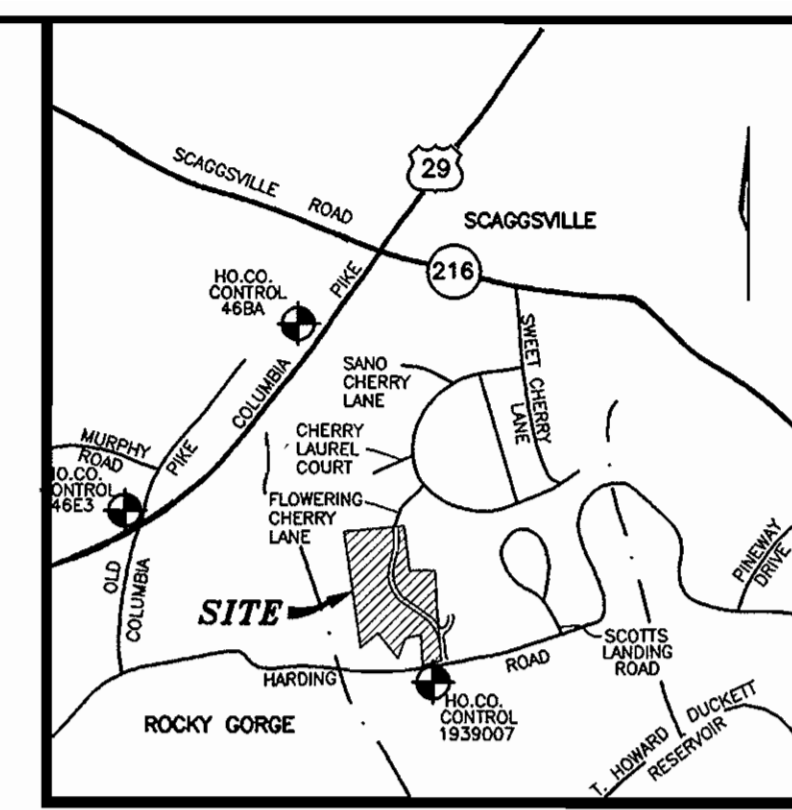


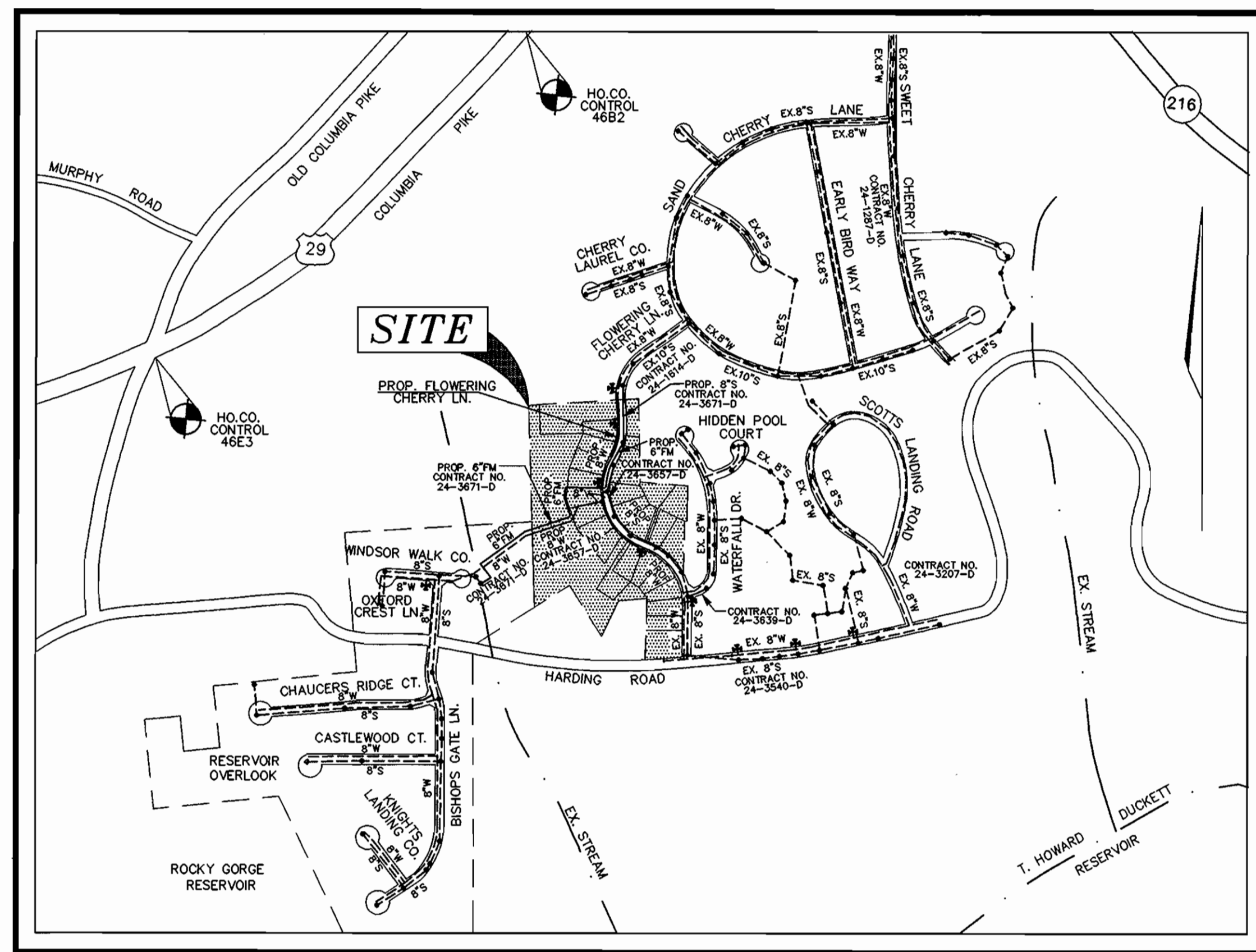
# HARDING WOODS PUBLIC WATER & SEWER PLANS HOWARD COUNTY, MARYLAND CONTRACT NO. 24-3657-D

**BENCH MARKS**  
HOWARD COUNTY CONTROL NUMBERS(NAD 83):  
46E3 N534,610.716 E1,337,927.637 EL. 410.062  
46B2 N539,987.625 E1,337,218.479 EL. 475.347



**VICINITY MAP**  
SCALE: 1"=2000'

4" S.H.C. (D.I.P.)	64 L.F.			
8" SEWER	200 L.F.			
CONC. ENCASEMENT	20 L.F. (2 C.Y.)			
STANDARD M.H.	6			
INTERMEDIATE LANDING	2			
8" SEWER MAIN	644 L.F.			
4" S.H.C.	376 L.F.			
# D.H.C.	5			
# S.H.C.	16			
#M.H. CONNECTIONS	1			
1" W.H.C.	66 L.F.			
1 1/2" T.W.H.C.	187 L.F.			
6" VALVE	3			
8" VALVE	3			
8"x6" TEE	3			
8"x8" TEE	1			
6" WATER	51 L.F.			
FIRE HYDRANT	3			
8" 1/32 H.B.	1			
8" 1/8 H.B.	2			
8" WATER	1,707 L.F.			
# T.W.H.C.	8			
# W.H.C.	5			
ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
<b>QUANTITIES</b>				
NAME OF UTILITY CONTRACTOR				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE				



**LOCATION PLAN**  
SCALE: 1"=600'

TYPE OF BUILDING:	SINGLE FAMILY DETACHED
NO. OF LOTS/PARCELS:	25
NO. OF WATER HOUSE CONNECTIONS:	21
NO. OF SEWER HOUSE CONNECTIONS:	22
DRAINAGE AREA:	LITTLE PATUXENT.
TREATMENT PLANT:	LITTLE PATUXENT WATER RECLAMATION PLANT.

WATER CODE: E-18  
SEWER CODE: 7602000  
TEST GRADIENT: 700

**PART I - GENERAL NOTES**

1. 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.
2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S DATA.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTRACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON 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.
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 (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
7. 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 AT HIS OWN EXPENSE.
8. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN THESE PLANS:
 

C. & P. TELEPHONE	597-8585
A.T. & T.	865-3803
STATE HIGHWAY ADMINISTRATION	531-5533
B.G.&E. CO. CONTRACTOR SERVICES	850-4620
B.G.&E. CO. UNDER GROUND DAMAGE CONTROL	787-9068
MSS UTILITY	1-800-257-7777
COLONIAL PIPELINE CO.	795-1390
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES	313-4900
9. TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
10. 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 THE CONSTRUCTION OF THE MAIN.
11. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAIN OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.

**PART II - WATER**

1. ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
2. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2" COVER UNLESS OTHERWISE NOTED.
3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
5. 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. SOIL AROUND FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
7. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
8. ALL WATER HOUSE CONNECTIONS SHALL BE 1" WITH 3/4" METERS. ALL TWIN WATER HOUSE CONNECTIONS SHALL BE 1 1/2" WITH 3/4" WYES AND 3/4" METERS.

**PART III - SEWER**

1. ALL SEWER MAINS SHALL BE DIP CLASS 52 OR P.V.C. UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
3. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
4. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
5. 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.
6. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

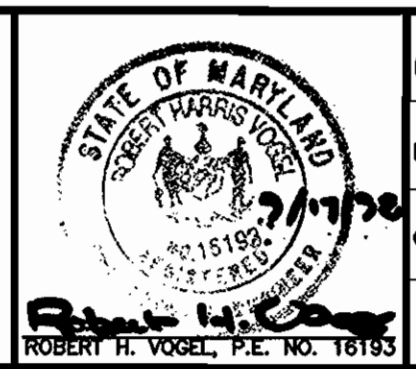
NOTE: SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF HOWARD COUNTY DESIGN MANUAL AND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND CONSTRUCTION PLAN F-98-151.

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT. <i>John L. Robertson</i> 10/5/98 SOIL CONSERVATION DISTRICT      DATE	REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS. <i>Cheryl Simmons</i> 10/5/98 U.S. SOIL CONSERVATION DISTRICT      DATE
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DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Robert M. Berman* 9-29-98  
CHIEF, BUREAU OF UTILITIES      DATE

DEPARTMENT OF PLANING & ZONING  
HOWARD COUNTY, MARYLAND  
*Harold* 10/5/98  
CHIEF, DEVELOPMENT ENGINEERING DIVISION      DATE

**VOGEL & ASSOCIATES**  
ENGINEERS-SURVEYORS-PLANNERS  
3691 Park Avenue, Suite 101 • Ellicott City, Maryland 21043  
Tel 410.461.5828 Fax 410.465.3966



DES. P.K.P.				
DRN. P.K.P.				
CHK. R.H.V.				
DATE: JULY, 1998				
BY NO.				
REVISION	1	REVISE SEWER MAIN 18" DIA'S TO D.I.P. BETWEEN MH-2 AND MH-4	3/5/99	

**TITLE SHEET**

600' SCALE MAP NO. 46 BLOCK NO. 16

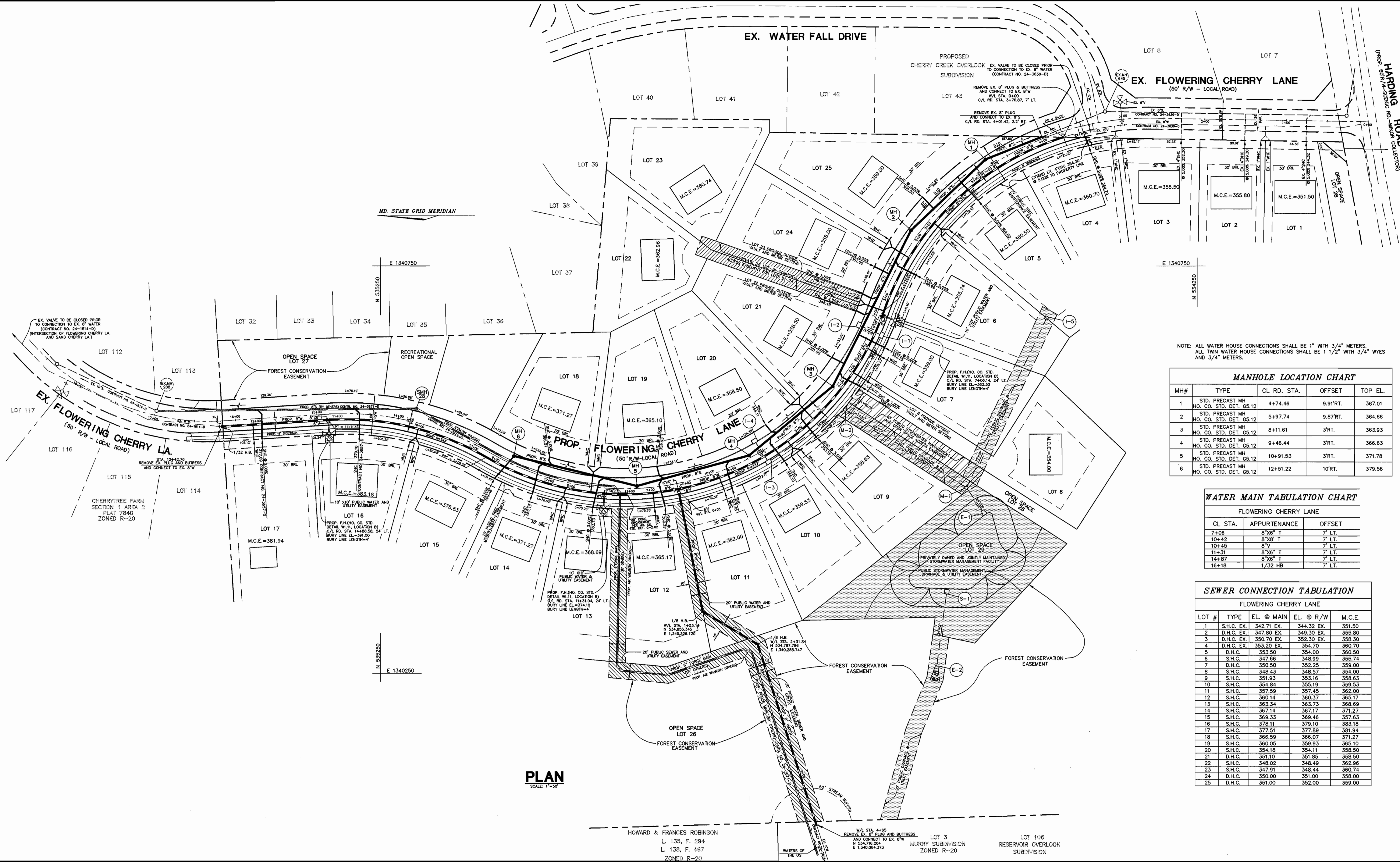
**HARDING WOODS  
LOTS 1 THRU 25 AND  
OPEN SPACE LOTS 26 THRU 29  
CONTRACT 24-3657-D**

TAX MAP NO. 46 PARCEL NO. 65 BLOCK NO. 16 ZONED R-20  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 3

ACADWORKS-HARDING WOODS FINAL TITLE.DWG





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

NOTE: ALL WATER HOUSE CONNECTIONS SHALL BE 1" WITH 3/4" METERS.  
ALL TOWN WATER HOUSE CONNECTIONS SHALL BE 1 1/2" WITH 3/4" WYES AND 3/4" METERS.

MANHOLE LOCATION CHART					
MH#	TYPE	CL RD. STA.	OFFSET	TOP EL.	
1	STD. PRECAST MH	HO. CO. STD. DET. G5.12	4+74.46	9.91'RT.	367.01
2	STD. PRECAST MH	HO. CO. STD. DET. G5.12	5+97.74	9.87'RT.	364.66
3	STD. PRECAST MH	HO. CO. STD. DET. G5.12	8+11.61	3'RT.	363.93
4	STD. PRECAST MH	HO. CO. STD. DET. G5.12	9+46.44	3'RT.	366.63
5	STD. PRECAST MH	HO. CO. STD. DET. G5.12	10+91.53	3'RT.	371.78
6	STD. PRECAST MH	HO. CO. STD. DET. G5.12	12+51.22	10'RT.	379.56

WATER MAIN TABULATION CHART		
FLOWERING CHERRY LANE		
CL STA.	APPURTENANCE	OFFSET
7+06	8"X6" T	7' LT.
10+42	8"X8" T	7' LT.
10+45	8" V	7' LT.
11+31	8"X6" T	7' LT.
14+87	8"X6" T	7' LT.
16+18	1/32 HB	7' LT.

SEWER CONNECTION TABULATION				
FLOWERING CHERRY LANE				
LOT #	TYPE	EL. @ MAIN	EL. @ R/W	M.C.E.
1	S.H.C. EX.	342.71 EX.	344.32 EX.	351.50
2	D.H.C. EX.	347.80 EX.	349.30 EX.	355.80
3	D.H.C. EX.	350.70 EX.	352.30 EX.	358.30
4	D.H.C. EX.	353.20 EX.	354.70 EX.	360.70
5	D.H.C.	353.50	354.00	360.50
6	S.H.C.	347.66	348.99	355.74
7	D.H.C.	350.50	352.25	359.00
8	S.H.C.	348.43	348.57	354.00
9	S.H.C.	351.93	353.16	358.63
10	S.H.C.	354.84	355.19	359.53
11	S.H.C.	357.59	357.45	362.00
12	S.H.C.	360.14	360.37	365.17
13	S.H.C.	363.34	363.73	368.69
14	S.H.C.	367.14	367.17	371.27
15	S.H.C.	369.33	369.46	375.63
16	S.H.C.	378.11	379.10	383.18
17	S.H.C.	377.51	377.89	381.94
18	S.H.C.	366.59	366.07	371.27
19	S.H.C.	360.05	360.37	365.10
20	S.H.C.	354.18	354.11	358.50
21	D.H.C.	351.10	351.85	358.50
22	S.H.C.	348.02	348.49	362.96
23	S.H.C.	347.91	348.44	360.74
24	D.H.C.	350.00	351.00	358.00
25	D.H.C.	351.00	352.00	359.00

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert W. Beaman*  
CHIEF, BUREAU OF UTILITIES  
9-29-98  
DATE

DEPARTMENT OF PLANING & ZONING  
HOWARD COUNTY, MARYLAND

*Harold...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE

**VOGEL & ASSOCIATES**  
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DES: P.K.P.	
DRN: P.K.P.	
CHK: R.H.V.	
DATE: JULY, 1998	
BY NO.	REVISION
1	REVISE SEWER MAIN + S.H.C. TO D.I.P. BETWEEN MH2 AND MH1 +
	EXISTING CONNECTION
	9/8/99

**WATER AND SEWER PLAN**

600' SCALE MAP NO. 46 BLOCK NO. 16

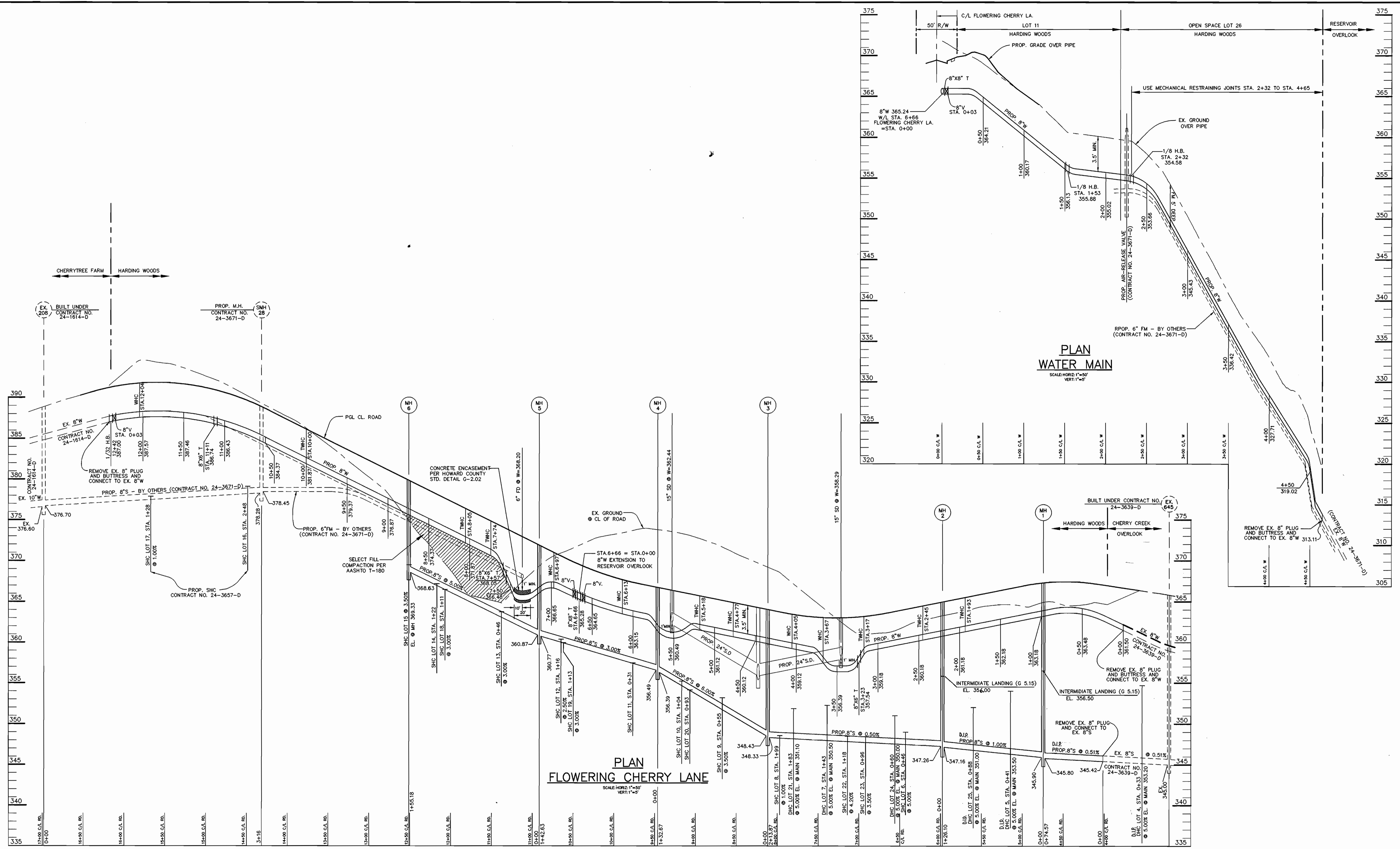
**HARDING WOODS**  
LOTS 1 THRU 25 AND  
OPEN SPACE LOTS 26 THRU 29  
CONTRACT 24-3657-D

TAX MAP NO. 46 PARCEL NO. 65 BLOCK NO. 16 ZONED R-20  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 2 OF 3





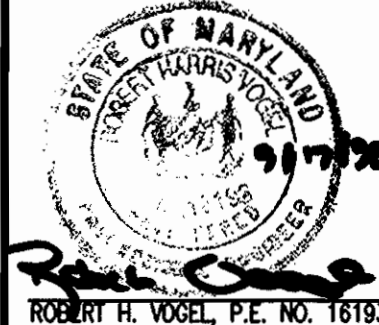
**PLAN  
FLOWERING CHERRY LANE**  
SCALE: HORIZ: 1"=50'  
VERT: 1"=5'

**PLAN  
WATER MAIN**  
SCALE: HORIZ: 1"=50'  
VERT: 1"=5'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANING & ZONING  
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DES:	P.K.P.
DRN:	P.K.P.
CHK:	R.H.V.
DATE:	JULY, 1998
BY:	NO.
REVISION:	
DATE:	9/5/00

**WATER AND SEWER PROFILE**  
600' SCALE MAP NO. 46 BLOCK NO. 16

**HARDING WOODS  
LOTS 1 THRU 25 AND  
OPEN SPACE LOTS 26 THRU 29  
CONTRACT 24-3657-D**  
TAX MAP NO. 46 PARCEL NO. 65 BLOCK NO. 16 ZONED R-20  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 3 OF 3

ACADWSS8.H.WOODS\FINAL\WSS2.DWG

9-29-98  
DATE

11/7/98  
DATE