


GENERAL NOTES

PART I

- 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, NAD 83/91
- ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED 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 MONIES 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 DETAILS 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.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN THESE PLANS:
  - A.T. & T. 1-800-252-1133
  - B.G. & E. CO. CONTRACTOR SERVICES 410-850-4620
  - B.G. & E. CO. UNDER GROUND DAMAGE CONTROL 410-787-9068
  - BUREAU OF UTILITIES 410-313-4900
  - COLONIAL PIPELINE CO. 410-795-1390
  - MISS UTILITY 1-800-257-7777
  - STATE HIGHWAY ADMINISTRATION 410-531-5533
  - VERIZON 1-800-743-0033/410-224-9210
- 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
- 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.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 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

- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" 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 ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND 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.

PART III - SEWER

- ALL SEWER MAINS SHALL BE DIP OR P.V.C. UNLESS OTHERWISE NOTED.
- 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 WATER TIGHT FRAME AND COVERS, STANDARD DETAIL 05.52. WHERE WATER TIGHT 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.

TYPE OF BUILDING:	RESIDENTIAL
NO. OF LOTS/PARCELS:	21
NO. OF WATER HOUSE CONNECTIONS:	18
NO. OF SEWER HOUSE CONNECTIONS:	18
DRAINAGE AREA:	PATAPSCO
TREATMENT PLANT:	PATAPSCO WASTE WATER TREATMENT PLANT

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN THE ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH F-03-223

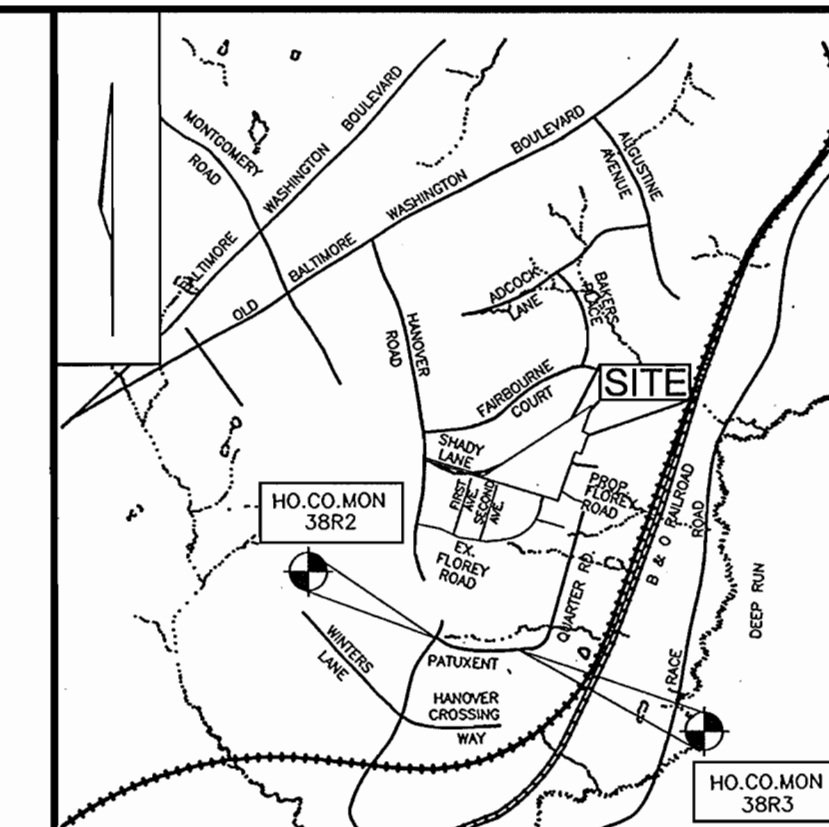
# FINAL WATER AND SEWER PLAN

## WHITETAIL WOODS II

### LOTS 1-21

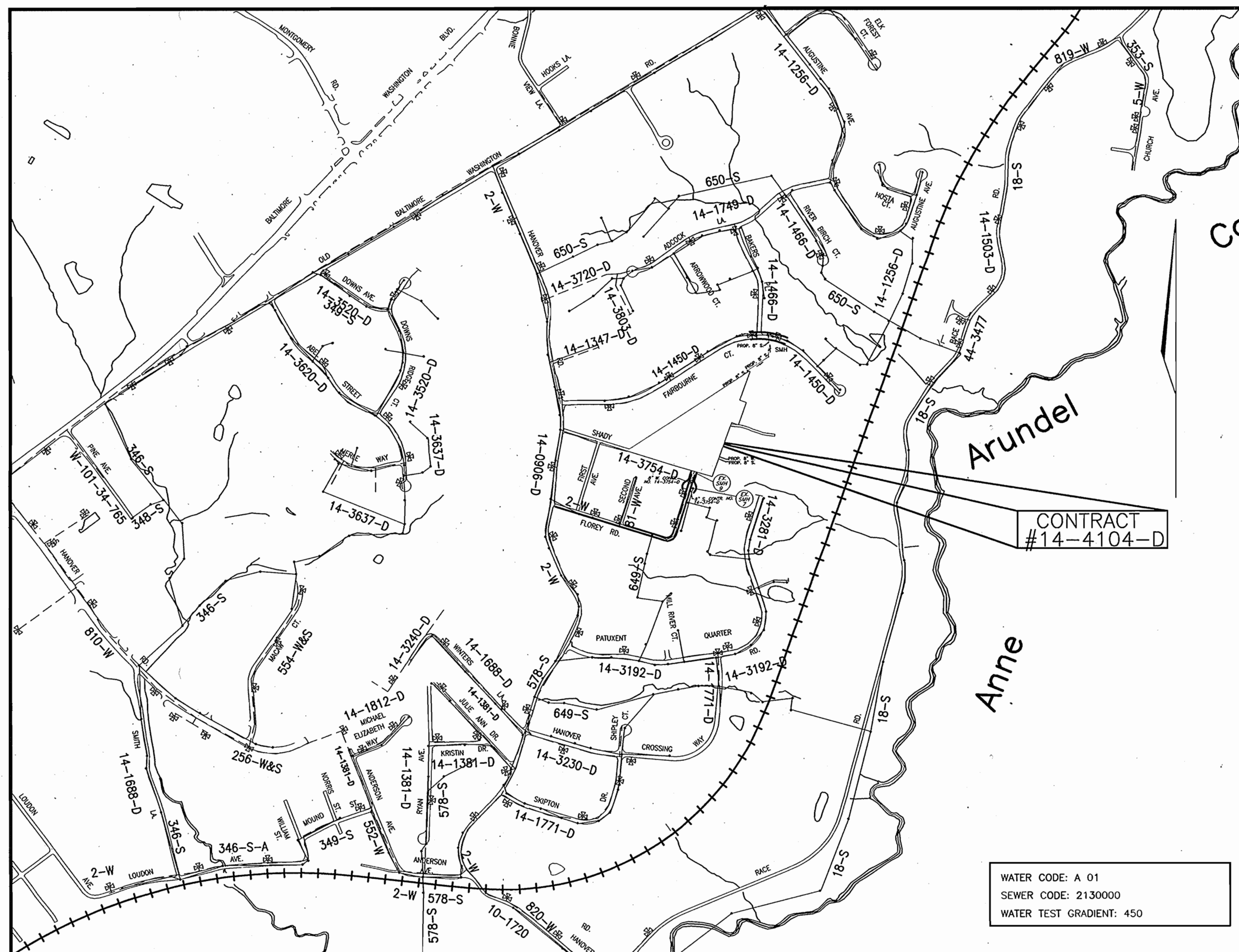
#### HOWARD COUNTY, MARYLAND

#### CONTRACT NO. 14-4104-D



VICINITY MAP  
SCALE: 1"=2000'

BENCHMARKS			
NO.	NORTHING	EASTING	ELEVATION
38R2	557,500.663	1,391,227.052	168.788'
38R3	557,417.823	1,391,983.177	124.653'



LOCATION MAP  
SCALE: 1"=600'

WATER CODE: A 01  
SEWER CODE: 2130000  
WATER TEST GRADIENT: 450

QUANTITIES

NAME OF UTILITY CONTRACTOR:				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
4" W	163 LF			
8" W	791 LF			
FIRE HYDRANT	1 EACH			
8"X8" TEE	1 EACH			
8" V	1 EACH			
8"X4" TEE	1 EACH			
4" VALVE	1 EACH			
8" CAP & BUTTRESS	2 EACH			
4" CAP & BUTTRESS	1 EACH			
8" S (PVC)	1459 LF			
MANHOLES	14 EACH			
8"X6" TEE	1 EACH			
6" V	1 EACH			
6" W	9 LF			
1" WHC	347 LF			
4" SHC	383 LF			

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

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

*John K. Roberts* 8/5/04  
SOIL CONSERVATION DISTRICT DATE

*Jim Meyer* 8/5/04  
S.O. SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

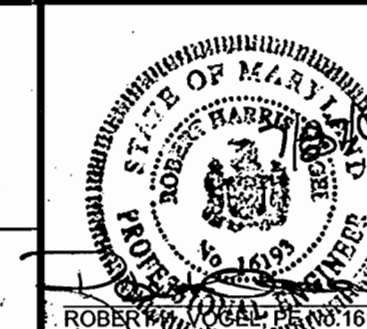
DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLCOTT CITY, MARYLAND 21043  
TEL: 410.461.7666 FAX: 410.461.8961

DES: CMH					
DRN: CMH					
CHK: RHV					
DATE: AUGUST 2003	BY	NO.	REVISION	DATE	

TITLE SHEET

600' SCALE MAP NO. 38  
BLOCK NO. 9



**WHITETAIL WOODS II**  
LOTS 1-21  
CONTRACT NO. 14-4104-D

TAX MAP 38  
1ST ELECTION DISTRICT

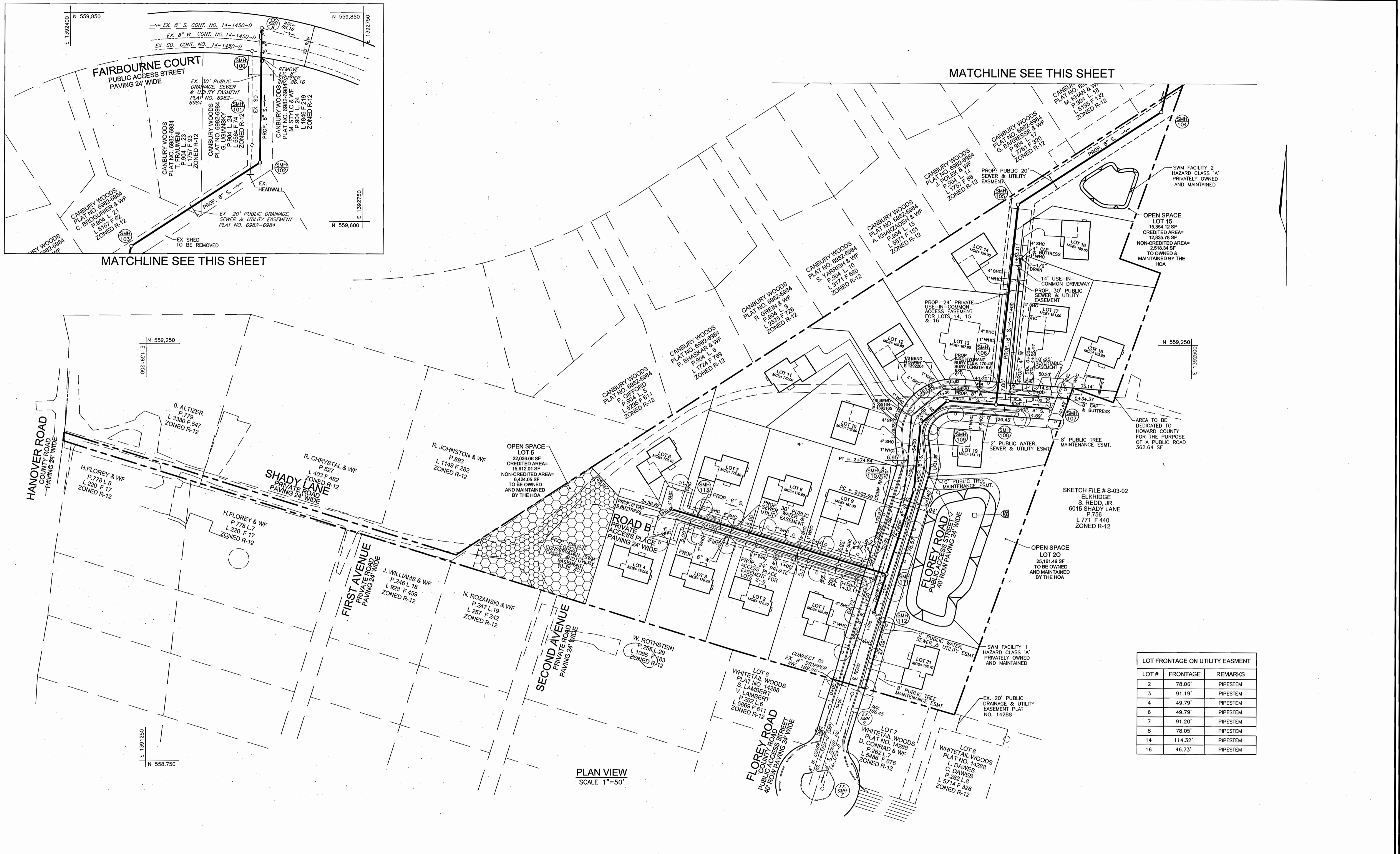
PARCEL 528  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 3

*R. J. B.* 8-31-04  
CHIEF, BUREAU OF UTILITIES DATE

*[Signature]* 9/10/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLICOTT CITY, MARYLAND 21043  
TEL: 410.461.7666 FAX: 410.461.8961

DES: CMH

DRN: CMH

CHK: RHV

DATE: JULY 2003

BY NO.

REVISION

DATE

**WATER AND SEWER PLAN**

600' SCALE MAP NO. 38  
BLOCK NO. 9



**WHITETAIL WOODS II**

LOTS 1-21  
CONTRACT NO. 14-4104-D

SCALE  
AS  
SHOWN

SHEET  
2 OF 3

TAX MAP 38  
1ST ELECTION DISTRICT

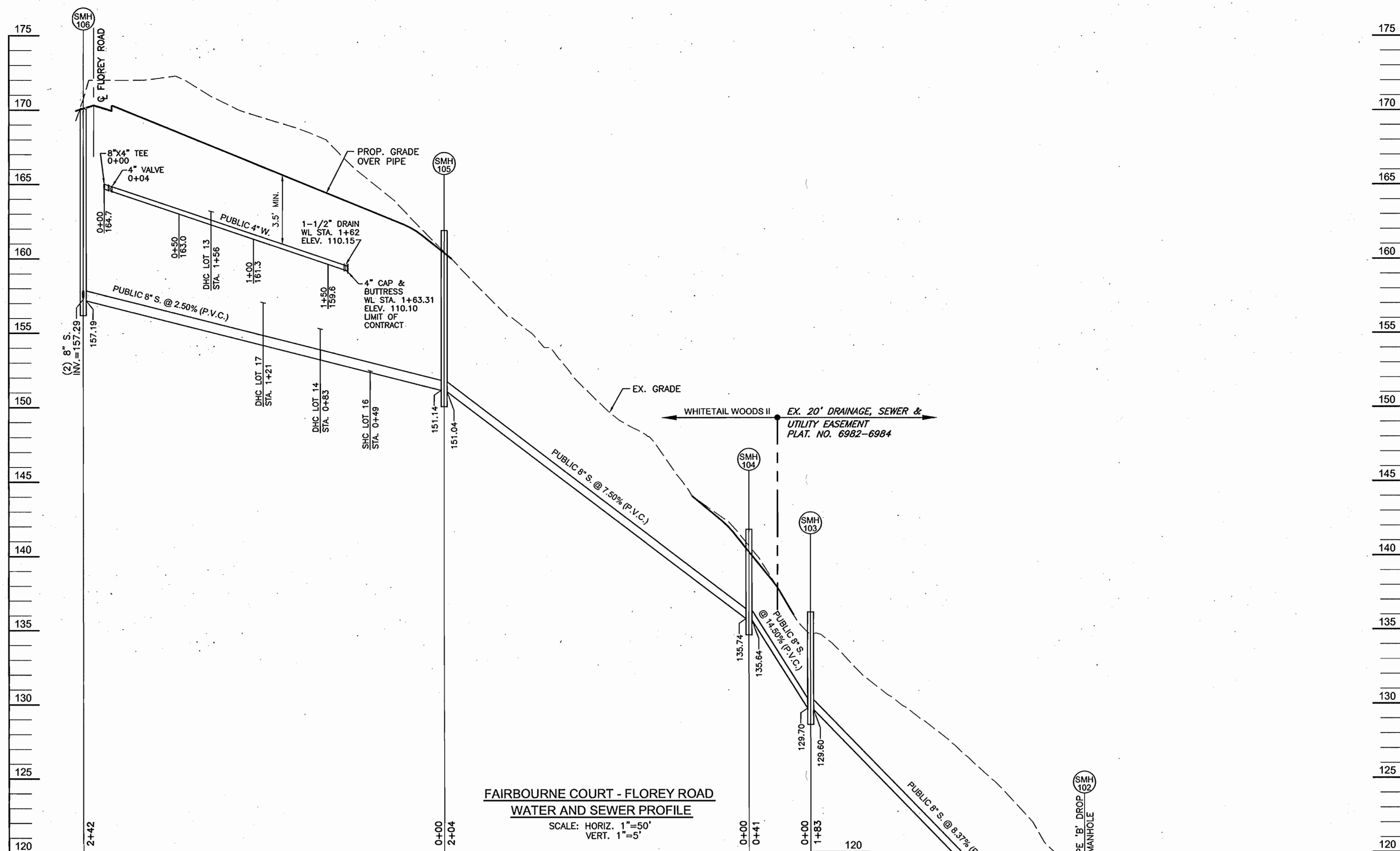
PARCEL 258  
HOWARD COUNTY, MARYLAND

*R. H. Vogel* 31-04  
CHIEF, BUREAU OF UTILITIES

*Robert H. Vogel*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE

DATE

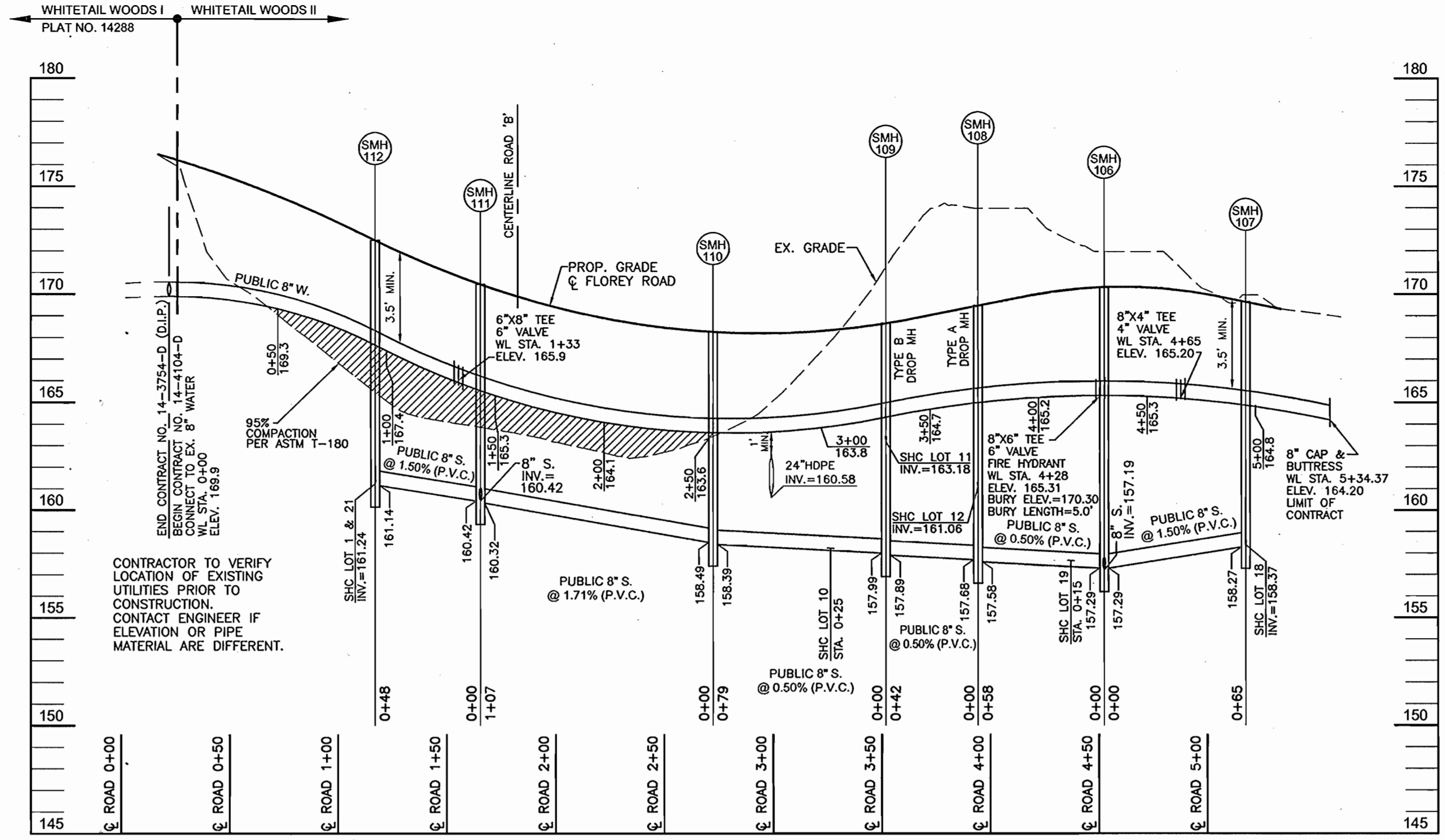


**FAIRBOURNE COURT - FLOREY ROAD  
WATER AND SEWER PROFILE**  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'

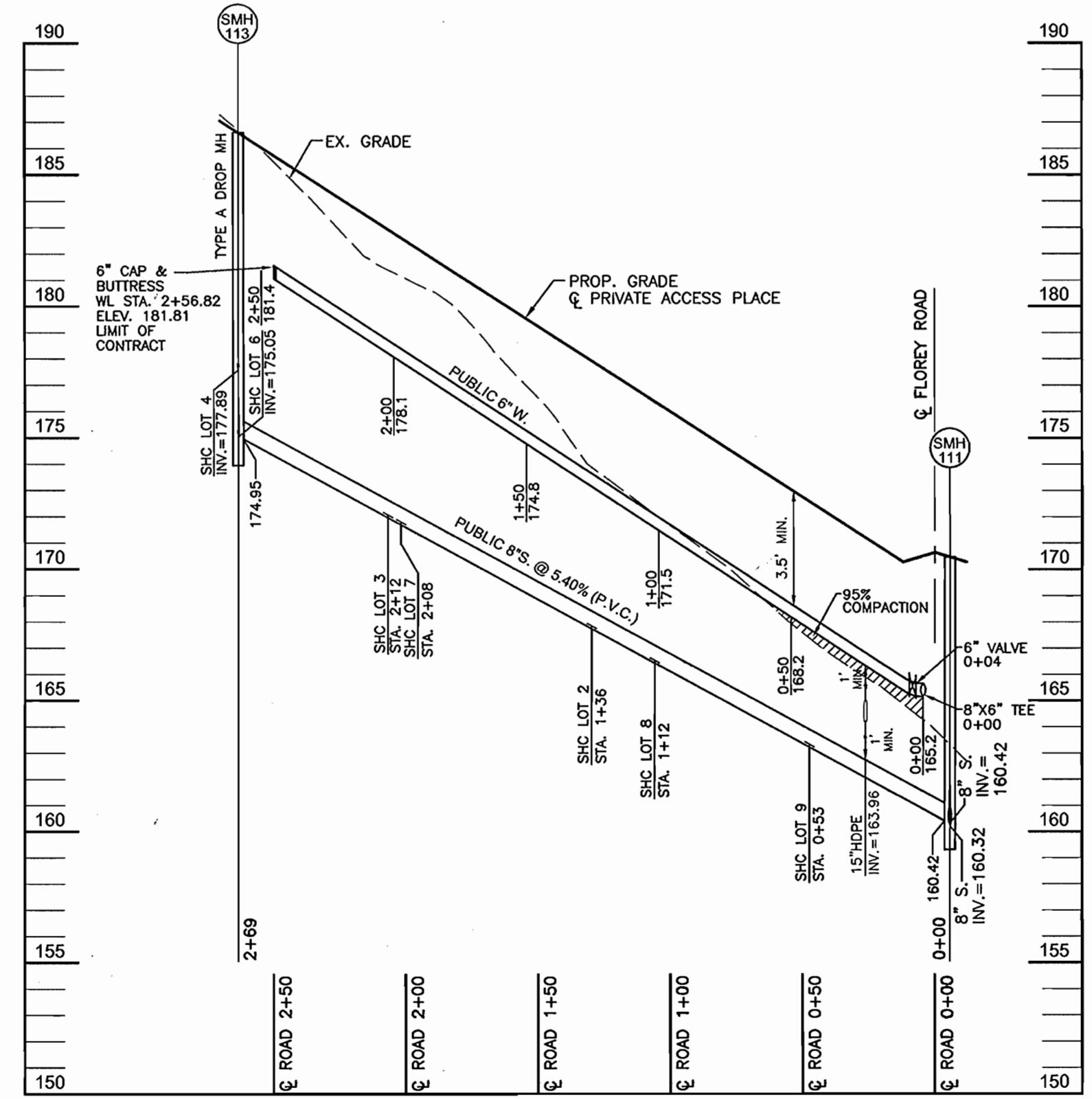
SEWER MANHOLE SCHEDULE									
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT				
SMH 100	STD. PRECAST MH HO. CO. STD. DET. G5.12/S1.32	N 559791.84 E 1392628.76	98.20	8" 86.34	8" 86.24				
SMH 101	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 559704.36 E 1392627.51	100.87	8" 93.84	8" 93.74				
SMH 102	STD. PRECAST MH HO. CO. STD. DET. G5.12/S1.32	N 559670.41 E 1392627.02	117.42	8" 111.02	8" 106.95				
SMH 103	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 559570.25 E 1392473.38	136.16	8" 129.70	8" 129.60				
SMH 104	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 559530.30 E 1392463.37	141.75	8" 135.74	8" 135.64				
SMH 105	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 559418.84 E 1392292.39	161.88	8" 151.14	8" 151.04				
SMH 106	STD. PRECAST MH HO. CO. STD. DET. G5.12	Q STA. 4+63.98 7' RT.	170.11	2-8" 157.29	8" 157.19				
SMH 107	STD. PRECAST MH HO. CO. STD. DET. G5.12	Q STA. 5+29.35 7' RT.	169.21	4" 158.37	8" 158.27				
SMH 108	STD. PRECAST MH HO. CO. STD. DET. G5.12	Q STA. 4+04.44 5.72' RT.	169.30	4" 161.06	8" 157.58				
SMH 109	STD. PRECAST MH HO. CO. STD. DET. G5.12	Q STA. 3+53.59 7.22' RT.	168.43	4" 163.18	8" 157.89				
SMH 110	STD. PRECAST MH HO. CO. STD. DET. G5.12	Q STA. 2+72.37 7.65' RT.	168.02	8" 158.49	8" 158.39				
SMH 111	STD. PRECAST MH HO. CO. STD. DET. G5.12	Q STA. 1+65.36 5.74' RT.	170.29	2-8" 160.42	8" 160.32				
SMH 112	STD. PRECAST MH HO. CO. STD. DET. G5.12	Q STA. 1+17.00 4.79' RT.	172.35	2-4" 121.24	8" 161.14				
SMH 113	STD. PRECAST MH HO. CO. STD. DET. G5.12/S1.32	Q STA. 2+63.28 5' RT.	186.52	4" 177.89	8" 174.95				

SEWER CONNECTION TABULATION					
LOT NO	TYPE	ELEV. @ DROP	ELEV. @ MAN OR PUBLIC EASEMENT	ELEVATION @ R/W OR PUBLIC EASEMENT	M.C.E.
1	SHC	-	161.24	161.74	165.40
2	SHC	-	167.84	168.24	172.10
3	SHC	-	172.06	172.46	176.20
4	SHC	-	177.59	178.06	182.00
6	SHC	-	175.05	175.56	179.10
7	SHC	-	171.79	171.98	175.80
8	SHC	-	166.54	166.74	170.60
9	SHC	-	163.33	163.53	167.30
10	SHC	-	158.22	158.73	162.80
11	SHC	-	163.18	163.74	170.00
12	SHC	-	161.06	161.72	165.80
13	DHC	163.18	155.16	163.38	167.00
14	DHC	155.28	153.30	155.48	159.00
16	SHC	-	152.41	152.81	156.60
17	DHC	157.06	154.27	157.46	161.00
18	SHC	-	158.37	158.96	163.00
19	SHC	-	157.65	158.11	161.71
21	SHC	-	161.24	162.01	165.70

WATER MAIN LOCATION CHART		
CL ROAD/WL STA.	APPURTENANCE	OFFSET/NORTHING-EASTING
FLOREY ROAD		
4+43	8" XE TEE	7' LEFT
4+43	8" VALVE	11' LEFT
4+43	FIRE HYDRANT	16' LEFT
WL STA. 5+34	8" CAP & BUTRESS	N 559186, E 1392352
PRIVATE ACCESS PLACE (ROAD B)		
0+04	8" XE TEE	5' LEFT
0+08	8" VALVE	5' LEFT
3+91	8" CAP & BUTRESS	5' LEFT
USE-IN-COMMON DRIVEWAY		
4+80 (FLOREY ROAD)	8" XE TEE	7' LEFT
4+80 (FLOREY ROAD)	4" VALVE	11' LEFT
WL STA. 1+62	1-1/2" DRAIN	3' RIGHT OF W. MAIN
WL STA. 1+63	4" CAP & BUTRESS	N 559354, E 1392296



**FLOREY ROAD  
WATER AND SEWER PROFILE**  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'



**PRIVATE ROAD 'B'  
WATER AND SEWER PROFILE**  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'

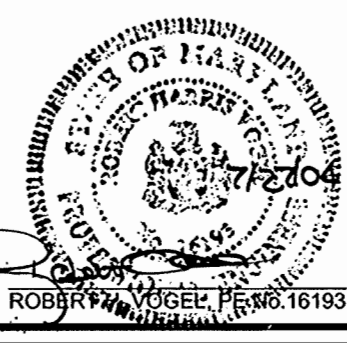
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
8/31/04  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
9/10/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS - SURVEYORS - PLANNERS  
8407 MAIN STREET  
ELLICOTT CITY, MARYLAND 21043  
TEL: 410.461.7666 FAX: 410.461.8961

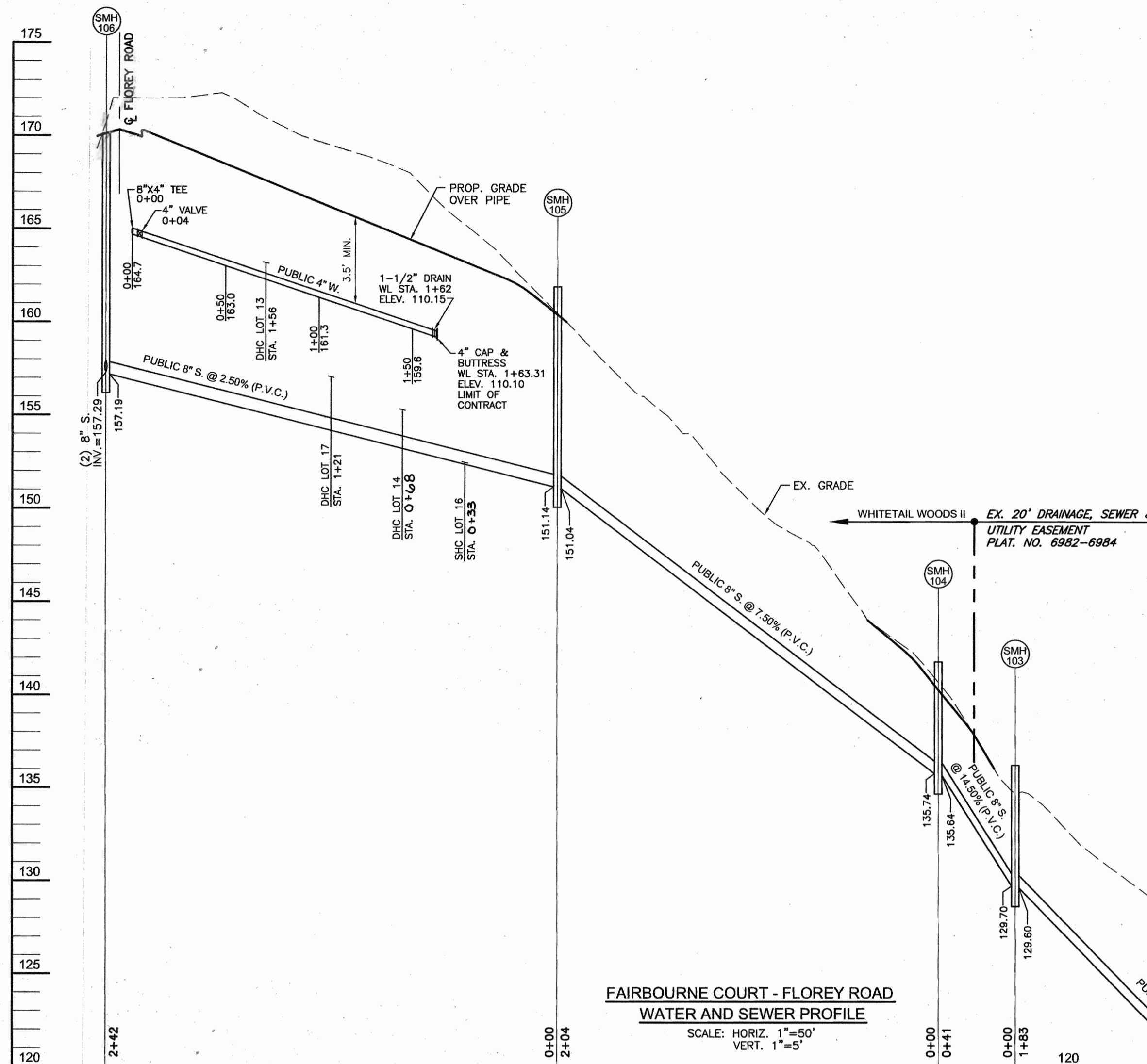
DES:	CMH				
DRN:	CMH				
CHK:	RHV				
DATE:	AUGUST 2003	BY:	NO.	REVISION	DATE

**PROFILES**  
600' SCALE MAP NO. 38  
BLOCK NO. 9



**WHITETAIL WOODS II**  
LOTS 1-21  
CONTRACT NO. 14-4104-D  
TAX MAP 38 BLOCK 9  
1ST ELECTION DISTRICT  
PARCEL '528'  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 3 OF 3

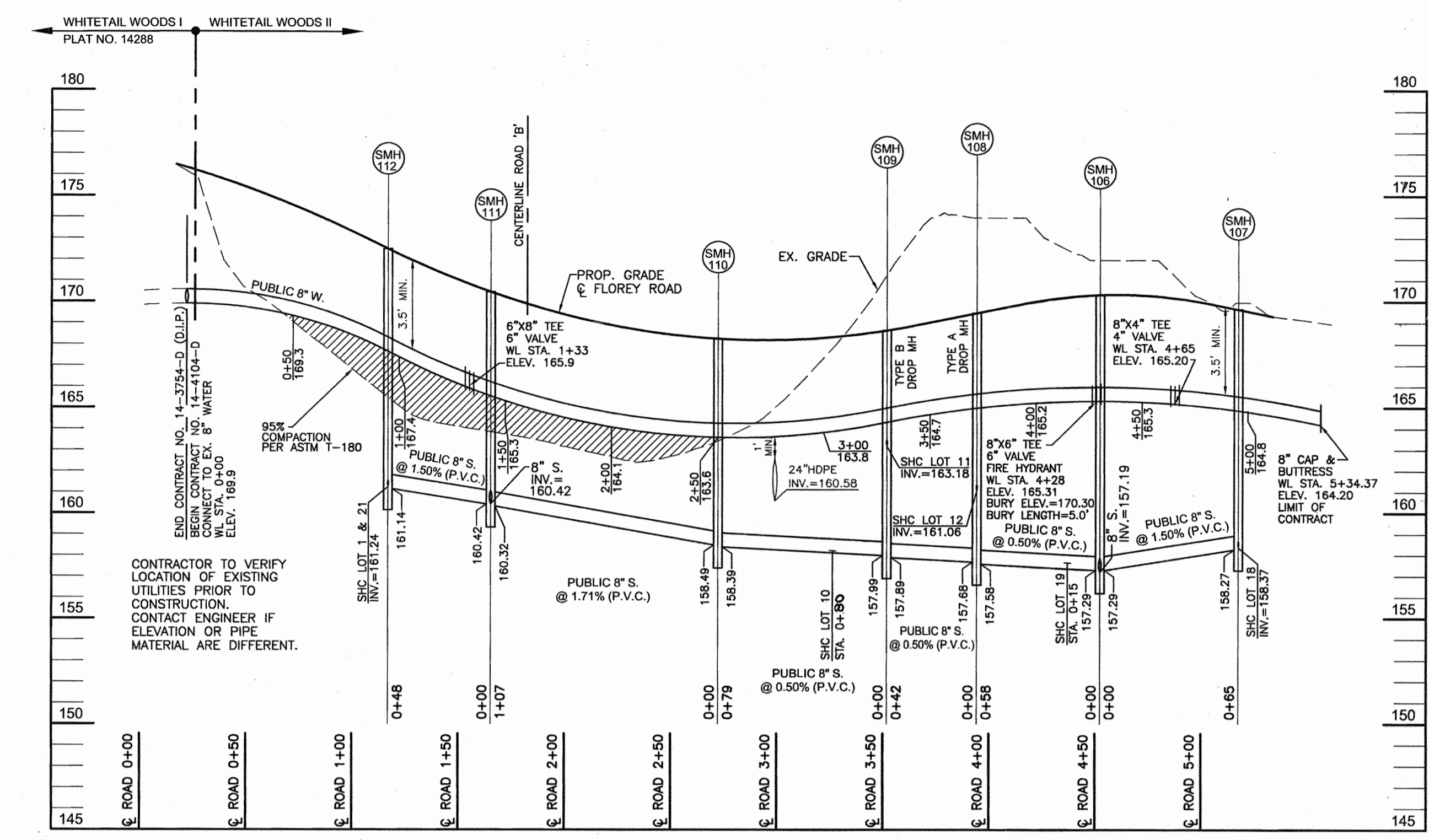


**FAIRBOURNE COURT - FLOREY ROAD  
WATER AND SEWER PROFILE**  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'

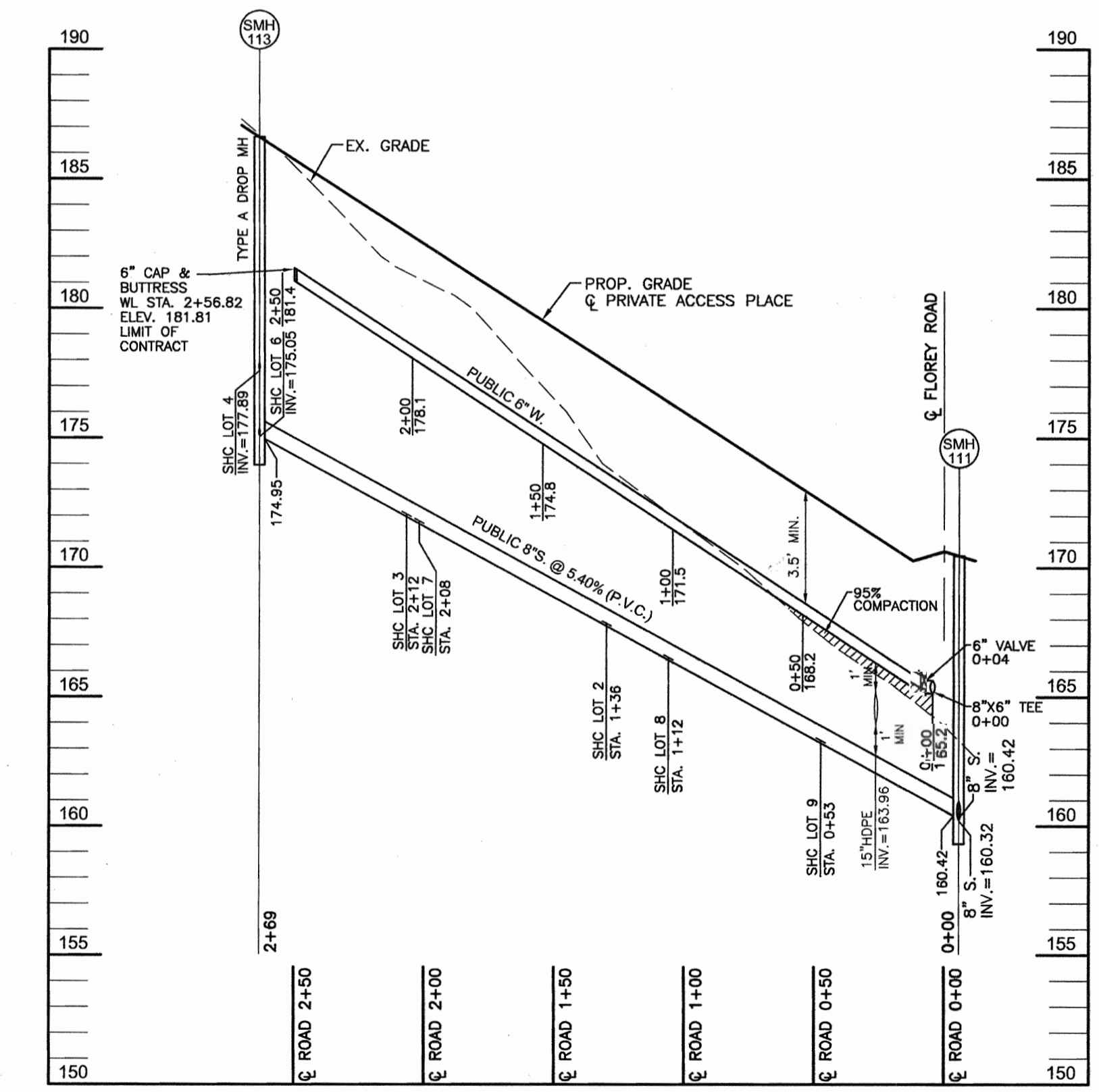
SEWER MANHOLE SCHEDULE					
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT
SMH 100	STD. PRECAST MH HO. CO. STD. DET. G5.12/S1.32	N 559791.84 E 1392628.76	98.20	8" 86.34	8" 86.24
SMH 101	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 559704.36 E 1392627.51	100.87	8" 93.84	8" 93.74
SMH 102	STD. PRECAST MH HO. CO. STD. DET. G5.12/S1.32	N 559670.41 E 1392627.02	117.42	8" 111.02	8" 106.95
SMH 103	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 559570.25 E 1392473.38	136.18	8" 129.70	8" 129.60
SMH 104	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 559530.30 E 1392463.37	141.75	8" 135.74	8" 135.64
SMH 105	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 559418.84 E 1392292.39	161.88	8" 151.14	8" 151.04
SMH 106	STD. PRECAST MH HO. CO. STD. DET. G5.12	☉ STA. 4+63.98 7' RT.	170.11	2-8" 157.29	8" 157.19
SMH 107	STD. PRECAST MH HO. CO. STD. DET. G5.12	☉ STA. 5+29.35 7' RT.	169.21	4" 158.37	8" 158.27
SMH 108	STD. PRECAST MH HO. CO. STD. DET. G5.12	☉ STA. 4+04.44 5.72' RT.	169.30	4" 161.06	8" 157.58
SMH 109	STD. PRECAST MH HO. CO. STD. DET. G5.12	☉ STA. 3+53.59 7.22' RT.	168.43	4" 163.18	8" 157.89
SMH 110	STD. PRECAST MH HO. CO. STD. DET. G5.12	☉ STA. 2+72.37 7.65' RT.	168.02	8" 158.49	8" 158.39
SMH 111	STD. PRECAST MH HO. CO. STD. DET. G5.12	☉ STA. 1+65.36 5.74' RT.	170.29	2-8" 160.42	8" 160.32
SMH 112	STD. PRECAST MH HO. CO. STD. DET. G5.12	☉ STA. 1+17.00 4.79' RT.	172.35	2-4" 121.24	8" 161.14
SMH 113	STD. PRECAST MH HO. CO. STD. DET. G5.12/S1.32	☉ STA. 2+63.28 5' RT.	186.52	4" 175.05	8" 174.95

SEWER CONNECTION TABULATION				
LOT NO	TYPE	ELEV. @ DROP	ELEV. @ MAN OR PUBLIC EASEMENT	M.C.E.
1	SHC	161.24	161.74	165.40
2	SHC	167.84	168.24	172.10
3	SHC	172.06	172.46	176.20
4	SHC	177.59	178.06	182.00
6	SHC	175.05	175.56	179.10
7	SHC	171.79	171.98	175.80
8	SHC	166.54	166.74	170.60
9	SHC	163.33	163.53	167.30
10	SHC	158.22	158.79	162.80
11	SHC	163.18	163.74	170.00
12	SHC	161.06	161.72	165.80
13	DHC	155.16	163.38	167.00
14	DHC	155.28	159.01	155.48
16	SHC	152.16	152.56	156.60
17	DHC	157.06	154.27	157.46
18	SHC	158.37	158.96	163.00
19	SHC	157.65	158.11	161.71
21	SHC	161.24	162.01	165.70

WATER MAIN LOCATION CHART		
CL ROAD/WL STA	APPURTENANCE	OFFSET/NORTHING-EASTING
FLOREY ROAD		
4+43	8"X6" TEE	7' LEFT
4+43	6" VALVE	11' LEFT
4+43	FIRE HYDRANT	16' LEFT
WL STA. 5+34	8" CAP & BUTTRESS	N 559186, E 1392352
PRIVATE ACCESS PLACE (ROAD B)		
0+04	8"X8" TEE	5' LEFT
0+08	8" VALVE	5' LEFT
3+91	8" CAP & BUTTRESS	5' LEFT
USE-IN-COMMON DRIVEWAY		
4+80 (FLOREY ROAD)	8"X4" TEE	7' LEFT
4+80 (FLOREY ROAD)	4" VALVE	11' LEFT
WL STA. 1+62	1-1/2" DRAIN	3' RIGHT OF W. MAIN
WL STA. 1+63	4" CAP & BUTTRESS	N 559354, E 1392296



**FLOREY ROAD  
WATER AND SEWER PROFILE**  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'



**PRIVATE ROAD 'B'  
WATER AND SEWER PROFILE**  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'

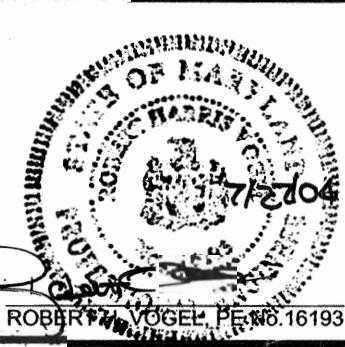
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
8-31-04  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
9/10/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

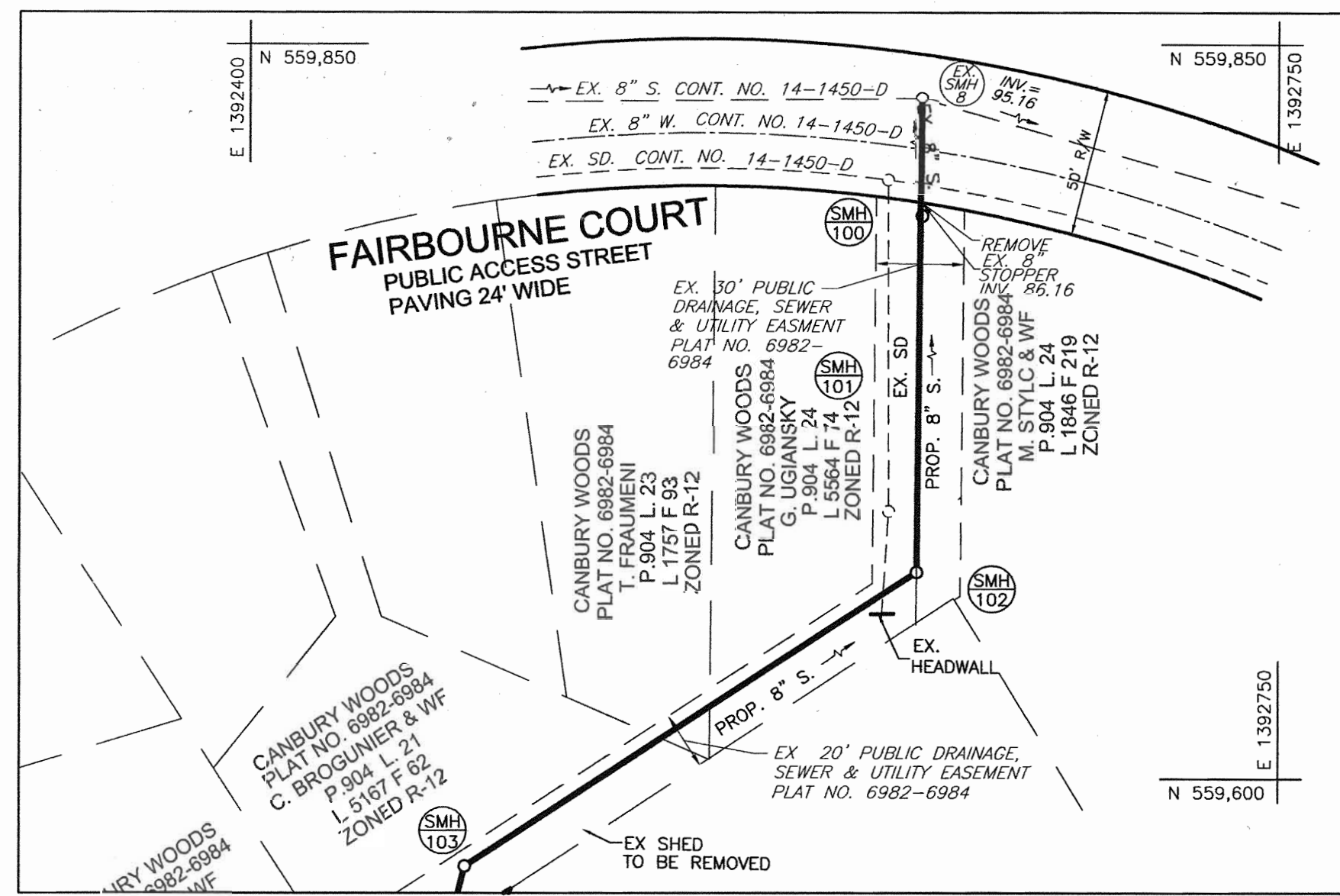
**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLCOTT CITY, MARYLAND 21043  
TEL: 410.461.7666 FAX: 410.461.8961

DES:	CMH
DRN:	CMH
CHK:	RHV
DATE:	AUGUST 2003
BY:	1
NO.:	REVISE SHC, WLC - LOT 10, SHC's - lots 14+15
REVISION:	2.8.05
DATE:	11/4/05

**PROFILES**  
600' SCALE MAP NO. 38  
BLOCK NO. 9

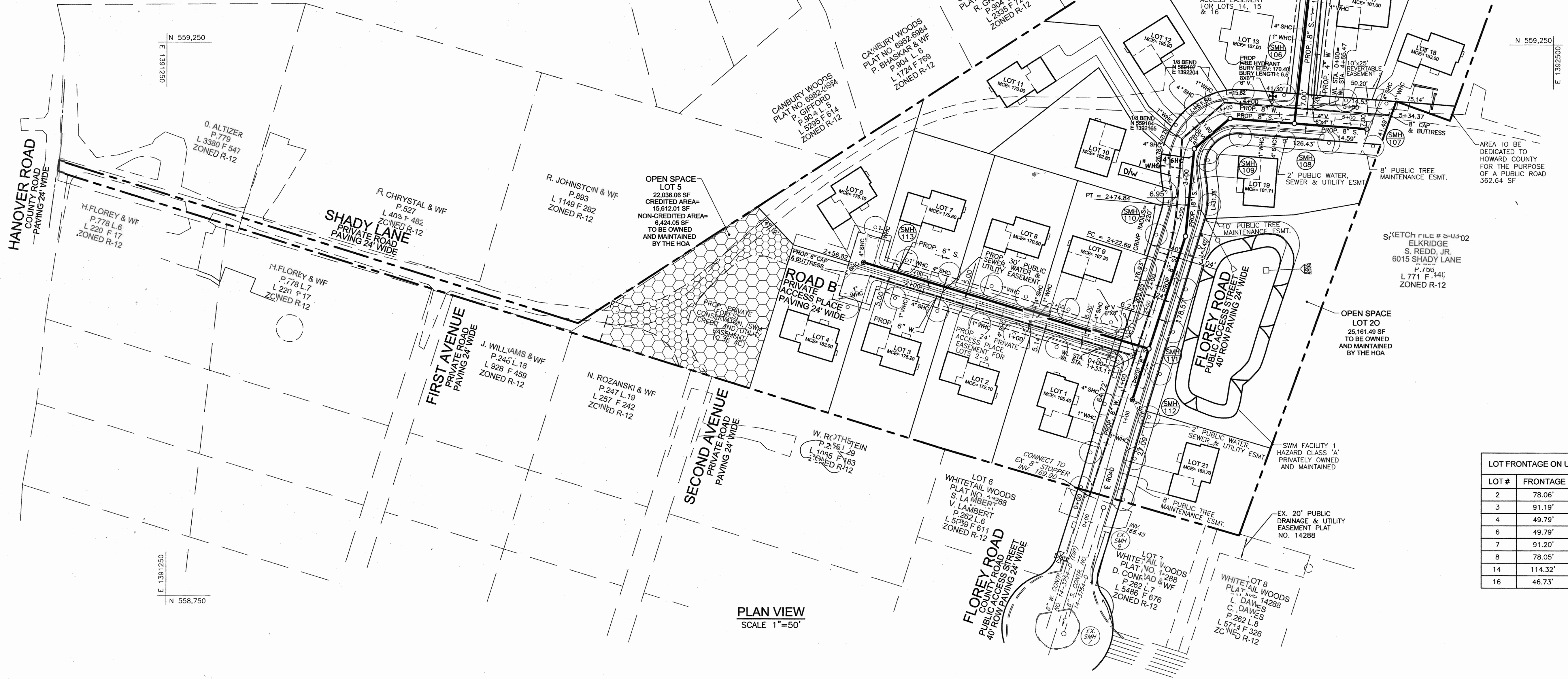


**WHITETAIL WOODS II**  
LOTS 1-21  
CONTRACT NO. 14-4104-D  
TAX MAP 38 BLOCK 9  
1ST ELECTION DISTRICT  
PARCEL 528  
HOWARD COUNTY, MARYLAND  
SCALE AS SHOWN  
SHEET 3 OF 3



MATCHLINE SEE THIS SHEET

MATCHLINE SEE THIS SHEET



LOT #	FRONTAGE	REMARKS
2	78.06'	PIPESTEM
3	91.19'	PIPESTEM
4	49.79'	PIPESTEM
6	49.79'	PIPESTEM
7	91.20'	PIPESTEM
8	78.05'	PIPESTEM
14	114.32'	PIPESTEM
16	46.73'	PIPESTEM

PLAN VIEW  
SCALE 1"=50'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 8/31/04 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND DATE: 9/10/04 CHIEF, DEVELOPMENT ENGINEERING DIVISION	<b>ROBERT H. VOGEL ENGINEERING, INC.</b> ENGINEERS - SURVEYORS - PLANNERS 8407 MAIN STREET ELLICOTT CITY, MARYLAND 21043 TEL: 410.461.7666 FAX: 410.461.8961	DES: CMH DRN: CMH CHK: RHV DATE: JULY 2003 REVISION: 1 REVISE SHC, WHZ - Lot 10; SHC'S - Lots 14 & 15 DATE: 2.8.05	<b>WATER AND SEWER PLAN</b> 600' SCALE MAP NO. 38 BLOCK NO. 9		<b>WHITETAIL WOODS II</b> LOTS 1-21 CONTRACT NO. 14-4104-D PARCEL 258 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 2 OF 3
--	--	--	--	---	--	---	--------------------------------

GENERAL NOTES

PART I

- 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, NAD 83/91
- ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED 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 MONIES 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 DETAILS 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.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN THESE PLANS:
 

A.T. & T.	1-800-252-1133
B.G.&E. CO. CONTRACTOR SERVICES	410-850-4620
B.G.&E. CO. UNDER GROUND DAMAGE CONTROL	410-787-9068
BUREAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO.	410-795-1390
MISS UTILITY	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-5533
VERTEON	1-800-743-0033/410-224-9210
- 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.
- 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.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 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

- ALL WATER MAINS TO BE D.I.P. CLASS S2 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" 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 ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND 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.

PART III - SEWER

- ALL SEWER MAINS SHALL BE DIP OR P.V.C. UNLESS OTHERWISE NOTED.
- 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 CS 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.

TYPE OF BUILDING:	RESIDENTIAL
NO. OF LOTS/PARCELS:	21
NO. OF WATER HOUSE CONNECTIONS:	18
NO. OF SEWER HOUSE CONNECTIONS:	18
DRAINAGE AREA:	PATAPSCO
TREATMENT PLANT:	PATAPSCO WASTE WATER TREATMENT PLANT

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN THE ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH F-03-223

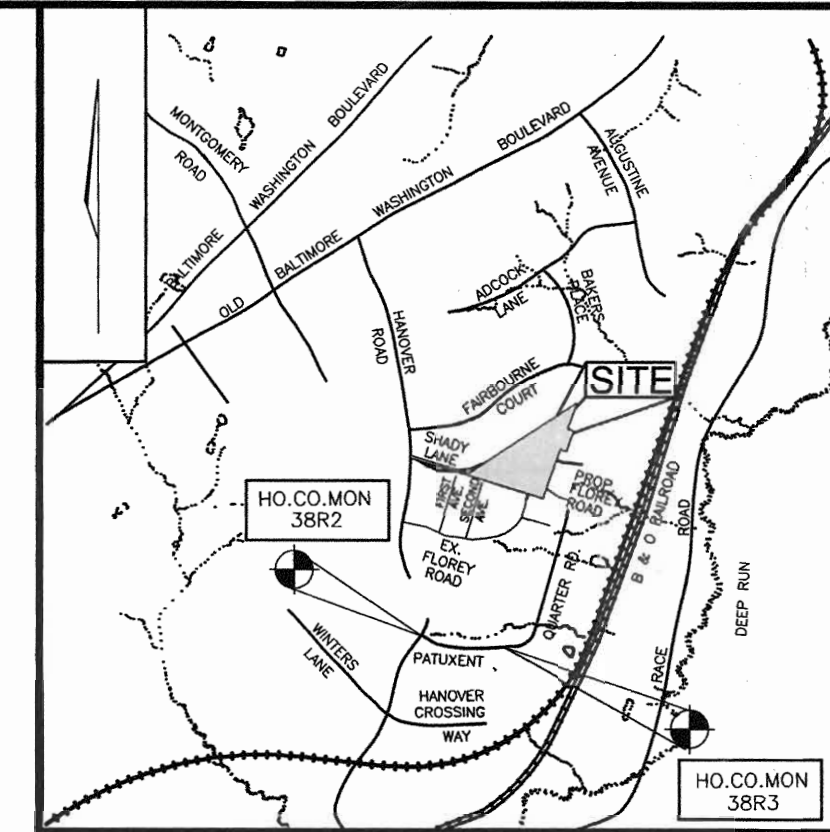
# FINAL WATER AND SEWER PLAN

## WHITETAIL WOODS II

### LOTS 1-21

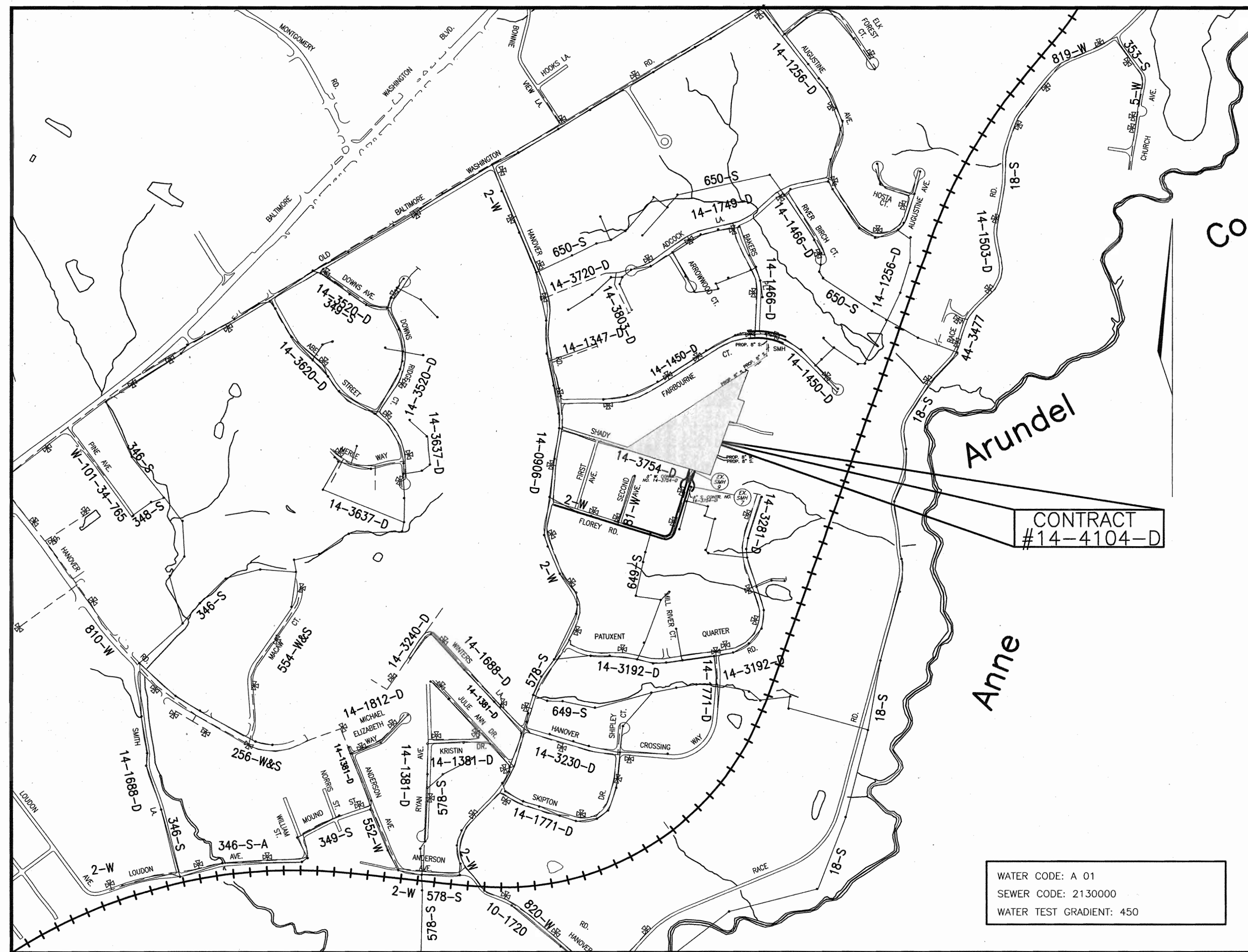
#### HOWARD COUNTY, MARYLAND

#### CONTRACT NO. 14-4104-D



VICINITY MAP  
SCALE: 1"=2000'

BENCHMARKS			
NO.	NORTHING	EASTING	ELEVATION
38R2	557,500.663	1,391,227.052	168.786'
38R3	557,417.823	1,391,883.177	124.653'



WATER CODE: A 01  
SEWER CODE: 2130000  
WATER TEST GRADIENT: 450

LOCATION MAP  
SCALE: 1"=600'

QUANTITIES

NAME OF UTILITY CONTRACTOR :				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
4" W	163 LF			
8" W	791 LF			
FIRE HYDRANT	1 EACH			
8"X8" TEE	1 EACH			
8" V	1 EACH			
8"X4" TEE	1 EACH			
4" VALVE	1 EACH			
8" CAP & BUTTRESS	2 EACH			
4" CAP & BUTTRESS	1 EACH			
8" S (PVC)	1459 LF			
MANHOLES	14 EACH			
8"X6" TEE	1 EACH			
6" V	1 EACH			
6" W	9 LF			
1" WHC	347 LF			
4" SHC	383 LF			

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

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

*John K. Roberts* 8/5/04  
SOIL CONSERVATION DISTRICT DATE

*Jim Meyer* 8/5/04  
S.O. SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND	ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS · SURVEYORS · PLANNERS 8407 MAIN STREET ELLCOTT CITY, MARYLAND 21043 TEL: 410.461.7666 FAX: 410.461.8961	DES: CMH DRN: CMH CHK: RHV DATE: AUGUST 2003	REVISION 1 REVISE SHC, WHC - 10+ 10, SHC's - Lots 14+15 2 8.05	TITLE SHEET 600' SCALE MAP NO. 38 BLOCK NO. 9		WHITETAIL WOODS II LOTS 1-21 CONTRACT NO. 14-4104-D	SCALE AS SHOWN SHEET 1 OF 3
<i>R. J. ...</i> 8-31-04 CHIEF, BUREAU OF UTILITIES DATE	<i>...</i> 9/10/04 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE					TAX MAP 38 1ST ELECTION DISTRICT	PARCEL 528 HOWARD COUNTY, MARYLAND	