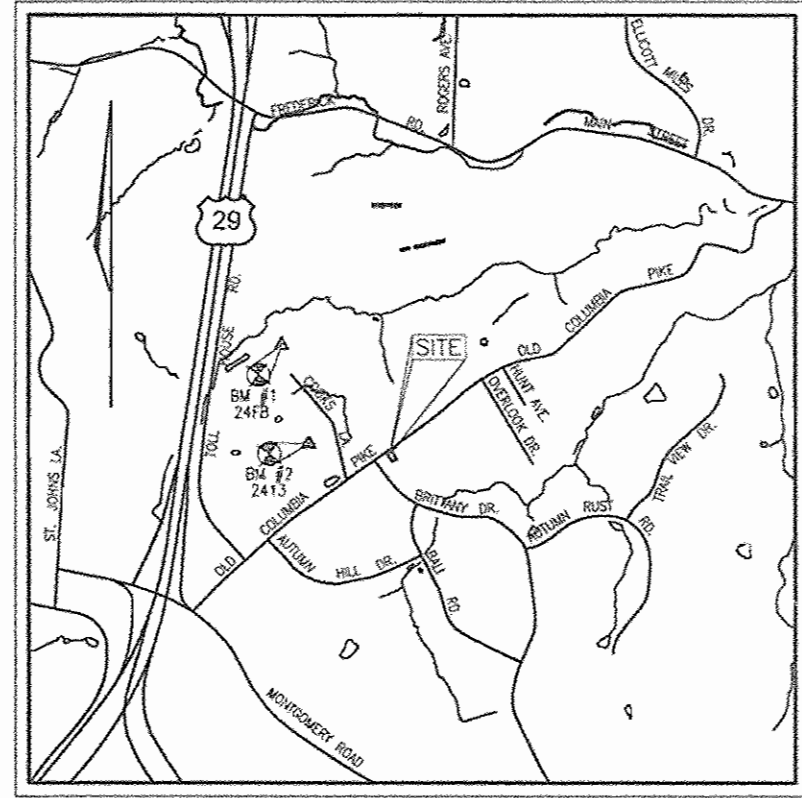


JUNEAU HILLS HOWARD COUNTY, MARYLAND FINAL WATER & SEWER PLAN CONTRACT NO. 14-4329-D



VICINITY MAP
SCALE 1"=2000'

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 SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- A FIELD RUN TOPOGRAPHIC SURVEY WAS PERFORMED ON DECEMBER 2002 BY FREDERICK WARD ASSOCIATES.
- HORIZONTAL AND VERTICAL SURVEY CONTROLS:
THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/'91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. #24FB, NO #2413
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROL PROVIDED ON THE DRAWINGS ARE #24FB AND #241B.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. 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 NOTES 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 OPERATION 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:

AT & T	1-800-252-1133
BGE (CONTRACTOR SERVICE)	410-850-4620
BGE (EMERGENCY)	410-685-1400
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 THE 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 CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH FINAL PLAN F-06-066.



LOCATION PLAN
SCALE: 1"=600'

TYPE OF BUILDING:	SINGLE FAMILY DETACHED
NO. OF LOTS:	8
NO. OF WATER HOUSE CONNECTIONS:	8
NO. OF SEWER HOUSE CONNECTIONS:	8
DRAINAGE AREA:	PATAPSCO
TREATMENT PLANT:	DEEP RUN

WATER CODE:	F-04
SEWER CODE:	1400500
WATER TEST GRADIENT:	700

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 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.

PART III - SEWER

- ALL SEWER MAINS SHALL BE D.I.P. 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 COVER, STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAME AND COVERS ARE 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.

QUANTITIES

NAME OF UTILITY CONTRACTOR :				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" W. (DIP)	235 LF	235	D.I.P.	GRIFFIN
8"X8" TS & V	1 EACH	1EA		SIGMA/ROMAC
8" CAP & BUTTRESS	1 EACH	1EA		GRIFFIN
4" SHC	134 LF	134 LF	P.V.C.	JM MFG.
6" TWIN SHC	15 LF	18 LF	P.V.C.	PLASTIC TRENDS
8" S	272 LF	272 LF	P.V.C.	JM MFG.
MANHOLES	3 EACH	3 EA	P.V.C.	ATLANATIC CONG.
1" WHC	162 LF	162 LF	COPPER	HOWELL

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

John R. Robertson 8/10/06
HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

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

Jim Meyer 8/10/06
S. SOIL CONSERVATION DISTRICT DATE

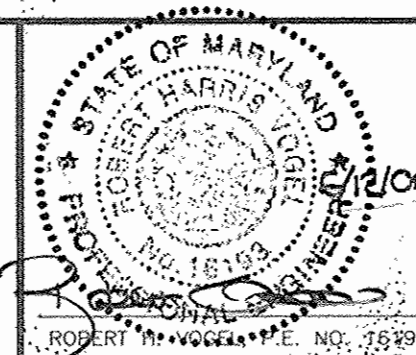
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

William 8/10/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Bill
CHIEF, BUREAU OF UTILITIES DATE

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



DESIGN BY:	MY/RJ			
DRAWN BY:	MY/RJ			
CHECKED BY:	RHV			
DATE:	10.04.05			
BY	NO	REVISION	DATE	
		KCI 1 "AS-BUILT" DATA	01/08/06	

FINAL WATER & SEWER PLAN

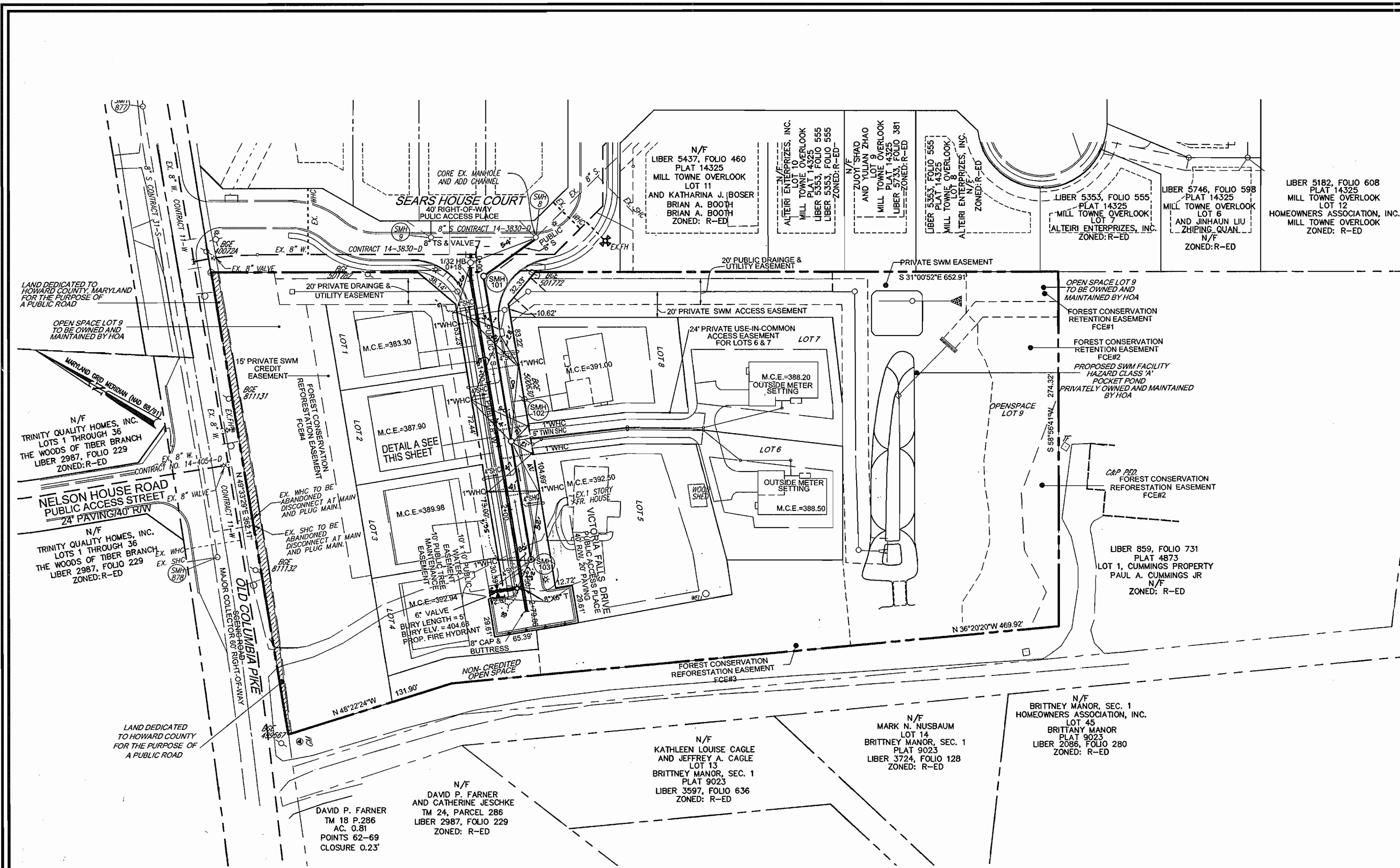
600' SCALE MAP NO. 24 BLOCK NO. 18

JUNEAU HILLS LOTS 1-8 AND OPENSACE LOTS 9 CONTRACT NO. 14-4329-D

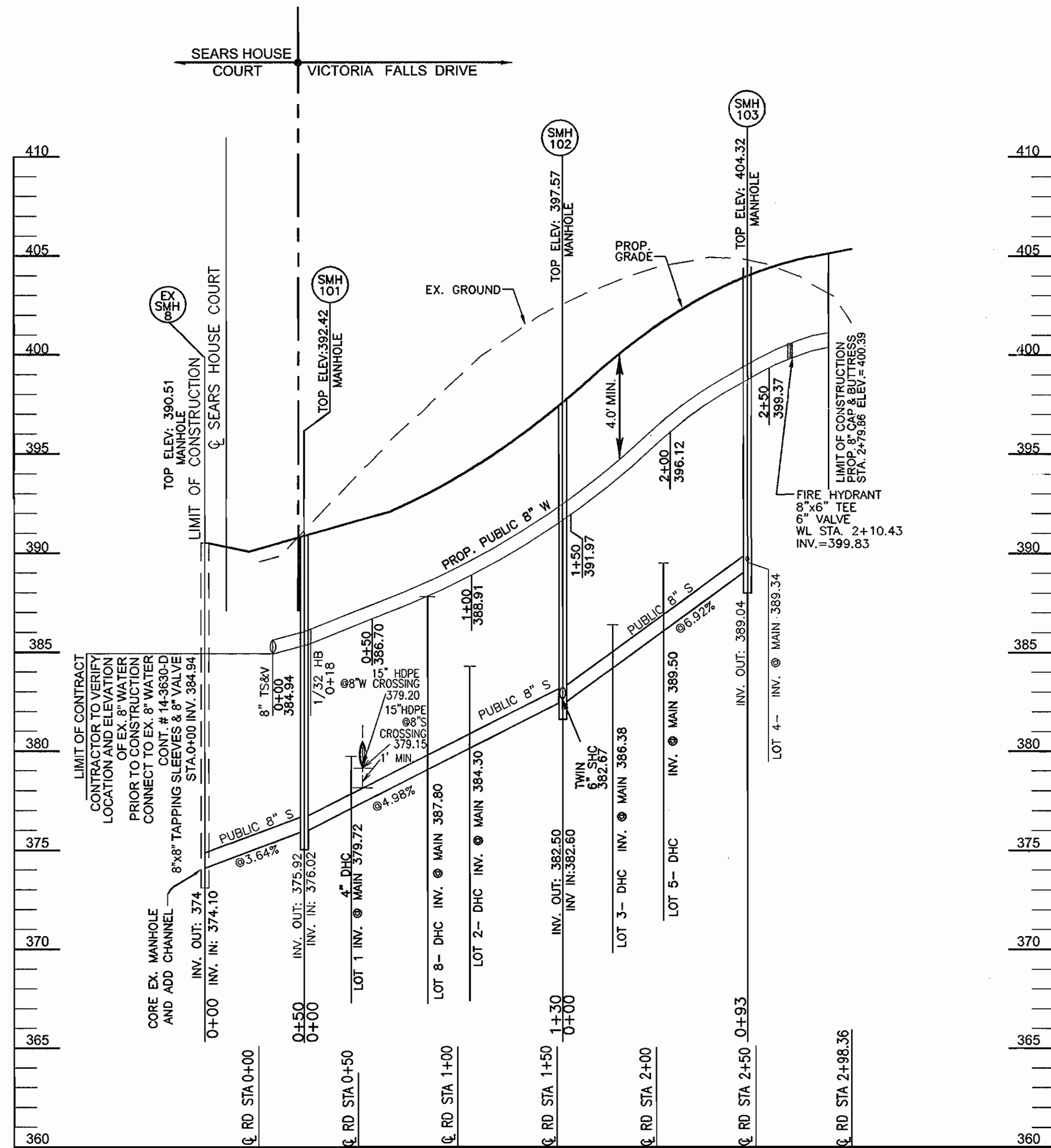
TAX MAP 24 GRID 18
2ND ELECTION DISTRICT
REF.: F-06-066

PARCEL '289'
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 2



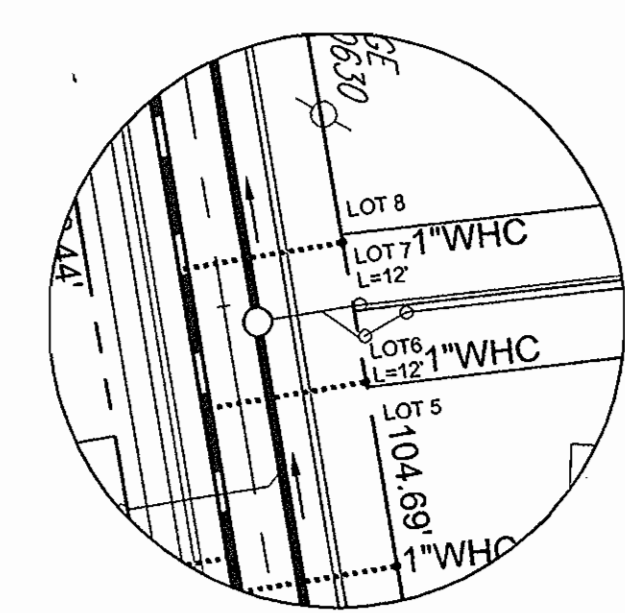
PLAN
SCALE: 1"=50'



PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

SEWER MANHOLE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	
SMH 101	STD. PRECAST MH HO. CO. STD. DET. G5.12	€ STA. 0+18, 4.98' LT.	392.42	376.02	375.92	
SMH 102	STD. PRECAST MH HO. CO. STD. DET. G5.12	€ STA. 1+53, 4.84' LT.	397.57	382.60	382.50	
SMH 103	STD. PRECAST MH HO. CO. STD. DET. G5.12	€ STA. 2+46, 4.87' LT.	404.32	4" SHC-389.04	389.04	

SEWER CONNECTION TABULATION					
LOT NO.	TYPE	ELEV. @ MAIN	ELEV. @ S/W/SMT.	M.C.E.	
1	DHC	379.72	380.22	383.30	
2	DHC	384.30	384.80	387.90	
3	DHC	386.38	386.88	389.98	
4	SHC	389.34	389.94	392.94	
5	DHC	389.50	389.80	392.50	
6	SHC	382.67	382.97	388.50	
7	SHC	382.67	382.97	388.20	
8	DHC	387.80	388.10	391.00	



DETAIL A
SCALE: 1"=30'

NOTES:
CURRENT ADDRESS OF EXISTING HOUSE ON LOT-5
JUNE E. GARNO
3985 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
EX. HOUSE ON LOT-5 SHALL BE SERVED UNDER PROPOSED PUBLIC WATER AND SEWER CONTRACT.

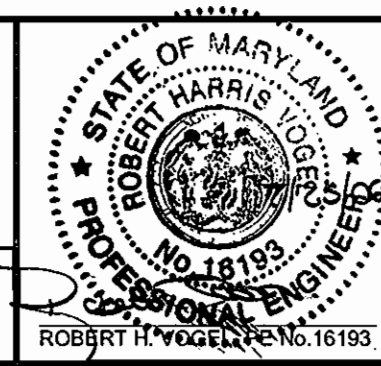
DEVELOPER
TRINITY QUALITY HOMES, INC.
3675 PARK AVE., STE. 301
ELLCOTT CITY, MARYLAND 21043
(410) 480-0023

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Robert H. Vogel
7-31-06
DATE

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
B407 MAIN STREET
ELLCOTT CITY, MD 21043
TEL: 410-461-7666
FAX: 410-461-8961

DES:	RJ				
DRN:	RJ				
CHK:	RHV				
DATE:	MAY 2006	BY NO.	K.O.I.	REVISION	01/02/07

FINAL WATER & SEWER PLAN
600' SCALE MAP NO. 24
BLOCK NO. 18



JUNEAU HILLS
LOTS 1-8 AND OPENSACE LOTS 9
CONTRACT NO. 14-4329-D
TAX MAP 24 GRID 18
2ND ELECTION DISTRICT
REF.: F-04-02
PARCEL 289
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 2 OF 2