

**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.
- THE BOUNDARY AND TOPOGRAPHY SHOWN HEREON IS BASED ON FIELD RUN TOPO BY ROBERT H. VOGEL INC., DATED FEBRUARY 2006.
- 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 17FB AND 18DA.  
ALL VERTICAL CONTROLS ARE BASED ON (NAVD' 88). VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:  
GEODETIC SURVEY CONTROL 17FB (N 593214.40/E 1365669.05)  
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT LOCATED AT SOUTHWEST INTERSECTION OF CHURCH LANE ROAD & ROGERS AVENUE, OPPOSITE THE CEMETARY, AND 4.5' BACK FROM THE EDGE OF ROGERS AVENUE.  
GEODETIC SURVEY CONTROL 18DA (N 593334.37/E 1367562.23)  
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT LOCATED AT NORTH SIDE OF CHURCH LANE ROAD, EAST OF ROGERS AVENUE, AND 5' BACK FROM EDGE THE EDGE OF CHURCH LANE ROAD.
- 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.....410-531-6533  
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(g) OF THE HOWARD COUNTY CODE.

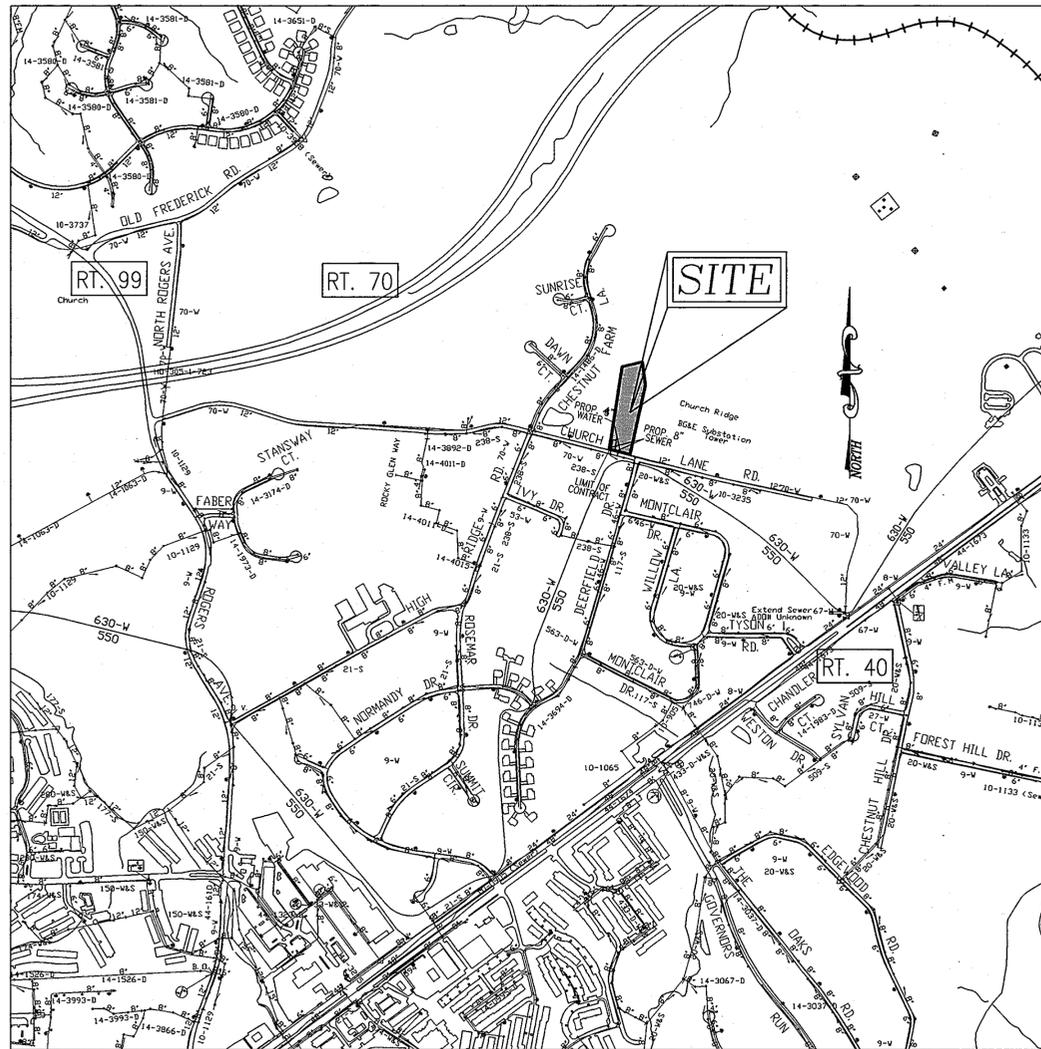
**PART II - WATER**

- ALL WATER MAINS TO BE D.I.P. CLASS 54 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**

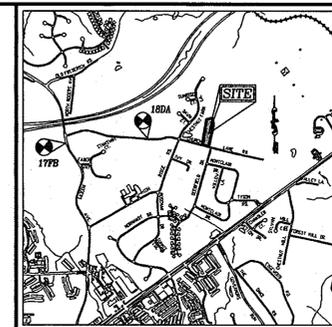
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE 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.

# FINAL WATER AND SEWER PLAN STRICKER PROPERTY LOTS 1-4 AND OPEN SPACE LOT 5 CONTRACT 14-4475-D



**VICINITY MAP**  
SCALE: 1"=600'

Type of Building :	SINGLE FAMILY
No. of Lots/Parcels :	5
No. of single Water House Connections :	3
No. of Sewer House Connections :	4
Drainage Area :	PATAPSCO RIVER
Treatment Plant :	DEEP RUN



**LOCATION MAP**

SCALE: 1"=2000'

ADC MAP COORDINATES

12 F4

**BENCHMARKS**

HOWARD COUNTY BENCHMARK 17FB (CONCRETE MONUMENT)  
N 593214.40 E 1365669.05 ELEV. 456.32  
HOWARD COUNTY BENCHMARK 18DA (CONCRETE MONUMENT)  
N 593334.37 E 1367562.23 ELEV. 463.24

**QUANTITIES**

NAME OF UTILITY CONTRACTOR : GRADELINE CONSTR.				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	QUANTITIES	AS-BUILT TYPE	MANUFACTURER/SUPPLIER
WATER				
12" 28' TAPPING SLEEVE	1 EA	1EA	SS	SMITH BLAIR
4" WATER	380 LF	380 LF	DIP	ATLANTIC STATES
1" WHC	17EA	145 LF	TYPE K	MUELLER INDUSTRIES
8" X 6" TEE FH	1 EA	1EA	DIP	TYLER
6" VALVE	1 EA	1EA	GRATE VALVE	MUELLER CO.
8" VALVE	1 EA	1EA	GRATE VALVE	"
FIRE HYDRANT	1 EA	1EA	"	"
CAP AND BUTTRESS	1 EA	1EA	DIP	TYLER CO.
8"x4" REDUCER	1 EA	1EA	DIP	TYLER CO.
1 1/2" DRAIN	1 EA	1EA	BALL VALVE	MUELLER CO.
SEWER				
8" SEWER (PVC)	95 LF	95 LF	P.V.C.	DIAMOND PLASTICS
4" SHC	43 LF	41 LF	P.V.C.	DIAMOND PLASTICS
MANHOLES	2 EA	2EA	PRECAST	PRE-CAST CORR
CLEANOUTS	3 EA	3EA	P.V.C.	CIRCLE MFG.
6" SEWER	7 LF	16 LF	P.V.C.	DIAMOND PLASTICS

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT NUMBER	ADDRESS	THROW 1	THROW 2
LOT 1			
LOT 2			
LOT 3			
LOT 4			

SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT NUMBER	ADDRESS	THROW 1	THROW 2
LOT 1			
LOT 2			
LOT 3			
LOT 4			

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH FINAL PLAN F-07-085.

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
*John R. Roberts* 2/14/08  
SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*JHV*  
U.S. SOIL CONSERVATION DISTRICT DATE

**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 22742 EXPIRATION DATE: JUNE 2008.

WATER CODE: H 02  
SEWER CODE: 1451500  
TEST GRADIENT: 780

**OWNER/DEVELOPER**  
CHARLES H. STRICKER  
8300 CHURCH LANE ROAD  
ELLCOTT CITY, MARYLAND 21043  
(410) 461-9141

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 TEL: 410.461.7666  
ELLCOTT CITY, MD 21043 FAX: 410.461.8961



DES:	MR			
DRN:	JMR			
CHK:	MR	RHV 2 REMOVE PROP SHC AND UTILIZE EX. SHC	2/16/10	
		KCI 1 AS BUILT DATA ADDED	11/24/08	
DATE:	AUGUST 2007	BY NO.	REVISION	DATE

**FINAL WATER AND SEWER COVER SHEET**

**STRICKER PROPERTY  
LOTS 1-4 AND OPEN SPACE LOT 5  
CONTRACT NO. 14-4475-D**

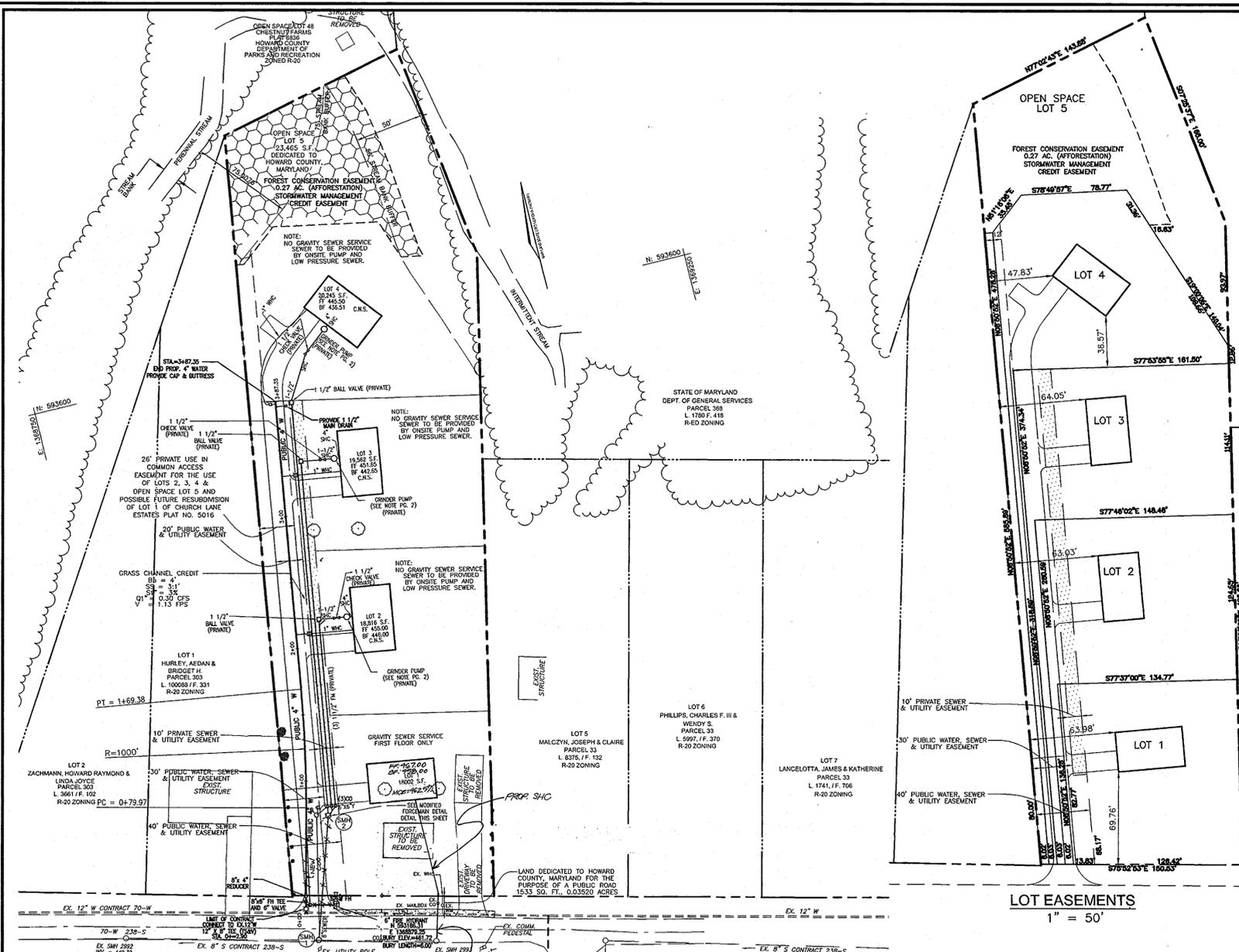
SCALE AS SHOWN

SHEET 1 OF 2

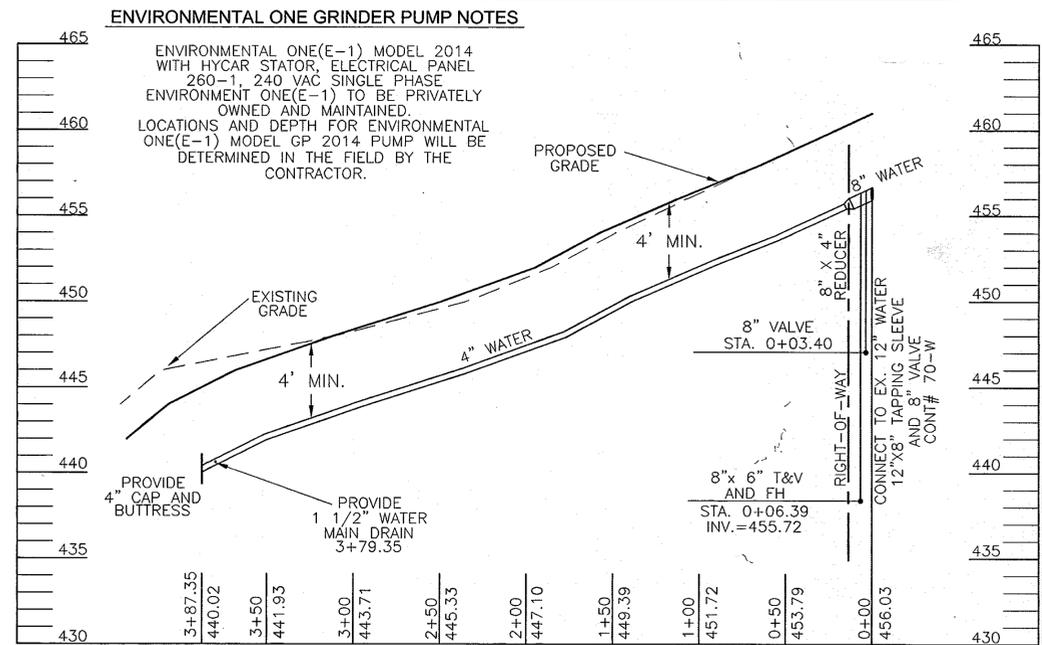
TAX MAP 18 BLOCK 13  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PARCEL 32

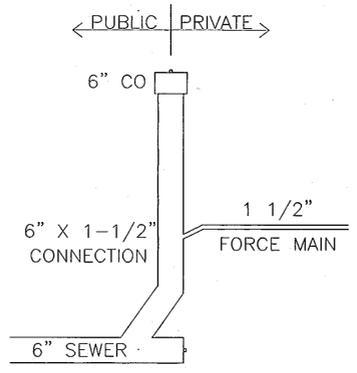
1 OF 2



- LEGEND:**
- - - - - EXISTING CONTOUR
  - - - - - PROPOSED CONTOUR
  - + 402.88 PROPOSED SPOT ELEVATION
  - + 402.88 EXISTING SPOT ELEVATION
  - == EXISTING CURB AND GUTTER
  - == PROPOSED CURB AND GUTTER
  - EXISTING UTILITY POLE
  - EXISTING LIGHT POLE
  - ☉ EXISTING MAILBOX
  - ☉ EXISTING SIGN
  - ☉ EXISTING SANITARY MANHOLE
  - ☉ EXISTING SANITARY LINE
  - ☉ EXISTING CLEANOUT
  - ☉ EXISTING FIRE HYDRANT
  - EXISTING WATER LINE
  - PROP. PUBLIC SEWER LINE
  - PROP. PUBLIC WATER LINE
  - PROP. PRIVATE SEWER
  - PROP. PRIVATE WATER
  - EXISTING TREELINE (FIELD LOCATED)
  - - - - - EXISTING FENCE
  - - - - - PROPERTY LINE
  - - - - - RIGHT-OF-WAY LINE
  - ▨ 10' PRIVATE SEWER AND UTILITY EASEMENT
  - ▨ 20' PUBLIC WATER, SEWER UTILITY EASEMENT
  - ▨ 30' PUBLIC WATER, SEWER UTILITY EASEMENT
  - ▨ FOREST CONSERVATION EASEMENT

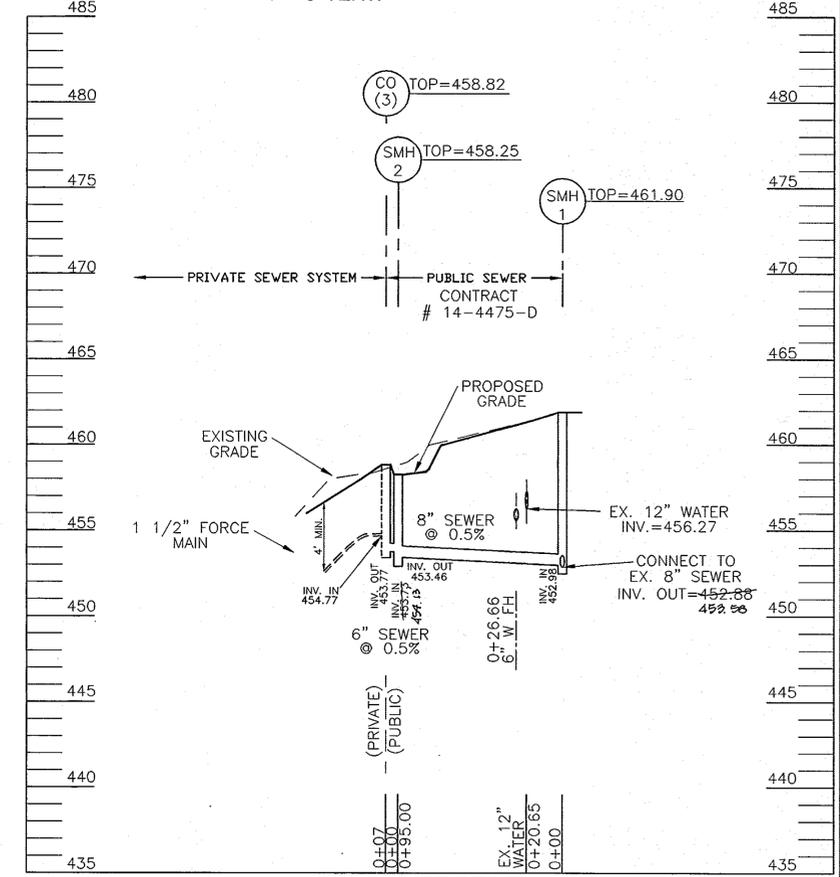


**PUBLIC WATER PROFILE**  
SCALE: 1" = 50' HORZ.  
1" = 5' VERT.



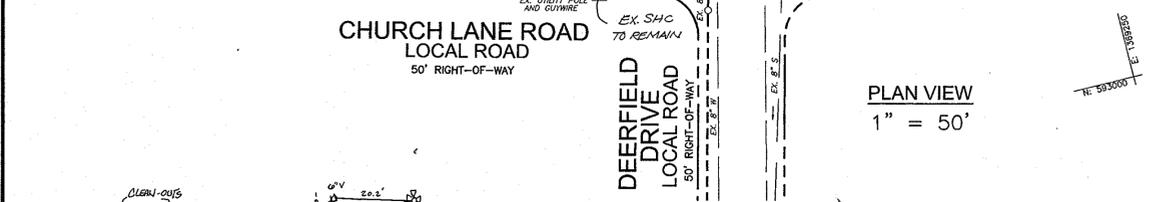
**DETAIL S 3.21**

**LOT EASEMENTS**  
1" = 50'



**SEWER PROFILE**  
SCALE: 1" = 50' HORZ.  
1" = 5' VERT.

**OWNER/DEVELOPER**  
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**SEWER MANHOLE SCHEDULE**

NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT
SMH 1	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 593163.53, E 1368860.83	461.90	452.98	452.88
SMH 2	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 593253.05, E 1368890.28	458.25	453.73	453.46

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*John R. Roberts* 2/14/08  
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REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*[Signature]*  
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*[Signature]*  
DATE

**PRIVATE FORCE MAIN CONNECTIONS AT MANHOLE 2 AND SEWER/WATER UTILITY EASEMENT**

N.T.S.

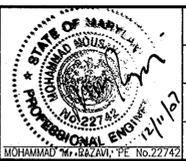
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 2/12/08  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]* 2/19/08  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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DATE:	AUGUST 2007				
BY:	NO.	REVISION	DATE		

**FINAL WATER AND SEWER PLAN AND PROFILES**

600' SCALE MAP NO. 18 BLOCK NO. 13

**STRICKER PROPERTY LOTS 1-4 AND OPEN SPACE LOT 5 CONTRACT NO. 14-4475-D**

TAX MAP 18 BLOCK 13 PARCEL 32  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 2