

GENERAL NOTES

PART I

- APPROXIMATE LOCATIONS 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.
- TOPOGRAPHY FIELD SURVEYS WERE PERFORMED IN AUGUST, 2004, BY ROBERT H. VOGEL ENGINEERING, INC.
- THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD 83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 301B AND 31GB.
- ALL VERTICAL CONTROLS ARE BASED ON (NAVD' 27). VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:
 GEODETIC SURVEY CONTROL 301B (N 566937.926/E 1366270.75)
 BRASS DISC SET ON TOP OF A CONCRETE MONUMENT, LOCATED AT SOUTH SIDE OF INTERSECTION OF ROUTE 108 AND 100, 2' OFF THE ROUTE 108 GUARD RAILS, AND 26.6' WEST OF GUARD RAIL ENDPOINT.
 GEODETIC SURVEY CONTROL 31GB (N 567567.473/E 1367353.38)
 BRASS DISC SET ON TOP OF A CONCRETE MONUMENT, LOCATED AREA BETWEEN MACADAM RD, ROUTE 108, AND BARRINGTON COURT, 24' SOUTH OF MACADAM RD AND 46.6' WEST OF CENTER LINE OF ROUTE 108.
- 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 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 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 _____ 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(c) OF THE HOWARD COUNTY CODE.

PART II - WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 5# 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 RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE 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.
- FOR SPRINKLER SYSTEM FOR ALL TOWN HOMES OR MULTI-FAMILY DWELLING UNITS SHOULD HAVE A MINIMUM OF 1' CONNECTION WITH A 3/4" METER.

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 GS.52. WHERE WATERTIGHT FRAME AND COVERS 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.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN SDF-07-137.

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.

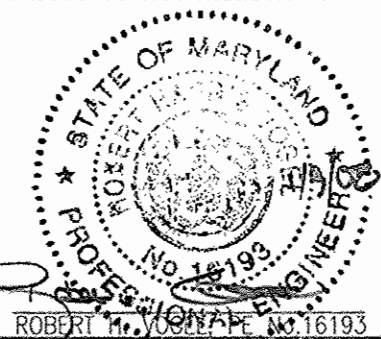
John R. Robertson 2/14/08
 SOIL CONSERVATION DISTRICT DATE

JMV
 U.S. SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Steve C. Carr 2/15/08
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
William J. ... 2/15/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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



DES:	DZ				
DRN:	DZ				
CHK:	RHV				
DATE:	JANUARY 2008	BY	NO.	REVISION	DATE

**FINAL WATER AND SEWER PLAN
 COVER SHEET**

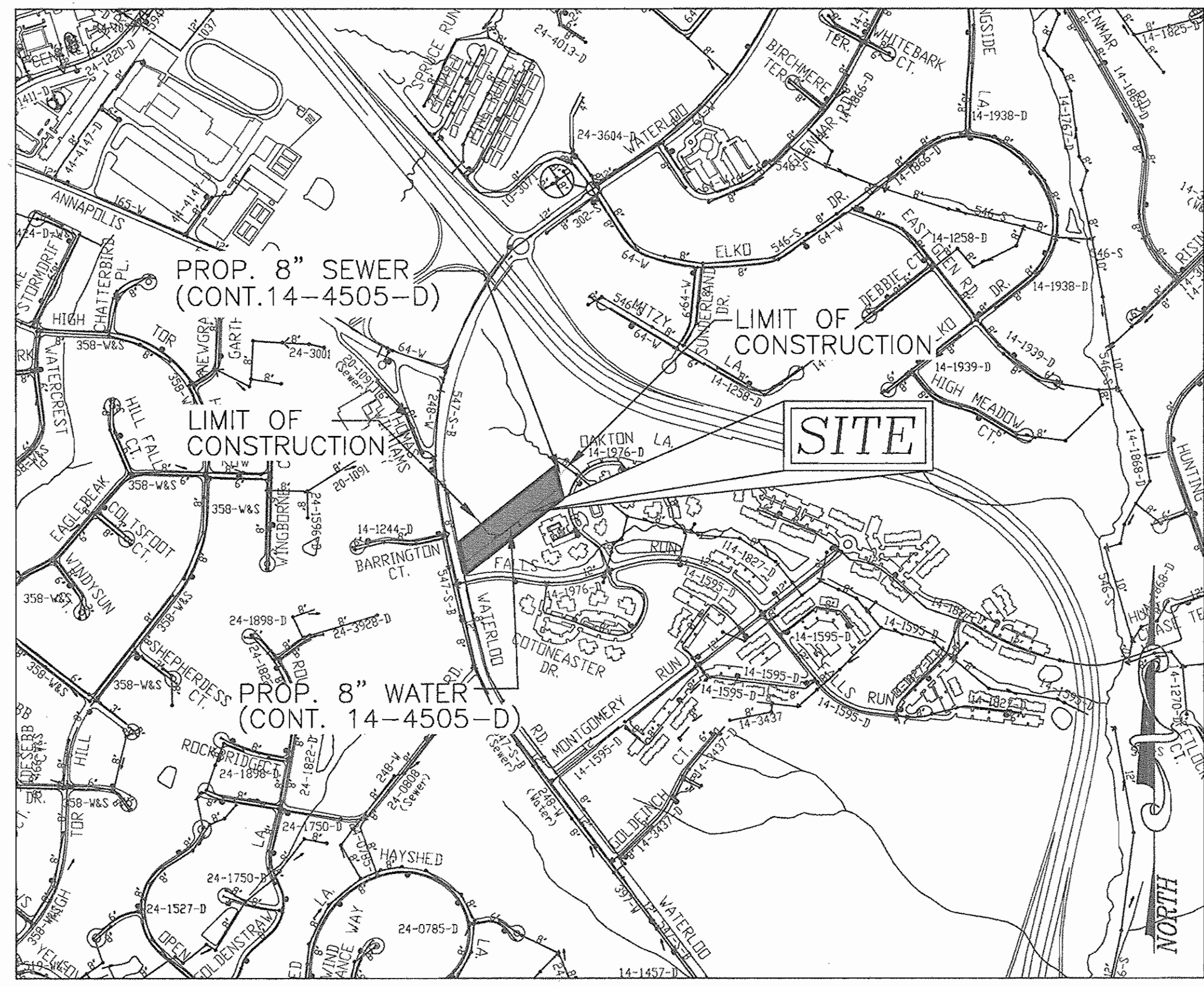
**WATERLOO OFFICE BUILDING
 MEDICAL AND GENERAL OFFICE
 PARCEL A
 CONTRACT NO.14-4505-D**

SCALE AS SHOWN
 SHEET 1 OF 2

TAX MAP 31 BLOCK 19
 1ST ELECTION DISTRICT
 PARCEL 428, 467
 HOWARD COUNTY, MARYLAND

FINAL WATER & SEWER PLAN WATERLOO OFFICE BUILDING MEDICAL AND GENERAL OFFICE

PARCEL A CONT. No.14-4505-D



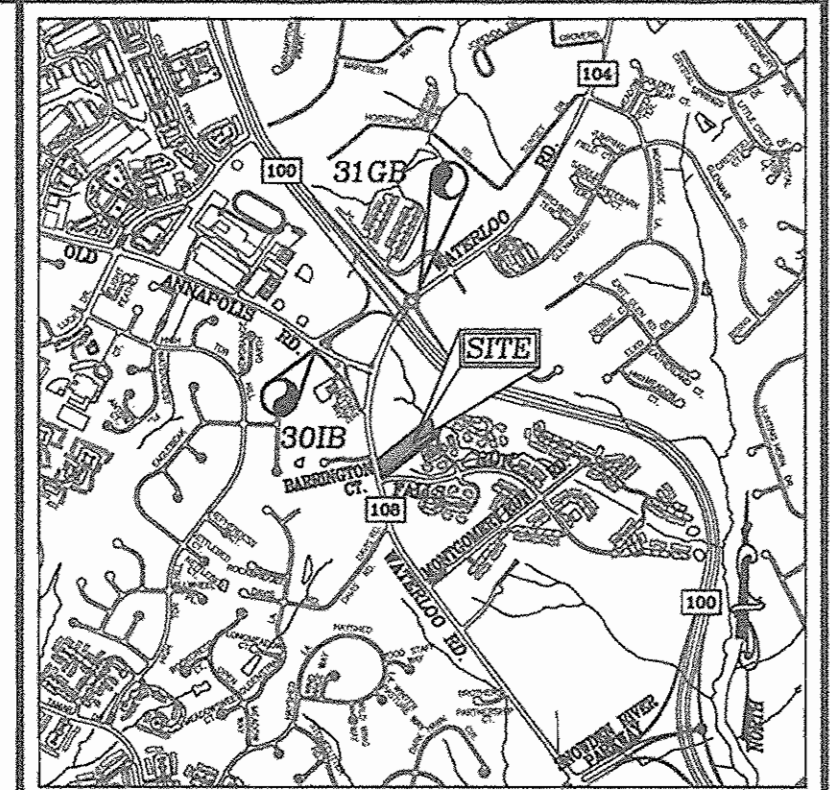
VICINITY MAP
 SCALE: 1"=600'

WATER CODE: G0-7
 SEWER CODE: 2780000
 TEST GRADIENT: 780

Type of Building :	MEDICAL AND GENERAL OFFICE
No. of Lots/Parcels :	1
No. of single Water House Connections :	1
No. of twin Water House Connections :	0
No. of Sewer House Connections :	1
Drainage Area :	LITTLE PATUXENT RIVER
Treatment Plant :	LITTLE PATUXENT (WRP)

BENCHMARKS

HOWARD COUNTY BENCHMARK 301B N 566937.926 E 1366270.75	ELEV. 526.868
HOWARD COUNTY BENCHMARK 31GB N 567567.473 E 1367353.38	ELEV. 512.080

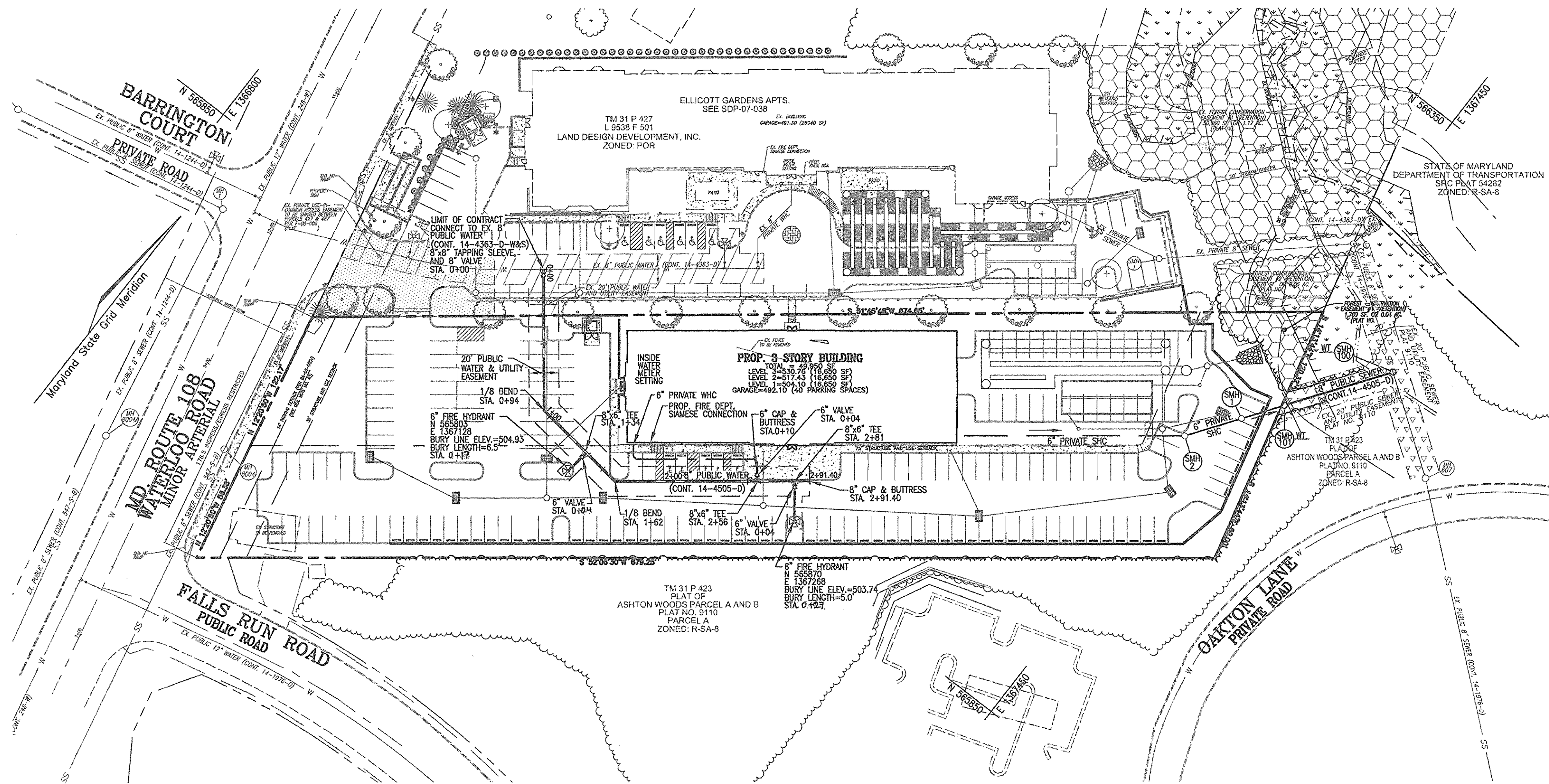


LOCATION MAP
 SCALE: 1"=2000'
 ADC MAP COORDINATES: 16 E5

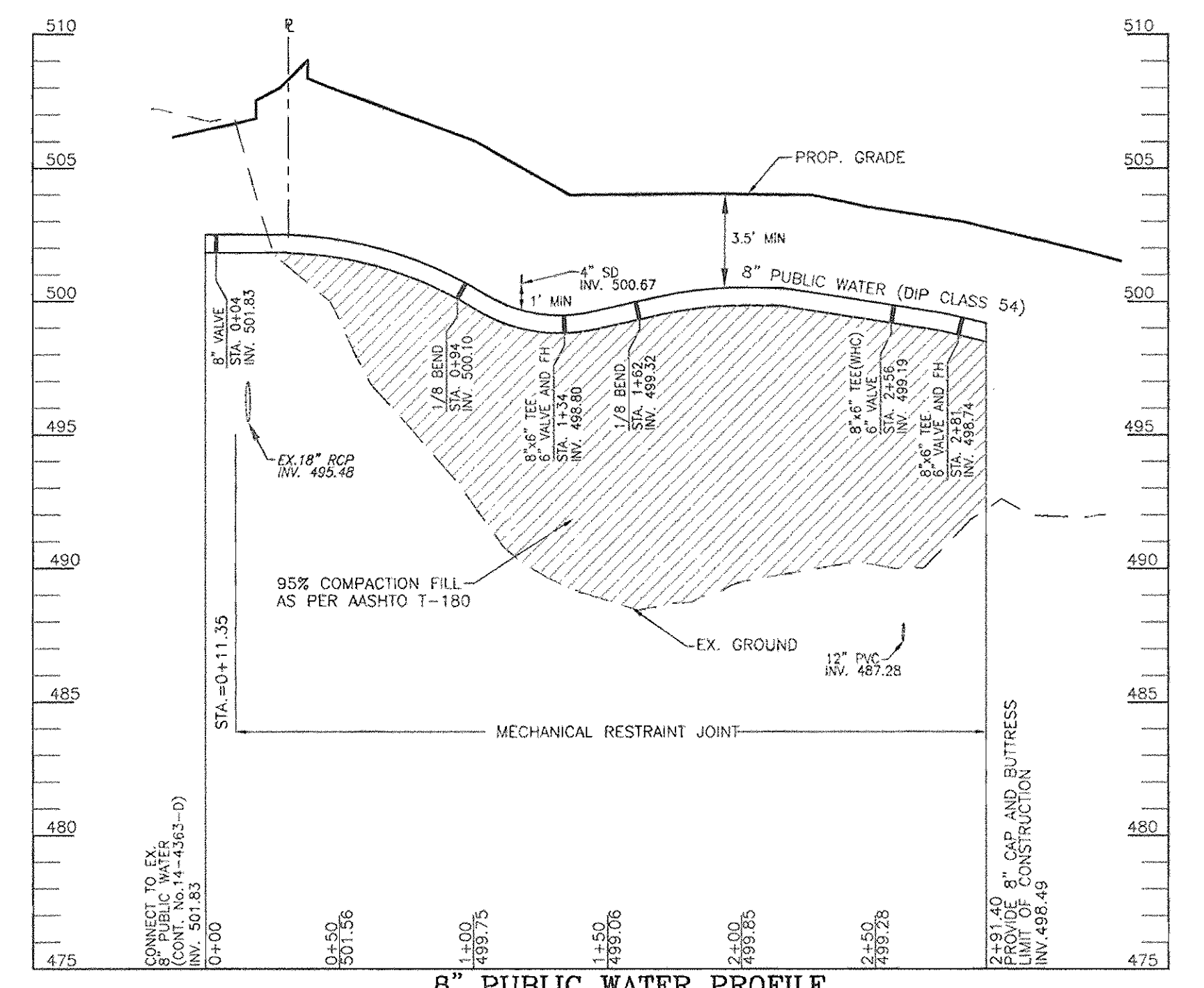
QUANTITIES

NAME OF UTILITY CONTRACTOR : _____
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE : _____

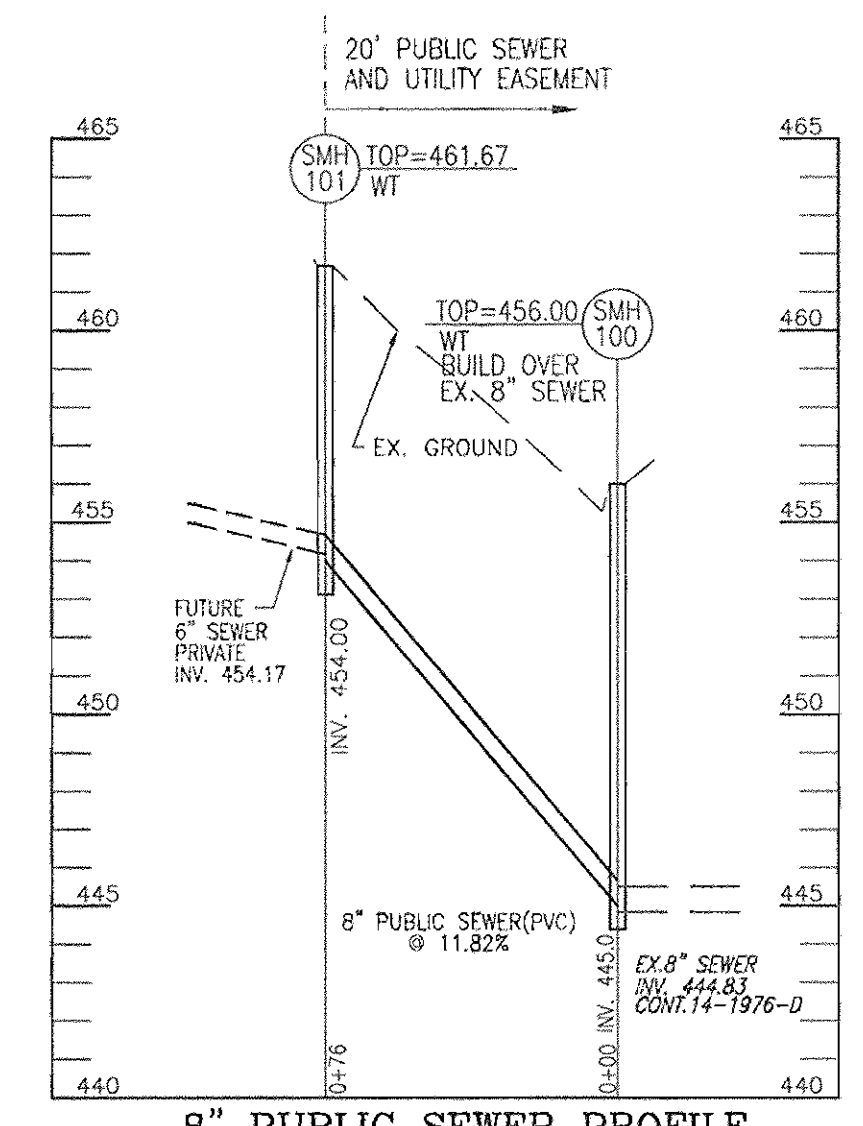
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
WATER				
8" DIP WATER	291 LF			
6" DIP WATER	54 LF			
8" X 6" TEE	3 EA			
8" VALVE	1 EA			
6" VALVE	3 EA			
6" FIRE HYDRANT	2 EA			
8" - 1/8 BEND	2 EA			
8" CAP AND BUTTRESS	1 EA			
SEWER				
MANHOLE	2 EA			
8" PVC SEWER	72 LF			



PLAN VIEW
SCALE: 1"=50'



8" PUBLIC WATER PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



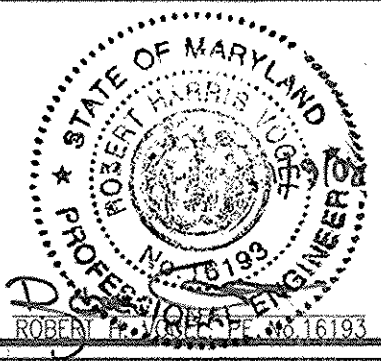
8" PUBLIC SEWER PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

OWNER/DEVELOPER
TSC/JMJ WATERLOO ROAD, LLC.
7210 MINSTREL WAY, SUITE 208
COLUMBIA, MD. 21045
443-535-9200

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Shek Coon 2/10/08
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
[Signature] 2/10/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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DATE:	JANUARY 2008	BY:	NO.	REVISION	DATE

FINAL WATER AND SEWER PLAN
PLAN VIEW

WATERLOO OFFICE BUILDING
MEDICAL AND GENERAL OFFICE
PARCEL A
CONTRACT NO.14-4505-D

SCALE AS SHOWN
SHEET 2 OF 2

TAX MAP 31 BLOCK 19
1ST ELECTION DISTRICT
PARCEL 428, 467
HOWARD COUNTY, MARYLAND