

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" C900 PVC SDR 18 WATER	2,142 L.F.	2,142		
6" C900 PVC SDR 18 WATER	63 L.F.	63		
8" 1/8 HB	7 EA.	7		
8" 1/16 HB	5 EA.	5		
8" 1/32 HB	10 EA.	10		
8" X 8" TEE	2 EA.	2		
8" TS & V	2 EA.	2		
8" VALVES	6 EA.	6		
6" VALVES	11 EA.	11		
8" X 6" FHT	6 EA.	6		
FIRE HYDRANT	6 EA.	6		
8" 1/16 VB	2 EA.	2		
8" PVC SDR 35 SEWER	59 L.F.	29	15	
PRECAST MANHOLE	3 EA.	2		
4" VALVE	1 EA.	1		
8" X 6" R	2 EA.	2		
8" X 6" T	3 EA.	3		
8" HDC	11 EA.	11		

WATER EXTENSIONS

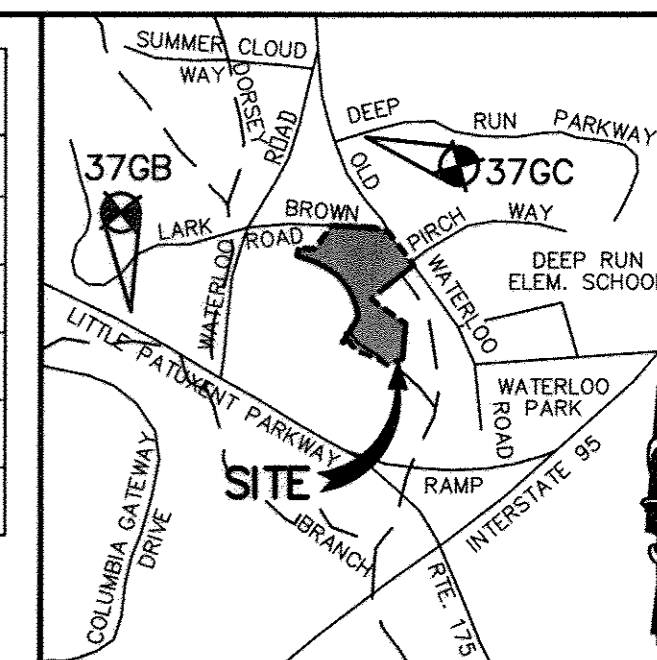
GATEWAY OVERLOOK

6th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-4759-D

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN OF WATER MAINS
3	PLAN OF WATER MAINS
4	PROFILE OF WATER MAINS
5	PROFILE OF SEWER MAINS



LOCATION MAP
 SCALE: 1"=200'
 COPYRIGHT ADC THE MAP PEOPLE
 PERMITTED USE NO. 2071188
 HOWARD COUNTY ADC MAP:
 4936 (C10 & D10) & 5054 (C1 & D1)

GENERAL NOTES

- 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.
- Topographic field surveys were performed during May 2003 by Daft McCune & Walker, Inc. and by Shanberger & Lane during June 2007 and August 2008.
- 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. 376C and No 376B.

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 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 the drawings. In the event the contractor's work requires the bracing of additional poles, any cost incurred by the owner for the 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 locations of the test pits. 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 on these plans:

AT&T	1-800-252-1133
BGE (Construction Services)	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 construction of the main.
- The contractor shall notify the Bureau of Highways, Howard County, at 410-313-7450 at least five working days before open cutting or boring/poking 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.

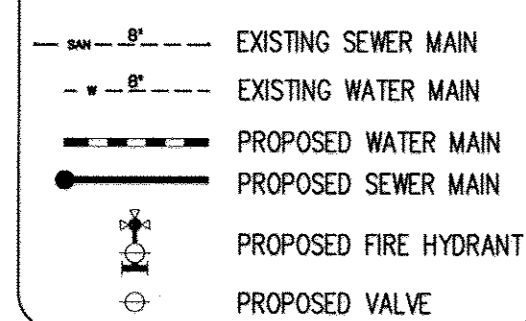
WATER NOTES

- ALL WATER MAINS TO BE C900 PVC WITH MIN WALL THICKNESS SDR 18 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 4'-0" OF 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.
- TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.
- UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. SEVENTEEN (17) POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. TWELVE (12) POUND ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL "TEES" USED WITH PVC MAINS SHALL BE DUCTILE IRON.

SEWER NOTES

- ALL SEWER MAINS SHALL BE P.V.C. WITH MINIMUM WALL THICKNESS OF SDR 35 UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52. WHERE WATERTIGHT FRAME AND COVER IS USED, SET TOP OF FRAME 1" - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE A WATERTIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAMES 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 THE CELLAR CANNOT BE SERVED.

LEGEND:



BENCHMARKS

GEODETIC SURVEY CONTROL 37GD
 N 553,237.204
 E 1,372,353.605
 ELEV. 290.931
 LOCATED 30' EAST OF FIRE HYDRANT ACROSS FROM DEEP RUN ELEMENTARY SCHOOL

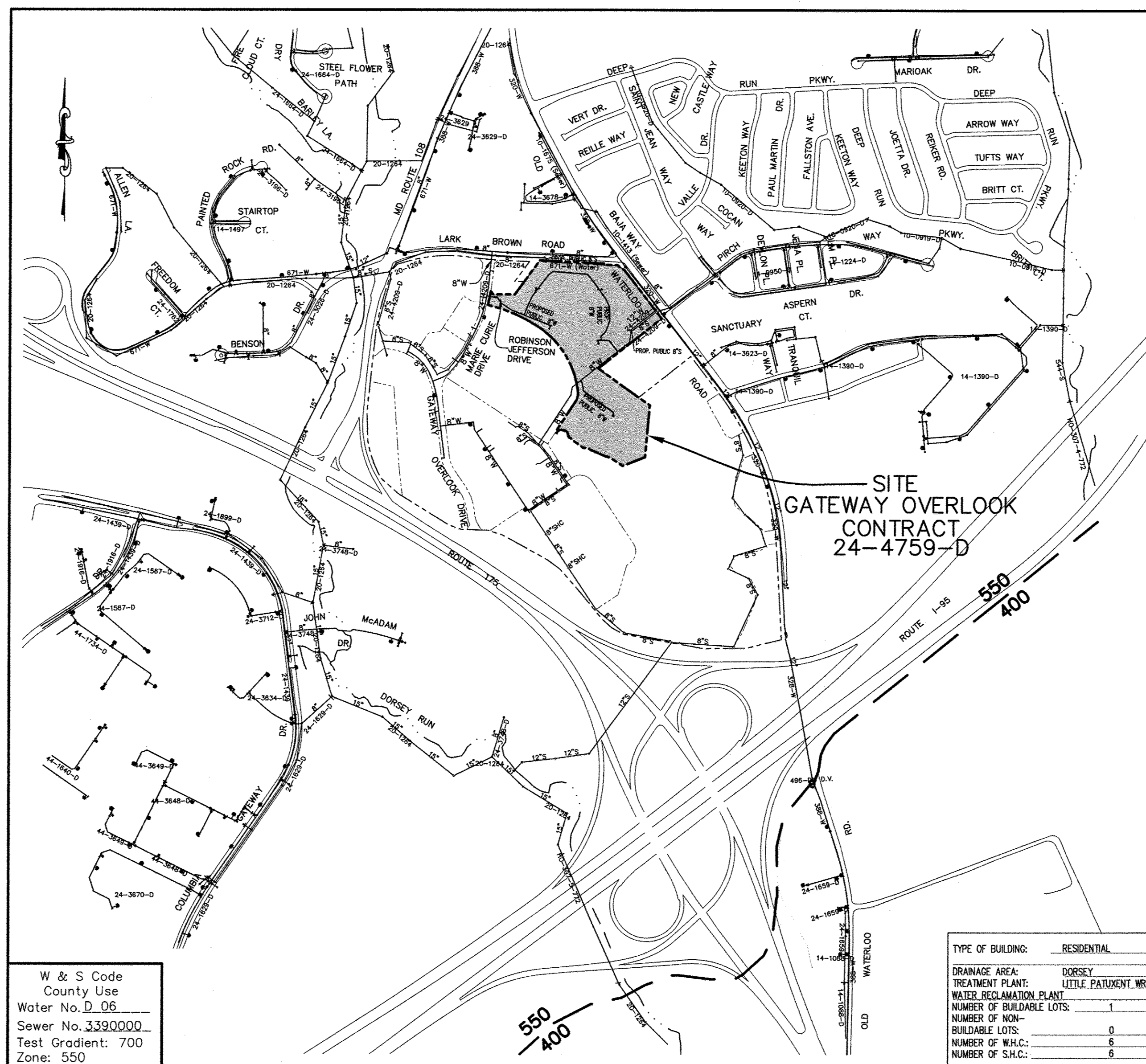
GEODETIC SURVEY CONTROL 37GC
 N 555,250.791
 E 1,370,946.348
 ELEV. 331.855
 LOCATED ON THE SOUTH SIDE OF OLD WATERLOO ROAD ACROSS FROM DEEP RUN PARKWAY

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE

LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
F	7810 PARAGON CIRCLE		
F	7820 PARAGON CIRCLE		
F	7830 PARAGON CIRCLE		
F	8171 ROBINSON JEFFERSON DRIVE		
F	8181 ROBINSON JEFFERSON DRIVE		
F	8151 ROBINSON JEFFERSON DRIVE		

SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE

LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
F	7810 PARAGON CIRCLE		
F	7820 PARAGON CIRCLE		
F	7830 PARAGON CIRCLE		
F	8171 ROBINSON JEFFERSON DRIVE		
F	8181 ROBINSON JEFFERSON DRIVE		
F	8151 ROBINSON JEFFERSON DRIVE		



W & S Code
 County Use
 Water No. D_06
 Sewer No. 3390000
 Test Gradient: 700
 Zone: 550

TYPE OF BUILDING: RESIDENTIAL	
DRAINAGE AREA:	DORSEY
TREATMENT PLANT:	LITTLE PATUXENT WRP
WATER RECLAMATION PLANT:	
NUMBER OF BUILDABLE LOTS:	1
NUMBER OF NON-BUILDABLE LOTS:	0
NUMBER OF W.H.C.:	6
NUMBER OF S.H.C.:	6

VICINITY MAP

SCALE: 1"=600'

"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. 21774, EXPIRATION DATE: 11-10-2013."

NAME OF UTILITY CONTRACTOR :

Sediment control measures for this contract will be implemented in accordance with Section 308 of the Specifications located in Design Manual IV and as shown on SDP-13-002

CHECKBOX

AS-BUILT DATE

SURVEY AND DRAFTING DIVISION

OWNER

COLUMBIA GATEWAY OP, LLC
 4750 OWINGS MILLS BOULEVARD
 OWINGS MILLS, MD 21117
 (410) 356.9900

DEVELOPER

COLUMBIA GATEWAY OP, LLC
 4750 OWINGS MILLS BOULEVARD
 OWINGS MILLS, MD 21117
 (410) 356.9900

SITE DEVELOPMENT PLAN REFERENCE #: SDP-13-002

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

[Signature] 1/22/13
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

PHRA Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects
 8919 Centre Park Drive, Suite 200, Columbia, MD 21045
 Tel: 410.997.8900 Fax: 410.997.9282

JAMES A. RUFF, PE No. 21774

DES: JSN
 DRN: JSN
 CHK: JAR
 DATE: 1/16/13

REVISION

NO. 1 AS-BUILT
 DATE: 3/2/15

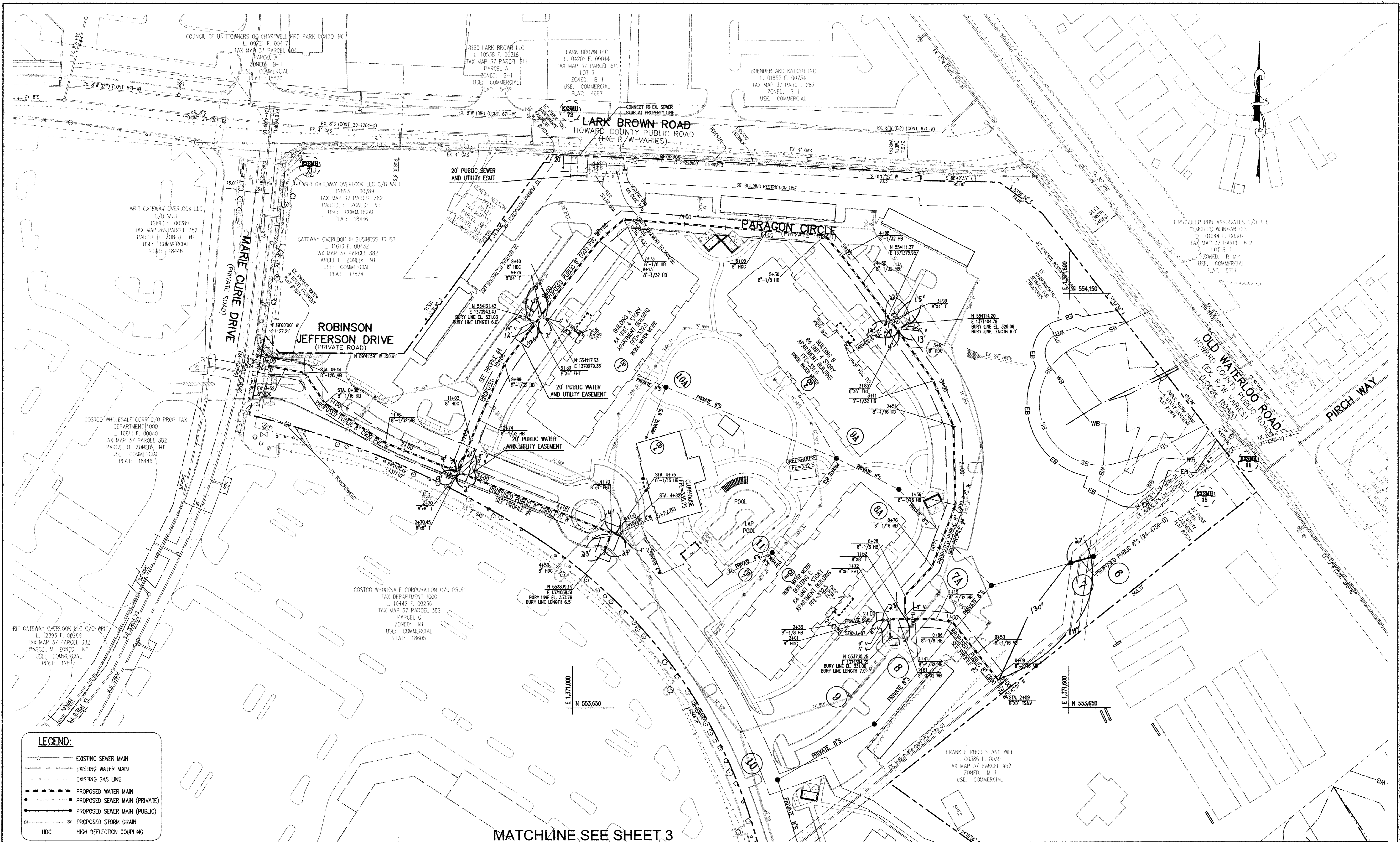
SCALE AS SHOWN

SHEET 1 OF 5

PUBLIC WATER COVER SHEET

GATEWAY OVERLOOK
 TAX MAP 37, PARCEL 362 LOT F ZONED NT
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CONTRACT NO. 24-4759-D

600' SCALE MAP NO. 37 AND 43 BLOCK NO. 20 AND 2.

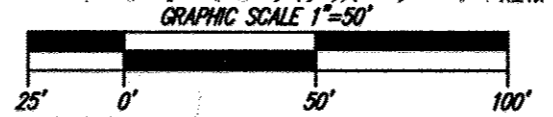


LEGEND:

- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING GAS LINE
- PROPOSED WATER MAIN
- PROPOSED SEWER MAIN (PRIVATE)
- PROPOSED SEWER MAIN (PUBLIC)
- PROPOSED STORM DRAIN
- HDC HIGH DEFLECTION COUPLING

MATCHLINE SEE SHEET 3

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. 21774, EXPIRATION DATE: 11-10-2013.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

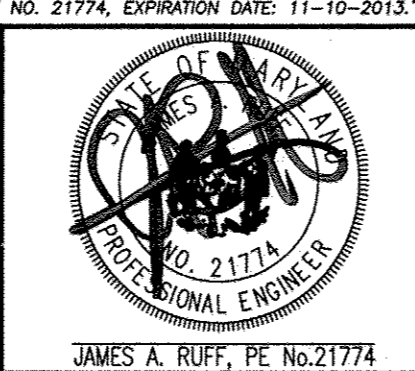
[Signature] 8/16/13
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

[Signature] 8/16/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

PHRA Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects

Professional Company 8818 Centre Park Drive, Suite 200, Columbia, MD 21046
Tel: 410-997-8900 Fax: 410-997-9202



DES:	JSN			
DRN:	JSN			
CHK:	JAR	KCI 2 AS-BUILT	3/2/15	
DATE:	8/06/13	PJS 1 REVISE SEWER CONNECTIONS	8/6/13	
BY:	NO.	REVISION:	DATE:	

PUBLIC WATER MAIN PLAN

6:0' SCALE MAP NO. 37 AND 43 BLOCK NO. 20 AND 2

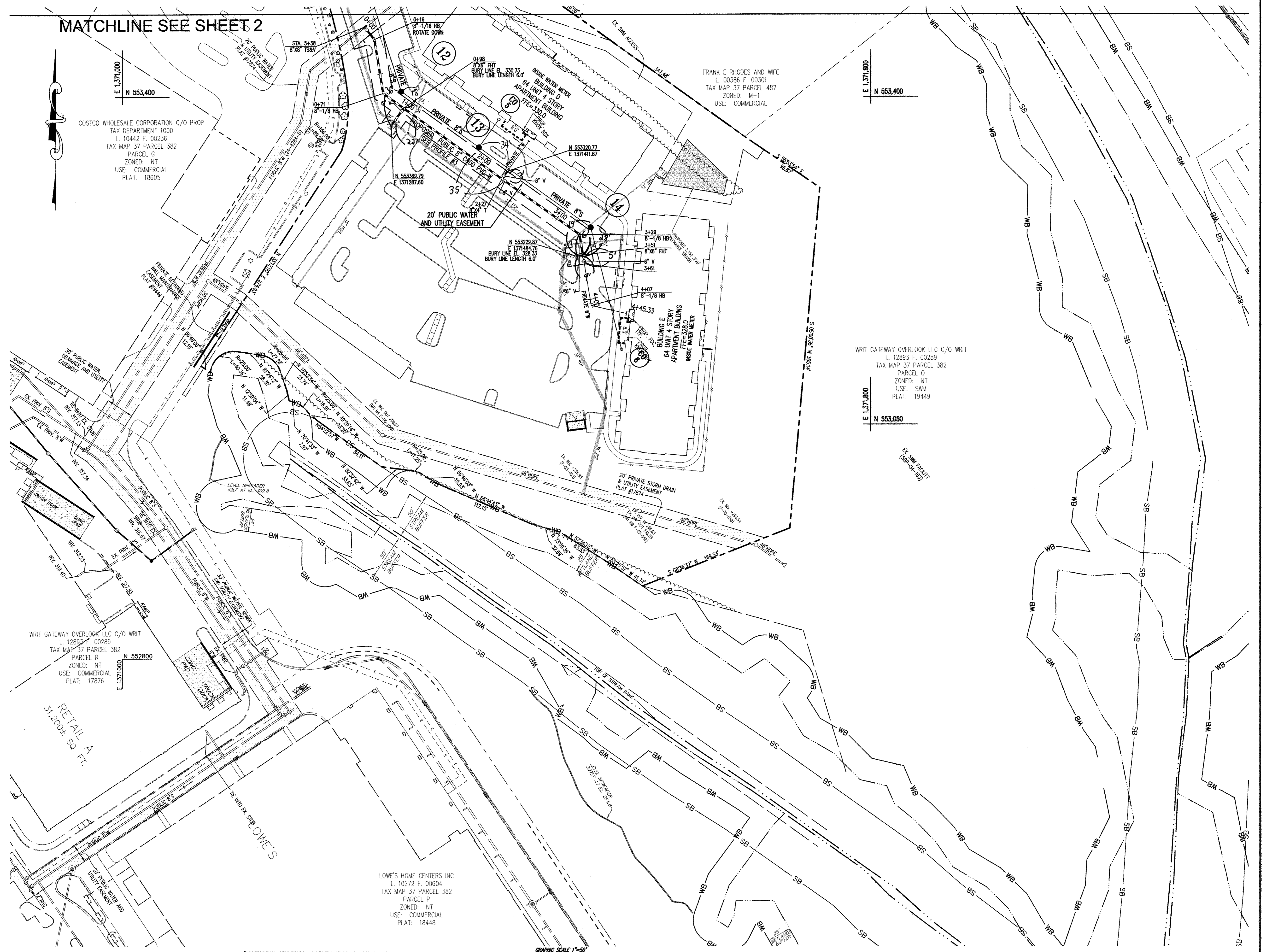
GATEWAY OVERLOOK
TAX MAP 37, PARCEL 362 LOT F ZONED NT
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-4759-D

SCALE
1"=50'

SHEET
2 OF 5

PROJECTS CORP. (CSP) 1201 Gateway Overlook Parcel F DESIGN (CS) CROWAS02.dwg

MATCHLINE SEE SHEET 2



E 1,371,000
N 553,400

E 1,371,800
N 553,400

E 1,371,800
N 553,050

COSTCO WHOLESALE CORPORATION C/O PROP
TAX DEPARTMENT 1000
L. 10442 F. 00236
TAX MAP 37 PARCEL 382
PARCEL G
ZONED: NT
USE: COMMERCIAL
PLAT: 18605

FRANK E RHODES AND WIFE
L. 00386 F. 00301
TAX MAP 37 PARCEL 487
ZONED: M-1
USE: COMMERCIAL

WRIT GATEWAY OVERLOOK LLC C/O WRIT
L. 12893 F. 00289
TAX MAP 37 PARCEL 382
PARCEL O
ZONED: NT
USE: SWM
PLAT: 19449

WRIT GATEWAY OVERLOOK LLC C/O WRIT
L. 12893 F. 00289
TAX MAP 37 PARCEL 382
PARCEL R
ZONED: NT
USE: COMMERCIAL
PLAT: 17876

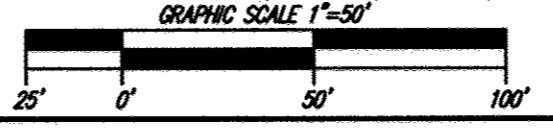
LOWE'S HOME CENTERS INC
L. 10272 F. 00604
TAX MAP 37 PARCEL 382
PARCEL P
ZONED: NT
USE: COMMERCIAL
PLAT: 18448

RETAIL A
31,200± SQ. FT.

LEGEND:

- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING GAS LINE
- PROPOSED WATER MAIN
- PROPOSED SEWER MAIN (PRIVATE)
- PROPOSED SEWER MAIN (PUBLIC)
- PROPOSED STORM DRAIN
- HDC HIGH DEFLECTION COUPLING

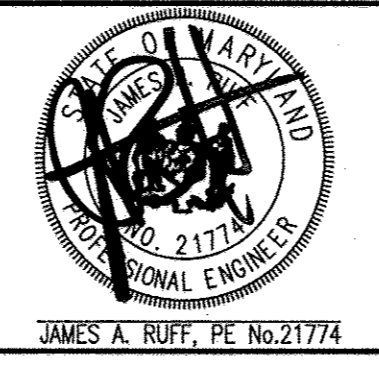
PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 21774, EXPIRATION DATE: 11-10-2013.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
S. J. C. [Signature]
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

PHRA Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200, Columbia, MD, 21045
Tel: 410-997-8900 Fax: 410-997-8282



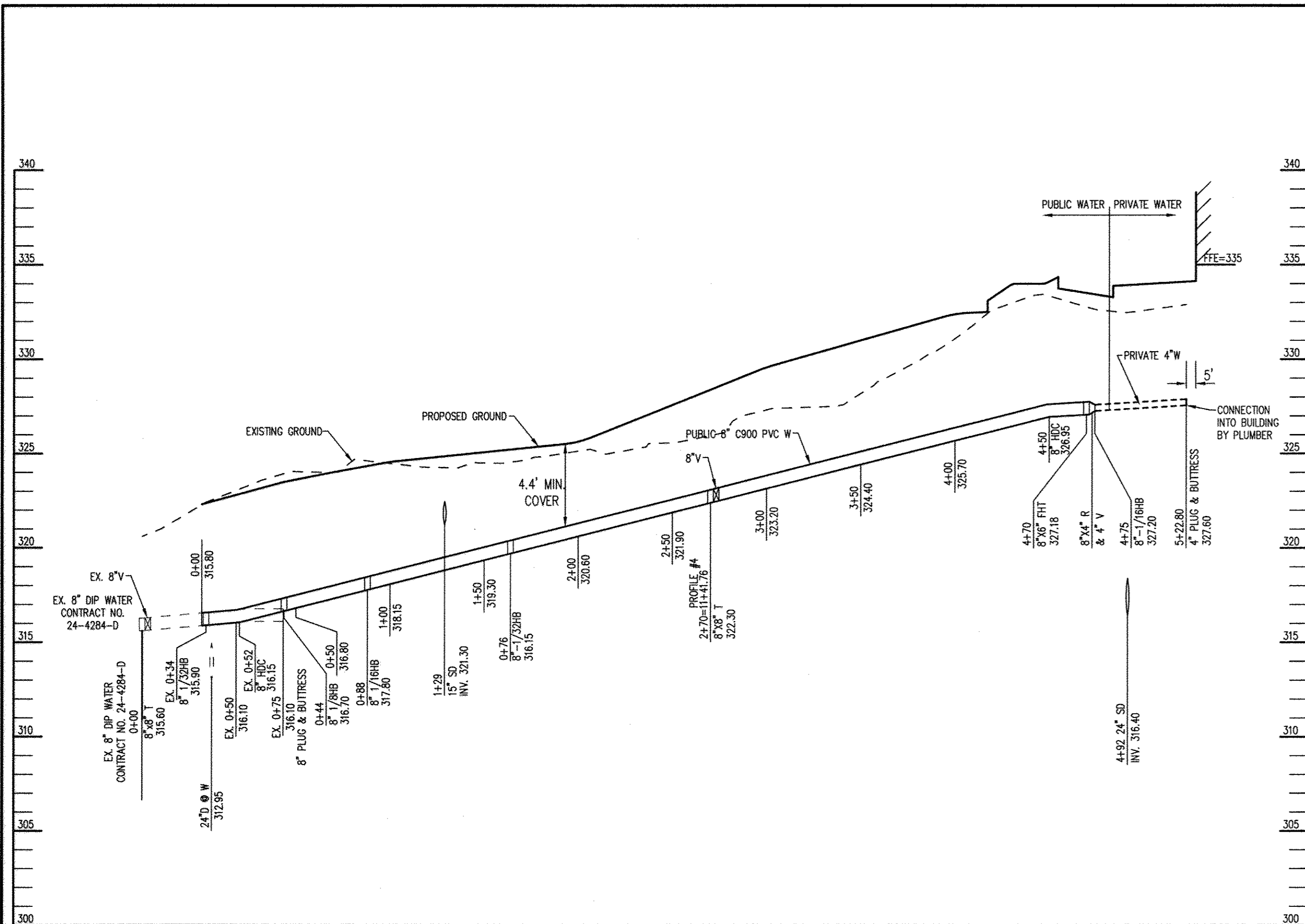
DES: JSN					
DRN: JSN					
CHK: JAR					
DATE: 1/16/13	KCF	1	AS-BUILT	3/21/15	
	BY	NO.	REVISION	DATE	

PUBLIC WATER MAIN PLAN
600' SCALE MAP NO. 37 AND 43 BLOCK NO. 20 AND 2

GATEWAY OVERLOOK
TAX MAP 37, PARCEL 362 LOT F ZONED NT
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-4759-D

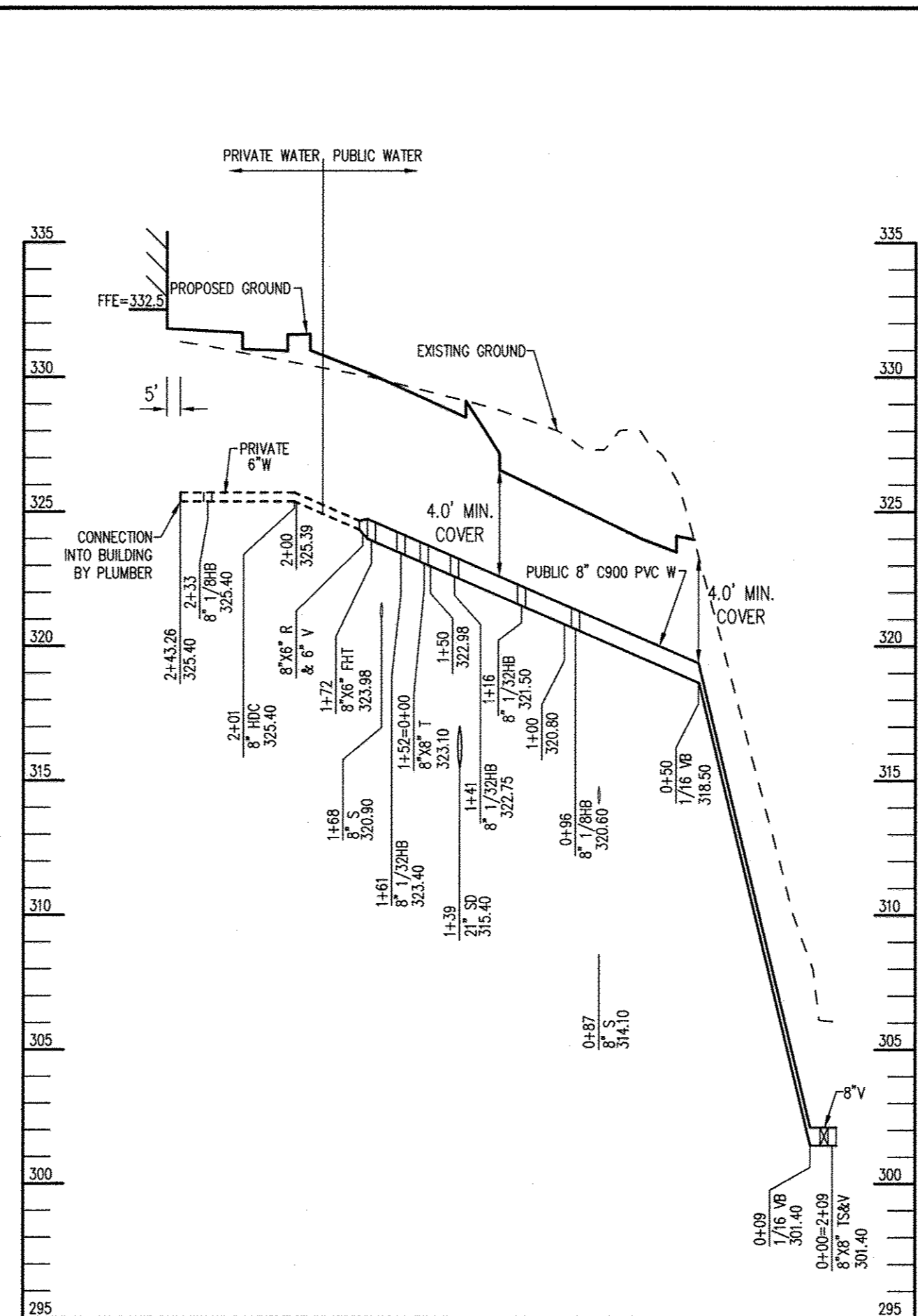
SCALE
1"=50'
SHEET
3 OF 5

T:\PROJECTS\COPL\COPL1201-Gateway Overlook Parcel F\DESIGN\GIS\CB00WAS02.dwg



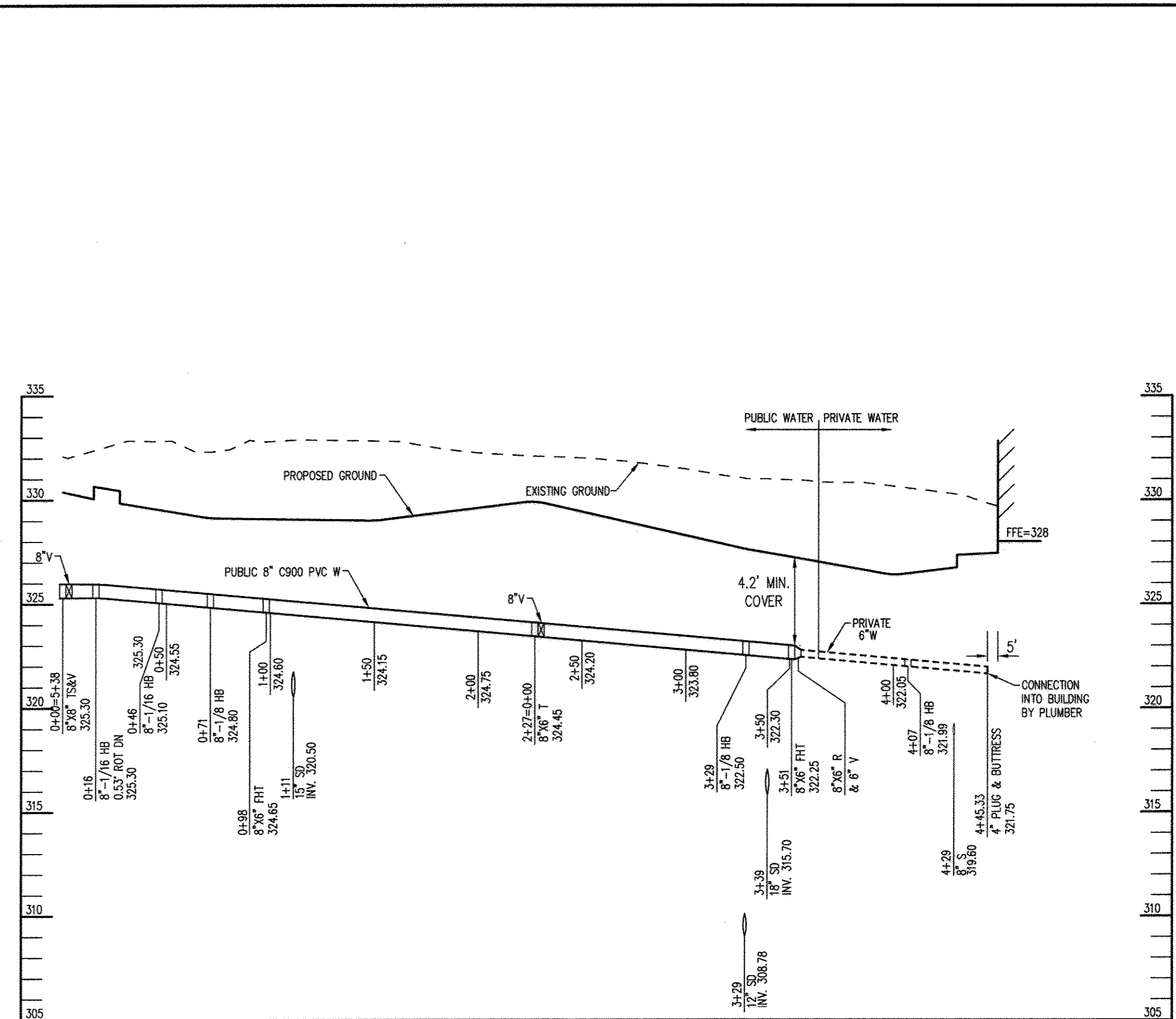
WATER PROFILE #1

SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'



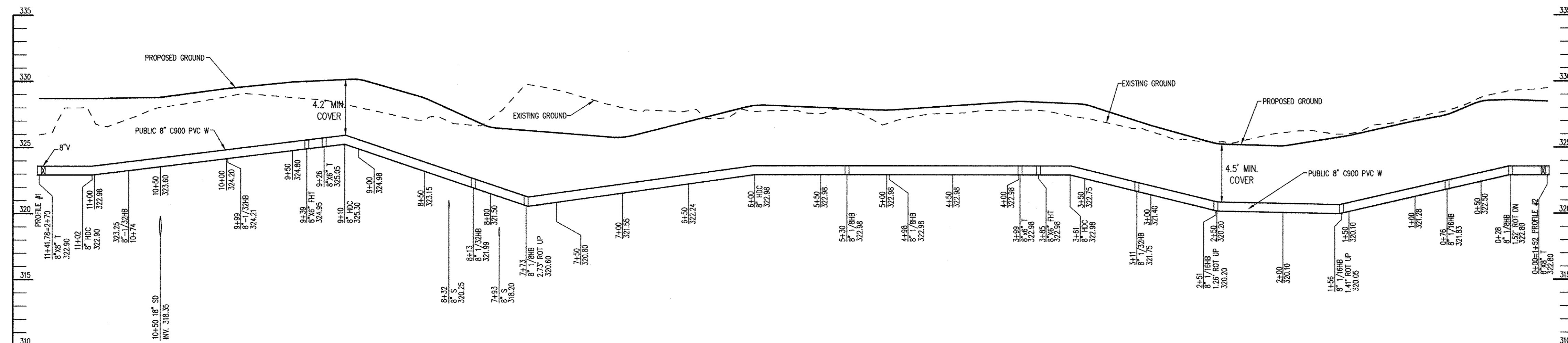
WATER PROFILE #2

SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'



WATER PROFILE #3

SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'



WATER PROFILE #4

SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'

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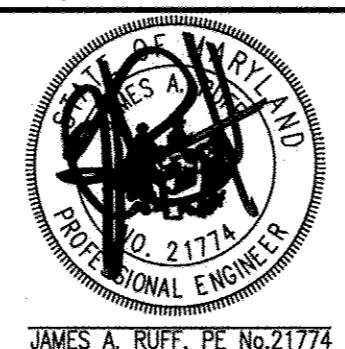
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

S. J. Chen
CHIEF, BUREAU OF UTILITIES
DATE: 1/16/13

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

M. J. Ruff
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 1/16/13

PHRA Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects
8118 Centre Park Drive, Suite 200, Columbia, MD 21045
Tel: 410-997-8900 Fax: 410-997-9282

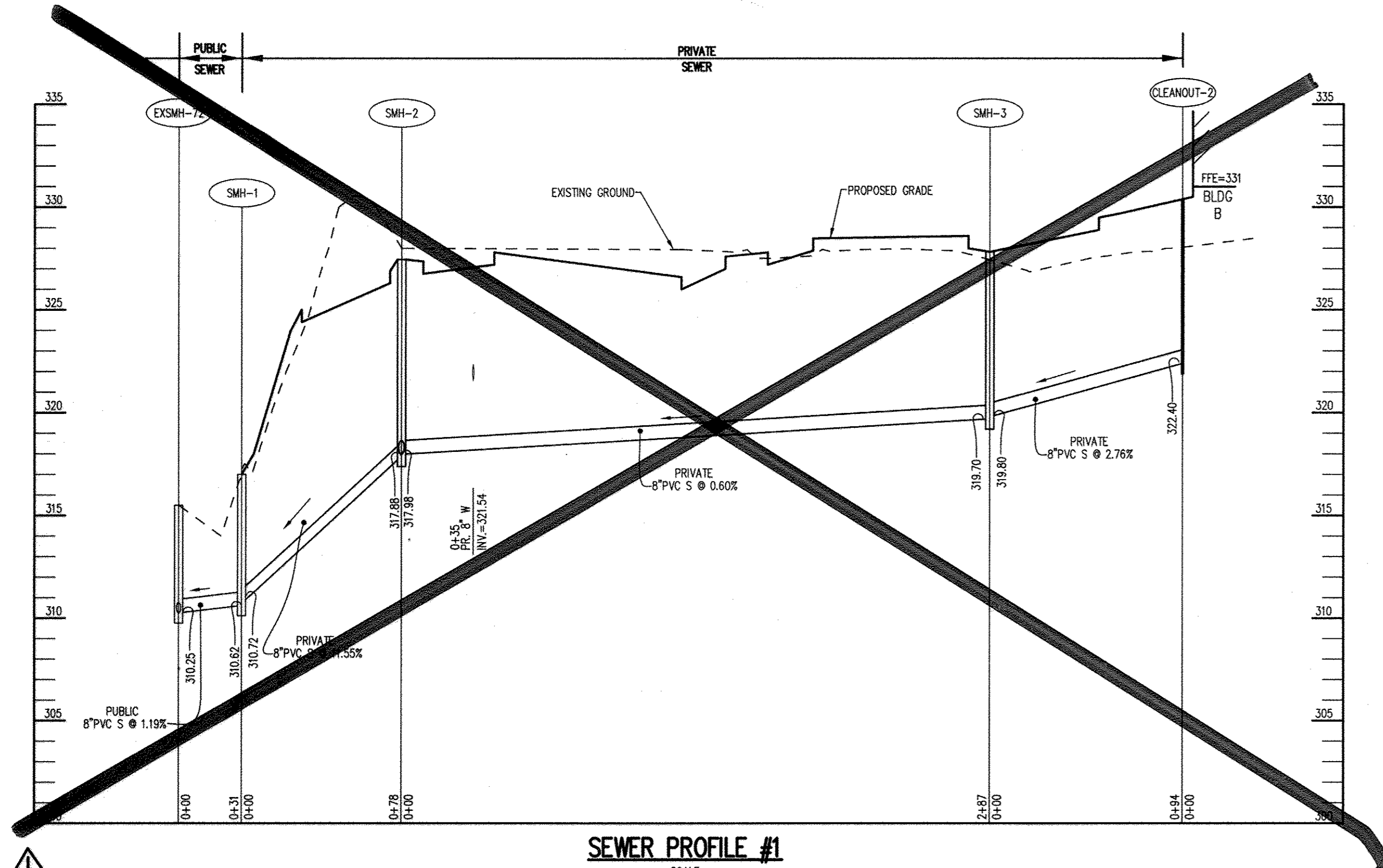


DES:	JSN		
DRN:	JSN		
CHK:	JAR		
DATE:	1/16/13		
BY	NO.	REVISION	DATE

PROFILE OF WATER MAINS
600' SCALE MAP NO. 37 AND 43 BLOCK NO. 20 AND 2.

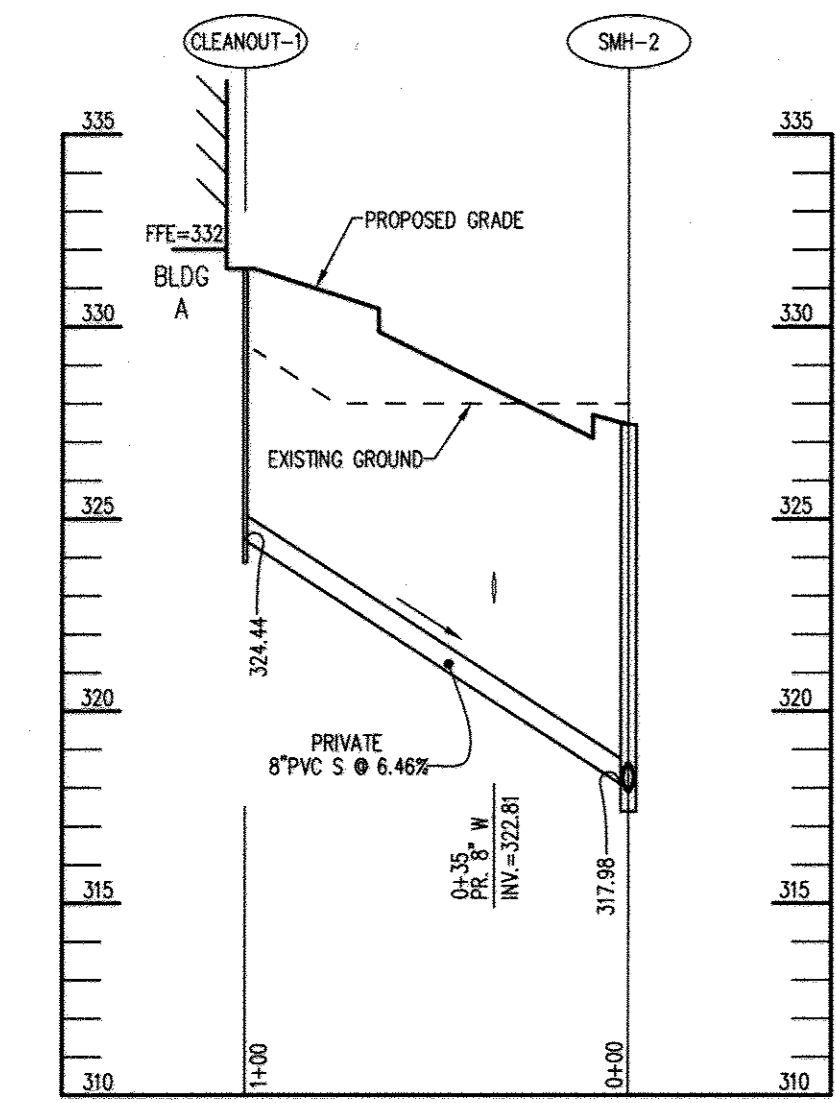
GATEWAY OVERLOOK
TAX MAP 37, PARCEL 362 LOT F ZONED NT
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-4759-D

SCALE
1"=50'
SHEET
4 OF 5



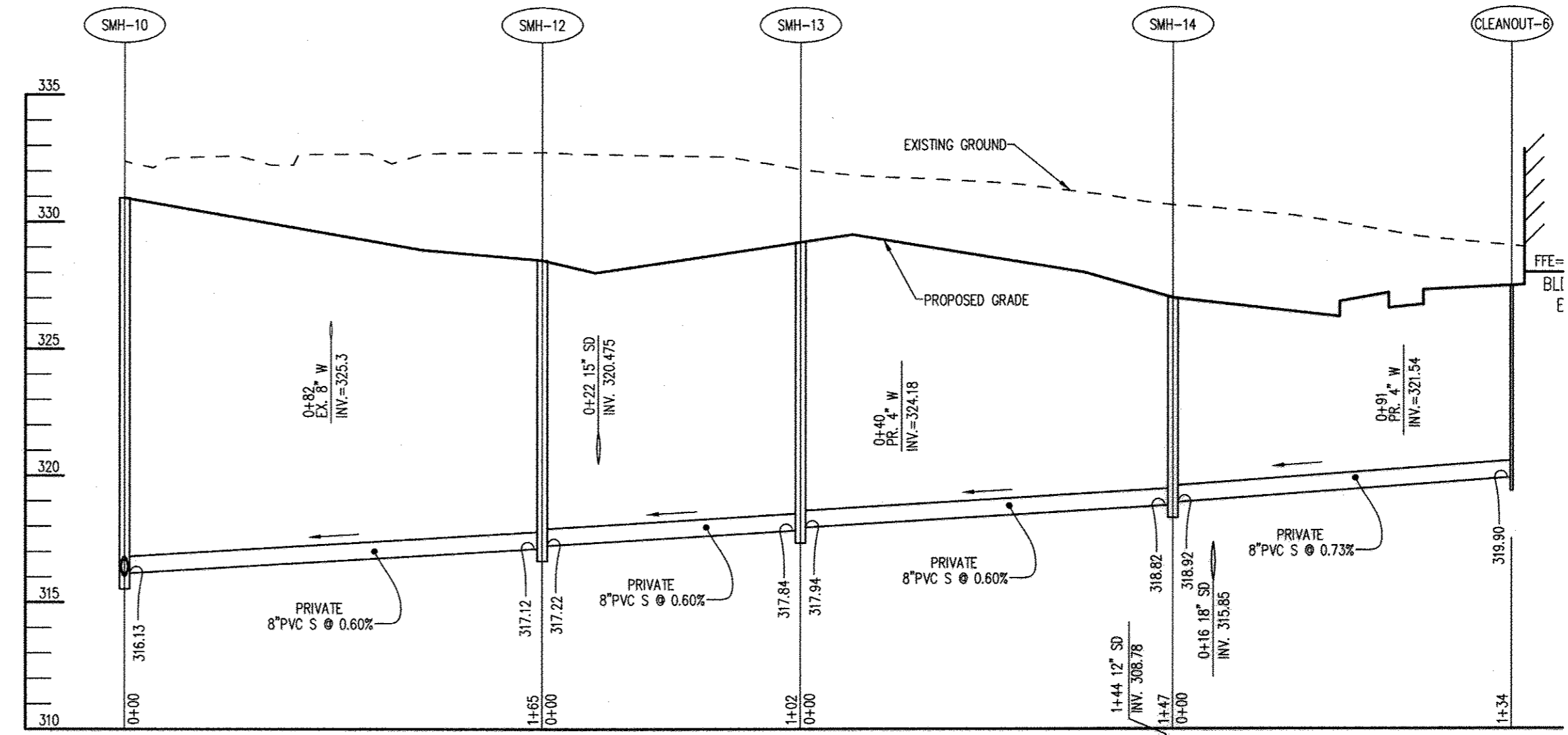
SEWER PROFILE #1

SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'



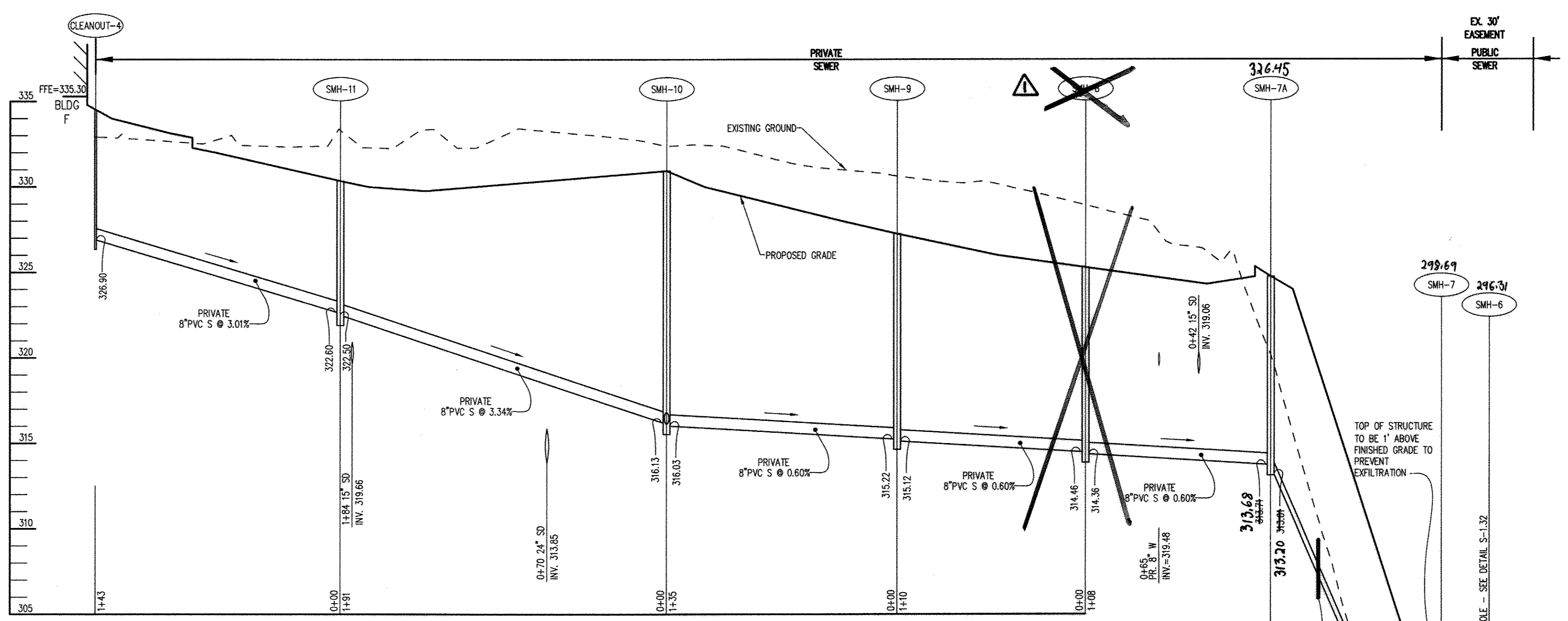
SEWER PROFILE #2 (PRIVATE)

SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'



SEWER PROFILE #4 (PRIVATE)

SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'



SEWER PROFILE #3

SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'

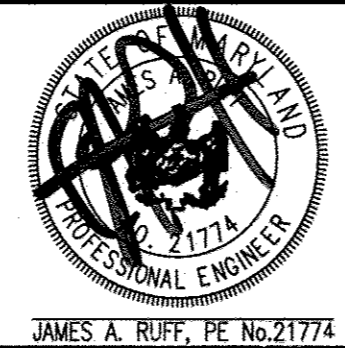
PRIVATE 8" P.V.C. S @ 2.24%
DESIGN PER DETAIL G-3.01, PROVIDE 2 ANCHORS AT STATIONS 0+36 & 0+72, DETAIL G-3.01

"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. 21774, EXPIRATION DATE: 11-10-2013."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

PHRA Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects
6818 Centre Park Drive, Suite 200, Columbia, MD, 21045
Tel: 410-997-8900 • Fax: 410-997-9282



DES:	JSN			
DRN:	JSN			
CHK:	JAR	KCI 2 AS-BUILT	3/2/15	
DATE:	1/16/13	JAN 1 DELETED SEWER PROFILE #1 AND SMH-8	8/9/15	
BY:	NO.	REVISION	DATE	

PROFILE OF SEWER MAINS

GATEWAY OVERLOOK
TAX MAP 37, PARCEL 362 LOT F ZONED NT
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-4759-D

SCALE
1"=50'
SHEET
5 OF 5

CHIEF, BUREAU OF UTILITIES DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

600' SCALE MAP NO. 37 AND 43 BLOCK NO. 20 AND 2.