

**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.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM AN AERIAL TOPOGRAPHIC SURVEY PREPARED BY POTOMAC AERIAL SURVEYS, DATED MARCH, 1998.
- THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD 83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 35HA AND 35HB. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:  
 GEODETIC SURVEY CONTROL 35HA (N 553,966.7457 E 1,340,476.9524 )  
 BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.  
 GEODETIC SURVEY CONTROL 35HB (N 554,836.4156 E 1,337,888.3861 )  
 BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.
- 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 OWNED BY 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 OPERATION 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) 410-637-8713  
 BGE (EMERGENCY) 410-685-0123  
 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
- 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 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 SHALL BE C-900 PVC (DR-18) UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" 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 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 SECTION 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.
- PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS: THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL OF PVC PIPE.
- SPRINKLER SYSTEM FOR SINGLE RESIDENTIAL DWELLING UNITS SHALL HAVE WATER HOUSE CONNECTIONS AND WATER METERS THAT ARE SIZED IN ACCORDANCE WITH THE DESIGN OF THE SPRINKLER SYSTEMS. SPRINKLER SYSTEMS FOR SINGLE RESIDENTIAL DWELLINGS SHALL HAVE A MINIMUM OF 1.5" SERVICE CONNECTION WITH A 1" OUTSIDE METER SETTING.

**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 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.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

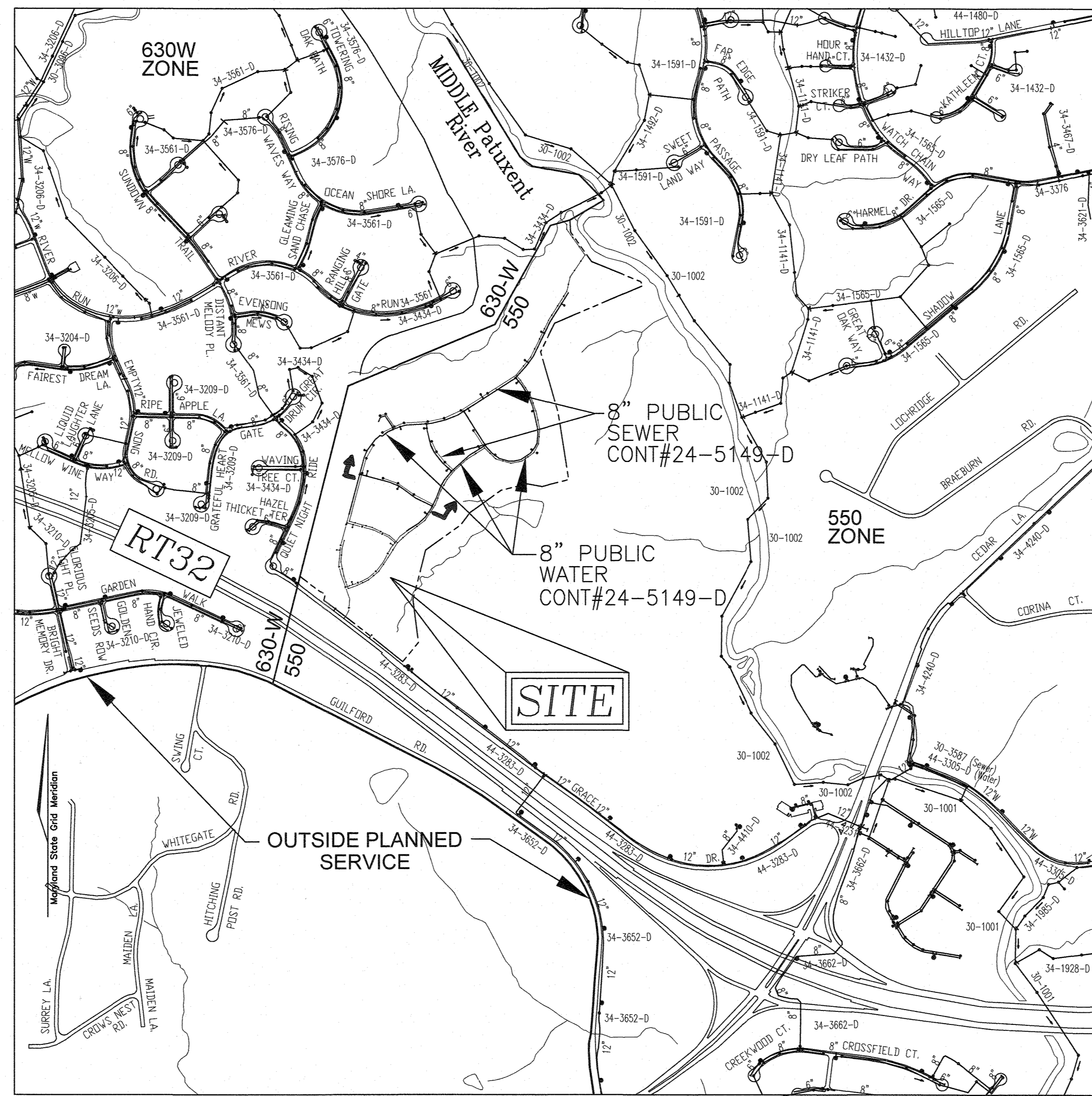
SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH FINAL PLAN F-18-041.

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

*John K. Butler* 8/19/20  
 SOIL CONSERVATION DISTRICT DATE

# FINAL WATER AND SEWER CONSTRUCTION PLAN CEDAR CREEK - PHASE 2

LOTS 9-38, 83-129, AND 142-196  
 CONTRACT 24-5149--D  
 HOWARD COUNTY, MARYLAND



LOCATION MAP  
 SCALE: 1"=600'

WATER ZONE: 550  
 TEST PRESSURE: 209 PSI  
 TEST GRADIENT: 827

Type of Building :	RESIDENTIAL
No. of Lots/Parcels :	132
No. of single Water House Connections :	100
No. of Twin Water House Connections :	16
No. of Sewer House Connections :	73
No. of Twin Sewer House Connections :	2
Sewer Shed :	PATUXENT RIVER
Treatment Plant :	PATUXENT RIVER (MIDDLE)

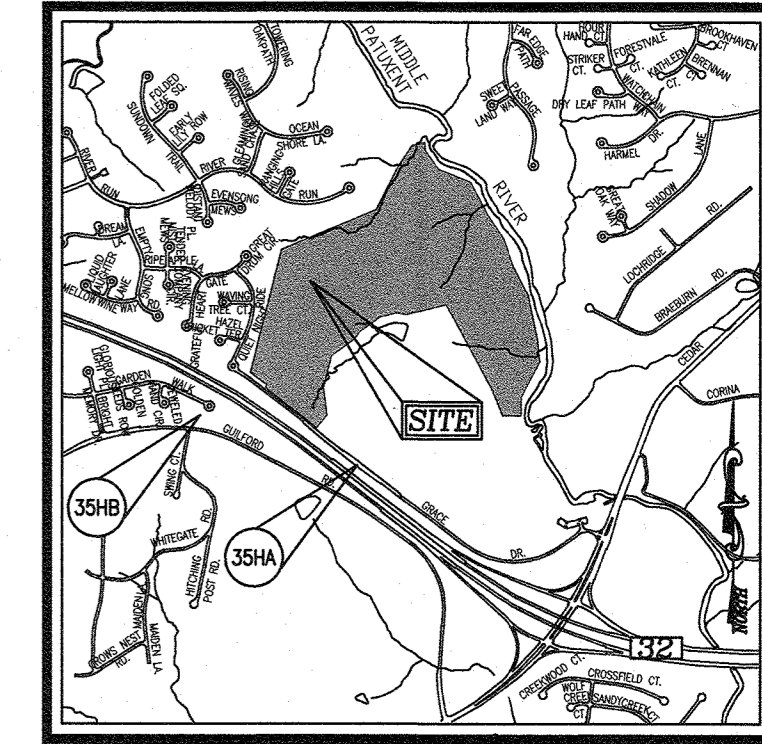
**BENCHMARKS**

BM 35HA\*  
 N 553,966.7457 E 1,340,476.9524  
 NAD 83 (Adj 07)  
 NAVD 88  
 ELEV. 404.584

BEING A STAMPED BRASS OR ALUMINUM DISC SET ON TOP OF A 3 FOOT DEEP COLUMN OF CONCRETE APPROXIMATELY 90° NORTH OF GRACE DRIVE AND 160± EAST OF THE EASTERN MOST ENTRY DRIVE FOR THE PROPERTY. (ALSO KNOWN AS "R-109" AND "0066").

BM 35HB\*  
 N 554,836.4156 E 1,337,888.3861  
 NAD 83 (Adj 07)  
 NAVD 88  
 ELEV. 449.699

BEING A STAMPED BRASS OR ALUMINUM DISC SET ON TOP OF A 3 FOOT DEEP COLUMN OF CONCRETE AT THE INTERSECTION OF GUILDFORD ROAD AND WHITEGATE ROAD, APPROXIMATELY 5'± NORTH OF GUILDFORD ROAD.

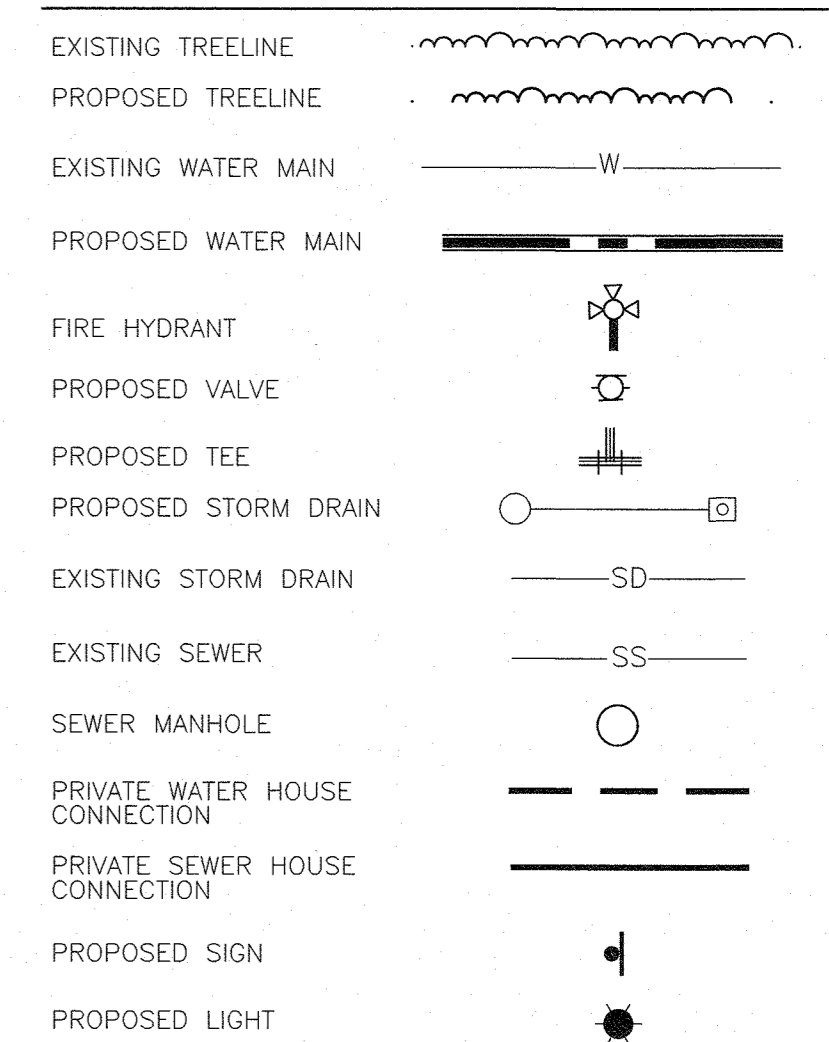


VICINITY MAP  
 SCALE: 1"=2000'  
 ADC MAP COORDINATE: 32  
 GRID B-5, C-3, B-4 & C-4

**SHEET INDEX**

DESCRIPTION	SHEET NO.
COVER SHEET & LOCATION MAP	1 OF 10
OVERALL SITE EXHIBIT	2 OF 10
LAYOUT PLANS	3-5 OF 10
WATER PROFILES	6-8 OF 10
SEWER PROFILES	9-10 OF 10

**LEGEND**



**WATER PRESSURE NOTE**

THE HOMES SERVED BY THIS CONTRACT ARE WITHIN AN AREA OF STATIC PRESSURE WHICH WILL EXCEED 60PSI; THEREFORE ARE CONSIDERED TO BE WITHIN A HIGH PRESSURE ZONE. A PRESSURE REDUCING VALVE (PRV) AT THE WATER HOUSE SERVICE CONNECTION (WHC) WILL BE REQUIRED FOR ALL LOTS.

**QUANTITIES**

NAME OF UTILITY CONTRACTOR : GAINES AND COMPANY				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	QUANTITIES AS-BUILT	TYPE	MANUFACTURER/SUPPLIER
<b>WATER</b>				
8" WATER C-900 PVC (DR-18)	5,336 LF	5,336	C-900/DR 18	NORTH AMERICAN
6" WATER DIP CLASS 54	340 LF	340	C-900/DR 18	NORTH AMERICAN
8" X 6" TEE	8 EA	8	MJ TEE	SIP INDUSTRIES
8" X 6" TEE	17 EA	17	MJ HYDRANT TEE	SIP INDUSTRIES
8" VALVE	16 EA	16	GATE VALVE	KENNEDY VALVE
6" VALVE	17 EA	17	GATE VALVE	KENNEDY VALVE
FIRE HYDRANT	17 EA	17	KENNEDY VALVE	KENNEDY VALVE
8" CAP & BUTTRESS	2 EA	2	MJ CAP	SIP INDUSTRIES
1/8" H. BEND	4 EA	4		SIP INDUSTRIES
1/16" BEND	4 EA	4		SIP INDUSTRIES
1/32" H. BEND	38 EA	38		SIP INDUSTRIES
5" H. SWEEP	4 EA	4		
2" H. COUPLING	1 EA	1		
1" METER	132 EA	132		A.Y. MC DONALD
1.5" WHC	3,094 LF	3,094		CAMBRIDGE LEE
<b>SEWER</b>				
MANHOLE	19 EA	19		
8" S. PVC	2,405 LF	2,405		NORTH AMERICAN
4" CLEANOUT	75 EA	75		HORNE CONCRETE
4" SHC	1,826 LF	1,826		NORTH AMERICAN

OWNER/DEVELOPER  
 SIMPSON OAKS CRP3, LLC  
 4750 OWINGS MILLS BOULEVARD  
 OWINGS MILLS, MARYLAND 21117  
 410-356-9900

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*Chris Hays* 7-31-2020  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
*Paul Edmunds* 8-28-20  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**VOGEL ENGINEERING**  
 +  
**TIMMONS GROUP**  
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21143  
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE  
 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. 16114, EXPIRATION DATE: 09-27-2020  
 DRN: VTG DES: VTG  
 CHK: RHV  
 DATE: JULY 2020  
 ROBERT H. VOGEL, PE No. 16193

PROFESSIONAL CERTIFICATE  
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 DATE: JULY 2020  
 WRA ADDED QUANTITIES  
 BY NO. REVISION DATE 8/19/21

FINAL WATER AND SEWER  
 CONSTRUCTION PLAN  
 CONTRACT 24-5149--D  
 COVER SHEET

CEDAR CREEK - PHASE 2  
 LOTS 9-38, 83-129, AND 142-196  
 TAX MAP 35 GRID 21  
 5TH ELECTION DISTRICT  
 ZONED: CCF-R  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 1 OF 10

EXISTING  
CONT. #  
24-5009-D

SHEET 5

HOWARD COUNTY MD  
DEPT OF PARKS &  
RECREATION  
TAX MAP 35 PARCEL 467  
L. 4718 F. 41  
PARCEL 1  
ZONING: NT  
USE: OPEN SPACE

VILLAGE OF RIVER HILL  
SECTION 2 AREA 6  
PHASE 1  
TAX MAP 35 PARCEL 447  
PLAT MDR NO. 12395  
ZONING: NT  
USE: RESIDENTIAL

COLUMBIA  
VILLAGE OF RIVER HILL  
SECTION 2 AREA 6  
PHASE 2  
OPEN SPACE LOT 200  
PLAT MDR NO. 13118  
ZONING: NT  
USE: RESIDENTIAL

W R GRACE CO.  
7500 ROUTE 32  
TM 35 P. 145  
PARCEL A  
L. 273 F. 186  
PLAT# 21235  
ZONING: PEC

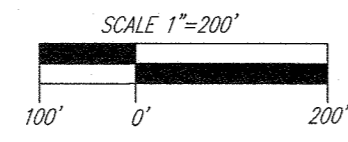
W R GRACE & CO - CONN  
TAX MAP 35 PARCEL 412  
COLUMBIA  
VILLAGE OF HICKORY RIDGE  
SECTION 3 AREA 14  
PARCEL A  
PLAT MDR NO. 13640  
ZONING: NT  
USE: VACANT

HOWARD COUNTY MARYLAND  
TAX MAP 35 PARCEL 412  
COLUMBIA  
VILLAGE OF HICKORY RIDGE  
SECTION 3 AREA 14  
OPEN SPACE LOT 45  
PLAT MDR NO. 19714  
ZONING: NT  
USE: MIDDLE PATUXENT  
ENVIRONMENTAL AREA  
TAX ACCOUNT #15-12925

SHEET 4

SHEET 3

OVERALL SITE EXHIBIT PLAN  
SCALE: 1" = 200'



OWNER/DEVELOPER  
SIMPSON OAKS CRP3, LLC  
4750 OWINGS MILLS BOULEVARD  
OWINGS MILLS, MARYLAND 21117  
410-356-9900

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

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**TIMMONS GROUP**  
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
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ENGINEER UNDER THE LAWS OF THE STATE  
OF MARYLAND, LICENSE NO. 16193  
EXPIRATION DATE: 09-27-2020

DRN: VTG DES: VTG  
CHK: RHY  
DATE: JULY 2020

BY	NO.	REVISION	DATE

FINAL WATER AND SEWER  
CONSTRUCTION PLAN  
CONTRACT 24-5149-D  
OVERALL SITE EXHIBIT

CEDAR CREEK - PHASE 2  
LOTS 9-38, 83-129, AND 142-196

SCALE  
AS  
SHOWN

SHEET  
2 OF 10

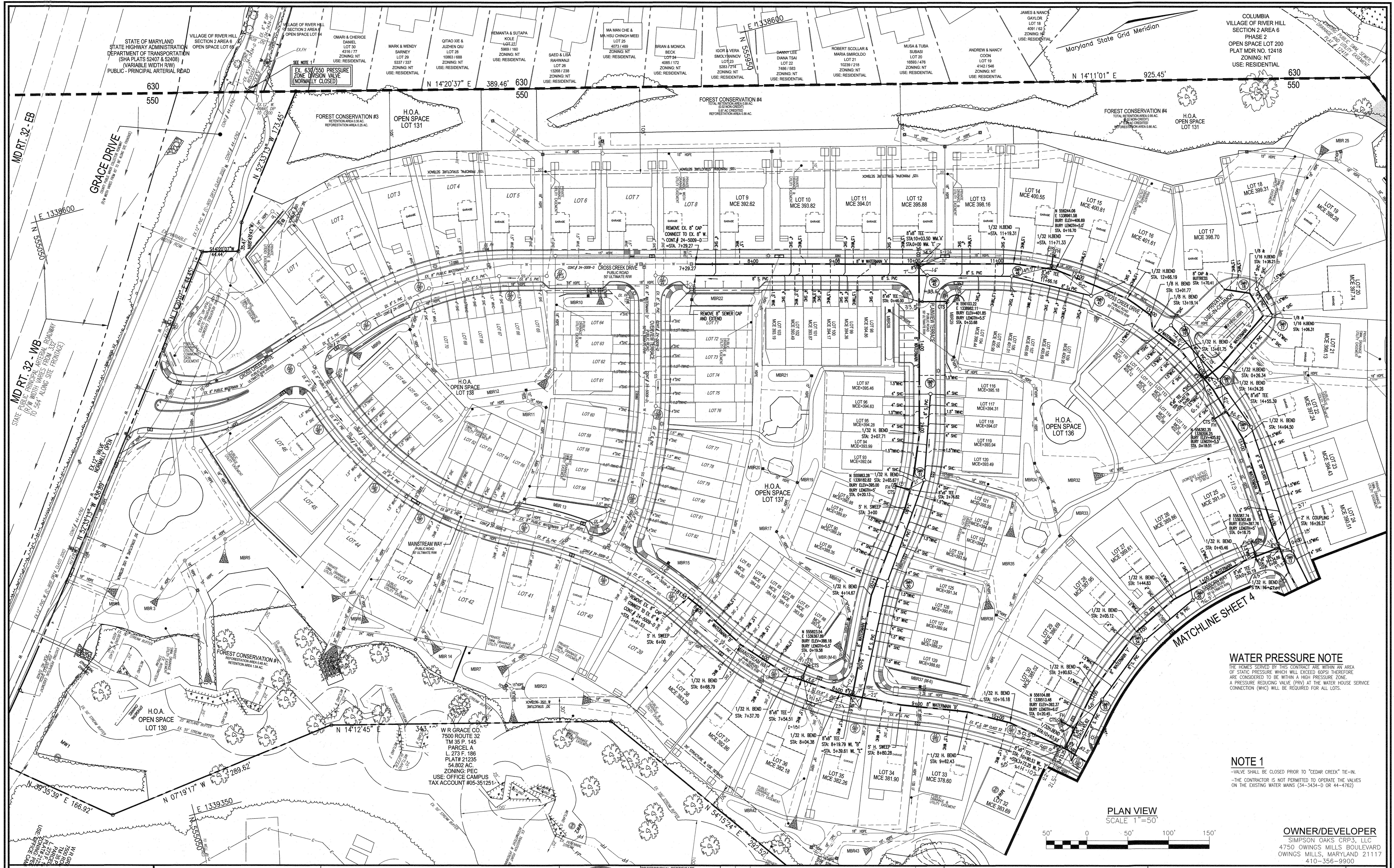
*[Signature]* 7-31-2020  
CHIEF, BUREAU OF UTILITIES DATE

*[Signature]* 8-28-20  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

600' SCALE MAP NO. 35 BLOCK NO. 21

TAX MAP 35 GRID 21  
5TH ELECTION DISTRICT

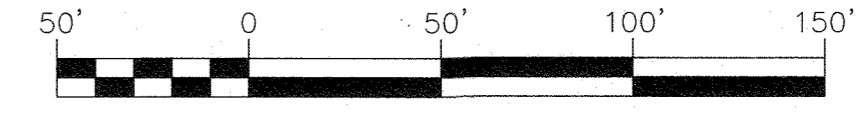
ZONED: CEF-R  
HOWARD COUNTY, MARYLAND



**WATER PRESSURE NOTE**  
 THE HOMES SERVED BY THIS CONTRACT ARE WITHIN AN AREA OF STATIC PRESSURE WHICH WILL EXCEED 60PSI THEREFORE ARE CONSIDERED TO BE WITHIN A HIGH PRESSURE ZONE. A PRESSURE REDUCING VALVE (PRV) AT THE WATER SERVICE CONNECTION (WSC) WILL BE REQUIRED FOR ALL LOTS.

**NOTE 1**  
 -VALVE SHALL BE CLOSED PRIOR TO "CEDAR CREEK" TIE-IN.  
 -THE CONTRACTOR IS NOT PERMITTED TO OPERATE THE VALVES ON THE EXISTING WATER MAINS (24"-36"-42" OR 44"-48")

PLAN VIEW  
 SCALE 1"=50'



**OWNER/DEVELOPER**  
 SIMPSON OAKS CRP3, LLC  
 4750 OWINGS MILLS BOULEVARD  
 OWINGS MILLS, MARYLAND 21117  
 410-356-9900

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 DATE: 7-31-2020  
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 DATE: 8-28-20  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

**VOGEL ENGINEERING**  
**TIMMONS GROUP**  
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
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STATE OF MARYLAND  
 ROBERT H. VOGEL, PE No. 16193

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DRN:	VYG	DES:	VYG
CHK:	RRV	DATE:	JULY 2020
BY:	NO.	REVISION:	
DATE:		DATE:	8/11/21

WRA ADDED DIMENSIONS

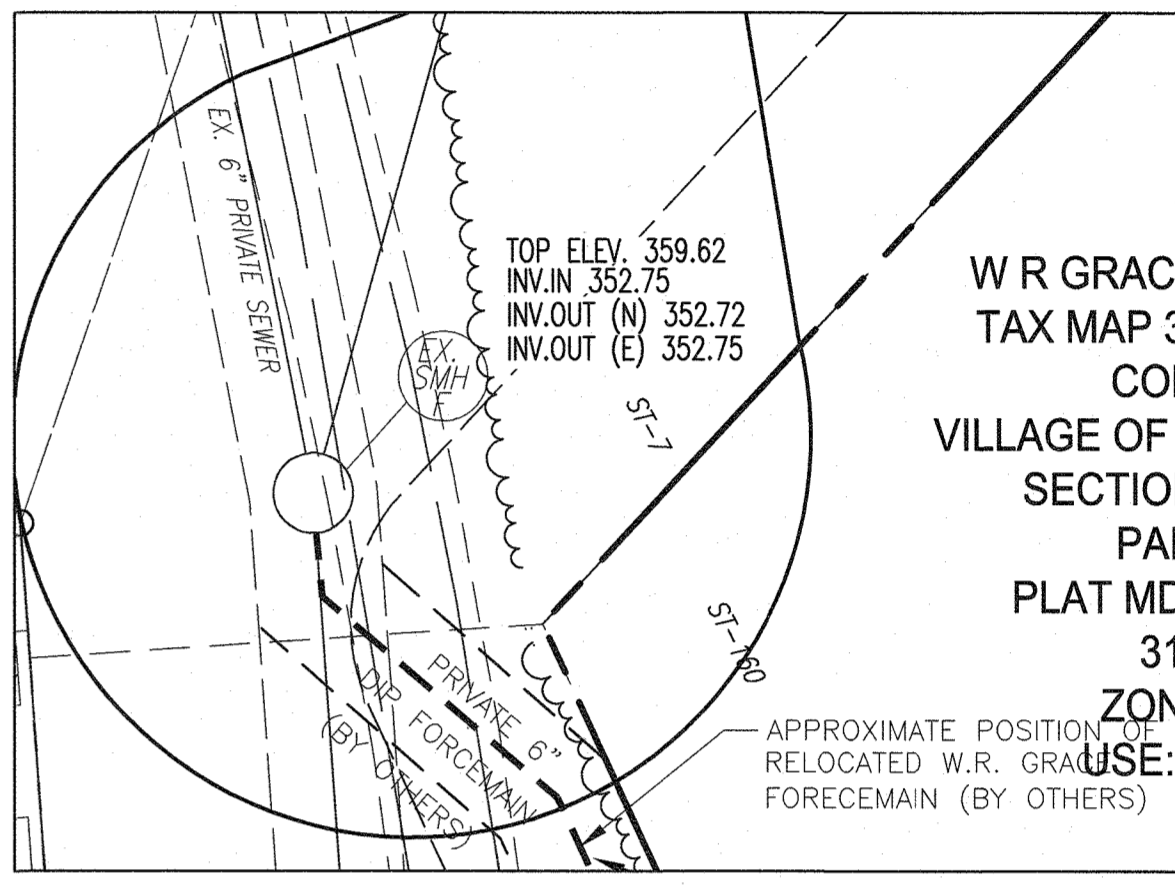
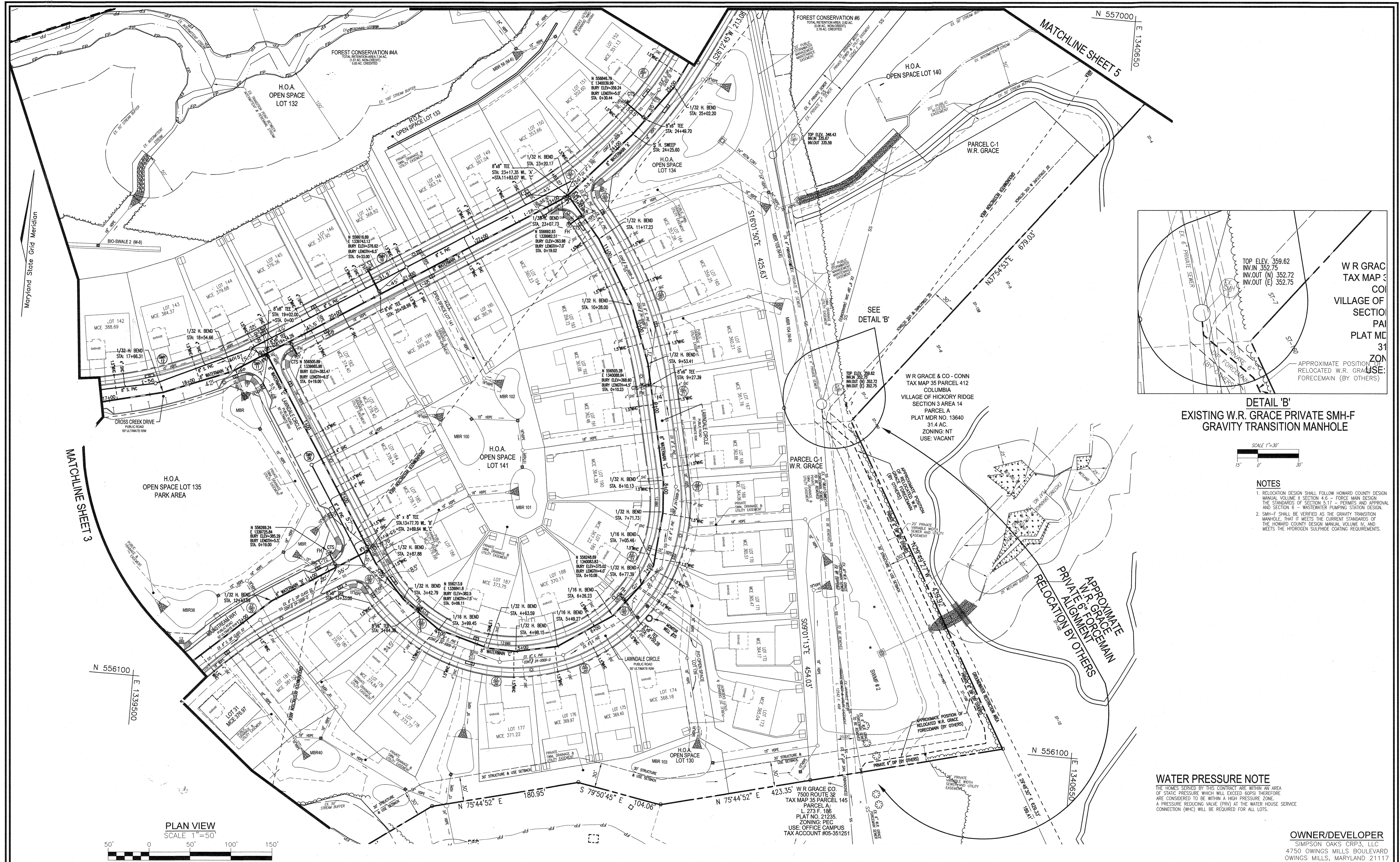
**FINAL WATER AND SEWER CONSTRUCTION PLAN**  
**CONTRACT 24-5149-D**  
**LAYOUT PLAN**

**CEDAR CREEK - PHASE 2**  
 LOTS 9-38, 83-129, AND 142-196

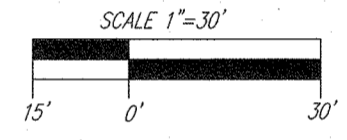
TAX MAP 35 GRID 21  
 5TH ELECTION DISTRICT

ZONED: CE-F-R  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 3 OF 10



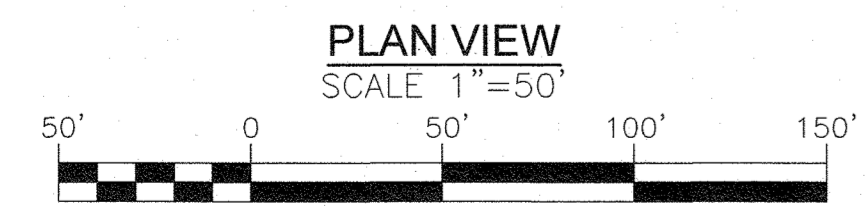
**DETAIL 'B'**  
EXISTING W.R. GRACE PRIVATE SMH-F  
GRAVITY TRANSITION MANHOLE



- NOTES**
1. RELOCATION DESIGN SHALL FOLLOW HOWARD COUNTY DESIGN MANUAL VOLUME II SECTION 4.6 - FORCE MAIN DESIGN THE STANDARDS OF SECTION 5.17 - PERMITS AND APPROVAL AND SECTION 6 - WASTEWATER PUMPING STATION DESIGN.
  2. SMH-F SHALL BE VERIFIED AS THE GRAVITY TRANSITION MANHOLE, THAT IT MEETS THE CURRENT STANDARDS OF THE HOWARD COUNTY DESIGN MANUAL VOLUME IV, AND MEETS THE HYDROGEN SULPHIDE COATING REQUIREMENTS.

**WATER PRESSURE NOTE**  
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**OWNER/DEVELOPER**  
SIMPSON OAKS CRP3, LLC  
4750 OWINGS MILLS BOULEVARD  
OWINGS MILLS, MARYLAND 21117  
410-356-9900



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Conrad* 2-3-2020  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*Chad Chubb* 8-28-20  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**VOGEL ENGINEERING**  
**TIMMONS GROUP**  
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P: 410.461.7666 F: 410.461.8961 www.timmons.com



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DRN: VTG DES: VTG  
CHK: RHV  
DATE: JULY 2020

NO.	REVISION	DATE
1	ADDED DIMENSIONS	8/11/21

**FINAL WATER AND SEWER CONSTRUCTION PLAN**  
**CONTRACT 24-5149-D**  
**LAYOUT PLAN**

**CEDAR CREEK - PHASE 2**  
LOTS 9-38, 83-129, AND 142-196

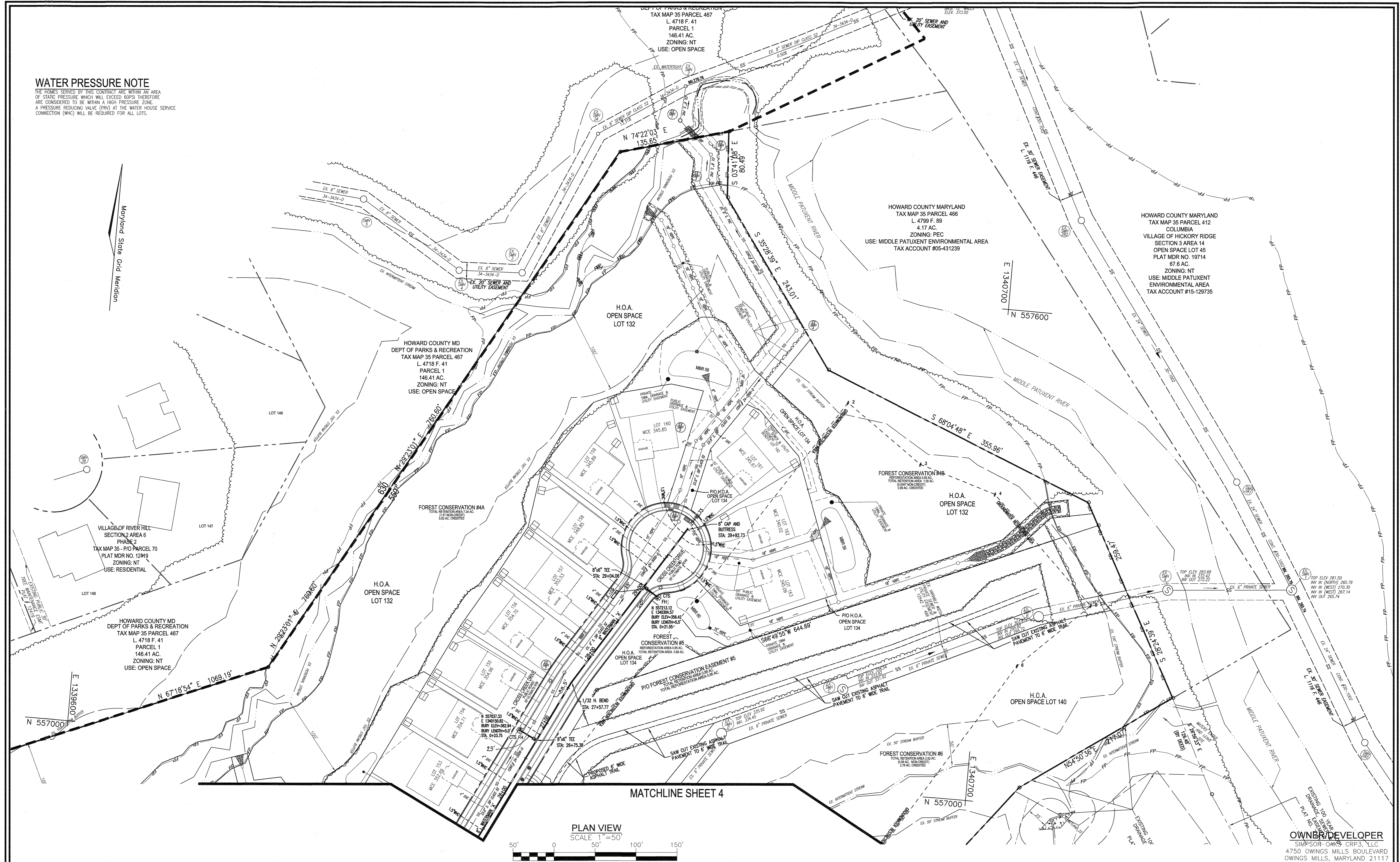
TAX MAP 35, GRID 21  
5TH ELECTION DISTRICT

ZONED: CEF-R  
HOWARD COUNTY, MARYLAND

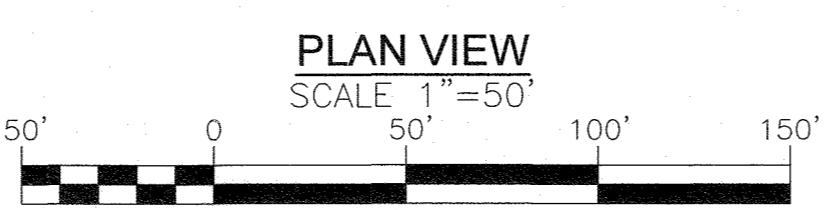
SCALE AS SHOWN  
SHEET 4 OF 10

**WATER PRESSURE NOTE**  
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Maryland State Grid Meridian



MATCHLINE SHEET 4



HOWARD COUNTY MARYLAND  
 TAX MAP 35 PARCEL 412  
 COLUMBIA  
 VILLAGE OF HICKORY RIDGE  
 SECTION 3 AREA 14  
 OPEN SPACE LOT 45  
 PLAT MDR NO. 19714  
 87.6 AC.  
 ZONING: NT  
 USE: MIDDLE PATUXENT ENVIRONMENTAL AREA  
 TAX ACCOUNT #15-129735

HOWARD COUNTY MARYLAND  
 TAX MAP 35 PARCEL 466  
 L. 4799 F. 89  
 4.17 AC.  
 ZONING: PEC  
 USE: MIDDLE PATUXENT ENVIRONMENTAL AREA  
 TAX ACCOUNT #05-431239

HOWARD COUNTY MD  
 DEPT OF PARKS & RECREATION  
 TAX MAP 35 PARCEL 467  
 L. 4718 F. 41  
 PARCEL 1  
 146.41 AC.  
 ZONING: NT  
 USE: OPEN SPACE

VILLAGE OF RIVER HILL  
 SECTION 2 AREA 6  
 PHASE 2  
 TAX MAP 35 - PIO PARCEL 70  
 PLAT MDR NO. 12M9  
 ZONING: NT  
 USE: RESIDENTIAL

HOWARD COUNTY MD  
 DEPT OF PARKS & RECREATION  
 TAX MAP 35 PARCEL 467  
 L. 4718 F. 41  
 PARCEL 1  
 146.41 AC.  
 ZONING: NT  
 USE: OPEN SPACE

**OWNER/DEVELOPER**  
 SIMPSON-OAKS CRP3, LLC  
 4750 OWINGS MILLS BOULEVARD  
 OWINGS MILLS, MARYLAND 21117  
 410-356-9900

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
  
**TIMMONS GROUP**  
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
 P: 410.461.7666 F: 410.461.8961 www.timmons.com



PROFESSIONAL CERTIFICATE  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MARYLAND.  
 EXPIRATION DATE: 09-27-2020  
 DRN: VTG DES: VTG  
 CHK: RHV  
 DATE: JULY 2020

BY	NO.	REVISION	DATE
WRA		ADDED DIMENSIONS	8/11/21

**FINAL WATER AND SEWER CONSTRUCTION PLAN**  
**CONTRACT 24-5149-D**  
**LAYOUT PLAN**

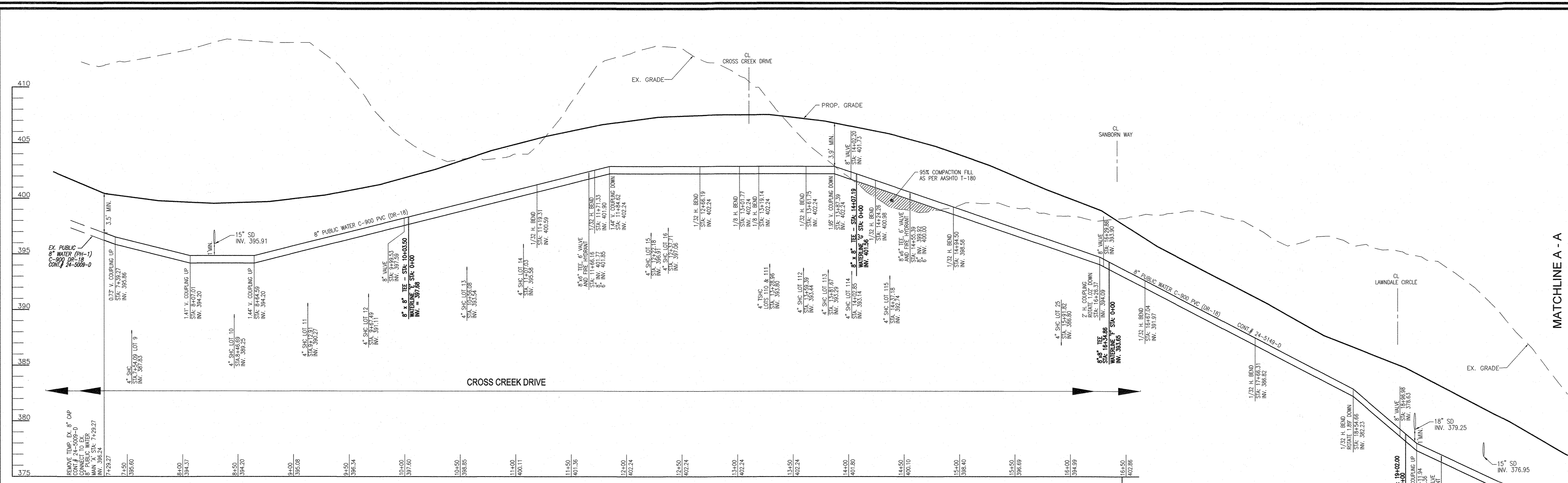
**CEDAR CREEK - PHASE 2**  
 LOTS 9-38, 83-129, AND 142-196

SCALE AS SHOWN  
 SHEET 5 OF 10

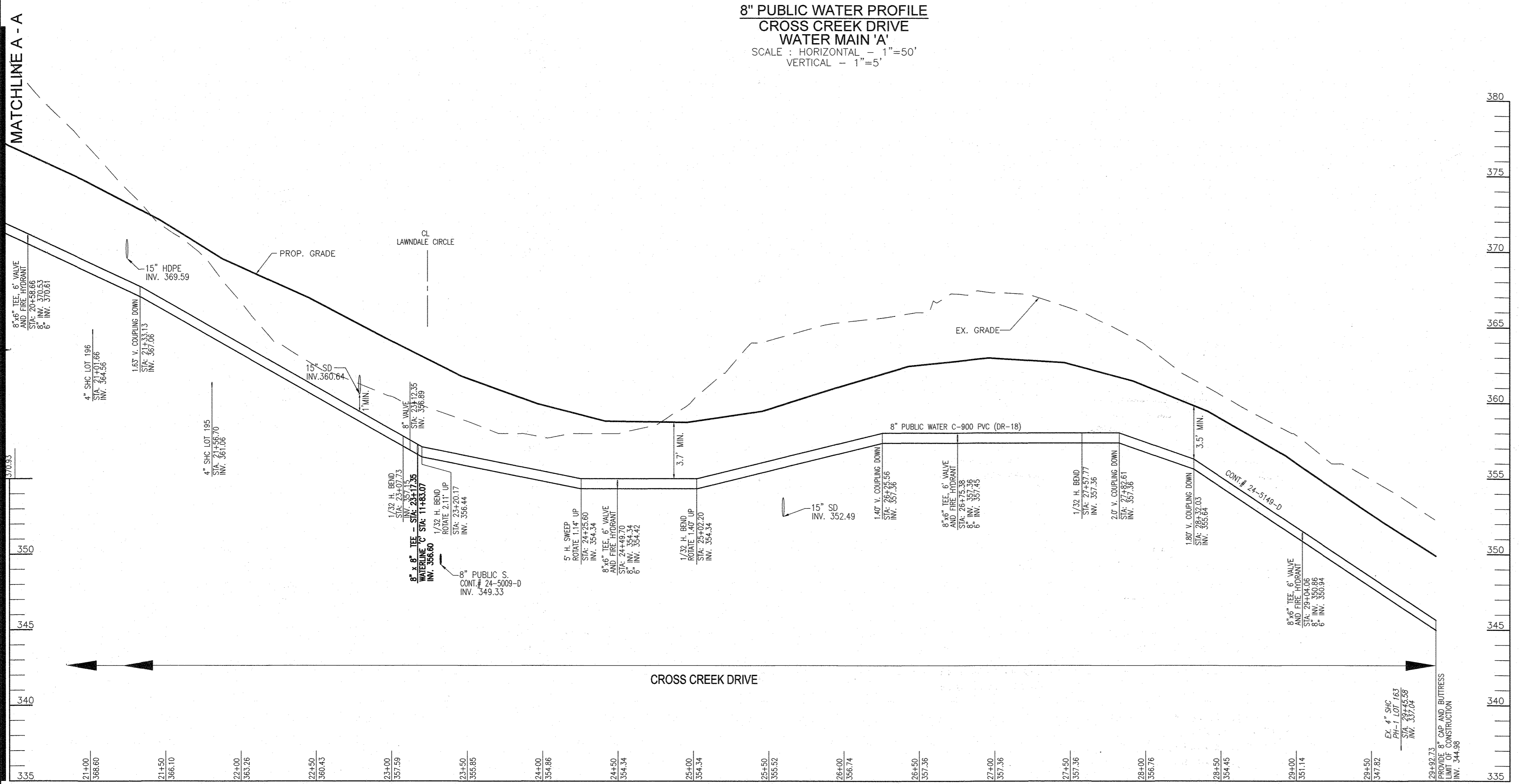
*[Signature]* 7-31-2020  
 CHIEF, BUREAU OF UTILITIES

*[Signature]* 8-28-20  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

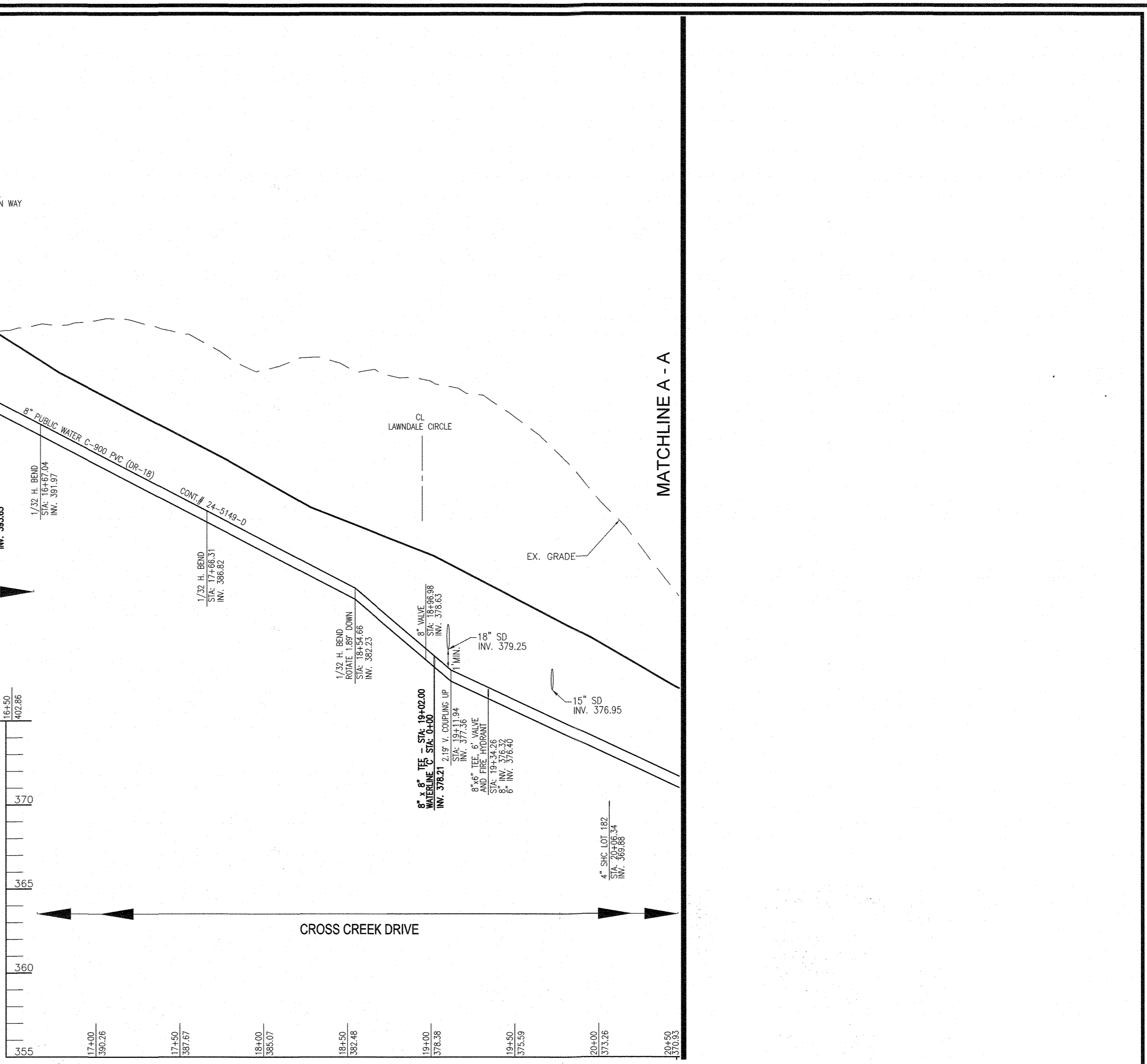
TAX MAP 35 GRID 21  
 5TH ELECTION DISTRICT  
 ZONED: CEF-R  
 HOWARD COUNTY, MARYLAND



**8" PUBLIC WATER PROFILE  
CROSS CREEK DRIVE  
WATER MAIN 'A'**  
SCALE : HORIZONTAL = 1"=50'  
VERTICAL = 1"=5'



**8" PUBLIC WATER PROFILE  
CROSS CREEK DRIVE  
WATER MAIN 'A'**  
SCALE : HORIZONTAL = 1"=50'  
VERTICAL = 1"=5'



WATER MAIN LOCATION CHART							
STATION	APPURTENANCE	NORTHING	EASTING	STATION	APPURTENANCE	NORTHING	EASTING
<b>WATER LINE 'A'</b>							
STA: 7+29.27	REMOVE TEMP. 8" CAP, CONNECT TO EX. 8" PUBLIC WATER CONVEY # 24-5009-D			STA: 16+67.04	1/32 H. BEND		
STA: 7+39.27	0.73' V. COUPLING UP			STA: 17+66.31	1/32 H. BEND		
STA: 8+07.01	1.41' V. COUPLING UP			STA: 18+54.66	1/32 H. BEND, ROTATE 1.89' DOWN		
STA: 8+64.59	1.44' V. COUPLING UP			STA: 18+96.98	8" VALVE		
STA: 9+99.53	8" VALVE			STA: 19+02.00	8" x 8" TEE (Ø WATER LINE 'C')		
STA: 10+03.50	8" x 8" TEE (Ø WATER LINE 'C')			STA: 19+11.94	2.19' V. COUPLING UP		
STA: 11+19.31	1/32 H. BEND			STA: 19+34.26	8" x 6" FHT & 6" VALVE		
STA: 11+66.16	8"x6" TEE, 6" VALVE, AND FIRE HYDRANT			STA: 20+58.66	8" x 6" FHT & 6" VALVE		
STA: 11+71.33	1/32 H. BEND			STA: 21+33.13	1.63' V. COUPLING DOWN		
STA: 11+84.62	1.44' V. COUPLING DOWN			STA: 23+07.73	1/32 H. BEND		
STA: 12+46.19	1/32 H. BEND			STA: 23+12.35	8" VALVE		
STA: 13+01.77	1/8 H. BEND			STA: 23+17.35	8" x 8" TEE (Ø WATER LINE 'C')		
STA: 13+19.14	1/8 H. BEND			STA: 23+20.17	1/32 H. BEND, ROTATE 2.11' UP		
STA: 13+61.75	1/32 H. BEND			STA: 24+25.60	5' H. SWEEP, ROTATE 1.14' UP		
STA: 13+87.39	1.95' V. COUPLING DOWN			STA: 24+49.70	8" x 6" FHT & 6" VALVE		
STA: 14+02.20	8" VALVE			STA: 25+02.20	1/32 H. BEND, ROTATE 1.40' UP		
STA: 14+07.19	8" x 8" TEE (Ø WATER LINE 'C')			STA: 26+25.56	1.40' V. COUPLING DOWN		
STA: 14+24.26	1/32 H. BEND			STA: 26+75.38	8"x6" TEE, 6" VALVE, AND FIRE HYDRANT		
STA: 14+55.39	8" x 6" FHT & 6" VALVE			STA: 27+57.77	1/32 H. BEND		
STA: 14+94.50	1/32 H. BEND			STA: 27+82.61	2.0' V. COUPLING DOWN		
STA: 16+26.37	2' H. COUPLING, ROTATE 1.02' DOWN			STA: 28+32.03	1.80' V. COUPLING DOWN		
STA: 16+29.86	8" VALVE			STA: 29+04.06	8"x6" TEE, 6" VALVE, AND FIRE HYDRANT		
STA: 16+34.86	8" x 8" TEE (Ø WATER LINE 'F')			STA: 29+92.73	8" CAP & BUTTRISS		

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
3-31-2020  
DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
8-28-20  
DATE

**VOGEL ENGINEERING**  
**TIMMONS GROUP**  
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21104  
P: 410.461.7666 F: 410.461.8961 www.timmons.com



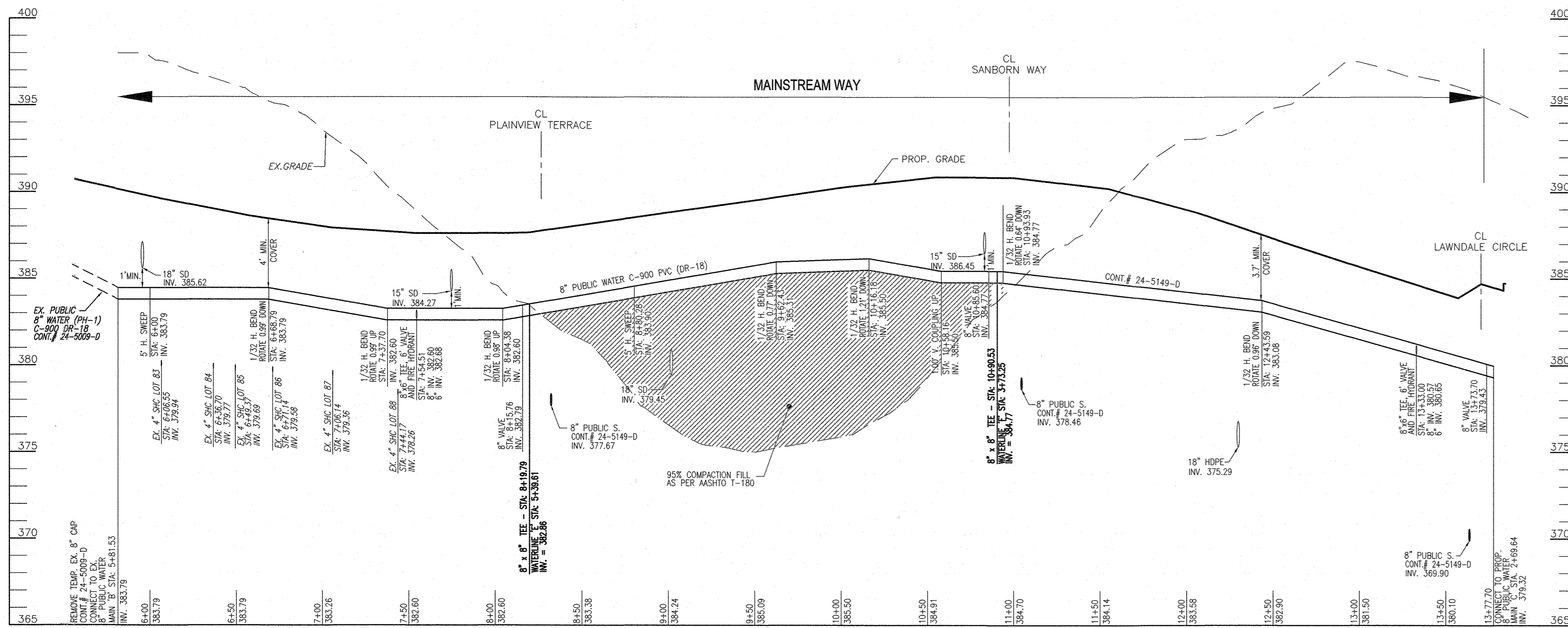
PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2020

DRN: VTG	DES: VTG
CHK: RHV	
DATE: JULY 2020	
BY: NO.	REVISION
	DATE

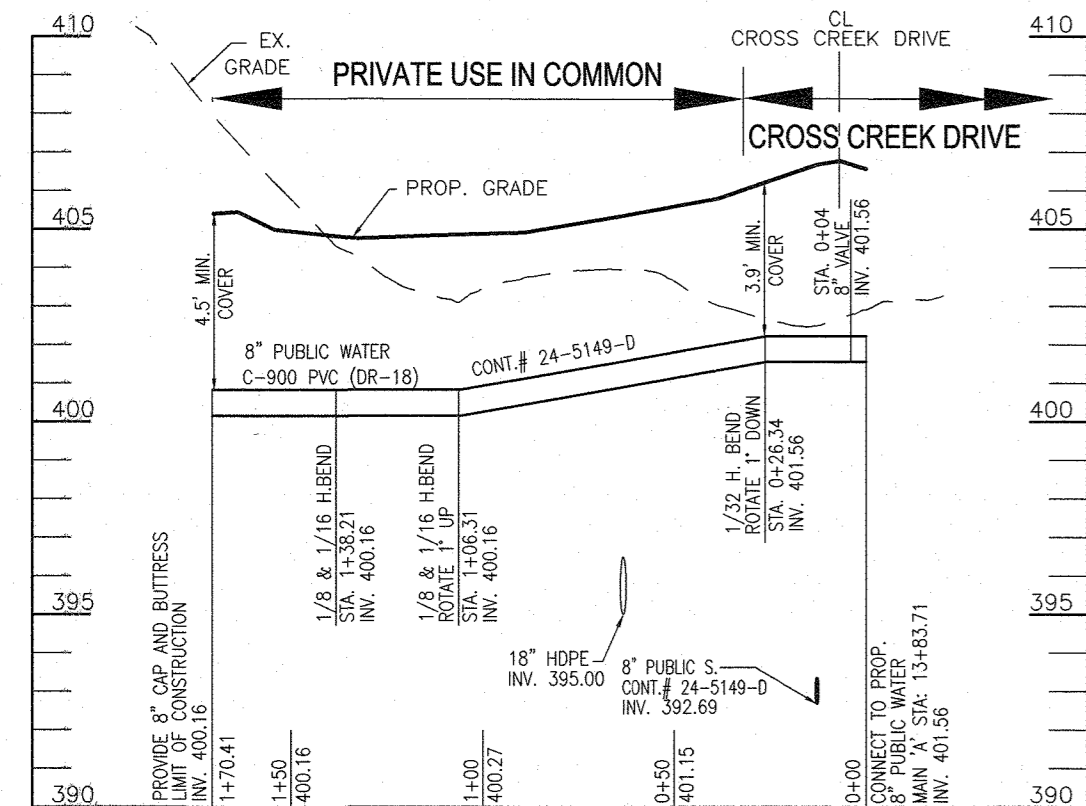
**FINAL WATER AND SEWER CONSTRUCTION PLAN CONTRACT 24-5149-D WATER PROFILE**  
600' SCALE MAP NO. 35 BLOCK NO. 21

**CEDAR CREEK - PHASE 2**  
LOTS 9-38, 83-129, AND 142-196  
TAX MAP 35 GRID 21 5TH ELECTION DISTRICT  
ZONED: CEF-R HOWARD COUNTY, MARYLAND

OWNER/DEVELOPER  
SIMPSON OAKS CRP3, LLC  
4750 OWINGS MILLS BOULEVARD  
OWINGS MILLS, MARYLAND 21117  
410-356-9900  
SCALE AS SHOWN  
SHEET 6 OF 10



**8" PUBLIC WATER PROFILE  
MAINSTREAM WAY  
WATER MAIN 'B'**  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'



**8" PUBLIC WATER PROFILE  
PRIVATE USE-IN-COMMON  
WATER MAIN 'G'**  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'

WATER MAIN LOCATION CHART			
STATION	APPURTENANCE	NORTHING	EASTING
<b>WATER LINE 'B'</b>			
STA: 5+81.53	REMOVE TEMP. EX. 8" CAP. CONNECT TO EX. 8" PUBLIC WATER, CONT. # 24-5009-D		
STA: 6+00.00	5" H. SWEEP		
STA: 6+68.79	1/32 H. BEND, ROTATE 0.98° DOWN		
STA: 7+37.70	1/32 H. BEND, ROTATE 0.98° UP		
STA: 7+54.51	8" x 6" FHT & 6" VALVE		
STA: 8+04.38	1/32 H. BEND, ROTATE 0.98° UP		
STA: 8+15.76	8" VALVE		
STA: 8+19.79	8" x 8" TEE (Ø WATER LINE 'C')		
STA: 8+40.28	5" H. SWEEP		
STA: 8+82.43	1/32 H. BEND, ROTATE 0.77° DOWN		
STA: 10+16.18	1/32 H. BEND, ROTATE 1.21° DOWN		
STA: 10+58.16	1.00" V. COUPLING UP		
STA: 10+85.60	8" VALVE		
STA: 10+90.53	8" x 8" TEE (Ø WATER LINE '1')		
STA: 10+93.93	1/32 H. BEND, ROTATE 0.94° DOWN		
STA: 12+43.59	1/32 H. BEND, ROTATE 0.96° DOWN		
STA: 13+33.00	8" x 6" FHT & 6" VALVE		
STA: 13+77.70	8" x 8" TEE		
<b>WATER LINE 'G'</b>			
STA: 0+00.00	8"Ø TEE, CONNECT TO 8" PUBLIC WATER MAIN 'A'		
STA: 0+04.00	8" VALVE		
STA: 0+26.34	1/32 H. BEND		
STA: 1+06.31	1/8 & 1/16 H. BEND		
STA: 1+38.21	1/8 & 1/16 H. BEND		
STA: 1+70.41	8" CAP AND BUTTRESS		

**WATER HOUSE CONNECTION - AS-BUILT LOCATION TABLE**

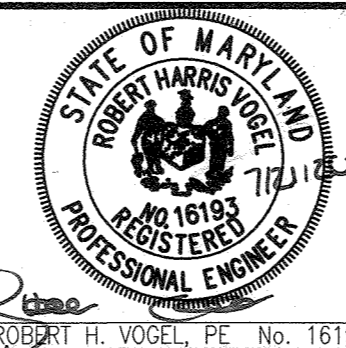
LOT	STREET ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2	LOT	STREET ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2	LOT	STREET ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2	LOT	STREET ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 9	CROSS CREEK DRIVE	INLET 1-190 41'	SDMH 228' 79'	LOT 53								LOT 168	LAWNDALE CIRCLE	SDMH 22 30'	SDMH 41 46'
LOT 10		INLET 1-190 23'	C/O LOT 102 50'	LOT 54								LOT 169		SDMH 40 8'	SDMH 22 43'
LOT 11		C/O LOT 11 10.5'	TRANSFORMER 68'	LOT 55								LOT 170		SDMH 23 20'	I-84 7.6'
LOT 12		SDMH 45 44'	INLET 1-124 49'	LOT 56								LOT 171		SDMH 23 22'	SDMH 24 62'
LOT 13		SDMH 45 61.5'	SDMH 46 61'	LOT 105	CROSS CREEK DRIVE	1-243A 43.5'	SDMH 46 28'	LOT 145				LOT 172		FH STA. 6+50 50'	SDMH 24 36'
LOT 14		SDMH 46 31.5'	FH STA. 11+66 39'	LOT 106				LOT 146				LOT 173		FH STA. 6+50 48.5'	SDMH 24 34.5'
LOT 15		FH STA. 11+66 37'	SDMH 47 40'	LOT 107				LOT 147				LOT 174		FH STA. 6+50 46'	SDMH 24 22'
LOT 16		SDMH 47 50'	SDMH 16 70'	LOT 108				LOT 148				LOT 175		SDMH 25 43'	SDMH 24 67'
LOT 17		SDMH 121 85.5'	SDMH 18 35.5'	LOT 109				LOT 149				LOT 176		SDMH 25 2.2'	SDMH 26 71'
LOT 18		SDMH 121 90'	SDMH 18 29'	LOT 110				LOT 150				LOT 177		SDMH 25 66'	SDMH 26 25'
LOT 19		SDMH 18 34.5'	SDMH 17 46'	LOT 111				LOT 151				LOT 178		I-87 20.5'	SDMH 27 54'
LOT 20		SDMH 18 29'	SDMH 17 15'	LOT 112				LOT 152				LOT 179		I-87 59.5'	SDMH 27 24'
LOT 21		SDMH 17 21.5'	INLET 1-120 60'	LOT 113				LOT 153				LOT 180	LAWNDALE CIRCLE	SDMH 28 60'	SDMH 27 65.5'
LOT 22		SDMH 14 23.5'	C/O LOT 22 10'	LOT 114				LOT 154				LOT 181	MAINSTREAM WAY	SDMH 29 23'	I-PT 7 55'
LOT 23		TRANSFORMER 228'	INLET 1-119 44'	LOT 115	CROSS CREEK DRIVE	SDMH 15 31'	FH STA. 14+55 95.5'	LOT 155				LOT 182	LAWNDALE CIRCLE	FH STA. 26+75 31'	I-49 15.5'
LOT 24	CROSS CREEK DRIVE	SDMH 20'	C/O LOT 24 12'	LOT 116				LOT 156				LOT 183		SDMH 56 45'	I-55 66'
LOT 25	SANBORN WAY	FH STA. 0+30 12'	FHV STA. 0+30 21.5'	LOT 117				LOT 157				LOT 184		I-70 47'	SDMH 56 49'
LOT 26		C/O LOT 26 28'	SDMH 55 56'	LOT 118				LOT 158				LOT 185		SDMH 28 50'	FH STA. 19+33 64'
LOT 27		I-107 34'	C/O LOT 26 26.5'	LOT 119				LOT 159				LOT 186		SDMH 28 35'	SDMH 35'
LOT 28		I-107 16'	SDMH 54 36'	LOT 120				LOT 160				LOT 187		SDMH 26 36'	SDMH 27 84'
LOT 29		SDMH 55 45.5'	C/O LOT 28 47.5'	LOT 121				LOT 161				LOT 188		SDMH 24 55'	SDMH 25 65'
LOT 30	SANBORN WAY	SDMH 55 31'	FH STA. 3+45 49.5'	LOT 122				LOT 162				LOT 189		SDMH 23 33'	FH STA. 6+50 86.5'
LOT 31	MAINSTREAM WAY	C/O LOT 31 12'	SDMH 30 34'	LOT 123				LOT 163	CROSS CREEK DRIVE	FH STA. 29+04 57'	SDMH 4 69'	LOT 190		SDMH 22 34'	I-275 47'
LOT 32		SDMH 31 24'	C/O LOT 32 9'	LOT 124				LOT 164	LAWNDALE CIRCLE	SDMH 20 62'	I-23 52'	LOT 191		FH STA. 9+27 23'	SDMH 41 54'
LOT 33		I-174 40'	I-142 36.5'	LOT 125				LOT 165		SDMH 20 23'	C/O LOT 165 14'	LOT 192		FH STA. 9+27 51.5'	SDMH 20 63'
LOT 34		I-142 41.5'	INLET PT-5 42.8'	LOT 126				LOT 166		SDMH 21 21'	I-272 24'	LOT 193		I-272 A 55'	SDMH 20 41'
LOT 35		SDMH 180 26'	I-181 38.5'	LOT 127				LOT 167	LAWNDALE CIRCLE	SDMH 21 51'	SDMH 41 46'	LOT 194	LAWNDALE CIRCLE	FH STA. 11+52 29.5'	SDMH 20 93'
LOT 36		I-181 8'	SDMH 180 35.5'	LOT 128								LOT 195	CROSS CREEK DR.	C/O LOT 195 10'	I-48 45'
LOT 37		SDMH 33 19'	C/O LOT 38 39.5'	LOT 129	PLAINVIEW TERRACE	I-178 8'	C/O LOT 128 41'					LOT 196	CROSS CREEK DR.	FH STA. 20+58 59'	I-48 34.5'
LOT 38		I-185 A 10'	C/O LOT 38 14.5'												
LOT 83		SDMH 34 56'	I-185 A 49'												
LOT 84		SDMH 34 56'	I-185 A 49'												
LOT 85		SDMH 33 68'	I-185 A 41'												
LOT 86		SDMH 33 42'	C/O LOT 38 51'												
LOT 87		SDMH 33 32'	FH STA. 7+54 36'												
LOT 88	MAINSTREAM WAY	SDMH 35 32'	FH STA. 7+54 36'												
LOT 89	PLAINVIEW TERRACE	SDMH 30 39'	I-174 41'												
LOT 90		SDMH 50 39'	I-174 41'												
LOT 91		I-174 46.5'	FH STA. 2+76 46'												
LOT 92		I-174 46.5'	FH STA. 2+76 46'												
LOT 93		SDMH 51 44.5'	FH STA. 2+76 43'												
LOT 94		SDMH 51 44.5'	FH STA. 2+76 43'												
LOT 95		SDMH 52 41.5'	C/O LOT 96 11.5'												
LOT 96		SDMH 52 41.5'	C/O LOT 96 11.5'												
LOT 97	PLAINVIEW TERRACE	SDMH 52 37.5'	INLET PT-4 25'												
LOT 98	CROSS CREEK DRIVE	C/O LOT 11 53'	TRANSFORMER 38'												
LOT 99		C/O LOT 11 53'	TRANSFORMER 38'												
LOT 100		C/O LOT 11 54'	C/O LOT 99 19'												
LOT 101		I-190 58'	C/O LOT 101 12'												
LOT 102		I-190 45'	C/O LOT 101 12'												
LOT 103		I-PT 3 18'	I-190 39'												
LOT 104	CROSS CREEK DRIVE	I-243A 43.5'	SDMH 46 28'												

OWNER/DEVELOPER  
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4750 OWINGS MILLS BOULEVARD  
OWINGS MILLS, MARYLAND 21117  
410-556-9900

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

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EXPIRATION DATE: 09-21-2020

DRN: VYG DES: VYG  
CHK: RHV  
DATE: JULY 2020

WR A ADDED W H C LOCATION TABLE 8/10/21  
BY NO. REVISION DATE

**FINAL WATER AND SEWER  
CONSTRUCTION PLAN  
CONTRACT 24-5149-D  
WATER PROFILE**

**CEDAR CREEK - PHASE 2**  
LOTS 9-38, 83-129, AND 142-196

TAX MAP 35 GRID 21  
5TH ELECTION DISTRICT

ZONED: CEF-R  
HOWARD COUNTY, MARYLAND

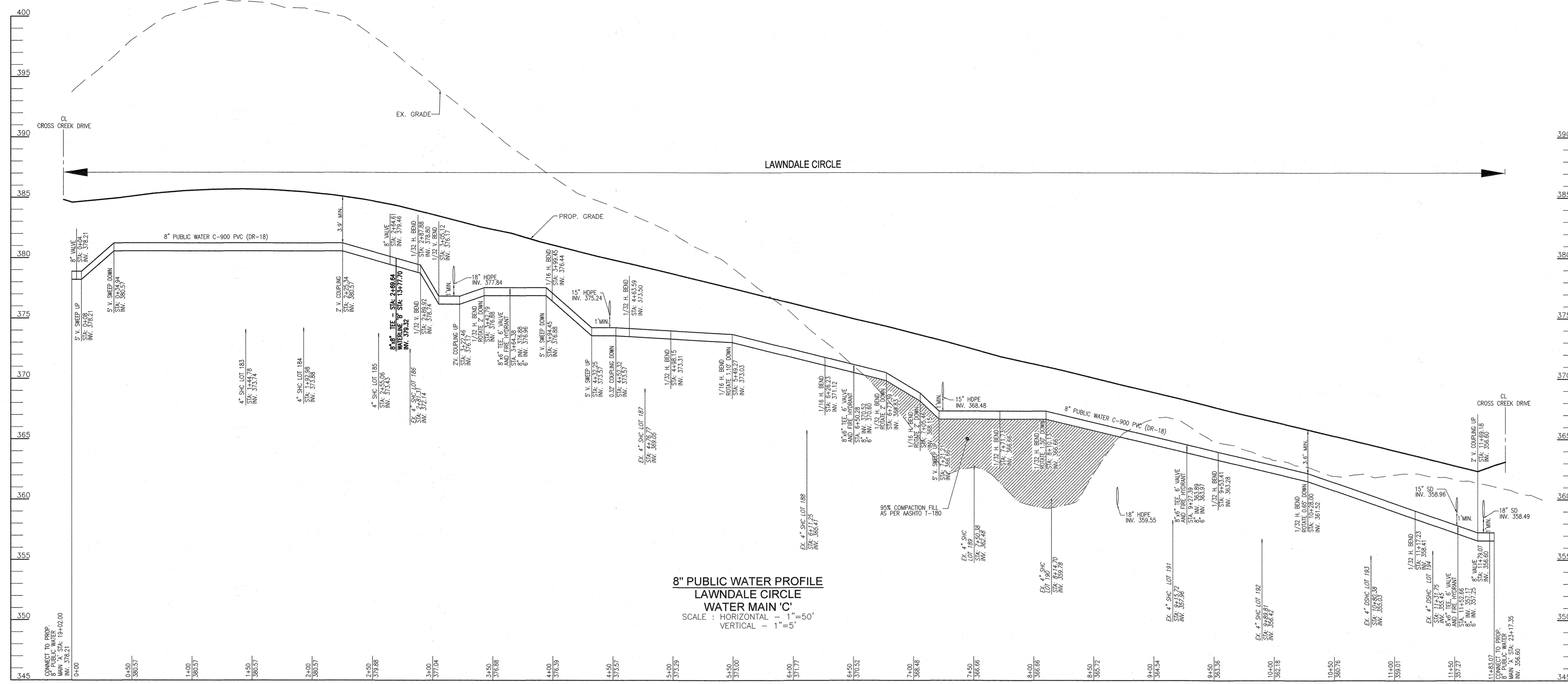
SCALE  
AS  
SHOWN

SHEET  
7 OF 10

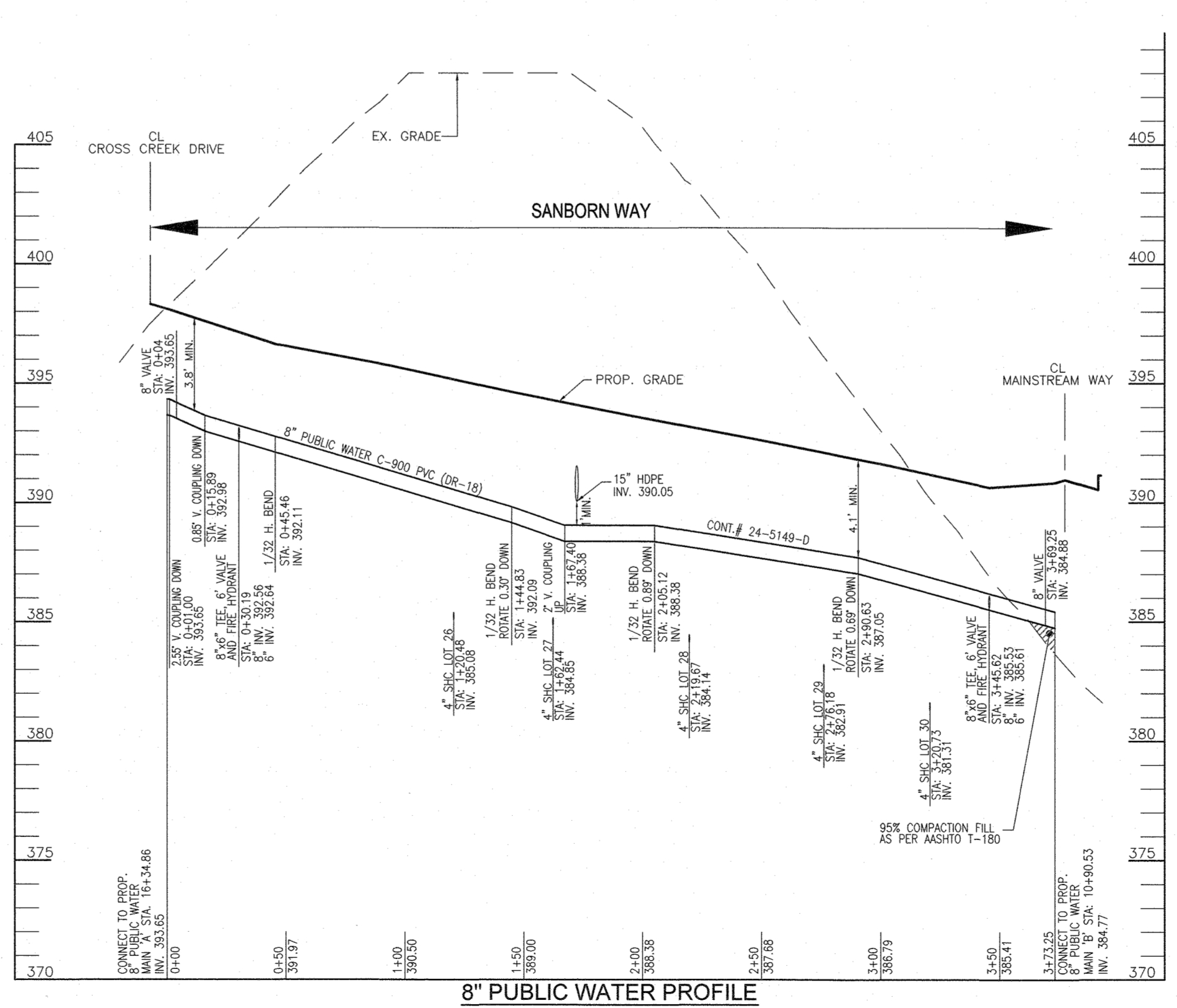
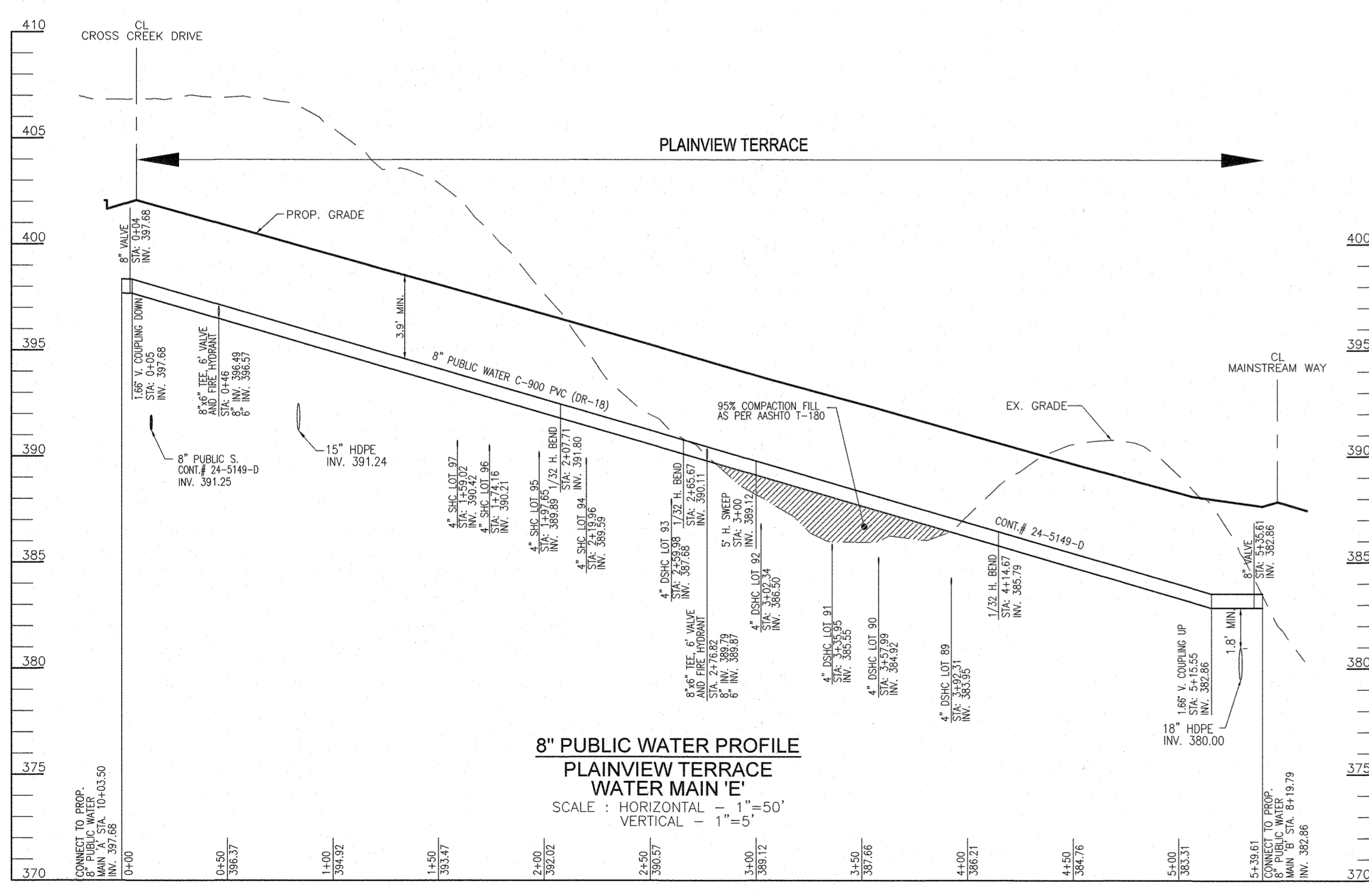
7-31-2020  
CHIEF, BUREAU OF UTILITIES

9-28-20  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

600' SCALE MAP NO. 35 BLOCK NO. 21



WATER MAIN LOCATION CHART			
STATION	APPURTENANCE	NORTHING	EASTING
WATER LINE 'C'			
STA: 0+00.00	8" x 8" TEE, CONNECT TO 8" PUBLIC WATER MAIN 'A'		
STA: 0+04.00	8" VALVE		
STA: 0+08.00	5' V. SWEEP UP		
STA: 0+34.94	5' V. SWEEP DOWN		
STA: 2+25.34	2' V. COUPLING DOWN		
STA: 2+64.61	8" VALVE		
STA: 2+69.64	8" x 8" TEE (Ø WATER LINE 'B')		
STA: 2+87.88	1/32 H. BEND		
STA: 2+89.92	1/32 V. BEND		
STA: 3+05.12	1/32 V. BEND		
STA: 3+22.46	2' V. COUPLING UP		
STA: 3+42.79	1/32 H. BEND, ROTATE 2' DOWN		
STA: 3+64.38	8" x 6" FHT & 6" VALVE		
STA: 3+94.45	5' V. SWEEP DOWN		
STA: 3+99.45	1/16 H. BEND		
STA: 4+32.25	5' V. SWEEP UP		
STA: 4+52.32	0.32' COUPLING DOWN		
STA: 4+63.59	1/32 H. BEND		
STA: 4+98.15	1/32 H. BEND		
STA: 5+49.27	1/16 H. BEND, ROTATE 1.10' DOWN		
STA: 6+26.23	1/16 H. BEND		
STA: 6+50.28	8" x 6" FHT & 6" VALVE		
STA: 6+77.39	1/32 H. BEND, ROTATE 2' DOWN		
STA: 7+05.46	1/16 H. BEND, ROTATE 2' DOWN		
STA: 7+21.21	5' V. SWEEP UP		
STA: 7+71.73	1/32 H. BEND		
STA: 8+10.13	1/32 H. BEND, ROTATE 1.50' DOWN		
STA: 9+27.39	8" x 6" FHT & 6" VALVE		
STA: 9+53.41	1/32 H. BEND		
STA: 10+28.00	1/32 H. BEND, ROTATE 0.65' DOWN		
STA: 11+17.23	1/32 H. BEND		
STA: 11+52.66	8" x 6" FHT & 6" VALVE		
STA: 11+69.18	2' V. COUPLING UP		
STA: 11+79.07	8" VALVE		
STA: 11+83.07	8" x 8" TEE, CONNECT TO 8" PUBLIC WATER MAIN 'A'		
WATER LINE 'E'			
STA: 0+00.00	8" x 8" TEE, CONNECT TO 8" PUBLIC WATER MAIN 'A'		
STA: 0+04.00	8" VALVE		
STA: 0+05.00	1.66' V. COUPLING DOWN		
STA: 0+46.00	8" x 6" FHT & 6" VALVE		
STA: 2+07.71	1/32 H. BEND		
STA: 2+65.67	1/32 H. BEND		
STA: 2+76.82	8" x 6" FHT & 6" VALVE		
STA: 3+00.00	5' H. SWEEP		
STA: 4+14.67	1/32 H. BEND		
STA: 5+15.55	1.66' V. COUPLING UP		
STA: 5+35.61	8" VALVE		
STA: 5+39.61	8" x 8" TEE, CONNECT TO 8" PUBLIC WATER MAIN 'B'		
WATER LINE 'F'			
STA: 0+00.00	8" x 8" TEE, CONNECT TO 8" PUBLIC WATER MAIN 'A'		
STA: 0+01.00	2.55' V. COUPLING DOWN		
STA: 0+04.00	8" VALVE		
STA: 0+15.89	0.85' V. COUPLING DOWN		
STA: 0+30.19	8" x 6" FHT & 6" VALVE		
STA: 0+45.46	1/32 H. BEND		
STA: 1+44.83	1/32 H. BEND, ROTATE 0.30' DOWN		
STA: 1+67.40	2' V. COUPLING UP		
STA: 2+05.12	1/32 H. BEND, ROTATE 0.89' DOWN		
STA: 2+90.63	1/32 H. BEND, ROTATE 0.69' DOWN		
STA: 3+45.62	8" x 6" FHT & 6" VALVE		
STA: 3+69.25	8" VALVE		
STA: 3+73.25	8" x 8" TEE, CONNECT TO 8" PUBLIC WATER MAIN 'B'		

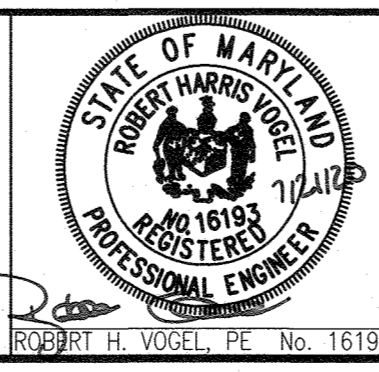


DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

7-31-2020

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
  
**TIMMONS GROUP**  
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
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PROFESSIONAL CERTIFICATE

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. 16193, EXPIRATION DATE: 09-27-2020

DRN:	VTG	DES:	VTG
CHK:	RHV		
DATE:	JULY 2020	BY:	NO.
		REVISION	DATE

**FINAL WATER AND SEWER CONSTRUCTION PLAN**  
**CONTRACT 24-5149-D**  
**WATER PROFILE**

600' SCALE MAP NO. 35 BLOCK NO. 21

**OWNER/DEVELOPER**  
 SIMPSON OAKS CRP3, LLC  
 4750 OWINGS MILLS BOULEVARD  
 OWINGS MILLS, MARYLAND 21117  
 410-356-9900

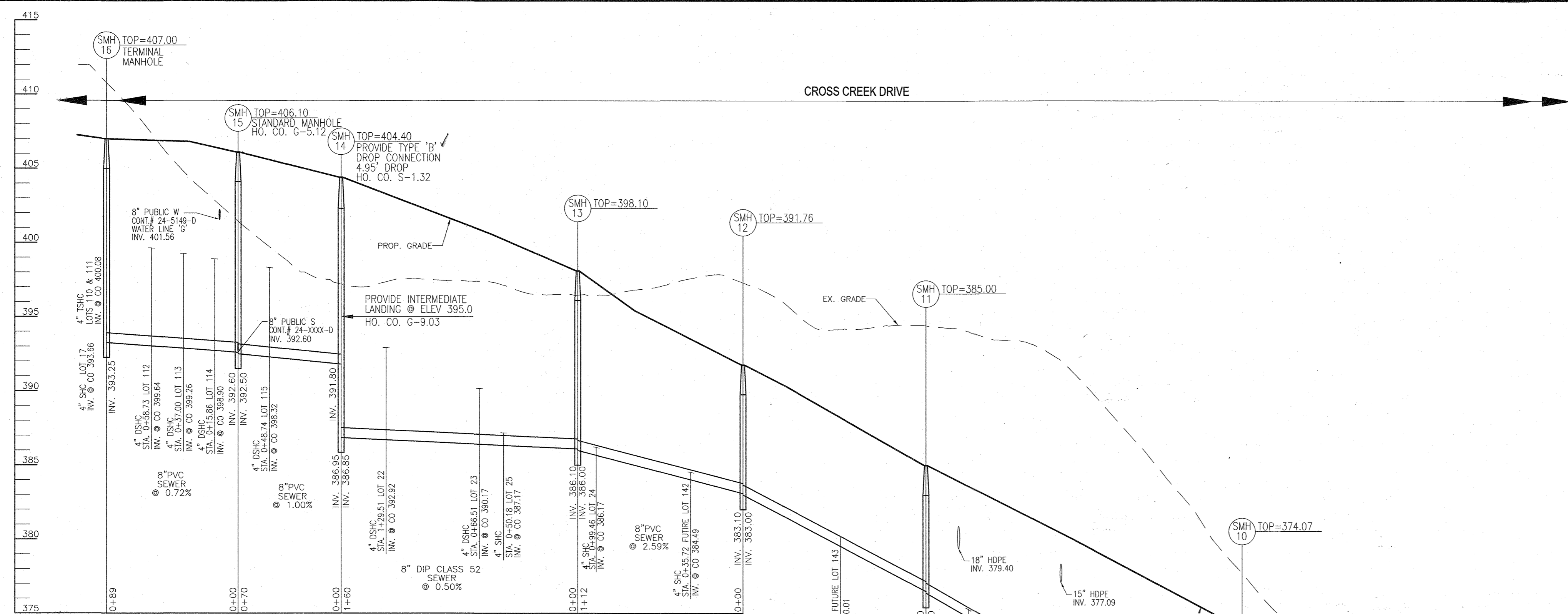
**CEDAR CREEK - PHASE 2**  
 LOTS 9-38, 83-129, AND 142-196

TAX MAP 35 GRID 21  
 5TH ELECTION DISTRICT

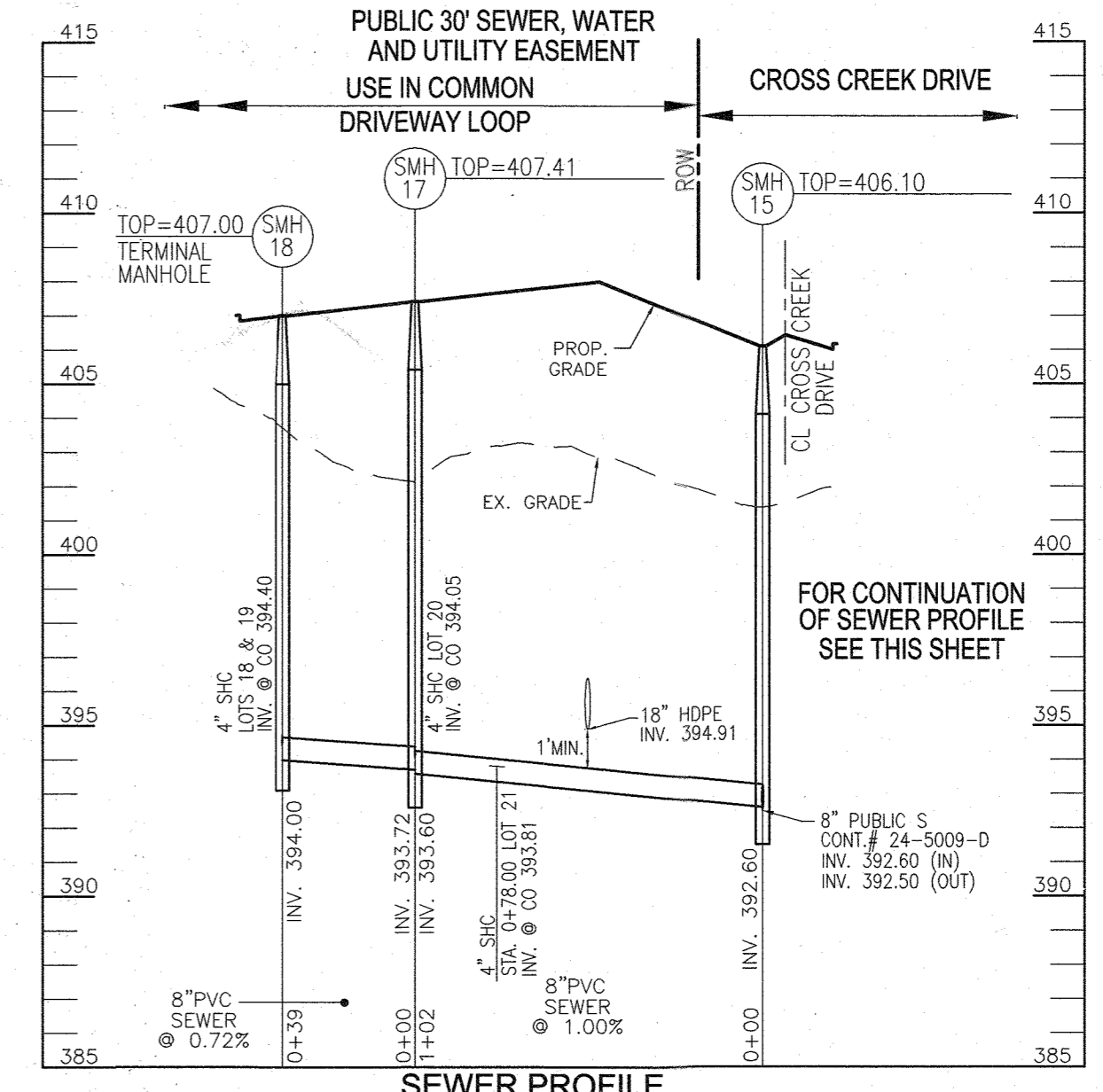
ZONED: CEF-R  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 8 OF 10

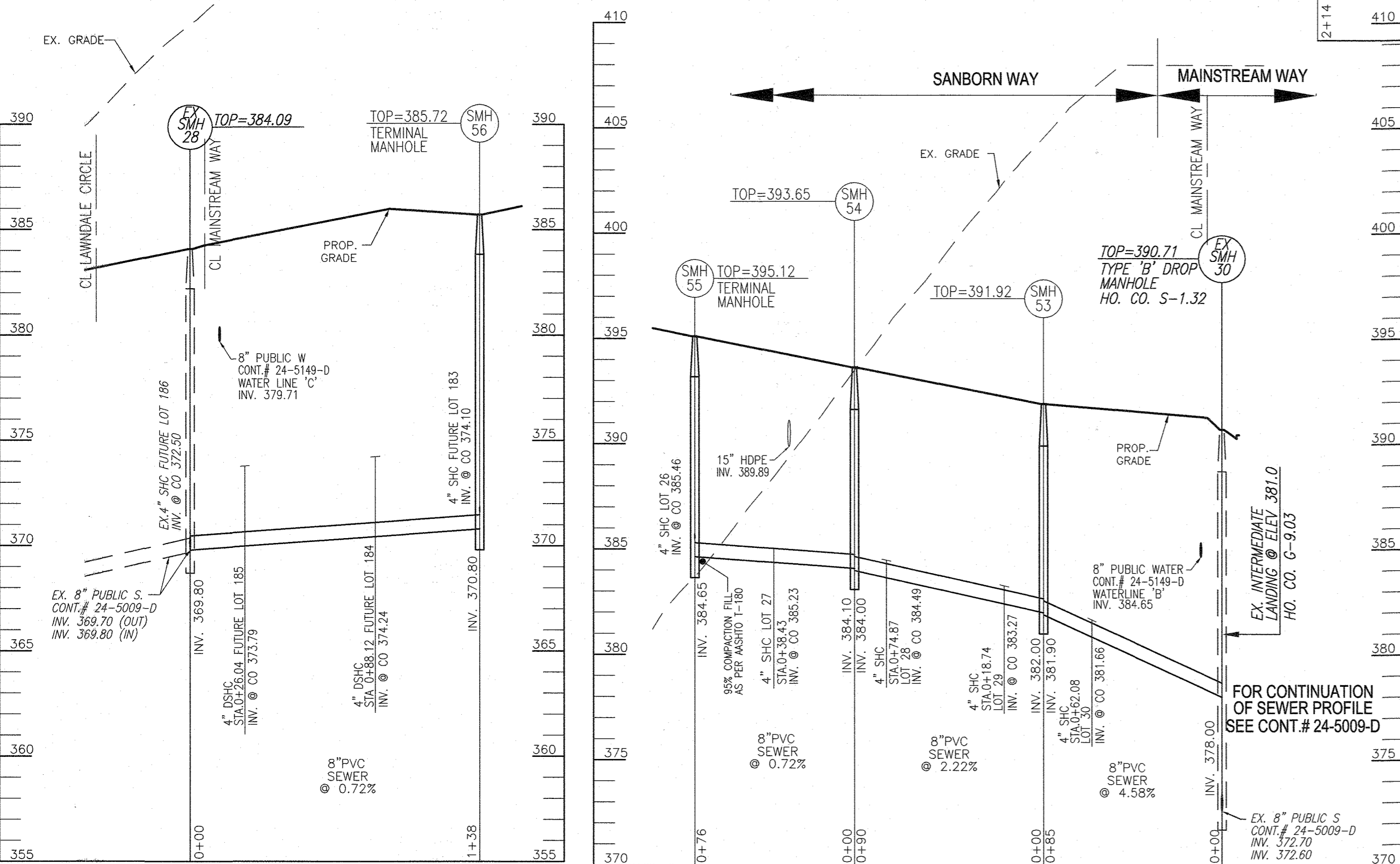




**SEWER PROFILE**  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'

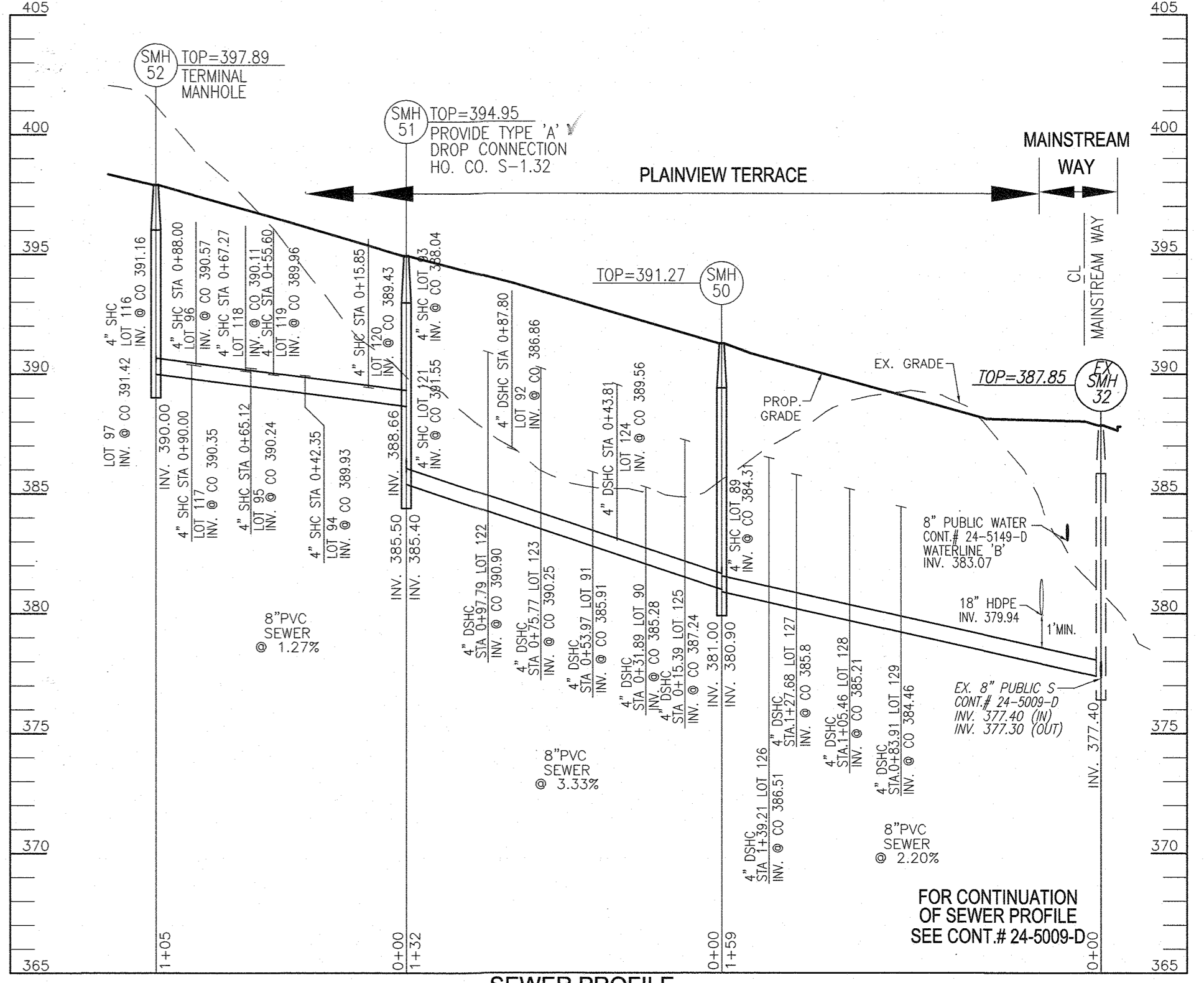


**SEWER PROFILE**  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'



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

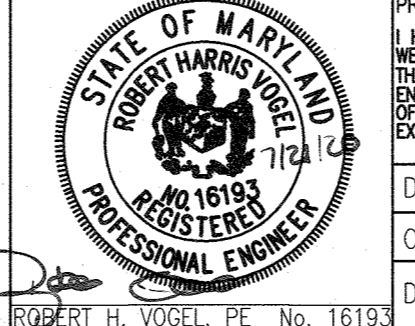


**SEWER PROFILE**  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Robert H. Vogel*  
7-31-2020  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*Robert H. Vogel*  
8-28-20  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**VOGEL ENGINEERING**  
**TIMMONS GROUP**  
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
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DRN: VYG	DES: VYG
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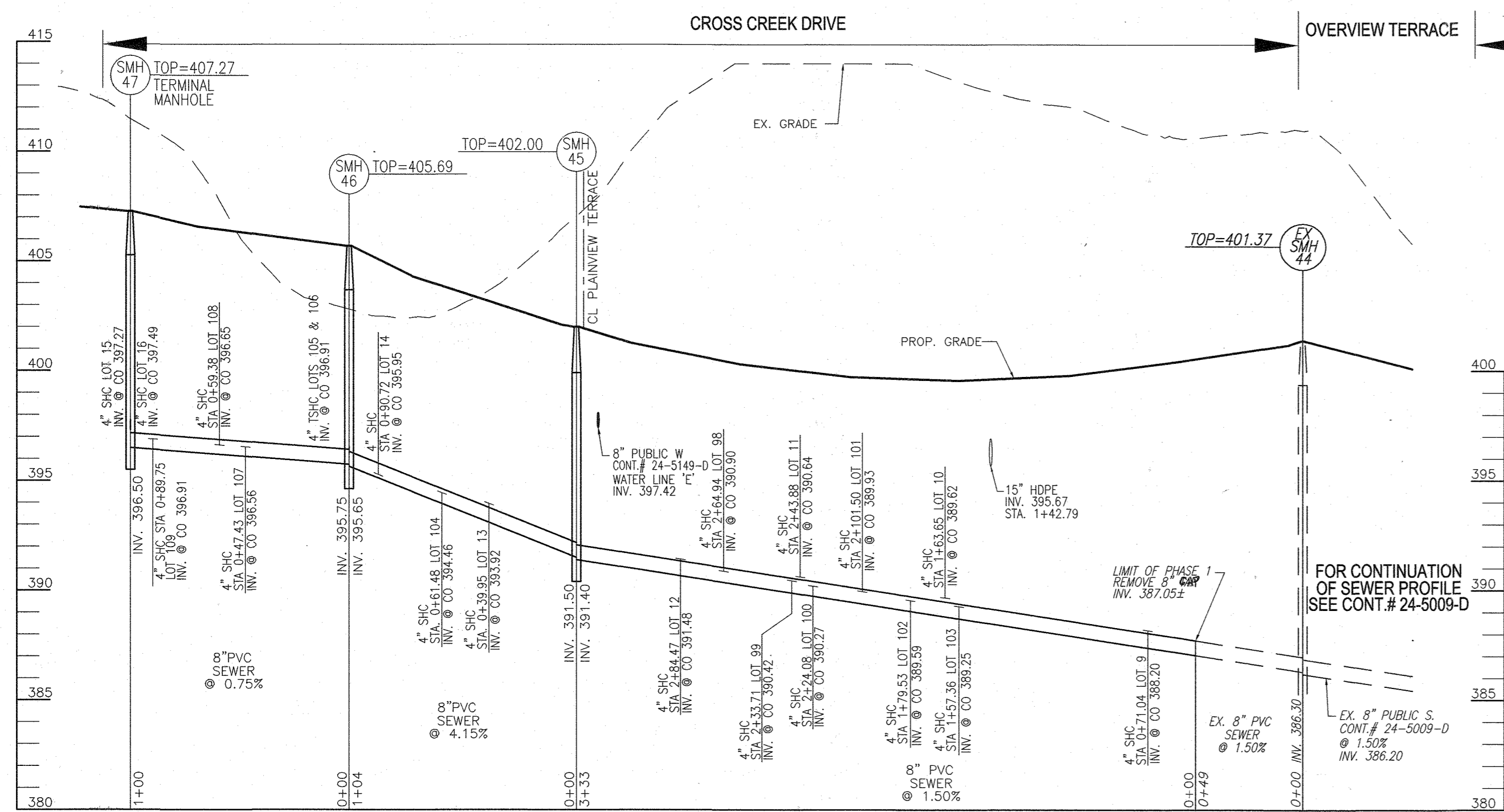
**FINAL WATER AND SEWER CONSTRUCTION PLAN**  
**CONTRACT 24-5149-D**  
**SEWER PROFILES**

**CEDAR CREEK - PHASE 2**  
LOTS 9-38, 83-129, AND 142-196

TAX MAP 35 GRID 21  
5TH ELECTION DISTRICT

ZONED: CEF-R  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 9 OF 10



**SEWER PROFILE**  
SCALE: HORIZONTAL = 1"=50'  
VERTICAL = 1"=5'

LOT	STREET ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2	LOT	STREET ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 9	CROSS CREEK DRIVE	SDMH 223 51'	INLET 1-190 71'	LOT 106	CROSS CREEK DRIVE	FH STA.11+66 65'	SMH 46 21.5'
LOT 10		C/O LOT 102 51'	INLET 1-190 14'	LOT 107		FH STA.11+66 52'	SMH 47 52.5'
LOT 11		TRANSFORMER 74 C/O LOT 102 76'		LOT 108		FH STA.11+66 56'	SMH 47 41'
LOT 12		TRANSFORMER 53 SDMH 45 55'		LOT 109		FH STA.11+66 71'	SMH 47 18'
LOT 13		INLET 1-245A 17.5'	SMH 46 68'	LOT 110		SDMH 16 43'	SMH 47 80'
LOT 14		SMH 46 32'	FH STA.11+66 60'	LOT 111		SDMH 12 53'	SMH 16 40'
LOT 15		SMH 47 34'	FH STA.11+66 57'	LOT 112		SDMH 12 48.5'	SMH 16 45'
LOT 16		SMH 47 43'	SMH 16 78.5'	LOT 113		SMH 15 46'	SMH 16 64'
LOT 17		SMH 16 14'	SMH 121 18'	LOT 114		SMH 15 52'	FH STA.14+58 45'
LOT 18		SMH 18 14'	SMH 17 46.5'	LOT 115	CROSS CREEK DRIVE	SMH 15 39'	FH STA.14+58 16'
LOT 19		SMH 18 14'	SMH 17 46.5'	LOT 116	PLAINVIEW TERRACE	SMH 52 19'	C/O LOT 117 12'
LOT 20		SMH 18 14'	SMH 17 46.5'	LOT 117		SMH 52 22'	C/O LOT 116 12'
LOT 21		INLET I-120 56'	SMH 17 29'	LOT 118		SMH 52 37'	INLET I-171 59.5'
LOT 22		SMH 14 32'	SDMH 112 52'	LOT 119		SMH 52 49'	INLET I-171 46'
LOT 23		FH STA.0+30 75'	TRANSFORMER 125'	LOT 120		C/O LOT 121 22'	INLET I-171 8'
LOT 24	CROSS CREEK DRIVE	SMH 13 21'	C/O LOT 142 63'	LOT 121		SMH 51 19'	C/O LOT 120 22'
LOT 25	SANBORN WAY	INLET I-113 10'	FH STA.0+30 26'	LOT 122		C/O LOT 123 23'	SMH 51 57.5'
LOT 26		SMH 55 36'	FH STA.0+30 85.5'	LOT 123		C/O LOT 124 31'	SMH 51 57'
LOT 27		SMH 55 48'	INLET I-107 11'	LOT 124		C/O LOT 123 31'	INLET 12'
LOT 28		SMH 54 36'	C/O LOT 29 56'	LOT 125		SMH 50 26'	INLET 18'
LOT 29		SMH 53 39'	C/O LOT 28 56'	LOT 126		SMH 50 24.5'	C/O LOT 128 34'
LOT 30	SANBORN WAY	SMH 59 32'	FH STA.3+45 25.5'	LOT 127		SMH 50 32'	C/O LOT 128 24'
LOT 89	PLAINVIEW TERRACE	SMH 50 32'	INLET I-174 34'	LOT 128		SMH 50 55'	C/O LOT 129 22'
LOT 90		SMH 50 48'	INLET I-174 39.5'	LOT 129	PLAINVIEW TERRACE	INLET I-176 47'	C/O LOT 128 22'
LOT 91		SMH 51 81'	INLET I-174 42'	LOT 130	CROSS CREEK DRIVE	SMH 12 44'	C/O LOT 24 63'
LOT 92		FH STA.2+76 25'	INLET I-174 62.5'	LOT 143		SMH 12 62'	SMH 11 64'
LOT 93		FH STA.2+76 18'	SMH 51 33'	LOT 144		SMH 11 91'	FH STA.19+34 55.5'
LOT 94		SMH 52 67'	SMH 51 53.5'	LOT 145		I-50 11'	FH STA.19+34 47'
LOT 95		SMH 52 49'	INLET I-171 64'	LOT 146		FHV STA.20+58 33'	FH STA.20+58 13'
LOT 96		SMH 52 34'	C/O LOT 95 22'	LOT 147		FHV STA.20+58 52'	FH STA.20+58 43'
LOT 97	PLAINVIEW TERRACE	SMH 52 39'	N/M LOT 97 16'	LOT 148		I-51 73'	I-29 72'
LOT 98	CROSS CREEK DRIVE	TRANSFORMER 18'	C/O LOT 12 55.5'	LOT 149	CROSS CREEK DRIVE	SMH 9 66'	FH STA.11+59 73'
LOT 99		TRANSFORMER 51'	C/O LOT 11 51'	LOT 182	CROSS CREEK DRIVE	FH STA.19+34 70'	FH STA.20+58 74'
LOT 100		C/O LOT 11 59'	C/O LOT 101 22'	LOT 183	LAWNDALE CIRCLE	SMH 56 32'	SDMH 97 71'
LOT 101		INLET I-190 63'	C/O LOT 100 22'	LOT 184		FH STA.19+39 85'	SDMH 97 58'
LOT 102		C/O LOT 103 22'	C/O LOT 10 57'	LOT 185	LAWNDALE CIRCLE	FH STA.19+39 85'	SDMH 65 13'
LOT 103		C/O LOT 102 22'	INLET I-190 59.5'	LOT 196	CROSS CREEK DRIVE	I-48 54'	I-31 67'
LOT 104		INLET I-245A 23'	SMH 46 45.5'	LOT 196	CROSS CREEK DRIVE	SMH 10 33'	FH STA.20+58 67'
LOT 105	CROSS CREEK DRIVE	FH STA.11+66 69'	SMH 46 21.5'				

LOT #	INV 4" SHC	TYPE	DIST TO ESMT/R/W	EL @ ROW	DIST ESMT - HSE	SHC SLOPE	EL @ HOUSE	MCE	MCE	BF ELEV
9	387.56	SINGLE	32	388.20	86	2.0%	390.12	392.62	393.0	394.29
10	388.98	SINGLE	32	389.62	95	2.0%	391.32	393.82	394.0	394.16
11	390.00	SINGLE	32	390.64	87	1.0%	391.51	394.01	395.0	394.65
12	390.84	SINGLE	32	391.48	95	2.0%	393.38	395.88	396.0	396.98
13	393.26	SINGLE	33	393.92	87	2.0%	395.66	398.16	399.0	398.77
14	395.29	SINGLE	33	395.95	105	2.0%	398.05	400.55	401.0	401.19
15	396.67	MH	30	397.27	104	1.0%	398.31	400.81	401.0	401.11
16	396.67	MH	41	397.49	81	2.0%	399.11	401.61	402.0	402.39
17	393.42	MH	12	393.66	127	2.0%	396.20	398.70	399.0	400.70
18	394.17	SINGLE	11	394.39	121	2.0%	396.61	399.11	400.0	400.70
19	394.17	SINGLE	10	394.37	141	1.0%	395.78	398.28	399.0	399.22
20	393.89	SINGLE	8	394.05	119	1.0%	395.24	397.74	398.0	398.80
21	393.53	SINGLE	14	393.81	91	2.0%	395.63	398.13	399.0	399.52
22	388.88	DSHC	18	392.92	91	2.0%	394.74	397.24	398.0	399.24
23	388.58	DSHC	18	390.17	88	2.0%	391.93	394.43	395.0	396.43
24	385.85	SINGLE	16	386.17	92	2.0%	388.01	390.51	391.0	392.51
25	386.51	SINGLE	33	387.17	83	2.0%	388.83	391.33	392.0	393.17
26	384.82	MH	32	385.46	95	2.0%	387.36	389.86	390.0	391.38
27	384.55	SINGLE	34	385.23	24	2.0%	387.11	389.61	390.0	390.88
28	383.83	SINGLE	33	384.49	96	1.0%	385.45	387.95	388.0	388.58
29	382.59	SINGLE	34	383.27	92	1.0%	384.19	386.69	387.0	387.60
30	381.02	SINGLE	32	381.66	86	1.0%	382.42	384.92	385.0	385.90

LOT #	INV 4" SHC	TYPE	DIST TO ESMT/R/W	EL @ ROW	DIST ESMT - HSE	SHC SLOPE	EL @ HOUSE	MCE	MCE	SLAB ELEV
89	381.08	MH	29	384.31	77	2.0%	385.85	388.35	389.0	394.48
90	382.23	DSHC	31	385.28	73	2.0%	386.74	389.24	390.0	395.15
91	382.97	DSHC	30	385.81	78	2.0%	387.47	389.97	390.0	395.82
92	384.10	DSHC	28	386.86	76	2.0%	388.38	390.88	391.0	396.49
93	389.50	MH	30	388.04	75	2.0%	389.54	392.04	393.0	397.89
94	389.37	SINGLE	28	389.93	78	2.0%	391.49	393.99	394.0	398.56
95	389.66	SINGLE	29	390.24	77	2.0%	391.78	394.28	395.0	399.23
96	389.95	SINGLE	31	390.57	78	2.0%	392.13	394.63	395.0	399.90
97	389.84	MH	29	391.42	77	2.0%	392.96	395.46	396.0	400.57
98	390.54	SINGLE	18	390.90	73	2.0%	392.36	394.86	395.0	403.75
99	390.08	SINGLE	18	390.42	72	2.0%	391.86	394.36	395.0	403.08
100	389.91	SINGLE	18	390.27	70	2.0%	391.67	394.17	395.0	402.41
101	389.57	SINGLE	18	389.93	72	2.0%	391.37	393.87	394.0	401.74
102	389.23	SINGLE	18	389.59	70	2.0%	390.99	393.49	394.0	401.74
103	388.89	SINGLE	18	389.25	72	2.0%	390.69	393.19	394.0	401.74
104	384.12	SINGLE	17	384.46	74	2.0%	385.94	388.44	389.0	408.22
105	396.59	TWIN	16	396.91	79	2.0%	398.49	400.99	401.0	408.89
106	396.59	TWIN	16	396.91	80	2.0%	398.51	401.01	402.0	407.56
107	396.28	SINGLE	14	396.66	80	2.0%	398.16	400.66	401.0	408.23
108	396.37	SINGLE	14	396.65	77	2.0%	398.19	400.69	401.0	408.90
109	396.59	SINGLE	16	396.91	77	2.0%	398.45	400.95	401.0	409.57
110	394.09	TWIN	35	400.08	77	2.0%	401.62	404.12	405.0	409.61
111	394.09	TWIN	35	400.08	77	2.0%	401.62	404.12	405.0	409.61
112	393.20	DSHC	33	399.64	79	2.0%	401.22	403.72	404.0	408.94
113	393.04	DSHC	31	399.26	77	2.0%	400.80	403.30	404.0	408.94
114	392.89	DSHC	31	398.90	78	2.0%	400.48	402.98	403.0	408.27
115	392.46	DSHC	32	398.32	75	2.0%	399.82	402.32	403.0	407.60
116	391.84	MH	16	391.16	76	2.0%	392.68	395.18	396.0	401.23
117	389.87	SINGLE	19	390.25	73	2.0%	391.81	394.31	395.0	401.56
118	389.69	SINGLE	21	390.11	73	2.0%	391.57	394.07	395.0	400.89
119	389.54	SINGLE	21	389.96	74	2.0%	391.44	393.94	394.0	400.22
120	389.03	SINGLE	20	389.43	78	2.0%	390.99	393.49	394.0	399.55
121	388.24	MH	16	391.55	75	2.0%	393.05	395.55	396.0	397.55
122	384.43	DSHC	21	390.90	74	2.0%	392.38	394.88	395.0	396.88
123	383.70	DSHC	22	390.25	73	2.0%	391.71	394.21	395.0	396.21
124	382.63	DSHC	21	389.66	74	2.0%	391.04	393.54	394.0	395.54
125	381.68	DSHC	20	389.24	80	2.0%	388.94	391.44	392.0	393.34
126	380.63	DSHC	17	389.51	80	2.0%	388.11	390.61	391.0	392.61
127	380.37	DSHC	17	389.80	82	2.0%	387.44	389.94	390.0	391.94
128	379.88	DSHC	17	389.21	78	2.0%	386.77	389.27	390.0	391.27
129	379.40	DSHC	17	384.46	82	2.0%	386.10	388.60	389.0	390.60

LOT #	INV 4" SHC	TYPE	DIST TO ESMT/R/W	EL @ ESMT	DIST ESMT - HSE	SHC SLOPE	EL @ HOUSE	MCE	MCE	BF ELEV
142	384.19	SINGLE	15	384.49	85	2.0%	388.19	388.69	389.0	389.88
143	379.71</									