

GENERAL NOTES

PART I

- 1. APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN... 2. THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN TOPOGRAPHIC SURVEY... 3. THE PROJECT BOUNDARY SHOWN HEREON IS BASED ON A BOUNDARY SURVEY... 4. HORIZONTAL AND VERTICAL SURVEY CONTROLS... 5. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS... 6. CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES... 7. FOR DETAILS NOT SHOWN ON THE DRAWING... 8. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES... 9. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES... 10. TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE... 11. THE CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOTS... 12. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS...

PART II - WATER

- 1. ALL WATER MAINS SHALL BE C-900 PVC (DR-18) UNLESS OTHERWISE NOTED... 2. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER... 3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES... 4. ALL FITTINGS SHALL BE BRASS OR ANCHORED WITH CONCRETE... 5. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN... 6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES... 7. TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED... 8. FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL... 9. UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS... 10. PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS... 11. ALL CHANGES IN HORIZONTAL OR VERTICAL DIRECTION OF PVC WATER PIPE... 12. WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED...

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

John R. Plaster 10/27/15
HOWARD SOIL CONSERVATION DISTRICT DATE

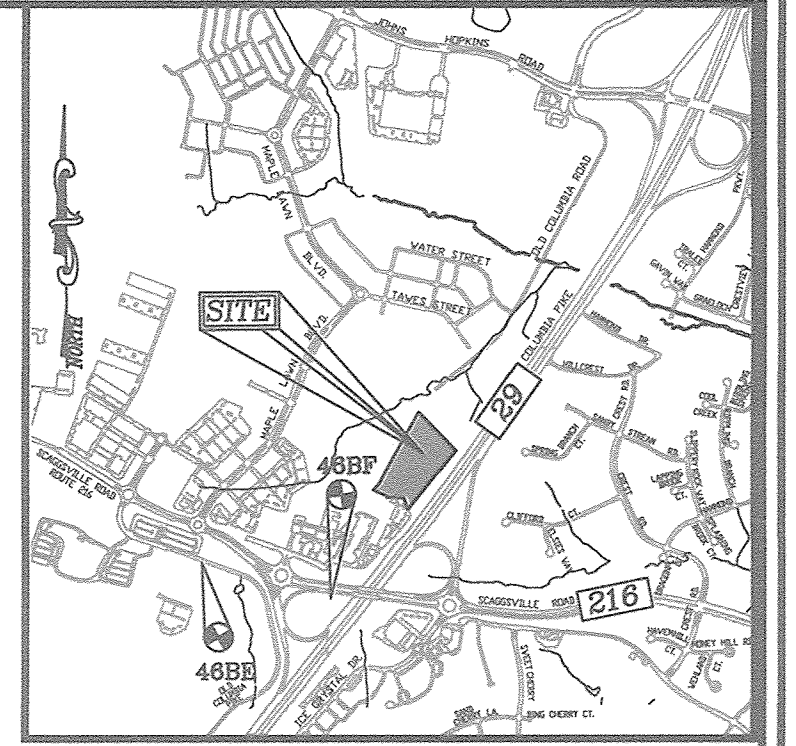
SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN SDP-15-044 / SDP-15-071

FINAL WATER AND SEWER CONSTRUCTION PLAN THE VINE - BUCH APARTMENTS 10945 PRICE MANOR WAY (FORMERLY 10945 JOHNS HOPKINS ROAD) ZONED: R-APT (L. 3192 / F. 394)

CONTRACT 24-4916-D HOWARD COUNTY, MARYLAND

BENCHMARKS

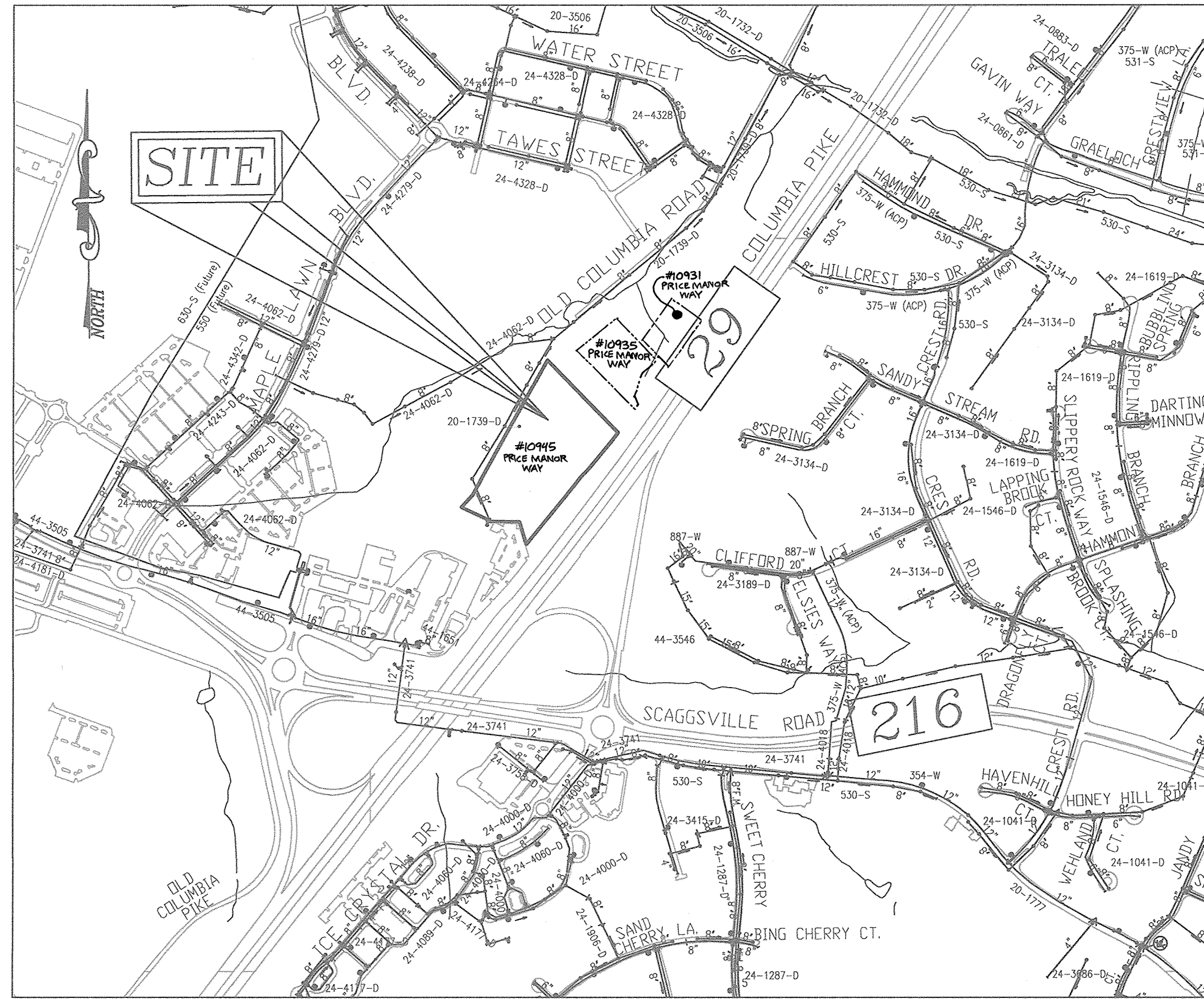
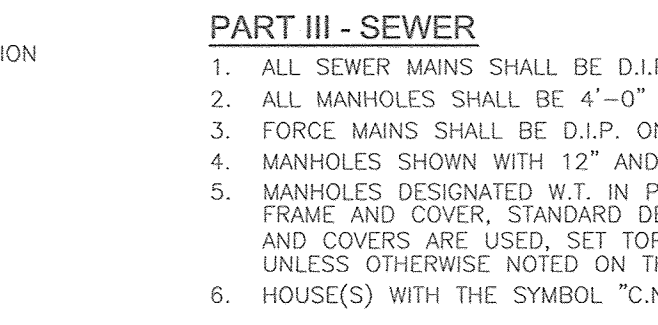
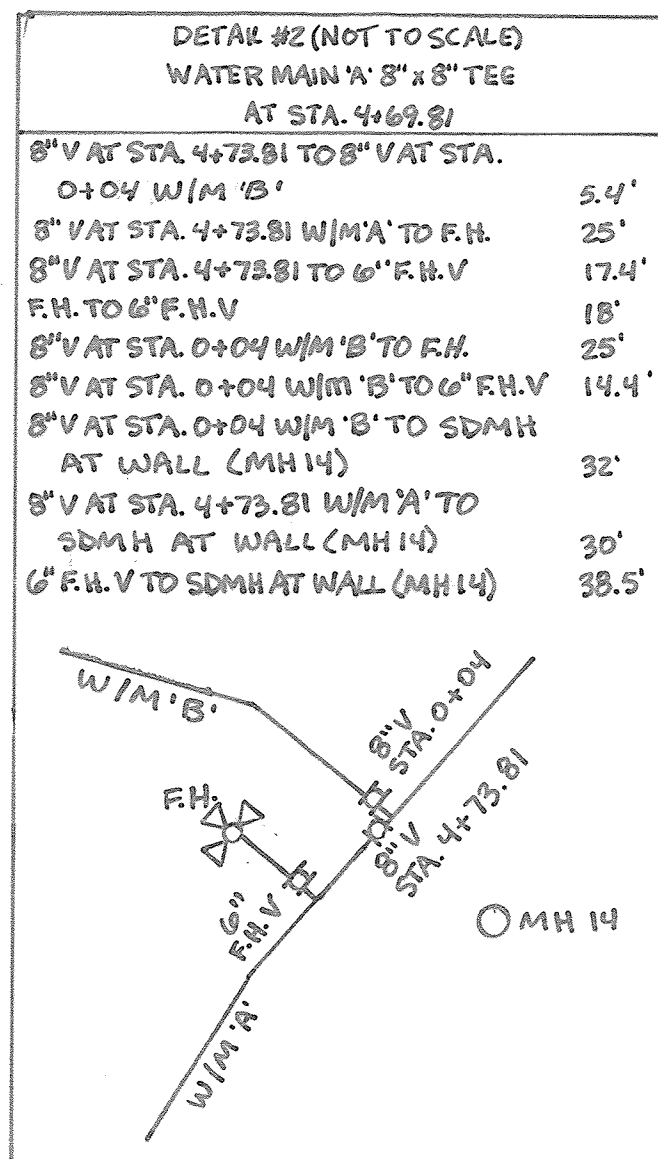
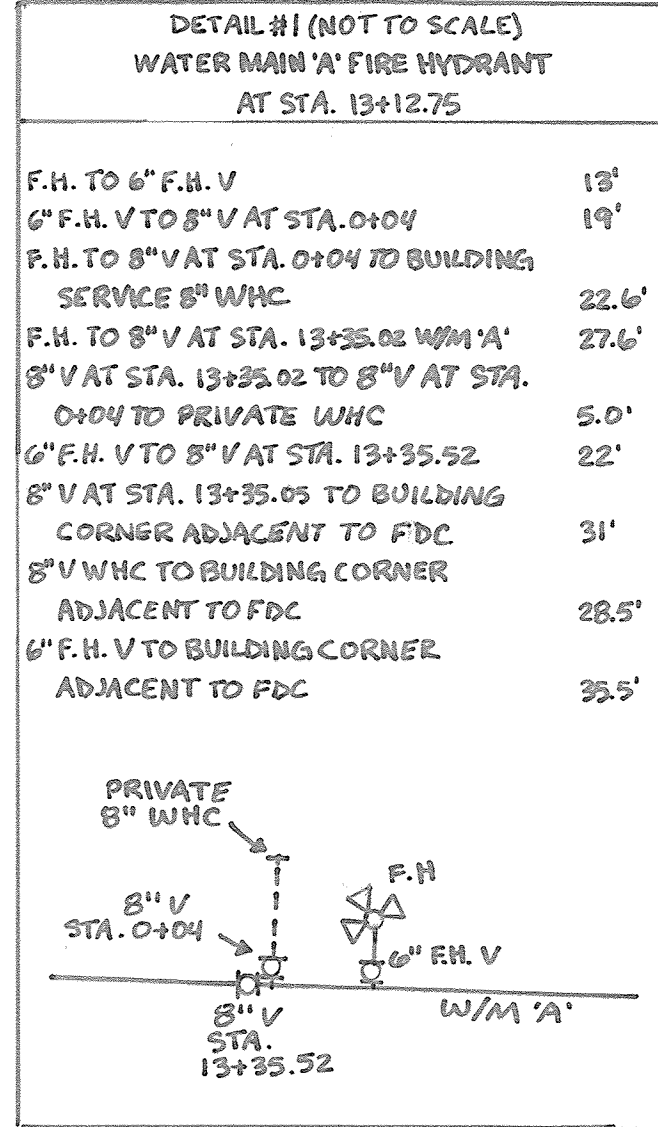
HOWARD COUNTY BENCHMARK - 46BE (CONC. MONUMENT) N 538853.83 E 1338643.54 ELEV. 443.345 LOCATION: OLD COLUMBIA PIKE AT SCAGGSVILLE PARK AND RIDGE



SCALE: 1"=2000'
ADC MAP COORDINATES: 39/C-2

LEGEND

- EXISTING WATER MAIN - W
PROPOSED WATER MAIN - W
FIRE HYDRANT - FH
PROPOSED VALVE - V
PROPOSED TEE - T
EXISTING SEWER - SS
SEWER MANHOLE - SMH
PRIVATE WATER HOUSE CONNECTION - DASHED LINE
PRIVATE SEWER - DASHED LINE



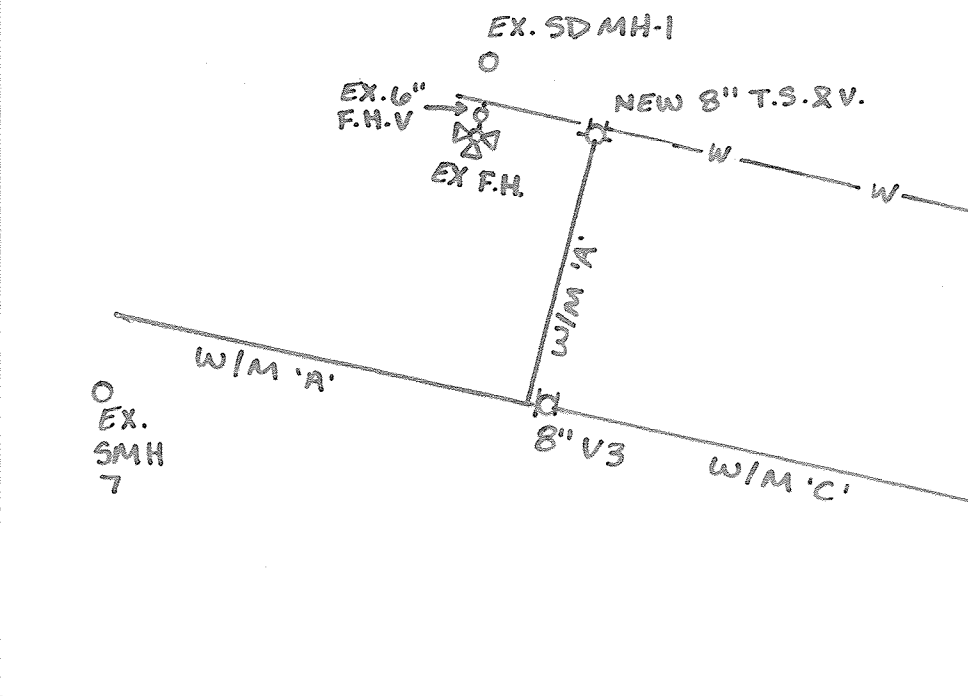
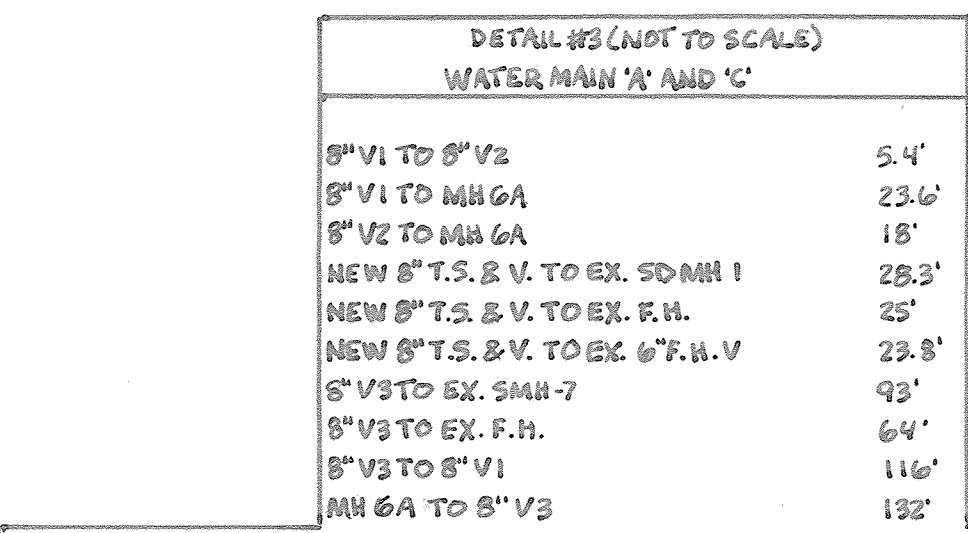
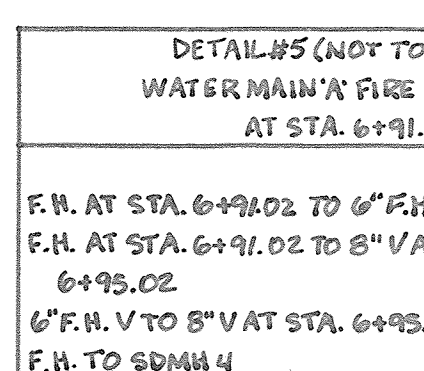
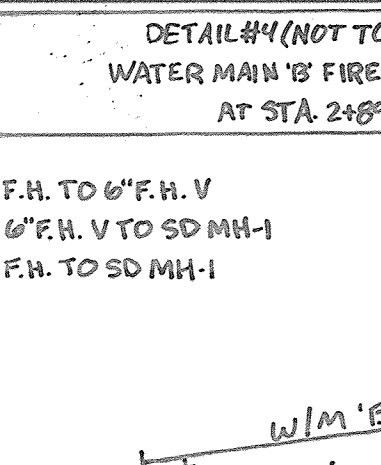
GENERAL NOTES: PART IV - DESIGN MANUAL WAIVER APPROVALS

- 1. THIS PLAN IS SUBJECT TO A DESIGN MANUAL WAIVER (DMW) #11-002... 2. THE LAYOUT AND CONSTRUCTION OF THE PRIVATE LPSS... 3. THE QUANTITY TRANSITION MANHOLE SHOWN HERE... 4. WHILE NOT A REQUIREMENT, IT IS STRONGLY ENCOURAGED... 5. ANY FUTURE REDEVELOPMENT OF THE PROPERTY...

LOCATION MAP

WATER ZONE: 550
TEST GRADIENT: 700

Table with 2 columns: Type of Building, No. of Apartment Units, No. of Single Water House Connections, No. of Single Sewer House Connections, Drainage Area, Treatment Plant.



NOTES: 1. FOR SECTION A-A, SEE DETAIL S-4.15... 2. FOR SECTION B-B, SEE DETAIL S-4.15... 3. THIS GRAVITY TRANSITION MANHOLE (SMH-16) SHALL INCLUDE THE 'Y' BENCH PLAN CONFIGURATION THAT ALLOWS FOR THE FUTURE CONNECTION OF #10931 BY LPSS.

QUANTITIES

Table with columns: ITEMS, QUANTITIES ESTIMATED, QUANTITIES AS-BUILT, TYPE, MANUFACTURER/SUPPLIER. Lists materials like water pipe, valves, manholes, and fittings.

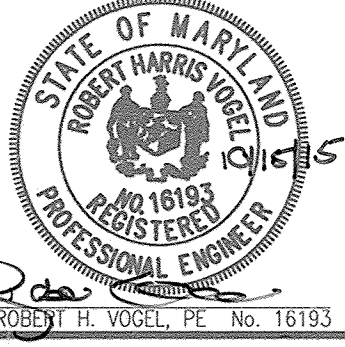
PRIVATE WELL AND SEPTIC CHART. Shows location of private well and septic tank relative to the property boundary.

AS BUILTS BY: DFI DATE: 5/31/18

OWNER/DEVELOPER BUCH LLP 10945 PRICE MANOR WAY LAUREL, MD 20723 301-359-3500

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, ELUGOTT CITY, MD 21043
TEL: 410.461.6666 FAX: 410.461.8966



PROFESSIONAL CERTIFICATE table showing revision history with columns for R/V, Description, and Date.

FINAL WATER AND SEWER CONSTRUCTION PLAN CONTRACT 24-4916-D COVER SHEET
600' SCALE MAP NO. 46 BLOCK NO. 4

THE VINE BUCH APARTMENTS 10945 PRICE MANOR WAY (FORMERLY 10945 JOHNS HOPKINS ROAD) ZONED: R-APT (L. 3192/F. 394)

SCALE AS SHOWN SHEET 1 OF 3

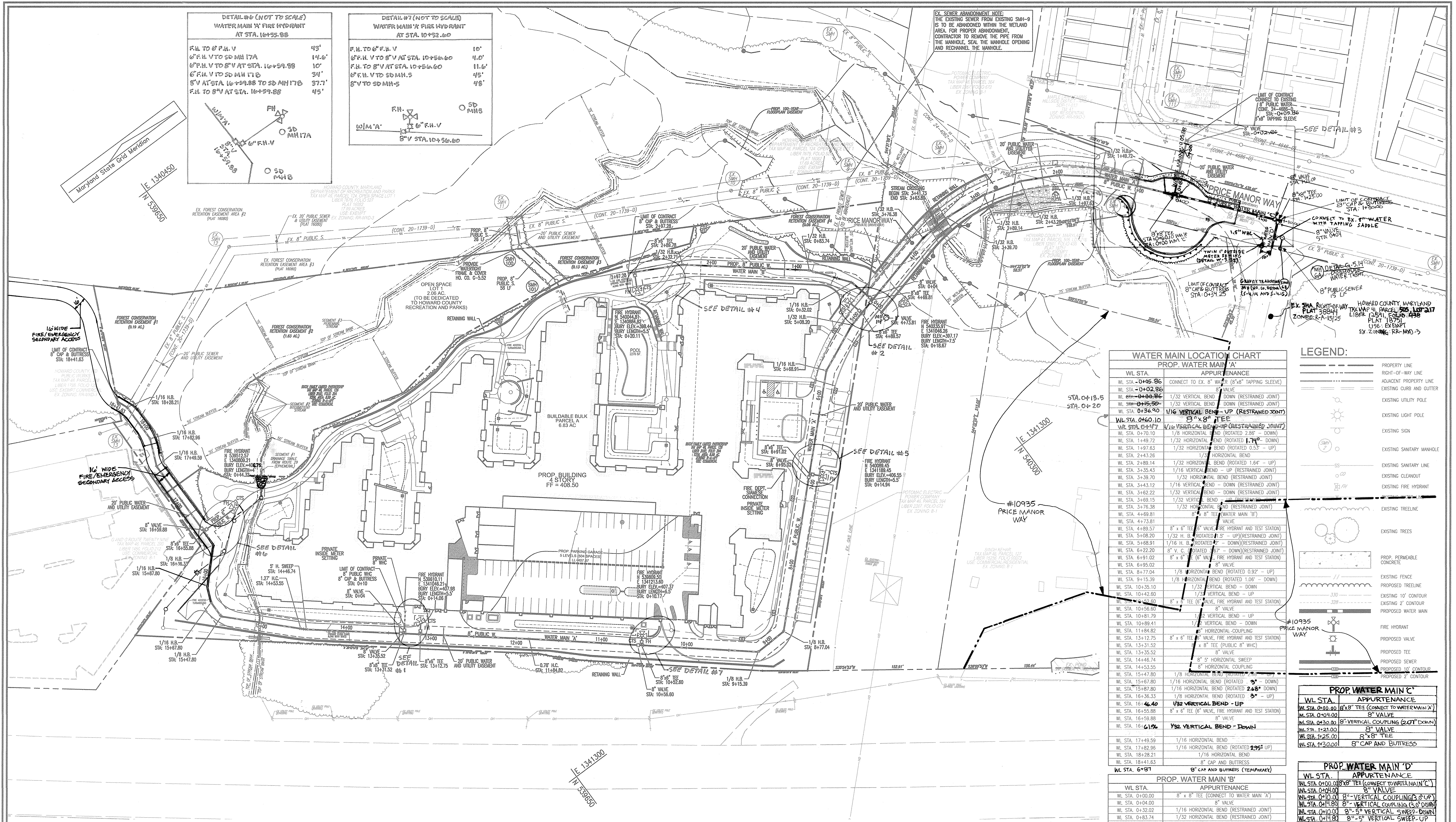
DETAIL #6 (NOT TO SCALE)
WATER MAIN 'A' FIRE HYDRANT
AT STA. 10+59.88

F.H. TO 6" F.H.V	43'
6" F.H.V TO SD MH 17A	14.6'
6" F.H.V TO 8" V AT STA. 10+59.88	10'
6" F.H.V TO SD MH 17B	34'
8" V AT STA. 10+59.88 TO SD MH 17B	37.7'
F.H. TO 8" V AT STA. 10+59.88	45'

DETAIL #7 (NOT TO SCALE)
WATER MAIN 'X' FIRE HYDRANT
AT STA. 10+56.60

F.H. TO 6" F.H.V	10'
6" F.H.V TO 8" V AT STA. 10+56.60	4.0'
F.H. TO 8" V AT STA. 10+56.60	11.6'
6" F.H.V TO SD MH.5	45'
8" V TO SD MH.5	48'

EX. SEWER ABANDONMENT NOTE:
THE EXISTING SEWER FROM EXISTING SMH-9 IS TO BE ABANDONED WITHIN THE WETLAND AREA FOR PROPER ABANDONMENT, CONTRACTOR TO REMOVE THE PIPE FROM THE MANHOLE, SEAL THE MANHOLE OPENING AND RECHANNEL THE MANHOLE.



WATER MAIN LOCATION CHART
PROP. WATER MAIN 'A'

WL STA.	APPURTENANCE
WL STA. 0+05.86	CONNECT TO EX. 8" WATER (8"x8" TAPPING SLEEVE)
WL STA. 0+02.86	8" VALVE
WL STA. 0+00.86	1/32 VERTICAL BEND - DOWN (RESTRAINED JOINT)
WL STA. 0+15.86	1/32 VERTICAL BEND - DOWN (RESTRAINED JOINT)
WL STA. 0+36.40	1/16 VERTICAL BEND - UP (RESTRAINED JOINT)
WL STA. 0+60.10	3" x 8" TEE
WL STA. 0+70.10	1/16 VERTICAL BEND (RESTRAINED JOINT)
WL STA. 1+49.72	1/32 HORIZONTAL BEND (ROTATED 1.74° - DOWN)
WL STA. 1+97.63	1/32 HORIZONTAL BEND (ROTATED 0.53° - UP)
WL STA. 2+43.26	1/16 HORIZONTAL BEND
WL STA. 2+89.14	1/32 HORIZONTAL BEND (ROTATED 1.64° - UP)
WL STA. 3+35.43	1/16 VERTICAL BEND - UP (RESTRAINED JOINT)
WL STA. 3+39.70	1/32 HORIZONTAL BEND (RESTRAINED JOINT)
WL STA. 3+43.12	1/16 VERTICAL BEND - DOWN (RESTRAINED JOINT)
WL STA. 3+46.22	1/32 VERTICAL BEND - DOWN (RESTRAINED JOINT)
WL STA. 3+69.15	1/32 VERTICAL BEND - DOWN (RESTRAINED JOINT)
WL STA. 3+76.38	1/32 HORIZONTAL BEND (RESTRAINED JOINT)
WL STA. 4+69.81	8" x 6" TEE (WATER MAIN 'B')
WL STA. 4+73.81	8" VALVE
WL STA. 4+89.57	8" x 6" TEE 8" VALVE, FIRE HYDRANT AND TEST STATION
WL STA. 5+08.20	1/32 H. B. (ROTATED 1.5° - UP) (RESTRAINED JOINT)
WL STA. 5+68.91	1/16 H. B. (ROTATED 4° - DOWN) (RESTRAINED JOINT)
WL STA. 6+22.20	8" V. C. (ROTATED 3.87° - DOWN) (RESTRAINED JOINT)
WL STA. 6+91.02	8" x 6" TEE (6" VALVE, FIRE HYDRANT AND TEST STATION)
WL STA. 6+95.02	8" VALVE
WL STA. 6+77.04	1/8 HORIZONTAL BEND (ROTATED 0.92° - UP)
WL STA. 9+15.39	1/8 HORIZONTAL BEND (ROTATED 1.06° - DOWN)
WL STA. 10+35.10	1/32 VERTICAL BEND - DOWN
WL STA. 10+42.60	1/32 VERTICAL BEND - UP
WL STA. 10+56.60	8" x 6" TEE (8" VALVE, FIRE HYDRANT AND TEST STATION)
WL STA. 10+81.79	1/32 VERTICAL BEND - UP
WL STA. 10+89.41	1/32 VERTICAL BEND - DOWN
WL STA. 11+84.82	8" HORIZONTAL COUPLING
WL STA. 13+12.75	8" x 6" TEE (8" VALVE, FIRE HYDRANT AND TEST STATION)
WL STA. 13+31.52	8" x 8" TEE (PUBLIC 8" WHC)
WL STA. 13+35.52	8" VALVE
WL STA. 14+45.74	8" HORIZONTAL SWEEP
WL STA. 14+53.55	8" HORIZONTAL COUPLING
WL STA. 15+47.80	1/8 HORIZONTAL BEND (ROTATED 2.68° - DOWN)
WL STA. 15+67.80	1/16 HORIZONTAL BEND (ROTATED 2.68° - DOWN)
WL STA. 15+87.80	1/16 HORIZONTAL BEND (ROTATED 2.68° - DOWN)
WL STA. 16+36.33	1/8 HORIZONTAL BEND (ROTATED 3° - UP)
WL STA. 16+44.40	1/32 VERTICAL BEND - UP
WL STA. 16+55.88	8" x 6" TEE (8" VALVE, FIRE HYDRANT AND TEST STATION)
WL STA. 16+59.88	8" VALVE
WL STA. 16+61.92	1/32 VERTICAL BEND - DOWN
WL STA. 17+49.59	1/16 HORIZONTAL BEND
WL STA. 17+82.99	1/16 HORIZONTAL BEND (ROTATED 1.95° - UP)
WL STA. 18+28.21	1/16 HORIZONTAL BEND
WL STA. 18+41.63	8" CAP AND BUTTRISS
WL STA. 6+97	8" CAP AND BUTTRISS (TEMPORARY)

LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING TREELINE
- EXISTING TREES
- PROP. PERMEABLE CONCRETE
- EXISTING FENCE
- PROPOSED TREELINE
- EXISTING 1' CONTOUR
- EXISTING 2' CONTOUR
- PROPOSED WATER MAIN
- PROPOSED WATER MAIN
- PROPOSED VALVE
- PROPOSED TEE
- PROPOSED SEWER
- PROPOSED 8" MANHOLE
- PROPOSED 2' CONTOUR

PROP. WATER MAIN 'C'

WL STA.	APPURTENANCE
WL STA. 0+10.00	8"x8" TEE (CONNECT TO WATER MAIN 'A')
WL STA. 0+10.00	8" VALVE
WL STA. 0+10.00	8" VERTICAL COUPLING (3" UP)
WL STA. 0+10.00	8" VERTICAL COUPLING (3" DOWN)
WL STA. 0+10.00	8" VERTICAL SWEEP - DOWN
WL STA. 0+10.00	8" VERTICAL SWEEP - UP
WL STA. 0+10.00	8" CAP AND BUTTRISS

PROP. WATER MAIN 'D'

WL STA.	APPURTENANCE
WL STA. 0+00.00	8"x8" TEE (CONNECT TO WATER MAIN 'C')
WL STA. 0+00.00	8" VALVE
WL STA. 0+00.00	8" VERTICAL COUPLING (3" UP)
WL STA. 0+00.00	8" VERTICAL COUPLING (3" DOWN)
WL STA. 0+00.00	8" VERTICAL SWEEP - DOWN
WL STA. 0+00.00	8" VERTICAL SWEEP - UP
WL STA. 0+00.00	8" CAP AND BUTTRISS

PROP. WATER MAIN 'B'

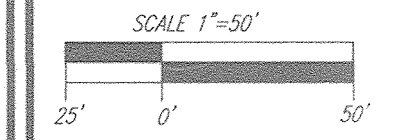
WL STA.	APPURTENANCE
WL STA. 0+00.00	8" x 8" TEE (CONNECT TO WATER MAIN 'A')
WL STA. 0+04.00	8" VALVE
WL STA. 0+32.02	1/16 HORIZONTAL BEND (RESTRAINED JOINT)
WL STA. 0+83.74	1/32 HORIZONTAL BEND (RESTRAINED JOINT)
WL STA. 2+32.71	1/32 HORIZONTAL BEND
WL STA. 2+35.30	8" 5" VERTICAL SWEEP - UP
WL STA. 2+89.78	8" x 6" TEE (8" VALVE, FIRE HYDRANT AND TEST STATION)
WL STA. 2+97.28	8" CAP AND BUTTRISS

PROP. 8" PUBLIC WHC

WL STA.	APPURTENANCE
WL STA. 0+00.00	8" x 8" TEE (CONNECT TO WATER MAIN 'A')
WL STA. 0+04.00	8" VALVE
WL STA. 0+10.00	8" CAP AND BUTTRISS

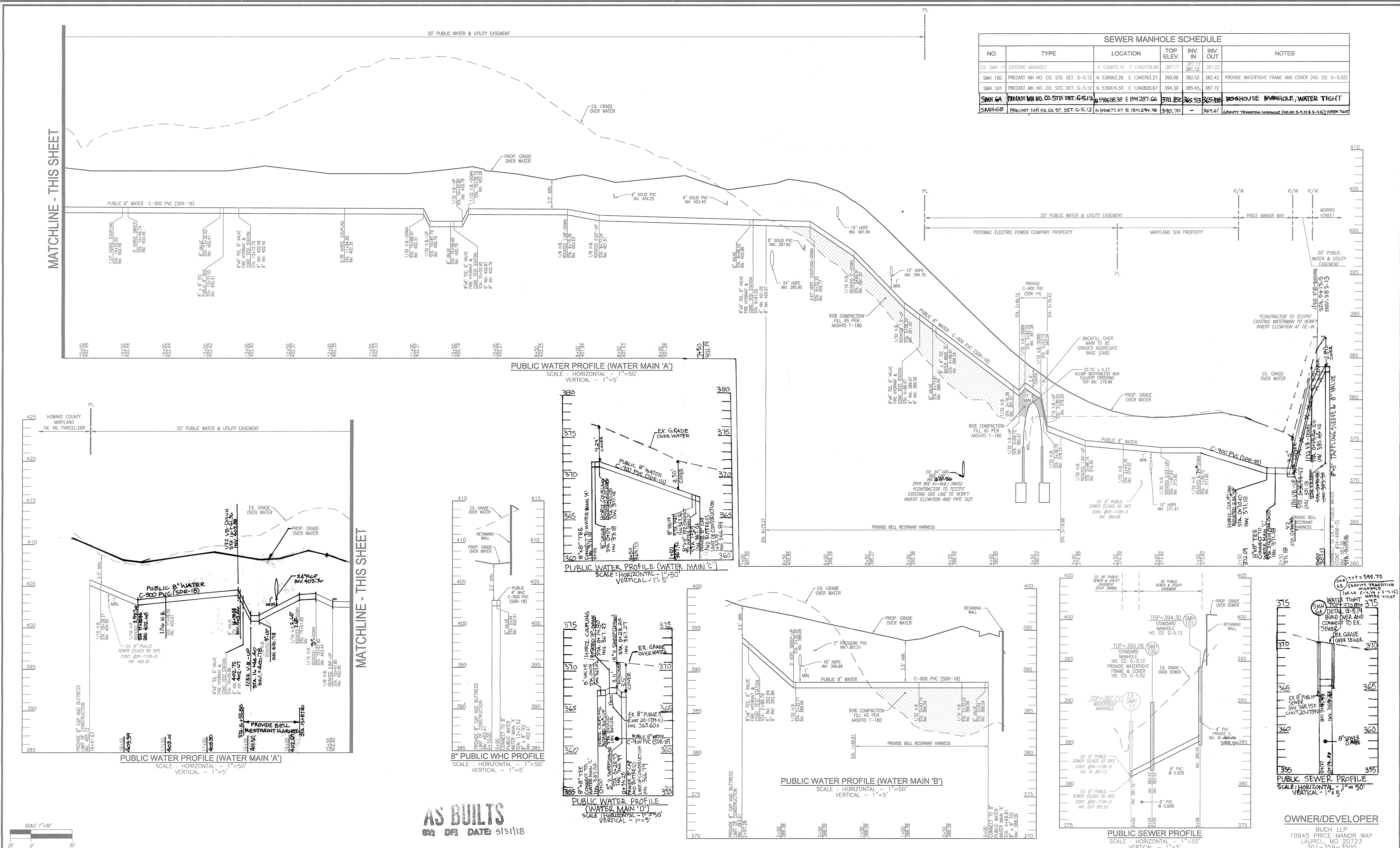
AS BUILT
BY: DFI DATE: 5/31/18

LAYOUT PLAN
SCALE: 1"=50'



DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 11.5.15 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND DATE: 11.5.15 CHIEF, DEVELOPMENT ENGINEERING DIVISION	ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS • SURVEYORS • PLANNERS 8407 MAIN STREET, SUITE 10143 ELICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961	PROFESSIONAL CERTIFICATE I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16193 EXPIRATION DATE: 09-27-2018 DRN: JMR DES: DZE CHK: RHV DATE: OCTOBER 2015	<table border="1"> <tr><th>RHV</th><th>NO.</th><th>REVISION</th><th>DATE</th></tr> <tr><td>RHV</td><td>5</td><td>REMOVE LPSs FOR ADJACENT EXISTING PROPERTY, 10935 PRICE MANOR WAY</td><td>01/07/19</td></tr> <tr><td>RHV</td><td>4</td><td>REMOVE TEMPORARY LIMITS OF IN-SERVICE</td><td>03/08/18</td></tr> <tr><td>RHV</td><td>3</td><td>EXTEND PUBLIC WATER AND SEWER MAINS UP TO SHAW ROW TO SERVE ADJACENT PARCELS</td><td>09/18/17</td></tr> <tr><td>RHV</td><td>2</td><td>TEMPORARY LIMITS OF IN-SERVICE</td><td>07/18/17</td></tr> <tr><td>RHV</td><td>1</td><td>REVISE WATER MAIN 'A' VERTICALLY TO ACCOMMODATE RELOCATED STORM DRAIN PER FINAL DESIGN OF THE SECONDARY EMERGENCY</td><td>07/28/16</td></tr> </table>	RHV	NO.	REVISION	DATE	RHV	5	REMOVE LPSs FOR ADJACENT EXISTING PROPERTY, 10935 PRICE MANOR WAY	01/07/19	RHV	4	REMOVE TEMPORARY LIMITS OF IN-SERVICE	03/08/18	RHV	3	EXTEND PUBLIC WATER AND SEWER MAINS UP TO SHAW ROW TO SERVE ADJACENT PARCELS	09/18/17	RHV	2	TEMPORARY LIMITS OF IN-SERVICE	07/18/17	RHV	1	REVISE WATER MAIN 'A' VERTICALLY TO ACCOMMODATE RELOCATED STORM DRAIN PER FINAL DESIGN OF THE SECONDARY EMERGENCY	07/28/16	FINAL WATER AND SEWER CONSTRUCTION PLAN CONTRACT 24-4916-D LAYOUT SHEET 600' SCALE MAP NO. 46 BLOCK NO. 4 TAX MAP 46 BLOCK 4 5TH ELECTION DISTRICT	THE VINE BUCH APARTMENTS 10945 PRICE MANOR WAY (FORMERLY 10945 JOHNS HOPKINS ROAD) ZONED: R-APT (L. 3192/F. 394) SCALE AS SHOWN SHEET 2 OF 3
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RHV	2	TEMPORARY LIMITS OF IN-SERVICE	07/18/17																											
RHV	1	REVISE WATER MAIN 'A' VERTICALLY TO ACCOMMODATE RELOCATED STORM DRAIN PER FINAL DESIGN OF THE SECONDARY EMERGENCY	07/28/16																											

SEWER MANHOLE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN.	INV. OUT.	NOTES
EX. SMH 11	EXISTING MANHOLE	N 539975.16 E 1340739.89	387.77	381.12	381.02	
SMH 100	PRECAST MH HO. CO. STD. DET. G-5.12	N 539963.28 E 1340763.27	390.06	382.52	382.42	PROVIDE WATERTIGHT FRAME AND COVER (HO. CO. G-5.52)
SMH 101	PRECAST MH HO. CO. STD. DET. G-5.12	N 539974.50 E 1340820.67	394.30	385.45	387.72	
SMH 6A	PRECAST MH HO. CO. STD. DET. G-5.12	N 540688.38 E 1341287.66	370.88	365.53	365.42	DOGHOUSE MANHOLE, WATER TIGHT
SMH 6B	PRECAST MH HO. CO. STD. DET. G-5.12	N 540677.27 E 1341294.46	390.70	-	364.61	GRAVITY TRANSITION MANHOLE (NO. CO. S-11) (WATER TIGHT)



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

10/24/15

11-5-15

CHIEF, BUREAU OF UTILITIES

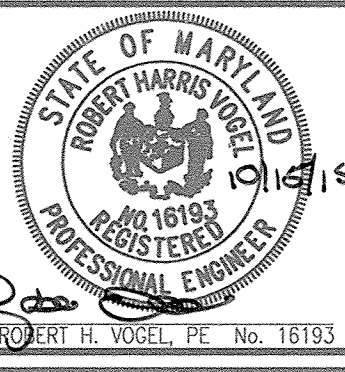
DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

11-5-15

CHIEF, DEVELOPMENT ENGINEERING DIVISION

AS BUILTS
BY: DFI DATE: 6/3/18

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET ELLIOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8991



NO.	REVISION	DATE
1	TEMPORARY LIMITS OF IN-SERVICE	07/10/17
2	REVISE WATERMAIN X VERTICALLY TO ACCOMMODATE PELOCATED	09/28/16
3	STORMDRAIN PER FINAL DESIGN OF SECONDARY EMERGENCY	
4	REMOVE TEMPORARY LIMITS OF IN-SERVICE	03/08/18
5	PRIVATE LPS FOR ADJACENT, EXISTING PROPERTY, 10945 PRICE MANOR WAY	01/07/19

FINAL WATER AND SEWER CONSTRUCTION PLAN
CONTRACT 24-4916-D
WATER & SEWER PROFILES

600' SCALE MAP NO. 46 BLOCK NO. 4

THE VINE
BUCH APARTMENTS
10945 PRICE MANOR WAY
(FORMERLY 10945 JOHNS HOPKINS ROAD)
ZONED: R-APT
(L. 3192/F. 394)

OWNER/DEVELOPER

BUCH LLP
10945 PRICE MANOR WAY
LAUREL, MD 20723
301-359-3500

SCALE AS SHOWN

SHEET 3 OF 3