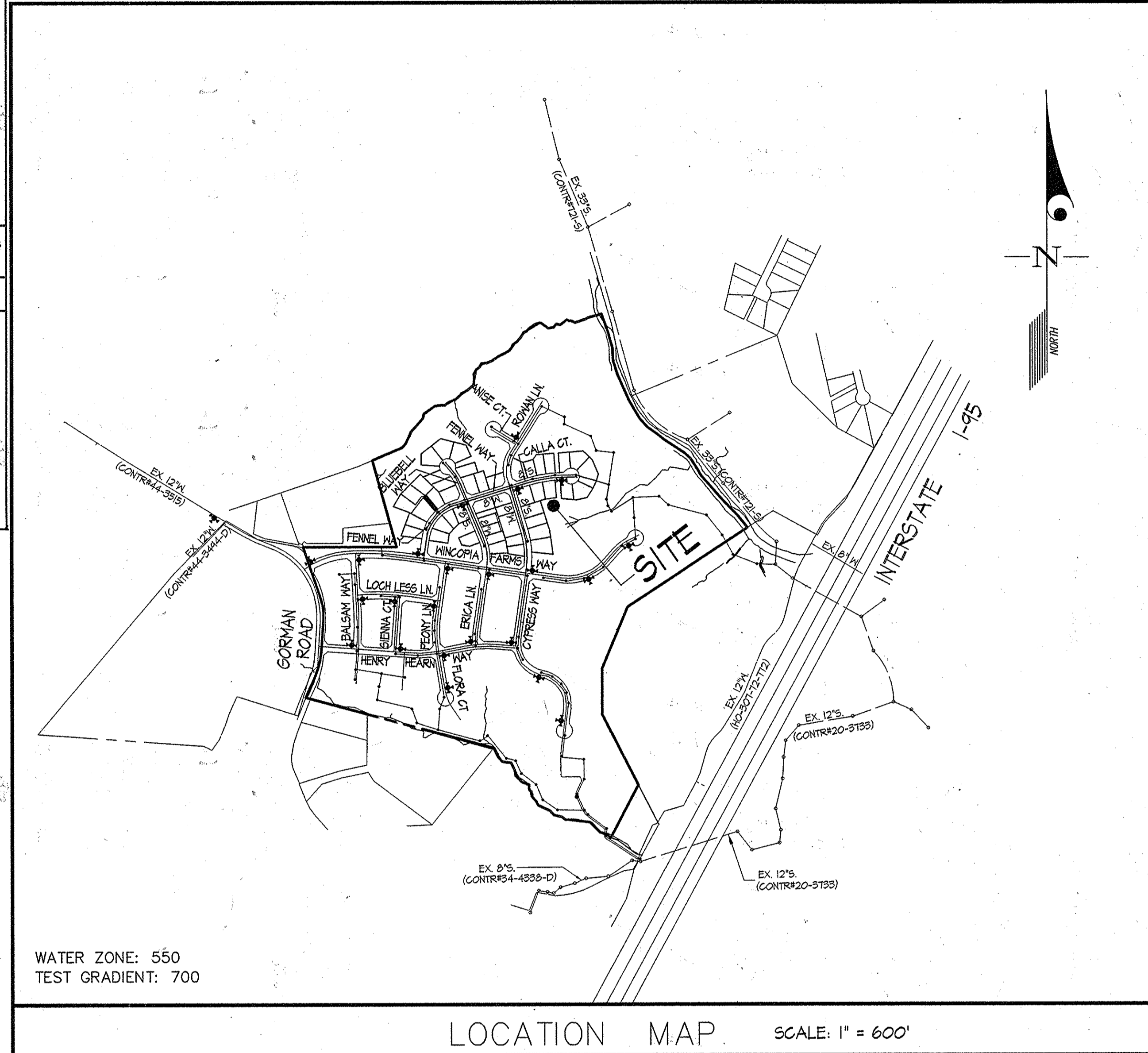


QUANTITIES						
ITEMS	QUANTITIES ESTIMATED	AS-BUILT				
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER	SUPPLIER	
4" WATER MAIN (C900 DR18 PVC)	150 LF	155' ±	PVC C-900	NATIONAL PIPE	FERGUSON WATERWORKS	
6" WATER MAIN (C900 DR18 PVC)	290 LF	300' ±	PVC C-900	NATIONAL PIPE		
8" WATER MAIN (C900 DR18 PVC)	235 LF	236' ±	PVC C-900	NATIONAL PIPE		
1 1/2" WVC	1500 LF	1560' ±	TYPE 'K' SOFT COPPER	MUELLER INDUSTRIES		
8" x 4" T.	1	1	M.J.C.-153	TYLER UNION FOUNDRY		
8" x 8" CROSS	2	2	M.J.C.-153	TYLER UNION FOUNDRY		
8" x 1/2" HB.	9	9	M.J.C.-153	TYLER UNION FOUNDRY		
8" x 1/8" HB.	1	1	M.J.C.-153	TYLER UNION FOUNDRY		
8" x 6" F.H.T.	3	3	M.J.C.-153	TYLER UNION FOUNDRY		
8" VALVE	8	8	GATE VALVE	AMERICAN FLOW CONTROL		
6" VALVE	3	3	GATE VALVE	AMERICAN FLOW CONTROL		
FIRE HYDRANT	3	3	B 84 B	AMERICAN FLOW CONTROL		
4" VALVE	1	1	GATE VALVE	AMERICAN FLOW CONTROL		
8" PVC Sewer Main	1712 LF	1850'	SBR-35	NATIONAL PIPE	CONTRACTORS PRE-CAST	
8" SEWER MAIN (C900 PVC)	996 LF	996'	C-900 PVC	NATIONAL PIPE		
4" SHC	1363 LF	1400' ±	PVC-SBR-35	NATIONAL PIPE		
4" MANHOLE	18	18	PRE-CAST	CONTRACTORS PRE-CAST		
Type A Drop Connection	2	2	PRE-CAST	CONTRACTORS PRE-CAST		
Type B Drop Connection	4	4	PRE-CAST	CONTRACTORS PRE-CAST		
4" x 3" HDC	1	1	HDC	NORTH AMERICAN SPECIALTY		FERGUSON WATERWORKS
6" 1/2" HB	2	2	HDC	NORTH AMERICAN SPECIALTY		
6" SWEEP	3	3	HDC	NORTH AMERICAN SPECIALTY		
6" 15" HDC	1	1	HDC	NORTH AMERICAN SPECIALTY		
6" 20" HDC	1	1	HDC	NORTH AMERICAN SPECIALTY		
8" 15" HDC	2	2	HDC	NORTH AMERICAN SPECIALTY		
8" 20" HDC	3	3	HDC	NORTH AMERICAN SPECIALTY		
8" 25" HDC	1	1	HDC	NORTH AMERICAN SPECIALTY		
8" 30" HDC	5	5	HDC	NORTH AMERICAN SPECIALTY		
8" 6" SWEEP	4	4	HDC	NORTH AMERICAN SPECIALTY		

NAME OF UTILITY CONTRACTOR: CONSOLIDATED CONSTRUCTION SERVICES INC.

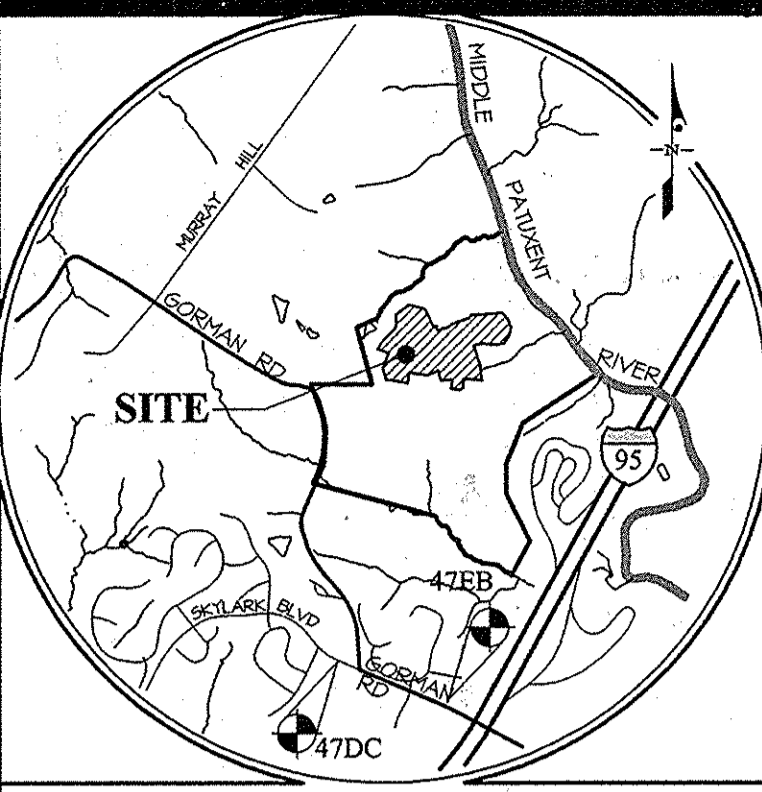
SURVEY AND DRAFTING DIV. CHECKBOX: AS-BUILT DATE: 1-19-16



WATER ZONE: 550  
TEST GRADIENT: 700

LOCATION MAP SCALE: 1" = 600'

TYPE OF BUILDING	RESIDENTIAL
NUMBER OF LOTS	47
NUMBER OF S.H.C.'s	47
NUMBER OF W.H.C.'s	46
AREA OF COMMERCIAL LOT/PARCEL	N/A
SEWER SHED	MIDDLE PATUXENT
PUMPING STATION	LITTLE PATUXENT RECLAMATION PLANT



VICINITY MAP SCALE: 1" = 2,000'

BENCHMARKS	ELEV.	N	E
47DC	ELEV. 348.10	N = 536,615.00	E = 1,359,619.00
47EB	ELEV. = 554.23	N = 536,212.71	E = 1,354,835.51

ADC MAP: 40 GRID: B-3

GENERAL NOTES  
Revised - October 2013

- 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.
  - Topographic AIR surveys were performed on DECEMBER, 2008 by MCKENZIE SNYDER.
  - 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 No. 47DC, and No. 47EB.
    - All vertical controls are based on NAVD '88. Vertical controls provided on the drawings are STANDARD DISCS ON CONCRETE MONUMENTS.
  - 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 drawing, 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  $\Phi$  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)..... 410-637-8713
    - BGE (Emergency) ..... 410-685-0123
    - Bureau of Utilities ..... 410-313-4900
    - Colonial Pipeline Co..... 410-745-1340
    - Miss Utility..... 1-800-257-7177
    - 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 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(a) of the Howard County Code.

**Part II WATER**

- All water mains shall be ANWA standard C900 DR18 PVC.
- 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. 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 wires 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 ANWA 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 harnesses. Twelve (12) pound Zinc anodes shall be installed on all stainless steel fittings and saddles used with PVC mains. All gaskets 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.
- All changes in horizontal or vertical direction of PVC water pipe shall be made with standard bends, 5-degree sweeps or high deflection (HD) couplings. No bending of the pipe or deflecting of PVC pipe joints is permitted. Where high deflection couplings or 5-degree sweeps are permitted, the contractor shall provide one full pipe length (20-foot long) on either side of the high deflection coupling or 5-degree sweep. The contractor shall use a vibratory plate compactor or other approved means to thoroughly compact the #57 stone on both sides of the high deflection coupling or 5-degree sweep, taking care not to use compaction equipment directly over the fitting.

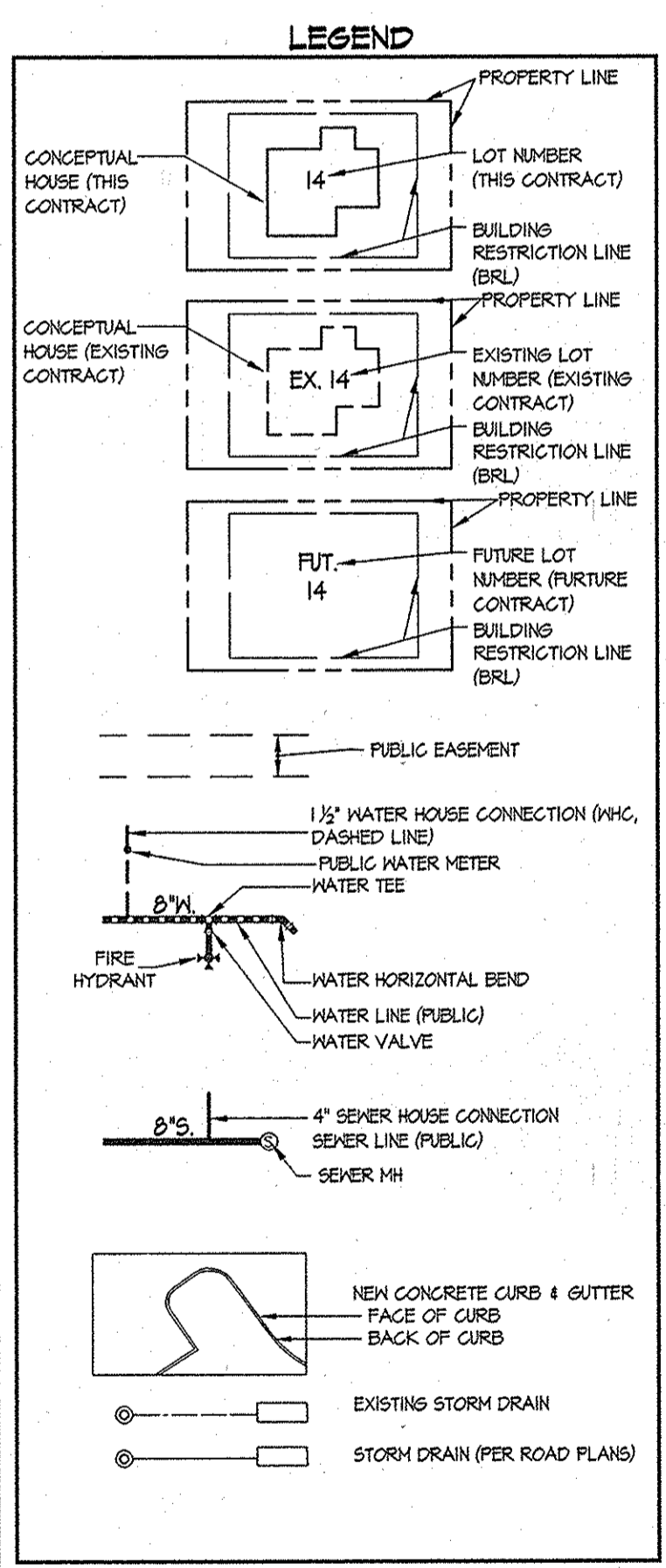
PVC high deflection couplings shall be limited to a total deflection of 3-degrees (1 1/2-degree on either end of the coupling), shall be rated for a minimum 200 psi meeting the requirements of ANWA C400, shall have a minimum lay length of 9-inches and shall have center stops. PVC High deflection couplings shall be Certainteed PVC High Deflection (HD) Stop Couplings or equal. Five degree sweeps shall be bell by spigot, rated for a minimum 225 psi, DR18 meeting the requirements of ANWA C400 and shall be Multi Fittings (pex) Blue Brute DR18 or equal.

12. When PVC high deflection couplings or PVC 5-degree sweeps are used to facilitate changes in horizontal or vertical alignments of ANWA C-900 PVC pipelines, the contractor shall install devices for the prevention of over-insertion of the PVC pipe spigots or plain ends into the push on bell joint on both sides of the high deflection couplings and 5 degree sweeps. Bell stops shall be placed at the proper insertion line for the fitting. The bell stop shall be manufactured of ductile iron and incorporate an expansion retention spring to allow for pipe expansion and contraction. The bell stops shall be Series 5000 Mega-Stop, as manufactured by EBAA Iron, Inc. or approved equal.

**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 M.T. in plan and profile shall have watertight frame and cover, Standard Detail 6552. 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.

PREPARED FOR:  
BEAZER HOMES CORP.  
8965 GUILFORD RD., SUITE 290  
COLUMBIA, MD 21046  
ATTN: BRIAN KNAUFF  
410-381-3222



WINCOPIA FARMS PUBLIC WATER & SEWER CONSTRUCTION ORDER	
CONTRACT NUMBER	CONSTRUCTION ORDER
24-4813-D	1
24-4814-D	2
24-4815-D	3
24-4816-D	4
24-4817-D	5
24-4818-D	6
24-4819-D	7

**SHEET INDEX**

- TITLE SHEET
- WATER & SEWER EXTENSION PLAN
- WATER & SEWER EXTENSION PROFILE PLAN & ASBUILT SKETCHES 'A' & 'B'
- WATER & SEWER EXTENSION PROFILE PLAN & WVC & SHC ASBUILT DIMENSIONS
- WATER & SEWER EXTENSION PROFILE PLAN & ASBUILT SKETCHES 'B' & 'C'
- WATER & SEWER EXTENSION PROFILE PLAN

**AS BUILTS**  
ON DATE 1-19-16

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH F-13-103, SECTION 308 OF THE SPECIFICATIONS AT FINAL PLAN STAGE.

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

APPROVED: *John R. Roberts* 1/26/13  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John C. Gorman* 1/19/13  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Chief Engineer* 12-9-13  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

GLWGUTSCHICK LITTLE & WEBER, P.A.  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3009 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 FAX: 301-421-4186

DATE OCT., 2013  
G.L.W. No. 08052

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
EXP. DATE: MAY 28, 2014

11-12-13

NO.	REVISION	DATE
3+	Rev. Water per change to PVC, added 1" WVC	9-5-14
BY	NO	

TITLE SHEET

600' SCALE MAP NO. 47  
BLOCK NO. 2,3,8&9  
ZONING: R-ED

WINCOPIA FARMS  
PHASE 4  
LOTS 1 THRU 220 &  
OPEN SPACE LOTS 221 THRU 256  
L-11388 P. 725  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT NO. 6  
CONTRACT No. 24-4813-D TAX MAP: 47-3

SCALE AS SHOWN  
SHEET 1 OF 6

L:\CADD\DWG\030513\13-01-WAL-SHW-FINAL-WKS\PHASE 4\030513-13-01-WAL-SHW-FINAL-WKS-03.dwg PLOTTED 10/29/2013 10:43 AM. LAST SAVED: 10/28/2013 5:10 PM. PLOTTED BY: Girma Tegegn

FIRE HYDRANT INFORMATION	
FH	LOCATION
S	N. 534,784.74 E. 1,354,484.56
T	N. 534,840.53 E. 1,354,850.34
U	N. 534,450.66 E. 1,355,164.24

NOTES: WATER MAIN DRAIN (WD) AT CUL-DE-SAC - BLUEBELL WAY

NOTES:  
 WD VAULT TO SMH-24 - 36.8'  
 WD VAULT TO SDMH 202 - 84.7'  
 WD VAULT TO WHC LOT 95 - 16.6'

SEWER MANHOLE LOCATIONS BLUEBELL WAY		
MH No.	STATION	OFFSET
25	6+65	3.2' LEFT
104	1+52	3.2' LEFT

SEWER MANHOLE LOCATIONS FENNEL WAY		
MH No.	STATION	OFFSET
13	5+43	7.0' LEFT
14	4+34	8.6' LEFT
15	3+36	7.0' LEFT
16	2+51	6.0' LEFT
20	2+01	8.9' LEFT

SEWER MANHOLE LOCATIONS CALLA CT		
MH No.	STATION	OFFSET
10	5+12	9.0' LEFT
11	1+58	8.2' LEFT
12	0+07	10.0' LEFT

SEWER MANHOLE LOCATIONS OPEN SPACE LOT 256		
MH No.	NAD '83/'91 COORDINATES NORTH	EAST
2	534,735	1,355,508
46	534,816	1,355,485
47	534,816	1,355,470
48	534,712	1,355,474

SEWER MANHOLE LOCATIONS LOT 104		
MH No.	NAD '83/'91 COORDINATES NORTH	EAST
22	534,236	1,354,224

SEWER MANHOLE LOCATIONS ROMAN LANE		
MH No.	STATION	OFFSET
110	2+25	5.1' RIGHT

LOT FRONTAGE TABLE	
LOT No.	DISTANCE (feet)
54	14.62
60	82.35
61	85.00
126	65.00
127	65.00
128	75.12
129	82.38
62	74.71
63	90.00
64	28.01
65	33.35
66	45.12
67	44.24
68	46.35
69	82.18
70	63.70
71	65.70
72	65.00
73	18.64

LOT FRONTAGE TABLE	
LOT No.	DISTANCE (feet)
91	45.00
92	70.00
93	54.36
100	42.05
101	61.00
102	8.00
103	8.01
104	8.02
105	8.00
106	60.00
107	60.00
110	87.21
111	15.31
112	84.15
113	57.22
115	42.46
116	42.46
117	75.57
118	35.00
119	50.00
120	62.45
121	65.32
122	65.32
123	65.32
124	55.94



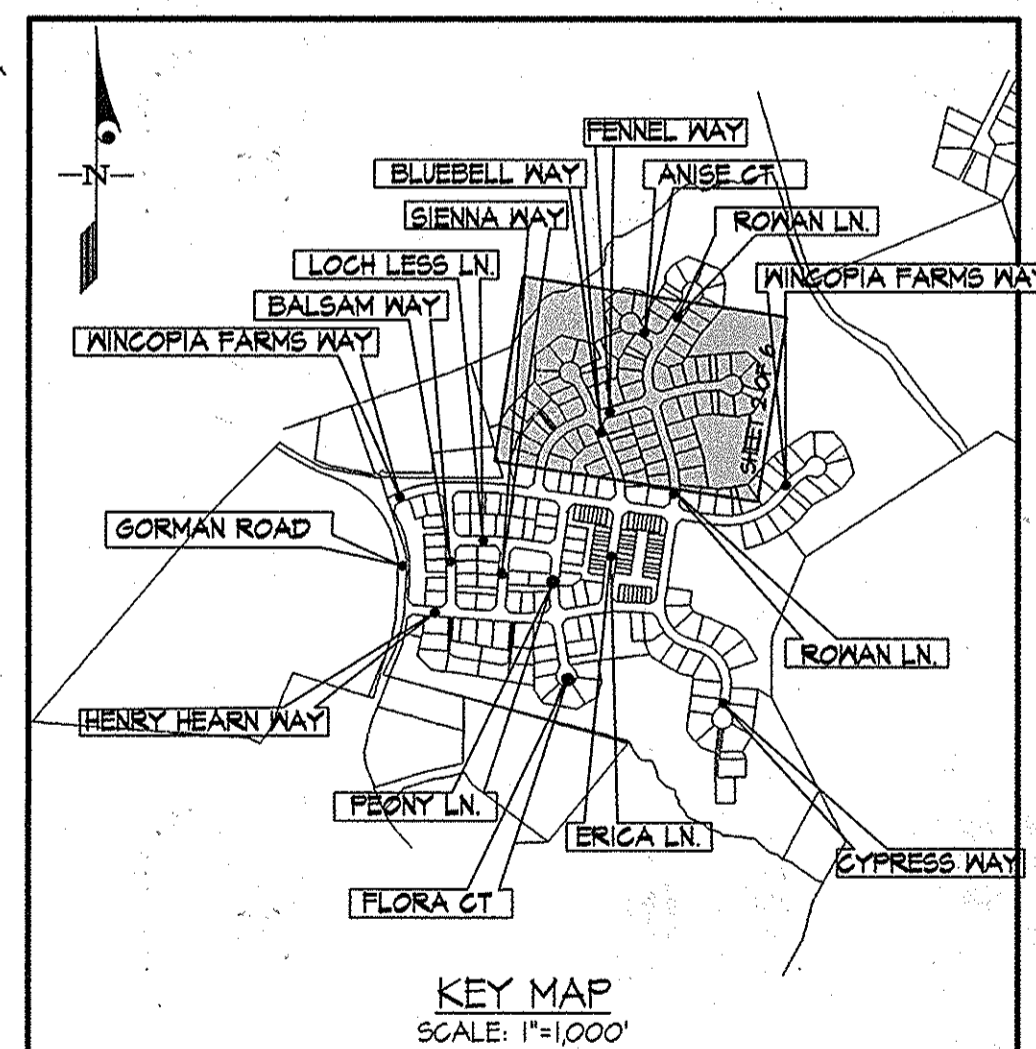
SKETCH 'A' SEE SHEET 3 OF 6

SKETCH 'C' SEE SHEETS 5 OF 6

SKETCH 'D' SEE SHEET 3 OF 6

SKETCH 'B' SEE SHEET 5 OF 6

ROAD	STATION	FITTING	LOCATION
FENNEL WAY	53 1+72.52	8" 1/32 HB	N. 534,587.04 E. 1,354,244.15
FENNEL WAY	53 2+18.44	8" 1/32 HB	N. 534,630.34 E. 1,354,264.48
FENNEL WAY	53 2+61.48	8" 1/32 HB	N. 534,667.57 E. 1,354,286.48
FENNEL WAY	53 2+75.74	8" 3" HDC	N. 534,677.97 E. 1,354,246.02
FENNEL WAY	53 3+08.54	8" 1/32 HB	N. 534,703.40 E. 1,354,316.61
FENNEL WAY	53 3+35.32	8" X4" T	N. 534,720.34 E. 1,354,331.46
	54 -	4" CAP	N. 534,824.46 E. 1,354,236.95
FENNEL WAY	50 4+06.50	8" 1/16 HB	N. 534,765.61 E. 1,354,242.43
FENNEL WAY	57 5+44.56	8" X8" CROSS	N. 534,805.91 E. 1,354,524.45
FENNEL WAY	60 5+04.18	8" X6" FHT	N. 534,744.40 E. 1,354,486.60
FENNEL WAY	61 8+45.93	8" X8" CROSS	N. 534,844.08 E. 1,354,812.65
CALLA CT	62 8+02.49	8" X6" FHT	N. 534,807.24 E. 1,354,855.64
CALLA CT	62 10+01.90	8" 5" SWEEP	N. 534,817.92 E. 1,355,164.04
CALLA CT	62 11+00.20	8" 5" SWEEP	N. 534,868.21 E. 1,355,266.14
CALLA CT	62 11+60.45	8" 5" SWEEP	N. 534,894.64 E. 1,354,981.82
CALLA CT	62 12+06.74	8" X6" FHT	N. 534,960.20 E. 1,355,058.55
CALLA CT	64 13+08.90	8" CAP	N. 534,961.44 E. 1,355,111.76
BLUEBELL WAY	50 10+21.18	8" 1/32 HB	N. 534,820.51 E. 1,354,520.00
BLUEBELL WAY	50 10+45.89	6" 5" SWEEP	N. 534,842.25 E. 1,354,574.59
BLUEBELL WAY	50 11+15.20	6" 1/32 HB	N. 534,842.25 E. 1,354,574.59
BLUEBELL WAY	50 12+15.31	6" 5" SWEEP	N. 534,861.60 E. 1,354,438.48
BLUEBELL WAY	50 13+01.95	6" 5" SWEEP	N. 534,893.26 E. 1,354,437.15
BLUEBELL WAY	50 13+12.64	8" CAP	N. 540,062.18 E. 1,354,391.51
BLUEBELL WAY	(A) 5+52.53	8" 3" HDC	N. 534,371.75 E. 1,354,655.72
BLUEBELL WAY	(B) 5+60.46	8" 1/32 HB	N. 534,386.02 E. 1,354,651.34
BLUEBELL WAY	(C) 6+25.23	8" 1/32 HB	N. 534,450.29 E. 1,354,651.15
BLUEBELL WAY	(D) 6+45.61	8" 1/32 HB	N. 534,514.11 E. 1,354,642.65
BLUEBELL WAY	(E) 4+17.63	8" 5" SWEEP	N. 534,748.04 E. 1,354,526.91
ROMAN LANE	(F) 11+00.05	8" 3" HDC	N. 534,344.04 E. 1,354,428.24
ROMAN LANE	(G) 11+41.80	8" 1/32 HB	N. 534,424.21 E. 1,354,431.74
ROMAN LANE	(H) 10+24.61	8" 1/32 HB	N. 534,543.71 E. 1,354,914.75



AS BUILT  
 DATE: 1-19-16

- NOTES:
- 3" PUBLIC WATER, SEWER, SIDEWALK AND UTILITY EASEMENT = 3" PUBLIC W/SU EMT. (ON MAIN ROADS)
  - 4" PUBLIC WATER, SEWER, SIDEWALK AND UTILITY EASEMENT = 4" W/SU EMT. (ON CUL-DE-SACS)
  - ALL SEWER HOUSE CONNECTIONS (SHCs) ARE 4" UNLESS LABELED OTHERWISE. SEE LEGEND SHEET I.
  - ALL WATER HOUSE CONNECTIONS (WHCs) ARE 1/2" UNLESS LABELED OTHERWISE. SEE LEGEND SHEET I.

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 S. C. Cren  
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
 C. J. Edick  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

GLWGUTSCHICK LITTLE & WEBER, P.A.  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20868  
 TEL: 301-421-4024 FAX: 301-421-4186

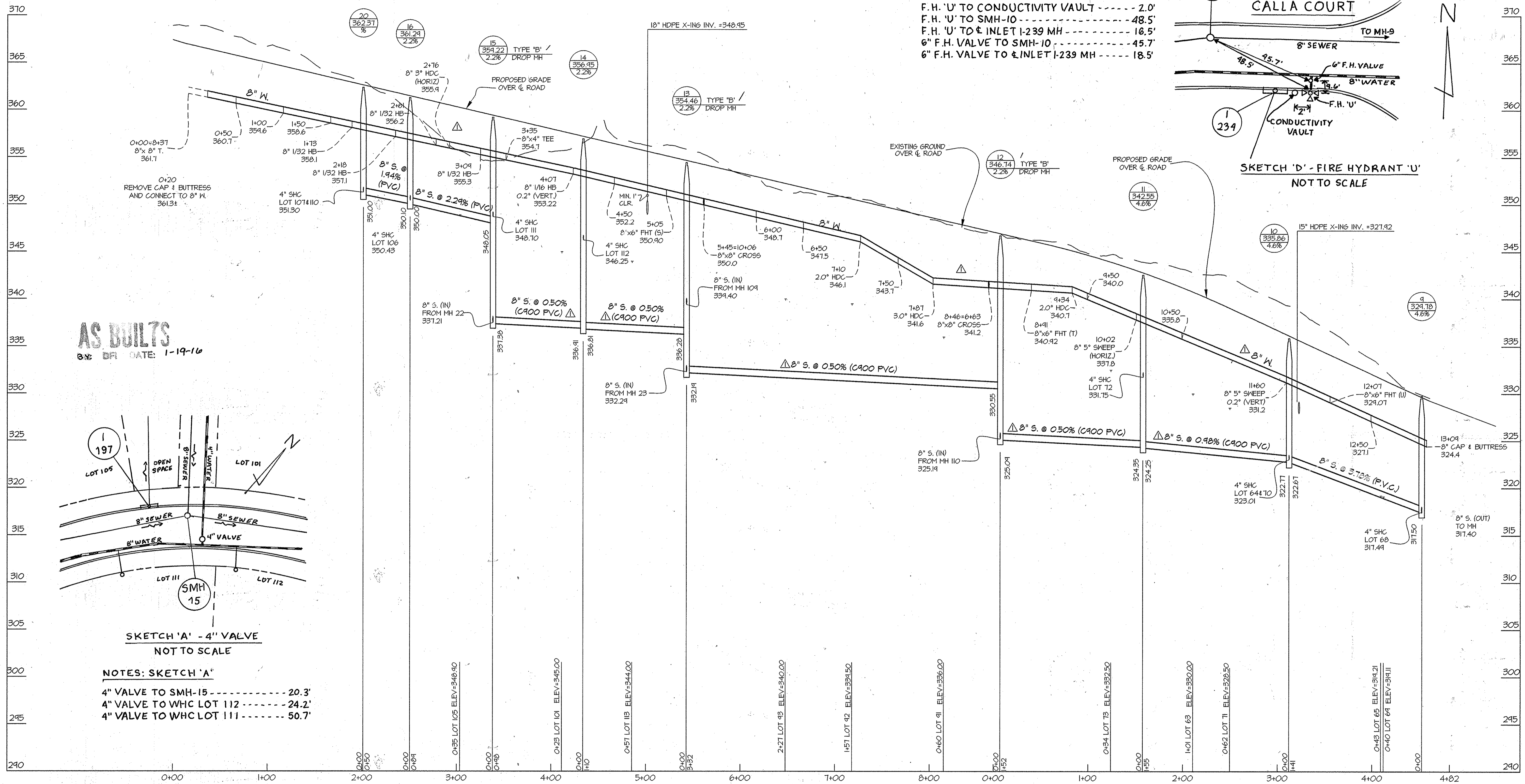
DATE OCT., 2013  
 G.L.W. No. 08052  
 PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE NO. 12975  
 EXP. DATE: MAY 26, 2014

AWL	REVISION	DATE
AWL	REVISED WATER PER CHANGE TO PVC	3/10/14
BY NO	REVISION	DATE

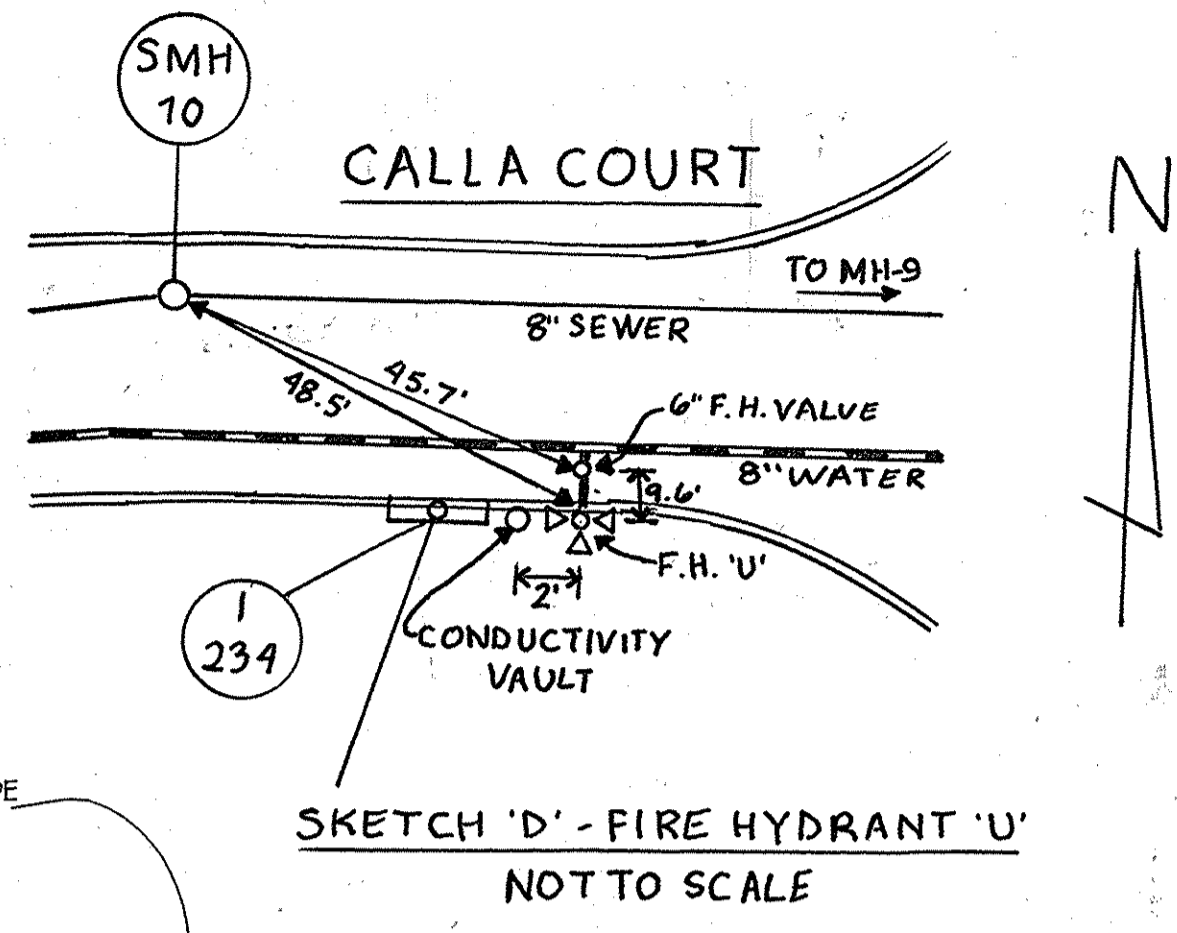
WATER and SEWER EXTENSION PLAN  
 600' SCALE MAP NO. 47  
 BLOCK NO. 2,3,8&9  
 ZONING: R-ED

WINGOPIA FARMS  
 PHASE 4  
 LOTS 1 THRU 220 &  
 OPEN SPACE LOTS 221 THRU 256  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT NO. 1  
 CONTRACT No. 24-4813-D  
 SCALE 1"=50'  
 SHEET 2 OF 6

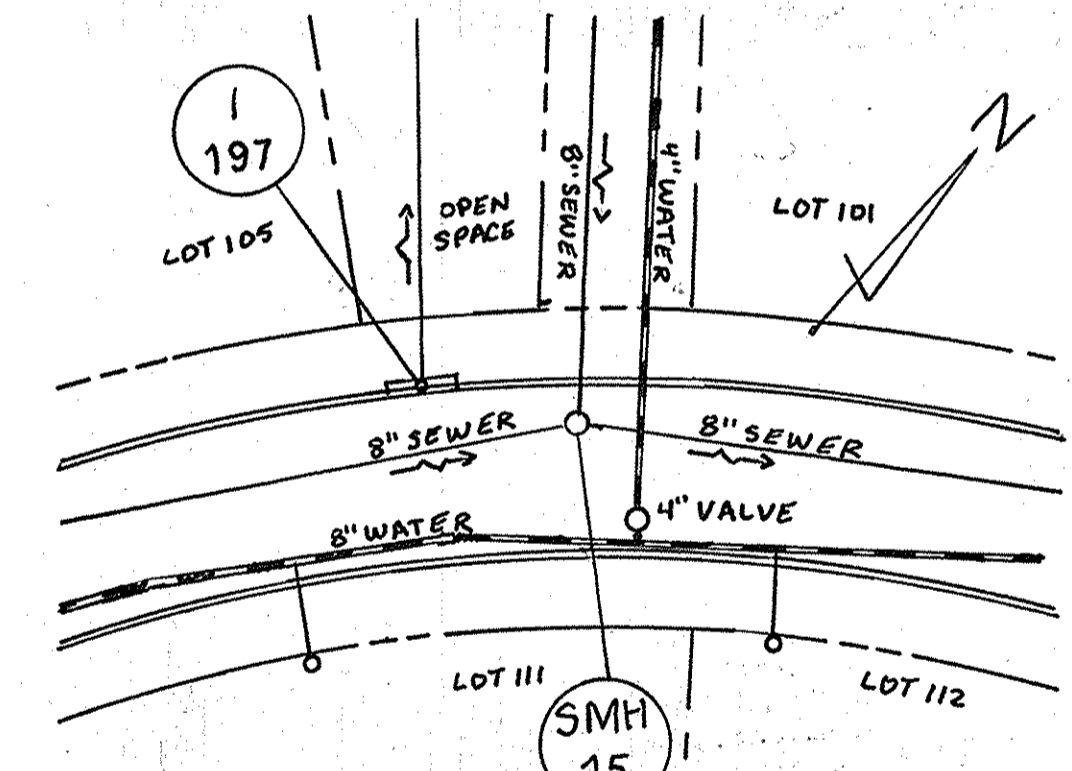
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**NOTES: SKETCH 'D'**  
 F.H. 'U' TO 6" F.H. VALVE ----- 9.6'  
 F.H. 'U' TO CONDUCTIVITY VAULT ----- 2.0'  
 F.H. 'U' TO SMH-10 ----- 48.5'  
 F.H. 'U' TO 4" INLET I-239 MH ----- 16.5'  
 6" F.H. VALVE TO SMH-10 ----- 45.7'  
 6" F.H. VALVE TO 4" INLET I-239 MH ----- 18.5'

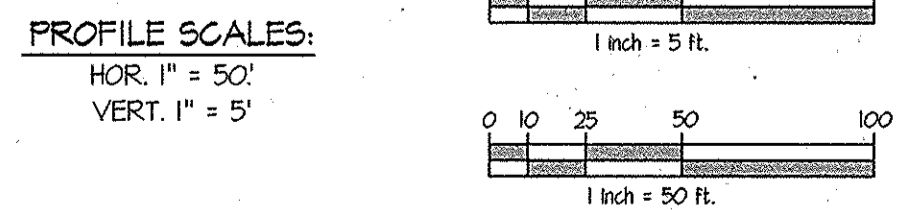


**AS BUILTS**  
 DATE: 1-19-16



**NOTES: SKETCH 'A'**  
 4" VALVE TO SMH-15 ----- 20.3'  
 4" VALVE TO WHC LOT 112 ----- 24.2'  
 4" VALVE TO WHC LOT 111 ----- 50.7'

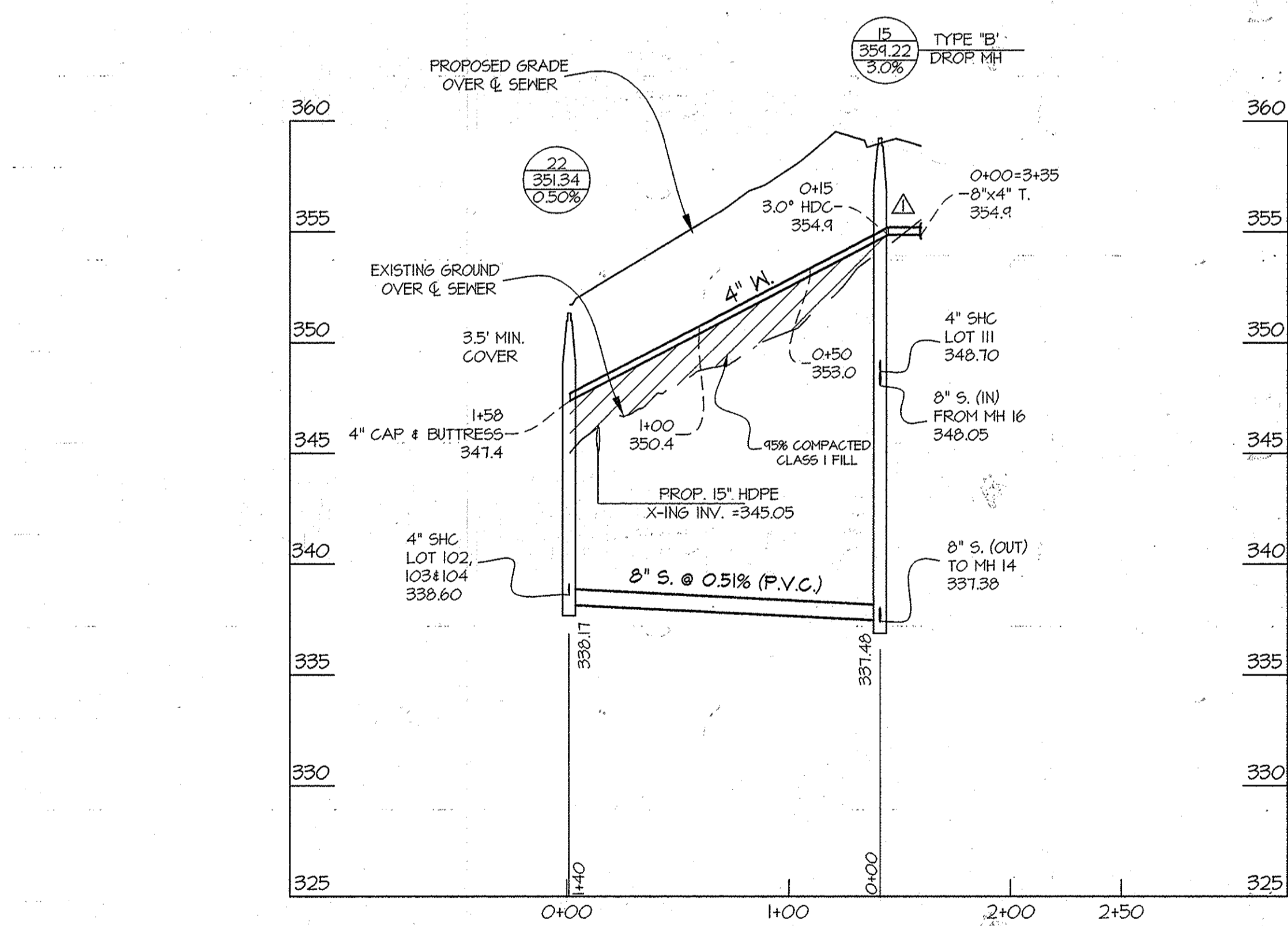
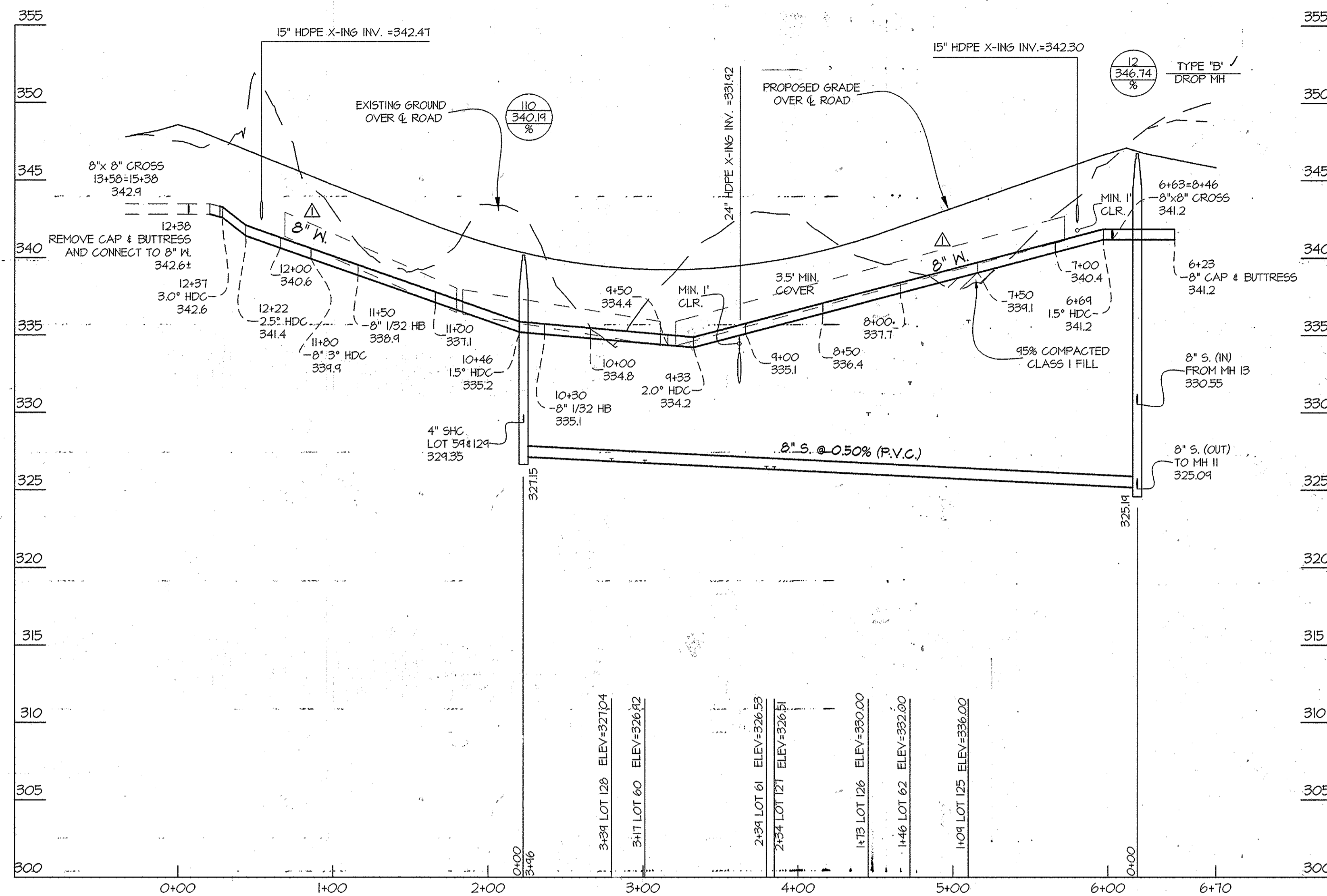
FOR WATER & SEWER PLAN VIEW SEE SHEET 2



PREPARED FOR:  
 BEAZER HOMES CORP.  
 8965 GUILFORD RD., SUITE 290  
 COLUMBIA, MD 21046  
 ATTN: BRIAN KNAUFF  
 410-381-3222

L:\CADD\PROJECTS\2014\1133\1133.dwg, 11/13/14, 11:58 AM, LAST SAVER: JYJ/2014-11-13 11:58 AM, PLOT DATE: 11/13/14, PLOT BY: JYJ

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND  CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND  CHIEF, DEVELOPMENT ENGINEERING DIVISION	<b>GLW</b> GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 FAX: 301-989-2524	DATE OCT., 2013	PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXP. DATE: MAY 26, 2014 	AWL BY: NO	REVISION REVISED WATER TO PVC, CHANGED DIP S TO C900 PVC	DATE 03/10/14	<b>WATER and SEWER PROFILES</b> 600' SCALE MAP NO. 47 BLOCK NO. 2,3,8&9 ZONING: R-ED	<b>WINCOPIA FARMS</b> PHASE 4 LOTS 1 THRU 220 & OPEN SPACE LOTS 221 THRU 256 L 11388 F 725 HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 6 CONTRACT No. 24-4813-D TAX MAP: 47-3	SCALE AS SHOWN
			G.L.W. No. 08052		DES. Wsj DRN. Wsj CHK. DDS	DATE 6-5-14	SHEET 3 OF 6			



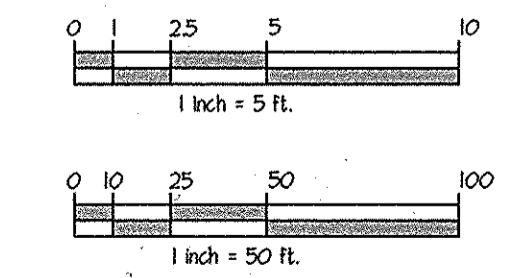
AS-BUILT WATER HOUSE CONNECTIONS		
LOT NUMBER	MEASUREMENT 1	MEASUREMENT 2
59	TO SMH-10-39.2'	TO E.S.D. MH-182-11'
	TO SHC LOT 59-26.5'	
60	TO SMH-10-41.3'	TO E INLET I-181 MH-54.4'
	TO WHC LOT 128-53.5'	
61	TO SHC LOT 61-44.5'	TO WHC LOT 127-57.4'
62	TO E.F.H.'U'-17'	TO SMH-11-80.7'
63	TO SMH-11-33'	TO WHC LOT 62-82'
64	TO SMH-10-64.2'	TO SMH-11-106'
65	TO E.F.H.'U'-17'	TO SMH-9-92.3'
66	TO I-233 MH 6-38.4'	TO E.F.H.'U'-9.9'
67	TO SMH-9-25'	TO I-233 MH 6-37.8'
68	TO SHC LOT 68-3.7'	TO SMH-9-48'
69	TO SMH-10-39.5'	TO F.H.'U'-9'6"-36.7'
	TO SHC LOT 69-74'	
70	TO SMH-10-36.5'	TO SHC LOT 70-28'
	TO WHC LOT 64-57.5'	
71	TO SMH-11-67.2'	TO SMH-10-95'
	TO SHC LOT 71-38.7'	
72	TO SMH-11-32.8'	TO WHC LOT 71-39.2'
73	TO SMH-12-62.7'	TO SMH-11-74.4'
	TO SHC LOT 73-36.8'	
91	TO I-187 MH-59.5'	TO I-224 MH-51'
	TO SHC LOT 91-38.7'	
92	TO SHC LOT 92-26'	TO WHC LOT 91-83.5'
93	TO SD MHM-203-45'	TO SMH-13-67.8'
94	TO SMH-23-34.4'	TO SD MH-202-54'
95	TO WHC LOT 96-4.6'	TO SMH-24-55'
96	TO WATER DRAIN VAULT-104'	TO SMH-24-53.4'
97	TO SMH-24-25.5'	TO E INLET MH-201-36.5'
98	TO E INLET I-201 MH-32'	TO E SD MH-202-60'
	TO SHC LOT 98-9.7'	
99	TO SMH-23-30.2'	TO E SD MH-202-68.6'
100	TO SD MH-203-21'	TO SHC LOT 100-12'
	TO WHC LOT 93-54.6'	
101	TO SMH-15-46'	TO SMH-14-58.5'
	TO SHC LOT 101-31'	
102	TO SHC LOT 102-13.3'	TO SMH-22-24.5'
103	TO SMH-22-23.6'	TO SHC LOT 103-12.8'
104	TO SHC LOT 104-73'	TO SMH-22-86'
105	TO SMH-16-36'	TO SMH-15-66'
	TO SHC LOT 105-24'	
106	TO SMH-20-26'	TO SMH-16-38.5'
	TO SHC LOT 106-29'	
107	TO SHC LOT 107-27.6'	TO SMH-20-41'
110	TO SMH-20-48.3'	TO I-174 MH 6-50'
111	TO SMH-15-53.2'	TO I-174 MH 6-68'
112	TO 4" VALVE-23.7'	TO SMH-14-74.3'
113	TO I-205 MH 6-19'	TO SMH-14-40'
	TO SHC LOT 113-34.5'	
114	TO SMH-109-74.5'	TO WHC LOT 121-72'
	TO SHC LOT 114-44'	
120	TO SMH-109-63.2'	TO SHC LOT 120-43.6'
121	TO SMH-109-46.6'	TO SHC LOT 121-26.2'
122	TO SMH-109-101'	TO SHC LOT 122-29.5'
	TO WHC LOT 114-62.7'	
123	TO SHC LOT 123-29'	TO E INLET I-166 MH-52.5'
	TO E INLET I-177 MH-55.6'	
124	TO E INLET I-177 MH-51.6'	TO E INLET I-206 MH-54'
	TO SHC LOT 124-17.1'	TO SMH-13-88'
125	TO SMH-12-68.8'	TO SHC LOT 125-48'
	TO E SD MH-186-43'	TO E INLET I-187 MH-46.5'
126	TO WHC LOT 61-70.5'	TO E SD MH-186-111'
	TO WHC LOT 125-87.6'	
127	TO E INLET I-181 MH-98'	TO WHC LOT 61-57.2'
128	TO SMH-110-44.8'	TO WHC LOT 60-53'
	TO SHC LOT 128-25'	
129	TO E SD MH-182-46.2'	TO SMH-110-64'
	TO SHC LOT 129-29.5'	

AS-BUILT SEWER HOUSE CONNECTIONS		
LOT NUMBER	MEASUREMENT 1	MEASUREMENT 2
59	TO SMH-110-23.5'	TO WHC LOT 59-26.5'
60	TO E INLET I-181 MH-18.5'	TO WHC LOT 60-41.2'
61	TO E SD MH 157-27.6'	TO E INLET I-181 MH-67'
	TO WHC LOT 127-60'	
62	TO E SD MH 186-103.5'	TO WHC LOT 126-54.6'
(ON ROWAN LANE)		
63	TO WHC LOT 63-44'	TO SMH-11-62.7'
64	TO SMH-10-38.6'	TO E.F.H.'U'-51.3'
	TO WHC LOT 64-45'	
65	TO SMH-9-77.8'	TO E.F.H.'U'-67'
	TO WHC LOT 65-50'	
66	TO SMH-9-47'	TO E INLET I-233 MH-38.4'
	TO E.F.H.'U'-99'	
67	TO SMH-9-110'	TO E INLET I-233 MH-95'
68	TO SMH-9-44.2'	TO WHC LOT 67-38.5'
69	TO SMH-9-65'	TO WHC LOT 68-30.6'
70	TO SMH-10-28'	TO WHC LOT 64-73.5'
71	TO SMH-10-67.5'	TO SMH-11-95.5'
72	TO WHC LOT 72-26.7'	TO SMH-11-21'
73	TO SMH-11-41.2'	TO 6" F.H. VALVE T'-92.5'
91	TO E INLET I-224 MH-17.3'	TO SMH-12-63.5'
92	TO WHC LOT 91-57.6'	TO E I-187 MH-109.4'
93	TO WHC LOT 92-80.8'	TO 8" VALVE (TO 6" WATER) 64.5' (BLUEBELL WAY)
(ON FENNEL WAY)		
94	TO SMH-23-34.3'	TO WHC LOT 94-3.4'
	TO E SD MH 203-56.5'	
95	TO E INLET I-217 MH-26.4'	TO SMH-24-77.2'
	TO WHC LOT 95-39.5'	
96	TO SMH-24-24.7'	TO WHC LOT 97-21.6'
	TO WHC LOT 96-46.2'	
97	TO SMH-24-24.7'	TO WHC LOT 97-6.5'
98	TO E INLET I-201 MH-25'	TO SD MH 202-69'
99	TO SMH-23-26.3'	TO WHC LOT 99-15.4'
	TO E SD MH 202-53.2'	
100	TO E SD MH 203-31'	TO WHC LOT 93-56'
101	TO SMH-14-31.6'	TO SMH-15-76'
102	TO SMH-22-12.5'	TO WHC LOT 103-14.4'
	TO WHC LOT 102-13.3'	
103	TO SMH-22-12'	TO WHC LOT 103-12.8'
104	TO SMH-22-13'	TO WHC LOT 104-73'
105	TO SMH-15-45.7'	TO SMH-16-56.7'
106	TO SMH-16-23'	TO SMH-20-52'
107	TO SMH-20-21'	TO WHC LOT 106-31'
110	TO SMH-20-40'	TO E INLET I-174 MH-36.7'
	TO WHC LOT 110-15.4'	
111	TO SMH-15-39'	TO 4" VALVE-23.8'
	TO WHC LOT 111-32.5'	
112	TO SMH-14-39'	TO WHC LOT 112-63.4'
113	TO E.F.H.'S'-35.1'	TO SMH-14-65.8'
114	TO E INLET I-166 MH-75.5'	TO WHC LOT 114-44'
120	TO SMH-109-38.4'	TO WHC LOT 121-48.3'
	TO WHC LOT 120-43.6'	
121	TO SMH-109-67'	TO WHC LOT 122-40'
	TO WHC LOT 121-26.2'	
122	TO E INLET I-166 MH-78'	TO WHC LOT 123-36.5'
	TO WHC LOT 122-29.5'	
123	TO E INLET I-177 MH-29'	TO E INLET I-166 MH-45.5'
	TO WHC LOT 123-29'	
124	TO WHC LOT 124-17.1'	TO E INLET I-206 MH-47.7'
	TO E INLET I-177 MH-68.6'	
125	TO WHC LOT 125-47.5'	TO WHC LOT 126-39.5'
126	TO WHC LOT 126-25.8'	TO WHC LOT 61-59'
127	TO WHC LOT 127-18.5'	TO E INLET 181 MH-62.5'
128	TO SMH-110-65'	TO WHC LOT 60-57.5'
	TO WHC LOT 128-25'	
129	TO SMH-110-43.5'	TO E SD MH 82-51.4'

AS BUILT  
BY: DFL DATE: 1-19-16

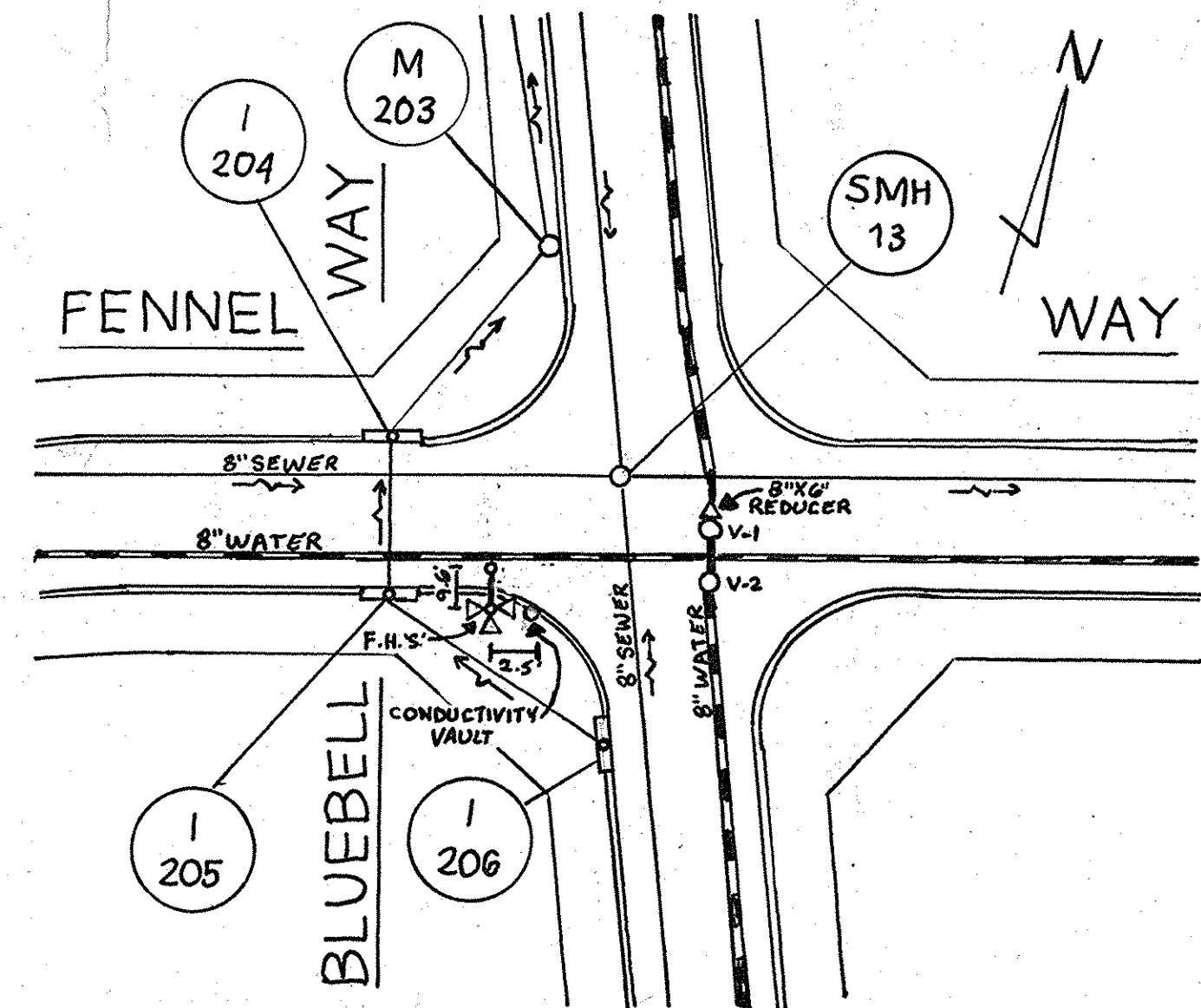
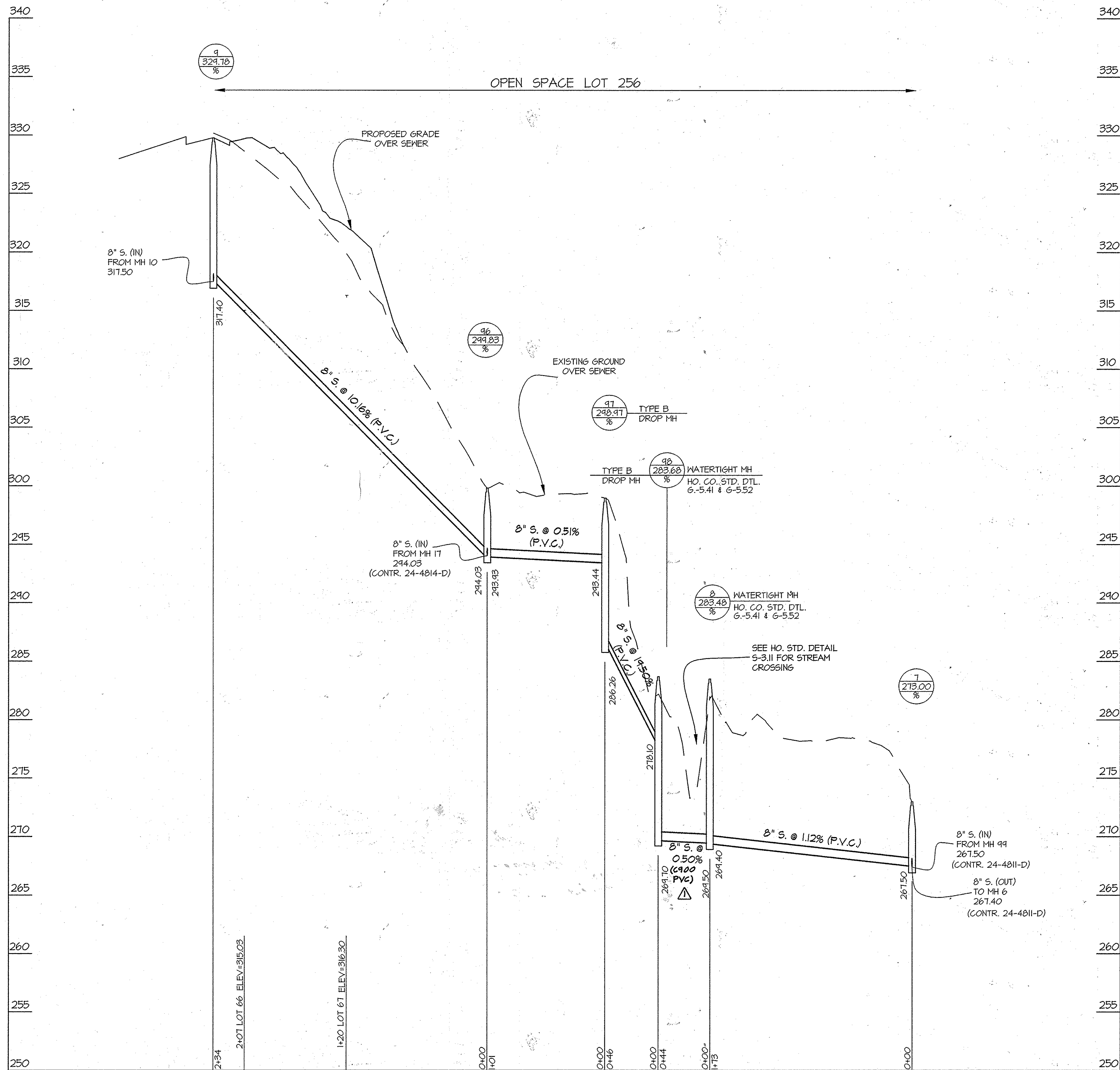
FOR WATER AND SEWER PLAN VIEW SEE SHEET 2

PROFILE SCALES:  
HOR. 1" = 50'  
VERT. 1" = 5'



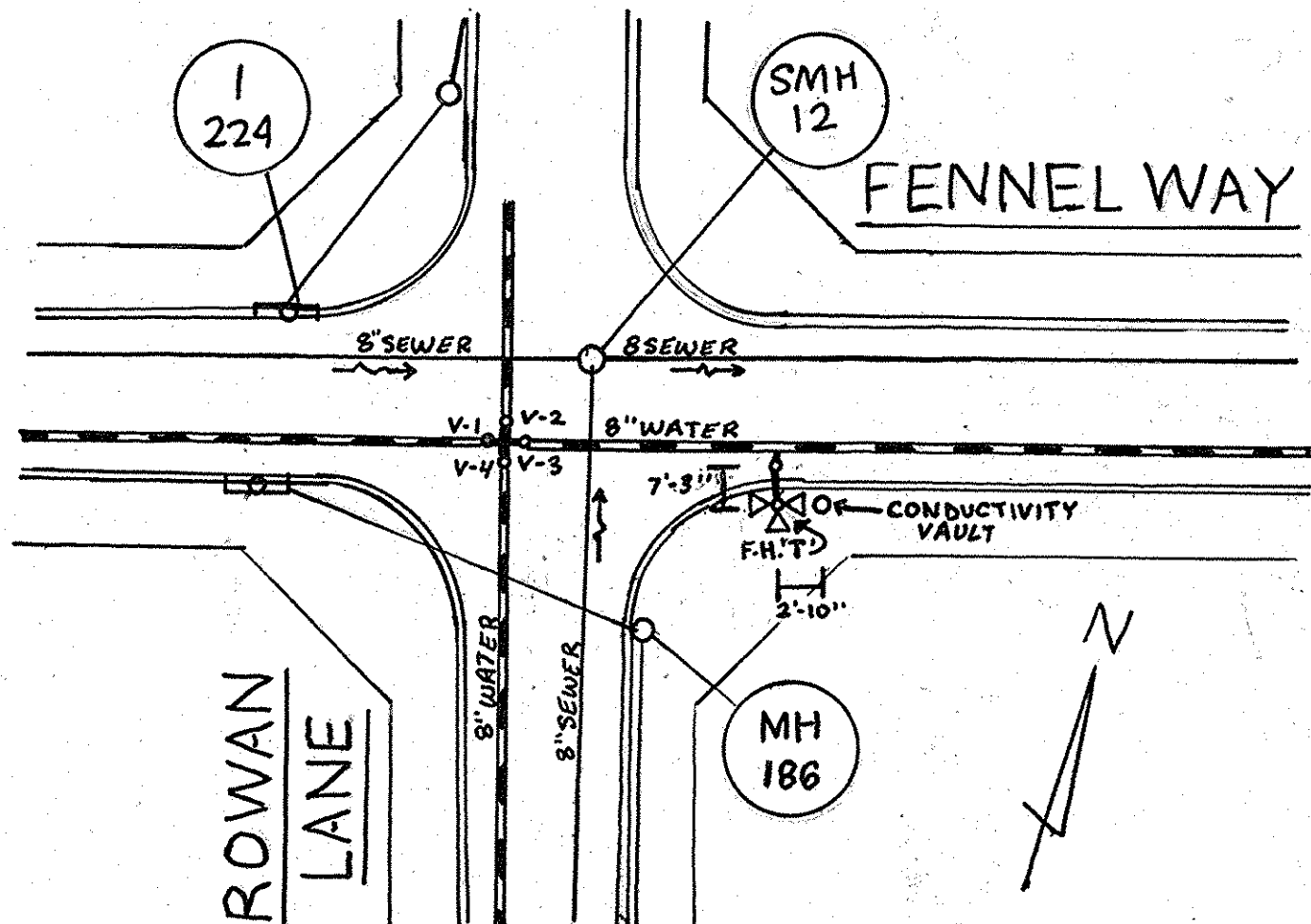
PREPARED FOR:  
BEAZER HOMES CORP.  
8965 GUILFORD RD., SUITE 290  
COLUMBIA, MD 21046  
ATTN: BRIAN KNAUFF  
410-381-3222

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND [Signature] DATE: 6-5-14	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND [Signature] DATE: 6-5-14	<b>GLW GUTSCHICK LITTLE &amp; WEBER, P.A.</b> CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-889-2524 FAX: 301-421-4186	DATE OCT., 2013 G.L.W. No. 08052 PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXP. DATE: MAY 26, 2014 [Professional Seal]	AWL 1 BY NO REVISION DATE 3/10/14 600' SCALE MAP NO. 47 BLOCK NO. 2,3,8&9 ZONING: R-ED	<b>WINCOPIA FARMS</b> PHASE 4 LOTS 1 THRU 220 & OPEN SPACE LOTS 221 THRU 256 L 11388 E 725 HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 6 CONTRACT No. 24-4813-D TAX MAP: 47-3	SCALE AS SHOWN SHEET 4 OF 6
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**SKETCH 'B' NOTES**

F.H. 'S' TO 6" F.H. VALVE	9.6'
F.H. 'S' TO CONDUCTIVITY VAULT	2.5'
F.H. VALVE TO I-205 MH	19.6'
F.H. VALVE TO I-204 MH	28.6'
F.H. 'S' TO SMH-13	33.3'
F.H. 'S' TO I-204 MH	20.5'
8" VALVE V-1 TO V-2	6.0'
8" VALVE V-1 TO 6" F.H. VALVE	40.7'
8" VALVE V-2 TO 6" F.H. VALVE	40.4'
8" VALVE V-1 TO SMH-13	40'
8" VALVE V-2 TO SMH-13	26'
6" F.H. VALVE TO SMH-13	27.8'



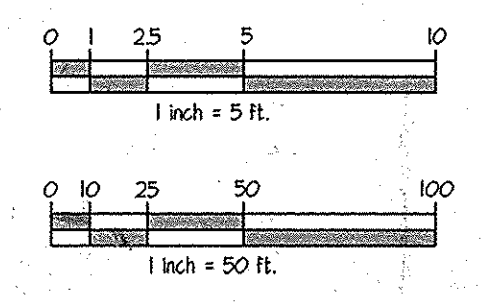
**SKETCH 'C' NOTES**

F.H. 'T' TO CONTINUITY VAULT	2'-10"
F.H. 'T' TO 6" F.H. VALVE	7'-3"
F.H. TO SMH-12	40'
6" F.H. VALVE TO SMH-12	36.5'
6" F.H. VALVE TO CONDUCTIVITY VAULT	8.8'
F.H. 'T' TO S.D. MH 186	29.5'
VALVE V-1 TO V-2	4.8'
VALVE V-1 TO V-3	6.7'
VALVE V-1 TO V-4	4.3'
VALVE V-1 TO SMH-12	21.0'
VALVE V-2 TO V-3	4.2'
VALVE V-2 TO V-4	6.8'
VALVE V-3 TO V-4	4.4'
VALVE V-2 TO SMH-12	10.7'
VALVE V-3 TO SMH-12	12.1'
VALVE V-4 TO SMH-12	2'

**AS BUILT**  
BY: SFI DATE: 1-19-16

FOR WATER AND SEWER PLAN VIEW SEE SHEET 2

**PROFILE SCALES:**  
HOR. 1" = 50'  
VERT. 1" = 5'



PREPARED FOR:  
BEAZER HOMES CORP.  
8965 GUILFORD RD., SUITE 290  
COLUMBIA, MD 21046  
ATTN: BRIAN KNAUFF  
410-381-3222

L:\CADD\DWG\0353\DWG-WAT-SEWER\PLAN - WAT-SEWER\PHASE 4\0353-PLAN-PROF 3-4.dwg  
PLOT: 10/29/2013 10:55 AM. LAST SAVED: 10/28/2013 2:24 PM. PLOTTED BY: Cirno Teague

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND  <i>Steve C. Gorman</i> CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND  <i>Charles Edwards</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	<b>GLW</b> GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20884 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186	DATE OCT. 2013 G.L.W. No. 08052	PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXP. DATE: MAY 26, 2014  	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>BY</th><th>NO</th><th>REVISION</th><th>DATE</th></tr> <tr><td>34</td><td>1</td><td>changed DIP sewer to c900 pvc</td><td>4/10/14</td></tr> </table>	BY	NO	REVISION	DATE	34	1	changed DIP sewer to c900 pvc	4/10/14	<b>SEWER PROFILE</b>  600' SCALE MAP NO. 47 BLOCK NO. 2,3,8&9 WINCOPIA FARMS PHASE 4 LOTS 1 THRU 220 & OPEN SPACE LOTS 221 THRU 256 L 11388 F 75 HOWARD COUNTY, MARYLAND ELECTION DISTRICT NO. 6 CONTRACT No. 24-4813-D TAX MAP: 47-3	SCALE AS SHOWN SHEET 5 OF 6
BY	NO	REVISION	DATE												
34	1	changed DIP sewer to c900 pvc	4/10/14												

