

EMERSON Section 2 - Area 7 Parcel A

TAX MAP 47

LOT #243,572

6th ELECTION DISTRICT

WATER AND SEWER CONSTRUCTION PLANS

Howard County, Maryland

CONTRACT NO. 24-4370-D

GENERAL NOTES

- PART I**
- Approximate location 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 is taken from low level flight and aerial survey with 2' contour intervals prepared by 3DI dated April 8, 2002. Supplemental field run topo by DMW, dated September 2002 and February 2009.
 - Horizontal and Vertical Controls:
The coordinates shown on the drawings are based on Maryland State Reference System NAD83/91 as projected by Howard County Geodetic Control Stations No. #315a and No. #37CA.
All vertical controls are based on NAVD '88. Vertical controls provided on the drawings are BM1, #31EA-Disc set in concrete, N560641.123, E1374015.935, Elev. 468.90, 2' south of sidewalk on Ilchester Road ± 47.1' from gate in fence on the transmission line R.O.W. BM2, #37CA-Disc set in concrete, N560641.123, E1382742.880, Elev. = 226.965, 20.6' south of centerline of Landing Road, 0.255 miles northwest on Landing Road from intersection of Landing Road and Montgomery Road.

- All pipe elevations shown are invert elevations unless otherwise noted.
- Clear all utilities by a minimum of 12". 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 bracing of additional poles or damages shall be deducted from monies owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
- For details not shown on the drawings and for materials and construction methods use Howard County Design Manual, Volume IV, Standard Specifications and Detail 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 pits or pits 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
B&E (Construction Services) 410-850-4620
B&E (Emergency) 410-855-1400
Bureau of Utilities 410-313-4900
Colonial Pipeline CO. 410-795-1390
Miss Utility 1-800-257-7777
State Highway Administration 410-531-5533
Verizon 1-800-742-0033/410-224-9210

- Trees and shrubs are to be protected from damage to the maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
- Contractor shall remove trees, stumps, and roots along 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 any open cut of any county road or boring/jacking of any county roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirements per section 16.114(a) of the Howard County code.

- PART II - WATER**
- All water main to be D.I.P. Class 52 unless otherwise noted.
 - Tops of all water mains to have a minimum of 3'-6" of cover.
 - Valves adjacent to tees shall be strapped to tees.
 - All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
 - Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be installed and buttressed with concrete in accordance with Standard Details. The soil around the fire hydrant shall be compacted in accordance with section 1000 and 1005 of the Standard Specifications.
 - The contractor shall not operate any water main valves on the existing water system.

- PART III - SEWER**
- All sewer mains shall be P.V.C. unless otherwise noted.
 - All manholes shall be 4'-0" inside diameter unless otherwise noted.
 - Force mains shall be D.I.P. only.
 - Manholes shown with 12" and 16" walls are for brick manholes only.
 - Manholes designated W.T. in plan and profile shall have watertight frame and cover, Standard Detail G5.52. Where watertight manhole frames and covers are used, set top of frame 1'-6" above finished grade unless otherwise noted on the drawings.
 - House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

NOTE: THIS SHEET REPLACES SHEET 1 OF 3, SIGNED BY THE BUREAU OF UTILITIES CHIEF ON 1/26/2007.

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" WATER	1107'		D.I.P.	GRIFFIN PIPE PRODUCTS
6" WATER	24'	24'	D.I.P.	GRIFFIN PIPE PRODUCTS
4" WATER	46'	46'	D.I.P.	GRIFFIN PIPE PRODUCTS
8" VALVES	5	6	GATE	AMERICAN FLOW / L.B. WATER SERVICE INC.
6" VALVES	2	2	GATE	AMERICAN FLOW / L.B. WATER SERVICE INC.
8" x 8" TEE	1	1	D.I.	TYLER PIPE / L.B. WATER SERVICE INC.
8" x 6" TEE	2	2	D.I.	TYLER PIPE / L.B. WATER SERVICE INC.
8" x 4" REDUCER	1	1	D.I.	TYLER PIPE / L.B. WATER SERVICE INC.
8" x 12" TAPPING SLEEVE AND VALVE	4		ELIMINATED	FOR 8" x 12" TEE W/ 8" VALVE
8" HORIZ. BEND	1	1	D.I.	TYLER PIPE / L.B. WATER SERVICE INC.
8" HORIZ. BEND	9	9	D.I.	TYLER PIPE / L.B. WATER SERVICE INC.
8" HORIZ. BEND	1	1	D.I.	TYLER PIPE / L.B. WATER SERVICE INC.
FIRE HYDRANT	2	2	---	AMERICAN FLOW CONTROL / L.B. WATER SERVICE INC.
4" CAP	1	1	D.I.	TYLER PIPE / L.B. WATER SERVICE INC.
1" WHC	619'	839.8'	COPPER	CAMBRIDGE - LEE / L.B. WATER SERVICE INC.
8" SEWER	857'	857'	P.V.C.	J.M. PIPE / L.B. WATER SERVICE INC.
4" SEWER	600'	600'	P.V.C.	J.M. PIPE / L.B. WATER SERVICE INC.
PRECAST SEWER MH	10	10	CONC.	CONTRACTOR PRECAST CORP.

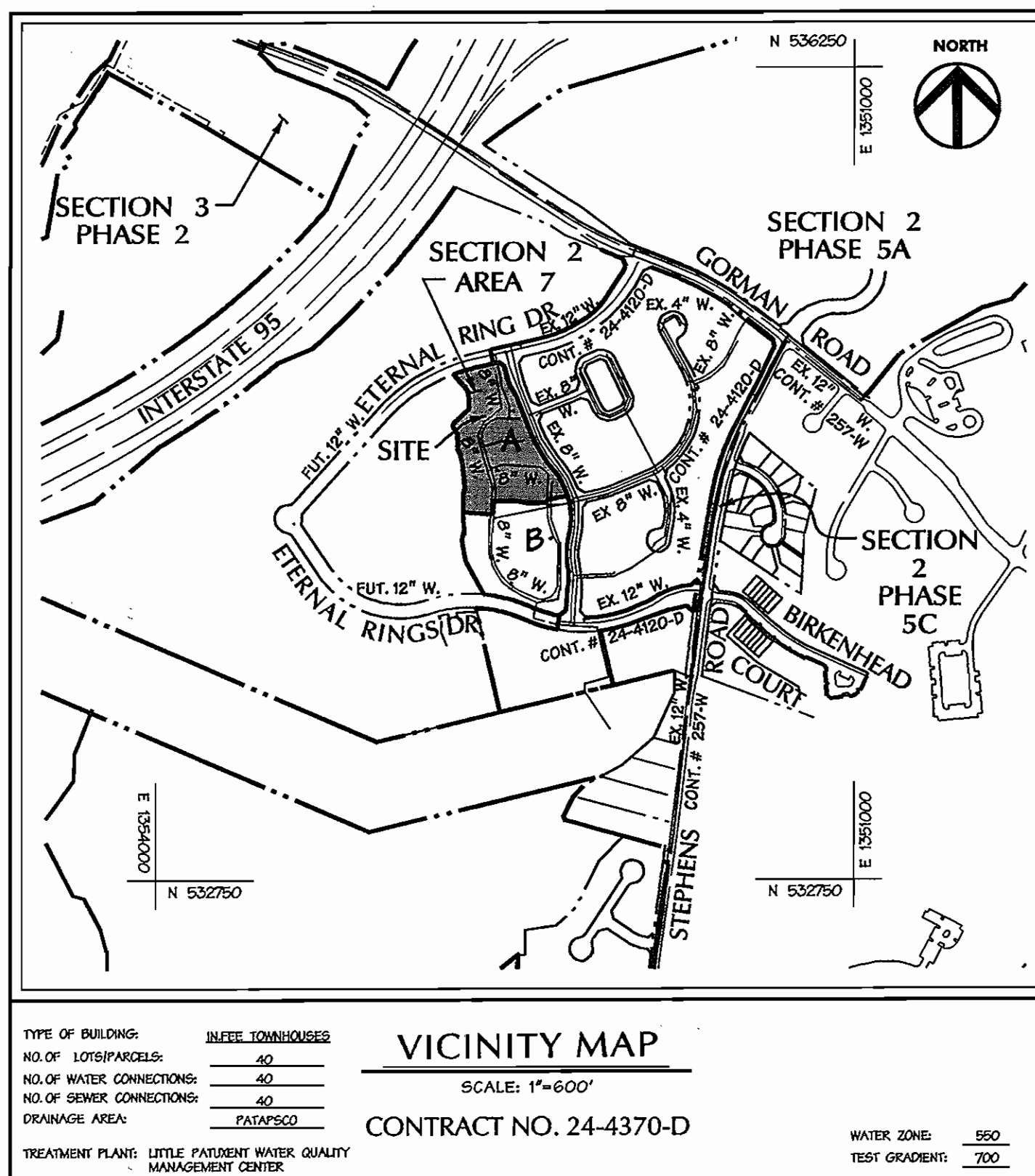
NAME OF UTILITY CONTRACTOR: GAINES AND COMPANY
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: AUGUST 13, 2007

* 8" VALVES - ONE ADDED IN PLACE ON 8" x 12" TEE & V
8" x 12" TEE WITH 8" VALVE USED

** SEWER IS PUBLIC

SEWER HOUSE CLEANOUT AS-BUILT LOCATION TABLE

LOT	STREET ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2	MHL. CELLAR ELEV.	INV. ELEV. @ PROPERTY LINE	BASEMENT FLOOR ELEV.	FIRST FLOOR ELEV.
1	8601 SUMMER WAVES WAY	32.31' SMH 111	64.00' SMH 208	293.40	289.50	294.50	304.60
2	8603 SUMMER WAVES WAY	46.34' SMH 111	47.30' SMH 208	294.12	290.22	295.83	306.01
3	8605 SUMMER WAVES WAY	69.83' SMH 111	27.09' SMH 208	294.21	290.91	296.50	306.60
4	8607 SUMMER WAVES WAY	91.41' SMH 111	27.64' SMH 208	295.27	291.57	297.83	308.01
5	9741 NORTHERN LAKES LANE	39.62' SMH 106	40.88' SMH 200	287.60	283.70	-	SLAB 296.67
6	9739 NORTHERN LAKES LANE	46.23' SMH 106	35.59' SMH 200	287.94	284.04	-	SLAB 296.34
7	9737 NORTHERN LAKES LANE	74.23' SMH 106	28.10' SMH 200	288.47	284.57	-	SLAB 297.67
8	9735 NORTHERN LAKES LANE	98.82' SMH 106	42.74' SMH 200	288.94	285.04	-	SLAB 298.34
9	8628 SUMMER WAVES WAY	18.71' SMH 206	72.07' SMH 201	292.34	288.24	-	SLAB 300.17
10	8626 SUMMER WAVES WAY	82.97' SMH 207	17.78' SMH 206	293.65	289.95	-	SLAB 300.17
11	8624 SUMMER WAVES WAY	59.61' SMH 207	39.48' SMH 206	294.27	290.57	-	SLAB 301.50
12	8622 SUMMER WAVES WAY	34.87' SMH 207	65.13' SMH 206	294.71	291.01	-	SLAB 302.83
13	8620 SUMMER WAVES WAY	11.49' SMH 207	97.56' SMH 206	295.17	291.47	-	SLAB 304.17
14	8618 SUMMER WAVES WAY	13.06' SMH 207	103.93' SMH 206	295.17	291.47	-	SLAB 304.17
15	9703 NORTHERN LAKES LANE	21.54' SMH 207	77.97' SMH 206	294.91	291.21	-	SLAB 309.77
16	9705 NORTHERN LAKES LANE	46.77' SMH 207	52.28' SMH 206	294.47	290.77	-	SLAB 309.03
17	9707 NORTHERN LAKES LANE	69.23' SMH 207	30.15' SMH 206	293.84	290.14	-	SLAB 308.44
18	9709 NORTHERN LAKES LANE	112.3' SMH 206	89.33' SMH 201	293.47	289.77	-	SLAB 307.11
19	9711 NORTHERN LAKES LANE	26.44' SMH 206	63.92' SMH 201	292.70	289.00	-	SLAB 306.77
20	8611 YOUNG RIVERS COURT	0.00' SMH 205	139.98' SMH 204	299.10	295.20	301.16	311.24
21	8609 YOUNG RIVERS COURT	18.39' SMH 205	128.24' SMH 204	298.92	295.02	299.83	310.01
22	8607 YOUNG RIVERS COURT	37.95' SMH 205	105.59' SMH 204	298.60	294.70	299.83	310.01
23	8605 YOUNG RIVERS COURT	63.70' SMH 205	78.78' SMH 204	298.28	294.36	298.50	308.60
24	9708 NORTHERN LAKES LANE	48.58' SMH 204	60.31' SMH 203	295.11	291.41	298.50	308.60
25	9710 NORTHERN LAKES LANE	69.89' SMH 204	32.62' SMH 203	294.37	290.67	297.83	308.01
26	9712 NORTHERN LAKES LANE	94.28' SMH 204	11.82' SMH 203	293.76	290.06	297.16	307.34
27	9714 NORTHERN LAKES LANE	18.18' SMH 203	47.35' SMH 202	293.33	289.43	295.83	306.01
28	9716 NORTHERN LAKES LANE	36.12' SMH 203	30.49' SMH 202	292.87	288.97	294.50	304.60
29	9720 NORTHERN LAKES LANE	11.31' SMH 202	55.42' SMH 201	292.37	288.47	293.00	303.16
30	9722 NORTHERN LAKES LANE	30.79' SMH 202	31.06' SMH 201	291.94	288.04	293.00	303.16
31	9724 NORTHERN LAKES LANE	54.89' SMH 202	11.88' SMH 201	291.71	287.81	292.34	302.52
32	9726 NORTHERN LAKES LANE	77.12' SMH 202	24.18' SMH 201	291.06	287.16	291.00	301.16
33	9728 NORTHERN LAKES LANE	96.93' SMH 202	43.18' SMH 201	290.68	286.78	289.67	299.85
34	9732 NORTHERN LAKES LANE	117.93' SMH 201	64.21' SMH 200	289.29	285.39	289.77	299.95
35	9734 NORTHERN LAKES LANE	40.89' SMH 200	96.26' SMH 106	288.89	284.99	289.10	299.28
36	9736 NORTHERN LAKES LANE	14.86' SMH 200	63.61' SMH 106	288.32	284.42	288.43	298.61
37	9738 NORTHERN LAKES LANE	13.34' SMH 200	55.94' SMH 106	288.13	284.23	287.70	297.95
38	9740 NORTHERN LAKES LANE	40.53' SMH 200	21.44' SMH 106	287.12	283.22	287.10	297.21
39	9742 NORTHERN LAKES LANE	17.75' SMH 106	50.45' SMH 105	286.48	282.56	286.43	296.61
40	9744 NORTHERN LAKES LANE	35.95' SMH 106	28.88' SMH 105	285.78	281.88	285.10	295.28



AS-BUILT WHC LOCATIONS

LOT	STRUCTURE	STRUCTURE	DISTANCE	LOT	STRUCTURE	STRUCTURE	DISTANCE
1	WHC	SHC LOT 1	17.0'	7	WHC	SMH 200	33.0'
	WHC	8" VALVE (V-2)	22.0'		WHC	SHC LOT 8	18.4'
	WHC	SMH 111	27.4'		WHC	8" VALVE	68.1'
2	WHC	8" VALVE (V-2)	42.4'	8	WHC	8" VALVE	40.6'
	WHC	SHC LOT 2	18.6'		WHC	4" FIRE HYDRANT	24.2'
	WHC	SMH 111	37.0'		WHC	SMH 200	53.8'
3	WHC	SHC LOT 3	14.0'	9	WHC	6" F.H. VALVE	25.0'
	WHC	SMH 111	58.8'		WHC	4" FIRE HYDRANT	42.0'
	WHC	SMH 208	37.3'		WHC	8" VALVE (V-8)	32.0'
4	WHC	SMH 208	38.5'	10	WHC	WHC LOT 9	44.6'
	WHC	WHC LOT 14	94.5'		WHC	6" F.H. VALVE	48.3'
5	WHC	SMH 106	30.3'	11	WHC	WHC LOT 10	23.5'
	WHC	SMH 200	63.2'		WHC	6" F.H. VALVE	69.0'
6	WHC	SMH 200	27.7'	12	WHC	WHC LOT 11	27.8'
	WHC	SHC LOT 7	13.0'		WHC	WHC LOT 13	24.75'
				13	WHC	WHC LOT 12	24.7'
					WHC	WHC LOT 14	25.6'
				14	WHC	WHC LOT 4	94.5'
					WHC	WHC LOT 13	25.5'

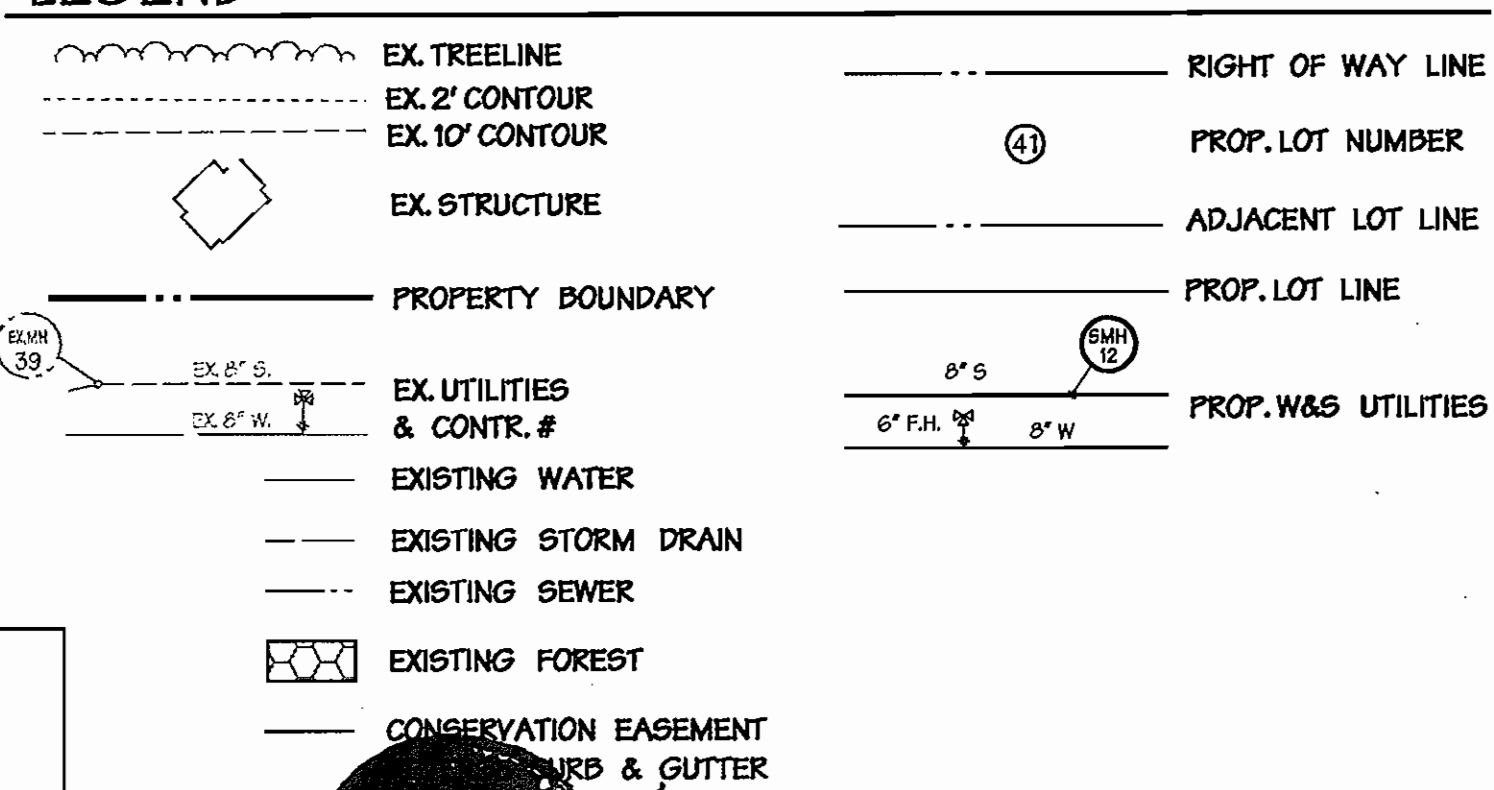
SHEET INDEX

SHEET	DESCRIPTION
1	COVER SHEET
2	WATER PLAN
3	WATER PROFILES
4	SEWER PROFILES

BENCHMARK

DESCRIPTION
BM1 #31EA-DISC SET IN CONCRETE N 560641.123 E 1374015.935 ELEVATION = 468.90 2 FT SOUTH OF SIDEWALK ON ILCHESTER ROAD 347.1 FT FROM GATE IN FENCE ON TRANSMISSION LINE R.O.W.
BM2 #37CA-DISC SET IN CONCRETE N 564321.656 E 1382742.880 ELEVATION = 226.965 20.6' SOUTH OF CENTERLINE OF LANDING ROAD 25 MILES NORTHWEST ON LANDING ROAD FROM INTERSECTION OF LANDING ROAD AND MONTGOMERY RD.

LEGEND



REVIEWED FOR NATURAL RESOURCE CONSERVATION SERVICE AND MEETS TECHNICAL REQUIREMENTS

SIGNATURE: *[Signature]* DATE: 9/9/09

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

APPROVED: *[Signature]* DATE: 9/2/09

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH SDP-06-112



300 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

A Team of Land Planners, Landscape Architects, Golf Course Architects, Engineers, Surveyors & Environmental Professionals



DESIGN BY:	KAD
DRAWN BY:	AMP
CHECKED BY:	
DATE:	3/24/09
BY:	NO.
REVISION:	
DATE:	6/19/09
REVISION:	CONVERT SEWER FROM PRIVATE TO PUBLIC, ADD SEWER TO PLAN SET, ADD SHEET 4 OF 4 TO SET

TITLE SHEET

DEVELOPER
COLUMBIA BUILDERS
10715 LITTLE PATUXENT PARKWAY
SUITE 150
COLUMBIA, MARYLAND 21044
410-730-3939

SDP-06-112
PLAT #17669

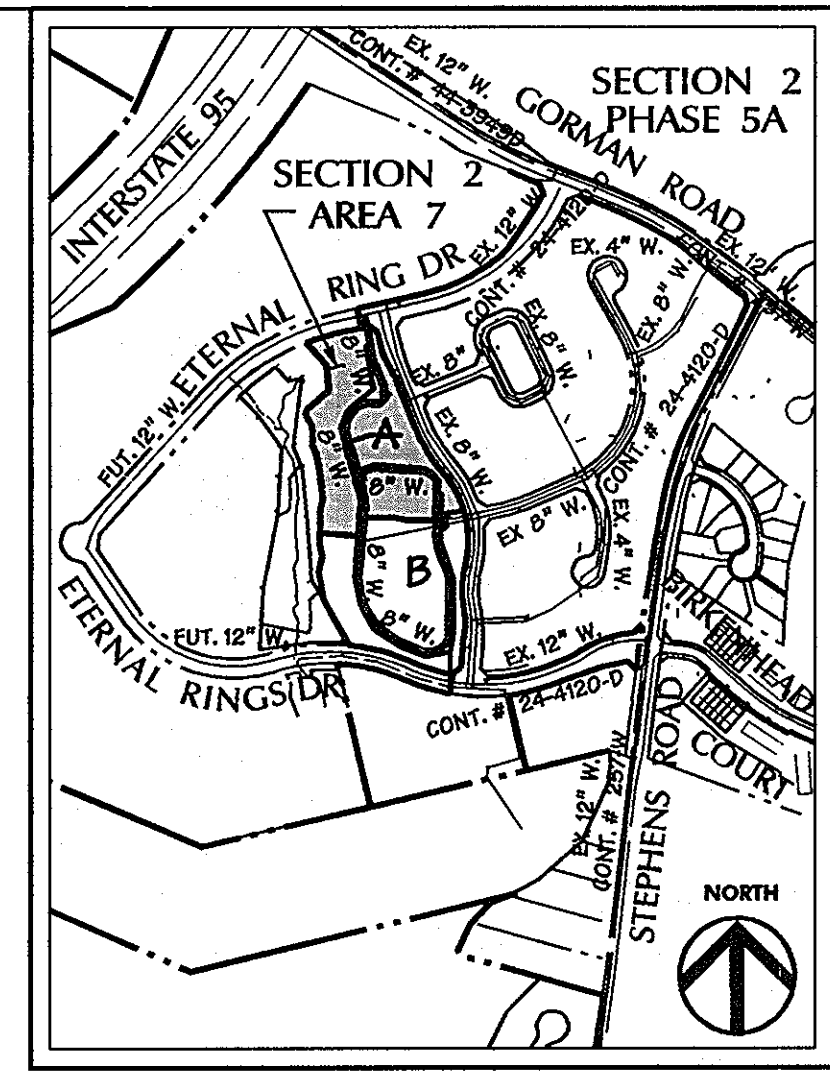
EMERSON Section 2 - Area 7 Parcel A	SCALE: As Shown
TAX MAP 47 LOTS 1 THRU 40 PARCEL A 6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND	SHEET 1 of 4
CONTRACT NO. 24-4370-D	LOT/PARCEL #243,572

BENCHMARK
DESCRIPTION
 STATION NAME: GIS 47GA
 PID: A18502
 ELEV: 106.71
 N 532.404.10 E 1,351,627.24

THE STATION IS IN THE LOCALITY OF SAVAGE AT THE INTERSECTION OF MARYLAND ROUTE 216 AND INTERSTATE ROUTE 195.
 THE MARK IS ON THE MEDIAN OF ROUTE 216, CLOSER TO THE EASTBOUND LANE, IT IS 195 FEET EAST OF THE EAST ABUTMENT OF THE BRIDGE OVER 195 & FEET NORTH OF THE EDGE OF PAVEMENT OF THE EASTBOUND LANE OF ROUTE 216 AND ABOUT 150 FEET WEST OF THE CENTERLINE AT THE START OF THE RAMP FROM ROUTE 216 EAST TO 195 NORTH.

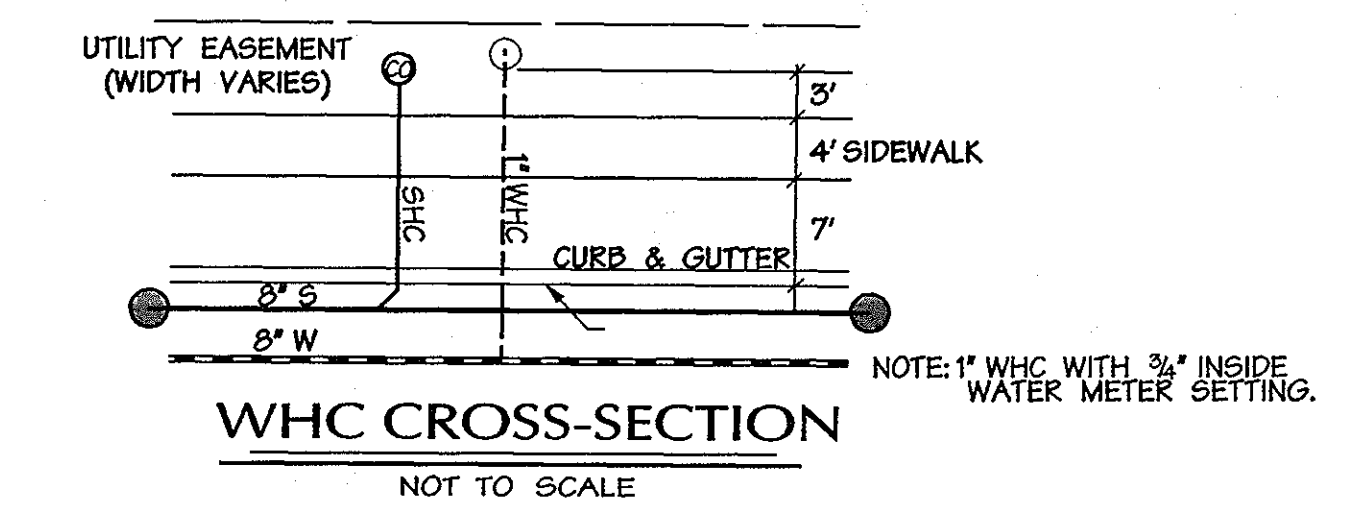
THE MARK IS A STANDARD HOWARD COUNTY SURVEY DISC SET ON CONCRETE BASE, FLUSH WITH THE GROUND
 STATION NAME: NIA
 PID: NIA
 ELEV: 259.21
 N 529,917.21 E 1,353,526.74

NOTE: A WAIVER OF MINIMUM EASEMENT WIDTHS AND CLEARANCE REQUIREMENTS WAS GRANTED ON JULY 17, 2009 (ADJUTING UNITS 16-19 & 20-25) AND GRANTED ON MARCH 10, 2010 (ADJUTING UNIT 25).



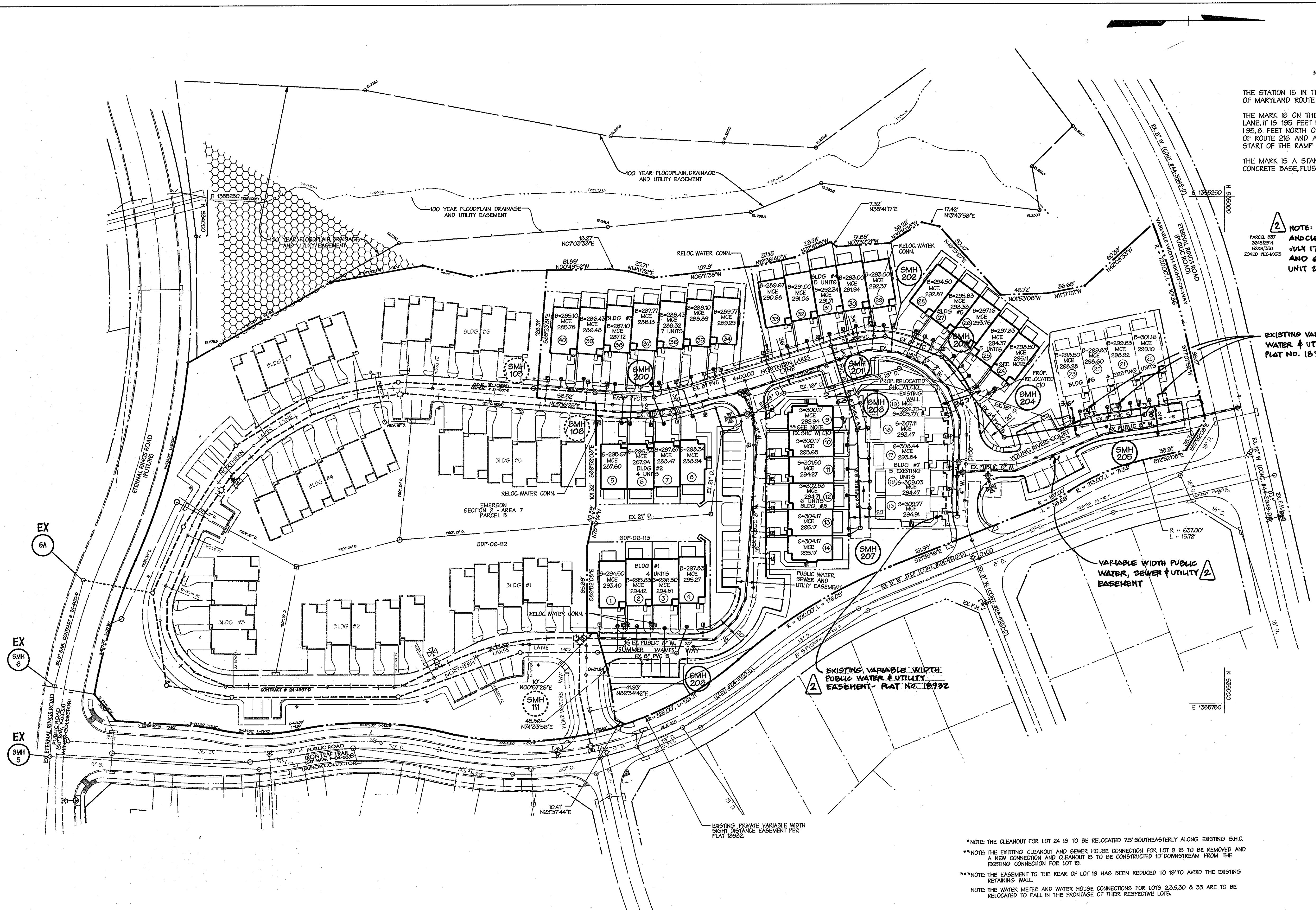
VICINITY MAP
 SCALE: 1"=600'

EXISTING VARIABLE WIDTH PUBLIC WATER & UTILITY EASEMENT PLAT NO. 18792



EXISTING VARIABLE WIDTH PUBLIC WATER, SEWER & UTILITY EASEMENT

EXISTING VARIABLE WIDTH PUBLIC WATER & UTILITY EASEMENT - PLAT NO. 18792



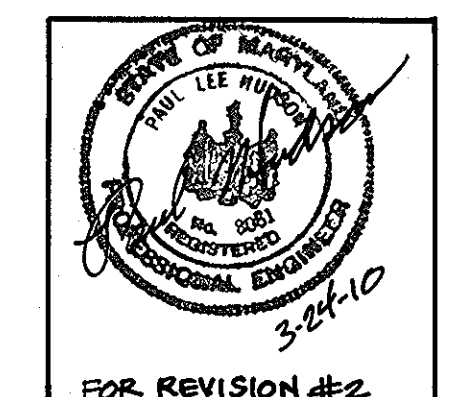
CORRESPONDING ROAD CENTERLINE STATIONING

SUMMER WAVES		
STRUCTURE	WATERLINE STATION	STATION/COORDINATES
8" VALVE	2+04	15+79
8" BEND	3+14	16+89
8" BEND	3+44	17+22
8" BEND	3+65	17+46
8" BEND	5+20	19+03
8" X 6" TEE, VALVE, F.H.	5+48	19+33
8" VALVE	5+71	19+55
NORTHERN LAKES LANE		
8" CAP	9+50	0+44
8" X 8" TEE	6+00	4+07
8" VALVE	6+04	4+15
8" BEND	7+31	2+74
8" BEND	7+60	2+42
8" BEND	7+91	2+08
8" BEND	8+22	1+75
8" BEND	8+53	1+40
YOUNG RIVERS COURT		
8" X 6" TEE, VALVE, F.H.	0+32	
8" BEND	0+50	0+47
8" BEND	1+44	1+41
8" TAPPING SLEEVE, 8" VALVE	2+83	SEE PLAN

NOTE: THIS SHEET REPLACES SHEET 2 OF 3, SIGNED BY THE BUREAU OF UTILITIES CHIEF ON 1/26/2007.

AS-BUILT INFORMATION
 EXISTING INFORMATION TAKEN FROM AS-BUILT SURVEY PERFORMED BY HOWARD COUNTY DATED AUGUST 13, 2007.

AS-BUILT LEGEND
 SHC - SANITARY HOUSE CONNECTION
 WHC - WATER HOUSE CONNECTION
 SMH - SANITARY MANHOLE
 V - VALVE (WATER)
 SD - STORM DRAIN (MANHOLE OR INLET)



*NOTE: THE CLEANOUT FOR LOT 15 IS TO BE RELOCATED 75' SOUTHEASTERLY ALONG EXISTING S.H.C.
 **NOTE: THE EXISTING CLEANOUT AND SEWER HOUSE CONNECTION FOR LOT 9 IS TO BE REMOVED AND A NEW CONNECTION AND CLEANOUT IS TO BE CONSTRUCTED TO DOWNSTREAM FROM THE EXISTING CONNECTION FOR LOT 19.
 ***NOTE: THE EASEMENT TO THE REAR OF LOT 19 HAS BEEN REDUCED TO 18' TO AVOID THE EXISTING RETAINING WALL.
 NOTE: THE WATER METER AND WATER HOUSE CONNECTIONS FOR LOTS 23, 25, 30 & 33 ARE TO BE RELOCATED TO FALL IN THE FRONTAGE OF THEIR RESPECTIVE LOTS.

DEVELOPER:
Columbia Builders
 10715 Little Patuxent Parkway
 Suite 150
 Columbia, MD 21044

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

DMW
 Daft-McCune-Walker, Inc.
 A Team of Land Planners, Landscape Architects, Golf Course Architects, Engineers, Surveyors & Environmental Professionals
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4705

Chief - Bureau of Utilities - DATE
 Chief - Development Engineering Division - DATE

DESIGN BY: KADICYS
 DRAWN BY: AMP
 CHECKED BY: PW 2
 DATE: 3/24/09

REVISION
 BY NO. REVISION DATE
 PW 2 REVISE UTILITY EASEMENTS ACROSS LOTS 15-19 & LOTS 20-25
 PW 1 CORRECT SEWER FROM PRIVATE TO PUBLIC, ADD SEWER TO PLAN SET, ADD SHEET 4 OF 4 TO SET 8/17/07

FINAL WATER & SEWER PLAN

600 SCALE MAP NO. 47 BLOCK NO. 8

EMERSON
 Section 2 - Area 7
 Parcel A

TAX MAP 47 PARCEL A
 6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-4370-D LOT/PARCEL # 837

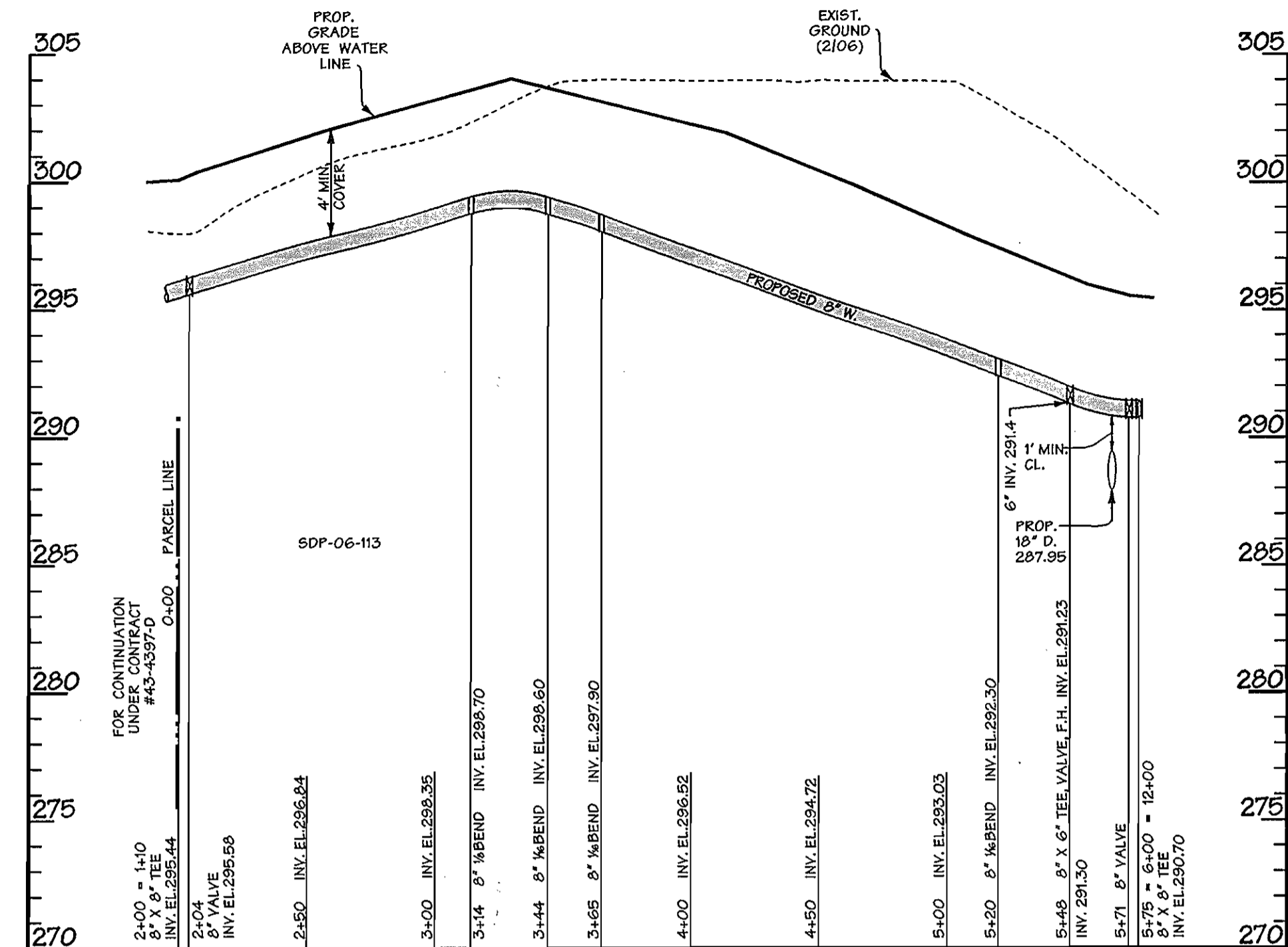
SCALE: 1"=50'
 SHEET 2 of 4

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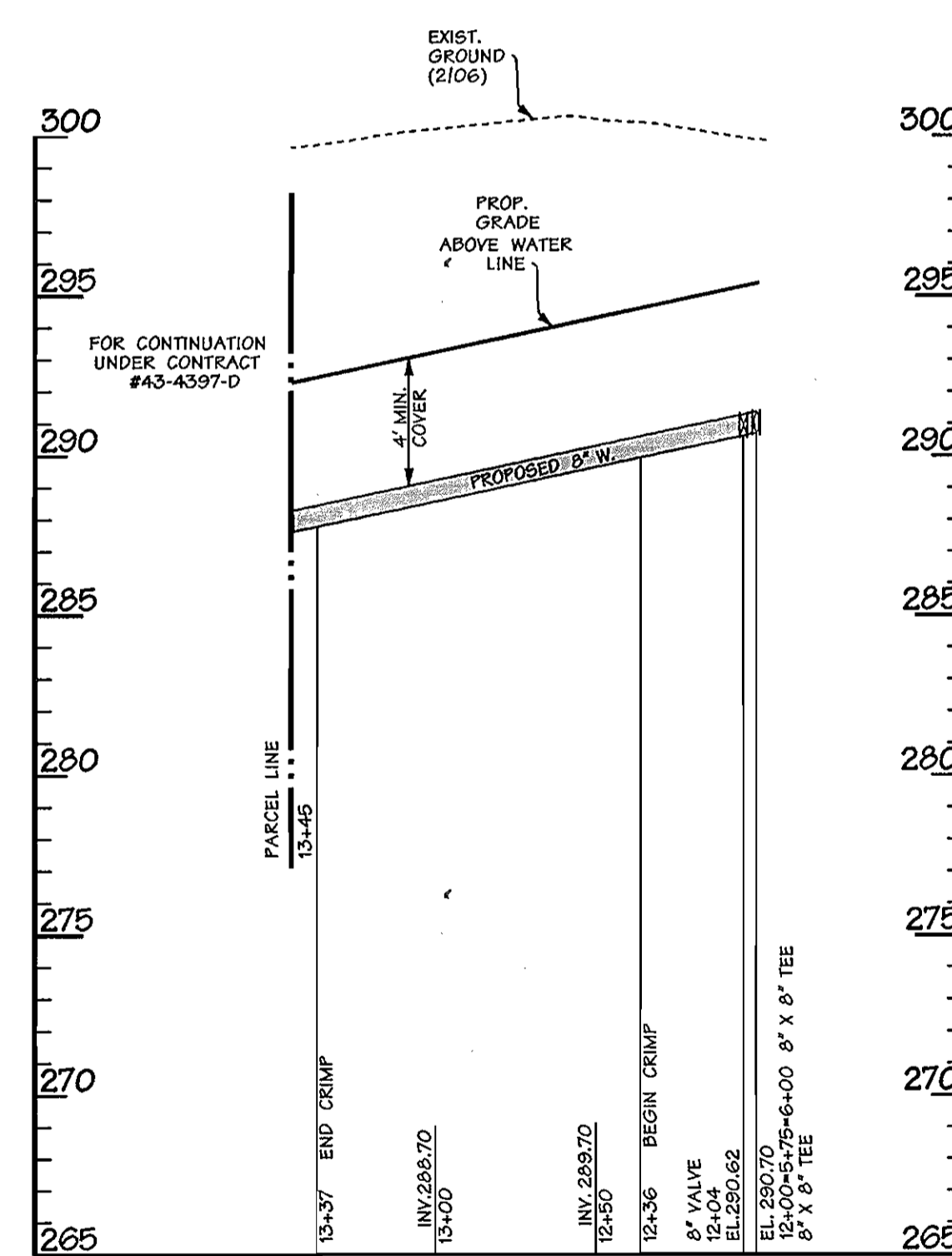
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AS-BUILT WHC LOCATIONS

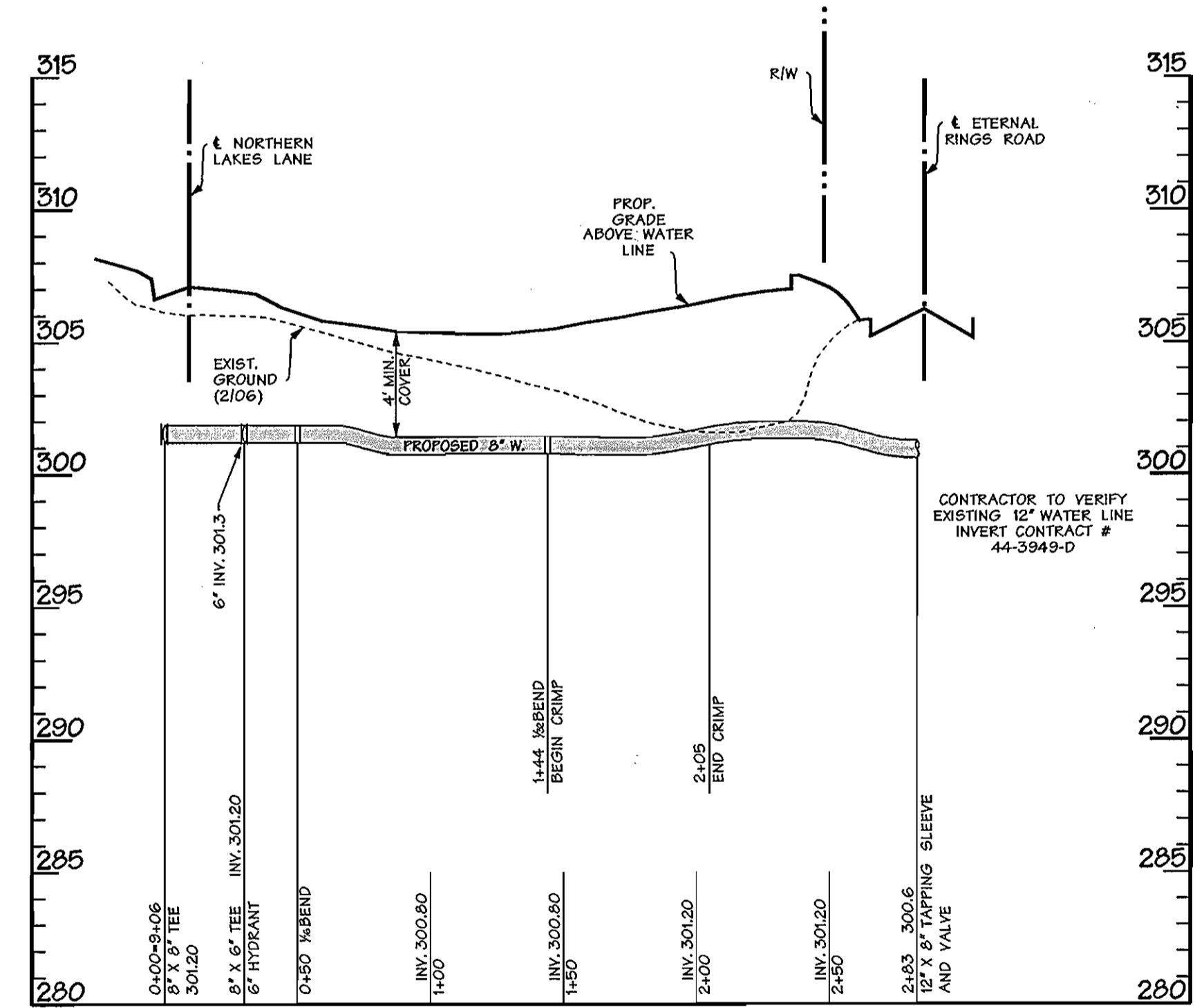
LOT	STRUCTURE	STRUCTURE	DISTANCE	LOT	STRUCTURE	STRUCTURE	DISTANCE
15	WHC	€ FIRE HYDRANT	50.3'	28	WHC	WHC LOT 27	9.0'
	WHC	8" VALVE (YOUNG RIVERS CT)	42.5'		SMH	SMH 203	34.3'
	WHC	8" VALVE (NORTHERN LAKES LA.)	51.2'		WHC	SMH 202	32.5'
16	WHC	8" VALVE (NORTHERN LAKES LA.)	29.0'	29	WHC	SMH 202	14.0'
	WHC	8" VALVE (YOUNG RIVERS CT)	22.0'		WHC	SHC LOT 28	23.4'
	WHC	WHC LOT 15	22.8'		WHC	SMH 203	57.5'
	WHC	€ FIRE HYDRANT	42.9'	30	WHC	SMH 202	17.0'
17	WHC	WHC LOT 16	22.5'		WHC	SHC LOT 29	19.5'
	WHC	8" VALVE (NORTHERN LAKES LA, Y-9)	10.6'		WHC	SMH 201	47.1'
	WHC	8" VALVE (YOUNG RIVERS CT, V-10)	15.9'	31	WHC	SMH 202	42.5'
18	WHC	WHC LOT 17	29.2'		WHC	SMH 201	20.2'
	WHC	8" VALVE (V-9)	27.1'		WHC	SHC LOT 30	12.6'
	WHC	SMH 204	56.0'	32	WHC	€ SMH (M-2)	66.0'
19	WHC	WHC LOT 18	22.0'		WHC	SMH 201	16.0'
	WHC	SMH 204	61.0'		WHC	SHC LOT 31	12.0'
	WHC	SMH 203	57.0'	33	WHC	€ INLET COVER (I-2A)	13.0'
20	WHC	SMH 205	26.6'		WHC	8" WATER VALVE (V-7)	21.0'
	WHC	8" VALVE (ETERNAL RINGS RD.)	70.5'		WHC	SHC LOT 33	24.4'
21	WHC	SMC LOT 21	18.0'	34	WHC	SMC LOT 34	8.0'
	WHC	SMH 205	24.2'		WHC	8" WATER VALVE (V-8)	29.3'
22	WHC	SHC LOT 22	11.4'		WHC	€ FIRE HYDRANT	35.0'
	WHC	SMH 205	28.0'	35	WHC	SHC LOT 35	8.7'
	WHC	€ I-1	75.7'		WHC	8" WATER VALVE (V-8)	40.0'
23	WHC	SHC LOT 23	8.0'		WHC	SMH 200	53.3'
	WHC	€ INLET COVER (I-1)	38.3'	36	WHC	8" WATER VALVE (V-8)	63.7'
	WHC	SMH 205	56.0'		WHC	SMH 200	26.0'
24	WHC	SMH 203	45.0'		WHC	SHC LOT 36	17.4'
	WHC	SMH 204	57.0'	37	WHC	SHC LOT 38	24.7'
	WHC	SHC LOT 24	17.7'		WHC	SMH 200	16.5'
25	WHC	SHC LOT 25	13.0'		WHC	SMH 106	46.5'
	WHC	SMH 203	21.0'	38	WHC	SMH 106	48.5'
	WHC	SMH 204	82.3'		WHC	SMH 200	15.0'
26	WHC	SMH 203	7.7'		WHC	SHC LOT 39	18.8'
	WHC	SMH 202	58.5'	39	WHC	SHC LOT 39	4.4'
	WHC	SHC LOT 26	12.6'		WHC	SMH 200	67.0'
27	WHC	SMH 203	25.5'		WHC	SMH 106	13.0'
	WHC	SHC LOT 27	9.0'	40	WHC	SMH 105	17.0'
					WHC	SMH 106	48.8'



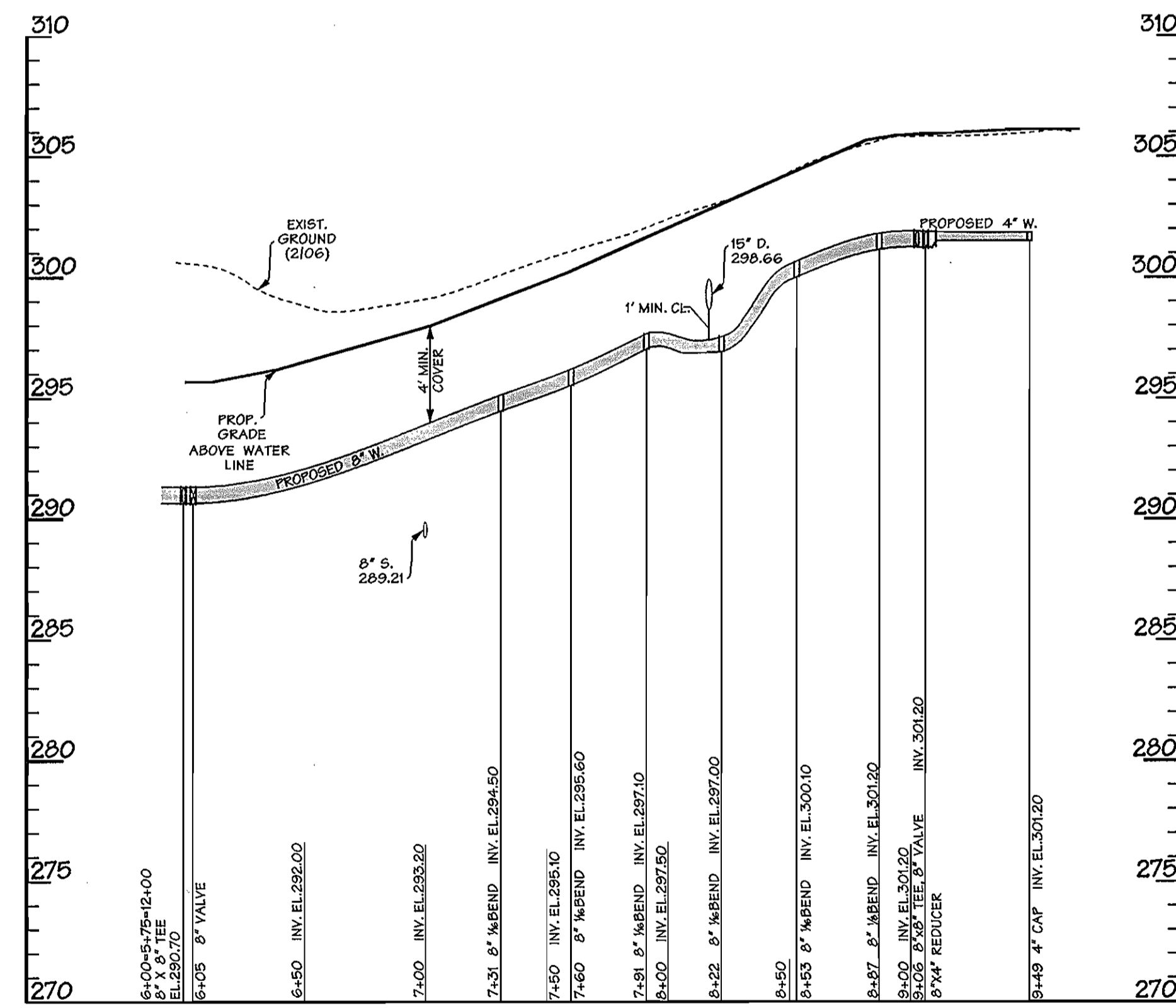
SUMMER WAVES WAY
WATER PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



NORTHERN LAKES LANE
WATER PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



YOUNG RIVERS COURT
WATER PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



NORTHERN LAKES LANE
WATER PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

AS-BUILT INFORMATION

EXISTING INFORMATION TAKEN FROM AS-BUILT SURVEY PERFORMED BY HOWARD COUNTY DATED AUGUST 13, 2007.

AS-BUILT LEGEND

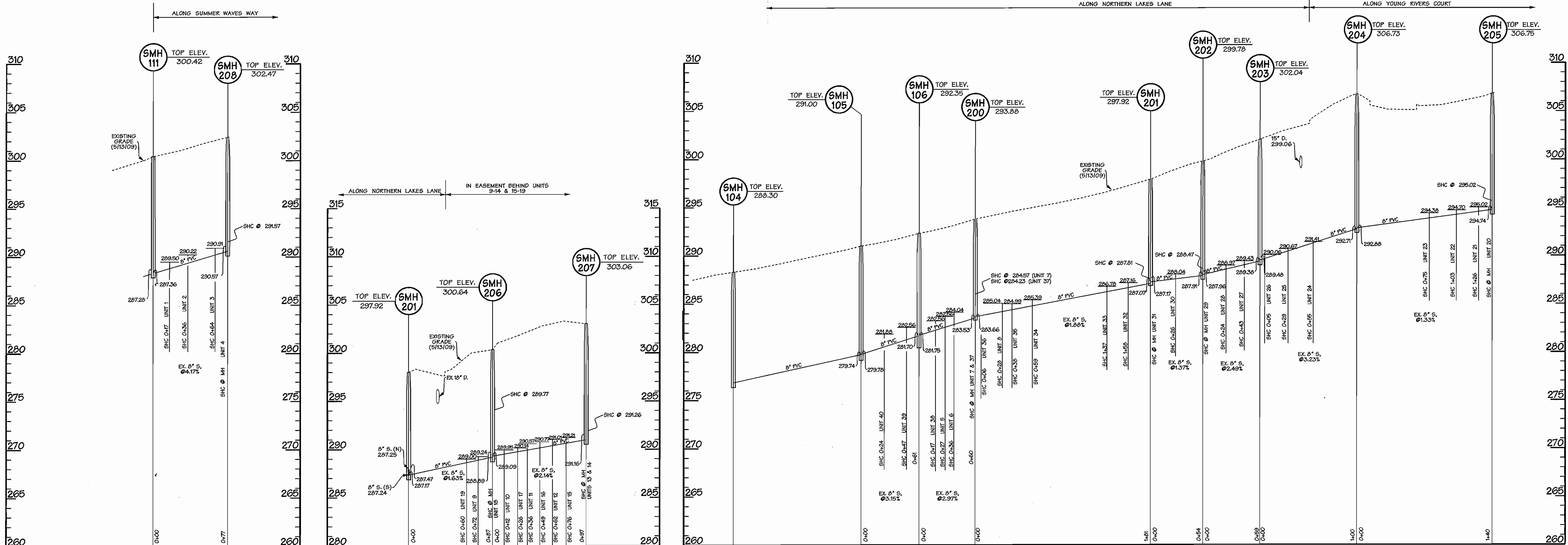
- SHC - SANITARY HOUSE CONNECTION
- WHC - WATER HOUSE CONNECTION
- SMH - SANITARY MANHOLE
- V - VALVE (WATER)
- SD - STORM DRAIN (MANHOLE OR INLET)

NOTE: THIS SHEET REPLACES SHEET 3 OF 3, SIGNED BY THE BUREAU OF UTILITIES CHIEF ON 1/26/2007.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Chief - Bureau of Utilities - DATE	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND Chief - Development Engineering Division - DATE	DMW Daft-McCune-Walker, Inc. 200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296-3333 Fax 296-4705	DESIGN BY: JDF DRAWN BY: AMP CHECKED BY: DATE: 3/24/09	DATE: 8/19/09 BY: NO. REVISION	DATE: 8/19/09 600 SCALE MAP NO. 31 BLOCK NO. 10,11,16,17	FINAL WATER PROFILES	EMERSON Section 2 - Area 7 Parcel A TAX MAP 47 PARCEL A 6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND CONTRACT NO. 24-4370-D LOT/PARCEL #245,572	SCALE: SHEET 3 of 4
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Wed Aug 19 13:39:04 880905493054D0905401W303

Wed Aug 19 13:39:04 880905493054D0905401W303



NOTE: TOP ELEVATION OF MANHOLE AND INVERT ELEVATIONS WERE FIELD RUN BY DMW ON 3/17/09 AND 5/13/09.

SANITARY PROFILES

SCALE: HORIZ. 1"=50'
VERT. 1"=5'

Wed Aug 19 13:38:21 2009 605495054D950540WS04

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> CHIEF - BUREAU OF UTILITIES - DATE</p>	<p>DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE</p>	<p>DMW Daft-McCune-Walker, Inc.</p> <p>200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296-3333 Fax 296-4705</p> <p>A Team of Land Planners, Landscape Architects, Golf Course Architects, Engineers, Surveyors & Environmental Professionals</p>	<p><i>[Professional Seal]</i></p> <p>Professional Certification. I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. 30211, Expiration Date: 9-30-11</p>	<p>DESIGN BY: CVS DRAWN BY: MDT CHECKED BY:</p> <p>DATE: 3/24/09</p>	<p>BY NO. REVISION</p> <p>DATE: 8/19/09</p> <p>600 SCALE MAP NO. 31 BLOCK NO. 10,11,16,17</p>	<p>FINAL SANITARY SEWER PROFILES</p> <p>EMERSON Section 2 - Area 7 Parcel A</p> <p>TAX MAP 47 PARCEL A 6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND CONTRACT NO. 24-4370-D LOT/PARCEL #243,572</p>	<p>SCALE: SHEET 4 of 4</p>
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Wed Aug 19 13:38:21 2009 605495054D950540WS04