

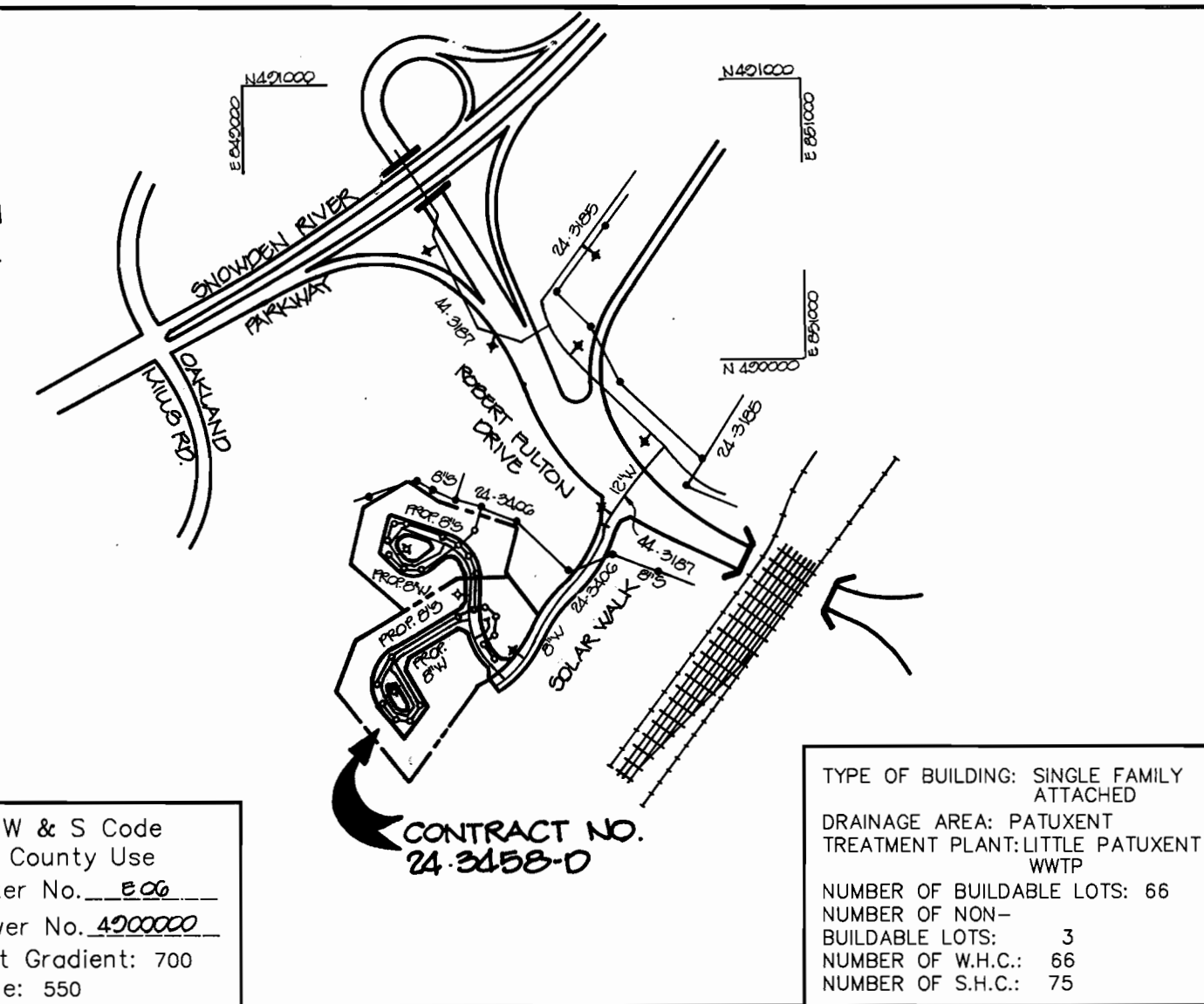
WATER AND SEWER EXTENSIONS

SNOWDEN RIDGE SECTION 1 AREA 1

6th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-3458-D



W & S Code County Use
 Water No. 2026
 Sewer No. 4000000
 Test Gradient: 700
 Zone: 550

TYPE OF BUILDING: SINGLE FAMILY ATTACHED
 DRAINAGE AREA: PATUXENT TREATMENT PLANT-LITTLE PATUXENT WTP
 NUMBER OF BUILDLABLE LOTS: 66
 NUMBER OF NON-BUILDLABLE LOTS: 3
 NUMBER OF W.H.C.'S: 65
 NUMBER OF S.H.C.'S: 75

CONTRACT NO. 24-3458-D

VICINITY MAP
 SCALE: 1"=600'

GENERAL NOTES

- Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
- All horizontal controls are based on Maryland State Coordinates.
- All vertical controls are based on U.S.G.S. data.
- All pipe elevations shown are invert elevations.
- Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnel as required. 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 money 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 location of the test pit. 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.
- Contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Services	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-3068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1390
Bureau of Utilities, Howard County Department of Public Works	313-4900
- Trees and shrubs are to be protected from damage to 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.
- All water mains to be D.I.P. Class 52 unless otherwise noted.
- Tops of all water mains to have a minimum of 3-1/2' cover unless otherwise noted.
- Valves adjacent to tees shall be strapped to tees.
- All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
- Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be restrained and buttressed with concrete in accordance with Standard Details. 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.
- All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
- All sewer mains shall be D.I.P. and 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 manhole 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.
- Manholes can be either brick or precast concrete structures.
- Contractor is solely responsible for construction means, methods, techniques, sequences, procedures, and safety precautions and programs.
- The fire hydrant shall be installed as per standard detail W.1.11.
- Fire hydrants will be located 3' FROM BACK OF CURB unless otherwise noted.

AS-BUILT WATER HOUSE CONNECTIONS

FROM	TO LOT	DIST.	FROM	TO LOT	DIST.	FROM	TO LOT	DIST.
MH-16	1	36'	MH-10	46	37'	MH-7	25	20'
	2	33'		47	40'		26	24'
	3	38'		48	61'		27	60'
	4	40'		49	67'		28	74'
MH-15	4	43'		50	93'		29	80'
	3	46'		45	41'		24	25'
	2	66'		44	45'		23	30'
	1	72'		43	68'		22	61'
	5	32'	MH-13	45	18'		21	67'
	6	33'		44	14'		20	101'
	7	49'		43	28'		19	107'
MH-14	8	53'	MH-10	42	41'	S.D. 1-10	19	35'
	7	34'		41	14'		20	41'
	6	36'		40	55'		21	74'
	5	58'		39	59'		22	80'
	4	61'	MH-11	39	30'		23	113'
MH-17	6	39'		40	35'		24	120'
	6	44'		41	66'		18	32'
	5	76'		42	72'		17	38'
	4	81'		38	19'		16	71'
MH-18	6	22'		37	23'		15	77'
	6	20'		36	51'		14	111'
	6	36'		35	57'		13	118'
	6	41'		34	79'	S.D. 1-9	13	19'
MH-7	6	122'		33	98'		14	25'
	5	129'		32	103'		15	57'
MH-9	5	30'	MH-12	32	23'		16	63'
	5	35'		33	21'		17	97'
	5	52'		34	42'		18	103'
	5	53'		35	62'		12	21'
MH-9A	5	72'		36	67'	MH-6	11	27'
	5	72'		37	97'		9	71'
	5	72'		38	102'		10	73'
	5	74'	MH-8	31	35'	MH-5	10	57'
	5	59'		30	29'	S.D. 1-8	9	53'
	5	44'		29	21'		6	56'
	5	49'		28	25'		6	62'
	5	46'		27	37'		6	60'
	4	41'		26	73'		5	99'
	4	44'		25	77'		5	83'
	4	63'	S.D. 1-10	57	50'	S.D. 1-10	5	139'
	4	69'		58	51'		6	89'
				59	61'		6	95'
				60	64'			

QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT	
		QUANTITIES	MANUFACTURER / SUPPLIER
8" WATER	1163 LF	1167 LF	CLASS 52 D.I.P. GRIFFIN PIPE
6" WATER	121 LF	125 LF	" " " " " "
4" WATER	64 LF	64 LF	" " " " " "
1 1/2" WHC	1110 LF	229 LF	SOFT "K" HOWELL METALS B.B.S.
1" WHC	300 LF	232 LF	" " " " " "
8" VALVES	6 EA.	6 EA.	GATE VALVE MUELLER CO. B.B.S.
6" VALVES	3 EA.	3 EA.	" " " " " "
4" VALVES	1 EA.	1 EA.	" " " " " "
6" x 6" TEE	2 EA.	3 EA.	M-J DIP GRIFFIN PIPE
6" x 4" TEE	1 EA.	1 EA.	" " " " " "
FIRE HYDRANTS	2 EA.	2 EA.	METROPOLITAN U.S. PIPE / B.B.S.
8" SEWER	1548 LF	1548 LF	P.V.C. SDR 35 J-M MANUF. B.B.S.
4" SHC	2024 LF	229 LF	" " " " " "
4'-0" DIA. PRECAST SEWER MANHOLES	10 EA.	10 EA.	PRECAST CONCRETE ATLANTIC CONCRETE
SEWER WASHBOARDS	119 YF	119 YF	" " " " " "
4" DROP CONNECTIONS	170 YF	145 YF	P.V.C. SDR 35 J-M MANUF. B.B.S.
TYPE "B" DROP CONNECTIONS	3 EA.	3 EA.	" " " " " "
6" PLUG & BUTTRESS	1 EA.	1 EA.	M-J D.I.P. GRIFFIN PIPE
6" PLUG & BUTTRESS	1 EA.	1 EA.	" " " " " "
6" 1/2" H.D.	2 EA.	2 EA.	M-J D.I.P. GRIFFIN PIPE
6" 1/2" H.D.	2 EA.	2 EA.	" " " " " "
6" 1/2" H.D.	2 EA.	2 EA.	" " " " " "
6" 1/2" TEE	2 EA.	2 EA.	" " " " " "

NAME OF UTILITY CONTRACTOR: FALLSTON UTILITIES, INC.

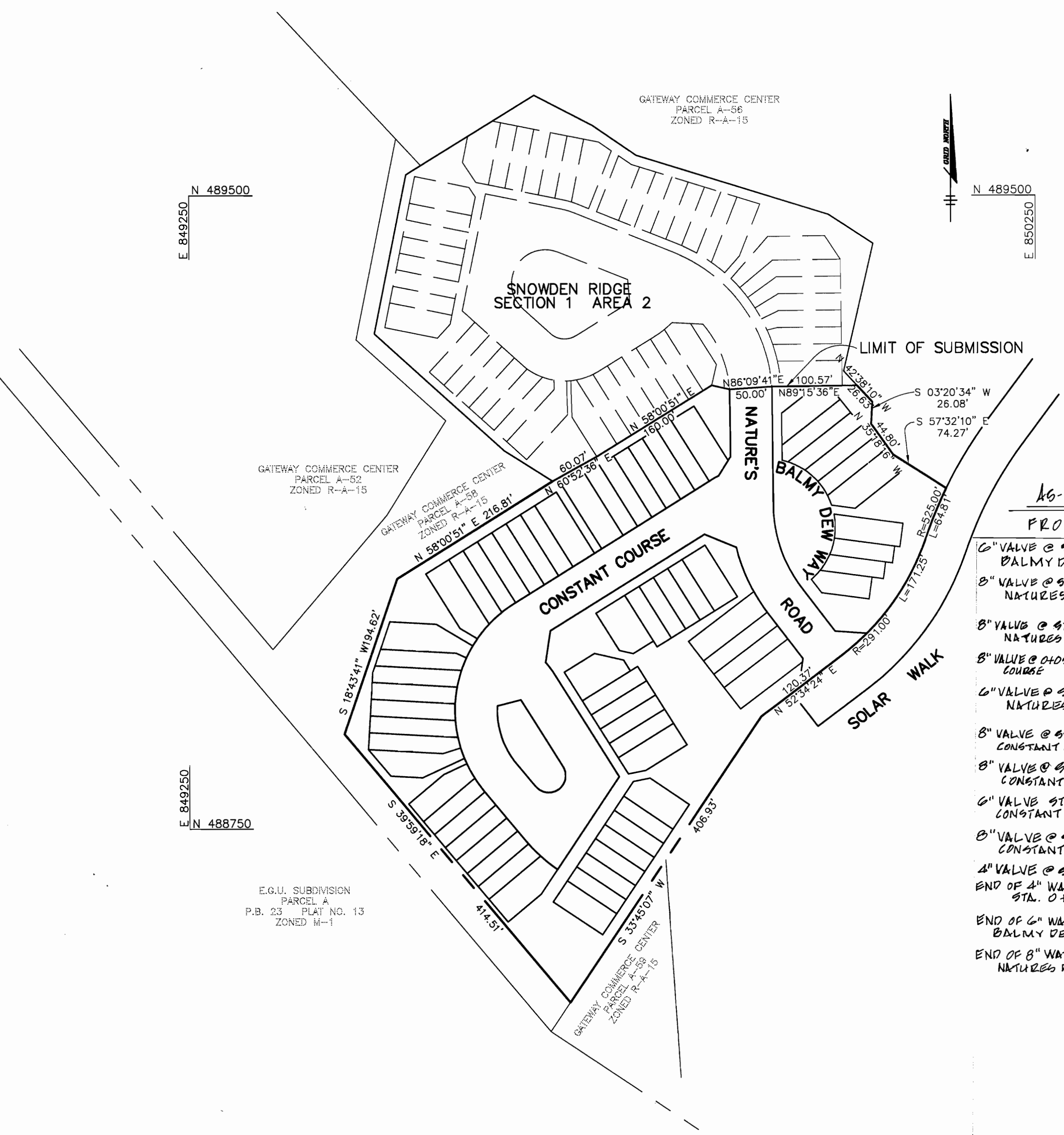
Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-96-26

CHECKBOX
 AS-BUILT DATE _____
 SURVEY AND DRAFTING DIVISION _____

Review for Howard Soil Conservation District and meets technical requirements.
Patricia Engler 12/4/95
 NATURAL RESOURCES CONSERVATION SERVICE DATE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
John R. Robinson 12/4/95
 HOWARD SOIL CONSERVATION DISTRICT DATE

BENCHMARKS
 BM#1 X-CUT IN CONCRETE BASE OF TRAFFIC CONTROL ELEV. 368.16
 BM#2 NAIL IN BG&E POLE ELEV. 387.97



AS-BUILT VALVES & END OF WATER LINES

FROM	TO	DIST.
6" VALVE @ STA. 0+01 BALMY DEW WAY	MH 17 SD M-5	15'
8" VALVE @ STA. 2+25 NATURES RD.	SD MH-4	10'
	6" VALVE STA. 2+31 NATURES RD.	5'
8" VALVE @ STA. 2+31 NATURES RD.	MH-14	20'
8" VALVE @ STA. 2+02 CONSTANT COURSE	8" VALVE STA. 2+02 CONSTANT COURSE	3'
8" VALVE @ STA. 3+50 CONSTANT COURSE	MH-6	19'
6" VALVE @ STA. 2+87 NATURES RD.	FIRE HYDRANT MH-6	17'
	MH-5	49'
8" VALVE @ STA. 3+00 CONSTANT COURSE	FIRE HYDRANT MH-7	36'
6" VALVE STA. 3+00 CONSTANT COURSE	8" VALVE STA. 3+00 CONSTANT COURSE	4'
6" VALVE @ STA. 5+13 CONSTANT COURSE	MH-11	15'
6" VALVE @ STA. 5+13 CONSTANT COURSE	FIRE HYDRANT MH-8	13'
4" VALVE @ STA. 0+02 END OF 4" WATER @ STA. 0+04	4" VALVE @ STA. 0+02	46'
END OF 6" WATER STA 1+02 BALMY DEW WAY	MH 10	25'
	MH 13	36'
END OF 8" WATER STA 3+65 NATURES RD.	MH 5	39'
	MH 4	22'
	SD 1-2	13'

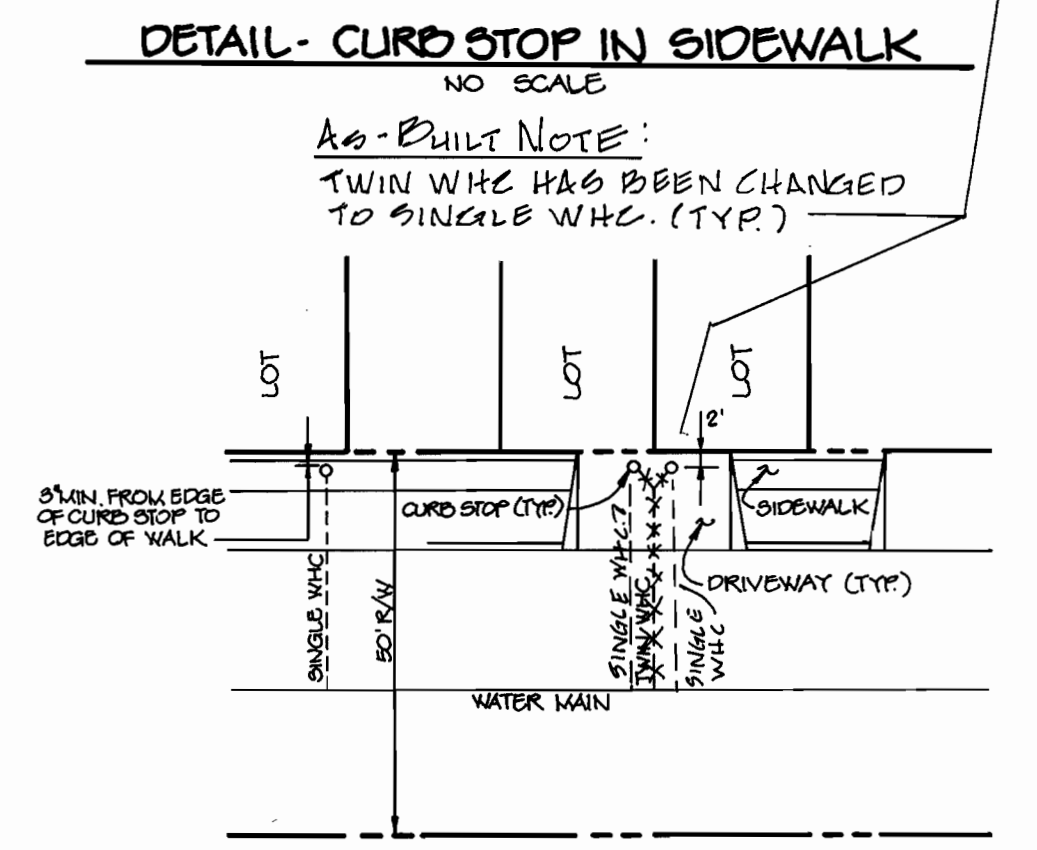
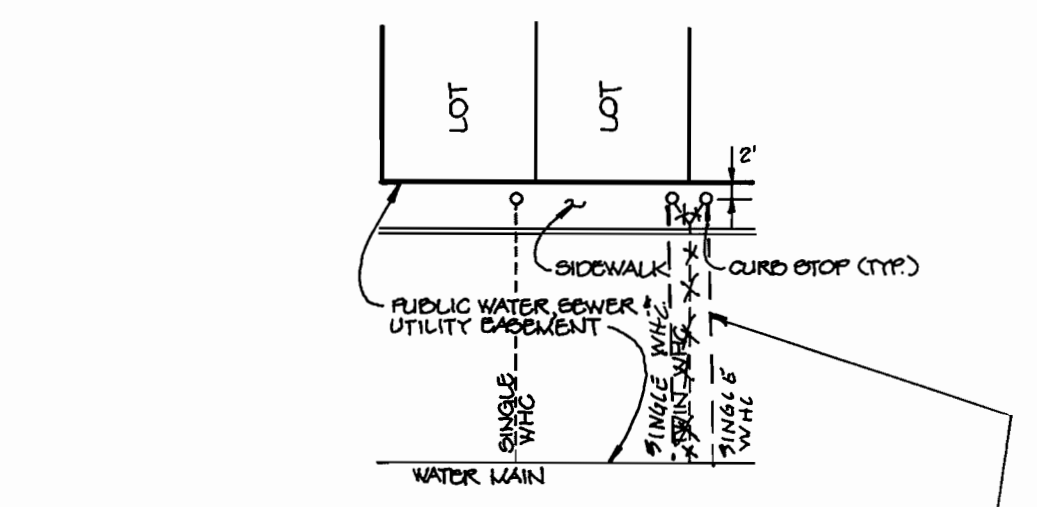
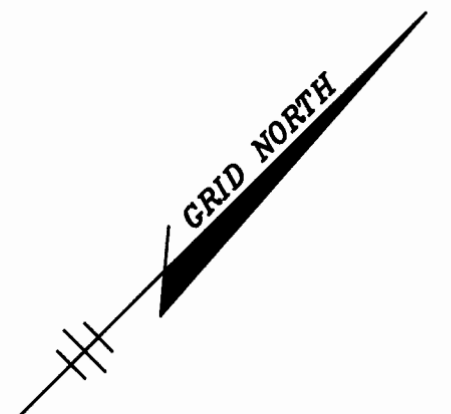
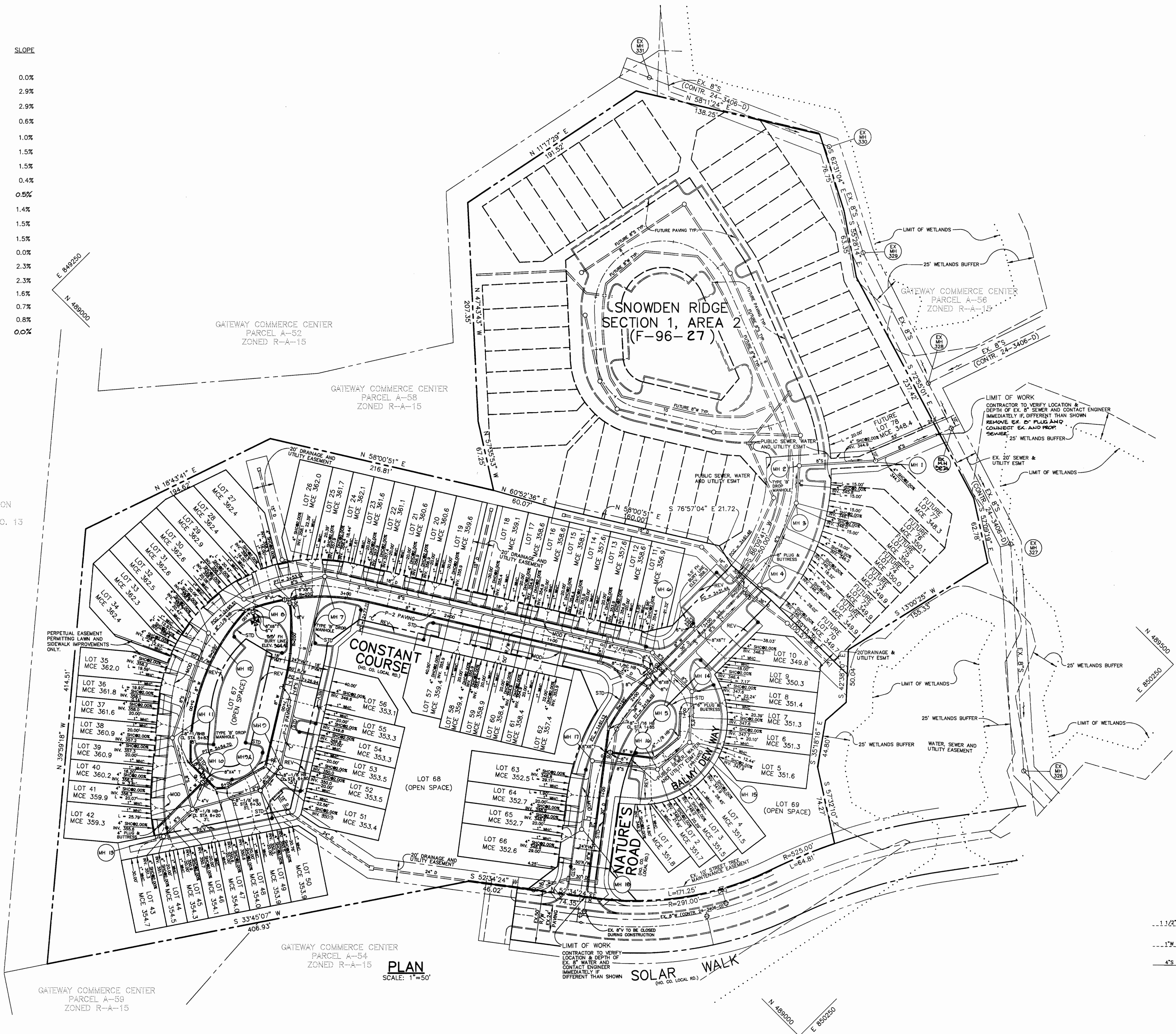
PLAN
 SCALE: 1" = 100'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <u>Robert Basim</u> 11-30-95 CHIEF, BUREAU OF UTILITIES DATE	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <u>John Robinson</u> 12/6/95 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE	RIEMER MUEGGE & ASSOCIATES, INC. Planners & Engineers & Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045 410-997-8900 FAX: 410-997-9282 8000/9810000 P11W112W	DES: DAM DRN: DAM CHK: CJR DATE: 11-14-95 BY NO. REVISION DATE	TITLE SHEET 600' SCALE MAP NO. 42 BLOCK NO. 5	SNOWDEN RIDGE SECTION 1 AREA 1 LOTS 1 THRU 69 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT 24-3458-D SCALE AS SHOWN SHEET 1 OF 24
--	--	--	--	--	---

SNOWDEN RIDGE, 1/1
 SNOWDEN RIDGE, 1/1
 3458

MANHOLE SCHEDULE

SEWER MANHOLE	LOCATION	RIM ELEV.	SLOPE
1	SEE PLAN THIS SHEET	360.30	0.0%
2	5.92' RT OF STA. 4+97.91 NATURE'S ROAD	359.82	2.9%
3	5.61' RT OF STA. 4+63.48 NATURE'S ROAD	358.82	2.9%
4	7.55' RT OF STA. 3+80.66 NATURE'S ROAD	357.35	0.6%
5	7.00' RT OF STA. 2+64.24 NATURE'S ROAD	358.21	1.0%
6	9.81' RT OF STA. 0+17.83 CONSTANT COURSE	358.1	1.5%
7	8.90' RT OF STA. 3+32.30 CONSTANT COURSE	362.67	1.5%
8	6.56' RT OF STA. 4+08.17 CONSTANT COURSE	363.34	0.4%
9	8.00' RT OF STA. 6+87.00 CONSTANT COURSE	360.01	0.5%
10	24.48' RT OF STA. 6+10.30 CONSTANT COURSE	360.68	1.4%
11	9.00' RT OF STA. 5+56.55 CONSTANT COURSE	361.33	1.5%
12	4.85' RT OF STA. 4+52.86 CONSTANT COURSE	363.01	1.5%
13	60.69' RT OF STA. 6+05.69 CONSTANT COURSE	362.00	0.0%
14	9.16' LT OF STA. 0+29.75 BALMY DEW WAY	358.40	2.3%
15	5.20' LT OF STA. 0+73.13 BALMY DEW WAY	359.54	2.3%
16	5.02' LT OF STA. 1+09.73 BALMY DEW WAY	360.00	1.6%
17	10.40' LT OF STA. 1+51.95 NATURE'S ROAD	359.16	0.7%
18	7.00' LT OF STA. 0+87.90 NATURE'S ROAD	359.18	0.8%
19	7.00' RT OF STA. 6+82.00 CONSTANT COURSE	360.01	0.0%



LEGEND

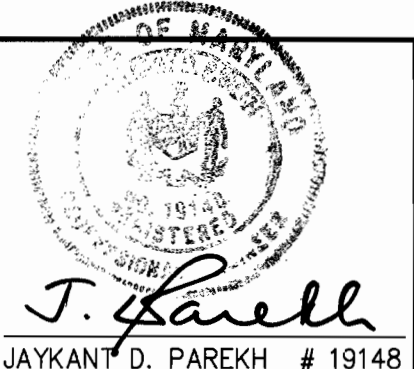
- 1 1/2" W --- 1" W TYP. TWIN WHC
- 1" W --- TYP. SINGLE WHC
- 4" S --- 4" SHC

3458 W 1/2 SNOWDEN RIDGE, 1/4

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

RIEMER MUEGGE & ASSOCIATES, INC.
Planners Engineers Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, MD 21046
410-997-8900 FAX: 410-997-9282
HOCO/96H10600 PH1WS2.DWG



DES: DAM					
DRN: DAM/BD					
CHK: CJR					
DATE: 11-14-05	BY: NO.	REVISION	DATE		

PLAN OF WATER AND SEWER MAINS

600' SCALE MAP NO. 42 BLOCK NO. 5

SNOWDEN RIDGE
SECTION 1 AREA 1
LOTS 1 THRU 69
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 24-3458-D

SCALE AS SHOWN
SHEET 2 OF 2

SEWER HOUSE CONNECTIONS

FROM	TO LOT	DIST.	FROM	TO LOT	DIST.
MH17	1	63'	S.D. 1-8	62	49'
MH16	2	38'		61	72'
	3	32'		60	83'
	4	35'		59	111'
MH15	4	48'		58	121'
	3	39'		57	150'
	2	40'	MH17	63	28'
	5	30'		64	55'
	6	38'		65	67'
	7	41'	MH18	66	96'
MH14	8	60'		67	32'
	9	31'		68	19'
	7	44'		69	27'
	6	48'	MH4	70	52'
	5	67'		71	31'
MH5	10	47'		72	40'
	10	70'		73	55'
MH4	9	64'		74	68'
	11	89'	MH3	75	43'
MH6	12	25'		76	52'
	13	42'		77	73'
S.D. 1-9	13	50'		78	91'
	12	12'		79	32'
	11	14'		80	31'
	11	33'	MH2	76	36'
	14	37'		75	52'
	15	44'		74	58'
	16	75'		77	86'
	17	87'		78	48'
S.D. 1-10	18	112'	MH1	72	15'
	18	23'	MH1	78	32'
	17	48'			
	16	60'			
	15	91'			
	14	99'			
	13	22'			
	12	52'			
	21	63'			
	22	91'			
	23	105'			
	24	125'			
MH7	25	141'			
	25	16'			
	24	23'			
	23	38'			
	22	52'			
	21	78'			
	20	88'			
	19	120'			
	26	33'			
	27	51'			
	28	69'			
	29	91'			
MH8	30	100'			
	30	23'			
	29	20'			
	28	30'			
	27	45'			
	26	64'			
	31	46'			
	32	51'			
MH12	31	25'			
	32	23'			
	33	31'			
	34	36'			
	35	51'			
	36	70'			
MH11	37	89'			
	37	34'			
	36	40'			
	35	60'			
	34	87'			
	33	95'			
	38	18'			
	39	22'			
	40	42'			
	41	57'			
MH13	42	75'			
	41	25'			
	40	43'			
	39	55'			
	38	84'			
	43	97'			
	44	24'			
	45	15'			
	46	24'			
MH10	47	38'			
	48	53'			
	49	65'			
	50	82'			
	51	92'			
	52	111'			
MH9A	53	141'			
	50	87'			
	49	44'			
	48	49'			
	47	49'			
	46	57'			
	45	76'			
	51	88'			
	52	45'			
	53	46'			
MH9	54	54'			
	53	54'			
	52	31'			
	51	28'			
	54	40'			
	55	50'			
	56	56'			
MH7	57	85'			
	56	110'			
	55	141'			
	54	148'			
S.D. 1-10	57	54'			
	58	51'			
	59	59'			
	60	71'			
	61	80'			
	62	102'			

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE

DES:				
DRN:				
CHK:				
DATE:	BY	NO.	REVISION	DATE

W & S AS-BUILT ADDITIONAL INFORMATION

600' SCALE MAP NO. BLOCK NO.

SNOWDEN RIDGE
SECTION 1 AREA 1
LOTS 1 THRU 69
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 24-3458-D

SCALE AS SHOWN

SHEET 2A OF 24