

Hampshire Country Club Planned Residential Development

Village of Mamaroneck, Westchester
County, New York

LEAD AGENCY

Village of Mamaroneck Planning Board
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PREPARED BY



**VHB Engineering, Surveying, and Landscape
Architecture, P.C.**

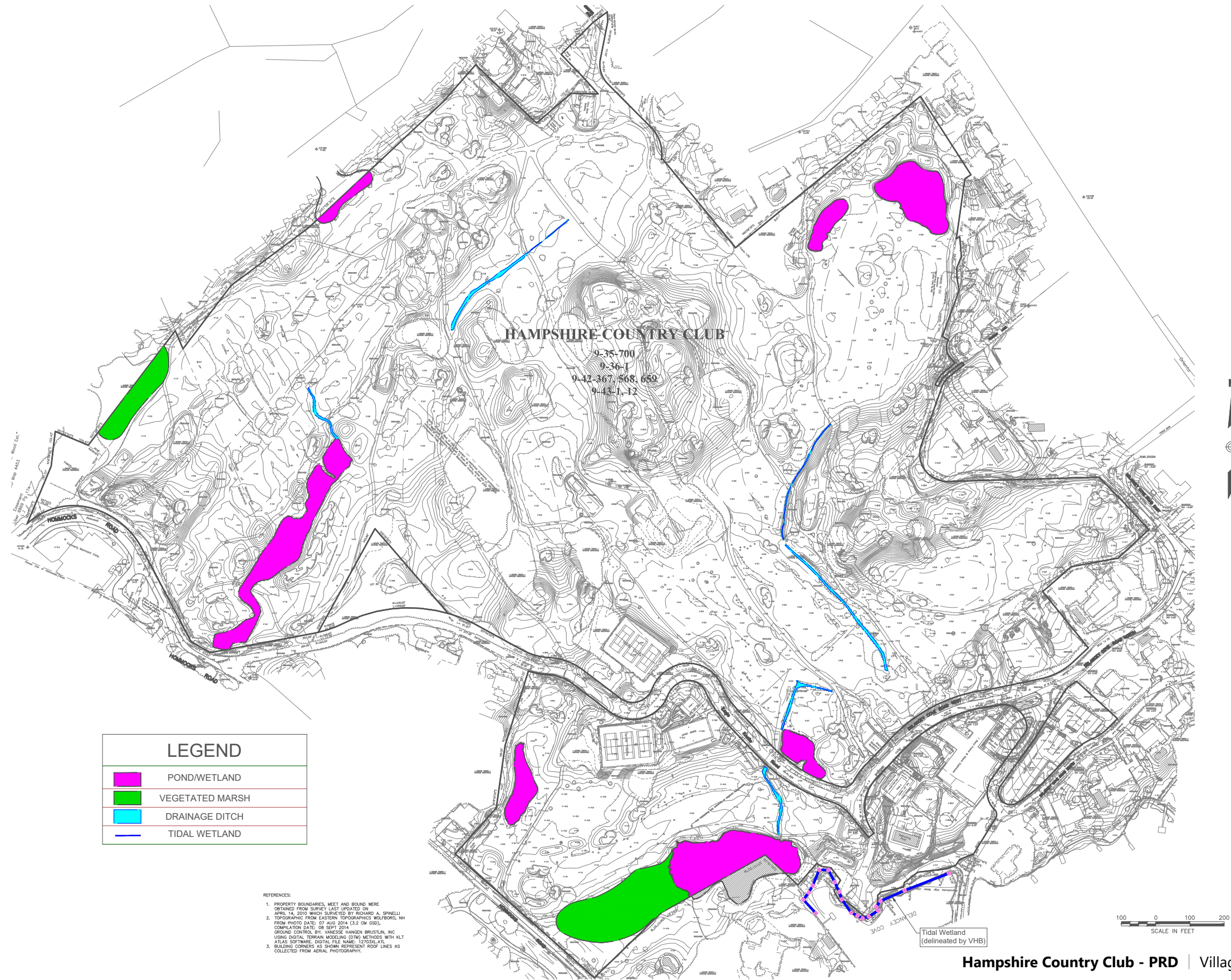
50 Main Street
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RESPONSE TO FEIS COMPLETENESS COMMENTS

Hampshire Country Club Planned Residential Development
Village of Mamaroneck,
Westchester County, New York
Final Environmental Impact Statement

C Updated Figures

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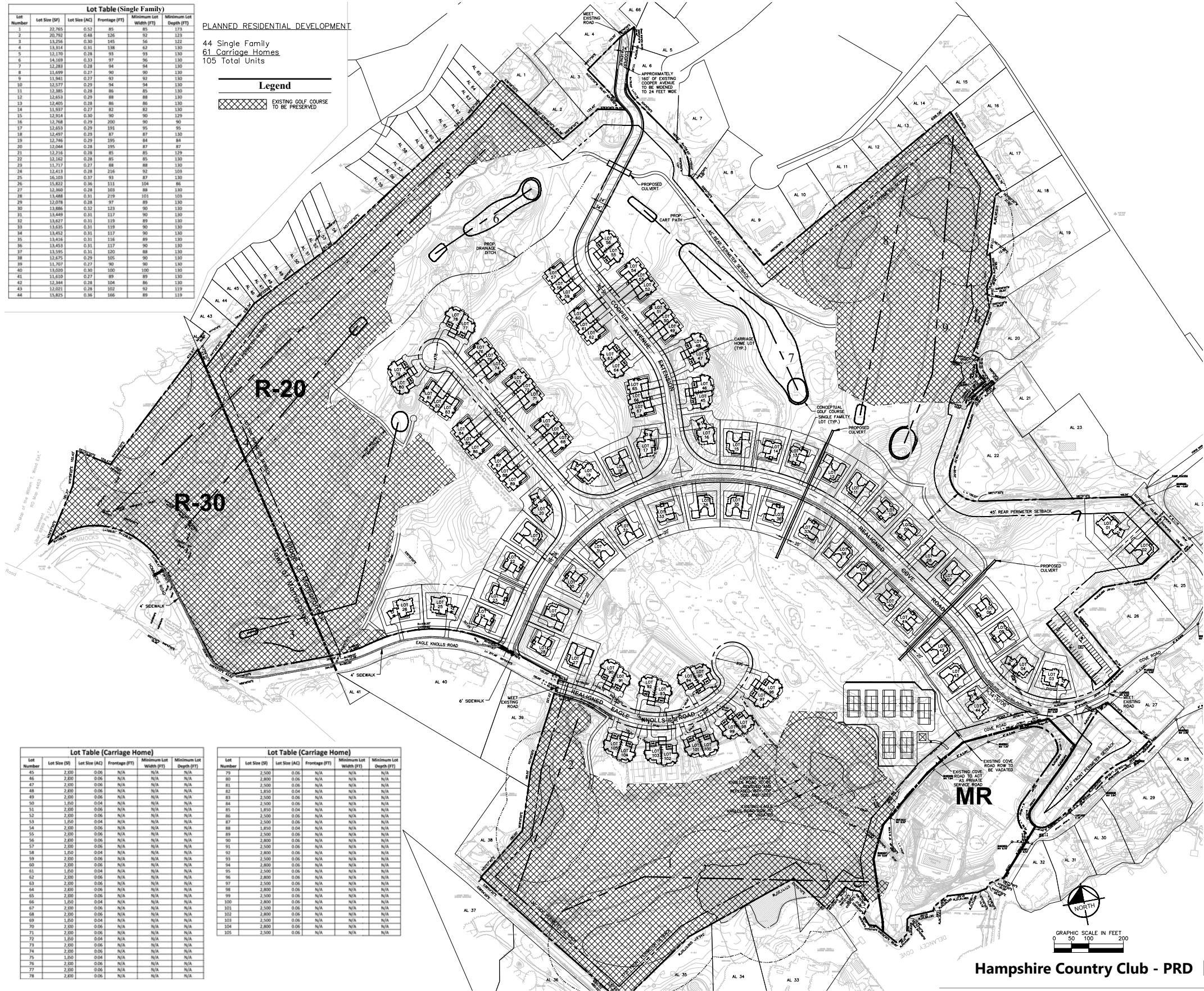
Lot Table (Single Family)						
Lot Number	Lot Size (SF)	Lot Size (AC)	Frontage (FT)	Minimum Lot Width (FT)	Minimum Lot Depth (FT)	
1	22,763	0.52	85	85	175	
2	20,793	0.48	126	92	123	
3	13,296	0.30	145	96	122	
4	13,141	0.31	138	60	130	
5	12,170	0.28	93	93	130	
6	14,109	0.33	97	90	130	
7	12,280	0.28	94	94	130	
8	11,699	0.27	90	90	130	
9	11,941	0.27	97	97	130	
10	12,377	0.29	94	94	130	
11	12,385	0.28	86	86	130	
12	12,633	0.29	88	88	130	
13	12,405	0.28	86	86	130	
14	11,937	0.27	82	82	130	
15	12,511	0.29	90	90	129	
16	12,708	0.29	200	90	90	
17	12,653	0.29	191	95	95	
18	12,497	0.28	87	87	130	
19	12,740	0.29	195	84	84	
20	12,664	0.28	195	87	87	
21	12,710	0.28	85	85	130	
22	12,162	0.28	85	85	130	
23	12,717	0.27	88	88	130	
24	12,433	0.28	116	92	103	
25	10,103	0.23	83	87	130	
26	12,827	0.36	111	104	86	
27	12,860	0.28	103	88	130	
28	13,488	0.31	219	103	103	
29	12,076	0.28	97	89	130	
30	13,886	0.32	133	90	130	
31	13,449	0.31	117	90	130	
32	13,627	0.31	119	89	130	
33	13,630	0.31	119	90	130	
34	13,452	0.31	117	90	130	
35	13,416	0.31	116	89	130	
36	13,453	0.31	117	90	130	
37	13,595	0.31	120	88	130	
38	12,875	0.29	105	90	130	
39	11,701	0.27	90	90	130	
40	13,039	0.30	100	100	130	
41	13,610	0.27	89	89	130	
42	12,344	0.28	104	86	130	
43	12,021	0.28	102	92	119	
44	15,825	0.36	156	89	119	

PLANNED RESIDENTIAL DEVELOPMENT

44 Single Family
61 Carriage Homes
105 Total Units

Legend

EXISTING GOLF COURSE
TO BE PRESERVED



Lot Table (Carriage Home)						
Lot Number	Lot Size (SF)	Lot Size (AC)	Frontage (FT)	Minimum Lot Width (FT)	Minimum Lot Depth (FT)	
45	2,500	0.06	N/A	N/A	N/A	
46	2,800	0.06	N/A	N/A	N/A	
47	2,500	0.06	N/A	N/A	N/A	
48	2,500	0.06	N/A	N/A	N/A	
49	2,800	0.06	N/A	N/A	N/A	
50	1,500	0.04	N/A	N/A	N/A	
51	2,500	0.06	N/A	N/A	N/A	
52	2,800	0.06	N/A	N/A	N/A	
53	1,500	0.04	N/A	N/A	N/A	
54	2,500	0.06	N/A	N/A	N/A	
55	2,800	0.06	N/A	N/A	N/A	
56	2,800	0.06	N/A	N/A	N/A	
57	2,500	0.06	N/A	N/A	N/A	
58	1,500	0.04	N/A	N/A	N/A	
59	2,500	0.06	N/A	N/A	N/A	
60	2,500	0.06	N/A	N/A	N/A	
61	1,500	0.04	N/A	N/A	N/A	
62	2,500	0.06	N/A	N/A	N/A	
63	2,500	0.06	N/A	N/A	N/A	
64	2,800	0.06	N/A	N/A	N/A	
65	2,500	0.06	N/A	N/A	N/A	
66	1,500	0.04	N/A	N/A	N/A	
67	2,500	0.06	N/A	N/A	N/A	
68	2,500	0.06	N/A	N/A	N/A	
69	1,500	0.04	N/A	N/A	N/A	
70	2,800	0.06	N/A	N/A	N/A	
71	2,500	0.06	N/A	N/A	N/A	
72	1,500	0.04	N/A	N/A	N/A	
73	2,800	0.06	N/A	N/A	N/A	
74	2,500	0.06	N/A	N/A	N/A	
75	1,500	0.04	N/A	N/A	N/A	
76	2,800	0.06	N/A	N/A	N/A	
77	2,500	0.06	N/A	N/A	N/A	
78	2,800	0.06	N/A	N/A	N/A	

Lot Table (Carriage Home)						
Lot Number	Lot Size (SF)	Lot Size (AC)	Frontage (FT)	Minimum Lot Width (FT)	Minimum Lot Depth (FT)	
79	2,500	0.06	N/A	N/A	N/A	
80	2,800	0.06	N/A	N/A	N/A	
81	2,500	0.06	N/A	N/A	N/A	
82	2,800	0.06	N/A	N/A	N/A	
83	2,500	0.06	N/A	N/A	N/A	
84	2,500	0.06	N/A	N/A	N/A	
85	1,800	0.04	N/A	N/A	N/A	
86	2,500	0.06	N/A	N/A	N/A	
87	2,500	0.06	N/A	N/A	N/A	
88	1,800	0.04	N/A	N/A	N/A	
89	2,500	0.06	N/A	N/A	N/A	
90	2,800	0.06	N/A	N/A	N/A	
91	2,500	0.06	N/A	N/A	N/A	
92	2,800	0.06	N/A	N/A	N/A	
93	2,500	0.06	N/A	N/A	N/A	
94	2,800	0.06	N/A	N/A	N/A	
95	2,500	0.06	N/A	N/A	N/A	
96	2,800	0.06	N/A	N/A	N/A	
97	2,500	0.06	N/A	N/A	N/A	
98	2,800	0.06	N/A	N/A	N/A	
99	2,500	0.06	N/A	N/A	N/A	
100	2,800	0.06	N/A	N/A	N/A	
101	2,500	0.06	N/A	N/A	N/A	
102	2,800	0.06	N/A	N/A	N/A	
103	2,500	0.06	N/A	N/A	N/A	
104	2,800	0.06	N/A	N/A	N/A	
105	2,500	0.06	N/A	N/A	N/A	

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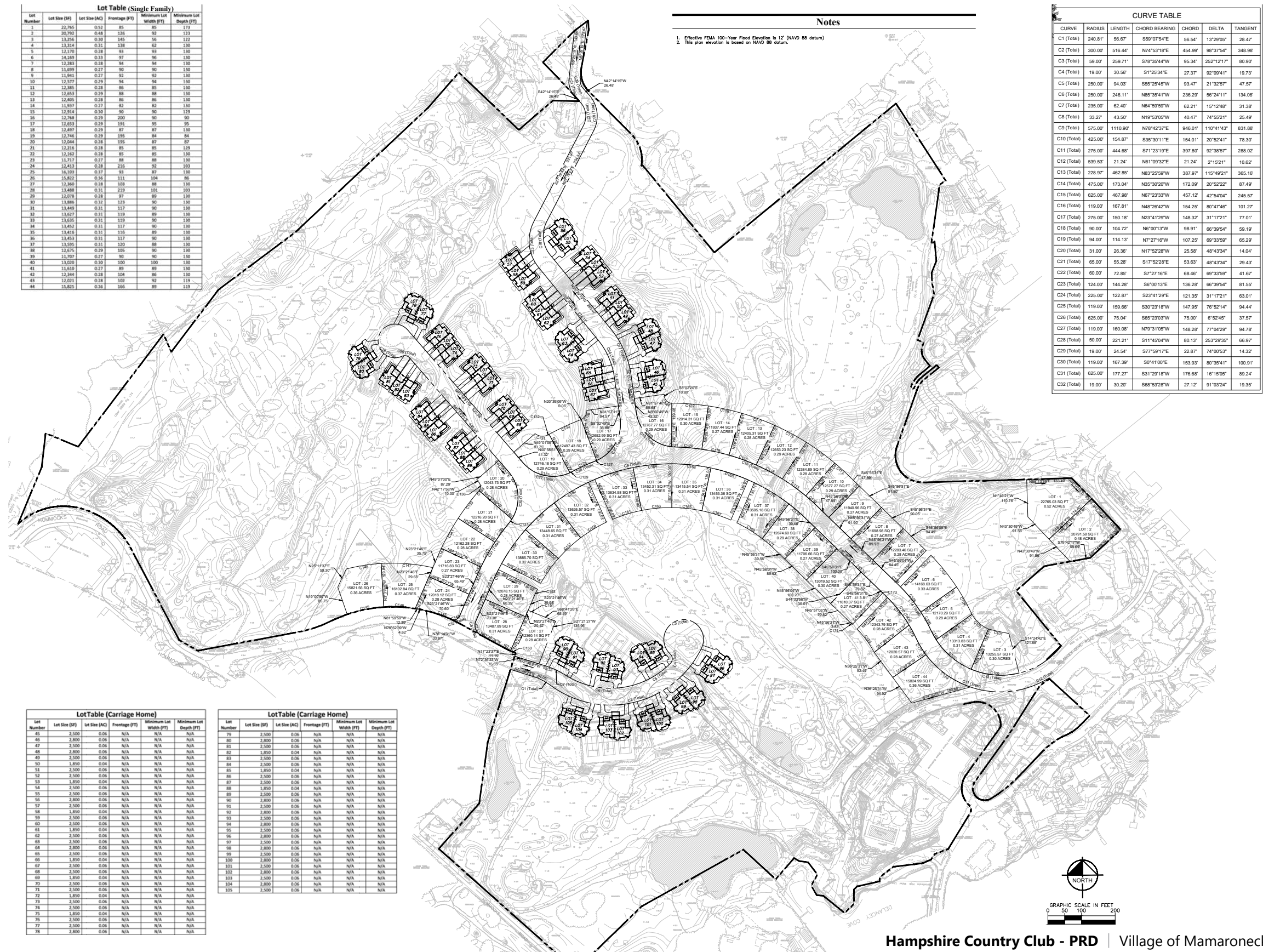
Layout Plan



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Construction Phasing Plan

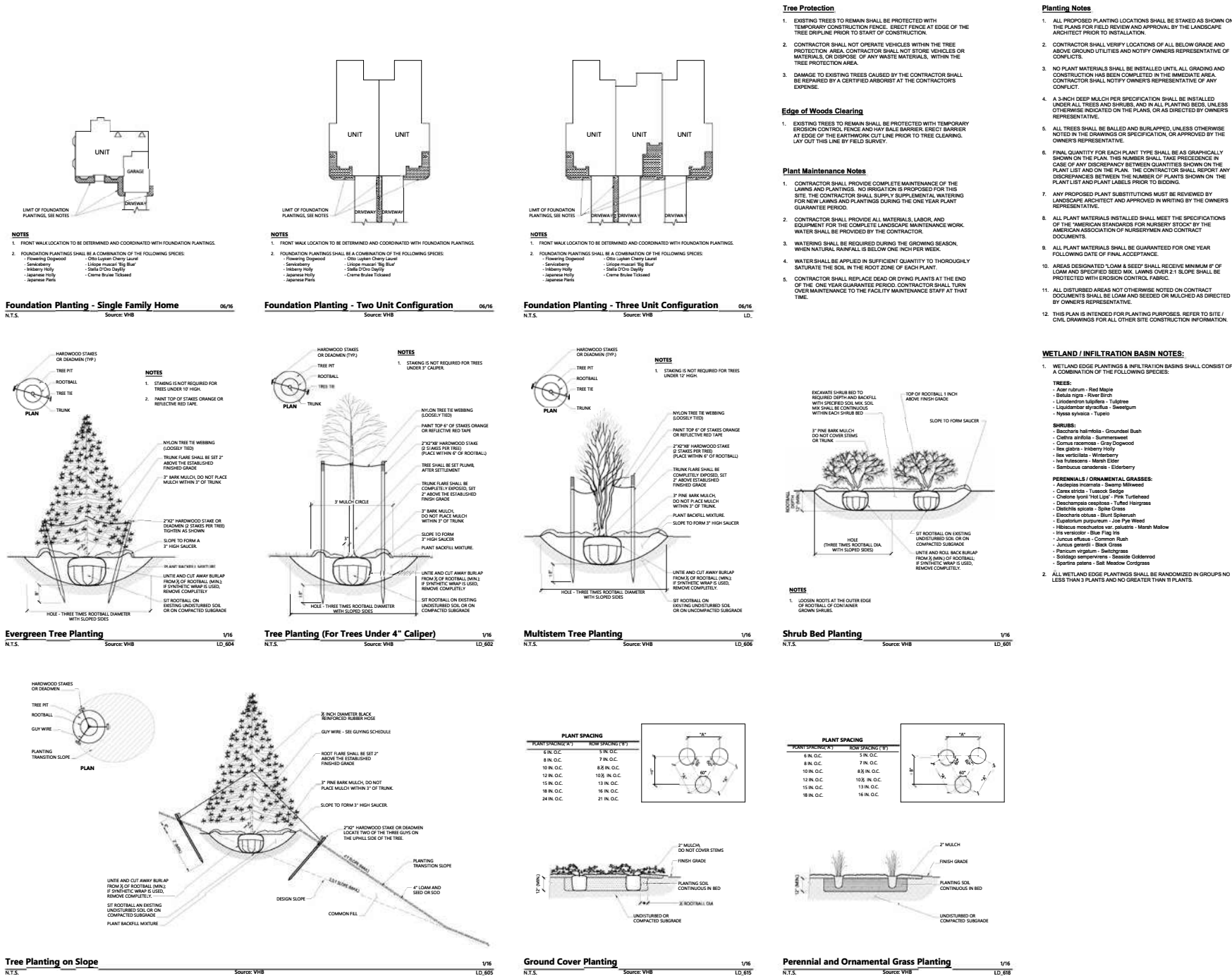
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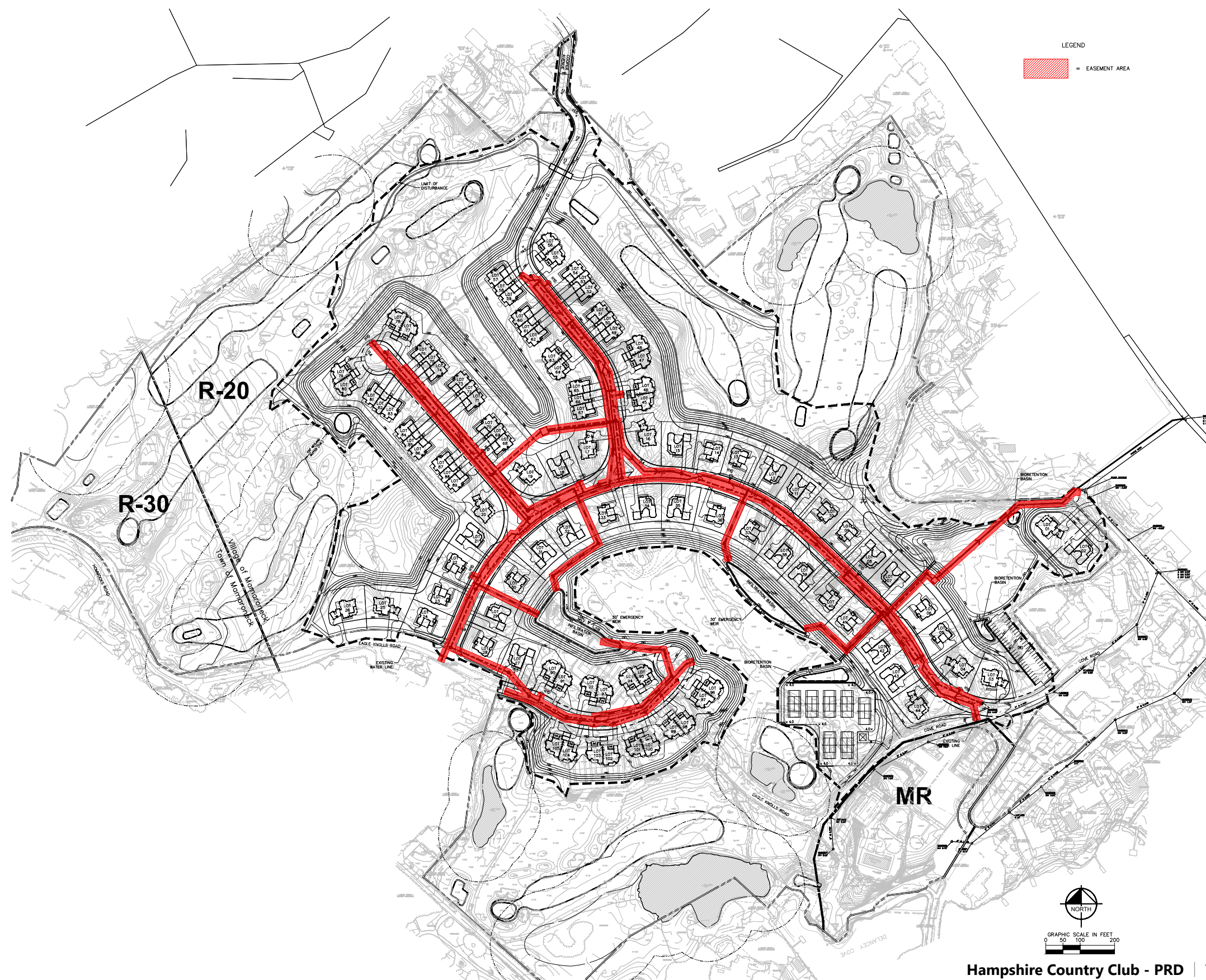






Source: Kimley-Horn





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Utility Easement Plan

Source: Kimley-Horn

VOLUME SUMMARY

TOP SOIL (6")	24006.4 CUBIC YARDS
PAVEMENT (18")	8511.1 CUBIC YARDS
BASEMENT (10")	85282.4 CUBIC YARDS
BASEMENT SLAB (12")	8528.2 CUBIC YARDS
DRIVEWAY (12")	5365.9 CUBIC YARDS
TENNIS AND PARKING (18")	3550.1 CUBIC YARDS
TOTAL VOLUME	135244.3 CUBIC YARDS

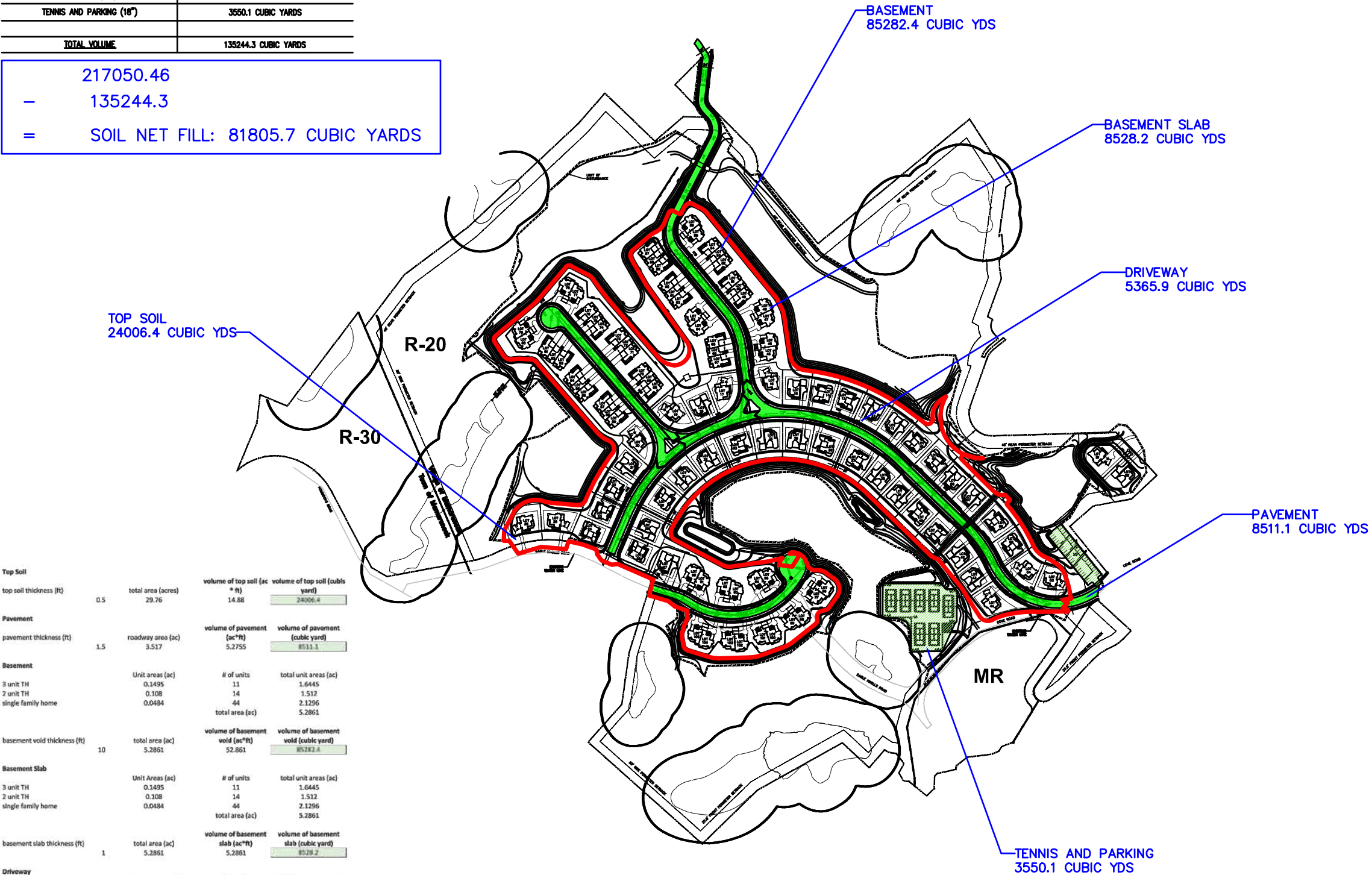
217050.46

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135244.3

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SOIL NET FILL: 81805.7 CUBIC YARDS

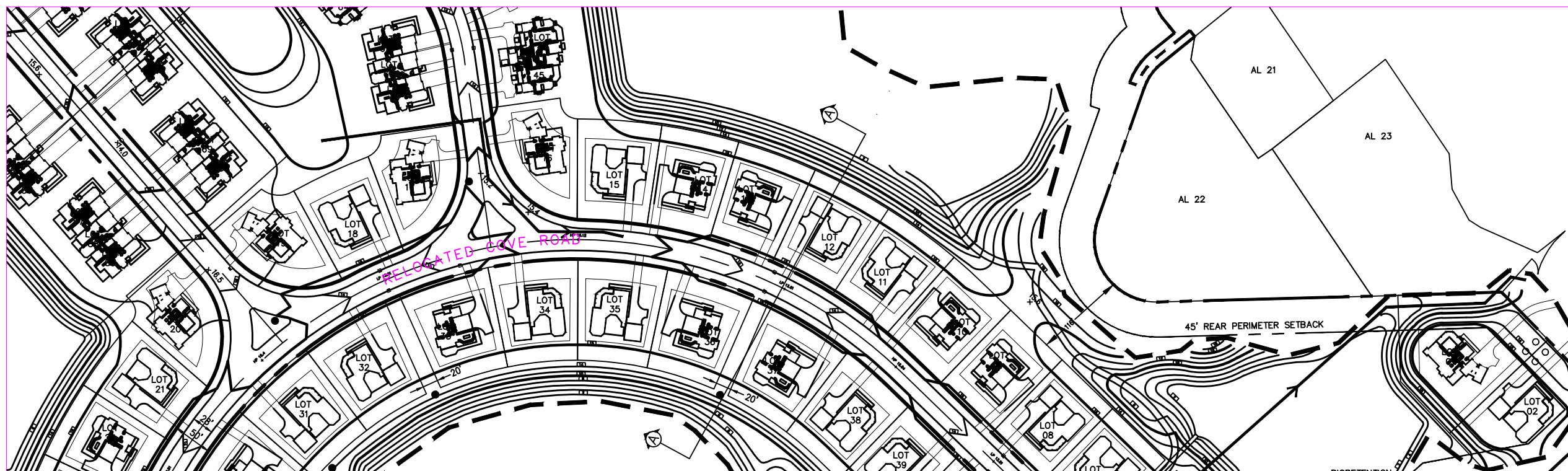


Top Soil				
top soil thickness (ft)	0.5	total area (acres)	29.76	volume of top soil (ac * ft) 14.88
				volume of top soil (cubic yard) 24006.4
Pavement				
pavement thickness (ft)	1.5	roadway area (ac)	3.517	volume of pavement (ac*ft) 5.2755
				volume of pavement (cubic yard) 8511.1
Basement				
		Unit areas (ac)		# of units
3 unit TH		0.1495		11
2 unit TH		0.108		14
single family home		0.0484		44
			total area (ac)	2.1296
				5.2861
basement void thickness (ft)	10	total area (ac)	5.2861	volume of basement void (ac*ft) 52.861
				volume of basement void (cubic yard) 85282.4
Basement Slab				
		Unit Areas (ac)		# of units
3 unit TH		0.1495		11
2 unit TH		0.108		14
single family home		0.0484		44
			total area (ac)	2.1296
				5.2861
basement slab thickness (ft)	1	total area (ac)	5.2861	volume of basement slab (ac*ft) 5.2861
				volume of basement slab (cubic yard) 8528.2
Driveway				
		Driveway areas (ac)		# of units
3 unit TH		0.09		11
2 unit TH		0.06		14
single family home		0.094		44
			total area (ac)	1.496
				3.326
driveway thickness (ft)	1	total area (ac)	3.326	volume of driveway (ac*ft) 3.326
				volume of driveway (cubic yard) 5365.9
Tennis and Parking (pavement)				
pavement thickness (ft)	1.5	tennis and parking area (ac)	1.467	Volume of tennis and parking pavement (ac*ft) 2.2005
				Volume of tennis and parking pavement (cubic yard) 3550.1

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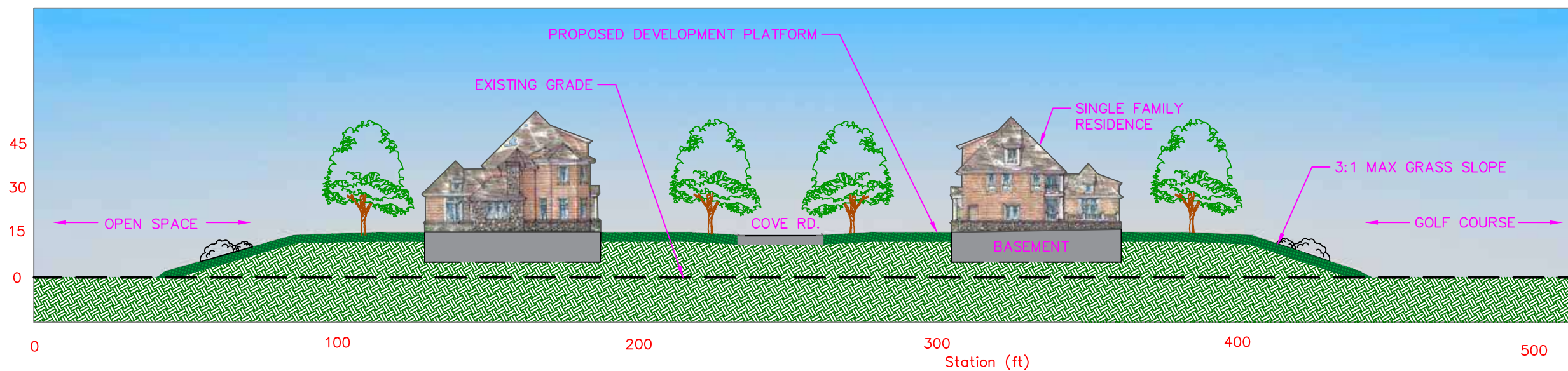
Cut and Fill

Source: Kimley-Horn



PARTIAL PLAN
SCALE 1" = 150'

Elevation (ft)

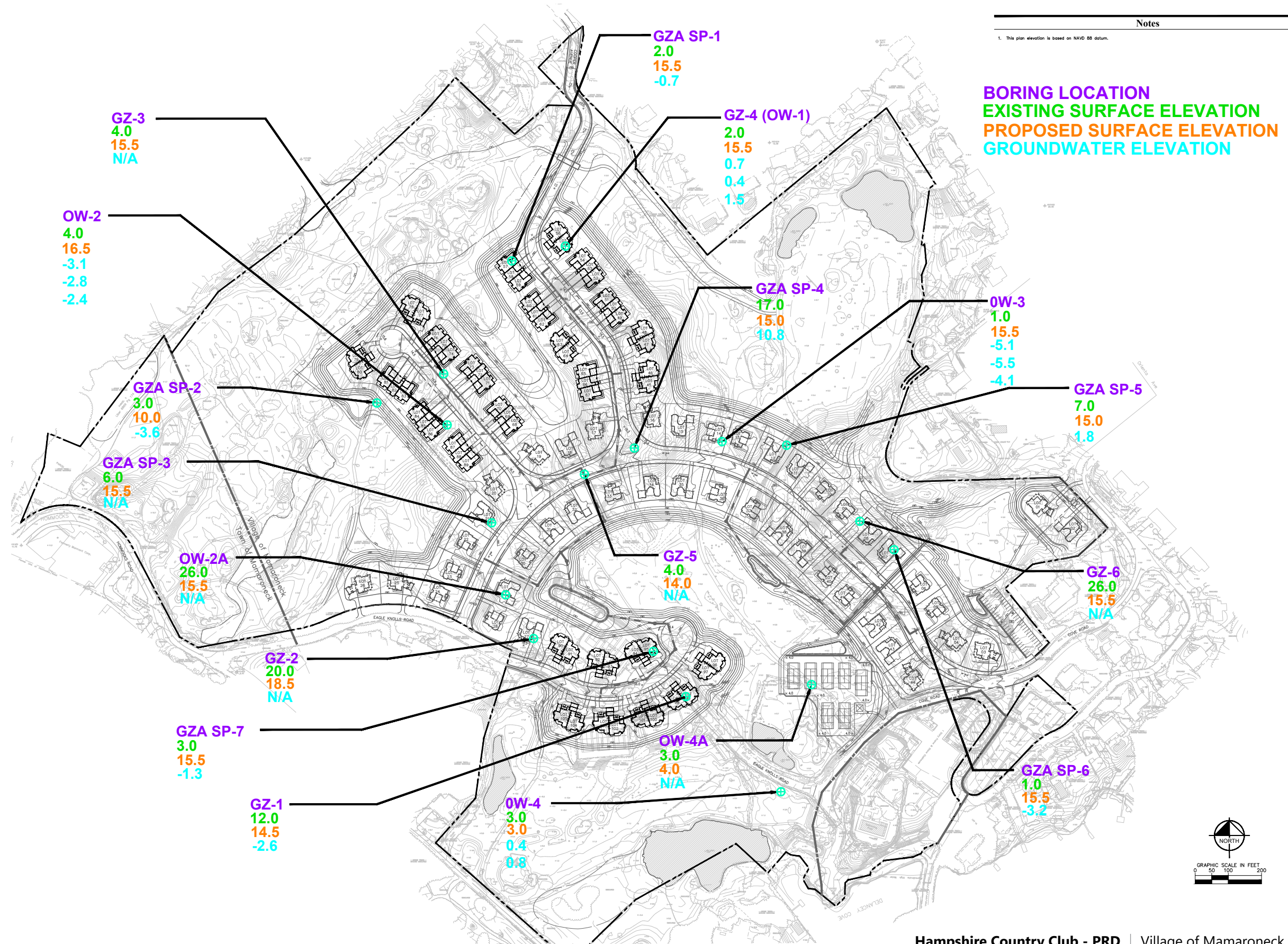


SECTION A-A
SCALE 1" = 40'

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Development Platform Cross Section

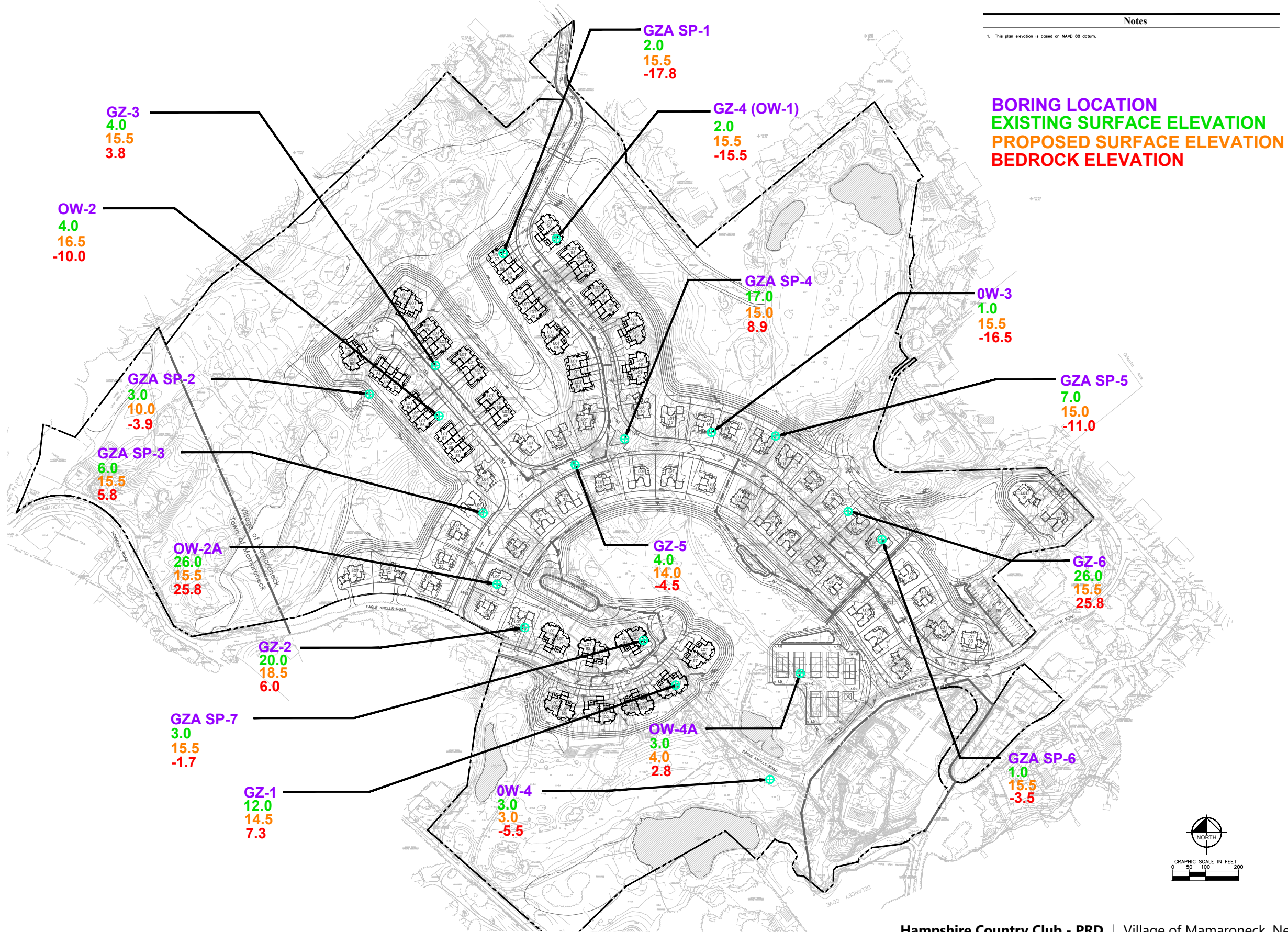
Source: Kimley-Horn



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Groundwater Elevation Map

Source: Kimley-Horn

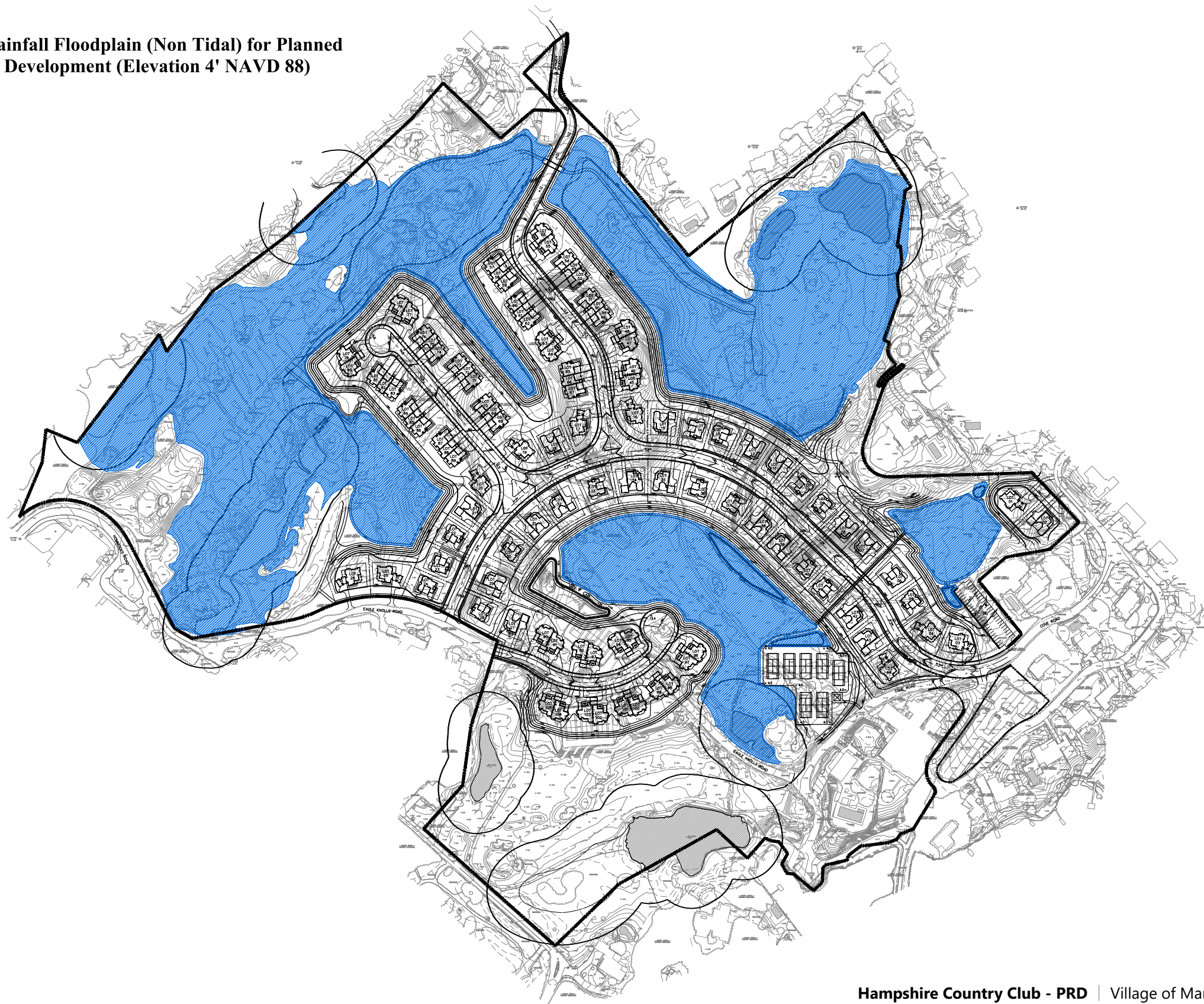


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Bedrock Elevation Map

Source: Kimley-Horn

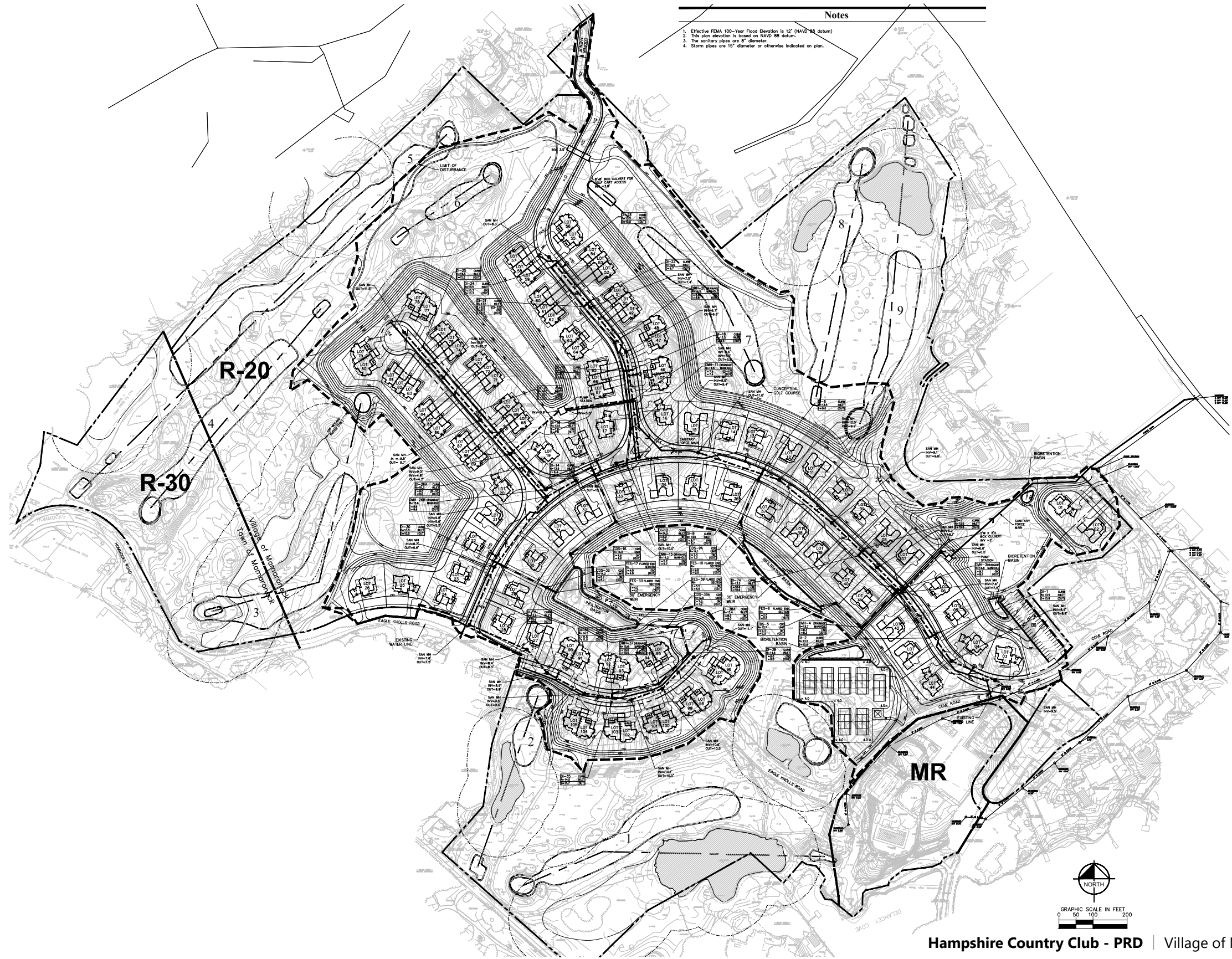
100-year Rainfall Floodplain (Non Tidal) for Planned Residential Development (Elevation 4' NAVD 88)



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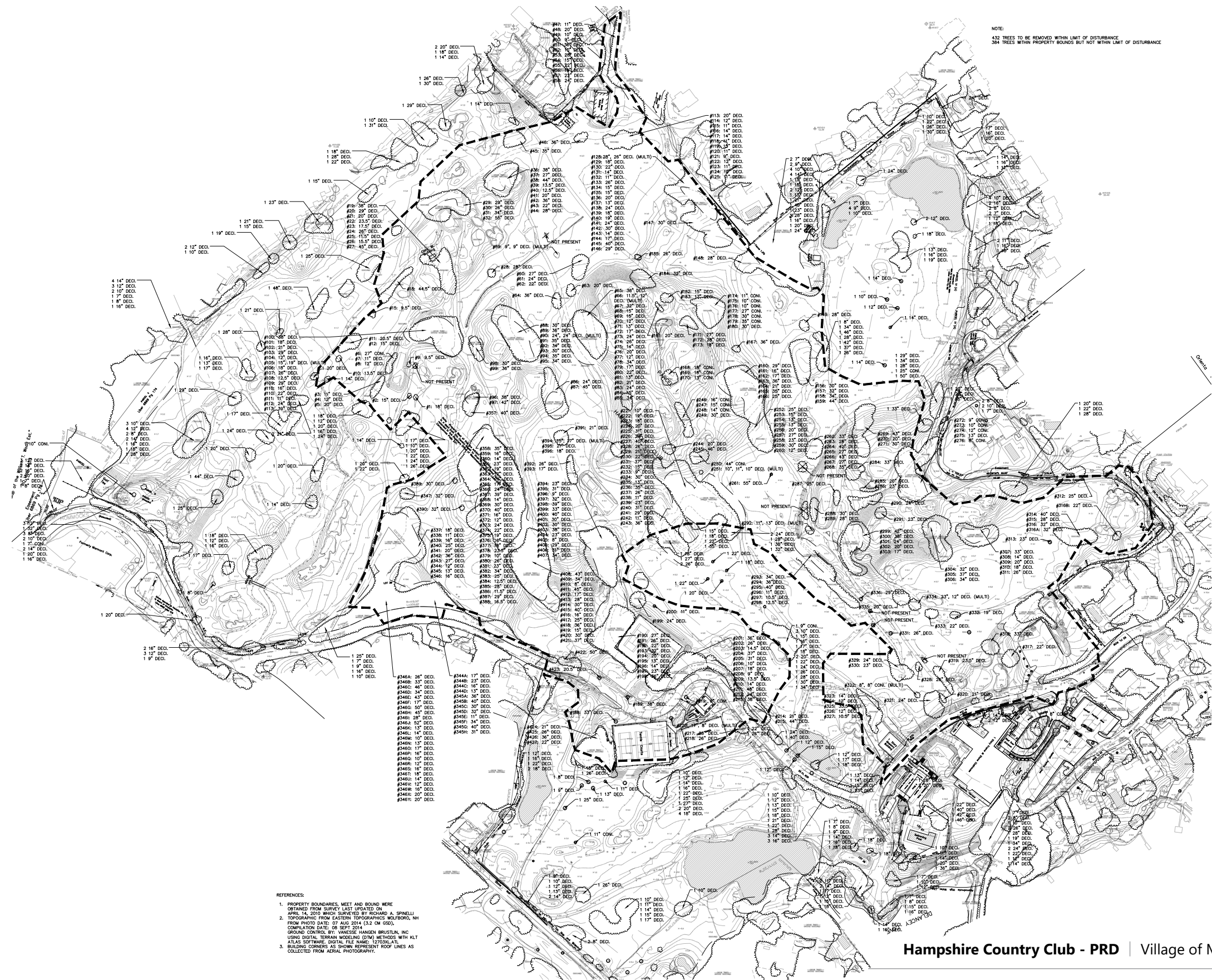
Flood Extent Model - 100 Year Storm

Source: Kimley Horn



Grading and Utility Plan

Source: Kimley Horn

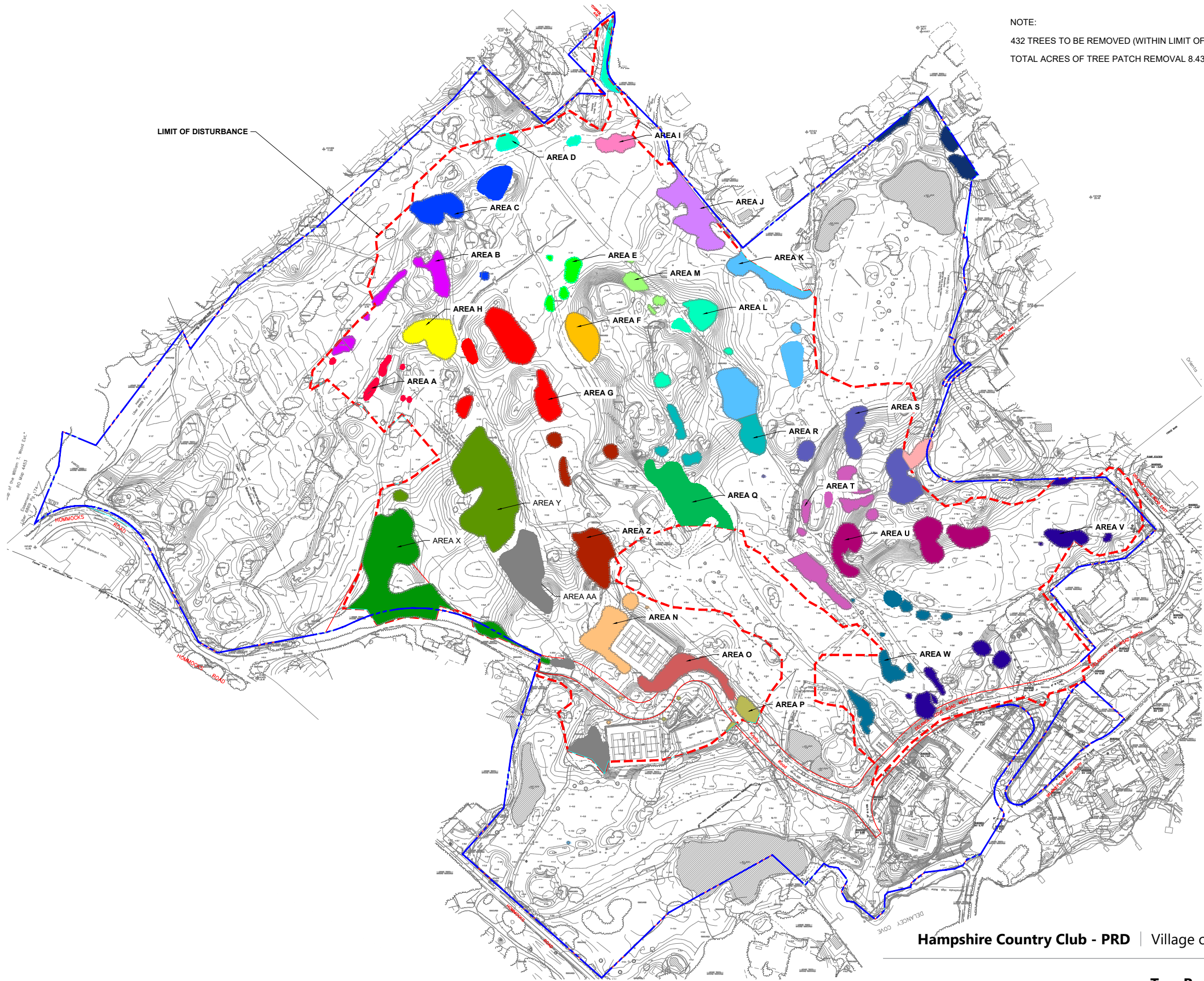


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Tree Removal Plan

Source: Kimley Horn

NOTE:
432 TREES TO BE REMOVED (WITHIN LIMIT OF DISTURBANCE)
TOTAL ACRES OF TREE PATCH REMOVAL 8.43



Hampshire Country Club - PRD | Village of Mamaroneck, New York

Tree Removal Sorted Plan

Source: Kimley Horn

LIST OF TREE TO BE REMOVED (WITHIN LIMIT OF DISTURBANCE)

AREA A–2,840 SF		
PINUS STRABUS		
ACER RUBRUM		
BETULA NIGRA		
LIQUIDAMBAR		
STYRACIFLUA		
TREE	DIAMETER	TYPE
#9	9.5"	DECI
#3	11"	DECI
#7	11"	DECI
#4	12"	DECI
#8	12"	DECI
#10	13.5"	DECI
#2	15"	DECI
#1	18"	DECI
#5	20"	DECI
#6	27"	CONI

AREA B–10,538 SF		
QUERAUS ALBA		
ACER RUBRUM		
PINUS STROBUS		
CARYA OVATA		
FAGUS GRANDIFOLIA		
CARYA GLABRA		
TREE	DIAMETER	TYPE
#15	9.5"	DECI
#25	11.5"	DECI
#12	15"	DECI
#26	15.5"	DECI
#23	17.5"	DECI
#21	20"	DECI
#11	20.5"	DECI
#22	23.5"	DECI
#24	26"	DECI
#20	29"	DECI
#19	38"	DECI
#18	44.5"	DECI
#27	45"	DECI

AREA C–17,347 SF		
QUERCUS ALBA		
QUERCUS RUBRA		
TREE	DIAMETER	TYPE
#40	12.5"	DECI
#39	13.5"	DECI
#41	20"	DECI
#43	22"	DECI
#30	26"	DECI
#37	27"	DECI
#28	28"	DECI
#44	28"	DECI
#29	29"	DECI
#31	34"	DECI
#42	36"	DECI
#36	38"	DECI
#38	44"	DECI
#32	55"	DECI

AREA D–7,446 SF		
QUERCUS ALBA		
PINUS STROBUS		
QUERCUS RUBRA		
QUERCUS ALBA		
TREE	DIAMETER	TYPE
#50	9"	DECI
#49	10"	DECI
#52	10"	DECI
#47	11"	DECI
#54	15"	DECI
#56	18"	DECI
#48	20"	DECI
#55	22"	DECI
#57	22"	DECI
#58	24"	DECI
#53	28"	DECI
#45	35"	DECI
#46	36"	DECI
#51	36"	DECI

AREA E–4,911 SF		
QUERCUS ALBA & RUBRA		
PINUS SYLVESTRIS		
TREE	DIAMETER	TYPE
#59	9"	DECI
#63	20"	DECI
#62	22"	DECI
#61	24"	DECI
#60	27"	DECI
#64	36"	DECI

AREA F–9,437 SF		
QUERCUS ALBA & RUBRA		
TREE	DIAMETER	TYPE
#66	12"	DECI
#70	12"	DECI
#77	12"	DECI
#71	13"	DECI
#81	13"	DECI
#75	14"	DECI
#68	15"	DECI
#69	15"	DECI
#84	15"	DECI
#72	17"	DECI
#79	17"	DECI
#76	20"	DECI
#82	21"	DECI
#80	22"	DECI
#73	24"	DECI
#83	24"	DECI
#74	26"	DECI
#67	32"	DECI
#78	34"	DECI
#85	34"	DECI
#65	38"	DECI

AREA G–25,794 SF		
LIRIODENDRON		
TULPIFERA		
QUERCUS RUBRA		
TREE	DIAMETER	TYPE
#86	24"	DECI
#90	24"	DECI
#88	30"	DECI
#93	30"	DECI
#98	30"	DECI
#92	34"	DECI
#95	34"	DECI
#81	35"	DECI
#94	35"	DECI
#89	36"	DECI
#99	36"	DECI
#96	38"	DECI
#97	42"	DECI
#87	45"	DECI

AREA H–12,469 SF		
QUERCUS ALBA		
QUERCUS RUBRA		
TREE	DIAMETER	TYPE
#111	11"	DECI
#104	12"	DECI
#108	12.5"	DECI
#110	16"	DECI
#101	18"	DECI
#106	18"	DECI
#105	19"	DECI
#102	21"	DECI
#112	24"	DECI
#107	26"	DECI
#103	29"	DECI
#109	29"	DECI
#100	38"	DECI
#113	39"	DECI

AREA I–4,735 SF		
METASEQOIA		
GLYPTOSTROBODIES		
QUERCUS ALBA		
TREE	DIAMETER	TYPE
#121	9"	DECI
#124	10"	DECI
#115	11"	DECI
#118	11"	DECI
#120	11"	DECI
#123	11"	DECI
#125	11"	DECI
#114	12"	DECI
#122	12"	DECI
#116	14"	DECI
#117	14"	DECI
#119	15"	DECI

AREA J–17,464 SF		
QUERCUS ALBA		
QUERCUS RUBRA		
TREE	DIAMETER	TYPE
#132	11"	DECI
#137	13"	DECI
#131	14"	DECI
#143	14"	DECI
#134	15"	DECI
#135	15"	DECI
#144	17"	DECI
#129	18"	DECI
#139	18"	DECI
#140	19"	DECI
#136	20"	DECI
#130	22"	DECI
#138	24"	DECI
#141	24"	DECI
#133	26"	DECI
#128	28"	DECI
#146	29"	DECI
#142	30"	DECI
#145	40"	DECI

AREA K–29,444 SF		
QUERCUS ALBA		
QUERCUS RUBRA		
TREE	DIAMETER	TYPE
#161	16"	DECI
#162	17"	DECI
#164	21"	DECI
#166	25"	DECI
#148	28"	DECI
#149	28"	DECI
#160	29"	DECI
#147	30"	DECI
#156	30"	DECI
#157	32"	DECI
#158	34"	DECI
#165	35"	DECI
#163	36"	DECI
#159	44"	DECI

AREA L–9,621 SF		
PINUS STROBUS		
CARYA OVATA		
QUERCUS ALBA		
QUERCUS RUBRA		
TREE	DIAMETER	TYPE
#175	10"	CONI
#176	10"	CONI
#174	10"	CONI
#170	13"	CONI
#168	18"	CONI
#169	18"	CONI
#173	18"	DECI
#171	27"	DECI
#177	27"	CONI
#172	28"	DECI
#178	30"	CONI
#180	30"	DECI
#179	35"	CONI
#167	36"	DECI

AREA M–4,310 SF		
CARYA OVATA		
QUERCUS ALBA		
TREE	DIAMETER	TYPE
#182	15"	DECI
#183	17"	DECI
#181	20"	DECI
#185	26"	DECI
#184	32"	DECI

AREA N–15,232 SF		
BETULA NIGRA		
CARYA OVATA		
QUERCUS RUBRA		
TREE	DIAMETER	TYPE
#200	11"	DECI
#195	13"	DECI
#196	14"	DECI
#194	20"	DECI
#192	22"	DECI
#197	23"	DECI
#199	24"	DECI
#191	26"	DECI
#190	27"	DECI
#193	32"	DECI
#188	33"	DECI
#198	36"	DECI
#189	38"	DECI

AREA O–13,291 SF		
CARYA OVATA		
CARYA GLABRA		
QUERCUS ALBA		
ROBINIA PSEUDOACACIA		
TREE	DIAMETER	TYPE
#208	9"	DECI
#206	10"	DECI
#209	13.5"	DECI
#210	14"	DECI
#203	14.5"	DECI
#207	18"	DECI
#212	24"	DECI
#202	26"	DECI
#205	31"	DECI
#201	36"	DECI
#204	37"	DECI
#213	38"	DECI
#211	48"	DECI

AREA P–4,061 SF		
TILIA TOMENTOSEUM		
TREE	DIAMETER	TYPE
#219	8"	CONI
#220	17"	DECI
#214	21"	DECI
#217	23"	DECI
#218	26"	DECI
#215	44"	DECI

AREA Q–26,146 SF		
QUERCUS ALBA		
QUERCUS RUBRA		
TREE	DIAMETER	TYPE
#233	9"	DECI
#221	10"	DECI
#238	11"	DECI
#242	11"	DECI
#235	13"	DECI
#232	15"	DECI
#223	18"	DECI
#222	19"	DECI
#224	20"	DECI
#229	21"	DECI
#230	22"	DECI
#239	23"	DECI
#228	26"	DECI
#237	26"	DECI
#226	29"	DECI
#241	29"	DECI
#234	30"	DECI
#225	31"	DECI
#240	31"	DECI
#236	35"	DECI
#243	36"	DECI
#231	37"	DECI
#227	40"	DECI

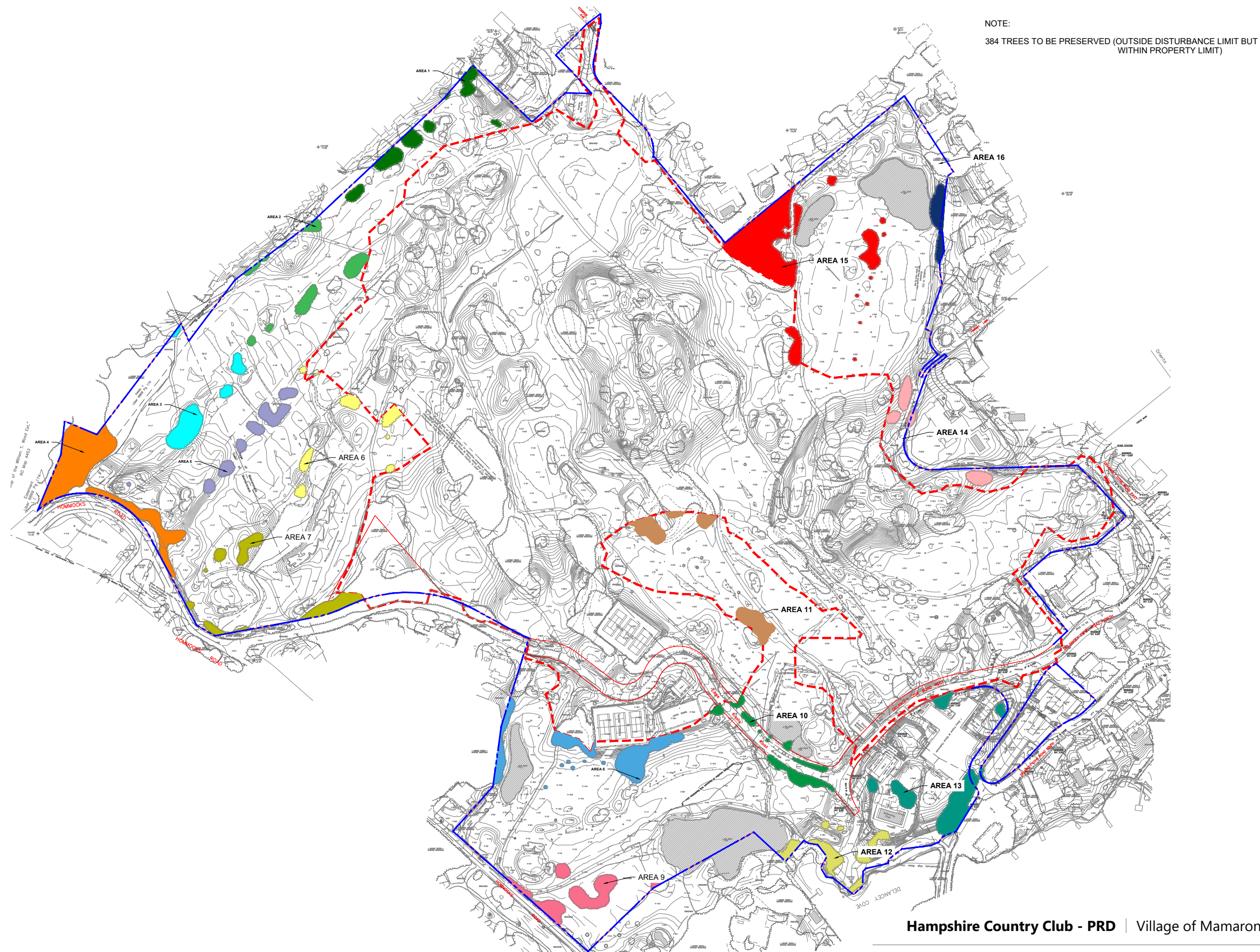
AREA R–11,800 SF		
ACER RUBRUM		
PINUS STROBUS		
METASEQOIA		
GLYPTOSTROBODIES		
QUERCUS ALBA		
TREE	DIAMETER	TYPE
#251	11"	DECI
#260	12"	DECI
#254	13"	DECI
#255	13"	DECI
#248	14"	CONI
#247	15"	CONI
#253	15"	DECI
#246	16"	CONI
#244	20"	DECI
#256	20"	DECI
#258	23"	DECI
#252	25"	DECI
#257	27"	DECI
#249	30"	DECI
#259	30"	DECI
#250	44"	CONI
#245	46"	DECI

AREA S–22,845 SF		
QUERCUS ALBA		
QUERCUS RUBRA		
TREE	DIAMETER	TYPE
#276	8"	CONI
#272	9"	CONI
#273	10"	CONI
#327	12"	CONI
#275	13"	DECI
#270	20"	DECI
#265	27"	DECI
#267	27"	DECI
#263	28"	DECI
#271	30"	DECI
#262	33"	DECI
#268	35"	DECI
#264	42"	DECI
#266	43"	DECI
#269	43"	DECI
#261	55"	DECI

AREA T–17,324 SF		
QUERCUS ALBA		
CARYA AVATA		
BETULA RUBRA		
TREE	DIAMETER	TYPE
#297	10.5"	DECI
#296	11"	DECI
#298	12.5"	DECI
#292	13"	DECI
#285	20"	DECI
#286	23"	DECI
#291	23"	DECI
#290	24"	DECI
#287	25"	DECI
#289	28"	DECI
#288	30"	DECI
#284	33"	DECI
#293	34"	DECI
#294	36"	DECI
#295	40"	DECI

AREA U–23,602 SF		
QUERCUS ALBA		
QUERCUS RUBRA		
ZELKOVA SERRATA		
TREE	DIAMETER	TYPE
#308	14"	DECI
#303	17"	DECI
#310	18"	DECI
#302	20"	DECI
#309	20"	DECI
#301	24"	DECI
#311	26"	DECI
#304	32"	DECI
#307	33"	DECI
#306	34"	DECI
#305	37"	DECI
#300	38"	DECI
#299	42"	DECI

AREA V–16,136 SF		
QUERCUS ALBA & RUBRA		
METASEQOIA GLYPTO		
BETULA NIGRA		
TREE	DIAMETER	TYPE
#322	8"	CONI
#320	21"	DECI
#316B	22"	DECI
#317	22"	DECI



Trees to be Preserved Sorted Plan

Source: Kimley Horn

LIST OF TREE TO BE PRESERVED (OUTSIDE OF DISTURBANCE LIMIT BUT WITHIN PROPERTY LIMIT)

AREA 1—11,801 SF	
DIAMETER	TYPE
10"	DECI
14"	DECI
14"	DECI
15"	DECI
18"	DECI
18"	DECI
20"	DECI
20"	DECI
21"	DECI
22"	DECI
26"	DECI
28"	DECI
29"	DECI
30"	DECI
31"	DFCI

AREA 2-9,862 SF	
DIAMETER	TYPE
10"	DECI
12"	DECI
12"	DECI
15"	DECI
16"	DECI
19"	DECI
21"	DECI
21"	DECI
23"	DECI
25"	DECI
28"	DECI
48"	DECI

AREA 3-12,169 SF	
DIAMETER	TYPE
7"	DECI
8"	DECI
8"	DECI
8"	DECI
10"	DECI
10"	DECI
10"	DECI
10"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
13"	DECI
14"	DECI
14"	DECI
14"	DECI
14"	DECI
14"	DECI
14"	DECI
15"	DECI
16"	DECI
16"	DECI
16"	DECI
17"	DECI
18"	DECI
28"	DECI
29"	DECI

AREA 4-36,310 SF	
DIAMETER	TYPE
7"	DECI
7"	DECI
8"	DECI
8"	DECI
8"	DECI
8"	DECI
10"	DECI
10"	DECI
10"	DECI
10"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
14"	DECI
14"	DECI
14"	DECI
16"	CONI
16"	DECI
16"	DECI
20"	DECI
32"	DECI

AREA 5-10,992 SF	
DIAMETER	TYPE
10"	DECI
17"	DECI
20"	DECI
21"	DECI
21"	DECI
22"	DECI
24"	DECI
25"	DECI
44"	DECI

AREA 6-7,080 SF	
DIAMETER	TYPE
10"	DECI
12"	DECI
14"	DECI
14"	DECI
14"	DECI
16"	DECI
17"	DECI
18"	DECI
20"	DECI
20"	DECI
20"	DECI
22"	DECI
22"	DECI
22"	DECI
24"	DECI
24"	DECI
26"	DECI

AREA 7-12,725 SF	
DIAMETER	TYPE
7"	DECI
8"	DECI
9"	DECI
9"	DECI
10"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
16"	DECI
16"	DECI
16"	DECI
16"	DECI
17"	DECI
18"	DECI
20"	DECI
25"	DECI

AREA 8-12,169 SF	
DIAMETER	TYPE
8"	DECI
9"	DECI
10"	DECI
11"	DECI
11"	CONI
12"	DECI
12"	DECI
13"	DECI
14"	DECI
16"	DECI
16"	DECI
18"	DECI
18"	DECI
18"	DECI
18"	DECI
18"	DECI
18"	DECI
18"	DECI
20"	DECI
20"	DECI
22"	DECI
22"	DECI
25"	DECI
25"	DECI
26"	DECI
27"	DECI

AREA 9-15,457 SF	
DIAMETER	TYPE
8"	DECI
8"	DECI
9"	DECI
10"	DECI
10"	DECI
11"	DECI
12"	DECI
13"	DECI
14"	DECI
14"	DECI
14"	DECI
15"	DECI
17"	DECI
26"	DECI

AREA 10-9,369 SF	
DIAMETER	TYPE
10"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
13"	DECI
13"	DECI
14"	DECI
14"	DECI
14"	DECI
14"	DECI
15"	DECI
15"	DECI
16"	DECI
16"	DECI
16"	DECI
17"	DECI
18"	DECI
18"	DECI
20"	DECI
21"	DECI
22"	DECI
22"	DECI
23"	DECI
24"	DECI
26"	DECI
28"	DECI
40"	DECI

AREA 11-16,145 SF	
DIAMETER	TYPE
9"	CONI
10"	DECI
10"	DECI
10"	DECI
12"	DECI
15"	DECI
15"	DECI
16"	DECI
17"	DECI
18"	DECI
18"	DECI
18"	DECI
20"	DECI
20"	DECI
20"	DECI
22"	DECI
22"	DECI
22"	DECI
22"	DECI
24"	DECI
24"	DECI
24"	DECI
26"	DECI
26"	DECI
26"	DECI
27"	DECI
28"	DECI
28"	DECI
30"	DECI
30"	DECI
32"	DECI
34"	DECI
35"	DECI

AREA 12-10,357 SF	
DIAMETER	TYPE
7"	DECI
7"	DECI
7"	DECI
7"	DECI
8"	DECI
8"	DECI
9"	DECI
10"	DECI
10"	DECI
11"	DECI
11"	DECI
11"	DECI
12"	DECI
12"	DECI
12"	DECI
14"	DECI
14"	DECI
14"	DECI
14"	DECI
15"	DECI
15"	DECI
16"	DECI
16"	DECI
16"	DECI
18"	DECI
18"	DECI
18"	DECI
20"	DECI
21"	DECI
36"	DECI

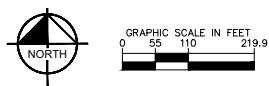
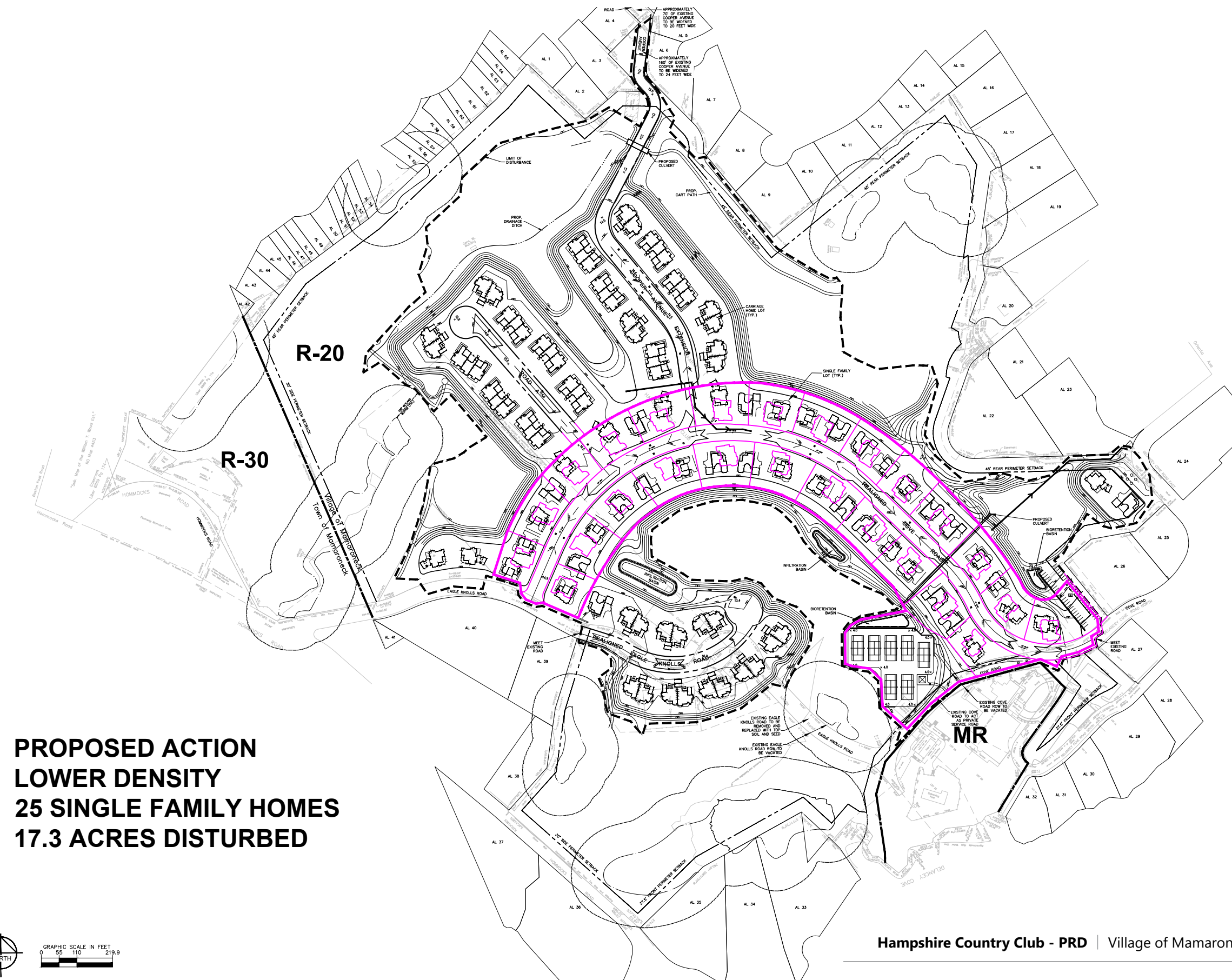
AREA 13-19,160 SF	
DIAMETER	TYPE
7"	DECI
8"	CONI
8"	DECI
8"	DECI
10"	DECI
12"	DECI
12"	DECI
12"	DECI
14"	DECI
14"	DECI
16"	DECI
19"	DECI
20"	DECI
20"	DECI
22"	DECI
22"	DECI
24"	DECI
24"	DECI
26"	DECI
26"	DECI
28"	DECI
28"	DECI
34"	DECI
40"	DECI
42"	DECI
46"	DECI

AREA 14-12,083 SF	
DIAMETER	TYPE
7"	DECI
8"	DECI
8"	DECI
10"	DECI
10"	DECI
12"	DECI
14"	DECI
18"	DECI
20"	DECI
20"	DECI
22"	DECI
22"	DECI
25"	CONI
28"	DECI
28"	DECI
29"	DECI
33"	DECI
34"	DECI
50"	DECI

AREA 15--40,990 SF	
DIAMETER	TYPE
7"	DECI
7"	DECI
7"	DECI
8"	DECI
9"	DECI
9"	DECI
9"	DECI
9"	DECI
9"	DECI
10"	DECI
10"	DECI
10"	DECI
10"	DECI
10"	DECI
10"	DECI
10"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
12"	DECI
13"	DECI
13"	DECI
14"	DECI
14"	DECI
14"	DECI
14"	DECI
14"	DECI
14"	DECI
15"	DECI
16"	DECI
16"	DECI
18"	DECI
18"	DECI
19"	DECI
20"	DECI
21"	DECI
23"	DECI
24"	DECI
24"	DECI
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28"	DECI
28"	DECI
34"	DECI
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42"	DECI
46"	DECI

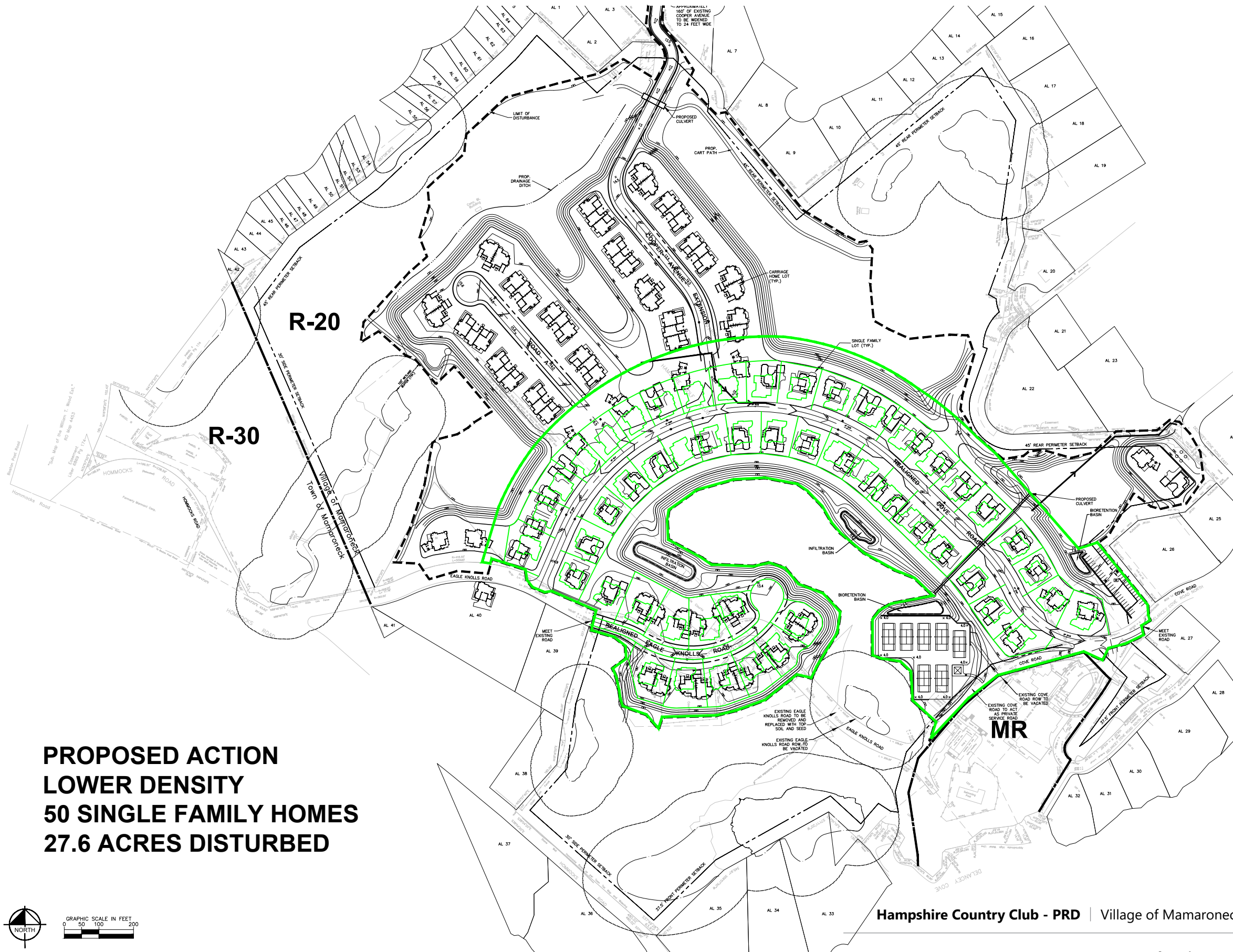
AREA 16-14,994 SF	
DIAMETER	TYPE
7"	DECI
7"	DECI
8"	DECI
8"	DECI
10"	DECI
10"	DECI
10"	DECI
10"	DECI
10"	DECI
10"	DECI
11"	DECI
11"	DECI
12"	CONI
12"	DECI
13"	DECI
14"	DECI
16"	DECI
16"	DECI
16"	DECI
16"	DECI
16"	DECI
17"	DECI
18"	DECI
20"	DECI
22"	DECI
24"	DECI
26"	DECI
30"	DECI

SUMMARY	
SIZE	NO. OF TREES
0"—10"	87
11"—15"	108
16"—20"	88
21"—25"	47
26"—30"	33
31"—35"	9
36"—40"	5
41"—45"	3
46"—50"	4
51"—55"	0
TOTAL	384



**Proposed Action Lower Density Site Plan -
25 Units**

Source: Kimley Horn

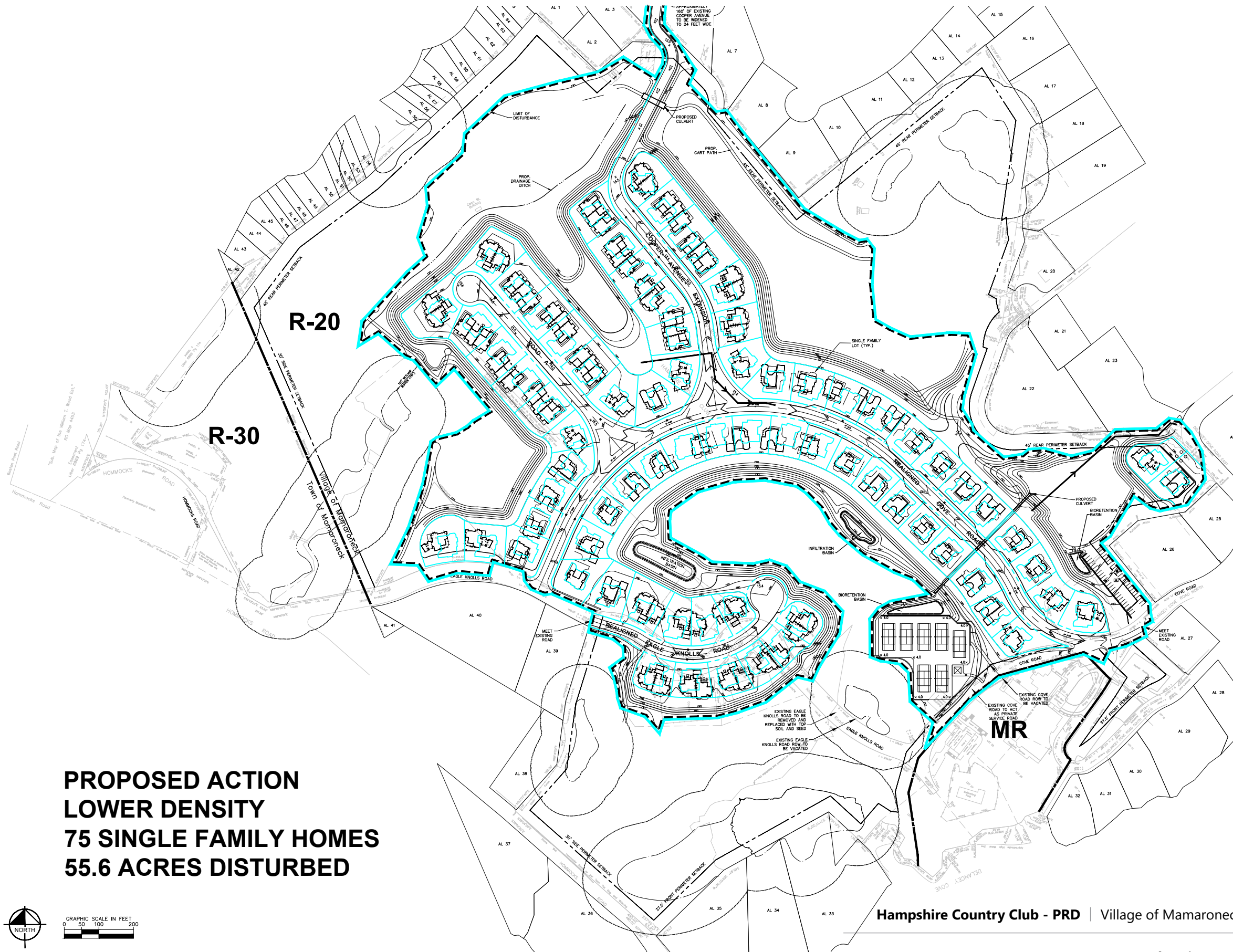


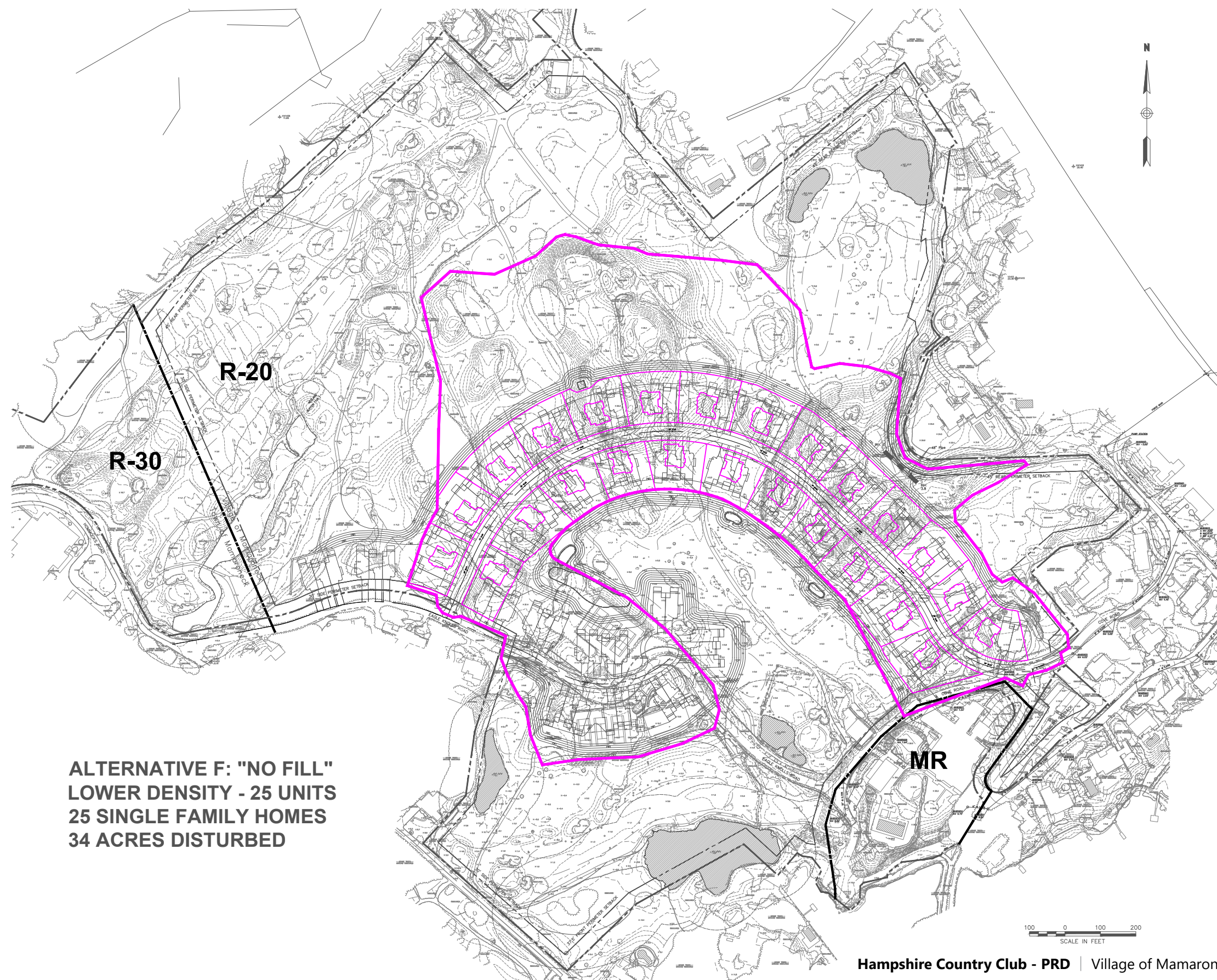
**PROPOSED ACTION
LOWER DENSITY
50 SINGLE FAMILY HOMES
27.6 ACRES DISTURBED**

Hampshire Country Club - PRD | Village of Mamaroneck, New York

**Proposed Action Lower Density Site Plan -
50 Units**

Source: Kimley Horn

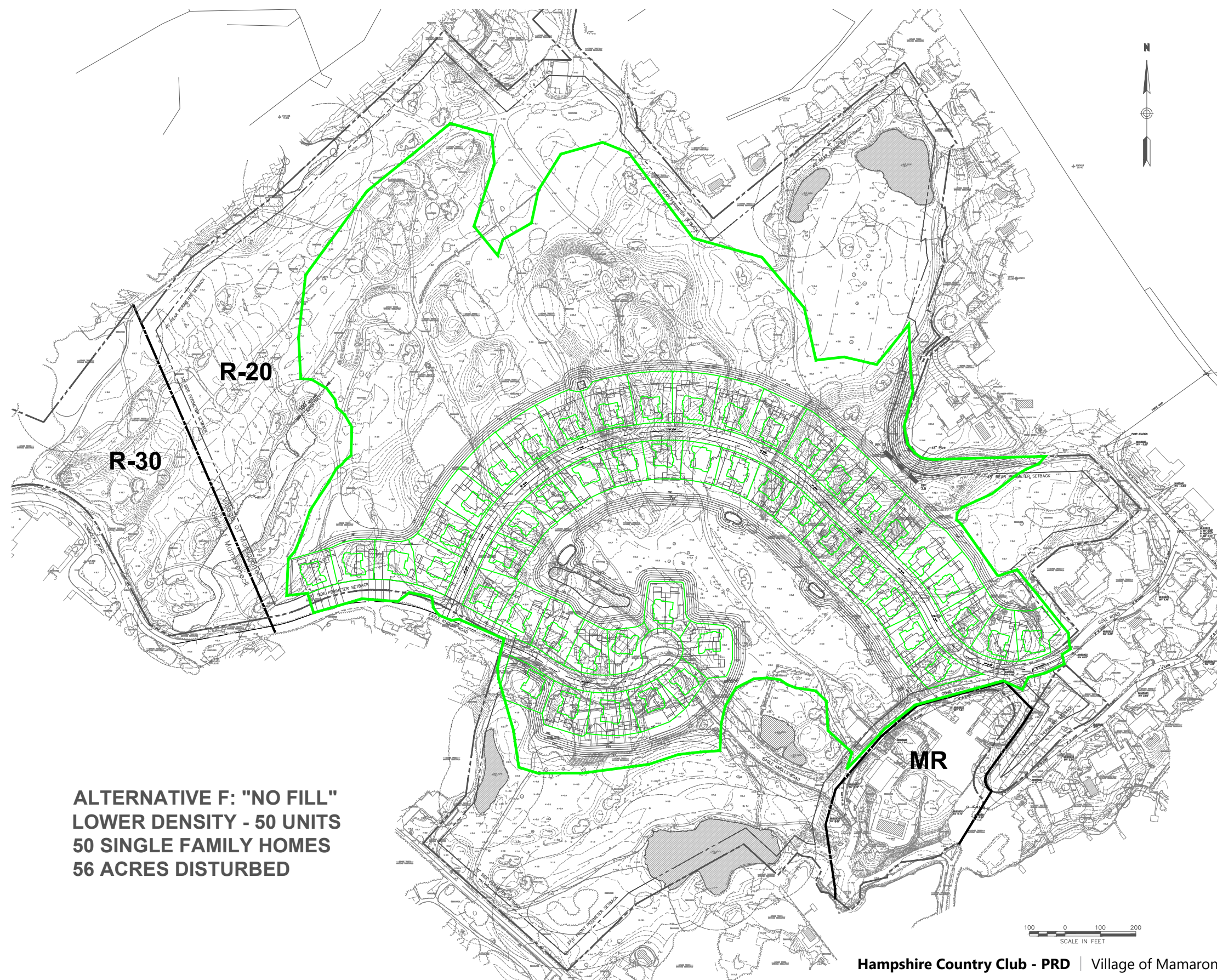




Hampshire Country Club - PRD | Village of Mamaroneck, New York

**Alternative F Lower Density Site Plan -
25 Units**

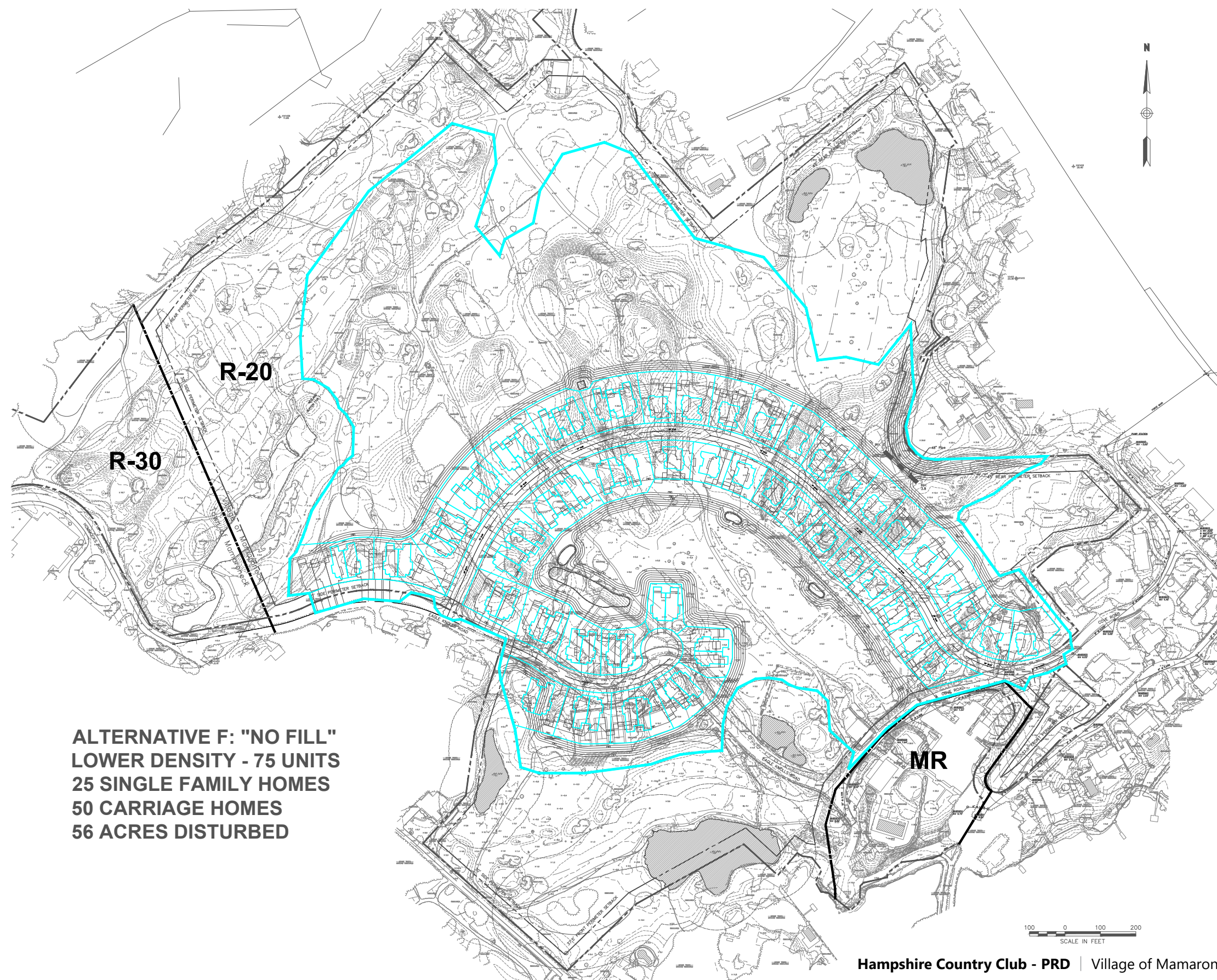
Source: Kimley Horn



Hampshire Country Club - PRD | Village of Mamaroneck, New York

**Alternative F Lower Density Site Plan -
 50 Units**

Source: Kimley Horn



ALTERNATIVE F: "NO FILL"
LOWER DENSITY - 75 UNITS
25 SINGLE FAMILY HOMES
50 CARRIAGE HOMES
56 ACRES DISTURBED

Hampshire Country Club - PRD | Village of Mamaroneck, New York

Proposed Action Lower Density Site Plan - 75 Units

Source: Kimley Horn



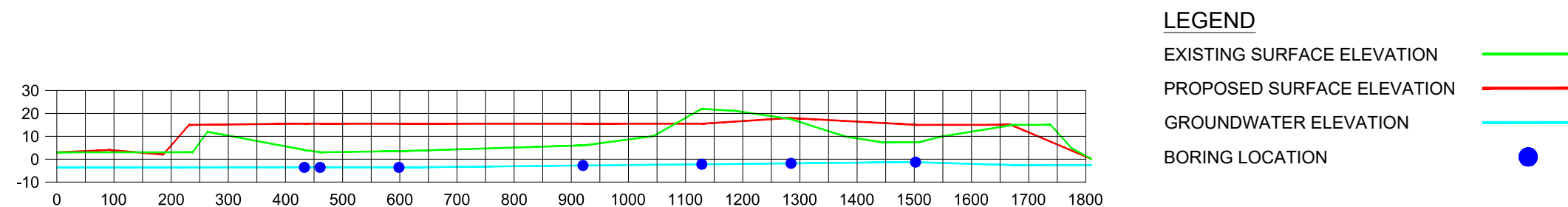
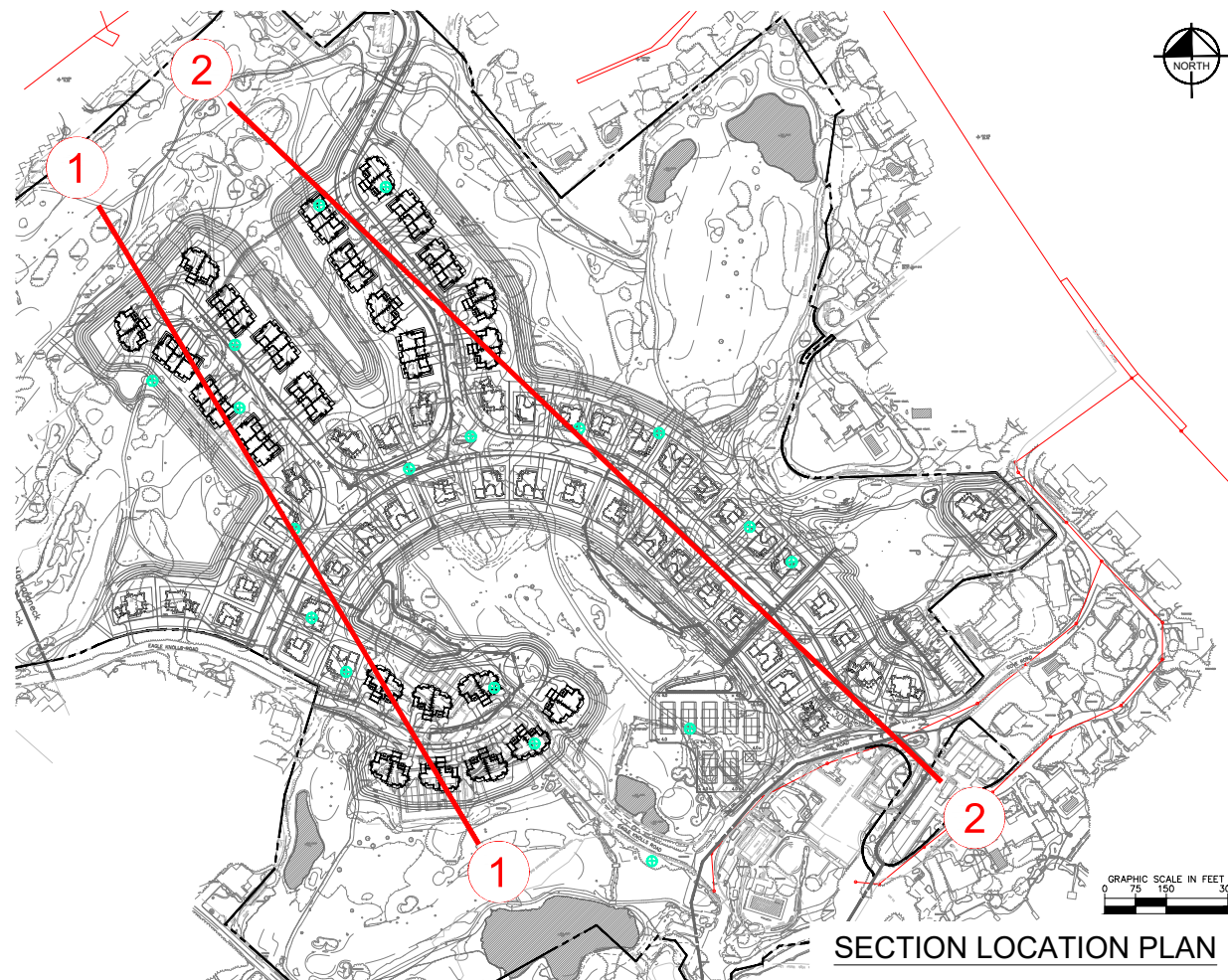
Photo Simulation 1: Two-story condominium from Delancey Cove



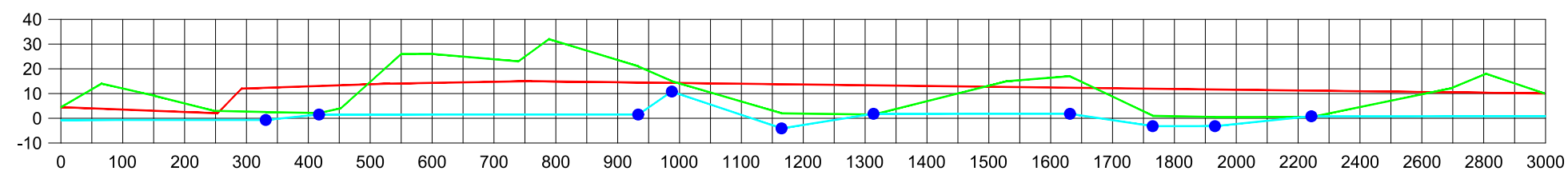
Photo Simulation 2: Three-story condominium from Delancey Cove



Photo Simulation 3: Four-story condominium from Delancey Cove



SECTION 1-1 PROFILE

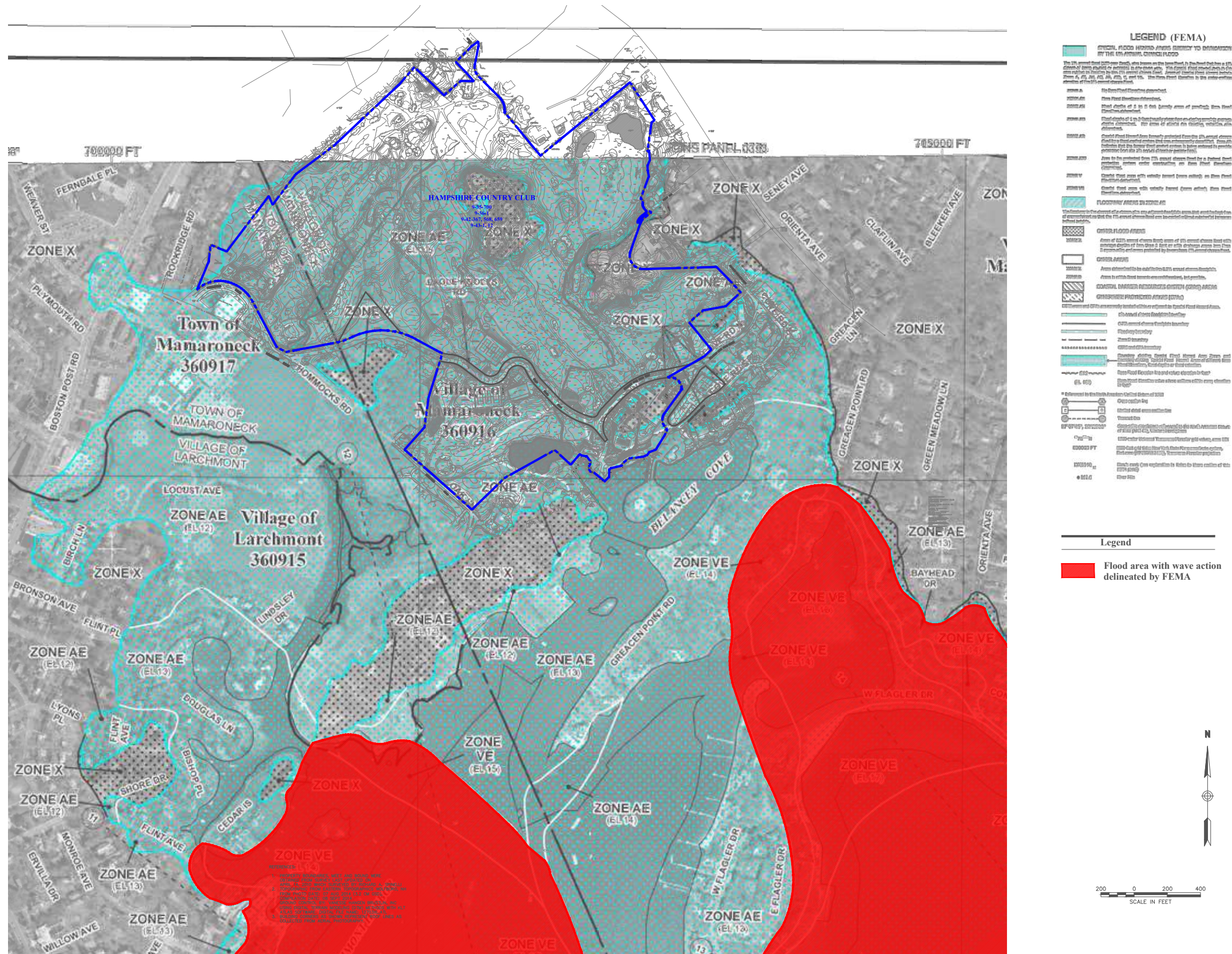


SECTION 2-2 PROFILE

Hampshire Country Club - PRD | Village of Mamaroneck, New York

Cross-Sectional Profile Plan

Source: Kimley-Horn



Hampshire Country Club - PRD | Village of Mamaroneck, New York

FEMA Waive Action (VE) Limit Plan

Source: Kimley-Horn; FEMA

Hampshire Country Club Planned Residential Development
Village of Mamaroneck,
Westchester County, New York
Final Environmental Impact Statement

Files added to:

F Relevant Cases; Tax Forms



Department of the Treasury
Internal Revenue ServiceReturn of Organization Exempt From Income Tax
Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except black lung
benefit trust or private foundation)

The organization may have to use a copy of this return to satisfy state reporting requirements

OMB No. 1545-0047

2007

Open to Public
Inspection

A For the 2007 calendar year, or tax year beginning 10/01, 2007, and ending 09/30/2008

B Check if applicable:
☐ Address change
☐ Name change
☐ Initial return
☐ Termination
☐ Amended return
☐ Application pending

Please use IRS label or print of type. See Specific Instructions.

C Name of organization

HAMPSHIRE COUNTRY CLUB, INC.

Number and street (or P O box if mail is not delivered to street address)

HOMMOCKS ROAD

City or town, state or country, and ZIP + 4

MAMARONECK, NY 10543

D Employer identification number

13-1711520

E Telephone number

(914) 698-4610

F Accounting method: ☐ Cash ☒ Accrual
Other (specify) _____

Section 501(c)(3) organizations and 4947(a)(1) nonexempt charitable trusts must attach a completed Schedule A (Form 990 or 990-EZ).

H and I are not applicable to section 527 organizations

H(a) Is this a group return for affiliates? ☐ Yes ☒ No

H(b) If "Yes," enter number of affiliates _____

H(c) Are all affiliates included? ☐ Yes ☐ No
(If "No," attach a list. See instructions.)H(d) Is this a separate return filed by an organization covered by a group ruling? ☐ Yes ☒ No

I Group Exemption Number _____

M Check ☒ if the organization is not required to attach Sch. B (Form 990, 990-EZ, or 990-PF)

G Website: WWW.HAMPSHIRECOUNTRYCLUB.ORG

J Organization type (check only one) ☒ 501(c) (7) (insert no) 4947(a)(1) or 527K Check here ☐ if the organization is not a 509(a)(3) supporting organization and its gross receipts are normally not more than \$25,000. A return is not required, but if the organization chooses to file a return, be sure to file a complete return.

L Gross receipts. Add lines 6b, 8b, 9b, and 10b to line 12 6,857,785.

Part I Revenue, Expenses, and Changes in Net Assets or Fund Balances (See the instructions.)

1	Contributions, gifts, grants, and similar amounts received		
a	Contributions to donor advised funds	1a	
b	Direct public support (not included on line 1a)	1b	
c	Indirect public support (not included on line 1a)	1c	
d	Government contributions (grants) (not included on line 1a)	1d	
e	Total (add lines 1a through 1d) (cash \$ _____ noncash \$ _____)	1e	
2	Program service revenue including government fees and contracts (from Part VII, line 93)	2	
3	Membership dues and assessments STMT. 1.	3	4,431,363.
4	Interest on savings and temporary cash investments STMT. 2.	4	180.
5	Dividends and interest from securities	5	
6a	Gross rents	6a	
b	Less: rental expenses	6b	
c	Net rental income or (loss) Subtract line 6b from line 6a	6c	
7	Other investment income (describe _____)	7	
8a	Gross amount from sales of assets other than inventory	(A) Securities 8a	(B) Other
b	Less: cost or other basis and sales expenses	8b	
c	Gain or (loss) (attach schedule)	8c	
d	Net gain or (loss). Combine line 8c, columns (A) and (B)	8d	
9	Special events and activities (attach schedule) If any amount is from gaming, check here <input type="checkbox"/>		
a	Gross revenue (not including \$ _____ of contributions reported on line 1b)	9a	
b	Less: direct expenses other than fundraising expenses	9b	
c	Net income or (loss) from special events Subtract line 9b from line 9a	9c	
10a	Gross sales of inventory, less returns and allowances STMT. 3.	10a	2,426,242.
b	Less: cost of goods sold	10b	530,318.
c	Gross profit or (loss) from sales of inventory (attach schedule) Subtract line 10b from line 10a	10c	1,895,924.
11	Other revenue (from Part VII, line 103)	11	
12	Total revenue. Add lines 1e, 2, 3, 4, 5, 6c, 7, 8d, 9c, 10c, and 11	12	6,327,467.
13	Program services (from line 44, column (B))	13	
14	Management and general (from line 44, column (C))	14	
15	Fundraising (from line 44, column (D))	15	
16	Payments to affiliates (attach schedule)	16	
17	Total expenses. Add lines 13 and 14, column (A)	17	6,192,562.
18	Excess or (deficit) for the year Subtract line 17 from line 12	18	134,905.
19	Net assets or fund balances at beginning of year (from line 73, column (A))	19	2,709,001.
20	Other changes in net assets or fund balances (attach explanation)	20	
21	Net assets or fund balances at end of year Combine lines 18, 19, and 20	21	2,843,906.

For Privacy Act and Paperwork Reduction Act Notice, see the separate instructions.

Form 990 (2007)

SCANNED SEP 24 2009

Part II Statement of Functional Expenses

All organizations must complete column (A). Columns (B), (C), and (D) are required for section 501(c)(3) and (4) organizations and section 4947(a)(1) nonexempt charitable trusts but optional for others. (See the instructions.)

Do not include amounts reported on line 6b, 8b, 9b, 10b, or 16 of Part I	(A) Total	(B) Program services	(C) Management and general	(D) Fundraising
22a Grants paid from donor advised funds (attach schedule) (cash \$ _____ noncash \$ _____) If this amount includes foreign grants, check here <input type="checkbox"/>	22a			
22b Other grants and allocations (attach schedule) (cash \$ _____ noncash \$ _____) If this amount includes foreign grants, check here <input type="checkbox"/>	22b			
23 Specific assistance to individuals (attach schedule)	23			
24 Benefits paid to or for members (attach schedule)	24			
25a Compensation of current officers, directors, key employees, etc listed in Part V-A	25a NONE			
b Compensation of former officers, directors, key employees, etc listed in Part V-B	25b			
c Compensation and other distributions, not included above, to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B)	25c			
26 Salaries and wages of employees not included on lines 25a, b, and c	26 2,478,757.			
27 Pension plan contributions not included on lines 25a, b, and c	27 46,954.			
28 Employee benefits not included on lines 25a-27	28 562,957.			
29 Payroll taxes	29 316,543.			
30 Professional fundraising fees	30			
31 Accounting fees	31 17,500.			
32 Legal fees	32 9,527.			
33 Supplies	33 156,992.			
34 Telephone	34 24,316.			
35 Postage and shipping	35 14,368.			
36 Occupancy	36 55,000.			
37 Equipment rental and maintenance	37 388,181.			
38 Printing and publications	38 7,878.			
39 Travel	39			
40 Conferences, conventions, and meetings	40			
41 Interest	41 405,554.			
42 Depreciation, depletion, etc. (attach schedule)	42 9,866.			
43 Other expenses not covered above (itemize):				
a STMT 4	43a 1,698,169.			
b	43b			
c	43c			
d	43d			
e	43e			
f	43f			
g	43g			
44 Total functional expenses. Add lines 22a through 43g. (Organizations completing columns (B)-(D), carry these totals to lines 13-15).	44 6,192,562.			

Joint Costs. Check ☐ if you are following SOP 98-2

Are any joint costs from a combined educational campaign and fundraising solicitation reported in (B) Program services? ☐ Yes ☒ No

If "Yes," enter (i) the aggregate amount of these joint costs \$ _____; (ii) the amount allocated to Program services \$ _____;

(iii) the amount allocated to Management and general \$ _____; and (iv) the amount allocated to Fundraising \$ _____

Part III Statement of Program Service Accomplishments (See the instructions.)

Form 990 is available for public inspection and, for some people, serves as the primary or sole source of information about a particular organization. How the public perceives an organization in such cases may be determined by the information presented on its return. Therefore, please make sure the return is complete and accurate and fully describes, in Part III, the organization's programs and accomplishments.

What is the organization's primary exempt purpose? ► TAX EXEMPT CLUB ACTIVITIES

All organizations must describe their exempt purpose achievements in a clear and concise manner. State the number of clients served, publications issued, etc. Discuss achievements that are not measurable (Section 501(c)(3) and (4) organizations and 4947(a)(1) nonexempt charitable trusts must also enter the amount of grants and allocations to others)

Program Service Expenses
(Required for 501(c)(3) and (4) orgs., and 4947(a)(1) trusts, but optional for others.)

a

(Grants and allocations \$) If this amount includes foreign grants, check here ☐

b

(Grants and allocations \$) If this amount includes foreign grants, check here ☐

c

(Grants and allocations \$) If this amount includes foreign grants, check here ☐

d

(Grants and allocations \$) If this amount includes foreign grants, check here ☐

e Other program services (attach schedule)

(Grants and allocations \$) If this amount includes foreign grants, check here ☐

f Total of Program Service Expenses (should equal line 44, column (B), Program services)

Part IV Balance Sheets (See the instructions.)

Note: Where required, attached schedules and amounts within the description column should be for end-of-year amounts only

		(A) Beginning of year		(B) End of year
Assets	45 Cash - non-interest-bearing	214,099.	45	125,709.
	46 Savings and temporary cash investments	63,240.	46	63,390.
	47a Accounts receivable	47a 1,047,284.		
	b Less: allowance for doubtful accounts	47b 121,500.	47c	925,784.
	48a Pledges receivable	48a		
	b Less: allowance for doubtful accounts	48b	48c	
	49 Grants receivable		49	
	50a Receivables from current and former officers, directors, trustees, and key employees (attach schedule)		50a	
	b Receivables from other disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B) (attach schedule)		50b	
	51a Other notes and loans receivable (attach schedule)	51a		
	b Less: allowance for doubtful accounts	51b	51c	
	52 Inventories for sale or use	113,035.	52	154,674.
	53 Prepaid expenses and deferred charges	175,278.	53	130,071.
	54a Investments - publicly-traded securities	<input type="checkbox"/> Cost <input type="checkbox"/> FMV	54a	
	b Investments - other securities (attach schedule)	<input type="checkbox"/> Cost <input type="checkbox"/> FMV	54b	
55a Investments - land, buildings, and equipment: basis	55a			
b Less: accumulated depreciation (attach schedule)	55b	55c		
56 Investments - other (attach schedule)		56		
57a Land, buildings, and equipment: basis	57a 8,205,067.			
b Less: accumulated depreciation (attach schedule)	57b 154,877.	8,050,190.	57c	8,050,190.
58 Other assets, including program-related investments (describe <input type="checkbox"/> STMT 6)	708,653.	58	708,051.	
59 Total assets (must equal line 74) Add lines 45 through 58	10,157,741.	59	10,157,869.	
Liabilities	60 Accounts payable and accrued expenses	1,006,025.	60	1,241,322.
	61 Grants payable		61	
	62 Deferred revenue		62	
	63 Loans from officers, directors, trustees, and key employees (attach schedule)		63	
	64a Tax-exempt bond liabilities (attach schedule)		64a	
	b Mortgages and other notes payable (attach schedule)	6,091,170.	64b	5,868,003.
	65 Other liabilities (describe <input type="checkbox"/> STMT 8)	351,545.	65	204,638.
66 Total liabilities. Add lines 60 through 65	7,448,740.	66	7,313,963.	
Net Assets or Fund Balances	Organizations that follow SFAS 117, check here <input checked="" type="checkbox"/> and complete lines 67 through 69 and lines 73 and 74.			
	67 Unrestricted	2,709,001.	67	2,843,906.
	68 Temporarily restricted		68	
	69 Permanently restricted		69	
	Organizations that do not follow SFAS 117, check here <input type="checkbox"/> and complete lines 70 through 74.			
	70 Capital stock, trust principal, or current funds		70	
	71 Paid-in or capital surplus, or land, building, and equipment fund		71	
	72 Retained earnings, endowment, accumulated income, or other funds		72	
	73 Total net assets or fund balances. Add lines 67 through 69 or lines 70 through 72. (Column (A) must equal line 19 and column (B) must equal line 21)	2,709,001.	73	2,843,906.
	74 Total liabilities and net assets/fund balances. Add lines 66 and 73	10,157,741.	74	10,157,869.

Part IV-A Reconciliation of Revenue per Audited Financial Statements With Revenue per Return (See the instructions.)

a	Total revenue, gains, and other support per audited financial statements		a	6,857,785.
b	Amounts included on line a but not on Part I, line 12:			
1	Net unrealized gains on investments	b1		
2	Donated services and use of facilities	b2		
3	Recoveries of prior year grants	b3		
4	Other (specify) <u>SEE STATEMENT 9</u> -----	b4	530,318.	
	Add lines b1 through b4		b	530,318.
c	Subtract line b from line a		c	6,327,467.
d	Amounts included on Part I, line 12, but not on line a :			
1	Investment expenses not included on Part I, line 6b	d1		
2	Other (specify) -----	d2		
	Add lines d1 and d2		d	
e	Total revenue (Part I, line 12). Add lines c and d ▶		e	6,327,467.


Part IV-B Reconciliation of Expenses per Audited Financial Statements With Expenses per Return



a	Total expenses and losses per audited financial statements	a	6,722,880.
b	Amounts included on line a but not on Part I, line 17		
1	Donated services and use of facilities	b1	
2	Prior year adjustments reported on Part I, line 20	b2	
3	Losses reported on Part I, line 20	b3	
4	Other (specify) <u>SEE STATEMENT 10</u> -----	b4	530,318.
	Add lines b1 through b4	b	530,318.
c	Subtract line b from line a	c	6,192,562.
d	Amounts included on Part I, line 17, but not on line a:		
1	Investment expenses not included on Part I, line 6b	d1	
2	Other (specify) -----	d2	
	Add lines d1 and d2	d	
e	Total expenses (Part I, line 17) Add lines c and d ▶	e	6,192,562.

Part V-A **Current Officers, Directors, Trustees, and Key Employees** (List each person who was an officer, director, trustee, or key employee at any time during the year even if they were not compensated) (See the instructions.)

[illegible]

	Yes	No
--	-----	----



	
75b	X

75c	X
-----	---

75d		X
-----	--	---

(If any former officer, director, trustee, or key employee received compensation or other benefits (described below) during the year, list that person below and enter the amount of compensation or other benefits in the appropriate column. See the instructions.)

[illegible]

	Yes	No
--	-----	----

76		X
----	--	---

77		X
----	--	---

78a	X	
-----	---	--

78b	X	
-----	---	--

79		X

80a	X	
-----	---	--

81b		X
-----	--	---

Part VI Other Information (continued)

		Yes	No
82a	Did the organization receive donated services or the use of materials, equipment, or facilities at no charge or at substantially less than fair rental value?		X
b	If "Yes," you may indicate the value of these items here. Do not include this amount as revenue in Part I or as an expense in Part II (See instructions in Part III)		
82b			N/A
83a	Did the organization comply with the public inspection requirements for returns and exemption applications?	X	
83b	Did the organization comply with the disclosure requirements relating to <i>quid pro quo</i> contributions?		N/A
84a	Did the organization solicit any contributions or gifts that were not tax deductible?		N/A
b	If "Yes," did the organization include with every solicitation an express statement that such contributions or gifts were not tax deductible?		N/A
84b			N/A
85a	501(c)(4), (5), or (6). Were substantially all dues nondeductible by members?		N/A
b	Did the organization make only in-house lobbying expenditures of \$2,000 or less?		N/A
	If "Yes" was answered to either 85a or 85b, do not complete 85c through 85h below unless the organization received a waiver for proxy tax owed for the prior year		
c	Dues, assessments, and similar amounts from members		N/A
85c			N/A
d	Section 162(e) lobbying and political expenditures		N/A
85d			N/A
e	Aggregate nondeductible amount of section 6033(e)(1)(A) dues notices		N/A
85e			N/A
f	Taxable amount of lobbying and political expenditures (line 85d less 85e)		N/A
85f			N/A
g	Does the organization elect to pay the section 6033(e) tax on the amount on line 85f?		N/A
85g			N/A
h	If section 6033(e)(1)(A) dues notices were sent, does the organization agree to add the amount on line 85f to its reasonable estimate of dues allocable to nondeductible lobbying and political expenditures for the following tax year?		N/A
85h			N/A
86	501(c)(7) orgs. Enter: a Initiation fees and capital contributions included on line 12		899,670.
86a			899,670.
b	Gross receipts, included on line 12, for public use of club facilities		376,744.
86b			376,744.
87	501(c)(12) orgs. Enter: a Gross income from members or shareholders		N/A
87a			N/A
b	Gross income from other sources. (Do not net amounts due or paid to other sources against amounts due or received from them)		N/A
87b			N/A
88a	At any time during the year, did the organization own a 50% or greater interest in a taxable corporation or partnership, or an entity disregarded as separate from the organization under Regulations sections 301.7701-2 and 301.7701-3? If "Yes," complete Part IX	X	
88a		X	
b	At any time during the year, did the organization, directly or indirectly, own a controlled entity within the meaning of section 512(b)(13)? If "Yes," complete Part XI		X
88b			X
89a	501(c)(3) organizations. Enter: Amount of tax imposed on the organization during the year under: section 4911 <u>N/A</u> ; section 4912 <u>N/A</u> ; section 4955 <u>N/A</u>		
b	501(c)(3) and 501(c)(4) orgs. Did the organization engage in any section 4958 excess benefit transaction during the year or did it become aware of an excess benefit transaction from a prior year? If "Yes," attach a statement explaining each transaction		N/A
89b			N/A
c	Enter: Amount of tax imposed on the organization managers or disqualified persons during the year under sections 4912, 4955, and 4958		N/A
d	Enter: Amount of tax on line 89c, above, reimbursed by the organization		N/A
e	All organizations. At any time during the tax year, was the organization a party to a prohibited tax shelter transaction?		X
89e			X
f	All organizations. Did the organization acquire a direct or indirect interest in any applicable insurance contract?		X
89f			X
g	For supporting organizations and sponsoring organizations maintaining donor advised funds. Did the supporting organization, or a fund maintained by a sponsoring organization, have excess business holdings at any time during the year?		N/A
89g			N/A
90a	List the states with which a copy of this return is filed		
b	Number of employees employed in the pay period that includes March 12, 2007 (See instructions)		48
90b			48
91a	The books are in care of <u>THE CLUB</u> Telephone no <u>914-698-4610</u>		
	Located at <u>HOMMOCKS ROAD, MAMARONECK, NY</u> ZIP + 4 <u>10543</u>		
b	At any time during the calendar year, did the organization have an interest in or a signature or other authority over a financial account in a foreign country (such as a bank account, securities account, or other financial account)?		X
91b			X
	If "Yes," enter the name of the foreign country		
	See the instructions for exceptions and filing requirements for Form TD F 90-22.1, Report of Foreign Bank and Financial Accounts		

Part VI Other Information (continued)

Yes No

c At any time during the calendar year, did the organization maintain an office outside of the United States? 91c ☐ ☒
 If "Yes," enter the name of the foreign country ▶

92 Section 4947(a)(1) nonexempt charitable trusts filing Form 990 in lieu of Form 1041 - Check here ▶ ☐
 and enter the amount of tax-exempt interest received or accrued during the tax year ▶ 92 | N/A

Part VII Analysis of Income-Producing Activities (See the instructions.)

Note: Enter gross amounts unless otherwise indicated.

	Unrelated business income		Excluded by section 512, 513, or 514		(E) Related or exempt function income
	(A) Business code	(B) Amount	(C) Exclusion code	(D) Amount	
93 Program service revenue					
a					
b					
c					
d					
e					
f Medicare/Medicaid payments					
g Fees and contracts from government agencies					
94 Membership dues and assessments					4,431,363.
95 Interest on savings and temporary cash investments	900001	180.			
96 Dividends and interest from securities					
97 Net rental income or (loss) from real estate					
a debt-financed property					
b not debt-financed property					
98 Net rental income or (loss) from personal property					
99 Other investment income					
100 Gain or (loss) from sales of assets other than inventory					
101 Net income or (loss) from special events					
102 Gross profit or (loss) from sales of inventory	713910	251,602.			1,644,322.
103 Other revenue: a					
b					
c					
d					
e					
104 Subtotal (add columns (B), (D), and (E))		251,782.			6,075,685.
105 Total (add line 104, columns (B), (D), and (E))					6,327,467.

Note: Line 105 plus line 1e, Part I, should equal the amount on line 12, Part I.

Part VIII Relationship of Activities to the Accomplishment of Exempt Purposes (See the instructions.)

Line No. ▼	Explain how each activity for which income is reported in column (E) of Part VII contributed importantly to the accomplishment of the organization's exempt purposes (other than by providing funds for such purposes).
94 & 102	DUES AND INCOME FROM MEMBERS, THEIR DEPENDENTS OR GUESTS TO PROVIDE FOR THEIR PLEASURE AND RECREATION.

Part IX Information Regarding Taxable Subsidiaries and Disregarded Entities (See the instructions.)

(A) Name, address, and EIN of corporation, partnership, or disregarded entity	(B) Percentage of ownership interest	(C) Nature of activities	(D) Total income	(E) End-of-year assets
STMT 11	%		-170,122.	1,612,681.
	%			
	%			
	%			

Part X Information Regarding Transfers Associated with Personal Benefit Contracts (See the instructions.)

(a) Did the organization, during the year, receive any funds, directly or indirectly, to pay premiums on a personal benefit contract? ☐ Yes ☒ No
 (b) Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contract? ☐ Yes ☒ No

Note: If "Yes" to (b), file Form 8870 and Form 4720 (see instructions).

Part XI Information Regarding Transfers To and From Controlled Entities. Complete only if the organization is a controlling organization as defined in section 512(b)(13).**106** Did the reporting organization make any transfers to a controlled entity as defined in section 512(b)(13) of the Code? If "Yes," complete the schedule below for each controlled entity

Yes	No
N/A	

	(A) Name, address, of each controlled entity	(B) Employer Identification Number	(C) Description of transfer	(D) Amount of transfer
a				
b				
c				
Totals				

107 Did the reporting organization receive any transfers from a controlled entity as defined in section 512(b)(13) of the Code? If "Yes," complete the schedule below for each controlled entity.

Yes	No
N/A	

	(A) Name, address, of each controlled entity	(B) Employer Identification Number	(C) Description of transfer	(D) Amount of transfer
a				
b				
c				
Totals				

108 Did the organization have a binding written contract in effect on August 17, 2006, covering the interest, rents, royalties, and annuities described in question 107 above?

Yes	No
N/A	

Please Sign Here

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than officer) is based on all information of which preparer has any knowledge.

Signature of officer: *[Signature]* Date: *8/15/07*

Type or print name and title: *THOMAS J. DONNELLY*

Paid Preparer's Use Only

Preparer's signature: *[Signature]* Date: *JUN 21 2009* Check if self-employed: ☐

Firm's name (or yours if self-employed), address, and ZIP + 4: *CONDON O'NEARA MCGINTY & DONNELLY L* EIN: *13-3628255*

ONE BATTERY PARK PLAZA Phone no: *212-661-7777*

NEW YORK, NY 10004-1405

Form 990 (2007)

FORM 990, PART I - MEMBERSHIP DUES AND ASSESSMENTS
=====DESCRIPTION
-----AMOUNT

MEMBERSHIP DUES	3,531,693.
INITIATION FEES	75,000.
CAPITAL IMPROVEMENT ASSESSMENT	188,606.
CAPITAL LONG RANGE ASSESSMENT	633,664.
GOLF COURSE RENOVATION ASSESSMENT	2,400.

TOTAL	4,431,363.
	=====

FORM 990, PART I - INTEREST ON SAVINGS AND TEMPORARY CASH INVESTMENTS
=====

DESCRIPTION -----	AMOUNT -----
INTEREST INCOME	180. -----
TOTAL	180. =====

FORM 990, PART I - GROSS SALES AND COST OF GOODS SOLD

DESCRIPTION	GROSS SALES	BEGINNING INVENTORY	PURCHASES	SALARIES AND WAGES	OTHER COSTS	MINUS: ENDING INVENTORY	COST OF GOODS SOLD
GROSS SALES	2,426,242.						
COST OF FOOD				453,657.			453,657.
COST OF BEVERAGE				76,651.			76,651.
OTHER				10.			10.
TOTALS	2,426,242.				530,318.		530,318.

FORM 990, PART II - OTHER EXPENSES

DESCRIPTION	TOTAL
-----	-----
FOOD & BEVERAGE	7,705.
CLUBHOUSE	8,201.
GOLF COURSE	22,519.
GOLF PRO	3,072.
OTHER SPORTS	27,729.
PAYROLL PROCESSING FEE	31,153.
UTILITIES	325,031.
INSURANCE	161,415.
REAL ESTATE TAXES	306,715.
A & G	25,200.
GOLF CART RENTALS	334.
TENNIS & POOL	6,061.
LAUNDRY, LINENS & UNIFORMS	52,249.
FLOWERS	9,444.
MUSIC & ENTERTAINMENT	62,185.
REFUSE REMOVAL	20,276.
MARKETING	1,805.
LICENSES	4,558.
SPECIAL PURPOSE FUND	54,567.
CAPITAL EXPENDITURES	297,425.
COMMITTEE EXPENSES	2,875.
TOURNAMENTS	1,112.
CHINA, GLASS & SILVERWARE	14,125.
DATA PROCESSING	3,641.
EDUCATION & CONFERENCES	13,775.
PARKING SERVICE	37,762.
BRIDGE & YOUTH EXPENSES	7,336.
CHEMICALS	127,216.
OTHER PROFESSIONAL FEES	49,100.
BAD DEBT	13,500.
LOCKER ROOM	83.

FORM 990, PART II - OTHER EXPENSES
=====

DESCRIPTION -----	TOTAL -----
TOTALS	----- 1,698,169. =====

CLIENT: HAMPSHIRE COUNTRY CLUB, INC.

EIN: 13-1711520

FOR THE YEAR ENDED: 09/30/08

DEPRECIATION TAX SCHEDULE

ASSETS

KIND OF PROPERTY	ADDITIONS			ACCUMULATED DEPRECIATION			
	BEGINNING BALANCE	RETIREMENTS(R) SALE(S)	ENDING BALANCE	ALLOWED (OR ALLOWABLE) IN PRIOR YEARS	DEPRECIATION CLAIMED THIS YEAR	DEDUCTIONS RETIREMENTS(R) SALES(S)	ENDING BALANCE
LAND	301,278		301,278				
CLUBHOUSE IMPROVEMENTS	4,865,936		4,865,936	154,877			154,877
GOLF COURSE RENOVATIONS	984,445		984,445				
POOL AND TENNIS	1,898,531		1,898,531				
EQUIPMENT CAPITAL LEASES	154,877		154,877				
TOTAL	8,205,067	0	8,205,067	154,877	0		154,877

FORM 990, PART IV - OTHER ASSETS

=====

DESCRIPTION

ENDING
BOOK VALUE

UNAMORTIZED MORTGAGE COSTS

177,578.

DUE FROM ESTATE APPRAISAL

478,665.

INITIATION FEES RECEIVABLE

51,808.

TOTALS

708,051.
=====

FORM 990, PART IV - MORTGAGES AND OTHER NOTES PAYABLE
=====

LENDER: LENDER: NOTE PAYABLE
ORIGINAL AMOUNT: 1,000,000.
DATE OF NOTE: 04/01/2007

BEGINNING BALANCE DUE 993,251.
ENDING BALANCE DUE 971,317.

LENDER: LENDER: MORTGAGE PAYABLE
ORIGINAL AMOUNT: 4,986,486.
INTEREST RATE: 6.990000
DATE OF NOTE: 03/15/2007

BEGINNING BALANCE DUE 4,947,919.
ENDING BALANCE DUE 4,746,686.

LENDER: LENDER: LINE OF CREDIT
ORIGINAL AMOUNT: 150,000.
INTEREST RATE: 9.250000
DATE OF NOTE: 04/01/2007

BEGINNING BALANCE DUE 150,000.
ENDING BALANCE DUE 150,000.

TOTAL BEGINNING MORTGAGES AND OTHER NOTES PAYABLE 6,091,170.
=====

TOTAL ENDING MORTGAGES AND OTHER NOTES PAYABLE 5,868,003.
=====

FORM 990, PART IV - OTHER LIABILITIES

=====

DESCRIPTION	ENDING BOOK VALUE
-----	-----
ADVANCE DEPOSITS	75,796.
UNEARNED INITIATION FEE INCOME	128,842.

TOTALS	204,638.
	=====

FORM 990, PART IV-A - OTHER REVENUE ON BOOKS BUT NOT ON RETURN
=====DESCRIPTION
-----AMOUNT

COST OF GOODS SOLD

530,318.

TOTAL

530,318.
=====

FORM 990, PART IV-B - OTHER EXPENSES ON BOOKS BUT NOT ON RETURN
=====DESCRIPTION
-----AMOUNT

COST OF GOODS SOLD

530,318.

TOTAL

530,318.
=====



HAMPSHIRE COUNTRY CLUB

COVE ROAD, MAMARONECK, NEW YORK 10543

TEL. (914) 698-4610

FAX. (914) 698-2559

Officers

President
Vice President (1st)
Vice President (2nd)
Treasurer
Secretary

Stan Brettschneider
Ed Pomeranz
Warren Lesser
Don Perl
Fred Cohen
Ricky Braunshweiger
Howard Fine
Michael Goldberg
Howard Greenberg
Robert Kestenbaum
Barry Kupferberg
Susan Levy
Herb Posner
Edward Sussi
James Berger

Directors/Trustees

Address	c/o the Club
Time Devoted	1-3 hours/week
Compensation	None
Expense Allowance	None
Contributions to Employee Benefit Plan	None

FORM 990, PART IX - INFORMATION REGARDING TAXABLE SUBSIDIARIES

NAME AND ADDRESS EMPLOYER IDENTIFICATION NUMBER	PERCENTAGE		NATURE OF BUSINESS ACTIVITIES	TOTAL INCOME	ENDING ASSETS
	OWNERSHIP	INTEREST			
ESTATE APPRAISAL & VALUATION 13-2526121	100.000000			-170,122.	1,612,681.
TOTAL INCOME				-170,122.	1,612,681.

Application for Extension of Time To File an Exempt Organization Return

OMB No. 1545-1709

Department of the Treasury
Internal Revenue Service

► File a separate application for each return

- If you are filing for an **Automatic 3-Month Extension**, complete only **Part I** and check this box ☒ **X**
 - If you are filing for an **Additional (Not Automatic) 3-Month Extension**, complete only **Part II** (on page 2 of this form)
- Do not complete Part II unless you have already been granted an automatic 3-month extension on a previously filed Form 8868**

Part I Automatic 3-Month Extension of Time. Only submit original (no copies needed).

A corporation required to file Form 990-T and requesting an automatic 6-month extension - check this box and complete Part I only ☐

All other corporations (including 1120-C filers), partnerships, REMICs, and trusts must use Form 7004 to request an extension of time to file income tax returns

Electronic Filing (e-file). Generally, you can electronically file Form 8868 if you want a 3-month automatic extension of time to file one of the returns noted below (6 months for a corporation required to file Form 990-T). However, you cannot file Form 8868 electronically if (1) you want the additional (not automatic) 3-month extension or (2) you file Forms 990-BL, 6069, or 8870, group returns, or a composite or consolidated Form 990-T. Instead, you must submit the fully completed and signed page 2 (Part II) of Form 8868. For more details on the electronic filing of this form, visit www.irs.gov/efile and click on *e-file for Charities & Nonprofits*.

Type or print File by the due date for filing your return. See instructions.	Name of Exempt Organization HAMPSHIRE COUNTRY CLUB, INC.		Employer identification number 13-1711520
	Number, street, and room or suite no. If a P.O. box, see instructions HOMMOCKS ROAD		
	City, town or post office, state, and ZIP code. For a foreign address, see instructions MAMARONECK, NY 10543		

Check type of return to be filed (file a separate application for each return).

<input checked="" type="checkbox"/> Form 990	<input type="checkbox"/> Form 990-T (corporation)	<input type="checkbox"/> Form 4720
<input type="checkbox"/> Form 990-BL	<input type="checkbox"/> Form 990-T (sec. 401(a) or 408(a) trust)	<input type="checkbox"/> Form 5227
<input type="checkbox"/> Form 990-EZ	<input type="checkbox"/> Form 990-T (trust other than above)	<input type="checkbox"/> Form 6069
<input type="checkbox"/> Form 990-PF	<input type="checkbox"/> Form 1041-A	<input type="checkbox"/> Form 8870

- The books are in the care of ► **THE CLUB**

Telephone No. ► **914 698-4610** FAX No. ► _____

- If the organization does not have an office or place of business in the United States, check this box ☐
- If this is for a Group Return, enter the organization's four digit Group Exemption Number (GEN) _____ . If this is for the whole group, check this box ☐ . If it is for part of the group, check this box ☐ and attach a list with the names and EINs of all members the extension will cover

1 I request an automatic 3-month (6 months for a corporation required to file Form 990-T) extension of time until **05/15, 2009**, to file the exempt organization return for the organization named above. The extension is for the organization's return for

- ☐ calendar year _____ or
 ► ☒ tax year beginning **10/01, 2007**, and ending **09/30, 2008**

2 If this tax year is for less than 12 months, check reason ☐ Initial return ☐ Final return ☐ Change in accounting period

3a If this application is for Form 990-BL, 990-PF, 990-T, 4720, or 6069, enter the tentative tax, less any nonrefundable credits. See instructions	3a	\$
b If this application is for Form 990-PF or 990-T, enter any refundable credits and estimated tax payments made. Include any prior year overpayment allowed as a credit.	3b	\$
c Balance Due. Subtract line 3b from line 3a. Include your payment with this form, or, if required, deposit with FTD coupon or, if required, by using EFTPS (Electronic Federal Tax Payment System). See instructions	3c	\$

Caution. If you are going to make an electronic fund withdrawal with this Form 8868, see Form 8453-EO and Form 8879-EO for payment instructions

For Privacy Act and Paperwork Reduction Act Notice, see Instructions.

Form **8868** (Rev. 4-2008)

- If you are filing for an **Additional (Not Automatic) 3-Month Extension**, complete only **Part II** and check this box ☒ **X**.
- Note.** Only complete Part II if you have already been granted an automatic 3-month extension on a previously filed Form 8868.
- If you are filing for an **Automatic 3-Month Extension**, complete only **Part I** (on page 1).

Part II Additional (Not Automatic) 3-Month Extension of Time. You must file original and one copy.

Type or print File by the extended due date for filing the return. See instructions.	Name of Exempt Organization HAMPSHIRE COUNTRY CLUB, INC.		Employer Identification number 13-1711520
	Number, street, and room or suite no. If a P.O. box, see instructions. HOMMOCKS ROAD		For IRS use only
	City, town or post office, state, and ZIP code. For a foreign address, see instructions. MAMARONECK, NY 10543		

Check type of return to be filed (File a separate application for each return)

<input checked="" type="checkbox"/> Form 990	<input type="checkbox"/> Form 990-PF	<input type="checkbox"/> Form 1041-A	<input type="checkbox"/> Form 6069
<input type="checkbox"/> Form 990-BL	<input type="checkbox"/> Form 990-T (sec. 401(a) or 408(a) trust)	<input type="checkbox"/> Form 4720	<input type="checkbox"/> Form 8870
<input type="checkbox"/> Form 990-EZ	<input type="checkbox"/> Form 990-T (trust other than above)	<input type="checkbox"/> Form 5227	

STOP! Do not complete Part II if you were not already granted an automatic 3-month extension on a previously filed Form 8868.

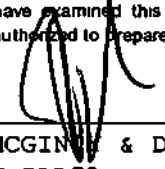
- The books are in the care of **THE CLUB**
Telephone No **914 698-4610** FAX No.
- If the organization does not have an office or place of business in the United States, check this box ☐
- If this is for a Group Return, enter the organization's four digit Group Exemption Number (GEN) If this is for the whole group, check this box ☐. If it is for part of the group, check this box ☐ and attach a list with the names and EINs of all members the extension is for.

- I request an additional 3-month extension of time until **08/15/2009**
- For calendar year , or other tax year beginning **10/01/2007** and ending **09/30/2008**
- If this tax year is for less than 12 months, check reason. ☐ Initial return ☐ Final return ☐ Change in accounting period
- State in detail why you need the extension **ALL THE INFORMATION NECESSARY TO COMPLETE THE RETURN IS NOT AND WILL NOT BE AVAILABLE BY THE DUE DATE. THEREFORE WE RESPECTFULLY REQUEST ADDITIONAL TIME TO COMPLETE THE RETURN.**

8a If this application is for Form 990-BL, 990-PF, 990-T, 4720, or 6069, enter the tentative tax, less any nonrefundable credits. See instructions.	8a \$
b If this application is for Form 990-PF, 990-T, 4720, or 6069, enter any refundable credits and estimated tax payments made. Include any prior year overpayment allowed as a credit and any amount paid previously with Form 8868	8b \$
c Balance Due. Subtract line 8b from line 8a. Include your payment with this form, or, if required, deposit with FTD coupon or, if required, by using EFPS (Electronic Federal Tax Payment System). See instructions.	8c \$

Signature and Verification

Under penalties of perjury, I declare that I have examined this form, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete, and that I am authorized to prepare this form

Signature  Title **Accountants Authorized to prepare tax returns** Date **MAY 11 2009**
CONDON O'MEARA MCGINNIS & DONNELLY L
ONE BATTERY PARK PLAZA
NEW YORK, NY 10004-1405

Form 8868 (Rev 4-2008)

Hampshire Country Club Planned Residential Development
Village of Mamaroneck,
Westchester County, New York
Final Environmental Impact Statement

G Preliminary Construction Work Plan





PRELIMINARY CONSTRUCTION WORK PLAN

Hampshire Country Club Planned Residential Development
Village of Mamaroneck, New York

August 2018

Prepared for:

Hampshire Recreation LLC
60 Cutter Mill Road
Great Neck, NY

Prepared by:

Michael W. Junghans, PE
1 N. Lexington Ave
White Plains, NY 10601

Kimley»Horn

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1. Introduction

This Preliminary Construction Management Plan CWP has been prepared to provide contractor responsibilities and expected project execution steps for construction of the proposed development and the safeguards to protect the environment, adjacent property owners and Village residents. The following provides expectation to be satisfied prior to the start of construction and during performance of construction. The CWP provides the following:

- Project contacts
- Construction Phasing
- Preconstruction requirements
 - Staking of Limit of Disturbance
 - Soil Erosion controls
 - Tree Protection
 - Preconstruction Photos
 - Public Outreach
 - Preconstruction Coordination
- Record Keeping
- Site Security
- Construction Truck Traffic
- Construction Health and Safety
- Material Handling
- Tree Removal
- Soil Erosion Measures
- Rock Removal
- Construction Noise

2. Project Description

The site is located in the southern portion of the Westchester County in the Village of Mamaroneck and Village of Mamaroneck, NY. It's also situated just north of the Long Island Sound. Currently, the subject site consists of a golf course and a club house. The site is approximately 94.5 acres (R-20 zone) of which approximate 2.7 acres is impervious. The rest are golf course, overgrown and grass areas.

The project will redevelop the current Hampshire Country Club by converting a portion of the existing 18 hole golf course into a planned residential development (PRD) containing 44 unit of single family subdivision and 61 unit carriage homes. The remainder of the golf course will be converted to a nine hole golf course surrounding the residential development starting and ending at the existing club house which will be maintain in the finished condition.

3. Project Contacts

The following is the contact information for the project representatives, project contractor, and responsible municipal oversight.

Owner:

Hampshire Recreation LLC
c/o New World Realty Advisors, LLC
60 Cutter Mill Road, Ste. 513
Great Neck, NY 11021
Contact: Dan Pfeffer
(646) 723-4750
dpfeffer@nwradvisors.com

Contractor:

TBD

Village of Mamaroneck
Engineering Department:

Village of Mamaroneck
169 Mount Pleasant Avenue
Mamaroneck, NY 10543
Contact: Hernane De Almeida
(914) 825-8758
hdealmeida@vomny.org

Village of Mamaroneck
Building Department:

Kimley-Horn of New York PC
1 N. Lexington Avenue, Suite 1575
White Plains, NY 10601
Contact: Michael Junghans, PE
(914) 368-9189
Mike.Junghans@kimley-horn.com

Civil and Traffic Engineer:

Kimley-Horn of New York PC
1 N. Lexington Avenue, Suite 1575
White Plains, NY 10601
Contact: Michael Junghans, PE
(914) 368-9189
Mike.Junghans@kimley-horn.com

Environmental Engineer:

GZA GeoEnvironmental
104 West 29th Street, 10th Floor
New York, NY 10001
Contact: Steve Kline, PE
(212) 594-8140
stephen.kline@gza.com

4. Construction Phasing

Construction activity for the proposed development will be performed by first excavating, grading and filling to establish development sites for single family and carriage homes. Next utilities will be installed within the streets followed by placement of road bed and sidewalks. The housing will then be constructed on finished lots followed by surface treatments including topsoil and seeding, and driveways.

Based on the size of the site work must be performed in phases to minimize the area of disturbance at any given time. Excavation and filling activities will be performed in two steps; Step 1). Establishment of realigned Cove Road and single family lots, and Step 2). establish three extensions to realigned Cove Road including Cooper Road extension, realigned Eagle Knolls Road and Road A. This approach establishes the central spine of the project providing the connection between Cove Road and Eagle Knolls Road and establishment of the core utilities for the project within realigned Cove Road. Soil disturbance activities will minimize total area of soil disturbance to 5 acres or less at any given time. The 5 acres increments and the expected progression of work is shown on the Construction Phasing Plan attached as Appendix 1.

Once construction of the proposed development commences, it is estimated for Step 1 that there will be approximately 24 soil fill trucks per day (on a five-day per week schedule) for the first 9 months of construction. During the initial 9 months excavation and filling activities will be performed to construct realigned Cove Road and adjacent single family lots. Following establishment realigned Cove Road, the number of soil fill trucks will begin to diminish to 3 or 4 trucks per day in Step 2 of the project.

In Step 2 of soil excavation and filling activities, soil import will continue at a reduced rate to establish Cooper Road Extension, realigned Eagle Knolls Road and Road A. During this period construction of the single family homes on realigned Cove Road will commence. After Step 2 soil excavation and filling activities complete, housing construction will commence in those areas. Housing would be constructed when there is a buyer and it is anticipated that about 20 units would be constructed yearly.

The exact construction schedule is contingent on the build out rate of the homes; therefore, the duration of the construction period and the final build-out date are unknown at this time.

5. Preconstruction Requirements

The following requirements must be completed prior to start of construction activities to the satisfaction of the Village Engineer and Building Department representatives.

5.1 STAKING OF LIMIT OF DISTURBANCE

Prior to implementation of any site disturbance activities, the contractor shall stake the limit of disturbance for the project providing labeled survey stakes in 50-foot intervals along the limit of disturbance for the project. Following staking of the limit of disturbance, the contractor shall notify the Village Engineer and project Civil Engineer to allow inspection of the staked limit. Any field conditions that warrant adjustment of the limit of disturbance as shown on the engineering drawings shall be communicated to the Village Engineer and project civil engineer to resolve discrepancy.

5.2 SOIL EROSION CONTROLS

Soil erosion controls shall be implemented prior to the disturbance of any soil. Soil erosion control measures will be based on the requirements of the New York State Department of Environmental Conservation ("NYSDEC") Standards and Specifications for Erosion and Sediment Control, latest edition, and the engineering drawings for the project.

Erosion control measures shall be implemented to minimize or control erosion on site. These include but not limited to silt fence, straw bale, inlet protection, stabilized construction entrance, concrete truck wash-out area and stock pile area. Fencing will be placed around trees to be protected. Other site preparation including setting up of staging area, construction fence, temporary access road.

Controls shall be tailored to the limit of disturbance of construction and be adjusted as construction progresses through the project. Any soil disturbing activities shall be accompanied by the required soil erosion control measures. The Contractor will be required to coordinate with the project civil engineer prior to start of soil disturbance activities the placement movement of soil erosion measures.

The project engineer in accordance with NYSDEC requirements, will provide for inspections of soil erosion measures by a qualified inspector prior to the start of soil disturbance activities. Inspections will be documented by field notes and site photos and will provide a summary of observations, work being performed and corrective actions required. The inspections reports will be provided to the contractor, project owner and Village MS4 and will be available at the Village for review by the public.

Erosion control measures shall be implemented to minimize or control erosion on site. These include but not limited to silt fence, straw bale, inlet protection, stabilized construction entrance, concrete truck wash-out area and stock pile area. Fencing will be placed around trees to be protected. Other site preparation including setting up of staging area, construction fence, temporary access road.

5.3 TREE PROTECTION

Prior to the start of any soil disturbance, the contractor is required to install all tree protection measures in the vicinity of the proposed area of disturbance in accordance with the engineering drawings. The contractor shall coordinate inspection of the installed tree protection measures by the project civil engineer and Village Engineer.

Tree protection measures shall be inspected on a weekly basis by the project civil engineer to ensure adequacy with ongoing construction activities and recommend adjustments and additions.

5.4 PRECONSTRUCTION PHOTOS

Prior to the start of and construction activities the contractor shall photo document the following:

- all on site areas proposed to be disturbed
- Cove Road from the Site out to Orienta Avenue
- Cooper Road from the Site to Old Boston Post Road

- The entirety of Eagles Knoll Road
- Hommocks Road from Eagle Knolls Road to Route 1.

The photos will serve as documentation of conditions to compared to post construction condition to access impact to approach roads to site. Copies of photos shall be provided in hard copy and electronic form to the Village to be available for public review.

5.5 PUBLIC INFORMATION

The contractor shall provide to the Township engineer weekly summaries of upcoming construction activities including construction traffic routing and proposed days and hours of construction for posting by the Village on the Village website.

5.6 PRECONSTRUCTION COORDINATION

Prior to start of any construction activities, the contractor shall schedule a preconstruction meeting to present the proposed project approach, schedule and responsible parties during construction. The following shall attend the preconstruction meeting:

- Village Engineer
- Village site inspector
- Project civil engineer
- Contractor representative
- Contractor Site Supervisor
- Owner representative

During the meeting the following shall be discussed at a minimum:

- Project contacts
- Emergency response
- Weekly construction meetings
- Shop drawing review protocol
- SWPPP inspections
- Tree removal
- Soil import documentation
- Construction traffic parking
- Construction traffic routing

The Contractor will be responsible to document notes during the pre-construction meeting and distribute to all meeting attendees.

6. Record Keeping

The contractor will be responsible to perform record keeping for the project throughout the development process. Documentation shall be made available to the Village as requested in hard copy or electronic format. The following at a minimum shall be maintained:

- **Engineering Documents:** Hard copies of all current engineering drawings and specifications shall be maintained by the contractor for the duration of the project and be available for review by the project team and Village representatives at the project trailer.
- **Project Schedule:** The contractor shall maintain the project schedule and update on a weekly basis.
- **As Built Plans:** The contractor shall maintain all as-built documentation and perform survey of installed improvements where necessary to document variations in the as-built condition. The contractor will be responsible to utilize collected as-built information to provide a AutoCAD as-built survey of the project documenting all constructed improvements for submission to the Town.
- **Impact Soil Relocation Report:** The contractor shall maintain documentation of the relocation of identified impacted soil on site into the development platform. The report shall provide area of removal and deposition. Collected documentation shall be sufficient to provide the horizontal and vertical limits of the deposition of impacted soil and the institutional controls deployed to prevent potential exposure in the future.
- **Soil Import Documentation:** The contractor shall maintain manifests for all soil fill imported to the site including volume, origin of material and required quality documentation. The contractor shall maintain copies of all meeting notes for the duration of the project and be available for review by the project team and Village representatives as requested.
- **Dust Monitoring Report:** The contractor shall maintain all dust monitoring reports and distribute weekly summaries to the Village indicating and exceedances and resulting corrective action. The contractor shall maintain copies of all meeting notes for the duration of the project and be available for review by the project team and Village representatives as requested.
- **Shop Drawings and Requests for Information:** The contractor shall be responsible for the documentation, distribution and follow up of initial and reviewed shop drawings to the project team. The contractor shall provide an on-line site for to access all shop drawings accessible to the project team and Village representatives.
- **Construction Stake out:** All survey stake out cut sheets prepared by the contractor's surveyor shall be maintained by the contractor for the duration of the project and be available for review by the project team and Village representatives.
- **Construction Meeting Notes:** The Contractor shall be responsible to document notes during weekly construction meeting and distribute to all meeting attendees and Village representatives. Notes shall be either available in hard copy or electronic format. The contractor shall maintain

copies of all meeting notes for the duration of the project and be available for review by the project team and Village representatives as requested.

- **Construction Photos:** The contractor shall maintain daily pictures of construction activities to document the progress of the project. The contractor shall maintain copies of construction photos for the duration of the project and be available for review by the project team and Village representatives as requested.

7. Site Security

The contractor will be required to provide secure all active areas of construction to prevent unwanted access to the construction site. All active work areas shall be enclosed by a temporary construction fence of a minimum height of 6 feet with controlled access points maintained by the contractor. Signage shall be provided including contractor and emergency contact information and direction for site visitors to report to the construction trailer and sign in with site personnel.

The contractor shall provide video cameras at each access point to the site to monitor incoming and outgoing traffic and access to the site. Cameras shall record 24 hours a day and be connected to a central location that provides a minimum, of one week of video back-up.

8. Construction Truck Traffic

All construction trucks accessing the Project Site will be required to use I-95, exiting at either Exit 17 (to and from the south) or Exit 19 (to or from the north) to use Boston Post Road (US Route 1) to get to and from Hommocks Road and Eagle Knolls Road. There will be no truck access allowed via Orienta Avenue or East Cove Road. When school is in session, truck access to the Project Site will only be permitted between 8:15 am and 2:30 pm, as well as between 4:00 pm and 7:00 pm. Construction truck routes are depicted in Exhibit 2-19.

9. Construction Health and Safety

The proposed project will require the on-site excavation, handling and relocation of soil identified to be impacted with contaminants. To safeguard worker health a Construction Health and Safety Plan (CHASP) has been prepared for the proposed activities and is attached in Appendix 2.

The CHASP addresses measures to minimized worker exposure to impacted soil by contact, inhalation and ingestion through worker education, establishment of safety protocols, hazard response, and implementation of active dust monitoring. Each worker, contractor employee or subcontractor, involved in management of impacted material will be required to review the CHASP and acknowledge their understanding of the document requirements and expectations.

The CHASP provides a dust monitoring program that will be implemented during construction to minimize dust generated from impacted soil and provide mitigation measures. Based on the site specific levels of contaminated soil, airborne dust monitoring levels that require a response, Action Levels, have been developed to safeguard on site and downwind receptors. If an action level is reached, the contractor is

required to perform stipulated mitigation steps to reduce dust levels. Dust monitoring will be performed upwind to establish back ground levels and downwind to assess impact of construction activities. Dust monitoring data will be electronically logged and summaries will be provided to the Village on a weekly basis.

10. Material Handling

In addition to the above CHASP, the contractor must implement the a Material Handling Plan (MHP) developed for the project to provide a protocol for quality review imported soil, movement and placement of impacted on site soil and installation of institutional controls to isolate identified impacted material. The project does not seek to remove any impacted soil from the site. A copy of the MHP is attached as Appendix 3.

The attached MHP provides testing requirements of off site soil sources proposed to be utilized as on-site fill. All soil import sources will be required to provide soil testing data from a certified laboratory that the import soil is free of contamination and meets required engineering properties. Testing data will be required to be submitted and approved by the project geotechnical engineer and Village engineer before being allowed to commence import. The contractor will be responsible to keep records of the location of placement of each soil source within the fill area phase.

The attached MHP also provides handling requirements for CHASP addresses measures to minimized worker exposure to impacted soil by contact, inhalation and ingestion through worker education, establishment of safety protocols, hazard response, and implementation of active dust monitoring. Each worker, contractor employee or subcontractor, involved in management of impacted material will be required to review the CHASP and acknowledge their understanding of the document requirements and expectations.

11. Tree Removal

Prior to removal of trees, the contractor shall mark all trees adjacent to the limit of disturbance to be removed by marking them with an "X" in paint. The contractor shall notify the Village Engineer and project civil engineer to inspect the marked trees. The contractor shall then obtain a written approval from the Village Engineer to allow implementation of tree removal. All tree material shall be removed from the site and shall not be used as backfill or stored on site. The tree removal plan is included as Appendix 4

12. Soil Erosion Measures

The SPDES General Permit GP-0-15-002 requires that the owner/operator be responsible for inspecting and maintaining the erosion control practices implementing on site. The owner/operator must document compliance with the permit throughout the entire construction process.

A) Inspection

- The owner/operator shall have a qualified inspector inspect all erosion and sediment control practices to ensure their integrity and effectiveness throughout the entire construction process.
- The qualified inspector shall perform inspection at least once every seven (7) calendar days. If construction work includes soil disturbance of greater than five (5) acres, qualified inspector shall conduct at least two (2) site inspections every seven (7) calendar days with minimum separation of two (2) full calendar days.
- Within one business day of the completion of an inspection, the qualified inspector shall notify the owner/operator and appropriate contractor or subcontractor of any corrective actions shall be taken.
- The qualified inspector shall prepare an inspection report in accordance with the permit subsequent to each and every inspection. The owner/operator shall maintain a record of all inspection reports in a site log book as part of the updated SWPPP and shall be make available upon request by permitting authority.

B) Maintenance

- Sediment shall be removed from behind silt fence or straw bale if accumulation of greater than 6-inches deep or as needed.
- Sediment that is collected in inlet protection practice shall be removed on a regular basis to ensure the integrity of the drainage inlet system.
- The underside of straw bale shall be kept in close contact with the ground surface.
- Straw bale and silt fence that are damaged shall be replaced or as necessary.
- On site's paved areas shall be swept on an as needed basis during the construction process.
- The contractor or subcontractor shall begin implementing the corrective actions within one business day of the notification from qualified inspector and shall complete the corrective actions within a reasonable time frame.

Refer to Appendix 8 of the SWPPP for inspection and maintenance schedule; and refer to Appendix 9 for sample of construction site log book.

13. Rock Removal

Based on the composition of the bedrock, blasting will be required for removal. During construction careful attention must be paid to the neighboring properties during construction. The selected blasting shall be a New York State licensed blasting contractor.

The selected contractor will prepare a written Blasting Plan in accordance the with the Village of Mamaroneck Village Code Chapter 120 and the New York Department of Transportation "Geotechnical Engineering Manual: Procedure for Blasting" latest edition (Appendix 5), providing a detailed description of

the means and methods of the proposed rock removal program. This plan will be forwarded to the Town Engineering Department and Building Department for review. The Blasting Plan will contain the following:

1. Project Designations

- Name of Project Blaster(s).
- Photocopy of the Project Blaster's Explosives License (Own & Possess) and Certificate of Competence.
- Scheduled start date and length of blasting operations and blast monitoring operations.
- Limits of blasting work.
- Requirements for local permits.
- Location of any structures in proximity to the blasting.
- Location of any utilities in proximity to the blasting.
- Location of any contaminants or flammable liquids or vapors in the area to be blasted.

2. Safety and Health Requirements

- Type of audible warning signals and signal sequence.
- Name of company that will deliver explosives to the project site.
- Location of any preblast surveys.
- Location of any vibration monitoring at State owned structures, utilities on or off State ROW, or privately owned structures off State ROW.
- Location of any air blast overpressure monitoring.
- If seismographs will be used, provide the manufacturer's name, model number, and documentation of calibration performed within the last 12 months. Also provide name(s) of seismograph operators and relevant training and experience.
- List steps that will be taken to control flyrock (i.e. blasting mats).
- Are carbon monoxide or other noxious fumes likely to migrate from the blast location or accumulate within nearby structures and, if so, what will be done to detect and prevent their migration.

3. Methods and Procedures

- Type of drilling equipment.
- Method of collaring and aligning presplit drill holes.
- Hole diameter.
- Drilling pattern.
- Use of sequential timer.
- Types of explosives, primers, initiators, and other blasting devices. Include manufacturer's technical data sheets and material safety data sheets for all products.
- Loading parameters:

The blasting contractor will have a Pre-Blast meeting with representatives of the Village Engineering and Building Departments to review schedule, field activities and vibration and noise monitoring. The blasting contractor will provide weekly updates to the Town and hold weekly progress meetings.

14. Noise

Noise from construction activities shall be limited to the hours of 8:00 a.m. and 6:00 p.m. Monday through Saturday in accordance with the Village of Mamaroneck Village Code, Chapter 254, Noise shall be limited to typical construction equipment in good working order. Malfunctioning equipment generating excessive noise shall be immediately taken out of service.

Appendix 1 – Construction Phasing Plan

Plotted By: Cheong, Jason Sheet Set: kha Layout: C-7 Phasing August 30, 2018 03:58:03pm K:\WP_Civil\112056005_Hampshire\CC\6_CAD\Plotsheets\2867702_PLOT.dwg
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Appendix 2 – Construction Health and Safety Plan



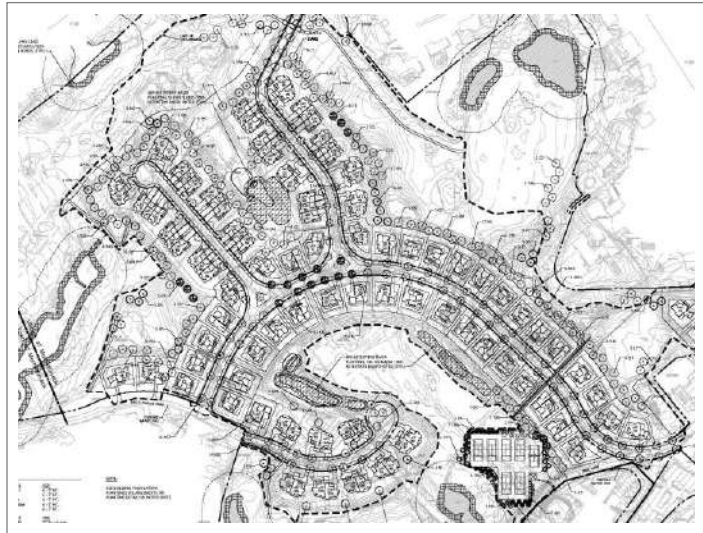
Proactive by Design



CONSTRUCTION HEALTH AND SAFETY PLAN

**Hampshire Country Club
Planned Residential Development
Village of Mamaroneck
Westchester County, New York**

September 2018
File No. 41.0162548.10



PREPARED FOR:

Hampshire Recreation LLC
60 Cutter Mill Road
Great Neck, NY 11201

GZA GeoEnvironmental of New York

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1.0 INTRODUCTION

1.1 OVERVIEW

This project-specific Construction Health and Safety Plan (CHASP) has been developed by GZA GeoEnvironmental of New York (GZA) on behalf of Hampshire Recreation LLC (Client) to establish procedures for the protection from potential contaminated materials resulting from the Hampshire Country Club Planned Residential Development (PRD) project located in the Village of Mamaroneck, Westchester County, New York (Site).

1.2 PURPOSE AND APPLICABILITY

The purpose of this CHASP is to assign responsibilities, establish personnel protection standards and mandatory safety practices and procedures, and provide for contingencies that may arise during the completion of PRD excavations at the Site. The CHASP is intended to minimize health and safety risks resulting from the known and potential presence of residual pesticides and herbicides from horticultural uses during operation as a golf course.

Note that this CHASP is NOT designed to address potential geotechnical, mechanical, or structural safety concerns, and is NOT intended to supersede or replace any U.S. Occupational Health and Safety Administration (OSHA) regulation and/or local and state construction codes or regulations. This CHASP is intended to supplement the Construction Contractor's (Contractor's) Safety Program. The procedures in this plan have been developed based on current knowledge regarding the hazards which are known or anticipated for the operations to be conducted at this Site. Work subject to this CHASP is specific to activities that disturb the soil during Site redevelopment. The Contractor and its subcontractors involved in the construction project will inform their workers of and provide a copy of this CHASP to their employees whose work involve potential exposure to the on-site chemical hazards and will complete all work in accordance with CHASP. All work outlined within the CHASP is subject to the standards under 29 CFR Part 1926 (Safety and Health Regulations for Construction).

1.3 SITE HAZARDS

This CHASP covers only the hazards associated with potential chemical exposures. Physical hazards such as injuries from typical excavation field work activities, including the operation of heavy equipment, noise exposure, heat and cold stress, electrical hazards, fire hazards, excavation hazards and general safety hazards associated with walking on working surfaces (trip and fall) are covered by the Contractor's safety program.

The construction activities call for the handling, transport and disposal of soil, fill, and other materials removed from the property during Site activities that may pose chemical exposure



hazards. Potential chemical exposure hazards include skin contact, ingestion and inhalation hazards which may result from the presence of inorganic metallic elements (metals) and pesticides on-Site. The potential adverse health effects from these detected contaminants are diverse. Many of these compounds are known or suspected to result in chronic illness from long-term exposures. However, due to the limited nature of the proposed construction, only acute effects are a potential concern. See **Section 2.0** for detailed chemical hazard information.

1.4 PROJECT TEAM

The organizational structure established for the implementation of construction health and safety requirements established by this CHASP, include identifying personnel who have been assigned specific authority to implement and enforce the provisions of this CHASP. Prior to the construction, the appropriate personnel identified in the table below will be notified:

Name	Project Title/Assigned Role	Contact Information
Dan Pfeffer	Owner	Hampshire Recreation LLC c/o New World Realty Advisors, LLC 60 Cutter Mill Road, Ste. 513 Great Neck, NY 11021 T: (646) 723-4750
TBD	Project Superintendent / Contractor	TBD
Michael Junghans, PE	Civil Engineering	Kimley-Horn of New York PC 1 N. Lexington Avenue, Suite 1575 White Plains, NY 10601 T: (914) 368-9189
Stephen M. Kline, PE	Environmental Consultant	GZA GeoEnvironmental of New York 104 West 29th Street, 10th Floor New York, NY 10001 T: (212)594-8140
Hernane De Almeida	Village of Mamaroneck Engineering Department	Village of Mamaroneck 169 Mount Pleasant Avenue Mamaroneck, NY 10543 T:(914) 825-8758

The control of Site hazards is dependent upon the degree to which management enforces compliance and employees cooperate with the specified health and safety requirements.



Therefore, personnel at all levels of the organization must recognize their individual responsibility to comply. All activities covered by this CHASP must be conducted in compliance with this CHASP and with applicable federal, state, and local health and safety regulations, including 29 CFR 1926. The Contractor shall designate its Construction Project Superintendent, Site Safety Coordinator and Site Safety Managers.

The "Project Superintendent" is responsible for all management of health and safety policies, which includes the need for effective oversight and supervision of project staff necessary to control the Health and Safety aspects of on-Site activities. However, supervisory personnel from all subcontractors share responsibility for compliance with Health and Safety programs, policies, procedures and applicable laws and regulations. The Project Superintendent must be a "Competent Person", as defined by OSHA 1926.20(b) - Accident Prevention Responsibilities, is the individual "who is capable of identifying existing and predictable hazards in surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them." The Project Superintendent is responsible for the site control aspects of this CHASP. Personnel covered by this CHASP who cannot or will not comply must be excluded from Site activities by the Project Superintendent.

The Contractor may delegate a "Site Safety Coordinator" or "Site Safety Manager" (SSM) who is a Competent Person, as defined by OSHA 1926.20(b), and a Qualified Environmental Professional, as defined by New York State Department of Environmental Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation Division of Environmental Remediation (DER-10), to be responsible for making sure the safety policies and procedures are being followed on site. As defined by DER-10, a Qualified Environmental Professional, is a person, including a firm headed by such person, who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding the presence of releases or threatened releases to the surface or subsurface of a site or off-site areas, sufficient to meet the objectives and performance factors for the areas of practice identified by the DER-10.

The Contractor SSM is responsible for day-to-day implementation of the safety program including the air monitoring, and decontamination aspects of the of this CHASP. The SSM is also responsible for incident investigations, first aid and incident management. The SSM will report directly to the Project Superintendent (or designee selected by the Project Superintendent).

2.0 HAZARD ASSESSMENT

The following hazard assessment applies only to the activities within the specified scope of this CHASP.



2.1 JOB HAZARD ANALYSIS

A Job Hazard Analysis (JHA) is a systematic way of identifying the potential health and safety hazards associated with the activities required for completion of the work and the methods to avoid, control, and mitigate those hazards. The JHA will be used to train work crews in proper safety procedures during training prior to each phase of work. This JHA was prepared using general knowledge of the project site and the typical hazards that may be present during performance of this specific scope of work. On-Site hazards may vary from day to day and are dependent on several factors. When planning personnel's daily activities, the Contractor and its subcontractors must consider on-Site hazards.

Phase of Work: Pre-Construction and Site Preparation

Tasks: Mobilization and Demobilization of Equipment and Supplies, Establishment of Site Security Work Zones and Staging Areas, Delineate and Protect Utilities located on site and those leading to and from the Site, Site Preparation (on-site roads, installation of soil erosion measures, temporary facilities, etc.), Prepare decontamination pads and facilities, Develop and Create Staging Area for Materials Storage, Collection of Waste Characterization Samples (if necessary).

Phase of Work: Intrusive Construction Activities

Tasks: Heavy equipment operations, construction activities near utility lines (above and below ground), and electrical lighting. Benching for slope protection in the excavation areas, Protect and support excavation areas in proximity to overhead and underground utilities, Excavation of materials including rock, Staging and stockpiling materials (for on-site re-use and imported fill), Installation of foundation elements, Installation of utilities in excavations, Backfill and compaction of excavation areas, Maintenance of soil erosion and sedimentation control measure.

2.2 CHEMICAL HAZARDS AND KNOWN/ SUSPECT CHEMICALS OF CONCERN.

The chemical hazard information provided below is based on data provided in the Phase I Environmental Site Assessment Report dated April 2016, the Limited Phase II Environmental Site Investigation Report, dated April 2016, and information from the Village of Mamaroneck and the NYSDEC. During the investigations, representative Site soils were collected and analyzed for contaminants of concern. Constituents identified, based on the analysis, with exceeding concentrations and their respective health effects are listed below for reference. Information presented is based upon established OSHA permissible exposure limits (PEL) and The National Institute for Occupational Safety and Health (NIOSH) recommended exposure limits (RELs) with time-weighted average (TWA). All other analytical parameters were reported within acceptable levels for Site land use. It is GZA's opinion that project does not fall under the scope of 29 CFR 1926.65 (Hazardous Waste Operations and Emergency Response).

See **Section 4.0** for a description of the PPE that should be used for this Site.



Chemicals	REL/PEL/STEL (ppm)	Health Hazards
Arsenic	PEL = 0.010 mg /m ³ TWA REL = 0.002 mg /m ³	irritation skin, possible dermatitis; resp distress; diarrhea; kidney damage; muscle tremor, convulsions; possible gastrointestinal tract, reproductive effects; possible liver damage
Lead	PEL = 0.05 mg/m ³ REL = 0.05 mg/m ³	Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension.
DDT (pesticides)	PEL = TWA 1 mg/m ³ REL = TWA 0.5 mg/m ³	irritation eyes, skin; paresthesia tongue, lips, face; tremor; anxiety, dizziness, confusion, malaise (vague feeling of discomfort), headache, lassitude (weakness, exhaustion); convulsions; paresis hands; vomiting; [potential occupational carcinogen]
Dieldrin (pesticide)	PEL = TWA 0.25 mg/m ³ REL = TWA 0.25 mg/m ³	headache, dizziness; nausea, vomiting, malaise (vague feeling of discomfort), sweating; myoclonic limb jerks; tonic convulsions; coma; In Animals: liver, kidney damage [potential occupational carcinogen]
Heptachlor (pesticide)	PEL = TWA 0.5 mg/m ³ REL = TWA 0.5 mg/m ³	tremor, convulsions; liver damage; [potential occupational carcinogen]

2.3 METALS

Metals including arsenic and lead were detected in concentrations exceeding NYSDEC Part 375 Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) and Residential Use (Track 2) SCOs. Overexposure to metal compounds has been associated with a variety of local and systemic health hazards, both acute and chronic in nature, including lung damage, neurological effects, gastrointestinal effects, kidney and liver damage, allergic dermatitis and other skin disorders. Exposure to metals is most commonly through inhalation and ingestion of dust. The Job Hazard Analyses for this project indicates that Personal Protective Equipment (PPE) and engineering controls will maintain work zone conditions actionable level as stated in Section 3.4 of this CHASP.

2.4 PESTICIDES

Pesticides such as DDT, heptachlor, and dieldrin were detected at concentrations exceeding Track 2 SCOs in soil samples collected. Pesticide use is historically attributed to the maintenance of the Country Club greens. Occupational exposure to pesticides often occurs for agricultural workers. Overexposure can lead to headache, dizziness; nausea, vomiting, malaise (vague feeling of discomfort), sweating; myoclonic limb jerks; tonic convulsions. Exposure to pesticides are often through ingestion of contaminated food and drinking water.



3.0 AIR MONITORING

Air monitoring falls into two separate categories: direct reading/environmental monitoring, and personal exposure monitoring. The following Sections summarize the types of environmental monitoring as well as the appropriate response actions applicable to the Site.

3.1 TOTAL PARTICULATES

Due to the presence of metals in soils on-Site, total respirable particulates may be a concern. Dust levels should be visually monitored and if levels become noticeable, soils should be wetted down to control dusty conditions. Wetting may be accomplished using various methods, including a hose connected to a fire hydrant or other on-Site source of water. The Contractor's Project Superintendent shall be responsible for determining when the wetting of soils is needed and the most appropriate method to use. In addition, recommended measurements for particulate monitoring are detailed below.

Upwind concentrations should be measured at the start of each work day during active handling of excavated materials (including stockpiling and truck loading) and periodically thereafter to establish background conditions. The particulate air monitoring work will be conducted using a pDR-1200 personal airborne particulate monitor (or approved equivalent) calibrated daily. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers (μm) in size (PM-10) and capable of integrating over a period of 5-minutes or less for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate an exceedance of the action level.

Dust migration will be visually assessed during all work activities, and at no time will the downwind perimeter particulate levels be allowed to exceed a total standard of $10 \text{ mg}/\text{m}^3$ (or "nuisance" dust levels).

If the downwind PM-10 particulate level is $100 \text{ micrograms per cubic meter } (\text{ug}/\text{m}^3)$ greater than the background (upwind perimeter) for a 5-minute period, or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques (e.g., soil wetting) provided the downwind PM-10 particulate levels do not exceed $150 \text{ ug}/\text{m}^3$ above the upwind level and no visible dust is migrating from the work area.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ ug}/\text{m}^3$ above the upwind level, work must be stopped, and a re-evaluation of activities initiated. Work can resume if dust suppression measures and other controls are



successful in reducing the downwind PM-10 particulate concentrations to within 150 ug/m³ of the upwind level and in preventing visible dust migration.

3.2 PARTICULATE MONITORING, RESPONSE LEVELS, AND ACTIONS

Parameter	Monitoring Instrument	Response Levels above background levels)	Action	Conditions for Continuing Work Activities
Particulates < 10 um (PM-10)	Dust Meter	Fugitive dust migration	1. Implement dust suppression techniques	Dust suppression techniques are in place
		> 100 ug/m ³ but < 150 ug/m ³	1. Implement dust suppression techniques	Levels must not exceed 150 ug/m ³ with dust suppression techniques in place
		> 150 ug/m ³	1. Halt activity 2. Re-evaluate activities	Levels decrease below 150 ug/m ³ and fugitive dust migration is prevented

3.3 CONTINGENCY ORGANIC VAPOR MONITORING

If during construction, the Contractor encounters odors or staining that include the potential for volatile organic vapor hazards. Then the Environmental Consultant will be contacted to evaluate the potentially impacted materials. While the soils are being evaluated, the Contractor may continue to work in an unimpacted area if they include real-time, organic vapor monitoring with a photoionization detector (PID). Monitoring for VOCs will be conducted prior to the start of ground intrusive activities, to establish the Site background VOC concentration levels. The background concentration will then be incorporated and considered when evaluating VOC concentrations at the Site. Vapor monitoring will also be performed during the first three days of ground intrusive activity and compared to the background concentrations to determine if additional monitoring is warranted.

Breathing Zone Readings Action Levels are included below.



Response Levels (above background levels)	Action
0 to 10 ppm	Remain in Level D personal protection. Use colorimetric tubes or other chemical specific device to verify PID readings do not contain low PEL toxic materials (Benzene, Vinyl Chloride, etc.) where applicable. If benzene is present above 1 ppm withdraw from excavation and proceed to level C.
10 to 25 ppm	Withdraw from work area and contact Project Management. Proceed to Level C protection for re-entry, or discontinue operation
> 25 ppm	Secure operations withdraw from work area and discontinue work at that location until contaminants can be evaluated, and detailed plan implemented.

4.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) will be donned as described below for the activities covered by this CHASP. Based on available analytical data and the proposed intrusive activities, the Contractor, anticipates that all activities will require Level D or Modified Level D PPE.

4.1 GENERAL SITE WORK

General Site work conducted outside the excavation areas, operators of heavy equipment, and non-intrusive activities which do not generate dust will require Level D protective equipment. Level D is defined as:

- Hardhat
- Eye protection
- Hearing protection (with site workers at all times and donned when appropriate)
- Steel-toed work boots
- Work clothes

Workers shall wear appropriate hearing protection during designated hearing protection-required tasks (such as, jack hammering, pile driving etc.). To reduce the exposure to noise, personnel working in areas of excessive noise must use hearing protectors (earplugs or earmuffs).

Rule-of-Thumb: Wherever actual data from sound level meters or noise dosimeters is unavailable, if it is necessary to raise one's voice above a normal conversational level to communicate with others within 3 to 5 feet away, hearing protection should be worn.



4.2 EXCAVATION AREAS AND OTHER SOIL HANDLING

Personnel working in the areas of active excavation, but not operating heavy equipment, and any other personnel potentially contacting contaminated materials will be required to wear Modified Level D PPE. Modified Level D is defined as:

- Hardhat
- Eye protection
- Hearing protection (as warranted see above)
- Steel-toed work boots
- Tyvek Coveralls
- Disposable nitrile chemically resistant gloves

Level C PPE and Level B are not expected to be required.

5.0 **SITE CONTROL**

To prevent both exposure of unprotected personnel and migration of contamination due to tracking by personnel or equipment, work areas along with personal protective equipment requirements will be clearly identified with signage. Pedestrian traffic will be managed to the extent possible by the Contractor's Traffic and Pedestrian Control Plan.

The Contractor will designate a work zone and support zone as defined below.

5.1 WORK ZONE

Work zones on Site will be temporary or dynamic, encompassing the work area(s) actively being worked in on that particular day(s). Site personnel will be advised of the current work area(s) as part of site safety meetings. The Contractor will have a hydrant permit or other water source available to wet down exposed soils to control dust.

5.2 SUPPORT ZONE

The support zone will consist of an area outside the areas of active excavation and soil handling, where equipment and support vehicles will be located. Eating, drinking and smoking will be permitted only in this area. Sanitary facilities will be located on Site. In addition, potable water and water and soap for hand washing will be available at the Site.



5.3 OTHER SITE CONTROL AND SAFETY MEASURES

The following measures are designed to augment the specific health and safety guidelines provided in this plan. These issues will form the basis of the Site orientation and daily safety meetings discussed in **Section 7.0**, below.

- The Site hazards will be evaluated by the Contractor's Project Superintendent using the Site Safety Checklist.
- No one is to perform field work alone. Team members must be intimately familiar with the procedures for initiating an emergency response.
- Avoidance of contamination is of the utmost importance. Whenever possible, avoid contact with contaminated (or potentially contaminated) surfaces or materials. Walk around (not through) puddles and dis-colored surfaces. Do not kneel on the ground or set equipment on the ground.
- Eating, drinking, chewing gum or tobacco, smoking or any practice that increases the probability of hand-to-mouth transfer and ingestion of materials is prohibited except in the support zone after proper decontamination as defined in **Section 6.0**.
- The use of alcohol or drugs is prohibited during the conduct of field operations.
- Safety equipment (PPE) will be required for all field personnel unless otherwise approved by the subcontractor's health and safety representatives and/or the Project Superintendent.

5.4 SITE SECURITY

The Site shall be unoccupied during Site work except for Contractor personnel and subcontractors. If possible, access to the work areas during field work will be limited by closing site gates to reduce unauthorized pedestrian traffic. The Client's Project Superintendent is responsible for identifying the presence of all employees on Site.

Equipment left on Site during off hours must be locked, immobilized and/or otherwise secured to prevent theft or unauthorized use or access. The Contractor and subcontractors' employees will not be permitted on Site during off-hours without specific client approval.

6.0 **DECONTAMINATION**

Proper decontamination will be performed for personnel and equipment before leaving the Site. All solid waste generated during decontamination will be bagged by the Contractor personnel and stored on Site for disposal. Water will be disposed of by on-Site infiltration into soil within an exclusion zone.



6.1 PERSONAL DECONTAMINATION

Personal decontamination will be accomplished by following a systematic procedure of cleaning and removal of personal protective equipment (PPE). The Contractor will supply decontamination equipment to allow PPE to be brushed to remove gross contamination and then scrubbed clean in a detergent solution and then rinsed clean. To facilitate this, a three-basin wash system will be set up on site by the Contractor.

Disposable PPE, such as Tyvek coveralls, gloves, and hearing protection, etc. will be placed in trash bags in an on-Site container pending a disposal. Alternative chemical decontamination procedures, such as steam-cleaning reusable rubber outer boots, may be used if necessary.

Steps required in a decontamination sequence will depend on the level of protection worn in accordance with **Section 4.0**:

1. Remove and wipe clean hard hat
2. Brush boots and gloves of gross contamination
3. Scrub boots and gloves clean
4. Remove boot covers (if in use)
5. Rinse boots and gloves
6. Dry non-disposable equipment with paper towels
7. Remove Tyvek coveralls
8. Remove eye protection
9. Remove chemically resistant gloves

6.2 EQUIPMENT DECONTAMINATION

Hand tools and portable equipment will be decontaminated upon leaving the active excavation areas using the same procedures for personal decontamination. Wooden tools are difficult to decontaminate because they absorb chemicals. Wooden hand tools will be kept on Site for the project duration and handled only by protected workers. At the end of the Site activities, wooden tools will be discarded if they cannot be decontaminated properly.

Large Equipment will be decontaminated in an area near the entrance to the Site. Decontamination of large equipment will mitigate the risk of spreading potentially-contaminated soil off-Site. The Contractor will use a combination of long-handled brushes, rods and shovels for general exterior cleaning and dislodging contaminated soil caught in tires and the undersides of vehicles and equipment.

Prior to leaving the Site, large equipment will be inspected to assure that excess material has not adhered to the equipment. If needed, the Contractor will clean the large equipment, including



washing tires and undercarriages with a hose to remove excess adhered soil prior to leaving the Site.

Exposed excavated material will be covered on each truck after loading. The cover will be secured and remain in place until the container has reached the disposal facility.

7.0 MEDICAL MONITORING AND TRAINING REQUIREMENTS

Training records for Site personnel and subcontractors shall be provided to the Contractor prior to on-Site work and will be maintained on Site.

7.1 MEDICAL MONITORING

Only those workers excavating the hazardous lead areas are anticipated to need respiratory protection. At other excavation areas and for general Site work, it is anticipated that respiratory protection is not required by the levels of soil contamination. Therefore, only the workers excavating the hazardous lead areas will require medical monitoring requirements on this project.

7.2 TRAINING

All personnel covered by this CHASP must have completed the appropriate training requirements specified in 29 CFR 1910.1200 Hazard Communication and 29 CFR 1926. Workers will need to undergo the following training:

Project Role	Training / Certification Required
Project Superintendent	OSHA 30-Hour Construction Safety and Health Course OSHA 10-Hour Construction Safety and Health Course OSHA 40-Hour HAZWOPER Training OSHA 8-hour HAZWOPER Supervisor
Site Safety Coordinator / Site Safety Manager	OSHA 30-Hour Construction Safety and Health Course OSHA 10-Hour Construction Safety and Health Course OSHA 40-Hour HAZWOPER Training OSHA 8-hour HAZWOPER Supervisor
Construction Workers	OSHA 10-Hour Construction Safety and Health Course

Also, at least one Contractor employee must be on Site during all activities to act as the Site Foreman and will be responsible for identifying existing and predictable hazards in surroundings or working conditions that are unsanitary, hazardous, or dangerous to Site workers and or the community, and will have the authorization to take prompt corrective measures to eliminate them. This individual must have



documentation of at least three days of supervised field experience as well as completion of the specified 8-hour training course for managers and supervisors. Records of certifications and training should be kept by the Contractor.

All project personnel and subcontractor personnel will be trained on relevant safety topics through a combination of Site orientation, presentations to staff, and toolbox talks. Training will include site-specific environmental requirements.

All construction personnel upon entering the Site must attend a brief training meeting, its purpose being to:

- Make workers aware of the potential hazards they may encounter;
- Instruct workers on how to identify potential hazards,
- Provide the knowledge and skills necessary for them to perform the work with minimal risk to health and safety;
- Make workers aware of the purpose and limitations of safety equipment; and
- Ensure that they can safely avoid or escape from emergencies.

Each member of the construction crew will be instructed in these objectives before he/she goes onto the Site. Construction personnel will be responsible for identifying potential hazards that may be encountered during the performance of work. The SSM or other suitably trained individual will be responsible for conducting the training program. A suitably trained construction worker must accompany visitors/others who enter the Site.

In addition, those workers that will perform work below the demarcation layer or come in contact with soil from below the demarcation layer while intrusive activities are being performed, must recognize and understand the potential hazards to health and safety. Training records for Site personnel and subcontractors will be obtained prior to on-site work and will be maintained on site. Records of certifications and training should be kept by the SSM

7.3 SUBCONTRACTORS

Subcontractors will be required to provide to the Contractor's Project Superintendent specific written documentation that each individual assigned to this project has completed the medical monitoring and training requirements specified above. This information must be provided prior to their performing any work on site.

7.4 SITE SAFETY MEETINGS

Prior to the commencement of on-Site investigative activities, a Site safety meeting will be held to review the specific requirements of this CHASP. Sign-off sheets will be collected at this



meeting (see **Attachment A**). Short safety refresher meetings will be conducted daily or as conditions or work activates change. In addition, the Project Superintendent will document that Site visitors have had the required training in accordance with 29 CFR 1910.120 and will provide documented pre-entry safety briefings.

7.5 REASSESSMENT OF PROTECTION PROGRAM

The level of protection provided by the PPE selection will be either upgraded or downgraded based upon a change in Site conditions. When a change occurs, the hazards will be reassessed by the Contractor Project Superintendent. Some indicators of the need for reassessment include:

- A change in job tasks during a work phase;
- A change of season/weather;
- When the temperature extremes or individual medical considerations limit the effectiveness of PPE; and
- Contaminants other than those previously identified are encountered or suspected.

8.0 **EMERGENCY ACTION PLAN**

OSHA defines emergency response as any "response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result in an uncontrolled release of a hazardous substance." The Contractor personnel covered by this CHASP may not participate in any emergency response where there are potential safety or health hazards (i.e., fire, explosion, or chemical exposure). The Contractor response actions will be limited to evacuation and medical/first aid as described within this Section, below.

The basic elements of an emergency evacuation plan include employee training, alarm systems, escape routes, escape procedures, critical operations or equipment, rescue and medical duty assignments, designation of responsible parties, emergency reporting procedures, and methods to account for all employees after evacuation.

8.1 EMPLOYEE INFORMATION

General training regarding emergency evacuation procedures are included in the Contractor initial and refresher training courses. Also, as described, employees must be instructed in the specific aspects of emergency evacuation applicable to the Site as part of the site safety meeting prior to the commencement of all on-site activities. On-Site refresher or update training is required anytime escape routes or procedures are modified or personnel assignments are



changed. This information will be provided during the Site safety meetings (see Section 7.4) and will be documented by the Contractor.

8.2 EMERGENCY SIGNAL AND ALARM SYSTEMS

An emergency communication system must be in effect at all times. The most simple and effective emergency communication system in many situations will be direct verbal communications. The site must be assessed at the time of initial Site activity and periodically as the work progresses. Verbal communications must be supplemented anytime voices cannot be clearly perceived above ambient noise levels (i.e., noise from heavy equipment, trucks, etc.) and anytime a clear line-of-sight cannot be easily maintained amongst all personnel because of distance, terrain or other obstructions. The Contractor will maintain an air horn (or whistle) on-Site that will be used to signal an emergency so that it can be heard over other construction noises on-Site.

8.3 EMERGENCY CONTACTS

Police: 911
Fire: 911
Ambulance: 911
Montefiore New Rochelle Hospital: (914) 365-3770

8.4 HOSPITAL LOCATION

Montefiore New Rochelle Hospital is located at 16 Guion Place, New Rochelle, New York. The most direct route to the hospital from the Site is through NY125 N, then south onto I-95S, take exit 16 to Glover Johnson Place, and arrive at the hospital. **Attachment B** presents a hospital route map.

8.5 INCIDENT REPORTING PROCEDURES

Any incident (other than minor first aid treatment) resulting in injury, illness or property damage requires an accident investigation and report. The investigation should be initiated as soon as emergency conditions are under control. The purpose of this investigation is not to attribute blame but to determine the pertinent facts, so that repeat or similar occurrences can be avoided.

The investigation should begin while details are still fresh in the mind of anyone involved. The person administering first aid may be able to start the fact gathering process if the injured can speak. Pertinent facts must be determined. Questions beginning with who, what, when, where, and how are usually most effective to discover ways to improve job performance in terms of efficiency and quality of work, as well as safety and health concerns.



ATTACHMENT A
HEALTH AND SAFETY BRIEFING

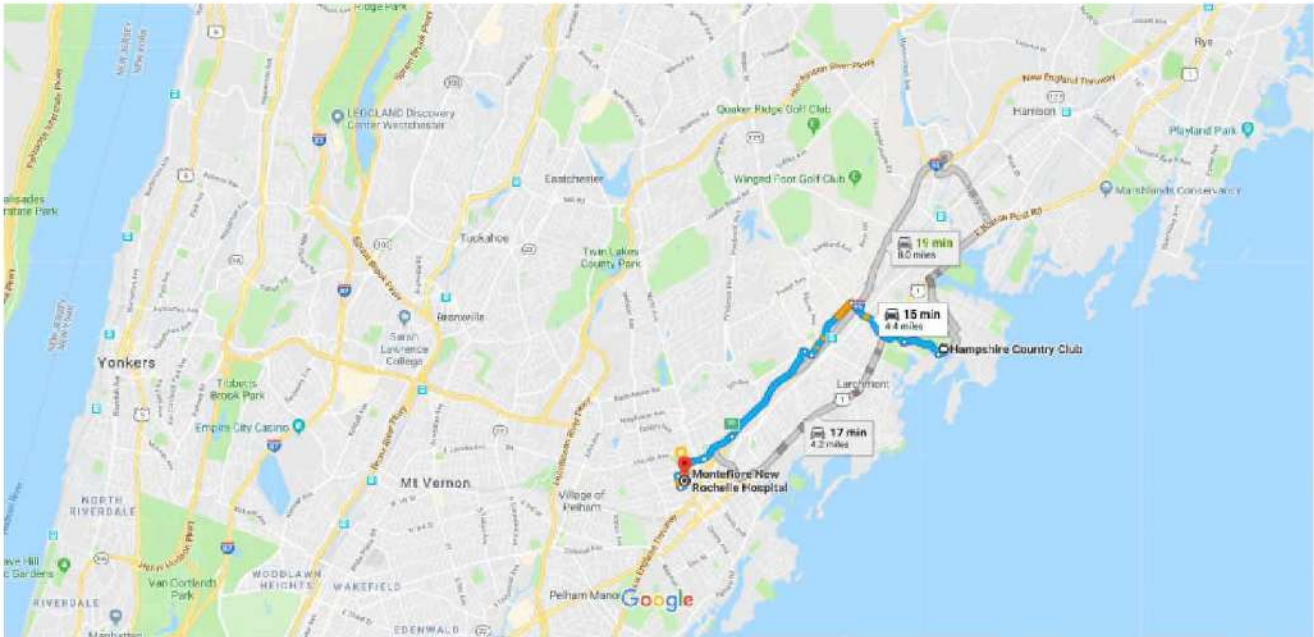


ATTACHMENT B
ROUTE TO HOSPITAL



Google Maps Hampshire Country Club to Montefiore New Rochelle Hospital

Drive 4.4 miles, 15 min



Hampshire Country Club

1025 Cove Rd, Mamaroneck, NY 10543

Take Eagle Knolls Rd and Hommocks Rd to NY-125 N

- | | |
|--|----------------|
| ↑ 1. Head southeast on Cove Rd | 4 min (0.8 mi) |
| ↘ 2. Turn right to stay on Cove Rd | 49 ft |
| ↑ 3. Cove Rd turns right and becomes Eagle Knolls Rd | 486 ft |
| ↘ 4. Slight right onto Hommocks Rd | 0.5 mi |
| | 0.3 mi |

Continue on NY-125 N. Take Myrtle Blvd, I-95 S and Exit 16 to Glover Johnson Pl in New Rochelle

- | | |
|---|----------------|
| ↑ 5. Continue onto NY-125 N | 9 min (3.4 mi) |
| ↶ 6. Turn left onto Myrtle Blvd | 0.5 mi |
| ↑ 7. Myrtle Blvd turns slightly right and becomes Madison Ave | 0.7 mi |
| ↶ 8. Turn left to merge onto I-95 S | 489 ft |
| ↘ 9. Take exit 16 toward North Ave/Cedar St/New Rochelle | 1.2 mi |
| ↑ 10. Continue onto Memorial Hwy | 0.4 mi |
| ↑ 11. Continue onto Norman Rockwell Blvd | 0.1 mi |
| ⦿ 12. At the traffic circle, take the 2nd exit and stay on Norman Rockwell Blvd | 315 ft |
| ↘ 13. Turn right onto Lockwood Ave | 0.2 mi |
| | 433 ft |

Continue on Glover Johnson Pl to your destination

2 min (0.2 mi)



8/17/2018

Hampshire Country Club to Montefiore New Rochelle Hospital - Google Maps

14. Turn left onto Glover Johnson Pl

0.1 mi
15. Turn left

177 ft
16. Turn left.

Destination will be on the left.

230 ft

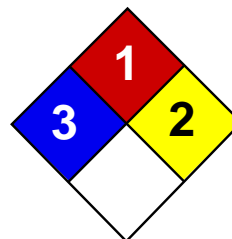
Montefiore New Rochelle Hospital

16 Guion Pl, New Rochelle, NY 10802

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



ATTACHMENT C
SAFETY DATA SHEETS



Health	3
Fire	1
Reactivity	2
Personal Protection	E

Material Safety Data Sheet

Arsenic MSDS

Section 1: Chemical Product and Company Identification

Product Name: Arsenic

Catalog Codes: SLA1006

CAS#: 7440-38-2

RTECS: CG0525000

TSCA: TSCA 8(b) inventory: Arsenic

CI#: Not applicable.

Synonym:

Chemical Name: Arsenic

Chemical Formula: As

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Arsenic	7440-38-2	100

Toxicological Data on Ingredients: Arsenic: ORAL (LD50): Acute: 763 mg/kg [Rat]. 145 mg/kg [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant).

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Classified A1 (Confirmed for human.) by ACGIH. MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to kidneys, lungs, the nervous system, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Some metallic oxides.

Fire Hazards in Presence of Various Substances: Flammable in presence of open flames and sparks, of heat, of oxidizing materials.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards:

Material in powder form, capable of creating a dust explosion. When heated to decomposition it emits highly toxic fumes.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Keep locked up.. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable

protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, moisture.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 0.01 from ACGIH (TLV) [United States] [1995] Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Lustrous solid.)

Odor: Not available.

Taste: Not available.

Molecular Weight: 74.92 g/mole

Color: Silvery.

pH (1% soln/water): Not applicable.

Boiling Point: Not available.

Melting Point: Sublimation temperature: 615°C (1139°F)

Critical Temperature: Not available.

Specific Gravity: 5.72 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility: Insoluble in cold water, hot water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Reactive with oxidizing agents, acids, moisture.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 145 mg/kg [Mouse].

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: Classified A1 (Confirmed for human.) by ACGIH. Causes damage to the following organs: kidneys, lungs, the nervous system, mucous membranes.

Other Toxic Effects on Humans:

Very hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are as toxic as the original product.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Section 14: Transport Information

DOT Classification: CLASS 6.1: Poisonous material.

Identification: : Arsenic UNNA: UN1558 PG: II

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Arsenic California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Arsenic Pennsylvania RTK: Arsenic Massachusetts RTK: Arsenic TSCA 8(b) inventory: Arsenic

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:**WHMIS (Canada):**

CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC):

R22- Harmful if swallowed. R45- May cause cancer.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 1

Reactivity: 2

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 1

Reactivity: 2

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

Section 16: Other Information**References:**

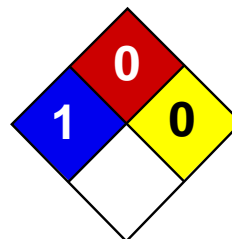
-Hawley, G.G.. The Condensed Chemical Dictionary, 11e ed., New York N.Y., Van Nostrand Reinold, 1987. -Liste des produits purs tératogènes, mutagènes, cancérigènes. Répertoire toxicologique de la Commission de la Santé et de la Sécurité du Travail du Québec. -Material safety data sheet emitted by: la Commission de la Santé et de la Sécurité du Travail du Québec. -SAX, N.I. Dangerous Properties of Industrial Materials. Toronto, Van Nostrand Reinold, 6e ed. 1984. -The Sigma-Aldrich Library of Chemical Safety Data, Edition II. -Guide de la loi et du règlement sur le transport des marchandises dangereuses au Canada. Centre de conformité international Ltée. 1986.

Other Special Considerations: Not available.

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Health	1
Fire	0
Reactivity	0
Personal Protection	E

Material Safety Data Sheet

Lead MSDS

Section 1: Chemical Product and Company Identification

Product Name: Lead

Catalog Codes: SLL1291, SLL1669, SLL1081, SLL1459, SLL1834

CAS#: 7439-92-1

RTECS: OF7525000

TSCA: TSCA 8(b) inventory: Lead

CI#: Not available.

Synonym: Lead Metal, granular; Lead Metal, foil; Lead Metal, sheet; Lead Metal, shot

Chemical Name: Lead

Chemical Formula: Pb

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Lead	7439-92-1	100

Toxicological Data on Ingredients: Lead LD50: Not available. LC50: Not available.

Section 3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

Slightly hazardous in case of skin contact (permeator). CARCINOGENIC EFFECTS: Classified A3 (Proven for animal.) by ACGIH, 2B (Possible for human.) by IARC. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to blood, kidneys, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Some metallic oxides.

Fire Hazards in Presence of Various Substances: Non-flammable in presence of open flames and sparks, of shocks, of heat.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: When heated to decomposition it emits highly toxic fumes of lead.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Keep locked up.. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable

protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 0.05 (mg/m³) from ACGIH (TLV) [United States] TWA: 0.05 (mg/m³) from OSHA (PEL) [United States] TWA: 0.03 (mg/m³) from NIOSH [United States] TWA: 0.05 (mg/m³) [Canada] Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Metal solid.)

Odor: Not available.

Taste: Not available.

Molecular Weight: 207.21 g/mole

Color: Bluish-white. Silvery. Gray

pH (1% soln/water): Not applicable.

Boiling Point: 1740°C (3164°F)

Melting Point: 327.43°C (621.4°F)

Critical Temperature: Not available.

Specific Gravity: 11.3 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility: Insoluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials, excess heat

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Can react vigorously with oxidizing materials. Incompatible with sodium carbide, chlorine trifluoride, trioxane + hydrogen peroxide, ammonium nitrate, sodium azide, disodium acetylide, sodium acetylide, hot concentrated nitric acid, hot concentrated hydrochloric acid, hot concentrated sulfuric acid, zirconium.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available. LC50: Not available.

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: Classified A3 (Proven for animal.) by ACGIH, 2B (Possible for human.) by IARC. May cause damage to the following organs: blood, kidneys, central nervous system (CNS).

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans:

Acute Potential: Skin: Lead metal granules or dust: May cause skin irritation by mechanical action. Lead metal foil, shot or sheets: Not likely to cause skin irritation Eyes: Lead metal granules or dust: Can irritate eyes by mechanical action. Lead metal foil, shot or sheets: No hazard. Will not cause eye irritation. Inhalation: In an industrial setting, exposure to lead mainly occurs from inhalation of dust or fumes. Lead dust or fumes: Can irritate the upper respiratory tract (nose, throat) as well as the bronchi and lungs by mechanical action. Lead dust can be absorbed through the respiratory system. However, inhaled lead does not accumulate in the lungs. All of an inhaled dose is eventually absorbed or transferred to the gastrointestinal tract. Inhalation effects of exposure to fumes or dust of inorganic lead may not develop quickly. Symptoms may include metallic taste, chest pain, decreased physical fitness, fatigue, sleep disturbance, headache, irritability, reduces memory, mood and personality changes, aching bones and muscles, constipation, abdominal pains, decreasing appetite. Inhalation of large amounts may lead to ataxia, delirium, convulsions/seizures, coma, and death. Lead metal foil, shot, or sheets: Not an inhalation hazard unless metal is heated. If metal is heated, fumes will be released. Inhalation of these fumes may cause "fume metal fever", which is characterized by flu-like symptoms. Symptoms may include metallic taste, fever, nausea, vomiting, chills, cough, weakness, chest pain, generalized muscle pain/aches, and increased white blood cell count. Ingestion: Lead metal granules or dust: The symptoms of lead poisoning include abdominal pain or cramps (lead colic), spasms, nausea, vomiting, headache, muscle weakness, hallucinations, distorted perceptions, "lead line" on the gums, metallic taste, loss of appetite, insomnia, dizziness and other symptoms similar to that of inhalation. Acute poisoning may result in high lead levels in the blood and urine, shock, coma and death in extreme cases. Lead metal foil, shot or sheets: Not an ingestion hazard for usual industrial handling.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information**Federal and State Regulations:**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Lead California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: Lead California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (male) which would require a warning under the statute: Lead California prop. 65 (no significant risk level): Lead: 0.0005 mg/day (value) California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Lead California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Lead Connecticut hazardous material survey.: Lead Illinois toxic substances disclosure to employee act: Lead Illinois chemical safety act: Lead New York release reporting list: Lead Rhode Island RTK hazardous substances: Lead Pennsylvania RTK: Lead

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC):

R20/22- Harmful by inhalation and if swallowed. R33- Danger of cumulative effects. R61- May cause harm to the unborn child. R62- Possible risk of impaired fertility. S36/37- Wear suitable protective clothing and gloves. S44- If you feel unwell, seek medical advice (show the label when possible). S53- Avoid exposure - obtain special instructions before use.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 0

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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Last Updated: 05/21/2013 12:00 PM

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Safety Data Sheet

Revision Date: 12/23/16

www.restek.com

1. IDENTIFICATION

Catalog Number / Product Name:	32203 / 4,4'-DDT Standard
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	8
Intended use:	For Laboratory use only

2. HAZARD(S) IDENTIFICATION

Emergency Overview:

GHS Hazard
Symbols:



GHS Classification: Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Flammable Liquid Category 2
Acute Toxicity - Inhalation Dust / Mist Category 3
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word: Danger

GHS Hazard: Highly flammable liquid and vapour.
Toxic if swallowed, in contact with skin or if inhaled.
Causes damage to organs.

GHS Precautions:

Safety Precautions: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures: IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF exposed: Call a POISON CENTER or doctor/physician.
Call a POISON CENTER or doctor/physician.
Call a POISON CENTER or doctor/physician if you feel unwell.
Specific treatment see section 4.
Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: No data available.

Repeated Exposure Target Organs: No data available.

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	99.900000
4,4'-DDT	50-29-3	200-024-3	0.100000

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment
Storage Technical Measures and Conditions:	Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
4,4'-DDT	50-29-3	500 mg/m3 IDLH		1 mg/m3 TWA	1 mg/m3 TWA (listed under Dichlorodiphenyltrichloroethane)

Personal Protection:

Engineering Measures:

Local exhaust ventilation is recommended when generating excessive levels of vapors from handling or thermal processing.

Respiratory Protection:

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection:

Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection:

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available.
Odor:	Mild
Physical State:	No data available.
pH:	No data available.
Vapor Pressure:	No data available.
Vapor Density:	1.1 (air = 1)
Boiling Point:	No data available.
Melting Point:	-98 °C
Flash Point:	52
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature:	464 deg C
Decomposition Temperature:	No data available.
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available.
Odor Threshold:	No data available.
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available.
VOC % by weight:	99.9
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	No data available.
Materials to Avoid / Chemical Incompatibility:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure: Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity: None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation: Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity: Harmful! Can cause systemic damage (see "Target Organs")Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact: Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation: Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity: Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity: Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity: Contains a known human reproductive and/or developmental hazard.
Inhalation: Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs")
Skin Contact: Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion: Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:

NIOSH:

Chemical Name	CAS No.	LD50/LC50
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h
DDT	50-29-3	Dermal LD50 Rabbit 300 - 2820 mg/kg

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.	
DDT	50-29-3	Present

ACGIH:

Chemical Name	CAS No.	
DDT	50-29-3	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH:

Chemical Name	CAS No.	
DDT	50-29-3	potential occupational carcinogen

NTP:

Chemical Name	CAS No.
No data available.	

IARC:

Chemical Name	CAS No.	Group No.
No data.		Group 1
DDT	50-29-3	Group 2A
No data.		Group 2B

12. ECOLOGICAL INFORMATION

Overview: Moderate ecological hazard. This product may be dangerous

Mobility: to plants and/or wildlife.
Persistence: No data
Bioaccumulation: No data
Degradability: Biodegrades slowly.
Ecological Toxicity Data: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product: Spent or discarded material is a hazardous waste.
Disposal Methods: Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging: Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:
DOT Proper Shipping Name: Methanol
UN Number: UN1230
Hazard Class: 3
Packing Group: II

International:
IATA Proper Shipping Name: Methanol
UN Number: UN1230
Hazard Class: 3(6.1)
Packing Group: II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available.			

15. REGULATORY INFORMATION

United States:					
Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
4,4'-DDT	50-29-3	X	-	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
DDT	50-29-3	Prop 65 Cancer
Methanol	67-56-1	Prop 65 Develop Tox
p,p'-DDT	50-29-3	Prop 65 Develop Tox
p,p'-DDT	50-29-3	Prop 65 Rep Female
p,p'-DDT	50-29-3	Prop 65 Rep Male

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
4,4'-DDT	50-29-3	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 09/30/14
Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.
References: No data available.
Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose

prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.



Safety Data Sheet

Revision Date: 12/23/16

www.restek.com

1. IDENTIFICATION

Catalog Number / Product Name:	32218 / Dieldrin Standard
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	6
Intended use:	For Laboratory use only

2. HAZARD(S) IDENTIFICATION

Emergency Overview:

GHS Hazard
Symbols:



GHS Classification: Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Flammable Liquid Category 2
Acute Toxicity - Inhalation Dust / Mist Category 3
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word: Danger

GHS Hazard: Highly flammable liquid and vapour.
Toxic if swallowed, in contact with skin or if inhaled.
Causes damage to organs.

GHS Precautions:

Safety Precautions: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures: IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF exposed: Call a POISON CENTER or doctor/physician.
Call a POISON CENTER or doctor/physician.
Call a POISON CENTER or doctor/physician if you feel unwell.
Specific treatment see section 4.
Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: No data available.

Repeated Exposure Target Organs: No data available.

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	99.900000
dieldrin	60-57-1	200-484-5	0.100000

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment
Storage Technical Measures and Conditions:	Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
dieldrin	60-57-1	ND		0.1 mg/m3 TWA (inhalable fraction and vapor)	0.25 mg/m3 TWA

Personal Protection:

Engineering Measures:	Local exhaust ventilation is recommended when generating excessive levels of vapors from handling or thermal processing.
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.
Eye Protection:	Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.
Skin Protection:	Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available.
Odor:	Mild
Physical State:	No data available.
pH:	No data available.
Vapor Pressure:	No data available.
Vapor Density:	1.1 (air = 1)
Boiling Point:	No data available.
Melting Point:	-98 °C
Flash Point:	52
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature:	464 deg C
Decomposition Temperature:	No data available.
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available.
Odor Threshold:	No data available.
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available.
VOC % by weight:	99.9
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	No data available.
Materials to Avoid / Chemical Incompatibility:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
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Target Organs Potentially Affected By Exposure: Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract

Chemical Interactions That Change Toxicity: None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation: Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.

Inhalation Toxicity: Harmful! Can cause systemic damage (see "Target Organs")Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.

Skin Contact: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Eye Contact: Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.

Ingestion Irritation: Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.

Ingestion Toxicity: Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity: Contains a probable or known human carcinogen.

Reproductive and Developmental Toxicity: Contains a known human reproductive and/or developmental hazard.

Inhalation: Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)

Skin Contact: Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Ingestion: Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:

NIOSH:

Chemical Name	CAS No.	LD50/LC50
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.
No data available.	

ACGIH:

Chemical Name	CAS No.
No data available.	

NIOSH:

Chemical Name	CAS No.
No data available.	

NTP:

Chemical Name	CAS No.
No data available.	

IARC:

Chemical Name	CAS No.	Group No.
No data.		Group 1
No data.		Group 2A
No data.		Group 2B

12. ECOLOGICAL INFORMATION

Overview: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.

Mobility: No data

Persistence: No data

Bioaccumulation: No data
Degradability: Biodegrades slowly.
Ecological Toxicity Data: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product: Spent or discarded material is a hazardous waste.
Disposal Methods: Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging: Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:
DOT Proper Shipping Name: Methanol
UN Number: UN1230
Hazard Class: 3
Packing Group: II

International:
IATA Proper Shipping Name: Methanol
UN Number: UN1230
Hazard Class: 3(6.1)
Packing Group: II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available.			

15. REGULATORY INFORMATION

United States:					
Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
dieldrin	60-57-1	X	-	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Dieldrin	60-57-1	Prop 65 Cancer
Methanol	67-56-1	Prop 65 Develop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
dieldrin	60-57-1	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 04/28/14
Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.
References: No data available.
Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given

and accepted at your risk.



Safety Data Sheet

Revision Date: 01/17/18

www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name: 32228 / Heptachlor Standard
Company: Restek Corporation
Address: 110 Benner Circle
Bellefonte, Pa. 16823
Phone#: 814-353-1300
Fax#: 814-353-1309
Emergency#: 800-424-9300 (CHEMTREC)
703-527-3887 (Outside the US)
Email: www.restek.com
Revision Number: 8
Intended use: For Laboratory use only

2. HAZARD(S) IDENTIFICATION

Emergency Overview:

GHS Hazard
Symbols:



GHS Classification: Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Flammable Liquid Category 2
Carcinogenicity Category 2
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word: Danger

GHS Hazard: Highly flammable liquid and vapour.
Toxic if swallowed or in contact with skin.
Suspected of causing cancer.
Causes damage to organs.

GHS Precautions:

Safety Precautions: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures: IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF exposed: Call a POISON CENTER or doctor/physician.
IF exposed or concerned: Get medical advice/attention.
Call a POISON CENTER or doctor/physician if you feel unwell.
Specific treatment see section 4.

Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C \geq 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % \leq C $<$ 10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: Specific target organ toxicity - Repeated exposure - STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Minimum classification, No information to prove exclusion of certain routes of exposure)

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	99.9
heptachlor	76-44-8	200-962-3	0.1

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a

minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment
Storage Technical Measures and Conditions:	Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
heptachlor	76-44-8	35 mg/m3 IDLH	None Known	0.05 mg/m3 TWA	0.5 mg/m3 TWA

Personal Protection:

Engineering Measures:

Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Respiratory Protection:

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection:

Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection:

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	52
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	0
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatibility:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs")Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs")
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:

NIOSH:

Chemical Name	CAS No.	LD50/LC50
Heptachlor	76-44-8	Dermal LD50 Rabbit 780 mg/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.	
Heptachlor	76-44-8	Present

ACGIH:

Chemical Name	CAS No.	
Heptachlor	76-44-8	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH:

Chemical Name	CAS No.	
Heptachlor	76-44-8	potential occupational carcinogen

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
Monograph 79 [2001]; Monograph 53 [1991]; Supplement 7 [1987]	76-44-8	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3
Packing Group:	II

International:	
IATA Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3(6.1)
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:					
Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
heptachlor	76-44-8	X	X	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Heptachlor	76-44-8	Prop 65 Cancer
Heptachlor	76-44-8	Prop 65 Develop Tox
Methanol	67-56-1	Prop 65 Develop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
heptachlor	76-44-8	X	X	X	X

16. OTHER INFORMATION

Prior Version Date:	12/13/16
Other Information:	Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.
References:	No data available
Disclaimer:	Restek Corporation provides the descriptions, data and information contained

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