

City Council

2022-2023

City of Newton



To: Programs and Services Committee and City Council

From: Councilors Norton and Malakie

Re: Docket Item # 411-22

Date: November 4, 2022

Dear Councilors,

Please find in your packet two documents to aid us in the discussion on November 9, 2022. The first is an updated valuation chart showing the replacement costs in the Mayor's proposal for cutting down mature trees, alongside current costs, Cambridge's costs and the current City Council's proposed environmental mitigation costs. Replacement costs in the Mayor's proposal now reflect the new replacement cost of \$280 per inch of DBH.

The second attachment includes photographs of the before and after effects of mature tree removal on several properties around the city. All are properties that were included in Marc Welch's three years of permit data, where trees were removed for teardowns (or in one case, a very large addition), and where the tree loss is visible from the public street and/or aerial satellite views. These include examples of Non-Exempt Lots, an Exempt Lot, and an Extension of Exempt Lot status. Under our current ordinance, Exempt Lots and Extension of Exempt Lots do not have to replace or pay in lieu of diameter inches.

Thank You,
Emily Norton
Julia Malakie

Tree loss examples - current ordinance

(from Marc Welch list of Tree Permit addresses with removals)

11/4/22

1659-1661 Centre St, Newton Highlands (LLC, teardown, 2 condos)

Permit application: 5/19/2020
Time owned before: 18 days
Time owned after: 1 year
Category: Non-exempt lot, planted zero,
paid in lieu



1122-1124 Chestnut St, Upper Falls (realty trust, teardown, 2 condos)

Permit application: 6/5/2020

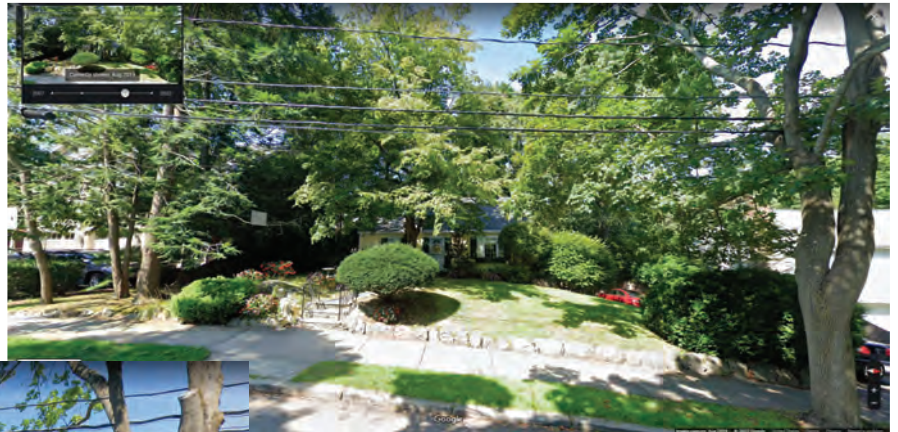
Time owned before: 86 days

Time owned after: 1 year

Category: Non-exempt lot



16 Cragmore Rd, Upper Falls (LLC, SF teardown, 2 condos)



Permit application: 1/17/2020

Date of purchase: 1/30/2020

Time owned after: 13 months

Category: Non-exempt lot

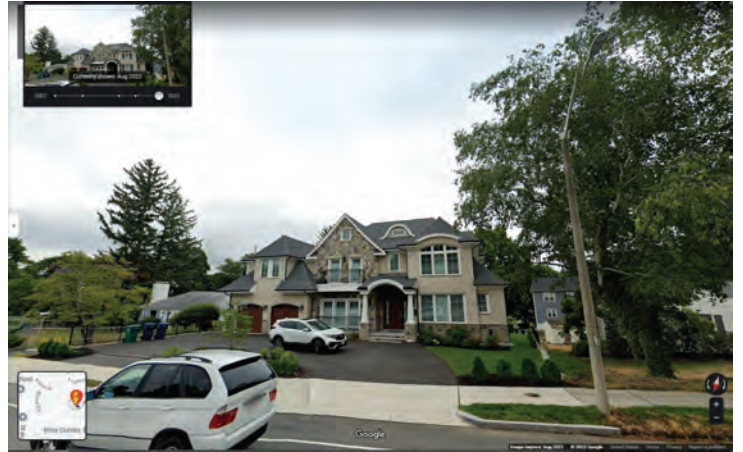
1270 Commonwealth Ave, West Newton (SF, teardown by new owners)

Permit application: 6/18/2020

Time owned before: 9 days

Time owned after: 28+ months

Category: Extension of exempt lot



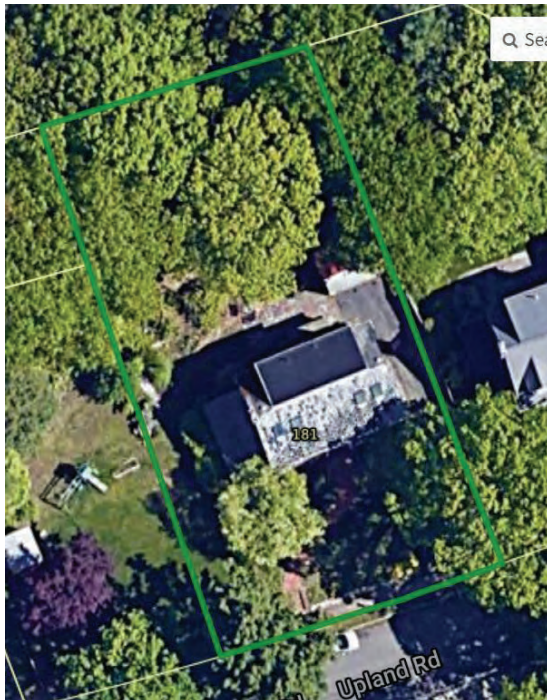
181 Upland Rd, Newtonville (SF, large addition)

Permit application:
9/23/2019

Time owned before:
5 years, 8 months

Time owned after:
25+ months

Category:
Exempt lot



57 Cherry Pl, West Newton

Permit application: 10/20/20

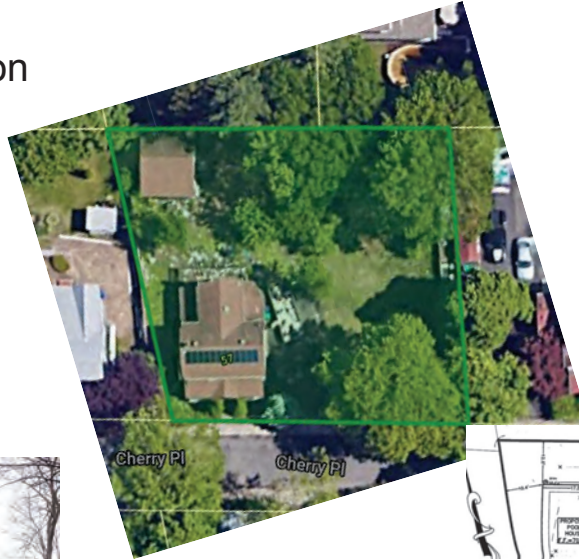
Prior owner died Feb 2019
Current owner bought 12/11/2020

Dec 2020 teardown

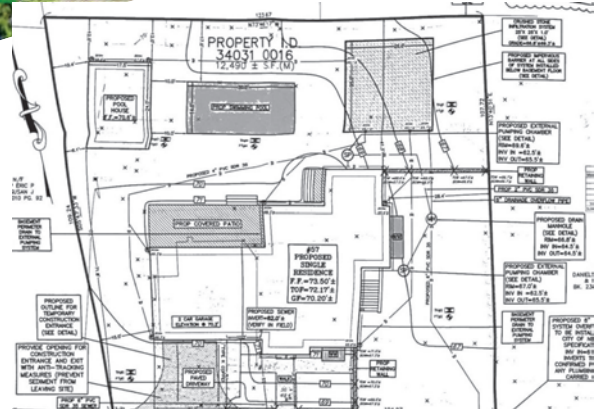
Certificate of Occupancy 9/29/21

Time owned after CO: 13 mos+

Category: Non-exempt lot



Trees removed for proposed pool house, pool, and crushed stone infiltration system



57 Cherry Pl, West Newton

Permit application: 10/20/20

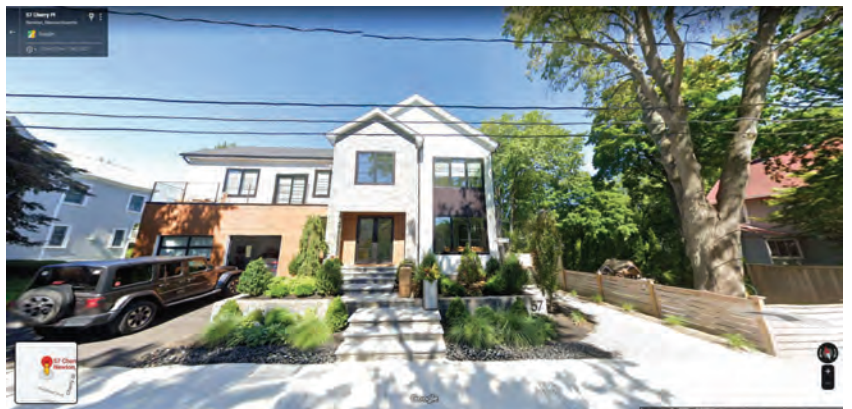
Prior owner died Feb 2019
Current owner bought 12/11/2020

Dec 2020 teardown

Certificate of Occupancy 9/29/21

Time owned after CO: 13 mos+

Category: Non-exempt lot



REVISED Tree Valuation Formulas 11/1/2022

		Current ordinance	Administration proposal			Cambridge			City councilors' proposal			ANNUAL benefits example (Northern red oak) Arbor Day Foundation National Tree Benefit Calculator https://www.arborday.org/calculator/index.cfm For multistep calculation of the cost of lost benefits, see the last Answer in the FAQs on the Councilors' Proposal			
		\$200 x DBH	\$280 x Category Factor x DBH (\$280 per packet slides)			\$850 x Category Factor x DBH			Mitigation Payment = Base Value (TBD) x cross sectional area = Base Value x .785 x DBH squared			CO2 reduction (Lbs)	Stormwater intercepted (gallons)	Energy (kW/h)	Cost of Lost Benefits until Replacement Tree Matures (30 years)*
Size (DBH)	Payment in Lieu	Category	Factor	Payment in Lieu	Category	Factor	Payment in Lieu	If Base Value=\$13	If Base Value=\$25	If Base Value=\$50					
(Replacement tree size & planting credit)	2	\$400			\$560			\$41	\$79	\$157	26	106	5	\$2,618	
	3	\$600			\$840			\$92	\$177	\$353	54	221	11	\$3,184	
	4	\$800			\$1,120			\$163	\$314	\$628	82	335	17	\$3,750	
	5	\$1,000			\$1,400			\$255	\$491	\$981	116	461	24	\$4,387	
	6	\$1,200	Protected	1	\$1,680	Significant	1	\$5,100	\$367	\$707	\$1,413	157	597	33	\$5,095
8	\$1,600	Protected	1	\$2,240	Significant	1	\$6,800	\$653	\$1,256	\$2,512	239	869	51	\$6,581	
10	\$2,000	Protected	1	\$2,800	Significant	1	\$8,500	\$1,021	\$1,963	\$3,925	333	1,164	70	\$7,996	
12	\$2,400	Protected	1	\$3,360	Significant	1	\$10,200	\$1,470	\$2,826	\$5,652	439	1,482	93	\$9,411	
14	\$2,800	Protected	1	\$3,920	Significant	1	\$11,900	\$2,000	\$3,847	\$7,693	544	1,799	115	\$10,826	
16	\$3,200	Protected	1	\$4,480	Significant	1	\$13,600	\$2,612	\$5,024	\$10,048	634	2,135	131	\$12,100	
17	\$3,400	Protected	1	\$4,760	Significant	1	\$14,450	\$2,949	\$5,672	\$11,343	671	2,312	136	\$12,595	
18	\$3,600	Protected	1	\$5,040	Significant	1	\$15,300	\$3,306	\$6,359	\$12,717	709	2,490	140	\$13,161	
20	\$4,000	Protected	1	\$5,600	Significant	1	\$17,000	\$4,082	\$7,850	\$15,700	784	2,844	150	\$14,294	
22	\$4,400	Protected	1	\$6,160	Significant	1	\$18,700	\$4,939	\$9,499	\$18,997	869	3,214	162	\$15,355	
24	\$4,800	Protected	1	\$6,720	Significant	1	\$20,400	\$5,878	\$11,304	\$22,608	963	3,599	175	\$16,417	
25	\$5,000	Significant	1.5	\$10,500	Significant	1	\$21,250	\$6,378	\$12,266	\$24,531	1,010	3,791	182	\$16,983	
27	\$5,400	Significant	1.5	\$11,340	Significant	1	\$22,950	\$7,439	\$14,307	\$28,613	1,104	4,176	196	\$18,040	
29	\$5,800	Significant	1.5	\$12,180	Significant	1	\$24,650	\$8,582	\$16,505	\$33,009	1,200	4,587	208	\$18,964	
30	\$6,000	Significant	1.5	\$12,600	Exceptional	1.5	\$38,250	\$9,185	\$17,663	\$35,325	1,249	4,793	215	\$19,459	
31	\$6,200	Significant	1.5	\$13,020	Exceptional	1.5	\$39,525	\$9,807	\$18,860	\$37,719	1,297	4,999	221	\$19,955	
33	\$6,600	Significant	1.5	\$13,860	Exceptional	1.5	\$42,075	\$11,113	\$21,372	\$42,743	1,393	5,410	233	\$20,874	
35	\$7,000	Significant	1.5	\$14,700	Exceptional	1.5	\$44,625	\$12,501	\$24,041	\$48,081	1,489	5,847	244	\$21,794	
37	\$7,400	Significant	1.5	\$15,540	Exceptional	1.5	\$47,175	\$13,971	\$26,867	\$53,733	1,586	6,285	255	\$22,643	
39	\$7,800	Significant	1.5	\$16,380	Exceptional	1.5	\$49,725	\$15,522	\$29,850	\$59,699	1,682	6,723	266	\$23,563	
40	\$8,000	Landmark	2	\$22,400	Exceptional	1.5	\$51,000	\$16,328	\$31,400	\$62,800	1,731	6,953	271	\$23,988	
42	\$8,400	Landmark	2	\$23,520	Exceptional	1.5	\$53,550	\$18,002	\$34,619	\$69,237	1,830	7,415	281	\$24,837	
44	\$8,800	Landmark	2	\$24,640	Exceptional	1.5	\$56,100	\$19,757	\$37,994	\$75,988	1,929	7,876	291	\$25,615	
45	\$9,000	Landmark	2	\$25,200	Exceptional	1.5	\$57,375	\$20,665	\$39,741	\$79,481	1,977	8,105	296	\$26,040	
46	\$9,200	Landmark	2	\$25,760	Exceptional	1.5	\$58,650	\$21,594	\$41,527	\$83,053					
48	\$9,600	Landmark	2	\$26,880	Exceptional	1.5	\$61,200	\$23,512	\$45,216	\$90,432					
50	\$10,000	Landmark	2	\$28,000	Exceptional	1.5	\$63,750	\$25,513	\$49,063	\$98,125					
52	\$10,400	Landmark	2	\$29,120	Exceptional	1.5	\$66,300	\$27,594	\$53,066	\$106,132					
54	\$10,800	Landmark	2	\$30,240	Exceptional	1.5	\$68,850	\$29,758	\$57,227	\$114,453					
55	\$11,000	Legacy	3	\$46,200	Exceptional	1.5	\$70,125	\$30,870	\$59,366	\$118,731					
57	\$11,400	Legacy	3	\$47,880	Exceptional	1.5	\$72,675	\$33,156	\$63,762	\$127,523					
59	\$11,800	Legacy	3	\$49,560	Exceptional	1.5	\$75,225	\$35,524	\$68,315	\$136,629					
61	\$12,200	Legacy	3	\$51,240	Exceptional	1.5	\$77,775	\$37,973	\$73,025	\$146,049					
63	\$12,600	Legacy	3	\$52,920	Exceptional	1.5	\$80,325	\$40,504	\$77,892	\$155,783					
65	\$13,000	Legacy	3	\$54,600	Exceptional	1.5	\$82,875	\$43,116	\$82,916	\$165,831					

*Does NOT include costs from lost tree & its disposal: carbon emissions, air pollution, energy usage, etc.

The Arbor Day Foundation's National Tree Benefit Calculator only provides information for trees ups to 45 DBH