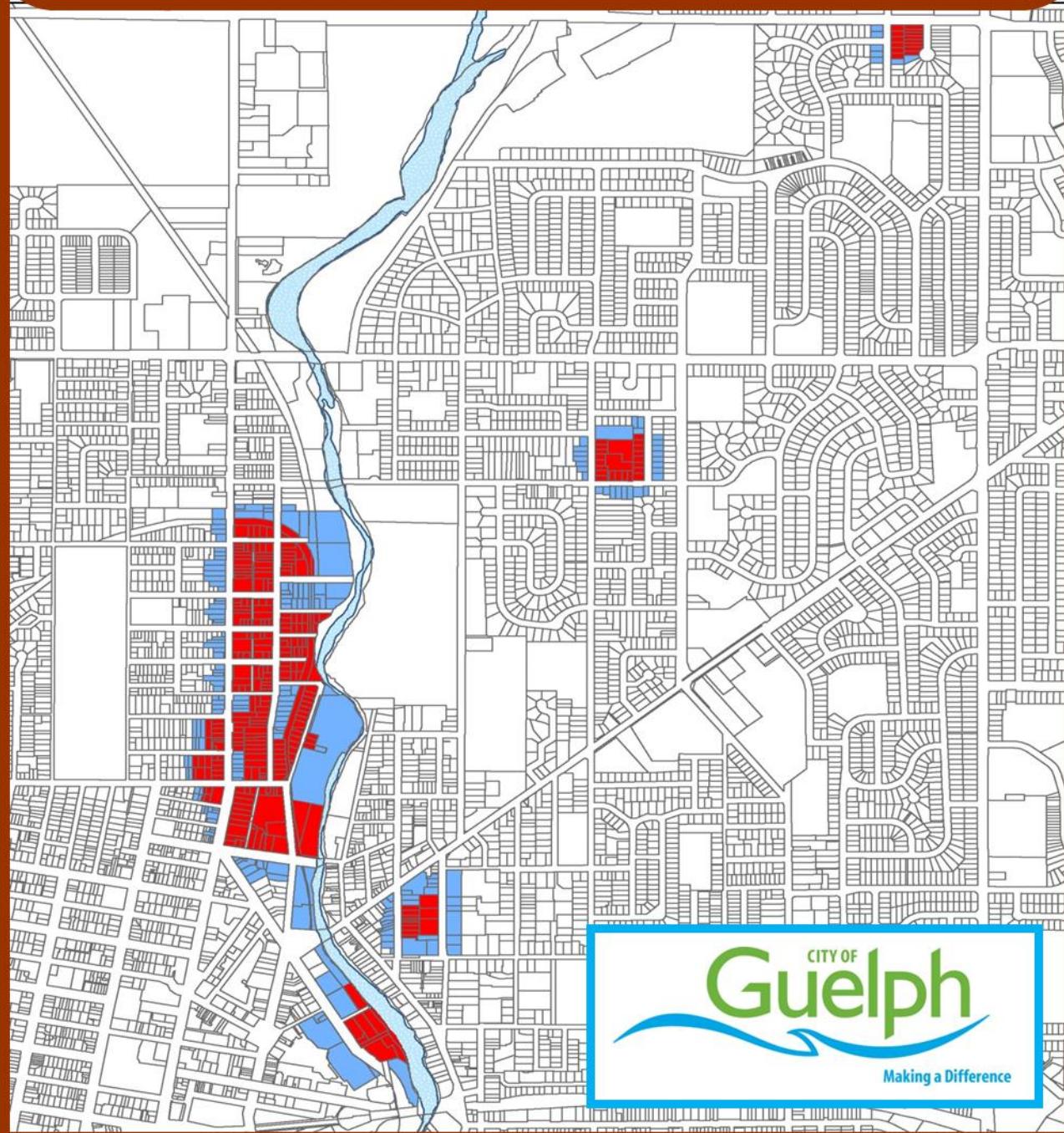


Termite Report 2015

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Executive Summary

Guelph's Termite Control Program The City of Guelph has an introduced infestation of the eastern subterranean termite, *Reticulitermes flavipes*, which the City has been tracking and combating since the 1970s. This insect pest can be difficult and expensive to control and can cause serious structural damage to wood frame structures and housing. In order to protect the housing stock of the City, and to prevent the continuous spread of this invasive species, the City has implemented a comprehensive termite control program. Traditional termite control uses soil insecticides and wood preservatives to chemically treat affected structures, but does not address the termite population which continues to spread. The City's program integrates all traditional methods of pre-treatment, remedial treatment and preventative treatment as well as preventative measures in new construction, termite habitat elimination, and termite population suppressive treatments. The City has five termite management areas (Figure 1).

Sixth Year of Suppression with Zinc Borate 2015 was the sixth year of treatments with zinc borate for the Woolwich, Windermere and Emma-Pine management areas. Starting in 2012 a modified formulation has been used containing less resin. Under this treatment regimen the number of trapped termites has steadily declined, reflecting large scale termite population suppression. The combined total number of termites trapped for the Woolwich, Windermere and Emma-Pine areas was 929,236 in 2010, 683,793 in 2011, 535,565 in 2012, 254,349 in 2013, 35,263 in 2014 and 21,975 in 2015. This represents a 37.7% decline over the previous year and a 97.6% decline since 2010 (see sectors 2-47 in Figure 2).

King Street and John Galt Park Areas The King Street management area was discovered in the summer of 2013 and the John Galt Park management area was discovered in the spring of 2014. Thus 2015 was the second full year of treatments for both of these management areas. The number of termites trapped in these two areas in 2015 was 63,507 for the King Street area, and 115,956 for the John Galt area. Thus, these areas comprise 31.5% and 57.6%, respectively, or 89.1% cumulatively, of the total (201,438) termites trapped in 2015. Comparison of the number of termites trapped in the first and second halves of 2015 shows a 57.8% and a 67.9% decline in the number of termites trapped between the first and second halves of the season for the King Street and John Galt areas, respectively (sectors 52 and 57 in Figure 3). These measures of suppression are also supported by the continuous downward trend in the average number of termites trapped per inspection (Figure 4). This consistent year over year suppression shows that zinc borate applied topically to trapped and released termites is an effective tool for area-wide termite population suppression.

Inactivity of Fifteen Red Zone Sectors Of the 24 red zone sectors, 15 were completely inactive for the entire 2015 season. This included sectors: 3, 7, 8, 19, 20, 21, 22, 23, 24, 25, 27, 37, 41, and 47. This was the first year that sector 7, was inactive all year, which previously had been the most active sector for several years running.

Low Levels in Areas of Ongoing Activity Only six sectors in the Woolwich area had any ongoing activity in 2015. The total number of termites trapped in the Woolwich area in 2015 was 21,736 compared to 35,263 in 2014, a decline of 38.4%.

Decline in the Number of Active Properties. The number of active properties in the managed areas has declined steadily over the last five years of zinc borate treatments. The combined number of

active properties in the Woolwich, Windermere and Emma-Pine areas was 104 in 2011, 88 in 2012, 43 in 2013, 16 in 2014, and 12 in 2015. Twelve properties were active in the King Street area and four in the John Galt Park area bringing the total number of active properties in 2015 to 27, down from 32 in 2014 (Figures 5 & 6).

Chemical Treatments and Inspections in 2015. Three chemical treatments were performed for structural infestations. Five remedial or preventative borate spray treatments were performed. In addition 29 inspections were performed for real estate transactions, 21 for building permits, and 155 for disposal permits.

Chemical Treatments of Stumps in John Galt Park. A large number of multi-stem, partially dead trees are present in and around the margins of John Galt Park that are impossible to remove without killing or damaging the live stems. About 50 of these clumps were chemically treated to eliminate these as termite nesting and feeding sites.

Further Contraction of Management Area Continuous inactivity for three or more year on many of the properties of the Woolwich, Windermere and Emma-Pine management areas allows for a further contraction of the designated boundaries of these area. Properties designated as red are considered active properties while properties designated as blue are considered buffer properties. Forty-six properties that were formerly blue, have now been designated as white and are thus removed from active termite management. Another 84 properties formerly designated red, have now been designated as blue. In total 130 properties have been re-designated (compare Figures 1 and 7).

2015 Report As with previous annual reports, the full 2015 report will be posted on the City's termite web site at www.guelph.ca > termites > reference materials, by the last week of April.

Goals for the 2016 Season The goals for the upcoming season will be similar to 2015:

- This executive summary with graphs and maps will be sent to residents at the end of April as an annual progress report.
- Maps of the new boundaries of the termite management areas will be posted on the city's website by the end of April, and reclassified properties will be flagged in building department files.
- Two part-time summer technicians will be hired and will start work the first week of May.
- Traps will be refurbished with new cardboard rolls and lids, and any missing traps will be replaced during May and June. Traps will be reduced or removed in re-designated areas.
- Through the summer, traps will be checked on a three week cycle. Trapped termites will be treated with a resinous formulation of zinc borate and released back into active traps. Any trap used as release port will be secured with a heavy duty plastic cable tie and identified with a treatment lid label and brick.
- Further ongoing efforts will be made to manage critical termite habitat in areas along the Speed River.
- New research permit applications will be submitted to the Pest Management Regulatory Agency for further treatment options, such as baiting, beyond 2016.

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Table 1. Extent of Guelph's Four Termite Management Areas at end of 2015

(Zones, Properties, Blocks & Traps)										Total (R+B+W)
Zones	Red**	Blue	Red + Blue	White*						
Management Areas:	zones	properties	traps	zones	properties	traps	zones	properties	blocks	traps
1) Woolwich Area	16	237	1614	21	193	543	37	430	29	513
2) Windermere Area	1	8	80	2	5	15	3	13	4	37
3) Emma - Pine Area	0	0	1	22	88	1	22	4	27	5
4) King Street Area	1	12	108	4	29	85	5	41	0	5
5) John Galt Park	1	5	95	1	8	65	2	13	0	0
Totals	19	262	1897	29	257	796	48	519	37	577
										1096
										59
										2693

**Table 2. Woolwich Termite Management Area for 2015
(with trap removals & replacements at end of year)**

Sector Number	Sector Name (SE corner)	Sector Type	Number Properties	Properties Installed	Number Traps Installed	Traps per Installed Property
000	Verney x Woolwich	White	14	0	0	0.0
00	Earl x Dufferin	White	18	0	0	0.0
0	Earl x GJR	White	10	0	0	0.0
1	Division x Woolwich	White	32	0	0	0.0
1	Division x Woolwich	Blue	5	5	15	3.0
2	Clarence x Dufferin	White	6	0	0	0.0
2	Clarence x Dufferin	Blue	6	5	17	3.4
2	Clarence x Dufferin	Red	11	11	97	8.8
3	Clarence x Dufferin	White	3	0	0	0.0
3	Clarence x Speed R.	Blue	5	2	22	11.0
3	Clarence x Speed R.	Red	2	2	23	11.5
4	Avondale x Princess	White	16	0	0	0.0
5	Clarke x Princess	White	13	0	0	0.0
6	Clarke x Woolwich	Blue	26	9	27	3.0
7	Clarke x Dufferin	Red	26	26	249	9.6
8	George x Speed R.	Red	9	9	82	9.1
8	George x Speed R.	Blue	4	4	20	5.0
9	Powell x Woolwich	White	15	0	0	0.0
9	Powell x Woolwich	Blue	7	7	17	2.4
10	Powell x Dufferin	Red	21	21	121	5.8
11	John x Speed R.	Blue	18	16	49	3.1
12	Pipe x Speed R.	Red	10	10	77	7.7
12	Pipe x Speed R.	Blue	4	4	22	5.5
13	Tiffany x Central	White	22	0	0	0.0
14	Tiffany x Woolwich	White	16	0	0	0.0
14	Tiffany x Woolwich	Blue	6	6	17	2.8
15	Tiffany x Dufferin	Red	15	15	130	8.7
16	Tiffany x Speed R.	Red	13	13	97	7.5
17	London x Exhibition	White	1	0	0	0.0
18	Cavell x Central	White	20	0	0	0.0
19	Extra x Woolwich	White	13	0	0	0.0
19	Extra x Woolwich	Blue	6	6	18	3.0
20	Kerr x Dufferin	Blue	5	5	25	5.0
20	Kerr x Dufferin	Red	10	10	67	6.7
21	Marcon x Speed R.	Red	10	10	85	8.5
22	Mont x Woolwich	White	33	0	0	0.0
22	Mont x Woolwich	Blue	5	5	15	3.0
23	London x Dufferin	Blue	19	19	57	3.0
23	London x Dufferin	Red	25	25	175	7.0
24	London x Cardigan	Blue	19	19	57	3.0
24	London x Cardigan	Red	18	18	133	7.4
25	McTague x Woolwich	White	28	0	0	0.0
25	McTague x Woolwich	Blue	10	10	30	3.0
26	London x Dublin	White	7	0	0	0.0
27	London x Woolwich	White	14	0	0	0.0
27	London x Woolwich	Blue	12	12	36	3.0
28	Suffolk x Park	White	32	0	0	0.0
29	K. Edwd x Dublin	White	43	0	0	0.0
30	Edwin x Woolwich	White	12	0	0	0.0
30	Edwin x Woolwich	Blue	5	5	15	3.0
30	Edwin x Woolwich	Red	4	4	28	7.0
31	Charles x Woolwich	White	18	0	0	0.0
31	Charles x Woolwich	Blue	7	7	17	2.4
32	Norwich x Norfolk	White	17	0	0	0.0
32	Norwich x Norfolk	Blue	6	3	6	2.0
33	Green x Norfolk	White	19	0	0	0.0
34	Green x Woolwich	White	26	0	0	0.0
35	Liverpool x Norwich	White	22	0	0	0.0
36	Norwich x Speed R.	Red	5	5	50	10.0
36	Norwich x Speed R.	Blue	5	5	20	4.0
37	Norwich x Cardigan	Red*	58	58	200	3.4
37	Norwich x Cardigan	Blue	4	4	20	5.0
38	Suffolk x Woolwich	White	12	0	0	0.0
39	Yarmouth x Norwich	White	18	0	0	0.0
40	Woolwich x Cardigan	Blue	7	5	15	3.0
40	Woolwich x Cardigan	White	12	0	0	0.0
41	Eramosa x Speed R.	Blue	2	2	6	0.0
41	Eramosa x Speed R.	White	1	0	0	0.0
Subtotals		Red	237	237	1614	118.6
		Blue	193	165	543	81.7
		White	513	0	0	0
TOTALS		R+B+W	943	402	2157	5.4
		R+B	430	402	2157	5.4

Table 3. Windermere Termite Management Area at End of 2015

Sector Number	Sector Name	Sector Type	Number Properties	Properties Installed	Number Traps Installed	Traps per Installed Property
42	Balmoral x Windermere	Red	8	8	80	10.0
42	Balmoral x Windermere	Blue	3	3	9	3.0
42	Balmoral x Windermere	White	31	0	0	0.0
43	Windsor x Inverness	Blue	2	2	6	3.0
44	Balmoral x Inverness	White	6	0	0	0.0
45	Balmoral x Balmoral	White	8	0	0	0.0
46	Balmoral x Victoria	White	2	0	0	0.0
Subtotals		Red	8	8	80	10.0
		Blue	5	5	15	3.0
		White	37	0	0	0.0
TOTALS		R+B+W	50	13	95	

Table 4. Emma - Pine Termite Management Area at End of 2015

Sector Number	Sector Name	Sector Type	Number Properties	Properties Installed	Number Traps Installed	Traps/ Installed Property
47	Emma x Pine	Blue	22	22	88	4.0
48	Metcalfe x Balsam	White	4	0	0	0.0
49	Emma (south side)	White	8	0	0	0.0
50	Pine (east side)	White	8	0	0	0.0
51	Emma X Metcalfe	White	7	0	0	0.0
Subtotals		Blue	22	22	88	4.0
		White	27	0	0	0.0
TOTALS		B + W	49	22	88	

Table 5. King Street Termite Management Area at End of 2015

Sector Number	Sector Name	Sector Type	Number Properties	Properties Installed	Number Traps Installed	Traps/ Installed Property
52	King St.	Red	12	12	108	9.0
53	King St. (west side)	Blue	12	12	35	2.9
54	Palmer St.	Blue	3	3	9	3.0
55	Queen St.	Blue	6	6	17	2.8
56	Eramosa Rd.	Blue	8	8	24	3.0
Subtotals		Red	12	12	108	9.0
		Blue	29	29	85	2.9
TOTALS		R + B	41	41	193	

Table 6. John Galt Park Termite Management Area at End of 2015

Sector Number	Sector Name	Sector Type	Number Properties	Properties Installed	Number Traps Installed	Traps/ Installed Property
57	John Galt Park	Red	5	5	95	19.0
58	Woolwich	Blue	8	7	65	9.3
TOTALS		R + B	13	12	160	

Table 7. Number of Active Properties Per Red Zone Sector (1998-2015)

No.	Sec. No.	Number of Active Properties													2015 Status			
		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	2	--	4	--	--	--	--	--	4	4	4	4	6	3	1	2	1	1
2	3	--	--	--	--	--	--	--	--	--	--	--	0	2	2	1	0	0
3	7	9	4	10	5	--	--	--	--	17	23	25	25	24	14	4	4	0
4	8	--	--	--	--	--	--	--	--	3	6	5	7	5	3	1	0	0
5	10	--	--	--	--	--	--	--	--	--	--	4	4	5	4	4	5	4
6	12	--	--	--	--	--	--	--	--	0	3	4	4	1	3	1	0	1
7	15	--	--	--	--	--	--	--	--	4	7	8	13	12	10	4	1	1
8	16	1	4	1	--	--	--	--	--	8	6	4	6	3	6	7	2	1
9	19	--	--	--	--	--	--	--	--	0	0	0	0	0	0	0	0	0
10	20	1	1	0	--	--	--	--	--	1	2	6	4	6	2	0	0	0
11	21	7	4	3	3	--	--	--	--	1	1	1	1	1	1	1	1	0
12	22	1	0	0	0	--	--	--	--	0	0	0	0	0	0	0	0	0
13	23	20	19	12	0	--	--	--	--	3	2	2	1	3	2	1	0	0
14	24	15	12	12	1	--	--	--	--	1	0	1	3	4	4	0	1	0
15	25	14	4	2	1	--	--	--	--	3	3	3	0	0	0	0	0	0
16	27	11	12	13	10	--	--	--	--	0	0	0	0	1	0	0	0	0
17	30	--	--	--	--	--	--	--	--	4	2	2	3	2	0	0	0	0
18	36	10	4	3	--	--	--	--	--	2	1	1	2	2	1	0	2	0
19	37	11	7	9	4	--	--	--	--	3	3	4	4	6	6	5	0	0
20	41	1	0	0	--	--	--	--	--	1	1	0	0	0	0	0	0	0
21	42	--	--	--	2	--	--	--	--	0	1	1	0	2	2	0	1	1
22	47	--	--	--	--	--	--	--	--	13	12	14	18	21	12	0	0	0
23	52	--	--	--	--	--	--	--	--	--	--	0	0	0	12	11	12	12
24	57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	4	4
Totals		101	69	87	30	--	--	--	--	68	77	87	100	104	88	55	32	27

1998 University of Toronto survey, includes properties with live termites and evidence of damage

1999-2001 University of Toronto pilot project using trap-treat-release treatments

2002-2006 No active monitoring or management

2007 Initiation of comprehensive control program

2008-2009 Entomopathogenic Nematode Treatments

2010-2015 Trap-treat-release treatments with zinc borate, with modified formulation starting in 2012

Sectors unknown to have activity

Sectors known to have activity and monitored

Sectors with no active properties and no active traps in 2015

Sectors with less than 3,000 termites trapped in 2015

Sectors with 5,000 to 13,000 termites trapped in 2015

Sectors with 4-12 active properties, up to 26 active traps, and up to 116,000 termites trapped in 2015

Table 8. Number of Active Traps Per Red Zone Sector (1999-2015)

Sequence No.	Sec. No.	Number of Active Traps													2015 Status			
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 Status
1	2	--	--	--	--	--	--	--	--	3	19	15	20	16	7	4	3	0
2	3	--	--	--	--	--	--	--	--	--	--	--	3	3	2	0	0	
3	7	6	11	6	--	--	--	--	22	61	41	88	75	64	28	5	0	
4	8	--	--	--	--	--	--	--	3	7	4	8	9	2	1	0	0	
5	10	--	--	--	--	--	--	--	--	--	1	6	8	5	6	5	4	
6	12	--	--	--	--	--	--	--	--	0	1	3	3	1	2	1	0	
7	15	--	--	--	--	--	--	--	--	4	8	14	33	24	19	6	1	
8	16	1	5	1	--	--	--	--	--	4	4	3	11	2	7	8	2	
9	19	--	--	--	--	--	--	--	--	0	0	0	0	0	0	0	0	
10	20	1	2	0	--	--	--	--	--	0	5	7	10	9	5	0	0	
11	21	6	5	3	--	--	--	--	--	0	2	2	1	1	1	1	0	
12	22	0	0	0	--	--	--	--	--	0	0	0	0	0	0	0	0	
13	23	42	23	0	--	--	--	--	--	0	4	4	2	3	2	1	0	
14	24	37	15	1	--	--	--	--	--	0	0	2	4	6	7	0	0	
15	25	6	2	3	--	--	--	--	--	1	1	0	0	0	0	0	0	
16	27	24	28	14	--	--	--	--	--	0	0	0	0	0	0	0	0	
17	30	--	--	--	--	--	--	--	--	0	2	2	1	0	0	0	0	
18	36	25	21	5	--	--	--	--	--	0	1	2	0	1	2	3	3	
19	37	11	18	6	--	--	--	--	--	0	5	2	10	14	10	4	0	
20	41	1	0	0	--	--	--	--	--	0	0	0	0	0	0	0	0	
21	42	--	33	4	--	--	--	--	--	0	2	1	1	0	3	2	0	
22	47	--	--	--	--	--	--	--	--	7	24	28	54	59	37	0	0	
23	52	--	--	--	--	--	--	--	--	--	--	--	--	--	4	30	26	
24	57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26	20	
Totals		160	163	43	--	--	--	--	--	44	144	132	253	232	176	71	73	58

1998 University of Toronto survey, includes properties with live termites and evidence of damage

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2002-2006 No active monitoring or management

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Sectors unknown to have activity

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Sectors with less than 3,000 termites trapped in 2015

Sectors with 5,000 to 13,000 termites trapped in 2015

Sectors with 4-12 active properties, up to 26 active traps, and up to 116,000 termites trapped in 2015

Table 9. Number of Termites Trapped Per Red Zone Sector Per Year (1999-2015)

Sequence No.	Sec. No.	Number of Termites Trapped										2015 Status					
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	2	--	--	--	--	--	--	--	2,069	100,316	43,297	111,978	73,541	32,377	5,721	7,244	0
2	3	--	--	--	--	--	--	--	--	--	0	2,864	10,128	3,479	0	0	0
3	7	1,112	22,623	20,534	--	--	--	--	8,112	307,782	246,585	389,776	298,183	223,814	178,614	12,459	0
4	8	--	--	--	--	--	--	--	1,838	37,295	13,120	33,363	10,596	18,887	300	0	0
5	10	--	--	--	--	--	--	--	--	--	1,133	13,293	15,275	9,163	6,837	2,515	12,869
6	12	--	--	--	--	--	--	--	--	279	11,923	8,485	50	4,683	3	0	2,810
7	15	--	--	--	--	--	--	--	4,186	16,753	16,221	32,430	29,633	32,039	15,814	50	793
8	16	10	4,097	606	--	--	--	--	2,817	23,061	5,573	32,269	19,816	18,329	21,052	1,974	45
9	19	--	--	--	--	--	--	--	0	0	0	0	0	0	0	0	0
10	20	3,100	19,227	0	--	--	--	--	0	26,610	31,406	70,521	35,309	21,395	0	0	0
11	21	5,526	25,532	9,672	--	--	--	--	0	1,603	0	25	434	724	0	10,950	0
12	22	0	0	0	--	--	--	--	0	0	0	0	0	0	0	0	0
13	23	203,918	171,769	0	--	--	--	--	0	15,742	4,231	1,241	4,131	969	2,596	0	0
14	24	121,087	46,767	3,211	--	--	--	--	0	0	1,245	2,375	9,467	19,020	0	71	0
15	25	54,380	572	4,465	--	--	--	--	1,848	3,985	3,934	0	0	0	0	0	0
16	27	54,485	56,725	39,594	--	--	--	--	0	0	0	0	0	0	0	0	0
17	30	--	--	--	--	--	--	--	0	0	395	1,042	0	0	0	0	0
18	36	148,856	179,156	--	--	--	--	--	0	3,542	3,513	0	4,806	6,048	3,758	0	5,219
19	37	45,985	132,158	34,886	--	--	--	--	0	6,590	4,521	10,121	22,887	19,418	15,286	0	0
20	41	4,332	0	0	--	--	--	--	0	0	0	0	0	0	0	0	0
21	42	--	155,148	5,285	--	--	--	--	0	1,520	1,683	741	0	10,519	889	0	239
22	47	--	--	--	--	--	--	--	1,333	160,183	101,020	215,556	156,801	108,242	0	0	0
23	52	--	--	--	--	--	--	--	--	0	0	0	0	8,793	72,571	63,507	
24	57	--	--	--	--	--	--	--	--	--	--	--	--	--	193,908	115,956	
Totals		642,791	813,774	143,312	--	--	--	--	22,203	705,261	489,810	929,236	683,793	555,565	263,142	301,742	201,438

1998 University of Toronto survey, includes properties with live termites and evidence of damage

1999-2001 University of Toronto pilot project using trap-treat-release treatments

2002-2006 No active monitoring or management

2007 Initiation of comprehensive control program

2008-2009 Entomopathogenic Nematode Treatments

2010-2015 Trap-treat-release treatments with zinc borate, with modified formulation starting in 2012

Sectors unknown to have activity

Sectors known to have activity and monitored

Sectors with no active properties and no active traps in 2015

Sectors with less than 3,000 termites trapped in 2015

Sectors with 5,000 to 13,000 termites trapped in 2015

Sectors with 4-12 active properties, up to 26 active traps, and up to 116,000 termites trapped in 2015

Table 10. Termites Trapped Per Inspection (2008-2015).

Sector	2008			2009			2010			2011			2012			2013			2014			2015			
	total	inspections per insp.	total	inspections per insp.	total	inspections per insp.	total	inspections per insp.	total	inspections per insp.	total	inspections per insp.	total	inspections per insp.	total	inspections per insp.	total	inspections per insp.	total	inspections per insp.	total	inspections per insp.	total	inspections per insp.	
2	100,316	7	14,331	43,297	7	6,185	117,978	17	6,940	73,536	16	4,596	32,377	12	2,698	5,721	7	817	7,244	9	805	0	6	0	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	
7	307,782	9	34,198	246,586	8	30,823	389,776	18	21,654	288,183	19	15,694	223,814	15	14,921	178,614	13	13,740	12,459	10	1,246	0	6	0	
8	37,295	7	5,328	13,120	7	1,874	33,383	14	2,385	10,596	14	757	18,687	9	2,076	300	6	50	0	5	0	0	6	0	
10	0	1	0	1,133	3	378	13,293	9	1,477	15,275	14	1,091	9,163	11	833	6,837	7	977	2,515	8	314	12869	8	1,609	
12	279	3	93	11,923	5	2,385	8,485	7	1,212	50	7	7	4,693	8	587	3	4	1	0	5	0	0	2810	7	401
15	16,753	7	2,393	16,221	6	2,704	32,430	8	4,054	29,633	16	1,882	32,039	12	2,670	15,814	8	1,977	50	6	8	793	6	132	
16	23,061	6	3,844	5,573	6	929	32,369	9	3,597	19,626	9	2,181	18,329	11	1,666	21,052	9	2,339	1,974	6	329	45	6	8	
19	0	5	0	0	5	0	0	4	0	0	4	0	0	0	0	4	0	0	0	3	0	0	6	0	
20	26,610	7	3,801	31,406	5	6,281	70,521	10	7,052	34,978	11	3,180	21,395	10	2,140	0	5	0	0	6	0	0	0	0	
21	1,603	6	0	5	0	25	7	4	434	7	62	724	7	103	0	4	0	0	10,950	7	1,564	0	6	0	
22	0	6	0	0	5	0	0	5	0	0	5	0	0	0	4	0	0	0	5	0	0	0	6	0	
23	15,742	8	1,968	4,231	4	1,058	1,241	6	207	4,131	8	516	969	7	138	2,596	5	519	0	5	0	0	0	6	0
24	0	5	0	1,245	5	249	2,375	6	396	9,487	12	791	19,020	12	1,585	0	5	0	71	7	10	0	6	0	
25	3,985	7	569	3,934	5	787	0	5	0	0	7	0	0	0	0	4	0	0	0	5	0	0	6	0	
27	0	6	0	0	5	0	0	4	0	0	5	0	0	0	4	0	0	0	3	0	0	0	6	0	
30	0	8	0	395	5	79	1,042	5	208	2	8	0	0	6	0	0	4	0	0	3	0	0	6	0	
36	3,542	7	506	3,513	5	703	0	5	0	4,151	8	519	6,048	8	756	3,758	8	470	0	6	0	5,219	8	652	
37	6,590	6	1,098	4,521	5	904	10,121	7	1,446	22,473	18	1,249	19,418	15	1,295	15,286	14	1,092	0	6	0	0	0	6	0
41	0	5	0	0	5	0	0	4	0	5	0	0	6	0	0	4	0	0	5	0	0	0	6	0	
42	1,520	7	217	1,693	5	339	741	7	106	0	6	0	10,519	9	1,169	889	7	127	0	4	0	239	6	40	
47	160,183	8	20,023	101,020	7	14,431	215,556	16	13,472	156,801	20	7,840	108,242	15	7,216	0	6	0	0	5	0	0	0	6	0
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193,908	12	16,159	
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115,956	15	7,730	

Table 11. Comparison of First and Second Halves of 2015

Sector	1st half	2nd half	Termites Trapped
2	0	0	0
3	0	0	0
7	0	0	0
8	0	0	0
10	12,819	50	12,869
12	689	2,121	2,810
15	0	793	793
16	35	10	45
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0
25	0	0	0
27	0	0	0
30	0	0	0
36	3,995	1,224	5,219
37	0	0	0
41	0	0	0
42	239	0	239
47	0	0	0
52	44,656	18,841	63,497
57	87,796	28,160	115,956
Totals	150,229	51,199	201,428

Table 12. Required Tree, Stump or Other Debris Removals in 2015

No.	Sector	Address	Material
1	3	34 Clarence	dead branches
2	6	480 Woolwich	dead tree
3	7	469 Woolwich	cut logs
4	7	471 Woolwooch	boards & debris
5	7	461 Woolwich	yard waste
6	7	463 Woolwich	stump & yard waste
7	7	471 Woolwich	woody debris & yard waste
8	7	150 Dufferin	old boards
9	7	459 Woolwich	trees & logs
10	9	446 Woolwich	old deck
11	10	24 Powell St. E.	deck & wood debris
12	10	439 Woolwich	dead maple tree
13	11	147 Dufferin	branches & yard debris
14	12	9 John St.	plywood & debris
15	12	123 Dufferin	stumps & grindings
16	12	125 Dufferin	yard waste
17	15	409 Woolwich	trees & branches
18	23	26 Dufferin	yard waste
19	23	58 Dufferin	yard waste
20	23	16 Dufferin	tree branches, construction debris
21	23	58 Dufferin	yard waste
22	23	26 Dufferin	yard waste
23	24	39 Dufferin	woody debris
24	27	13 London Rd W.	branches & woody debris
25	30	17 Edwin	branches & debris
26	31	264 Woolwich	plywood, boards, debris
27	36	19 Dufferin	woody debris, shed
28	37	27 London Rd. E	yard waste
29	37	29 London Rd. E	old porch & debris
30	42	11 Inverness	woody debris
31	42	9 Windermere	cut logs, debris
32	42	17 Windermere	yard waste & debris
33	42	20 Inverness	old fence
34	47	9 Pine Dr.	building debris & rubble
35	47	126 Emma	yard waste
36	47	265 Metcalfe	tree branches
37	47	9 Pine Dr.	red wood chip mulch
38	52	71 King St.	tree
39	52	35 King St.	tree & stump
40	52	55 King St.	yard waste
41	52	Queen St.	woody yard waste & stumps
42	52	58 King St.	yard waste
43	52	55 King St.	woody debris, mulch
44	52	35 King St.	stump & grindings
45	52	72 King St.	woody debris
46	52	72 Queen	stump, woody debris
47	57	58 Woolwich	tree, stump & gringinds
48	58	99 Woolwich	building rubble

Table 13. Termite Inspections by Year and Type

Year	Real Estate	Building Permits	Material Disposal	Total
2007	25	17	100	142
2008	44	19	128	191
2009	40	19	256	315
2010	38	24	156	218
2011	41	48	200	289
2012	18	21	208	247
2013	36	23	253	312
2014	19	18	278	315
2015	29	21	155	205

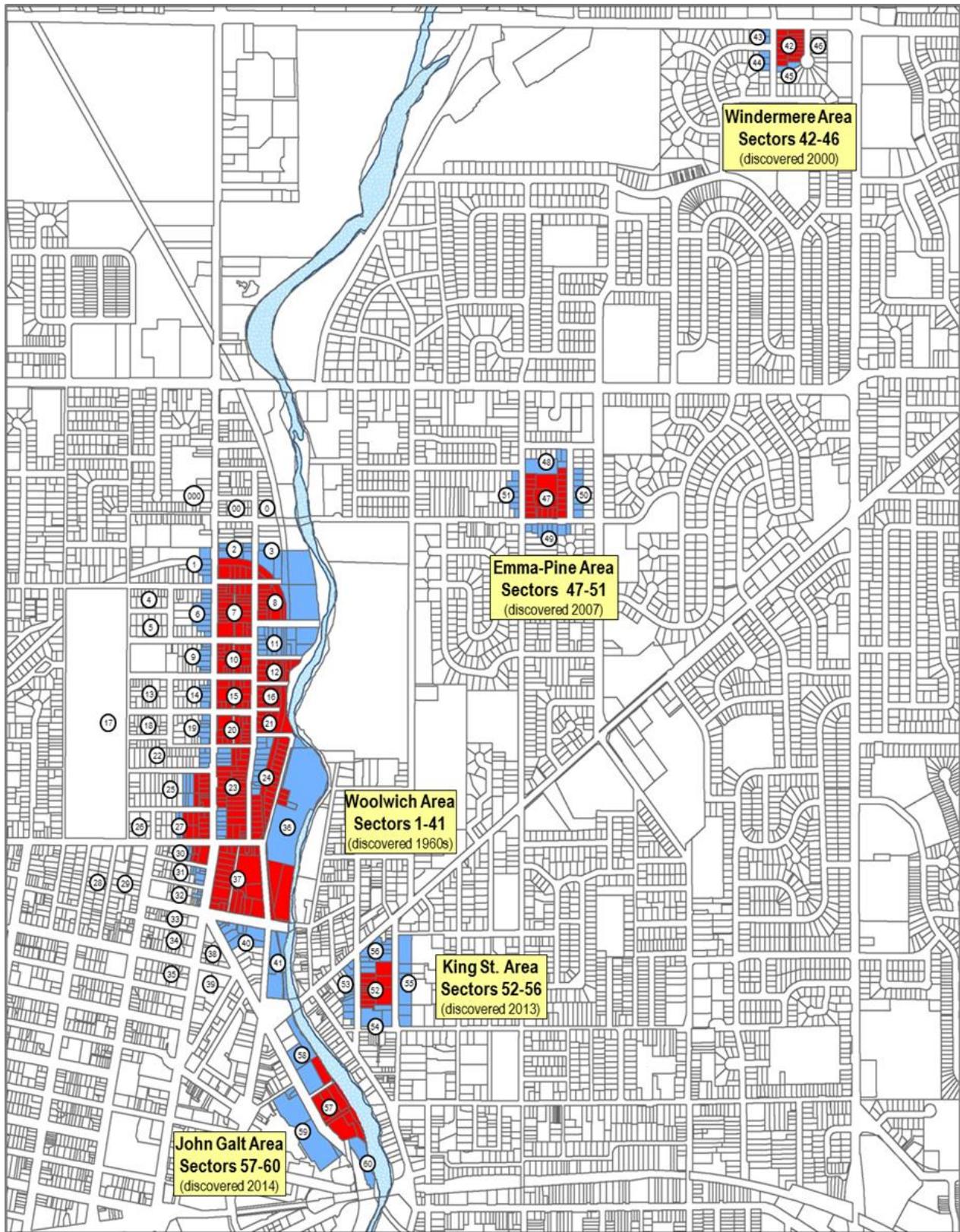


Figure 1. Boundaries of the Guelph Termite Management Areas in 2015.

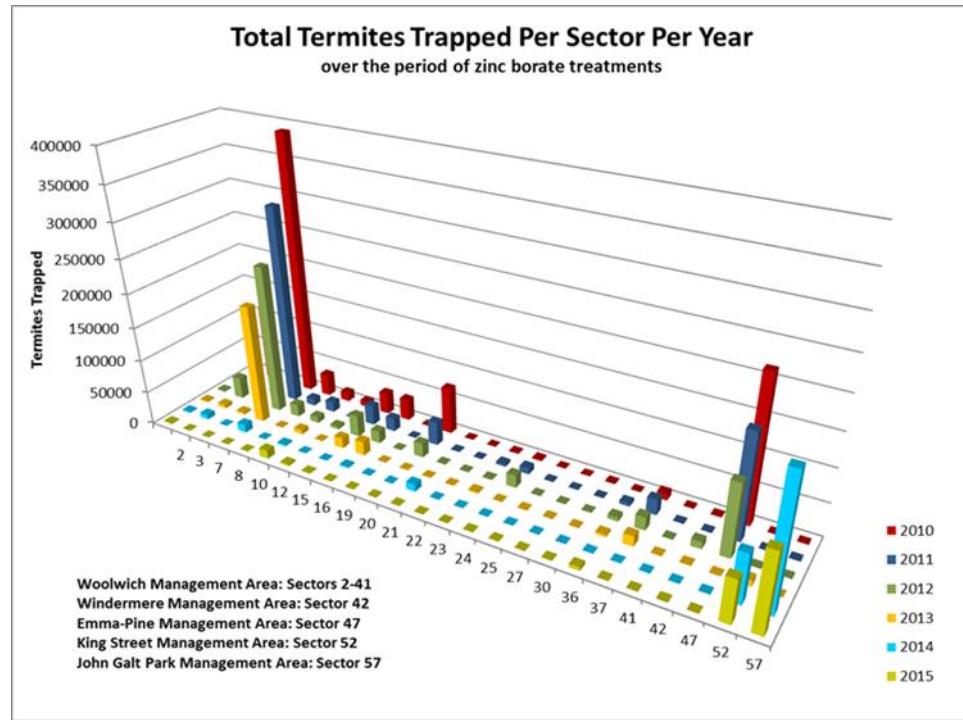


Figure 2. Total termites trapped per sector per year over the period of zinc borate treatments.

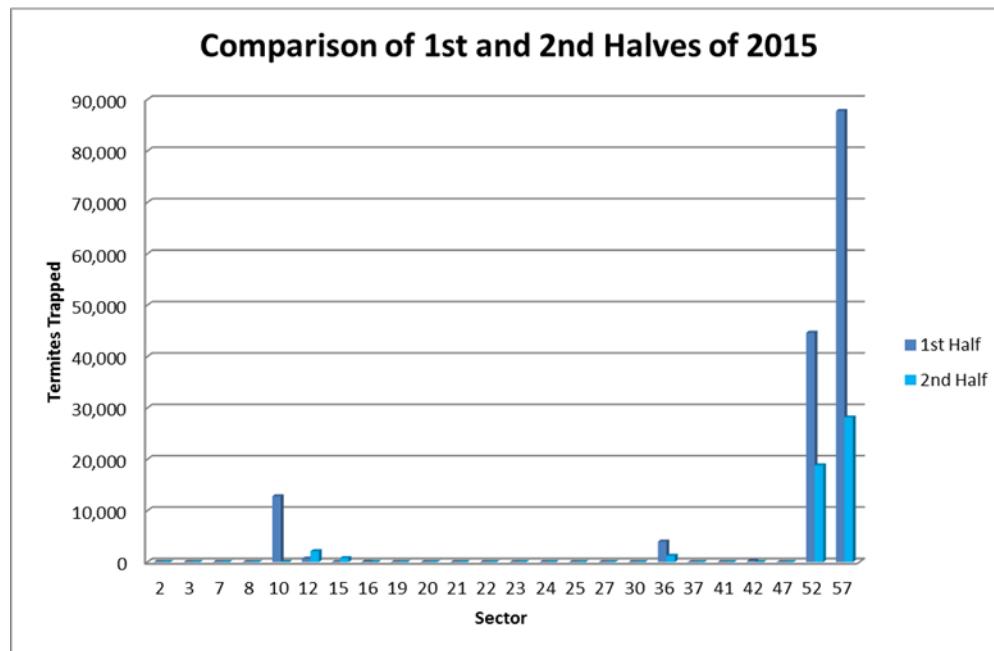


Figure 3. Comparison of termites trapped during the first and second halves of 2015.

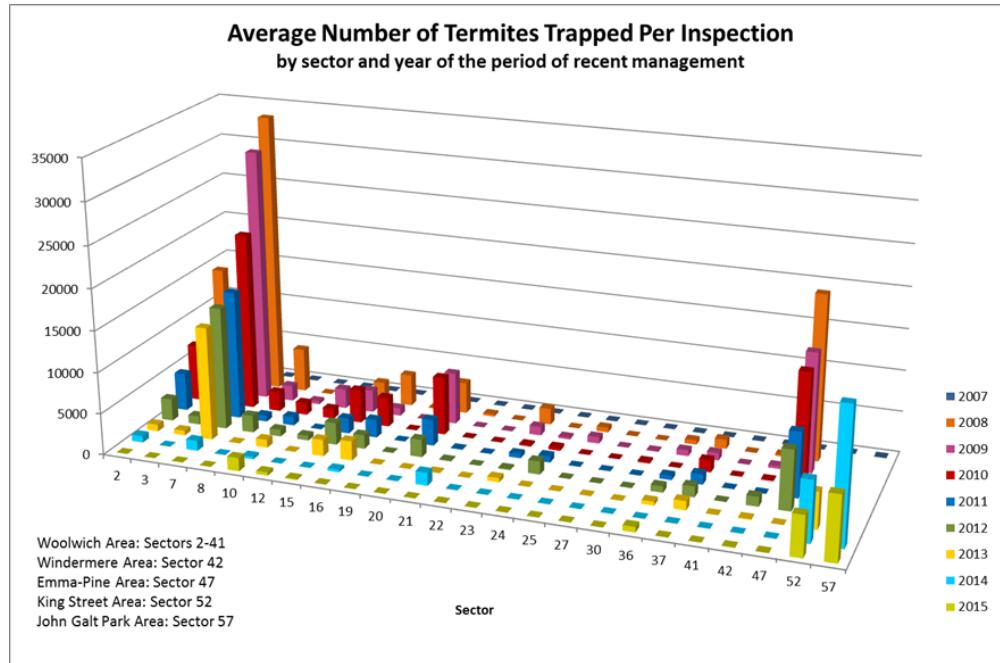


Figure 4. Average number of termites trapped per inspection by sector and year over the period of recent management.

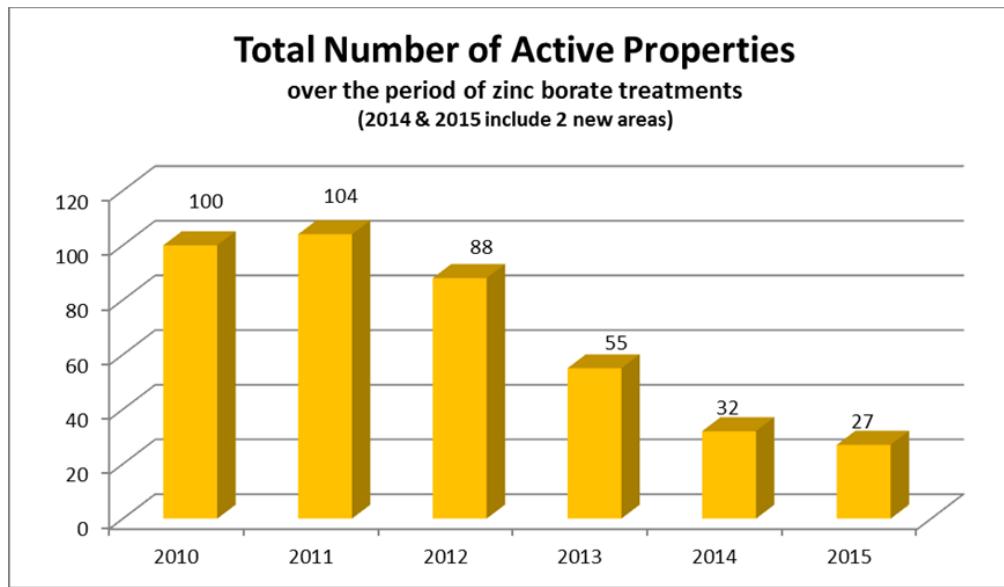


Figure 5. Total number of active properties per year over the period of zinc borate treatments.

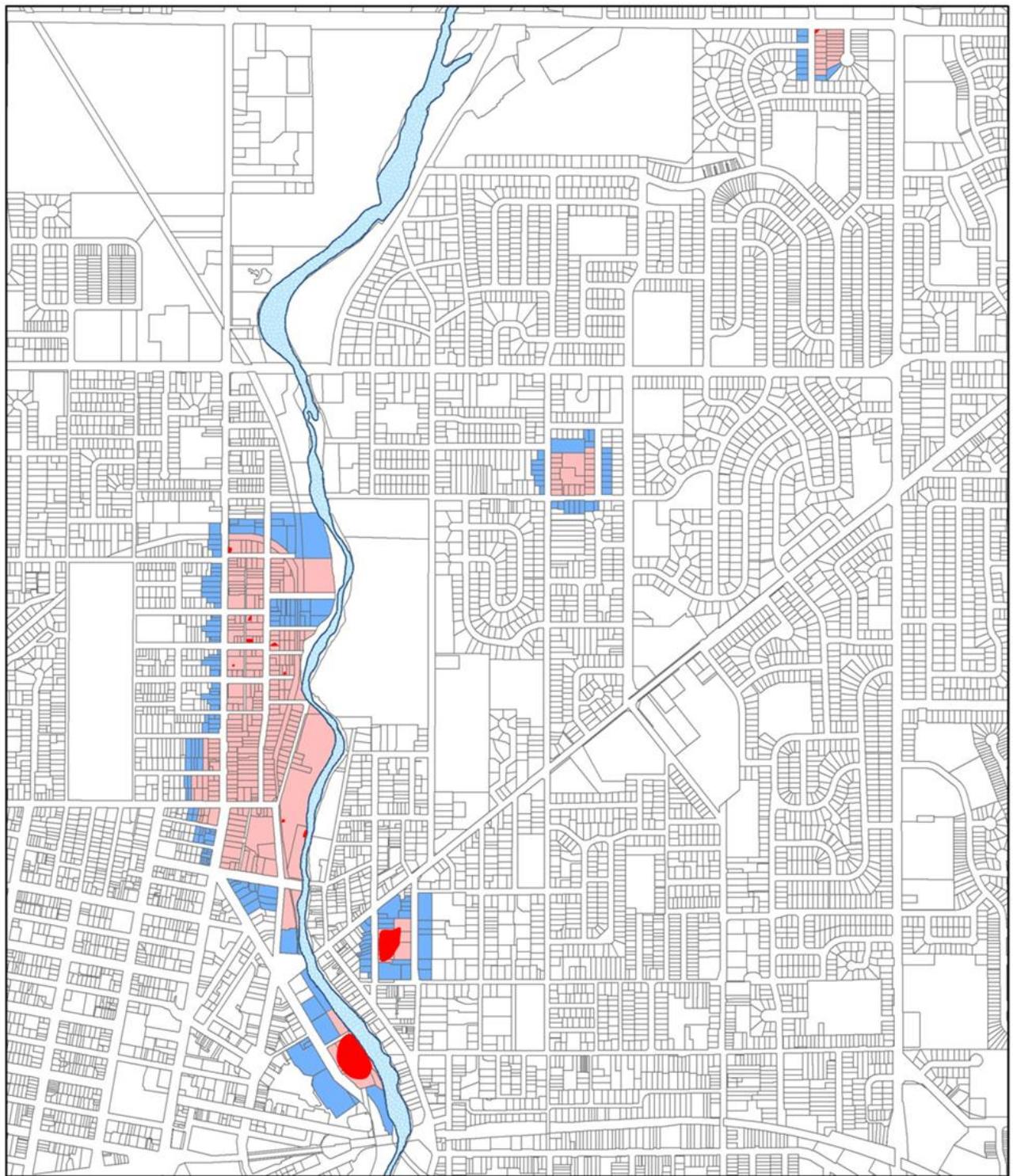


Figure 6. Areas of detected termite activity in 2015.

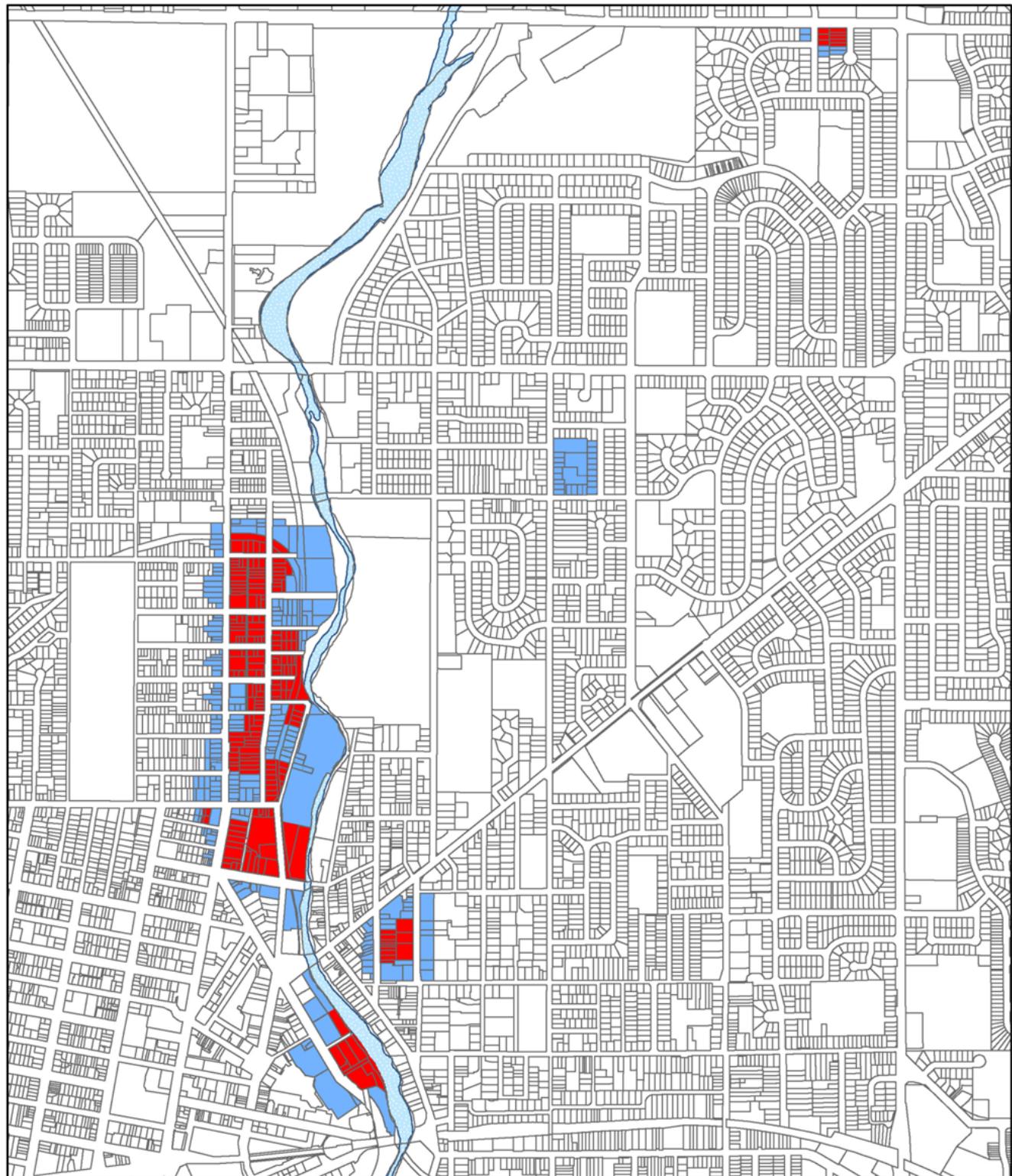


Figure 7. New boundaries of the Guelph Termite Management Areas for 2016.

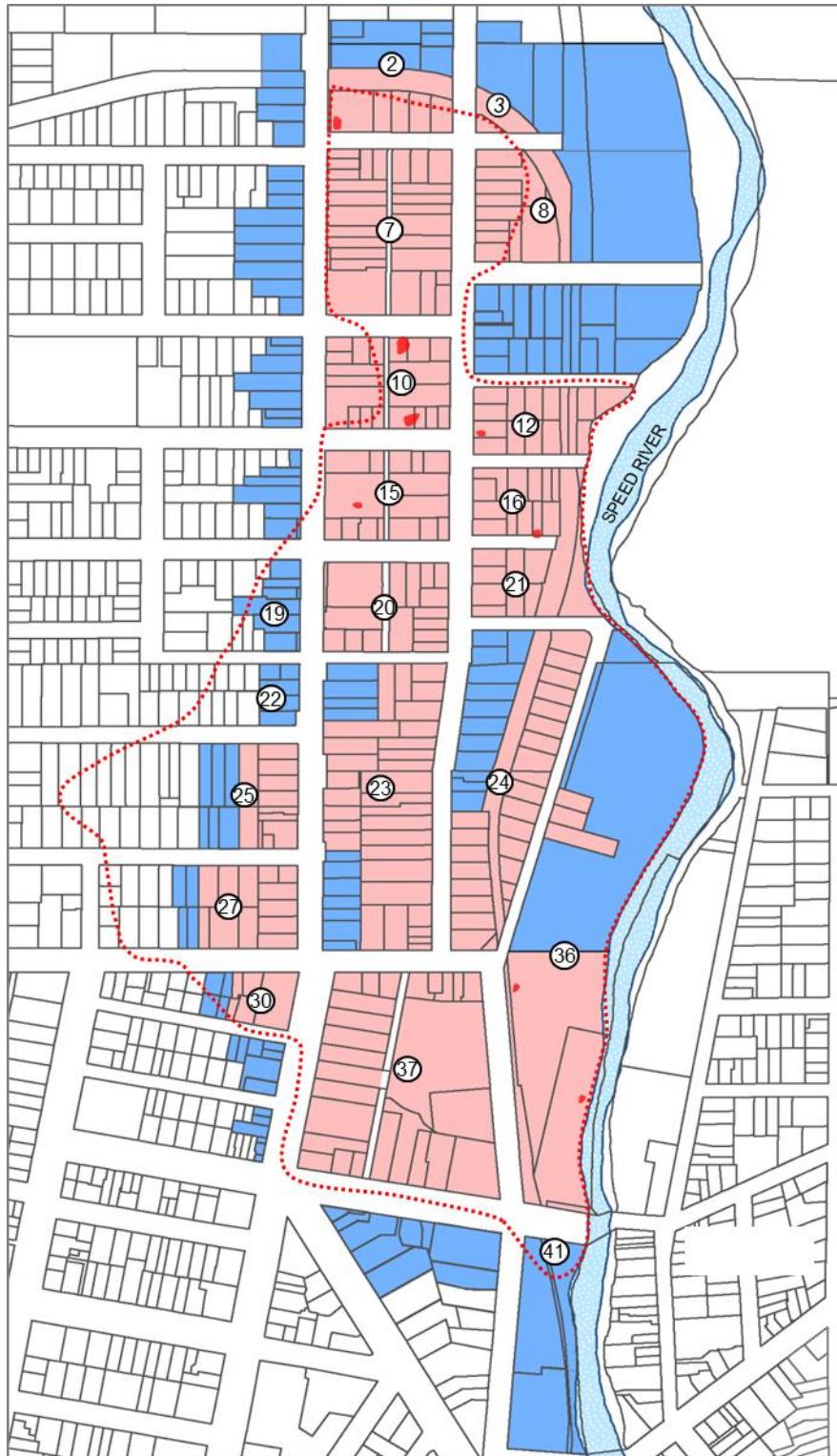


Figure 8. Areas of detected termite activity in the Woolwich Management Area in 2015

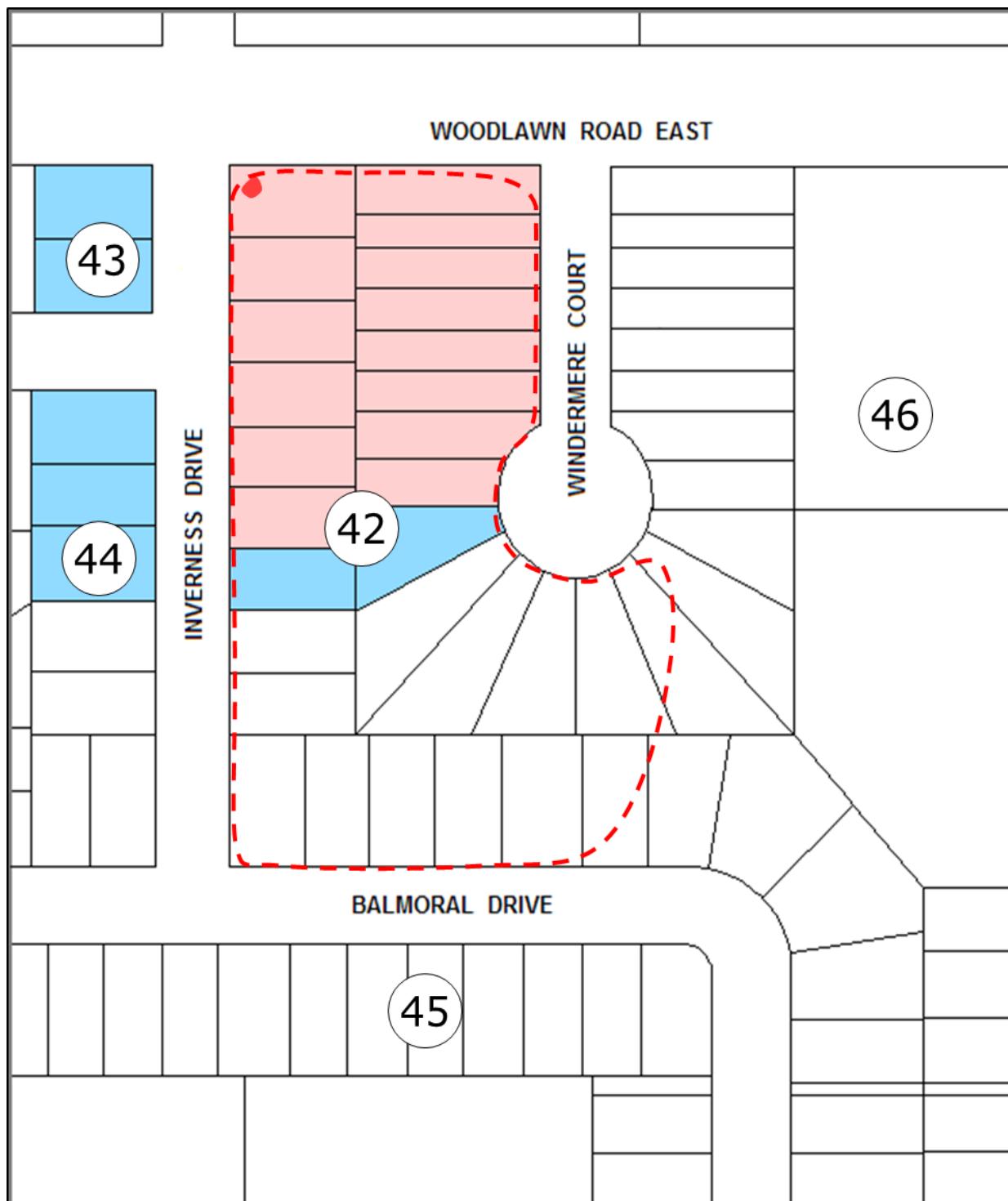
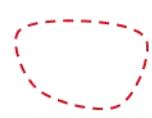
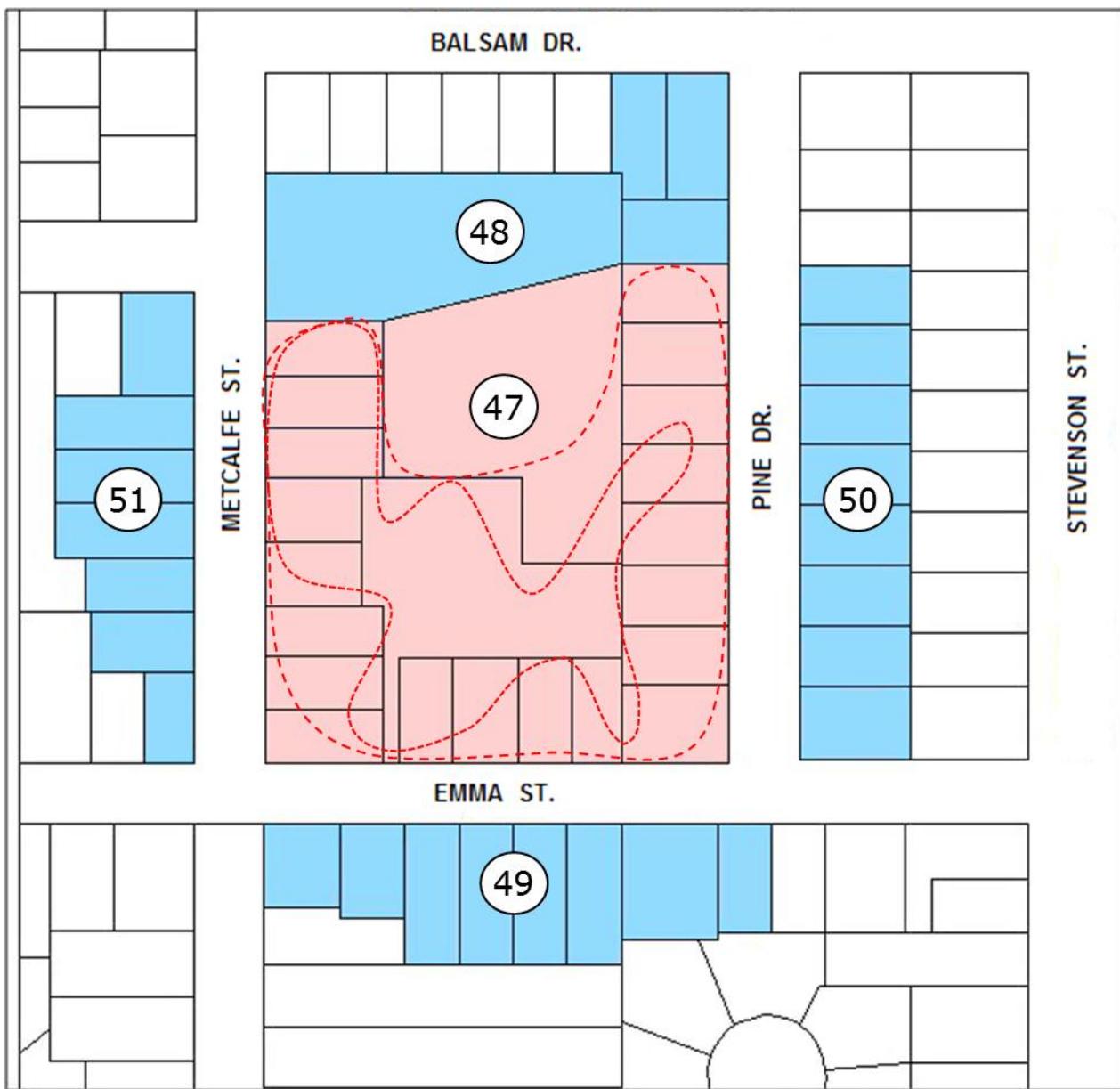


Figure 9. Areas of detected termite activity in the Windermere Management Area in 2015.



Extent of infestation in 2011



Extend of infestation in 2012

Figure 10. Areas of detected termite activity in the Emma-Pine Management Area in 2015.

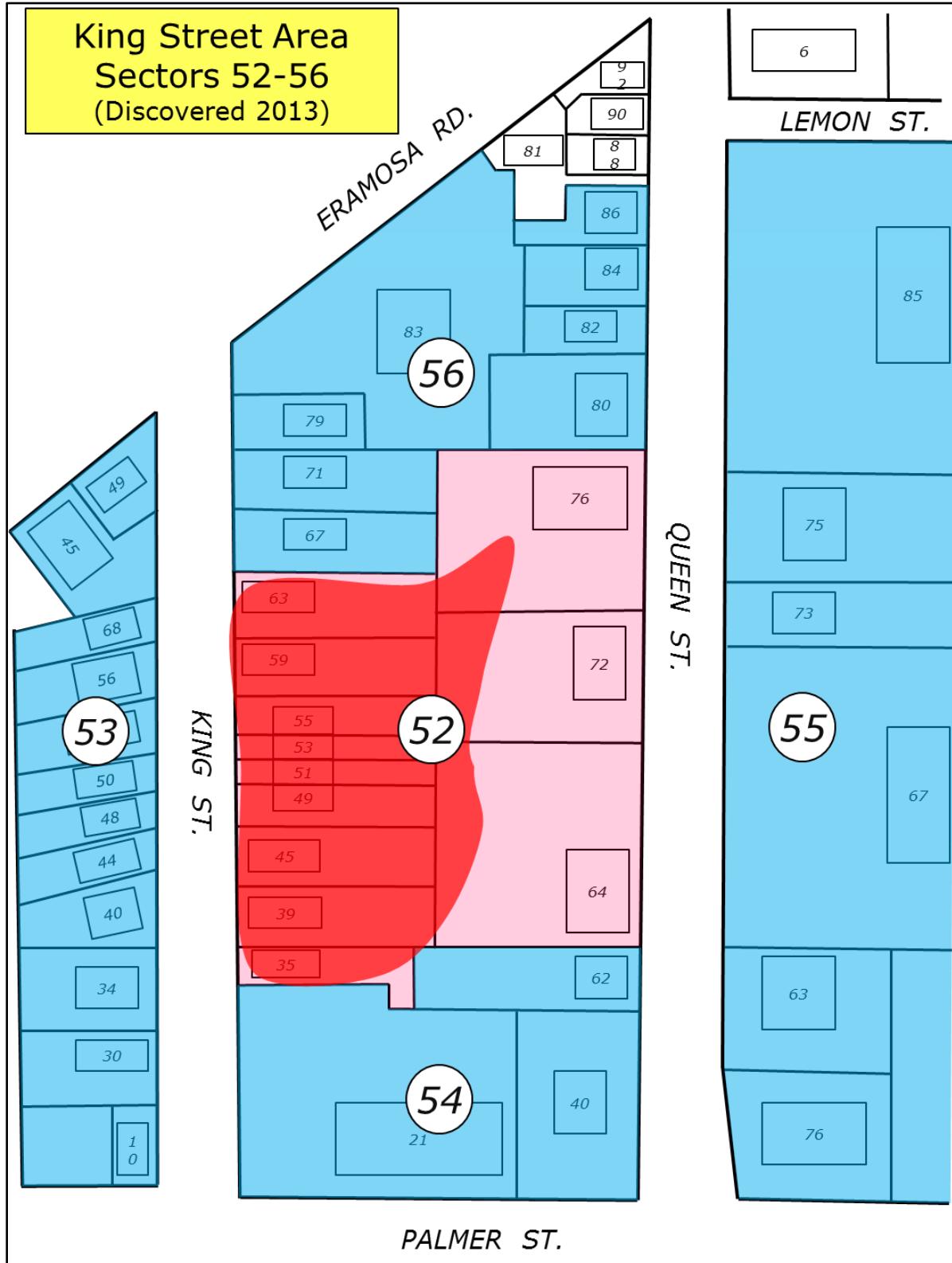


Figure 11. Areas of detected termite activity in the King Street Management Area in 2015.

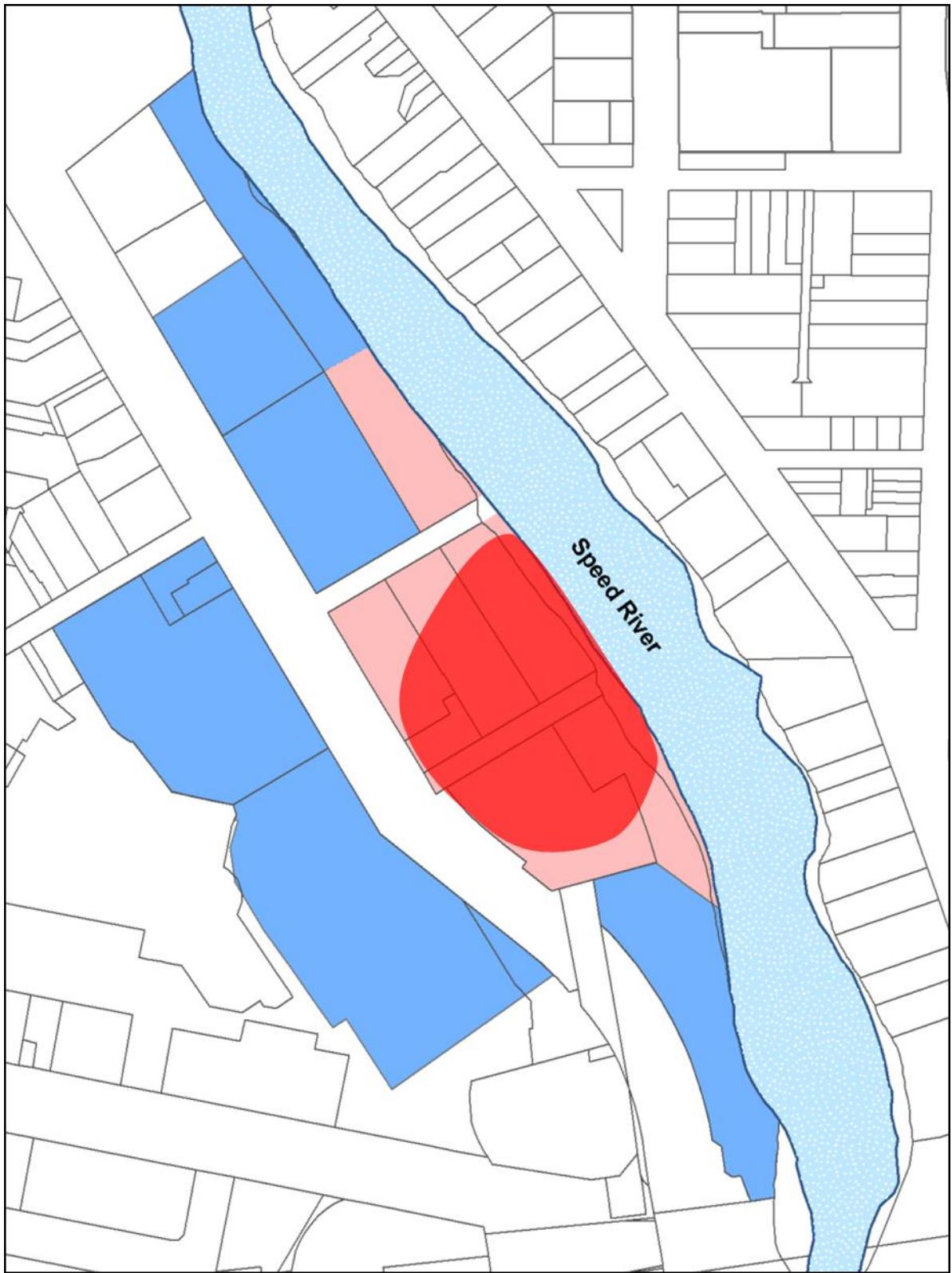


Figure 12. Areas of detected termite activity in the John Galt Park Management Area in 2015.

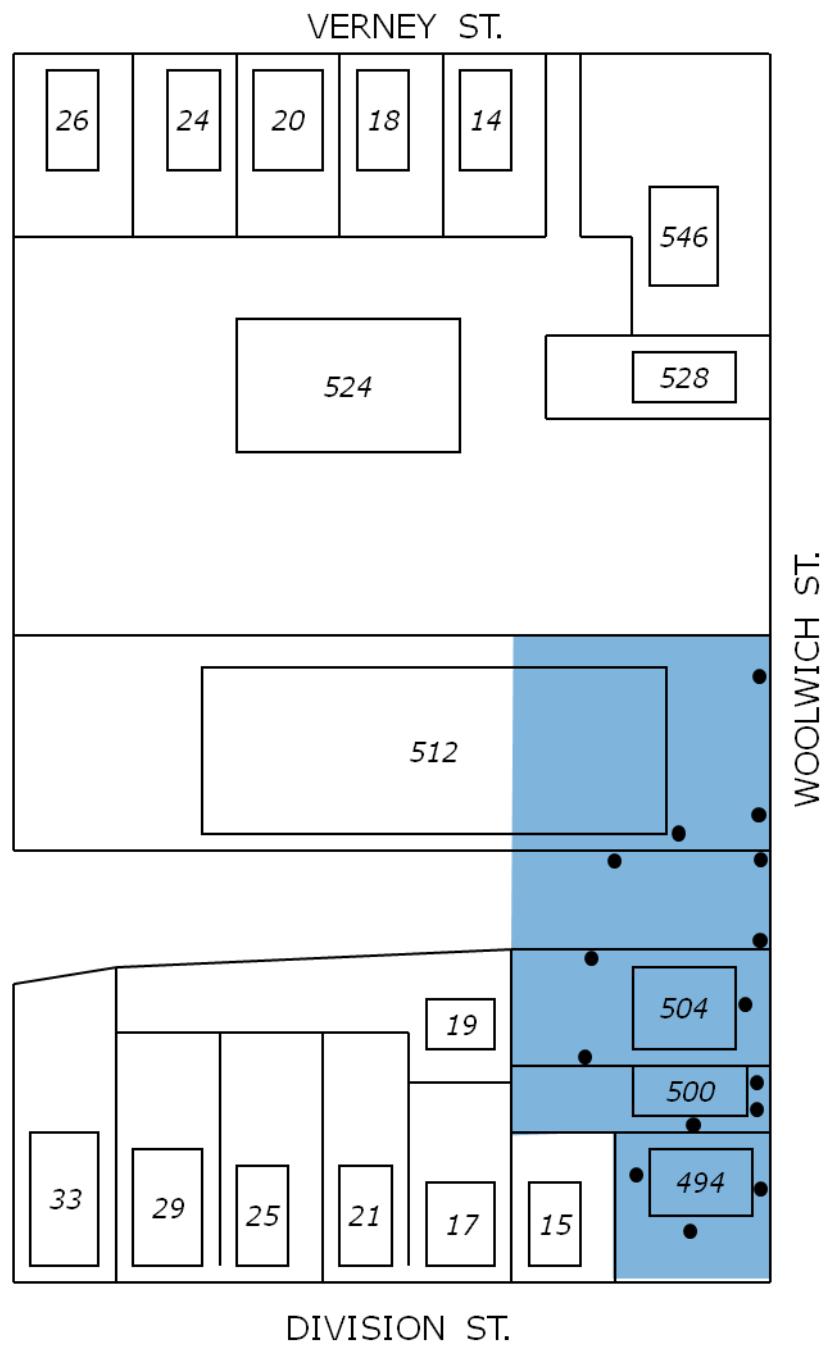


Figure 13. Trap locations in sector 1 in 2015.

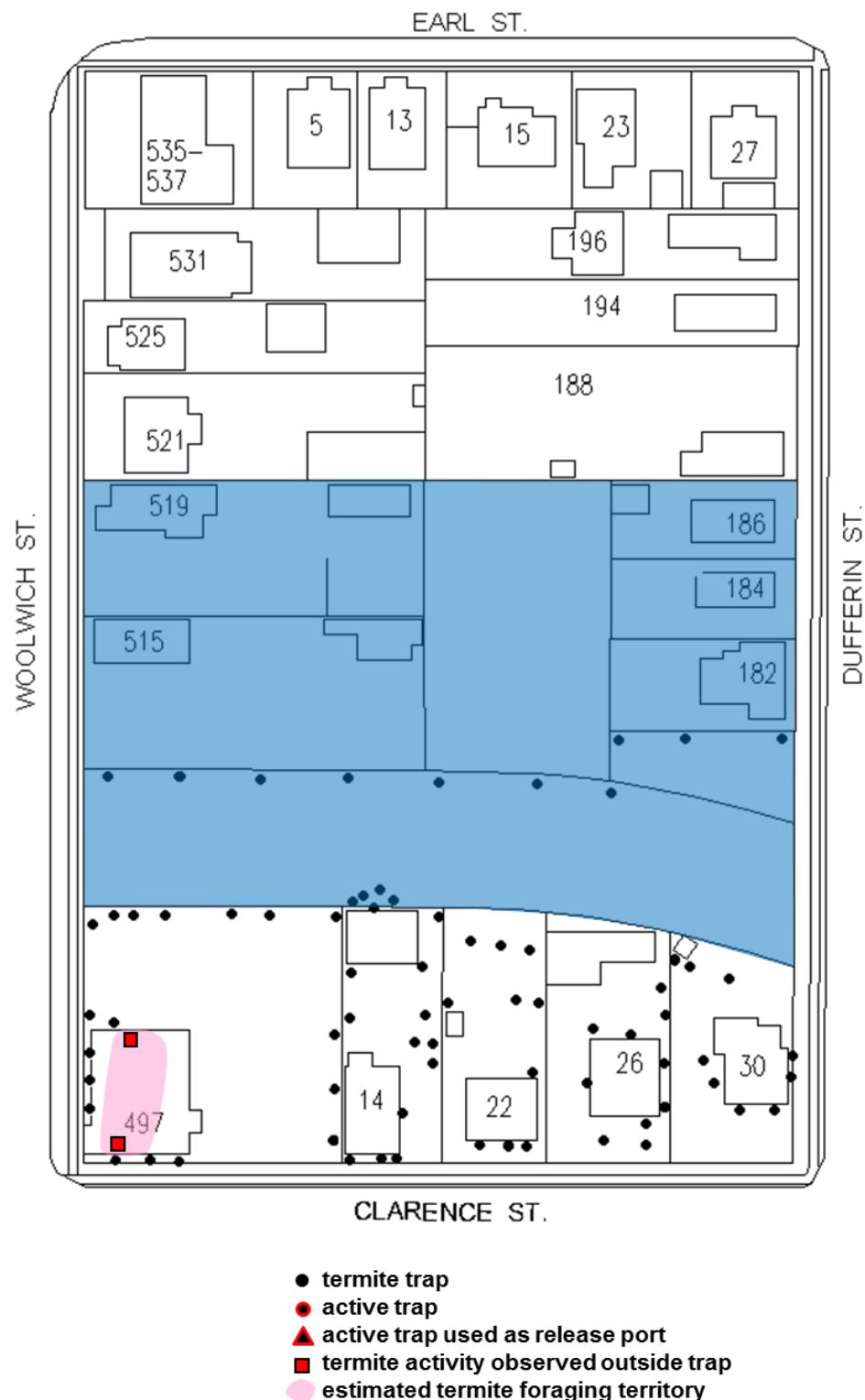
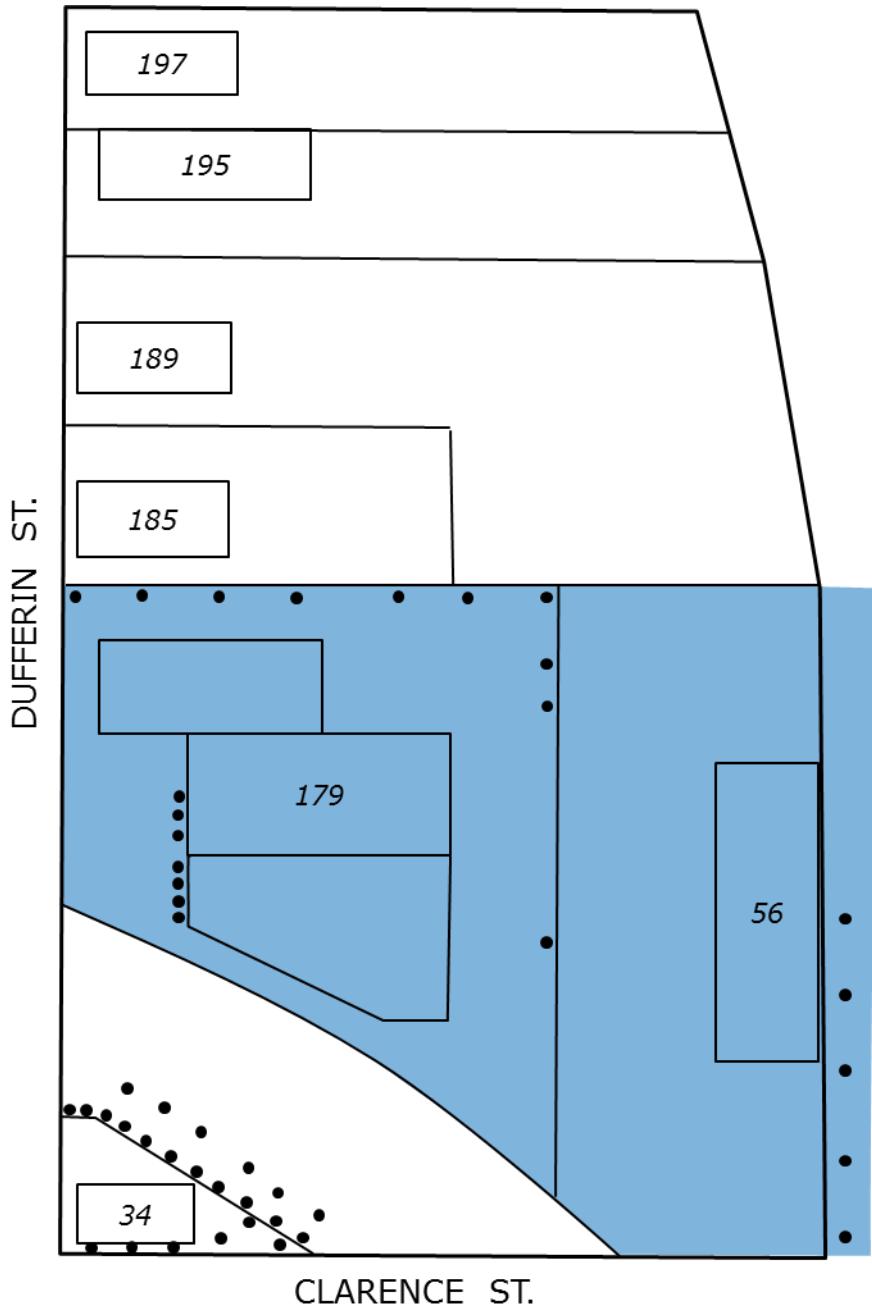


Figure 14. Trap activity in sector 2 in 2015.



- termite trap
- active trap
- ▲ active trap used as release port
- termite activity observed outside trap
- estimated termite foraging territory

Figure 15. Trap activity in sector 3 in 2015.

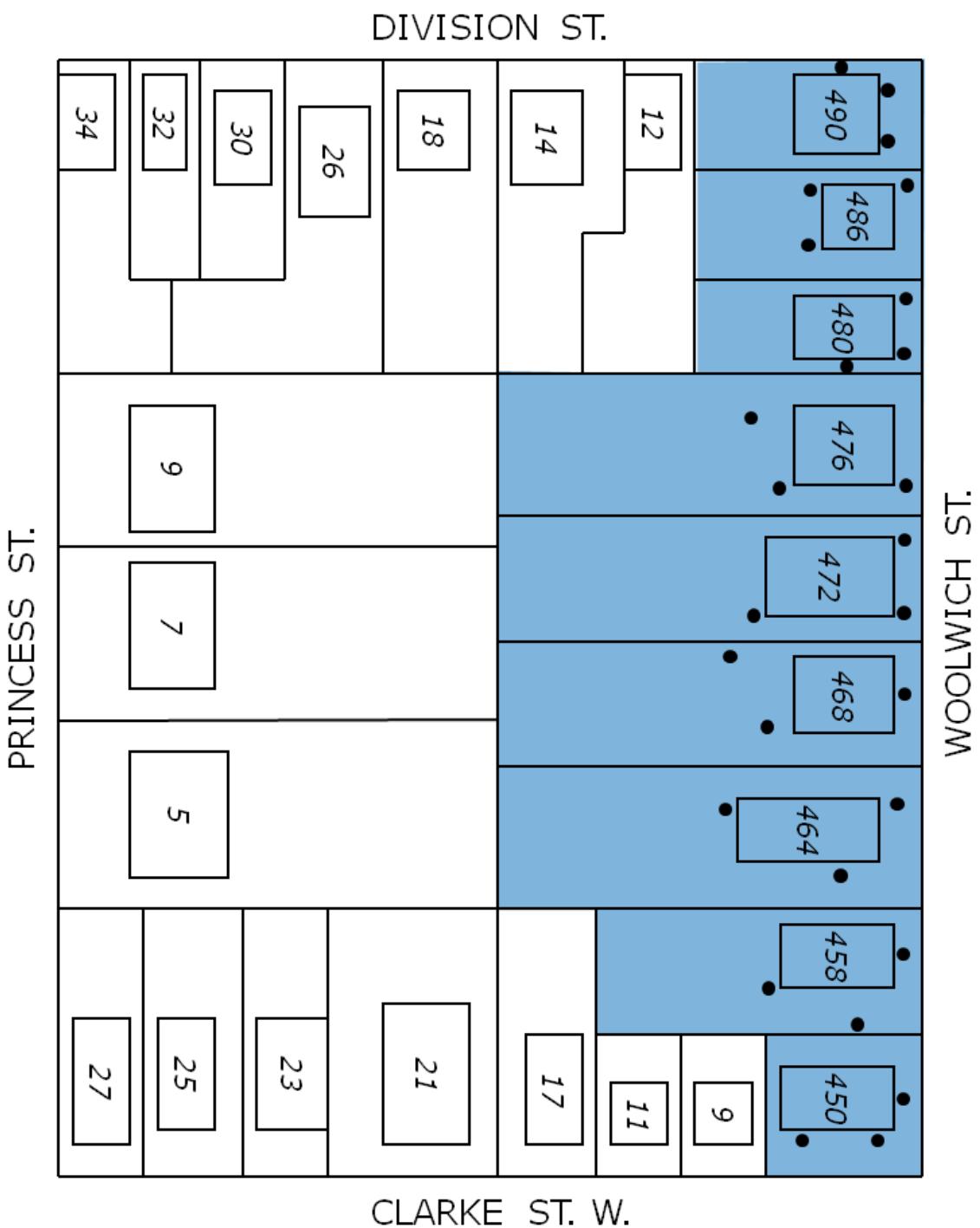


Figure 16. Trap locations in sector 6 in 2015.

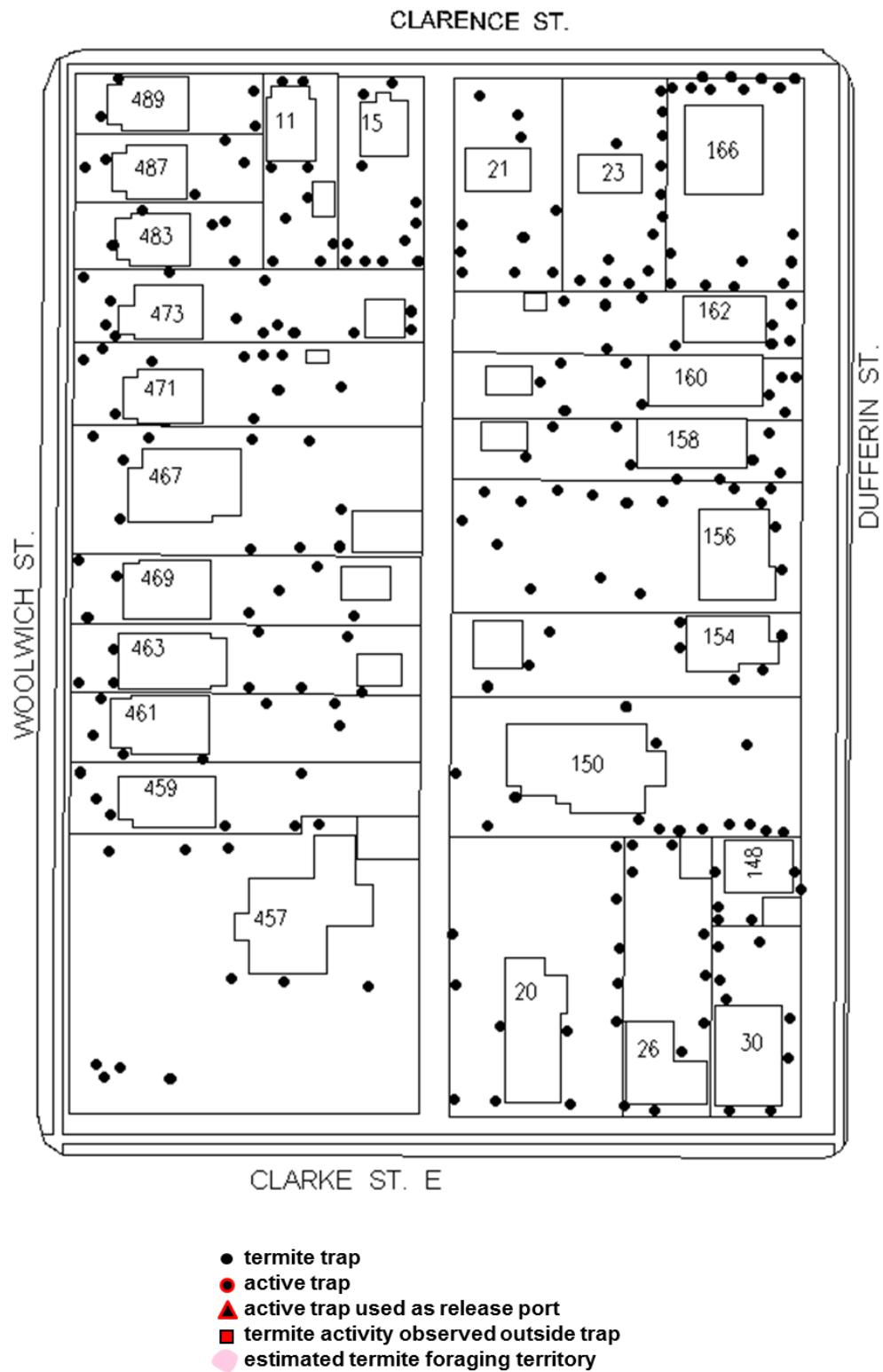


Figure 17. Trap activity in sector 7 in 2015.

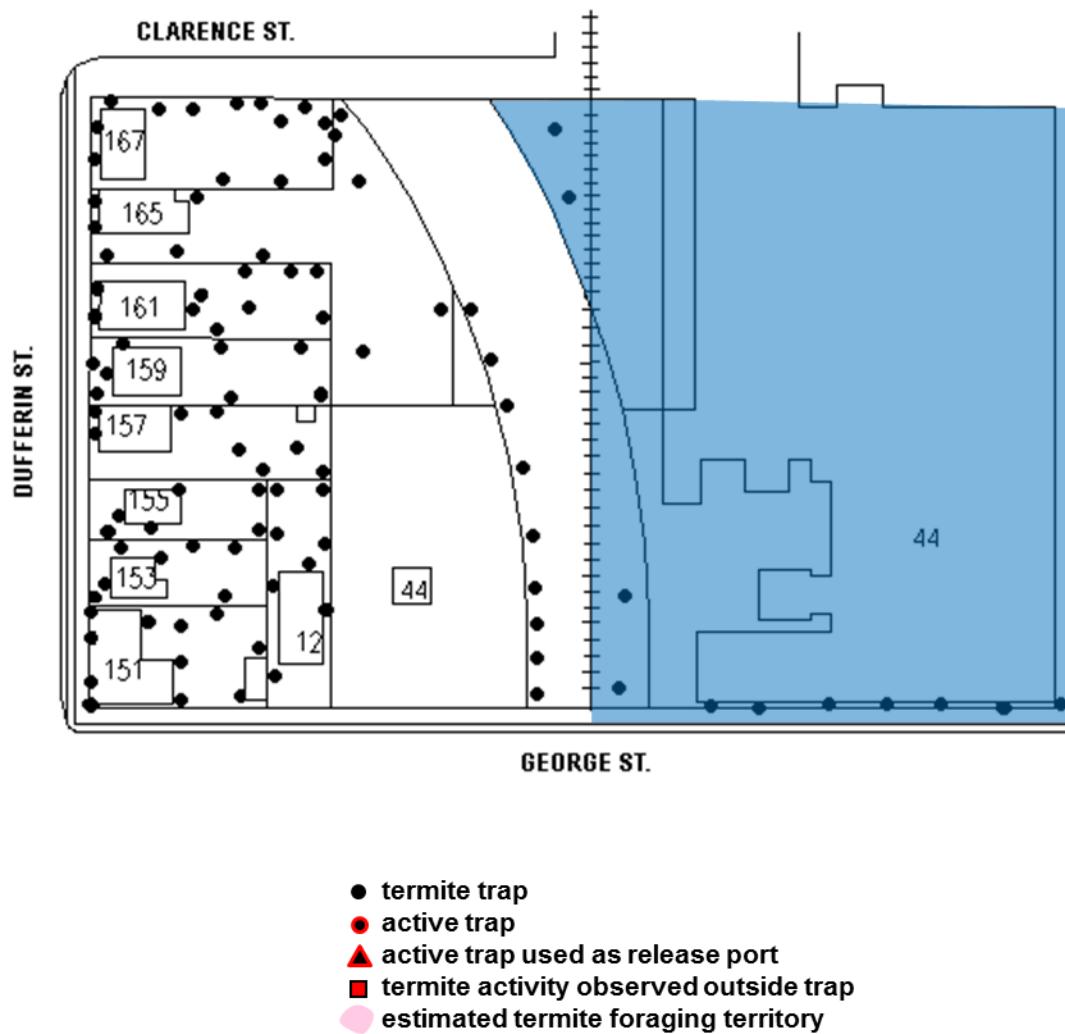


Figure 18. Trap activity in sector 8 in 2015.

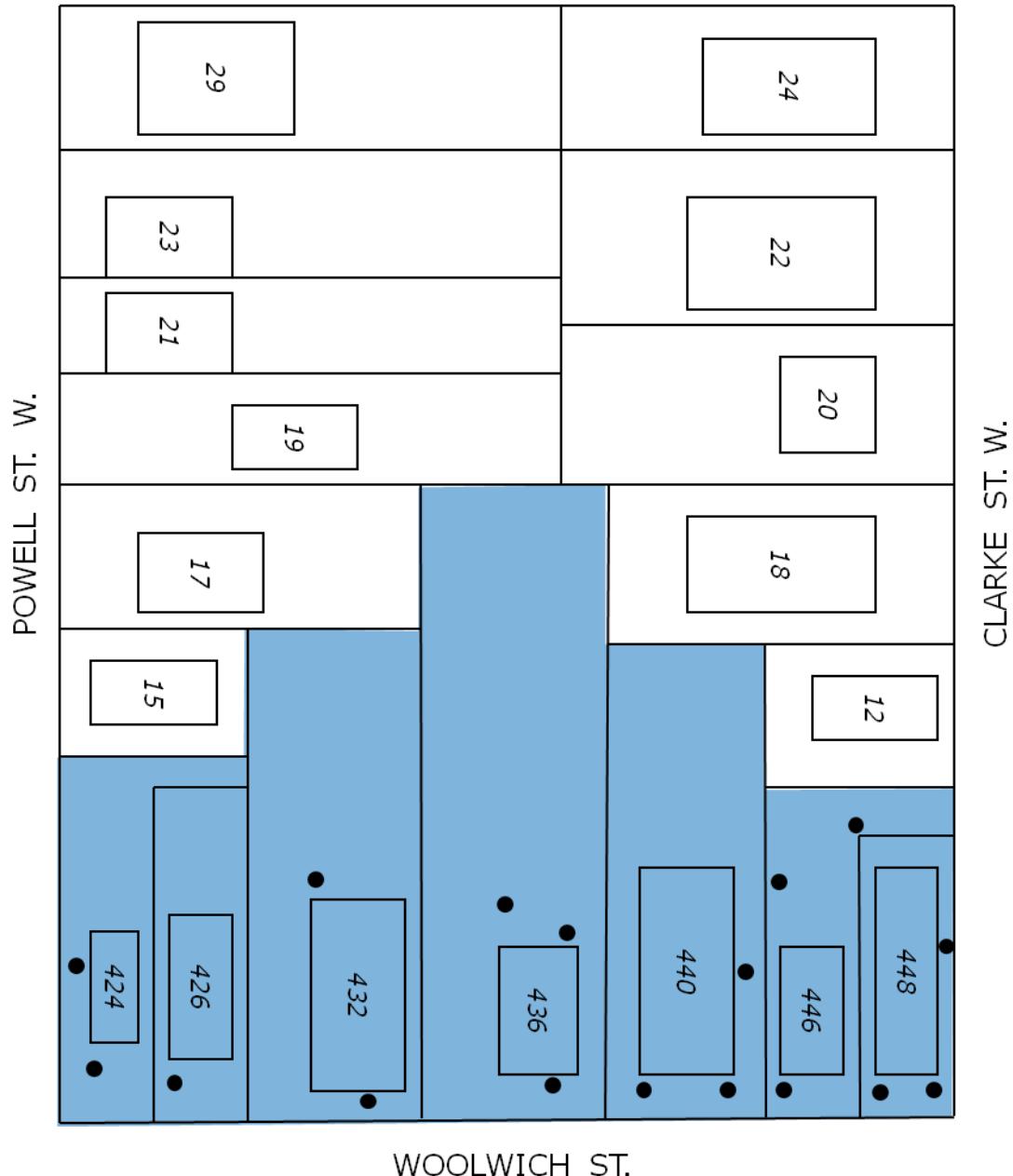


Figure 19. Trap locations in sector 9 in 2015.

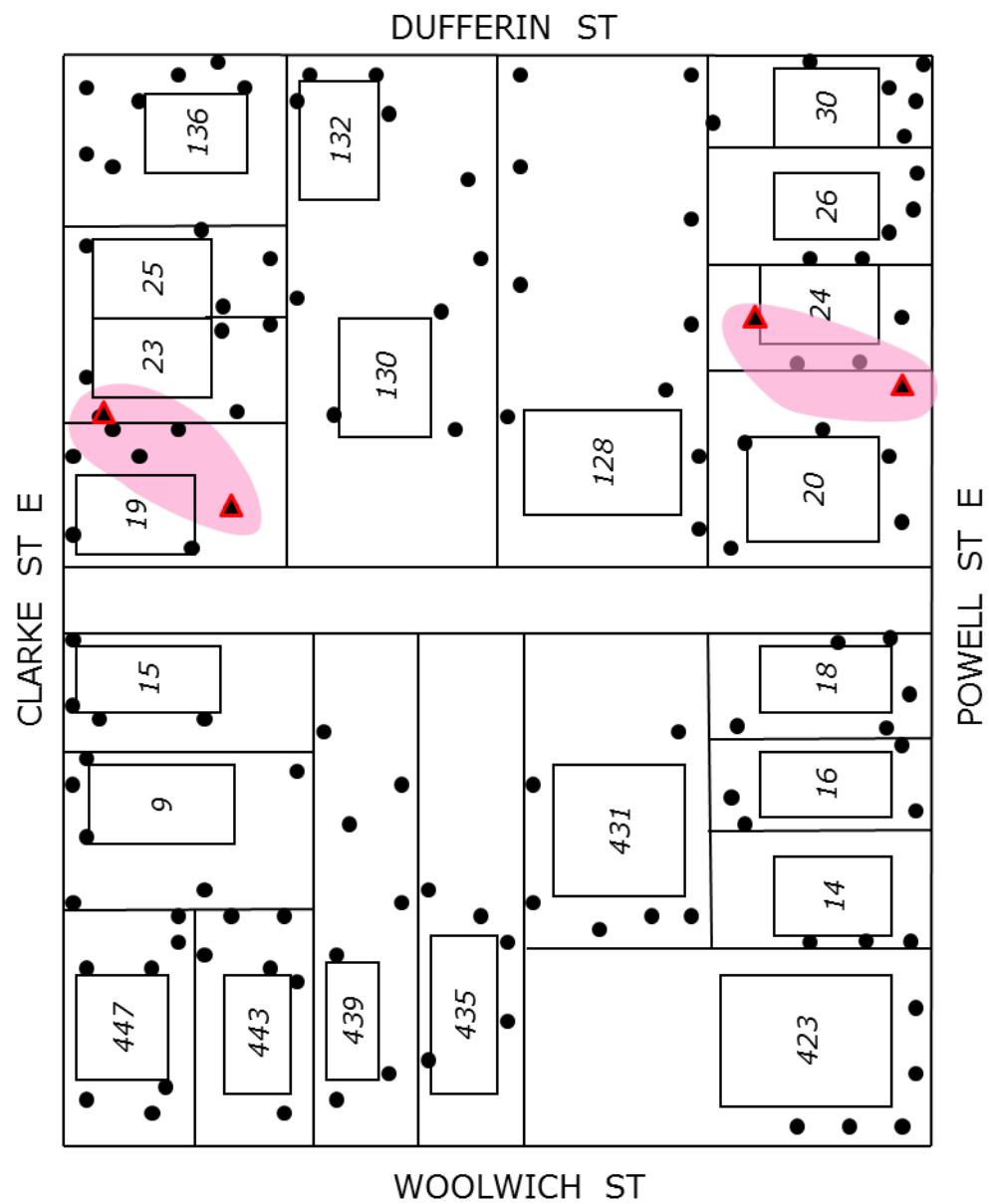


Figure 20. Trap activity in sector 10 in 2015.

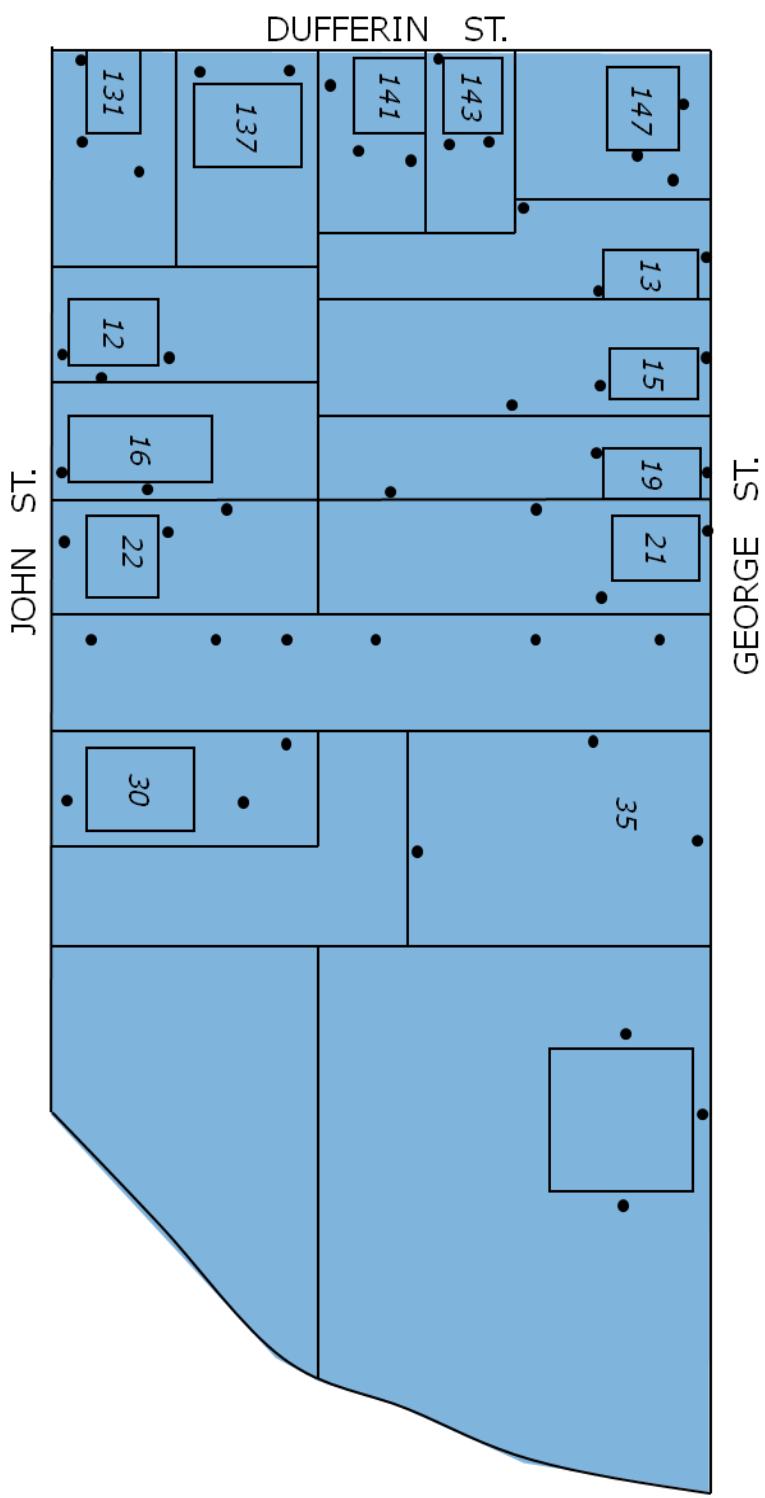


Figure 21. Trap locations in sector 11 in 2015.

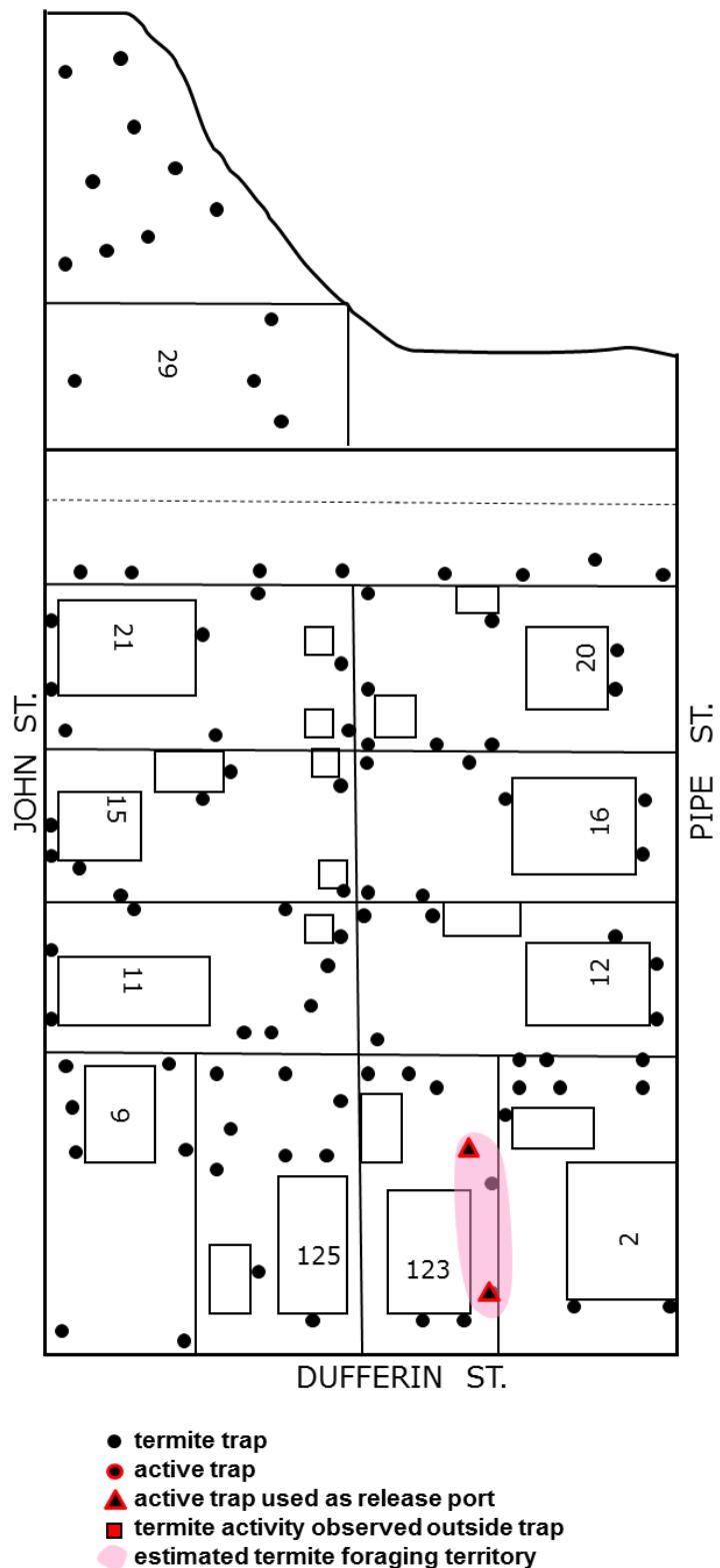


Figure 22. Trap activity in sector 12 in 2015.

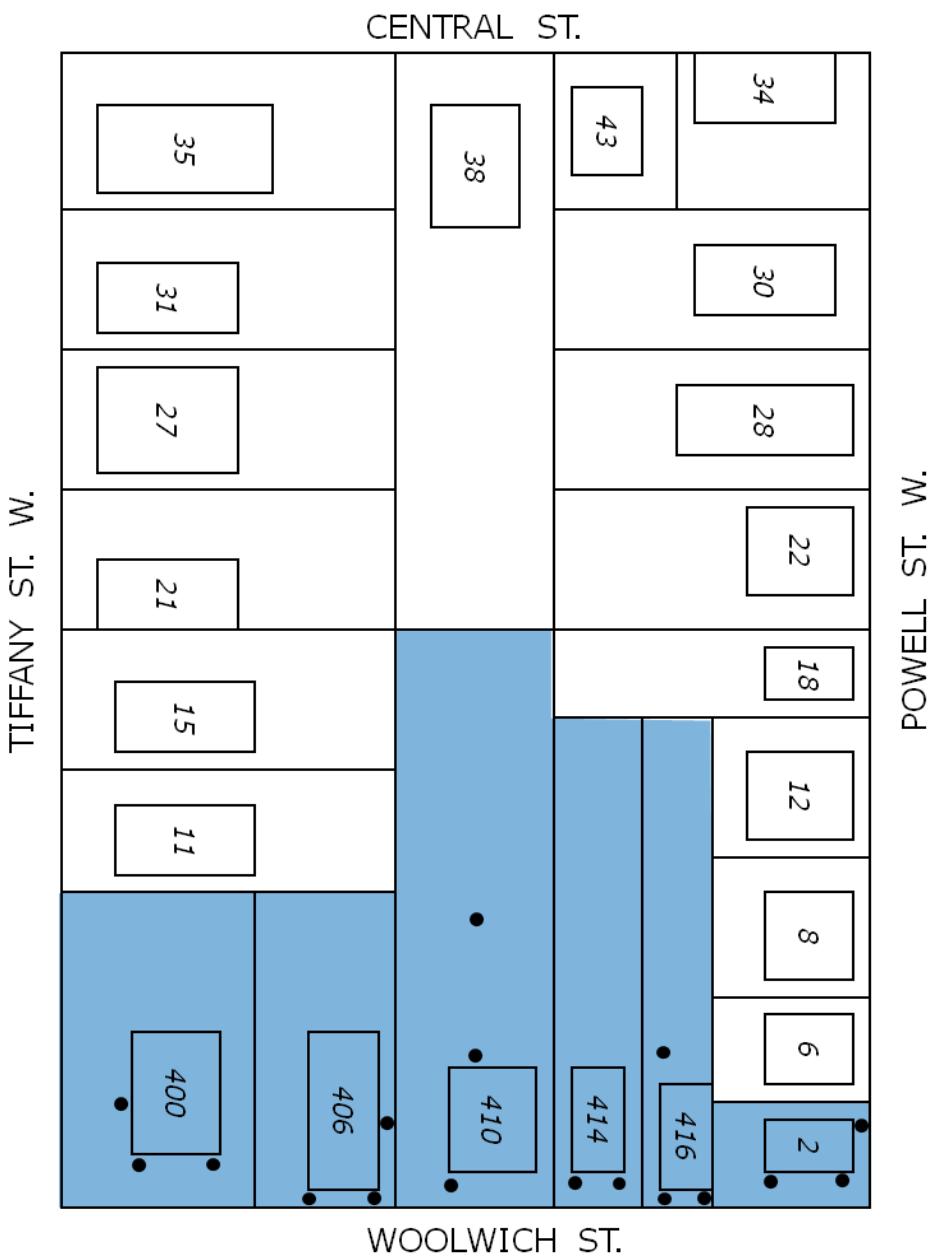
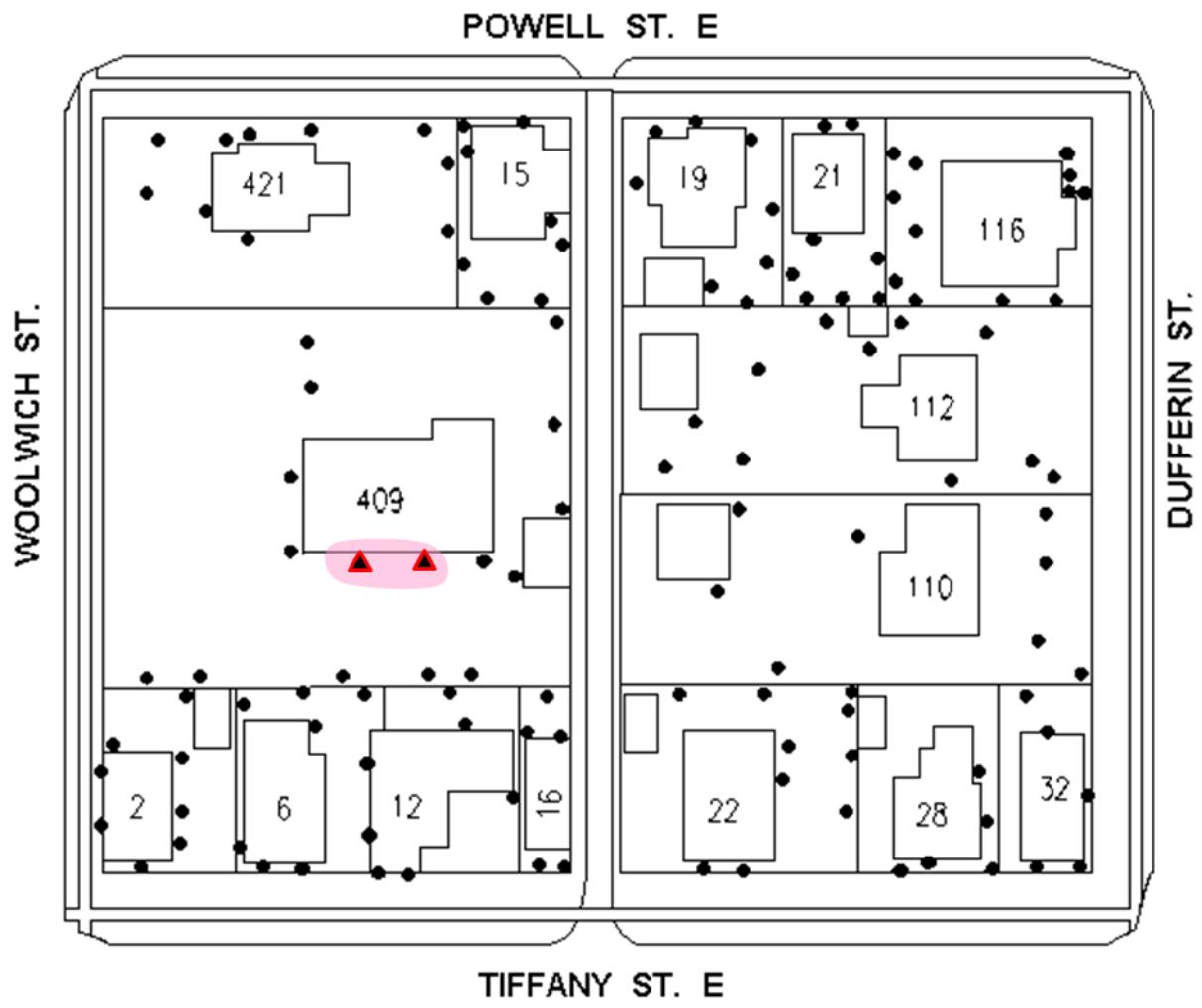
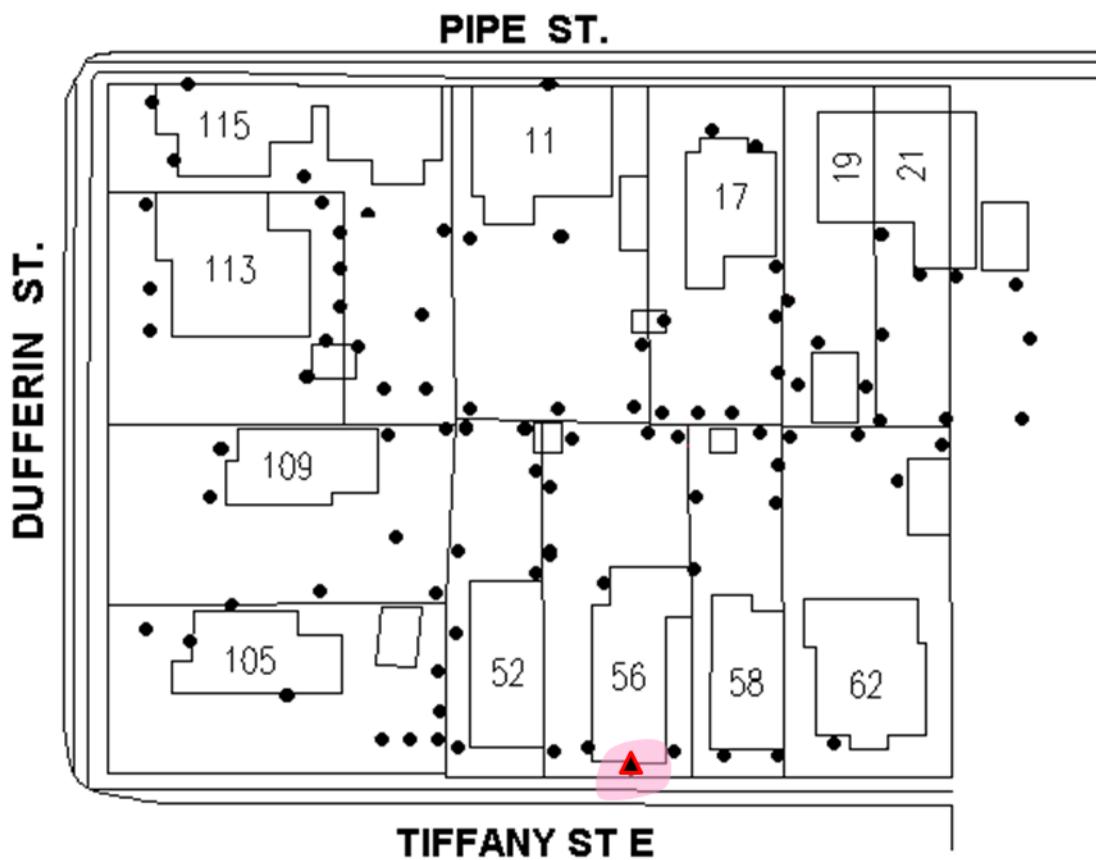


Figure 23. Trap locations in sector 14 in 2015.



- termite trap
- active trap
- ▲ active trap used as release port
- termite activity observed outside trap
- estimated termite foraging territory

Figure 24. Trap activity in sector 15 in 2015.



- termite trap
- active trap
- ▲ active trap used as release port
- termite activity observed outside trap
- estimated termite foraging territory

Figure 25. Trap activity in sector 16 in 2015.

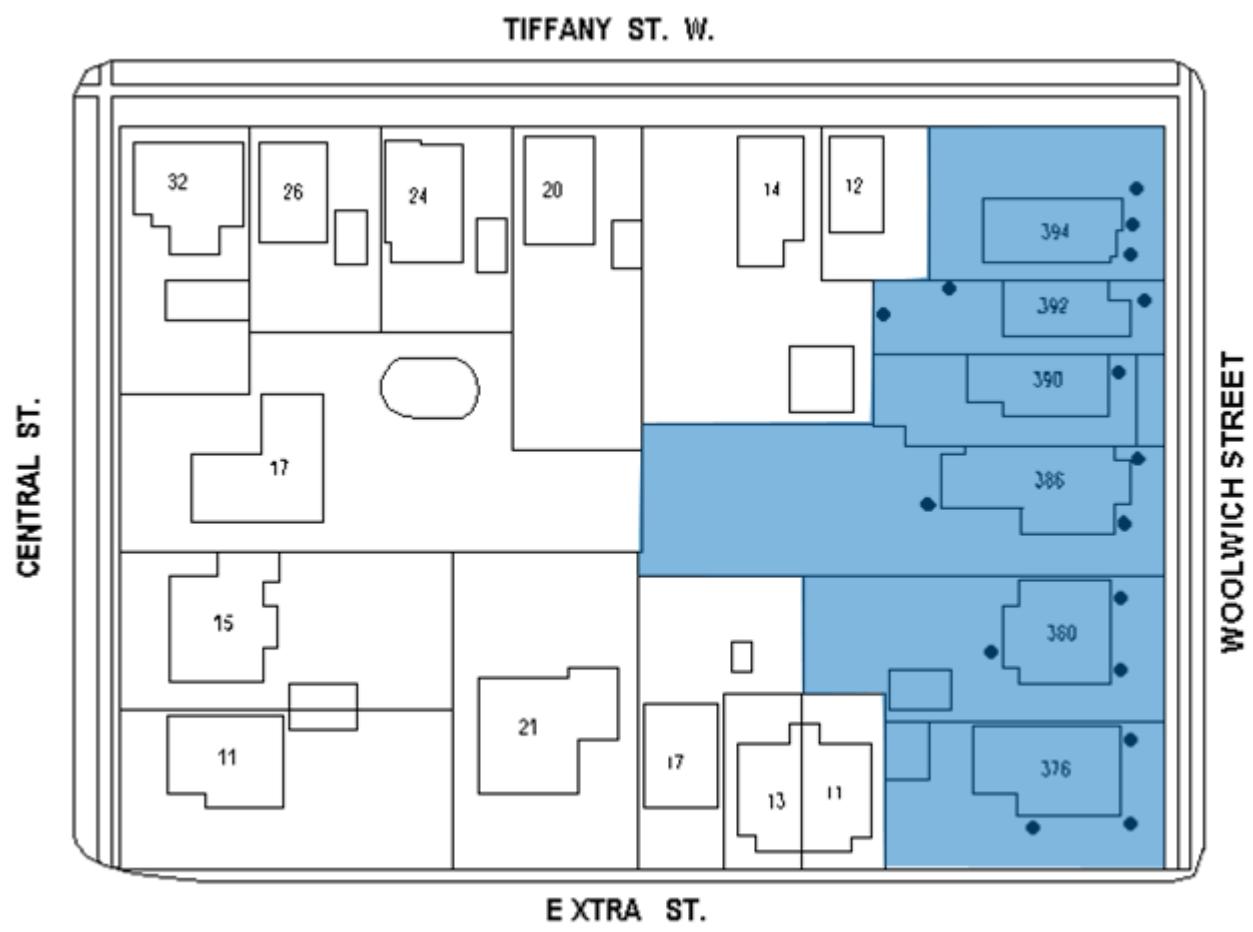
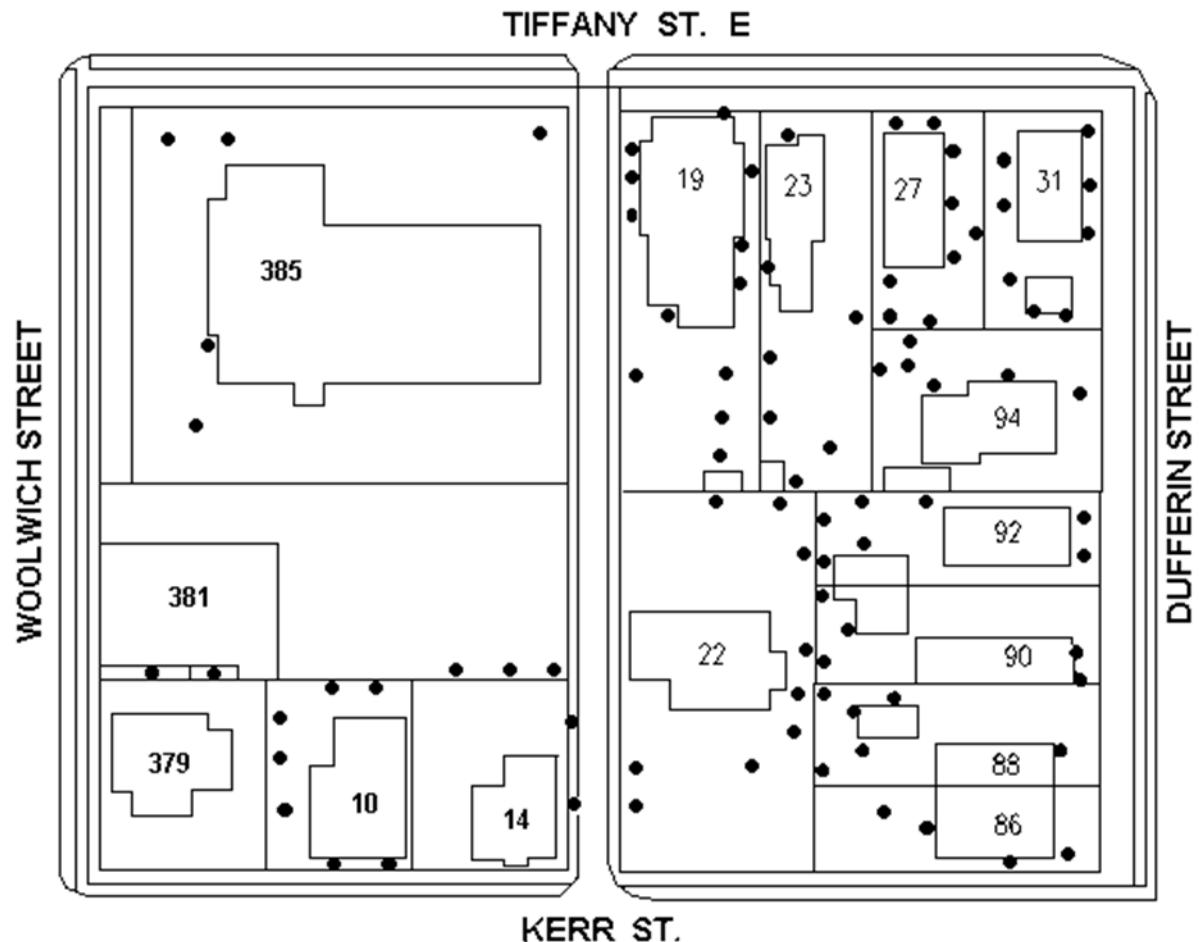


Figure 26. Trap activity in sector 19 in 2015.



- termite trap
- active trap
- ▲ active trap used as release port
- termite activity observed outside trap
- estimated termite foraging territory

Figure 27. Trap activity in sector 20 in 2015.

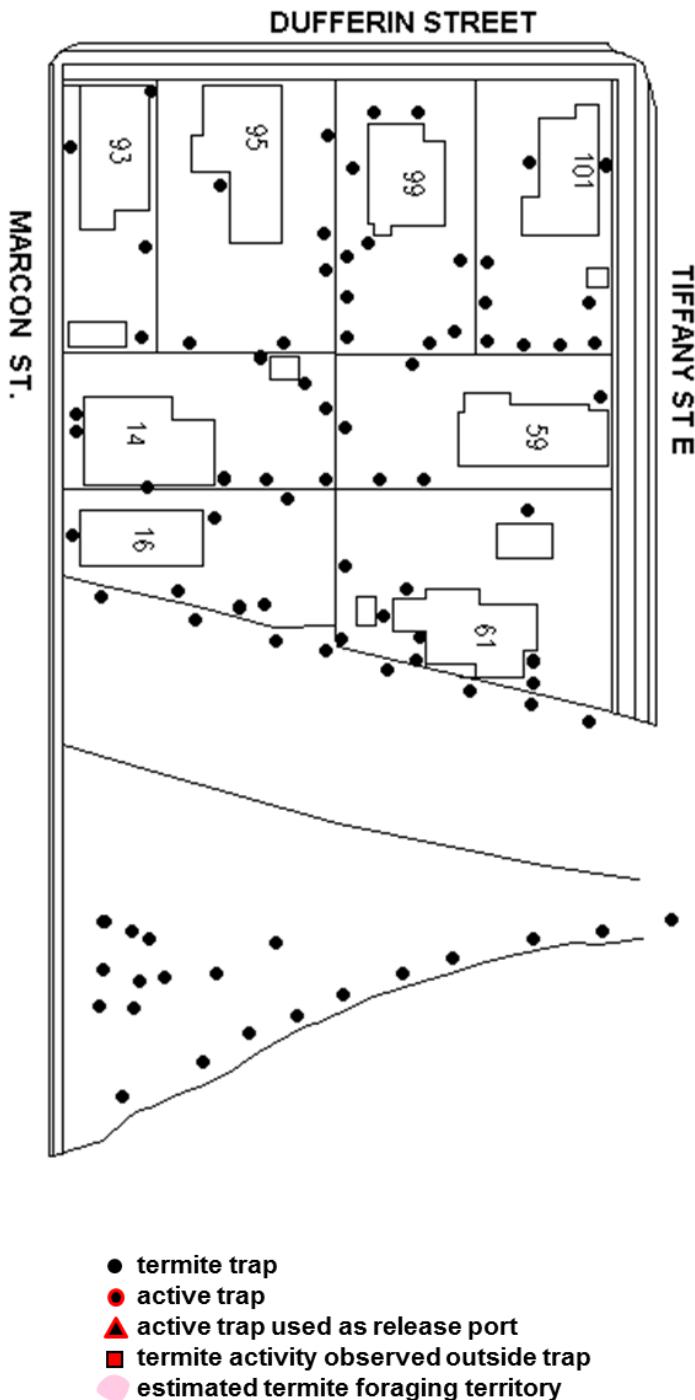


Figure 28. Trap activity in sector 21 in 2015.

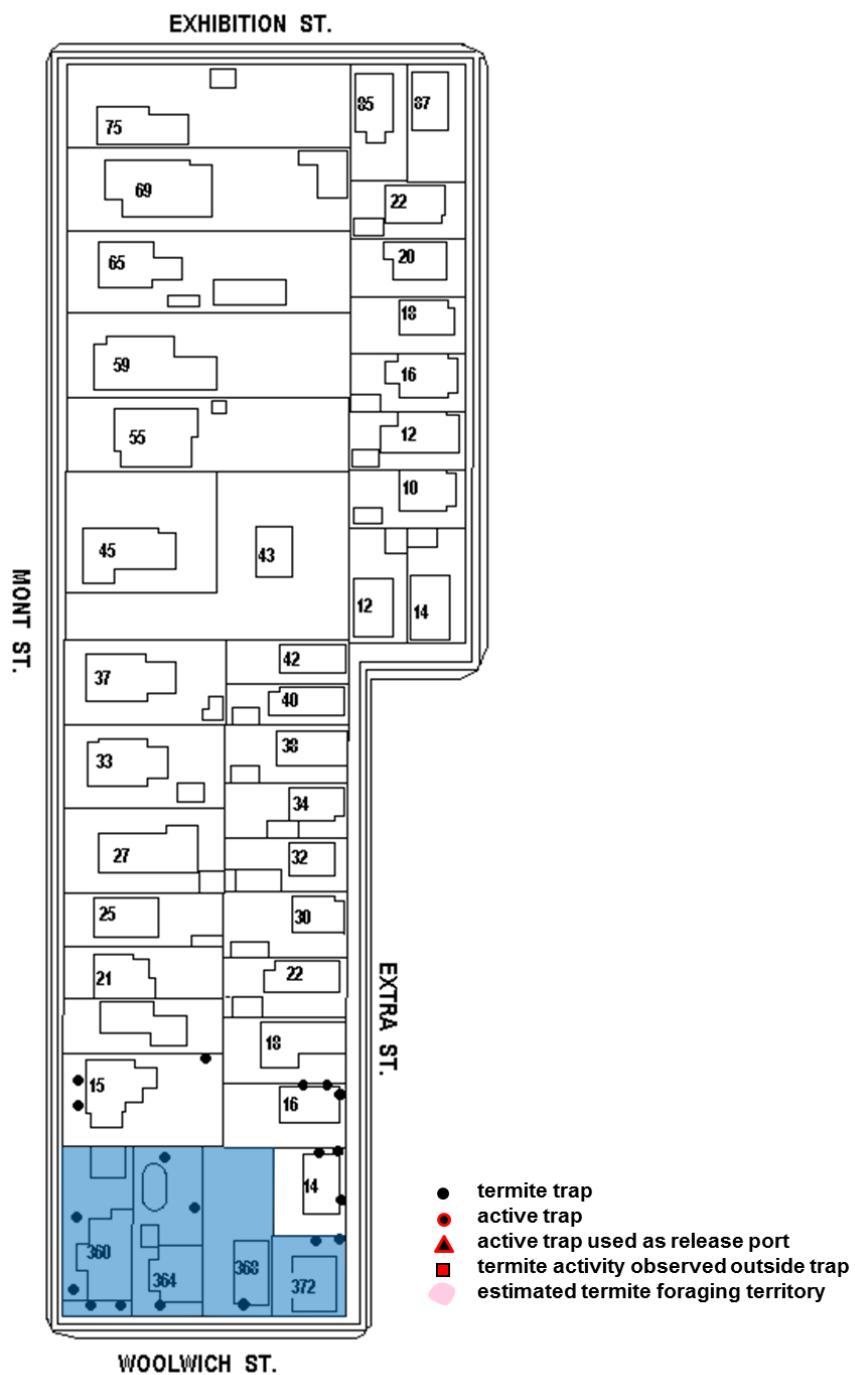


Figure 29. Trap activity in sector 22 in 2015.

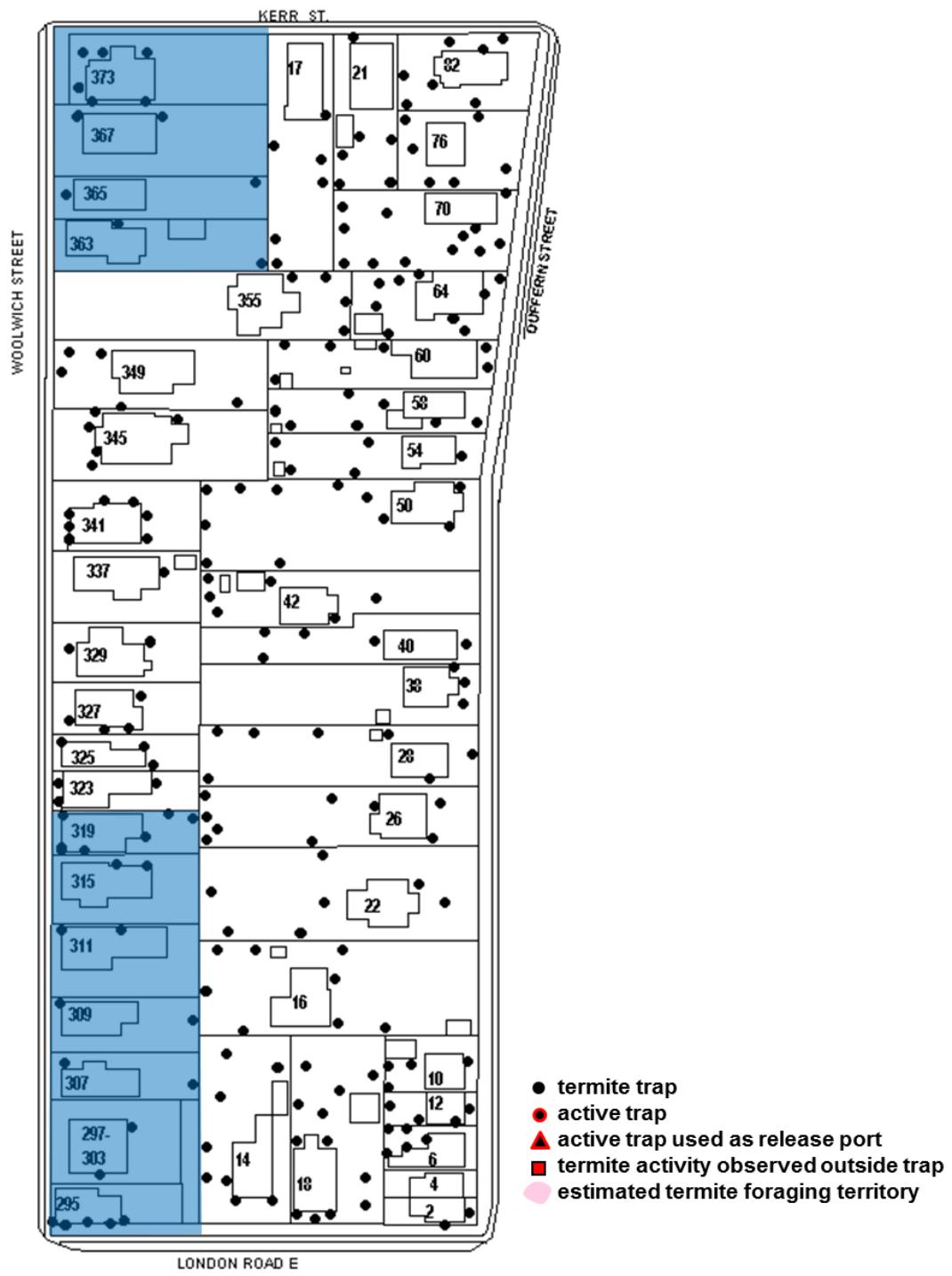


Figure 30. Trap activity in sector 23 in 2015.

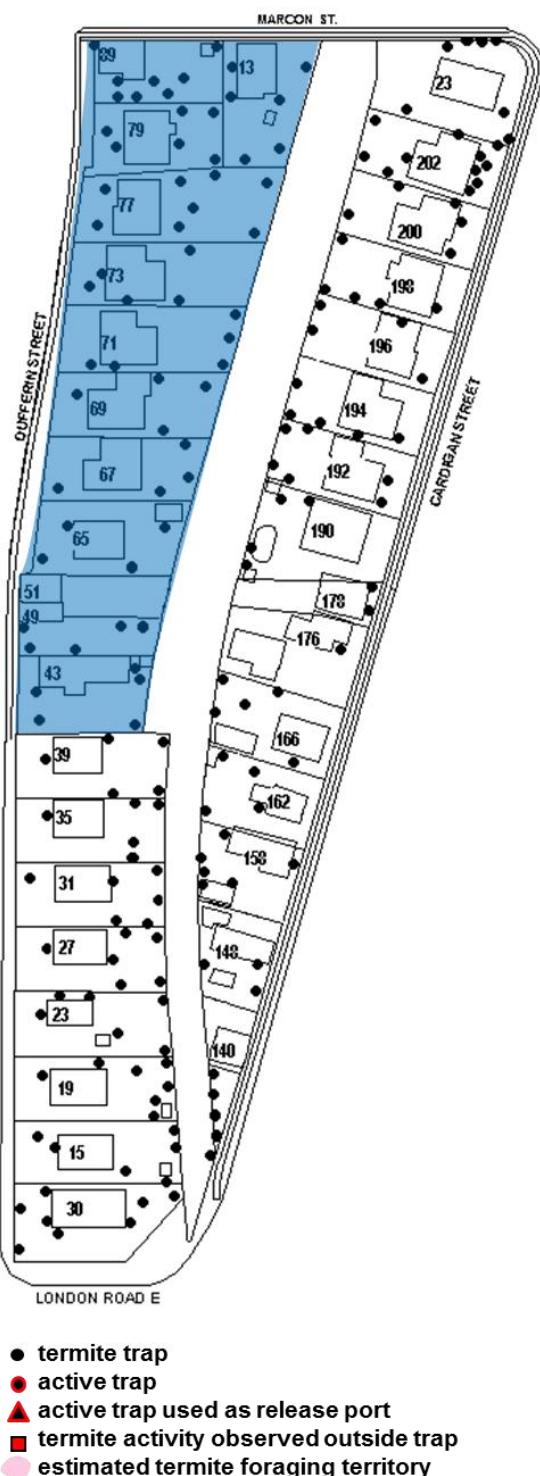
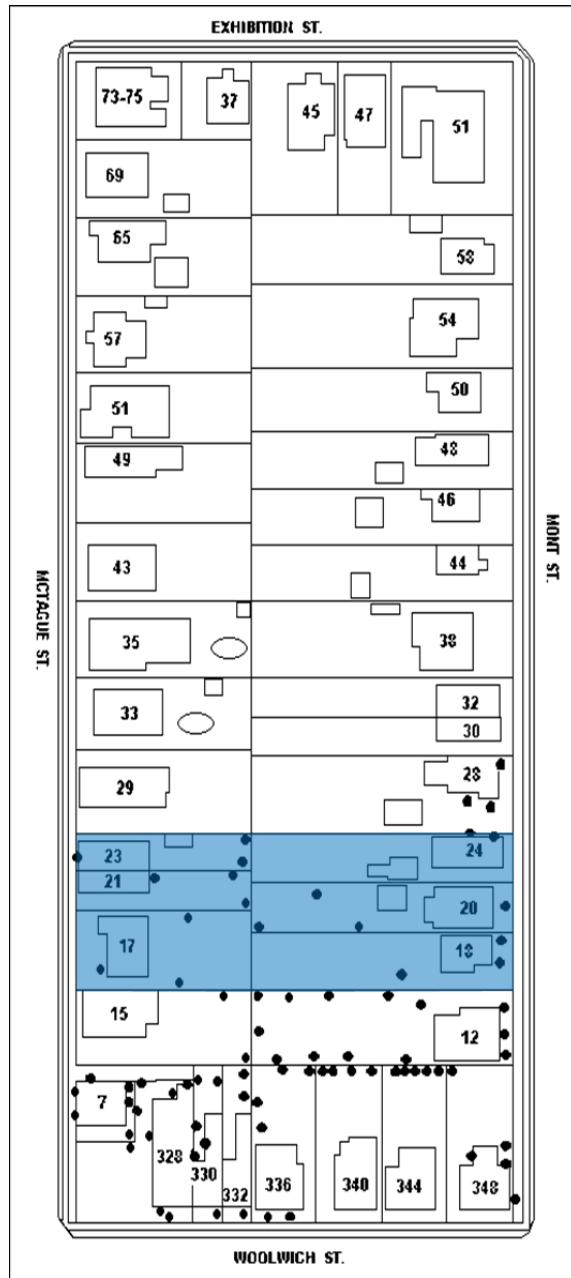


Figure 31. Trap activity in sector 24 in 2015.



- termite trap
- active trap
- ▲ active trap used as release port
- termite activity observed outside trap
- estimated termite foraging territory

Figure 32. Trap activity in sector 25 in 2015.

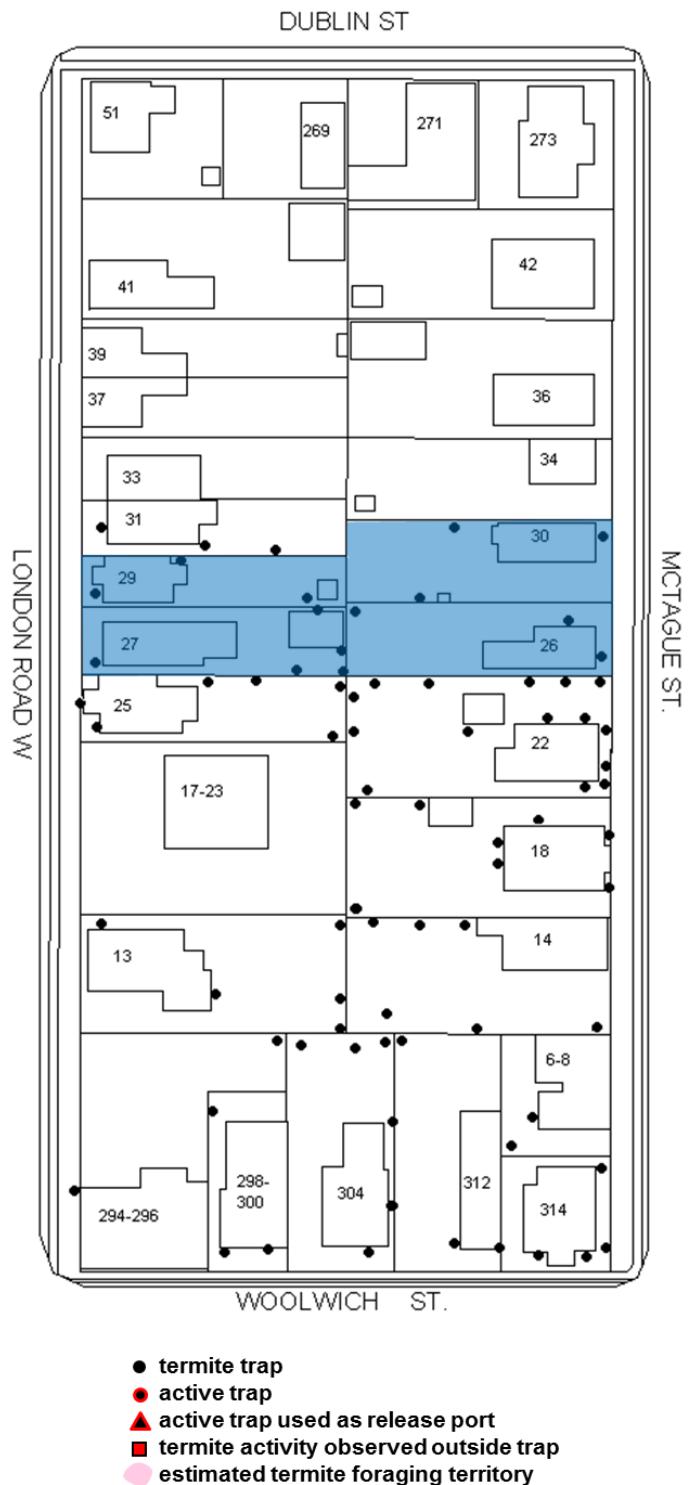
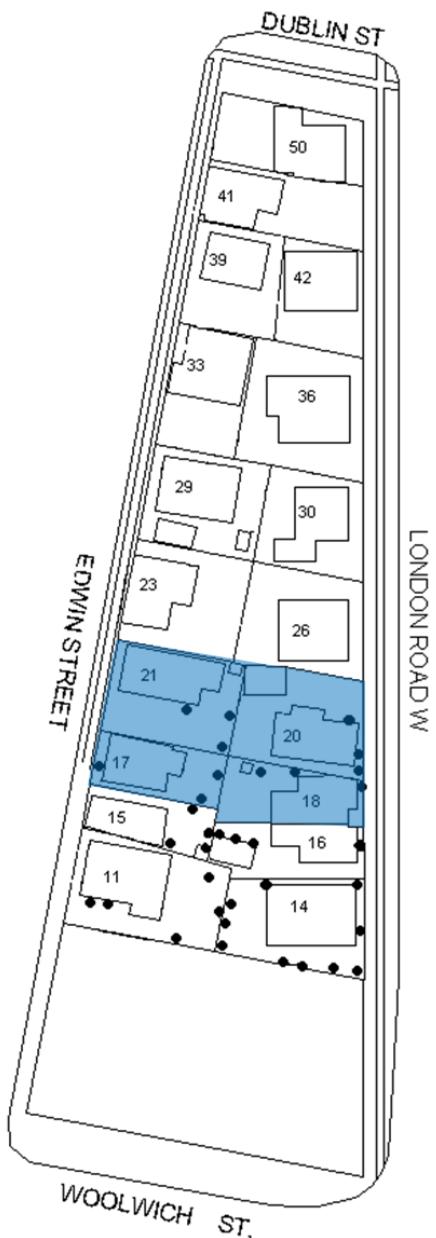


Figure 33. Trap activity in sector 27 in 2015.



- termite trap
- active trap
- ▲ active trap used as release port
- termite activity observed outside trap
- estimated termite foraging territory

Figure 34. Trap activity in sector 30 in 2015.

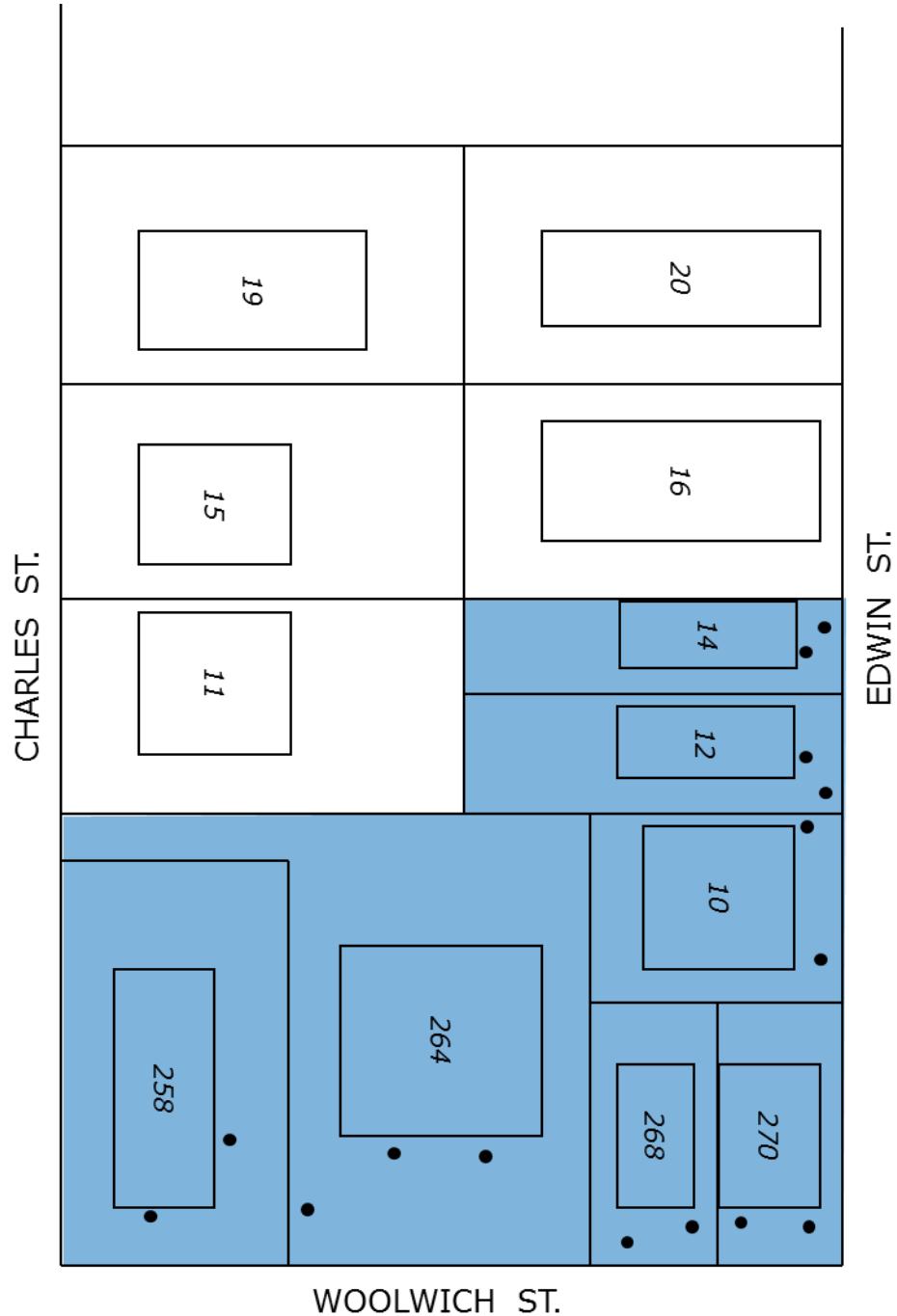


Figure 35. Trap locations in sector 31 in 2015.

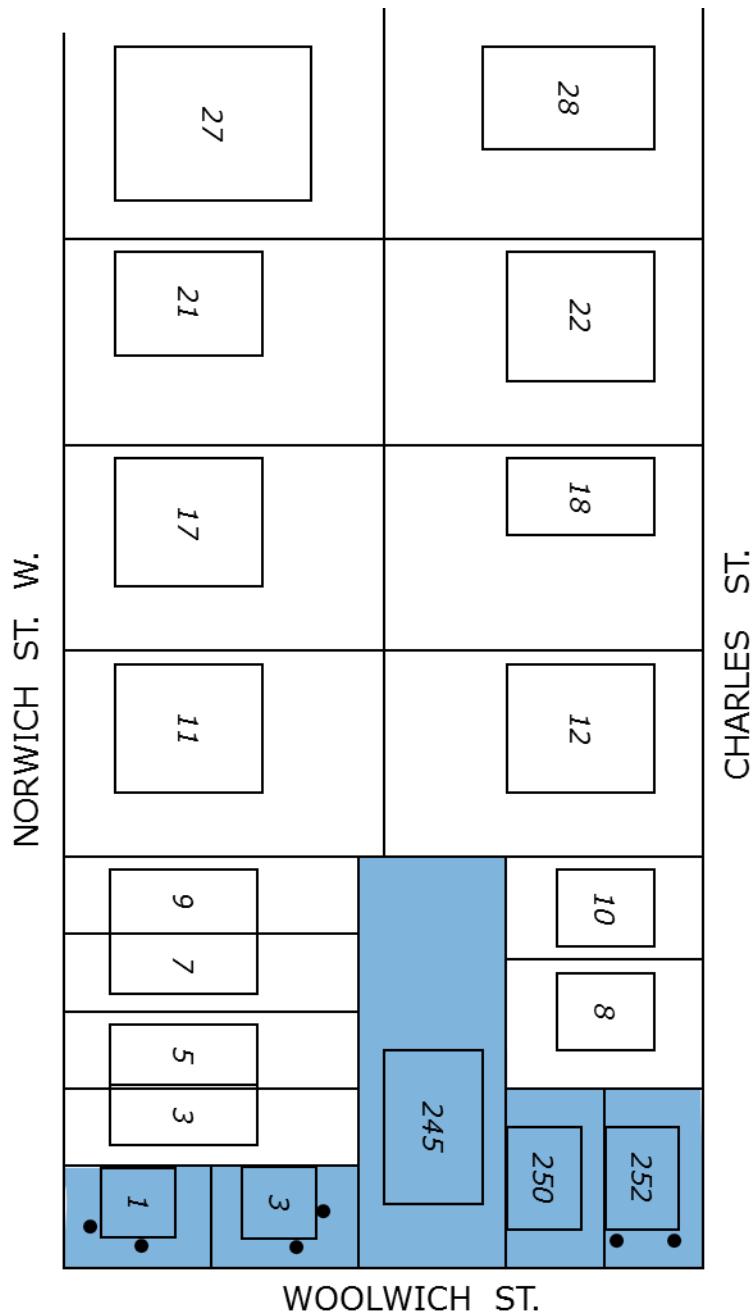
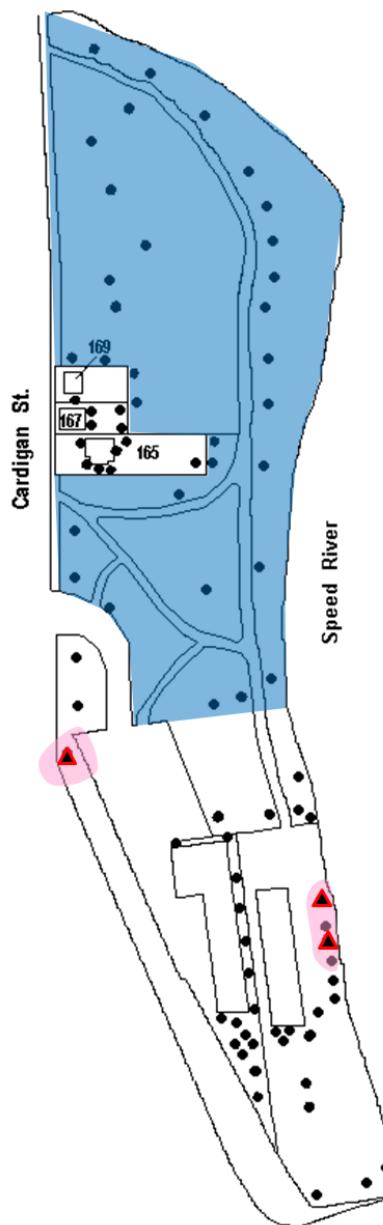


Figure 36. Trap locations in sector 32 in 2015.



- termite trap
- active trap
- ▲ active trap used as release port
- termite activity observed outside trap
- estimated termite foraging territory

Figure 37. Trap activity in sector 36 in 2015.

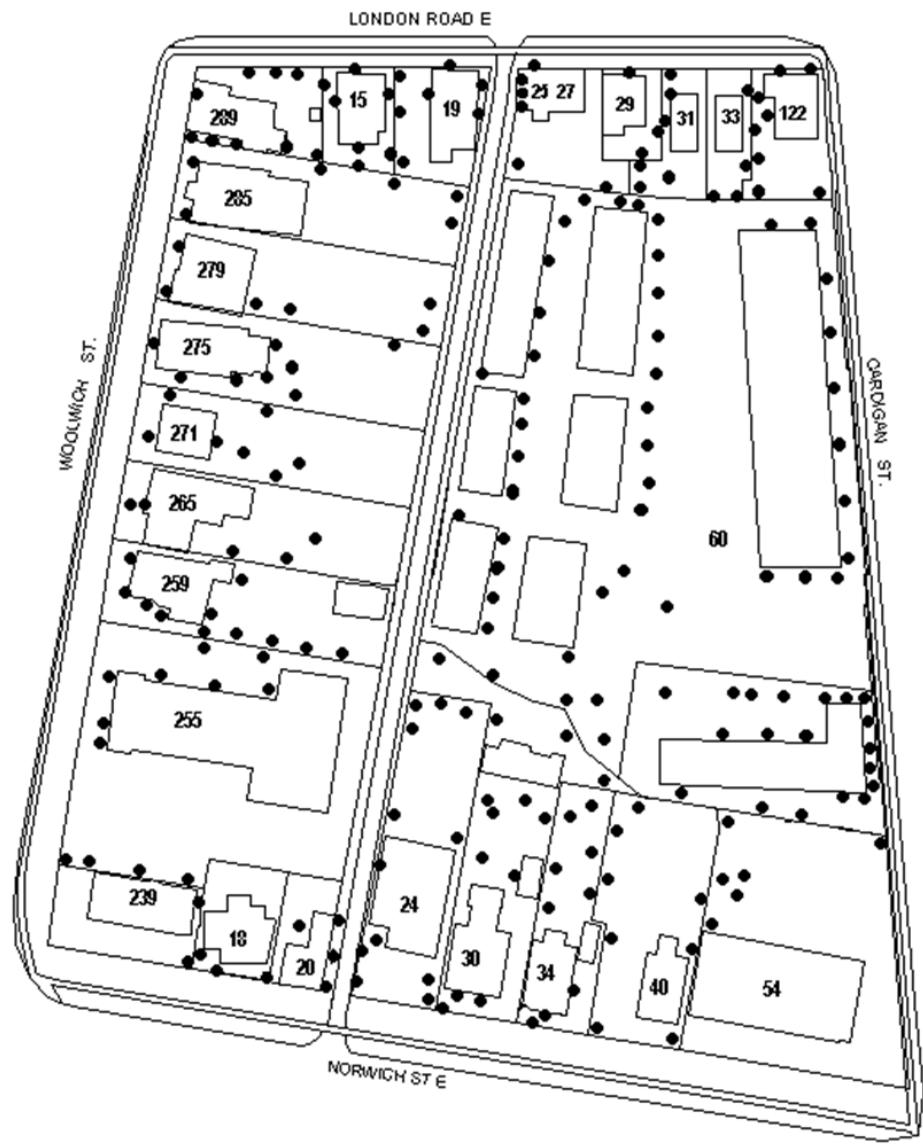


Figure 38. Trap activity in sector 37 in 2015.

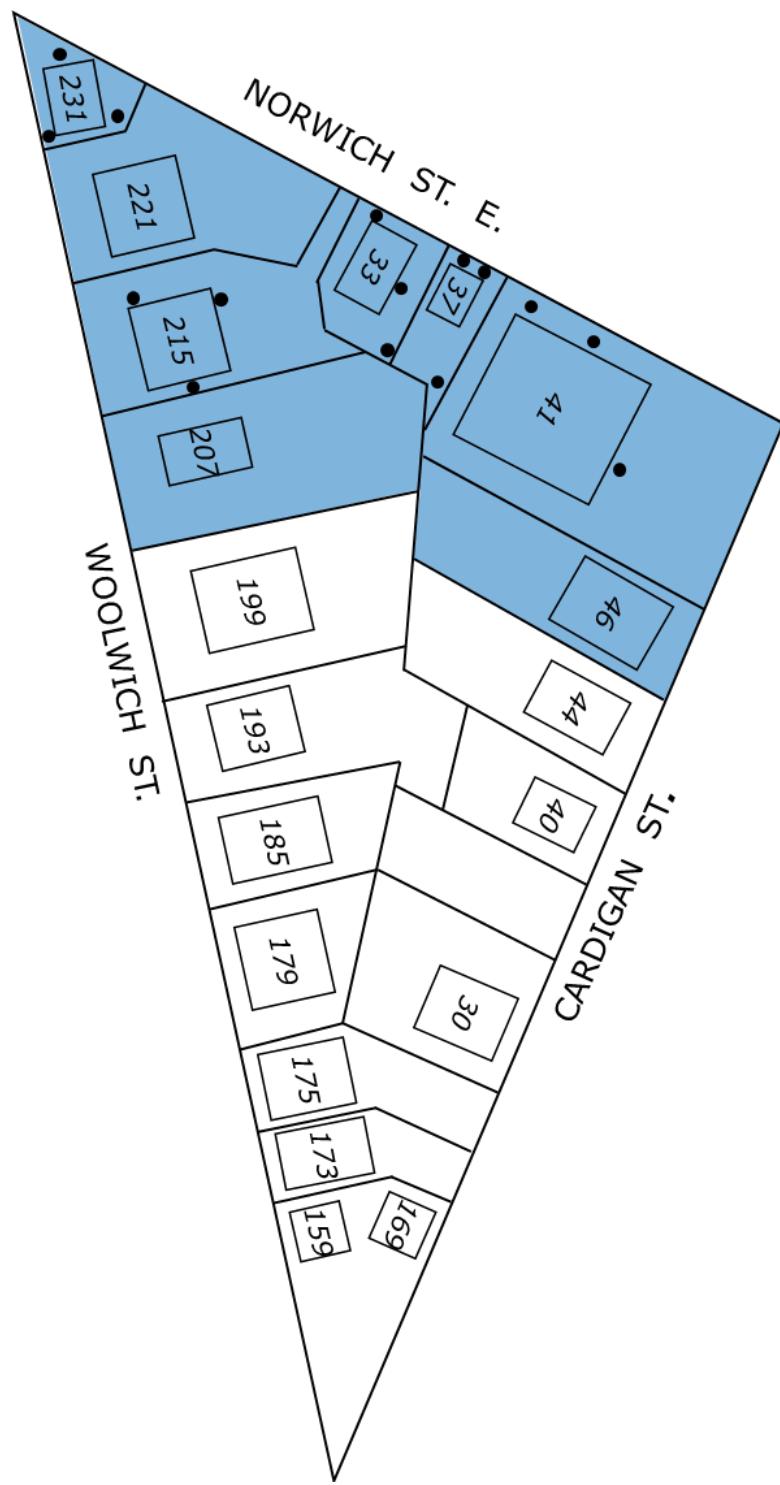
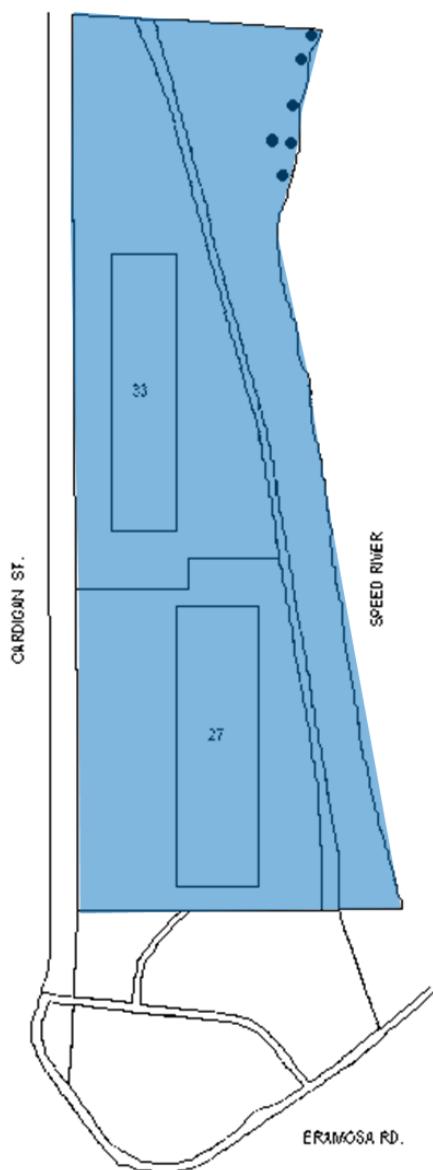


Figure 39. Trap locations in sector 40 in 2015.



- termite trap
- active trap
- ▲ active trap used as release port
- termite activity observed outside trap
- estimated termite foraging territory

Figure 40. Trap activity in sector 41 in 2015.

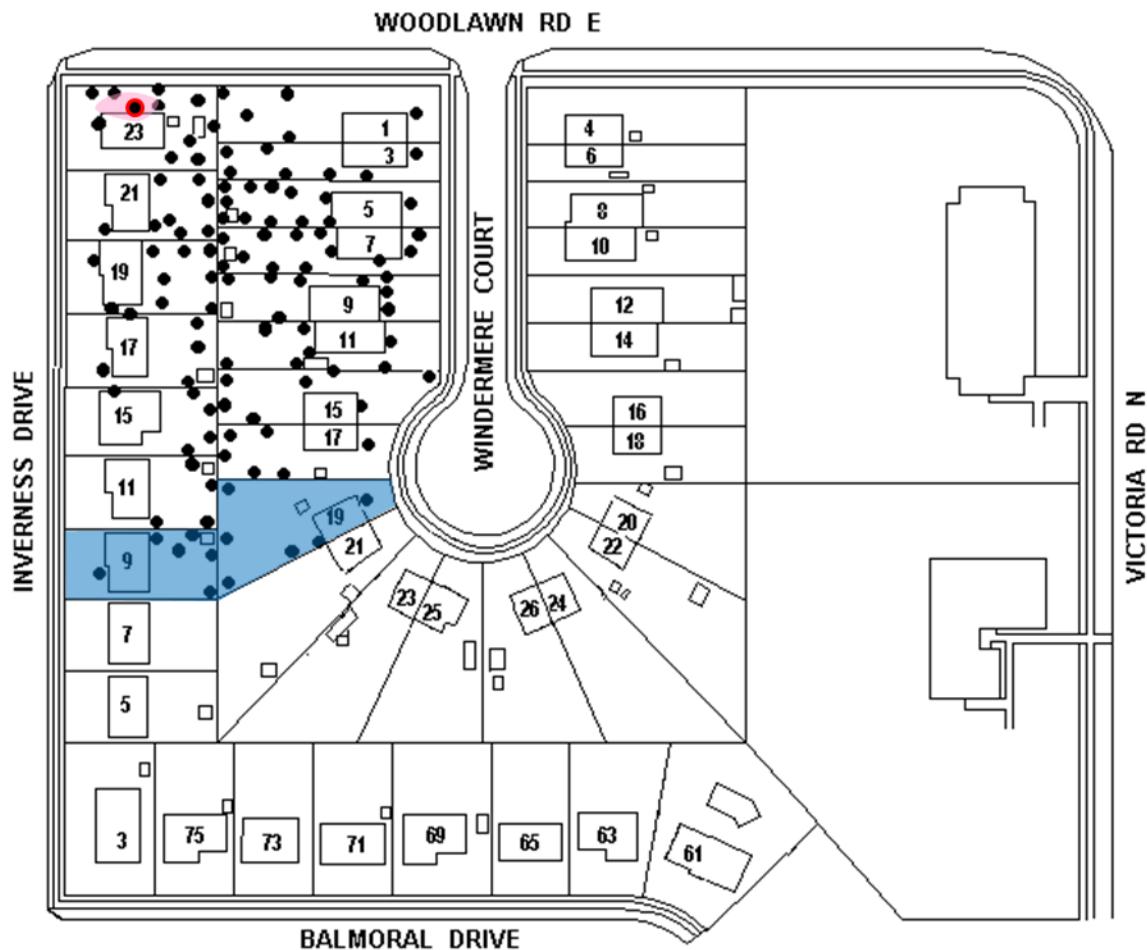


Figure 41. Trap activity in sector 42 in 2015.

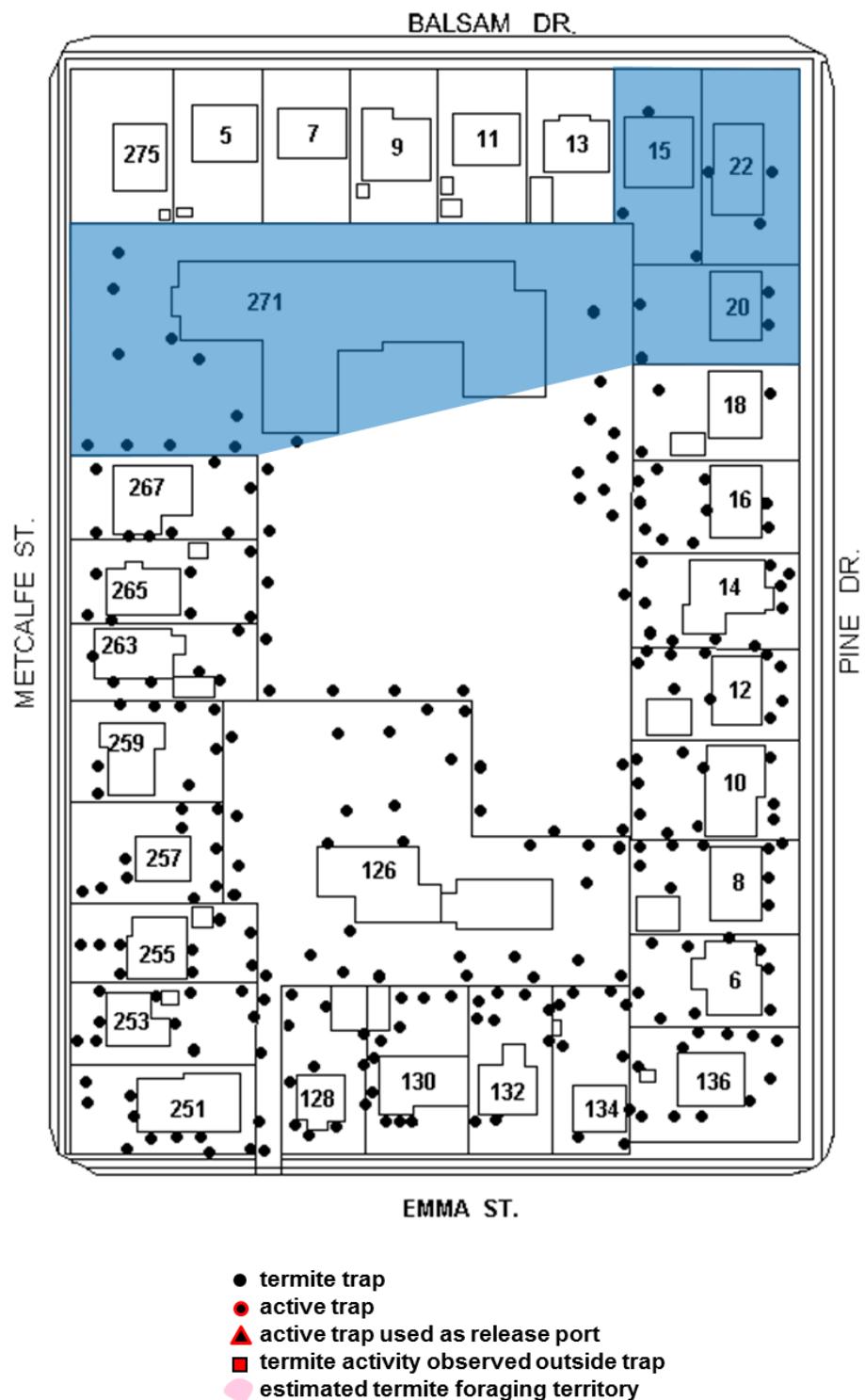


Figure 42. Trap activity in sector 47 in 2015.

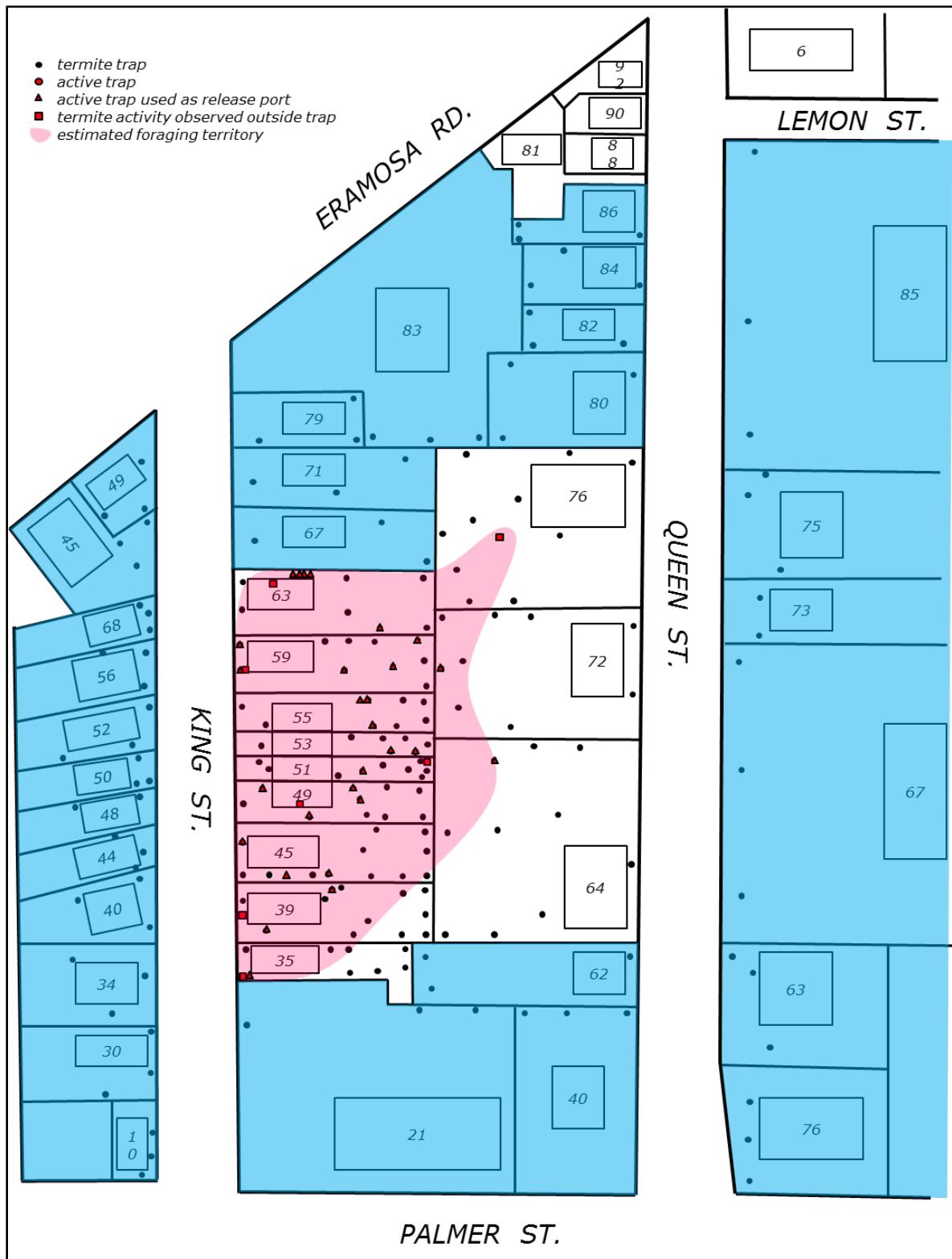


Figure 43. Areas of detected termite activity in sector 52 in 2015.

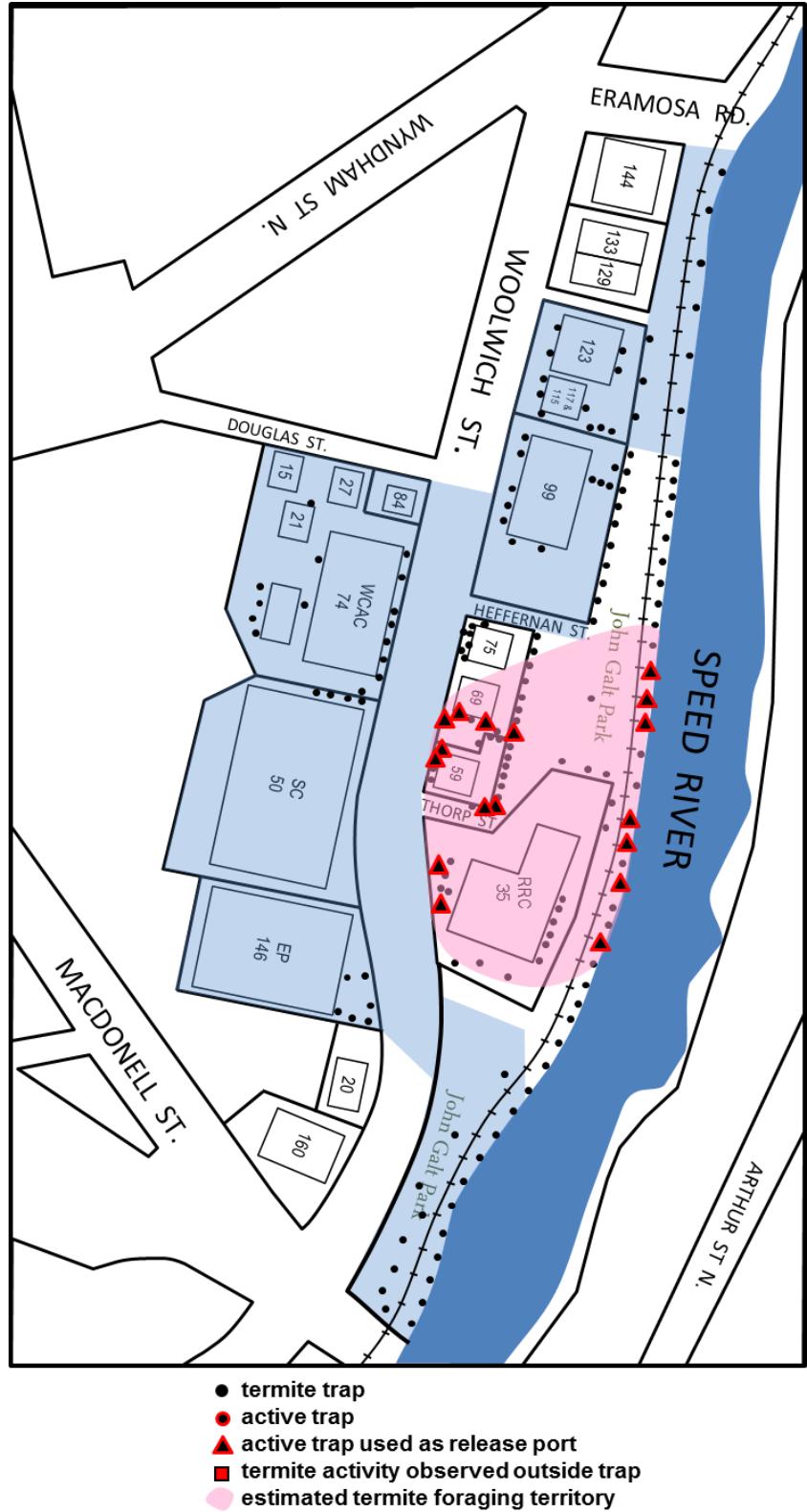


Figure 44. Areas of detected termite activity in sector 57 in 2015.

Appendix 1.



April 25, 2016

Dear Termite Management Area Resident,

Please find attached the Executive Summary of the 2015 Termite Report. Key findings include:

- Overall, the termite populations saw a 33% decline in 2015.
- The three areas that have the longest history of termite activity have declined to just 9 active properties on 7 blocks.
- Sector 7, previously the most active sector, was inactive for the first time in 2015.
- The entire Emma-Pine management area has been inactive for three consecutive years.
- Only 27 properties were active in 2015.
- 130 properties were reclassified from red to blue or blue to white.

The boundaries of the termite management areas have again been contracted to reflect termite inactivity in several areas. Please note the color designation and sector number of your property in Figure 1. Then see the graphs to read the quantitative change in activity in your sector. As Figures 2-4 show, there has been a downward trend in termite trap yield across most sectors. Figure 5 shows the decline in the number of active properties. Figure 6 shows the areas of detected activity in 2015. The new boundaries of the termite management areas for 2016 are shown in Figure 7. The full report may be accessed online at [guelph.ca>termites](http://guelph.ca/termites)>Reference Materials.

I would like to remind all residents that wood chip mulch is not approved for use in termite management areas (both red and blue zone). Approved mulches include bark mulch, pine bark nuggets, cocoa bean mulch, coconut husk mulch, Rubberific mulch, decorative stone and gravel. Many local landscape and garden shops provide these products.

Thanks for your continued interest and participation.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Myles".

Tim Myles, Ph.D.
Termite Control Officer

Building Services
Infrastructure, Development and Enterprise
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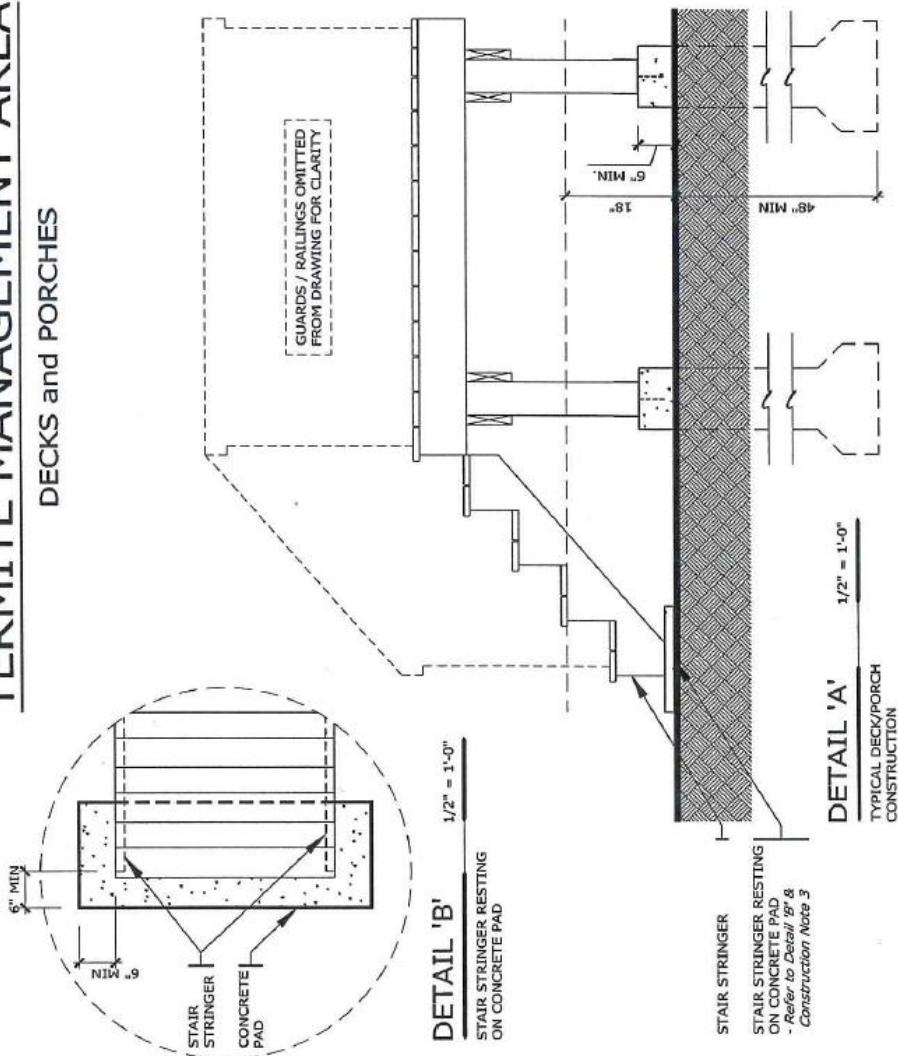
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Guelph, ON
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T 519-822-1260
TTY 519-826-9771
guelph.ca

Appendix 2.

CONSTRUCTION DETAILS WITHIN TERMITE MANAGEMENT AREA

DECKS and PORCHES



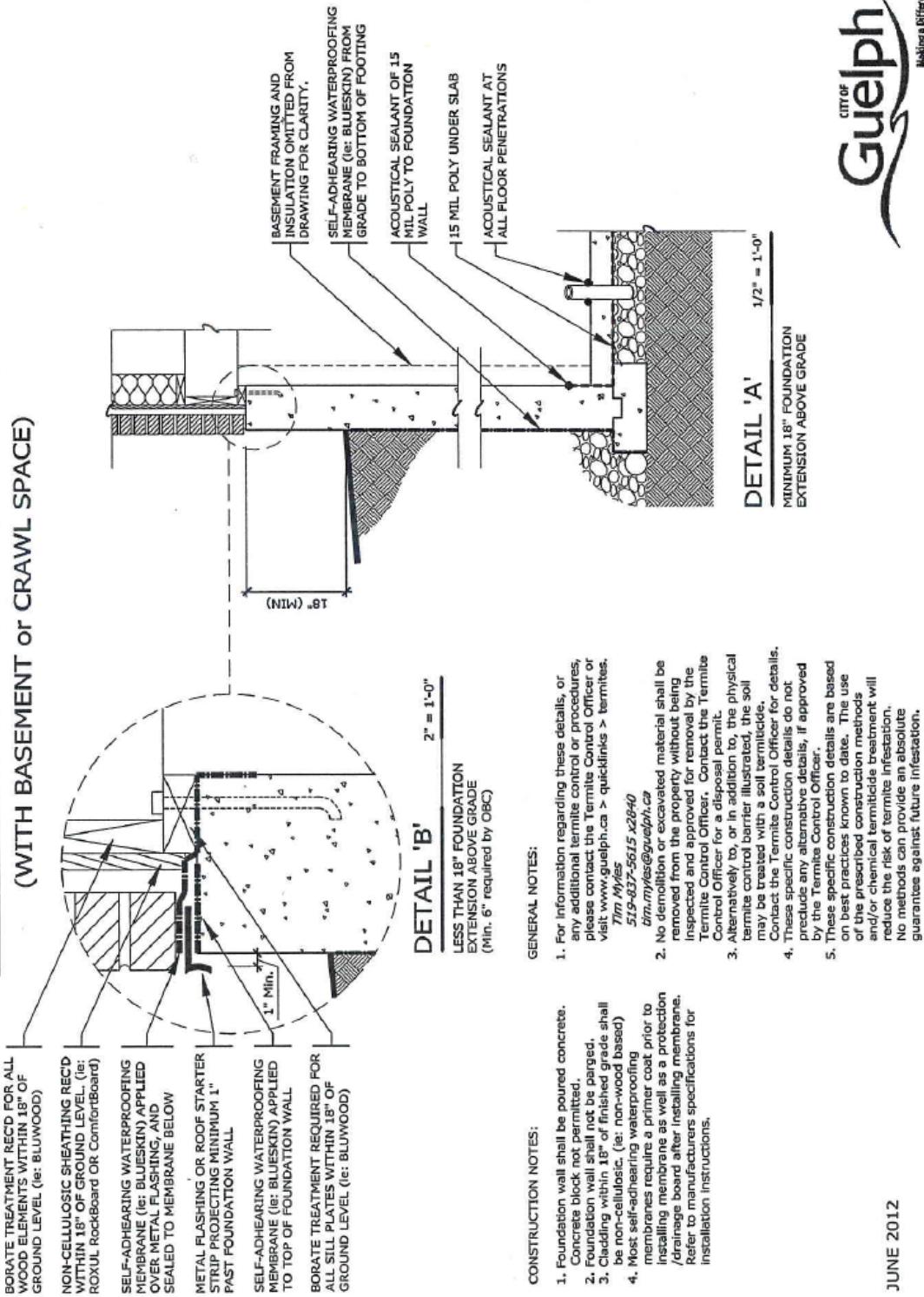
JUNE 2012

City of
Guelph

Appendix 3.

CONSTRUCTION DETAILS WITHIN TERMITE MANAGEMENT AREA

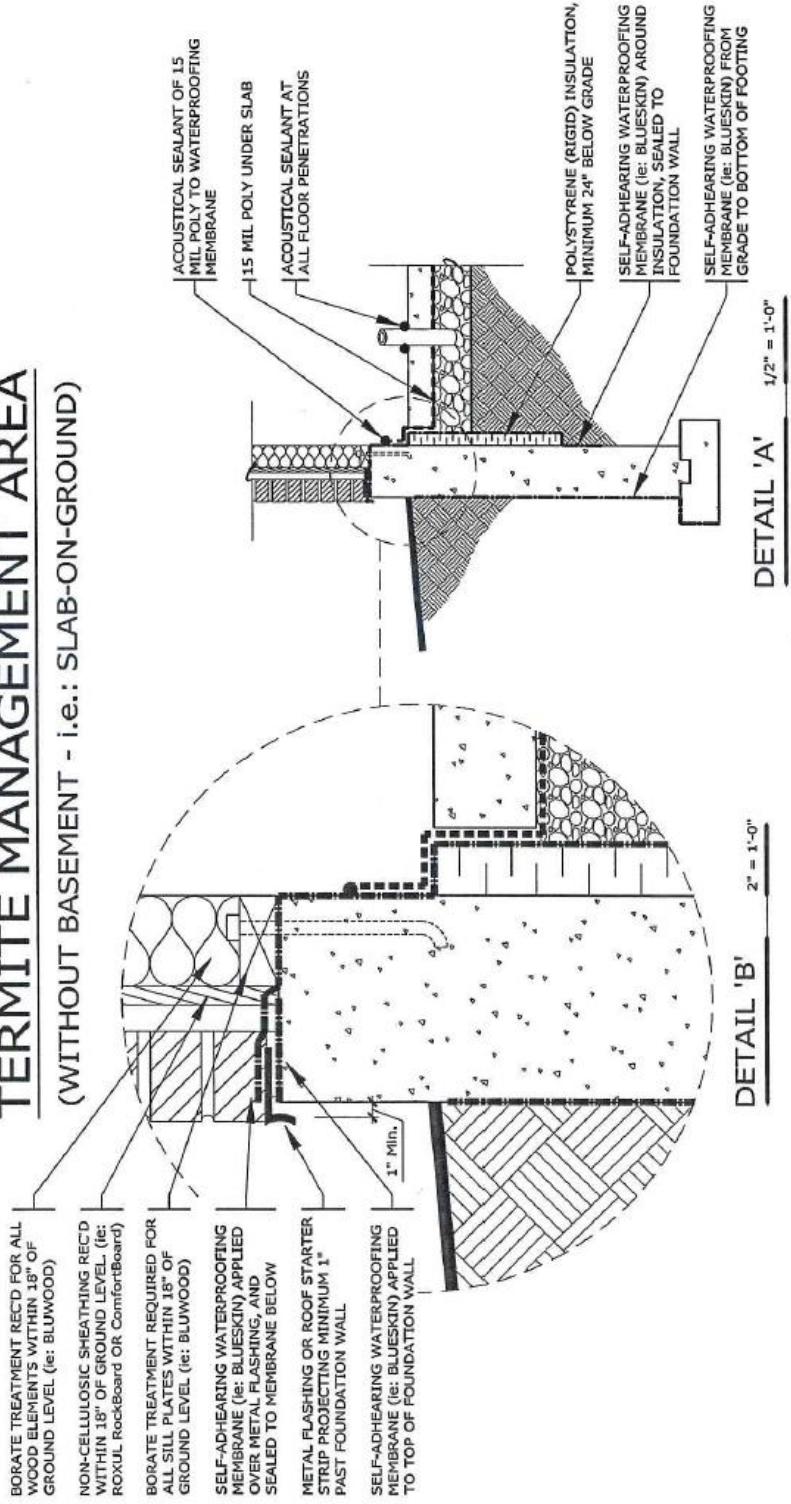
(WITH BASEMENT or CRAWL SPACE)



Appendix 4.

CONSTRUCTION DETAILS WITHIN TERMITE MANAGEMENT AREA

(WITHOUT BASEMENT - i.e.: SLAB-ON-GROUND)



CONSTRUCTION NOTES:

1. Foundation wall shall be poured concrete.
Concrete block not permitted.
 2. Foundation wall shall not be pargeled.
 3. Cladding within 15' of finished grade shall be non-combustible. (ie: non-wood based)
 4. Most self-adhering waterproofing membranes require a primer coat prior to installing membrane as well as a protection/drainage board after installing membrane
 5. Refer to manufacturers specifications for installation instructions.

GENERAL NOTES:

4. These specific construction details do not preclude any alternative details, if approved by the Termite Control Officer.

5. These specific construction details are based on best practices known to date. The use of the prescribed construction methods and/or chemical termiteicide treatment will reduce the risk of termite infestation. No methods can provide an absolute guarantee against future infestation.

For information regarding these details, or any additional termite control or procedures, please contact the Termite Control Officer or visit [www.guelph.ca > quicklinks > termites](http://www.guelph.ca/quiclinks).

Tim Myles
519-837-5615 x2967
tim.myles@guelph.ca

1. No demolition or excavated material shall be removed from the property without being inspected and approved for removal by the Termite Control Officer. Contact the Termite Control Officer for a disposal permit.

1.1. Alternatively to, in addition to, the physical termite control barrier illustrated, the soil may be treated beneath with a soil termicide. Contact the Termite Control Officer for details.

JUNE 2012