



City of Edmonton Graffiti Vandalism Audit

Prepared by: MGM Management
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Executive Summary

The City of Edmonton engaged MGM Management, a British Columbia consulting firm, to design and conduct a graffiti vandalism audit in selected neighbourhoods within the City. The first graffiti vandalism audit occurred in November of 2010, with repeat audits in October 2011, 2012, 2013, 2014. This report presents the results for observations made in October 2015, during the sixth graffiti vandalism audit conducted in Edmonton.

MGM Management specializes in environmental auditing, and has conducted seven litter audits (2007, 2009, 2010, 2011, 2012, 2013 and 2014) and five previous graffiti vandalism audits for the City of Edmonton, and over 30 environmental audits for other clients in Canada and the USA.

Graffiti vandalism is a public nuisance offence that causes damage to public and private property. Graffiti is different from litter as it is both a bylaw infraction and criminal act (mischief under the Criminal Code of Canada). During each of Edmonton's graffiti audits the consultant examined graffiti vandalism in the most active graffiti neighbourhoods documented in Edmonton. Edmonton has 367 designated neighbourhoods. It would be cost and time prohibitive to audit all 367 of them for graffiti, therefore a sample of neighbourhoods was used for audit purposes.

Graffiti auditing for 2015 has been done in the same 20 Edmonton neighbourhoods which have been audited since 2010. The neighbourhoods represent those with the highest incidents of graffiti complaints from citizens.

In each of the target neighbourhoods, a "hot spot sample area" and a "random sample area" were selected. Hot spot areas were those where significant reports of graffiti vandalism had been recorded in the City's data system. For each sample area the consultant selected an area of 4 city blocks by 4 city blocks representing a size of approximately 20-25 hectares. For comparison a "random" area, the same approximate size as the "hot spot" was selected in each of the 20 neighbourhoods being audited. These "random areas" were selected from areas within the neighbourhood where there had been fewer or no reports of graffiti.

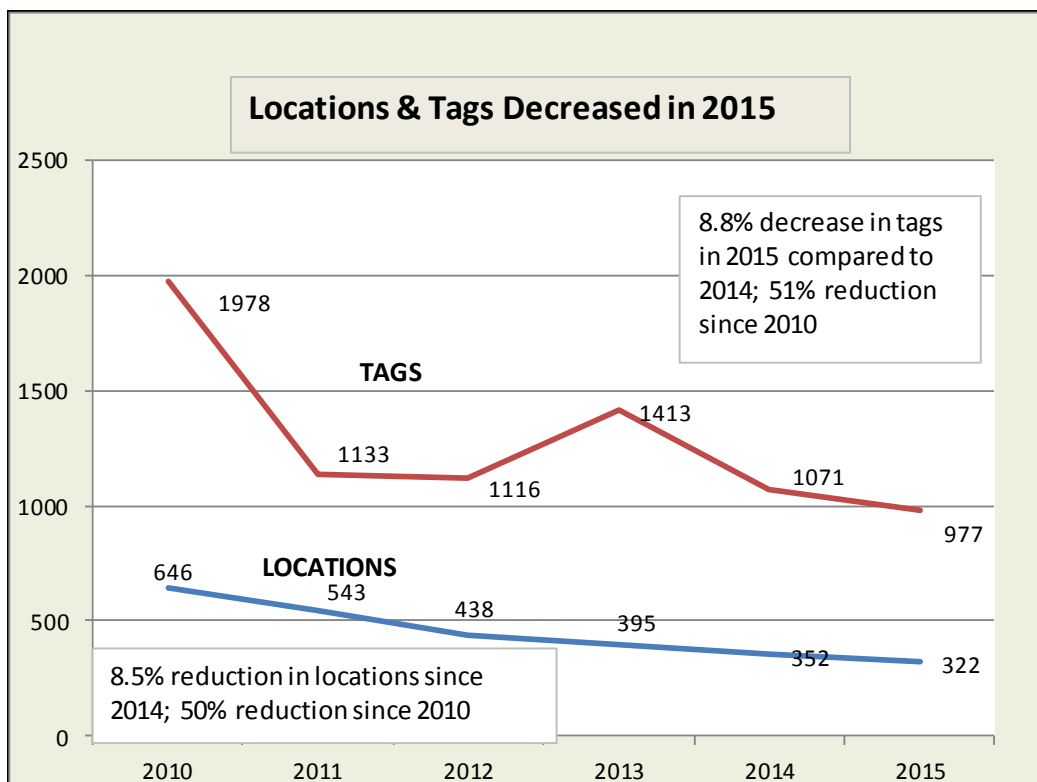
During the 2015 graffiti audit, the audit crew observed graffiti vandalism at 322 locations where graffiti vandalism was present, a reduction from 352 locations in 2014, a significant reduction from 395 locations in 2013. The decrease compared to 2014 represents an 8.5% decrease in locations compared to 2014; and a 50% reduction compared to the first audit conducted in 2010. In the 2015 locations, 977 graffiti tags were observed compared to 1,071 graffiti tags observed in 2014, and 1,413 tags in 2013. This is a decrease of 8.8% over the previous year and represents a 50.6% decrease since the first audit in 2010.

Table ES-1 Summary

	2015	2014	2013	2012	2011	2010
Locations						
Total Locations where graffiti observed	322	352	395	438	543	646
Change from previous year	-8.5%	-10.9%	-9.8%	-19.3%	-15.9%	
Change from 2013	-18.5%					
Change from 2012	-26.5%	-19.6%				
Change from 2011	-40.7%	-35.2%				
Change from 2010	-50.2%	-45.5%				
Graffiti Tags						
Graffiti tags observed in 20 neighbourhoods	977	1,071	1,413	1,116	1,133	1,978
Change from previous year	-8.8%	-24.2%	26.6%	-1.5%	-42.7%	
Change from 2013	-30.9%					
Change from 2012	-12.5%	-4.0%				
Change from 2011	-13.8%	-5.5%				
Change from 2010	-50.6%	-45.9%				

During the 2015 audit there were 8.5% fewer locations observed with graffiti present, within the 20 original neighbourhoods examined, compared to 2014.

Figure ES1 - Locations & Tag Summary



In the Downtown neighbourhood, the downward trend in graffiti tags noted in 2014 (from 325 in 2013 to 225 in 2014) stalled. Graffiti in the Downtown neighbourhood increased in 2015 to 282 tags, a 25% increase however still 13% lower than the number of tags observed in 2013. There was also a small increase in tags in the Strathcona neighbourhood (up 10%).

Significant increases in observed tags occurred in the Beacon Heights, Oliver and McCauley neighbourhoods. Although the percentage increase in tags in Beacon Heights was 200%; the number of tags remains very small rising from 2 tags in 2014 to 6 tags in 2015. The increases in Oliver (from 10 to 26 tags) and in the McCauley neighbourhoods (43 tags in 2014 to 109 tags in 2015) were more significant. The consultant cannot point to why the increase has occurred in McCauley. No single tagger was responsible for more than 6 tags in McCauley, with the majority of tags observed on retail establishment property.

The largest contributors of tags observed during the 2015 audit were from the Downtown, Strathcona and McCauley neighbourhoods. Graffiti observed in these three neighbourhoods account for 52% of the total tags found during the audit, with tags Downtown, Strathcona and McCauley neighbourhoods representing 27%, 14% and 11% respectively.

During the 2015 audit, the audit team traveled over 500 kilometres within Edmonton's 20 sample neighbourhoods, on streets, in alleys and in laneways recording graffiti observations. During the course of this audit over 1,000 photographs were taken recording the graffiti observed. A comprehensive database was created to archive and analyze the data collected. Paper records, electronic data records and digital photographic records were archived to preserve the data gathered.

The method used by the City of Edmonton, as developed by the consultant for this audit, provides a repeatable and unbiased way of auditing neighbourhoods for graffiti vandalism. The neighbourhoods examined in this audit can be examined in the future to determine whether the amount of graffiti vandalism is increasing or decreasing.

During the 2015 graffiti vandalism audit the consultant calculated a Location Intensity Rating (LIR) to examine the amount and intensity of graffiti at each of the 322 locations. For comparison purposes these intensities (LIR) of graffiti are plotted on neighbourhood maps in Appendix B showing graffiti locations and LIRs for 2015.

Consistent with observing fewer graffiti tags in 2015, was the behavior of the graffiti index in 2015 compared to previous years. The graffiti index is a measure of the amount of graffiti observed per geographic area (hectares). This index decreased in 2015 to a combined index of 0.835 compared to 0.932 in 2014 (a decrease of 10.4%); and compared to an index of 1.243 in 2013 (decrease of 33% in two years).

During the 2015 field work, auditors were accompanied by a City of Edmonton Municipal Enforcement Officer, from the Complaints and Investigations Section of the Community Standards Branch. The identification of taggers has been enhanced by having city staff participating in the audit, due to their skills as Municipal Enforcement Officers in reading tagger names.

During the 2015 audit the number of taggers observed was 418 compared to 400 in 2014, 424 taggers in 2013, 305 graffiti taggers in 2012 and 379 in 2011.

Most graffiti tags are small in size covering less than 0.185 sq. m (2sq.ft.). In the current 2015 audit the number of small tags was 841. This is lower than the 891 observed in 2014. In the 2015 audit 86% of tags were small tags compared to 83% in 2014. A similar proportion was noted in medium sized tags (>2sq.ft. <9sq.ft.). There were 8% in 2015 compared to 11% in 2014.

The graffiti observed in 2015 was predominantly “marker / plain” graffiti (94% in 2015 compared to 92% in 2014 and 93% in 2013). This is graffiti that is textual or stylized in nature, and is not artistic in its design.

The consultant noted that the proportion of total graffiti on city assets (signs, ETS, park furniture etc.) has increased in 2014 and in 2015. Graffiti on City property increased from 12% of all tags in 2014 to 17% of all tags in 2015.

Commercial waste bins, parking lot barricades, signs and posts continue to be common targets for taggers. Private residential and multi-family residential properties are often targets of graffiti vandals, especially on fences and garages in back alleys and laneways. A continuing observation is that murals, throughout the City, were not generally defaced by graffiti tags. This reinforces previous observations that in general graffiti vandals avoid tagging murals.

Introduction & Background

Graffiti vandalism is a property crime that places a financial burden on public and private property owners. Graffiti vandalism defaces property, resulting in significant cleanup and prevention efforts and remediation costs in a large municipality like Edmonton.

The City of Edmonton's Capital City Clean Up (CCCU) program operates an active Graffiti Management Program (GMP). The Capital City Clean Up program provides support to property owners in understanding graffiti vandalism, removing graffiti, and engages the community in sharing the responsibility for graffiti vandalism prevention and removal.

Due to increased public concern and awareness, Community Standards Bylaw 14600, section 9, was amended effective April 1, 2008, requiring owners to remove graffiti vandalism from their properties upon notification. Community Standards bylaw enforcement allows for the issuing of a \$250 ticket in the event of non-compliance. The City can also cause a forced cleaning to be implemented under the Municipal Government Act, with municipal assets conducting the cleanup. These costs are transferred back to the property owner by adding the cost to the tax roll for the specific property.

In 2008, in order to increase enforcement and removal, CCCU proactively created an inventory of graffiti vandalism in the City. In this inventory it was not possible to collect detailed information on the graffiti vandalism at each location. The inventory served as a starting point for graffiti enforcement in the spring of 2009. Subsequently, a second inventory was completed by City of Edmonton graffiti removal staff from November 1, 2009 to April 1, 2010.

Since 2008, information regarding graffiti has been gathered by the City through complaints and documentation from bylaw officers. This information has been entered into the City's "POSSE" data management system for investigation and follow-up. Staff determined that some graffiti data was inaccurate or incomplete causing difficulties in follow-up activities for bylaw officers to conduct enforcement. Data entered into the City's "POSSE" data management system formed the basis of designing the first graffiti audit in 2010, and was used, as the source of data, in choosing which neighbourhoods would be sampled in graffiti vandalism audits. Information assembled on taggers and locations of graffiti is shared with the Edmonton Police Service to assist police in their investigations and to improve the success of charges laid for graffiti offences.

In October 2010, the City and MGM Management developed and implemented a method for auditing the graffiti vandalism in selected neighbourhoods in Edmonton. Using these audit techniques the City is now able to compare the occurrence of graffiti offences in given neighbourhoods and has used this tool to compare graffiti vandalism intensity from one year to the next.

City bylaw enforcement staff have issued clean up notices to property owners based on the information gathered from the Graffiti Vandalism Audits taking place from 2010 to 2015. This process has proven to be effective in identifying and reducing graffiti occurrences in Edmonton.

Commencing in mid-October 2015, the City conducted its sixth Graffiti Vandalism Audit. The original 20 neighbourhoods, examined in each year starting in 2010 were audited again in 2015.

By conducting graffiti audits Edmonton has developed a method for evaluating the occurrence and the intensity of graffiti vandalism in selected neighbourhoods. The results provide unbiased information about the street names (tagger names) of graffiti vandals while examining the types and size of graffiti vandalism and target properties where graffiti is placed.

This report describes how the 2015 graffiti audit was conducted and provides results based upon field audit observations.

The debate on graffiti street art versus graffiti vandalism has long been a contentious issue for Edmontonians. The City of Edmonton is committed to promoting safer, cleaner communities by reducing and preventing graffiti vandalism, while at the same time recognizing the artistic and cultural value street art can add when done tastefully, with permission and so that it does not contravene the Community Standards bylaw.

Audit Methodology

Before the 2010 audit was conducted, the City of Edmonton (COE) searched existing literature sources to determine what services were available to conduct graffiti vandalism audits. It became evident that methods for auditing graffiti vandalism were not readily available in Canada or elsewhere. City of Edmonton staff in cooperation with MGM Management, a B.C. based environmental consulting firm, designed a method for auditing graffiti vandalism. The baseline audit was carried out in early November 2010. Subsequently a repeat graffiti vandalism audit was done in late October 2011, 2012, 2013, 2014 and 2015 to determine changes in graffiti behaviour as compared to the baseline work.

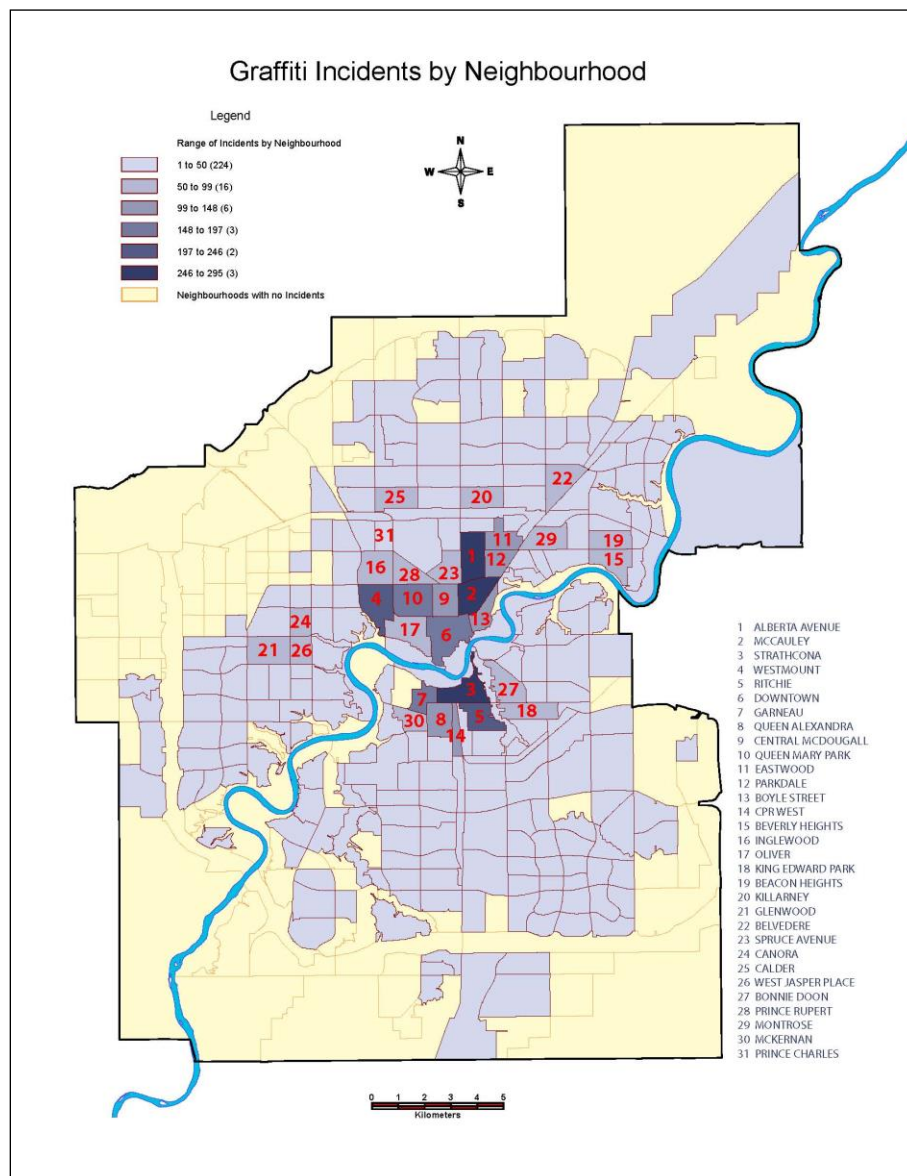
MGM Management has extensive experience designing and conducting environmental audits. MGM Management has completed over 30 environmental audits for municipal and provincial clients.

Edmonton's use of a standardized method of observing graffiti, as a periodic audit of portions of the city, has become a reliable way of examining whether the occurrence of graffiti vandalism is changing over time. This method was recently adopted by the City of Hamilton in Ontario, who after consultation with the City of Edmonton, chose to use the same methodology for auditing graffiti vandalism in that municipality.

City Graffiti Vandalism Observations

Graffiti vandalism occurrence data was plotted on a map to indicate where in the city complaints were observed over the period 2008 – 2010. The map below was then created to show where graffiti complaints and observations by City staff were originally documented. This data analysis ranked the number of complaints or observations of graffiti vandalism, by neighbourhood, resulting in neighbourhoods of interest.

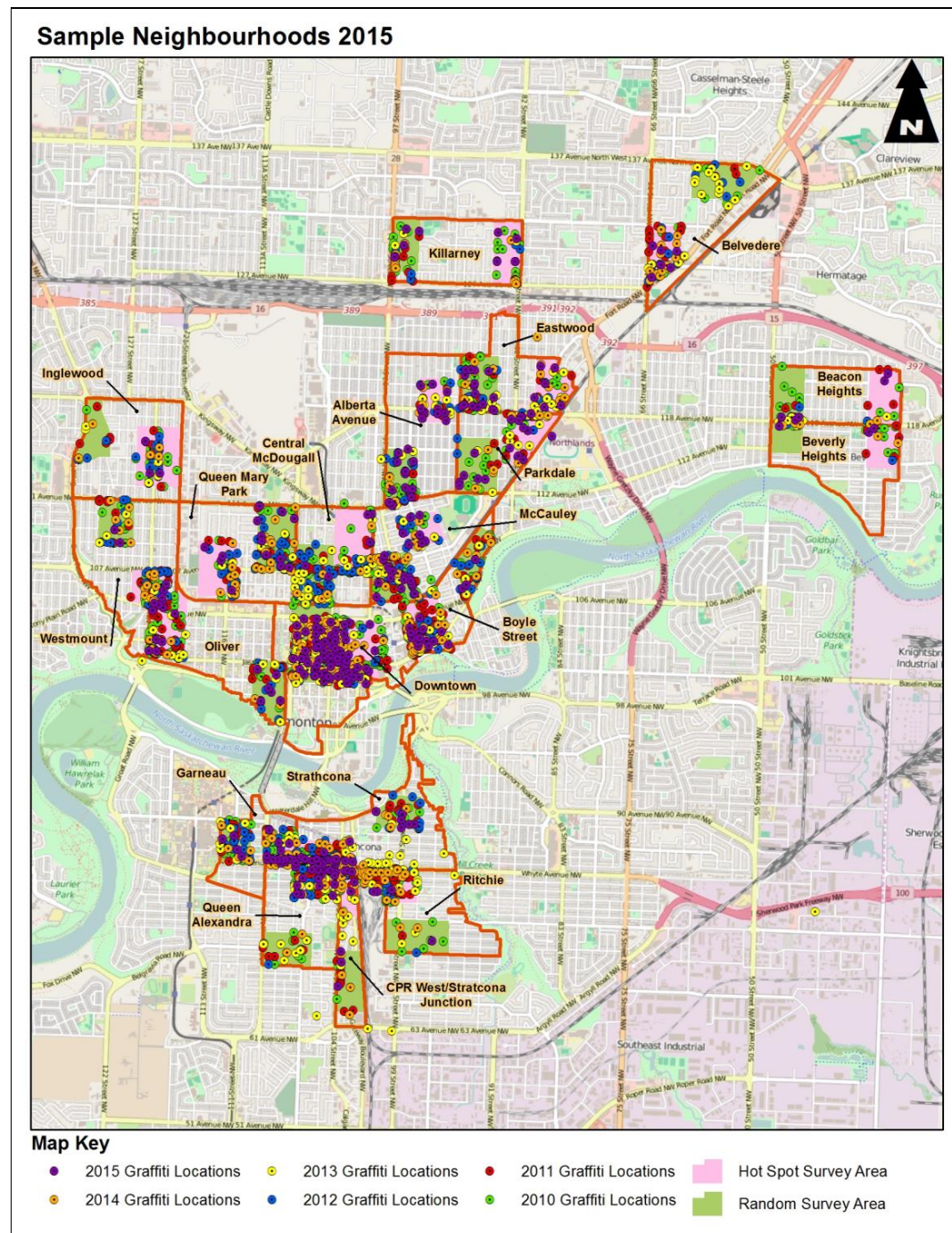
Figure 1 - City Graffiti Observations (2008 - 2010)



Choosing Neighbourhoods for Auditing

The City of Edmonton's graffiti data was used in 2010 to select the 20 original neighbourhoods that had the most significant reports of graffiti occurrences. The same neighbourhoods were audited in from 2010 to 2014 and for this audit in 2015.

Figure 2 - Hot Spot & Random Sample Areas



Selecting Hot Spot & Random Sample Areas

Upon considering reported graffiti vandalism data, the locations of complaints and bylaw enforcement observations were examined based upon available municipal addresses within neighbourhoods of interest. From this assessment, the consultant identified an area within each target neighbourhood as a “hot spot”, meaning an area within each neighbourhood that historically had the largest occurrences of graffiti vandalism for that neighbourhood. For control purposes a second sample area within each neighbourhood was selected and termed a “random” sample area. These random areas were chosen to act as a control during the audit, regardless of whether or not there were documented graffiti vandalism activities in that part of the neighbourhood.

In order to keep neighbourhood sample size manageable, the consultant selected areas that were approximately 4 city blocks by 4 city blocks in size. This approximate size of 16 square city blocks was used for both “hot spot” and “random” sample areas. Using geospatial software techniques the exact geographical areas of each hot spot and random area were calculated, in hectares as presented in Table 1, below.

Table 1 - Area of Hot Spots & Random Sample (Hectares)

Type	Neighbourhood	Area (Hectare)	Area - (Sq. Kilometre)	Type	Neighbourhood	Area (Hectare)	Area - (Sq. Kilometre)
Hot Spot	Alberta Avenue	22.630	0.226	Hot Spot	Inglewood	43.320	0.433
Random	Alberta Avenue	28.122	0.281	Random	Inglewood	23.952	0.240
Hot Spot	Beacon Heights	28.684	0.287	Hot Spot	Killarney	29.299	0.293
Random	Beacon Heights	28.751	0.288	Random	Killarney	23.275	0.233
Hot Spot	Belvedere	25.922	0.259	Hot Spot	McCauley	19.642	0.196
Random	Belvedere	34.713	0.347	Random	McCauley	31.754	0.318
Hot Spot	Beverley Heights	22.595	0.226	Hot Spot	Oliver	32.319	0.323
Random	Beverley Heights	16.177	0.162	Random	Oliver	28.786	0.288
Hot Spot	Boyle Street	34.843	0.348	Hot Spot	Parkdale	30.974	0.310
Random	Boyle Street	22.789	0.228	Random	Parkdale	29.567	0.296
Hot Spot	Central McDougall	40.769	0.408	Hot Spot	Queen Alexandra	24.777	0.248
Random	Central McDougall	37.056	0.371	Random	Queen Alexandra	26.733	0.267
Hot Spot	CPR West/Strathcona Junction	13.335	0.133	Hot Spot	Queen Mary Park	34.241	0.342
Random	CPR West/Strathcona Junction	26.033	0.260	Random	Queen Mary Park	40.592	0.406
Hot Spot	Downtown	50.673	0.507	Hot Spot	Ritchie	25.696	0.257
Random	Downtown	48.353	0.484	Random	Ritchie	34.079	0.341
Hot Spot	Eastwood	28.204	0.282	Hot Spot	Strathcona	23.828	0.238
Random	Eastwood	33.188	0.332	Random	Strathcona	21.288	0.213
Hot Spot	Gameau	16.279	0.163	Hot Spot	Westmount	21.045	0.210
Random	Gameau	20.389	0.204	Random	Westmount	24.678	0.247
Average area Sample size						28.70	0.287
						Hectare	Sq. Km

Sample areas averaged about 29 hectares (or just under 1/3 of a square kilometre in size) and proved to be a manageable size for field audit personnel. Due to the presence of alleys and laneways in some neighbourhoods and the shapes of some neighbourhoods, not all sample areas were square configurations.

Appendix A provides an overview map of the 20 neighbourhoods and the graffiti audit areas examined within those neighbourhoods.

Appendix B provides detailed maps of graffiti observation locations in each of the original 20 neighbourhoods examined during the 2015 audit, and compares graffiti intensity to previous results.

Data Management Design

Through consultation with City staff, it was determined which attributes of graffiti would be collected and documented to describe the occurrence of graffiti in the selected neighbourhoods.

In order to provide the City with the ability to probe the data after collection, a functional database was created using Filemaker Pro software.

Appendix C presents the structure of the database designed to capture and analyze the graffiti data collected in the audit.

Field Data Collection

Between October 13, 2015 and October 23, 2015, two field audit staff conducted the graffiti vandalism data collection in Edmonton. Since the 2012 audit, a Municipal Enforcement Officer with the Community Standards Branch has accompanied field auditors. The accompaniment of these City staff members improved the identification of tagger names during the field audit work.

The field audit team drove all streets, alleys and laneways within each of the selected neighbourhoods. Where graffiti vandalism was observed detailed observations were documented by the auditors for each location. Both “hot spot” and “random” areas were audited by the same field team.

At each location, where graffiti vandalism was observed, details of its characteristics were documented. Each location was given a unique Graffiti Location ID number which identified that location.

For each Graffiti Location ID the following information was catalogued as illustrated below:

Table 2 - Graffiti Location

Graffiti Location					
Graffiti Location ID	Photo Date	Latitude	Longitude	Site Type	Neighbourhood
Street Number	Street Name	Intersection1	Intersection 2		

For each piece of graffiti, the following information was catalogued as illustrated in Table 4.

Table 3 - Graffiti Details

Graffiti Details					
Graffiti ID	Photo Time	Target Property	Target Category	Target Item	Category
Size	Descriptor	Tagger	Crew	Crew Name	

APPENDIX D presents the data entry form used by field auditors, and provides additional detail documented for each piece of graffiti.

Table 4 - Size of Graffiti

The size of the graffiti observed was categorized as follows:	
Extra Small	< 1 square foot or < 0.09 Square metres
Small	> 1 sq.ft. < 2 sq.ft or > 0.09 sq.m. < 0.185 sq.m.
Medium	> 2 sq.ft. < 9sq.ft or > 0.185 sq.m. < 0.836 sq.m
Large	> 9 sq.ft. < 20 sq.ft or > 0.836 sq.m. < 1.186 sq.m.
Extra Large	> 20 sq.ft. or > 1.186 sq.m

The style of the graffiti observed was documented.

Table 5 - Style of Graffiti

The categories chosen were:	
Marker Plain Text	- Textual writing placed on a target item
Artistic tag	- A picture or a form of painted drawing placed on a target
Outline Bubble – No Fill	- Outline textual or picture, not filled with paint or medium
Outline Bubble – 1 Colour	- Outline textual or picture, 1 colour fill of paint or medium
Outline Bubble – 2 Colour	- Outline textual or picture, 2 colours fill of paint or medium
Outline Bubble – Multi Colour	- Outline textual or picture, multiple colours of paint or medium

Table 6 - Descriptor of Graffiti

Field auditors documented a description of the graffiti observed in the following categories:		
-Hate motif	- Stencil	- Vulgar picture
-Political motif	-Text only	-Vulgar text
-Racist	- Other distinguishing	- Picture
-Splash/ Slash		

Target Property & Target Category

For each graffiti observation location, a determination, to the best of the auditors' abilities, was made as to whether the property on which the graffiti was observed was owned by the City of Edmonton, other levels of government or was private property.

To refine the observations further, a target category was selected with some more common examples listed below:

City of Edmonton - corporate property, ETS shelters, LRT assets, traffic barriers, traffic signs, other

Government - federal or provincial, Canada Post, schools, colleges, universities, hospitals

Private - residential property, waste company bins, commercial, retail, industrial

For a full and detailed listing of all target categories, see Appendix D, Field Audit Data Form.

Similar to previous audits the location of each graffiti occurrence was documented using a Garmin GPS Map 76CSx global positioning system device with a specified accuracy of ~1 to 3 metres. The latitude and longitude of each location was assigned a database ID and was documented, as well as a description of the location by closest street intersections. Whenever possible the municipal address where the graffiti vandalism was observed was recorded. The consultant generated detailed maps for each graffiti location observed. They appear in Appendix B of this report. These maps compare 2015 locations to those observed in 2014.

Each observation determined what the graffiti was on and who owned the property, for example waste disposal bins owned by private companies or those owned by the City of Edmonton. Other common target locations were recorded such as building walls, Canada Post boxes, EPCOR utility boxes and private fences and garages.

At each location, where graffiti was observed, digital photos were taken of each separate graffiti tag. The date and time of each photo was digitally stamped onto the photograph, and the time noted on the electronic field data form and subsequently entered into the project database. These photographs form part of the permanent archival record of this audit.

Observations made during the 2015 graffiti vandalism audit were entered into an iPad mobile tablet device. This device was used to record graffiti observations in the field and then to upload the data to a database for back up and analysis. Paper based forms were also created during the graffiti vandalism audit to assure data security.

Observations were taken during available daylight hours commencing normally at 07:30 am and ending about 5:30 PM, when darkness prevented further work. Observations were made by slowly driving a vehicle along every street, roadway, alley and laneway within a selected neighbourhood and noting the occurrences of graffiti vandalism. The assistance provided by Municipal Enforcement Officers was beneficial for improving the opportunity to observe and identify graffiti. We recommend that Municipal Enforcement Officers continue to assist in future audits.

The field audit team worked during weekdays and weekend periods in order to complete the work in the time allotted, and to take advantage of lesser traffic volumes in the downtown area on weekends (e.g. Sunday for the Downtown and Boyle Street neighbourhoods).

Calculating a Graffiti Index

A method of comparing the intensity of graffiti at a neighbourhood level was created and used in the 2011, 2012, 2013, 2014, and 2015 audits. It is called the “graffiti index”.

A graffiti index is a way of expressing the observations of graffiti in an indexed numerical comparison of the data. The index is calculated by expressing the total number of documented graffiti tags made in a given sample area (i.e. the number of tags observed divided by the area of the sample zone in hectares). Consider, for example, that auditors observed 70 total occurrences of graffiti in the combined hot spot and random sample areas and that the geographical area sampled was determined to be 50.7 Hectares. In this example, the graffiti index for this neighbourhood is calculated as:

Neighbourhood	# of Graffiti tags	Area (Hectare)	Index
Sample Neighbourhood	70	50.7	1.38

A graffiti index was then calculated for each hot spot and random sample area, as well as a combined index for each neighbourhood. Using an index allows comparison between neighbourhoods and for comparison between hot spot sample areas and random sample areas within a given neighbourhood. Using an index method also allows for comparison of the intensity of graffiti in these same areas in different years.

Details of the graffiti index analysis are presented in the Results of Audit section.

Location Intensity Rating

At each location a Location Intensity Rating (LIR) was calculated as a method to indicate the relative intensity at a specific location within a neighbourhood. The LIR differs from the graffiti index in that the graffiti index measures the intensity of the amount of graffiti in the entire neighbourhood or hot spot/random area. The LIR measures the intensity of the graffiti itself at each location where graffiti is found. It also includes other factors other than just the amount of graffiti. The factors that form the LIR are described on page 41. Appendix B, presents the LIR results in map format illustrating the relative location intensity of all sites observed in the audit.

Examining Graffiti Vandals

The audit data collected allows the audit team to document “tagger signatures” and “crew names” of graffiti vandals or groups. A “tagger” is a term used for the street name or identifying mark that a graffiti vandal uses. These “tags” normally are used consistently by the person vandalizing properties with graffiti. At times, vandals operate within sub-culture groups or “crews” that may operate together or where taggers may be loosely affiliated with each other in some way. In some cities, crews have been identified with street gangs. However, it cannot be assumed that “crews” and “gangs” are the same or that they operate with the same purposes in mind.

In discussions with the Edmonton Police Service the city has learned from Constable Ryan Katchur, who specializes in graffiti investigations, that less than 5% of tagging in Edmonton is gang related.

Details of the graffiti taggers and crews are presented in the Results of Audit section.

Examining the Size & Type of Graffiti

The graffiti audit categorized observations into five sizes, from < 1 square foot (< 0.09 Square metres) up to extra-large graffiti items of over 20 square feet (>1.186 square metres). Details of the graffiti size analysis are presented in the Results, Analysis & Discussion Section following.

Similarly, six types of graffiti ranging from simple text, to outline bubbles and pictures were documented.

Details of the graffiti type analysis are presented in the Results of Audit section

Examining Target Property & Categories

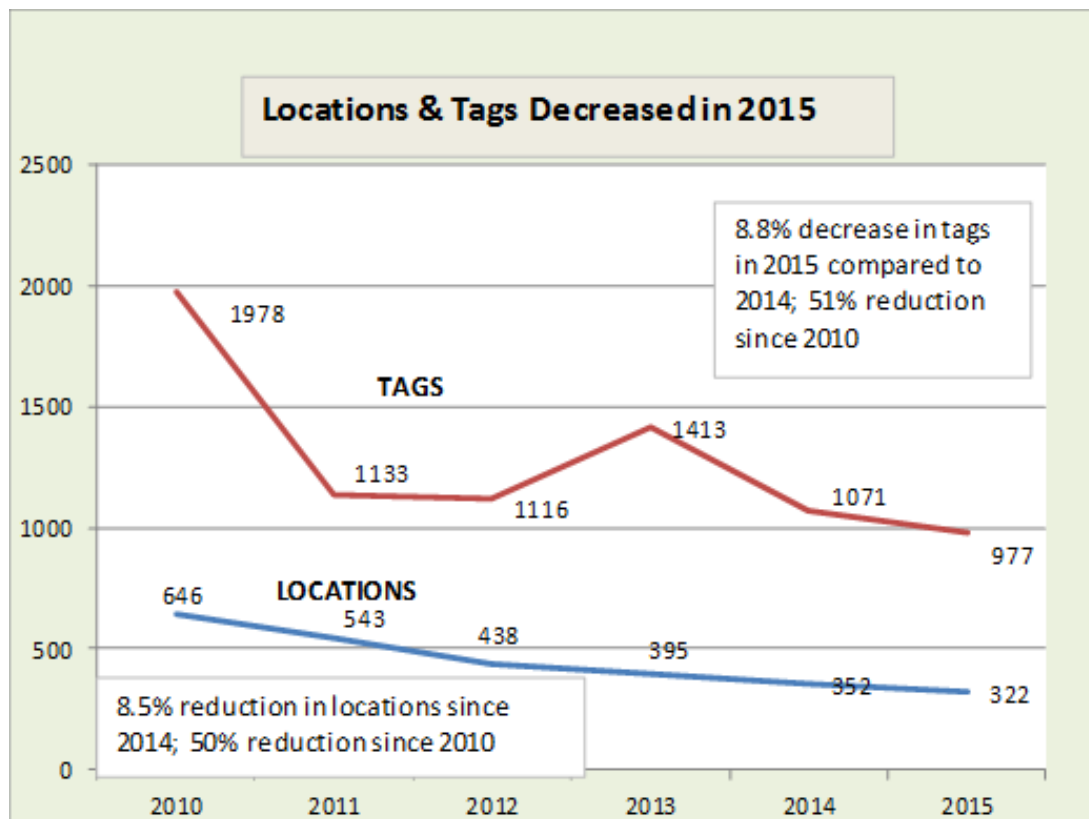
As described in the Methodology section above, observations were made about the type of property on which graffiti was observed. During the audit, observations were made about the ownership and the categories of property as well.

Details of the graffiti targets and categories are presented in the Results of Audit section

Results of the Edmonton Audit

During the 2015 graffiti audit, the audit crew observed graffiti vandalism at 322 locations compared to 352 in 2014, 395 locations in 2013 and 438 locations in 2012. The audit found an 8.5% decrease between the numbers of locations found in 2015 compared to those in 2014. At these locations, 977 tags were observed compared to 1,071 tags documented in 2014, showing a decrease of 8.8% compared to 2014, and a decrease of 51% since 2010.

Figure 3 - Locations & Tag Count Summary



Neighbourhood Graffiti Index & Rankings

A graffiti index was determined for each overall neighbourhood examined and for each individual "hot spot" and "random" sample area. Table 7 presents the "graffiti index" for each sample area.

Table 7 - Neighbourhood Graffiti Index Results 2015

	Graffiti in Hot Spot 2015	Area Hot (Ha)	Index Hot Spot 2015	Index Hot Spot 2014	Index Hot Spot 2013	Graffiti in Random 2015	Area Random (Ha)	Index Random 2015	Index Random 2014	Index Random 2013
Alberta Ave	29	22.63	1.282	1.105	0.972	33	28.122	1.173	0.284	0.605
Beacon Heights	4	28.68	0.139	0.070	0.209	2	28.751	0.070	0.000	0.243
Belvedere	10	25.92	0.386	1.813	0.964	0	34.713	0.000	0.000	0.893
Beverly Heights	1	22.60	0.044	0.266	0.000	2	16.177	0.124	0.247	0.124
Boyle Street	37	34.84	1.062	2.583	1.808	6	22.789	0.263	0.395	0.395
Central McDougall	6	40.77	0.147	0.172	0.343	11	37.056	0.297	0.432	0.783
CPR West/Strathcona Junction	35	13.33	2.625	4.275	3.225	3	26.033	0.115	0.346	0.653
Downtown	164	50.67	3.236	2.033	2.112	96	48.353	1.985	2.523	4.508
Eastwood	18	28.20	0.638	0.674	2.376	46	33.188	1.386	0.422	1.175
Garneau	29	16.28	1.781	3.501	6.266	5	20.389	0.245	0.736	0.883
Inglewood	3	43.32	0.069	0.092	0.185	0	23.952	0.000	0.125	0.083
Killarney	5	29.30	0.171	0.205	0.785	9	23.275	0.387	0.859	0.129
McCauley	14	19.64	0.713	0.611	0.356	95	31.754	2.992	0.976	1.732
Oliver	9	32.32	0.278	0.217	1.145	17	28.786	0.591	0.104	0.278
Parkdale	13	30.97	0.420	0.161	1.259	7	29.567	0.237	0.135	0.406
Queen Alexandra	68	24.78	2.744	3.108	4.480	0	26.733	0.000	0.075	0.337
Queen Mary Park	6	34.24	0.175	0.584	0.146	19	40.592	0.468	0.665	0.468
Ritchie	21	25.70	0.817	3.036	0.195	1	34.079	0.029	0.000	0.352
Strathcona	133	23.83	5.582	5.204	0.336	9	21.288	0.423	0.517	9.160
Westmount	7	21.05	0.333	0.855	0.336	4	24.678	0.162	0.365	0.000
Total	612		1.132	Average		365	Average	0.547	0.460	Average
Comparison - Original 20 neighbourhoods				1.528	1.375					1.160

The graffiti index is a way of examining the observations of graffiti in an indexed numerical comparison. Above in Table 7, we present the graffiti indexes for the "hot spot" and the "random areas." In Table 8, on the next page, the combined graffiti index for each neighbourhood is presented.

For the hot spot areas within each neighbourhood, the average graffiti index was lower in 2015 at 1.132, compared to 1.528 in 2014. For the random sample areas the average graffiti index increased slightly from 0.460 in 2014 to 0.547 in 2015, indicating similar graffiti activity in these sample areas during the current year.

Table 8 - Combined Neighbourhood Graffiti Index Results 2015

	Total Graffiti in Neighbourhood	Total Area Ha	2015 Combined Index	2014 Combined Index	2013 Combined Index	2012 Combined index	2011 Combined Index	2010 Combined Index
Alberta Ave	62	50.8	1.222	0.650	0.768	1.281	0.414	1.380
Beacon Heights	6	57.4	0.104	0.035	0.226	0.087	0.209	0.450
Belvedere	10	60.6	0.165	0.775	0.924	0.676	0.742	0.480
Beverly Heights	3	38.8	0.077	0.258	0.052	0.181	0.181	0.310
Boyle Street	43	57.6	0.746	1.718	1.249	1.423	2.290	3.110
Central McDougall	17	77.8	0.218	0.296	0.553	1.208	1.105	1.750
CPR West/Strathcona Junction	38	39.4	0.965	1.676	1.524	0.432	0.660	0.580
Downtown	260	99.0	2.626	2.272	3.282	1.464	2.797	4.420
Eastwood	64	61.4	1.042	0.538	1.727	0.766	0.358	1.030
Garneau	34	36.7	0.927	1.964	3.273	2.727	0.818	3.490
Inglewood	3	67.3	0.045	0.104	0.149	0.357	0.431	0.830
Killarney	14	52.6	0.266	0.495	0.495	0.894	0.476	1.080
McCauley	109	51.4	2.121	0.837	1.206	1.265	0.778	1.480
Oliver	26	61.1	0.425	0.164	0.736	0.442	1.326	1.900
Parkdale	20	60.5	0.330	0.149	0.842	0.396	0.198	0.680
Queen Alexandra	68	51.5	1.320	1.534	2.330	0.330	0.854	1.340
Queen Mary Park	25	74.8	0.334	0.628	0.321	1.176	0.788	0.800
Ritchie	22	59.8	0.368	1.305	0.284	0.552	0.586	1.360
Strathcona	142	45.1	3.147	2.992	4.500	2.549	2.327	4.720
Westmount	11	45.7	0.241	0.591	0.416	1.662	0.984	2.580
Average								
Total	977	1,149	0.835					
Comparison - Original 20 neighbourhoods				0.932	1.243	0.993	0.916	1.689

In examining Table 8 it is clear where the decreases in graffiti vandalism were observed in since the baseline audit in 2010. Significant reductions were noted in the Ritchie, Boyle and Garneau neighbourhoods in 2015. The index in the Downtown neighbourhood was similar to the previous year. In total the combined graffiti index dropped from 0.932 in 2014 to 0.835 in 2015, a 10.4% reduction.

Figure 4 – Combined Graffiti Index Results - by Neighbourhood

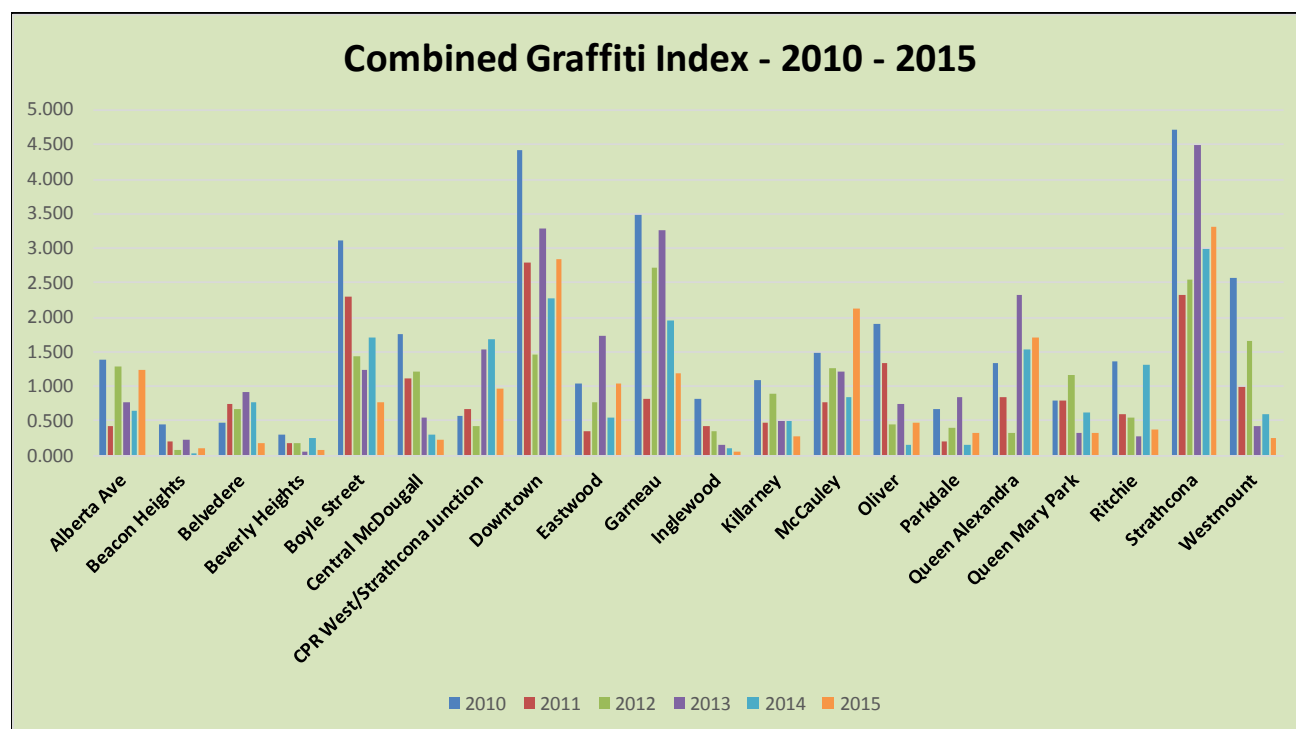


Table 9 - Graffiti Occurrence by Neighbourhood Sampled

2015				2014			
Neighbourhood	Locations	Tags Observed	% of total observed	Neighbourhood	Locations	Tags Observed	% of total observed
Alberta Avenue	26	62	6.3%	Alberta Avenue	16	33	3.1%
Beacon Heights	5	6	0.6%	Beacon Heights	1	2	0.2%
Belvedere	6	10	1.0%	Belvedere	13	47	4.4%
Beverly Heights	3	3	0.3%	Beverly Heights	6	10	0.9%
Boyle Street	18	43	4.4%	Boyle Street	32	99	9.2%
Central McDougall	5	17	1.7%	Central McDougall	7	23	2.1%
CPR/Strathcona Junction	8	38	3.9%	CPR/Strathcona Junction	17	66	6.2%
Downtown	73	260	26.6%	Downtown	62	225	21.0%
Eastwood	23	64	6.6%	Eastwood	13	33	3.1%
Garneau	18	35	3.6%	Garneau	27	72	6.7%
Inglewood	3	3	0.3%	Inglewood	5	7	0.7%
Killarney	9	14	1.4%	Killarney	8	26	2.4%
McCauley	24	109	11.2%	McCauley	18	43	4.0%
Oliver	12	26	2.7%	Oliver	9	10	0.9%
Parkdale	18	20	2.0%	Parkdale	8	9	0.8%
Queen Alexandra	18	68	7.0%	Queen Alexandra	19	79	7.4%
Queen Mary	14	25	2.6%	Queen Mary	24	47	4.4%
Ritchie	4	22	2.3%	Ritchie	26	78	7.3%
Strathcona	26	141	14.4%	Strathcona	25	135	12.6%
Westmount	9	11	1.1%	Westmount	16	27	2.5%
							0.0%
Change since 2014	-8.5%	-8.8%	100%	Change since 2013	-11%	-24%	100.0%

In 2015, the Downtown and the Strathcona neighbourhoods once again were the most intensely tagged areas audited. This has been a consistent finding in all the graffiti audits conducted in Edmonton since 2010. Boyle Street has been previously observed as a significant source of graffiti, however in 2015 this neighbourhood showed major reductions in graffiti tagging dropping out of the top five most tagged neighbourhoods.

Significant observations include:

- McCauley showed a large increase in graffiti activity in 2015, with 109 tags observed compared to 43 in 2014, an increase of 159%
- Downtown; graffiti increased from 225 in 2014, to 260 tags in 2015, a 15% increase.
- Strathcona; graffiti increased from 135 in 2014, to 141 a 4% increase.
- Boyle Street; graffiti decreased from 99 in 2014, to 43 in 2015, a 57% decrease.
- Queen Alexandra; graffiti decreased from 79 in 2014, to 68 in 2015, a 14% decrease.
- Ritchie; graffiti decreased from 78 in 2014, to 22 in 2015, a 72% decrease.
- Garneau; graffiti decreased from 72 in 2014, to 44 in 2015, a 39% decrease.

Table 10 - Comparison of Graffiti 2015 vs. 2014 Neighbourhoods

	Graffiti Tags 2015	Change from 2014	Graffiti Tags 2014
Neighbourhood			
Alberta Avenue	62	88%	33
Beacon Heights	6	200%	2
Belvedere	10	-79%	47
Beverly Heights	3	-70%	10
Boyle Street	43	-57%	99
Central McDougall	17	-26%	23
CPR/Strathcona Junction	39	-41%	66
Downtown	260	16%	225
Eastwood	64	94%	33
Garneau	34	-53%	72
Inglewood	3	-57%	7
Killarney	14	-46%	26
McCauley	109	153%	43
Oliver	26	160%	10
Parkdale	20	122%	9
Queen Alexandra	68	-14%	79
Queen Mary	25	-47%	47
Ritchie	22	-72%	78
Strathcona	141	4%	135
Westmount	11	-59%	27
	977	-8.8%	1,071

In Table 10, above, we note changes in observed graffiti activity. As mentioned earlier, graffiti in the Alberta Avenue, Beacon Heights, Eastwood, Downtown, and McCauley neighbourhoods, increased significantly in the 2015 audit compared to the previous year.

Perhaps more notable were those neighbourhoods where graffiti activities decreased. Graffiti vandalism decreased by 70% or more in Ritchie, Beverly Heights and Belvedere neighbourhoods, and significantly in CPR/ Strathcona Junction, Boyle Street, Garneau, Queen Mary and Westmount neighbourhoods.

In each of the graffiti vandalism audits, unidentifiable (unknown) taggers are the largest single tagger group identified. When identifiable tags are examined, a relatively small number of individual taggers account for a significant amount of the graffiti in Edmonton. In 2015 there were 190 unknown tags observed (19.4% of total tags) compared to 271 tags (25.3%) in 2014 with 74.7% of tags being observed with readable tag names.

In the 2015 audit 418 taggers were observed, compared to 400, in 2014 and 424 taggers in 2013.

Appendix J presents a complete list of tagger names.

Table 11 - Prominent Taggers Observed

Most Active Taggers - 2015					
Rank	# Tags	Tagger	% of total Identified Tags	Comments	
1	48	Daes	4.9%		
2	35	Rush	3.6%		
3	27	Case	2.8%		
4	19	Sem	1.9%		
5	16	Cake	1.6%		
6	14	Post	1.4%		
7	10	Enots	1.0%		
8	10	Beez	1.0%		
9	8	Faire	0.8%		
10	8	Kurupt	0.8%		
11	7	Akes	0.7%		20.7%
12	7	Champion	0.7%		Top 10 Taggers
13	7	Karma	0.7%		
14	7	Krizma	0.7%		
15	7	Wank	0.7%		
16	7	Zodiak	0.7%		
17	6	Bazr	0.6%		
18	6	Goblin	0.6%		
19	6	Rupert	0.6%		
20	6	Try Out	0.6%		26.7%
21	5	Ace	0.5%		Top 20 Taggers
22	5	Adlib	0.5%		
23	5	DeeIvas	0.5%		
24	5	SF Skechy	0.5%		
25	5	Style	0.5%		
26	5	Tech9	0.5%		
27	4	Azer	0.4%		
28	4	Azor	0.4%		
29	4	Cam	0.4%		
30	4	Jayan	0.4%		
					31.4%
					Top 30 Taggers
Tags by 30 Taggers Total tags in 2015		303	31.0%	Top 30 taggers	
		977	Total tags		
All Identified tags		787	81%		
Unknown tags 2015		190	19%		

In the 2015 observations, some new and significant taggers have surfaced in Edmonton. The most observed tagger had 48 tags (Daes) recorded in 2015, compared to the most observed tagger in 2014

with 25 tags(Faire). The tagger identified as Faire was observed only 8 times compared to 25 tags in 2014, 16 tags in 2013.

Other significant taggers to note from the 2015 audit are: Rush, Case, Sem, and Cake.

Table 12 on the next page, details the most active taggers by neighbourhood during the 2015 graffiti vandalism audit.

Table 12 - Neighbourhood Graffiti Detail & Taggers - 2015

Neighbourhood	Graffiti Observed in Neighbourhood	Count by tagger	Tagger	Count by tagger	Tagger	Count by tagger	Tagger
Alberta Avenue	62	20	Unknown	1	BKAllDay	1	G
		3	Kurupt	1	Bonnie C3	1	Hazebott
% of total graffiti 2015	6.3%	2	Lost	1	C5	1	J
% of total graffiti 2014	3.1%	2	Makl	1	Case	1	King
% of total graffiti 2013	2.8%	2	MW	1	Cromb	1	Lance Cappel
% of total graffiti 2012	5.5%	2	OC	1	Dasign	1	Mash
% of total graffiti 2011	1.9%	2	Propheniox	1	DEANNA	1	MOAR
		2	Rush	1	DopeRev	1	Nomak
		1	Abstract	1	Flail	1	QM
		1	BAK	1	FuccB4;25	1	Rose
						1	Shady
Note: Top 30 taggers, see Appendix G for full list.							
Beacon Heights	6	2	Unknown				
		1	Pat				
% of total graffiti 2015	0.6%	1	PK				
% of total graffiti 2014	0.19%	1	Phylthy Phil				
% of total graffiti 2013	0.92%	1	IRA				
% of total graffiti 2012	0.42%						
% of total graffiti 2011	1.1%						
Belvedere	10	3	Unknown				
		2	Wank				
% of total graffiti 2015	1.0%	2	SED				
% of total graffiti 2014	4.4%	1	Deuce				
% of total graffiti 2013	0.14%	1	Carace				
% of total graffiti 2012	3.5%	1	Aone				
% of total graffiti 2011	4.0%						
Beverly Heights	3	1	Unknown				
		1	C Money				
% of total graffiti 2015	0.3%	1	Eating Animals				
% of total graffiti 2014	0.93%						
% of total graffiti 2013	0.14%						
% of total graffiti 2012	0.59%						
% of total graffiti 2011	0.60%						
Boyle Street	43	13	Unknown	1	Erner	1	Shane T
		4	Case	1	IP	1	Solo
% of total graffiti 2015	4.4%	3	Cake	1	Merbr	1	Tryout
% of total graffiti 2014	9.2%	2	Kazpar	1	Ores	1	Wood Pole
% of total graffiti 2013	5.1%	1	4Heart Life	1	Pin MC	1	Zombie
% of total graffiti 2012	6.9%	1	Ace	1	RA		
% of total graffiti 2011	11.7%	1	Awsr	1	Radio 104		
		1	Bazr	1	Rbos		
		1	Bunaa	1	RV		
		1	Champion	1	Search One		

Neighbourhood	Graffiti Observed in Neighbourhood	Count by tagger	Tagger	Count by tagger	Tagger	Count by tagger	Tagger
Central McDougall	17	2	Unknown	1	Kurupt		
		2	Tupac	1	Karma		
% of total graffiti 2015	1.7%	2	Biane	1	Omae		
% of total graffiti 2014	0.0%	1	Bum Fights	1	Paul		
% of total graffiti 2013	3.0%	1	Curve	1	Rush		
% of total graffiti 2012	7.9%	1	DFA	1	TCU		
% of total graffiti 2011	7.6%	1	Jerk.ca	1	Zodiak		
CPR West/Strath Junc.	39	16	Unknown	1	Caver	1	Lil Boy
		4	Enots	1	Daeg	1	Mack
% of total graffiti 2015	4.0%	2	Beez	1	Drip	1	Pope Slid
% of total graffiti 2014	6.2%	2	Dasignz	1	Insane	1	Swag
% of total graffiti 2013	4.2%	2	Krizma	1	Karma	1	Zodiak
% of total graffiti 2012	1.4%	1	Beams	1	Lafar		
% of total graffiti 2011	2.3%						
Downtown	260	43	Unknown	4	Tech9	2	Semo
		21	Rush	3	Beez	2	TNA
% of total graffiti 2015	26.6%	14	Case	3	Jackie&Marie	2	TryOut
% of total graffiti 2014	20.5%	7	Sem	3	ShunOne	2	Vishin
% of total graffiti 2013	23.0%	6	Bazr	3	Zodiak	1	7M
% of total graffiti 2012	12.2%	6	Cake	2	Ace	1	Ace Loyalty
% of total graffiti 2011	24.4%	5	Adlib	2	Barf	1	Amor
		5	Faire	2	Brute	1	Amur
		5	Karma	2	Chaos	1	Arrow
		4	Style	2	HI	1	Asharpy
				2	RBoy		
Note: Top 30 taggers see Appendix G for full list.							
Eastwood	64	17	Unknown	1	Azor	1	Foff
		4	Azer	1	BS Shy	1	Hi
% of total graffiti 2015	6.6%	4	Jayan	1	Bz	1	J
% of total graffiti 2014	3.1%	4	Krzma	1	CT3	1	Kamikaze
% of total graffiti 2013	7.5%	2	Alert	1	Dope Kid	1	Kazpar
% of total graffiti 2012	4.0%	2	Harper	1	Dwight Native	1	Kill Cops
% of total graffiti 2011	1.9%	2	MMMM	1	ECB	1	MJ
		2	Sope	1	Elatte	1	Notto
		1	118thFDB	1	ETOWE	1	RA
		1	78	1	FOB	1	Red Nation
Note: Top 30 taggers see Appendix G for full list.							
Garneau	34	8	Unknown	1	KC	1	Turbo
		3	Daes	1	Listen14	1	ZS
% of total graffiti 2015	3.5%	2	Barf	1	MOE		
% of total graffiti 2014	6.9%	2	Champion	1	NSO Knownas		
% of total graffiti 2013	8.5%	2	Ones	1	Ram		
% of total graffiti 2012	8.4%	1	Amur	1	Rush		
% of total graffiti 2011	2.6%	1	Bobsy	1	SBC		
		1	Chime	1	SF Skechy		
		1	Dames	1	SHD		
		1	Fags	1	Tuper		

Neighbourhood	Graffiti Observed in Neighbourhood	Count by tagger	Tagger	Count by tagger	Tagger	Count by tagger	Tagger
Inglewood	3	2	Kamikaze				
		1	Case				
% of total graffiti 2015	0.31%						
% of total graffiti 2014	0.65%						
% of total graffiti 2013	0.70%						
% of total graffiti 2012	2.0%						
% of total graffiti 2011	2.6%						
Killarney	14	7	Unknown	1	Ores		
		1	Brew	1	Rkum		
% of total graffiti 2015	1.4%	1	Fucu2	1	SF		
% of total graffiti 2014	2.4%	1	John	1	SHE		
% of total graffiti 2013	1.8%						
% of total graffiti 2012	4.0%						
% of total graffiti 2011	2.2%						
McCauley	109	22	Unknown	2	Sammy	1	Clove
		5	DeeIvas	2	Sanderson	1	Cozzy
% of total graffiti 2015	11.2%	3	Cam	2	Willow	1	Dee
% of total graffiti 2014	4.0%	3	Kurupt	1	Ashcheekz	1	Dope Kid
% of total graffiti 2013	4.4%	2	Ace	1	Beez	1	East
% of total graffiti 2012	5.5%	2	Ace Hood	1	CA	1	EHIO
% of total graffiti 2011	3.5%	2	Dee Was Here	1	Cal	1	Emenco
		2	Flail	1	Cali	1	Exxape
		2	June	1	Cali & Ash	1	Fancy15.7
		2	Rean	1	Call Me	1	HHL
						1	Ho
Note: Top 30 taggers see Appendix G for full list.							
Oliver	26	7	Unknown	1	Case	1	Naso
		2	Azor	1	Drink	1	Oliver
% of total graffiti 2015	2.7%	2	Erner	1	FTW	1	Pea
% of total graffiti 2014	0.9%	2	Rush	1	Job Opening	1	Scratch
% of total graffiti 2013	3.2%	1	Akan	1	Kill Club	1	Serch
% of total graffiti 2012	2.3%	1	Carace	1	Nark		
% of total graffiti 2011	7.1%						
Parkdale	20	3	Unknown	1	Bush	1	N
		1	Asoonz	1	Dizes	1	Sass
% of total graffiti 2015	2.0%	1	Assror	1	Dmoneyesb	1	Soffty
% of total graffiti 2014	0.7%	1	Bak	1	Gonp	1	Uossak
% of total graffiti 2013	3.2%	1	BL	1	Harper	1	WSD
% of total graffiti 2012	2.0%	1	Brisie	1	Hasio	1	Zach
% of total graffiti 2011	1.1%						
Queen Alexandra	68	1	Unknown	2	Post	1	Rush
		13	Daes	1	Akes	1	Sketch
% of total graffiti 2015	7.0%	6	Enots	1	Atmos	1	Skibz
% of total graffiti 2014	7.4%	5	Sem	1	Barf	1	Sone
% of total graffiti 2013	8.5%	4	SF Skechy	1	Cab	1	Sour
% of total graffiti 2012	1.4%	3	Champion	1	CUTE Robbin	1	Teebs
% of total graffiti 2011	3.9%	3	Teeze	1	Dek	1	Try Out
		2	AW	1	Faire	1	Vndl
		2	Beez	1	Hoser	1	Wutang
		2	Curb	1	Omes	1	YesR
		2	Goblin	1	Pesk		
		2	Grinch	1	Reak		

Neighbourhood	Graffiti Observed in Neighbourhood	Count by tagger	Tagger	Count by tagger	Tagger	Count by tagger	Tagger
Queen Mary	25	4	Unknown	1	Mind	1	TH
		6	Rupert	1	MSL420	1	TNT
% of total graffiti 2015	2.6%	2	Omaz	1	Native Pride	1	Tywd
% of total graffiti 2014	1.7%	1	Aizor	1	Peneta	1	Zodiak
% of total graffiti 2013	7.4%	1	BAE	1	Shade		
% of total graffiti 2012	5.2%	1	CDC	1	Tabs		
% of total graffiti 2011							
Ritchie	22	4	Unknown	1	Kazoo		
		8	Daes	1	Last		
% of total graffiti 2015	2.3%	2	Goblin	1	Lil Rod		
% of total graffiti 2014	7.5%	1	Cab	1	Rush		
% of total graffiti 2013	1.2%	1	Cake	1	Tubbs		
% of total graffiti 2012	2.7%	1	Drip				
% of total graffiti 2011	3.1%						
Note: Top 30 taggers, see Appendix G for full list.							
Stratchcona	141	16	Unknown	4	Case	1	Beams
		21	Daes	3	As Known As	1	Bear
% of total graffiti 2015	14.4%	12	Post	2	Faire	1	Bidit
% of total graffiti 2014	12.7%	7	Sem	2	Goblin	1	Champion
% of total graffiti 2013	14.4%	6	Akes	2	Onset	1	Curb
% of total graffiti 2012	9.7%	6	Beez	2	Roe	1	Dres
% of total graffiti 2011	9.3%	6	Cake	2	Trust No-One	1	Fever
		5	Rush	2	Tryout	1	Grinch
		5	Wank	2	Turbo	1	Heal
				1	Basis	1	Kayer
Note: Top 30 taggers see Appendix G for full list.				1	Bbez	1	Limbo
Westmount	11	3	Unknown				
		4	Beez				
% of total graffiti 2015	1.1%	2	Case				
% of total graffiti 2014	2.6%	1	Carla				
% of total graffiti 2013	1.3%	1	Talk2Me				
% of total graffiti 2012	6.2%						
% of total graffiti 2011	4.0%						

Figure 5 - Top 10 Taggers in 2015

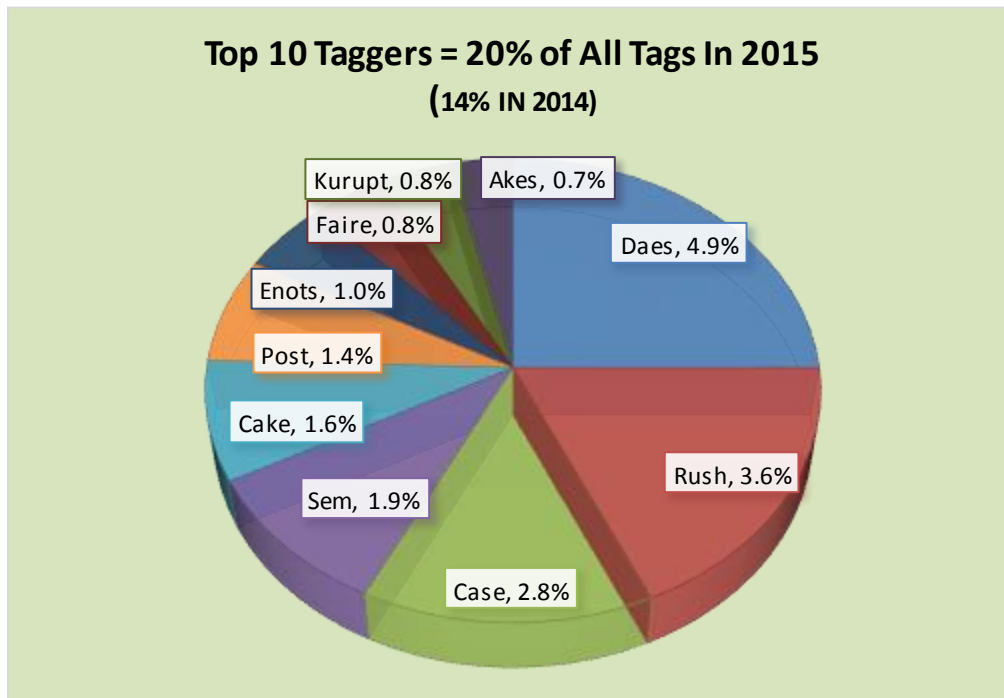
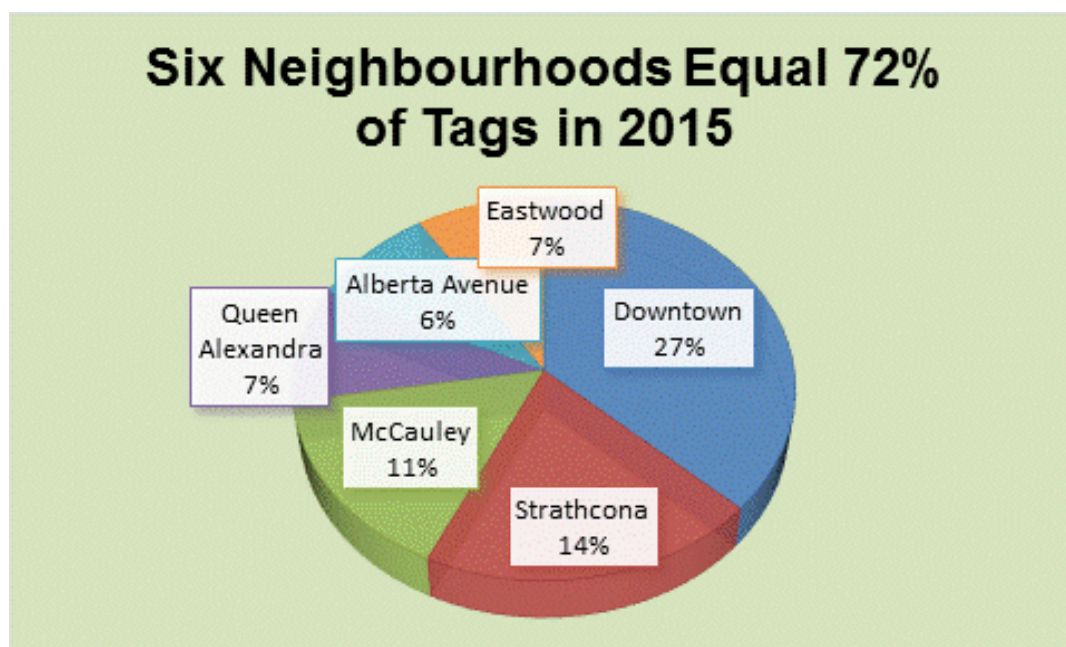


Figure 6 - Six Most Active Neighbourhoods

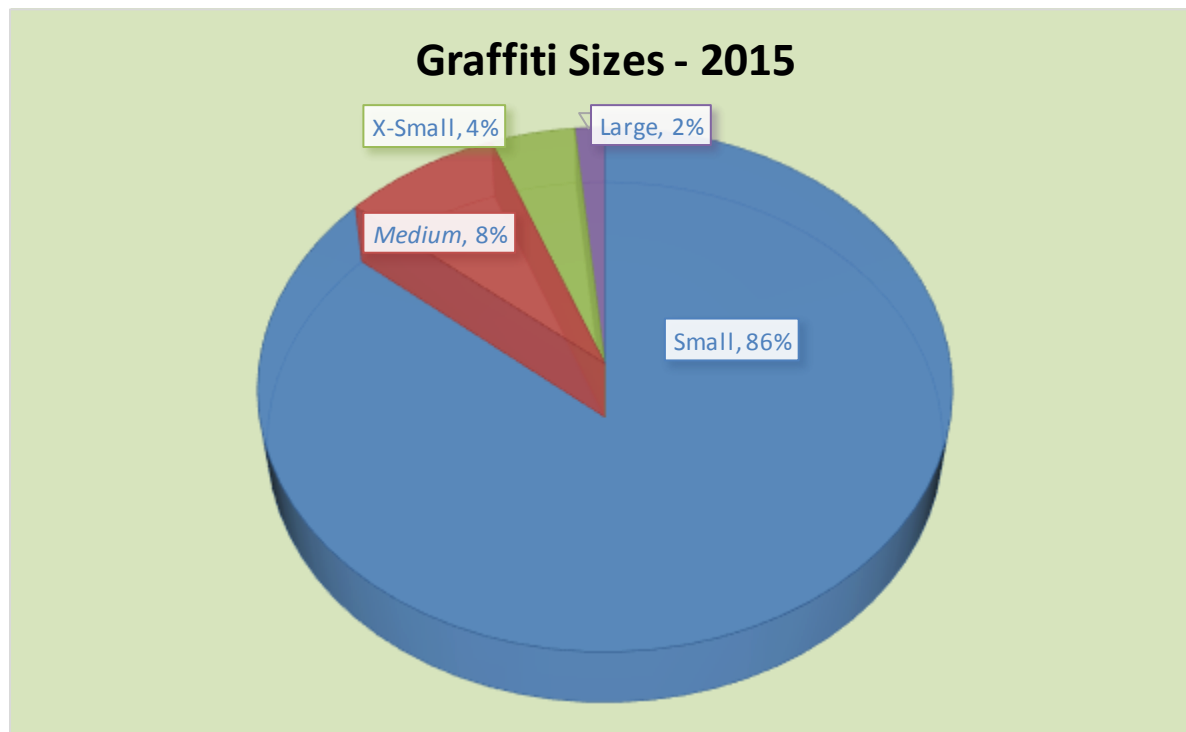
Size & Descriptor of Graffiti

In the 2015 audit the proportion of small tags increased to 86% compared to the 2014 audit where small tags represented 83%. Medium sized tags stayed proportionally similar with 8% in 2015 and 11% in 2014. A small number of large graffiti pieces (2%) were observed during the 2015 audit.

Table 13 - Graffiti Observed in 2015 is Mainly Small

Imperial	Metric	2015	
		Count	% of Total
Small (>1sq.ft < 2 sq.	>0.9 sq.M. <0.185 sq.M	841	86%
Med (>2sq.ft. <9 sq.ft.	>0.185 sq.M<0.836 sq.M	79	8%
x-Small (<1 sq.ft.)	<.009 sq. M	42	4%
Large (>9 sq.ft.<20 sq	>0.836 sq.M < 1.186 sq.M	15	2%
x-Large (> 20 sq.ft)	> 1.186 sq.M	0	0%
		977	100%

Figure 7 - Sizes of Graffiti Observed in 2015



In regards to the artistic nature of graffiti vandalism observed throughout all of the graffiti audits conducted since 2010, graffiti appeared to be scrolled quickly onto property, in a stylized design as free hand text and not completed with artistic merit. Of the 977 observations made in 2015; 93.9% was “text only”, which is consistent with observations made in 2014.

Table 14 - Summary of Graffiti Vandalism Observed in 2015

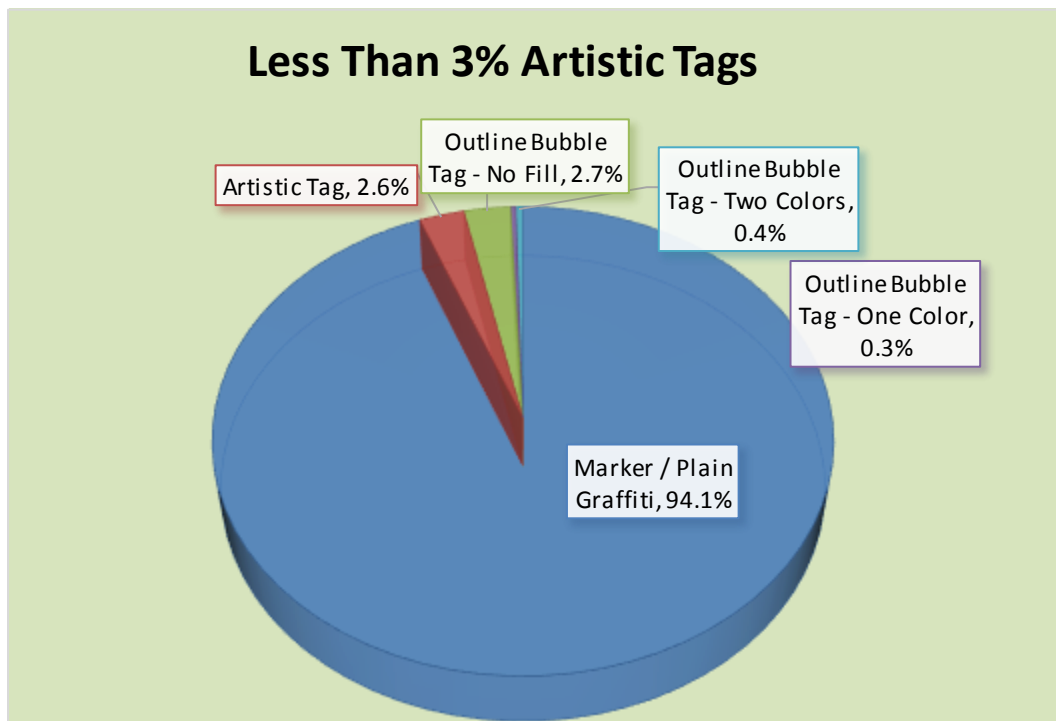
Descriptor of Graffiti Observed			
		2015	2014
	Count	% of Total	% of Total
Text only 1.	912	93.3%	94.0%
Picture	28	2.9%	3.6%
Stencil 2.	3	0.3%	0.7%
Splash/Slash 3.	3	0.3%	0.3%
Vulgar Text	27	2.8%	1.2%
Vulgar Picture	1	0.1%	0.1%
Political	3	0.3%	0.0%
Hate motif	0	0.0%	0.1%
Racist	0	0.0%	0.0%
Stickers 4.	65	6.2%	
Stickers excluded	977	100%	
With stickers	1,042		100%
1. Text only refers to no drawing, piece is stylized design or text only			
2. Stencils are made with cut-outs & medium			
3. Splash/ Slash is an undefined graffiti piece, or paint thrown onto property			
4. Stickers were recorded in 2015 for the first time			

The consultant found that 94% of all graffiti is what is termed as marker or plain in nature, as compared to outline bubble-type graffiti or artistic drawings, a trend that has been observed in previous graffiti audits in Edmonton. Marker or plain graffiti tagging is textual in nature rather than being a picture or a drawing.

Table 15 - Graffiti Categories

Graffiti Category		2015	2014
Marker / Plain Graffiti	919	94.1%	91.6%
Artistic Tag	25	2.6%	4.5%
Outline Bubble Tag - No Fill	26	2.7%	2.1%
Outline Bubble Tag - One Color	3	0.3%	0.8%
Outline Bubble Tag - Two Colors	4	0.4%	0.7%
Outline Bubble - Multiple Colors			0.2%
Etching			0.1%
	977	100%	100.0%

Figure 8 - Observed Graffiti is Not Artistic



Target Properties & Categories

The audit team determined whether each item of graffiti was placed on City, non-municipal government or private property.

In 2015, a similar proportion of graffiti was observed on private property as was noted in 2014. Eighty-one percent of graffiti vandalism tags in 2015 were observed on private property, compared to 84% in 2014. Graffiti on City assets increased for the second year in a row, 163 or 17% of total tags in 2015, compared to 12% (129 tags in 2014), and 9% (124 tags in 2013).

The number of tags on government (Federal) property continued to follow a decreasing trend moving from 7% of total tags (104 tags) in 2013, to just 2% of total graffiti tags (26 tags) in 2015. The consultants noted that, in the past, the majority of tags on government property were mainly on Canada Post (grey) boxes. A large number of these boxes have now been removed from city streets.

Figure 9 - Graffiti Tags by Property Ownership

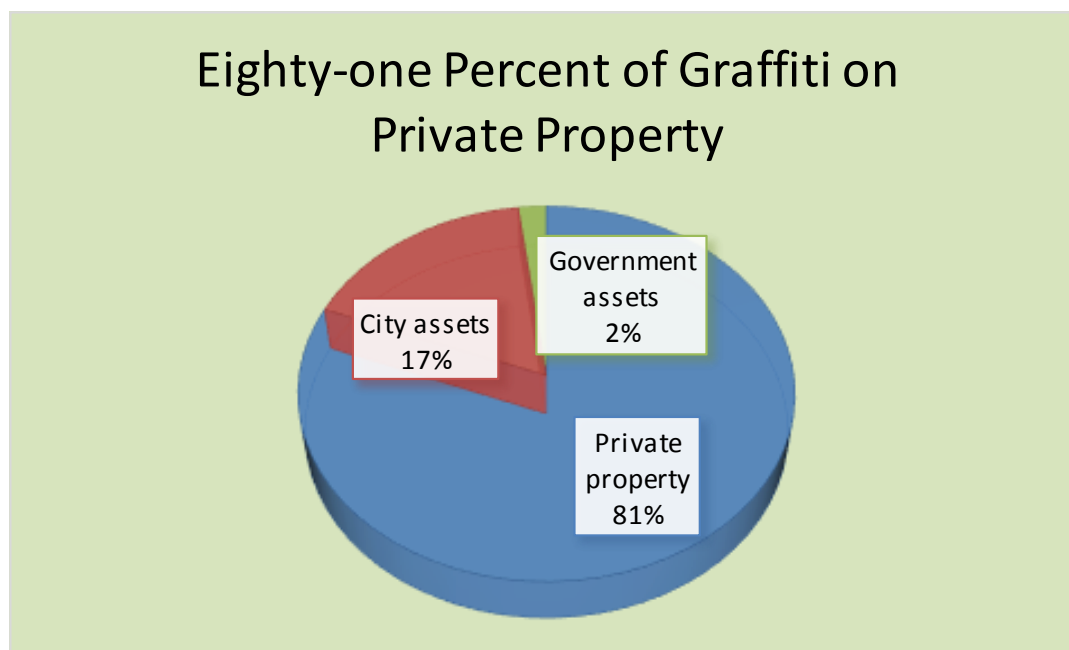


Table 16 - Graffiti Targets & Category Results

CITY	% of Total 2015	% of Total 2014
	17%	12%
	Target Item	Tags Observed 2015
Corporate property	Barricades	3
	Benches	32
	Disposal Bin - Small	37
	Garbage Can	4
	Recycling Bin	16
	Sand Storage Box	2
	Signs	8
	Street Furniture	2
	Traffic Signs	11
	Utility Box	2
	Walls	3
	Sub Total	120
ETS	Benches	32
	Bus Shelter	11
	Sub Total	43
	Total	163
	% of Total 2015	% of Total 2014
GOVERNMENT	2%	4%
	Target Item	Tags Observed 2015
Canada Post	Postal box	26
	Total	26
PRIVATE	% of Total 2015	% of Total 2014
	81%	84%
	Target Item	Tags Observed 2015
Church	Door	1
	Signs	2
	Walls	1
	Window	1
Commercial	Barricades	15
	Door	9
	Garbage Enclosure	2
	Gas Meter	1
	Newspaper Box	19
	Parking Post	4
	Portable Toilet	3

Private Waste - 310 Dump	Disposal Bin - Small	2
Private Waste - 432 Yuck Bin	Disposal Bin - Small	6
Private Waste - AA Enviro	Disposal Bin - Small	1
Private Waste - BFI	Disposal Bin - Small	5
Private Waste - Derrick Disposal	Disposal Bin - Small	3
Private Waste - GFL	Disposal Bin - Small	30
Private Waste - Progressive	Disposal Bin - Large	3
Private Waste - Progressive	Disposal Bin - Small	28
Private Waste - Progressive	Recycling Bin	2
Private Waste - Super Save	Disposal Bin - Small	23
Private Waste - Super Save	Grease bin	1
Private Waste - Triline	Disposal Bin - Small	19
Private Waste - Triline	Recycling Bin	4
Private Waste - Unidentified	Disposal Bin - Large	2
Private Waste - WMI	Disposal Bin - Small	38
	Stairs	28
	Ticket Spitter	5
	Tree	1
	Utility Box	9
	Vehicles/Rolling Stock	4
	Ventilation Unit	2
	Walls	54
	Window	5
Community Building	Sea Can	4
	Stairs	11
	Walls	7
EPCOR	Light Standard/Post	4
	Power Pole	23
	Utility Box	42
Multi Family Dwelling	Barricades	3
	Door	4
	Fence	2
	Garage Door	1
	Light Standard/Post	2
	Parking Post	2
	Shed	2
	Signs	2
	Ventilation Unit	1
	Walls	14
Residence	Barricades	1
	Door	3
	Fence	15
	Garage Door	18
	Garage Wall	12
	Garbage Enclosure	7
	Office Furniture	1
	Signs	1
	Walls	6

	Target Item	Tags Observed 2015
Retail	Barricades	7
	Disposal Bin - Small	2
	Door	55
	Fence	4
	Garage Door	2
	Garbage Can	2
	Grease bin	1
	Ice Machine	2
	Other	1
	Parking Lot	1
	Sand Storage Bin	1
	Sea Can	2
	Stairs	17
	Traffic Signs	1
	Utility Box	4
	Ventilation Unit	6
	Walls	135
	Window	3
Shaw	Utility Box	1
Telus	Phone Booth	6
	Utility Box	14
	Total	788
All Target Items - No Stickers		Tags Observed 2015
	Grand Total	977

Location Intensity Rating (LIR)

Location Intensity Rating (LIR) is calculated as a method to indicate the relative intensity of a location within a neighbourhood. The LIR differs from the graffiti index in that the graffiti index measures the intensity of the amount of graffiti in the entire neighbourhood or hot/random area. The LIR measures the intensity of the graffiti observed at each individual location. It also includes factors other than just the amount of graffiti. The factors that form the LIR are described below.

The consultant added the LIR to the observations obtained in the 2011 to 2014 graffiti vandalism audits. The LIR is a rating based on observations of each “location” where these features make the graffiti more or less noticeable to both trained and untrained observers. It is based upon:

Size

- Score 1 for extra small, score 5 for extra large

Colour

- Score 1 for low colour, score 5 for vibrant colour

Complexity

- Score 1 marker plain text, score 5 for Outline Bubble multiple colours

Artistic

- Score 1 not drawn / splash / slash, score 5 artistic execution

Visibility

- Score 1 barely noticeable , score 5 could not miss it

Longevity

- Score 1 old, faded, nearly not visible, score 5 recent, not removed

Access

- Score 1 easy access, no likelihood of being caught, score 5 dangerous location

Surface

- Score 1 bad surface, does not take paint easily, score 5 ideal graffiti surface

Reoccurrence

- Score 1 none apparent, score 5 heavy reoccurrence

The maximum LIR possible at any location is a score of 45 (9 factors x 5 points = 45)

The consultant conducted a standard deviation analysis on the collected graffiti data. Standard deviation measures how widely values in a set of data are dispersed from the average (mean) value of the data set.

Standard deviation was calculated for the 2015 LIR data which yields 2.72. The average (mean) LIR was calculated as 17.2. Using standard statistical analysis principles, 68% of the LIR ratings fall within 1 standard deviation of the average LIR, which is a range from LIR ratings of 14.5 to 19.9, a finding similar to that found in 2014. Statistical analysis theory also determines that 95% of LIR ratings are therefore between 2 standard deviations, or between LIRs of 12 and 23.

In Table 18 below, this analysis shows that the average Location Intensity Rating is lower in 2015 at 17.2 compared to 18.2 in 2014. It also reveals median intensity rating (middle of the data) has remained at 17 for the past three years indicating a stable data set.

Table 17 - Location Intensity Rating Analysis (2012 - 2015)

2015 Std Deviation Analysis						
Average of all LIR	17.21	(mean)	68% of all LIR fall within 1 ST DEV			
Std deviation	2.72		14.5	to	19.9	
Median	17		95% within 2 standard deviations			
			11.8	to	22.6	
2014 Std Deviation Analysis						
Average of all LIR	18.24	(mean)	68% of all LIR fall within 1 ST DEV			
Std deviation	3.44		14.8	to	21.7	
Median	17		95% within 2 standard deviations			
			11.4	to	25.1	
2013 Std Deviation Analysis						
Average of all LIR	18.30	(mean)	68% of all LIR fall within 1 ST DEV of 18.3			
Std deviation	3.24		15.1	to	21.5	
Median	17		95% within 2 standard deviations			
			11.8	to	24.8	
2012 Std Deviation Analysis						
Average of all LIR	21.22	(mean)	68% of all LIR fall within 1 ST DEV of 18.3			
Std deviation	2.65		18.6	to	23.9	
Median	21		95% within 2 standard deviations			
			15.9	to	26.5	
2011 Std Deviation Analysis						
Average of all LIR	20.04	(mean)	68% of all LIR fall within 1 ST DEV of 18.3			
Std deviation	2.58		17.5	to	22.6	
Median	20		95% within 2 standard deviations			
			14.9	to	25.2	

Appendix I shows how the results of LIRs were calculated for this audit. While the table of LIR is of interest the best way to observe the LIRs is by examining the scores as presented on a map. In Appendix B, individual neighbourhood maps indicate where the most intense graffiti locations are located. The relative size of the location markers on the maps in Appendix B relate to the scores of the LIRs calculated. It follows that over half of the top locations, according to their calculated LIRs, are located in the neighbourhoods with the greatest recorded observations of graffiti.

Table 18 - Location Intensity Index - Top 50 Sites

The top 50 Location Intensity Ratings listed below (full list Appendix J):

	Neighbourhood Name	Latitude	Longitude	Intensity Score	Street Num	Street Name
1	Downtown	N53.53938	W113.50086	35	10030	104 St
2	McCauley	N53.55214	W113.49020	31	9707	107 A Ave
3	CPR West / Strathcona Junction	N53.51753	W113.49685	30	8123	104 St
4	Ritchie	N53.51522	W113.49048	30	10020	79 Ave
5	CPR West / Strathcona Junction	N53.51759	W113.49629	28	10331	Whyte Ave
6	Downtown	N53.53898	W113.50199	28	10005	106 St
7	Strathcona	N53.51861	W113.49541	26	10310	Whyte Ave
8	Eastwood	N53.57061	W113.47162	25	11803	86 St
9	McCauley	N53.55231	W113.49054	25	10725	98 St
10	Strathcona	N53.51868	W113.49673	25	10352	Whyte Ave
11	CPR West / Strathcona Junction	N53.51749	W113.49545	24	8122	Gateway Blvd
12	Downtown	N53.54201	W113.50039	24	10146	104 St
13	Downtown	N53.54121	W113.49896	24	10342	Jasper Ave
14	McCauley	N53.55196	W113.49018	24	10704	97 St
15	Strathcona	N53.51813	W113.49864	24	10420	Whyte Ave
16	Boyle Street	N53.54398	W113.48277	23	10124	96 St
17	Downtown	N53.53957	W113.50182	23	10018	105 St
18	Eastwood	N53.57049	W113.47131	23		85 St
19	Oliver	N53.53664	W113.51028	23	9844	110 St
20	Queen Alexandra	N53.51571	W113.50152	23	10516	79 Ave
21	Queen Alexandra	N53.51747	W113.50086	23	10505	Whyte Ave
22	Ritchie	N53.51516	W113.49142	23		101 St
23	Oliver	N53.54177	W113.53418	22	12302	Jasper Ave
24	Parkdale	N53.56956	W113.46809	22	114722	82 St
25	Queen Alexandra	N53.51740	W113.49850	22	10405	Whyte Ave
26	Queen Alexandra	N53.51752	W113.49921	22	10431	Whyte Ave
27	Strathcona	N53.51880	W113.49986	22	10460	Whyte Ave
28	Downtown	N53.54154	W113.50161	21	10104	105 St
29	Strathcona	N53.52088	W113.49606	21	10307	85 Ave
30	Strathcona	N53.51869	W113.49950	21	10444	Whyte Ave
31	Strathcona	N53.51859	W113.49911	21	10433	83 Ave
32	Garneau	N53.51831	W113.50831	20	10740	Whyte Ave
33	Garneau	N53.51817	W113.50901	20	10768	Whyte Ave
34	Garneau	N53.51851	W113.51158	20	10860	Whyte Ave
35	Strathcona	N53.51869	W113.49846	20	8216	104 St
36	Belvedere	N53.58774	W113.44041	19		129 Ave
37	Boyle Street	N53.54486	W113.48425	19	9635	102 A Ave
38	Downtown	N53.53503	W113.49751	19	10325	103 St
39	Downtown	N53.53994	W113.50195	19	10525	Jasper Ave
40	Queen Mary Park	N53.55212	W118.52034	19	10721	116 St
41	Strathcona	N53.51866	W113.50602	19	10650	Whyte Ave
42	Alberta Avenue	N53.57001	W113.48072	18	9023	118 Ave
43	Alberta Avenue	N53.56076	W113.48683	18	11115	95 St
44	Alberta Avenue	N53.56121	W113.48726	18	11201	95 St
45	Beacon Heights	N53.57058	W113.41368	18	11805	47 St
46	Beverly Heights	N53.56951	W113.39954	18		
47	Downtown	N53.54580	W113.49756	18	10324	103 St
48	Downtown	N53.54569	W113.49368	18	10030	104 Ave
49	Downtown	N53.54011	W113.49635	18	10048	102 St
50	Downtown	N53.54029	W113.50388	18	10665	Jasper Ave

Conclusions

The City of Edmonton's graffiti vandalism audit is an unbiased method of sampling graffiti vandalism in the City. Auditing the same neighbourhoods each year enables the City to document changes in the amount of graffiti observed in those areas.

During the 2015 graffiti audit, the audit crew observed 322 locations where graffiti vandalism was present, a reduction from 352 in 2014 (8.5% decrease), 395 in 2013 and 438 locations in 2012. In these locations, 977 graffiti tags were observed, an 8.8% decrease from 1,071 graffiti tags in 2014.

In the Downtown neighbourhood, the downward trend in graffiti tags noted in 2014 (from 325 in 2013 to 225 in 2014) stalled. Graffiti in the Downtown neighbourhood increased in 2015 to 282 tags, a 25% increase however still 13% lower than the number of tags observed in 2013. There was also a small increase in tags in the Strathcona neighbourhood (10%).

During the 2015 audit, the audit team traveled over 500 kilometres within Edmonton's 20 sample neighbourhoods, on streets, in alleys and in laneways recording graffiti observations. During the course of this audit over 1,000 photographs were taken recording the graffiti observed. A comprehensive database was created to archive and analyse the data collected. Paper records, electronic data records and digital photographic records were archived to preserve the data gathered.

The method used by the City of Edmonton, as developed by the consultant and the City for this audit, provides a repeatable and unbiased way of auditing neighbourhoods for graffiti vandalism. The neighbourhoods examined in this audit can be examined in the future to determine whether the amount of graffiti vandalism is increasing or decreasing.

During the 2015 graffiti vandalism audit the consultant calculated a Location Intensity Rating (LIR) to examine the amount and intensity of graffiti at each of the 322 locations. For comparison purposes these intensities (LIR) of graffiti are plotted on neighbourhood maps in Appendix B showing graffiti locations and LIRs for 2015.

Consistent with observing fewer graffiti tags in 2015, was the behavior of the graffiti index in 2015 compared to previous years. The graffiti index is a measure of the amount of graffiti observed per geographic area (hectares). This index decreased in 2015 to a combined index of 0.835 compared to a 0.932 combined index in 2014 (a decrease of 10.4%). Compared to an index of 1.243 in 2013 there is a decrease of 33% over two years.

During the 2014 field work, auditors were accompanied by a City of Edmonton Municipal Enforcement Officers from the Complaints and Investigations Section of the Community Standards Branch. The identification of taggers has been enhanced by having these staff participate in the audit due to their ability to read tagger names.

During the 2015 audit the number of graffiti taggers observed was 418 compared to 400 in 2014, 424 in 2013, and 305 in 2012.

Most graffiti tags are small in size covering less than 0.185sq.m (2sq.ft.). In the current audit there were more small tags in 2015 than in 2014; at 86% small tags in the current year compared to 83 % of the graffiti observed as small tags in 2014. A similar proportion of medium sized tags (>2sq.ft. <9sq.ft.) was seen in 2015 (8% in 2015, 11% in 2014).

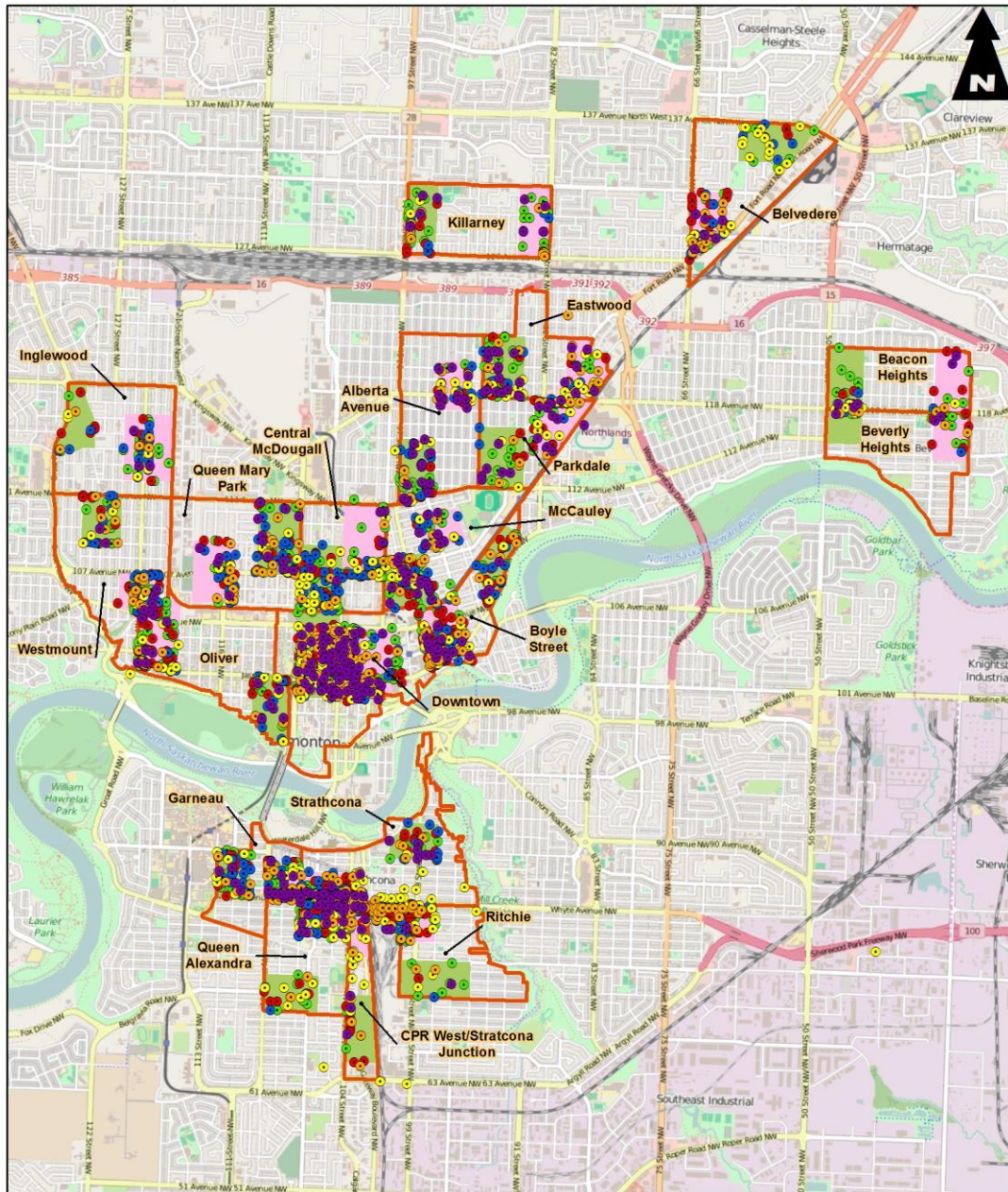
Ninety-four percent of graffiti observed in 2015 was “marker/plain” graffiti (92% in 2014, 93% in 2013). This predominate style of graffiti found during the audit is textual or stylized in nature, and is not artistic in its design.

Commercial waste bins, parking lot barricades, signs and posts continue to be common targets for taggers. Private residential and multi-family residential properties are often targets of graffiti vandals, especially fences and garages in back alleys and laneways.

In the current audit the consultant observed that murals, throughout the City, were not generally defaced by graffiti tags. This reinforces previous observations that murals can deter graffiti vandalism.

APPENDIX A - Overview Audit Sample Locations

Sample Neighbourhoods 2015



Map Key

- | | | | |
|---------------------------|---------------------------|---------------------------|------------------------|
| ● 2015 Graffiti Locations | ● 2013 Graffiti Locations | ● 2011 Graffiti Locations | ■ Hot Spot Survey Area |
| ● 2014 Graffiti Locations | ● 2012 Graffiti Locations | ● 2010 Graffiti Locations | ■ Random Survey Area |

APPENDIX B - Graffiti Observation Locations



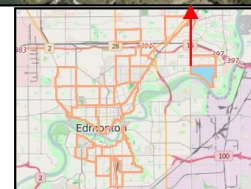
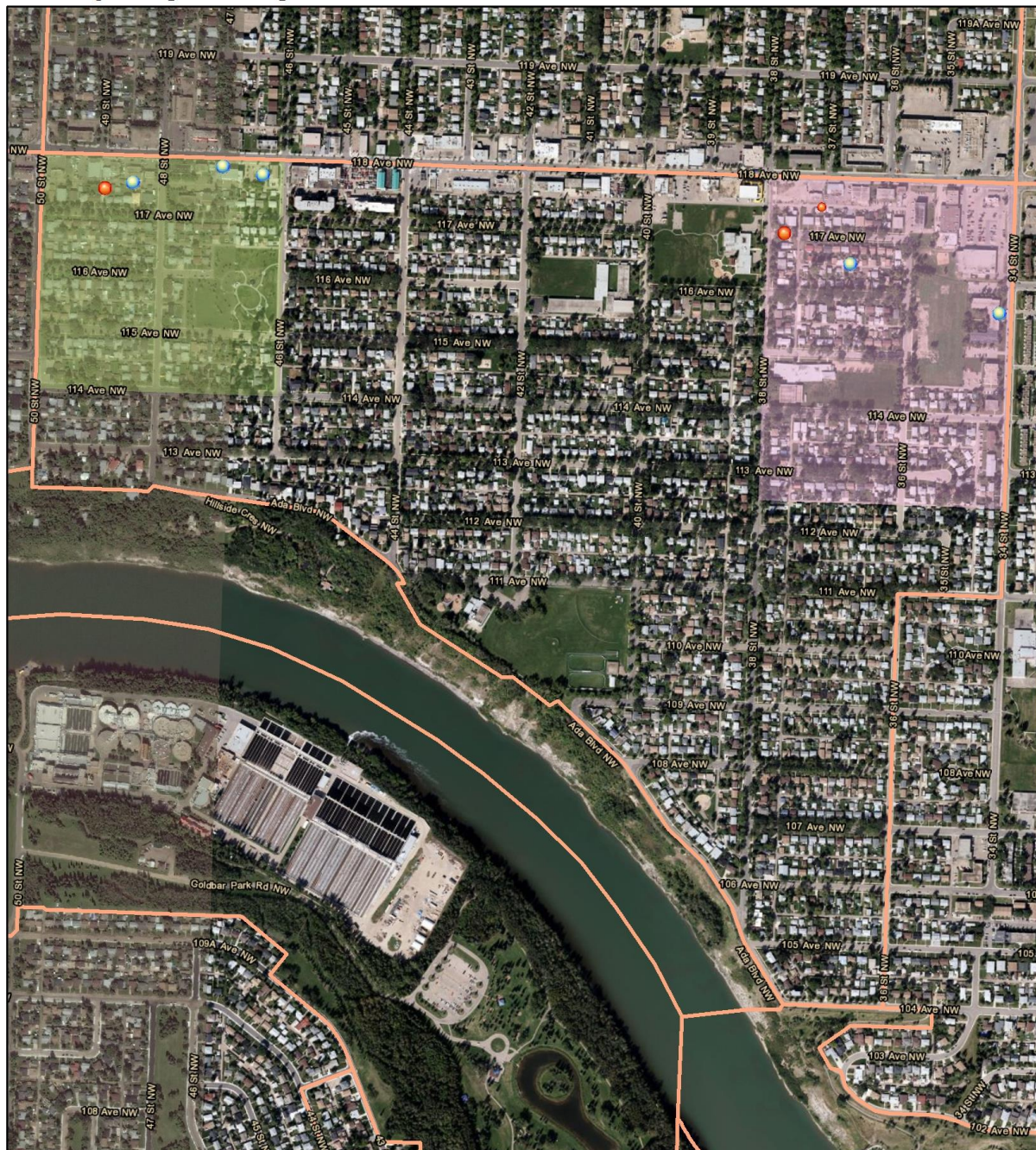
Beacon Heights Neighbourhood



Belvedere Neighbourhood



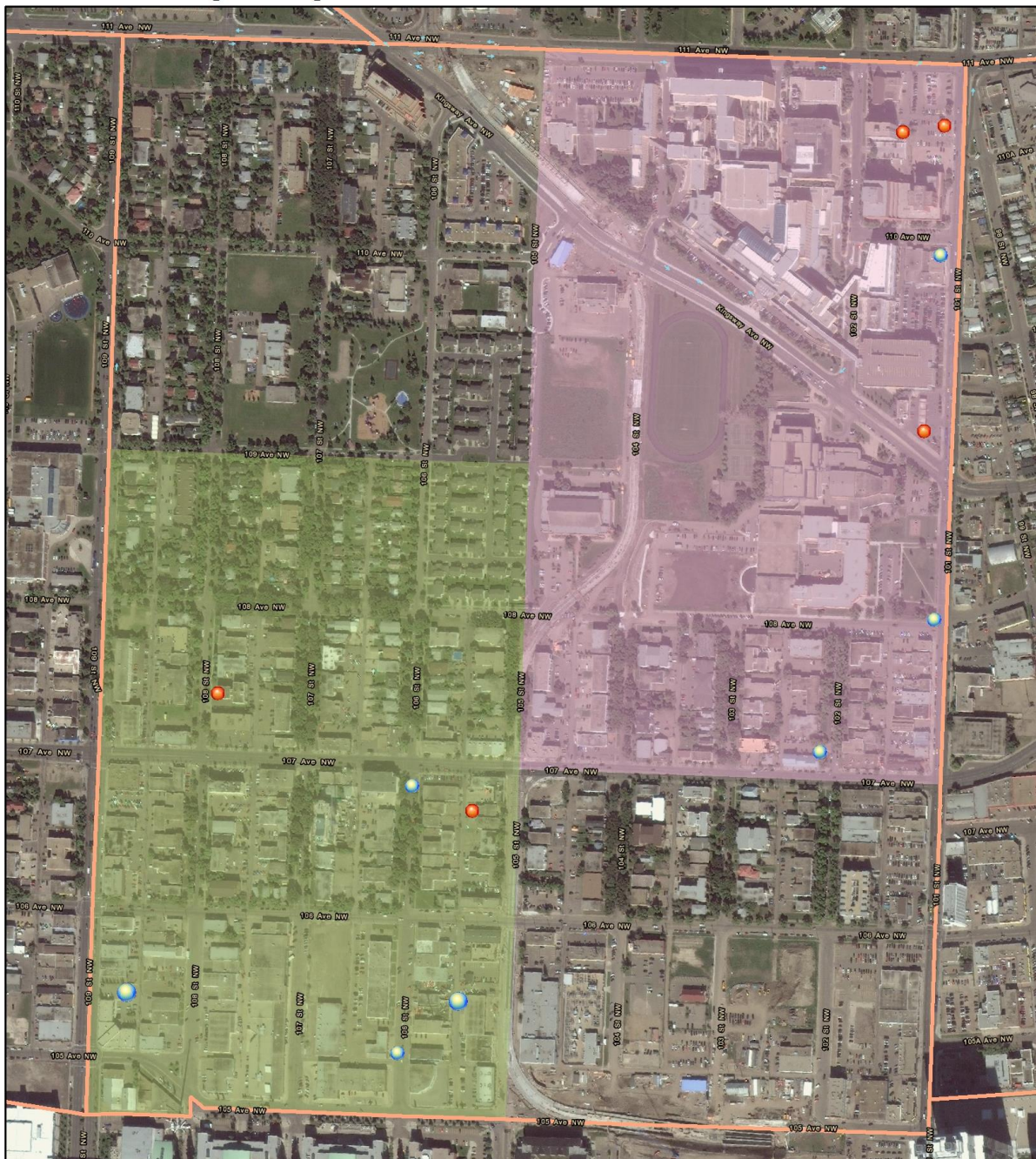
Beverly Heights Neighbourhood



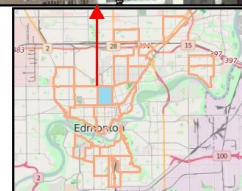
Boyle Street Neighbourhood



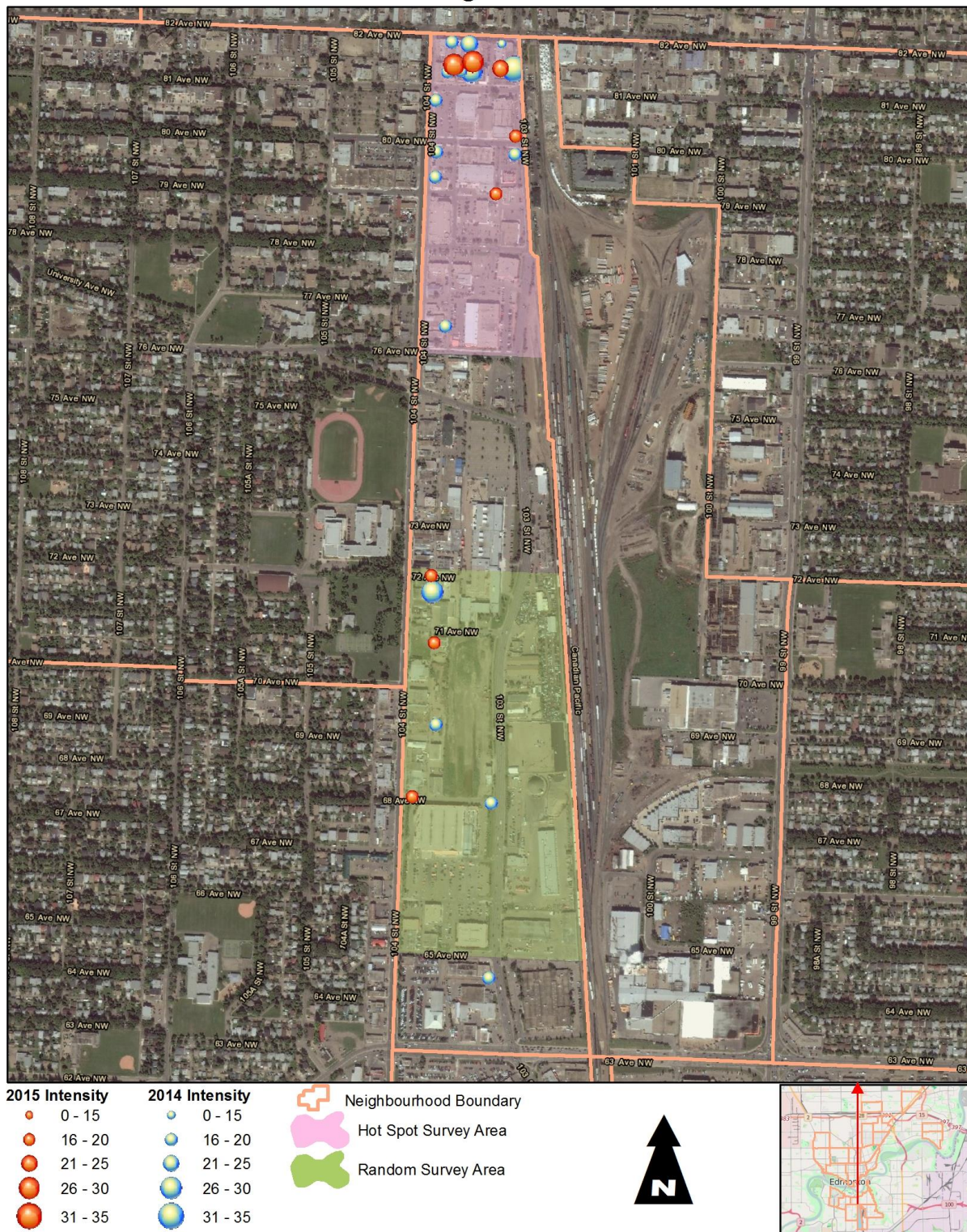
Central McDougall Neighbourhood



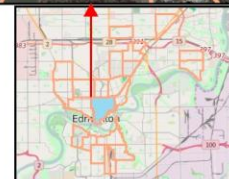
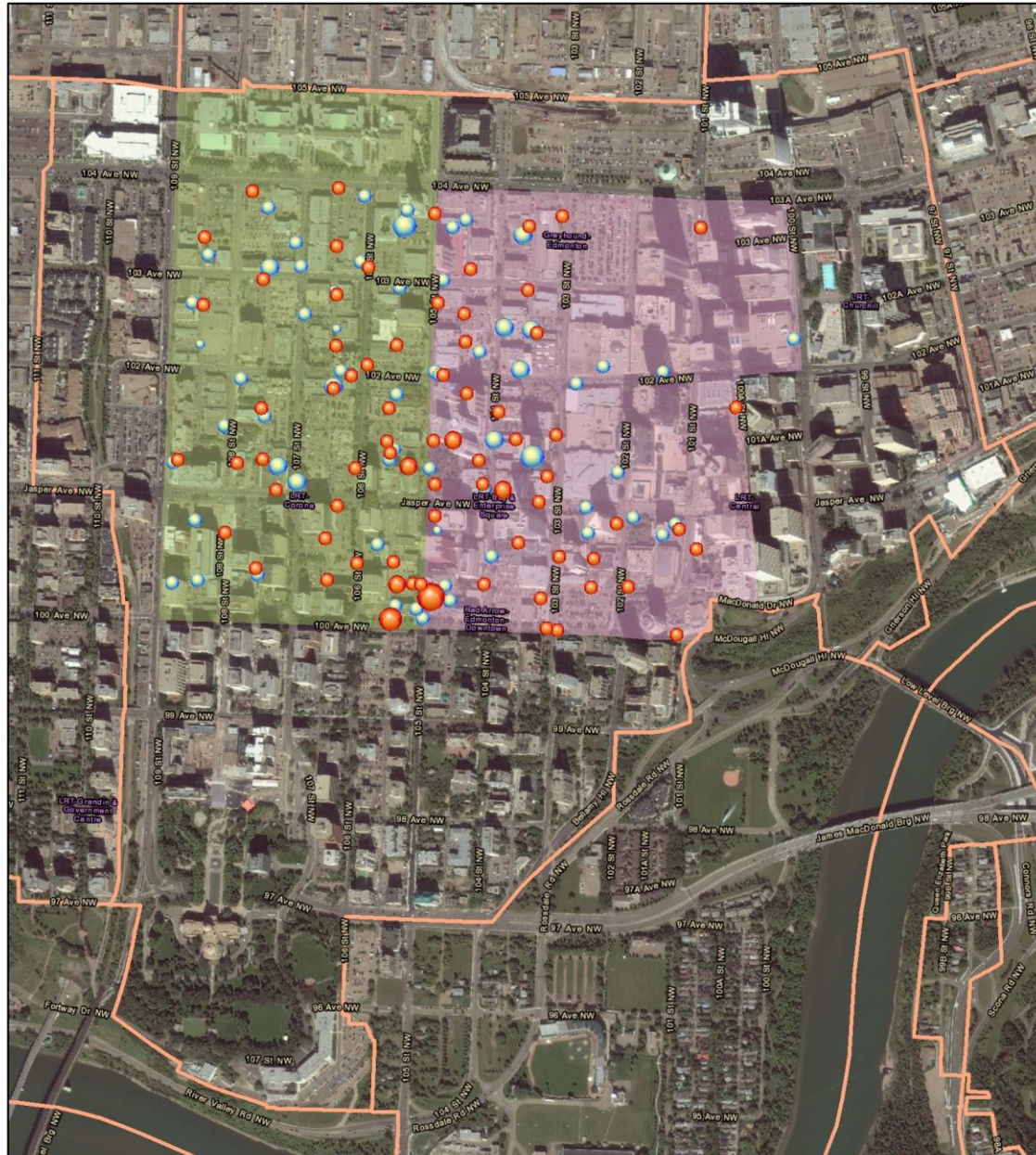
2015 Intensity	2014 Intensity	
0 - 15	0 - 15	Neighbourhood Boundary
16 - 20	16 - 20	Hot Spot Survey Area
21 - 25	21 - 25	Random Survey Area
26 - 30	26 - 30	
31 - 35	31 - 35	



CPR West / Strathcona Junction Neighbourhood



Downtown Neighbourhood



Eastwood Neighbourhood



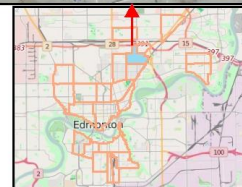
2015 Intensity



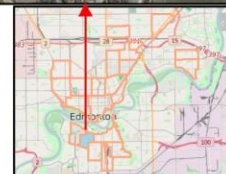
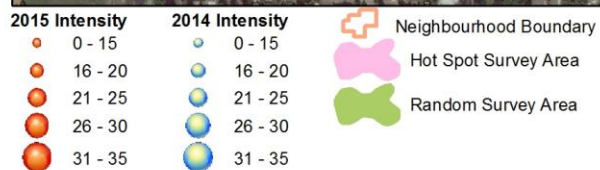
2014 Intensity



- Neighbourhood Boundary
- Hot Spot Survey Area
- Random Survey Area



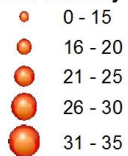
Garneau Neighbourhood



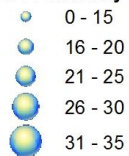
Inglewood Neighbourhood



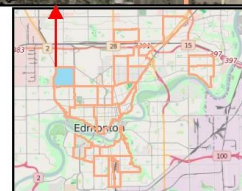
2015 Intensity



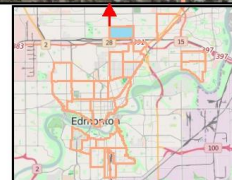
2014 Intensity



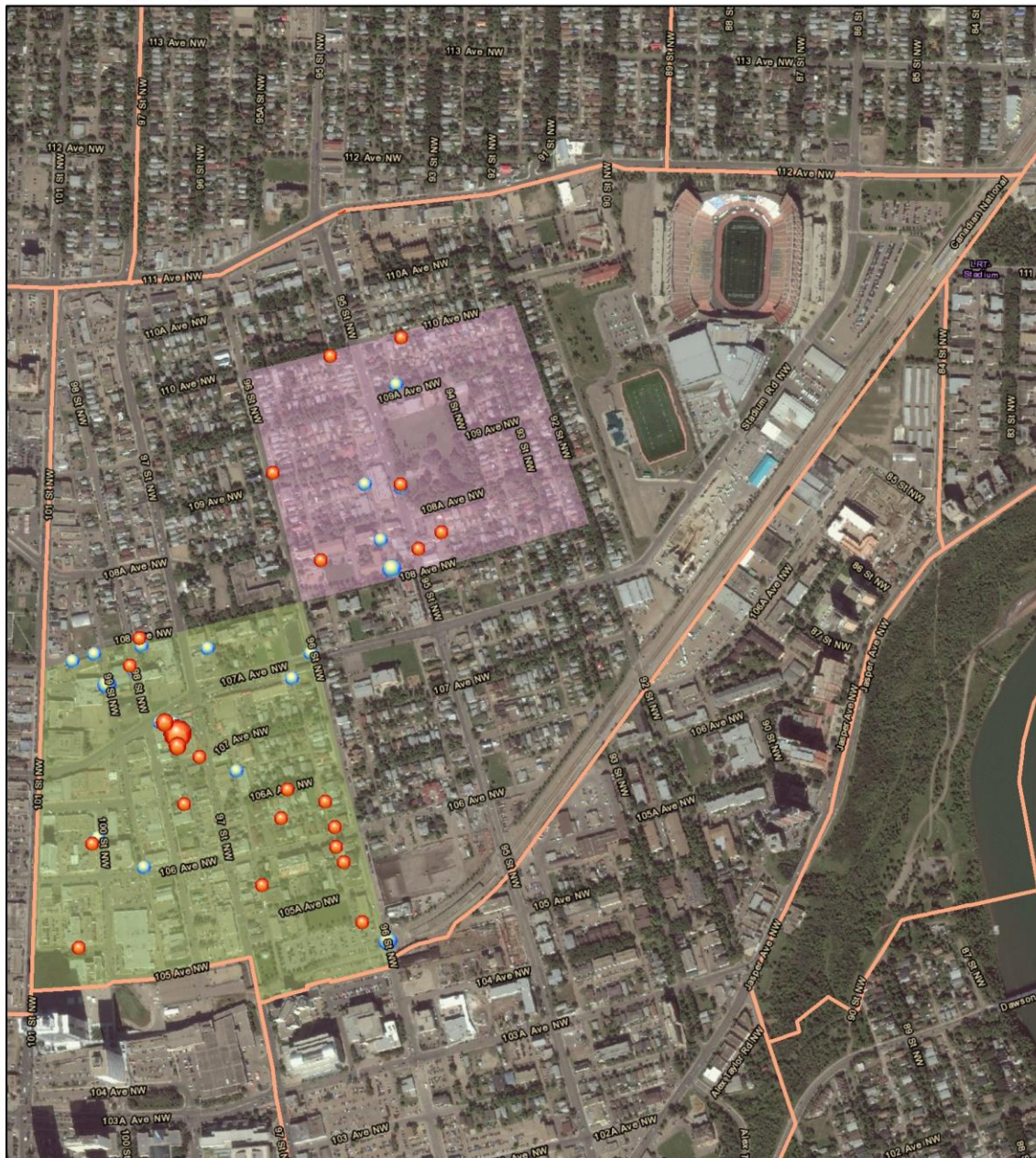
- Neighbourhood Boundary
- Hot Spot Survey Area
- Random Survey Area



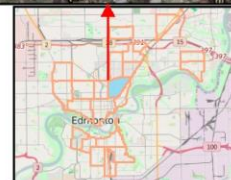
Killarney Neighbourhood



McCauley Neighbourhood



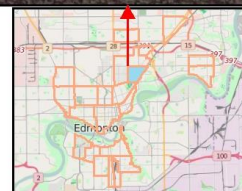
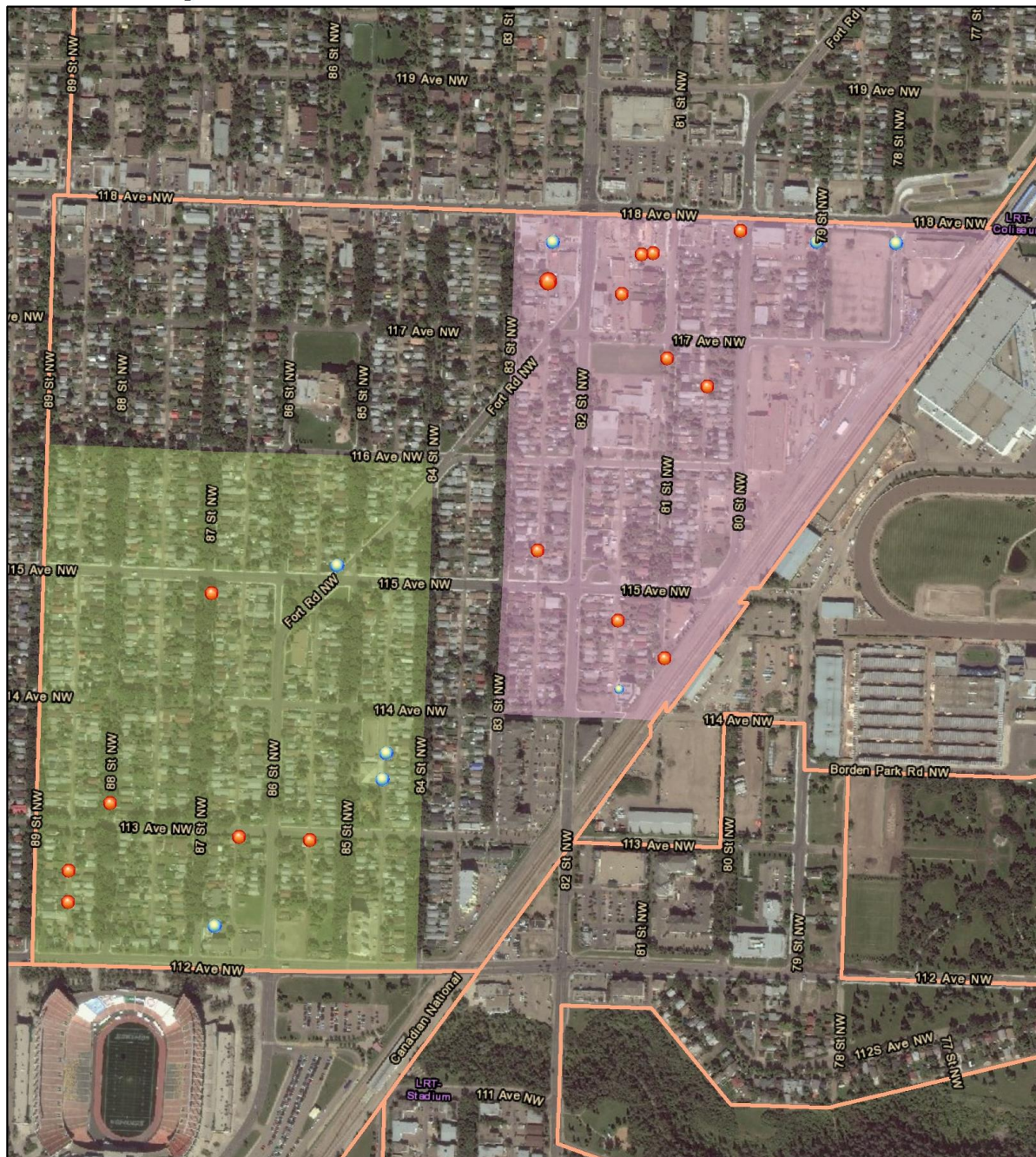
2015 Intensity	2014 Intensity	
0 - 15	0 - 15	Neighbourhood Boundary
16 - 20	16 - 20	Hot Spot Survey Area
21 - 25	21 - 25	Random Survey Area
26 - 30	26 - 30	
31 - 35	31 - 35	



Oliver Neighbourhood



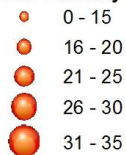
Parkdale Neighbourhood



Queen Alexandra Neighbourhood



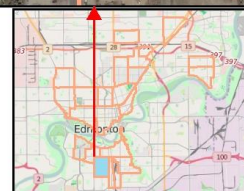
2015 Intensity



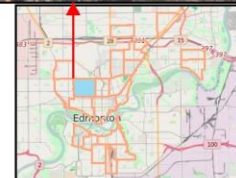
2014 Intensity



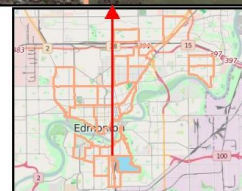
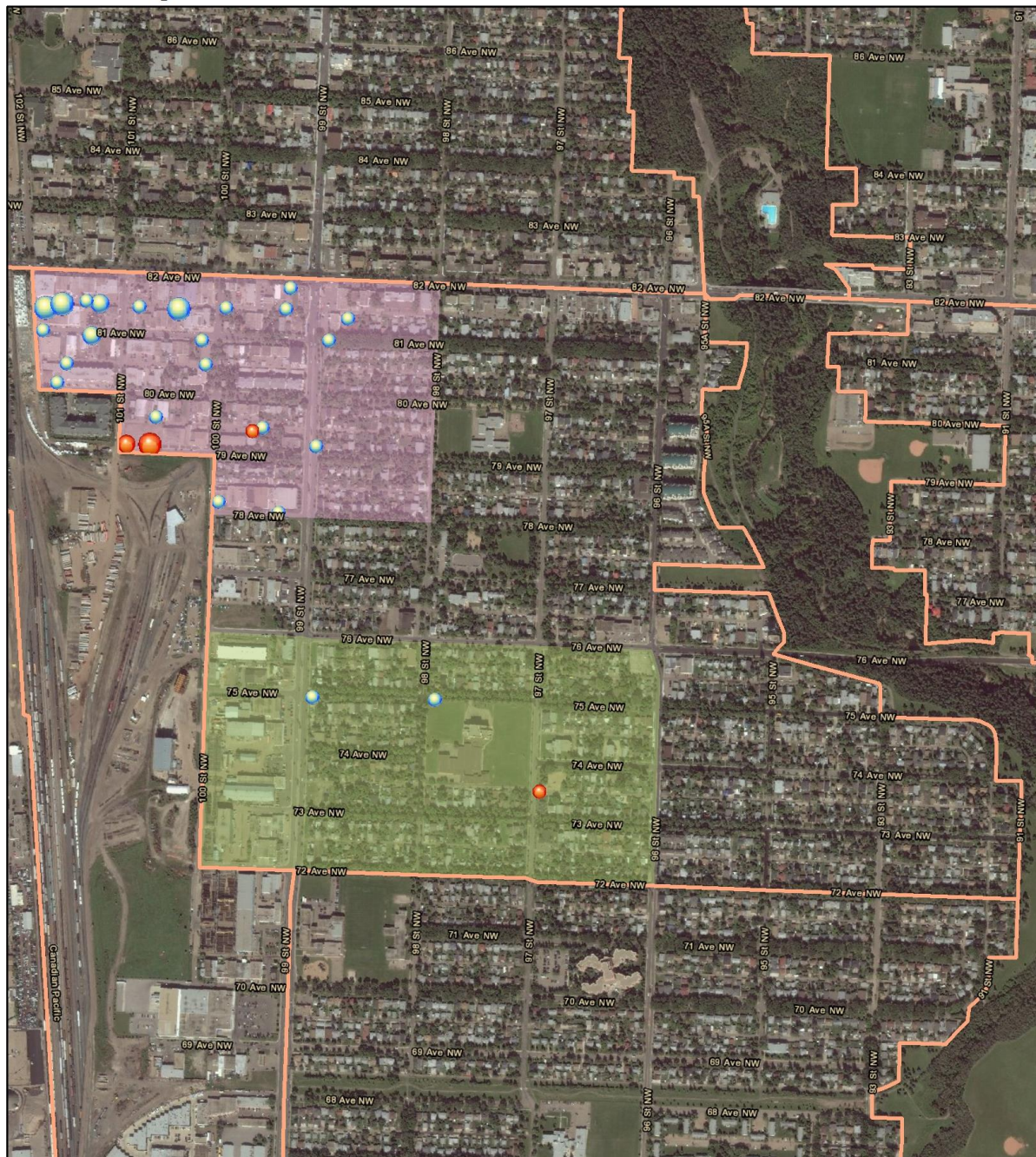
- Neighbourhood Boundary
- Hot Spot Survey Area
- Random Survey Area



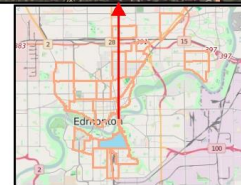
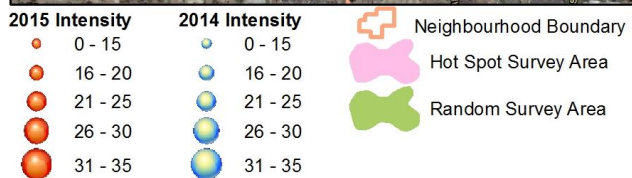
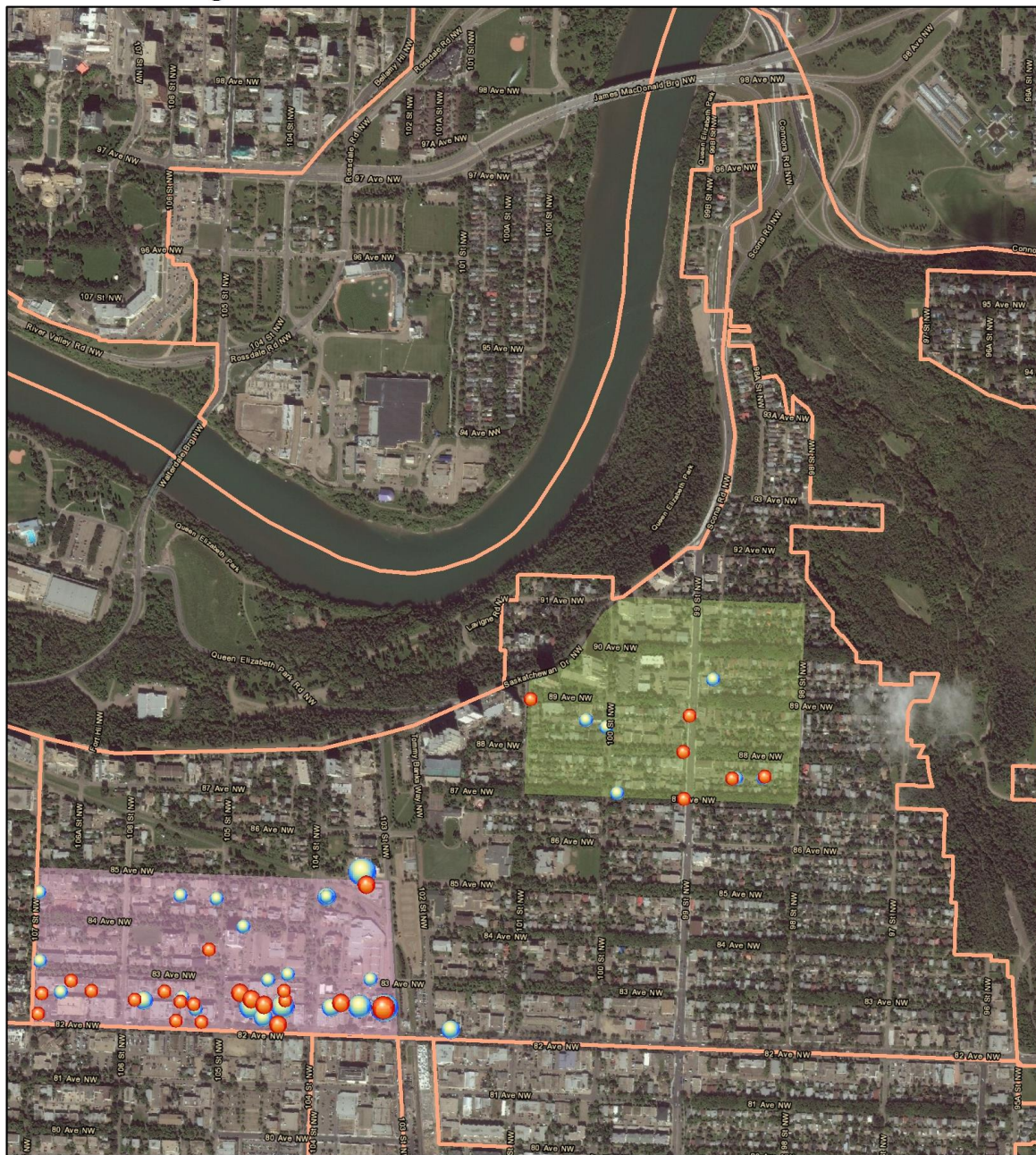
Queen Mary Park Neighbourhood



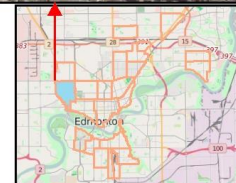
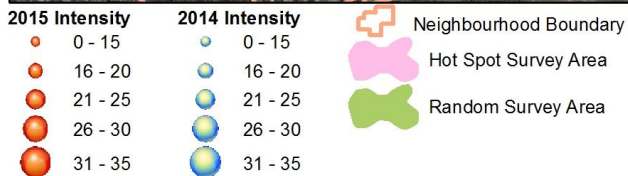
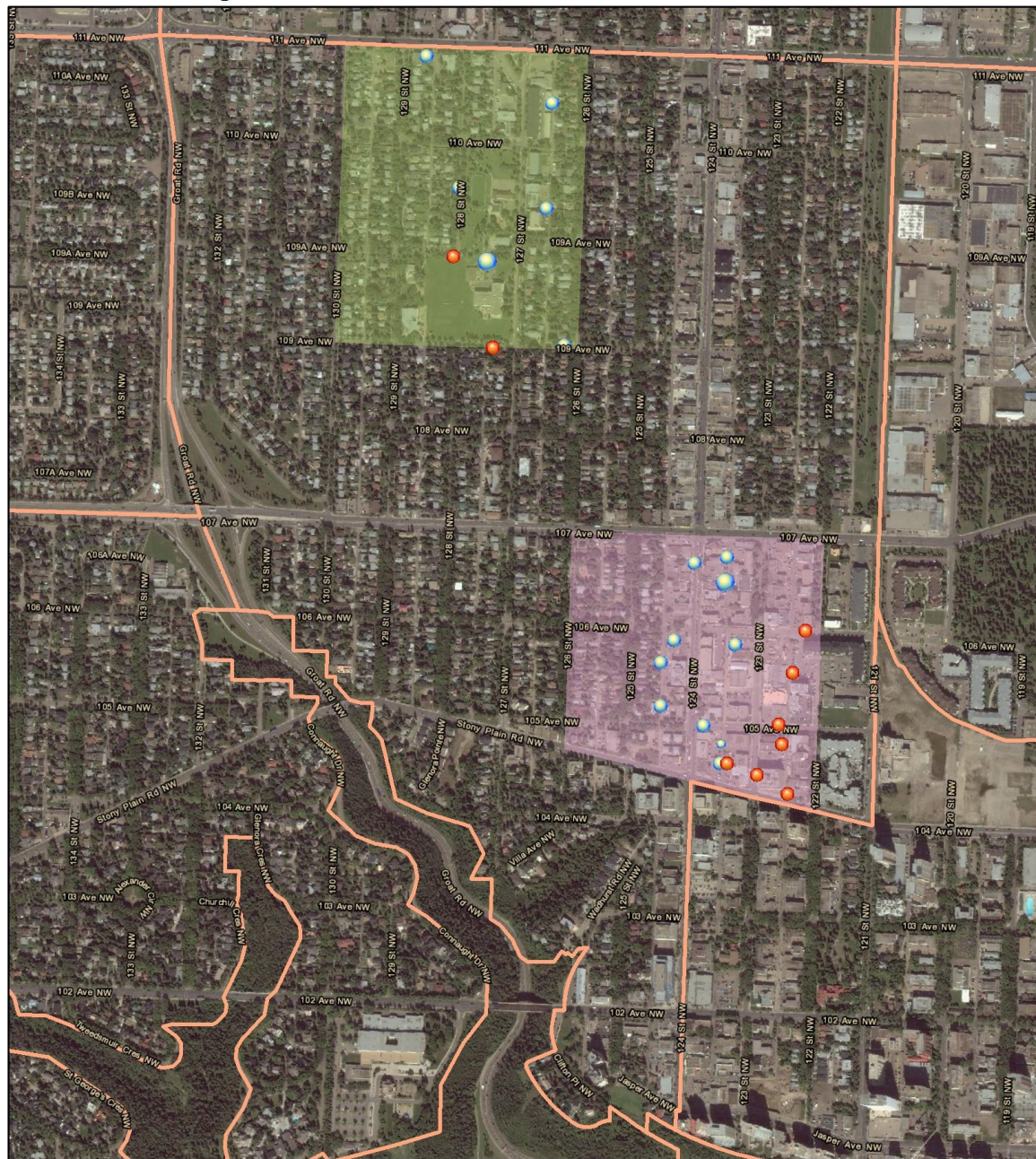
Ritchie Neighbourhood



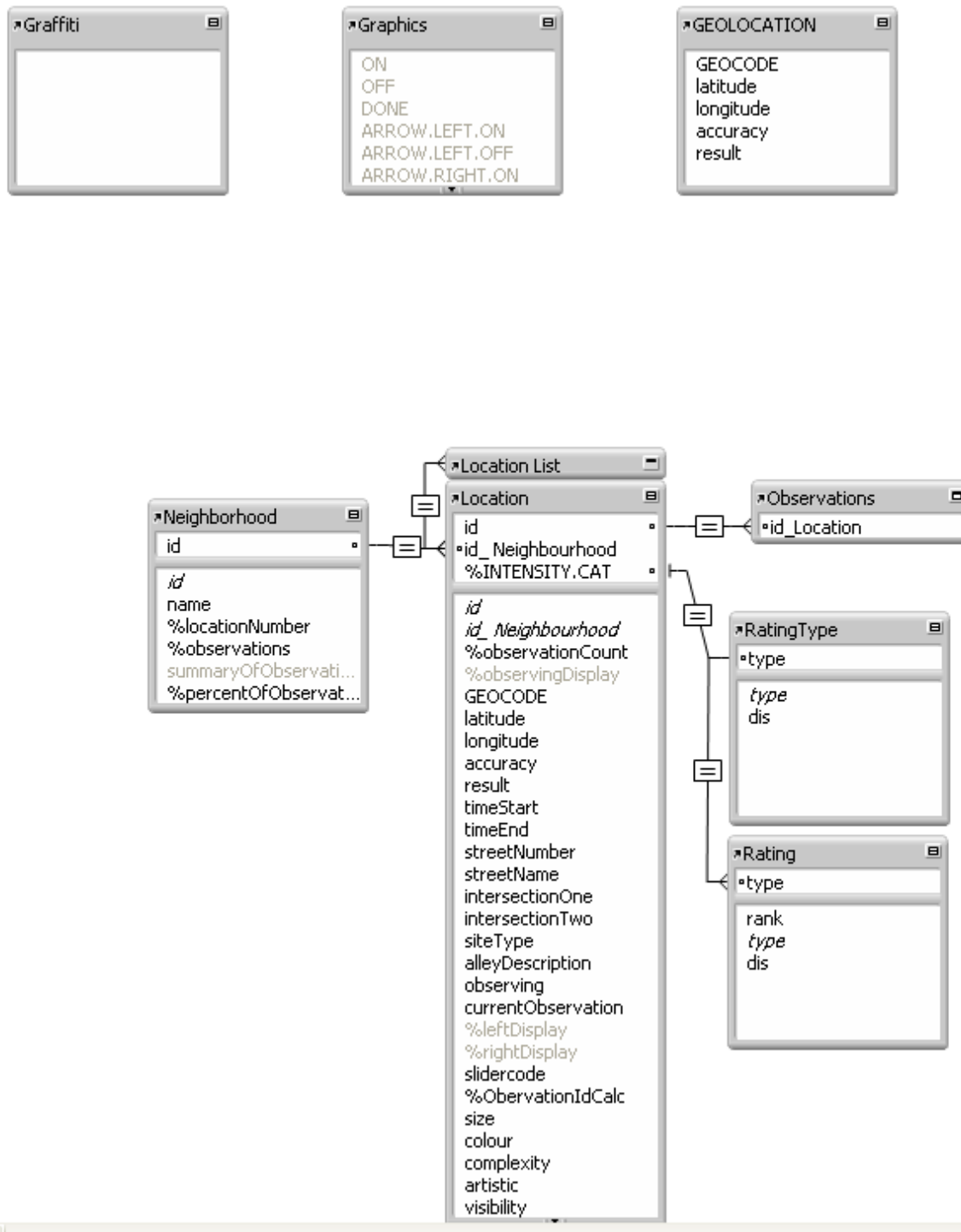
Strathcona Neighbourhood



Westmount Neighbourhood



APPENDIX C – Database Structure



APPENDIX D – Field Audit Data Form

Target Property	Target Item		Graffiti Style (Category)
City <input type="checkbox"/>	Advertising Billboards/Sig	Parking Lot	Artistic Tag
Private <input type="checkbox"/>	Alley	Playground Structures	Marker/Plain
Gov't <input type="checkbox"/>	Arenas/Rec Facilities	Post (gas line protection)	Outline Bubble Tag - Multiple Colors
	Art/Sculptures/Murals	Recycling Bin	Outline Bubble Tag - No Fill
	Ashtrays	Red Drop Box	Outline Bubble Tag - One Color
	Barricades	Roadway/Street	Outline Bubble Tag - Two Colors
	Benches	Sand Storage Bin	
	Berm Walls	Shed	Graffiti Size
	Boxes (Not Utility)	Sidewalks	X-Small (<=1sq ft)
	Booth	Signs	Small (>1sq ft<=2sqft)
	Bridges	Ticket Spitter	Med (>2sq ft<=9sqft)
	Building/House	Traffic Signs	Large (>9sq ft<=20sqft)
	Bus Shelter	Utility Box	X-Large (>20sqft)
	Bus Station	Ventilation Unit	
	Bus Stop Sign	Vehicles/Rolling Stock	Graffiti Descriptor
	Disposal Bin - Lg/Sm	Walls	Hate
	Door	Windows	Other Distinguishing (i.e. Religious)
	Dugout		Political
	Fence		Racist
	Garage (door/wall)		Splash/Slash
	Garbage Can		Stencil
	Grey/Green Pick Up Box		Text Only
	Laneway		Picture
			Vulgar Text
	Light Standard/Post		Vulgar Picture
	LRT Station		
	Meridian		Tagger
	Multi-Family PO Box		Enter" Name "or Else "Unknown"
	Other Facilities		
	Other Street Furniture		Crew
	Outdoor Rink		Yes
	Overpass/Tunnel		No
			Unsure
			Crew Name
			Name (if yes to above)

APPENDIX E – Sample Photographs - Edmonton Graffiti Vandalism

These are samples of commonly observed graffiti



Rush



Free-wall – Whyte Ave.



Sample of Stencil



Marker plain tag on bus shelter*



Tag on Utility box



Large Multi-Colour Outline Bubble

APPENDIX F - Glossary of Terms

Note: the terms and definitions listed below are general descriptions that reflect how this report uses the terminology. These definitions do not necessarily reflect exactly how others working in this area may define the terms.

Term	Definition
Business Revitalization Zones (BRZ)	Defined areas in the city of Edmonton that have experienced economic decline that are being targeted for development and enhancements.
Community Standards Bylaw 14600, Section 9	City of Edmonton bylaw requiring property owners to remove graffiti from their property: 9 (2) in Community Standards Bylaw 14600, for the purpose of greater certainty a nuisance, in respect of a building, means a building showing signs of a serious disregard for general maintenance and upkeep, whether or not it is detrimental to the surrounding area, some examples of which include: (a.1) any graffiti displayed on the building that is visible from any surrounding property; reference (S.3, Bylaw 14752, February 13, 2008)
Crew	A group of taggers that operate together to do graffiti.
Crew Name	Symbol or letters, used by a graffiti crew, which is placed near their tag to identify their crew.
Geospatial mapping	Is the use of Geographical Information Software (GIS) for the management, analysis and display of geographical information. GIS is used to produce maps which can be used for the analysis of simple or complex problems
Graffiti Descriptor	Pre-determined categories used to classify the graffiti found during the audit: Text only, picture, stencil, splash/slash, vulgar text, vulgar picture, political hate, racist, or other distinguishing
Graffiti ID	Identification assigned to each piece of graffiti found at each graffiti location.
Graffiti Index	Way of expressing the observations of graffiti in an indexed numerical comparison of the data. (i.e. # observed divided by the area of the sample zone in Hectares)
Location ID -- Graffiti locations	Specific locations identified by the auditor where graffiti was found.
Graffiti Size	For the purposes of this report, the pre-defined categories used by the auditor to classify graffiti. Complete listing of styles listed in the report.

Term	Definition
Graffiti Style	For the purposes of this report, the pre-defined categories used by the auditor to classify graffiti. Complete listing of styles listed in the report.
Graffiti Vandalism	A public nuisance crime that causes damage to public and private property by applying paint, ink or chemicals to a surface.
Hot Spot	Term used to describe the 16 square block area within the target neighbourhoods that had the highest incidences of graffiti.
Mischief	Infraction/term, under Criminal Code of Canada, to describe the act of graffiti vandalism.
Location Intensity Rating (LIR)	Location Intensity Rating (LIR) - The LIR measures the intensity of graffiti at a specific LOCATION within a <u>sample area</u> . The LIR measures the intensity of the graffiti at <u>each location</u> where graffiti is found, and is specific to a location within a hot spot or random sample area .
Municipal Standards Act	The Alberta legislation which gives municipalities the authority to access and enforce clean up on private properties.
Posse	Database system used by the City of Edmonton to record and track Municipal Community Standard/Bylaw complaints on private property.
Random Area	An arbitrarily selected 16 square block area within the target neighbourhoods used as a comparison/control.
Street Name	Name used by graffiti taggers to identify themselves in the graffiti sub-culture.
Tag	An identifiable graffiti word or symbol repeatedly placed on property by a tagger.
Tagger	Name used to describe an individual that does graffiti vandalism.
Target Neighbourhoods	Neighbourhoods, identified through the City of Edmonton complaint tracking system "Posse", that were the focus for the graffiti audit.

APPENDIX G – Summary of All Taggers

1	Tagger	Tags	Neighbourhoods
2	78	1	Eastwood
3	118thFDB	1	Eastwood
4	4Heart Life	1	Boyle Street
5	7M	1	Downtown
6	Abstract	1	Alberta Avenue
7	Ace	3	Boyle, Downtown, McCauley
8	Ace Hood	2	McCauley
9	Ace Loyalty	1	Downtown
10	Adlib	6	Downtown
11	Aizor	1	Queen Mary Park
12	Akan	1	Oliver
13	Akes	1	Queen Alexandra, Strathcona
14	Akes	6	Strathcona
15	Alert	2	Eastwood
16	Amur	2	Downtown
17	Amur	1	Garneau
18	Aone	1	Belvedere
19	Arrow	1	Downtown
20	As Known As	3	Strathcona
21	Asharpy	1	Downtown
22	Ashcheekz	1	McCauley
23	Asoonz	1	Parkdale
24	Assror	1	Parkdale
25	ATB	1	Downtown
26	Atmos	1	Queen Alexandra
27	Auntie Was Here	1	Downtown
28	AW	2	Queen Alexandra
29	Awsr	1	Boyle Street
30	AZER	4	Eastwood
31	Azor	3	Downtown, Eastwood, Oliver
32	Baby Blue	1	Downtown
33	BAE	1	Queen Mary Park
34	BAK	2	Alberta Ave., Parkdale
35	Bang	1	Downtown
36	Barf	5	Downtown, Garneau, Queen Alexandra
37	Basis	1	Strathcona
38	Bazr	7	Boyle Street, Downtown,
39	Bbez	1	Strathcona
40	Beams	1	CPR West / Strathcona Junction
41	Beams	1	Strathcona
42	Bear	1	Strathcona
43	Beez	2	CPR West / Strathcona Junction, Downtown, McCauley, Queen Alexandra, Strathcona,
44	Biane	2	Central McDougall
45	Bidit	1	Strathcona
46	BigH118	1	Downtown
47	BillBot	1	Downtown
48	Bird	1	Downtown
49	Bishin	1	Downtown
50	BKALLDAY	1	Alberta Avenue
51	BL	1	Parkdale
52	Bobsy	1	Garneau
53	Bonnie C3	1	Alberta Avenue
54	Brew	1	Killarney
55	Brisie	1	Parkdale
56	Brute	2	Downtown
57	BS Shy	1	Eastwood
58	Bum Fights	1	Central McDougall
59	Bunaa	1	Boyle Street
60	Bush	1	Parkdale
61	Bz	1	Eastwood
62	C Money	1	Beverly Heights
63	C5	1	Alberta Avenue
64	CA	1	McCauley
65	Cab	2	Queen Alexandra, Ritchie

	Tagger	Tags	Neighbourhoods
66	Cake	16	Boyle St., Downtown, Ritchie, Strathcona
67	Cal	1	McCauley
68	Cali	1	McCauley
69	Cali & Ash	1	McCauley
70	Call Me	1	McCauley
71	Cam	1	Downtown
72	Cam	3	McCauley
73	Caoza	1	Downtown
74	Carace	2	Belvedere, Oliver
75	Carla	1	Westmount
76	Case	31	Alberta Ave., Boyle St., Downtown, Oliver, Strathcona, Westmount
77	Caver	1	CPR West / Strathcona Junction
78	CDC	1	Queen Mary Park
79	Champion	7	Boyle St., Garneau, Queen Alexandra, Strathcona
80	Chaos	2	Downtown
81	Chime	1	Garneau
82	ChowAce	1	Downtown
83	CLik	1	Downtown
84	Clove	1	McCauley
85	Cmk	1	Downtown
86	Cozy	1	McCauley
87	Cromb	2	Alberta Ave., Downtown
88	CT3	1	Eastwood
89	Curb	3	Queen Alexandra, Strathcona
90	Curve	1	Central McDougall
91	CUTE Robbin	1	Queen Alexandra
92	Daes	1	CPR West / Strathcona Junction
93	Daes	47	Downtown, Garneau, Queen Alexandra, Ritchie, Strathcona
94	Dames	1	Garneau
95	Dasign	1	Alberta Avenue
96	Dasignz	2	CPR West / Strathcona Junction
97	DB	1	Downtown
98	DBot	1	Downtown
99	DEANNA	1	Alberta Avenue
100	Dee	1	McCauley
101	Dee Was Here	3	Downtown, McCauley
102	Deelvas	5	McCauley
103	DeeJay	1	Downtown
104	Dek	1	Queen Alexandra
105	Deluks	1	Downtown
106	Deuce	1	Belvedere
107	DFA	1	Central McDougall
108	Dizes	1	Parkdale
109	Dmoneyesb	1	Parkdale
110	Dope Kid	2	Eastwood, McCauley
111	DopeRev	1	Alberta Avenue
112	Dres	1	Strathcona
113	Drink	1	Oliver
114	Drip	3	CPR West / Strathcona Junction, Ritchie
115	Drips	1	Downtown
116	Dummy	1	Downtown
117	Dwight Native	1	Eastwood
118	East	1	McCauley
119	Eating Animals	1	Beverly Heights
120	ECB	1	Eastwood
121	EHIO	1	McCauley
122	Elatte	1	Eastwood
123	Emaze	1	Downtown
124	Emenco	1	McCauley
125	EneNr	1	Downtown
126	Enots	4	CPR West / Strathcona Junction, Queen Alexandra
127	Erner	1	Boyle St., Downtown, Oliver
128	ETOWE	1	Eastwood
129	Exxape	1	McCauley
130	Fags	1	Garneau

	Tagger	Tags	Neighbourhoods
131	Faire	8	Downtown, Strathcona, Queen Alexandra
132	Fancy15.7	1	McCauley
133	Faux Gala	1	Downtown
134	Fever	1	Strathcona
135	First	1	Downtown
136	Flail	3	Alberta Ave., McCauley
137	FOB	1	Eastwood
138	Foff	1	Eastwood
139	Forgiveness	1	Downtown
140	Fox Tails	1	Downtown
141	FTW	1	Oliver
142	FUCCB4:25	1	Alberta Avenue
143	Fucu2	1	Killarney
144	G	1	Alberta Avenue
145	Goblin	6	Queen Alexandra, Ritchie, Strathcona
146	Gonp	1	Parkdale
147	Gotcha Rush	1	Downtown
148	Grain	1	Downtown
149	Grinch	3	Queen Alexandra, Strathcona
150	Harper	2	Eastwood
151	Harper	1	Parkdale
152	Hasio	1	Parkdale
153	Hazebott	1	Alberta Avenue
154	Head	2	Downtown, Strathcona
155	HHL	1	McCauley
156	HI	2	Downtown, Eastwood
157	HiCecilia	1	Downtown
158	HII	1	Downtown
159	Ho	1	McCauley
160	Home Brew	1	McCauley
161	Hood Baby	1	Downtown
162	Hood Big	1	McCauley
163	Hoser	2	Queen Alexandra, Downtown
164	Hustler	1	Downtown
165	I Luv U	1	Downtown
166	I Miss U	1	Downtown
167	I'm Back	1	McCauley
168	Insane	1	CPR West / Strathcona Junction
169	IP	1	Boyle Street
170	IRA	1	Beacon Heights
171	J	2	Alberta Ave, Eastwood
172	JJ	1	Eastwood
173	Jab	1	Downtown
174	Jackie&Marie	3	Downtown
175	JAYAN	4	Eastwood
176	Jaygotti	1	Downtown
177	Jeckua	1	McCauley
178	Jerk	1	McCauley
179	Jerk & June	1	McCauley
180	Jerk & Tammy	1	McCauley
181	Jerk.ca	2	Central McDougall, McCauley
182	JGotti	1	Downtown
183	Job Opening	1	Oliver
184	John	1	Killarney
185	Joy	1	McCauley
186	June	2	McCauley
187	Justine	1	Downtown
188	KA	1	Downtown
189	Kamikaze	3	Eastwood, Inglewood
190	Karma	7	Central McDougall, CPR West/Strathcona Junction, Downtown

	Tagger	Tags	Neighbourhoods
191	Kate's I Love	1	McCauley
192	Kayer	1	Strathcona
193	Kazoo	1	Ritchie
194	Kazpar	3	Boyle St., Eastwood
195	KC	1	Garneau
196	Kelly Cardinal	1	McCauley
197	Kill Club	1	Oliver
198	Kill Cops	1	Eastwood
199	King	1	Alberta Avenue
200	KnowYourself	1	Downtown
201	Knox	1	Downtown
202	Koz	1	Downtown
203	Krizma	2	CPR West / Strathcona Junction
204	Krzma	5	Downtown, Eastwood
205	Kurupt	8	Alberta Ave, Central McDougall, Downtown, McCauley
206	Lafar	1	CPR West / Strathcona Junction
207	Lance Cappel	1	Alberta Avenue
208	Last	1	Ritchie
209	LDC	1	Downtown
210	Legend	1	McCauley
211	Liar	1	Downtown
212	Lil Boy	1	CPR West / Strathcona Junction
213	Lil Holt	1	Downtown
214	Lil Nagula	1	McCauley
215	Lil Rod	1	Ritchie
216	Limbo	1	Strathcona
217	Lionel	1	McCauley
218	Listen14	1	Garneau
219	LL loves SM	1	McCauley
220	Lolicon	1	Downtown
221	Lost	2	Alberta Avenue
222	Lost Soul	1	Downtown
223	LurPez	1	Downtown
224	Mack	1	CPR West / Strathcona Junction
225	Macn	1	Downtown
226	Magna	1	McCauley
227	Maki	2	Alberta Ave.
228	Mash	3	Alberta Ave., Downtown
229	Melissa	1	McCauley
230	Merbr	1	Boyle Street
231	MF	1	Downtown
232	Mind	1	Queen Mary Park
233	Misty	1	McCauley
234	Misty C	1	McCauley
235	Mits	1	Downtown
236	MJ	1	Eastwood
237	MMMM	2	Eastwood
238	MOAR	1	Alberta Avenue
239	Mob King	1	Downtown
240	MOE	1	Garneau
241	Moer	1	Strathcona
242	MOES	1	Downtown
243	Mores	1	McCauley
244	MSL420	1	Queen Mary Park
245	MW	2	Alberta Avenue
246	Naner&Ehron	1	Downtown
247	Nark	1	Oliver
248	Naso	1	Oliver
249	Native Pride	1	Queen Mary Park
250	Natives	1	Downtown
251	NiceNaughty	1	Downtown
252	NOG	1	Downtown
253	NOMAK	1	Alberta Avenue
254	Notto	1	Eastwood
255	Nowhere Fast	1	Downtown
256	NSO Knownas	1	Garneau
257	Oliver	1	Oliver

	Tagger	Tags	Neighbourhoods
258	Omae	1	Central McDougall
259	Omaz	2	Queen Mary Park
260	Omes	1	Queen Alexandra
261	Ones	2	Garneau
262	Only The Lonely	1	Downtown
263	Onset	2	Strathcona
264	Onyx	1	Downtown
265	Ores	3	Boyle St., Killarney, McCauley
266	OYME	1	Downtown
267	Pare	1	Strathcona
268	Pat	1	Beacon Heights
269	Paul	1	Central McDougall
270	Pea	1	Oliver
271	Peneta	1	Queen Mary Park
272	Pesk	1	Queen Alexandra
273	Pest	1	Strathcona
274	Phylthy Phil	1	Beacon Heights
275	Picture of fox	1	Downtown
276	Pin MC	1	Boyle Street
277	PINT	1	Strathcona
278	PK	1	Beacon Heights
279	POK	1	Downtown
280	Pope Slid	1	CPR West / Strathcona Junction
281	Poser	1	Strathcona
282	Post	14	Queen Alexandra, Strathcona
283	Propheniox	2	Alberta Avenue
284	PST	1	McCauley
285	QM	1	Alberta Avenue
286	RA	3	Boyle St., Eastwood, McCauley
287	Radio 104	1	Boyle Street
288	Ram	1	Garneau
289	Raps	1	Strathcona
290	Rase	1	Strathcona
291	Rash	1	McCauley
292	Rbos	1	Boyle Street
293	RBoy	2	Downtown
294	REAK	1	Queen Alexandra
295	REAN	2	McCauley
296	Red Nation	1	Eastwood
297	Repent	1	Downtown
298	Revert	1	Strathcona
299	Rissa	1	Downtown
300	RJ	1	Eastwood
301	Rkum	1	Killarney
302	Robbins	1	Downtown
303	Robins2015	1	Downtown
304	Roe	2	Strathcona
305	Rose	2	Alberta Ave., McCauley
306	Roy	1	Downtown
307	Rtbz	1	Downtown
308	Rupert	6	Downtown, Queen Mary Park
309	Rush	33	Alberta Ave, Downtown, Central McDougall, Garneau, McCauley, Oliver, Queen
310	RV	1	Boyle Street
311	Rydell	1	Downtown
312	Sam	1	McCauley
313	Sam Baby	1	Downtown
314	Sam U Are	1	Downtown
315	Sammy	2	McCauley
316	Sanderson	2	McCauley
317	Sass	1	Parkdale
318	SBC	1	Garneau
319	Scratch	1	Oliver
320	Search	1	Downtown
321	Search One	1	Boyle Street
322	SED	3	Belvedere, Strathcona
323	Sem	19	Downtown, Queen Alexandra, Strathcona
324	Semo	2	Downtown

	Tagger	Tags	Neighbourhoods
325	SERCH	1	Oliver
326	SF	1	Killarney
327	SF Skechy	5	Garneau, Queen Alexandra
328	Shade	1	Queen Mary Park
329	Shadow	1	Eastwood
330	Shady	1	Alberta Avenue
331	Shame	1	McCauley
332	Shane T	1	Boyle Street
333	SHD	1	Garneau
334	SHE	1	Killarney
335	Shine	1	Downtown
336	Shred	1	Strathcona
337	ShunOne	3	Downtown
338	Sioux Child	1	McCauley
339	SK	1	Alberta Avenue
340	Sketch	1	Queen Alexandra
341	Skibs	1	Strathcona
342	Skiby	1	Strathcona
343	Skibz	1	Queen Alexandra
344	Skout	1	Downtown
345	Slug	1	Strathcona
346	Smoce	1	Downtown
347	Sober	1	Downtown
348	Soffty	1	Parkdale
349	Solo	1	Boyle Street
350	Sone	1	Queen Alexandra
351	Sope	2	Eastwood
352	Sour	2	Queen Alexandra, Strathcona
353	Speed Kills	1	Eastwood
354	Spook	1	Downtown
355	SSJ	1	McCauley
356	StayKicked	1	Eastwood
357	Stem	1	Downtown
358	Stop Harper	1	Alberta Avenue
359	STYL	1	McCauley
360	Style	4	Downtown
361	Suspect	2	Downtown, Stathcona
362	Swag	2	CPR West / Strathcona Junction
363	Syo	1	Strathcona
364	Tab	2	Downtown, McCauley
365	Tabs	1	Queen Mary Park
366	Talk2Me	1	Westmount
367	TBS	1	Downtown
368	TCU	1	Central McDougall
369	Tech9	5	Downtown, Strathcona
370	Teebs	1	Queen Alexandra
371	Teets	1	Downtown
372	Teeze	4	Alberta Ave., Queen Alexandra
373	TH	1	Queen Mary Park
374	Theo	1	Downtown
375	Thot	1	Strathcona
376	THUG	1	McCauley
377	TNA	2	Downtown
378	TNT	1	Queen Mary Park
379	TNX	1	Downtown
380	Totem Daddie	1	McCauley

	Tagger	Tags	Neighbourhoods
381	TRUBBLE	1	McCauley
382	Trust No-One	3	Strathcona
383	Try Out	6	Queen Alexandra, Boyle St. Downtown, Strathcona
384	TTT	1	Downtown
385	Tubabo	1	Downtown
386	Tubbs	1	Ritchie
387	Tuna5	1	McCauley
388	Tupac	2	Central McDougall
389	Tuper	1	Garneau
390	Turbo	3	Garneau, Strathcona
391	Tyson	1	McCauley
392	Tywd	1	Queen Mary Park
393	UFER	1	Alberta Avenue
394	Uossak	1	Parkdale
395	Vandal	1	Strathcona
396	VEL	1	Eastwood
397	Vishin	2	Downtown
398	VNDL	1	Queen Alexandra
399	W	1	Downtown
400	Wank	7	Belvedere, Strathcona
401	We Ruined YEG	1	Downtown
402	What A waste of Canvas	1	Downtown
403	WhatSE	1	Downtown
404	Willow	2	McCauley
405	Willow Pillow	1	McCauley
406	Wood Pole	1	Boyle Street
407	WPWW	1	Alberta Avenue
408	WSD	1	Parkdale
409	Wutang	1	Queen Alexandra
410	WWWW	1	Alberta Avenue
411	YesR	1	Queen Alexandra
412	Zach	1	Parkdale
413	ZE	1	McCauley
414	Zevi	1	Strathcona
415	Zima	1	McCauley
416	Zodiak	7	Central McDougall, CPR West/Strathcona Junction, Downtown, Queen Mary Park,
417	Zombie	1	Boyle Street
418	ZS	1	Garneau

APPENDIX H – Sample of Graffiti Audit Field Data

Graffiti ID	Photo Date	Photo Time	Site Type	Neighbourhood	Intersection 1	Intersection 2	Alley/Description	Latitude	Longitude	Neighbourhood	Target Category	Target Item	Category	Size	Tagger
110 a	11/15/2010	9:57:00 AM	Hot Spot	McCauley	96 St NW	110 Ave NW	In alley immediately east of 96 St NW between 96 St NW and 110 Ave NW behind address #9543 110 Ave NW.	N 53° 33' 29"	W 113° 33.27.5 "	McCauley	Community League (Bldg)	Post (gas line protection)	Marker/Plain	X-small	
210 a	11/15/2010	11:18:00 AM	Hot Spot	McCauley	109A NW	96 St NW	In alley directly behind #9541 109A Ave NW.	N53° 33' 23.7"	W113° 29' 14.0"	McCauley	Residence	Garage (Door)	Marker/Plain	Medium	
310 a	11/15/2010	11:25:00 AM	Hot Spot	McCauley	95 St NW	109 Ave NW	In alley south of 109A Ave NW on back wall of house #9520 109 Ave NW.	N53° 33' 24.2"	W113° 29' 09.8"	McCauley	Residence	Walls	Marker/Plain	X-small	Fate
410 a	11/15/2010	11:51:00 AM	Hot Spot	McCauley	108A Ave	95 St	In alley behind Sorrentina's Grocery Store house #10878 95 St NW	N53° 33'20.0 "	W113° 29'07.0"	McCauley	Private Waste Company - WMI	Disposal Bin - Small	Artistic Tag	Small	Listen
510 a	11/15/2010	12:10:00 PM	Hot Spot	McCauley	109A Ave NW	95 St NW	In alley at back of house #9426 109A Ave NW.	N53° 33'22.3 "	W113° 29'05.4 "	McCauley	Residence	Fence	Marker/Plain	Medium	South
610 b	11/15/2010	12:17:00 PM	Hot Spot	McCauley	109A Ave	94 St NW	In parking lot os McCauley Youth Centre.	N53° 33'26.3 "	W113° 29'02.4 "	McCauley	Private Waste Company - WSI	Disposal Bin - Small	Marker/Plain	X-small	
610 a	11/15/2010	12:16:00 PM	Hot Spot	McCauley	109A Ave	94 St NW	In parking lot os McCauley Youth Centre.	N53° 33'26.3 "	W113° 29'02.4 "	McCauley	Private Waste Company - WSI	Disposal Bin - Small	Marker/Plain	Small	
710 a	11/15/2010	12:39:00 PM	Hot Spot	McCauley	109A Ave NW	94 St NW	At back of house #9412 109A Ave NW.	N53° 33'28.6 "	W113° 29'04.6 "	McCauley	Residence	Garage - Door	Marker/Plain	Medium	South
810 a	11/15/2010	12:45:00 PM	Hot Spot	McCauley	92 ST NW	109A Ave NW	In back of house #9411 110 Ave NW.	N53° 33'29.0 "	W113° 29'03.1"	McCauley	Residence	Fence	Marker/Plain	Medium	South
910 a	11/15/2010	12:50:00 PM	Hot Spot	McCauley	92 St NW	110 Ave NW	In alley at back of house #9401 110 Ave NW.	N53° 33'29.2 "	W113°29'02.0 "	McCauley	Residence	Garage - Wall	Marker/Plain	Medium	S.C

APPENDIX I - Factors Considered in Location Intensity Rating (LIR)

Criteria	Score	
Size *	1	Extra-small (<=1sq.ft.)
	2	Small (>1 sq..< < 2 sq..)
	3	Med (>2sq.ft. < 9 sq..)
	4	Large (>9 sq.. <20 sq..)
	5	X-Large (>20 sq..)
* Size refers to average size of graffiti at the location		

Criteria	Score	
Colour *	1	Low colour intensity, dull, need to look carefully
	2	Low to moderate colour, begin to see easily
	3	Moderate amount of colour, not impactful
	4	More colour, location very visible
	5	Vibrant, highly coloured, hard to miss
* Colour ranges from hardly visible, to highly visible and impactful.		

Criteria	Score	
Complexity *	1	Marker / plain graffiti
	2	Outline bubble tag - no colour
	3	Outline bubble tag - one colour
	4	Outline bubble tag - two colours
	5	Outline bubble tag - multiple colours
* Complexity describes how intricate and how much time was apparently required for the majority of graffiti at this location.		

Criteria	Score	
Artistic *	1	Not drawn - splash, slash , other
	2	Drawn but no artistic intent apparent
	3	Some indication of artistic intent
	4	Greater artistic intent
	5	Artistic in execution
* Artistic relates to whether vandal(s) achieve artistic intent.		

Criteria	Score	
Visibility *	1	Graffiti barely visible.
	2	Graffiti noticeable
	3	Graffiti noticeable to trained person
	4	Graffiti likely noticeable to anyone
	5	Could not miss graffiti at this location
* Visibility relates to how visible the location is to pedestrians as they pass by		

Criteria	Score	
Longevity *	1	Likely old, faded, almost not visible
	2	Older graffiti, but noticeable
	3	Graffiti at location for some time
	4	Relatively new, and not removed yet
	5	Appears recent, no removed

* Longevity relates to whether graffiti appears old or newer.

Criteria	Score	
Access *	1	Easiest, i.e. back alleys, no restrictions on egress
	2	Very easy access, some traffic or likely detection
	3	Moderate access, threat of detection
	4	Restricted access, higher likelihood of detection
	5	Difficult access, Secured area, dangerous

* Access relates to how easy it was to put up the graffiti.

Criteria	Score	
Surface *	1	Bad surface, jagged, can't take paint, dark
	2	Poor surface, difficult to paint on, not as dark
	3	Moderate surface, can pain on it easily
	4	Good surface, accepts graffiti easily
	5	Idea surface, smooth, accepts paint

* Surface relates to how good target surface is to accepting graffiti.

Criteria	Score	
Re-occurrence *	1	Bad surface, jagged, can't take paint, dark
	2	Poor surface, difficult to paint on, not as dark
	3	Moderate surface, can pain on it easily
	4	Good surface, accepts graffiti easily
	5	Idea surface, smooth, accepts paint

* Re-occurrence relates to evidence that graffiti has been reapplied.

APPENDIX J - Location Intensity Rating (LIR) Data

	Neighbourhood Name	Latitude	Longitude	Score	Num	Street Name
1	Downtown	N53.53938	W113.50086	35	10030	104 St
2	McCauley	N53.55214	W113.49020	31	9707	107 A Ave
3	CPR West / Strathcona Junction	N53.51753	W113.49685	30	8123	104 St
4	Ritchie	N53.51522	W113.49048	30	10020	79 Ave
5	CPR West / Strathcona Junction	N53.51759	W113.49629	28	10331	Whyte Ave
6	Downtown	N53.53898	W113.50199	28	10005	106 St
7	Strathcona	N53.51861	W113.49541	26	10310	Whyte Ave
8	Eastwood	N53.57061	W113.47162	25	11803	86 St
9	McCauley	N53.55231	W113.49054	25	10725	98 St
10	Strathcona	N53.51868	W113.49673	25	10352	Whyte Ave
11	CPR West / Strathcona Junction	N53.51749	W113.49545	24	8122	Gateway Blvd
12	Downtown	N53.54201	W113.50039	24	10146	104 St
13	Downtown	N53.54121	W113.49896	24	10342	Jasper Ave
14	McCauley	N53.55196	W113.49018	24	10704	97 St
15	Strathcona	N53.51813	W113.49864	24	10420	Whyte Ave
16	Boyle Street	N53.54398	W113.48277	23	10124	96 St
17	Downtown	N53.53957	W113.50182	23	10018	105 St
18	Eastwood	N53.57049	W113.47131	23		85 St
19	Oliver	N53.53664	W113.51028	23	9844	110 St
20	Queen Alexandra	N53.51571	W113.50152	23	10516	79 Ave
21	Queen Alexandra	N53.51747	W113.50086	23	10505	Whyte Ave
22	Ritchie	N53.51516	W113.49142	23		101 St
23	Oliver	N53.54177	W113.53418	22	12302	Jasper Ave
24	Parkdale	N53.56956	W113.46809	22	114722	82 St
25	Queen Alexandra	N53.51740	W113.49850	22	10405	Whyte Ave
26	Queen Alexandra	N53.51752	W113.49921	22	10431	Whyte Ave
27	Strathcona	N53.51880	W113.49986	22	10460	Whyte Ave
28	Downtown	N53.54154	W113.50161	21	10104	105 St
29	Strathcona	N53.52088	W113.49606	21	10307	85 Ave
30	Strathcona	N53.51869	W113.49950	21	10444	Whyte Ave
31	Strathcona	N53.51859	W113.49911	21	10433	83 Ave
32	Garneau	N53.51831	W113.50831	20	10740	Whyte Ave
33	Garneau	N53.51817	W113.50901	20	10768	Whyte Ave
34	Garneau	N53.51851	W113.51158	20	10860	Whyte Ave
35	Strathcona	N53.51869	W113.49846	20	8216	104 St
36	Belvedere	N53.58774	W113.44041	19		129 Ave
37	Boyle Street	N53.54486	W113.48425	19	9635	102 A Ave
38	Downtown	N53.53503	W113.49751	19	10325	103 St
39	Downtown	N53.53994	W113.50195	19	10525	Jasper Ave
40	Queen Mary Park	N53.55212	W118.52034	19	10721	116 St
41	Strathcona	N53.51866	W113.50602	19	10650	Whyte Ave
42	Alberta Avenue	N53.57001	W113.48072	18	9023	118 Ave
43	Alberta Avenue	N53.56076	W113.48683	18	11115	95 St
44	Alberta Avenue	N53.56121	W113.48726	18	11201	95 st
45	Beacon Heights	N53.57058	W113.41368	18	11805	47 St
46	Beverly Heights	N53.56951	W113.39954	18		
47	Downtown	N53.54580	W113.49756	18	10324	103 St
48	Downtown	N53.54569	W113.49368	18	10030	104 Ave
49	Downtown	N53.54011	W113.49635	18	10048	102 St
50	Downtown	N53.54029	W113.50388	18	10665	Jasper Ave
51	Downtown	N53.54158	W113.50571	18	10722	Jasper Ave

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	Neighbourhood Name	Latitude	Longitude	Intensity	Street	Street Name
52	Eastwood	N53.57112	W113.47704	18	11832	88 ave
53	Killarney	N53.59018	W113.46814	18	13022	82 St
54	Killarney	N53.58764	W113.49129	18	12901	97 St
55	McCauley	N53.55537	W113.48360	18	10821	95 St
56	McCauley	N53.55316	W113.49148	18	10769	98 St
57	McCauley	N53.55027	W113.48582	18	10548	96 St
58	McCauley	N53.55135	W113.48733	18	10628	96 St
59	Parkdale	N53.56834	W113.46477	18	11632	80 St
60	Queen Alexandra	N53.51709	W113.50115	18	10512	81 Ave
61	Queen Alexandra	N53.51755	W113.49995	18	8103	105 St
62	Queen Alexandra	N53.51752	W113.50179	18	10519	Whyte Ave
63	Queen Mary Park	N53.55529	W113.51501	18	11234	109 Ave
64	Strathcona	N53.51860	W113.50314	18	10560	Whyte Ave
65	Strathcona	N53.51856	W113.50130	18	10512	Whyte Ave
66	Strathcona	N53.51887	W113.49850	18	10403	83 Ave
67	Alberta Avenue	N53.56990	W113.48206	17	11737	92 St
68	Alberta Avenue	N53.56996	W113.48471	17	9315	118 Ave
69	Alberta Avenue	N53.57301	W113.48547	17	11935	34 St
70	Alberta Avenue	N53.55941	W113.49004	17	9570	111 Ave
71	Belvedere	N53.58746	W113.43851	17		
72	Boyle Street	N53.54549	W113.48602	17	10265	97 St
73	Boyle Street	N53.54533	W113.48340	17	9605	102A Ave
74	Boyle Street	N53.54663	W113.48413	17	10316	96 St
75	Boyle Street	N53.54404	W113.48129	17	9559	102 Ave
76	Central McDougall	N53.55096	W113.50187	17	10531	107 Ave
77	Central McDougall	N53.55825	W113.49405	17		
78	Central McDougall	N53.55507	W113.49422	17	10110	Kingsway Ave
79	Downtown	N53.54071	W113.49575	17		102 St
80	Downtown	N53.54033	W113.49848	17	10343	Jasper Ave
81	Downtown	N53.54250	W113.49915	17	10165	102 St
82	Downtown	N53.54454	W113.49846	17	10255	103 Ave
83	Downtown	N53.54126	W113.50086	17	10106	105 St
84	Downtown	N53.54603	W113.50626	17		108 St
85	Downtown	N53.54603	W113.50626	17		108 St
86	Downtown	N53.54242	W113.50580	17	10164	107 St
87	Downtown	N53.54613	W113.50386	17	10345	107 St
88	Downtown	N53.54176	W113.50214	17	10104	105 St
89	Downtown	N53.54457	W113.50586	17	10215	108 St
90	Eastwood	N53.57080	W113.47750	17	8818	118 Ave
91	Eastwood	N53.57322	W113.47530	17	11943	88 St
92	Eastwood	N53.57093	W113.47548	17	8728	118 Ave
93	Eastwood	N53.57080	W113.47455	17	11806	87 St
94	Killarney	N53.58744	W113.47174	17	12844	85 St
95	Killarney	N53.59080	W113.48244	17	13110	91 St
96	Killarney	N53.58897	W113.48966	17	9539	96 St
97	McCauley	N53.55488	W113.48668	17	9541	108 A Ave
98	McCauley	N53.55180	W113.48962	17	10708	97 St
99	McCauley	N53.55119	W113.48634	17	9614	106 Ave
100	McCauley	N53.55050	W113.48602	17	10570	96 St
101	Oliver	N53.53651	W113.51395	17	9816	112 St
102	Parkdale	N53.56994	W113.46597	17	11748	81 St
103	Queen Alexandra	N53.51659	W113.50176	17	10520	80 Ave
104	Queen Alexandra	N53.51754	W113.49960	17	10436	81 Ave
105	Strathcona	N53.51891	W113.50513	17	10625	83 Ave
106	Strathcona	N53.51874	W113.50448	17	8208	106 St
107	Strathcona	N53.51860	W113.50172	17	10534	Whyte Ave
108	Westmount	N53.54875	W113.53318	17	10543	123 St
109	Alberta Avenue	N53.57010	W113.48507	16		94 St
110	Alberta Avenue	N53.56920	W113.48045	16	11708	90 St
111	Alberta Avenue	N53.57042	W113.48535	16	9340	118 Ave

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	Neighbourhood Name	Latitude	Longitude	Score	Num	Street Name
112	Alberta Avenue	N53.57323	W113.48330	16	11910	92 Ave
113	Alberta Avenue	N53.57244	W113.48048	16	11912	90 St
114	Alberta Avenue	N53.56029	W113.48652	16	9424	111 Ave
115	Alberta Avenue	N53.55929	W113.49015	16	11104	96 St
116	Alberta Avenue	N53.56577	W113.48758	16		
117	Alberta Avenue	N53.56440	W113.48643	16	11401	95 St
118	Alberta Avenue	N53.56139	W113.48784	16	11206	95 St
119	Alberta Avenue	N53.56293	W113.48791	16	11305	95a St
120	Alberta Avenue	N53.56322	W113.48782	16	11315	95A St
121	Alberta Avenue	N53.56424	W113.48952	16		
122	Alberta Avenue	N53.56424	W113.48952	16		
123	Alberta Avenue	N53.56109	W113.49022	16		95 St
124	Alberta Avenue	N53.55968	W113.49076	16	11114	96 Ave
125	Alberta Avenue	N53.56531	W113.48938	16	11435	96 St
126	Beacon Heights	N53.57096	W113.41302	16	11811	47 St
127	Beacon Heights	N53.57088	W113.41637	16	4824	118 ave
128	Beacon Heights	N53.57542	W113.39690	16	3533	121A Ave
129	Belvedere	N53.58933	W113.43751	16	13107	63 St
130	Belvedere	N53.58937	W113.44046	16	13004	64 St
131	Belvedere	N53.58626	W113.44215	16	128011	66 St
132	Beverly Heights	N53.56985	W113.41679	16	4817	118 Ave
133	Boyle Street	N53.44448	W113.48666	16	10221	97 St
134	Boyle Street	N53.54351	W113.48224	16	9616	Jasper Ave
135	Boyle Street	N53.54340	W113.48429	16	9646	101A
136	Boyle Street	N53.54387	W113.48435	16	9645	102 Ave
137	Boyle Street	N53.54434	W113.48549	16	10203	97 St
138	Boyle Street	N53.54487	W113.48576	16	10225	97 St
139	Boyle Street	N53.54534	W118.48343	16	10216	96 St
140	Boyle Street	N53.54515	W113.47992	16	9530	102 Ave
141	Boyle Street	N53.55012	W113.47623	16	10411	92 St
142	Boyle Street	N53.54369	W113.47858	16	10118	95 St
143	Boyle Street	N53.55059	W113.47549	16	10434	91 St
144	Boyle Street	N53.55347	W113.47393	16	10610	87 St
145	Central McDougall	N53.55209	W113.50638	16	10734	107 Ave
146	Central McDougall	N53.55817	W113.49477	16	11027	102 St
147	CPR West / Strathcona Junction	N53.51629	W113.49492	16	8004	Gateway Blvd
148	CPR West / Strathcona Junction	N53.50441	W113.49734	16	6801	104 St
149	CPR West / Strathcona Junction	N53.50838	W113.49699	16	7127	104 St
150	CPR West / Strathcona Junction	N53.50718	W113.49684	16	7019	104 St
151	Downtown	N53.54198	W113.50095	16	10155	105 St
152	Downtown	N53.54308	W113.50074	16	10177	105 St
153	Downtown	N53.54428	W113.50095	16	10255	105 St
154	Downtown	N53.54576	W113.50114	16	10355	105 St
155	Downtown	N53.53966	W113.49536	16		102 St
156	Downtown	N53.53893	W113.49761	16	10019	103 St
157	Downtown	N53.54102	W113.49795	16	10343	Jasper Ave
158	Downtown	N53.54033	W113.49350	16	10025	101 St
159	Downtown	N53.54065	W113.49400	16		101 St
160	Downtown	N53.53963	W113.49639	16	10024	102 St
161	Downtown	N53.53890	W113.49397	16	10006	101 St
162	Downtown	N53.54012	W113.49732	16	10055	103 St
163	Downtown	N53.53962	W113.49940	16	10405	
164	Downtown	N53.53942	W113.49779	16	10040	103 St
165	Downtown	N53.54486	W113.50008	16	10305	105 St
166	Downtown	N53.54411	W113.50021	16	10233	105 St
167	Downtown	N53.54411	W113.50021	16	10233	105 St
168	Downtown	N53.54365	W113.50016	16	10220	104 St
169	Downtown	N53.54279	W113.50006	16	10190	104 St
170	Downtown	N53.54129	W113.49954	16	10111	104 St
171	Downtown	N53.54561	W113.49848	16	10345	104 St
172	Downtown	N53.54384	W113.49816	16	10232	103 St

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	Neighbourhood Name	Latitude	Longitude	Intensity	Street	Street Name
173	Downtown	N53.54205	W113.49864	16	10145	104 St
174	Downtown	N53.54168	W113.49966	16	10137	104 St
175	Downtown	N53.54145	W113.49773	16	10230	Jasper Ave
176	Downtown	N53.54215	W113.49753	16	10158	103 St
177	Downtown	N53.54293	W113.49084	16	10009	100 St
178	Downtown	N53.54073	W113.50084	16	10028	105 St
179	Downtown	N53.53959	W113.50117	16	10025	106 St
180	Downtown	N53.53990	W113.50296	16	10034	106 St
181	Downtown	N53.54033	W113.50669	16	10044	108 St
182	Downtown	N53.53976	W113.50579	16	10047	108 St
183	Downtown	N53.53961	W113.50378	16	10024	106 St
184	Downtown	N53.54107	W113.50530	16	10702	Jasper Ave
185	Downtown	N53.54150	W113.50642	16		108 St
186	Downtown	N53.54151	W113.50807	16	10888	109 St
187	Downtown	N53.54411	W113.50751	16	10241	109 St
188	Downtown	N53.54524	W113.50754	16	10334	108 St
189	Downtown	N53.54483	W113.50294	16	10312	106 St
190	Downtown	N53.54195	W113.50224	16	10550	Jasper Ave
191	Downtown	N53.54250	W113.50223	16	10175	106 St
192	Downtown	N53.54355	W113.50207	16	10200	105 St
193	Downtown	N53.54516	W113.50385	16	10309	107 St
194	Downtown	N53.54436	W113.50380	16	10265	107 St
195	Downtown	N53.54351	W113.50376	16	10217	107 St
196	Downtown	N53.54280	W113.50379	16	10186	106 St
197	Downtown	N53.54148	W113.50312	16	10620	Jasper Ave
198	Downtown	N53.54084	W113.50357	16		Jasper Ave
199	Downtown	N53.54321	W113.50287	16	10605	103 Ave
200	Downtown	N53.54302	W113.50331	16	10606	102 Ave
201	Eastwood	N53.57105	W113.47709	16	11815	89 St
202	Eastwood	N53.57444	W113.47708	16	12027	89 St
203	Eastwood	N53.57505	W113.47708	16	8815	121 Ave
204	Eastwood	N53.57505	W113.47528	16		
205	Eastwood	N53.57117	W113.47354	16	11834	86 St
206	Eastwood	N53.57498	W113.47260	16		121 Ave
207	Eastwood	N53.57196	W113.47150	16	11848	85 Ave
208	Eastwood	N53.57236	W113.47511	16	8712	119 Ave
209	Eastwood	N53.57136	W113.45864	16		
210	Eastwood	N53.57136	W113.45864	16		
211	Eastwood	N53.57106	W113.46181	16	11819	79 St
212	Eastwood	N53.57374	W113.46175	16		
213	Eastwood	N53.57212	W113.46365	16		
214	Eastwood	N53.57510	W113.47604	16	7807	121 Ave
215	Eastwood	N53.57571	W113.46275	16	12114	79 St
216	Eastwood	N53.57560	W113.46006	16		
217	Garneau	N53.52191	W113.51154	16	8537	109 St
218	Garneau	N53.51863	W113.50665	16	8208	107 St
219	Garneau	N53.51868	W113.50740	16	10725	83 Ave
220	Garneau	N53.51867	W113.50836	16	10750	Whyte Ave
221	Garneau	N53.51854	W113.50891	16	10753	83 Ave
222	Garneau	N53.51858	W113.50970	16	10802	Whyte Ave
223	Garneau	N53.51855	W113.51054	16	10823	83 Ave
224	Garneau	N53.51896	W113.51173	16	8217	109 St
225	Garneau	N53.51962	W113.50913	16		84 Ave
226	Garneau	N53.52047	W113.50965	16	10808	84 Ave
227	Garneau	N53.52048	W113.50758	16	10726	84 Ave
228	Garneau	N53.52114	W113.51823	16	11053	111 St
229	Garneau	N53.51883	W113.51662	16	11024	Whyte
230	Garneau	N53.51953	W113.51750	16	11054	83 Ave
231	Garneau	N53.52067	W113.52035	16	8405	112 St
232	Inglewood	N53.56207	W113.53477	16	11245	124 St
233	Inglewood	N53.56563	W113.53774	16		115 Ave

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	Neighbourhood Name	Latitude	Longitude	Score	Num	Street Name
234	Inglewood	N53.56198	W113.53667	16	11240	124 St
235	Killarney	N53.58753	W113.46830	16	12904	82 St
236	Killarney	N53.58755	W113.49136	16	12902	96 St
237	Killarney	N53.59081	W113.48932	16	13110	95A St
238	McCauley	N53.55510	W113.48418	16	10805	95 St
239	McCauley	N53.55608	W113.48470	16		95 St
240	McCauley	N53.55886	W113.48508	16	9257	110A Ave
241	McCauley	N53.55619	W113.48798	16	10909	96 St
242	McCauley	N53.55845	W113.48689	16	9515	110A Ave
243	McCauley	N53.54882	W113.49255	16	10014	105 A Ave
244	McCauley	N53.55042	W113.49229	16	10026	100 St
245	McCauley	N53.55107	W113.48996	16	10646	97 St
246	McCauley	N53.55359	W113.49127	16	9711	108a Ave
247	McCauley	N53.55080	W113.48608	16	9604	106 Ave
248	McCauley	N53.54936	W113.48528	16	10530	96 St
249	McCauley	N53.55091	W113.48746	16	9637	106 A Ave
250	McCauley	N53.54988	W113.48789	16	10569	97 St
251	Oliver	N53.53757	W113.51204	16	9918	11 St
252	Oliver	N53.53955	W113.51120	16	10023	111 St
253	Oliver	N53.53804	W113.51252	16	9930	111 St
254	Oliver	n53.54179	W113.53583	16	10103	124 St
255	Oliver	N53.54613	W113.53094	16		Stony Plain Rd
256	Oliver	N53.54643	W113.53523	16	12315	Stony Plain Rd
257	Oliver	N53.54309	W113.53437	16		123 St
258	Oliver	N53.54286	W113.53324	16	12225	102 Ave
259	Parkdale	N53.57025	W113.46420	16		
260	Parkdale	N53.56502	W113.46545	16		
261	Parkdale	N53.46485	W113.46643	16	11419	82 St
262	Parkdale	N53.56546	W113.46642	16	11438	82 St
263	Parkdale	N53.56628	W113.46812	16	11511	83 St
264	Parkdale	N53.56867	W113.46561	16		
265	Parkdale	N53.56992	W113.46620	16	8121	118 Ave
266	Parkdale	N53.56943	W113.46658	16	11723	82 St
267	Parkdale	N53.56562	W113.47474	16		87 St
268	Parkdale	N53.56266	W113.47256	16	11248	85 St
269	Parkdale	N53.56303	W113.47667	16	11306	88 St
270	Parkdale	N53.56267	W113.47401	16		113Ave
271	Parkdale	N53.56219	W113.47746	16	11237	89 St
272	Parkdale	N53.56181	W113.47746	16	11222	88 St
273	Queen Alexandra	N53.51472	W113.49884	16	10413	79 Ave
274	Queen Alexandra	N53.51472	W113.50493	16	10624	78 Ave
275	Queen Alexandra	N53.51473	W113.50579	16	10645	79 Ave
276	Queen Alexandra	N53.51568	W113.50578	16	10640	79 Ave
277	Queen Alexandra	N53.51658	W113.50477	16	10633	81 Ave
278	Queen Alexandra	N53.51601	W113.49859	16	10405	80 Ave
279	Queen Alexandra	N53.51698	W113.49866	16	10416	80 Ave
280	Queen Alexandra	N53.51753	W113.50314	16	10565	Whyte Ave
281	Queen Alexandra	N53.51782	W113.50622	16	10661	Whyte Ave
282	Queen Mary Park	N53.55702	W113.51582	16		113 St
283	Queen Mary Park	N53.55744	W113.50883	16	11008	109 St
284	Queen Mary Park	N53.55817	W113.51110	16	11007	111 Ave
285	Queen Mary Park	N53.55280	W113.51117	16	11015	108 Ave
286	Queen Mary Park	N53.55198	W113.51109	16	10707	111 St
287	Queen Mary Park	N53.55472	W113.51484	16	11216	109 Ave
288	Queen Mary Park	N53.55316	W113.51394	16		108 Ave
289	Queen Mary Park	N53.55183	W113.50945	16	10908	107 Ave
290	Queen Mary Park	N53.54900	W113.52032	16	10555	116 St
291	Queen Mary Park	N53.55289	W113.52222	16		108 Ave
292	Queen Mary Park	N53.55381	W113.52576	16	11737	108 Ave
293	Ritchie	N53.51558	W113.48772	16	9928	79 Ave
294	Ritchie	N53.50995	W113.47964	16		74 Ave

	Neighbourhood Name	Latitude	Longitude	Intensity	Street	Street Name
295	Strathcona	N53.51824	W113.50105	16	10508	Whyte Ave
296	Strathcona	N53.51820	W113.50182	16	10526	Whyte Ave
297	Strathcona	N53.51828	W113.50616	16	10650	Whyte Ave
298	Strathcona	N53.51878	W113.50221	16	10555	83 Ave
299	Strathcona	N53.51878	W113.50221	16	10555	83 Ave
300	Strathcona	N53.51958	W113.50089	16	10512	83 Ave
301	Strathcona	N53.52422	W113.48621	16	8820	99 St
302	Strathcona	N53.52268	W113.48631	16		87 Ave
303	Strathcona	N53.52442	W113.49117	16	10101	Saskatchewan Dr
304	Strathcona	N53.52355	W113.48637	16		99 St
305	Strathcona	n53.52314	W113.48383	16	9819	88 Ave
306	Strathcona	N53.52308	W113.48483	16	9843	88 Ave
307	Westmount	N53.54945	W113.53288	16	12204	106 Ave
308	Westmount	N53.54674	W113.53321	16	12206	Stoney Plain Rd
309	Westmount	N53.54756	W113.53342	16	12225	105 Ave
310	Westmount	N53.54788	W113.53353	16	10503	123 St
311	Westmount	N53.54704	W113.53407	16	12220	Stoney Plain Rd
312	Westmount	N53.54721	W113.53492	16	10429	124 St
313	Westmount	N53.55395	W113.54184	16	10950	127 St
314	Westmount	N53.55544	W113.54302	16	10970	127 St
315	Beacon Heights	N53.57627	W113.39629	15	3522	121A Ave
316	Belvedere	N53.58983	W113.44211	15	13028	65 St
317	Beverly Heights	N53.56992	W113.39861	15	3636	117 Ave
318	Killarney	N53.59081	W113.47177	15		85 St
319	Parkdale	N53.56780	W113.46012	15	11612	82 St

APPENDIX K - Open Source Street Art Pilot Project

As an adjunct to the City-wide graffiti audit, staff requested that the consultant examine two areas within the city where “Open Source Street Art” sites, locally referred to as graffiti “free-walls,” have been allowed as a pilot project. This project is formally known as the Open Source Street Art Pilot Project.

The goals of the project are to:

- Evaluate the effectiveness of open source street art sites in Edmonton where artists can add to an Open Source Street Art program.
- Provide a legal site with safety guidelines for street artists to practice in Edmonton.

Open source street art or “free-walls” are walls located within a neighbourhood where graffiti is legally allowed to be placed, without action being taken by the municipality against either the property owner or the street artists. At these free-wall locations graffiti artists are free to apply graffiti to the free-wall. The underlying consideration is that if there are such locations available that illegal graffiti may be reduced in the surrounding neighbourhood.

Edmonton selected two locations for these pilot project free-walls. These are:

- Location 1 - 10021 -Whyte Ave - in alley behind tire retail store (Still under development)
- Location 2 - Tweddle Place tennis court building next to Edith Rogers Junior High School (Open)

Several evaluation components were built into the project design in order to determine its success. These components include conducting:

- Crime Prevention Through Environmental Design studies at each location
- Community consultations in the neighbourhoods surrounding each site
- Graffiti Vandalism audits of the amount of graffiti at each location, before and after implementation
- Workshops to develop preliminary artwork for each site
- Site monitoring and cleanup within the 250 feet surrounding each location

This report continues to fulfill the project’s Graffiti Vandalism audit component.

Freewall Locations



Open Source – Free-Wall - Methodology

The purpose of this study was to examine the two Open Source Street Art areas and document the occurrence of graffiti prior to and after the implementation of a "free-wall pilot project" at these locations.

The same methodology as used in the 20 neighbourhood graffiti vandalism audits was employed for this audit. A “hot spot” and “random” area were selected around each of the Open Source Street Art locations. These sample areas were generally four city blocks square, which is about 25 Hectares in area.

In the sample areas, all streets, alleys and laneways were then observed by the audit team driving slowly through all accessible areas. Observations of the type of graffiti, the size, what kind of property the graffiti was affixed to (private, city, government), and the intensity of the graffiti at an observed location were recorded. Photographs of each graffiti piece or tag were made. The tagger (graffiti vandal's name) was recorded where positive identification was possible.

Open Source Street Art Location 1 - 10021 - Whyte Ave (82 Ave)

The free-wall at this location is in the Ritchie Neighbourhood, in the alley behind a tire retail outlet. The site is in the alley behind 10021 Whyte Ave (82 Ave) and is being referred as the “Tire Craft” location.



Open Source Street Art Location 2 - Tweddle Place – 8320 Millwoods Road

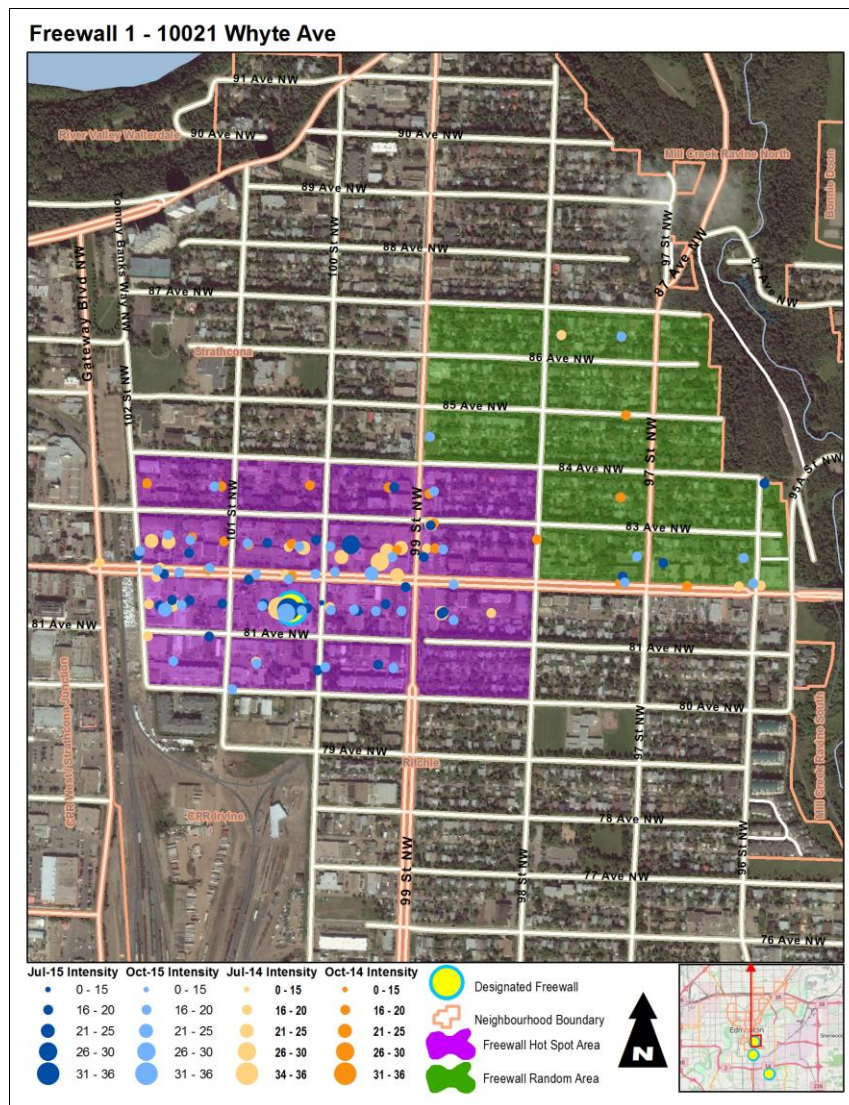
The second free-wall area is located on the Tweddle Place tennis court building next to Edith Rogers Junior High School, located at 8320 Mill Woods Road and is being referred to as the “Tweddle Place” location.



Results

During July and in October 2015 the auditors, examined both a "hot spot" and a "random" sample area in each of the free-wall areas. These sample areas were designated as 4 city blocks square or approximately 25 hectares in size, and were focused to have the free-wall generally in the centre of the sample area.

Figure 1a - Free-wall 1: - July & October Graffiti 2014 Observations



As seen in Figure 1a above, the occurrences of graffiti noted in the area around the Tire Craft location were very similar when comparing the 2015 and 2014 occurrences of graffiti in the immediate area adjacent to Free-wall 1.

The auditors noted that there was more graffiti observed in the Free-wall 1 area during the October 2015 audit compared to the July 2015 or previous audits conducted in 2014 or 2013.

July 2013		October 2013	
Tags Observed		Tags Observed	
Tags in Hot spot	47	Tags in Hot spot	93
Tags in Random	23	Tags in Random	4
Total Tags	70	Total Tags	97

July 2014		October 2014	
Tags Observed		Tags Observed	
Tags in Hot spot	102	Tags in Hot spot	46
Tags in Random	13	Tags in Random	4
Total Tags	115	Total Tags	50

July 2015		October 2015	
Tags Observed		Tags Observed	
Tags in Hot spot	65	Tags in Hot spot	130
Tags in Random	26	Tags in Random	14
Total Tags	91	Total Tags	144

In both the audits conducted in the Free Wall areas since 2014, waste disposal bins and walls were the leading property feature where graffiti was observed. In the 2015 audit work there was considerable variability to the items that tags were affixed to, as shown on the chart on the following page.

July 2013		October 2013	
Target Categories		Target Categories	
Disposal bin - small	24%	Disposal bin - small	26%
Benches	19%	Retail wall	24%
Postal box	14%	Doors	12%
Wall	9%	Commercial wall	8%
Utility box	9%	Other	7%
Light standard/Pole	7%	Barricades	5%
Residential other	7%	Bus shelter	4%
Signs	6%	Newspaper box	4%
Bus shelter	4%	Benches	4%
Newspaper box	1%	Postal box	3%
		Light standard/Pole	3%
	100%		100%

July 2014			October 2014		
Target Categories			Target Categories		
Disposal bin - small	18%		Barricades	32%	
Shed	5%		Garbage Can	14%	
Door	4%		Shed	14%	
Wall	48%		Door	6%	
Utility box	1%		Fence	6%	
Light standard/Pole	6%		Light Standard/Post	6%	
Sea Can	3%		Pavement	4%	
Garbage can	3%		Walls	4%	
Parking lot	2%		Disposal Bin - Small	4%	
Signs	2%		Postal box	4%	
Barricades	1%		Shed	2%	
All remaining	7%		Signs	4%	
	100%			100%	

July 2015			October 2015		
Target Categories			Target Categories		
Wall	37%		Disposal Bin - Small	31%	
Disposal bin - small	21%		Light Standard/Post	10%	
Door	9%		Signs	9%	
Utility box	8%		Bus Shelter	7%	
All remaining	7%		Recycling bin	6%	
Signs	5%		Door	6%	
Grease bins	3%		Benches	6%	
Benches	3%		Utility box	6%	
Garbage cans	2%		Walls	4%	
Garbage enclosures	2%		Fences	3%	
Light standard/Pole	1%		Disposal Bin - Large	3%	
Barricades	1%		All remaining	9%	
	100%			100%	

As observed in all audits in the Free Wall areas the majority of tags observed were small in size (>1sq. ft.<=2sq.ft).

July 2013			October 2013		
Tag Size			Tag Size		
X- Small	9		X- Small	5	
Small	58		Small	74	
Medium	1		Medium	14	
Large	2		Large	3	
X- Large	0		X- Large	1	
	70			97	

July 2014			October 2014		
Tag Size			Tag Size		
X-Small	18		Small	42	
Small	65		Medium	7	
Medium	22		X-Small	1	
Large	8		Large	0	
X-Large	2		X-Large	0	
	115			50	

July 2015			October 2015		
Tag Size			Tag Size		
Small	58		Small	124	
Medium	19		Medium	6	
X-Large	7		X-Small	14	
Large	5		Large	0	
X-Small	2		X-Large	0	
	91			144	

Figure 3a – Free-wall 2: Tweddle Place - July & October 2014 Graffiti

The Tweddle Place site is located on a tennis court building next to the Edith Rogers Junior High School, located at 8320 Mill Woods Rd.



The free-wall site was again examined in July of 2015 and again in October 2015, noting that many tags had been placed on the building since it was designated as a Free Wall.

During each visit to this free-wall site it has been noted that several taggers had painted on top of other tags on the building's free-walls.



Free-wall 2 - Oct 2014



Free-wall 2 - Oct 2014



Free-wall 2 - Oct 2014



Free-wall 2 Oct 2015



Free-wall Oct 2015

In July 2014, 11 tags were observed in this Free-wall sample area, 10 of which were in the hot spot area. Only 1 tag was recorded in July in the random sample area.

In October 2014, a similar finding was that there were 12 tags in total of which 8 were in the hot spot sample area.

Freewall 2 - Tweedle - Edith Rogers School				
July 2014		October 2015		
Tags Observed		Tags Observed		
Tags in Hot spot	18	Tags in Hot spot	1	
Tags in random	2	Tags in random	5	
Total Tags	20	Total Tags	6	

Target Categories		Target Categories	
Wall	90%	Benches	17%
Utility box	10%	Garage Door	17%
		Utility Box	33%
		Walls	33%
	100%		100%

Tag Size		Tag Size	
X-Small	0%	X-Small	
Small	5%	Small	4
Medium	55%	Medium	2
Large	15%	Large	
X-Large	25%	X-Large	
	100%		6

The consultant concludes that graffiti vandalism in the Tweedle Place sample area was light in terms of occurrences between July and October, with the exception of that graffiti displayed on Free-wall 2 itself.