

2016



HAMILTON FIRE DEPARTMENT ANNUAL REPORT

Fire Chief David Cunliffe

Hamilton Fire Department

May 2017

HAMILTON FIRE DEPARTMENT



PROUDLY SERVING THE CITIZENS OF HAMILTON SINCE 1879

HAMILTON FIRE DEPARTMENT LEADERSHIP TEAM

FIRE CHIEF

DAVID CUNLIFFE

DEPUTY FIRE CHIEF

**RANDY MOSS
WILLIAM PITTMAN**

ASSISTANT DEPUTY CHIEF

**SHAWN DEJAGER
STEVE MILLER
DAN MILOVANOVIC
JOHN VERBEEK**

PLATOON CHIEF

**PATRICK GALLACHER
MARK HOMMERSON
MARK MIDDLETON
WAYNE PRYDE**

DISTRICT CHIEF

**PAUL BLOOMFIELD
ENIO DINARDO
JAMES ECKER
MARK HODGE
LAWRENCE MICHOR
JOHN PAWLIK
CRAIG SQUIRES
ART THOMAS**

AREA COMMANDER

RON JEFFRIES

CHIEF FIRE PREVENTION OFFICER

ROBERT SIMPSON

ASSISTANT CHIEF FIRE PREVENTION OFFICER

PETER DEBOER

CHIEF OF TRAINING

DARRELL HICKS

CHIEF MECHANICAL OFFICER

BRIAN KEENAN

CHIEF COMMUNICATIONS OFFICER

TRISH SCHWEITZER

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A MESSAGE FROM THE CHIEF



It is my pleasure to present to you the Hamilton Fire Department 2016 Annual Report.

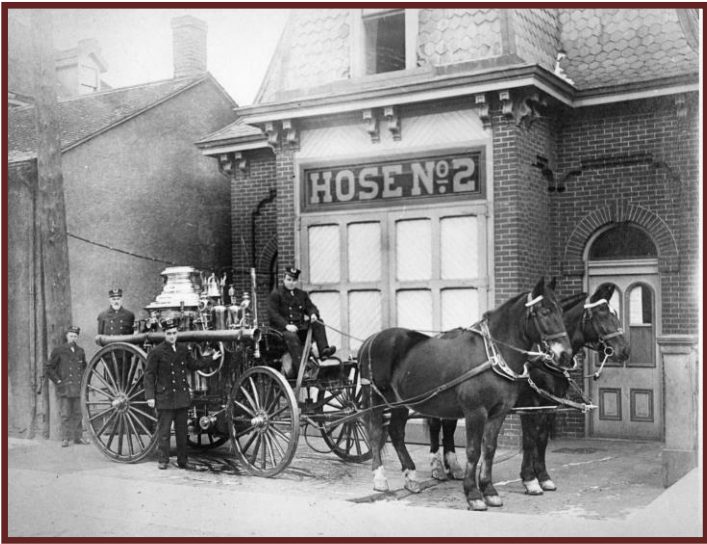
This is my first annual report after being appointed Fire Chief in June of 2016. It is both, an honour and a privilege to be given the opportunity to lead the Hamilton Fire Department as Chief. This Department has always had a special place in my life, having a grandfather and great grandfather who both proudly served on this Department.

I would like to take this opportunity to thank all of the members of the Hamilton Fire Department who take great pride in serving our citizens every day. Whether it's our Communications personnel who answer the 911 calls and dispatch resources; our Fire Prevention Inspectors who help educate our citizens and ensure buildings within the City are safe and up to code; our Mechanical Division staff who ensure our apparatus and equipment are always ready to go when required; our Training personnel who ensure our staff have the necessary training to safely and competently perform their jobs or our front line firefighters who are always ready to respond and help our citizens in their time of need, we collectively work together as a team, striving to build trust and confidence with our citizens each and every day.

In 2017 as we continue to demonstrate continuous improvement, the Hamilton Fire Department will increase our focus on capturing and utilizing data. Through the use of data we will have the ability to identify neighbourhoods which have a greater need for fire safety support, determine the level of risk in occupancies, link and build community partnerships, identify ways to optimize our existing resources, implement evidence based decision making and incorporate performance measurement and benchmarking . All of this will help to increase our ability to deliver and measure the level of service that the City requires.

In closing, I would like to take this opportunity to express my sincere thank you to Mayor Eisenberger and the members of Council for all of the support that they have shown the Hamilton Fire Department during 2016. Additionally, I would like to personally thank our General Manager Joe-Anne Priel for her unwavering support to both myself and this Department.

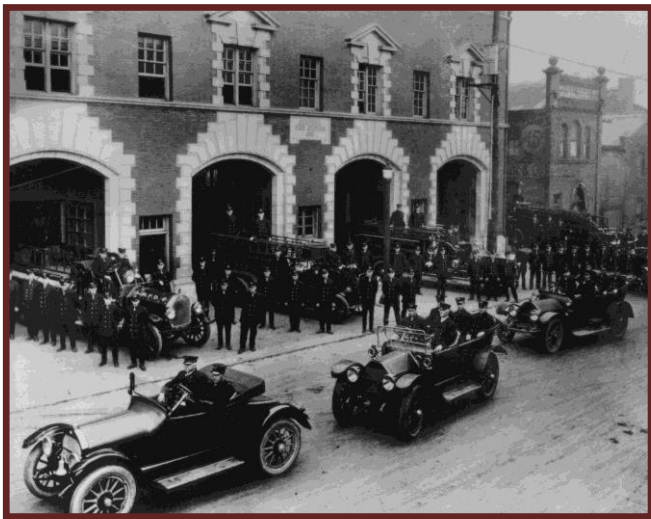
Fire Chief David Cunliffe



1883 Steamer



1900 Chemical Hose Wagon



Central Fire Station
Circa 1920



Hamilton Fire Department
Circa 1900



1926 Ahrens Fox

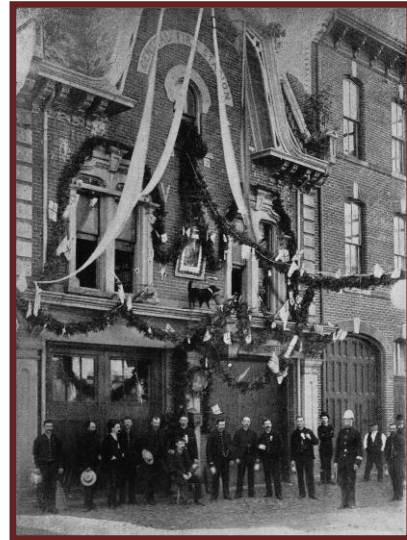


Central Fire Station
Circa 1955

A HISTORICAL LOOK BACK

Rising from the ashes of a major fire in the downtown core of Hamilton on November 16, 1832, the Hamilton Fire Department has evolved from a citizen's bucket brigade into a fire service of over 750 personnel, including career and volunteer firefighters protecting our urban and rural communities.

Hamilton's first fire station was built in 1832 at 44 Hughson Street North followed by a second fire station built in 1836 at 55 King William Street. One hundred and eighty one year's later this location remains synonymous with the Hamilton Fire Department as it is where our west district Fire Prevention office is located.



Central Fire Station

In 1843, John Fisher; who operated a quarry at the corner of James and Merrick Street, built a hand operated fire engine and donated it to the bucket brigade. This engine, towed by men with ropes was filled with water by buckets and then a hose was attached to the side. The men would then pump the water by hand. The John Fisher engine remains a prized possession of the Hamilton Fire Department to this day and is proudly displayed on the apparatus floor of Central fire station.



1843 John Fisher Engine

On January 14, 1879, the Hamilton Fire Department became a full time department and Alexander Aitchison was appointed Chief Engineer. Chief Aitchison inherited two old hose carts, a two horse hook and ladder truck, a supply wagon and a few horses. There were two Officers, seven permanent men and a 25 man call force that were paid only for attending alarms. At that time, the Department protected an area of approximately 4,000 acres with a population of almost 60,000 citizens.

By 1881, Chief Aitchison replaced the call men and there were now three Officers and 10 full time firemen. They were on duty 24 hours a day with 75 minutes off to go home for a meal if they could make it. Chief Aitchison, whose motto was to get there fast, was killed in 1905 while responding to a fire when his horse drawn buggy collided with another fire engine at the corner of King and John Streets.

By 1919, the Hamilton Fire Department became the first Department in Canada to adopt a two platoon system. Also that year, the Hamilton Fire Department took possession of their first motorized piece of apparatus. Over the next seven years, additional motorized apparatus were purchased and in 1926, the horse drawn era came to an end on the Department.



1911 Seagrave – First Piece of Motorized Apparatus

By 1929, a new fire alarm headquarters was built next to 55 King William Street and a fire alarm system with 45 alarm boxes located across the City was developed.

From 1945 – 1958, the gradual installation of communications equipment in all fire apparatus took place. In 1976 a sophisticated dispatch centre was opened at the King William Street location.

In 1979, the Hamilton Fire Department opened a five acre simulated fire and rescue complex on Stone Church Road East. This facility remained in place for 30 years. This location is now the home of the Multi-Agency Training Academy utilized by the Hamilton Fire Department, Hamilton Police Service and the Hamilton Paramedic Service.

The 1980's brought about a total task concept to service delivery with both firefighters and Fire Prevention personnel involved in enforcement of the Ontario Fire Code. The Hamilton Fire Department assumed responsibility for dispatching of alarms within the Regional Municipality of Hamilton-Wentworth.

Amalgamation took place in 2001 and fire departments from Ancaster, Dundas, Glanbrook, Flamborough and Stoney Creek merged with Hamilton to become one large Department.

Today, the Hamilton Fire Department provides services to a population of over 536,000 citizens in an area of approximately 1117 square kilometres. The Service operates from 30 remote sites including 26 fire stations, one Emergency Services Fleet Services Centre, one Fire Prevention business centre, one stores facility and the Multi-Agency Training Academy.

ORGANIZATIONAL STRUCTURE

In Ontario, the fire service is regulated through Provincial legislation that includes the Fire Protection and Prevention Act (FPPA), 1997, S.O. 1997. Part II of the FPPA states that:

2. (1) every municipality shall,
 - a) Establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention; and
 - b) Provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances.

The FPPA authorizes the Council of a Municipality to establish, maintain and operate a fire department for all or any part of the municipality and to pass by-laws regarding fire prevention.

Municipal Council, obligated by the FPPA to provide fire protection services, must:

- Establish levels of service commensurate with needs and circumstances; and
- Provide fiscal resources for staffing, apparatus and equipment to support the level of service

Through our various Divisions, the Hamilton Fire Department provide to the citizens of Hamilton:

- Fire Prevention/Public Education and administration of the Ontario Fire Code and the Fire Protection and Prevention Act (FPPA)
- Fire Communications/Dispatch
- Fire Suppression (Firefighting Operations)
- Emergency Medical Service (Tiered response of both EMS and Fire)
- Co-ordination of City-Wide Trunked Radio Services
- Emergency Planning/Preparedness
- Mutual/Auto Aid agreements with neighbouring municipalities
- Mechanical services for both Fire and EMS
- Training of personnel in all aspects of services provided







The following diagrams provide an overview of the organizational structure utilized by the Hamilton Fire Department in 2016.

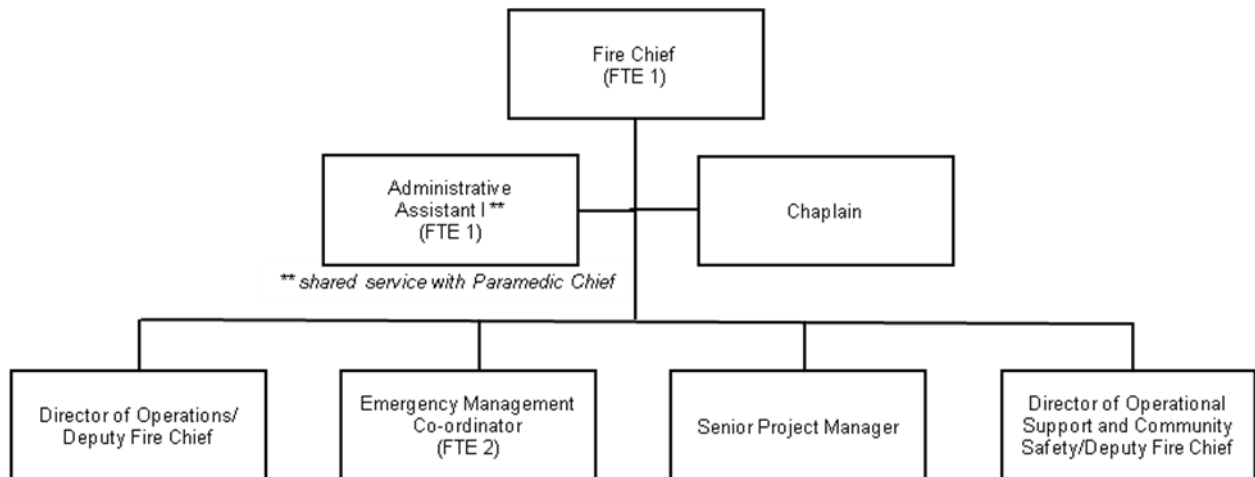
The total FTE's are as follows:

Fire Chief's Office	4.00
Director of Operations	519.74
Director of operational Support and Community Safety	60.57
Senior Project Manager	2.00

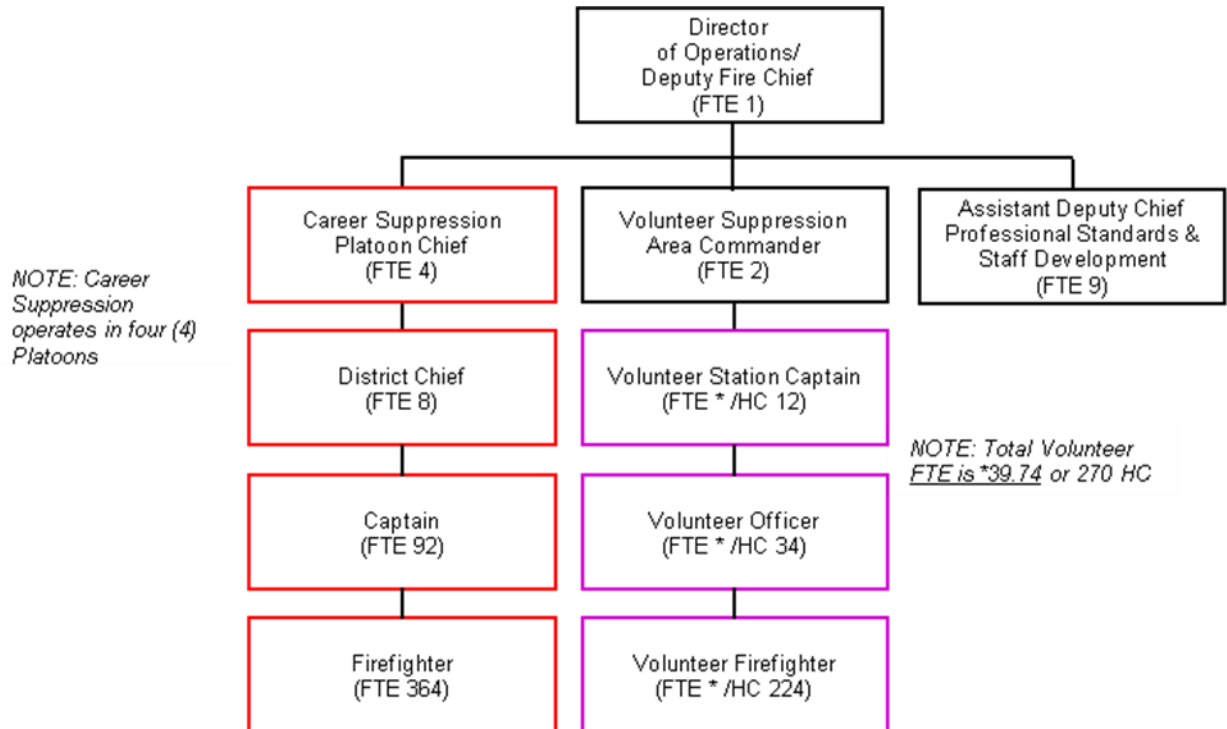
LEGEND

	Non-Union	FTE	Full Time Equivalent
	CUPE 5167	HC	Head Count
	HPFFA 288		
	CLAC 911		

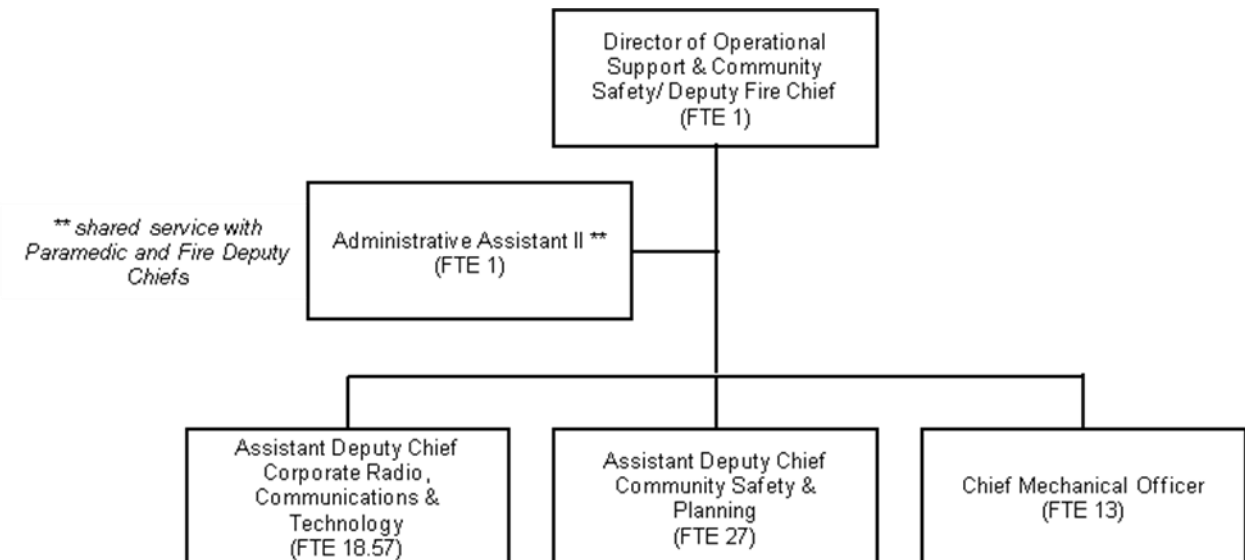
Fire Chief's Office



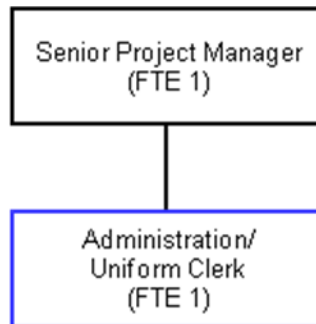
Operations – Deputy Chief's Office



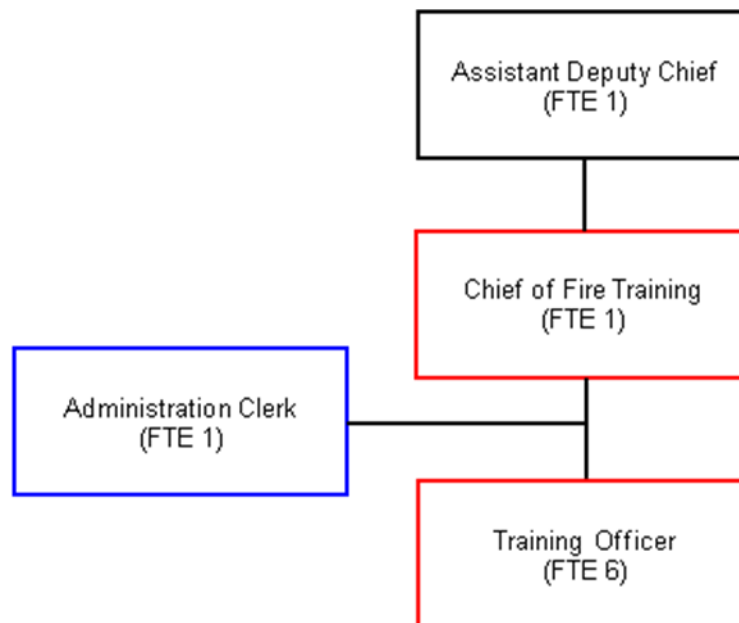
Fire Operational Support and Community Safety – Deputy Chief's Office



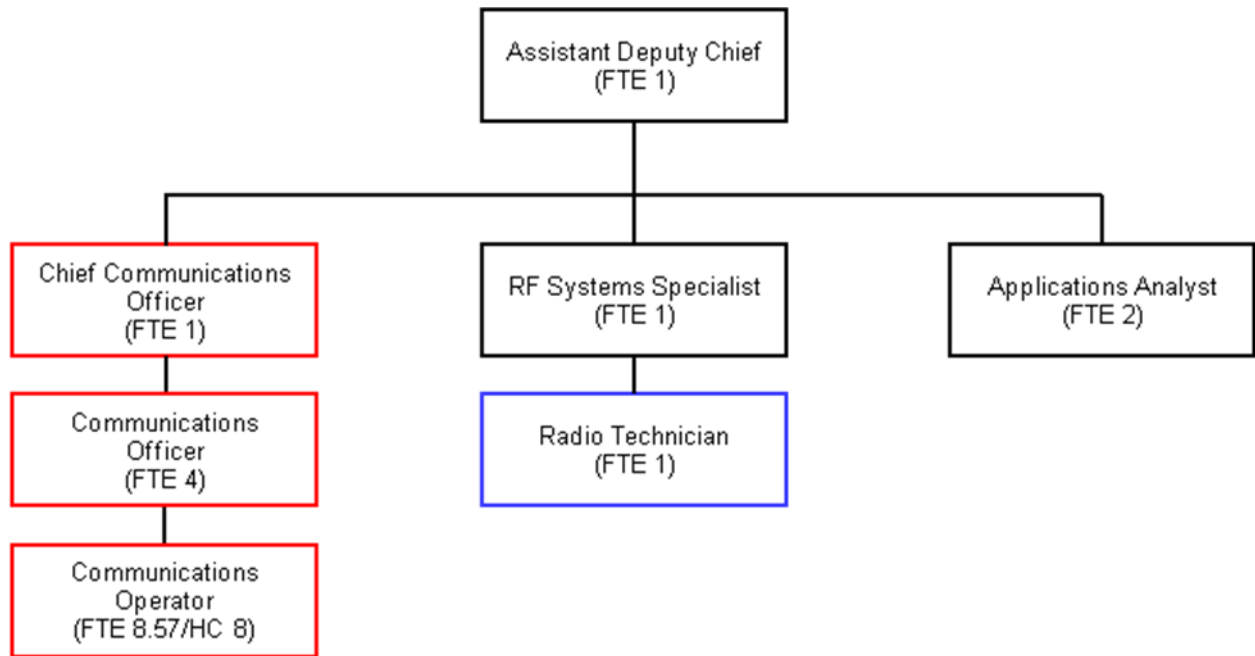
Senior Project Manager, Logistics and Project Management



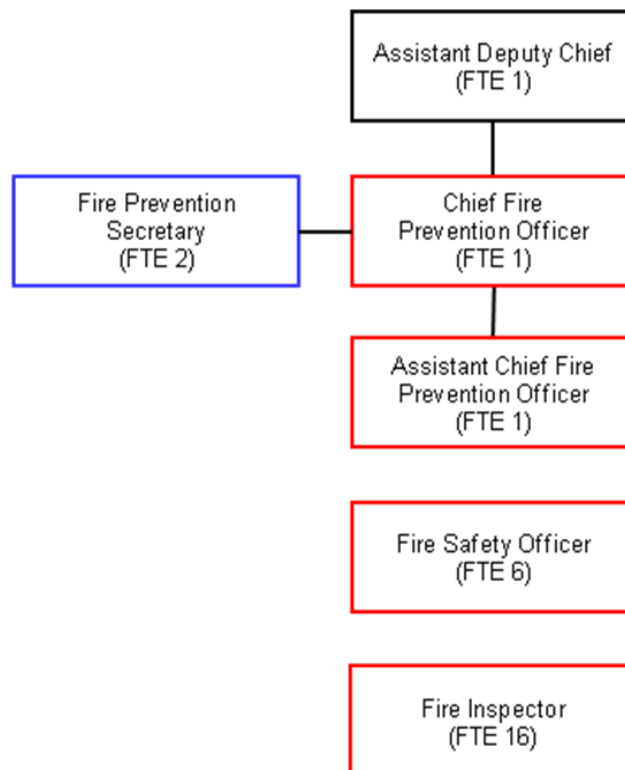
Professional Standards and Staff Development



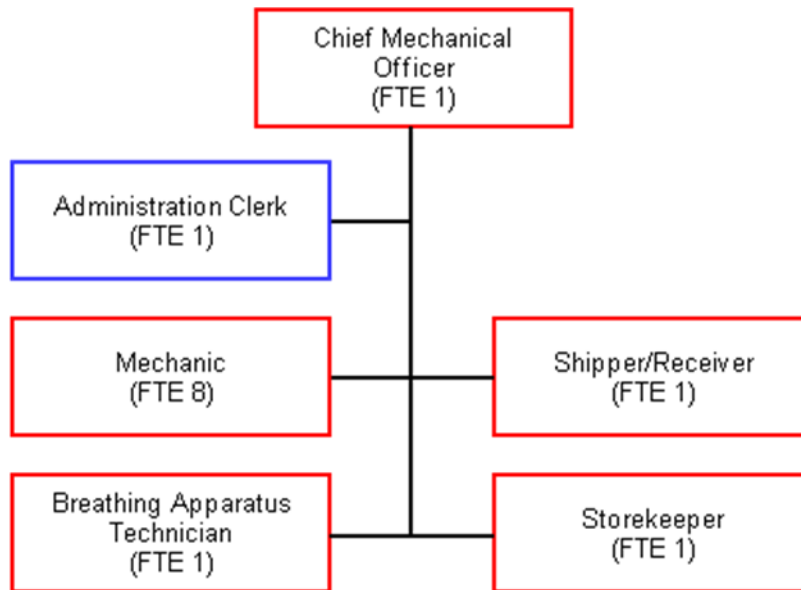
Corporate Radio, Communications and Technology



Community Safety and Planning



Mechanical Division



BUDGET

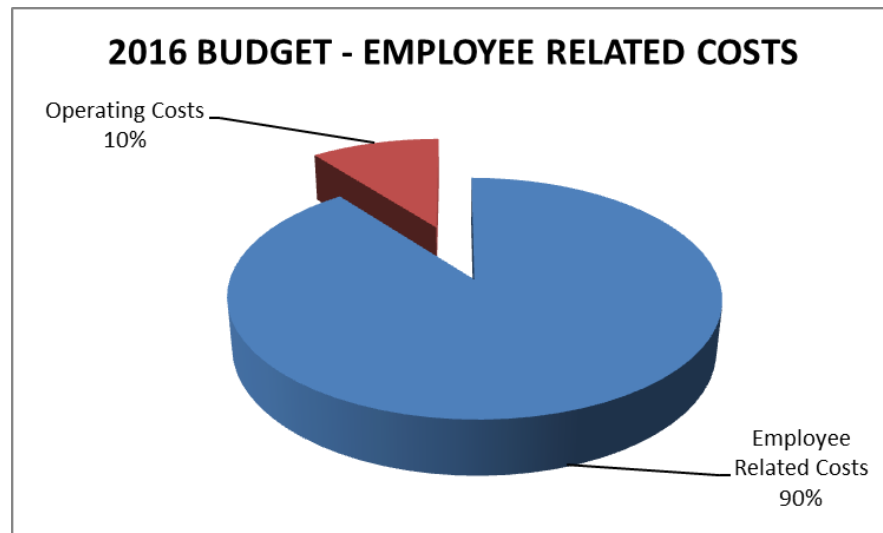
The Hamilton Fire Department is a composite service made up of 468 career fulltime firefighters and 270 volunteer paid-on-call firefighters. There is also 77 staff working in Administration and support divisions within the Fire Department. The following provides a breakdown of the Department's 2016 operating and capital budgets.



Operating Budget

Administration	\$1,892,040	2.2%
Mechanical	\$4,591,320	5.4%
Fire Prevention	\$3,149,750	3.7%
Training	\$1,781,890	2.1%
Communications/Corporate Radio	\$3,612,710	4.2%
Fire Operations	\$70,070,980	82.0%
Emergency Management	\$346,880	0.4%
	<u>\$85,445,570</u>	<u>100%</u>

Of the \$85,445,570 operating budget, \$76,552,770 are employee related costs such as salaries and benefits. The following chart provides a breakdown of employee related costs versus operating costs.



Capital Budget

The 2016 Capital Budget provides for fire equipment replacement and fire vehicle replacement. Fire equipment includes end of life cycle replacement of items such as personal protective equipment and clothing, hoses, nozzles, auto extrication equipment and ropes used for high angle rope rescues.

Fire Department firefighting apparatus are replaced on a 20 year cycle in order to meet the Fire Underwriters Survey (FUS) requirements. Capital budget planning for fire apparatus is on a 25 year planning cycle.

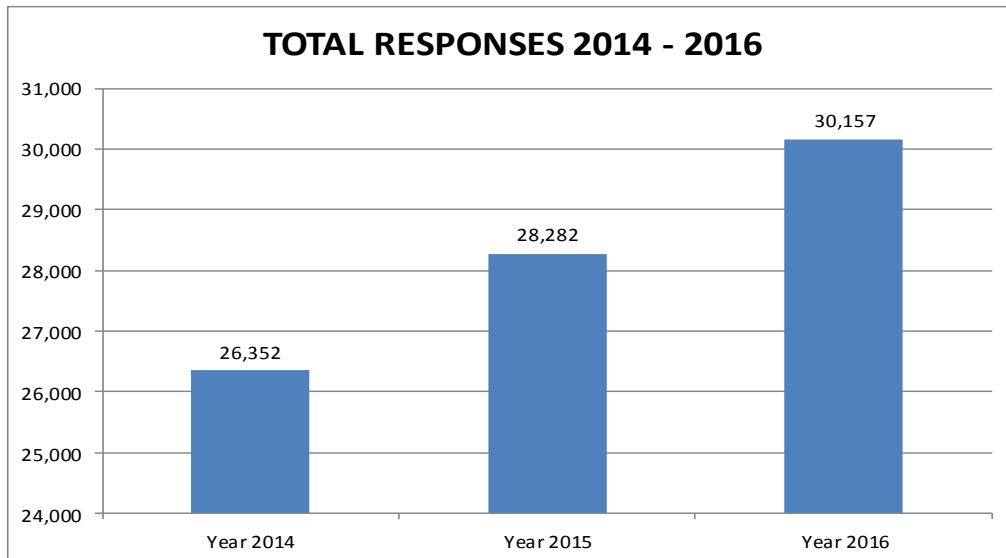
Fire Equipment Replacement
\$635,000

Fire Apparatus Replacement
\$4,639,450



FIRE OPERATIONS - SERVICE DELIVERY

The Hamilton Fire Department responded to 30,157 incidents in 2016, an increase of approximately 6.6% over the total responses in 2015 (28,282) and an increase of just over 14% from 2014 (26,352). The majority of responses in 2016 (21,152 or 70%) are medical calls.



While statistics show that the percentage of medical calls has increased over the past three years; it is important to clarify that the Hamilton Fire Department does not respond to all medical calls along with the Hamilton Paramedic Service.

In an agreement with CACC (Central Ambulance Communications Centre) and the Hamilton Paramedic Service, the Hamilton Fire Department are tiered or dispatched to all Code 4 medical calls. Examples of Code 4 calls are as follows:

1. Absence of breathing / Cardiac or Respiratory Arrest
2. Unconscious / Unresponsive / Seizure
3. Choking / Sudden Shortness of Breath (onset within last 48 hours)
4. Other trauma;
 - Penetrating Trauma (i.e. gunshot or stabbing)
 - Pedestrian / Cyclist Struck (motorcycle, bicycle, etc)
 - MVCs on all rural roads and highways
 - Multiple Victim Incidents (including MVCs with suspected or confirmed multiple victims)
 - Falls Greater than 10 feet
5. Chest pain
6. Burns / Electrocution

7. Calls where the CACC Ambulance Communications Officer estimates the interval from the time the EMS unit is dispatched until the time it will arrive on-scene will exceed 15 minutes.

In addition to the above noted, the Hamilton Fire Department will be tiered on a response whenever there is any indication that there may be Hazardous Materials involved (including chemicals, spills of gasoline, diesel fuel, propane, etc.) , a victim trapped, reports of fire, structural hazards, any rescue, and as requested by Paramedics on scene of an incident.

In 2014, the Hamilton Fire Department responded to 17,770 medical calls which represented approximately 67% of the total call volume. In 2015, the Hamilton Fire Department responded to 19,223 medical calls which represented approximately 68% of the total call volume.

There has been an increase of just over 10% in medical calls since 2015 and just over 13% since 2014.

The following chart provides the total number of responses in 2016 as they were dispatched.

DISPATCHED AS	ADDITIONAL INFORMATION	NUMBER
Aircraft Emergency		1
Alarm Condition		2349
Appliance Fire	Calls include pots left on a stove, toasters, cooking related	76
Burning Complaint		682
Chimney Fire		8
CO Detector Activated		964
Electrical	Calls related to electrical problems within a structure	68
False Alarm		329
FD Assistance Required		483
FD Confined Space Rescue		2
FD Rescue Industrial Accident		4
Fire Reported Out	To investigate where citizens attempted extinguishment	75
Flooding		50
Furnace Problem		19
Gas Spill		62
Grass Fires		275
HAZMAT Incident		8
Hydro Problem	Calls related to power lines or services exterior to a structure	98

Investigate Odours		290
Marine Rescue	Calls involving rescue of persons in open water or pools	9
Medical Call		21152
Multiple Alarm	Structure fires which were upgraded to a second alarm	45
Mutual Aid		3
Natural Gas		132
Other		8
Propane Leak		5
Rail Trail Response		6
Rope Rescue	Of these dispatches, 23 were actual rope rescues	25
Rubbish Fires		325
Skyway Responses	Includes 5 medical calls, 4 vehicle fires and 26 first aid/extrication at accident scene	35
Smoke Conditions		217
Smoke Detector Activated		280
Structure Fires		357
Unknown Fire		56
Vehicle Accident		1391
Vehicle Fire		268

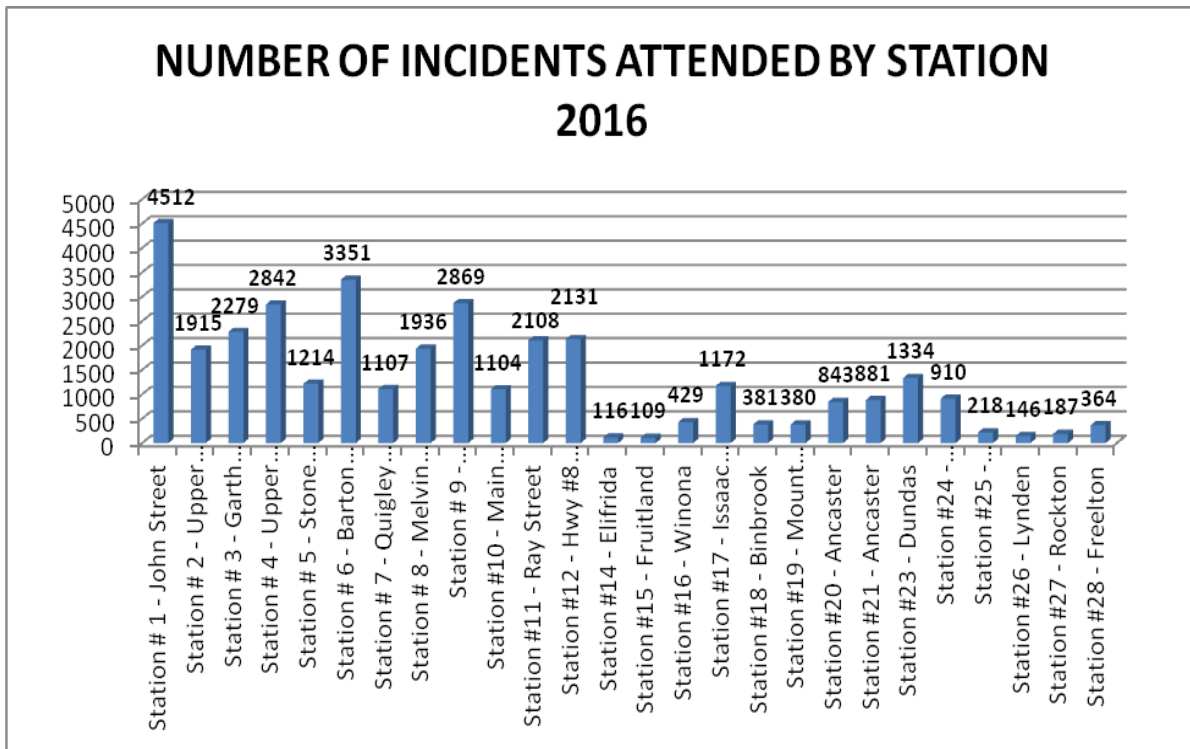
Number of Incidents Attended by Station

The Hamilton Fire Department responds to incidents across the City from 26 fire stations strategically located across the municipality. As a composite department, 14 stations are manned by career firefighters, 9 are manned by volunteer firefighters while 3 stations have both career and volunteer firefighters working out of the same station.

This report has identified that the Hamilton Fire Department responded to 30,157 incidents in 2016. Many incidents involve apparatus responding from more than one station and that is reflected in the total number of incidents responded to by all stations. In 2016, the total number of responses attended to by all stations was 34,838.



The following chart provides an overview of incidents attended to by all stations. Career stations respond to approximately 85% of all incidents while volunteer stations respond to approximately 7% of all incidents. Composite stations account for 8% of all incidents responded to.



Station 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 20 and 23 are all career stations. Station 14, 15, 16, 18, 19, 25, 26, 27 and 28 are all volunteer stations. Stations 17, 21 and 24 are composite stations manned by both career and volunteer firefighters.

Station 1, 6 and 9 were the three busiest stations accounting for 31% of all incidents attended. The following chart provides an overview of the total number of incidents responded to by station in descending order.

STATION	NUMBER OF INCIDENTS
Station # 1 - John Street	4512
Station # 6 - Barton Street	3351
Station # 9 - Kenilworth Avenue	2869
Station # 4 - Upper Sherman	2842
Station # 3 - Garth Street	2279
Station #12 - Hwy #8 (Stoney Creek)	2131
Station #11 - Ray Street	2108
Station # 8 - Melvin Avenue	1936
Station # 2 - Upper Wellington	1915

Station #23 - Dundas	1334
Station # 5 - Stone Church Road	1214
Station #17 - Isaac Brock	1172
Station # 7 - Quigley Avenue	1107
Station #10 - Main Street	1104
Station #24 - Waterdown	910
Station #21 - Ancaster	881
Station #20 - Ancaster	843
Station #16 - Winona	429
Station #18 - Binbrook	381
Station #19 - Mount Hope	380
Station #28 - Freelon	364
Station #25 - Greensville	218
Station #27 - Rockton	187
Station #26 - Lynden	146
Station #14 - Elifrida	116
Station #15 - Fruitland	109

Number of Responses by Apparatus

In 2016, there were 37,816 responses by Hamilton Fire Department apparatus. The following charts provide an overview of apparatus responses by station.

STATION 1	
ENGINE 1	1287
LADDER 1	665
RESCUE 1	3286
PLATOON 1	311

STATION 2	
ENGINE 2	1516
DISTRICT 3	184
CAR 73	511

STATION 3	
ENGINE 3	2282

STATION 4	
LADDER 4	913
RESCUE 4	2108
SUPPORT 4	15
HAZMAT 2	14

STATION 5	
ENGINE 5	1217
COMMAND UNIT	4

STATION 6	
PUMP 6	3359
SUPPORT 6	4

STATION 7	
ENGINE 7	1111

STATION 8	
ENGINE 8	1938
DISTRICT 2	237

STATION 9	
ENGINE 9	2193
LADDER 9	848

STATION 10	
LADDER 10	1111

STATION 11	
ENGINE 11	2115

STATION 12	
PUMP 12	670
RESCUE 12	1582

STATION 14	
TANKER 14	116

STATION 15	
LADDER 15	109

STATION 16	
PUMP 16	192
SQUAD 16	269
TANKER 16	45

STATION 17	
ENGINE 17	1138
TANKER 17	106

STATION 18	
PUMP 18	125
LADDER 18	48
SUPPORT 18	233
TANKER 18	42

STATION 19	
PUMP 19	350
TOWER 19	49
TANKER 19	78

STATION 20	
LADDER 20	846

STATION 21	
ENGINE 21	835
PUMP 21	45
RESCUE 21	79
TANKER 21	85

STATION 23	
PUMP 23	1338

STATION 24	
ENGINE 24	860
LADDER 24	57
SUPPORT 24	60
TANKER 24	88

STATION 25	
PUMP 25	76
RESCUE 25	130
TANKER 25	33
BRUSH 25	33

STATION 26	
PUMP 26	47
SUPPORT 26	82
TANKER 26	64

STATION 27	
PUMP 27	87
SQUAD 27	113
TANKER 27	49

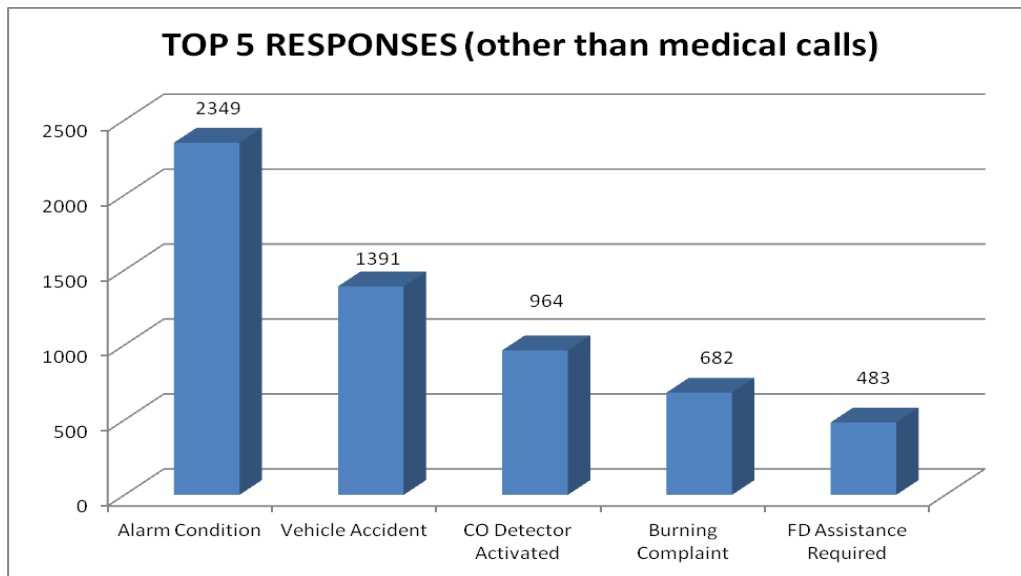
STATION 28	
PUMP 28	133
SQUAD 28	231
TANKER 28	68

The top 10 busiest apparatus responding to alarms are as follows:

1. Pump 6 3359 responses
2. Rescue 1 3286 responses
3. Engine 3 2282 responses
4. Engine 9 2193 responses
5. Engine 11 2115 responses
6. Rescue 4 2108 responses
7. Engine 8 1938 responses
8. Rescue 12 1582 responses
9. Engine 2 1516 responses
10. Pump 23 1338 responses

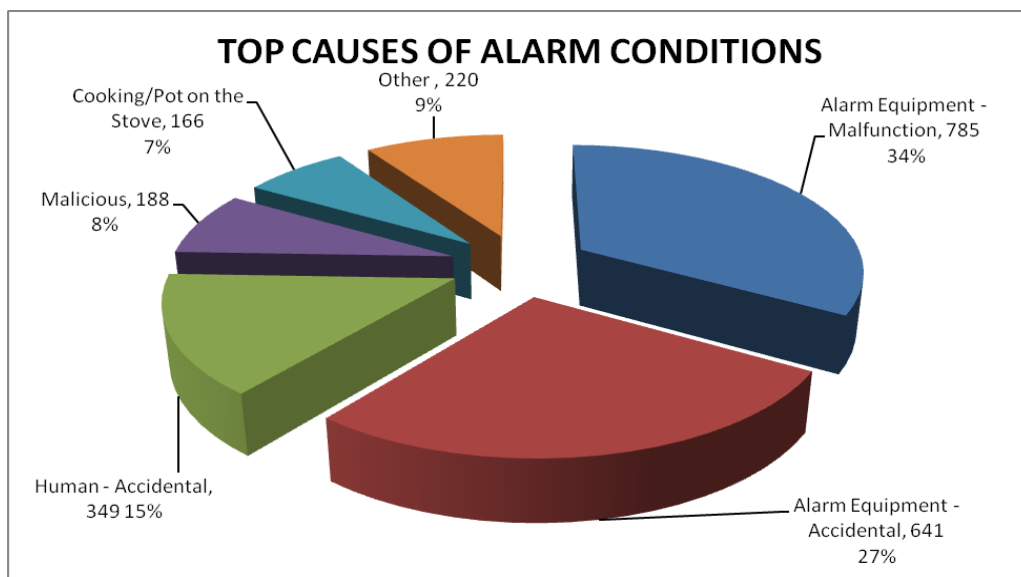
Top Five Responses other than Medical Calls

The top five responses other than medical calls are identified in the chart below. These five response types reflect approximately 65% of all responses other than medical calls.



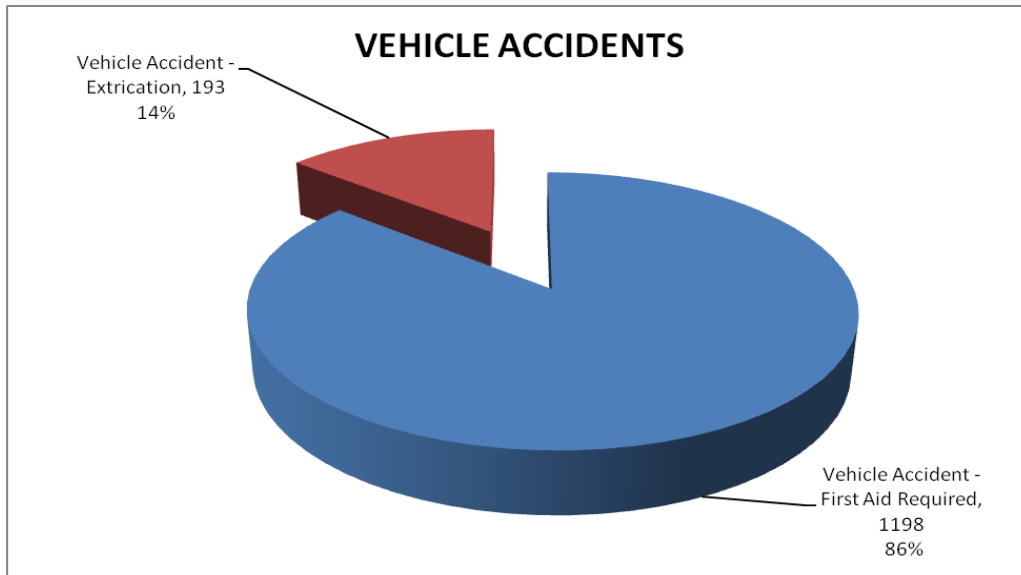
Alarm Conditions

Alarm conditions which represent approximately 8% of the total annual responses occur for a number of reasons. The chart below provides a breakdown of the top causes for alarm condition responses. It should be noted that “other” includes causes such as medical issues in which an alarm was activated, persons trapped in an elevator, lightning strikes, fireworks and carbon monoxide problems.



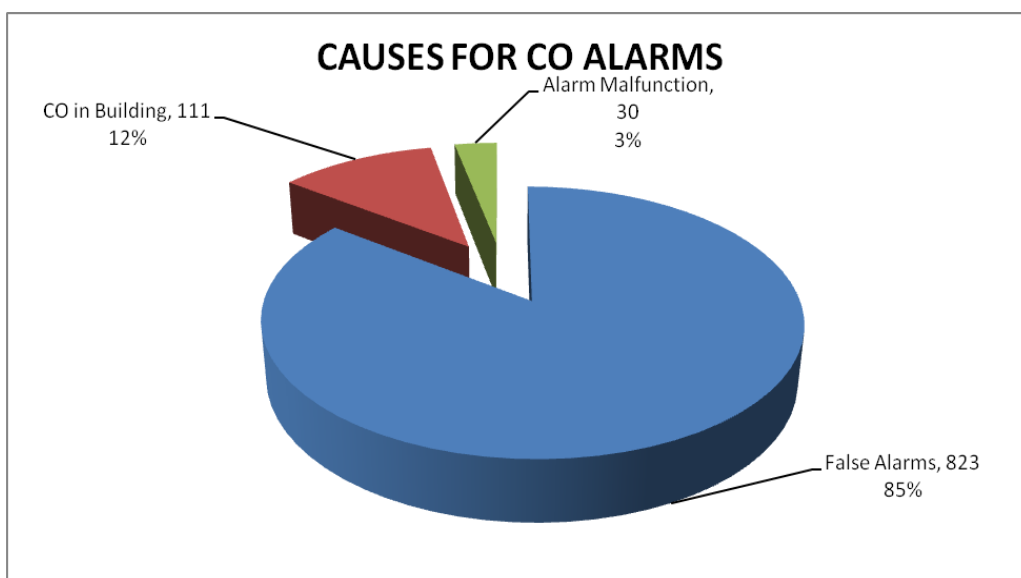
Vehicle Accidents

Vehicle accidents represent 5% of total responses and are broken into two categories, first aid required and extrication required. The chart below provides that breakdown.



Carbon Monoxide Responses

With recent changes in legislation and public education initiatives, there are more carbon monoxide detectors in homes. The Hamilton Fire Department responded to 964 incidents in 2016 involving carbon monoxide. The following chart provides a breakdown of the causes for these calls.

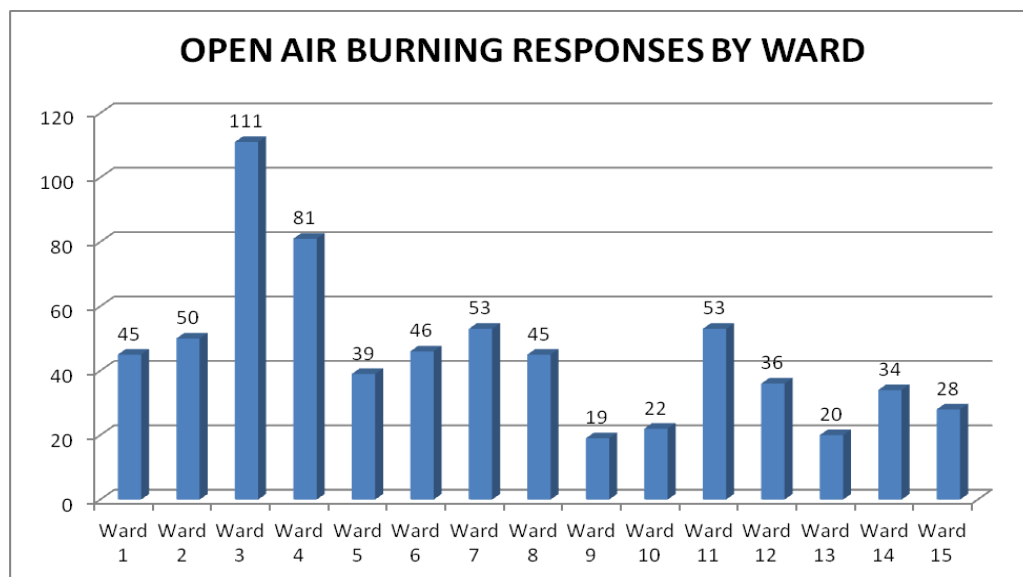


Open Air Burning Responses

In 2016, the Hamilton Fire Department responded to 682 burning complaints across the City of Hamilton. Open air burning in the City of Hamilton is only permitted in the rural areas of the City and only with the issuance of an open air burning permit. In reviewing the statistics for open air burning responses, it is noted that the highest number of responses occur in Ward 3, which is an urban area of the City and where open air burning is not permitted.

A review of statistics revealed that 69% of the responses for burning complaints occur in Wards 1 – 8, Wards that are entirely within the urban areas of the City.

The following chart provides a breakdown of burning complaints responded to in each of the 15 Wards.



Fire Department Assistance Required

The Hamilton Fire Department responded to 483 calls for assistance in 2016. These responses included but were not limited to assistance to other agencies (Police and EMS), medical related issues, persons trapped in an elevator and other general assistance type calls.

Structure Fires

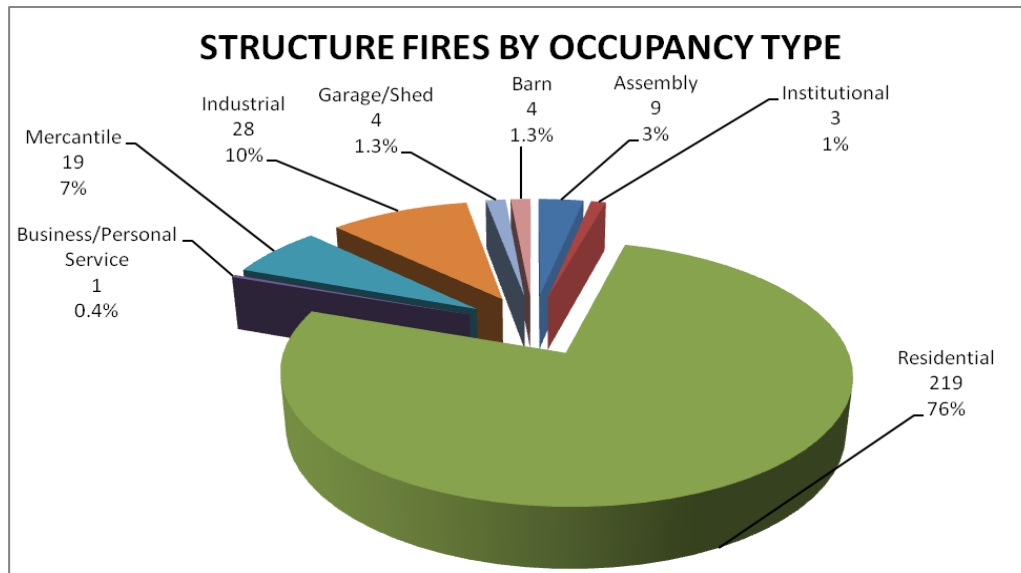
In 2016, the Hamilton Fire Department was dispatched to 402 first alarms (reported structure fires). Of that number, 287 (71%) of the calls were confirmed as a structure fire. Of the 287 confirmed fires, 45 were upgraded to a second or multiple alarm that saw additional resources dispatched to help mitigate the incident.

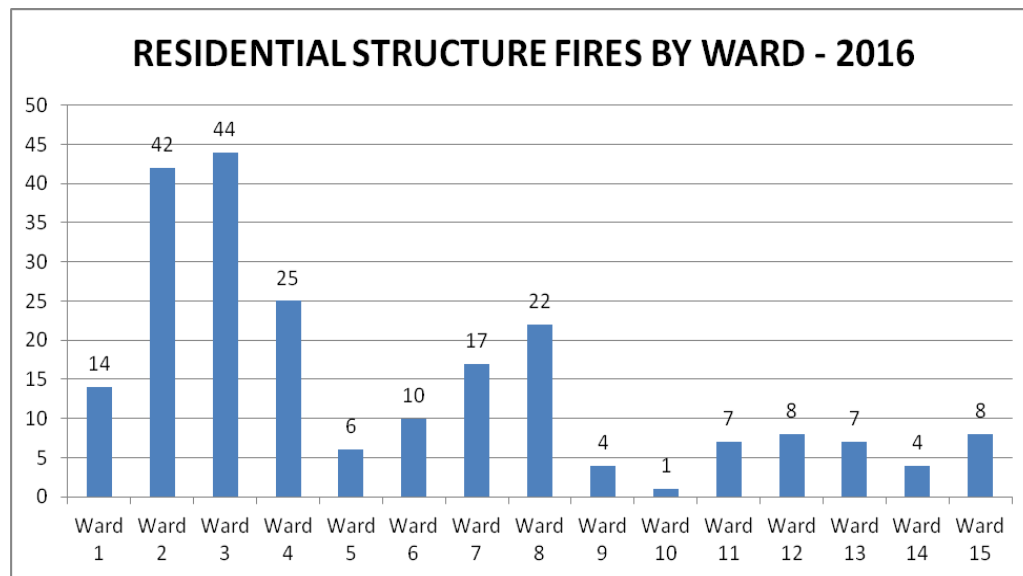
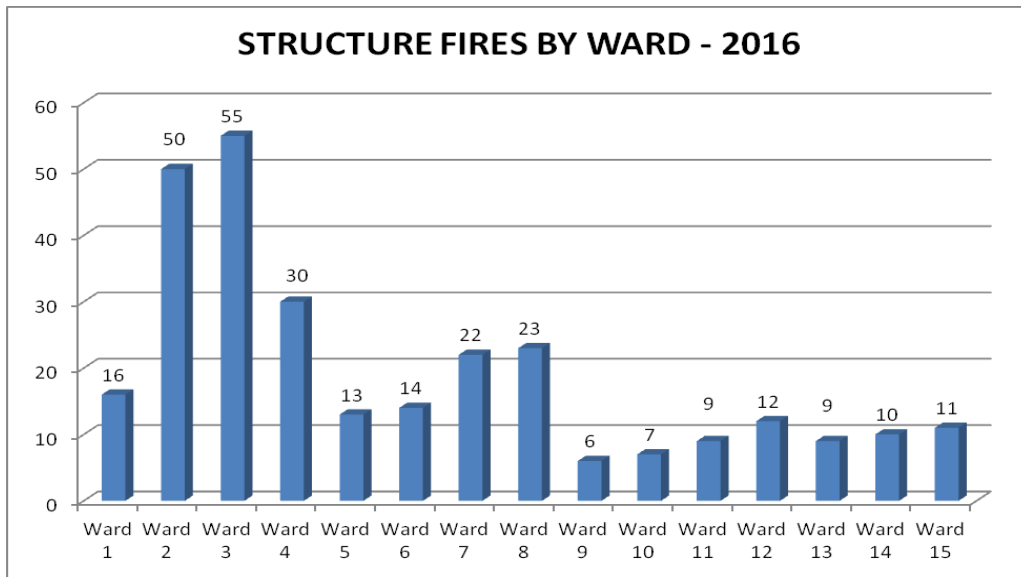


The majority (219 or 76%) of structure fires occur in residential occupancies. Wards 2, 3 and 4 account for 47% of all structure fires and 51% of all residential structure fires.

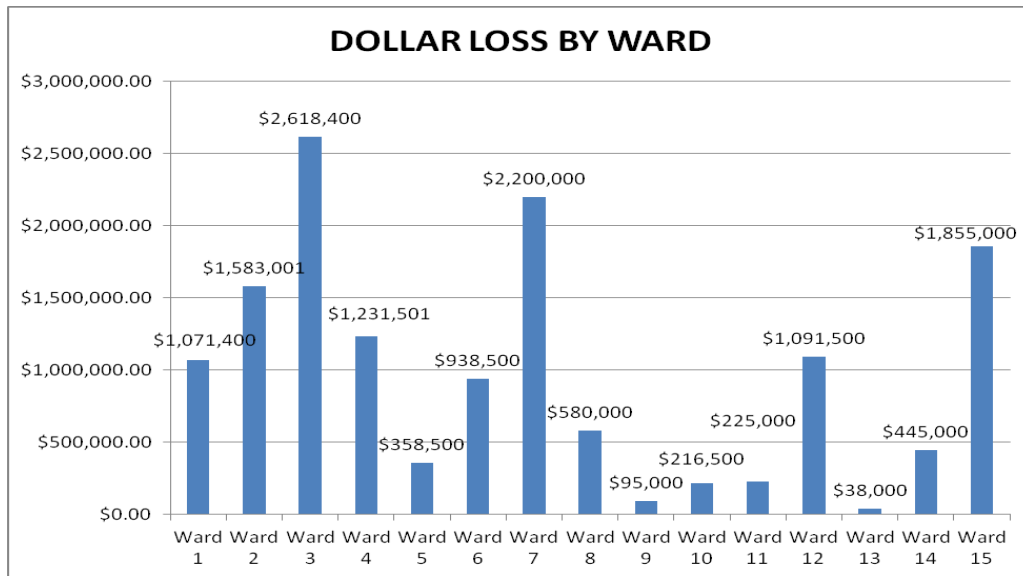
9 of the 11 fire fatalities in 2016 (82%) occurred in Wards 2, 3 and 4 and 32 of the 37 fire related injuries (86%) occurred in these Wards.

The following charts provide an overview of structure fires in the City of Hamilton for 2016.





The total dollar loss in 2016 from structure fires was \$14,547,302. The following chart provides a breakdown by Ward



Fire Fatalities and Civilian Injuries

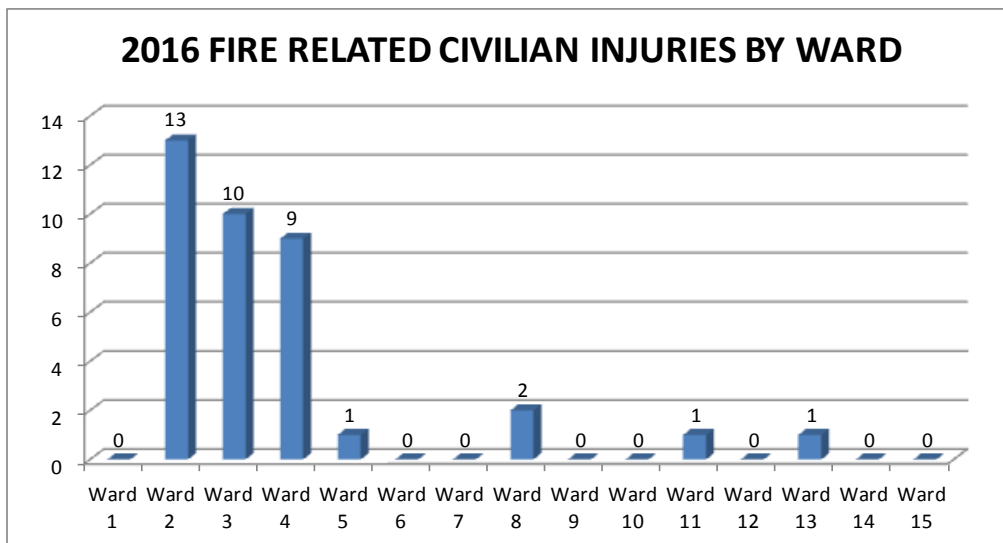
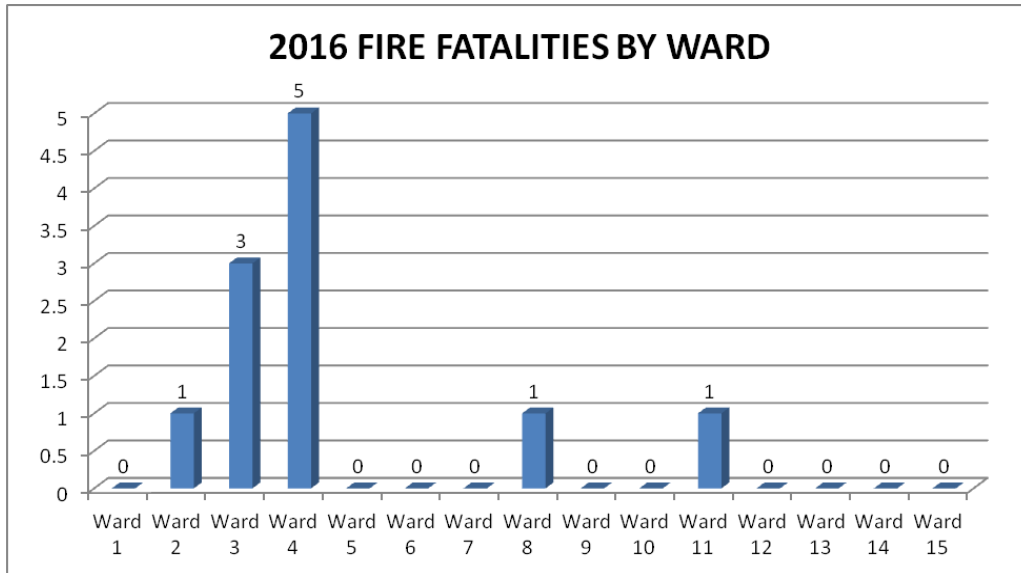
The year 2016 was a particularly tragic year in terms of fire fatalities. Eleven citizens including two young children lost their lives due to fire. It has been 30 years since the City of Hamilton experienced such loss.

There were three multiple fatality incidents in 2016. In March of 2016, two citizens perished in an apartment fire on King Street East, in August of 2016 three family members died in a fire on Niagara Street and in October of 2016, three citizens perished in a fire on Grenfell Avenue.

Working smoke alarms on all levels of a home will provide the earliest warning of a fire and provide occupants with an opportunity to safely evacuate a home. Of the 11 fatalities recorded in Hamilton in 2016, seven fatalities (64%) occurred in a residence in which there were no working smoke alarms.

Nine of the eleven fatalities (82%) occurred in Wards 2, 3 and 4 while 32 of the 37 civilian injuries (86%) reported also occurred in Wards 2, 3 and 4.

Fatalities in the past 5 years are as follows; 2015 – 5 fatalities, 2014 – 4 fatalities, 2013 – 4 fatalities and in 2012 there were 2 fatalities.



Causes of Structure Fires

In order to reduce the number of structure fires that occur through inspections or public education, it is important to have an understanding of the cause of fires.

While it is not always possible to pinpoint an exact cause of every structure fire (due to a structure collapsing or where there are several potential ignition sources) in many other cases, the Incident Commander will investigate and is able to come up with a determination.

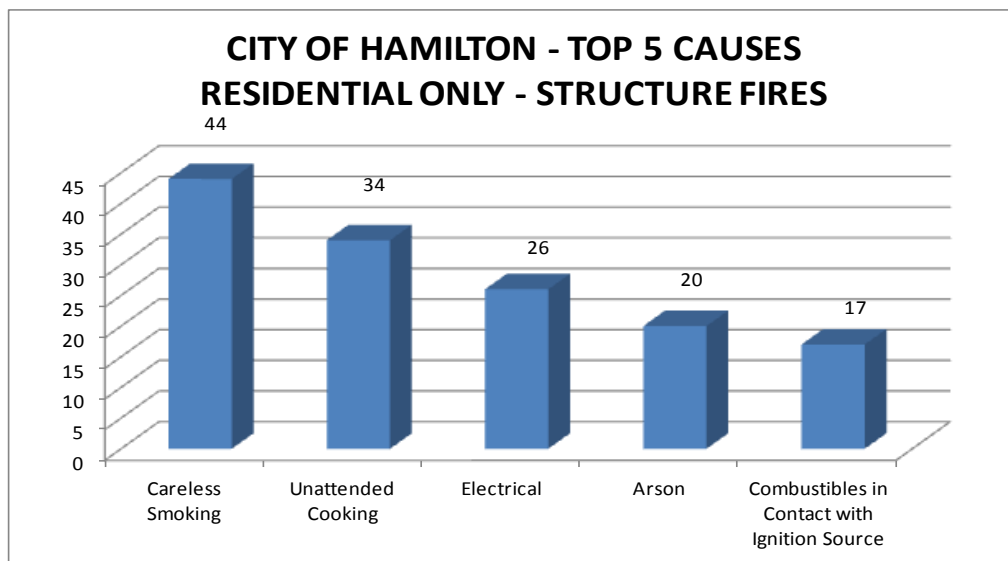
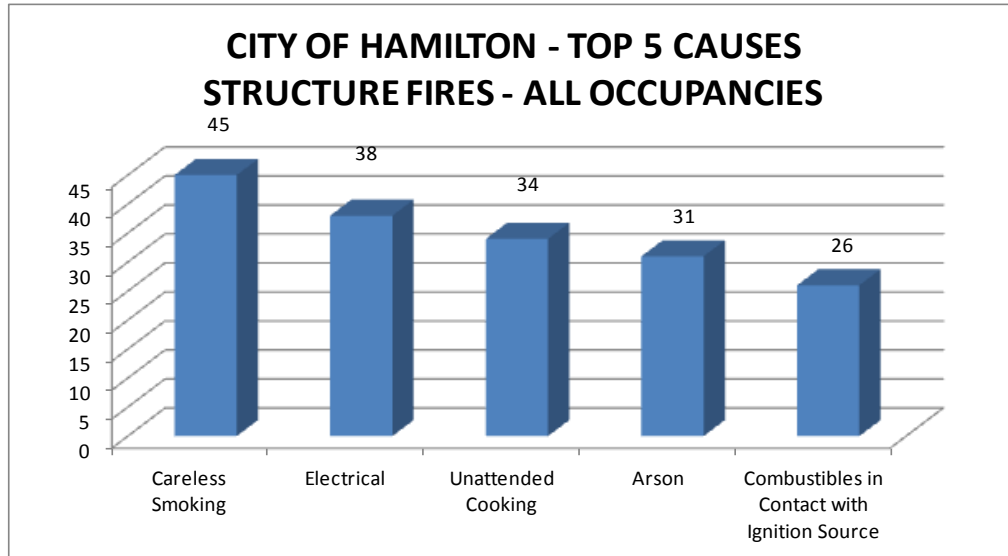
The chart below provides an overview of the causes of fires in the City of Hamilton.

Undetermined	59
Careless Smoking	44
Unattended Cooking	34
Electrical	26
Arson	20
Combustibles in Contact	17
Maintenance Deficiency	6
Improper Handling - Ignition Source	6
Chimney/Fireplace	4
Unattended Candle	1
Appliance Fire	1
Careless Use of a Torch	1

In reviewing the top causes of structure fires, specifically those in residential occupancies, it is apparent that in almost all cases these fires are preventable. In many cases, it is behaviours that need to be changed.

Through enforcement and more importantly public education, Hamilton Fire Department personnel work daily in an effort to prevent these fires from occurring.

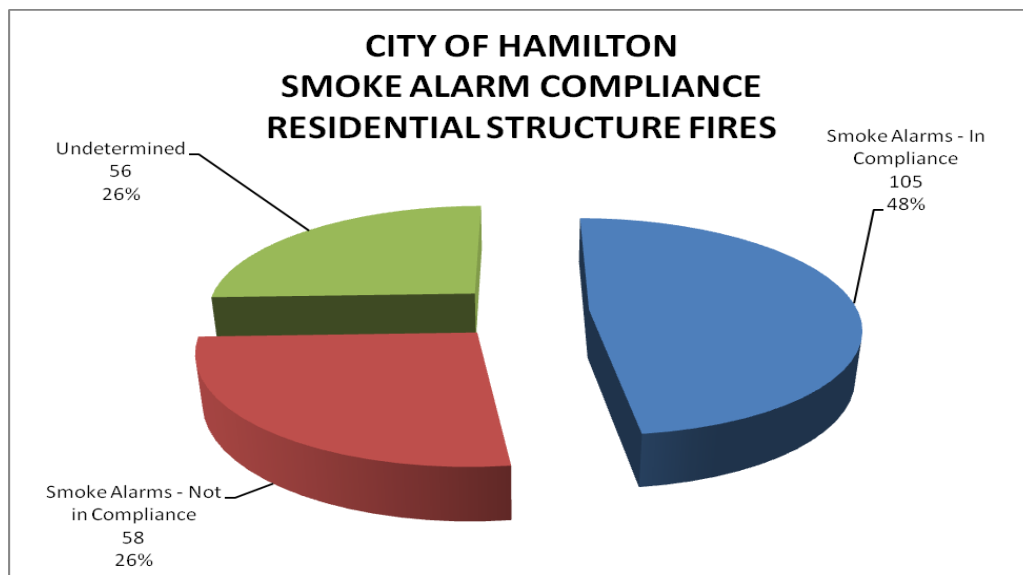
The following charts provide an overview of the top 5 causes of all structure fires in the City of Hamilton and the top 5 causes of all residential structure fires in the City of Hamilton.



Smoke Alarm Compliance

The Ontario Fire Code requires that operational smoke alarms be installed on every floor level of your home including outside of all sleeping areas.

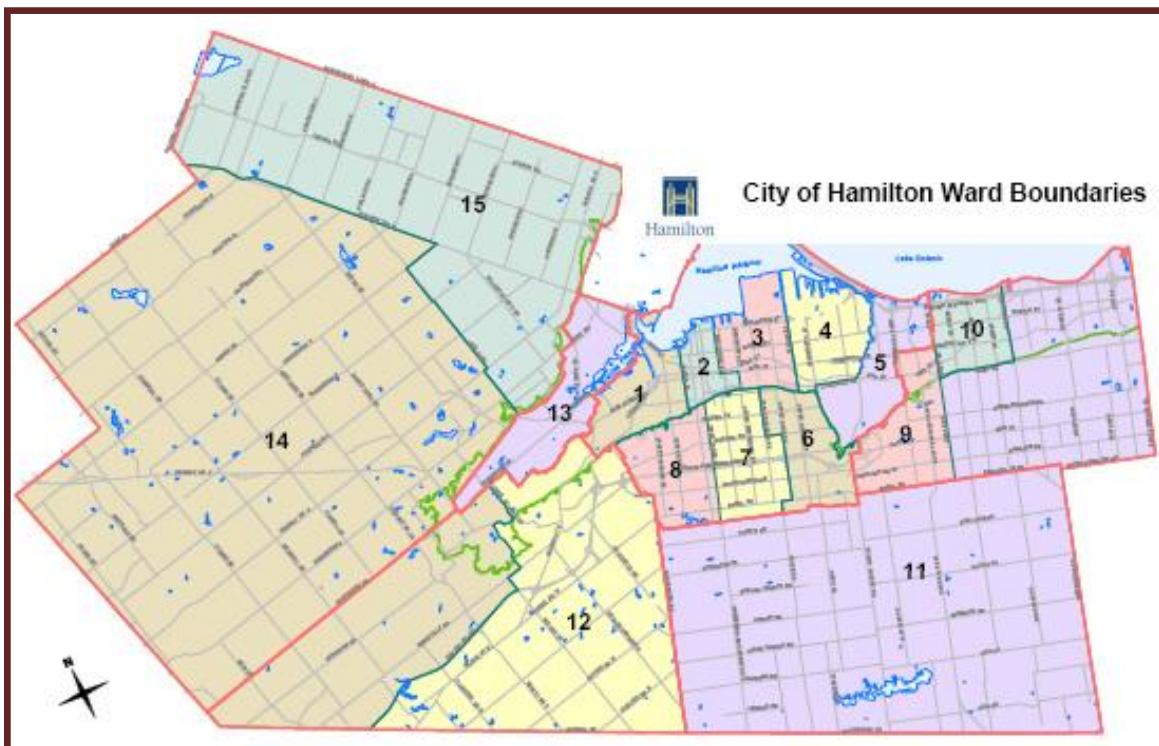
Too often, Hamilton firefighters and fire inspectors find smoke alarms not installed or not operational. The following chart provides a look at smoke alarm compliance in the homes where a structure fire occurred. It should be noted that in some cases smoke alarm compliance was listed as undetermined due to unsafe conditions in a home (unable to properly search for a smoke alarm) or where a smoke alarm has been severely damaged by fire.



It was confirmed that in 58 (26%) of residences in which a fire occurred, smoke alarms were not installed in compliance with Ontario Fire Code regulations. As previously identified, working smoke alarms on all levels of a home will provide the earliest warning of a fire and provide occupants with an opportunity to safely evacuate a home.

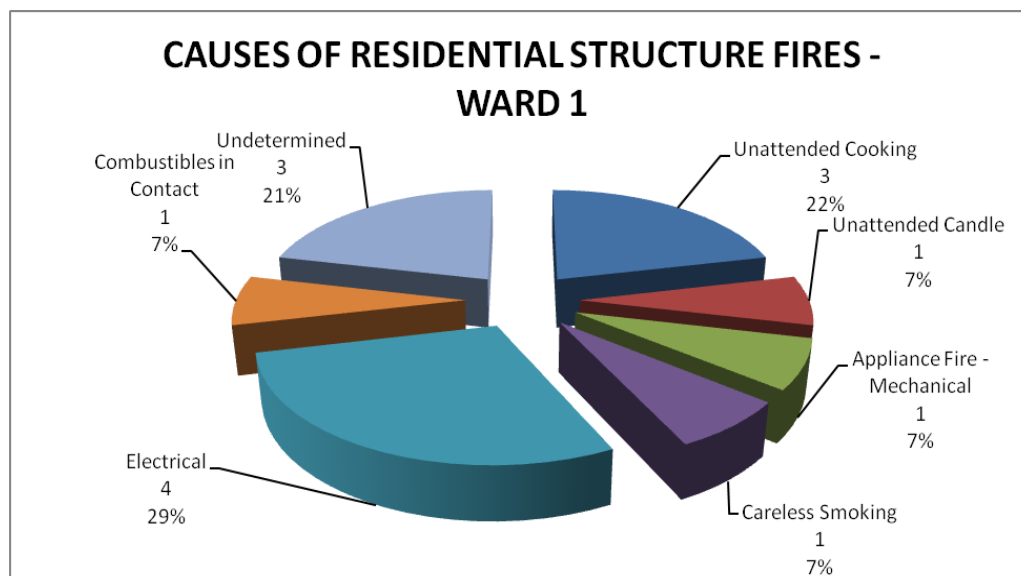
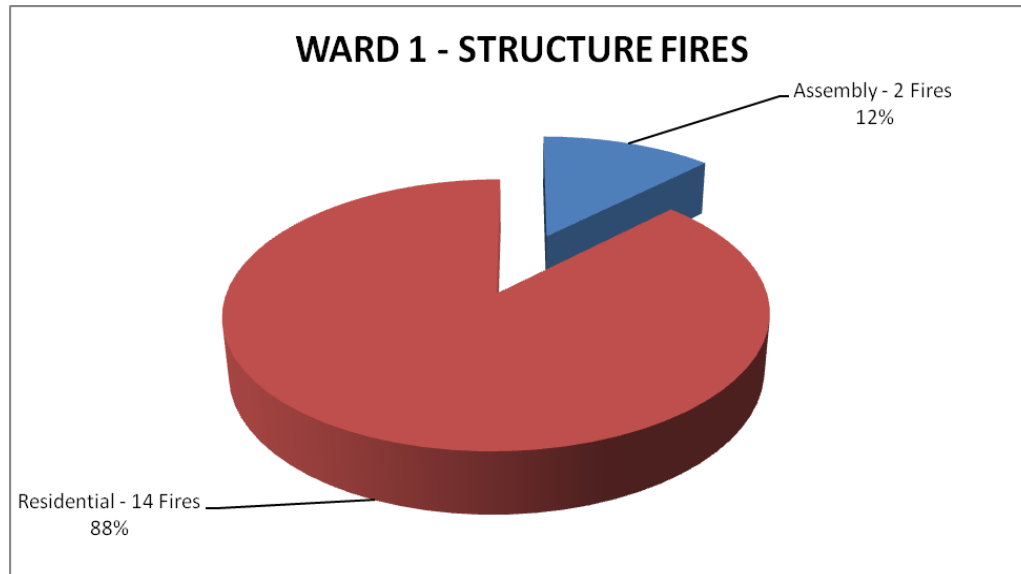
WARD STATISTICS

The City of Hamilton is divided into 15 Wards, each of which is unique in terms of topography, demographics and also in fire responses. The following diagram identifies the 15 Wards in the City of Hamilton and subsequent pages provide an overview in each Ward of the types of occupancies fires occurred in, causes of those fires and smoke alarm compliance identified in residential occupancies where fires occurred in 2016.



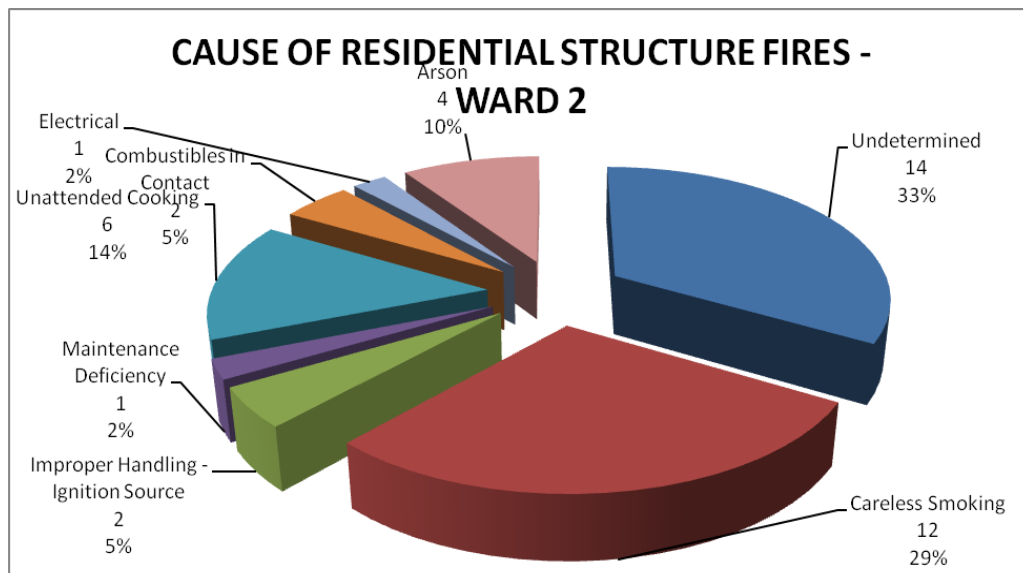
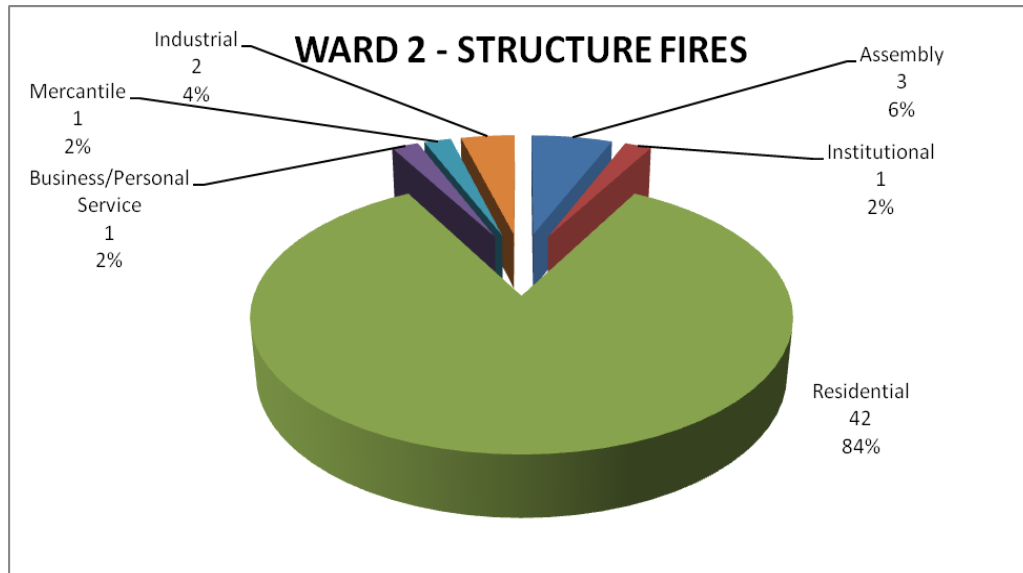
WARD 1 – STRUCTURE FIRES

There were 16 structure fires in Ward 1 in 2016 of which 14 occurred in residential occupancies. The number one cause of residential structure fires in Ward 1 was electrical followed by unattended cooking. Smoke alarm compliance was 79% and the total dollar loss in the Ward was \$1,071,400. There were no fatalities or injuries reported in Ward 1.



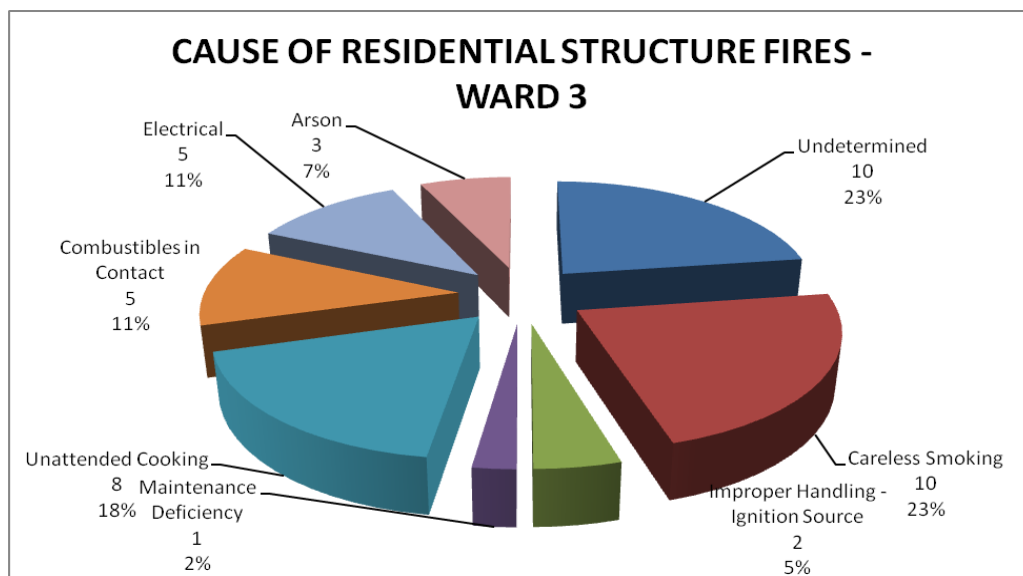
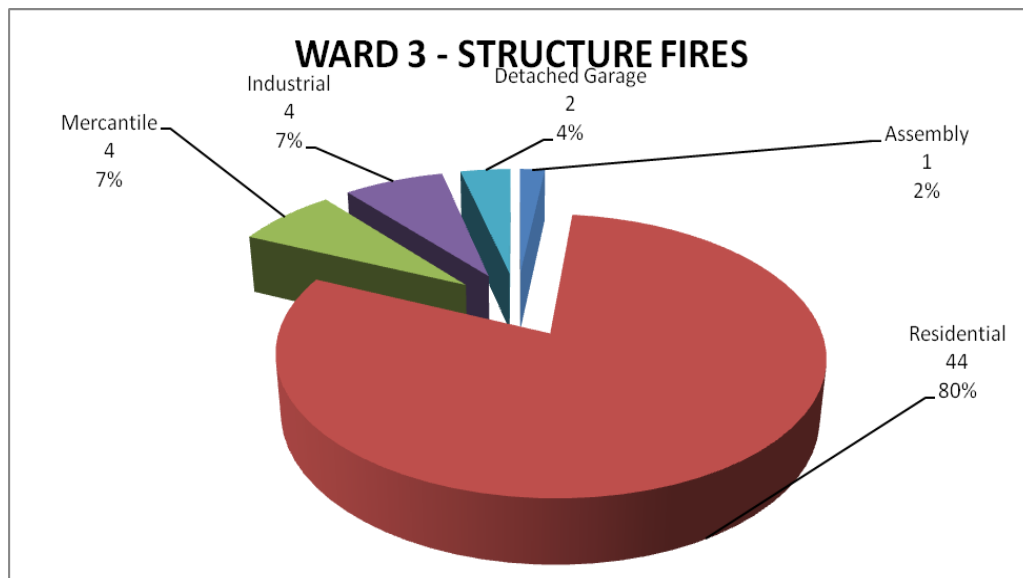
WARD 2 – STRUCTURE FIRES

There were 50 structure fires in Ward 2 in 2016 of which 42 occurred in residential occupancies. The number one cause of residential structure fires in Ward 2 was careless smoking followed by unattended cooking. Smoke alarm compliance was 57% and the total dollar loss in the Ward was \$1,583,001. There was 1 fatality and 13 injuries reported in Ward 2.



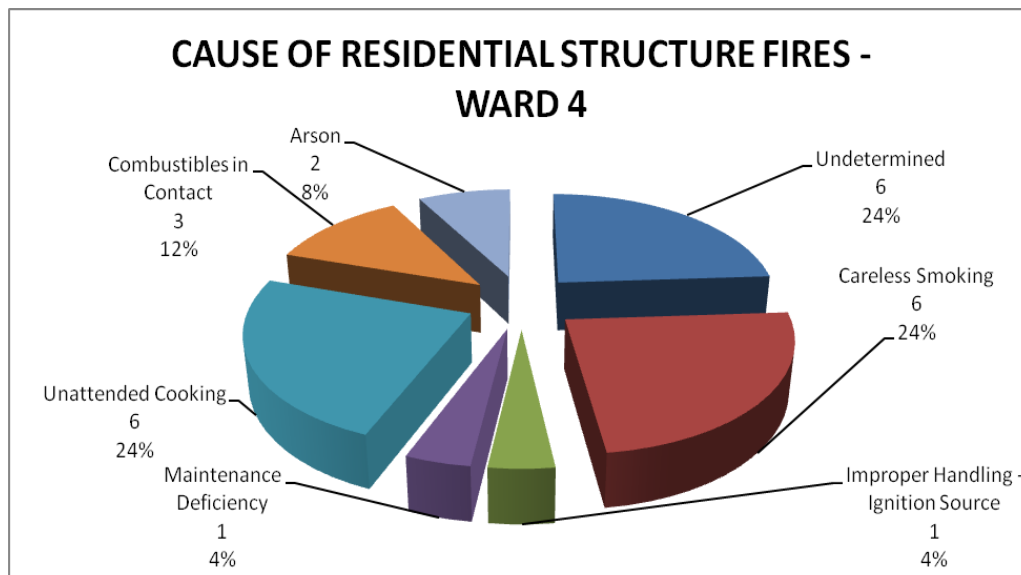
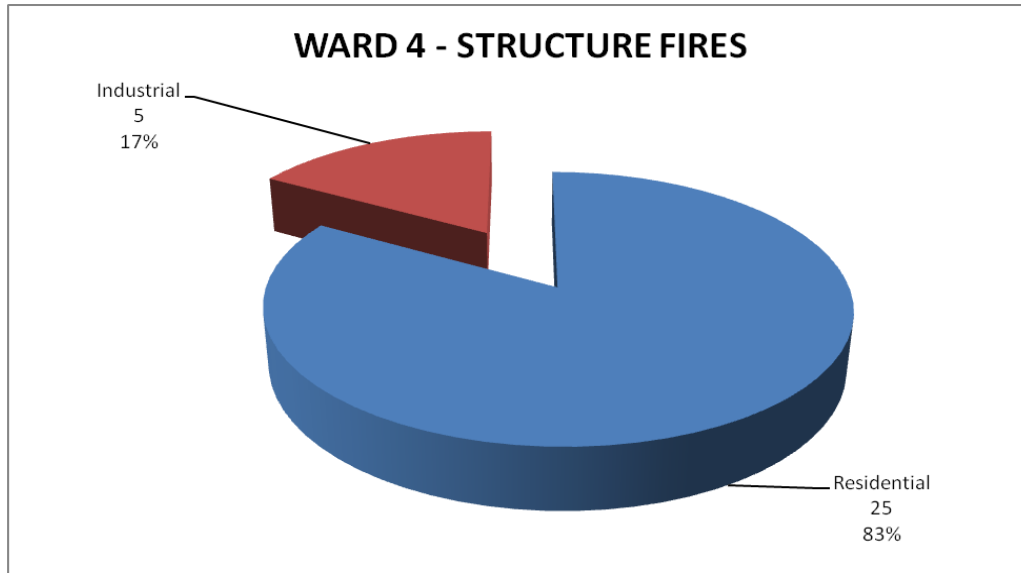
WARD 3 – STRUCTURE FIRES

There were 55 structure fires in Ward 3 in 2016 of which 44 occurred in residential occupancies. The number one cause of residential structure fires in Ward 3 was careless smoking followed by unattended cooking. Smoke alarm compliance was 27% and the total dollar loss in the Ward was \$2,618,400. There were 3 fatalities and 10 injuries reported in Ward 3.



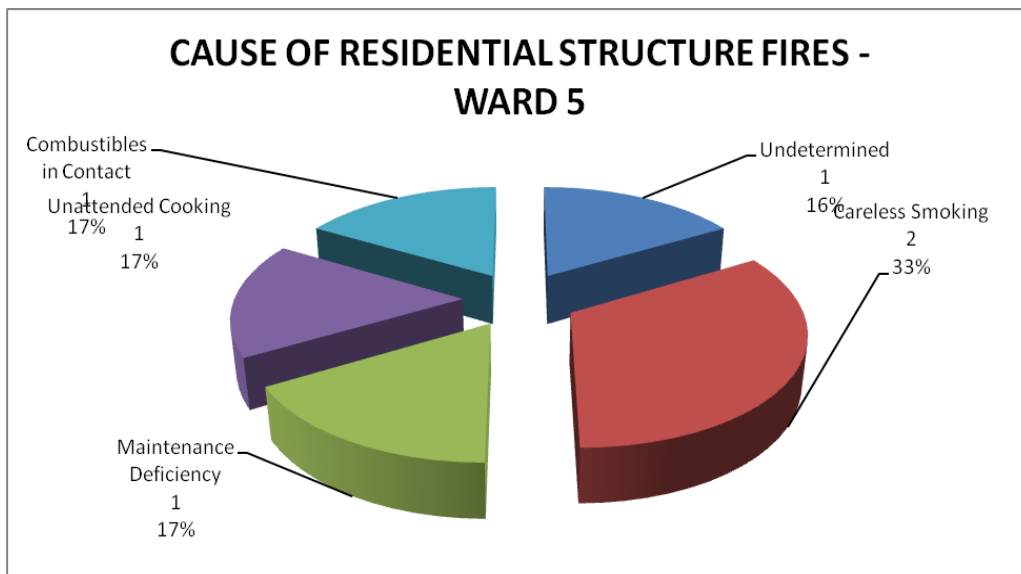
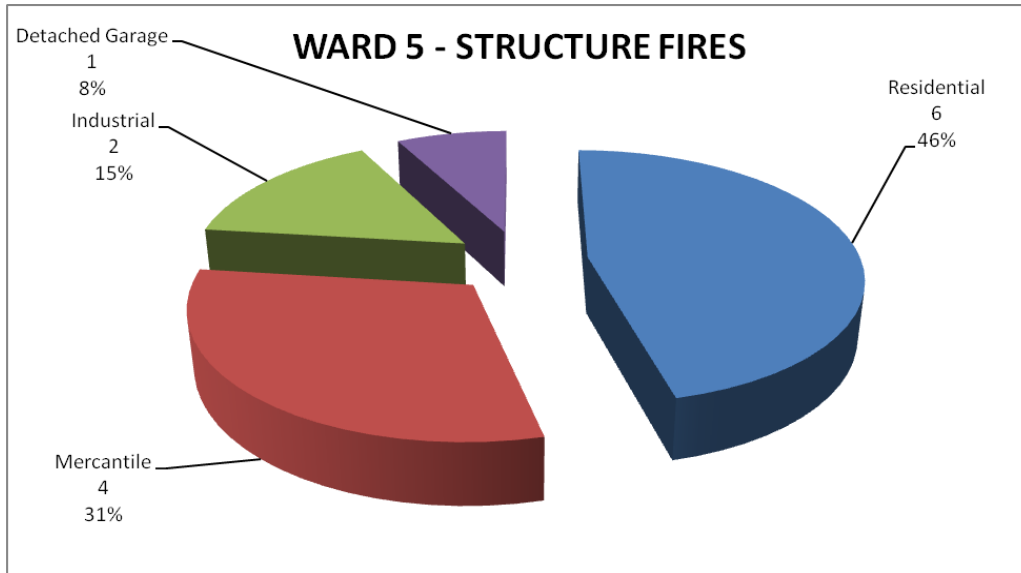
WARD 4 – STRUCTURE FIRES

There were 30 structure fires in Ward 4 in 2016 of which 25 occurred in residential occupancies. The number one cause of residential structure fires in Ward 4 was shared with both careless smoking and unattended cooking. Smoke alarm compliance was 60% and the total dollar loss in the Ward was \$1,231,501. There were 5 fatalities and 9 injuries reported in Ward 4.



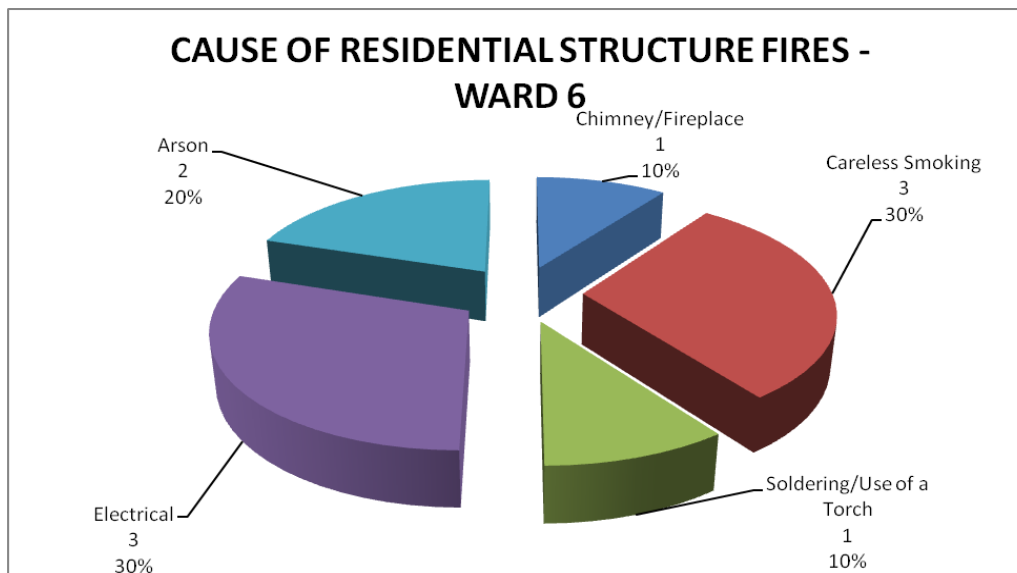
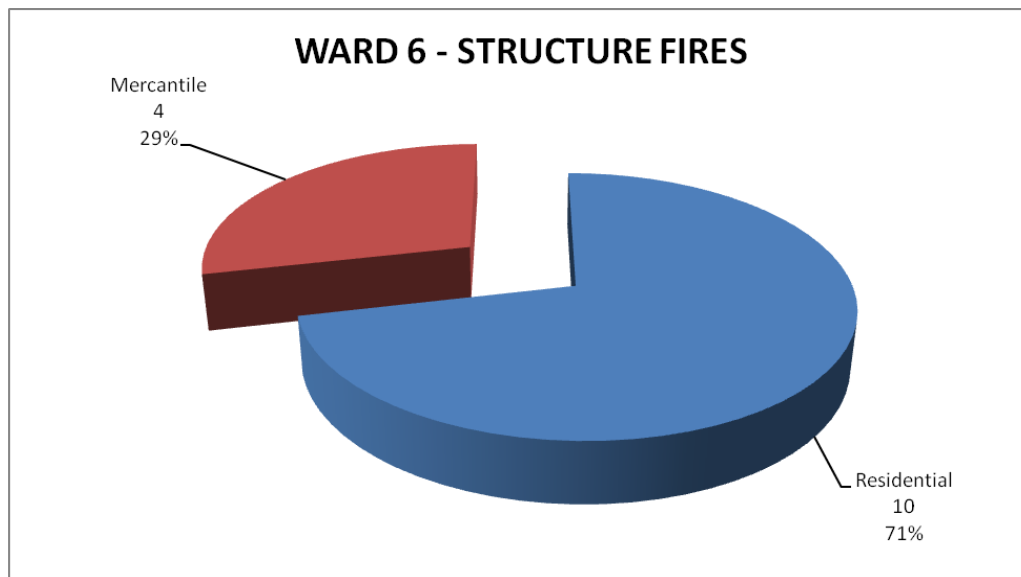
WARD 5 – STRUCTURE FIRES

There were 13 structure fires in Ward 5 in 2016 of which 6 occurred in residential occupancies. The number one cause of residential structure fires in Ward 6 was careless smoking followed by unattended cooking. Smoke alarm compliance was 50% and the total dollar loss in the Ward was \$358,500. There were no fatalities and 1 injury reported in Ward 5.



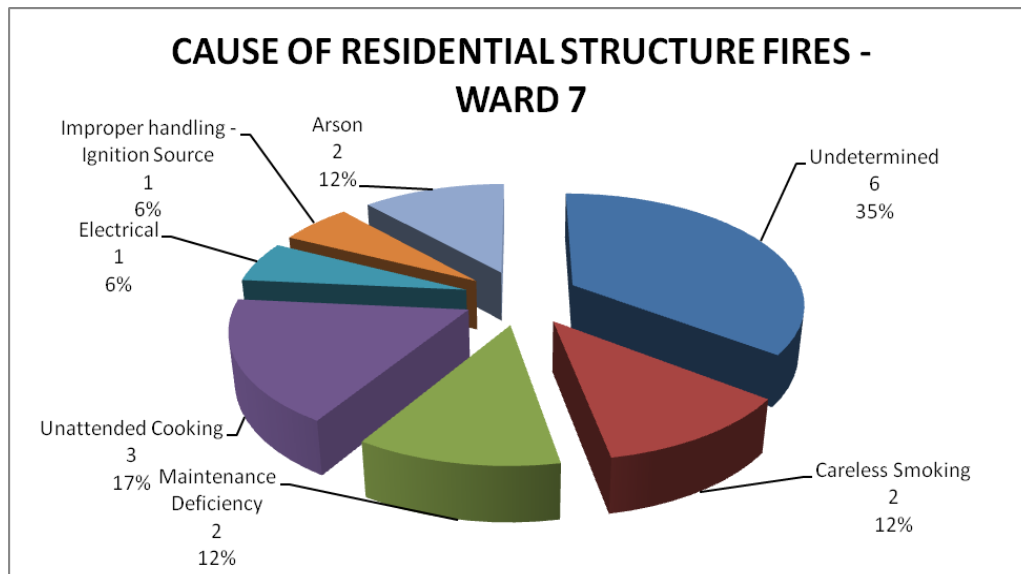
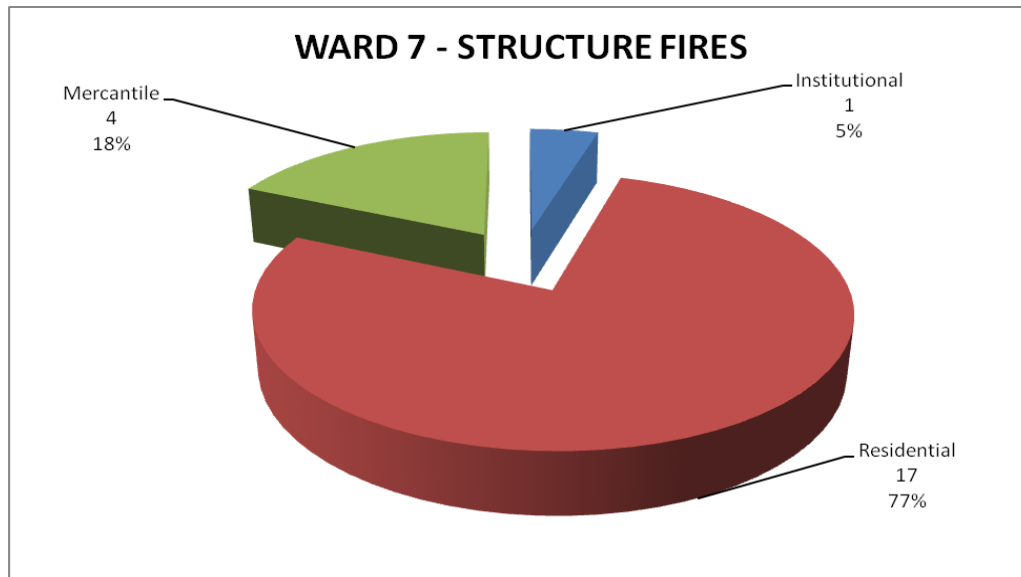
WARD 6 – STRUCTURE FIRES

There were 14 structure fires in Ward 6 in 2016 of which 10 occurred in residential occupancies. The number one cause of residential structure fires in Ward 6 was shared between careless smoking and electrical. Smoke alarm compliance was 40% and the total dollar loss in the Ward was \$938,500. There were no fatalities and no injuries reported in Ward 6.



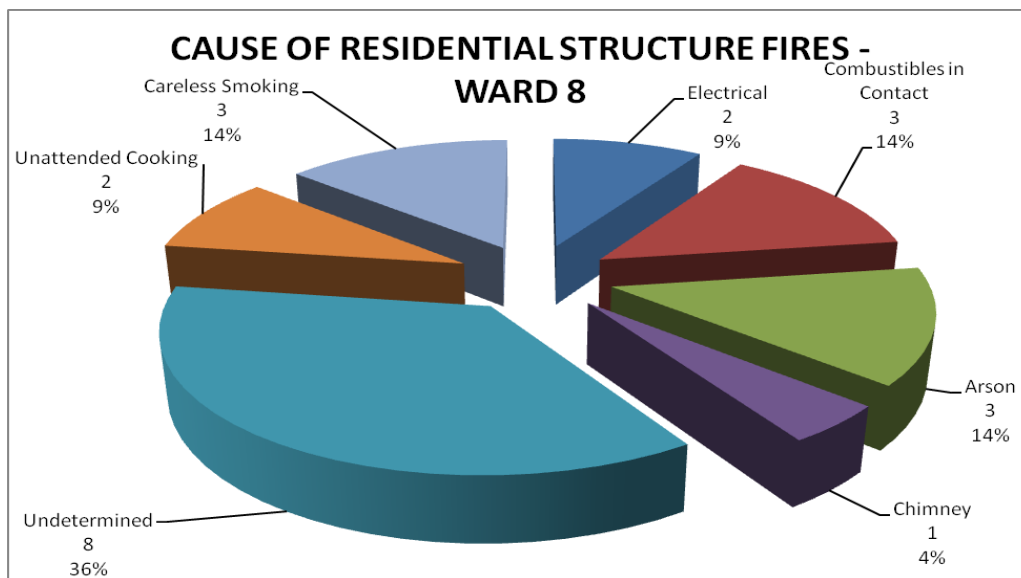
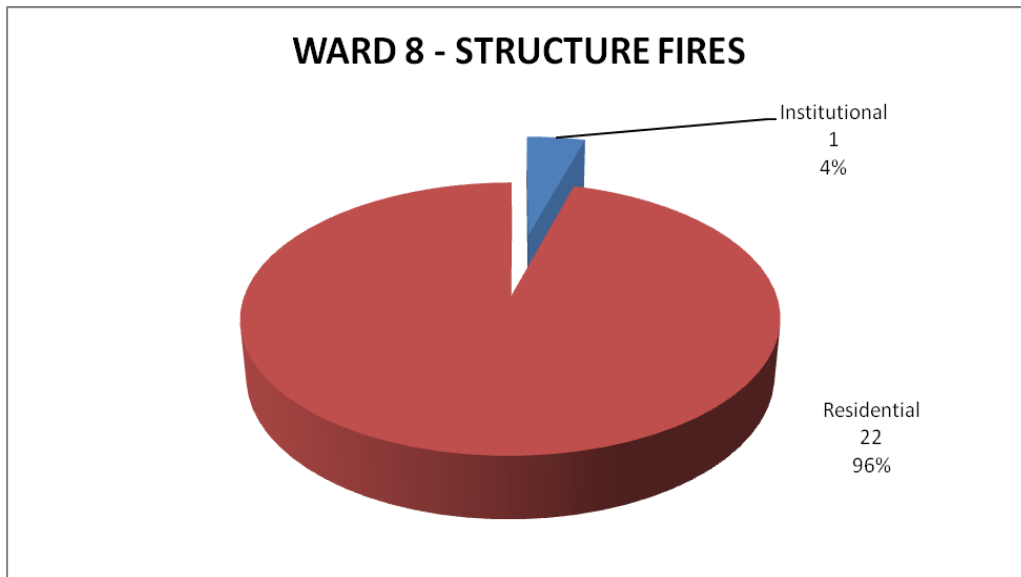
WARD 7 – STRUCTURE FIRES

There were 22 structure fires in Ward 7 in 2016 of which 17 occurred in residential occupancies. The number one cause of residential structure fires in Ward 7 was unattended cooking followed by careless smoking. Smoke alarm compliance was 53% and the total dollar loss in the Ward was \$2,200,000. There were no fatalities or injuries reported in Ward 7.



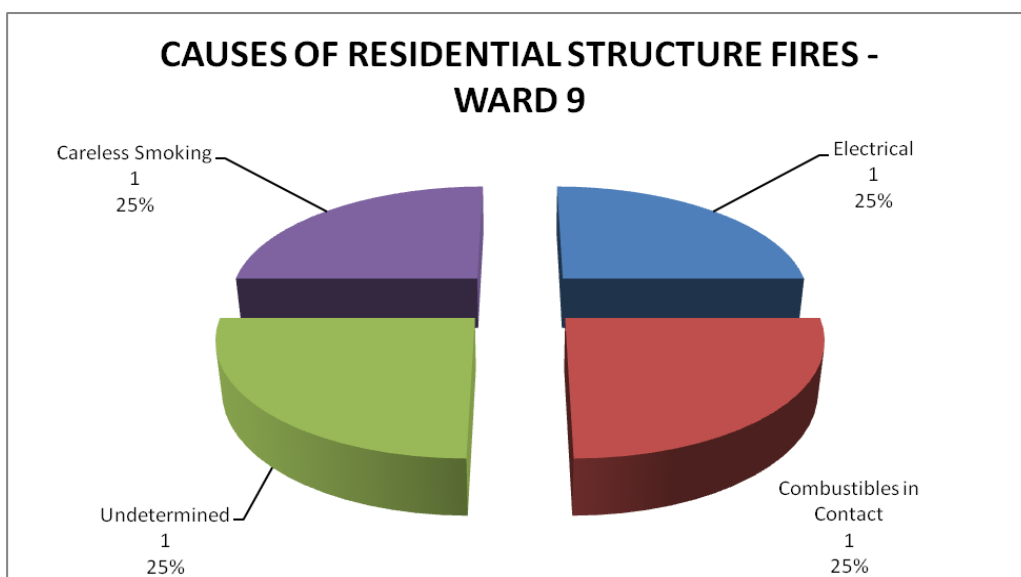
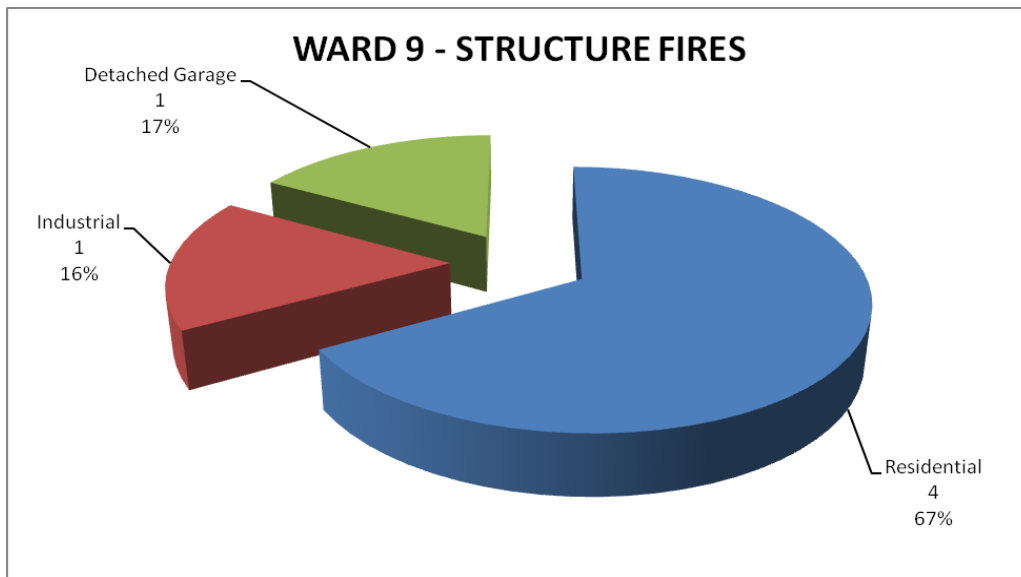
WARD 8 – STRUCTURE FIRES

There were 23 structure fires in Ward 8 in 2016 of which 22 occurred in residential occupancies. The number one cause of residential structure fires in Ward 8 was shared with careless smoking, combustibles in contact with an ignition source and arson. Smoke alarm compliance was 59% and the total dollar loss in the Ward was \$580,700. There was 1 fatality and 2 injuries reported in Ward 8.



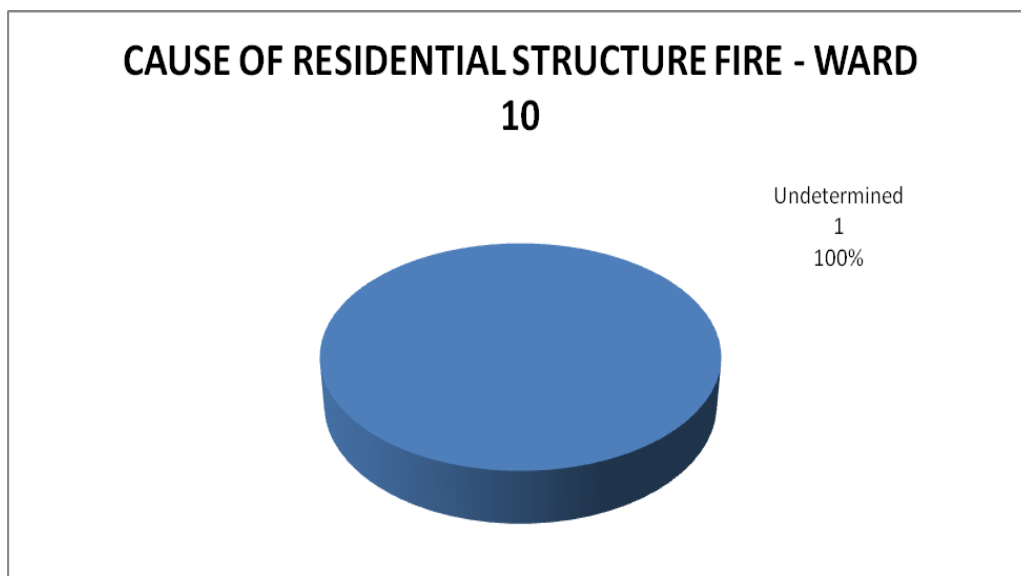
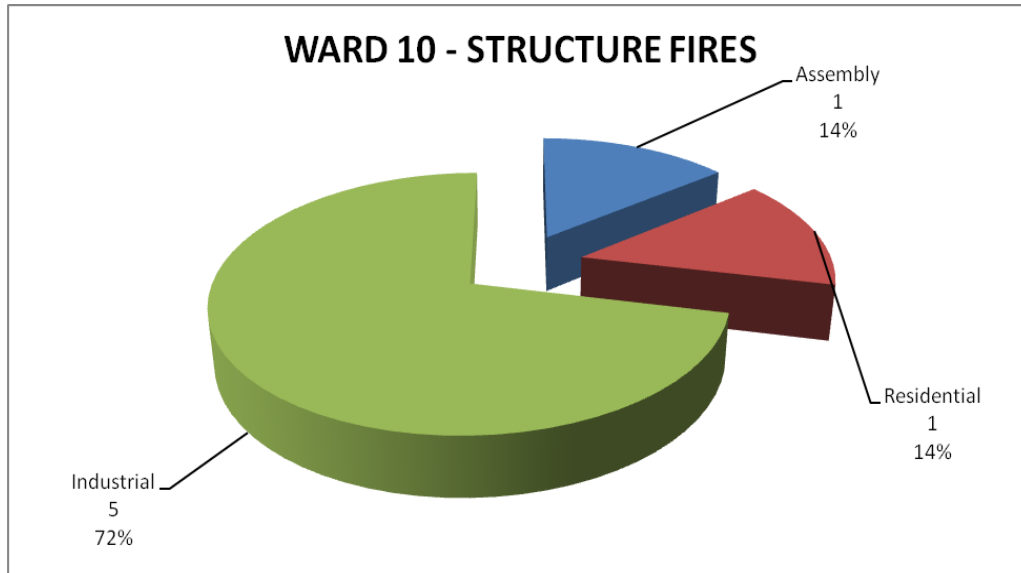
WARD 9 – STRUCTURE FIRES

There were 6 structure fires in Ward 9 in 2016 of which 4 occurred in residential occupancies. The number one cause of residential structure fires in Ward 9 was shared equally with careless smoking, electrical and combustibles in contact with a hot object. Smoke alarm compliance was 25% and the total dollar loss in the Ward was \$95,000. There were no fatalities and no injuries reported in Ward 9.



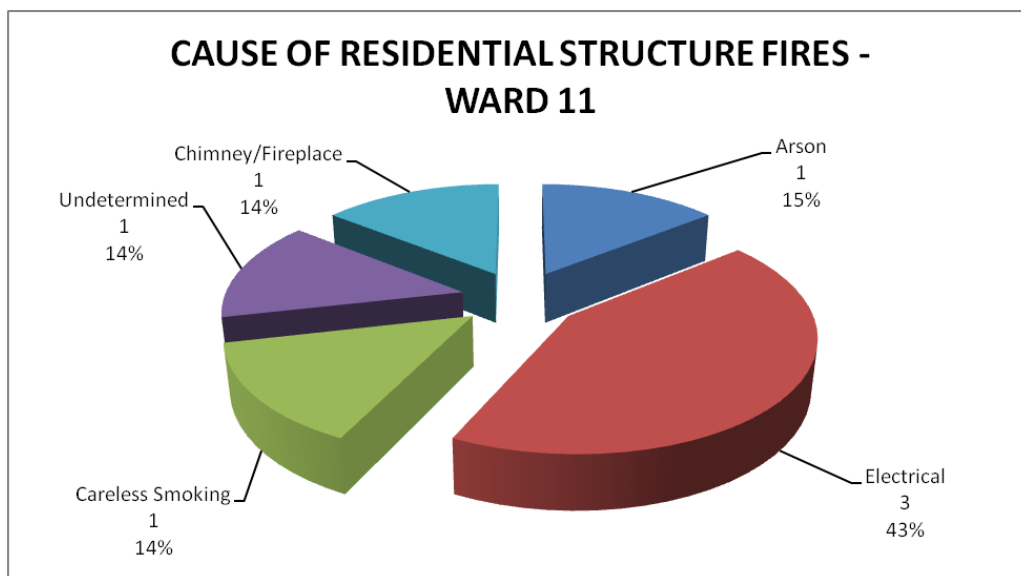
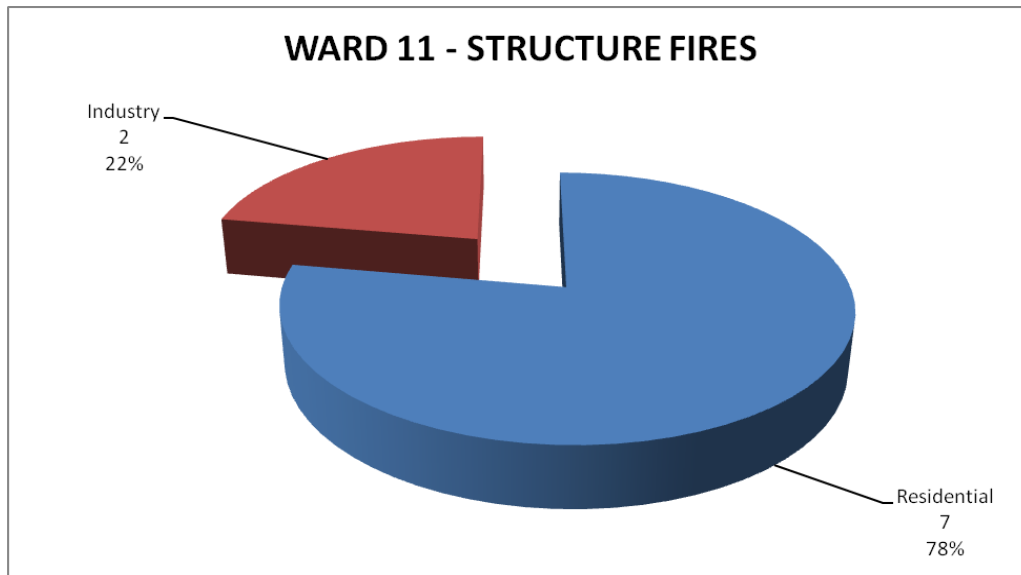
WARD 10 – STRUCTURE FIRES

There were 7 structure fires in Ward 10 in 2016 of which 1 occurred in a residential occupancy. The cause of this residential structure fires was undetermined. This residence was equipped with operable smoke alarms. The total dollar loss in the Ward was \$216,500. There were no fatalities and no injuries reported in Ward 10.



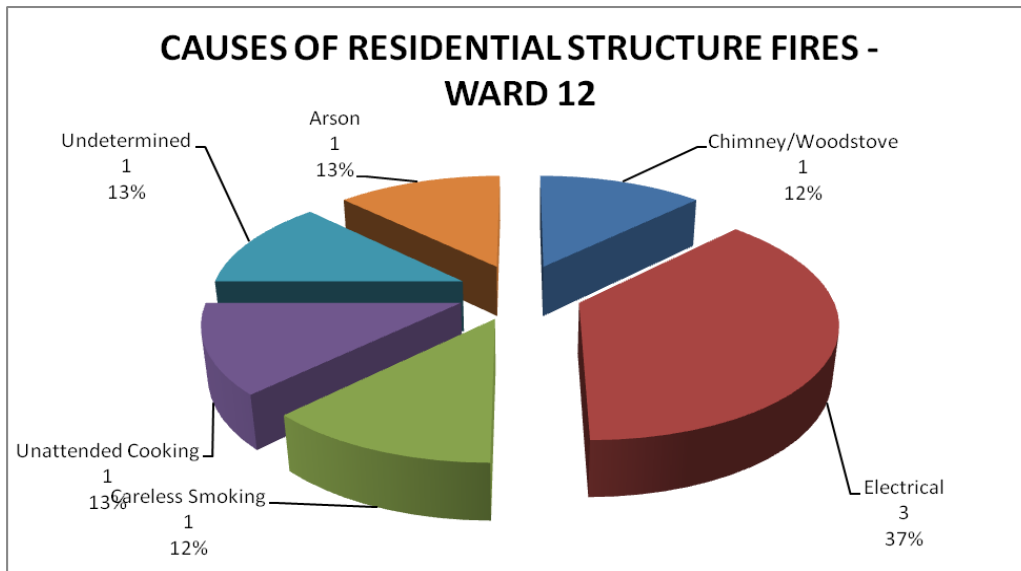
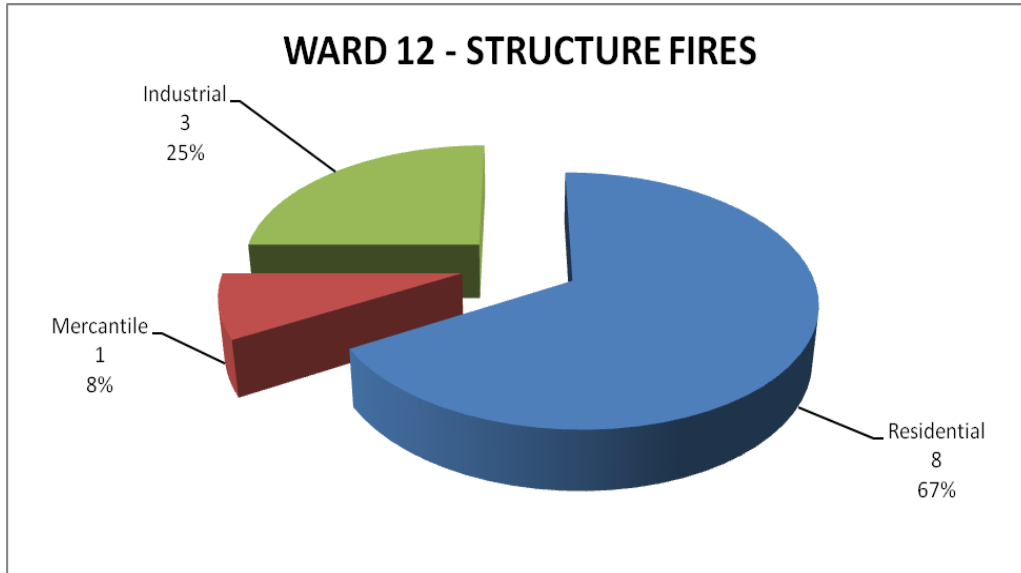
WARD 11 – STRUCTURE FIRES

There were 9 structure fires in Ward 11 in 2016 of which 7 occurred in residential occupancies. The number one cause of residential structure fires in Ward 11 was electrical followed by arson, careless smoking and a chimney. Smoke alarm compliance was 57% and the total dollar loss in the Ward was \$225,000. There was 1 fatality and 1 injury reported in Ward 11.



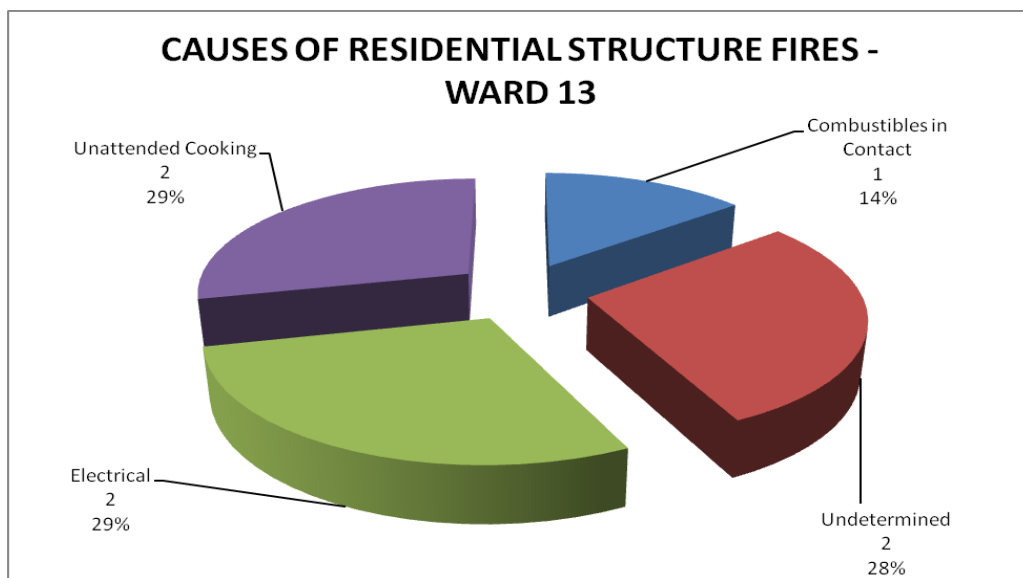
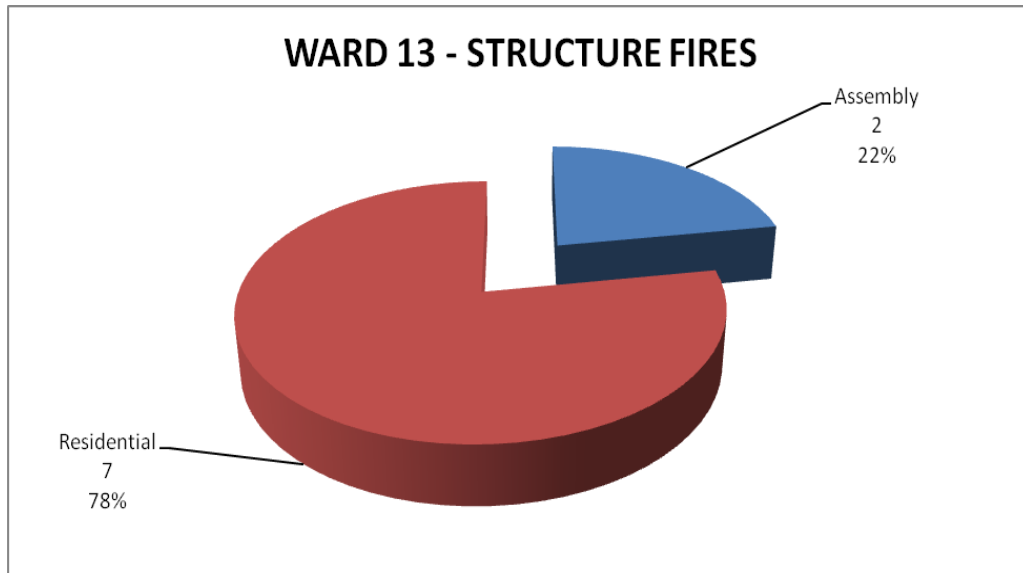
WARD 12 – STRUCTURE FIRES

There were 12 structure fires in Ward 12 in 2016 of which 8 occurred in residential occupancies. The number one cause of residential structure fires in Ward 12 was electrical. Smoke alarm compliance was 12% and the total dollar loss in the Ward was \$1,091,500. There were no fatalities and no injuries reported in Ward 12.



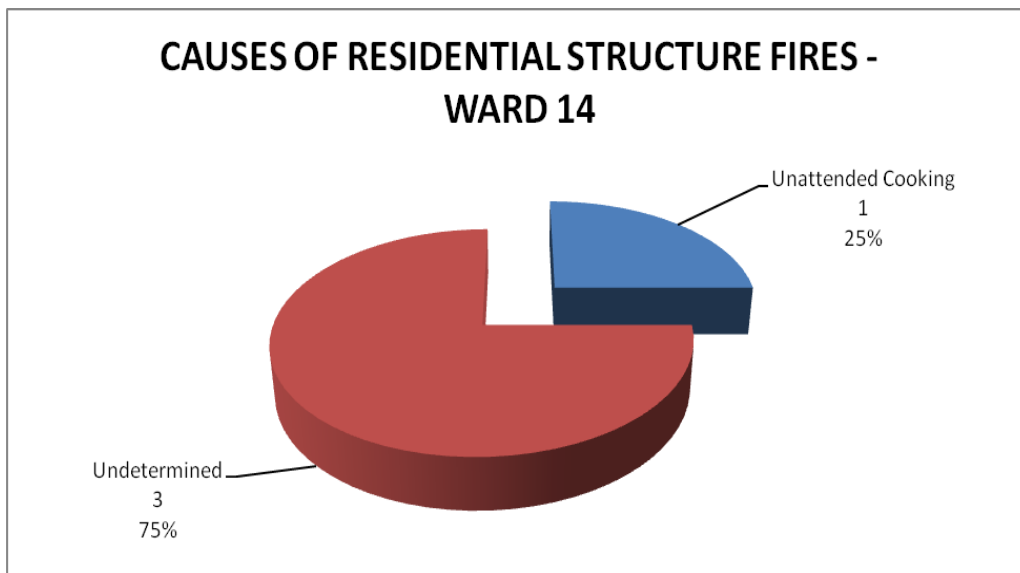
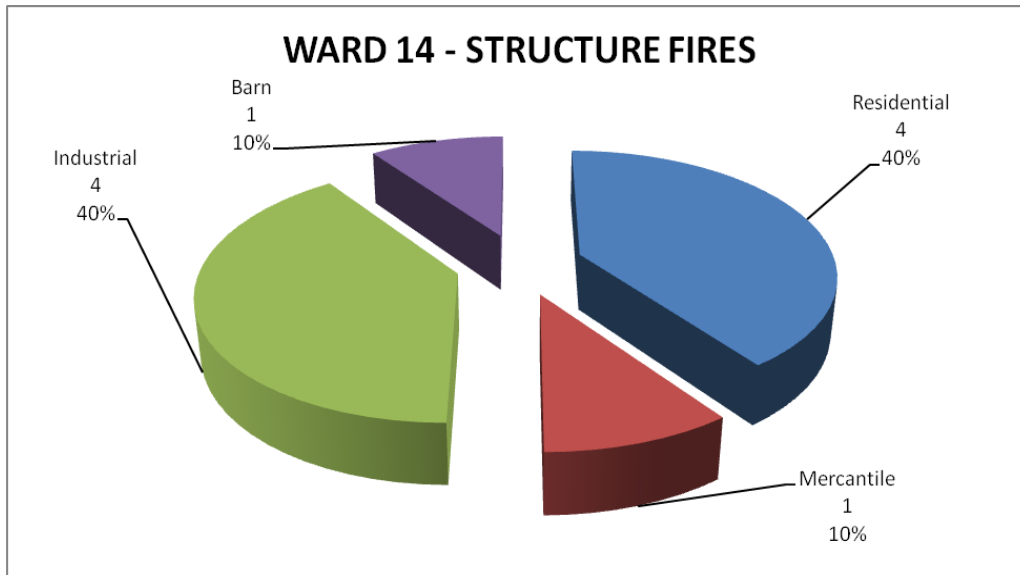
WARD 13 – STRUCTURE FIRES

There were 9 structure fires in Ward 13 in 2016 of which 7 occurred in residential occupancies. The number one cause of residential structure fires in Ward 13 was shared between electrical and unattended cooking. Smoke alarm compliance was 43% and the total dollar loss in the Ward was \$38,000. There were no fatalities and 1 injury reported in Ward 13.



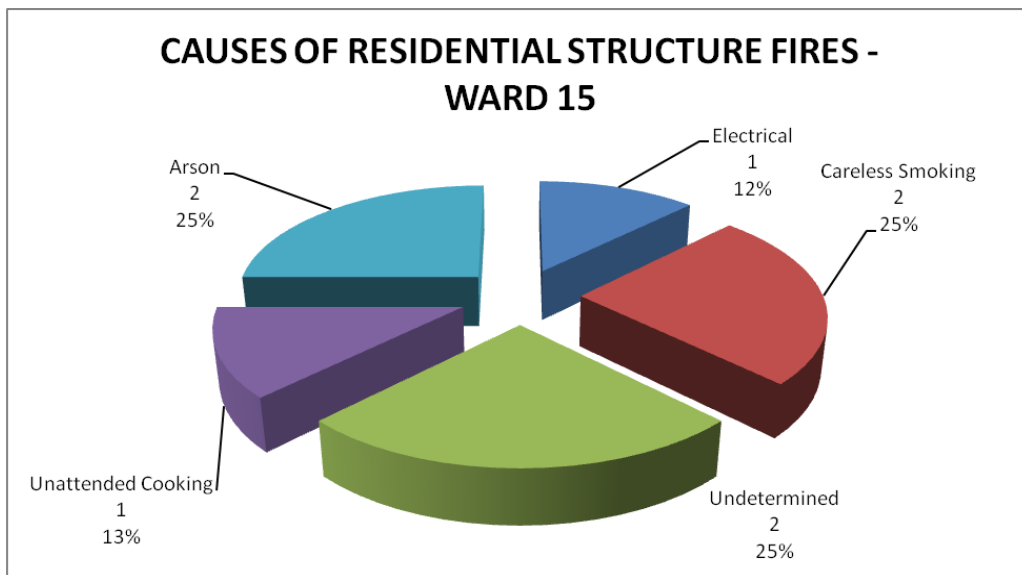
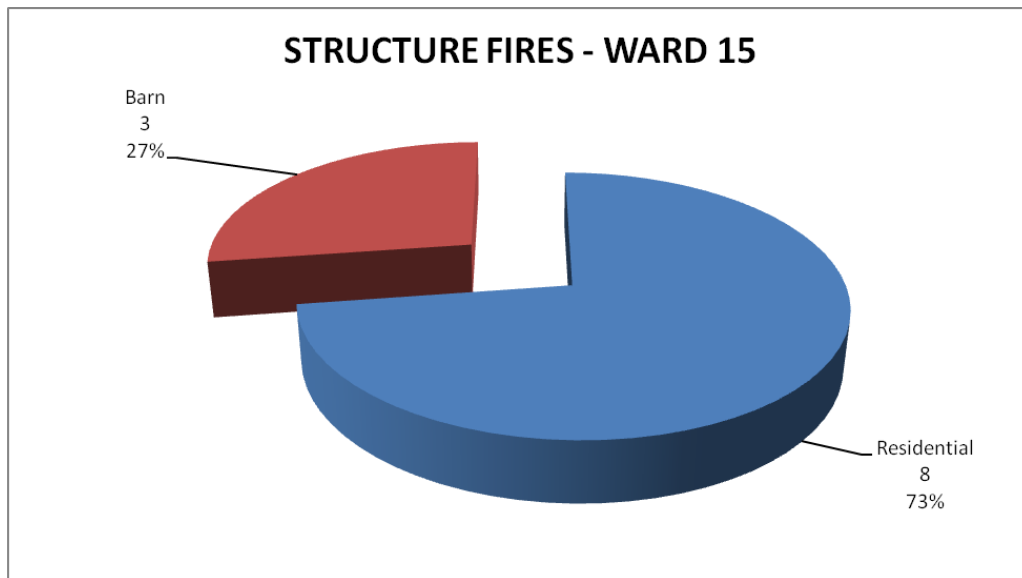
WARD 14 – STRUCTURE FIRES

There were 10 structure fires in Ward 14 in 2016 of which 4 occurred in residential occupancies. The number one cause of residential structure fires in Ward 14 was unattended cooking. Smoke alarm compliance was 50% and the total dollar loss in the Ward was \$445,000. There were no fatalities and no injuries reported in Ward 14.



WARD 15 – STRUCTURE FIRES

There were 11 structure fires in Ward 15 in 2016 of which 8 occurred in residential occupancies. The number one cause of residential structure fires in Ward 15 was careless smoking and arson. Smoke alarm compliance was 25% and the total dollar loss in the Ward was \$1,855,000. There were no fatalities and no injuries reported in Ward 15.



FIRE PREVENTION SERVICE DELIVERY

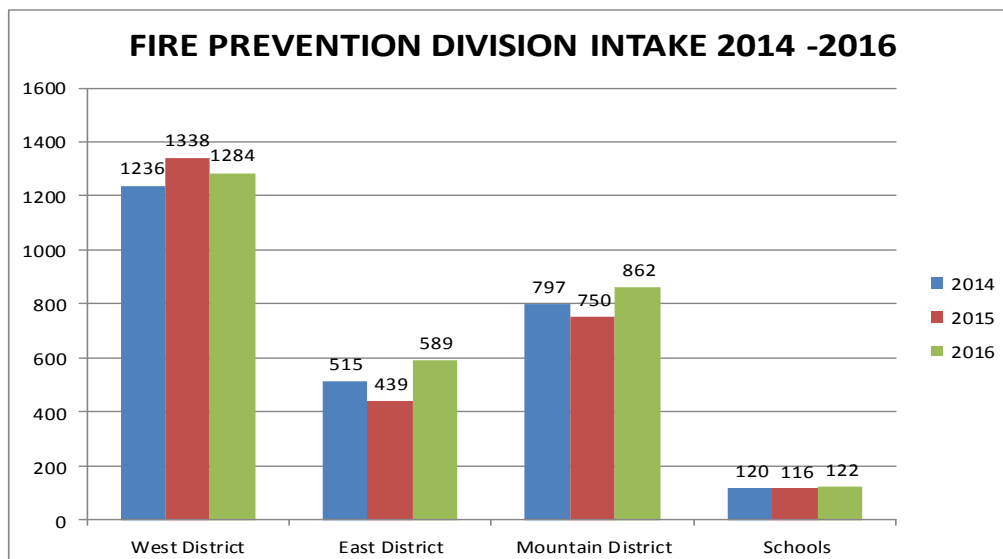
The Fire Prevention Division consists of a Chief Fire Prevention Officer, an Assistant Chief Fire Prevention Officer and 22 Inspection staff.

The Fire Prevention Division operates from three locations; the West District Office located at 55 King William Street (includes 2 Inspectors assigned to schools), the East District Office located at Fire Station 12 on Highway 8 in Stoney Creek and the Mountain District Office located at Fire Station 21 on Wilson Street in Ancaster.

The Fire Prevention Division are responsible for the enforcement of the Fire Protection and Prevention Act (FPPA), the Ontario Fire Code and various municipal by-laws dealing with fire safety, co-ordination of a juvenile firesetters program, a home and commercial inspection program by suppression personnel and a smoke alarm/CO alarm installation program. In addition, all Fire Prevention staff conducts public education initiatives that include talks, presentations and training sessions for school children, community service organizations, building staff and citizens.



The following chart provides an overview of the number of Inspections assigned to each of the three districts over the past three years. Intake inspections include but are not limited to items such as general inspections, licence inspections, complaints, permit inspections, occupant load inspections, carbon monoxide/smoke alarm complaints, propane reviews, pesticide notifications, fire drills etc.

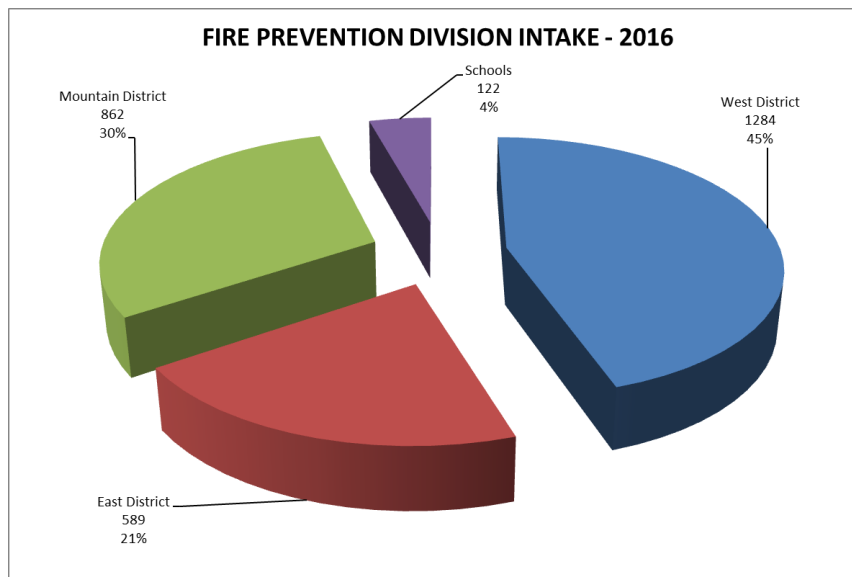


A breakdown of the types of inspection requests is as follows for each of the three inspection districts. Inspection Districts are as follows:

- East District (Lower City - Gage Avenue easterly to City limits)
- Mountain District (All areas above the escarpment)
- West District (Lower City – Gage Avenue westerly to City limits)

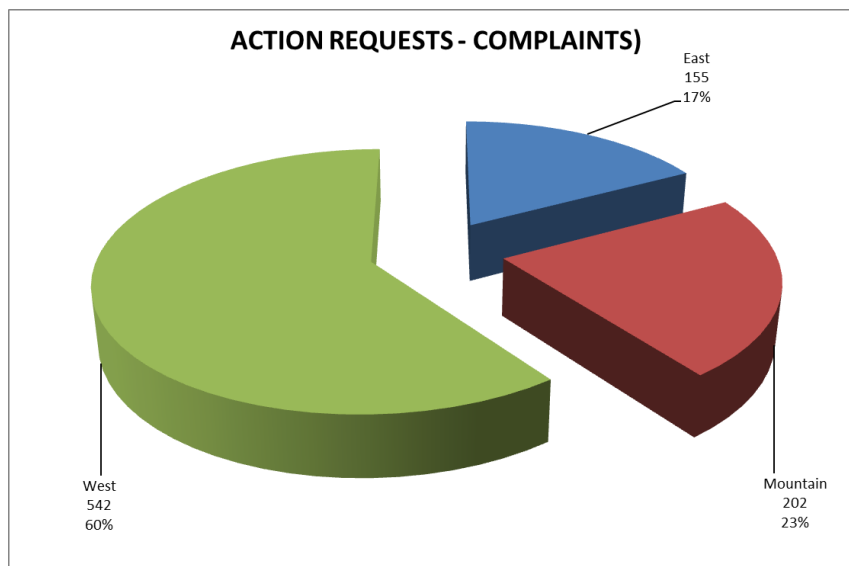
Inspection Request Type	East	Mountain	West
Action Requests (Complaints)	155	202	542
AGCO Inspections	13	12	38
Building Clearance	4	8	12
Capacity Card Calculation	0	2	3
Carbon Monoxide Non-Compliance	37	55	41
Certificate of Compliance	0	1	0
Councillor's Office Request	2	2	6
Day Care Inspection	0	3	2
Demolition	7	4	9
Fire Access Route	3	11	3
Fire Drills	9	65	34
Fire Safety Plan Review	10	47	43
Fireworks	26	42	10
General Inspection	21	36	71
General Inspection Assigned	62	80	110
In-service Follow-Up	2	2	0
Licence Inspection	78	85	148
Paid Inspection	18	56	44
Pesticide Notification	6	11	3
Pyrotechnics	10	26	32
Smoke Alarm Notification	43	45	76
Special Occasion	0	1	1

The following chart provides an overall look at the percentage of inspection requests in each of the Inspection Districts.

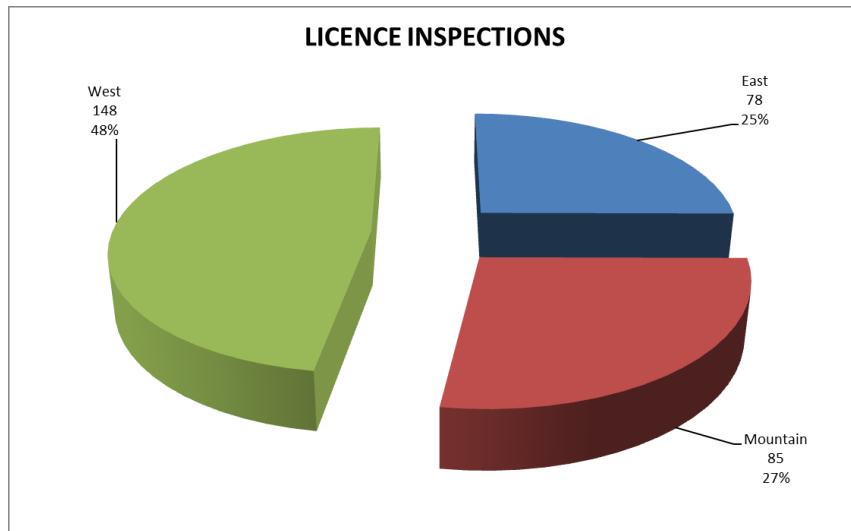


The following charts provide an overview of the percentages in each of the Inspection Districts of the higher volume inspection requests.

Complaints

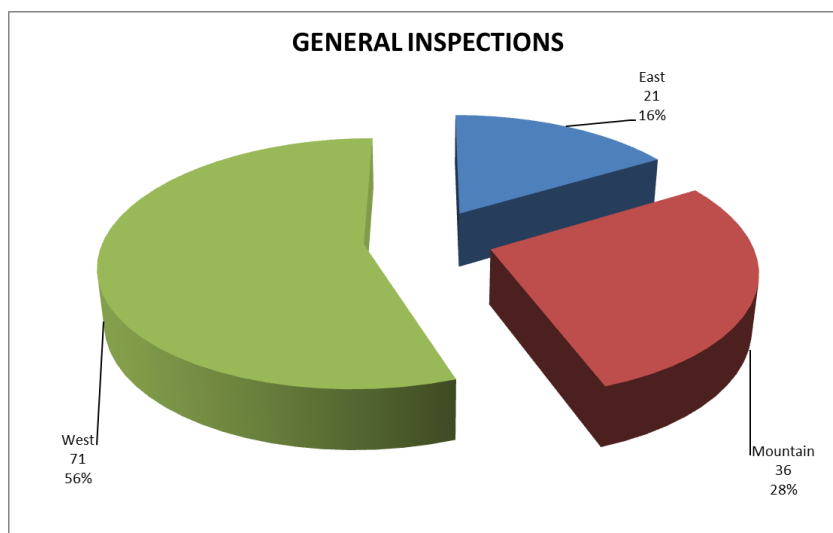


Licence Inspections



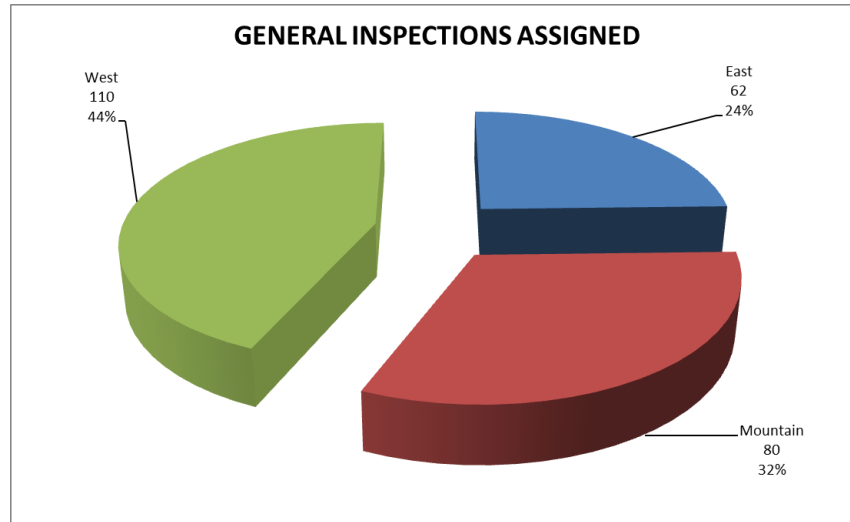
General Inspections

These involve properties where an Inspector attends and a complete inspection of the property is required.



General Inspections Assigned

These are pro-active inspections which are assigned by an area Fire Safety Officer



Public Events and Public Contacts

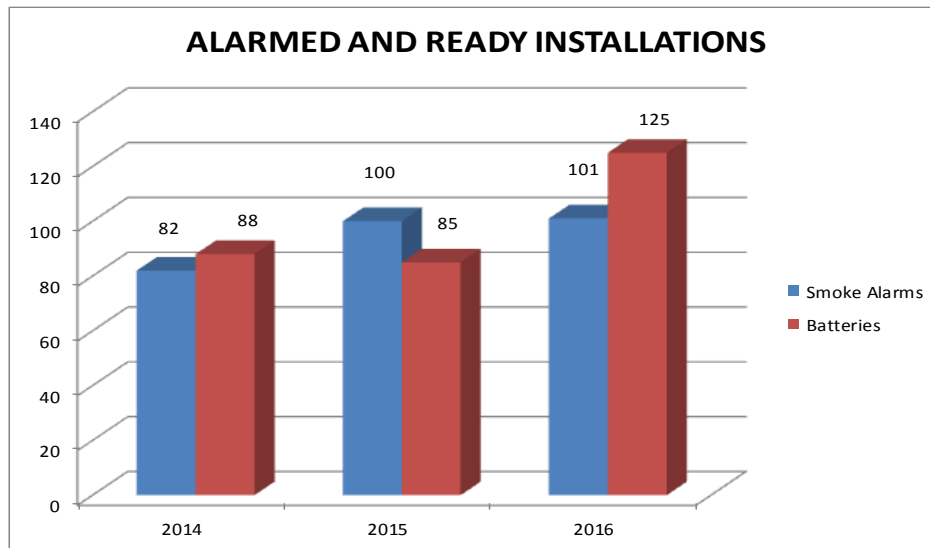
The Hamilton Fire Department attends approximately 650 public events annually which include visits to schools and conducting presentations. In 2014, Hamilton Fire Department staff interacted with approximately 53,446 citizens at these community events while in 2016 staff interacted with approximately 71,053 citizens.

Alarmed and Ready Program

The Hamilton Fire Department's Alarmed and Ready program provides for the installation of smoke alarms/batteries and carbon monoxide alarms in owner occupied homes of citizens who cannot afford them, unable to install them themselves and for senior citizens.



This program requires citizens to make contact with the department and we schedule an appropriate time for the installation. In conjunction with this, firefighters who are in attendance at a property and who find no operational detectors, will install the required number to ensure the safety of the residents. The following chart provides an overview of smoke alarm/battery installations over the past three years.



TRAINING DIVISION SERVICE DELIVERY

The Training Division consists of the Chief of Training, five Training Officers and one Medical Training Coordinator. This Division operates from the Multi-Agency Training Academy located at 1227 Stone Church Road East.

The Hamilton Fire Department uses a comprehensive internal program of training for its members and provides for attendance of promotion oriented personnel at community college, off-site resources, and the Ontario Fire College. The Training Division also administers promotional examinations. The Training Division is responsible for continuous training, upgrading, competence and proficiency of all personnel and develops training procedures for compliance with legislated standards. This covers all service areas of the Department.



The Training Division offices and classroom facilities are located at the Multi Agency Training Academy located at 1227 Stone Church Road East.

The Training Division is responsible for the co-ordination of training of new firefighter recruits, both career and volunteer; as well as the ongoing training of personnel on a daily basis. Training programs are directed primarily to the Fire Suppression Division and to other divisions where necessary. Each firefighter participates in a minimum of 180 hours of on-going theoretical and practical training each year. The Training Division also serves as research and development for fire suppression technology matters, the dissemination of new information in the field, and the updating of all manuals.

In 2016, the Training Division facilitated the training of two Career firefighter recruit classes which resulted in the successful graduation of 25 firefighters. Each recruit class was 18 weeks in length. In addition, a single Volunteer recruit class was held which resulted in the successful graduation of 20 Volunteer recruit firefighters. The Volunteer firefighter recruit class involved 26 weeks of training.

In 2016, the Training Division provided specialized training in the use of Epi-Pens which have since been issued to all front line response apparatus.

Through the preparation and implementation of a comprehensive training syllabus for personnel, over 92,000 hours of training was completed in 2016 on a wide variety of subjects within the career and volunteer divisions of the Department.

COMMUNICATIONS DIVISION SERVICE DELIVERY

The Communications Division consists of a Chief Communications Officer, 4 Communications Officers (1 per Platoon) and 8 Communications Operators.

This Division is responsible for the intake of emergency calls and dispatching of apparatus. In addition, this Division handles non-emergency calls into the Department and all mapping requirements for stations.

The Communications Division receives and processes emergency and non-emergency requests for service from the public, emergency agencies and other public safety services.

The Communications Centre is a co-user of the Hamilton municipal trunked radio system that enhances coordinated delivery of public safety emergency services in the City. Other users of the trunked radio system include the Hamilton Police Service, Hamilton Public Works and Hamilton Airport.

In 2016, the Communications Division dispatched over 30,000 calls for assistance. In addition, there were numerous calls for assistance in neighbouring municipalities in which Hamilton dispatchers fielded calls and dispatched resources.

Communications Division staff provided 915 hours of training for firefighters who would then be able to fill-in as an operator as required. Over 200 hours of internal training with Communications personnel was also completed.



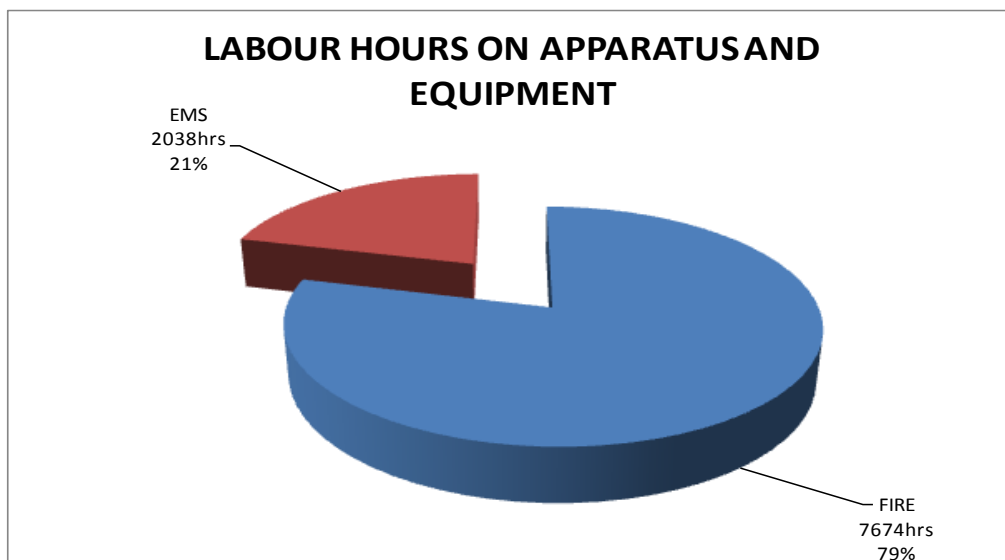
MECHANICAL DIVISION SERVICE DELIVERY

The Mechanical Division of the Hamilton Fire Department is staffed by a Chief Mechanical Officer, a Breathing Apparatus Technician, one Shipper/Receiver, one Storekeeper and 8 mechanics.

Effective delivery of emergency responses by the fire suppression force depends on adequate and reliable vehicles. The Mechanical Division of the Hamilton Fire Department is charged with the maintenance and repairs of the Department's approximately 100 vehicles, ancillary equipment, and the ambulance fleet for the Hamilton Paramedic Service. This Division is responsible for writing purchase specifications for apparatus and maintains firefighting clothing, breathing apparatus, station furniture and equipment.

Under a Chief Mechanical Officer, licensed mechanics, a self-contained breathing apparatus technician and storekeeper carry out regular comprehensive programs of maintenance, testing and repair. Emergency repairs are done at all hours and there is staff attendance at multiple alarm fires. Routine maintenance is performed on fire apparatus on three-month, six-month, and annual cycles. The work of the division is wide ranging, including major vehicle work customarily contracted out in many other fire departments.

In 2016, Mechanical staff completed 1077 repair orders and registered 7,331.75 labour hours on Fire Department vehicles and 1,985.25 on Paramedic Service vehicles. An additional 343 hours were spent on fire equipment repairs and 53 hours on paramedic equipment repairs.



EMERGENCY MANAGEMENT SERVICE DELIVERY

The City of Hamilton is required to adopt an Emergency Management Program through an approved by-law. Originally created in 2003, the by-law was rewritten in 2005 and more recently in 2012 to reflect the evolution of the program.

The City of Hamilton is required to have an up-to-date Emergency Plan, which must be provided to the Office of Fire Marshall and Emergency Management. In 2012, the municipal Emergency Plan underwent a significant re-write to reflect the adoption of the Incident Management System as the municipal emergency response model. This internationally recognized system is a standardized approach to emergency management encompassing personnel, facilities, equipment, procedures, and communications, operating within a common organizational structure. It has been adopted provincially and led by Emergency Management Ontario in partnership with over 30 organizations.



The new Emergency Plan was approved by Council on June 12, 2013. The Emergency Plan is reviewed annually with the 2016 review being completed in September.

Municipalities must have a designated Community Emergency Management Coordinator (CEMC) and a designated Emergency Information Officer. Currently, the City of Hamilton has two designated CEMCs whom have completed the required training under Ontario Regulation 380/04. The CEMCs are responsible for the day-to-day activities of the Emergency Management Program and report to the Office of the Fire Chief for day-to-day operations and to the Emergency Management Program Committee (EMPC) for guidance on the implementation of the Emergency Management Program.

Municipalities must also develop a community risk profile and identify critical infrastructure. The City of Hamilton has developed and maintains a Hazard Identification and Risk Assessment (HIRA) which identifies and assesses the various risks and hazards to public safety that could give rise to emergencies in the City of Hamilton. A new HIRA was completed in 2016 with input from stakeholder agencies and subject matter experts.

The top ten identified risks for Hamilton are:

1. Hazardous Materials Incident/Spills – Fixed Site Incident
2. Flooding
3. Hazardous Materials Incident/Spills –Transportation Incident
4. Human Health Emergency
5. Energy Emergency (Supply)
6. Extreme Ice Storm
7. Explosion & Fire
8. Transportation Emergency – Rail
9. Critical Infrastructure – Telecommunications
10. Active Shooter / Violent Situation



The Emergency Management Program maintains a listing of critical infrastructure within the City, both private and publicly owned. This was reviewed and updated in 2016.

The municipal Emergency Operations Centre (EOC) is the location where senior municipal staff convenes to manage the emergency from the strategic level. The EOC supports the needs of tactical responders and manages the impact on the community at large while ensuring the delivery of municipal services continues.

The City of Hamilton primary EOC is a 24/7 state-of-the-art facility and is one of only a handful of stand-alone facilities in the province. In the event that the primary location is affected by the emergency, the City has an alternate EOC at the Municipal Service Centre in Stoney Creek. At this facility, the Saltfleet Room and Council Chambers are transformed into our EOC facility. The EOCs have a variety of communication systems including internet phones, landlines, email, fax and radios.

In 2016, the EOC had its stand-alone IT server and laptops updated and replaced.

In 2016, the Emergency Management Program completed the development of two new courses (EOC 300 – Logistics and EOC 300 – Management team), and offered nine training courses in 16 sessions to over 200 participants.

On an annual basis there is a mock emergency exercise to test plans and procedures, identify gaps, and enhance the ability of EOC personnel to respond to an emergency. These exercises range from discussion based to tabletop scenarios to full scale exercises. In April of 2016, a test of the emergency notification system was completed and a mass casualty training exercise was completed on June 8, 2016. On November 3, 2016, the City conducted an exercise involving the EOC, three departmental operations centres, Hamilton Water Crisis Room, Hamilton Water Control Room, and the Customer Contact Centre. A test of the Family Reunification Phone line was completed on December 1, 2016.

Highlights of public education initiatives for 2016 include:

- New City of Hamilton Emergency Preparedness brochure
- Bulldog First Responders Night – Emergency Preparedness display
- HDAA Trade Show display
- CANWARN Workshop
- Resilient Communities Workshop for Property Managers, Security Managers, Residential Superintendents & Commercial Operations Managers
- City Health and Safety event booth
- Police in the Park booth
- Seniors Wellness Fair
- Emergency Preparedness Week events
- Presentations to groups and agencies

The training sessions and exercises conducted in 2016 involved approximately 400 participants, all in an effort to ensure that the City of Hamilton is well prepared to respond to an emergency.

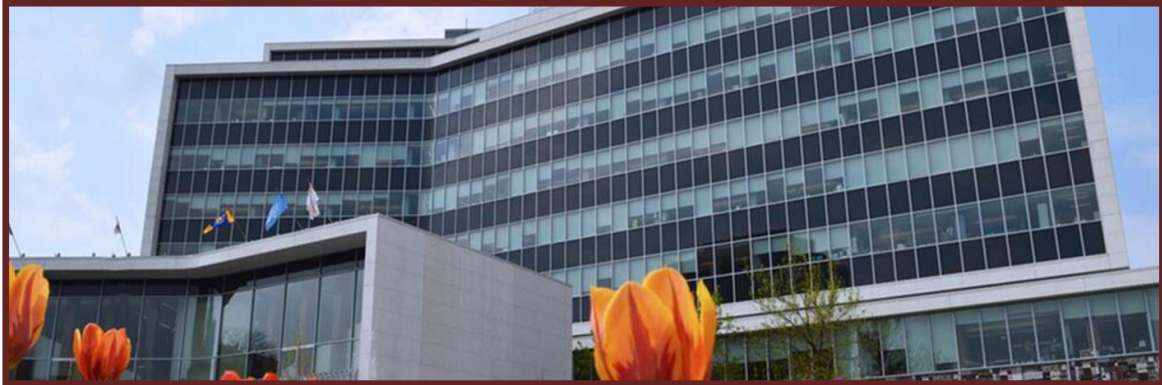
In addition to the legislated requirements, the following work was completed as part of the continual improvement of the Emergency Management Program and the corporation's ability to respond to emergency events:

- Development of a City-wide Mass Casualty Plan
- Revision of EOC Activation Levels
- Virtual EOC Protocol
- Family Reunification Call Centre
- Updated Emergency Social Services Plan
- New Emergency Shelter Plan
- Recommendation Report for a Security Management Officer.

Community partners such as the Red Cross, Salvation Army and the Good Shepherd Home often assist the City in responding to City emergencies. The Emergency Management Program has established a partnership with these agencies to provide Emergency Social Services to evacuees and those affected by the emergency. The Emergency Management Program, in conjunction with Community and Emergency

Services staff, is in conversation with Red Cross in regards to a memorandum of understanding to define their role in future responses.

The City of Hamilton will continue to develop and maintain the Emergency Management Program and will enhance current partnerships that will enable the City of Hamilton to work effectively together under the stress of a major disaster.



HAMILTON FIRE STATIONS AND APPARATUS

STATION 1 35-43 JOHN STREET NORTH

PLATOON 1
ENGINE 1
RESCUE 1
LADDER 1
SUPPLY 1

STATION 2 1400 UPPER WELLINGTON STREET

DISTRICT 3
ENGINE 2
CAR 73

STATION 3 965 GARTH STREET

ENGINE 3

STATION 4 729 UPPER SHERMAN AVENUE

RESCUE 4
LADDER 4
SUPPORT 4
HAZMAT 2

STATION 5 1227 STONE CHURCH ROAD EAST

ENGINE 5
COMMAND UNIT

STATION 6 246 WENTWORTH STREET NORTH

PUMP 6

STATION 7 225 QUIGLEY ROAD

ENGINE 7

STATION 8	400 MELVIN AVENUE DISTRICT 2 ENGINE 8
STATION 9	125 KENILWORTH AVENUE NORTH ENGINE 9 LADDER 9
STATION 10	1455 MAIN STREET WEST LADDER 10
STATION 11	24 RAY STREET SOUTH ENGINE 11
STATION 12	199 HIGHWAY #8, STONEY CREEK RESCUE 12 PUMP 12
STATION 14	595 CHAPEL HILL ROAD, ELFRIDA TANKER 14
STATION 15	415 ARVIN AVENUE, STONEY CREEK LADDER 15
STATION 16	939 BARTON STREET EAST, STONEY CREEK PUMP 16 SQUAD 16 TANKER 16
STATION 17	363 ISSAC BROCK DRIVE, STONEY CREEK ENGINE 17 TANKER 17

STATION 18	2636 HIGHWAY 56, BINBROOK PUMP 18 LADDER 18 SUPPORT 18 TANKER 18
STATION 19	3303 HOMESTEAD DRIVE, MOUNT HOPE PUMP 19 TOWER 19 TANKER 19
STATION 20	661 GARNER ROAD, ANCASTER LADDER 20
STATION 21	365 WILSON STREET, ANCASTER ENGINE 21 PUMP 21 RESCUE 21 TANKER 21
STATION 23	MEMORIAL SQUARE, DUNDAS PUMP 23 SUPPORT 23
STATION 24	256 PARKSIDE DRIVE, WATERDOWN ENGINE 24 LADDER 24 SUPPORT 24 TANKER 24
STATION 25	361 OLD BROCK ROAD, GREENSVILLE PUMP 25 RESCUE 25 TANKER 25 BRUSH 25

STATION 26

119 LYNDEN ROAD, LYNDEN

PUMP 26
SQUAD 26
TANKER 26

STATION 27

795 OLD HIGHWAY 8, ROCKTON

PUMP 27
SQUAD 27
TANKER 27

STATION 28

1801 BROCK ROAD, FREELTON

PUMP 28
SQUAD 28
TANKER 28





**HAMILTON FIRE DEPARTMENT
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