



Bellevue Fire Prevention 2018 ANNUAL REPORT



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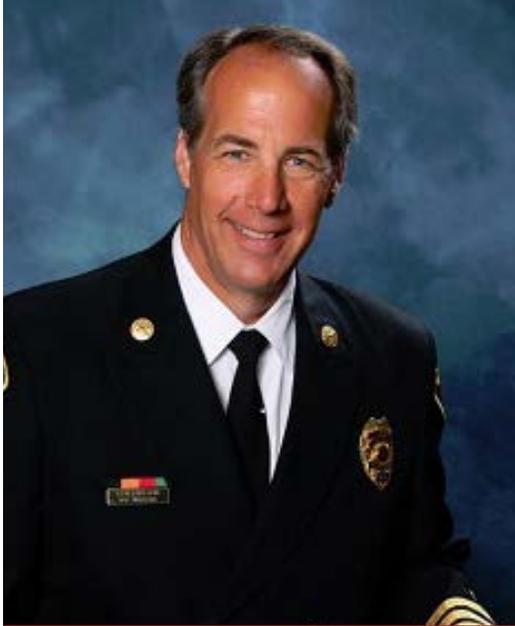
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City of Bellevue Fire Department
Fire.BellevueWA.gov

MESSAGE FROM THE FIRE MARSHAL



Ken Carlson
Bellevue Fire Department Fire Marshal

As the Fire Marshal, my job is mostly about preventing fires from occurring. More often than not that requires that attitudes and behaviors change and that starts by creating awareness. What are the leading causes of fires? According to the National Fire Protection Association :

Home structure fires caused 78% of all civilian fire deaths, 71% of civilian fire injuries, and 49% of total direct property damage.

While today's fire departments do much more than fight fires, home structure fires are still a serious problem. Home fires still cause the majority of all civilian fire deaths, civilian injuries and property loss due to fire. Some simple steps you can take, to limit the possibility that you will become a statistic:

COOKING



Cooking-related fires account for 45% of home fires. Most cooking fires happen when a range or cooktop is left unattended.

What you can do to help prevent cooking fires:

- Never leave cooking equipment unattended.
- Turn the handles and pans away from you when cooking on a range. This can prevent others from catching the handles of pots and pans.
- Keep clothing, oven mitts, and anything flammable away from the stove top when in use.
- If a grease fire starts, smother the flame rather than dousing it with water. The easiest way to do this is to cover with a lid. Avoid opening windows when flames are present since air feeds fires.
- Keep a fire extinguisher somewhere close. Since kitchen fires are the most common, it's a good idea to keep a fire extinguisher under the kitchen sink or in a pantry.

HEATING SYSTEMS



These types of fires begin in the cold winter months when heating systems are used more. Space heaters, while convenient, can also be risky if they aren't properly used. Before you use your fireplace, heating system, or space heater for the first time, be sure to keep these tips in mind:

- Check that you have adequate clearance to anything combustible – curtains, couches, bedding etc.
- Clean fireplaces once a year and make sure that there is a screen or grate in place. This can prevent embers from escaping. When disposing of ashes, take extra care – don't use plastic containers or paper bags. Do use metal bucket and soak the ashes with water before disposing them.



LIGHTING AND ELECTRICAL WIRING

The best ways to manage your risk is by doing the following:

- Don't overload outlets, power strips or extension cords – appliances, hair dryers and heaters should always be plugged directly into a wall outlet.
- Use the recommended wattage for overhead lights.
- If you see a frayed wire, replace it immediately.
- Consider using tamper-resistant (TR) receptacles if there are children in the home. These can prevent injury in cases where a child sticks a toy into the outlet. The 2014 National Electrical Code requires them in new or renovated properties.



SMOKING

Smoking is not only an unhealthy habit, but it has the added risk of starting a fire. Lighters, matches, and lit cigarettes should be treated with care. To reduce the risk, remember these tips:

- Never smoke in bed.
- Smoke outside. Have a deep ashtray handy in your designated smoking area.
- Always put out cigarette and cigar butts completely. Dispose of them in an ashtray to prevent stray embers from drifting.
- Keep cigarettes and lighters out of reach of children.



OTHER FACTORS & CAUSES

- Candles – While the biggest month for candle fires is December, candles should always be used with care. Think about the potential for them to be tipped over; observe how close they are to combustible materials and check to make sure they are all extinguished before leaving the room.
- Fireworks – Fireworks are illegal, except for permitted displays. If you use fireworks, you could be fined \$1,000 and if your use of fireworks causes damage or injury you can also be held liable.
- Unattended Children – The allure of matches is hard to resist, so keep kids from experimenting by keeping matches and lighters out of reach of young children.

GENERAL FIRE SAFETY

1. Make sure that every member of your household knows at least two ways to escape from the property. Practice exiting the home in the event of an emergency and choose a safe meet up place away from the building.
2. Install smoke and carbon monoxide detectors on every level of your home near sleeping areas.
3. Test detectors monthly and replace batteries yearly (except 10-year lithium batteries).
4. Know how to properly use a fire extinguisher. Remember to PASS:
 - Pull the extinguisher pin as you point the nozzle away from you.
 - Aim towards the base of the fire.
 - Squeeze the lever slowly.
 - Sweep the extinguisher nozzle side to side.
5. Teach everyone to STOP, DROP, and ROLL in case clothing catches on fire.

You can never be too prepared for an emergency situation. Are you ready?

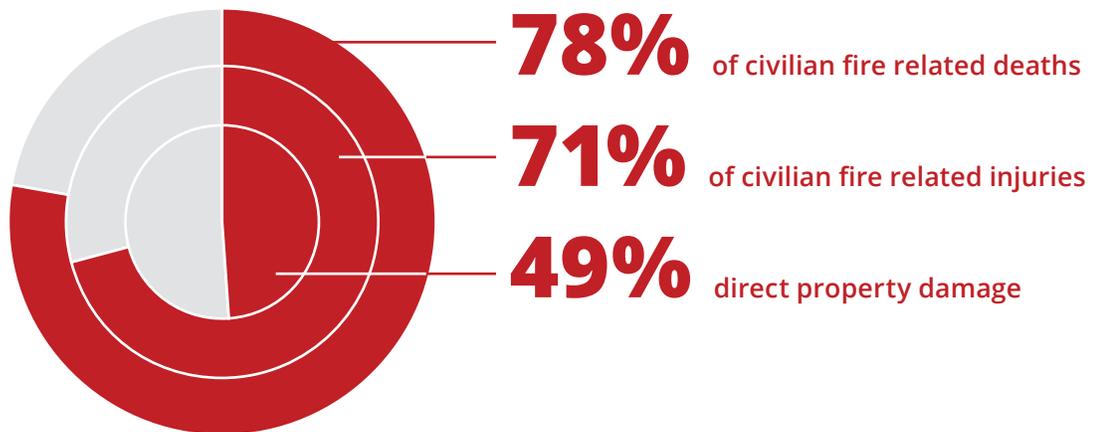
Ken Carlson

Fire Marshal

Bellevue Fire Department



HOME STRUCTURE FIRES CAUSE:



PERSONNEL CHANGES



Fire Prevention Officer Keith Gordon began his career with us on January 22, 2018. Keith comes to us from San Luis Obispo Fire Department where he has worked as a Fire Inspector for the past 2 years. Keith was a fire sprinkler apprentice for three years prior to working for San Luis Obispo. He also has worked as an intern for the Santa Barbara City Fire Department, and a Forestry Aide with Cal Fire in Monterey County.

Keith holds an associate degree in Fire Technology from Allan Hancock College. In his spare time, he enjoys playing golf (and any sport for that matter), practicing guitar, traveling, and outdoor activities.



Fire Prevention Office LaMar Alexander began his career with us on July 9, 2018.

LaMar graduated from Cal State Los Angeles with a degree in Fire Protection. He has previously worked as a Fire Protection Engineering consultant with Jensen Hughes and as a fire inspector with Johnson Controls.

LaMar enjoys cooking, long-distance cycling, and collecting movies.



Administrative Assistant Erin Clark resigned in August to take a similar position in Development Services. Erin joined the Bellevue Fire Department in February 2017 filling a position created as part of The Compliance Engine implementation in January 2017. The Compliance Engine helps us manage the myriad of fire/life safety systems that protect building occupants, our firefighters and the buildings in the event of emergencies. Erin was instrumental in the successful launch of that program and development of templates for Building Information cards to name just a few of her many accomplishments.



Administrative Assistant, Jennifer Gates started her career with us on September 25, 2018. Jennifer has previously worked as a volunteer firefighter in Poulsbo from 1998-2000. Earlier in her career she worked her way up to human resources manager in the private sector.

More recently she has split time raising children, volunteering with hospice, and provided genealogy research services for the recreation program at Providence Elder Place and Redmond Senior Center, and most recently volunteered with the Bellevue Police Department.

KNOX BETA TESTING

Bellevue Fire has for many years required the installation of a Knox Box at secured locations where a delay in our response due to lack of access would be critical – we have approximately 1,800 such boxes throughout our service area. Bellevue Fire is the only one that is able to open the boxes which contains the key(s) necessary to open doors or gates. Key (no pun intended) to a viable program is the trust of building owners have placed with us to protect their security. We don't take that level of trust lightly and we continue to look for ways to increase the integrity of the program.



Throughout much of 2018, Bellevue Fire together with a small number of departments in the U.S. & Canada participated in beta testing of a new system that if successful will provide a greater degree of accountability for our inventory of keys, a significant enhancement for building owners in terms of security and an audit trail when needed to determine when keys were released, and boxes opened.

Each of Fire Stations and our Training Center were equipped with a “test box” and 9 of our apparatus equipped with the pictured device which secures the key until a unique pin code is entered to release the key. Feedback was regularly provided to the Knox Company resulting in adjustments to the hardware or software.

Based on our involvement with the beta testing, we moved forward with the purchase of part of the program that we helped to beta test – the Key Secure 6 (pictured here) that will be install in every front-line apparatus and Fire Prevention Officer's vehicle. Installation will occur in 2019 when the apparatus/vehicle is in the shop for normally schedule maintenance.

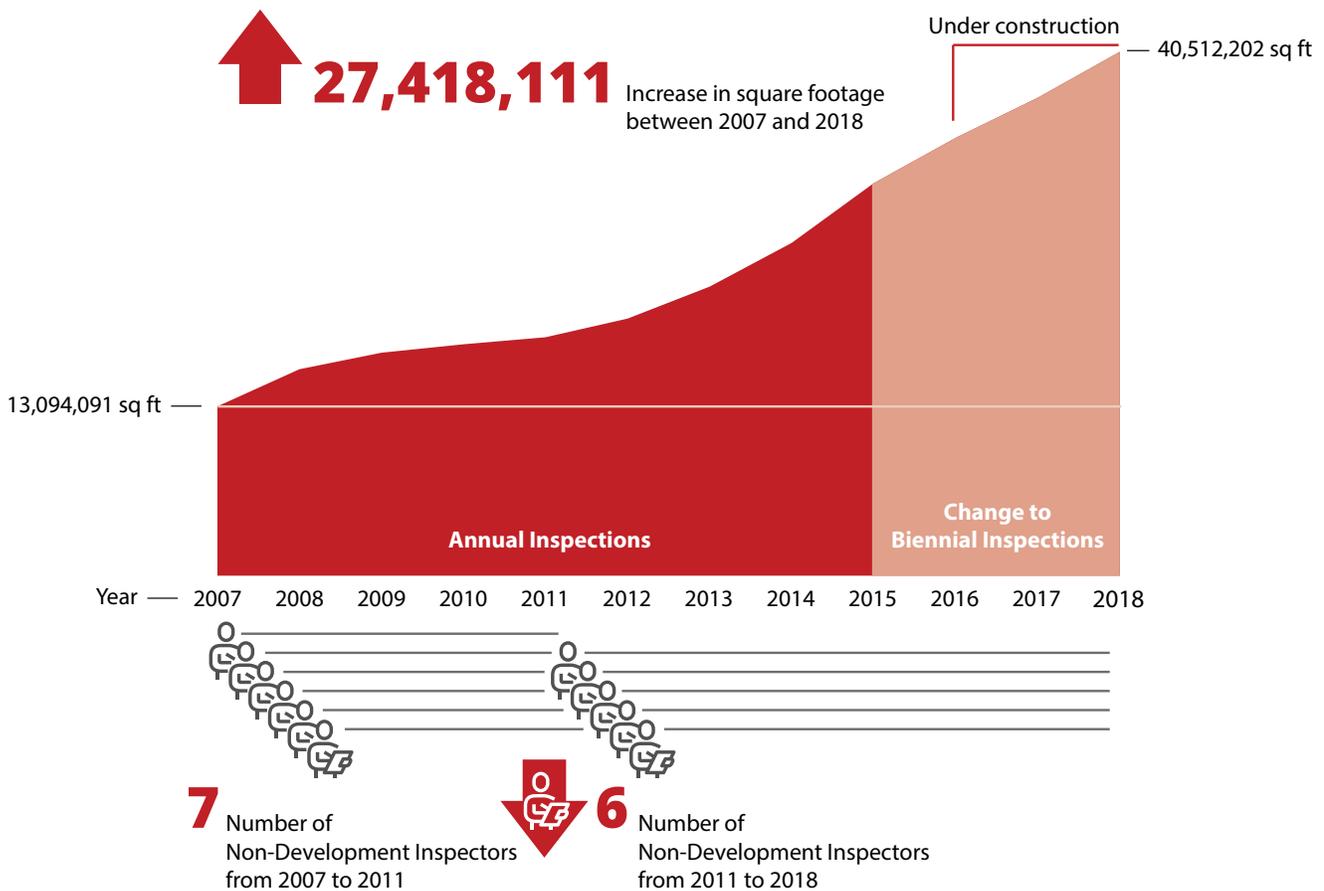
Rollout of the electronic key and keyway has yet to be determined.



MAINTENANCE INSPECTIONS

A significant amount of our time is spent inspecting existing buildings to ensure that the buildings and fire/life systems are being maintained in accordance with the applicable codes and standards. Our goal is to inspect every structure (except single family dwellings) every other year and multi-family buildings that lack a fire alarm or fire sprinkler system annually. In 2018, that translates to 1,423 buildings that contain 5,115 occupancies. We completed just over 85% of those inspections coming up short of our goal which has been challenging due to the significant amount of development activity without a corresponding increase in staffing as illustrated in the graph shown below.

As part of the 2019/2020 Budget process, City Council authorized the hiring of 2 additional Fire Prevention Officers that will allow the Fire Department to maintain our current service level. At the same time, City Council also passed an ordinance that will require collection of Fire Inspection fees beginning January 2020.



Maintenance inspections provide an opportunity to identify and correct Fire Code violations before they create problems. Some examples of the issues we found in 2018:

- A large commercial building with 830 recalled fire sprinkler heads which may not have operated as expected in the event of a fire.
- A multi-family building identified in 2017 that required installation of smoke detectors. Fast forward to 2018, the presence of smoke detectors in one of the units alerted the family to a fire in their son's bedroom due to clothing placed too close to the baseboard heater.
- Makeshift mezzanine constructed as an apartment that included a shower and jacuzzi and obviously not structurally sound was constructed without permit.
- Spray booths constructed without permit and not in accordance with the Fire Code.

Part of our maintenance inspection program includes the oversight of the myriad of fire/life safety systems that protect occupants, firefighters and property. Inspection and testing of those systems are performed by qualified 3rd party inspection firms. Keeping track of those critical systems and test reports can be a challenge, so in 2017 we began to utilize a cloud-based system called The Compliance Engine. The system reminds building owners when their fire/life safety systems are coming due for inspection, tracks deficiencies and allows any staff member in the Fire Department quick access to the status of any building or system in our service area.

Building owners/managers can view the status of any of their building or systems by simply asking us to extend an invitation to do so.

OUR FIRE EXPERIENCE

A fire investigator is required to respond to a fire when:

- Fire damage is estimated to exceed \$10,000
- There are fatalities or injuries
- The fire is suspicious

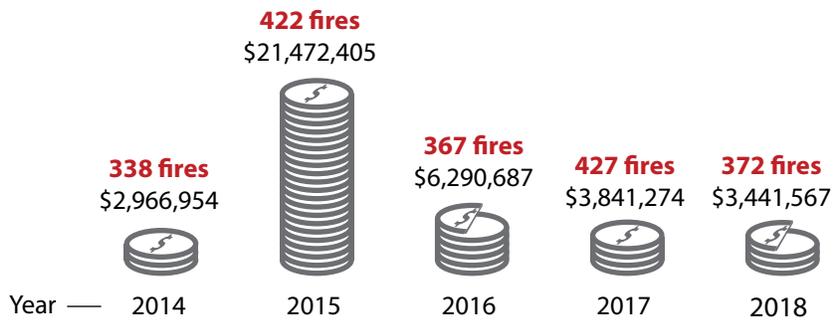
In 2018, there were 23 instances where the criteria were met, and a fire investigator responded. All other instances the on-scene Fire Company Officer was responsible to determine the origin and cause of the fires.

Of the 23 fires:

- 2 resulted in fatalities
- 6 were Incendiary
- 7 were undetermined
- 8 were determined to be accidental



TOTAL MONETARY LOSS BY FIRE PER YEAR



NOTABLE FIRES

The following fires were some of the more notable fires that occurred in 2018:



March 21, 2018 – This fire was intentionally set to this structure that had yet to be rebuilt from another intentionally set fire in January 2017.



April 22, 2018 – This fire was intentionally set by a juvenile who utilized an unsecured lighter to ignite a Christmas Tree.



May 24, 2018 – A barbecue left on overnight and installed closer to combustible materials than required by the manufacturer caused significant damage to the outdoor covered area and the interior of the residence.



July 17, 2018 – The illegal use of fireworks coupled with extremely dry conditions led to this extensive damage of a baseball field.



August 9, 2018 – Spontaneous combustion of an oil-soaked rag used to stain a deck the previous day caused extensive damage to the roof of the attached dwelling.



November 16, 2018 – This stolen minivan was a total loss as a result of an incendiary fire.



December 10, 2018 – This car wash fire was caused by a heater too close to the soft foam car wash brushes. The heater had been used during a prolonged stretch of below freezing weather to keep the brushes from freezing.

ANNUAL OPEN HOUSE



In conjunction with Fire Prevention Week, the Bellevue Fire Department opens fire stations every year and invites the public to look, ask questions, practice life saving skills and watch cooking safety or residential fire sprinkler demonstrations. We are thankful for the opportunities to connect with the residents we serve.

SPECIAL EVENTS

Many of the special events that occur throughout the year require Fire Prevention staff involvement to ensure the safety of the vendors and the public that attends these events. Often, structures such as parking garages are repurposed as places of assembly which can create challenges in achieving compliance with Fire & Building Codes which focus on occupant safety.

Some examples of the Special Events:



Strawberry Festival

June 23 - 24 | Crossroads Park

Eastside Heritage Center's Bellevue Strawberry Festival celebrates Bellevue's agricultural roots, as well as its diverse cultural past, present and future. The festival features food, live entertainment, pony rides, carnival games and so much more.



4th of July

There is a lot going on - typically four fireworks displays to inspect as well as vendor displays. In addition, we also partner with Bellevue Police to staff dedicated enforcement units targeting those that choose to ignore the City's long-standing ban on fireworks.



Stance Wars

July 13-15 | Bellevue College

Stance Wars is "the ultimate fitment event in the nation." The event draws thousands from around the Northwest.



Arts & Crafts Fair

July 27 - 29 | Bellevue Square & areas surrounding it. The event is often blessed with great weather and draws huge crowds year after year.

NEW CONSTRUCTION



Fire Prevention staff continue to assist with the construction inspections associated with the Eastlink Light Rail project that marked a milestone with 50% completion. Eastlink is scheduled to begin providing passenger service in 2023.

Fire Prevention staff assisted with the completion of 59 “major” projects in 2018 that received their Certificate of Occupancy. These projects total 6,121,858 of new square footage that we will now be responsible for ensuring that the buildings and fire/life safety systems are maintained.

Some of the more notable projects include:



Marriott AC Hotel - 208 106th Avenue NE

- 7 Stories
- 234 Rooms
- 2 Levels of Underground Parking



Hyde Square - 2098 155th Avenue NE

- 618 Residential Units
- 4 Residential Buildings
- 738 Parking Stalls



103rd Avenue Apartments -
1019 103rd Avenue NE

- 162 Residential Units
- 6 Stories
- 3 levels of underground parking for 180 cars



Metro 112 Phase II - 288 111th Avenue NE

- 6 Stories
- 57 Residential Units
- 1 level below grade parking



Tillicum Middle School -
16020 SE 16th Street

190,000 SF building replacing the existing Tillicum Middle school on the same site



Bellevue College Student Housing - 3000 Landerholm Circle SE

- 132,725 SF
- 400+ beds in 137 units



Stevenson Elementary School - 14220 NE 8th Street

106,000 SF school replacing a 50,000 SF school at the same location



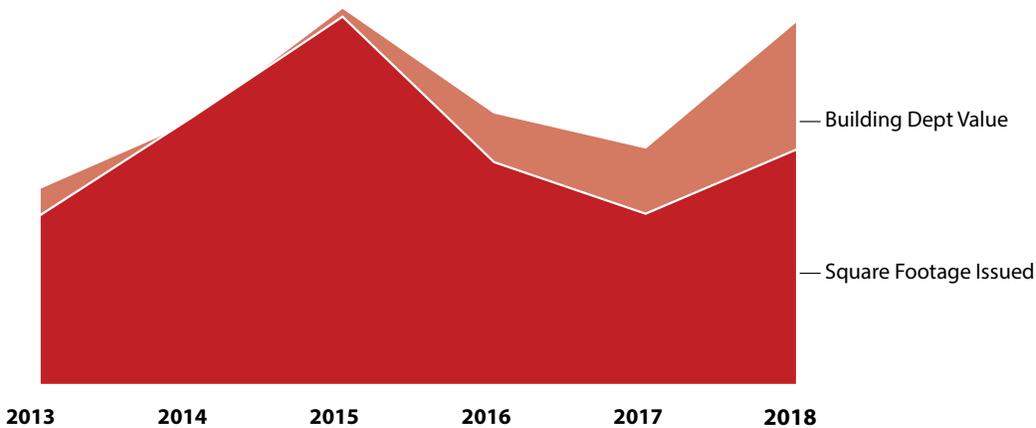
Wilburton Elementary School - 12300 Main Street

New 82,000 SF school serving a growing downtown neighborhood.

DEVELOPMENT ACTIVITY

The projections are that over 3 million square feet of new construction projects will be issued in 2019 based on what is currently in review. Office vacancy rates are 5.1% in the Central Business District (down from 6.1% in 2017). According to Cushman Wakefield: "In the CBD, Amazon, Facebook, Google and WeWork took over 650,000 sf of space. T-Mobile renewed 207,000 SF in the I-90 Corridor. The tech industry remains vital to employment." In short, there is no slow down in development activity in the foreseeable future.

TOTAL SQUARE FOOTAGE AND BUILDING DEPT VALUE BY ISSUE YEAR



YEAR	TOTAL SQ FT	BUILDING VALUE
2013	2,988,183	\$343,124,825
2014	4,741,152	\$457,651,514
2015	6,539,410	\$664,410,419
2016	3,968,462	\$473,072,543
2017	3,084,315	\$416,674,623
2018	4,208,658	\$634,365,070



For alternate formats, interpreters, or reasonable accommodation requests please phone at least 48 hours in advance 425-452-6872 (voice) or email fire_prevention@bellevuewa.gov. For complaints regarding accommodations, contact City of Bellevue ADA/Title VI Administrator at 425-452-6168 (voice). If you are deaf or hard of hearing dial 711. All meetings are wheelchair accessible.



City of Bellevue
Fire Department
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