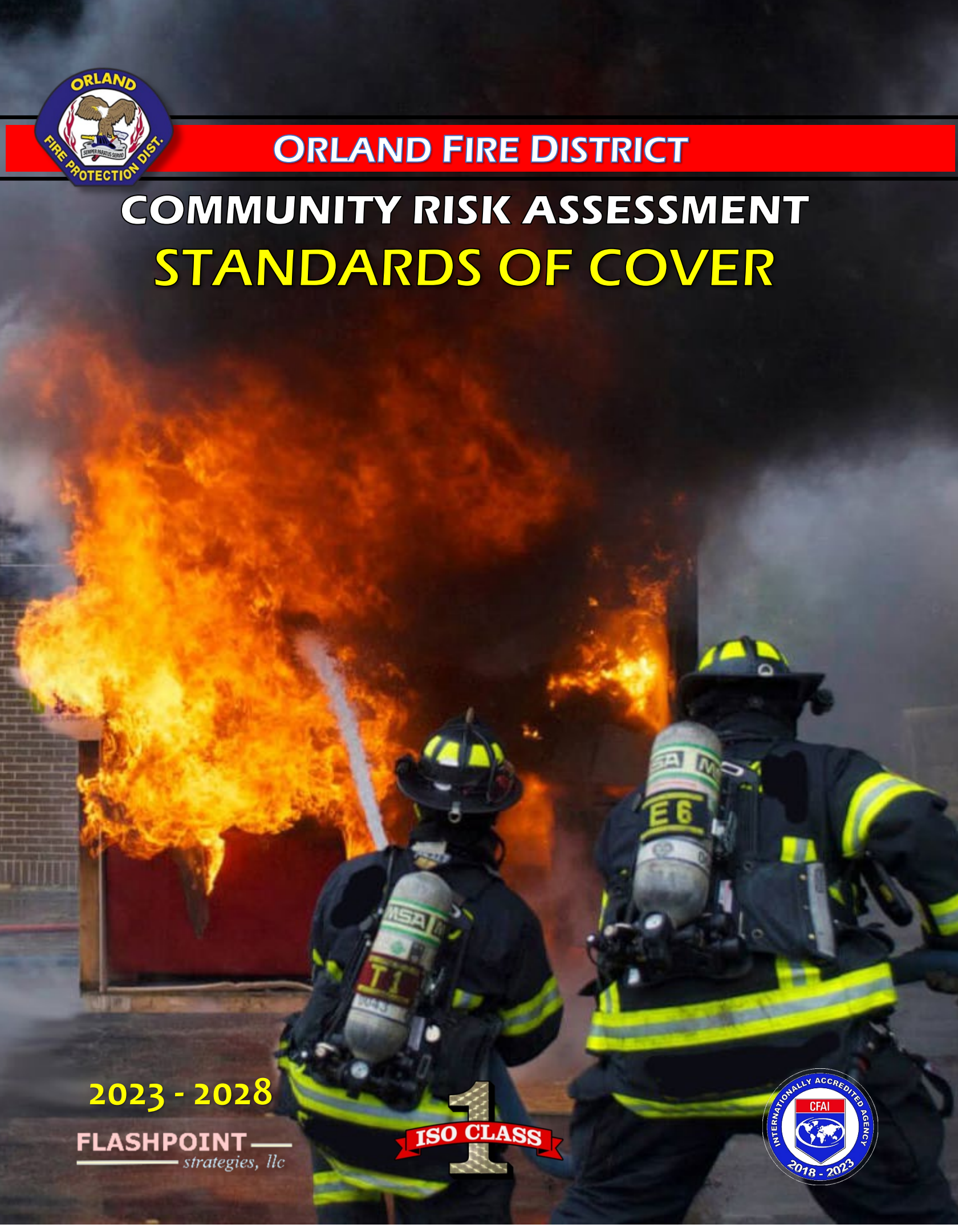
# ORLAND FIRE DISTRICT

# COMMUNITY RISK ASSESSMENT

# STANDARDS OF COVER




2023 - 2028

FLASHPOINT
strategies, llc

ISO CLASS 1

INTERNATIONALLY ACCREDITED AGENCY
CFAI
2018 - 2023

# ORLAND FIRE PROTECTION DISTRICT

**ACCREDITATION TEAM**

**Fire Chief**
Michael Schofield
**Deputy Chief**
Nick Cinquepalmi
**Battalion Chiefs**
Jim Hynes
Erick Johnson
William Leddin
RJ Stachnik
**Accreditation Team**
Randy Reeder - AM
Amelia Milton - PM
BC Joe Moore - Asst. AM
BC John Purtil - Asst. AM
**Division Heads**
Kerry Sullivan
Lucy McGlynn
**Directors / Supervisors**
Gina Cortez
Mike Ercoli
William Neuman
**Lieutenants**
Mike Siefert
Josh Girdick
Dan Ritchie
Tom Panzica
**Division & Team Members**
Betsy Dines
Mike Angel
Mike Dorenz
Mike Pericht
BC Dan Smith (ret)
**Other**
Administrative Staff
Dispatchers & Inspectors
Support Personnel & Mechanics
Senior Advisory Committee
Members of LOCAL 2754
Everyone's Input & Efforts!

**THANK YOU TEAM**
**GREAT WORK!**

## BOARD OF TRUSTEES

President Pro-Tem - John Brudnak
Treasurer - Jayne Schirmacher
Secretary - Craig Schmidt
Trustee - James Hickey
Trustee - Christopher Evoy

## FIRE CHIEF

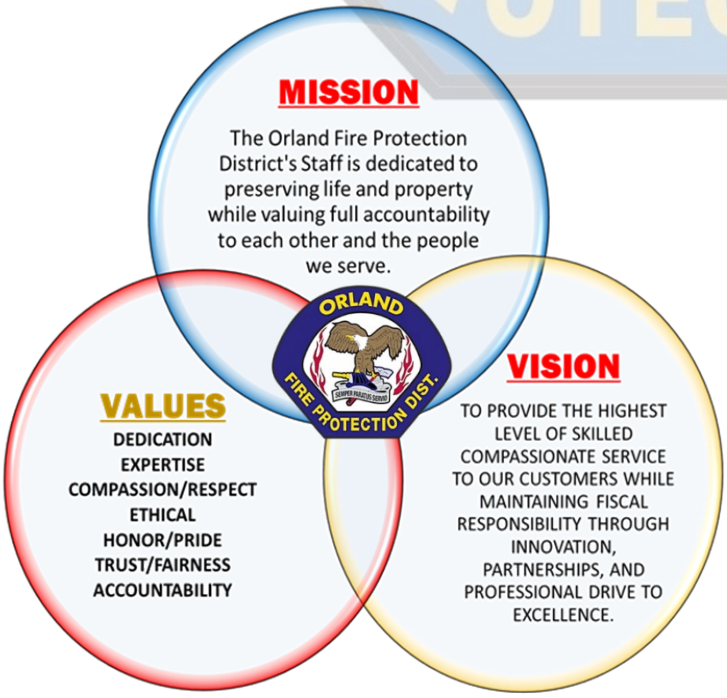
Michael Schofield

## DEPUTY FIRE CHIEF

Nicholas Cinquepalmi

## DATA ANALYST / CONSULTANT

Randy Reeder
FLASHPOINT strategies, llc




ORLAND FIRE EMS RESCUE

# At a Glance.....

## 2022 AT A GLANCE

### MISSION STATEMENT

" THE ORLAND FIRE DISTRICT IS DEDICATED TO PROTECTING LIFE & PROPERTY WHILE VALUING FULL ACCOUNTABILITY TO EACH OTHER & THOSE WE SERVE "

### PROTECTING

**72,197** RESIDENTS & **33,413** STRUCTURES

53% FEMALE 47% MALE

**Unemployment 4.4%**

| MEDIAN AGE: | | |
|---|---|---|
| | Orland Park | 45.6 |
| | Orland Hills | 34.4 |

**30 Square Miles**

**$ 2.5 Billion** in **Appraised Property Value**

### FROM

**6 FIRE STATIONS + HEADQUARTERS**

**REGIONAL FACILITIES**

**911 DISPATCH**

**1** Training Center & Campus

**1** NEW EXPANSIVE Fleet Maintenance Facility

### WITH

**132** Full Time **FIREFIGHTERS & PARAMEDICS**

+ 38 Support Personnel

**170** Total Combined

Staffing Shifts **24/7**

4 ENGINES 5 AMBULANCES

2 TRUCKS +1 SHIFT CHIEF

### DELIVERING

**CLASS 1** *ISO Rating / Accredited*

**12,564** Calls for Service
(34.4 per day)

EMS **67%** FIRES **2%** OTHER **31%**

**$41.5 Mil** Budget
(76.3% from Property Taxes)

Tax rate **$1.292**

CARDIAC ARREST VF SAVE RATE: **71.4%**

PUBLIC EDUCATION REACH: **538 EVENTS 50,000 REACH**

LIFE SAFETY / FIRE INSPECTIONS: **2,681**

**FIRE INJURIES / FATALITIES**
**CIVILIAN:** INJURY-3 FATALITIES-0
**FIREFIGHTER:** INJURY-2 FATALITIES-0

DOLLAR LOSS: **$ 2,014,500 (2022)**

DOLLAR SAVED: **$ 34,599,950**

TRAINING HOURS: **46,857**

TOTAL RESPONSE TIME:* **5:42**
*First Due - Call to Arrival

**90%** of EMERGENCY INCIDENTS

# Executive Summary

MICHAEL SCHOFIELD

**FIRE CHIEF**



I am humbled and honored to serve as the Fire Chief/Administrator of the Orland Fire Protection District. I have a unique insight into the District, having been a member since 1977, when I started my career as a cadet firefighter and worked my way through the ranks to where I am today. This has allowed me to work under every Fire Chief in the history of the District (with myself being the 10th). Before the formation of the Fire District, there was a Village of Orland Park Fire Department dating back to the 1890s, and we can find the names of the Fire Chiefs going back to the 1930s. Since 1969, the hen the District was formed, we hit the ground running, designing, and building a state-of-the-art fire station and moving into it in 1974, becoming one of the first Fire Districts to have Paramedics, then one of the first in the District's area to have full-time Firefighter/Paramedics. The District's Firsts continued: the region's first Training Center, the area's first Water Rescue team, the first Tactical Rescue Team, the-first Hazardous Materials team, and so on. In 2022, the District responded to a record 12,564 incidents. We will continue this tradition of always looking ahead, leading the way, providing the best Emergency Fire, Rescue, and EMS Services possible, and continually improving.

The Orland Fire District's leadership, starting with the Board of Trustees, has made it clear that we serve the District's changing needs and do it by being proactively prepared, not reactive. We have gone from a farming/rural community with a population of around 6,000 people to a significant commercial/medical destination with a District population of close to 75,000, swelling to 150,000 during business hours. Through preparation and training, we maintain the District's level of service. If you are having a medical emergency, a fire, become trapped or injured because of a natural event such as a tornado or a flood, pinned in a car from an accident, or involved in a construction accident 100 feet in the air or 100 feet below grade, we are trained and prepared to help to utilize the resources and direction given to us by the District's Board of Trustees.

Like every other Fire Department, Orland Fire likes to think they are providing the service they claim and doing it well. Through the Community Risk Assessment/Standards of Cover, the Strategic Plan, and the Fire and Emergency Services Self-Assessment Manual, we will reset where needed, build on the District's strengths, learn from the District's weaknesses, and set plans and policies to meet those shortcomings. We will embrace opportunities and meet threats with planning and preparation. In 2016, I was appointed Fire Chief. We were short of Administrative and Operations Chiefs on days, but we needed to define the Fire District's roles, needs, and direction before filling these positions. That was done with this process, and the incredible work, then and now, presented by the Accreditation Team has supplied the groundwork necessary to move forward, including *helping us prepare* for the recent significant **retirement turnovers of nearly 50%** (57 retired since 2018 & 69 new hires). The Conclusions and Recommendations presented in this report will now become the groundwork for the District's new Command Team to investigate, create timelines and benchmarks and implement them as soon as possible. While some of the Conclusions and Recommendations are not new, they are now fact and analysis based with input from all. If not addressed, they can stop the District's forward progress and force us to become a reactive organization instead of being proactively prepared for the needs of the residents.

We believe in this process, and as compassionate public servants, our benchmark is
*"Always Ready to Serve - Better, Faster, Safer, & Smarter."*

*Fire Chief Michael Schofield*

Draft

# Introduction

The District has conducted this **Community Risk Assessment / Standards of Coverage (CRA-SOC)** for our area. The primary purpose of this document is two-fold:

- First, identify and assess risks specific to our citizens, visitors, and businesses that it protects.
- Second, allocate an efficient, effective deployment distribution and concentration of resources to respond appropriately to our mission.

The basis of a Community Risk Assessment/Standards of Cover document is a tool to provide:

- assessment of community all-hazard risks: fire and non-fire emergencies
- definitions of baseline (actual) and benchmark (goal) – emergency response performance
- determination of apparatus and staffing patterns
- planning for potential future station locations/relocation
- evaluation of workload and ideal unit utilization
- measurement of service delivery
- support strategic planning and policy development relative to resources and allocation of funds

This analysis is part of the District's continuous improvement process plan and divides into sections:

1. Overview of Area
2. Programs and Services
3. All Hazard Risk Assessment
4. Risk and Response
5. Service Deployment and Performance
6. Plan for Maintaining and Improving Performance
7. Key Findings and Recommendations

In addition to developing this CRA-SOC, the District developed an extremely comprehensive Fire and Emergency Self-Assessment Model (FESSAM) containing 11 categories with over 250 performance indicators and the STRATEGIC PLAN for guidance from 2023-2028. All three documents are required to achieve Accreditation status from the Commission on Fire Accreditation International (CFAI). The District reached this prestigious goal for the first time in the fall of 2018 and strives to achieve re-accreditation status in 2023.

CFAI Commission on Fire Accreditation International

FLASHPOINT strategies, llc

*Note: Content added by the author is sourced from other original work products by the author or others.* **RR**
*Data provided by the District is analyzed through multiple programs and sources to the best of our ability. NFIRS/CAD may challenge the validity and volatility reports of incomplete, inaccurate records, multiple Records Management Systems (RMS,) and data entry/mining interoperability.*



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135th Street
Harlem Ave
Will Cook Rd
DISTRICT
OVERVIEW
3
1
2
5
4
6
159th Street
8600 W
171st Street
Grange Rd
1

# Section 1 -- Area Characteristics

## Legal Basis and Governance

The District was started as a Fire Department in 1894, then incorporated in the State of Illinois in 1969 as a Special District (Orland Fire Protection District) under Illinois Compiled Statutes (ILCS) Special Districts – Fire Protection District Act (70 ILCS 705/). The District is an independent governing body not directly associated with other government entities such as towns or cities. As a Special District, the District has no direct affiliation with the incorporated Villages within the coverage area.

1894
Established

The Fire Protection District (the District) Board of Trustees (BOT) consists of five (5) elected officials that direct the business activities of the taxing body and oversight of the Fire District's Administration. BOT appointments are staggered for six (6) year terms to provide overlap and continuity. The BOT is supported by an appointed Board of Fire Commissioners (BOFC), whose responsibilities include the hiring and promotional activities that are then confirmed by the BOT. The BOT and BOFC meet every month. Both are compliant with the Illinois Open Meetings Act legislative mandates.

## Funding Sources

The Orland Fire Protection District's Finance Bureau consists of a Finance Director, an Assistant Finance Director, and an Accounting Assistant. The Bureau develops, disperses, and accounts for the budget of the Fire District. As a special taxing District, the revenue side of the budget is received from property taxes. State Statutes (including 50/ILCS 330/3) define how revenue and disbursements are handled. The Board of Trustees adopts a budget ordinance after publicly displaying it, and a public hearing has occurred. After the budget ordinance, the Board approves a levy ordinance that provides Cook County information for the property tax cycle.

The Finance Bureau has received the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association (GFOA) every year since 2008. The District's budgets have received recognition from GFOA with its Distinguished Budget Presentation Award since 2018.

The Budget Process collaborates in developing a financial plan for the following year. It is also a reflection of the Strategic Plan. Annual budgets are adopted on a basis consistent with accounting principles accepted in the United States, except those encumbrances are recorded as the equivalent of expenditures for primary budgetary purposes.

Property tax helps to fund the majority of operations of a fire protection district.

Property taxes represent 76.3% of the 2023 budgeted revenue. The District levies property taxes for the following funds – Corporate, Tort, Illinois Municipal Retirement Fund, Pension, Ambulance, Audit, Rescue, and Social Security. The property tax levies are filed with the Cook County Clerk.

Draft

The District has a diverse economic base; the District's Equalized Assessed Valuation (EAV) totaling $2,794,345,022 and is broken down by:

68.7% is related to residential development,
30.1% is related to commercial development, and
1.1% is related to industrial action.

The Board levies property taxes to meet budget demands as the primary source of funding revenue. Surcharges are applied based on property and Equalized Assessed Valuation (EAV) amounts. The District is limited by a state-mandated Property Tax Extension Law Limit (PTELL), thus restricting tax levy increases. The District's and Pension Fund's property tax revenues fall under the tax cap limit of 5% or CPI (whichever is less). Other revenue sources include EMS fees, incident cost recovery, investment income, fire prevention fees, service charges, and grants. The District is limited to revenue sources as a Special District and cannot impose additional taxes. Furthermore, the District does not directly receive revenue through any municipal entity.

## Ambulance and Rescue Fees

Ambulance and Rescue fees represent 12.8% of the 2023 budgeted revenue: the District bills non-residents and the insurance companies of residents for ambulance and rescue services.

Charges for ambulance transport are currently estimated to be $3,113. Charges for rescue services are based on statutory rates for non-residents. The District accepts Medicare and Medicaid allowances. Fees were projected based on trend analysis for the 2023 budget. The payer mix (Private pay, Medicare, Medicaid, & federal Ground Emergency Transportation [GEMT], etc.) remains stable.

Draft

## Dispatch and Communication Services Revenue

Dispatch and Communication services revenue includes dispatch, tower space leases, and alarm services, representing approximately 3.7% of the 2023 budgeted revenue.

Currently, the District dispatches nine other fire departments/districts: Blue Island, Calumet City, Chicago Heights, Country Club Hills, Garden Homes, Lemont, Merrionette Park, Oak Forest, and Palos. The contracts for dispatching calls for other fire departments are structured, so each department pays its fair share of dispatch costs. Dispatch service fees are budgeted based on estimated costs per call to the other fire departments.

The District also provides alarm services for Johnson Controls and leases tower space to several cell phone companies. Tower lease revenue is budgeted based on existing contracts.

## Fire Prevention Fees

Fire Prevention fees include inspection, re-inspection, and false alarm fees. Fees are projected based on trend analysis for the 2023 budget.

## Grant Revenue

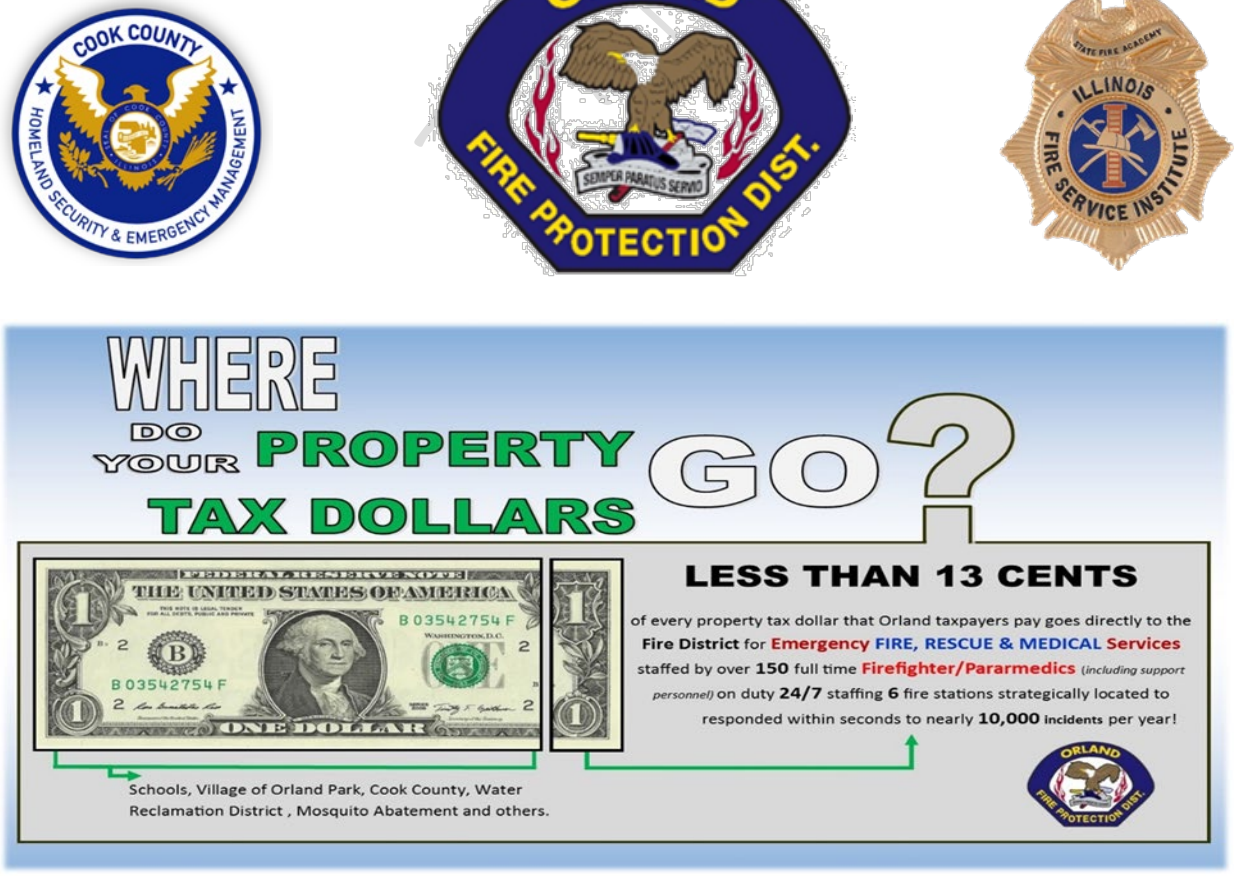
The District entered into its initial Sub-Grant Agreement with Cook County, Illinois, to offer training programs that address high-priority preparedness gaps across all core capabilities where a nexus to terrorism exists. Cook County receives the grant funding through the Illinois Emergency Management Agency (IEMA), which originated from the United States Department of Homeland Security/Office of Domestic Preparedness (DHS). Grant revenue represents 3.1% of the 2023 budgeted revenue. This grant revenue is anticipated to be **$1,344,966 in 2023.**

## Major Referendums

1987 – $8,000,000 bond approved via referendum (73% margin)
2002 – Rescue tax – referendum approved (.05)
2006 - $8,000,000 bond [voted to fund the previous bond again]

### Other Major Funding

2012 - $26,715,000 Bond debt was issued to pay the unfunded actuarial liability of the pension fund (100% obligation)



# District History

1894
Established

While the exact date of organized fire protection in the Orland area (incorporated in 1892) is uncertain, the earliest indications of a fire department include a volunteer fire department flag with the year 1894 sewn on, as well as a photo of uniformed members standing in front of a two-story building on Beacon Avenue with State Senator John Humphrey. Although some fire protection measures must have existed before that, such as bucket brigades, no records exist.

This early Volunteer Department consisted of a four-man, hand-pulled pumping engine, a hose cart with 500 feet of hose, and 14 members. They used the wood-frame building on Beacon Avenue, which doubled as a Village Hall and Firehouse, to store their equipment. The six-block farming community was guaranteed a good water supply thanks to a wooden water system and elevated water tower erected in 1892.

The Orland area's first significant fires occurred in November 1912 when a small settlement called Alpine, located near 167th Street and 108th Avenue, called for help. The volunteers hauled their equipment over nearly two miles of wagon-rutted roads only to arrive too late. Two saloons and the only general store burned to the ground, thus dooming the future of that town since the buildings were never rebuilt.

In 1914, Peter J. Pitts was named Fire Marshal. Besides overseeing the volunteers, his duties included cleaning the village water tank for a fee of $5. The Fire Department's budget for the year was $100. The 25-member fire department survived on a small stipend from the village and various fundraisers. In 1923, the Village of Orland Park enacted a Foreign Fire Tax to capture revenues from insurance companies (which would help fund the growing Fire Department), purchased another hose cart and hose, and approved 23 fire hydrants for the town. The first motorized vehicle would not be bought for another six years. Under the direction of Chief Carl Quigley, the Department purchased a 1929 Chevrolet chemical engine from the Prospect Fire Company for $3,500. Donations from area farmers helped finance the deal. Those farmers who refused to donate were billed for later service should they need it. The new engine, which served both the town and rural areas, came equipped with a front-mount pump, two forty-gallon water tanks, a tank of bicarbonate of soda, and small bottles of sulfuric acid. In town, the engine would hook up to fire hydrants (bypassing the pump), and in rural areas, the soda and acid were combined to create gas that would propel water through the booster line. The village appointed fire marshals until 1930, when the volunteers could elect the next Fire Chief. John Helenhouse, the town barber, police constable, and volunteer Firefighter, served as Chief for the next eleven years.









Draft

One of the rare calls for mutual aid from the City of Chicago came from the famous stockyards fire in 1931. While there, the Orland Park Firefighters teamed up with a Blue Island fire company to fight an apartment building fire.

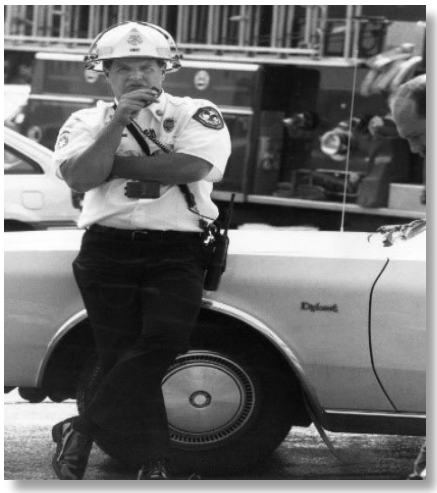
Arthur Granat Sr., the seminal figure who would later serve 29 years as Fire Chief and the longest tenure of any Orland Fire Chief, joined the volunteer ranks in 1946. Elected Fire Chief in 1957, Granat, Sr. led the department as it transitioned from a predominantly rural service to a more suburban-oriented one.

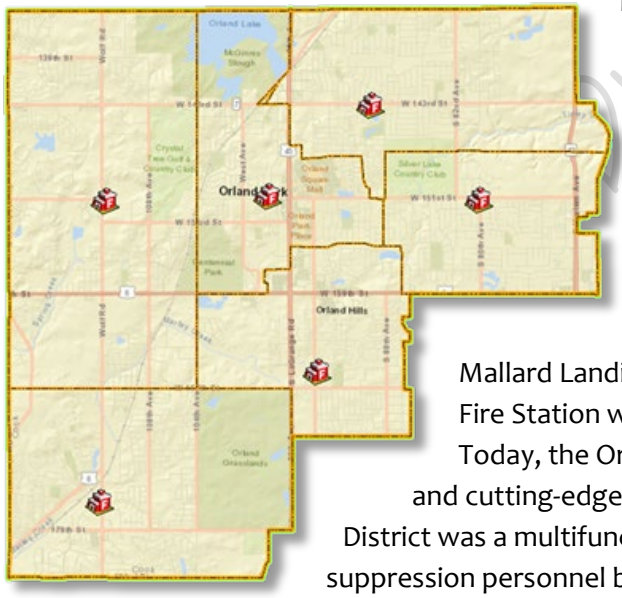




In 1969, he formed the Orland Fire Protection District after voters approved a referendum the previous year. Chief Granat became the first full-time employee of the District in 1973 and was later honored with the dedication of the Orland Fire Protection District Training Facility in his name.

Robert M. Buhs, appointed Fire Chief/Administrator in 1988, oversaw the transition of a small organization to a modern professional Fire/Rescue operation growing the District from two stations to five, thanks mainly to an overwhelming voter-approved $8 million referendum passed in late 1987. In 1989, the first group of 21 candidates from the outside was tested and hired. That year, the total number of full-time Firefighters stood at 26, and the District appropriated a budget of $8.7 million to respond to 3,568 calls annually.






The District originally covered 30 square miles, including the Villages of Orland Park, Westhaven (now Orland Hills), and unincorporated Orland Township. Another three-square mile was added in 1990 when Brook Hills, Eagle Ridge, and Mallard Landing subdivisions were annexed into the District, and a sixth Fire Station was constructed.

Today, the Orland Fire Protection District continues to provide innovative and cutting-edge service to the residents and visitors to the area. In 2017, the District was a multifunction fire protection and life-safety organization with over 129 suppression personnel backed up by 36 support staff and covered approximately 30 square miles. The District serves a population of more than 72,000, operating from six stations, a regional training campus, a new expansive maintenance facility, and an administration headquarters/regional dispatch center responding to nearly 13,000 incidents per year with an operating budget of $43 million.

A line-of-duty death for the Orland Fire Protection District occurred in 1998. Battalion Chief William Bonnar, Sr. joined the District in 1972 as a volunteer and became an EMT, then enrolled in the first Paramedic program at Ingalls Hospital in Harvey, IL. Chief Bonnar, Sr. joined the Chicago Fire Department in 1974 as a Paramedic. In 1977, Chief Bonnar left Chicago to become one of the first full-time Firefighters/Paramedics for the District. In 1980, before becoming a Chief, he helped organize the Firefighters to create the IAFF Local 2754 union and served as the first union president. Over the next decade, Chief Bonnar was promoted several times from Lieutenant to Shift Commander to Battalion Chief in 1990. On February 2, 1998, Chief Bonnar, Sr. was found unresponsive in his vehicle after participating in an annual air consumption drill. Fellow Orland Firefighters/Paramedics attempted resuscitation, and the Chief was transported to the hospital, where he passed away at 62 after serving 26 years in the fire service.



In 1999 the Technical Rescue Team responded to the Bourbonnais Amtrak train crash. On March 15, a semi-truck loaded with steel went around the warning gates and collided with the City of New Orleans passenger train. The collision caused both locomotives and 11 out of the 14 cars to derail. Many passengers were trapped in the cars and had to be extricated from the debris field. The crash killed 11 people and caused 122 injuries.



Thanks again to the support of the community in 2002, Orland Fire was able to pass a referendum to add a Rescue Tax (.05%)
With this growth over the few years, staff was added, the Engineer rank was established, facilities and equipment were upgraded, and Orland Fire became a center for training, especially in Technical Rescue and HazMat, for the south Chicagoland area and beyond.




In 2005, Hurricane Katrina descended on Louisiana and the surrounding states. Local providers were quickly overwhelmed and immediately called for help. This was the most prominent national call for and deployment of mutual aid in the history of the fire service at that time. Orland Fire sent equipment, three Firefighters, and 950 other First Responders from Illinois. These responders spent six weeks in Louisiana assisting local departments with water rescues, building collapse operations, rebuilding firehouses, and other duties.

Another Line of Duty Death (LODD) occurred in 2009. Raymond C. Marquardt started as a volunteer and worked as a boat mechanic until being hired as a full-time Firefighter in 1977. He was promoted to lieutenant in 1981 and remained a dedicated Firefighter until his retirement in 1999. Lt Marquardt succumbed to a duty-related illness.






2008 saw the opening of the Blue Card Training Center at the new Command Training Center or CTC. This CTC was the first in Illinois and one of a dozen nationwide as a new facility that allowed for formalization and expanded training opportunities. The Blue Card is an Incident Command certification training program that teaches officers how to standardize local company operations at incidents across their organization (and other mutual aid partners) to create a safer, more efficient Hazard Zone Management. Blue Card was developed by the late Chief Alan Brunacini of the Phoenix Fire Department and then adopted by Orland Fire in 2009.






BLUE CARD®

The Blue Card program is now a cornerstone of the training provided by the Training Department, and so far, it has trained and certified over 1,500 Incident Commanders from around the State and Country.

In 2011, a state-of-the-art EMS SimLab was created and opened at the CTC. This simulation-based training has revolutionized our life-saving skills and all management. The District's high Cardiac Arrest survival rates (72% in 2022) can be directly tied to the creation and teams based practical training in our SimLab.





2015

The recent significant response for aid by Orland Fire was in 2015 after an EF3 tornado struck Coal City, IL. Orland Fire and thirty other communities sent technical rescuer team members to help search and rescue/recover victims trapped in collapsed buildings. The tornado caused damage to almost 900 buildings, including the fire station.

2017

Orland finally achieved ISO Class 1 status from Class 2. Less than I % of Fire Departments in the US have achieved this goal.

2018 – Achieved ACCREDITATION for the first time from the Center for Fire Accreditation International (CFAI)

2019 COVID

In June 2019, Orland FPD sent (4) members downstate to **Hardin, IL**, to assist with rescue efforts and humanitarian operations for the flood region. Battalion Chief Piper, Lieutenant Purtill, Engineer Erickson, and Firefighter Ritchie were part of the MABAS19 Water Rescue Team deployed to Hardin for 9 days. While deployed, Orland members assisted one resident, along with his dog, out of his flooded home, filled and stacked hundreds of sandbags, shuttled fresh groceries into town via boats, aided the local fire service with 911 calls, and transported medical patients across the flooded areas to waiting for ambulances.

Louisiana requested a Type 3 USAR team with water rescue capabilities. In August 2021, four members of the District were part of a federal disaster deployment to Southern Louisiana after Hurricane Ida landed as a category 4 hurricane. The (4) members from Orland were Lt. Purtill, Lt. Fontana, Lt. Ritchie, and FF Hogan. They were just a part of a 46-member Urban Search and Rescue Team based out of Wheeling, IL, IL-Task Force 1, and were deployed for 8 days. During the deployment, they searched numerous structures and found many residents sheltering without power, food, or water. Numerous MREs and water bottles were handed out to residents who didn't want to leave their battered homes. During our searches, we recorded locations, pictures of the damaged structures, hazards, and residents who sheltered in place on ArcGIS' Survey 123 app along with QuickCapture, which provided live, up-to-date information to FEMA so they could determine what additional resources were needed.

2022

In 2022, the District answered 12,564 calls, an increase of over 85% since 2000 and 56% since 2010. The District protects the Village of Orland Park, the Village of Orland Hills, and the unincorporated Orland Township. The resident population is approximately 72,000+, which can swell to over 150,000 daily.

Draft

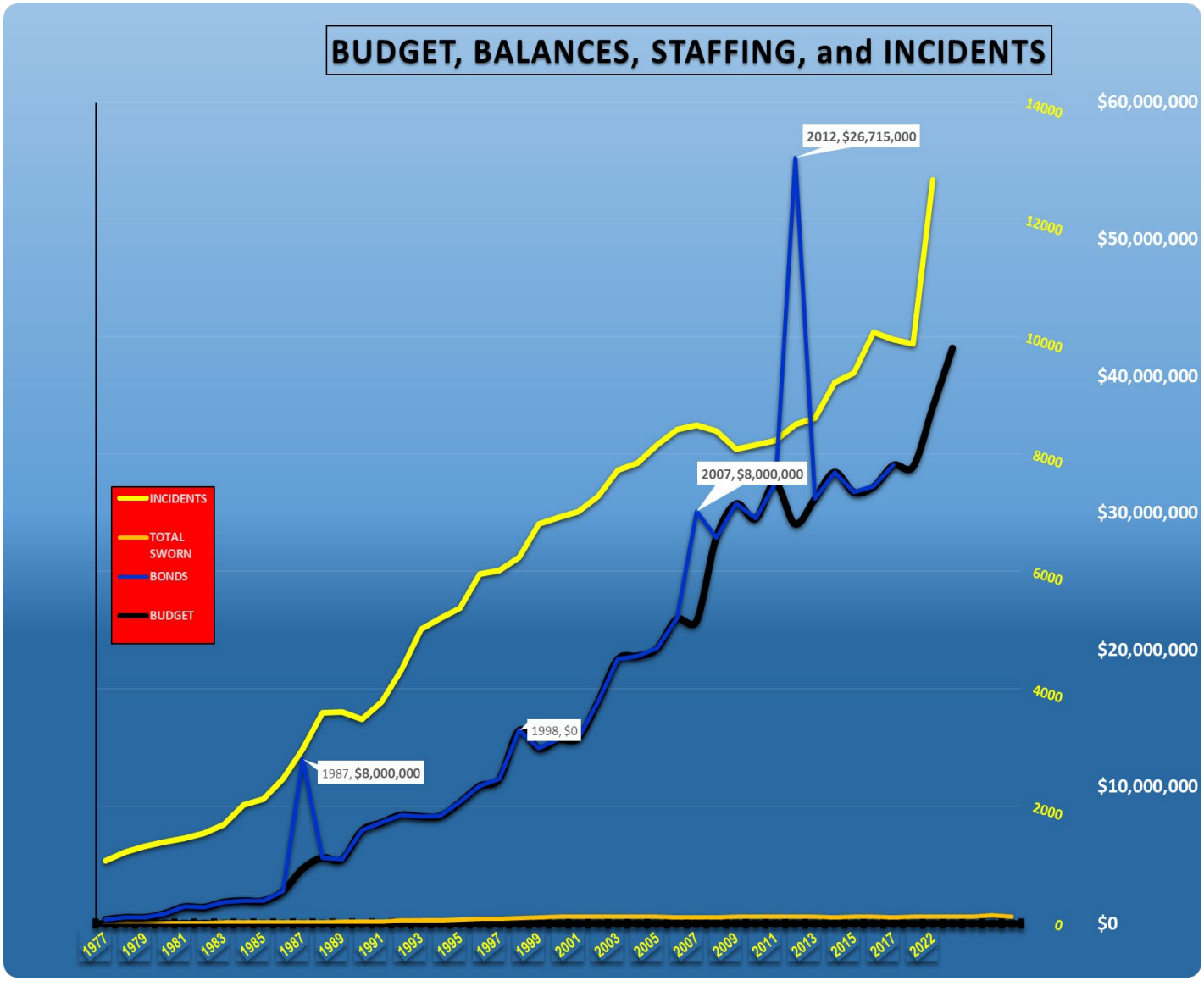
Today, Orland Fire is predominantly residential with a large retail base. Residential occupancies range from small ranches to some that are more than twenty thousand square ft.! The District still has rural/agricultural pockets, forest preserves, manufacturing complexes, office buildings, and major transportation corridors. I-80 defines the southern border, and significant state highways run through the District.

The District answers the call for EMS, structure and other types of fires, auto accidents/extrication, hazardous materials, water rescue, high angle rescue, trench rescue, and structural collapse. It has maintained a total response time of 90% of emergency incidents in less than 6 min. and 20 sec. The District achieved ISO Class 1 in 2017 and Accreditation in 2018 through the Commission on Fire Accreditation International (CFAI) and is working towards re-accreditation in 2023.

The District protects the largest shopping mall in the Chicago southland (Orland Square Mall and Orland Park Place draw shoppers from the entire southwest Chicago region and beyond), in addition to national manufacturing companies, hotels, and the hub for commercial activity and development driving growth in the area. The LaGrange Rd corridor is the main traffic thoroughfare moving 75,000+ vehicles daily. These roads carry a growing population to 2 specialty hospitals, 28 schools, 57 big box and large retailers, and many government offices (IRS, FBI, Social Security, and 2 USPS facilities). Along with telecommunications switching stations, internet, and cyber facilities, numerous high-tension power lines, switching stations, and underground pipelines are located within the District.

Many communities rely on the District's mutual aid to provide the resources for rescue-type incidents experienced during natural disasters or domestic terrorism. As one of the largest Districts in Illinois and the best-trained department in the southwest suburbs, the District provides the expertise, personnel, and training to specialized mutual aid teams. This is in addition to training in firefighting and emergency medical services. This has standardized the training for the local MABAS division to ensure consistency of operation throughout the response area. As a significant participant in local and state technician-trained specialty teams, the District is relied on by many communities to provide personnel and equipment to the affected areas. The District covers other communities in nearby MABAS Divisions with fewer resources or under-trained personnel to mitigate situations in all disciplines, especially Special Operations.

DRAFT


BUDGET, BALANCES, STAFFING, and INCIDENTS
INCIDENTS
TOTAL SWORN
BONDS
BUDGET
2012, $26,715,000
2007, $8,000,000
1998, $0
1987, $8,000,000
14000
12000
10000
8000
6000
4000
2000
0
$60,000,000
$50,000,000
$40,000,000
$30,000,000
$20,000,000
$10,000,000
$0
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2022

## Milestones

1894

- The earliest record of the Orland Fire Department



1897

- Sanborn Fire Insurance Map shows 14 volunteer firemen had a hand pump engine, hose cart, and 500' of hose and operated out of the Village Hall/Firehouse on Beacon St.

1912

- First known major fire – flames destroy two saloons and general store in Alpine, a settlement at 167th St. and 108th Ave.

1914

- First known Fire Official - Fire Marshall Peter Pitts




1915

- The first record shows Fire Department receiving an appropriation from Village - $100

1919

- Village purchases 30' Extension Ladder for Fire Department

1923

- Village passes ordinance to begin conversion of wooden water mains to cast iron and installation of 23 fire hydrants




1930

- First Engine Purchased

1934

- The village starts charging Palos Park $150 for "stand by" coverage.

1937

- Volunteers begin to receive $1.00 per call

1940

- Village appropriates $3500.00 for the purchase of the first modern pumper, a 1940 Ford

1941

- Chief John Helenhouse informs the Village Board that Fire Department is no longer a Village Department; thus, the infamous "Fire Truck Squabble" began, which received coverage from Chicago Newspapers. Helenhouse claimed the pumper was owned by the volunteers and not the village




1941-1945

- During WWII, volunteers organized air raid and blackout drills

1943

- Village enacts an ordinance to create a "Volunteer Fire Department of Orland Park."



1947

- Formation of Fire Department Women's Auxiliary

1957

- Volunteers elect Art Granat, Sr., as Fire Chief, beginning a 29-year tenure (longest served)

1960

- New Station constructed at 14415 Beacon Ave by Volunteers

1966

- First Ambulance purchased (donated $16,000 by saved child's father)

1969

- Orland Fire Protection District formation by referendum



1970

- Became a member of the Illinois Association of Fire Protection Districts
- Purchase of American LaFrance 1500 Gallon Truck

1972

- Melrose Fireworks factory explosion kills three (10/06)

1973

- Arthur Granat Sr appointed First Full-Time FIRE CHIEF
- Membership in the Illinois Fire Chief's Association approved
- Purchase of American LaFrance 750 Gallon Engine




1974

- New Station built/relocated from old – Station #1 [9790 W. 151st Street]

1976

- FIRST Full-Time Firefighters hired (3)
- New Aerial American LaFrance (100') "High Pride."

1980

- IAFF Local 2754 Orland Professional Firefighters started
- Deputy Chief and 7 Lieutenants promoted to first Full-Time Positions

1981

- Westhaven annexation by referendum. Later became Orland Hills

1983

- Fire/Arson Team Agreement w/Village of Orland Park

1984

- ISO Rating improved to Class 5 (7 rural)

1985

- $250,000 plus one-half of land cost donated by Andrew Corporation for construction of the Regional Fire Training Facility

1986

- Regional Fire Training Facility Construction ($400,000 grant)

1987

- $8 Million referendum passed (build 3 additional Stations and Maintenance Facility)
- FIRST COLLECTIVE BARGAINING AGREEMENT – IAFF LOCAL 2754
- FIRST Board of Fire Commissioners appointed

1988



- FIRE CHIEF Bob Buhs appointed
- Opticom traffic system in operation throughout District
- Maintenance (Shops), Training Facilities opened
- 3 Lieutenants were appointed to Shift Commander
- Southwest Hazardous Materials Team (SWHMT) in operation
- Intergovernmental Agreement with the Village of Orland Hills

1989

- Vote passed for the election of Trustees vs. Appointed Trustees (Yes-2957; No-590)

1990

- P.O.C. (Paid on Call) Roster raised to 40
- ISO Rating improved to Class 4
- Fire District Grows to 30 Square Miles – Brook Hills/Eagle Ridge areas annexation

1991

- FIRST 5 Elected Trustees take office
- Administration/Communication Building Opened behind Station #1
- DISPATCH Center opened
- Remodeled Station #1
- State of Illinois – Best Fire Prevention Program Award

1992

- Fire Dispatch Operations begin, 4 Full-Time Dispatchers Hired
- Received IFSA Award for best Fire Prevention Program in the State
- Fire Station 6 opened

1993

- ISO Rating Improved to Class 2
- Deputy Administrator hired
- 5% TAX CAP proposed to take effect July 1st

1994

- The District celebrates 100 years of Fire Protection in the Orland area and the 25th Anniversary of Formation
- End of POC program
- 1st Place IFSA Fire Prevention Award for Class 2 Departments
- MABAS 19 formed

1995

- Strategic Plan completed
- Safety Trailer purchased with Grant
- EMS Coordinator assigned to days
- CART donated Tractor/Trailer Unit (6095) in service

1996

- Require New Firefighter Personnel to hold EMT-P Certification
- Fire Prevention authorized hiring 1 Full-Time Employee for the Bureau
- EMS Director Appointed
- Station #2 remodeled
- 2 CAIRNS IRIS purchased (First generation of Thermal Imagers)
- The great Flood of July takes place
- Winner GOFA (Government Officers Finance Award)
- Winner NFPA Learn Not to Burn Program

1997

- 94 Full-Time Firefighters now hired since 1989

1998

- LODD Battalion Chief Bonnar, Sr. (2/2/98)

1999

- The District Responds to Amtrak Train Derailment in Bourbonnais – 3/19/99
- All Front-Line Fire Apparatus become ALS equipped

2000

- The rank of Engineer Established – 30 Promoted
- Restructured Organization – 2 Battalion Chiefs moved to days
- Dive Team purchases a new boat, trailer, and motor

2002

- Trustee Margaret Schofield passed away
- The district received the 2001 Life Safety Award
- Rescue Tax Approved at General Election – Not to exceed .05% of the value of taxable property

2003

- Federal Grant – Standardize MABAS RIT training (1,000 persons trained across 3 MABAS Divisions) and repairs at the Training Facility
- Pension Fund Settlement/Agreement – The district funds an additional *$2,010,000*
- MVCC Institutional Agreement of Affiliation for FOI and FOII certification at the District – allows two students at no cost to District
- Administration Building named after Joseph Barbaro (22 years of service as Trustee)

2004

- Intergovernmental Agreement with Cook County 911
- $50,000 Grant from 2004 Assistance to Firefighters Grant - Apparatus – Funding is 70% of the entire $500,000 grant

2005

- Twins delivered in the parking lot
- Donated District vehicles to Bogalusa, Mississippi FD
- $25,000 received from Illinois First Grant – used at Training Facility
- A significant flooding incident occurred inside Orland Square Mall due to a water main break– mitigated by the District - extremely high $ loss
- Hurricane Katrina Deployment
- Assist Chicago – EMS - train derailment
- Minimum staffing raised from 21 to 26
- AFG/DHS Grant for Quint Truck Purchase - $310,000

2006

- Humanitarian Medals awarded to BC Krizik, Lt. Madden, and Eng. Schloegel – Katrina deployment
- Participation in Western Illinois Internship Program
- Purchased Computer-Aided Dispatch (CAD) and Record Management Systems (RMS) for $500,000
- IBEW Local 134 Tele-Communicators Labor Agreement
- Purchase six Zoll monitors and w/12 lead cardio monitors
- IPRF Grant Money for safety equipment - $45,000
- A referendum approved in November for $8,000,000 – re-issue fire protection bonds by the voters (Apparatus – 3 Engines, 1 Tower Ladder, 2 Ambulances, Training Building/future station, HQ addition, facilities, communication upgrades, and potential land acquisition
- IMPLEMENTATION OF 10 **DEDICATED ALS COMPANIES** (4 Engines, 2 Trucks, 4 Ambulances) from previous JUMP COMPANY responses.

2007




- VEBA established
- District's 30th EMS Anniversary
- Fatal (1) car vs. school bus accident – 2-11 EMS Box
- Assist Chicago – EMS – Marathon heat emergencies

2008

- First Citizen Fire Academy and Fire Station neighborhood BBQ programs started
- Radio alert fire alarms started – notable call reduction identified
- Cadet program started

2009

- Training Center opened - built from referendum funds (10728 W. 163rd Pl)
- Blue Card Command Program started
- IPRF Grant - $ 67,700 for the building of the Command Training Center (CTC)
- Motorola Grant – 15 Portable and Mobile Radios for CTC (~$50,000)
- Surface supplied Air System purchased/in-service for Dive Team
- 5th Ambulance put in service

- Minimum staffing increased to 28
- "Service 1" Company staffed peak period (staffing increased soft 30 minimum– 1-year trial
- LODD – Lt. Ray Marquardt

2010

- IPRF Grant - $ 84,250 for the building of the Command Training Center (CTC)
- Illinois Department of Commerce Grant – Training Facility $56,250
- Opening of Command Training Center (CTC) – 1st in the State of Illinois (< dozen in-country)
- Approval of Target Safety online training platform for Fire/EMS records management system
- Construction started on New Headquarters – combining/remodeling of Station #1 & Admin

2011

- Approval of proclamations to the District Firefighters Local 2754 and Orland Central Dispatch Local 134 for their extraordinary work during the blizzard
- Illinois Public Risk Fund Grants
- $65,100 for Opticom Purchases
- $12,486 for Blue Card Training
- $150,000 in simulators funding and opening of EMS Sim-Lab at the Training Center
- Assistance to Firefighter Grant (AFG) of $302,400 for the Officer-in-Training for Excellence Program, training 450 officers from 45 surrounding departments in Blue Card Incident Command
- New Headquarters opened (Admin/Station #1) major remodel project
- 1 Battalion Chief and 1 Deputy Chief Position eliminated
- Suspension of hiring for 11 proposed Firefighters, numerous personnel changes

2013

- $20,000 Grant Awarded by Firehouse Subs

2014

- Silver Award presented by the American Heart Association for save rate of STEMI patients
- Two new Engines are in service
- Station #5 major remodel
- Lt. Peter Vassios receives the Award of Valor for the rescue of a citizen from a house fire
- Firefighter Wes Peak passes away while reporting for a shift

2015

- Orland CART Team responds to Coal City EF3 Tornado

2016

- Retired Firefighter Donnie Piscitello passes away
- Command Vehicle donated to Robbins Fire Department
- The District has a 47% VF save rate, and a 4-year VF save rate of 39.8%

2017

- District receives ISO Class 1 Rating
- The District has a 65% VF save rate
- Agreement with Cook County DHS and the University of Illinois Training Funding (~ $1 million+ renewing) to host/teach for Rescue Task Force (RTF), Blue

Card Command, Advanced Airway, Leadership Development and Decision Making (LDDM), IFSI Operations and Technician Level classes, more

- FEMA Motorola Radio Grant – 45 new portable radios for $ 278,182
- Bleeding Control Kits (B-Con) Grant for all 19 schools

**2018**

- CPSE International Accreditation (1st) achieved
- Participated in a professional public affairs exchange program from China and hosted 20 delegates from The Shanghai Delegation team for Regional Coordinated Development and City Planning and Management Innovation at our Training site.
- Fire Up A Cure competition to benefit pediatric cancer patients and their families helped raise nearly $30,000 to help fund pediatric cancer research and help area families affected by this disease.
- GFOA's Certificate of Achievement for Excellence in Financial Reporting
- Orland Fire District had a cardiac arrest save rate of over 50%.
- Due to generous grants from the IL Dept. of Public Health for $3,900 and IL American Water for $1,000, Over 90 School District 135 staff have been trained, and STOP THE BLEED kits have been placed in all District 135 AED cabinets
- CART Validation Drills with New Grain Bin Prop
- Hired nine new Firefighters/Paramedics
- Orland Central Dispatch processed 33,880 alarm incidents for the center.
- Orland Fire Protection District took delivery of a new 2018, 100' aerial ladder manufactured by E One Inc.
- CRR - Total Public Reached - 40,000—50,000 people
- The Illinois Public Risk Fund awarded the District with a check for $32,762. The money will help cover costs associated with the District fitness program for sworn personnel.

**2019**

- Ambulance #3 is dedicated in Honor of the late Firefighter/Paramedic Donald Piscitello (Who served from 1994-2011)
- OFPD dedicates "Legacy Lane," which is in the main hallway of our Administration Building outside of our Board Room.
- Truck #4 is dedicated In Honor of the late Fire Chief Arthur Granat, Sr. (Served 1957- 1988) & Retired Deputy Chief Arthur Granat, Jr. (Served 1968-2006)
- OFPD Celebrates 125th Anniversary
- Lieutenant Scott Olinski was awarded Instructor of the Year for 2018 at the Instructor conference in Peoria.
- Received an Excellence in EMS Public Education Award at the Silver Cross EMS System National EMS Week Awards.
- Orland Fire Protection District was honored to be awarded a SAG (Special Achievement in GIS) Award
- Incident volume has increased by 34% from 2009 to 2019.

**2020**

- Swearing in of our ten newest Firefighters/Paramedics
- Nine new Firefighter/Candidates start their careers
- OFPD The Board of Trustees approves the construction of a new Fleet Maintenance Facility, construction to be completed by August 2021.

- The newest vehicles added to the fleet are Engine 2 – 2020 Pierce Enforcer 1500gpm Pumper; Ambulance 2 – 2020 Ford/Horton ALS equipped.
- District receives Certificate of Achievement in Financial Reporting.
- District receives Distinguished Budget Presentation Award.
- The passing of retired Lieutenant John Hartman, October 17, 2020. R.I.P.

2021

- Truck 1 dedication in honor of retired Deputy Chief Jerome Panozzo & former Trustee/Board President Dale Karlson.
- The passing of recently retired Fleet Maintenance Mechanic Mike Morgan, R.I.P.
- The passing of former Commissioner/Trustee Richard Kukac, R.I.P.
- O.F.P.D receives the Congressional Record from Congresswoman Marie Newman, praising their dedication to protecting lives and property and the leadership, resourcefulness, and innovation in dealing with the COVID pandemic.
- Secretary of Defense Employer Support Award to BC Joseph Moore.
- Presentation of Flag and Medal from U.S. Marine Corp. to OFPD
- The newest ambulance arrives and is delivered to Station #5.
- Illinois American Water awards a grant to OFPD for E.M.S equipment.
- 47% save rate for patients found with Ventricular Fibrillation.
- OFPD, along with Local 2754, launched Project Fire Buddies.
- The training site underwent significant renovation with funding secured through a Department of Commerce and Economic Opportunity Grant.
- Five new firefighters began their careers
- Nine newest firefighters/Paramedics are sworn in.
- Five members of the OFPD, belonging to the Illinois Task Force Urban Search and Rescue Team, responded for Water Rescue Assistance after Hurricane Ida.
- The Finance Department received Distinguished Budget Presentation Award for 4th consecutive year.
- The Finance Department receives a Certificate of Achievement in Financial Reporting Award for the 13th year.

2022

- Orland Fire brings back the Eagle Newsletter
- The passing of retired Lieutenant John Carline, R.I.P
- 15 Firefighter candidates start the Training Academy
- OFPD's five newest Firefighter/Paramedics are sworn in
- Construction of new Maintenance Facility completed
- 71% save rate for patients found with Ventricular Fibrillation
- The passing of OFPD Attorney James J. Roche, R.I.P.
- The passing of 45-year employee Bob LaMantia, R.I.P.
- Dedication of new Maintenance Facility to Sonny and Mike Morgan
- Dedication of Education & Leadership Development Center to Retired Fire Chief Robert M. Buhs
- OFPD bestows retired Fire Chief Robert M. Buhs with the honor of Fire Chief Emeritus
- Finance Department receives Distinguished Budget Presentation Award for 5th consecutive year
- Finance Department receives a Certificate of Achievement in Financial Reporting for the 14th straight year



## Organization Overview

The District Organizational Chart is depicted below.



## Fire Chiefs

The Fire Chiefs that have served the District include:

- (1914-30) **Peter Pitts (Fire Marshall – first recorded Fire Official)**
- (1930-42) **John Helenhouse**
- (1942-49) **George Steinhagen**
- (1949-51) **Melvin Doogan**
- (1951-53) **Bill Young**
- (1953-57) **Paul Voss**
- (1957-88) **Art Granat, Sr* (First full-time '74)**
- (1988-97) **Bob Buhs**
- (1997-99) **John "Mac" McCastland**
- (1999-2003) **Bob Buhs**
- (2003-04) **Dan Wysocki (Acting)**
- (2004-07) **Donald Bettenhausen**
- (2007-11) **Bryant Krizik**
- (2011-12) **Ray Kay (Acting)**
- (2012-15) **Ken Brucki**
- (2015-Present) **Michael Schofield**



# Staffing

The personnel staffing levels are comprised of the following:

**2023**

## Staffing

### SWORN STAFF

| Administration | | Full Time |
|---|---|---|
| Fire Chief | | 1 |
| Deputy Chief | | 1 |
| Administrative | Battalion Chief | 1 |
| Operations | Battalion Chief | 1 |
| EMS Coordinator | (Lieutenant) | 1 |
| Training Coordinator | (Lieutenant) | 1 |
| Training Manager | (Lieutenant) | 1 |
| | Sworn Administrative | 7 |

| SHIFT | Black | Red | Gold | |
|---|---|---|---|---|
| Battalion Chief | 1 | 1 | 1 | 3 |
| Lieutenant | 8 | 8 | 8 | 24 |
| Engineer | 8 | 8 | 8 | 24 |
| Firefighter/Pararmedic | 20 | 21 | 21 | 62 |
| | 37 | 38 | 38 | 113 |
| | | Total Line | | 120 |
| April 2023 hires | +4 | +4 | +4 | |
| | 41 | 42 | 42 | 125 |

| | |
|---|---|
| Total Sworn Combined | 132 |
| 2023 NEW HIRES PROPOSED | 12 |
| 2023 RETIREMENTS ANTICIPATED | 4 |

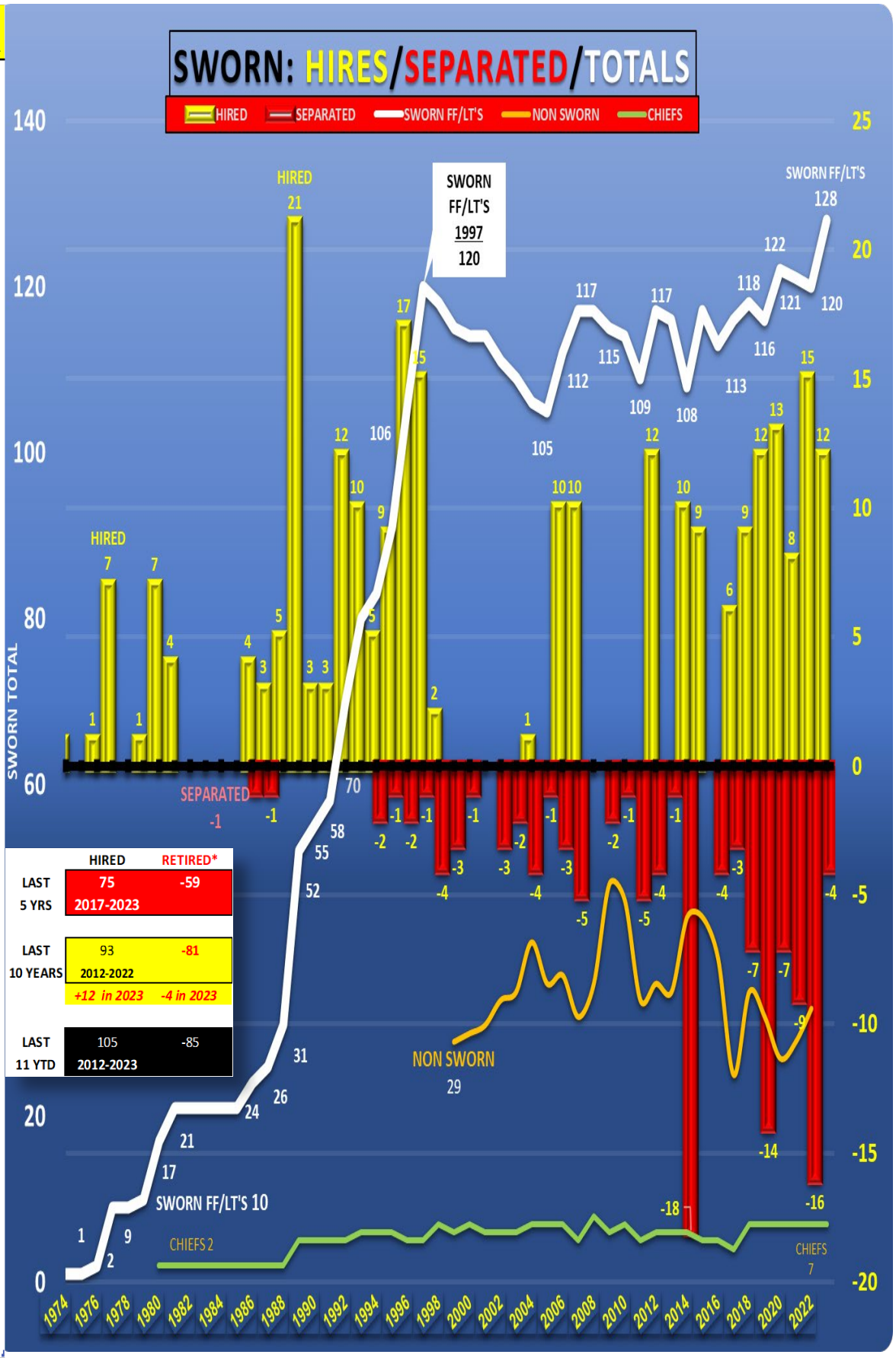
### NON-SWORN STAFF

| Administration/Support | Full Time | Part Time |
|---|---|---|
| Executive Assistant | 1 | |
| Administrative Assistant | 1 | |
| **Communications/IT** | | |
| Communications/IT Director | 1 | |
| IT Technicians | 1 | |
| **Community Risk Reduction / Life Safety** | | |
| Fire Prevention Director | 1 | |
| Life Safety Educator | 1 | |
| Fire Inspector | 1 | |
| Fire Inspectors (7G) | | 2 |
| **Dispatch** | | |
| Dispatch Director | 1 | |
| Telecommunicators | 14 | |
| Telecommunicators (part time) | | 3 |
| **Facilities** | | |
| Facilities Manager | 1 | |
| Facilities Technician (7g) | | 2 |
| **Finance** | | |
| Finance Director | 1 | |
| Assistant Finance Director | 1 | |
| Accounting Assistant | 1 | |
| **Fleet Maintenance** | | |
| Fleet Maintenance Manager | 1 | |
| Fleet Maintenance Technician | 2 | |
| **Human Resources** | | |
| HR Director | 1 | |
| Assistant HR | 1 | |

| | | |
|---|---|---|
| Total Non-Sworn | 31 | |
| Total Part Time | | 7 |
| Total Sworn | 132 | |
| TOTAL EMPLOYEES | 163 | 170 |
| | | including part-time |

NOTE: Sworn personnel (Firefighters/Paramedics & Lieutenants) are members of IAFF Local 2754. Battalion Chiefs are members of the Orland Fire Chief Association. Dispatchers and Fire Prevention personnel are members of IBEW Local 134.

| YEAR | HIRED | SEPARATED | SWORN FF/LT'S | CHIEFS | CALLS | NON SWORN | TOTAL PERSONNEL |
|---|---|---|---|---|---|---|---|
| 1974 | 1 | | 1 | | 598 | | |
| 1975 | | | 1 | | 615 | | |
| 1976 | 1 | | 2 | | 915 | | |
| 1977 | 7 | | 9 | | 1,073 | | |
| 1978 | | | 9 | | 1,213 | | |
| 1979 | 1 | | 10 | | 1,317 | | |
| 1980 | 7 | | 17 | 2 | 1,386 | | |
| 1981 | 4 | | 21 | 2 | 1,443 | | |
| 1982 | | | 21 | 2 | 1,527 | | |
| 1983 | | | 21 | 2 | 1,667 | | |
| 1984 | | | 21 | 2 | 1,994 | | |
| 1985 | | | 21 | 2 | 2,100 | | |
| 1986 | 4 | -1 | 24 | 2 | 2,450 | | |
| 1987 | 3 | -1 | 26 | 2 | 2,955 | | |
| 1988 | 5 | | 31 | 2 | 3,568 | | |
| 1989 | 21 | | 52 | 5 | 3,585 | | |
| 1990 | 3 | | 55 | 5 | 3,458 | | |
| 1991 | 3 | | 58 | 5 | 3,751 | | |
| 1992 | 12 | | 70 | 5 | 4,272 | | |
| 1993 | 10 | | 80 | 6 | 4,959 | | |
| 1994 | 5 | -2 | 83 | 6 | 5,141 | | |
| 1995 | 9 | -1 | 91 | 6 | 5,308 | | |
| 1996 | 17 | -2 | 106 | 5 | 5,880 | | |
| 1997 | 15 | -1 | 120 | 5 | 5,928 | | |
| 1998 | 2 | -4 | 118 | 7 | 6,154 | | |
| 1999 | | -3 | 115 | 6 | 6,704 | 29 | 144 |
| 2000 | | -1 | 114 | 7 | 6,799 | 30 | 144 |
| 2001 | | | 114 | 6 | 6,895 | 31 | 145 |
| 2002 | | -3 | 111 | 6 | 7,168 | 34 | 145 |
| 2003 | | -2 | 109 | 6 | 7,615 | 35 | 144 |
| 2004 | 1 | -4 | 106 | 7 | 7,739 | 41 | 147 |
| 2005 | | -1 | 105 | 7 | 8,046 | 36 | 141 |
| 2006 | 10 | -3 | 112 | 7 | 8,311 | 37 | 149 |
| 2007 | 10 | -5 | 117 | 5 | 8,388 | 32 | 149 |
| 2008 | | | 117 | 8 | 8,282 | 36 | 153 |
| 2009 | | -2 | 115 | 6 | 7,967 | 48 | 163 |
| 2010 | | -1 | 114 | 7 | 8,036 | 46 | 160 |
| 2011 | | -5 | 109 | 5 | 8,115 | 34 | 143 |
| 2012 | 12 | -4 | 117 | 6 | 8,393 | 36 | 153 |
| 2013 | | -1 | 116 | 6 | 8,499 | 35 | 151 |
| 2014 | 10 | -18 | 108 | 6 | 9,116 | 44 | 152 |
| 2015 | 9 | | 117 | 5 | 9,263 | 44 | 161 |
| 2016 | | -4 | 113 | 5 | 9,960 | 39 | 152 |
| 2017 | 6 | -3 | 116 | 4 | 9,843 | 25 | 141 |
| 2018 | 9 | -7 | 118 | 7 | 9,762 | 35 | 152 |
| 2019 | 12 | -14 | 116 | 7 | 10,681 | 32 | 149 |
| 2020 | 13 | -7 | 122 | 7 | 9,815 | 27 | 148 |
| 2021 | 8 | -9 | 121 | 7 | 11,147 | 29 | 148 |
| 2022 | 15 | -16 | 120 | 7 | 12,564 | 33 | 148 |
| 2023 | 12 | -4 | 128 | 7 | | | |



# Fire Stations & Facilities



***Headquarters/Dispatch***
9790 West 151st St (rear of Station 1)



***Fleet Maintenance (New 2022)***
10708 West 163rd Pl



***Station 1*** ***TRK 1 / BAT 6 / AMB 1****
9790 West 151st St Staff 4-7



***Station 2*** ***ENG 2 / AMB 2 / SQD 2****
15100 West 80th Ave Staff 5-6



***Station 3*** ***ENG 3 / AMB 3 / SQD 3****
15101 West Wolf Rd Staff 5-6



***Station 4*** ***TRK 4 / AMB 4***
16515 South 94th Ave Staff 5-6



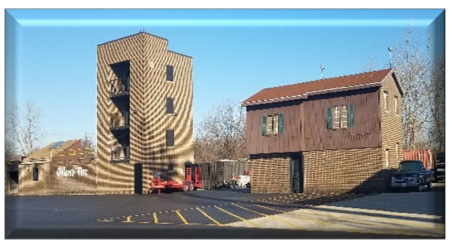
***Station 5*** ***ENG 5 / AMB 5 / SQD 5****
8851 West 143rd St Staff 5-6



***Station 6*** ***ENG 6 / AMB 6***
17640 South Wolf Rd Staff 5-6



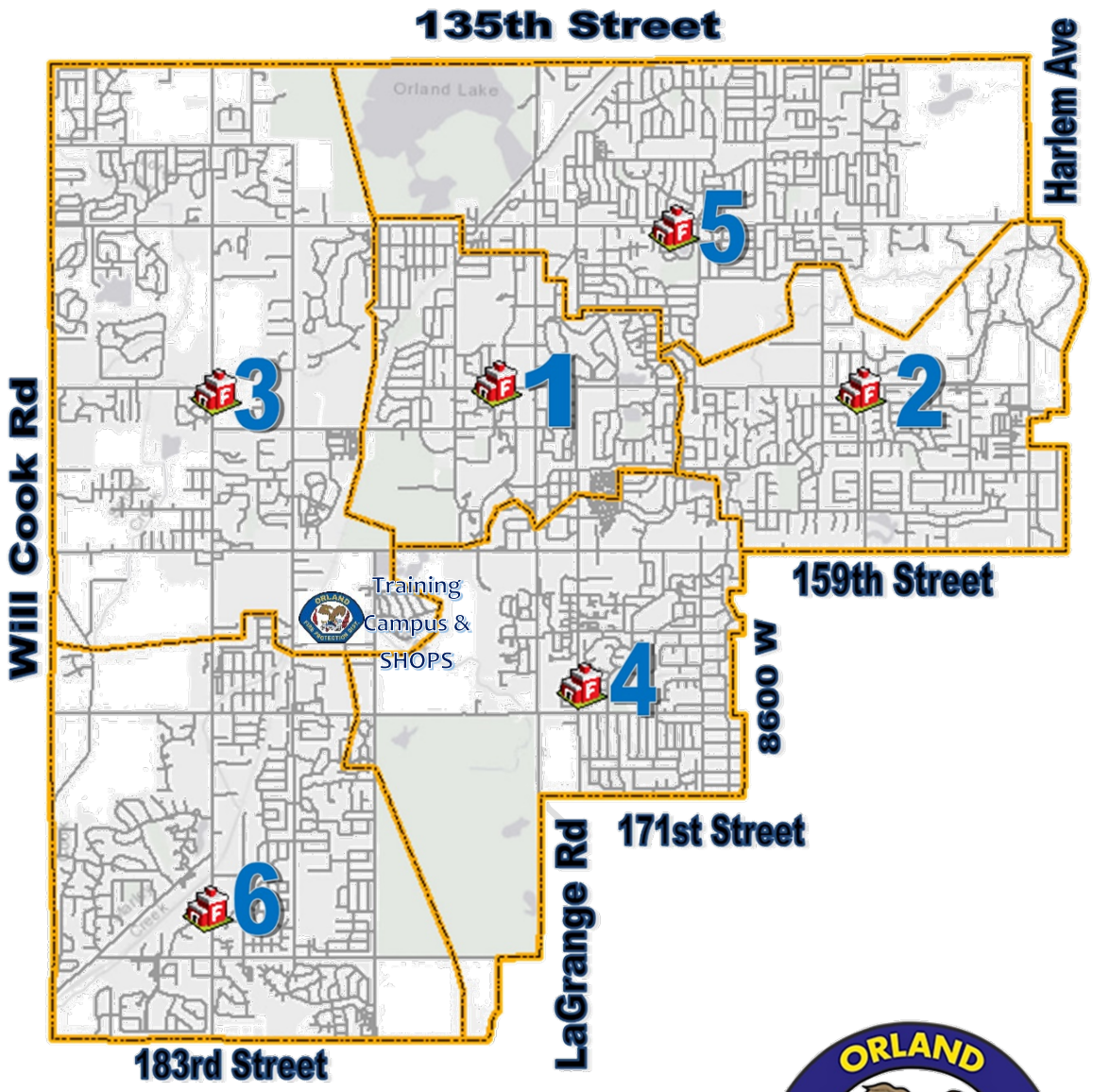




***CTC & Training Campus with Former Fleet Maintenance Facilities***
10728 West 163rd Pl

Draft

FACILITIES


135th Street
Harlem Ave
Orland Lake
5
3
1
2
Will Cook Rd
159th Street
Training
Campus &
SHOPS
4
8600 W
171st Street
LaGrange Rd
6
183rd Street

# Apparatus

The several types of apparatus the District deploys on emergencies, listed by their dispatch designator type, are described. NOTE: All in-service fire companies are **ALS equipped**.

**Major classifications:**

**Engine** – Primary response unit for most service requests. Each engine has a minimum 1,500 GPM pump, 750-gallon water tank, and complement sets of equipment following NFPA 1901, Standards for Automotive Fire Apparatus. All engines comply with FEMA Type 1 engine classification.

*ORLAND HAS 4 FRONT LINE ENGINES AND 3 RESERVES*

**ENGINE 2,3,5,6**

**Truck** – Apparatus equipped with a fixed aerial ladder or platform, an assortment of ground ladders, fixed and portable lighting, various power tools, and salvage equipment, following NFPA 1901, Chapter 6. The District ladder apparatus has a 1,750 GPM pump, a 400+ gallon water tank, and a minimum number of feet of the large-diameter supply hose. Trucks meet the requirements for FEMA Type 1 ladder classification.

*ORLAND HAS 2 FRONT LINE QUINT TRUCKS (1 TOWER LADDER, 1 LADDER), AND 2 RESERVES*

**TRUCK 1 (Tower), TRUCK 4**

**Ambulance** – Provide medical treatment and transport. Ambulances meet the requirements for GSA Type 1 ambulance classification.

*ORLAND HAS 5 FRONT LINE AMBULANCES AND 3 RESERVES*

**AMBULANCE 2,3,4,5,6, and AMBULANCE 1, depending on the staffing**

**Brush Truck –** Specialty unit, usually 4x4 pickup truck type w/ 100–300-gallon tank/pump, designed to go off-road for vegetation fires.

*ORLAND HAS 2 BRUSH PICKUP TRUCKS, AND 1 UTV SETUP FOR BRUSH OR PATIENT MOVEMENT*

**BRUSH 1**

**Incident Command/SUV** – Capable of being an incident command post with associated communication equipment and workspace.

*ORLAND HAS 1 FRONT LINE SHIFT BATTALION VEHICLE, AND 5 CHIEFS HAVE TAKE-HOME UNITS*

**BATTALION 6**

**Squad –** Specialty unit equipped for Fire Investigations, Hazmat, Technical Rescue, Dive/Water Rescue, and Incident Command

*ORLAND HAS 4 SQUADS [SQD2* – TECH RESCUE, SQD3* – HAZMAT, SQD5* – DIVE/IC, SQD6* – INVEST*

**SQUAD 2,3,5,6**

**Tender/Tanker –** specialized apparatus designed to transport higher quantities of water (2,500+ gallons)

*ORLAND HAS 0 TENDERS/TANKERS AND RELIES ON MUTUAL AID FOR NON-HYDRANTED AREAS*

**Utility** – Pickup or flatbed-type unit that may or may not have firefighting capabilities.

*ORLAND HAS 1 MINI-SQUAD BODY, 3 PICKUPS*

**UTILITY 1 depending on staffing**

**UTV** – Utility Task Vehicle, specialized 4-wheel drive "side by side" or SXS unit like an ATV.

*ORLAND HAS 2 – 1 POLARIS FOR CREW, AND 1 GATOR FOR PT MOVEMENT & BRUSH FIRES*

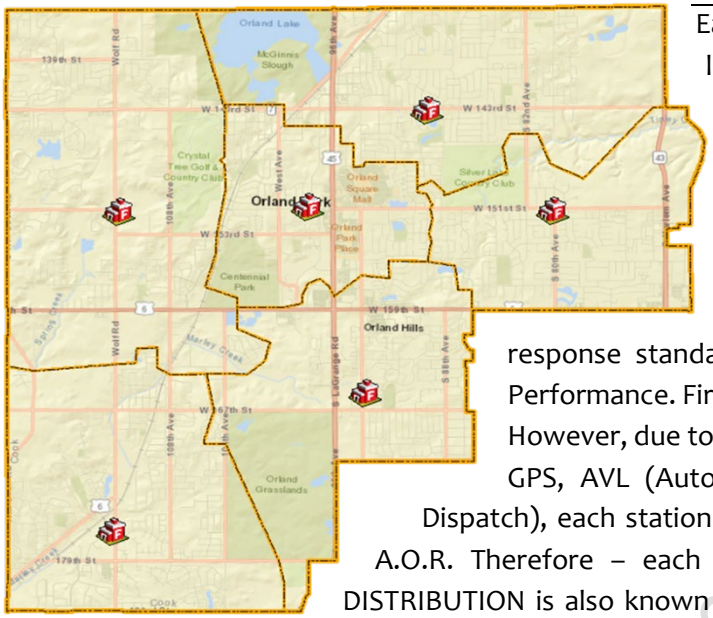
Draft

| Unit # | FDID | Category | MfgYear | Miles | Make | Model | JUMP OR RESERVE |
|---|---|---|---|---|---|---|---|
| *6052* | ***A1*** | *Ambulance* | *2017* | *64,440* | *Road Rescue* | | ***if staffed** |
| 6012 | **A2** | Ambulance | 2020 | 41,929 | Horton | | |
| 6022 | **A3** | Ambulance | 2019 | 51,260 | Horton | | |
| 6002 | **A4** | Ambulance | 2022 | - | Road Rescue | | |
| 6042 | **A5** | Ambulance | 2021 | 15,569 | Horton | | |
| 6062 | **A6** | Ambulance | 2016 | 79,009 | Road Rescue | | |
| 6032 | **A7** | Ambulance | 2016 | 85,540 | Road Rescue | | *RESERVE* |
| 6092 | **A8** | Ambulance | 2014 | 82,261 | Road Rescue | | *RESERVE* |
| 6072 | **A9** | Ambulance | 2017 | 105,030 | Medtec | | *RESERVE* |
| | | | | | | | |
| 6043 | **E2** | Engine | 2020 | 18,716 | Pierce | | |
| 6063 | **E3** | Engine | 2009 | 89,665 | Darley | | |
| 6023 | **E5** | Engine | 2015 | 60,500 | Pierce | | |
| 6013 | **E6** | Engine | 2015 | 61,038 | Pierce | | |
| *6033* | ***E7*** | *Engine* | *2004* | *120,925* | *Pierce* | | *RESERVE* |
| *6073* | ***E8*** | *Engine* | *2009* | *104,172* | *Darley* | | *RESERVE* |
| *6053* | ***E19*** | *Engine* | *2009* | *93,678* | *Darley* | | *RESERVE* |
| | | | | | | | |
| 6095 | **S2** | Squad | 2004 | 48,657 | Sterling | | **JUMP CO** |
| 6005 | **S3** | Squad | 1988 | 52,339 | Salsbury | | **JUMP CO** |
| 6085 | **S5** | Squad | 1999 | 21,417 | | | **JUMP CO** |
| 6025 | **S6** | Squad | 1998 | 86,161 | Ford | | **JUMP CO** |
| | | | | | | | |
| 6064 | **T1** | Truck | 2021 | 8,140 | Pierce | Tower Ladder | |
| 6054 | **T4** | Truck | 2019 | 29,659 | E-One | Metro 100 | |
| *6034* | ***T8?*** | *Truck* | *2006* | *124,168* | *Pierce* | *100' Aerial* | *RESERVE* |
| | | | | | | | |
| 6015 | **U1** | Utility/Squad | 1992 | 14,983 | Darley | | ***if staffed** |
| | | | | | | | |
| 6141 | **B6** | Chief/admin | 2020 | 38,478 | Chevy | Tahoe | |
| | | | | | | | |
| 6121 | **CHF2** | Chief/admin | 2018 | 31,080 | Chevy | Tahoe | |
| 6131 | **CHF1** | Chief/admin | 2020 | 10,487 | Chevy | Tahoe | |
| 6138 | **CHF** | Chief/admin | 2014 | 63,428 | Ford | Expedition | |
| 6148 | **CHF** | Chief/admin | 2009 | 94,565 | Ford | Expedition | |
| 6151 | **CHF** | Chief/admin | 2020 | 18,765 | Chevy | Tahoe | |
| 6158 | **CHF** | Chief/admin | 2011 | 84,853 | Ford | Expedition | |
| 6168 | **CHF** | Chief/admin | 2012 | 60,952 | Ford | Expedition | |
| | | | | | | | |
| 6111 | **EMS** | Chief/admin | 2018 | 40,592 | Chevy | Tahoe | |
| 6188 | **Fleet** | Chief/admin | 2014 | 59,032 | Ford | Expedition | |
| 6198 | **Training** | Chief/admin | 2017 | 57,691 | Ford | Explorer | |
| 6097 | **Training** | Utility | 2008 | 65,777 | Ford | F250 | |
| | | | | | | | |
| | | | | | | | |
| 6055 | **Dive** | Boat | xxx | - | | | |
| 6065 | **Dive** | Boat | 2000 | - | Honda | | |
| 6165 | **Dive** | Trailer | 2013 | - | Rescue One | | |
| 6065T | **Dive** | Trailer | | - | | Trailer | |
| | | | | | | | |
| 6208 | **FPB** | FPB | 2008 | 84,592 | Ford | Fusion | |
| 6248 | **FPB** | FPB | 2018 | 24,034 | Ford | Escape | |
| 6252 | **FPB** | FPB | 2015 | 26,747 | Ford | Fusion | |
| 6262 | **FPB** | FPB | 2015 | 36,892 | Ford | Fusion | |
| 6288 | **FPB** | FPB | 2016 | 6,103 | Ford | Transit Connect | |
| | | | | | | | |
| 6048 | **BM** | Fork Lift | xxx | 2,421 | Yale | | |
| 6127 | **BM** | Trailer | 2008 | - | Behnke | | |
| 6167 | **BM** | Trailer | 2017 | - | Big Tex | Dump Trailer | |
| 6137 | **BM** | Trailer | 2007 | - | Beaver Creek | | |
| 6147 | **BM** | Trailer | 2005 | - | Beaver Creek | Trailer | |
| 6037 | **BM** | Utility | 2016 | 64,790 | Transit | 350 | |
| 6067 | **BM** | Utility | 2019 | 18,594 | Transit | F250 | |
| 6077 | **BM** | Utility | 2003 | 39,293 | Ford | F350 | |
| 6087 | **BM** | Utility | 2008 | 69,654 | Ford | F350 | |
| 6157 | **BM** | Utility | | 442 | Skyjack | | |
| 6177 | **BM** | Utility | 2006 | 310 | Genie | | |
| 6038 | **TWR** | Skid Steer | | 1,227 | New Holland | | |
| 6088 | **Safety** | Trailer | 2014 | - | | | |


ORLAND
1
TRUCK
ORLAND FIRE PROTECTION DISTRICT
MAINTENANCE FACILITY
ORLAND FIRE DISTRICT
ORLAND
FIRE DISTRICT
ORLAND FIRE PROTECTION DISTRICT
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ORLAND FIRE DISTRICT

# Service Area

## Response Zones

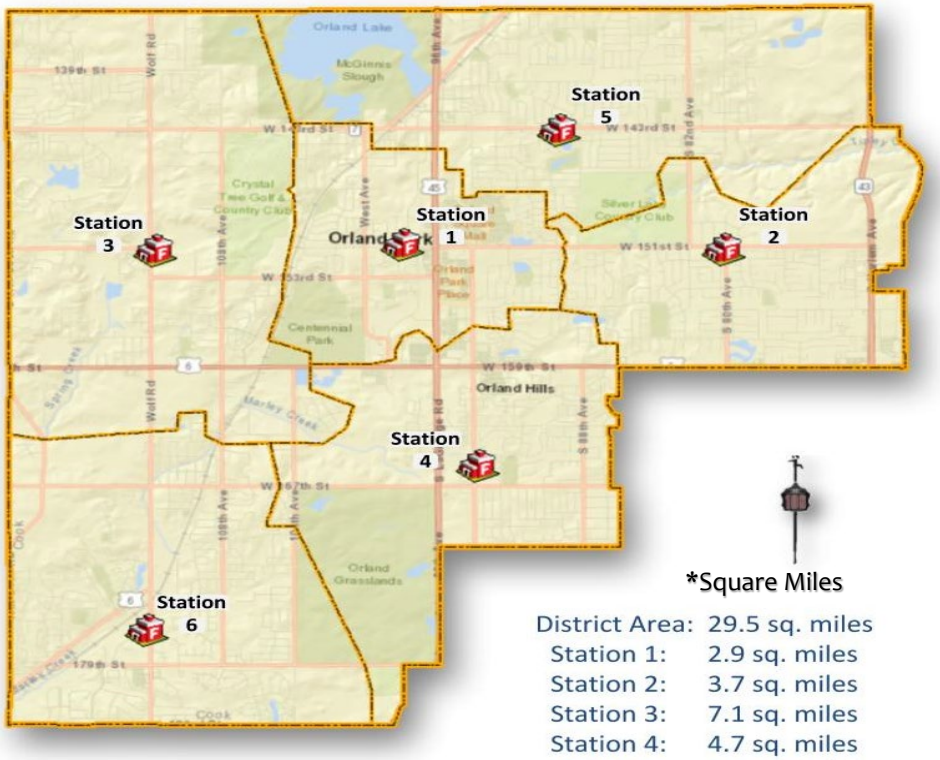



Each of the six fire stations in the District is strategically located throughout the 30-mile area to respond to any incident as quickly as possible. The standard benchmark goal by the District is "to respond to requests for ANY emergency assistance 90% of the time in less than 6:20 from initial receipt of call at the District's Dispatch center to arrival of the first due companies." This coincides with the NFPA 1710 response standard and is discussed in Section 4 – Deployment and Performance. Fire Stations have "Still Districts" of 4-6 square miles each. However, due to the ability to now dispatch the closest available unit via GPS, AVL (Automatic Vehicle Location), and CAD (Computer Aided Dispatch), each station now has a more "dynamic" area of responsibility - or A.O.R. Therefore – each station's AOR is indicated in the above map. This DISTRIBUTION is also known as equalization. The extent of coverage per station is listed below. Stations with less than 70% 4 min drive cover are being evaluated and analyzed for improvement solutions. This information and data will be further discussed in Deployment (Section 4).

**FIRST DUE (DISTRIBUTION) COVERAGE - TRAVEL TIME**

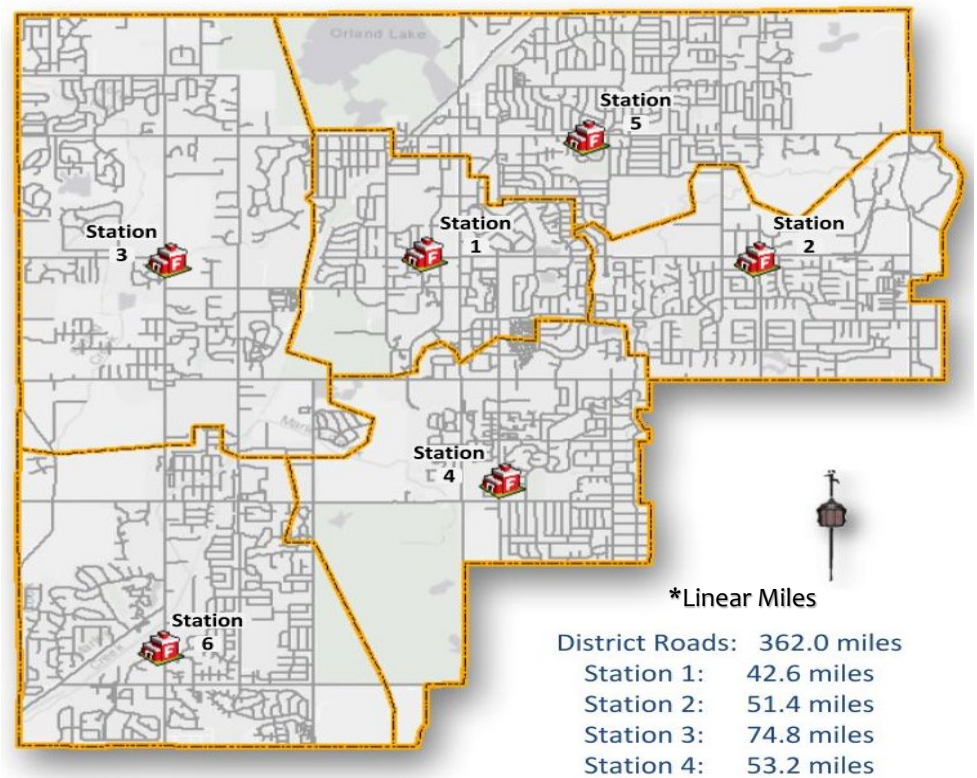
| Station | Sq Miles | % of total sq miles | Road Miles Covered | % of Total Road Miles | Population in AoR | % of Pop | Call Volume 2018-2022 | % of Call Volume | STILL COVER sq mile 4 min | STILL COVER % 4 min | STILL DRIVE linear mile 4 min | STILL DRIVE % 4 min | DISTRICT COVER sq mile 4 min | DISTRICT COVER % 4 min | District COVER 8 min | District COVER 8 min |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.9 | 9.8% | 42.6 | 11.8% | 7,124 | 11.0% | 11,785 | 21.9% | 2.7 | 93% | 42.2 | 99% | 5.1 | 17% | 21.7 | 74% |
| 2 | 3.7 | 12.5% | 51.4 | 14.2% | 10,503 | 16.2% | 9,642 | 17.9% | 3.5 | 95% | 50.4 | 98% | 5.0 | 17% | 14.4 | 49% |
| 3 | 7.1 | 24.1% | 74.8 | 20.7% | 10,786 | 16.7% | 4,979 | 9.2% | 4.5 | 63% | 50.2 | 67% | 5.0 | 17% | 19.3 | 65% |
| 4 | 4.7 | 15.9% | 53.2 | 14.7% | 11,692 | 18.1% | 11,245 | 20.9% | 3.8 | 81% | 50.1 | 94% | 4.5 | 15% | 17.2 | 58% |
| 5 | 5.8 | 19.7% | 70.5 | 19.5% | 11,900 | 18.4% | 8,564 | 15.9% | 3.7 | 64% | 55.0 | 78% | 4.9 | 17% | 17.9 | 61% |
| 6 | 5.3 | 18.0% | 69.5 | 19.2% | 12,727 | 19.7% | 7,646 | 14.2% | 3.4 | 65% | 48.1 | 69% | 3.6 | 12% | 11.8 | 40% |
| DISTRICT TOTAL | 29.5 Sq Miles | | 362 ROAD MILES | | 64,732 | DISTRICT TRA Cover @ 4/8 MIN | 53,861 | | 21.6 SQ MILES | | 296.0 DRIVE MILES | | 29.5 SQ MILES | 74% | 362 SQ MILES | 100% |

TRA = TOTAL RESPONSE AREA (DISTRICT WIDE)
AOR = AREA OF RESPONSIBILITY (STILL DISTRICT)




*Square Miles

| | |
|---|---|
| District Area: | 29.5 sq. miles |
| Station 1: | 2.9 sq. miles |
| Station 2: | 3.7 sq. miles |
| Station 3: | 7.1 sq. miles |
| Station 4: | 4.7 sq. miles |
| Station 5: | 5.8 sq. miles |
| Station 6: | 5.3 sq. miles |




*Linear Miles

| | |
|---|---|
| District Roads: | 362.0 miles |
| Station 1: | 42.6 miles |
| Station 2: | 51.4 miles |
| Station 3: | 74.8 miles |
| Station 4: | 53.2 miles |
| Station 5: | 70.5 miles |
| Station 6: | 69.5 miles |

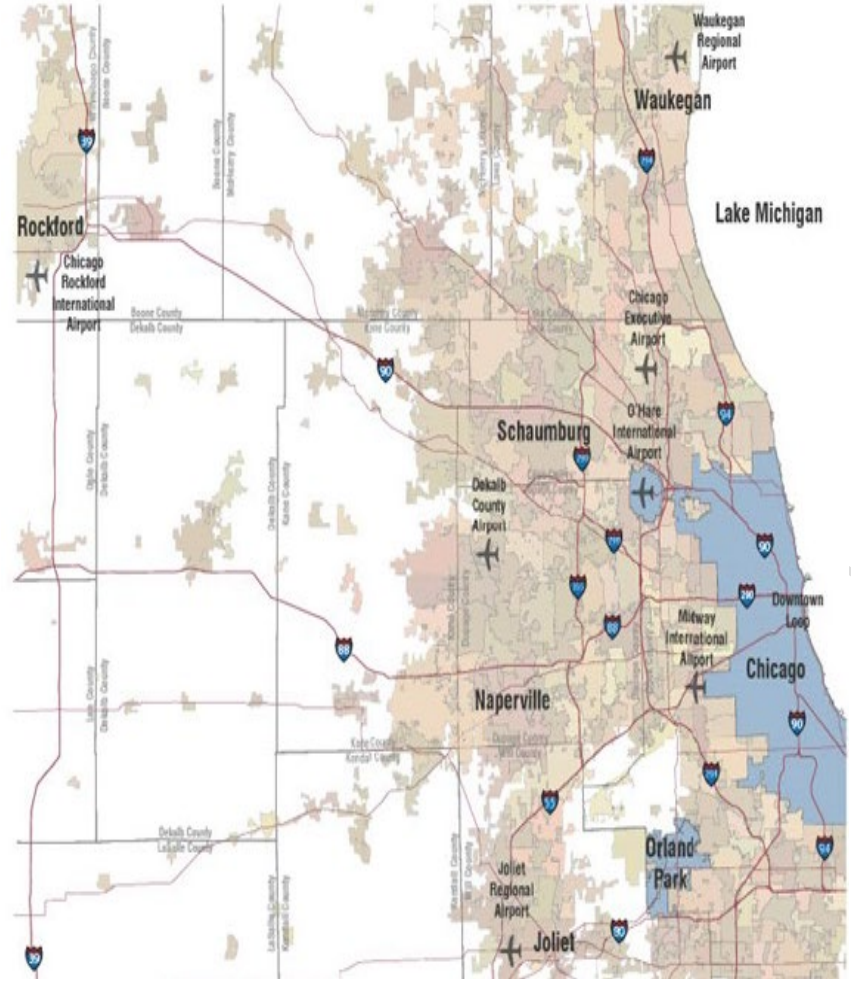
## Geography

Over 85% of decisions in municipal government involve location. In one way or another, every department relies on geography to support its day-to-day operations. The District is

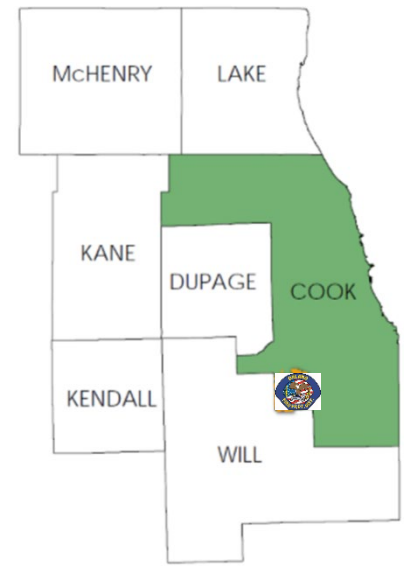
# 29.5 sq miles

in Northeastern Illinois and Southwest Cook County, approximately 25 miles southwest of Chicago. The District covers thirty square miles encompassing the bulk of the Village of Orland Park, the Village of Orland Hills, and some unincorporated areas of Orland Township. Palos Park borders it to the north, Palos Heights and Oak Forest to the east, Tinley Park and Mokena to the south, and Homer Glen to the west. The area lies on a natural continental divide separating the Mississippi and Atlantic oceans watershed. The location was formed by a glacier consisting of rolling hills, grasslands, wetlands, and many waterbodies. The water bodies include four large lakes, Lake Sedgewick and McGinnis Slough in Orland Park and Lake Ashburn and Lake Lorin in Orland Hills. There are also six tributary creek headwaters within the boundaries, Long Run Creek, Marley Creek, Midlothian Creek, Mill Creek, Spring Creek, and Tinley Creek.

CHICAGO METROPOLITAN AREA




CHICAGO METRO REGION



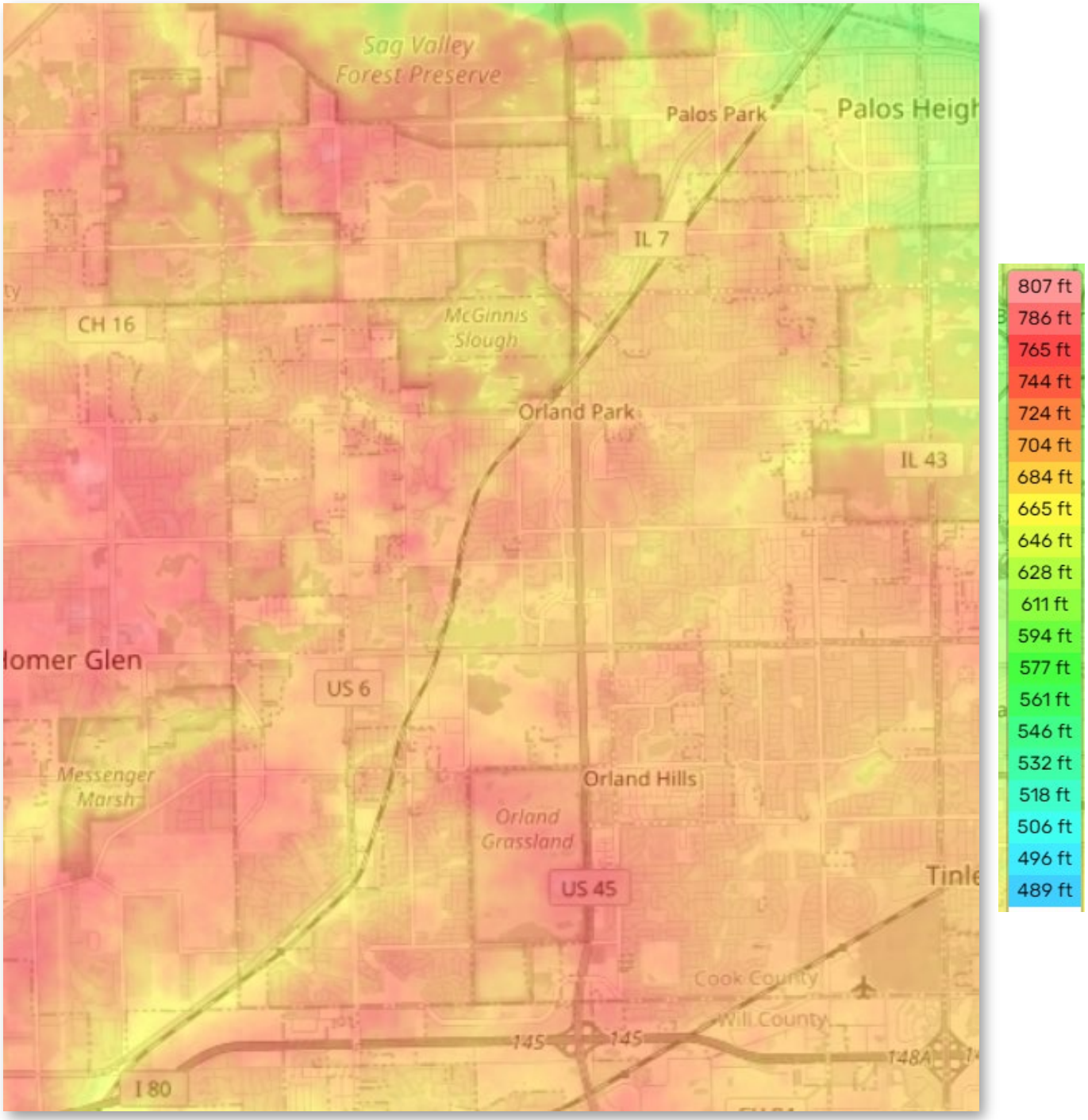

Orland Park has over 600 acres of park space, including sixty parks, hundred and forty athletic fields and courts, thirty miles of trails, and three hundred acres of open space. The largest area of park space is Centennial Park. At 192 acres, Centennial Park has multiple athletic fields, an aquatic center, a boat launch for Lake Sedgewick, and a dog park. Orland Hills has 60 acres of park space. Adjacent to the District is over fifteen thousand acres of Cook County Forest Preserve land and large lakes.

The geographical coordinates of the District near the center of the Village of Orland Park near 159th St/LaGrange Rd:

41.6013° N, 87.8528° W

## Topography

Mostly flat terrain with semi-truck hills, Orland's elevation is 623-774 ft. above sea level. In the Village of Orland Park, water represents .28 sq. miles (1.31%), and there are over 300 bodies of water in Orland.

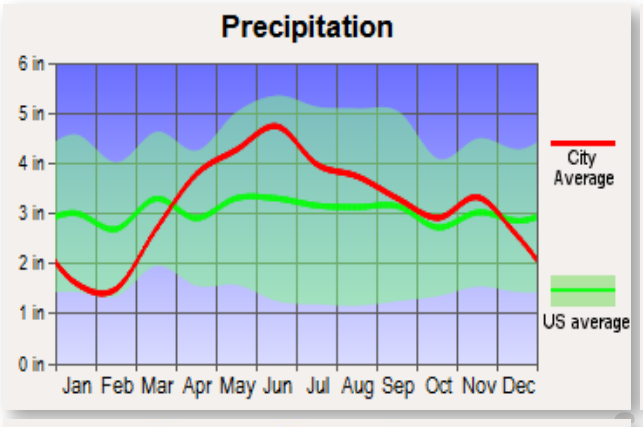


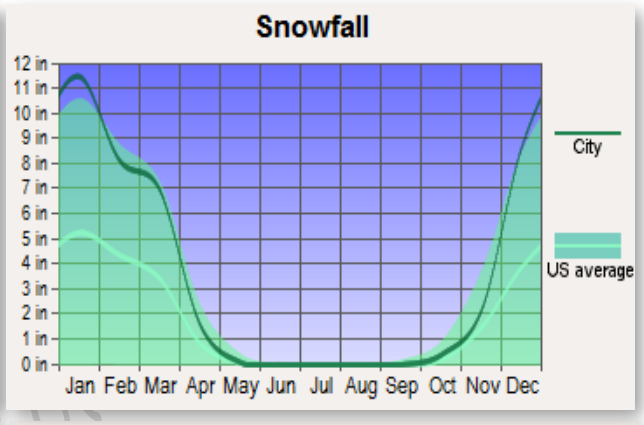
## Climate

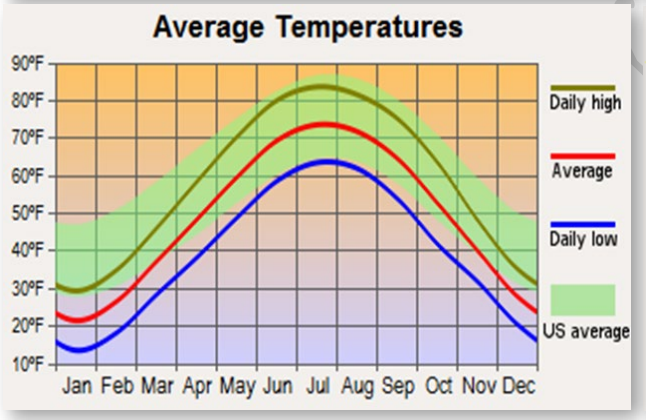
Many people confuse weather and climate, but they are different. Weather is the atmosphere's conditions over a brief time, and climate is how the atmosphere is measured over a prolonged period.

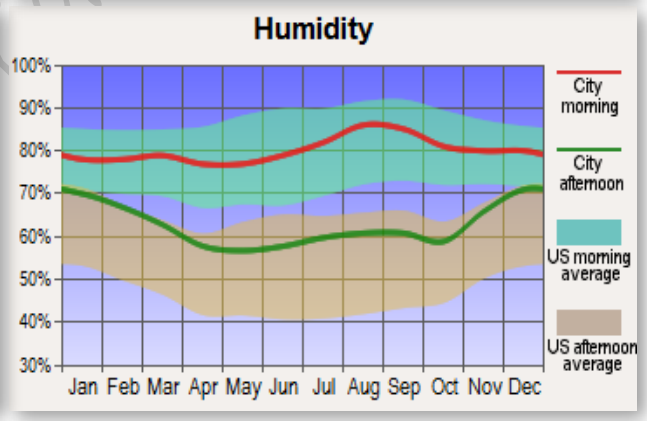
**Weather** is how the atmosphere behaves and affects life and human activities. Most people think of weather in terms of temperature, humidity, precipitation, cloudiness, brightness, visibility, wind, and atmospheric pressure. Weather can change from minute to minute.

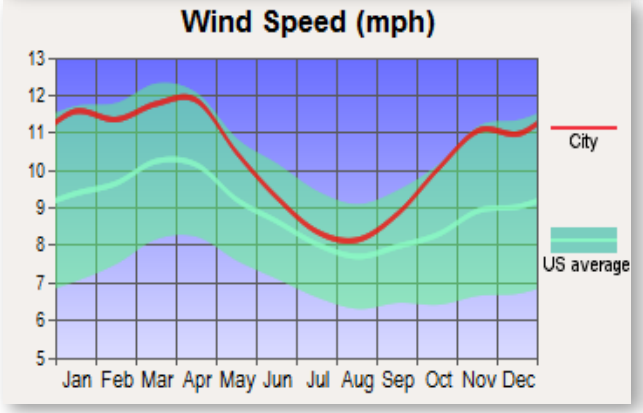
**The climate** is a long-term weather pattern description and can mean the average weather for a particular region and period taking over 30 years. The climate is the average of weather over time. These charts are provided to give an overview of the climate and weather conditions in the District.

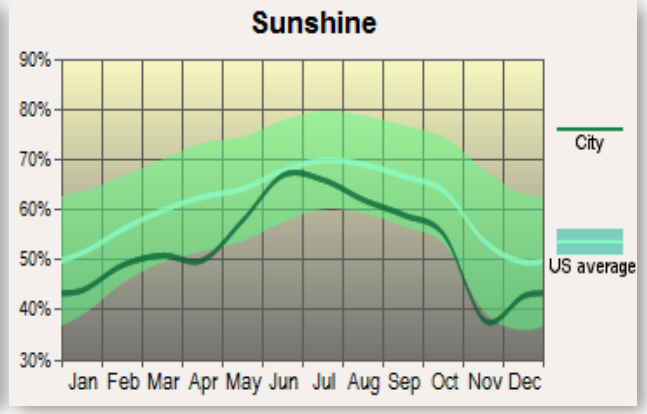


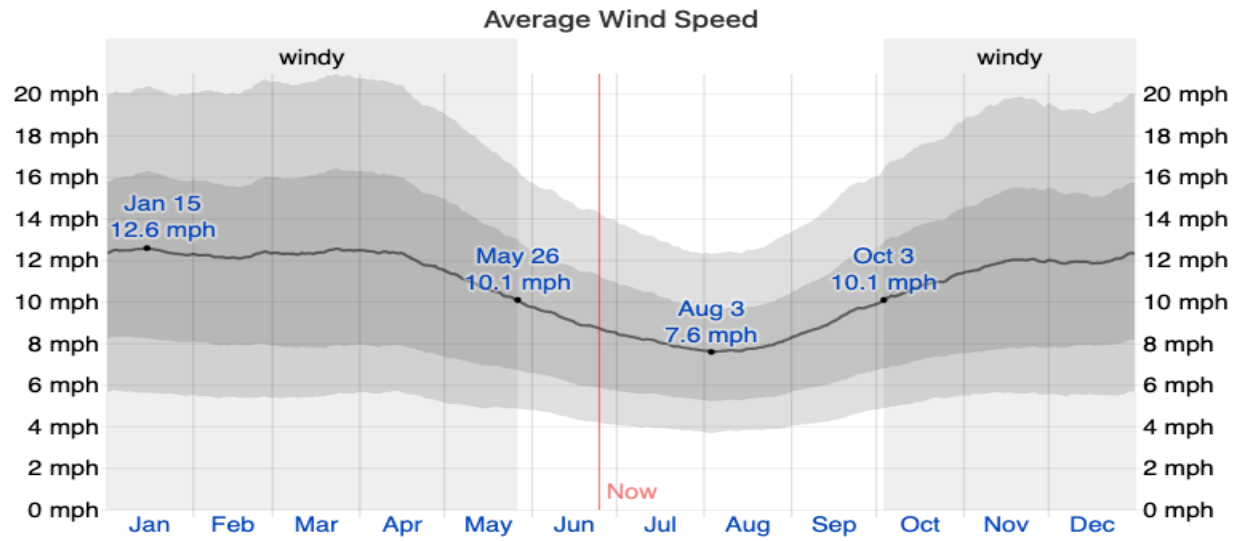



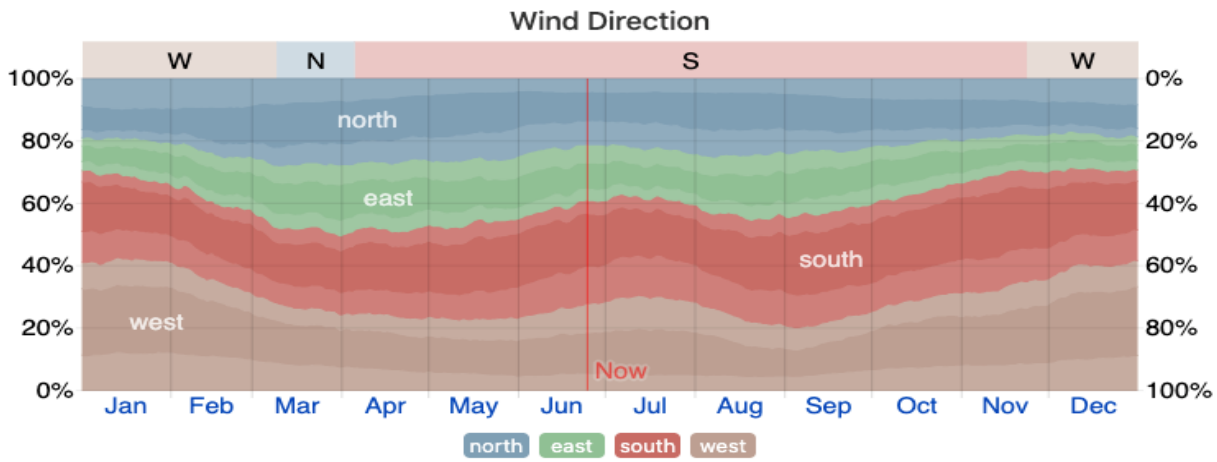



*The average of mean hourly wind speeds (dark gray line), with 25th to 75th and 10th to 90th percentile bands.*

The average hourly wind speed in Orland experiences significant seasonal variation over the year. The windiest day of the year is January 15, with an average hourly wind speed of 12.6 miles per hour. The windier part of the year lasts for 7.7 months, from October 3 to May 26, with average wind speeds of more than 10.1 miles per hour.

The calmer year lasts 4.3 months, from May 26 to October 3. The calmest day of the year is August 3, with an average hourly wind speed of 7.6 miles per hour. The predominant average hourly wind direction in Orland varies throughout the year.

The wind is most often from the north for 3.9 weeks, from March 9 to April 5, with a peak percentage of 28% on March 10. The wind is most often from the south for 7.6 months, from April 5 to November 23, with a peak percentage of 37% on November 12. The wind is most often from the west for 3.5 months, from November 23 to March 9, with a peak percentage of 41% on January 1.




*The percentage of hours in which the mean wind direction is from each of the four cardinal wind directions, excluding hours in which the mean wind speed is less than **1.0 mph**. The lightly tinted areas at the boundaries are the percentage of hours spent in the implied intermediate directions (northeast, southeast, southwest, and northwest).*

The Orland Area is classified as Humid Continental with hot summers and year-round precipitation on the Koppen climate classification system. Primarily, a temperate climate experiences all four seasons: cold, snowy winters, mild, wet springs, hot, humid summers, and mild falls. The area can see a wide range of temperatures and weather events. The average temperature is 59 degrees, with an average high of 84 degrees in July and an average low of 16 degrees in January. The Highest recorded temperature was 107 degrees set in 1934, with the lowest recorded temperature of -25 degrees set in 1985. In July 1995, the Orland and the surrounding Chicagoland area experienced the deadliest heat wave in history. Over four days, the site had record-setting temperatures of 106 degrees and high humidity, which combined to cause over 700 deaths in Chicagoland. Precipitation can also vary widely depending on the season.

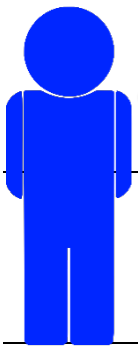
| Average | Degree F | |
|---|---|---|
| TEMPERATURE | 59 | Overall |
| HIGH | 84 | July |
| LOW | 16 | January |
| PRECIPITATION | | |
| RAIN | 39” | Mar-Dec |
| SNOW | 31” | Dec-Mar |
| RAIN DAYS | 39 | |
| SUNNY DAYS | 188 | |
| **Record** | **Degree F** | |
| TEMPERATURE | | |
| HIGH | 107 | 1934 |
| LOW | -25 | 1985 |
| PRECIPITATION | | |
| RAIN | 16.9 | 1996 |
| SNOW | 23” | 1967 |

Overall, the average total rainfall for the year is 39 inches. May and June see the most rain, averaging about 4 inches in both months. May is also the beginning of the storm season. Most of the area’s thunderstorms occur in the warm season between May and October. June has the highest average of thunderstorms, with seven, followed by July and August, with six each. June is also the month that will experience a tornado or significant wind disturbance. Though two-thirds of tornadoes occur between March and June, they can occur at any time, with one of the earliest occurring in January 2008 and the latest in November 2015. Flooding is the single most damaging weather threat for the area. Illinois has spent an average of 257 million annually on flood damage since 1983, the third highest in the country. In 1996, a record rainfall of 16.9 inches in Northern Illinois over two days led to flooding a substantial portion of the Orland area. It necessitated the evacuation of 128 homes, including 26 rescues.

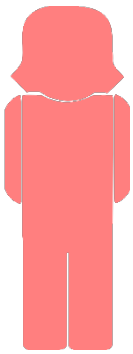
In the winter, the Orland area can see up to 31 inches of snow. January has the highest average snowfall of 12.6 inches. Blizzards, while not yearly, are not uncommon either. The worst on record was the blizzard of 1967. Over two days in January, the area saw 23 inches of snowfall at a rate of almost two inches an hour. The latest blizzard, combined with extremely low temperatures and high winds in 2011, dumped 19 inches of snow onto Orland. This combination led to power outages and school and business closures three days after the blizzard. Along with snowfall, winters can also bring sleet, hail, and ice storms. These weather conditions can lead to many emergencies, including traffic accidents, street closures, power outages, and a marked increase in medical calls.

DRAFT

## Demographics



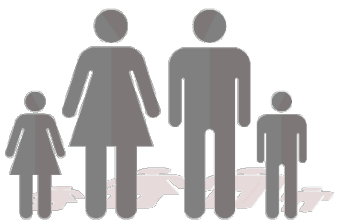
49%
Male



51%
Female



44.9
Median age



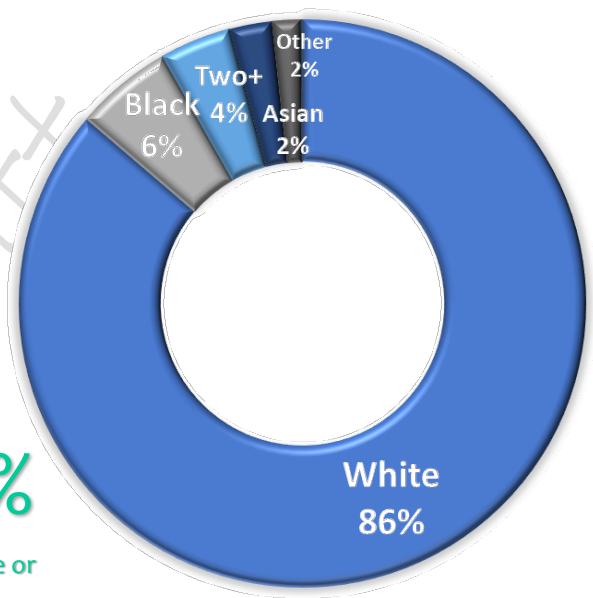
57.9%
Married (OP)



$85,305
Median Household Income



$296,000
Median Housing Value
28,410 Households in Orland Park



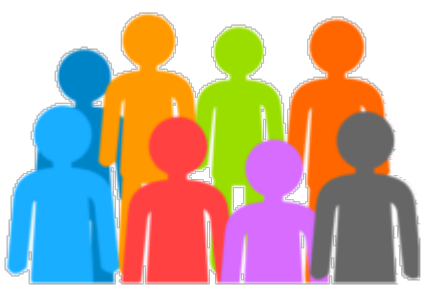



95.3%
High School Graduate or Higher



40.8%
Bachelor's Degree or Higher

72,197
TOTAL POPULATION



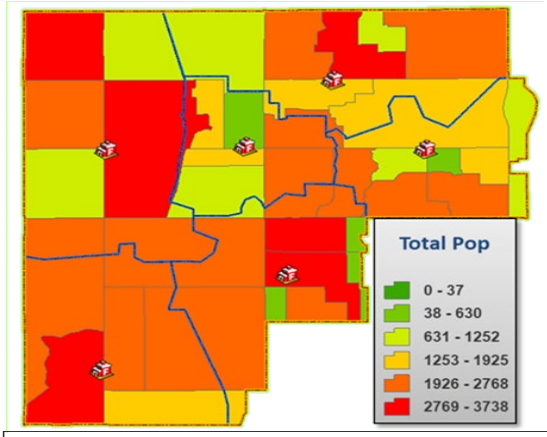
73% Speak English Only

16% Foreign Born

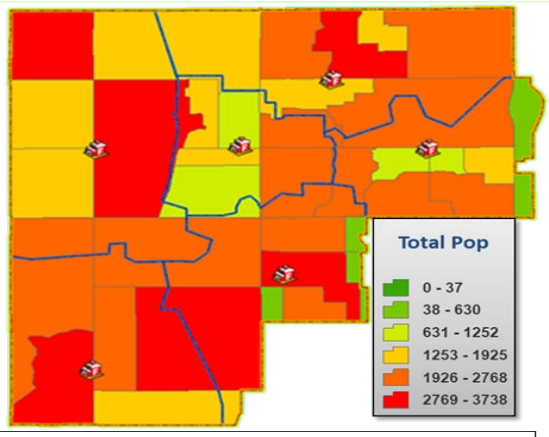
Draft

POVERTY RATE (OP) 5.8% (OH) 4.4% HOMEOWNERSHIP (OP) 86.5% (OH) 79.5%

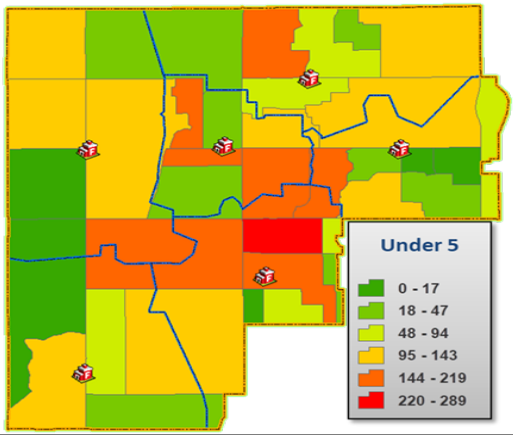
# DEMOGRAPHIC CHANGES 2010-2020



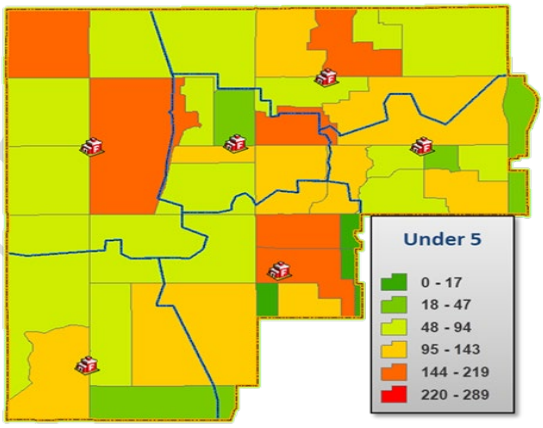

Age Group ALL Population



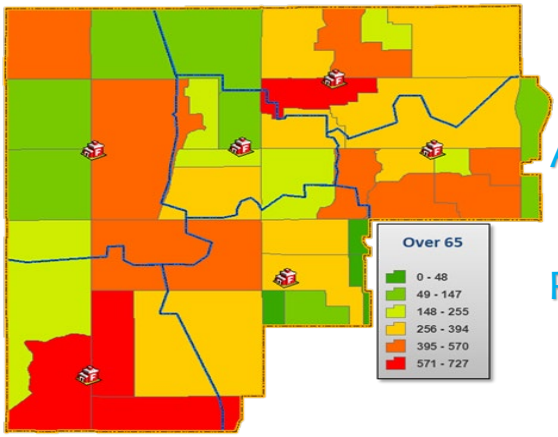

2010 **TOTAL POPULATION CHANGE from 2010 – 2020** 2020



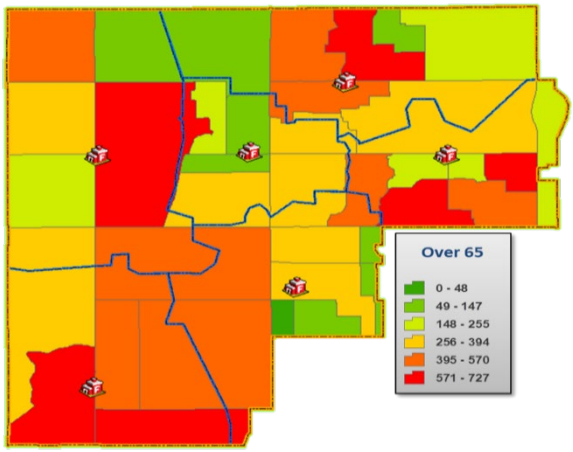

Age Group < 5 Population




**AGE GROUP < 5 POPULATION CHANGE from 2010 - 2020**




Age Group > 65 Population




**AGE GROUP > 65 POPULATION CHANGE from 2010 - 2020**

Density Shift (2010-2020)
These graphics show the changing and shifting demographics in the Fire District. When we lay the incident history over these maps it confirms the increased call volumes in the elderly and other at-risk populations.

# Population

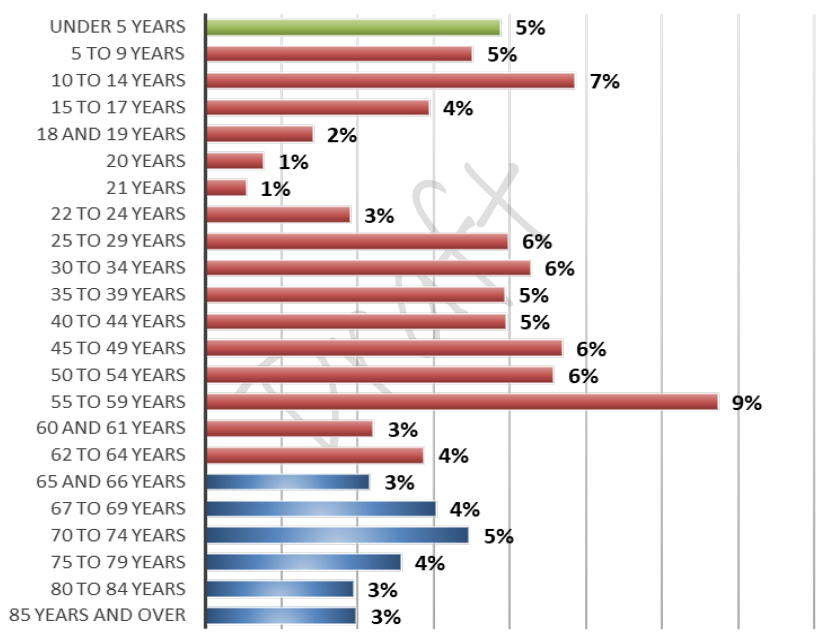
Orland Township encompasses **36.9 miles** and covers areas in Orland Park, Orland Hills, Tinley Park, and various parcels of unincorporated areas throughout the township boundaries. The Orland Fire Protection District covers **30 sq**. miles of the township and protects approximately 75% of the township population. The Tinley Park Fire Department protects the remaining areas and people.

The estimated population **combined total is 72,179 residents.**

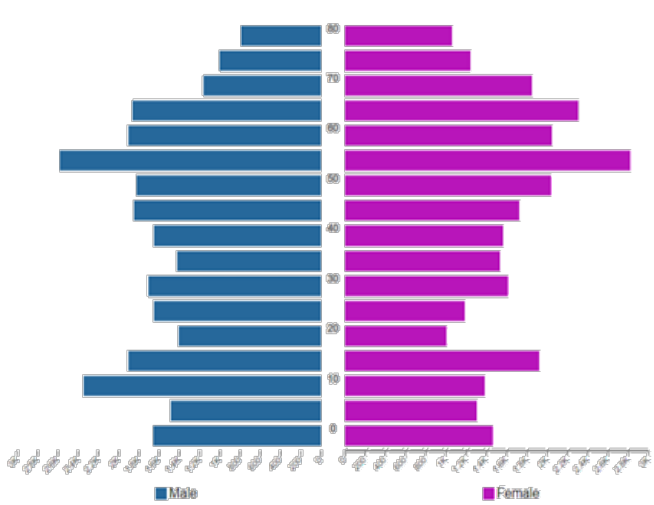
**VILLAGE OF:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ORLAND PARK** | **59,285** | population | **22** | sq miles | **#21** | largest in state | **2,691** pop. density |
| **ORLAND HILLS** | **6,815** | population | **1.1** | sq miles | **#290** | largest in state | **5,954** pop. density |
| **ORLAND(UNINCORP)** | **6,079** | population | **6.9** | sq miles | | | |

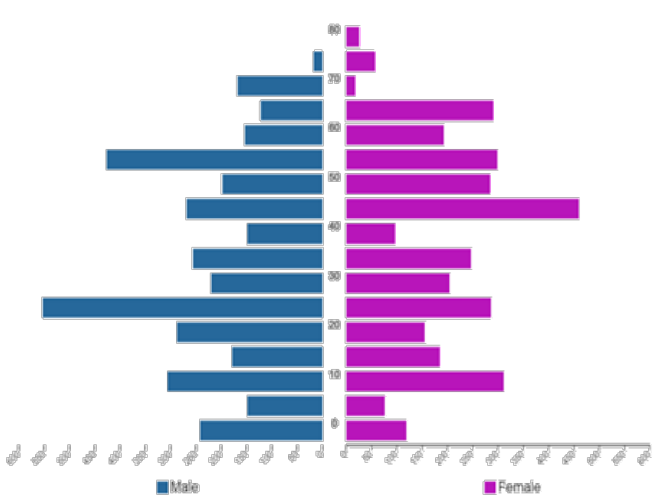
## POPULATION BY AGE GROUP




Orland Park Population Pyramid 2023




Orland Hills Population Pyramid 2023



To adequately project calls for service within the District, it is necessary to define the relationship of population to calls for service generated, and then a correlation can be established. One measure states that more people will mean more calls for service. The population has a direct correlation to risk. The District has a correlation rate of **14.21 in 2017 to 17.4 in 2022** calls for service in relation to the population served. The more people in a service area, the more incidents are generated. High-density populations with higher risk (age, income levels, etc.) areas increase the risk associated with that service area. Density is increasing in Orland, as recent developments include clusters of multi-family units in 5-6 story arrangements or "attached dwelling" row house/townhouse complexes that appear to be the Village of Orland Park's plan for future development in the remaining 15%+ open space.

The overall population indicates the number of calls for service expected from the Fire District. **The number of calls per capita (calls per year per resident) continues to increase.**

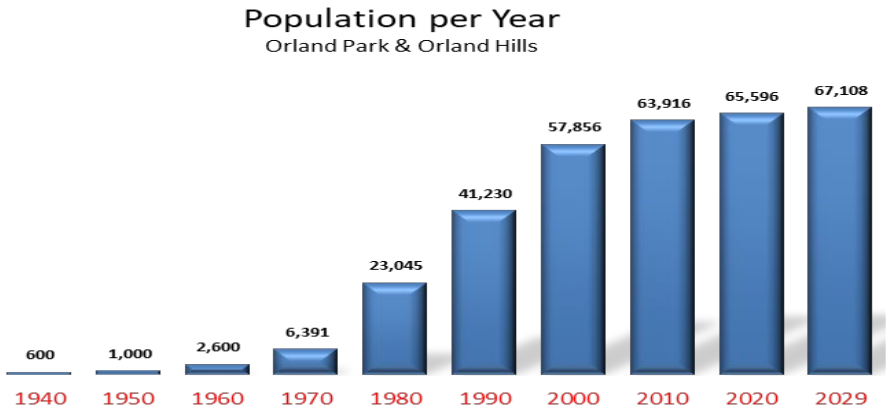
In 2000, the rate was .11752 per person or just under 12 calls per 100 residents. By 2017, this rate was .15080 or **15 calls per 100 residents**, and in 2022 the rate jumped to **17.4 calls per 100 residents** with just a **3% increase** in population. The overall calls for service increased by 26.3% in the same period (and pre-pandemic). This combination of increased population and service demand per capita dramatically increases the workload within the District.

| YEAR | CALLS | CALL INCREASE | POP. | POP INCREASE | CALLS/POP. | CALLS/100 RESIDENTS |
|---|---|---|---|---|---|---|
| 1990 | 3,458 | 73.42% | 41,230 | 59.63% | 0.08387 | 8.39 |
| 2000 | 6,799 | 96.62% | 57,856 | 40.33% | 0.11752 | 11.75 |
| 2010 | 8,036 | 18.19% | 63,916 | 10.47% | 0.12573 | 12.57 |
| 2016 | 9,960 | 23.94% | 66,046 | 3.33% | 0.15080 | 15.08 |
| 2017 | 9,946 | -.14% | 70,000 | 6.0% | 0.14209 | 14.21 |
| 2022 | 12,564 | 26.32% | 72,197 | 3.1% | .017402 | 17.40 |

DRAFT

**NOTE THE INCREASE IN CALLS PER RESIDENT:**

| | CALL INCREASE | POPULATION INCREASE |
|---|---|---|
| 1990-2022 | 263.33% | 75.11% |
| 2000-2022 | 84.79% | 24.79 % |
| 2010-2022 | 56.35% | 12.96% |
| 2017-2022 | 26.32% | 3.14% |



# Schools

The Orland Fire Protection District serves 19 schools scattered throughout the District. With schools ranging from preschools to collegiate facilities, the District's goal is to provide a safe learning environment that encompasses fire and life safety for students and faculty. Activities such as Fire Drills, Adopt-A-Firefighter, and Public Education Events are vital to ensuring that the community's children learn the concepts of Fire Safety while establishing trust and rapport with the District's Firefighters.

Inspections of the schools are also a valuable tool the District uses to ensure the District's schools remain as safe as possible. Pre-plans done by on-shift companies allow the District's crews to understand better the layout, exits, and hazards to prepare them for emergencies better. Inspections by the District's Fire Prevention Bureau help ensure fire codes are met and updated with existing structures and any new construction or remodeling. Sprinkler systems, fire extinguishers, and exit paths/doors are present/transparent, and all safety features the bureau ensures are in good working condition.
Schools within the Orland Fire District are 100% sprinkled now (after retrofitting).

Three elementary Grade School Districts service the Orland area.

- SD 135
- SD 146
- SD 140

The largest of the three is the Orland School District 135.SD 135 has ten schools and serves 4,958 students from Pre-K through eighth grade. Community Consolidated School District 146 and Kirby School District 140 also serve the Orland area, each with only one school within the boundaries. The Kruse Education Center is part of SD 146 and has 310 students ranging from Kindergarten to fifth grade. Fernway Middle School is part of SD 140, with 416 students.

DRAFT

High school education is provided by Consolidated District 230. SD 230 comprises three high schools, none of which are in the borders of Orland Fire. However, Orland Fire does respond as auto/mutual aid for emergencies to two schools, Carl Sandburg High School and Andrew High School. Both schools are just over the District's borders. Over five thousand Orland township residents attend these two schools.

Private education is also another aspect of the education system. Most private schools of pre-K and Kindergarten education with only 40-175 students. There are three religious grade schools, St. Michael's School in Orland Park, Christian Hills, and Cardinal Joseph Bernadine School in Orland Hills. Each school offers Pre-K through eighth grade.

| School | School District | Grades | Student Population |
|---|---|---|---|
| **Centennial** | **135** | K-3rd | 464 |
| **Century Junior High** | **135** | 6th-8th | 701 |
| **Fernway** | 140 | K-5th | 446 |
| **High Point** | **135** | 3rd-5th | 513 |
| **Jerling Junior High** | **135** | 6th-8th | 592 |
| **Kruse** | 146 | K-5th | 310 |
| **Liberty** | 135 | 3rd-5th | 513 |
| **Meadow Ridge** | 135 | 3rd-5th | 581 |
| **Orland Center** | 135 | K-2nd | 279 |
| **Orland Junior High** | 135 | 6th-8th | 542 |
| **Orland Park Elementary** | 135 | K-2nd | 372 |
| **Prairie** | 135 | K-3rd | 461 |
| **Cardinal Bernadine** | Private | Pre-K -8th | 621 |
| **Christian Hills** | Private | Pre-K -8th | 198 |
| **KinderCare (John Humphrey)** | Private | Pre-K- K | 86 |
| **KinderCare (Pinewood)** | Private | Pre-K –K | 80 |
| **Mary Sears** | Private | Pre-K – K | 125 |
| **Mi Sol Montessori** | Private | K-5th | 36 |
| **Parkview Christian** | Private | Pre-K | 24 |
| **Sandbox (1)** | Private | Pre-K- K | 90 |
| **Sandbox (2)** | Private | Pre-K –K | 39 |
| **St. Michael's** | Private | K-8th | 670 |
| | | | **7743** |

There are also over a dozen religious assemblies throughout the District, many with preschool or other classes during the week.

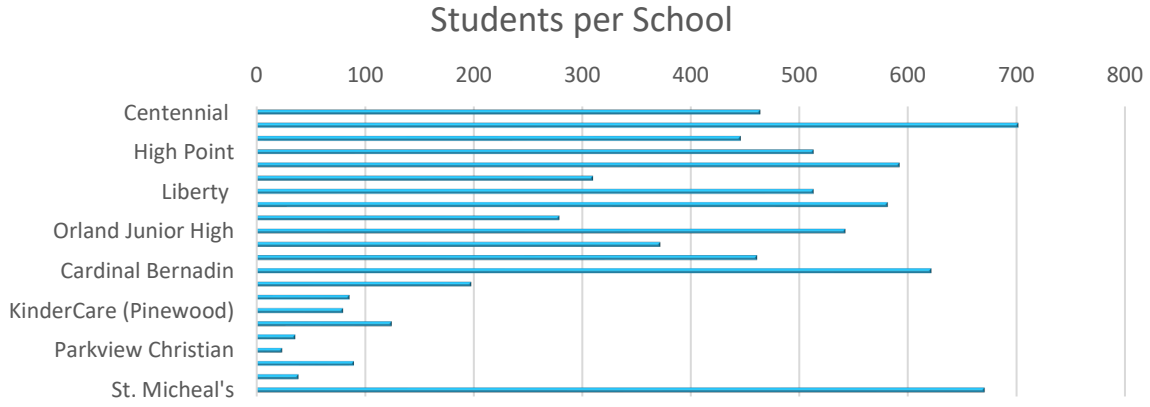
According to the Village of Orland Park, schools in the community present reading and math scores over 20% higher than the state average.

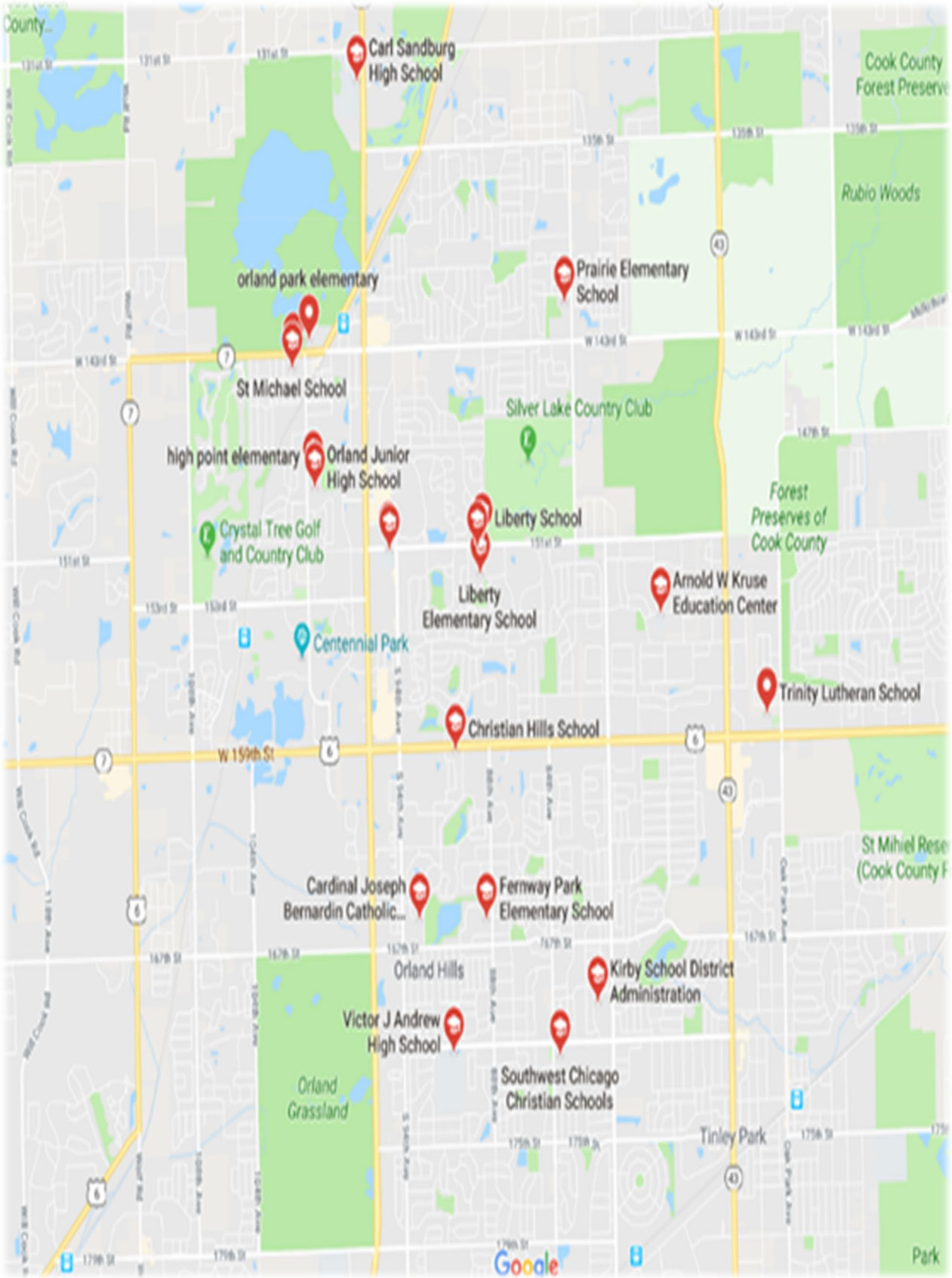
*There are 3 Elementary/Grade School Districts + 2 Privates with 14 schools throughout the District.*

***7,743 STUDENTS***

*Two High Schools sit just on the North and South border.*

Draft



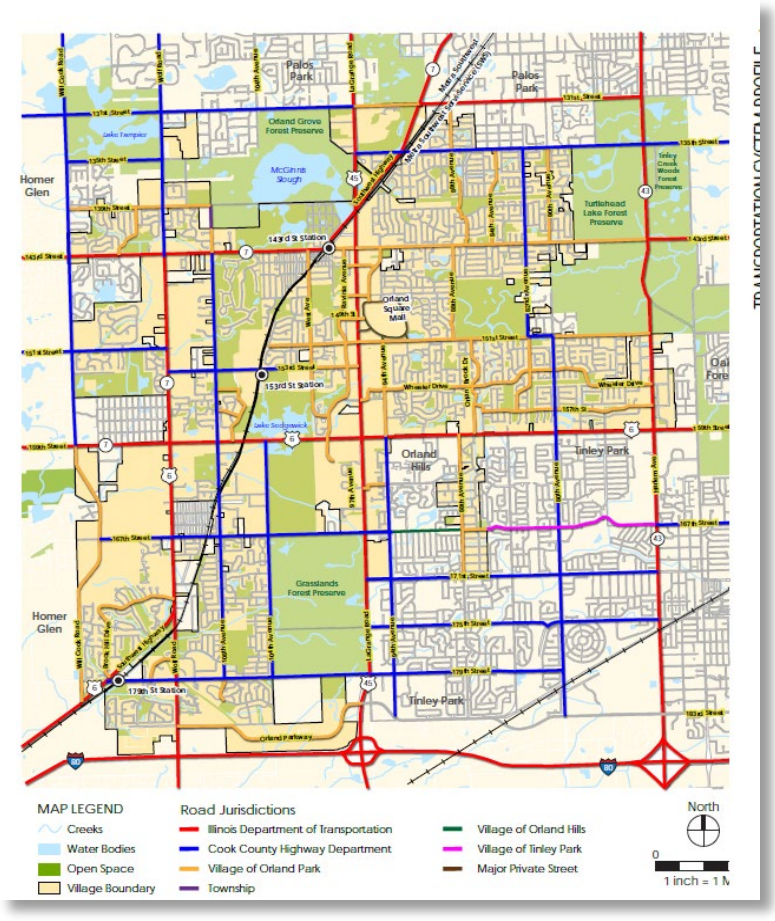

Carl Sandburg High School
Cook County Forest Preserve
Rubio Woods
orland park elementary
Prairie Elementary School
St Michael School
Silver Lake Country Club
high point elementary
Orland Junior High School
Liberty School
Forest Preserves of Cook County
Crystal Tree Golf and Country Club
Liberty Elementary School
Arnold W Kruse Education Center
Centennial Park
Trinity Lutheran School
Christian Hills School
W 159th St
Cardinal Joseph Bernardin Catholic...
Fernway Park Elementary School
Orland Hills
Kirby School District Administration
Victor J Andrew High School
Southwest Chicago Christian Schools
Orland Grassland
Tinley Park
Google

# Transportation Network

## Streets

Two of the most significant infrastructure issues for the District are water and roads. Access to the scene of an emergency and water supply to fight fires are essential to providing service. In the developing areas, the District (through the Fire Prevention Bureau) expends much effort to ensure the District's voices are heard by the Village Planning Departments (the AHJ) and provided both during construction and after occupancy.

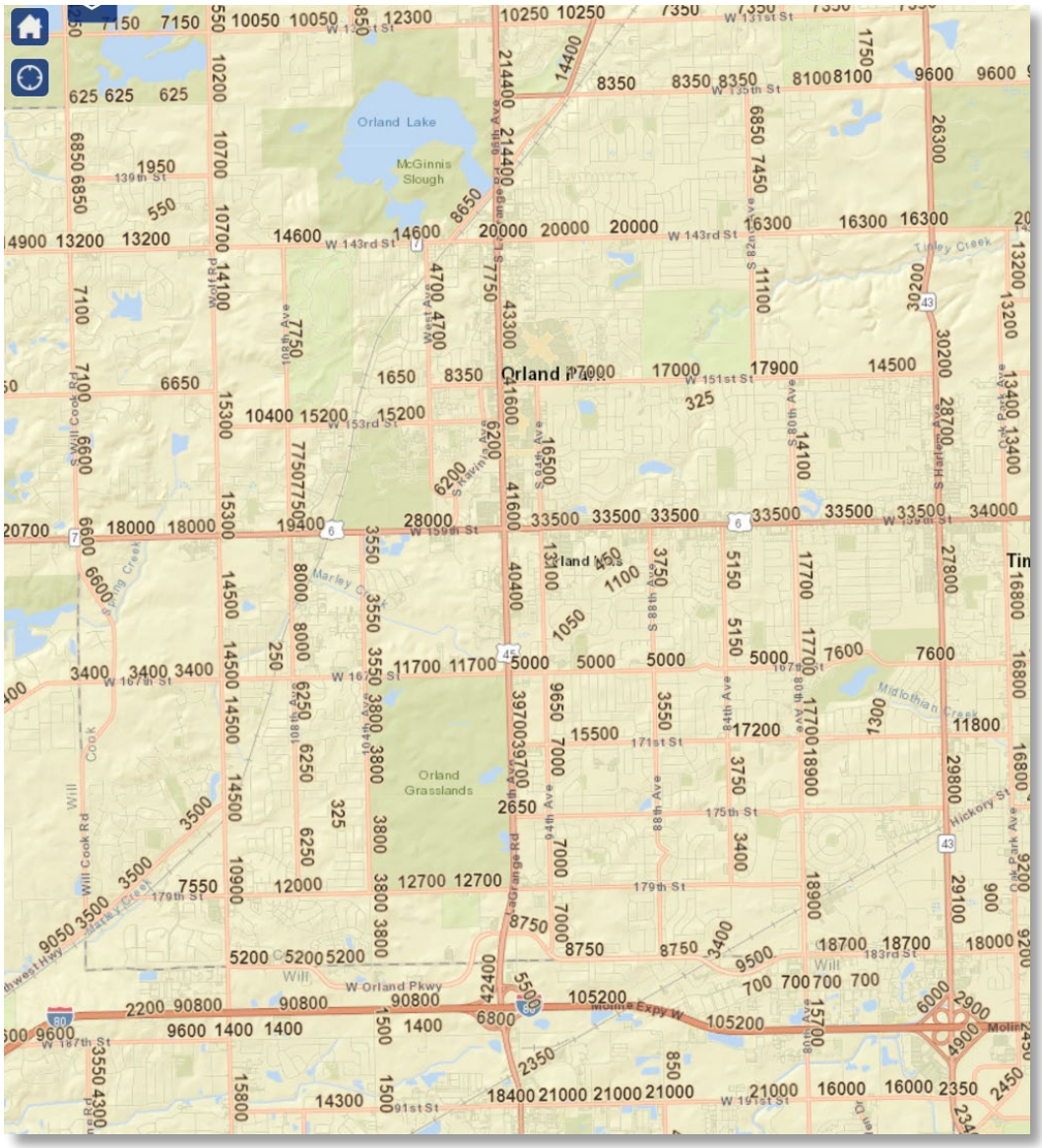
The street network is the backbone of an emergency response system. The network must be both efficient and effective to maximize emergency response. The best-case scenario is a network with direct routes and multiple points of entry. Orland Fire has more than 362 miles of surface streets. The District has a mix of good and bad areas concerning overall traffic circulation, but the street network works well. Lack of efficient circulation within a community can seriously affect the District's ability to provide an effective rapid response. An area of concern is the future build-out of the undeveloped areas. Missing streets or one-way configurations and more minor, restricted, non-straight streets already adversely affect response. One area example is the Crystal Tree Golf Course subdivision that only has one way in off 143rd Street. This places the entire subdivision outside the 4-minute travel area for stations #3 and #1. Additionally, the brand-new reconstruction of LaGrange Rd (Rt. 45) has planted medians for the entire 6 miles stretch through the District, and now new construction on 159th St from LaGrange Rd to I-355 will be the same.




Increased traffic decreases response performance and increases the potential for accidents. Some traffic improvement options may reduce response times while others slow the negative impacts. In some traffic situations, like roads with raised/planted center medians, units must wait for traffic to clear – although the use of Emergency Vehicle Preemptive devices (Opticom) throughout the District has dramatically improved this problem. Opticom systems control nearly 100% of signaled intersections in the District.

https://www.gettingaroundillinois.com/Traffic%20Counts/index.html

Illinois Department of Transportation




Traffic increases can become a significant negative factor. The District sees a dramatic rise in November and December as Orland Park is a prominent retail destination with one of the remaining indoor shopping malls – Orland Square.

The transportation network within the District is composed of roads, railways (Metra), and bus routes (Pace). Just 25 miles southwest of Chicago, Orland Park is near several interstate highways. I-80, the town's southern border,

Rt 45/159th St
INTERSECTION
**72,000**
Vehicles per day

is a busy interstate as it serves as the east-the-west coast connector for the country. Other major highways near the District frequently used by commuters are I-57 to the east and I-355 to the west. Traffic counts from 2022 show a daily volume of 41,600 vehicles on LaGrange Rd (Major North/South throughway) and 33,500+ on 159th St (Major East/West throughway) for a combined total of nearly 75,000+ vehicle crossing that intersection per day with an estimated increase by 2040 to almost 100,000 vehicles per day. The Stevenson Expressway (I-55) is a quick 15 minutes north via LaGrange Road (U.S. Route 45), the main thoroughfare through the heart of Orland Park. Interstate 80 borders the southern end of Orland Park and connects numerous roads and interstates. The Veterans Memorial Tollway/I-355, completed in 2007, is accessible just west of Orland Park, connecting to the western suburbs. This thoroughfare has opened new potential for the Village as a residential option for the many people employed in the suburbs along this corridor and as a travel destination for those looking for entertainment and activity options.

# Trains

The **Metra commuter train line** crosses through the District on two parallel rails. Primarily, commuter trains utilize this line extensively.

| HAZARDOUS MATERIAL COMMODITY FLOW & PASSENGER REPORT | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| RAIL COMPANY | TRAINS | | | | | PASSENGERS | | CHEMICALS | INFRASTRUCTURE | | |
| | Day | Week | Month | Trains Year | Cars Year | Day | Year | # of DIFFERENT CHEMICAL TYPES | RAIL LINES (Tandem) | CROSSING | OVERPASS |
| **METRA** x 6 cars | 30 | 150 | 600 | 7200 | 43,200 | 3,600 | 864,000 | | 2 | 8 | 2 |
| **NS** (*Beecher) | 1 | 6 | 27 | 324 | 915 | --- | --- | 3-5 | | | |
| TOTAL | **31** | **156** | **627** | **7,524** | **44,115** | **3,600** | **864,000** | No TIH/PIH* | **2** | **8** | **2** |

*one way to Beecher only - # based on Beecher FD Data (NO RETURN NUMBERS INCLUDED ABOVE)

*NS info limited - stated 45 cars per month & 3 chemicals (no TIH/PIH)*

*TIH = Toxic Inhalation Hazard *PIH = Poison Inhalation Hazard

Orland Park has three stops on Metra's Southwest Service, which provides the weekday and weekend rail service between Manhattan, Illinois, and Chicago Union Station from 143rd Street, 153rd Street, and 179th Street. The Southwest Service has fifteen roundtrips per day on weekdays – 30 METRA passenger trains per day with 6 cars each and 3,600 passengers. There is no weekend service. One of the weekday trains terminates at Orland Park 153rd Street, three at Manhattan, and the remainder at Orland Park 179th Street. Total traveling daily in/out of Chicago (Monday-Friday), stopping at these three stops with an average of 72,000 riders per month, down approximately 45% since pre-pandemic.

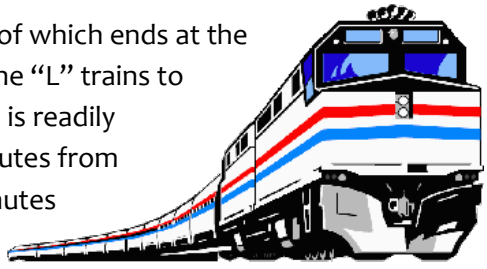
**30**
**PASSENGER TRAINS**
per **DAY** (m-f)
**3,600**
Riders
per **DAY**

**Freight train** traffic is minimal from **Norfolk Southern**, traveling loaded one way to Beecher, IL, about once per day (915 cars per year with 3-5 chemical types).

| RAIL HAZMAT DETAIL | InBound Rail Cars | | | | | | | Emergency Response Guide | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Annual Count | Avg/Week | Avg/Month | Avg/Year | HAZARD | CLASS | Packing Group | ERG Guide # | UN | Evacuation Area |
| Isopentane | 49 | 0.69 | 2.92 | 35 | Flam. Gas | 3 | PG1 | 128 | 1265 | 1/2 mile evac |
| Isobutane/Butane/Propane | 43 | 0.28 | 1.19 | 14.33 | Flam. Gas | 2.1 | no PG | 115 | 1075 | |
| Butane - Normal | 263 | 1.74 | 7.31 | 87.67 | Flam. Gas | 2.1 | no PG | 115 | 1075 | |
| Propane | 293 | 1.94 | 8.14 | 97.67 | Flam. Gas | 2 | no PG | 115 | 1075 | |
| 1-Difluoroethane (R152 Refrigerant) | 267 | 1.77 | 7.42 | 89 | Flam. Gas | 2.1 | no PG | 115 | 1030 | |
| | **915** | **6.42** | **26.98** | **323.67** | | | | | | |

The Pace Suburban Bus Service operates three routes in Orland Park, one of which ends at the Midway Airport Station, where it connects with CTA Southwest Orange Line "L" trains to downtown Chicago. Commercial air transportation is readily available for travelers, as Orland Park is just 25 minutes from Chicago's Midway International Airport and 40 minutes from O'Hare International Airport.

Metra® The way to really fly.



# Water Supply & Distribution

A Fire District relies extensively on a reliable water supply to minimize the damage caused by fire. The Orland Fire District's outstanding water systems are maintained and serviced by the Village of Orland Park and American Water for the Orland Hills and unincorporated Orland areas. There are two small pockets of non-hydranted areas.

ISO reports that forty percent of a community's overall score is based on the adequacy of the water supply system. In 2017 (currently under re-evaluation by ISO 11/22), ISO reviewed many categories within the Orland Fire Protection District, with water supply being one of them. While scoring the District's water supply systems, the ISO field representative evaluated the following:



The capability of the water distribution system to meet the needed fire flows at selected locations up to 3500 gpm

Size, type, and installation of fire hydrants

Inspection and flow testing of fire hydrants

After ISO's review, the District earned a credit score of 37.78 out of 40. The break-down of the total is as follows:

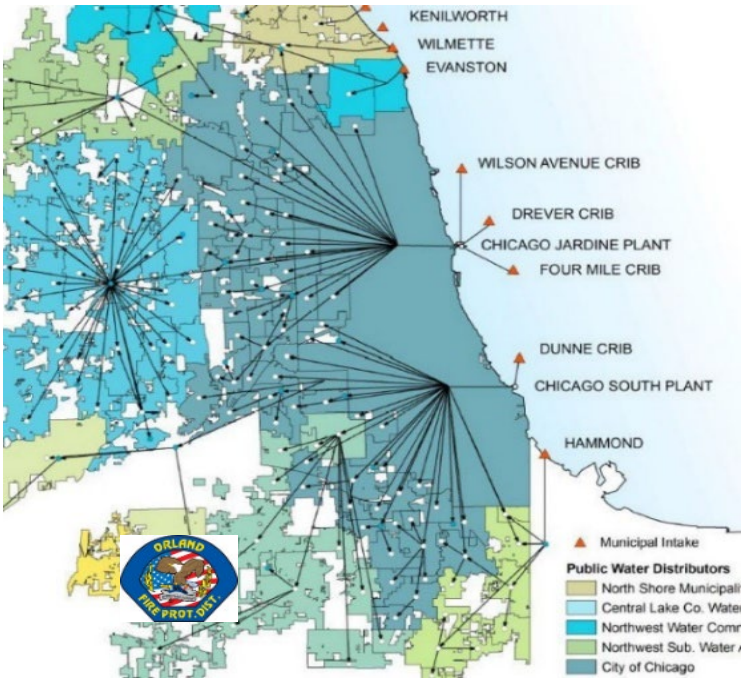
| | |
|---|---|
| Credit for supply system | 29.97 out of 30 |
| Credit for hydrants | 3 out of 3 |
| Credit for inspection and flow testing | 5.51 out of 7 |
| Total | 37.78 out of 40 |




There are over 5,386 fire hydrants within the District, with water being supplied from Lake Michigan through the City of Chicago via Oak Lawn and then branching out to Orland Park.

| Water line pipes (miles): | | Valves: | Meters: | Production (mil gal/yr.): |
|---|---|---|---|---|
| ORLAND PARK: | 355.3 | 4,242 | 24,008 | 2,002,106 MG/yr. |
| AMERICAN WATER: | 37 | 1,004 | 514 | 200 MG/yr. + |

Draft



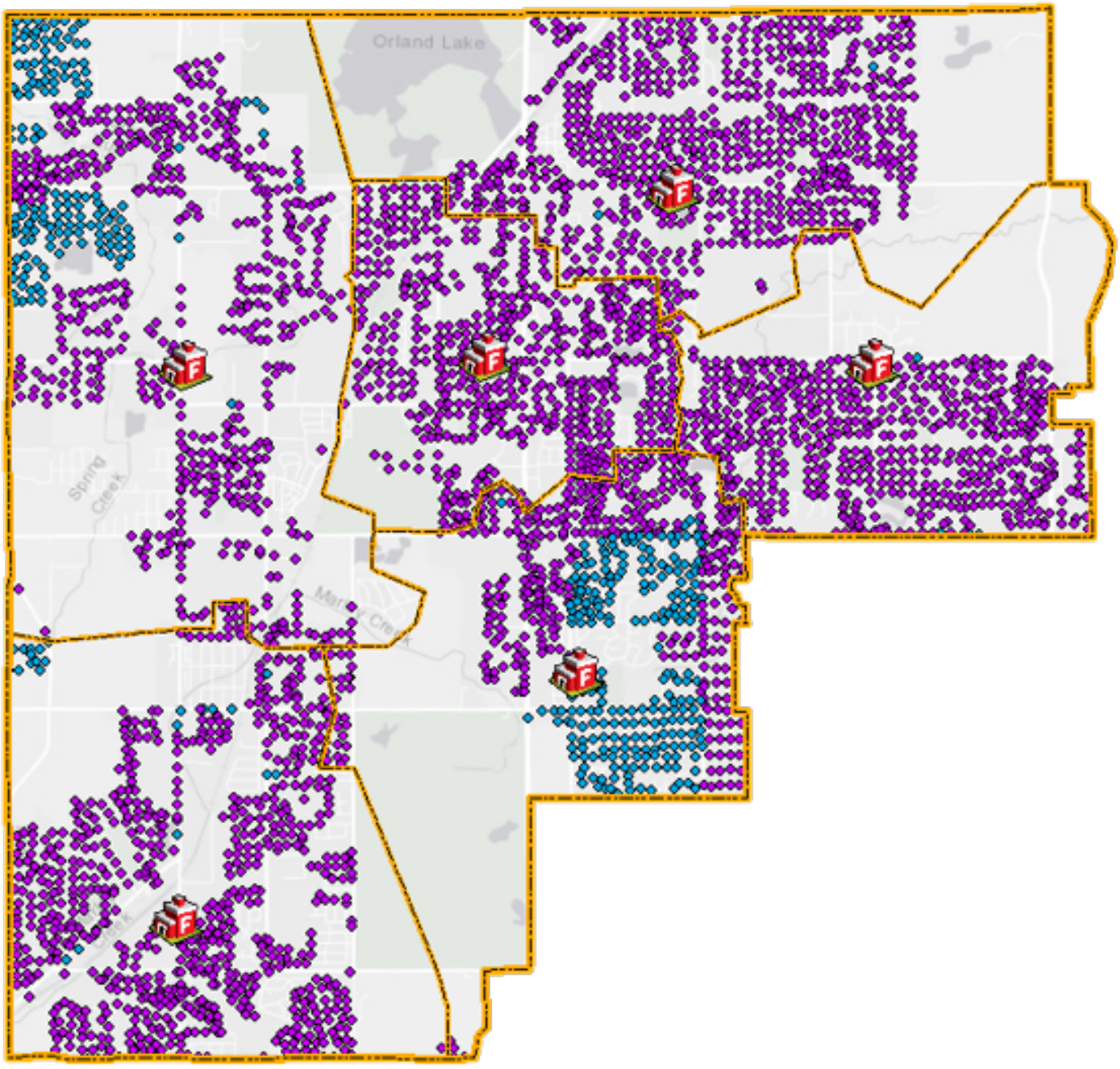

5,386

Hydrants

ORLAND PARK

ILLINOIS AMERICAN WATER

# Hydrant Map



# Area Development

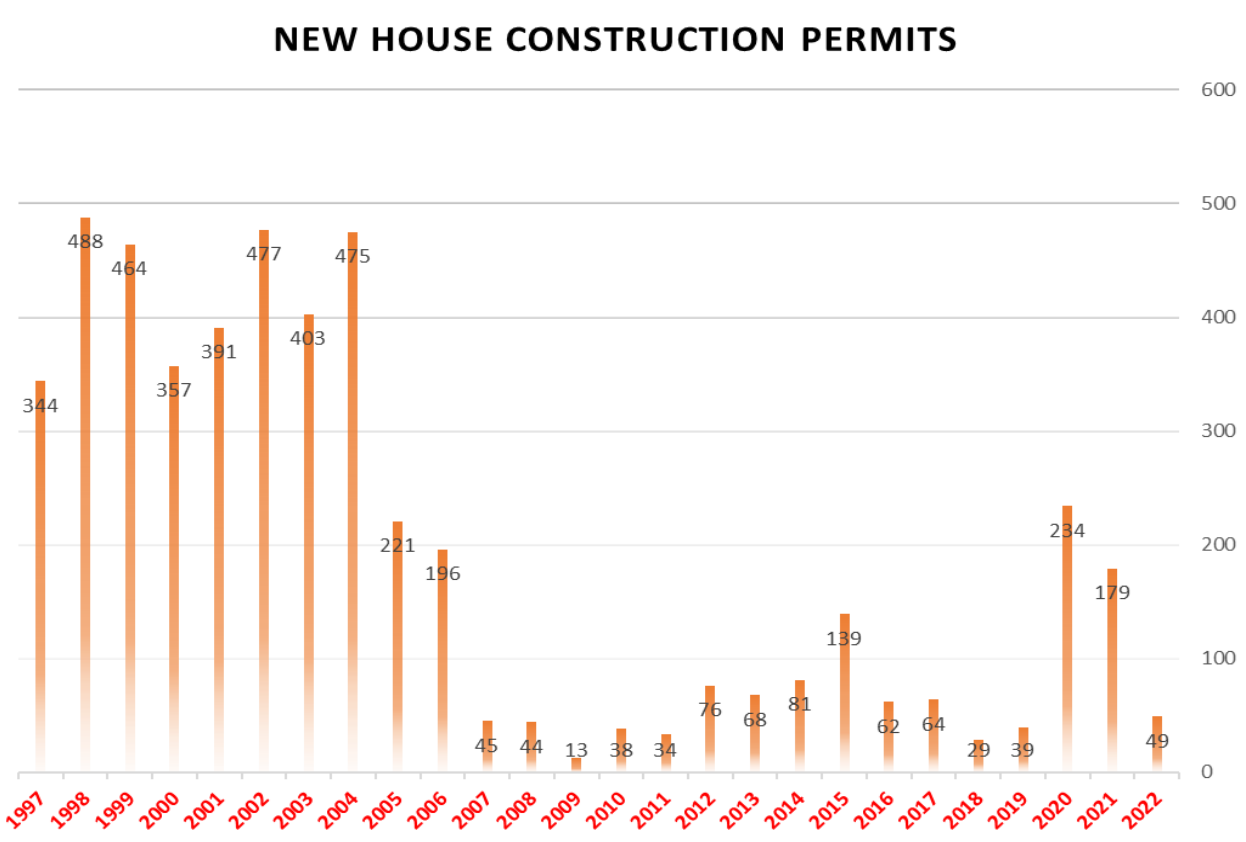
Orland Park continues to be a growing village where people choose to live and work. The assessed valuation (EAV) for property within the District is **$2.8 billion.**

The Village of Orland Park estimates that **the build-out rate is near 85%,** with 15% of the land mass still vacant and able to be developed. Building permit history has increased exponentially since 2012, and the current emphasis is high-density housing.

According to the Village of Orland Park website, Orland Park has over 11 million square feet of commercial development and boasts an effective trade area population of 848,000.

Outside of Chicago, the Village of Orland Park ranks 5th in Illinois Retail Sales. It received approximately $1.97 billion a year in sales tax dollars in 2021, according to the Illinois Department of Revenue and the Melaniphy Chicagoland Retails Sales Report.

The District's land use patterns contribute to developing an efficient fire resource deployment configuration with the current location of six strategically placed Fire Stations. Additionally, the District has a 7th facility that is now part of the Training Campus on 163rd Pl that can quickly be turned into a staffed Fire Station as the need develops or a proposed Education Center.



### Orland Fire Protection District Business Distribution by Type

| Orland Fire Protection District – Total Businesses Distribution by Type | BUSINESSES | |
|---|---|---|
| | Number | Percent |
| Agriculture, Forestry, Fishing and Hunting | 5 | 0.20% |
| Utilities | 2 | 0.10% |
| Construction | 227 | 9.10% |
| Manufacturing | 61 | 2.50% |
| Wholesale Trade | 95 | 3.80% |
| Retail Trade | 484 | 19.50% |
| Motor Vehicle and Parts Dealers | 32 | 1.30% |
| Furniture and Home Furnishings Stores | 46 | 1.80% |
| Electronics and Appliance Stores | 29 | 1.20% |
| Building Material and Garden Equipment and Supplies Dealers | 41 | 1.60% |
| Food and Beverage Stores | 33 | 1.30% |
| Health and Personal Care Stores | 43 | 1.70% |
| Gasoline Stations | 6 | 0.20% |
| Clothing and Clothing Accessories Stores | 125 | 5.00% |
| Sporting Goods, Hobby, Book, and Music Stores | 34 | 1.40% |
| General Merchandise Stores | 14 | 0.60% |
| Miscellaneous Store Retailers | 79 | 3.20% |
| Nonstore Retailers | 1 | 0.00% |
| Transportation and Warehousing | 56 | 2.30% |
| Information | 41 | 1.60% |
| Finance and Insurance | 197 | 7.90% |
| Insurance Carriers and Related Activities | 75 | 3.00% |
| Real Estate and Rental and Leasing | 101 | 4.10% |
| Professional, Scientific, and Technical Services | 252 | 10.10% |
| Management of Companies and Enterprises | 2 | 0.10% |
| Administrative and Support and Waste Management and Remediation | 100 | 4.00% |
| Educational Services | 55 | 2.20% |
| Health Care and Social Assistance | 253 | 10.20% |
| Arts, Entertainment, and Recreation | 31 | 1.20% |
| Accommodation and Food Services | 183 | 7.40% |
| Other Services (except Public Administration) | 276 | 11.10% |
| Public Administration | 32 | 1.30% |
| Unclassified Establishments | 34 | 1.40% |
| **Totals** | **2,487** | **100.00%** |

Draft

It is evident from the business data provided above that the District protects a significant percentage of commercial and industrial businesses that support the local, state, and global economy.

An assessment has been developed to explore a community's future risk based on potential land use within its anticipated future boundaries. The zoning map translates land use (possible scale and type of development within geographic sub-areas) into the relative fire and life risk categories. These uses are found in each Village's development plans and zoning designations.

## Other Growth Opportunities

### Mergers and Consolidation

The Orland Fire District has a few growth opportunities, especially regarding consolidation and merger potential with some neighboring fire protection districts. In the fall of 2022, nearby Fire Protection Districts (Manhattan and Peotone) merged via referendum in Peotone to become one. However, these arrangements, either functional or complete consolidation, merit a thorough review and deliberations as a cost-effective force multiplier reducing redundant expenses. This will entail much discussion and detailed cost/benefit ratio analysis.

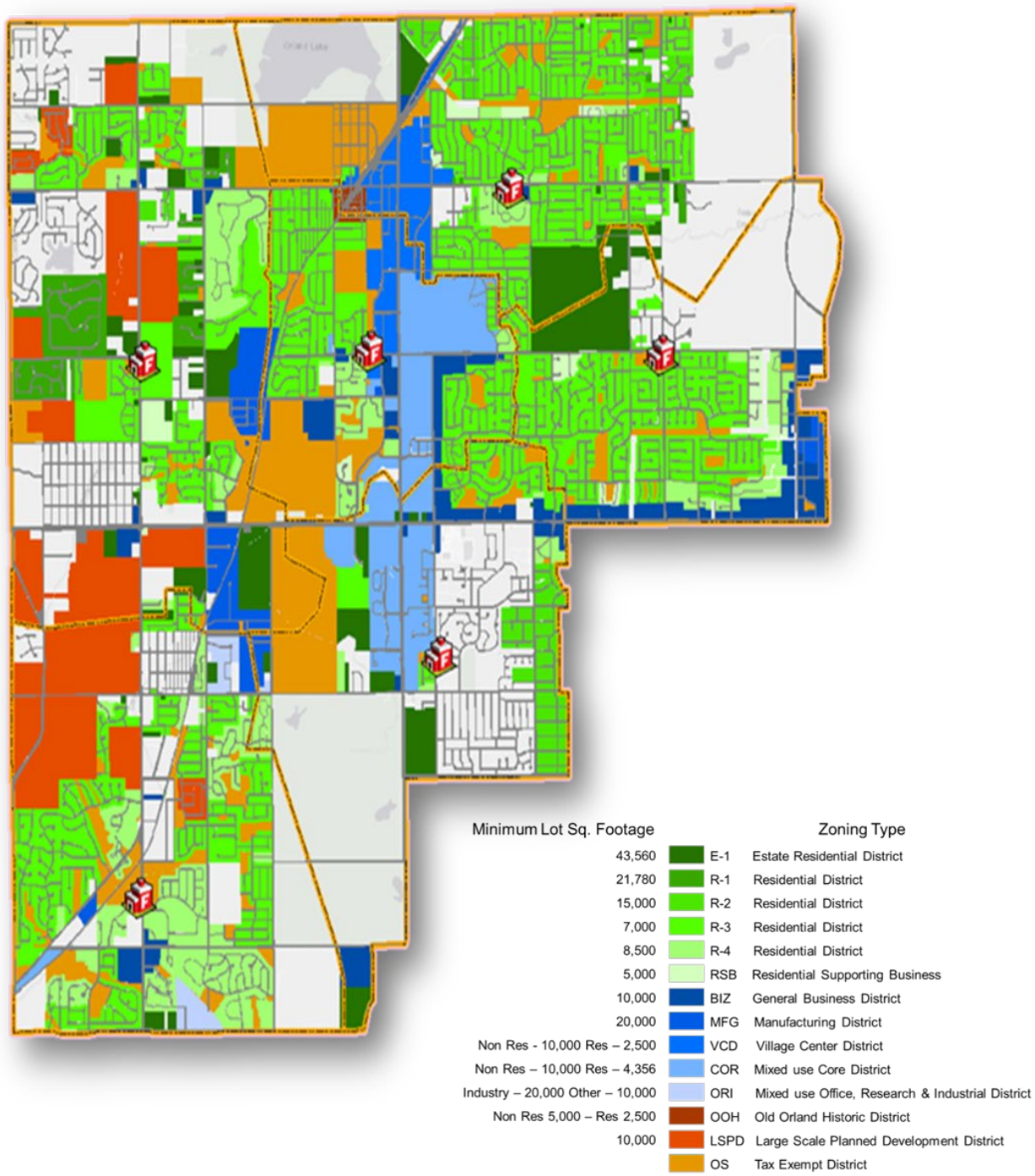
The District has been working closely with numerous agencies in developing a Regional Training Campus (teaching thousands in regional standardized ICS curriculum – Blue Card), a Regional Dispatch Center (currently dispatching over ten (10) other Fire Districts/Departments), and now a brand-new Regional Maintenance Facility with more than five (5) other departments already on board.

**THIS IS THE FUTURE OF THE FIRE/EMS SERVICE**

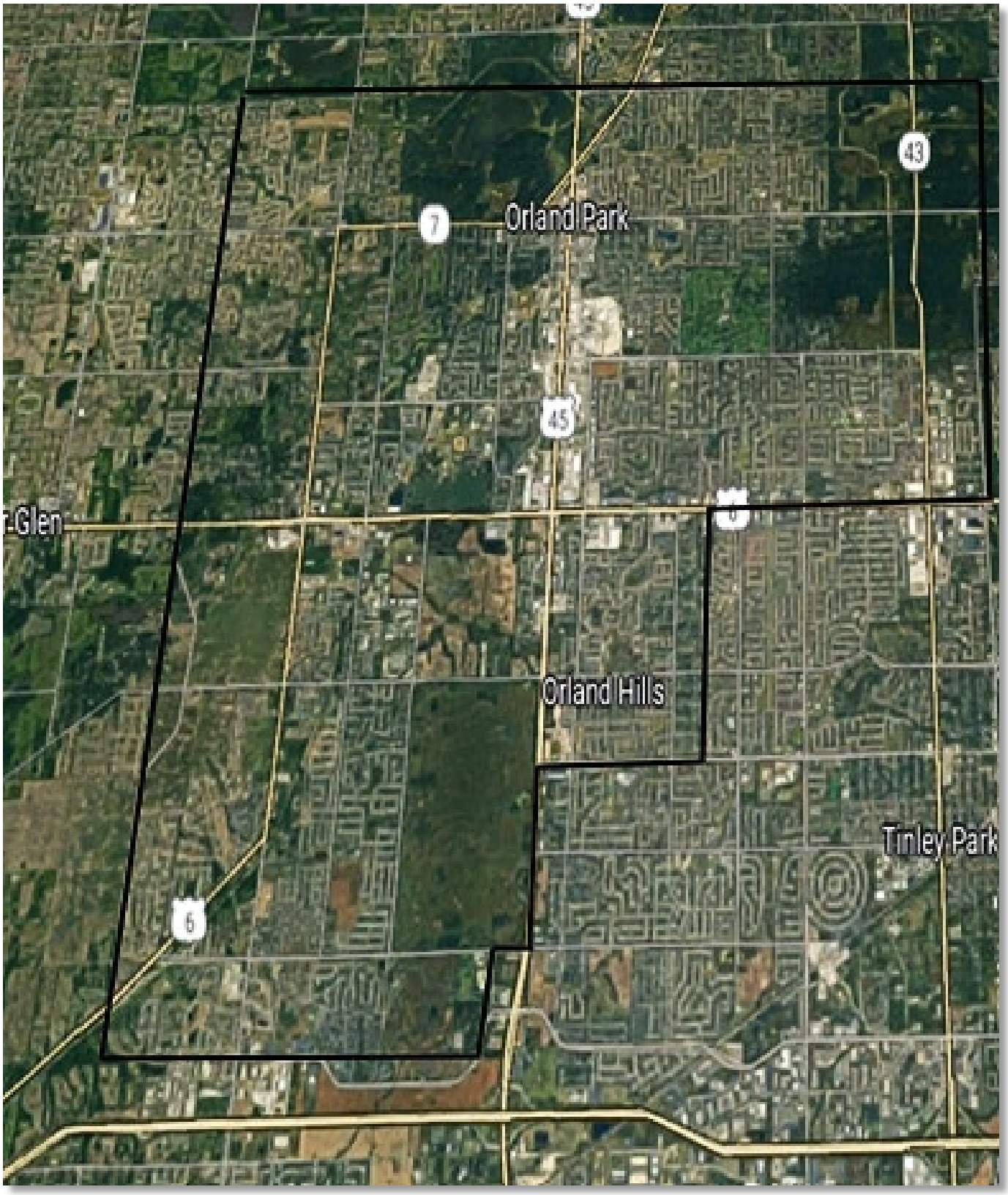
## Municipalities

The District encompasses **30 square miles** and is in Cook County, Illinois, approximately 20 miles southwest of Chicago. Within the District are the Villages of Orland Park (**73% of the District**), Orland Hills (**4%**), and unincorporated portions of Orland Township (**23**%).

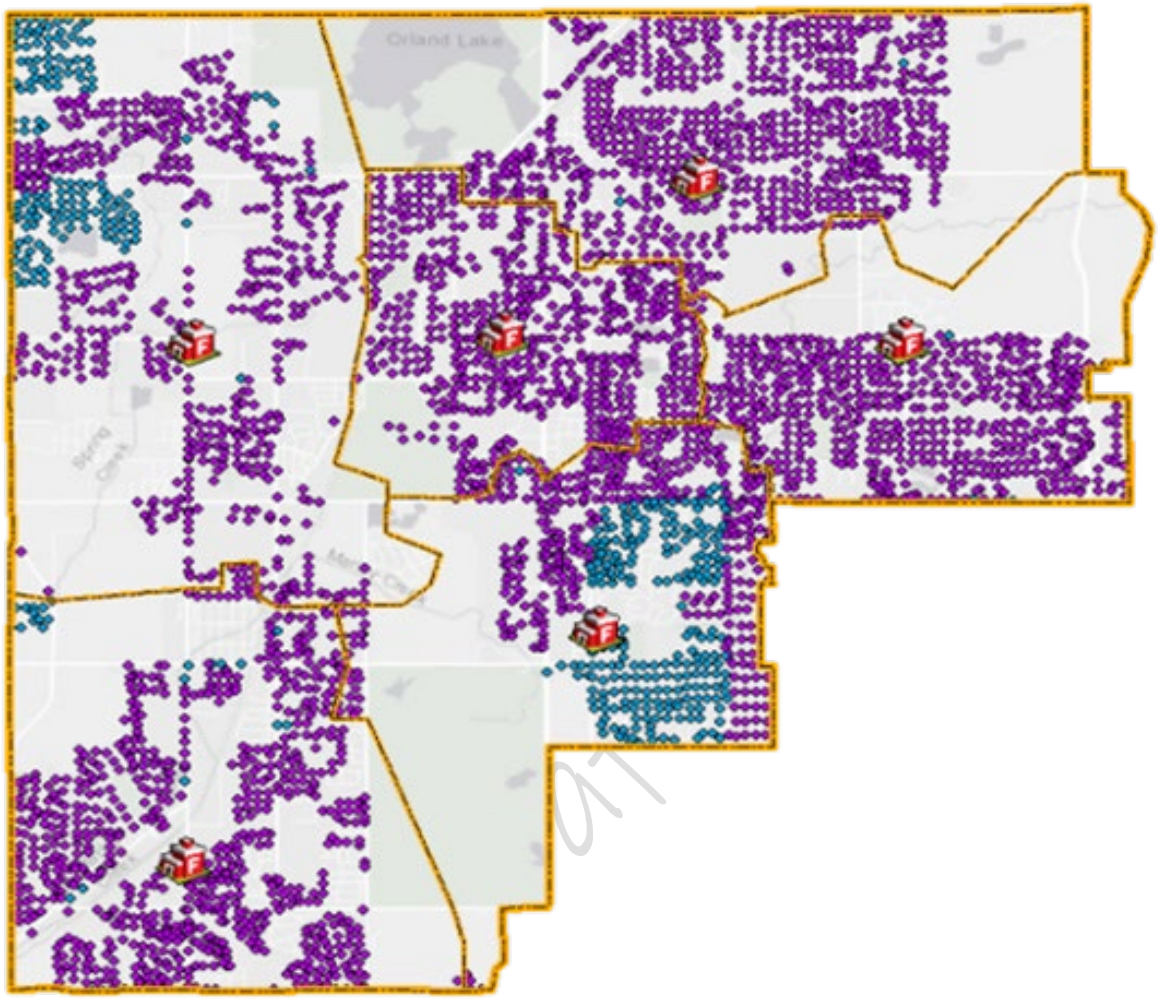
## Zoning

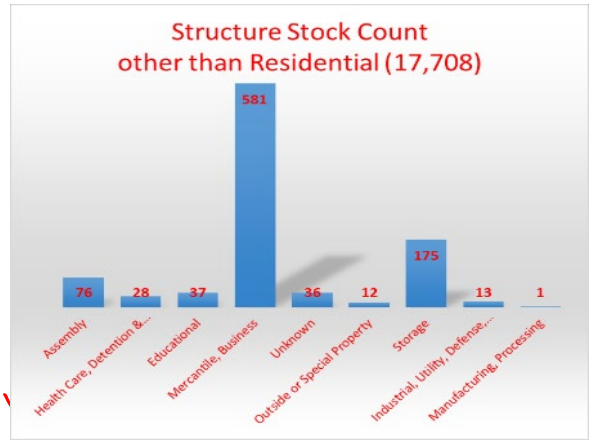


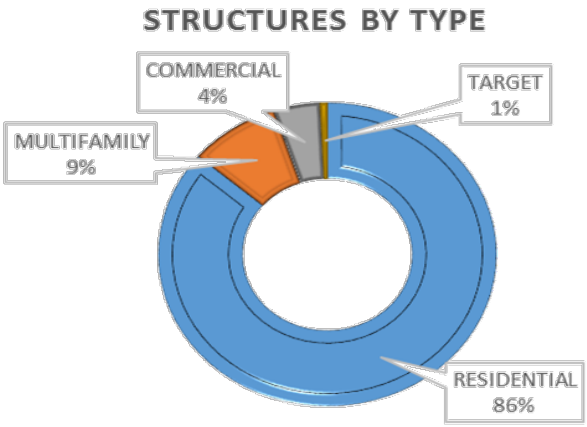
## Aerial View



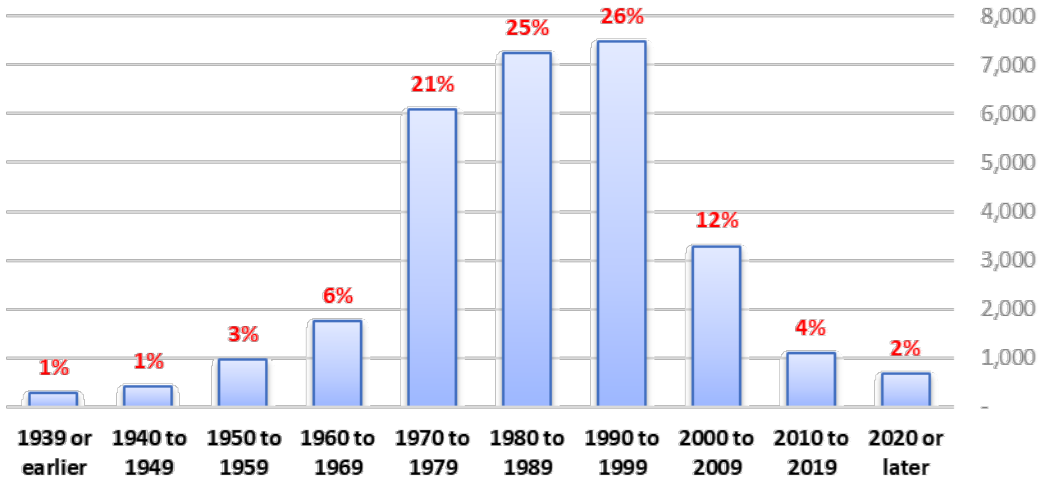
# Building Types



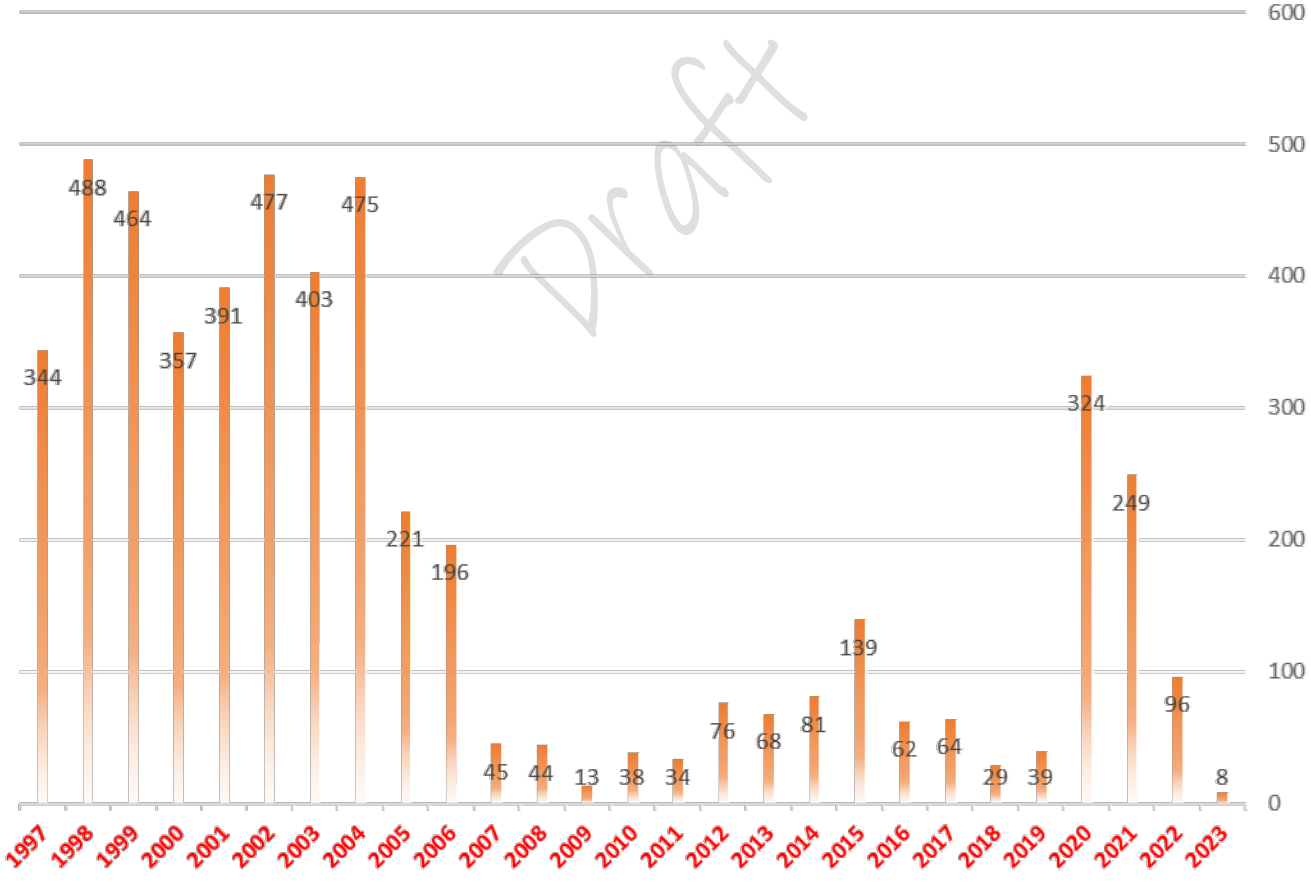


## Year Structures Built




## NEW HOUSE CONSTRUCTION PERMITS



# Structure Inventory / Building Stock

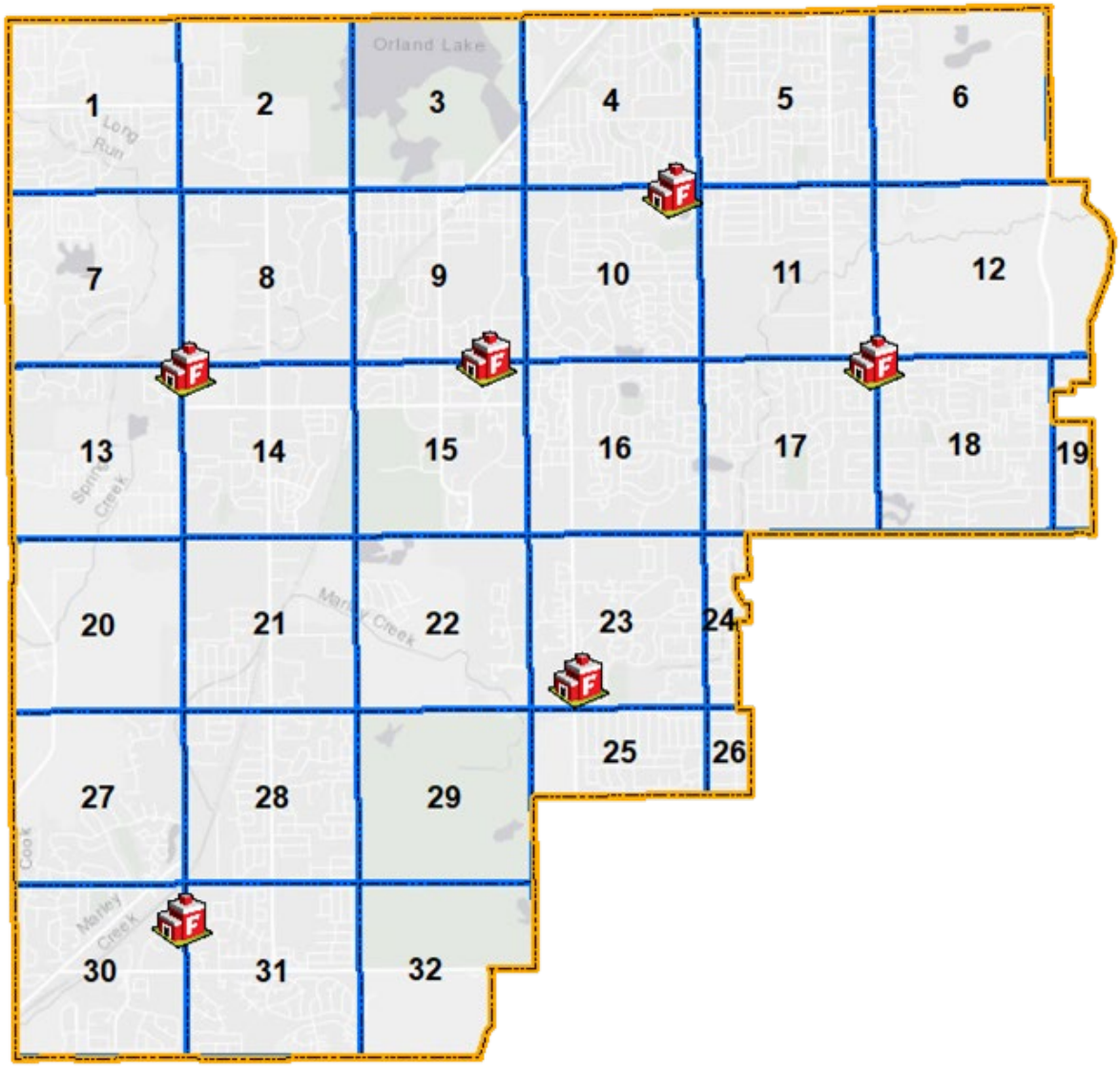
Structure fire risk assessment is performed on the community's building stock or inventory. According to an analysis of District records, at least 18,676 structures are within the District. The types are listed below, with the majority being Residential, and are broken down by Planning Zone.

Alarmed, sprinklered commercial buildings have low-rated NFF, so many are classified as Moderate Risk. Most of the large commercial structures are protected with fire sprinkler systems. A few residential dwellings (mostly multifamily) in some areas are covered with residential sprinkler systems; however, most are not.

| Planning Zone | Residential | Multifamily | Assembly | Health Care, Detention & Correction | Educational | Other Critical Infrastructure | Mercantile, Business | Unknown | Outside or Special Property | Storage | Industrial, Utility, Defense, Agriculture, Mining | Manufacturing, Processing | TOTAL per Zone |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 859 | 58 | | | 1 | | 1 | | | 2 | | | 921 |
| 2 | 246 | | 1 | | | | 10 | | | | | | 257 |
| 3 | 1 | | 2 | 1 | 1 | | | | | 1 | | | 6 |
| 4 | 980 | 89 | 2 | | | | 31 | | | 27 | | | 1129 |
| 5 | 1276 | 39 | | | 1 | | 2 | | | | | | 1318 |
| 6 | 287 | | | | | | | | | | | | 287 |
| 7 | 574 | | 3 | | 3 | | 8 | | | | | | 588 |
| 8 | 289 | 56 | 2 | | | | 4 | | | | | | 351 |
| 9 | 806 | 52 | 19 | 1 | 8 | 2 | 66 | 3 | | 11 | | | 968 |
| 10 | 667 | 150 | 10 | 1 | 4 | 1 | 74 | 1 | | 1 | | | 909 |
| 11 | 638 | 1 | 1 | | 1 | | | 9 | | | | | 650 |
| 12 | 93 | | | | | | | | | | | | 93 |
| 13 | 405 | | 1 | 1 | | | 3 | | | | | | 410 |
| 14 | 344 | 37 | 4 | | | | 4 | | 8 | 1 | 2 | 1 | 401 |
| 15 | 201 | 114 | 6 | 3 | | 1 | 42 | 3 | | 38 | 3 | | 411 |
| 16 | 766 | 92 | 1 | | 8 | 4 | 75 | | 2 | | | | 948 |
| 17 | 1207 | 125 | | 2 | | | 17 | 6 | | 23 | | | 1380 |
| 18 | 1047 | 180 | 6 | 11 | 2 | 1 | 39 | | 1 | 42 | | | 1329 |
| 19 | 1 | | | 1 | | | 42 | | | | | | 44 |
| 20 | 61 | | | | | | 9 | | | | | | 70 |
| 21 | 320 | 42 | 5 | 2 | 3 | | 75 | | | | 5 | | 452 |
| 22 | 32 | 33 | 3 | 2 | | 1 | 14 | 1 | | 9 | | | 95 |
| 23 | 1094 | 72 | 7 | 2 | 3 | | 31 | 13 | | | 2 | | 1224 |
| 24 | 142 | 24 | | | | 1 | 4 | | | 3 | | | 174 |
| 25 | 1007 | 6 | | | | | 7 | | | | | | 1020 |
| 26 | 127 | | | | | | | | | | | | 127 |
| 27 | 569 | 62 | | | | | 3 | | | | | | 634 |
| 28 | 804 | 49 | | | 1 | | 4 | | | | | | 858 |
| 30 | 611 | 116 | | | | | 7 | | | 3 | 1 | | 738 |
| 31 | 640 | 214 | 2 | 1 | | 1 | 9 | | | 14 | | | 881 |
| 32 | | | 1 | | 1 | | | | 1 | | | | 3 |
| | 16,094 | 1,611 | 76 | 28 | 37 | 12 | 581 | 36 | 12 | 175 | 13 | 1 | 18,676 |
| | RES | MULTI | | TARGET | | CRITICAL | COMM | | | | | | |
| | 16,094 | 1,611 | | 141 | | 12 | 818 | | | | | | |

## Planning Zones

The District is broken down into six planning zones with 32 defined areas. Each planning zone correlates with the closest Fire Station and Area of Responsibility (AOR) or Still District. These planning zones allow the District to identify, analyze, categorize, and classify the methodology to determine and document the distinct categories and classes of risks within each planning zone. Hazards within each Planning Zone (PZ) are identified and assessed in Section 3 – Community Risk Assessment which discusses those hazards in greater detail.



# Crime

ORLAND PARK, IL CRIME ANALYTICS

Source & Methodology

DATA DESCRIPTION

## ORLAND PARK CRIME DATA

### CRIME INDEX

40

(100 is safest)

Safer than 40% of U.S. Cities

### ORLAND PARK ANNUAL CRIMES

| | VIOLENT | PROPERTY | TOTAL |
|---|---|---|---|
| Number of Crimes | 20 | 711 | 731 |
| Crime Rate (per 1,000 residents) | 0.35 | 12.29 | 12.64 |

Draft

The crime rate in Orland Park is considerably higher than the national average across all communities in America, from the largest to the smallest. However, 13 crimes per one thousand residents are not among the communities with the very highest crime rate. The chance of becoming a violent or property crime victim in Orland Park is 1 in 79. Based on FBI crime data, Orland Park is not one of the safest communities in America. Relative to Illinois, Orland Park has a crime rate higher than 73% of the state's cities and towns of all sizes.

However, compared to other communities of similar population sizes, Orland Park has a crime rate that is noticeably lower than the average. This means that for comparably sized cities across America, Orland Park is safer than most, according to NeighborhoodScout's exclusive analysis of FBI crime data.

Now let us look at how Orland Park does for violent crimes specifically and then how it does for property crimes. This is important because the overall crime rate can be further illuminated by understanding if violent or property crimes (or both) are the major contributors to the general crime rate in Orland Park.

For Orland Park, NeighborhoodScout found that the violent crime rate is well below the national average for all communities of all population sizes. Violent crimes such as assault, rape, murder, and armed robbery happen less often in Orland Park than in most of America. One's chance of becoming a victim of a violent crime here is one in 2893, which is a violent crime rate of 0 per one thousand inhabitants.

NeighborhoodScout's analysis also reveals that Orland Park's rate for property crime is 12 per one thousand population. This makes Orland Park a place where there is an above-average chance of becoming a victim of a property crime when compared to all other communities in America of all population sizes. Property crimes are motor vehicle theft, arson, larceny, and burglary. Your chance of becoming a victim of any of these crimes in Orland Park is one in 81.

# Orland Park Crime Rates

| Violent Crime Statistics<br>Calculated annually per 100,000 residents | | National |
|---|---|---|
| Assault | **29.3** | 282.7 |
| Murder | **0** | 6.1 |
| Rape | **0** | 40.7 |
| Robbery | **8.6** | 135.5 |

| Property Crime Statistics<br>Calculated annually per 100,000 residents | | National |
|---|---|---|
| Burglary | **20.7** | 500.1 |
| Theft | **1,515.7** | 2,042.8 |
| Motor Vehicle Theft | **44.8** | 284 |

Crime rates in Orland Park by year

| Type | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Murders** (per 100,000) | 0 (0.0) | 0 (0.0) | 2 (3.6) | 1 (1.8) | 0 (0.0) | 1 (1.8) | 0 (0.0) | 1 (1.7) | 0 (0.0) | 0 (0.0) | 1 (1.7) | 1 (1.7) | 1 (1.7) | 0 (0.0) |
| **Rapes** (per 100,000) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (1.8) | 4 (7.0) | 1 (1.8) | 5 (8.7) | 2 (3.4) | 1 (1.7) | 2 (3.4) | 5 (8.4) | 1 (1.7) | 2 (3.4) | 0 (0.0) |
| **Robberies** (per 100,000) | ↓4 (7.1) | ↓12 (21.3) | ↓8 (14.3) | ↓7 (12.3) | ↓3 (5.3) | ↓4 (7.0) | ↓3 (5.2) | ↓4 (6.8) | ↓11 (18.6) | ↓4 (6.8) | ↓7 (11.8) | ↓5 (8.5) | ↓9 (15.4) | ↓5 (8.6) |
| **Assaults** (per 100,000) | ↓21 (37.4) | ↓23 (40.9) | ↓16 (28.6) | ↓14 (24.7) | ↓11 (19.3) | ↓10 (17.5) | ↓9 (15.6) | ↓15 (25.4) | ↓14 (23.7) | ↓19 (32.2) | ↓23 (38.8) | ↓13 (22.0) | ↓14 (23.9) | ↓17 (29.3) |
| **Burglaries** (per 100,000) | ↓47 (83.7) | ↓71 (126.3) | ↓62 (110.7) | ↓38 (66.9) | ↓45 (79.0) | ↓45 (78.9) | ↓64 (111.2) | ↓27 (45.7) | ↓32 (54.1) | ↓53 (89.8) | ↓20 (33.8) | ↓29 (49.1) | ↓35 (59.8) | ↓12 (20.7) |
| **Thefts** (per 100,000) | ↕1,142 (2,034) | ↕1,306 (2,323) | ↕1,221 (2,181) | ↕1,106 (1,948) | ↑1,553 (2,728) | ↑1,298 (2,275) | ↑1,250 (2,171) | ↑1,258 (2,130) | ↕1,157 (1,956) | ↑1,262 (2,139) | ↕1,059 (1,788) | ↕963 (1,630) | ↕887 (1,516) | ↓565 (974.3) |
| **Auto thefts** (per 100,000) | ↓20 (35.6) | ↓22 (39.1) | ↓17 (30.4) | ↓15 (26.4) | ↓18 (31.6) | ↓16 (28.0) | ↓18 (31.3) | ↓8 (13.5) | ↓14 (23.7) | ↓19 (32.2) | ↓15 (25.3) | ↓23 (38.9) | ↓26 (44.4) | ↓26 (44.8) |
| **Arson** (per 100,000) | 0 (0.0) | 2 (3.6) | 3 (5.4) | 3 (5.3) | 0 (0.0) | 3 (5.3) | 0 (0.0) | 1 (1.7) | 1 (1.7) | 2 (3.4) | 0 (0.0) | 2 (3.4) | 0 (0.0) | 0 (0.0) |
| **City-Data.com crime index** | 99.7 | 119.5 | 114.6 | 98.3 | 128.2 | 109.3 | 108.8 | 102.7 | 95.6 | 105.6 | 97.4 | 83.5 | 83.9 | 52.5 |



## ORLAND HILLS CRIME DATA

### CRIME INDEX

86

(100 is safest)

Safer than 86% of U.S. Cities

### ORLAND HILLS ANNUAL CRIMES

| | VIOLENT | PROPERTY | TOTAL |
|---|---|---|---|
| Number of Crimes | 1 | 21 | 22 |
| Crime Rate (per 1,000 residents) | 0.15 | 3.12 | 3.27 |

With a crime rate for both violent and property crime combined of 3 per 1,000 residents, the crime rate in Orland Hills is one of the lower rates in America among communities of all sizes (lower than 86% of America's communities). One's chance of becoming a victim of crime in Orland Hills is one in 306. Compared to communities within Illinois, Orland Hills' crime rate is lower than 84% of the state's cities and towns.

Additionally, NeighborhoodScout analyzed all cities and towns in America with a similar population size to Orland Hills, and we found that the crime rate in Orland Hills is one of the lowest in the nation for its size. This means Orland Hills is one of the safest places in America in which to live for its size, a very important finding.

Now let us look at how Orland Hills does for violent crimes specifically and then how it does for property crimes. This is important because the overall crime rate can be further illuminated by understanding if violent or property crimes (or both) are the major contributors to the general rate of crime in Orland Hills.

For Orland Hills, NeighborhoodScout found that the violent crime rate is well below the national average for all communities of all population sizes. Violent crimes such as assault, rape, murder, and armed robbery happen less often in Orland Hills than in most of America. One's chance of becoming a victim of a violent crime here is one in 6725, which is a violent crime rate of 0 per thousand inhabitants.

NeighborhoodScout's analysis of property crime reveals that the property crime rate in Orland Hills is below average compared to all cities and towns in the nation. This means that you are less likely to become a victim of arson, motor vehicle theft, larceny, or burglary in Orland Hills than in most communities in America. What is your chance of becoming a victim of property crime if you live here? Just one for 320.

# Orland Hills Crime Rates

## Violent Crime Statistics

| Calculated annually per 100,000 residents | | National |
|---|---|---|
| Assault | **14.2** | 282.7 |
| Murder | **0** | 6.1 |
| Rape | **0** | 40.7 |
| Robbery | **0** | 135.5 |

## Property Crime Statistics

| Calculated annually per 100,000 residents | | National |
|---|---|---|
| Burglary | **0** | 500.1 |
| Theft | **325.5** | 2,042.8 |
| Motor Vehicle Theft | **28.3** | 284 |

**Crime rates in Orland Hills by year**

| Type | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| **Murders** (per 100,000) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| **Rapes** (per 100,000) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| **Robberies** (per 100,000) | 1 (13.9) | 1 (13.9) | 2 (27.7) | 2 (27.4) | 1 (13.7) | 0 (0.0) | 1 (13.9) | 1 (14.0) | 0 (0.0) |
| **Assaults** (per 100,000) | 6 (83.7) | 4 (55.7) | 0 (0.0) | 1 (13.7) | 5 (68.6) | 4 (55.1) | 2 (27.9) | 4 (56.0) | 1 (14.2) |
| **Burglaries** (per 100,000) | 7 (97.6) | 7 (97.5) | 5 (69.2) | 3 (41.1) | 7 (96.0) | 5 (68.9) | 0 (0.0) | 3 (42.0) | 0 (0.0) |
| **Thefts** (per 100,000) | 96 (1,339) | 64 (891.0) | 35 (484.6) | 33 (451.6) | 70 (960.0) | 40 (551.3) | 57 (794.1) | 38 (532.0) | 23 (325.5) |
| **Auto thefts** (per 100,000) | 4 (55.8) | 1 (13.9) | 1 (13.8) | 1 (13.7) | 0 (0.0) | 1 (13.8) | 0 (0.0) | 5 (70.0) | 2 (28.3) |
| **Arson** (per 100,000) | 0 (0.0) | 0 (0.0) | 1 (13.8) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| **City-Data.com crime index** | 85.8 | 58.9 | 33.6 | 33.0 | 62.9 | 39.0 | 41.5 | 45.2 | 18.1 |

The City-Data.com crime index weighs serious crimes and violent crimes more heavily. Higher means more crime, U.S. average is 254.8. It adjusts for the number of visitors and daily workers commuting into cities.



# Critical Infrastructure

Critical infrastructure is assets considered essential to society, economies, and communities. Presidential Policy Directive 21 (PPD-21), "Critical Infrastructure Security and Resilience," recognizes 16 Critical Infrastructure categories. When conducting a Community Risk Assessment, these facilities must be identified and built into the emergency response planning process. There are sixteen critical infrastructure sectors whose assets, systems, and networks, whether physical or virtual, are considered so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, national public health, or safety, or any combination thereof. Presidential Policy Directive 21 (PPD-21): Critical Infrastructure Security and Resilience advances a national policy to strengthen and maintain a secure, functioning, and resilient critical infrastructure classified in the following sectors:

- Chemical
- Commercial Facilities
- Communications
- Critical Manufacturing
- Dams
- Defense Industrial Base
- Emergency Services
- Energy
- Financial Services
- Food and Agriculture
- Government Facilities
- Healthcare and Public Health
- Information Technology
- Nuclear Reactors, Materials, and Waste
- Transportation Systems
- Water and Wastewater Systems

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## Commercial Facilities Sector

The Commercial Facilities Sector includes various sites that draw large crowds for shopping, business, entertainment, or lodging. Most of these facilities are privately owned and operated, with minimal interaction with the federal government and other regulatory entities. Facilities within the sector operate on the principle of open public access, meaning that the public can move freely without the deterrent of highly visible security barriers.

The Commercial Facilities Sector consists of eight subsectors:

- Entertainment and Media (e.g., motion picture studios, broadcast media)
- Gaming (e.g., casinos)
- Lodging (e.g., hotels, motels, conference centers)
- Outdoor Events (e.g., theme and amusement parks, fairs, campgrounds, parades)

- Public Assembly (e.g., arenas, stadiums, aquariums, zoos, museums, convention centers)
- Real Estate (e.g., office and apartment buildings, condominiums, mixed-use facilities, self-storage)
- Retail (e.g., retail centers and districts, shopping malls)
- Sports Leagues (e.g., professional sports leagues and federations)

## Communications Sector

The Communications Sector is an integral component of the U.S. economy, underlying the operations of all businesses, public safety organizations, and government. Presidential Policy Directive 21 identifies the Communications Sector as critical because it provides an "enabling function" across all critical infrastructure sectors. Over the last 25 years, the industry has evolved from predominantly a provider of voice services into a diverse, competitive, and interconnected industry using terrestrial, satellite, and wireless transmission systems. The transmission of these services has become interconnected; satellite, wireless, and wireline providers depend on each other to carry and terminate their traffic. Companies routinely share facilities and technology to ensure interoperability.

## Emergency Services Sector

The Emergency Services Sector (ESS) is a community of millions of highly skilled, trained personnel and physical and cyber resources that provide a wide range of prevention, preparedness, response, and recovery services during day-to-day operations and incident response. The ESS includes geographically distributed facilities and equipment in both paid and volunteer capacities organized primarily at the federal, state, local, tribal, and territorial levels of government, such as city police departments and fire stations, county sheriff's offices, Department of Defense police and fire departments, and town public works departments. The ESS also includes private sector resources, such as industrial fire departments, private security organizations, and private emergency medical services providers.




## Energy Sector

The U.S. energy infrastructure fuels the economy of the 21st century. Presidential Policy Directive 21 identifies the Energy Sector as uniquely critical because it provides an "enabling function" across all critical infrastructure sectors. More than 80 percent of the country's energy infrastructure is owned by the private sector, supplying fuels to the transportation industry, electricity to households and businesses, and other energy sources integral to growth and production. Health and welfare are threatened without a stable energy supply, and the U.S. economy cannot function.

The energy infrastructure is divided into three interrelated segments: electricity, oil, and natural gas. The reliance on virtually all industries on electric power and fuels means that all sectors have some dependence on the Energy Sector. The Energy Sector is aware of its vulnerabilities and is leading a significant voluntary effort to increase its planning and preparedness. Cooperation through industry groups has resulted in substantial information sharing

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of best practices across the sector. Many sector owners and operators have extensive experience abroad with infrastructure protection and have recently focused on cybersecurity.

## Financial Services Sector

The Financial Services Sector is vital to the District's nation's critical infrastructure. Large-scale power outages, recent natural disasters, and the increased number and sophistication of cyberattacks demonstrate the sector's wide range of potential risks.

The Financial Services Sector includes thousands of depository institutions, providers of investment products, insurance companies, other credit and financing organizations, and the providers of the critical financial utilities and services that support these functions. Financial institutions vary widely in size and presence, ranging from some of the world's largest global companies with thousands of employees and billions of dollars in assets to community banks and credit unions. In addition, a small number of employees serve individual communities. Whether a personal savings account, financial derivatives, credit extended to a large organization, or investments made to a foreign country, these products allow customers to:

- Deposit funds and make payments to other parties
- Provide credit and liquidity to customers
- Invest funds for both long and short periods
- Transfer financial risks between customers

## Government Facilities Sector

The Government Facilities Sector includes many United States and overseas buildings owned or leased by federal, state, local, and tribal governments. These facilities include general-use office buildings and special-use military installations, embassies, courthouses, and national laboratories, and may house critical equipment, sensitive networks, and functions. In addition to physical facilities, the sector includes cyber elements that protect sector assets (e.g., access control systems and closed-circuit television systems) and individuals who perform essential functions or possess tactical, operational, or strategic knowledge. Many government facilities are open to the public for business activities, commercial transactions, or recreational activities. In contrast, others unavailable to the public contain sensitive information, materials, processes, and equipment.

## Education Facilities Subsector

The Education Facilities Subsector covers pre-kindergarten through 12th-grade schools, higher education institutions, and business and trade schools. The subsector includes facilities owned by both government and private sector entities. The National Monuments and Icons Subsector encompasses various assets, networks, systems, and functions throughout the United States. Many National Monuments and Icons assets are listed in either the National Register of Historic Places or the List of National Historic Landmarks.

## Election Infrastructure Subsector

The Election Infrastructure Subsector covers a wide range of physical and electronic assets such as storage facilities, polling places, and centralized vote tabulations locations used to support the election process and

information and communications technology, including voter registration databases, voting machines, and other systems to manage the election process and report and display results on behalf of state and local governments.

## Healthcare and Public Health Sector

The Healthcare and Public Health sectors protect all economic sectors from terrorism, infectious disease outbreaks, and natural disasters. Because many of the sector's assets are privately owned and operated, collaboration and information sharing between the public and private sectors is essential to increasing the resilience of the nation's Healthcare and Public Health critical infrastructure. Working in all U.S. states, territories, and tribal areas, the sector plays a significant role in response and recovery across all other sectors during a natural or manmade disaster. While healthcare tends to be delivered and managed locally, the sector's public health component, focused primarily on population health, is worked across all government levels: national, state, regional, local, tribal, and territorial.

Healthcare and Public Health depend highly on fellow sectors for operations and service delivery continuity, including Communications, Emergency Services, Energy, Food and Agriculture,
Information Technology, Transportation Systems, and Water and Wastewater Systems.

## Information Technology Sector

The Information Technology Sector is central to the nation's security, economy, and public health and safety as businesses, governments, academia, and private citizens increasingly depend on Information Technology Sector functions. These virtual and distributed functions produce and provide hardware, software, information technology systems, and services and collaborate with the Communications Sector—the Internet. The complex and dynamic environment identifies threats, assesses vulnerabilities difficult, and requires these tasks to be addressed collaboratively and creatively.

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A combination of entities operates Information Technology Sector functions—often owners and operators and their respective associations—that maintain and reconstitute the network, including the Internet. Although information technology infrastructure has a certain level of inherent resilience, its interdependent and interconnected structure presents challenges and opportunities for coordinating public and private sector preparedness and protection activities.

## Transportation Systems Sector

The Department of Homeland Security and the Department of Transportation are designated as the Co-Sector-Specific Agencies for the Transportation Systems Sector. The nation's transportation system quickly, safely, and securely moves people and goods through the country and overseas.

The Transportation Systems Sector consists of seven key subsectors or modes:

- **Aviation** includes aircraft, air traffic control systems, and about 19,700 airports, heliports, and landing strips. Approximately 500 provide commercial aviation services at civil and joint-use military airports, heliports, and seaplane bases. The aviation model includes commercial and recreational aircraft (manned and unmanned) and various support services (aircraft repair stations, fueling facilities, navigation aids, and flight schools).

- **Highway and Motor carriers** encompass more than 4 million miles of roadway, more than 600,000 bridges, and more than 350 tunnels. Vehicles include trucks (those carrying hazardous materials), other commercial vehicles (including commercial motor coaches and school buses), vehicle and driver licensing systems, traffic management systems, and cyber systems used for operational management.
- **Maritime Transportation System** consists of about 95,000 miles of coastline, 361 ports, more than 25,000 miles of waterways, and intermodal landside connections that allow the various modes of transportation to move people and goods, and water.
- **Mass Transit and Passenger Rail** include terminals, operational systems, and supporting infrastructure for passenger services by transit buses, trolleybuses, monorail, heavy rail (subways or metros), light rail, passenger rail, and vanpool/rideshare. Public transportation and passenger rail operations provided an estimated 10.8 billion passenger trips in 2014.
- **Pipeline Systems** consist of more than 2.5 million miles of pipelines spanning the country and carrying nearly all the nation's natural gas, about 65 percent of hazardous liquids, and various chemicals. Above-ground assets, such as compressors and pumping stations, are also included.
- **Freight Rail** consists of seven major carriers, hundreds of smaller railroads, over 138,000 miles of active railroad, over 1.33 million freight cars, and approximately 20,000 locomotives. An estimated 12,000 trains operate daily. The Department of Defense has designated 30,000 miles of track and structure critical to the mobilization and resupply of U.S. forces.
- **Postal and Shipping** moves about 720 million letters and packages daily, including large integrated carriers, regional and local courier services, mail services, mail management firms, and chartered and delivery services.

## Water and Wastewater Systems Sector

Safe drinking water is a prerequisite for protecting public health and human activity. Adequately treated wastewater is vital for preventing disease and protecting the environment. Thus, ensuring drinking water supply, wastewater treatment, and service is essential to modern life and the nation’s economy.

The Water and Wastewater Systems Sector is vulnerable to various attacks, including contamination with deadly agents, physical attacks (such as releasing toxic gaseous chemicals), and cyberattacks. The result of multiple attacks could be large numbers of illnesses or casualties or a denial of service that would impact public health and economic vitality. Critical services, such as firefighting and healthcare (hospitals), and other dependent and interdependent sectors, such as Energy, Food and Agriculture, and Transportation Systems, would suffer negative impacts from a denial of service in the Water and Wastewater Systems Sector. The sector is also vulnerable to natural disasters.

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# Target Hazards/Critical Facilities

FEMA defines these as: "facilities in either the public or private sector that provide essential products and services to the public, are otherwise necessary to preserve the welfare and quality of life in the community, or fulfill important public safety, emergency response, and disaster recovery functions."

To conduct a practical target hazard assessment, some key definitions must be understood:

**Hazards:** Known physical features that can ignite and sustain combustion or existing features (natural or manmade) that can negatively impact life, property, and natural resources

**Values:** Community assets, including life, property, and natural resources

Other significant target hazards have been identified. These include nursing homes, mid-rise, and other buildings (consisting of three floors or greater), all public schools, and locations of hazardous materials sites. This information helped determine where fire suppression and other specialty resources are located for each planning zone.

A comprehensive review of the service area was completed. Data was gathered from ISO, fire prevention inspection records, a GIS list of high-rise occupancies, target hazards in CAD, economic revenues from the Census, and interviews with the Village and District stakeholders. Data was collected on the type of risk found: Need Fire Flow (NFF), Hazardous Material occupancy, Life Safety risk, High Rise, economic risk, and others (Historical/cultural). The information was then reviewed with the Fire Prevention Division.

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After a detailed analysis, the District has identified the following as "target hazards/critical facilities": Schools, Nursing/Assisted Living, Hotels, and non-sprinklered structures four stories or more are considered high or target hazards. Police and Fire Stations, Communication Systems, and Water Treatment facilities are considered "critical" facilities. Fortunately, some facilities are fully sprinklered and alarmed within the District.

# Target Hazard List

## High-Risk Facilities

| ORLAND FIRE DISTRICT - TARGET HAZARDS | | | | SIZE | HEIGHT | OCCUPANCY | PROBLEM |
|---|---|---|---|---|---|---|---|
| ASSISTED LIVING | 3 | | 0.0% | Small - 1 | 1 | Res - 1 | EMS - 1 |
| APARTMENT | 1 | | 0.0% | Med - 2 | 2 | MF - 2 | Fire - 2 |
| COMMERCIAL | 14 | 1 | 7.1% | Large - 3 | 3 | Comm - 3 | Sp Op - 3 |
| HOTEL | 2 | | 0.0% | Mega - 4 | 4+ | Target - 4 | Service - 0 |
| NURSING HOME/ASSISTED LIVING | 7 | 3 | 42.9% | | | | |
| SCHOOL | 16 | 15 | 93.8% | | | | |
| | 43 | 19 | 44.2% | | | | |

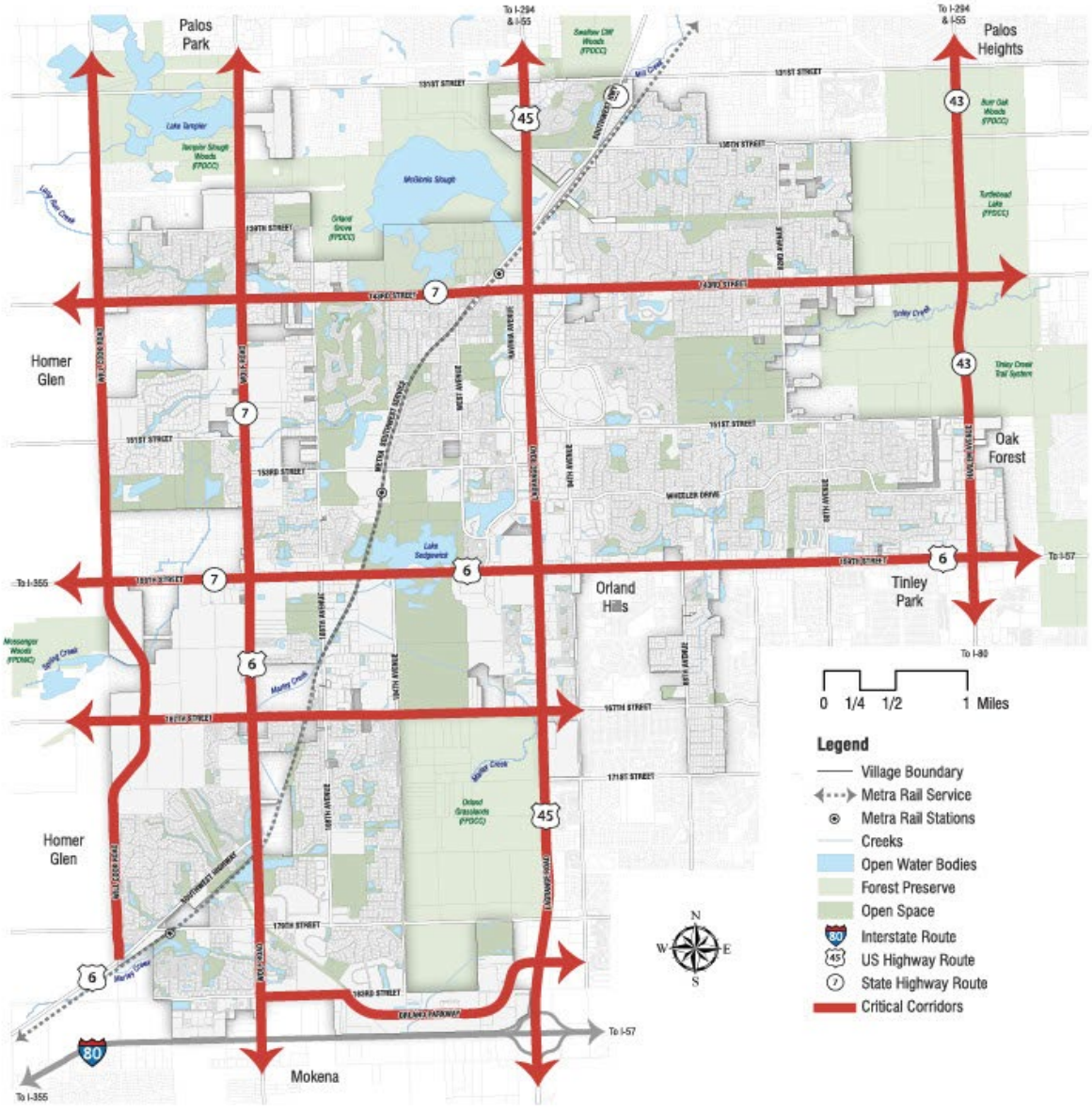
| | Location_Name | Type | CRR Reach | % Reached | SIZE | HEIGHT | OCCUPANCY | PROBLEM | SCORE |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Bethshan Group Home (15319) | AL | | | 2 | 3 | 4 | 0 | 9 |
| 2 | Bethshan Group Home (7805) | AL | | | | | | | 0 |
| 3 | St Colettas Group Home | AL | | | | | | | 0 |
| 4 | 9750 On The Park | APARTMENT | | | 3 | 5 | 2 | 0 | 10 |
| 5 | Von Mauer (formely Carson Pirie Scott) | COMM | | | 4 | 2 | 3 | 0 | 9 |
| 6 | Darvin Furniture | COMM | | | 4 | 2 | 3 | 0 | 9 |
| 7 | Dicks Sporting Goods | COMM | | | 4 | 2 | 3 | 0 | 9 |
| 8 | Home Depot | COMM | x | | 4 | 2 | 3 | 0 | 9 |
| 9 | JC Penneys | COMM | | | 4 | 2 | 3 | 0 | 9 |
| 10 | Lifetime Fitness | COMM | | | 4 | 2 | 4 | 0 | 10 |
| 11 | Lowes | COMM | | | 4 | 2 | 3 | 0 | 9 |
| 12 | Macys | COMM | | | 4 | 2 | 3 | 0 | 9 |
| 13 | Marcus Theater | COMM | | | 4 | 2 | 4 | 0 | 10 |
| 14 | Orland Park Executive Towers | COMM | | | 4 | 6 | 4 | 0 | 14 |
| 15 | ORLAND PARK PLACE MALL | COMM | | | 4 | 2 | 4 | 0 | 10 |
| 16 | Orland Square Mall | COMM | | | 4 | 2 | 4 | 0 | 10 |
| 17 | Panduit Corp | COMM | | | 4 | 2 | 4 | 0 | 10 |
| 18 | Target Store | COMM | | | 3 | 4 | 4 | 0 | 11 |
| 19 | Georgio's Comfort Inn Hotel | HOTEL | | | 3 | 5 | 4 | 0 | 12 |
| 20 | Homewood Suites | HOTEL | | | 3 | 4 | 4 | 0 | 11 |
| 21 | Alden of Orland | NH | x | | 3 | 4 | 4 | 0 | 11 |
| 22 | American House (formely Autumn Leaves) | NH | | | 1 | 1 | 4 | 0 | 6 |
| 23 | Brookdale Orland Park | NH | | | 3 | 3 | 4 | 0 | 10 |
| 24 | Evergreen Senior Living | NH | x | | 3 | 3 | 4 | 0 | 10 |
| 25 | Heartis | NH | | | 3 | 2 | 4 | 0 | 9 |
| 26 | Lexington Health Care | NH | | | 3 | 4 | 4 | 0 | 11 |
| 27 | Thomas Place (15415 Harlem Ave) | NH | x | | 3 | 4 | 4 | 0 | 11 |
| 28 | Centennial School | SCHOOL | x | | 3 | 2 | 4 | 0 | 9 |
| 29 | Century Jr High School | SCHOOL | x | | 3 | 3 | 4 | 0 | 10 |
| 30 | Christian Hills Church / School | SCHOOL | x | | 3 | 2 | 4 | 0 | 9 |
| 31 | Fernway School | SCHOOL | x | | 3 | 1 | 4 | 0 | 8 |
| 32 | High Point School | SCHOOL | x | | 3 | 2 | 4 | 0 | 9 |
| 33 | Jerling Jr. High School | SCHOOL | x | | 3 | 2 | 4 | 0 | 9 |
| 34 | Kindercare | SCHOOL | x | | 2 | 2 | 4 | 0 | 8 |
| 35 | Kruse School | SCHOOL | x | | 3 | 1 | 4 | 0 | 8 |
| 36 | Liberty School | SCHOOL | x | | 3 | 2 | 4 | 0 | 9 |
| 37 | Mary Sears Preschool | SCHOOL | x | | 2 | 2 | 4 | 0 | 8 |
| 38 | Meadow Ridge School | SCHOOL | x | | 3 | 3 | 4 | 0 | 10 |
| 39 | ORL PARK HEAD START | SCHOOL | x | | | | | | 0 |
| 40 | ORLAND JUNIOR HIGH SCHOOL | SCHOOL | x | | 3 | 2 | 4 | 0 | 9 |
| 41 | Orland Park School | SCHOOL | | | 3 | 1 | 4 | 0 | 8 |
| 42 | Prairie School | SCHOOL | x | | 3 | 2 | 4 | 0 | 9 |
| 43 | Saint Michael's Church & School | SCHOOL | x | | 3 | 3 | 4 | 0 | 10 |

# Planned Development

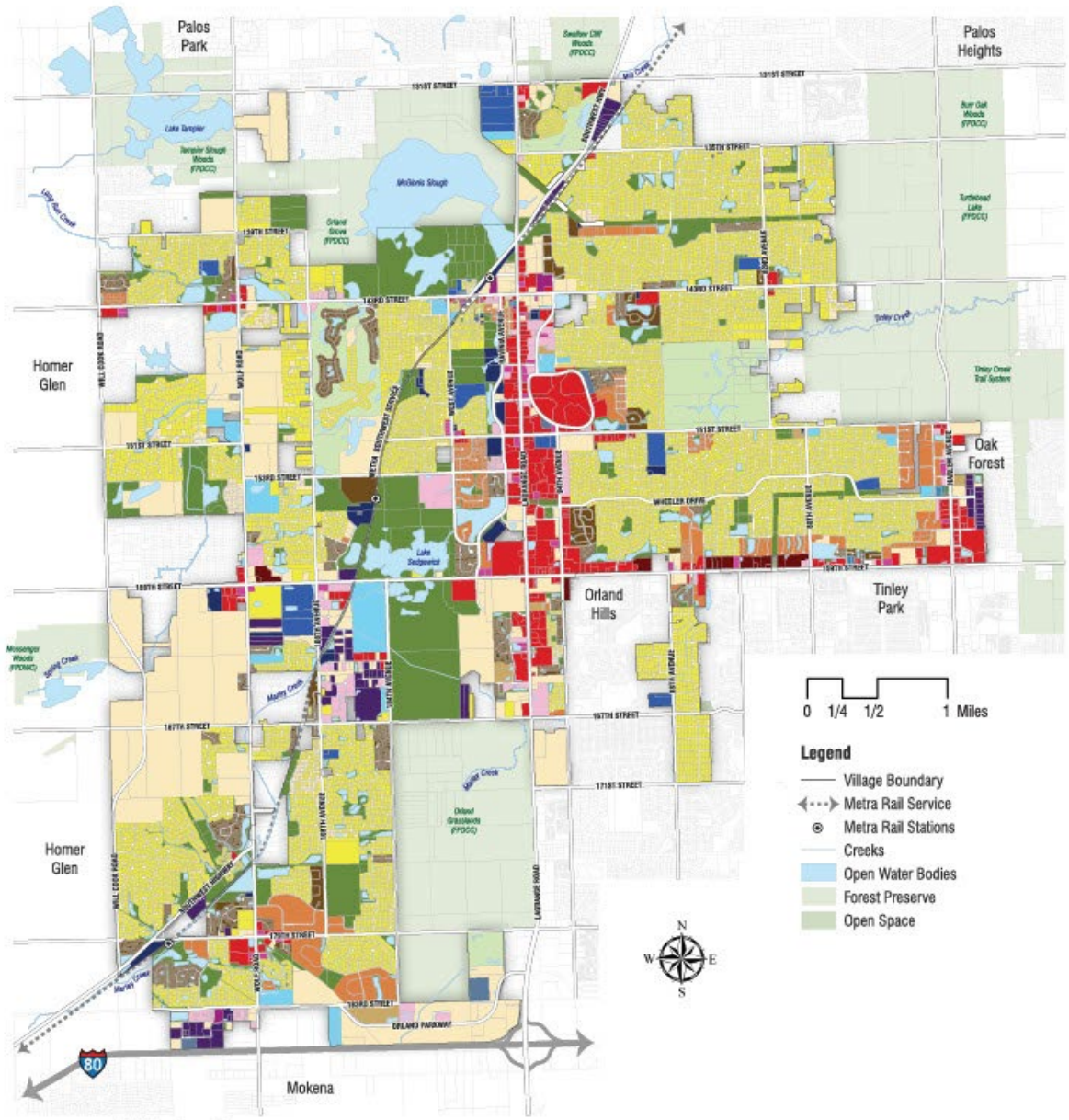
Village of Orland Comprehensive Plan 2030 – Future Use



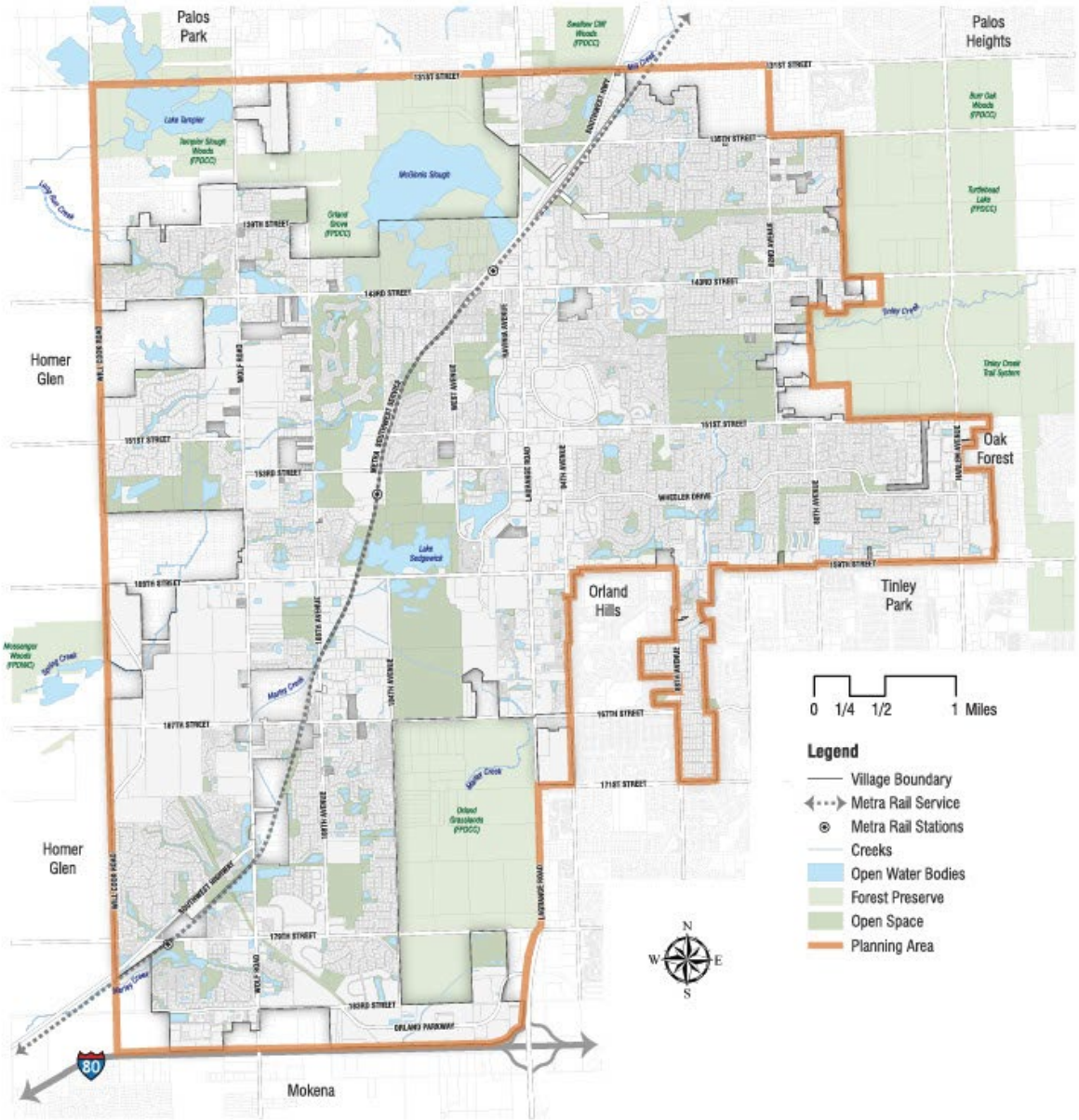
ORLAND PARK CRITICAL CORRIDORS

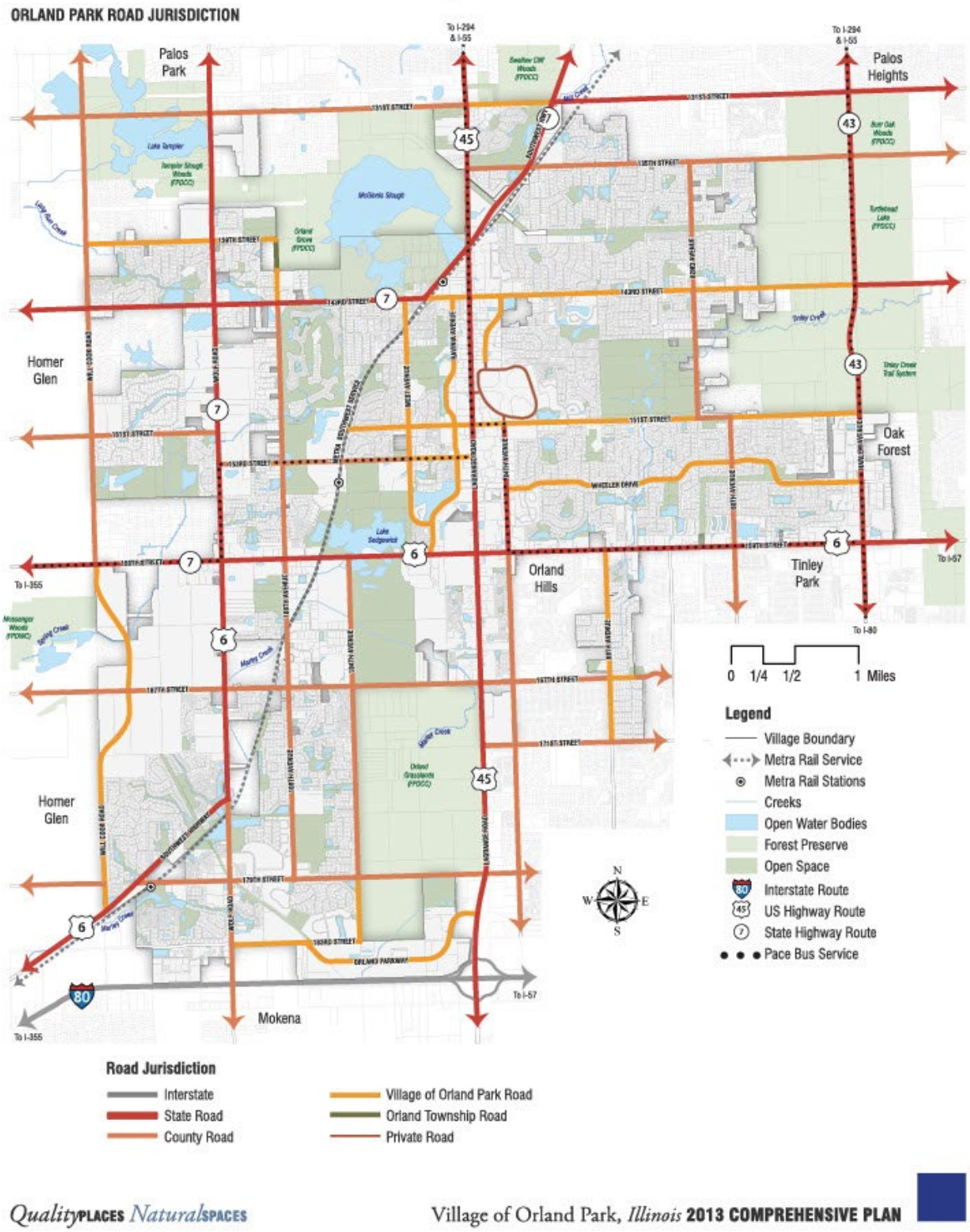


ORLAND PARK EXISTING LAND USE

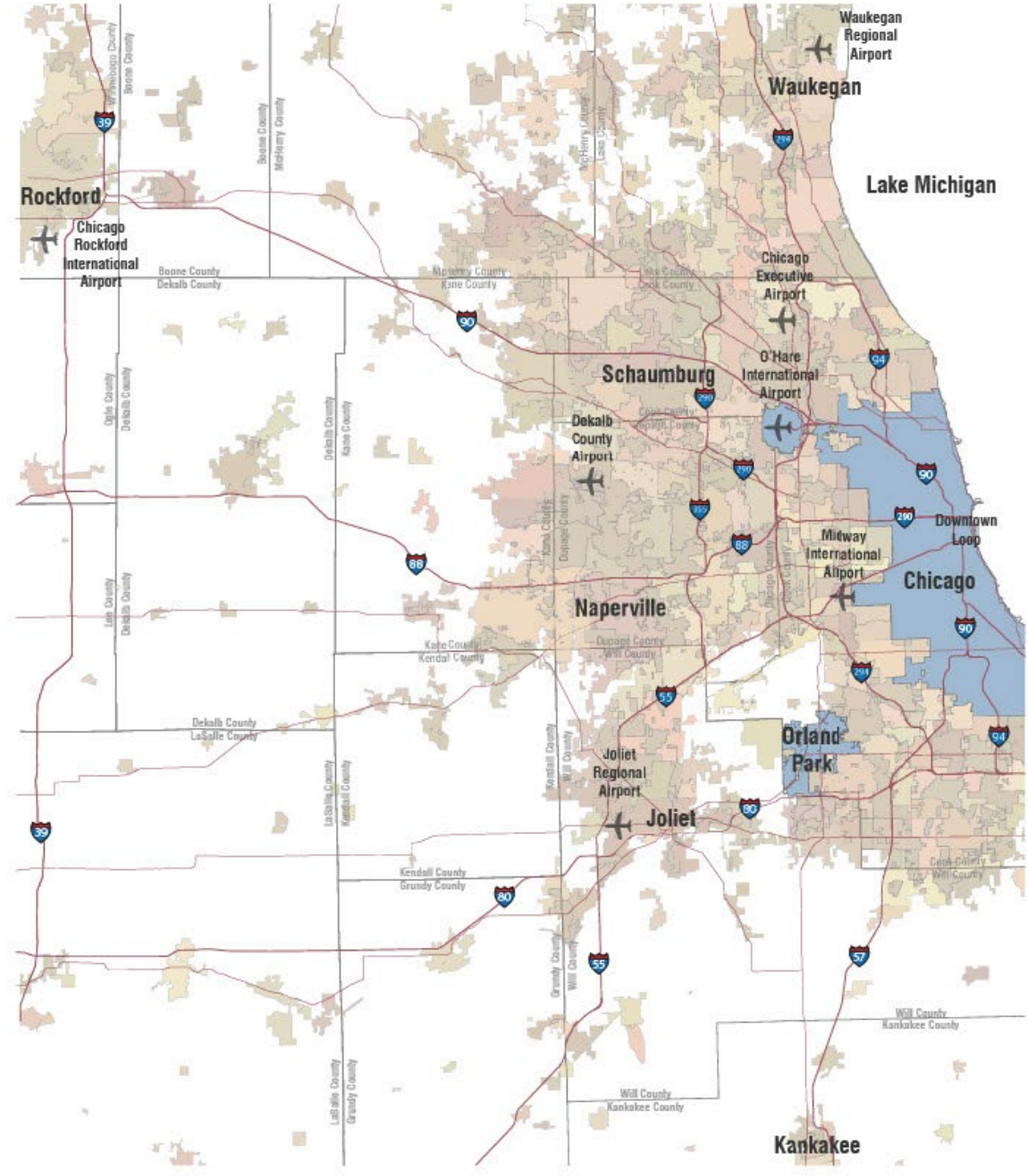


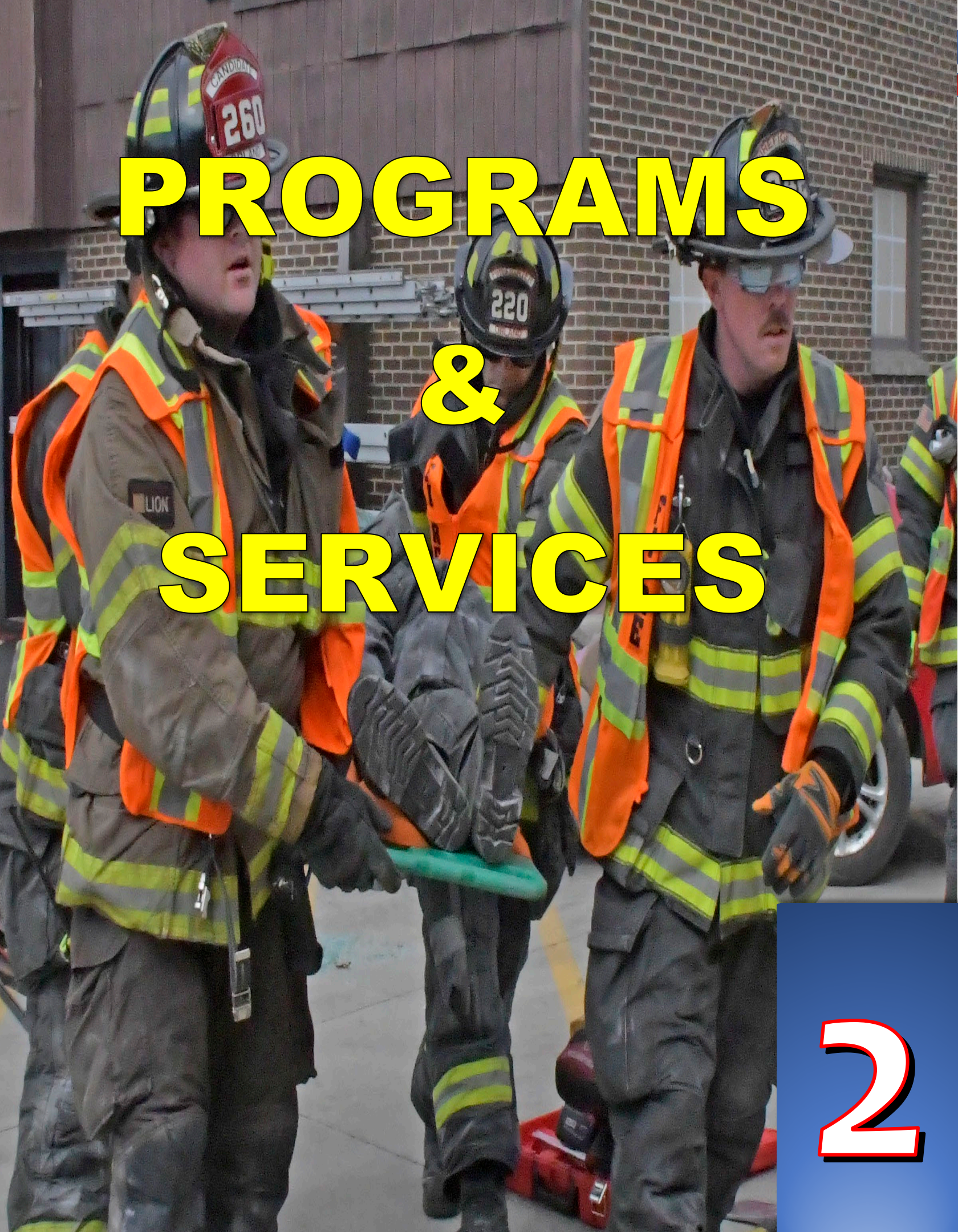
ORLAND PARK PLANNING AREA




ORLAND PARK ROAD JURISDICTION
Palos Park
Palos Heights
Homer Glen
Oak Forest
Orland Hills
Tinley Park
Mokena
To I-294 & I-55
To I-355
To I-57
To I-80
0 1/4 1/2 1 Miles
Legend
Village Boundary
Metra Rail Service
Metra Rail Stations
Creeks
Open Water Bodies
Forest Preserve
Open Space
Interstate Route
US Highway Route
State Highway Route
Pace Bus Service
Road Jurisdiction
Interstate
State Road
County Road
Village of Orland Park Road
Orland Township Road
Private Road

CHICAGO METROPOLITAN AREA






# PROGRAMS & SERVICES

2

# Section 2 - Programs & Services

## Administrative Support

The District provides its support and administrative services. The administration is responsible for the day-to-day management and support of the district. Headed by the Fire Chief, the Administration section provides policy direction, leadership, vision to the members, and finance (including budgeting, accounts payable, and payroll). Securing the resources necessary to carry out the District's Mission, Information Technology (I.T.), Human Resources (HR), labor relations, and special projects in this division is crucial. Together, Admin oversees an annual operating budget of nearly **$43 million** and grants total.

## Finance

The Finance Division is responsible for all financial activities and financial functions of the District, including preparing the annual budget and property tax levy, paying employees, paying vendors, collecting revenue, investing funds, recording receipts, expenditures, and other financial transactions, and preparing financial reports.




### Certificate of Achievement for Excellence in Financial Reporting

The District has received the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association for the Comprehensive Annual Financial Report. This is the **14th consecutive year** the District has received this prestigious award. Additionally, the Finance Department received the Distinguished Budget Presentation Award for **5th consecutive year.**

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## Human Resources

**Mission Statement**

***"The Division of Human Resources is committed to cultivating and embracing the District's superior service-oriented culture by providing innovative and efficient talent solutions in the recruitment, development, and retention of exceptional and diverse talent for public service."***




The Division of Human Resources is committed to cultivating and embracing the District's superior service-oriented culture by providing innovative and efficient talent solutions to recruit, develop, and retain exceptional and diverse talent for public service. The Division provides services and support to the District employees in ways that embrace the district's mission of devotion to duty and tradition of excellence. It is dedicated to supporting the workforce of over 150+ employees by striving to provide the best HR practices and objectives in leadership, legal compliance, labor negotiations, risk management, services, and support, as well as superior benefits that promote health, wellness, and a sound work/life balance to the employees. Human Resources provides programs and services to support the District and its employees in achieving its mission and objectives.
The Human Resources Division successfully launched multiple initiatives to promote an effective, efficient, and equitable organization, including expanding the District's professional development curriculum to increase eLearning opportunities, webcasts, and online job aids to increase employee engagement in professional development. To help employees maximize health, Human Resources continues offering annual health screenings, assessments, and coaching to all Firefighters to provide early detection, reduce health issues, and motivate employees toward healthier lifestyles. The Division of Human Resources firmly upholds confidentiality, accountability, and trust in all work areas. The HR Division remains dedicated to the District's responsive and progressive organization and strives to maintain a culture of service excellence through practical training, technology, and adapting to the changing needs of our community.

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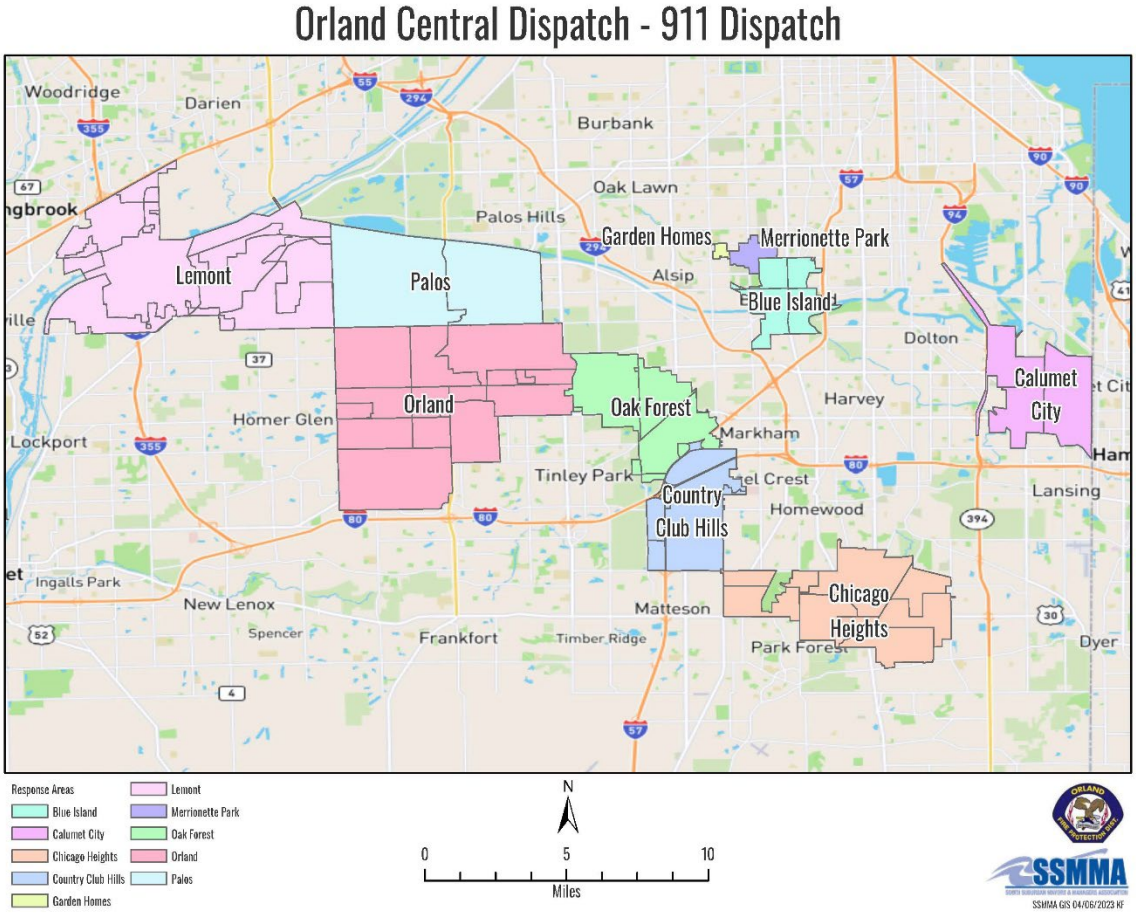
## Dispatch / Communications



The Orland Fire Protection District operates a fire service-only emergency communications center. The Center, Orland Central Dispatch (OCD), provides emergency medical, fire, and rescue call-taking and dispatching services to its community. OCD provides emergency communications for fire departments covering 251 square miles. Additionally, the District contracts its emergency communications services to ten (10) fire agencies. These fire agencies include the Blue Island, Calumet City, Chicago Heights, Country Club Hills, Merrionette, and Oak Forest Fire Departments and the Garden Homes, Lemont, and Palos Fire Protections Districts. This emergency communications consolidation of services allows the District's center to dispatch the closest vehicle to an emergency, improving response tim**es.**

In 2022, OCD recorded **52,096 total CAD incidents**, averaging **140 daily**. From 2018 to 2022, the center dispatched **203,778 calls** (averaging 111 incidents daily). In **2018-2022**, emergency communications dispatchers **processed 195,735 alarm** incidents for the center, with **53,8,41 incidents for Orland alone.** OCD is the primary dispatch center for Mutual Aid Box Alarm System (MABAS) Divisions 19 and the secondary dispatch center for Divisions 22 and 24. These three Divisions cover much of South Chicago's South and Southwest suburban are southland. Fire Departments request assistance for incidents beyond their resource capabilities, and their fire/EMS communications are passed on to Orland Central Dispatch. The alerts and requests for mutual aid to that agency, along with incident communications, are through Orland Central.

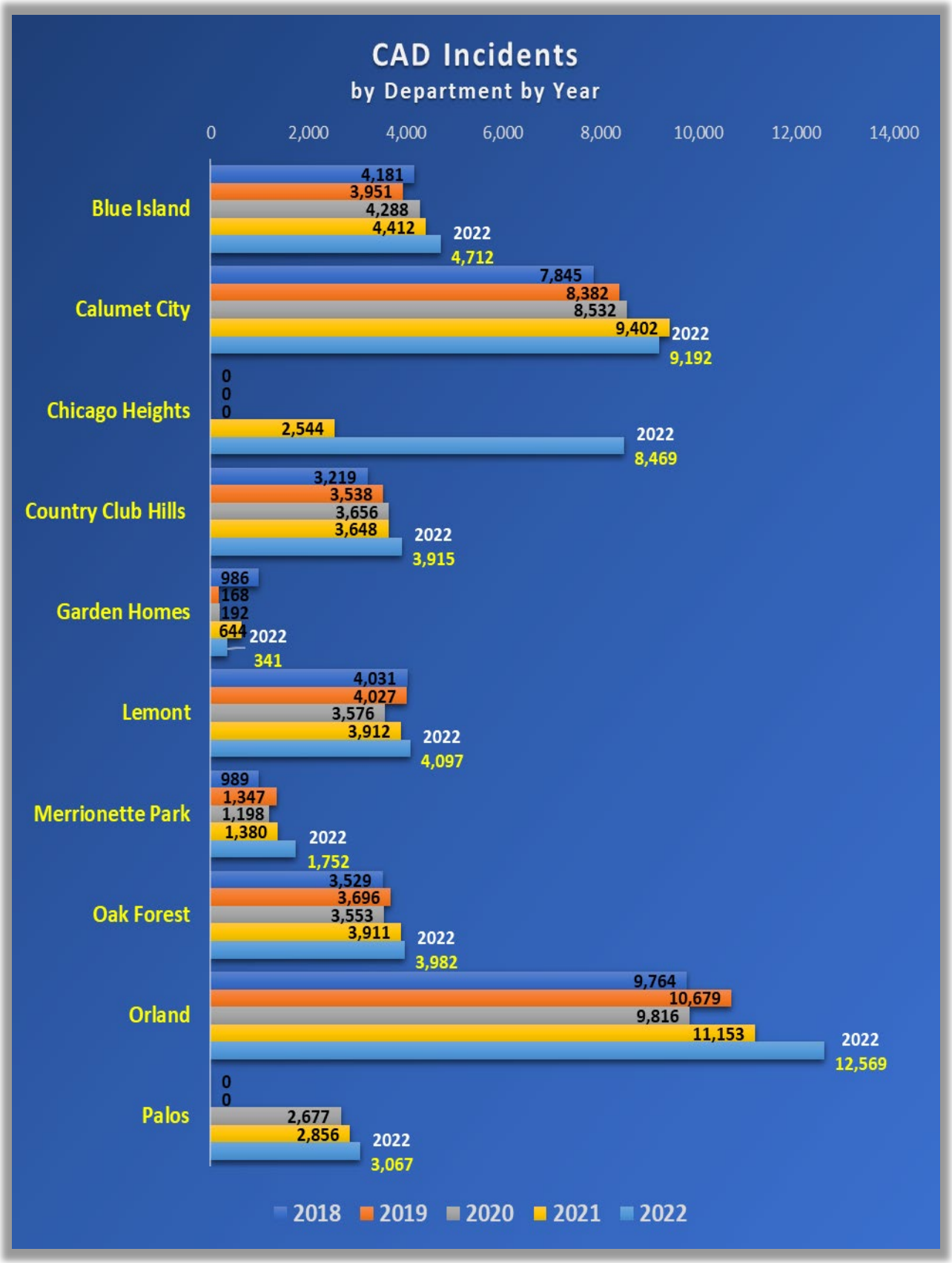
Orland Central Dispatch is also the backup center to the primary statewide MABAS Communication System operated by RED Center Northbrook. Activation for Illinois-MABAS assets and specialty equipment/teams is done through these two centers in case of a significant incident or disaster in the State or those surrounding Illinois. OCD is the backup dispatch center for the Chicago Fire Department Englewood (South) Fire Alarm Office. OCD employs a Director of Dispatch Operations, two (2) communications shift supervisors, fourteen (14) full-time telecommunicators, and three (3) part-time dispatchers. These emergency communications personnel staff the center 24 hours a day with at least three operational dispatch positions, conduct monthly training, and provide continuing education for all telecommunicators. The team participates in department drills and drills with RED Center on deploying resources during natural disasters. Dispatchers are also encouraged to attend APCO, IEMA, IPSTA, MABAS, and NENA classes.



| OCD Incoming and Outgoing Phone Calls | | | | | | | |
|---|---|---|---|---|---|---|---|
| Call Type | 2018 | 2019 | 2020 | 2021 | 2022 | TOTAL | AVERAGE |
| Admin Line - Incoming | N/A | N/A | 38,747 | 47,506 | 51,740 | 137,993 | 45,998 |
| Admin Lines - Outgoing | N/A | N/A | 22,252 | 26,590 | 39,995 | 88,837 | 29,612 |
| E911 - Answered | N/A | N/A | 20,063 | 26,855 | 34,123 | 81,041 | 27,014 |
| E911 - Abandoned | N/A | N/A | 70 | 78 | 88 | 236 | 79 |
| TOTAL | no data | no data | 81,132 | 101,029 | 125,946 | 308,107 | 102,702 |
| *Change over previous* | | | | *11%* | *13%* | | |

| Yearly CAD Incidents 2018-2022 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Fire Department | 2018 | 2019 | 2020 | 2021 | 2022 | TOTAL | AVERAGE |
| Blue Island | 4,181 | 3,951 | 4,288 | 4,412 | 4,712 | 21,544 | *4,309* |
| Calumet City | 7,845 | 8,382 | 8,532 | 9,402 | 9,192 | 43,353 | *8,671* |
| Chicago Heights | N/A | N/A | N/A | 2,544 | 8,469 | 11,013 | *5,507* |
| Country Club Hills | 3,219 | 3,538 | 3,656 | 3,648 | 3,915 | 17,976 | *3,595* |
| Garden Homes | 986 | 168 | 192 | 644 | 341 | 2,331 | *466* |
| Lemont | 4,031 | 4,027 | 3,576 | 3,912 | 4,097 | 19,643 | *3,929* |
| Merrionette Park | 989 | 1,347 | 1,198 | 1,380 | 1,752 | 6,666 | *1,333* |
| Oak Forest | 3,529 | 3,696 | 3,553 | 3,911 | 3,982 | 18,671 | *3,734* |
| Orland | 9,764 | 10,679 | 9,816 | 11,153 | 12,569 | 53,981 | *10,796* |
| Palos | N/A | N/A | 2,677 | 2,856 | 3,067 | 8,600 | *2,867* |
| Total | 34,544 | 35,788 | 37,488 | 43,862 | 52,096 | 203,778 | *40,756* |
| *Change over previous* | | *4%* | *5%* | *17%* | *19%* | | |

| Yearly Dispatched Calls For Service 2018-2022 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Fire Department | 2018 | 2019 | 2020 | 2021 | 2022 | TOTAL | AVERAGE |
| Blue Island | 3,784 | 3,726 | 3,997 | 4,028 | 4,229 | 19,764 | *3,953* |
| Calumet City | 7,807 | 8,359 | 8,498 | 9,390 | 9,145 | 43,199 | *8,640* |
| Chicago Heights | N/A | N/A | N/A | 758 | 8,422 | 9,180 | *4,590* |
| Country Club Hills | 3,181 | 3,526 | 3,621 | 3,639 | 3,859 | 17,826 | *3,565* |
| Garden Homes | 30 | 125 | 103 | 96 | 143 | 497 | *99* |
| Lemont | 3,995 | 4,011 | 3,544 | 3,902 | 4,045 | 19,497 | *3,899* |
| Merrionette Park | 336 | 1,180 | 989 | 1,269 | 1,674 | 5,448 | *1,090* |
| Oak Forest | 3,493 | 3,683 | 3,515 | 3,901 | 3,931 | 18,523 | *3,705* |
| Orland | 9,736 | 10,647 | 9,788 | 11,144 | 12,526 | 53,841 | *10,768* |
| Palos | N/A | N/A | 2,157 | 2,816 | 2,987 | 7,960 | *2,653* |
| Total | 32,362 | 35,257 | 36,212 | 40,943 | 50,961 | 195,735 | *39,147* |
| *Change over previous* | | *9%* | *3%* | *13%* | *24%* | | |
| per day average | 89 | 97 | 99 | 112 | 140 | | 107 |


CAD Incidents
by Department by Year
0
2,000
4,000
6,000
8,000
10,000
12,000
14,000
Blue Island
4,181
3,951
4,288
4,412
2022
4,712
Calumet City
7,845
8,382
8,532
9,402
2022
9,192
Chicago Heights
0
0
0
2,544
2022
8,469
Country Club Hills
3,219
3,538
3,656
3,648
2022
3,915
Garden Homes
986
168
192
644
2022
341
Lemont
4,031
4,027
3,576
3,912
2022
4,097
Merrionette Park
989
1,347
1,198
1,380
2022
1,752
Oak Forest
3,529
3,696
3,553
3,911
2022
3,982
Orland
9,764
10,679
9,816
11,153
2022
12,569
Palos
0
0
2,677
2,856
2022
3,067
2018
2019
2020
2021
2022

# Community Risk Reduction

## Fire Prevention Bureau

**Mission Statement**

*"The mission of the Fire Prevention Bureau (FPB) is to educate the community about the benefits of proper safety practices and to identify and eliminate hazardous conditions which pose a threat to life, property, & the environment."*

The FPB is crucial in protecting people from fires and related hazards. Our main objective is to prevent fires from occurring in the first place and to ensure that buildings, businesses, and individuals are equipped to deal with any fire emergencies that may arise. Our District uses "proactive firefighting" to describe how we analyze new building plans to anticipate potential life-safety issues. We also use this term to explain how it looks for potential life-safety hazards while performing annual inspections and bring them to the property owner's attention.




A successful CRR (Community Risk Reduction) program in the FPB will allow us to intentionally focus on lowering all-hazard risks within our community. Using the "**5 E's**" helps us reduce those risks. Combining these approaches helps change attitudes toward fire safety and promotes a culture of overall safety and prevention.

Draft

**Educating** people about fire safety is crucial to developing the knowledge and skills to prevent emergencies. By understanding the risks of fire hazards, learning prevention strategies, developing emergency response skills, increasing awareness, and encouraging community engagement, individuals can take proactive steps to reduce the risk of fire emergencies and create safer communities. When they understand the risks and how to minimize them, they become more motivated to protect themselves and others.

**Enforcing** laws and having regulations and penalties for fire safety standards will help create a culture of compliance and encourages people to take fire safety seriously. People or business owners become more motivated to comply when there are consequences for failing to follow regulations and codes. The risk of legal matters can encourage compliance. With clear standards, individuals and organizations are more likely to take responsibility for their actions to ensure compliance. By providing everyone is held to the same standards, enforcement can help reduce fire risks and create a safer environment.




**Engineering** solutions such as fire-resistant building materials, sprinkler systems, and smoke alarms can help make buildings safer and reduce fire emergency risk. It can slow the spread of fire and limit its impact. For example, fire-resistant walls, floors, and ceilings can prevent flames from spreading through a building, while fire-resistant doors and windows can prevent the spread of smoke and toxic gases. These materials can also give people more time to exit the building

safely by slowing the fire spread. By complying with these codes and regulations, building owners can help ensure their facilities are safe and meet the necessary standards. Overall, these materials can help to create safer buildings and communities.




**Economic incentives** can encourage people to prioritize fire prevention and mitigation. By making investing in fire safety measures more financially viable, monetary incentives can help create safer communities and reduce the risk of devastating fires. In addition to the direct financial benefits, economic benefits can make sense of social responsibility and encourage a fire safety culture. When businesses and individuals are rewarded for investing in fire safety measures, it sends a message that fire safety is essential and valued. This creates a culture in that fire safety should be prioritized.

**Emergency response** systems are crucial in reducing the impact of fires and saving lives. By ensuring quick response times, effective communication, teamwork coordination, training, and preparedness, an effective response system can help minimize the damage caused by fires and protect the lives of those affected. Having a response system that is well-organized, well-equipped, and well-trained can help to respond quickly and efficiently to fires. When people know that emergency responders are trained to keep them safe, they feel more confident about themselves and fires.

The District's public education programs are designed to address current life-safety issues. We provide educational resources and training to individuals, businesses, and schools to teach them how to prevent fires and respond appropriately during fire emergencies. Ultimately, the goal of the FPB is to keep crises from happening, thus, keeping people out of harm's way.

The purpose of the FPB is to prevent injuries, deaths, business interruption, and property damage resulting from fire and other threats to life. We believe that Fire Prevention is crucial in making the community safer. We have achieved our annual goals through the diligence and challenging work of the members of the Orland Fire District's Fire Prevention Bureau. The future will bring more significant challenges as we set loftier goals to ensure the public's safety and the district firefighters.






*COVID years 2020-2021 drastically impacted CRR activities due to lockdowns and restrictions*

## COMMUNITY RISK REDUCTION

### LIFE SAFETY INSPECTIONS

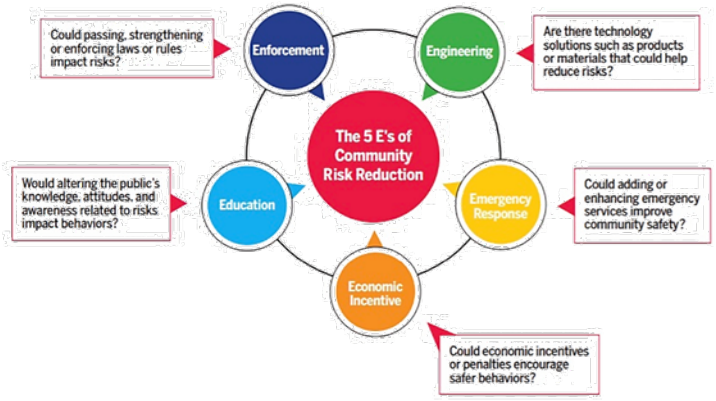
| | 2018 | 2019 | 2020 | 2021 | 2022 | TOTAL | Average |
|---|---|---|---|---|---|---|---|
| Less than 5000 sq. ft. comm | 904 | 991 | 144 | 231 | 189 | 2,459 | 492 |
| Greater 5000 sq. ft. comm | 285 | 291 | 107 | 201 | 141 | 1,025 | 205 |
| Restaurant | 240 | 250 | 49 | 72 | 60 | 671 | 134 |
| Multi-family | 303 | 401 | 56 | 42 | 407 | 1,209 | 242 |
| Re-inspections | 1,088 | 1,001 | 310 | 327 | 588 | 3,314 | 663 |
| Final occupancy | 331 | 318 | 137 | 140 | 179 | 1,105 | 221 |
| Complaint Investigations | 89 | 40 | 35 | 15 | 11 | 190 | 38 |
| Schools | 34 | 34 | 34 | 34 | 34 | 170 | 34 |
| Rough | 239 | 251 | 38 | 64 | 72 | 664 | 133 |
| Carnival | 2 | 3 | | | | 5 | 3 |
| Haunted House | 1 | 1 | | | | 2 | 1 |
| Fireworks | 4 | 2 | 1 | 2 | 2 | 11 | 2 |
| Kiosk (Mall) | 21 | 20 | 15 | 41 | 49 | 146 | 29 |
| Group Home | 14 | 16 | 18 | 18 | 18 | 84 | 17 |
| Tent | 11 | 5 | 12 | 12 | 10 | 50 | 10 |
| **Total** | 3,566 | 3,624 | 956 | 1,199 | 1,760 | 11,105 | 2,221 |
| | | | | | | | |
| Problem fire alarm checks | | 886 | 275 | 597 | 662 | 2,420 | 605 |
| Hydrostatic test of sprinklers | 40 | 33 | 20 | 33 | 49 | 175 | 35 |
| Fire alarm acceptance tests | 53 | 53 | 30 | 70 | 86 | 292 | 58 |
| Fire pump tests | 5 | 2 | | | 3 | 10 | 3 |
| Hood fire suppression system | 14 | 21 | 8 | 5 | 21 | 69 | 14 |
| Underground flushes | 6 | 1 | | 5 | 4 | 16 | 4 |
| Knox Box issues | 129 | 105 | 67 | 31 | 87 | 419 | 84 |
| Misc. events | 17 | 12 | | | 9 | 38 | 13 |
| **Total:** | 264 | 1,113 | 400 | 741 | 921 | 3,439 | 688 |
| | | | | | | | |
| LIFE SAFETY FPB ACTIVITY TOTAL: | 3,830 | 4,737 | 1,356 | 1,940 | 2,681 | 14,544 | 4,284 |

### PUBLIC EDUCATION EVENTS

| | 2018 | 2019 | 2020 | 2021 | 2022 | TOTAL | Average |
|---|---|---|---|---|---|---|---|
| Block Party | 17 | 24 | 0 | 0 | 26 | 67 | 13 |
| Car Seat Checks | 76 | 75 | 45 | 0 | 80 | 276 | 55 |
| CPR Classes | 28 | 28 | 3 | 0 | 28 | 87 | 17 |
| Fire Drills | 23 | 15 | 14 | | 29 | 81 | 20 |
| Fire Extinguisher Classes | 5 | 12 | | | 16 | 33 | 11 |
| Parade | 5 | 8 | 87 | | 11 | 111 | 28 |
| Public Display | 46 | 53 | | | 68 | 167 | 56 |
| Safety Trailer | | | | | | 0 | |
| Safety Lecture | 50 | 50 | | | | 100 | 50 |
| Station Tour | 16 | 26 | 1 | | 3 | 46 | 12 |
| Senior Events | 15 | 16 | 6 | | 26 | 63 | 16 |
| Stand By | 12 | 2 | | | 5 | 19 | 6 |
| Other | 2 | 2 | | | | 4 | 2 |
| Career Days | 3 | 3 | | | 3 | 9 | 3 |
| Family Walks/Runs | 4 | 4 | | | 4 | 12 | 4 |
| Apparatus Show & Tell | 50 | 50 | | | 53 | 153 | 51 |
| Adopt A Firefighter | 160 | 160 | 3 | | 168 | 491 | 123 |
| Learn Not To Burn | 61 | 64 | 3 | | 6 | 134 | 34 |
| Public Education Meetings | 31 | 33 | 10 | | 12 | 86 | 22 |
| TOTAL: | 604 | 625 | 172 | 0 | 538 | 1,939 | 388 |
| | | | | | | | |
| CONTACTS | 45,000 | 55,000 | | | 50,000 | 150,000 | 50,000 |

# Public Education Division

The Public Education Division provides proper education to help reduce the risk of fires and promote safer communities through education and awareness. The mission of this division is to ensure that individuals and businesses are prepared to respond to fire emergencies safely and effectively as a priority. We achieve this through public interaction, educational campaigns, and attending community events throughout the District.




The job of the (FLSE) Fire and Life Safety Educator is to raise awareness about the dangers of fires and the importance of fire safety practices. Having a dedicated fire and life safety educator can improve the safety and preparedness of the community and will strengthen the relationship between the District and its residents. The educator delivers and manages proper education at all public events throughout the District and is responsible for adequately supervising the implemented programs. The educator develops, coordinates, and presents these programs by creating brochures, videos, PowerPoints, and presentations to teach the community about fire and life safety education. Training can include how to effectively use a fire extinguisher, the importance of having working smoke alarms, how to call 911, and having proper evacuation procedures in the event of a fire. The FLSE collaborates with other agencies, organizations, and stakeholders to promote fire safety and prevention. This includes working with the district schools, the library, community centers, churches, sports facilities, Orland Park Village, Orland Township, and other locations within the District to integrate fire safety education into their curriculums. Some of the resources we use are brochures, fact sheets, and other educational materials distributed at community events. To evaluate the effectiveness of the fire safety education programs and make improvements include feedback from community members. We also partner with local businesses and work with community groups to develop fire safety plans.

Fire drills are conducted throughout the District. Practicing fire drills is a crucial part of fire safety practices and can help save lives in a fire emergency. Making wise choices and being proactive will help to reduce the risk of injury, harm, or death. The primary reason for practicing is to ensure the safety of everyone in the building. Having regular drills helps to ensure that everyone is familiar with the evacuation procedures and can evacuate quickly and safely. Practicing regularly makes people more likely to remain calm in an emergency which can help minimize injuries and fatalities. Regular fire drills can help identify potential safety issues or hazards in the home or building. If there is much congestion when the training needs to be re-evaluated, evacuation plans and adjustments will ensure that everyone exits safely.

The Fire and Life Safety Educator also offers a kid's camp implementing strategies with age-appropriate materials to teach fire and life safety topics to children ages 8-12 years in a fun and engaging way. This camp helps build confidence through hands-on activities, problem-solving skills, and learning to think critically. This is an excellent way for children to learn about emergency preparedness, fire safety, first aid, CPR, water safety, train safety, electrical safety, medicine safety, problem-solving, and critical thinking. These skills can help them become better equipped to handle such emergencies.

Another camp offered is our Junior Cadet Camp. This camp is held for teenagers between 13-18 years old. This camp encourages leadership skills, helps them develop skills, and encourages them to become active in their

community. They learn about firefighting, emergency medical services, and other related professions. This exposure can help them make more informed decisions about their career choices.

A CRR benefit of having a fire district open house is significant. Community Risk Reduction is a proactive approach to identifying and mitigating risks in a community. It allows us to educate our community about safety and prevention. Demonstrations that provide fire safety practices will reduce the risk of fires in our community. It is also an excellent way to reach vulnerable populations, such as children and older adults. By engaging with these populations and providing them with fire safety education, we can help prevent fires and save lives. We can create community relationships by showing them that their well-being is important to us and that they can count on us and build the needed trust. By talking with community members and observing their behavior, we can identify areas where we need to focus on our CRR efforts.

Engaging with the community and providing fire safety education can help prevent fires and ensure everyone knows what to do in a fire or emergency. Attending weekly and weekend events throughout the fire district is essential to the fire educator's job. These events allow the educator to reach out to vulnerable populations, such as children and the elderly, who may be more at risk for fires. By engaging with these populations and providing them with the right resources, we can help to prevent fires and save lives.

There are numerous benefits of having a Coffee & Conversations group (with older people) in our community. Many seniors live alone and feel isolated. Regular monthly gatherings have proven to be valuable. It maintains their sense of belonging and having a purpose. We provide fire safety information and education that proves to be beneficial to their everyday lives. They stay connected through our Senior Advisory Council members and group leaders by engaging in conversations that benefit their well-being. These gatherings provide a valuable opportunity for seniors to socialize, learn and connect with others in their community. This community connection helps them to feel active, engaged, and supported.

Draft

The District's safety trailer has created awareness by preparing everyone about evacuation, kitchen emergencies, and weather preparedness. The trailer has become an essential tool for this organization.

A dementia Memory Café is a supportive social gathering for people with dementia and their caregivers. Here are a few ways that CRR ties in with our dementia memory café. We can provide an opportunity to educate people about fire safety and other topics. All CRR materials are shared with our members, and safety education in their homes is provided. This has become a valuable outreach program that promotes our efforts and encourages participants to live as safely as possible. We discuss the challenges associated with dementia and fire safety in their homes. We provide a supportive and welcoming environment where they can feel more comfortable discussing safety issues and seeking help. Collaborations like these can help reduce risks associated with dementia and create a safer, more supportive community. The District's (SAC) Senior Advisory Council and its members have assisted the educator with safety Luncheons, health fairs, and senior talks and have proven to be a necessary group to this organization.




For **2018-2022**, there were 1,939 public education events with over 150,000 contacts. Note that from 2019 through 2020, COVID restrictions greatly impacted these activities.

# Community Risk Reduction Programs

## Community Cares Program

### Cardiac Arrest Registry to Enhance Survival

The Orland Fire Protection District Community CARE program is dedicated to the proposition that planning saves lives regarding those precious minutes following sudden cardiac arrest. There is a 90% survival rate for victims of sudden cardiac arrest with effective CPR (Cardiopulmonary Resuscitation) and ready access to an (AED) Automated External Defibrillator. CARE'S primary mission is two-fold: (1) to increase the number of people trained in CPR and the use of an AED and (2) to increase the availability of (PADs) Public Access to Defibrillators. Furthermore, the program aims to create a monitoring/maintenance program to ensure CPR skills remain current and defibrillator batteries and PADs remain operational. The Orland Fire Protection District provides FREE CPR training courses every other month. And BLS (Basic Life Support) provider CPR is for the professional that needs CPR as a term of employment. This course follows the guidelines outlined by the AHA (American Heart Association). Monthly classes are offered for this accredited healthcare provider program. Information on both programs is detailed on the District's website (www.orlandfire.org). Between 2018 and 2022, including the Covid-19 pandemic, we taught CPR (free family and friends and BLS certification) to 5,929 persons.

### Senior Advisory Council

The Orland Fire Protection District Senior Advisory Council (SAC) bridges the District's officials and the large senior population communicating health and safety concerns. SAC serves as a liaison between the fire district and the senior community, promoting communication and understanding between the two groups. The goal is to preserve life and property for seniors within the District. They also ensure that the community's seniors' needs are addressed regarding fire and emergency services. They help improve safety and strengthen the relationship between the District and the senior community.



Draft

The Orland Fire Protection District established the Senior Advisory Committee Board in 2009. SAC's primary purpose is to "identify and address specific needs of the senior residents of the District's District" concerning health and safety. In general, advisory boards may perform the following tasks:

- Studying issues
- Performing independent research
- Participate in District activities
- Educate seniors about health and safety issues recommended by staff
- Analyzing the impact of policies on the senior population within the District
- Make recommendations to the Board of Trustees based on thoughtful and unbiased discussions
- Form a senior perspective



## Cadet Programs

The District's Cadet Program helps individuals between the ages of 16-21 interested in a Fire Service or Emergency Medical Services career. According to the program schedule, cadets will be taught firefighting skills and knowledge based on the current Illinois OSFM (Office of the State Fire Marshal) standards for Basic Operations Firefighters through online coursework and hands-on practical training on Saturday mornings.

**Program Goals:**

- Experiencing a taste of the day-to-day life of a Firefighter / Paramedic
- Exploring fire service as a career
- Providing an opportunity for individuals 16-21 years old to get involved in the fire service and the community
- Providing training that will assist individuals in obtaining a position as a career Firefighter / Paramedic

**Program Activities:**

- FF II basic training – Regular program of 280 hours (about 1 and a half weeks) in 28 subject areas
- Instruction in First Aid and Cardiopulmonary Resuscitation
- Ride time on an ambulance for EMT / Paramedic
- Sponsorship for EMT / Paramedic school
- Supervised "ride-a-long" as an observer
- Assisting the Fire and Life Safety Education Coordinator at district events. These events include but are not limited to the fire and life safety camps, annual open houses, and public events sponsored by the Orland Park Village and throughout the District.

Draft



## Residential Knox Box Program

The Residential Knox Box Program is designed to provide quick and safe access to residential properties in an emergency. The Knox Box is a secure metal box installed outside a person's home and can only be accessed with a key held by emergency responders. This is especially beneficial for our senior population. There are several benefits to having this Knox Box. This will allow quick access, especially if an old cannot open a door during an emergency. Maybe they have fallen or become incapacitated. This easy access can help reduce property damage by allowing emergency responders to enter the home without breaking down the door. The Knox Box can ensure no delay when every second counts, especially in an emergency.

The Residential Knox Box Program helps the Orland Fire Protection District loan out boxes to older people with medical call buttons and with medical conditions limiting their mobility. Regardless of age, we also loan these boxes to people with debilitating medical conditions (such as multiple sclerosis.). People who want a box must fill out an application and a medical history form and provide a key for their residence to be locked in the Knox Box. Family members usually install the Knox Box on the home; however, the FPB personnel will install them if requested. Family members typically install the Knox Box on the residence; however, the FPB personnel can install it if requested. Cautionary notes are added about any hazards in thin home oxygen tanks. These cautionary notes provide proper instruction for our crews responding to the call.

This program has proven successful and is an excellent service for our residents. We plan to increase the program's size by purchasing more boxes. The senior population with medical needs and those suffering from debilitating medical conditions will benefit from this valuable resource provided to them during an emergency. This community outreach program has added a sense of security to our population and provided our emergency responders quick access during emergencies.

Draft

## Car Seat Checks

CPS (Child Passenger Safety) Technicians do so much to help keep kids safe, from car seat checks to helping parents and caregivers understand how to prevent unintentional injuries in and around cars. The car seat technician ensures that car seats are correctly installed and provide maximum safety for children riding in motor vehicles. The car seat tech is accountable for following manufacturer guidelines and safety regulations. The technician must be sure that all seats are in good condition and were not involved in a previous accident or expired. The technician is responsible for ensuring that the car seat is appropriate for the child's age, weight, and height. Car seats will be installed by the parent or caregiver and inspected by the car seat technician. During the car seat inspection, the CPS technician will provide updated safety information and education regarding the child, and the proper instruction on the seat is given to the parent or caregiver. Our responsibility is to teach the parent or caregiver how to install the heart by following the appropriate guidelines.

Car seat installations will be inspected for district residents only by appointment. The District has three certified personnel to ensure all car seats are correctly installed and follow manufacturer guidelines. District residents can make sure their child is riding safely by making an appointment with a certified Child Passenger Safety Technician.

## CERT (Community Emergency Response Team)

The Orland Fire District hosts a CERT (Community Emergency Response Team) program. The classes are held at the Orland Fire District Administration building. The course is limited to residents of the Orland Fire District, and the minimum age to participate is 18 years. The CERT graduate classes currently have 42 active community members. The District wants to add

volunteers to assist the Orland Fire District during disasters and weather-related emergencies. This is how the District residents can give back to the community. Experience is unnecessary, and the District will provide you with the training needed to become an Orland CERT team member. Some of the training provided includes the ability to extinguish fires in the event of an emergency safely, First Aid, CPR, bleeding control, assist your family and neighbors in the event of an emergency, organize and operate search and rescue duties in your neighborhood, coordinate, and work with other First Responders during community emergencies.



## Senior Citizen Smoke Alarm Replacement Program

In conjunction with Local 2754, the members annually replace smoke alarms and batteries for any needy senior resident.

## CPR Classes

TRAINED OVER

**5,929**

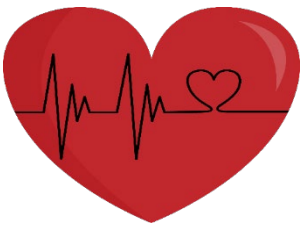
IN CPR

since 2018

Our District offers two types of CPR courses. The Family and Friends CPR program is a training program designed to teach non-healthcare professionals how to perform Cardiopulmonary Resuscitation (CPR) in case of an emergency. This program teaches the proper guidelines and foreign body airway obstruction maneuvers outlined by the American Heart Association (AHA). It aims to increase the number of people who can respond effectively to cardiac and breathing emergencies. This course will consist of a lecture and a practical. One-rescuer and foreign-body airway obstruction maneuvers will be demonstrated in the applicable portion. Both classes and practical sessions will cover adult and Pediatrics resuscitation. This course is FREE for those attending!

Our BLS (Basic Life Support) for Healthcare Providers course is much more comprehensive, detailed, and designed to meet the specific needs of the healthcare provider and the term of employment. This class is designed for individuals who work in healthcare settings, such as hospitals, clinics, and long-term care facilities, who may need to perform CPR. This course also covers adult, child, and infant CPR topics, including using AEDs (Automated External Defibrillators). Upon completing this course, participants will receive a certification card indicating they are trained in BLS CPR for Healthcare Providers. This certification must be renewed every two years to ensure that individuals are updated on the latest CPR techniques and follow the AHA (American Heart Association's) guidelines.

From 2018 to date, the District has **trained over 5,929 people in life-saving CPR!**





Draft

## 10Kids Fire & Life Safety Camp

A Community Risk Reduction program can be essential to a kids' fire and life safety camp in several ways. The Kids Fire and Life Safety Camp is dedicated to exposing school-aged children to fire and life safety lessons dealing with potential hazards in and around their homes and schools. The materials and resources given to the kids attending the safety camp also teach them about first aid and emergency preparedness. They learn how important it is to become aware of these safety skills that can help protect themselves and others. This experience can significantly impact their awareness, preparedness, safety, and well-being. The children at camp will develop a greater appreciation for safety and can encourage more cautious and responsible actions. Some of the training will include train safety, electrical safety, bike safety, tornado and fire safety, CPR and first aid training, medicine vs. candy safety, and water safety. They will learn how to respond to these and other emergencies and feel more prepared and confident. Our activities noted above will allow them to develop more confidence by dealing with situations and giving them skills to stay safe. Hands-on activities are designed to reinforce what they have learned. oCamp is intended to be fun and educational while providing them with the skills and knowledge to stay safe in emergencies and keep them out of harm's way.






# Fleet & Facility Maintenance

Support Service provides behind-the-scenes support to maintain optimal and efficient front-line operational service to the District's residents. Support Service encompasses the maintenance and repair of the District: Facilities, Fleet Vehicles, SCBA (Self Contained Breathing Apparatus), Tools, Equipment, and Hose, as well as the procurement and distribution of various supplies.

## Fleet Maintenance

The Orland Fire Protection District's Support Service Bureau consists of six specialized areas committed to aggressively maintaining the Fire District's buildings, vehicles, and equipment. Safety, reliability, and readiness are priorities, as well as running a cost-effective and efficient maintenance operation. Support Service encompasses the maintenance and repair of the District: Facilities, Fleet Vehicles, SCBA (Self Contained Breathing Apparatus), Tools, Equipment, and Hose, as well as the procurement and distribution of various supplies.

The District takes no shortcuts when working on emergency vehicles, buildings, or equipment. Emergency equipment is unique, extraordinarily complex, and challenging to maintain and repair. Given the nature of the fire service, this equipment is subject to extreme and less-than-ideal operating conditions, which result in significant wear and tear. It demands a very high and specialized level of technical skill. Orland Fire Protection District technicians possess a keen knowledge and understanding of auto and truck, mechanical, emission control, fuel injection systems, welding, fabrication, building maintenance, HVAC systems, multi-phase commercial electrical systems, and communication systems. What sets the District's people apart is their expertise in the technical intricacies of fire, EMS, emergency equipment, building systems, and maintenance. All equipment is serviced regularly and thoroughly maintained as part of the Orland Fire Protection District's preventive-maintenance program.

Draft

About the program:

- Reduces costly breakdowns and increases reliability.
- Staffed with trained, certified, highly skilled, and very valued technicians.
- **Fleet of 60+** pieces of fire apparatus, ambulances, specialty equipment, and support vehicles.
- Six fire stations, a Headquarters building, a Fleet Maintenance building, and three training buildings.
- Utilizes a cost-conscious, cost-effective, common-sense approach.
- Ongoing initiative to exceed operational demands and increase efficiency.
- Pride and professionalism are the expectation.
- Safe work practices and safe equipment are a must.

The Support Service Bureau provides behind-the-scenes services essential to effective Fire, EMS, and Rescue Operations. Serving the community is the privilege of every Orland Fire Protection District employee, not only those responding to fires, EMS calls, or other emergencies but also those people behind the scenes repairing the District's facilities and fire apparatus, in addition to performing other essential functions. Ultimately, every

Orland Fire Protection District employee is vital in allowing the District's organization to help others in need. Helping others is truly the District's privilege.

The District employs two ASE-certified technicians, one ASE/EVT-certified supervisor, and one Apprentice maintaining approximately 60+ pieces of equipment. All the District fire apparatus, ambulances, and support vehicles are serviced at regular intervals in addition to required repairs.

The District vehicles are exceptionally well maintained, which is imperative given the need for 100% reliability and the severe duty associated with emergency response.

In 2022, the District opened its **new 15,000'** (9 bay) **Regional Fleet Maintenance facility.** Currently, the District is also maintaining apparatus from Lemont, Palos, Oak Forest, Merrionette Park, Richton Park, Manhattan, and Itasca FDs (so far).





## Facilities & General Repairs

The District employs one full-time and three part-time (7g) building maintenance technicians with extensive HVAC, plumbing, electrical, and building maintenance systems backgrounds. Most repairs are handled in-house, allowing us to address issues promptly and efficiently, keep costs down, and minimize any impact on operations.

## SCBA / Small Tools / Supplies

Self-Contained Breathing Apparatus (SCBA) – are worn by Firefighters to protect them from inhaling toxic and super-heated gases in fires and hazardous environments. Compressed air is stored at a pressure of 4500 psi in cylinders worn on each Firefighter's back like a backpack. Due to the extreme pressure and exposure to hostile environments, this equipment must be thoroughly tested and maintained. The District practices a disciplined routine of daily, weekly, and annual testing, maintenance, and repair of each SCBA.

The District utilizes dozens of equipment from the vehicle, extricating to thermal infrared cameras, to find victims in smoke-filled, zero-visibility environments. This equipment must also be exceptionally well maintained and kept in a constant state of readiness to be reliably deployed in any emergency.

Each District fire engine carries nearly 3000 feet of various diameter fire hoses. These hoses are designed to operate at pressures ranging from 80 psi to as high as 250 psi. Each hose length is tested annually to NFPA standards and repaired in-house by trained District personnel.

The District Support Service maintains an inventory of basic cleaning supplies and paper goods distributed to all facilities per order.

Draft





# Training

## Mission

*"The Orland Fire Protection District Division of Training is organized to provide the highest quality training and education to all members, providing realistic, relevant, and referenced training to ensure skill proficiency in all facets of the District's professions."*

The Training Division is overseen by a Day Lieutenant and supported by numerous 7g/adjunct instructors who have worked diligently to develop a training program to ensure that the District provides an all-hazards training curriculum. The District's program encompasses initial training and continuing education for the District's members in many different areas, covering any incident the District may encounter. The District has adopted the certification program offered through the Illinois State Fire Marshal Office (OSFM). The OSFM certification program outlines a standard curriculum for each discipline or class. The classes taught and utilized for training at the District are:

**Basic Operations Firefighter**
- **Advanced Technical Firefighter**
- **Arson**
- **Company Fire Officer**
- **Advanced Fire Officer**
- **Chief Fire Officer**
- **Instructor I, II, and III**
- **Fire Service Vehicle Operator**
- **Fire Apparatus Engineer**
- **Hazardous Materials Operations**
- **Hazardous Material Technician**
- **Technical Rescue Awareness**
- **Structural Collapse Operations**
- **Structural Collapse Technician**
- **Trench Operations**
- **Trench Technician**
- **Rope Operations**
- **Rope Technician**
- **Vehicle Machinery Operations**
- **Vehicle Machinery Technician**
- **Water Operations / Technician**
- **EMS (Numerous Classes)**

Draft

The initial courses vary in length from twenty hours to one-hundred twenty hours. Once a member has passed the course and OSFM state exam, they will receive a certificate for that discipline or course. The certified member will use the District training program to maintain their skills and proficiency for each certification or discipline area.

The District's Firefighters logged over twenty-six thousand hours of training, averaging over two-hundred and fifty hours per Firefighter. The District training program is designed to meet both the mission of the District and is guided by the Illinois State Fire Marshal, Secretary of State, Occupational Health and Safety Association, National Fire Protection Agency, and local and federal statutes. The District assures each Firefighter receives training in the following areas.

- **Firefighter**
- **Special Rescue**
- **Live Fire**
- **Drivers**
- **Officer**
- **General Compliance**
- **Hazardous Materials**
- **Self-Contained Breathing Apparatus**

The ability to provide the highest quality training to the District's members is the cornerstone of the District's training program, so Orland Firefighter / Paramedic professionals maintain the highest level of skill proficiency and provide the absolute best possible service to the District's customers.



## IFSI Training

The District has partnered with Illinois Fire Service Institute (IFSI), the state fire academy, to provide training to the area. The partnership with IFSI offers an avenue to deliver high-quality training to the local area. The courses given at Orland Regional Training Facility allow Orland Firefighter/Paramedics to attend certification courses and provide an opportunity for other local departments to train at the District's state-of-the-art Training Facility.

## Special Rescue Training

Orland Fire Protection District is an all-hazards fire department. The District's training on all types of emergencies is vital to the District's ability to serve the customers of the Orland Fire Protection District. When an emergency happens within the District, and someone calls 911, the District responds with highly trained professional Firefighter Paramedics. The District's special rescue training includes Trench, rope, collapse, confined space, and other unique emergencies.

Draft

## (RTF – Rescue Task Force) Active Threat Training

We need to conduct training based on best practice models for worst-case scenarios utilizing simulation. The District does not want to think that tragic terror events will happen here, but we must be prepared for the All-Hazard response. The District continues to train with Orland Park Police if lives must be saved while they protect the District's Paramedics.

## Resident Physician Training

In October, Orland Fire hosts nearly 50 resident physicians from Advocate Christ Medical Center. After introductions, the groups are sent to different stations to experience the patient care perspective from the Paramedic responders' view. They extricate a patient that was pinned under a vehicle, perform confined space rescue, provide an advanced airway to patients trapped in a car, and assess and treat a trauma patient while being hindered by low light, smoke, and noise, including the extrication of a patient's hand from a meat grinder and machines. This event has taken place every three years for approximately 15 years.



## Incident Command Training

Since the District's Command Training Center (CTC) opened in 2009, the District has trained over one thousand incident commanders nationwide. The CTC uses high-fidelity simulations to train incident commanders on how to manage an incident safely and efficiently. The District continues to develop more simulations, train more incident commanders, and provide quality continuing education for current incident commanders.

**BLUE CARD INCIDENT COMMAND**
Trained over
**1,500+**





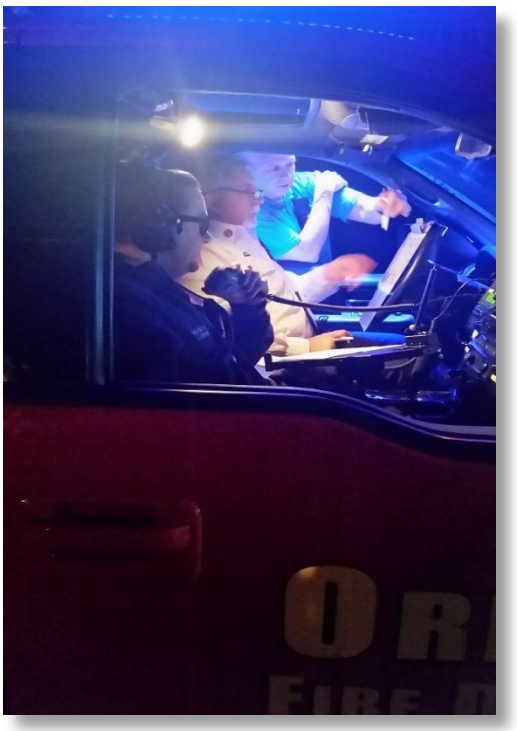

## Heavy Extrication Class

The District continuously seeks ways to provide high-quality training to all its members and other local emergency responders. Heavy extrication classes sponsored by Genesis Rescue Systems allow area emergency responders to learn and train on rescue emergencies. The District and surrounding departments train together in the event there is an event that requires more than one agency to respond. Orland Regional Training Facility is often utilized for these training events.



## MABAS 19 Light-n-Fight - Incident Command Training

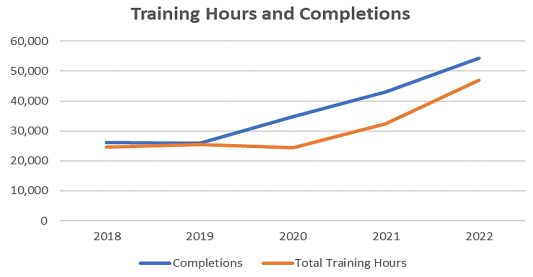
Quarterly, each department within the District's Mutual Aid Box Alarm Division 19 (MABAS 19) sends one company to the training event. A scenario develops, and the company responds and collaborates to mitigate the incident. The ability to bring departments together enhances the District's interoperability and cohesiveness in the event an actual emergency incident happens.



Training is paramount to the safety of the firefighters and the citizens they protect. The District trains locally in-house at its Regional Training Campus, hosting dozens of MABAS training events/centers and state-sponsored classes.



The District is responsible for performing various emergency and non-emergency functions. They must continually train to ensure our members stay safe and complete their assigned tasks. Training and learning in the fire service is a career-long commitment. The Training Division promotes individual and organizational effectiveness by developing programs supporting its commitment to employee development and departmental enrichment. It is regulated by entities such as the Office of the State Fire Marshal (OSFM), the National Fire Protection Association (NFPA), the Illinois Department of Public Health (IDPH), the Occupational Health and Safety Administration (OSHA), Insurance Services Office (ISO), and the Federal Emergency Management Agency (FEMA). These agencies and others provide parameters for entry-level training, continuing education, and officer development. Departmental training must remain dynamic for our members to meet these agencies' various demands and requirements.




| Year | Completions | Total Training Hours | Active Members | Average Completion Per Member | Average Hours Per Member |
|---|---|---|---|---|---|
| **2018** | 26,152 | 24,621 | 120 | 218 | 205 |
| **2019** | 25,948 | 25,372 | 119 | 218 | 213 |
| **2020** | 34,765 | 24,432 | 115 | 302 | 212 |
| **2021** | 43,142 | 32,454 | 121 | 357 | 268 |
| **2022** | 54,369 | 46,857 | 123 | 442 | 381 |
| **Total** | **184,376** | **153,735** | | | |
| *Average* | *36,875* | *30,747* | *120* | *307* | *256* |

**153,735** Hours of Training

2018-2022

**30,747** hours per year *(average)*

**256** hours per member *(average)*

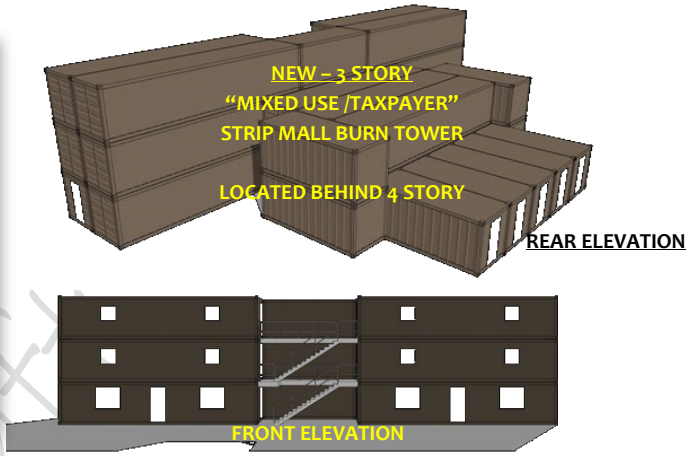
| CERTIFICATIONS | # of Personnel |
|---|---|
| Arson Investigator | 1 |
| ATF/FFIII | 90 |
| Basic FF/FFII | 124 |
| Basic Fire Prevention Officer | 3 |
| CFO | 5 |
| Collapse Operations | 31 |
| Collapse Technician | 16 |
| Con Space Operations | 28 |
| Con Space Technician | 13 |
| FAE | 113 |
| FD Safety Officer | 14 |
| Fire Inspector I | 7 |
| Fire Inspector II | |
| Fire Invesitgator | 11 |
| Fire Prevention Officer | 4 |
| Fire Service Instructor I | 62 |
| Fire Service Instructor II | 31 |
| Fire Service Instructor III | 3 |
| Fire Service Vehicle Operator | 90 |
| FOI/CoFo | 53 |
| FOII/AdFo | 19 |
| Haz IC | 21 |
| Haz Operations | 124 |
| Haz Technician | 29 |
| HSO | 15 |
| ISO | 21 |
| PLSE | 10 |
| Rope Operations | 79 |
| Rope Technician | 16 |
| Swift water | 7 |
| Swiftwater/Flood Search and Rescue | 4 |
| Training Program Manager | 7 |
| Trench Operations | 30 |
| Trench Technician | 19 |
| Vehicle & Machine Operations | 108 |
| Vehicle & Machine Technician | 28 |
| Water Craft Technician | 20 |
| Water Operations | 40 |
| Youth Fire Setter | 5 |
| | 1301 |

Draft

# Regional Training Campus

The Orland Fire Protection District Regional Training Campus aims to provide the District's people with the most realistic training environment while maintaining high safety. The District strives to provide the District's companies with the opportunity to train on all the hazards that crews encounter each day the District responds to emergency incidents. The Orland Fire Protection District utilizes the Illinois State Fire Marshal Certification Program as a guide to develop and deliver the District's training program. The District's Training Facility provides a means to maintain the highest level of proficiency in the District's "All Hazards Response" of service delivery. The Orland Regional Training Facility continually seeks quality training in fire, rescue, emergency medical services, fire prevention and education, and specialized rescue. The prop allows us to train in confined spaces, rope and high-angle rescue, hazardous materials, and many other scenarios.




Draft



# EMS – Emergency Medical Services

**The Emergency Medical Services (EMS) program responds to the District's medical emergencies, which is also most of the District's incidents 61 % - EMS only (65% including vehicle accidents)**

Orland Fire District has over **129 Paramedics** (nearly **100% crossed trained as Firefighter/Paramedics**) that maintain certifications in various medical disciplines that exceed the Illinois Department of Public Health requirements. A Day Lieutenant oversees this Division with a support staff of "7G" part-time staff and adjunct instructors. Continuous Quality Improvement (CQI) is also a function monitored through a committee and a crucial tool for delivering the highest level of EMS care and service.



Orland Fire belongs to **REGION VII EMS.** Silver Cross EMS System is the District's Medical Resource and Project Medical Director.



Some of the additional certifications and descriptions maintained by ALL PARAMEDICS are:

- Advanced Cardiac Life Support (ACLS) training focuses on treating cardiac arrest, stroke, and other life-threatening medical emergencies and the skills to deploy advanced interventions.
- Pre-Hospital Trauma Life Support (PHTLS) is recognized globally as the leading prehospital emergency trauma care educational program.
- Pediatric Education for Pre-Hospital Professionals (PEPP) provides comprehensive instruction for the emergency care of infants and children.

EMS training is conducted utilizing the District's state-of-the-art **$ 200,000 Simulation Lab**. Every stressful and difficult medical or traumatic situation can be recreated through simulation. Skills and abilities are built, and knowledge is gained through this hands-on teaching and learning environment.

Orland's highly trained medical personnel respond in advanced life support (ALS) ambulances and ALS fire apparatus. At least 5 Paramedics/Firefighters are dispatched to EVERY EMS INCIDENT! When you call for help, the closest available ambulance and fire apparatus are dispatched simultaneously, ensuring assistance arrives as soon as possible.

Power-assisted cost and ergonomically designed stair chairs make patient movement and transition of care less stressful while providing safety for the District's personnel. They were identified as part of the Rescue section. All Ambulances and Fire Companies are ALS equipped. Other advanced technologies include video laryngoscopes and Intra-osseous drills that save time when seconds count, and life is in the balance.

The national average for Cardiac Arrest resuscitation from Ventricular Fibrillation (VF) is only 11%. **That is SEVEN TIMES THE NATIONAL AVERAGE. The Cardiac Arrest Save rate in Orland (VF) has averaged 55% for the last five years [44/81]. Remarkably, in 2022 that statistic improved to 71.4% [10/14].**

Advanced technologies are brought to every emergency. Among those technologies are cardiac monitors that can transmit your 12 Lead ECG to the hospital so that the appropriate care may be assembled before your arrival.




Continuous Positive Airway Pressure (CPAP), commonly used to treat sleep apnea, is utilized pre-hospital to treat acute respiratory failure and may preclude the need for the patient to be intubated and placed on a ventilator.

### Chain of Survival

What the District knows for certain is that successful treatment of cardiac arrest and particularly VF is associated with quick delivery of care. The chain of survival with its 5 links of early 9-1-1 access, early CPR, early defibrillation, early advanced care, and early post resuscitative care illustrates the most critical elements of addressing sudden cardiac arrest.



# Fire Suppression



The fires include but are not limited to single-family structures, multi-family structures, commercial buildings, strip malls, high-rise occupancies, industrial facilities, vehicle fires, brush fires, and dumpster fires. Within these categories, the District strives to provide a standard of coverage unique to the structure, depending on criteria such as construction type, risk factors, response times, occupancy type, known hazards, and many others.

To provide **24-hour coverage** for the many types of incidents and scenarios that can arise, the District offers a **minimum staffing level of twenty-nine (29) firefighters/medics on duty per shift, with a maximum of forty (43) on duty.** It does not rely on mutual aid for the Effective Response Force (ERF) total concentration for some Moderate to High-Risk events.



**6 STATIONS**

**29 PERSONNEL**

**(minimum 24/7)**

**ALS &**

**DEDICATED COMPANIES:**

**4** ENGINES

**2** TRUCKS/QUINTS

**5** AMBULANCES

**1** BATTALION CHIEF

## Rescue / Special Operations



Rescue risks vary from elevator removal to vehicle accidents to "pin-in" extrication-required accidents. Special Operations include all Technical Rescue types to Hazardous Material incidents.

Technical Rescue covers many incidents, including confined space rescue, rope or water rescue, trench, structural collapse, etc.

## Technical Rescue / CART / Illinois Task Force One

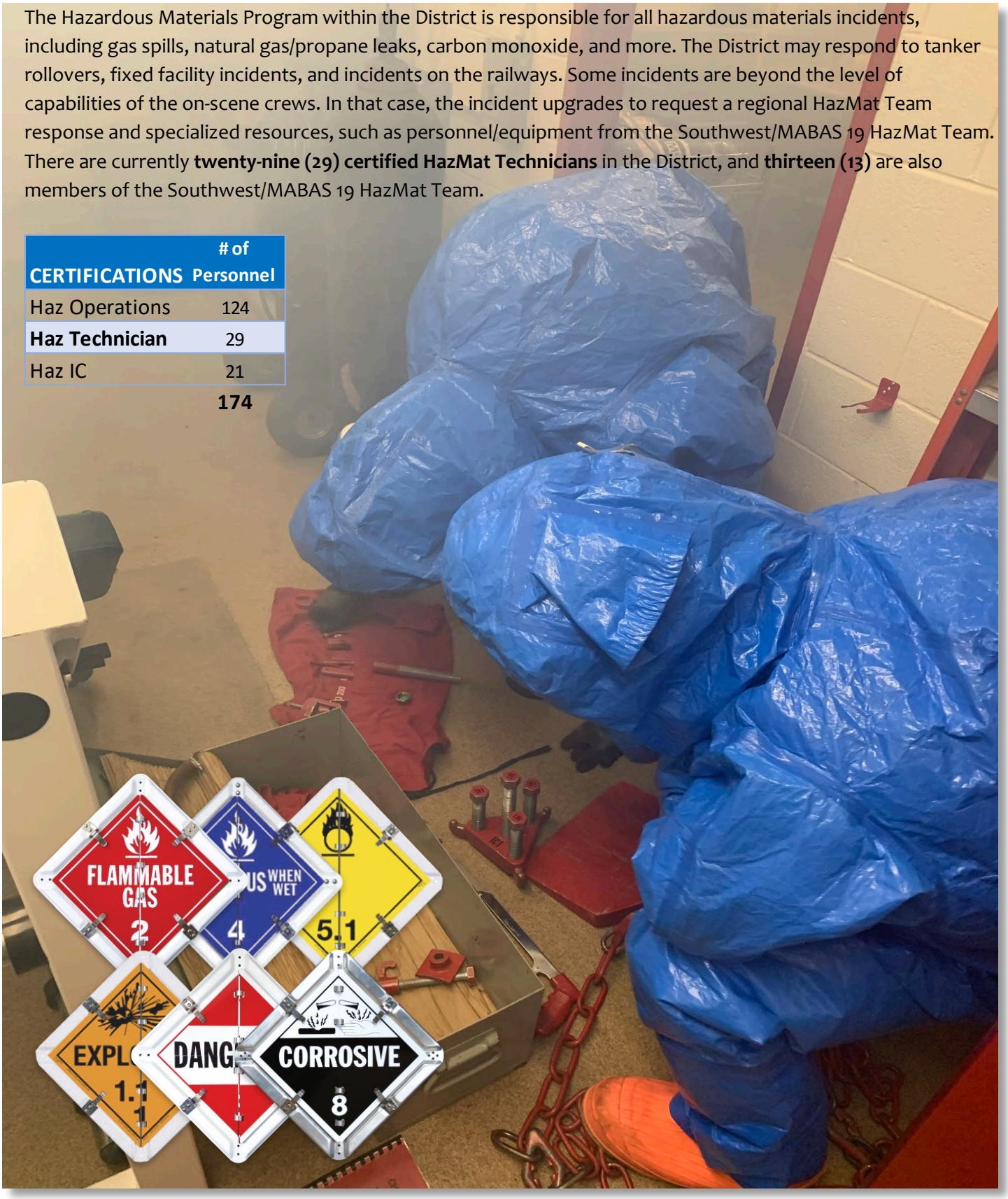
The Technical Rescue Program within the District can respond to all types of technical rescue incidents, including ice, swift water, trenches, confined space, building collapse, rope, elevator, and vehicle extrication. The response level for technical rescue incidents is at the operations level, with technicians available for each rescue discipline at the regional team level. District members receive training to the awareness and operations level for technical rescue responses per NFPA 1670, and the District is part of a regional team – C.A.R.T. (Combined Area Response Team – **BLUE TEAM**). There are currently **fifteen (15) CART Technicians** from the District on the CART Team, with **four (4)** of those specialists being members of the **State of Illinois Task Force One Urban Search and Rescue Team** (**IL-TF1 USAR**).

| CERTIFICATIONS | # of Personnel |
|---|---|
| Collapse Operations | 31 |
| **Collapse Technician** | 16 |
| Con Space Operations | 28 |
| **Con Space Technician** | 13 |
| Rope Operations | 79 |
| **Rope Technician** | 16 |
| Trench Operations | 30 |
| **Trench Technician** | 19 |
| Vehicle & Machine Operations | 108 |
| **Vehicle & Machine Technician** | 28 |
| | **368** |

# Hazardous Materials

The Hazardous Materials Program within the District is responsible for all hazardous materials incidents, including gas spills, natural gas/propane leaks, carbon monoxide, and more. The District may respond to tanker rollovers, fixed facility incidents, and incidents on the railways. Some incidents are beyond the level of capabilities of the on-scene crews. In that case, the incident upgrades to request a regional HazMat Team response and specialized resources, such as personnel/equipment from the Southwest/MABAS 19 HazMat Team. There are currently **twenty-nine (29) certified HazMat Technicians** in the District, and **thirteen (13)** are also members of the Southwest/MABAS 19 HazMat Team.

| CERTIFICATIONS | # of Personnel |
|---|---|
| Haz Operations | 124 |
| **Haz Technician** | 29 |
| Haz IC | 21 |
| | **174** |



## Water/Dive Rescue & Recovery

The potential for a water-related incident is a genuine possibility. The Orland Fire Protection District has over 300 bodies of water with a depth of more than six feet. If someone falls through the ice or gets caught in a swift water creek due to flooding, the Fire and Ambulance companies have cold water suits and all the training and equipment available to rescue those in distress effectively. In case of a more complicated rescue call, The Orland Fire Protection District's Dive Ambulance is a part of MABAS 19. It receives more skilled equipment and technicians to help safely handle these unique situations.

The District has **forty (40)** personnel certified at the **Water Operations** level, twenty (20) at the **Watercraft Technician** level, **seven (7)** are **Swiftwater** certified, and most all personnel are trained in using Cold-Water Immersion Suits. There are currently **thirteen (13)** trained as Divers or function in part on the MABAS 19 Team. Additional regional technician-level Dive Team members are available through MABAS 19.

| CERTIFICATIONS | # of Personnel |
|---|---|
| Swift water | 7 |
| **Water Craft Technician** | 20 |
| Water Operations | 40 |
| **Swiftwater/Flood Search/Rescue Technician/Boat Operator** | 4 |
| | **71** |








# MABAS

**This section is verbatim from the MABAS website to provide a general organization overview.**

## MABAS Mission Statement

MABAS-Illinois serves local fire agencies, MABAS Divisions, State of Illinois departments, and Cook County UASI-DHSEM by providing a systems-based resource allocation and distribution network of robust traditional and nontraditional Fire-EMS-Rescue and Special Operations teams for emergency and sustained response within and outside of the State of Illinois. This service's accomplishment requires cooperation, standardization, reliability, partnering, brokering, ongoing communication, and customer specifications and expectations compliance. Customer trust and reliance on the MABAS system are built upon personal relationships, credibility, and ongoing customer support.

## MABAS Purpose Statement




The Mutual Aid Box Alarm System (MABAS) provides rapid emergency response and sustained operations when a jurisdiction or region is stricken by an overwhelming event generated by human-made, technological, or environmental threats. In response, MABAS shall mobilize and deploy a sustained fire, emergency medical services (EMS), hazardous materials, technical rescue, water rescue, urban search and rescue, incident management, and team resources to prevent life loss and human suffering, further reducing property damage. MABAS has been a statewide mutual aid system since the late 1960s. Pre-September 11th, 2001, MABAS was heavily rooted throughout northern Illinois. Since September 11th, MABAS has rapidly grown throughout Illinois, Wisconsin, Indiana, Michigan, Iowa, and Missouri. Day-to-day MABAS extra alarms are systematically designed to provide the speed of response of emergency resources to the stricken community during an ongoing emergency. Declarations of Disaster provide a MABAS sustained response system on top of daily mutual aid activations. Today MABAS includes approximately 1,175 of the state's 1,246 fire departments organized within 69 divisions. MABAS divisions geographically span Lake Michigan to Iowa's border and south, almost into Kentucky. Wisconsin divisions also share MABAS with their Illinois counterparts. Chicago, St. Louis, and Milwaukee are also MABAS member agencies. MABAS has expanded into all 102 Illinois counties.




**MABAS includes approximately 38,000 of Illinois' 40,000 firefighters who staff emergency response units, including more than 1,600 fire stations, 2,735 engine companies, 500 ladder trucks, 1,300 ambulances (many Paramedics ALS capable), 250**

**heavy rescue squads, and 1,000 water tenders. Fire/EMS reserve (backup) units account for more than 1,000 additional emergency vehicles. MABAS also offers specialized operations teams for hazardous materials (40 teams), underwater rescue/recovery (15 teams), technical rescue (39 teams), and a state-sponsored urban search/rescue team.** Additional resources include certified fire investigators, Incident Management Team members, and fleet support mechanics, which can be "packaged" as mobile support teams aiding with larger-scale incidents requiring complicated, time-consuming efforts beyond the capabilities of most.

MABAS is a unique organization in that every MABAS participant agency has signed the same contract with its 1,100 plus counterpart MABAS agencies. As a MABAS agency, you agree to operation standards, incident command, minimal equipment staffing, fireground safety, and on-scene terminology. MABAS agencies, regardless of their geopolitical origin, can work together seamlessly on any emergency scene. All MABAS agencies operate on a standard radio frequency (IFERN) and are activated for response through pre-designed "run" cards. Each participating agency designs and tailors to meet their local risk needs. MABAS also provides mutual aid station coverage to a stricken community when their fire/EMS resources are committed to an incident for an extended period.





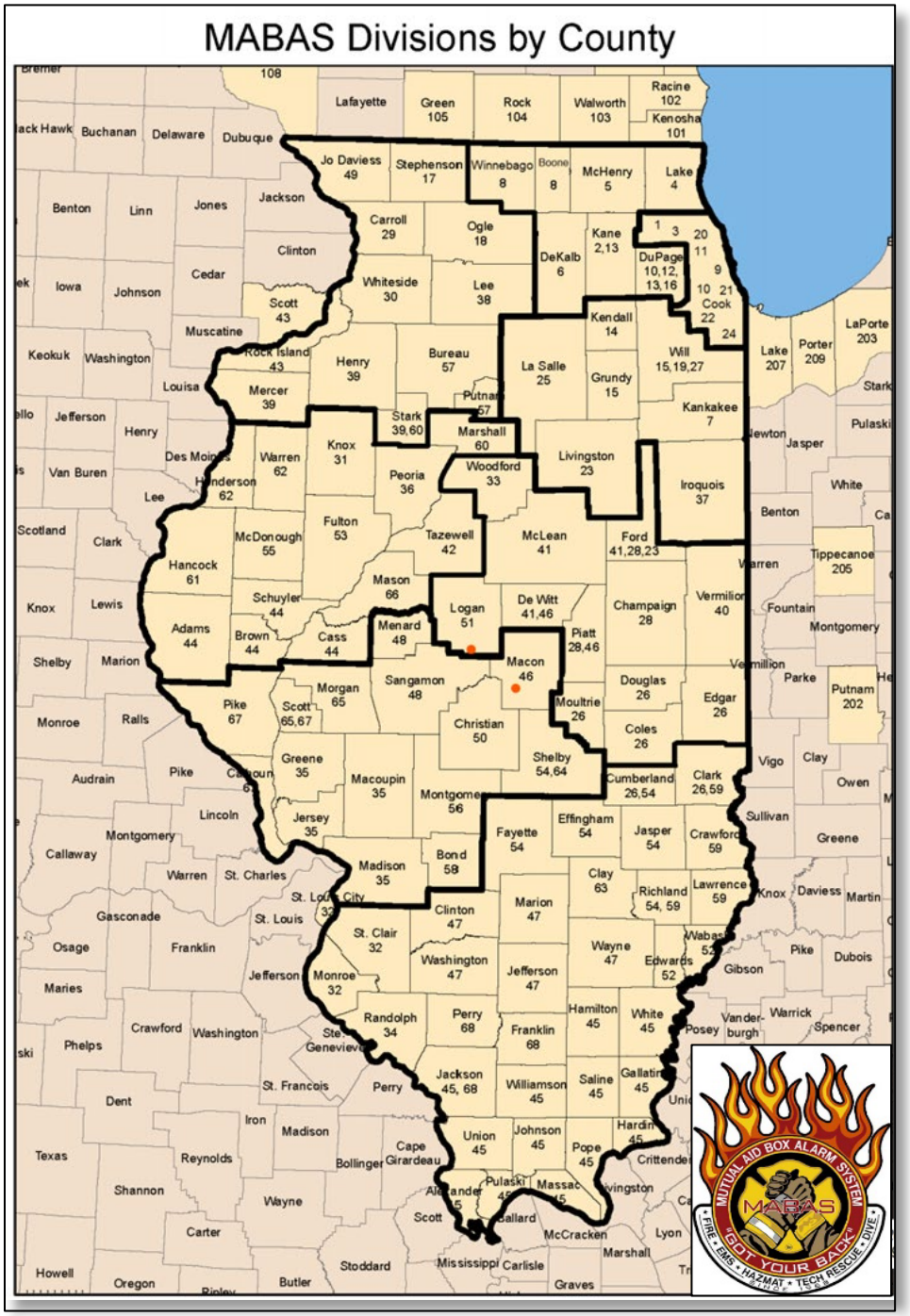




The stricken community commands MABAS extra alarms, and dispatch control is managed through the stricken community's MABAS division dispatch center. Over eight hundred (800) MABAS locally controlled additional alarm incidents occur annually throughout the 69 divisions of Illinois MABAS. The existing Illinois statute regarding a Declaration of Disaster allows the Governor to mobilize state assets under the Illinois Emergency Management Agency (IEMA). A memorandum of understanding between IEMA and MABAS, fire, EMS, and special operations resources can be activated as a State of Illinois asset when a Declaration of Disaster is initiated. Activation of the Statewide Plan through IEMA is designed to provide a quantity of response for sustaining incident operations. MABAS also offers various specialty equipment, and apparatus staged strategically throughout the State to any MABAS Department upon request.

# Mabas 19

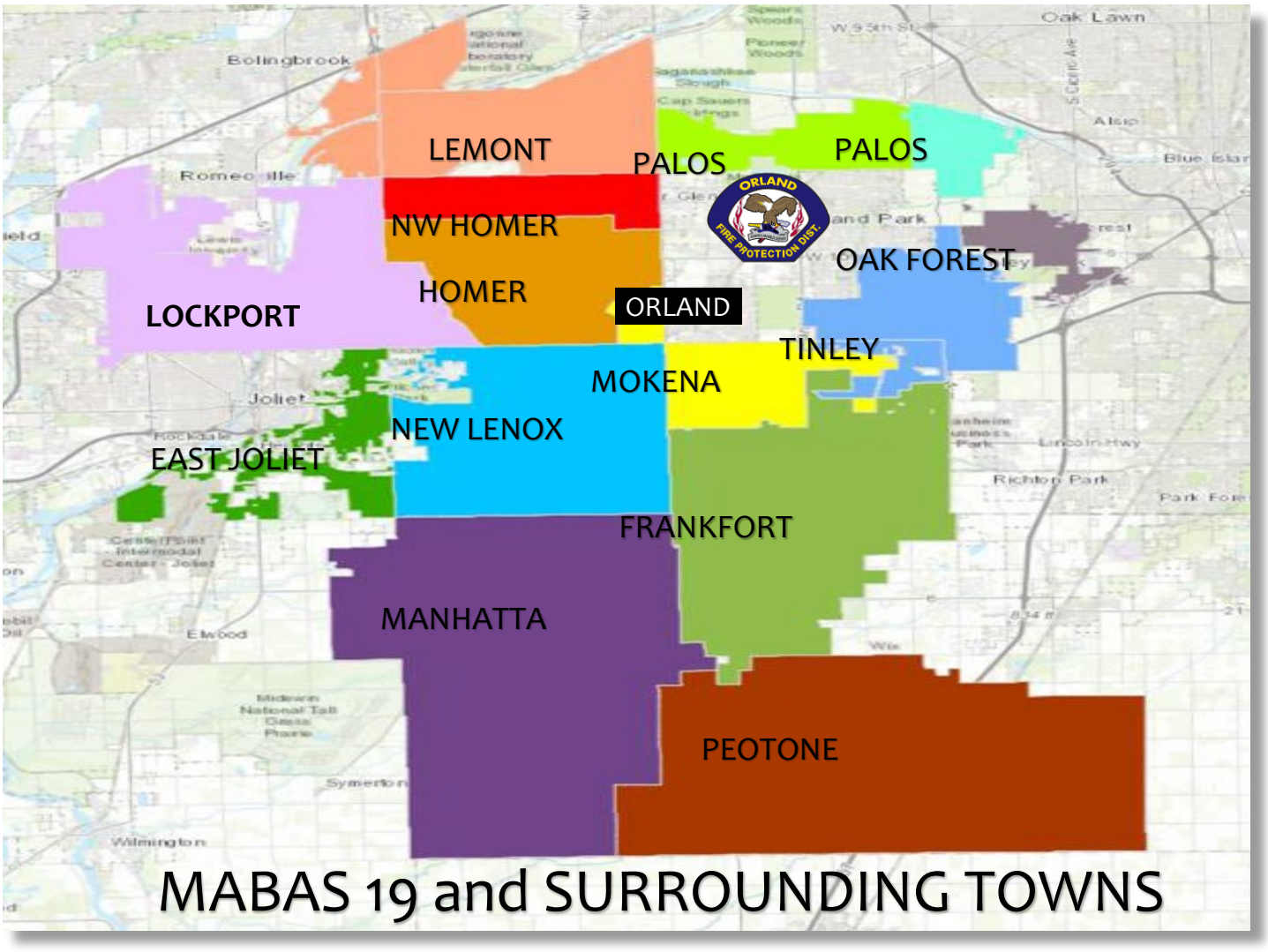
The District provides mutual aid to and receives support from other fire departments. Along with handling incidents within the District jurisdiction, the Orland Fire Protection District is regularly requested to assist surrounding agencies with their incidents. The request may cover a fire station for subsequent incidents or help with personnel and equipment. Mutual aid received is noted in other areas of this report.


MABAS Divisions by County
Lafayette
Green 105
Rock 104
Walworth 103
Racine 102
Kenosha 101
Jo Daviess 49
Stephenson 17
Winnebago 8
Boone 8
McHenry 5
Lake 4
Carroll 29
Ogle 18
Kane 2,13
DeKalb 6
DuPage 10,12, 13,16
Cook 22
Whiteside 30
Lee 38
Kendall 14
Will 15,19,27
Henry 39
Bureau 57
La Salle 25
Grundy 15
Kankakee 7
Mercer 39
Rock Island 43
Scott 43
Muscatine
Clinton
Cedar
Jones
Jackson
Benton
Linn
Iowa
Johnson
Keokuk
Washington
Louisa
Jefferson
Henry
Van Buren
Lee
Scotland
Clark
Knox
Lewis
Shelby
Marion
Monroe
Ralls
Pike
Audrain
Lincoln
Montgomery
Callaway
Warren
St. Charles
Gasconade
Osage
Franklin
Maries
Crawford
Washington
Phelps
Dent
Iron
Madison
Texas
Reynolds
Shannon
Wayne
Carter
Howell
Oregon
Butler
Ripley
Stoddard
Scott
Cape Girardeau
Bollinger
Perry
St. Francois
Ste. Genevieve
Jefferson
St. Louis
St. Clair 32
Monroe 32
Clinton 47
Washington 47
Randolph 34
Perry 68
Jackson 45, 68
Union 45
Johnson 45
Williamson 45
Franklin 68
Jefferson 47
Marion 47
Clay 63
Hamilton 45
White 45
Saline 45
Pope 45
Hardin 45
Gallatin 45
Wayne 47
Edwards 52
Wabash 52
Richland 54, 59
Lawrence 59
Crawford 59
Jasper 54
Effingham 54
Fayette 54
Bond 58
Madison 35
Clay
Jersey 35
Macoupin 35
Montgomery 56
Christian 50
Shelby 54,64
Cumberland 26,54
Clark 26,59
Coles 26
Moultrie 26
Douglas 26
Edgar 26
Champaign 28
Vermilion 40
Ford 41,28,23
Iroquois 37
Piatt 28,46
Macon 46
Sangamon 48
Morgan 65
Scott 65,67
Greene 35
Calhoun
Pike 67
Logan 51
De Witt 41,46
Mason 66
Menard 48
Cass 44
Brown 44
Adams 44
Schuyler 44
Fulton 53
Tazewell 42
McLean 41
Peoria 36
Woodford 33
Livingston 23
Knox 31
Warren 62
Henderson 62
Des Moines
McDonough 55
Hancock 61
Stark 39,60
Marshall 60
Putnam 57
Bureau 57
Lake 207
Porter 209
LaPorte 203
Stark
Pulaski
Jasper
White
Benton
Tippecanoe 205
Fountain
Montgomery
Parke
Putnam 202
Vigo
Clay
Owen
Sullivan
Greene
Daviess
Martin
Knox
Pike
Dubois
Gibson
Warrick
Spencer
Vanderburgh
Posey
Lyon
Marshall
Graves
Carlisle
Mississippi
Massac
Pulaski
Alexander
Union
Gallatin
Hardin
Crittenden
Livingston
McCracken
Ballard
Scott
Calhoun
Jersey
Lincoln
Montgomery
Callaway
Warren
St. Charles
Gasconade
Osage
Franklin
Maries
Crawford
Washington
Phelps
Dent
Iron
Madison
Texas
Reynolds
Shannon
Wayne
Carter
Howell
Oregon
Butler
Ripley
Stoddard
Scott
Cape Girardeau
Bollinger
Perry
St. Francois
Ste. Genevieve
Jefferson
St. Louis
Monroe
Randolph
Jackson
Union
Johnson
Williamson
Franklin
Jefferson
Marion
Clay
Hamilton
White
Saline
Pope
Hardin
Gallatin
Wayne
Edwards
Wabash
Richland
Lawrence
Crawford
Jasper
Effingham
Fayette
Bond
Madison
Clinton
Washington
Randolph
Perry

# MABAS 19
# FIRE DISTRICTS
# PARTNERS

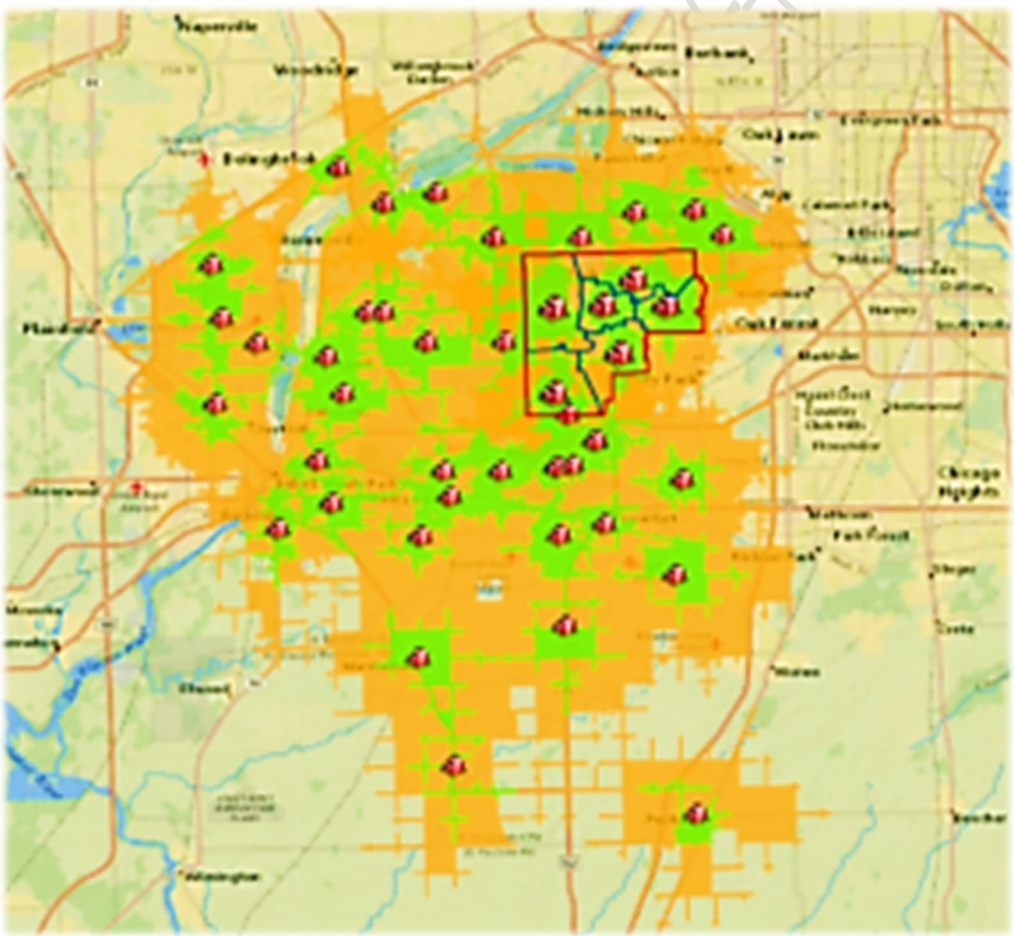


# MABAS 19 & Surrounding Fire Stations



By annually preapproving "Mutual Aid" and Automatic Aid Agreements, the District sets predetermined response levels depending on the type of incident and the location in town. In the below example, Box 6019 NE covers an area in Orland that is North of 151st St and East of LaGrange road for Fire Incidents. Each alarm per Box level (2nd, 3rd, etc.) will bring a minimum of 22 additional Firefighters per level in 3 Engines, 2 Trucks, 2 Ambulances, and 2 Chiefs, plus necessary Change of Quarters companies to cover the District's other Incidents that may co-occur to the initial fire incident. Those 22 additional personnel and equipment would differ from the initial Still and Full Still assignments of 30 Firefighters on 4 engines, 3 Trucks, 3 Ambulances, and 3 Chiefs, totaling a minimum of 52 Firefighter on scene at a Box Alarm and 22 additional per each level after that.



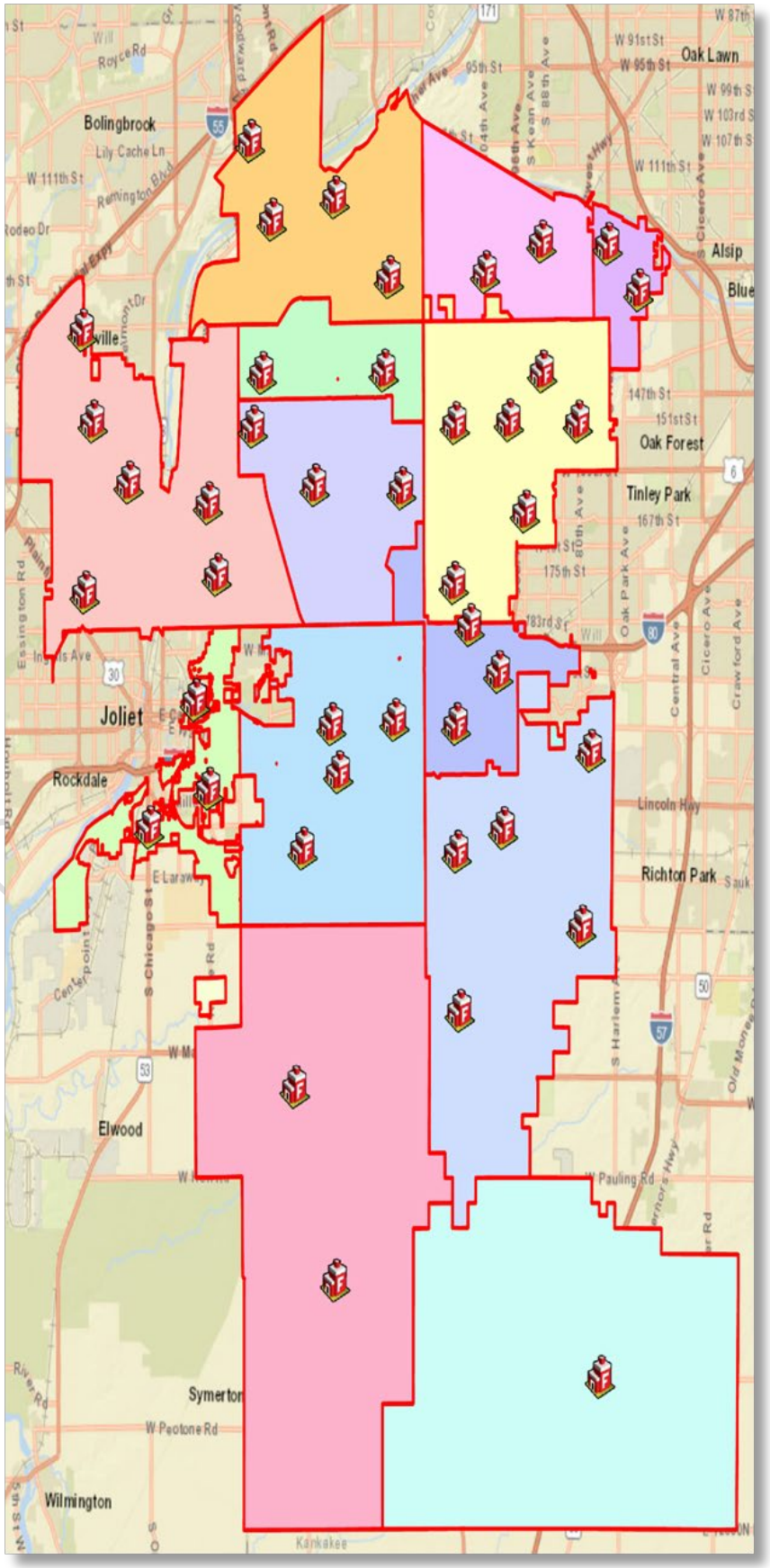


19 MABAS

# MABAS 19

## PROTECTING

| | |
|---|---|
| 386 | Sq. Miles |
| 375,283 | Population |
| $88.5B | EAV |
| $ 142,000,000 | Budget |
| 41 | Fire Stations |
| 47,752 | Incidents (Annually) |
| 556 | Sworn Personnel |
| 159 | Non-Sworn Personnel |
| 147 | Daily Staffing (Min) |
| 185 | Daily Staffing (Max) |
| 35 | Ambulances |
| 28 | Engines |
| 10 | Squads |
| 8 | Trucks |
| 7 | Tenders |
| 26 | Chiefs |
| 11 | Battalion Chiefs |
| 570 | Paramedics |
| 531 | *Full-time* |
| 39 | *Part-time* |




**MABAS BOX ALARM CARD – 6019 NE**

## Box Alarm Card

This is a sample of a MABAS Box Alarm card. Box 6019 NE is a FIRE BOX in Orland Fire for areas north of 151st St and East of Lagrange Rd. After the initial 15-person Effective Response Force (**ERF**) Still Alarm of the closest: 2 Engines, 2 Trucks, 1 Ambulance, and 1 Battalion Chief – an upgrade would bring two more Engines, 1 Truck, 2 Ambulances, and 3 Chiefs (15 additional personnel) as well as all Stations backfilled with Change of Quarters companies. Box Alarm and higher brings another 22 personnel to the scene per level in a concise time frame – thanks to the MABAS commitments by the Districts surrounding towns.

| DEPARTMENT | BOX ALARM TYPE: | REVISED DATE: | MABAS DIVISION: |
|---|---|---|---|
| ORLAND | FIRE - HYDRANTED | 3/1/18 | 19 |
| BOX ALARM # | LOCATION OF AREA: | AUTHORIZED SIGNATURE | |
| 6019 NE | NORTH of 151st - EAST of Lagrange Rd | *Chief Schofield* | |

**LOCAL DISPATCH AREA:**

| ALARM LEVEL | ENGINES | TRUCKS | EMS | COMMAND | SPECIAL EQUIPMENT | CHANGE OF QUARTERS | | STA # |
|---|---|---|---|---|---|---|---|---|
| STILL | Orland<br>Orland | Orland<br>Orland | Orland Amb | Orland Chf | | | | |
| FULL STILL | Orland<br>Orland | Palos or Tinley Park<br>(if not on still) | Orland Amb<br>Orland Amb | Orland Chf<br>Tinley Park Chf<br>IMT<br>Mokena Chf<br>Palos Chf<br>Frankfort Chf | Alpha Page<br>Chief Tone<br><br>Orland General Alarm | Lemont<br>Crestwood<br>Orland<br>Oak Forest<br>Matteson<br>Northwest Homer<br>Homer<br>Tinley Park<br>Palos Heights<br>New Lenox | Chf<br>Trk<br>Amb<br>Eng<br>Amb<br>Eng<br>Amb<br>Eng<br>Eng<br>Trk | 1<br>1<br>1<br>2<br>2<br>3<br>3<br>4<br>5<br>6 |
| MAYDAY RESPONSE RESOURCES: | Tinley Park<br>Palos | Oak Forest | Crestwood Amb | | | | | |

**MABAS BOX ALARM:**

| ALARM LEVEL | ENGINES | TRUCKS | EMS | COMMAND | SPECIAL EQUIPMENT | CHANGE OF QUARTERS | | STA # |
|---|---|---|---|---|---|---|---|---|
| BOX | Oak Forest<br>Tinley Park<br>**Lemont** | Crestwood<br>**North Palos** | Orland Amb<br>Matteson Amb | **New Lenox Chf**<br>**Homer Chf**<br>**Manhattan Chf**<br>**MABAS 19 IMT**<br>**Orland CommVan** | Frankfort Rehab | Lockport<br>Orland<br>Country Club Hills<br>Argonne<br>Frankfort | Trk<br>Amb<br>Eng<br>Amb<br>Eng | 1<br>1<br>2<br>2<br>4 |
| 2nd | Northwest Homer<br>Palos Heights<br>**Posen** | New Lenox<br>**Roberts Park** | Orland Amb<br>Homer Amb | **East Joliet Chf**<br>**Lockport Chf**<br>**Oak Forest Chf** | | Elwood<br>Chicago Ridge<br>Wilmington<br>Oak Lawn<br>East Joliet | Amb<br>Eng<br>Amb<br>Eng<br>Trk | 1<br>3<br>3<br>5<br>6 |
| 3rd | Country Club Hills<br>Frankfort<br>**Hometown** | Lockport<br>**Alsip** | Elwood Amb<br>Argonne Amb | **Crestwood Chf**<br>**Peotone Chf**<br>**Country Club Hills Chf**<br>**Mokena CommVan** | | Bedford Park<br>Lansing<br>Homewood<br>Thorton<br>Manhattan | Trk<br>Amb<br>Eng<br>Amb<br>Eng | 1<br>1<br>2<br>2<br>4 |
| 4th | Chicago Ridge<br>Oak Lawn<br>**South Holland** | East Joliet<br>**Peotone** | Lansing Amb<br>Wilmington Amb | **Oak Lawn Chf**<br>**North Palos Chf**<br>**Hometown Chf** | | Flossmoor<br>Harvey<br>Romeoville<br>Hazel Crest<br>University Park | Amb<br>Eng<br>Amb<br>Eng<br>Trk | 1<br>3<br>3<br>5<br>6 |

| INTERDIVISIONAL REQUEST | 1st CHOICE | 2nd CHOICE | 3rd CHOICE | |
|---|---|---|---|---|
| | MABAS 10 | MABAS 7 | MABAS 15 | BOX # |
| INFORMATION: | *BOLD UNITS - Last line ENG/TRK/all CHF from own station (others from previous CQ) *CQ CHF covers District- no move up to scene | | FIRE - HYDRANTED | 6019 NE |

# ISO

Insurance Service Office (ISO) provides a broad range of insurance, statistical, actuarial, and claims information. ISO utilizes a Public Protection Classification (PPC™) tool to rate communities against fire losses. In addition, ISO evaluates data in fire suppression, emergency communication, water supply, and risk reduction activities.

The process results in a ranking system that reflects District performance on a scale of 1-10, with one being the best.

In 2017, ISO rated the District as **Class 1** and was under re-evaluation as of November 2022.

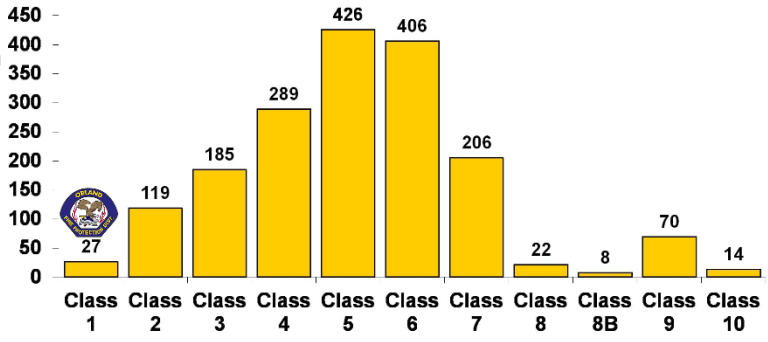
**Determining the PPC for a Community**

ISO evaluates Dispatch, the Fire Suppression capabilities of the District, and the water system infrastructure during grading. Strengths and weaknesses relative to criteria in each category are utilized in determining the PPC. This system allows communities with different combinations of strengths and weaknesses to receive the same PPC.

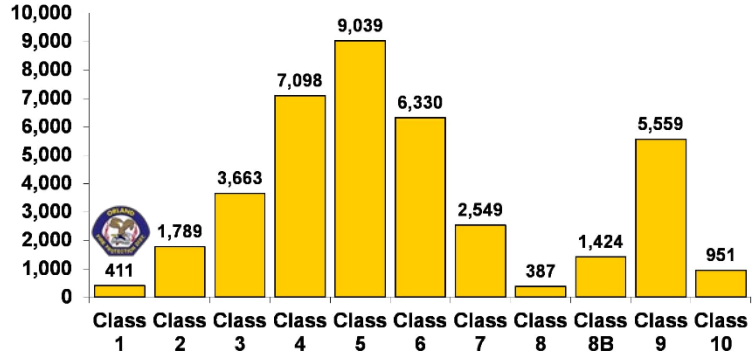
Major items considered in grading are:

- Telephone Service
- Telecommunication Operators
- Dispatch Center alerting systems
- Engine Companies
- Reserve Engines
- Pump Capacity
- Ladder Companies
- Reserve Ladders
- Distribution of companies
- Number of personnel responding
- Training frequency and areas
- Water Supply Systems
- Hydrant Type and Size
- Hydrant Maintenance and Testing

Illinois




Countrywide




**The Effect of PPC on Insurance Premiums**

ISO provides insurance companies with PPC information and associated details, including fire station locations, response area boundaries, hydrants' locations, and other water supply

details. However, because insurance companies, not ISO, establish the premiums they charge to policyholders, it is difficult to generalize how an improvement (or deterioration) in PPC shall affect individual policies. ISO's studies have consistently shown that, on average, communities with superior fire protection have lower fire losses than communities with less comprehensive fire protection services. Consequently, PPC does play a role in the underwriting process for many insurance companies and, as such, can help keep insurance premiums low.

Maintaining and **improving sections of the District's top Class 1 ratings is an outcome and benchmark measure well within the District's reach. As such, the District is actively and aggressively working to enhance its current rating through Continuous Quality Improvement processes.**

| FSRS Feature | Earned | Total Possible |
|---|---|---|
| Emergency Communications | 9.70 | 10 |
| Fire Department | 40.89 | 50 |
| Water Supply | 37.78 | 40 |
| Community Risk Reduction | 4.39 | 5.50 |
| Divergence | -2.53 | |
| Total Points | 90.23 | 100 |

ISO 1

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| CLASS | Percentage Credited |
|---|---|
| 1 | 90.00 or more |
| 2 | 80.00 to 89.99 |
| 3 | 70.00 to 79.99 |
| 4 | 60.00 to 69.99 |
| 5 | 50.00 to 59.99 |
| 6 | 40.00 to 49.99 |
| 7 | 30.00 to 39.99 |
| 8 | 20.00 to 29.99 |
| 9 | 10.00 to 19.99 |
| 10 | 0 to 9.99 |




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# ALL HAZARD RISK ASSESSMENT







3

# Section 3 -- All Hazard Risk Assessment

## All Hazard Risk Assessment

The Fire District provides All-Hazards response services to the community, including natural and man-caused events. Defining key terms and their relationship to the risk assessment process is essential in conducting and interpreting a comprehensive risk assessment within an All-Hazards environment. An All-Hazards approach includes prevention, preparedness, response, and recovery actions that meet various threats and hazards. All-Hazards include man-caused, natural, and technologically-caused incidents. The infrastructure consists of interdependent systems and networks that contribute to society and the government at any level. Critical infrastructures are those systems vital to the community, region, state, or nation if they cannot function.

Risk definitions include:

- **Risk**: *potential for an unwanted outcome resulting from an incident, event, or occurrence as determined by the likelihood and associated consequences*
- **Threat:** *natural or human-made circumstances or actions that have the potential to harm life and property*
- **Hazard:** *natural or human-made sources cause harm or difficulty*
- **Vulnerability:** *physical feature or operational attribute renders an entity open to exploitation or susceptible to a given hazard*
- **Consequence:** *the effect of an event, incident, or occurrence, including the number of deaths, injuries, and other human health issues, along with economic impact and different negative results on society*
- **Probability:** the *mathematical likelihood of an event occurring*

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## Risk Factors

Probability can be calculated through the following formulas:

- **Probability** = Threat x Vulnerability
- **Consequences** = the sum of human, economic, and psychological impacts

Predictable harm can be managed through directed efforts to reduce risk. Risk management is the continual process of identification and evaluation of risk. Control measures are selected, implemented, and measured for performance. A continuous loop provides feedback on performance and areas for improvement to further reduce and control risks.

Risk assessment is defined in *NFPA 1600, Standards on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs*:

*"A process for identifying potential hazards/risk exposures and their relative probability of occurrence; identifying assets at risk; assessing the vulnerability of the assets exposed and quantifying the potential impacts of the hazard/risk exposures on the assets. Periodic reassessment is needed when changes to the entity occur. Reassessment is also necessary because hazards/risk exposures change over time, and the collective knowledge of hazards/risk exposures develops over time."*

Risk can also be viewed by quantifying or measuring an identified risk considering its probability and severity. Two or more risks may interact, resulting in a more significant impact. Risk assessments remain complex, even when reduced to manageable factors. Historical data is a prime resource for risk assessment. While rare or unusual events can and shall happen, Historical patterns are a reasonably accurate indicator of future events. Risks cannot be eliminated; however, they can be avoided. Risk can be transferred through insurance. Residual risk can be accepted. Risk/benefit-cost analysis is required to determine the level of risk that a community is willing to have a presence as a threshold. Elected officials determine the acceptable risk levels, and staff takes appropriate action to allocate resources supplied to meet determined risk levels.

The District has conducted an occupancy community risk assessment to identify structural risks, potential impacts, and acceptance levels. Resource distribution and concentration are continually evaluated to reduce risk and resulting harm.

The U.S. Fire Administration provides an approach to developing a successful risk management plan:

1. Risk Identification
2. Risk Evaluation
3. Risk Control Techniques
4. Risk Management Monitoring

Occupancy factors evaluated included:

- Construction type
- Built-in fire protection systems
- Life safety risk

## Community Risk Assessment

The level of service provided by a Fire/EMS organization is based upon the District's ability to manage diverse types and sizes of emergencies expected after conducting a risk assessment. The first step identifies the scope and magnitude of the risks: fire, EMS, specialized rescue, or other events that threaten life safety, property, and environmental losses. The analysis is based on Historical and potential future losses.

An All-Hazards approach to Risk Assessment is completed through a comprehensive analysis of District hazards. The Risk Assessment is conducted in two parts:

- Risks specific to the District include Structure Fires, Emergency Medical Incidents, and Special Operations.
- Large-scale events are community risks in and outside the District's geographical boundaries. These risks include man-caused, natural, and technological developments that cause disasters.

The following components were considered during this analysis:

- **Probability** – the likelihood of an event occurring within a given period. It estimates a future event based on Historical trends or patterns.
- **Consequence** – the severity of the resulting situation from an event. Life safety and economic risk are both considered. Life safety is inclusive of risk to occupants and responders. Economic impact weighs the loss of property and the revenue of assets.
- **Occupancy risk** – assess the relative risk to life and property resulting from an event in a specific or occupancy class. Sub-factors can impact occupancy risks, such as construction type and occupant mobility.
- **Planning zones** – are geographic areas utilized during analysis to relate to station response areas or similar representations. The District has determined station response areas as planning tools for analysis. A station's first due response still district is studied for transportation networks, populations, density, topography, construction types, occupancy risk, and current service levels.
- **Community profile** – attributes of the community, served uniquely based on demographics, socioeconomic, occupancy risk, and Historical and current service levels.

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## Risk-Based Matrix

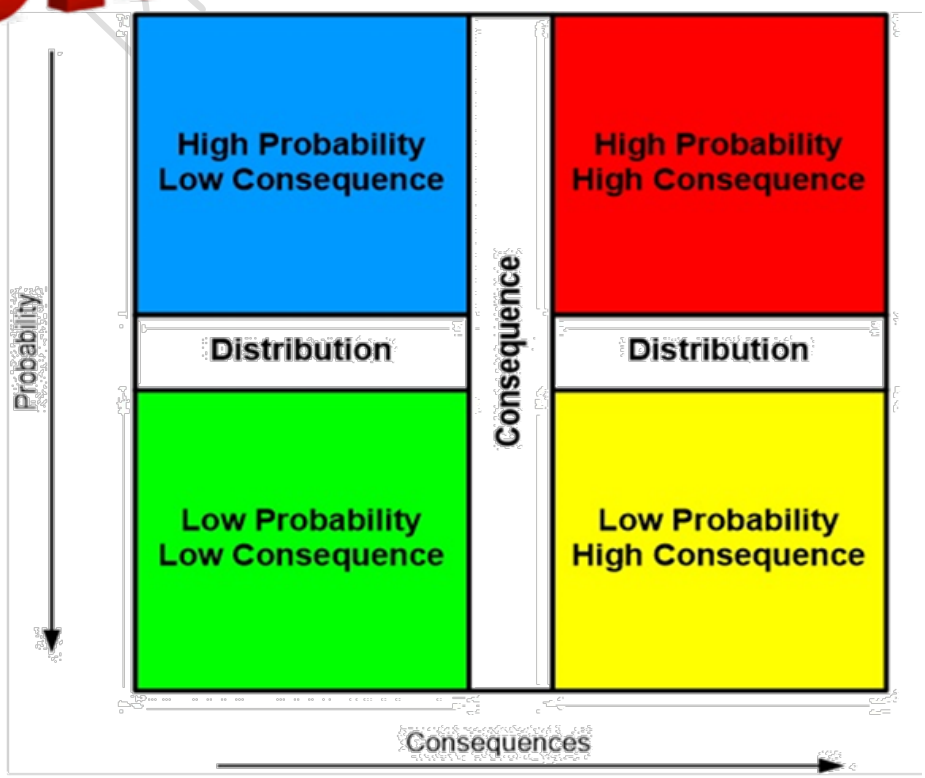
The Risk-Based Matrix model reflects risk assessment considerations in the District's response areas. The probability of an event occurring is always present. The frequency of occurrence can range from low to high. Any event has consequences ranging from high to low. Resources required in event management vary based on the event and the community's commitment to helping.

Each quadrant illustrates the probability and consequences of any event.

- **Low** probability, **low** consequences
- **Low** probability, **high** consequences
- **High** probability, **low** consequences
- **High** probability, **high** consequences




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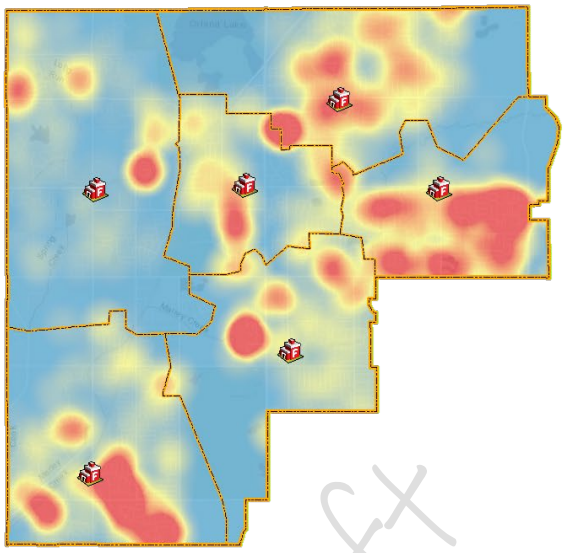


## At-Risk Age Groups

At-risk age groups depend on others and may need additional emergency assistance. Thus, they tend to increase the demand and call volume for EMS.

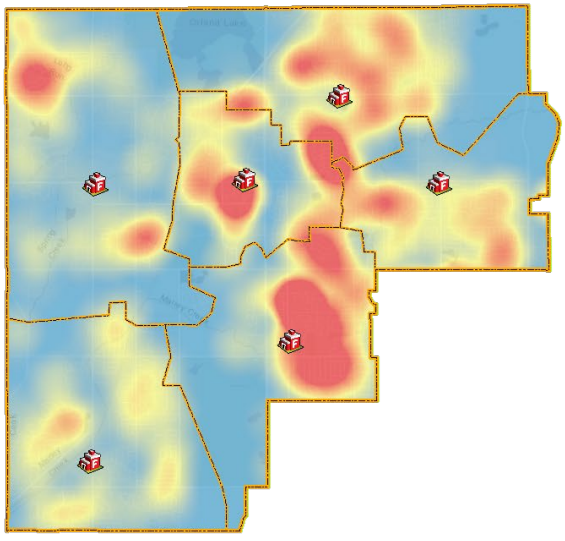
**59.5%** of **EMS patients** are **> 60**

### > 65 years old



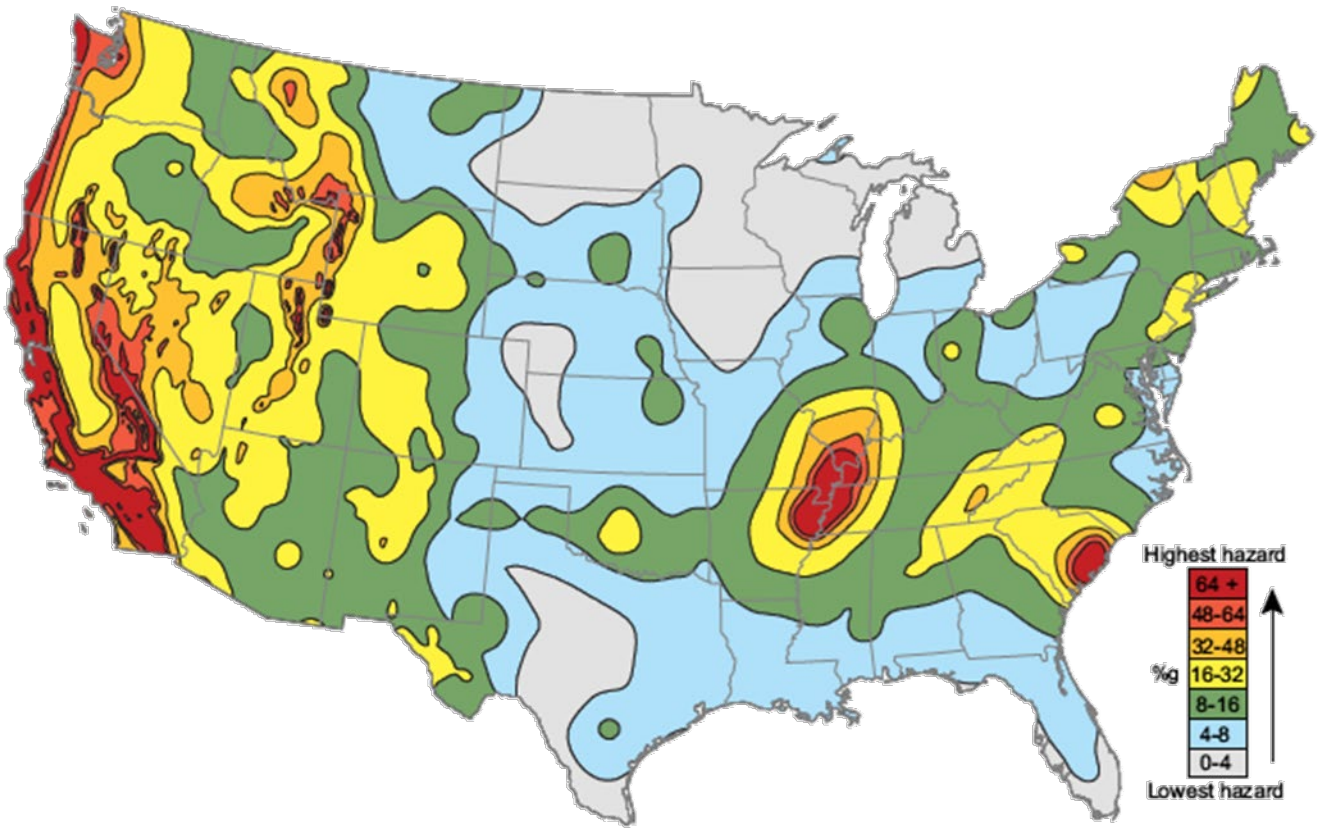
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### < 5 years old

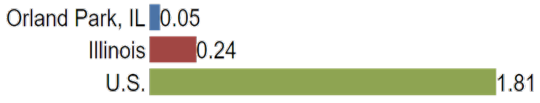


## Geological

A United States Geological Survey (USGS) report, Illinois's potential earthquake risk has risen. Significant fault lines exist in the area, with earthquakes in limited or no development areas. Due to earthquakes' estimated risk with far-reaching implications, FEMA and IEMA (Illinois Emergency Management District) have developed plans and conducted exercises in preparation.




**Earthquake Index, #703**




The earthquake index value is calculated based on historical earthquake events data using USA.com algorithms. It is an indicator of the earthquake level in a region. A higher earthquake index value means a higher chance of an earthquake.

USGS science for a changing world

## Weather

Weather can dramatically affect the District's population, housing, and infrastructure. Events include extreme thunderstorms (which may produce tornados, high winds, or flooding), blizzards and ice storms, temperature extremes (high heat and below-zero conditions), and more.

### Other Weather Extremes Events

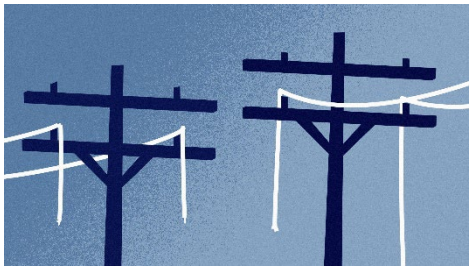
A total of 3,796 other weather extremes events within 50 miles of Orland Park, IL were recorded from 1950 to 2010. The following is a break down of these events:

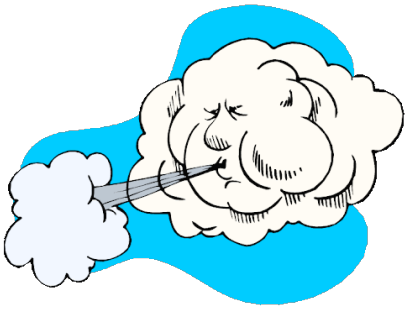
| Type | Count | Type | Count | Type | Count | Type | Count | Type | Count |
|---|---|---|---|---|---|---|---|---|---|
| Avalanche: | 0 | Blizzard: | 2 | Cold: | 41 | Dense Fog: | 27 | Drought: | 23 |
| Dust Storm: | 0 | Flood: | 377 | Hail: | 1,049 | Heat: | 53 | Heavy Snow: | 49 |
| High Surf: | 0 | Hurricane: | 0 | Ice Storm: | 11 | Landslide: | 0 | Strong Wind: | 53 |
| Thunderstorm Winds: | 1,783 | Tropical Storm: | 0 | Wildfire: | 3 | Winter Storm: | 74 | Winter Weather: | 29 |
| Other: | 222 | | | | | | | | |




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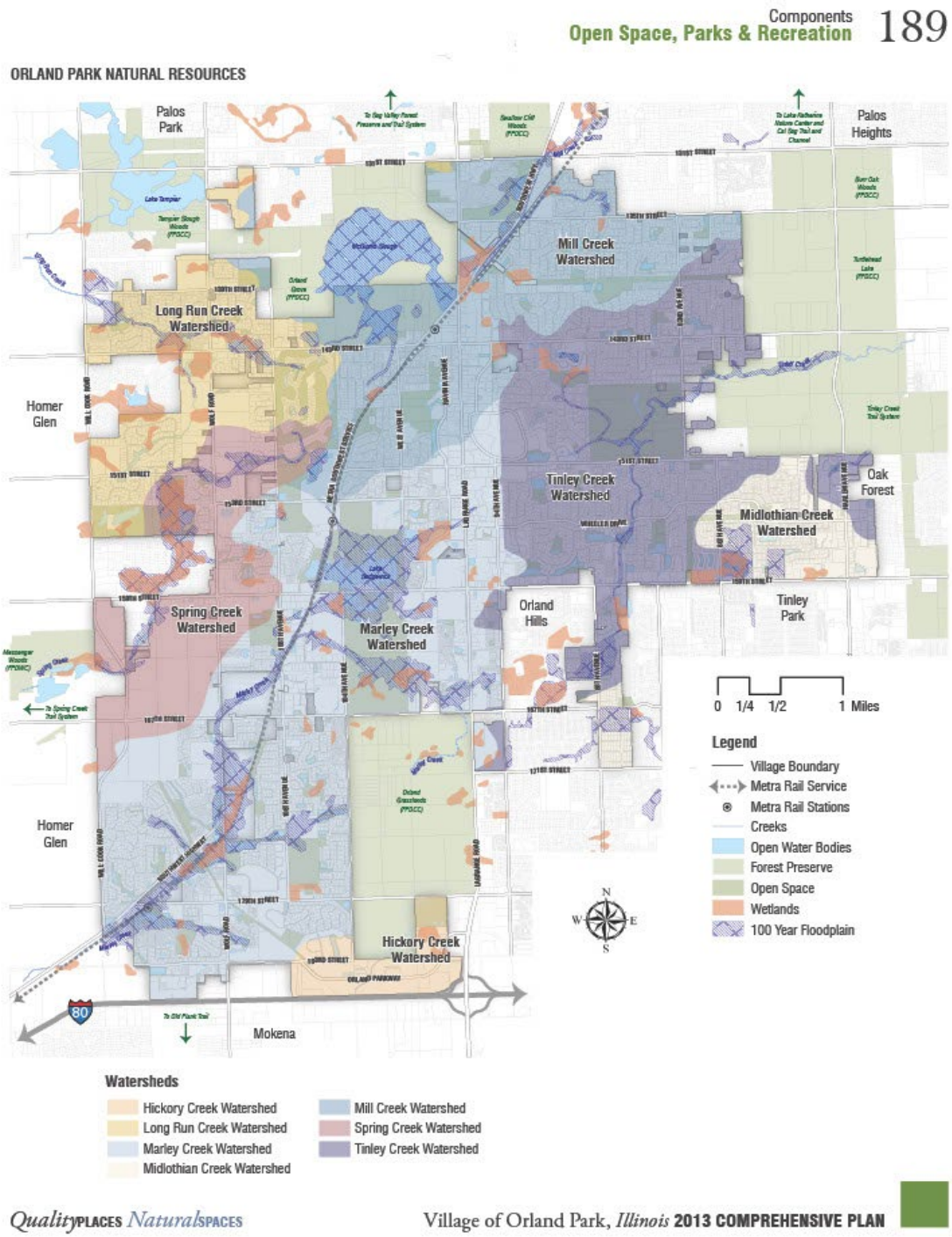






## Flooding

Flooding is a significant risk in the District, with many Historical rain events causing the numerous waterways to overflow.



## Tornado Events

There is a much higher risk of tornadic activity, with recent tornados touching down nearby.



**Tornado Index, #207**



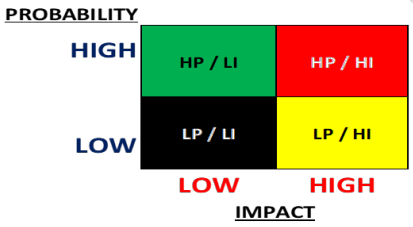

The tornado index value is calculated based on historical tornado events data using USA.com algorithms. It is an indicator of the tornado level in a region. A higher tornado index value means a higher chance of tornado events.

## Natural Event / Weather Risk Scoring

An additional scoring model utilized by the District to evaluate the risk of naturally occurring events was completed. It indicates that the risks associated with natural events are primarily low to moderate.

| NATURAL EVENT TYPE | PROBABILITY<br>*Likelihood this will occur*<br>*0 = N/A 1 = Low 2 = Moderate 3 = High 4 = Extreme* | IMPACT / CONSEQUENCES<br>HUMAN *Possibility of death or injury*<br>*0 = N/A 1 = Low 2 = Moderate 3 = High 4 = Extreme* | PROPERTY *Physical losses and damages*<br>*0 = N/A 1 = Low 2 = Moderate 3 = High 4 = Extreme* | BUSINESS *Interruption of services*<br>*0 = N/A 1 = Low 2 = Moderate 3 = High 4 = Extreme* | TOTAL IMPACT Human, Property, Business | AVERAGE IMPACT SCORE | PROBABILITY + IMPACT<br>Probability + Impact (average) |
|---|---|---|---|---|---|---|---|
| Severe Thunderstorm | 4 | 2 | 2 | 3 | 7 | 2.3 | 6.3 |
| Extreme Winter/Ice Storm | 4 | 2 | 2 | 3 | 7 | 2.3 | 6.3 |
| Tornado | 3 | 3 | 4 | 1 | 8 | 2.7 | 5.7 |
| Temperature Extremes | 3 | 2 | 1 | 3 | 6 | 2.0 | 5.0 |
| Flood | 3 | 2 | 3 | 3 | 8 | 2.7 | 5.7 |
| Earthquake | 1 | 3 | 4 | 1 | 8 | 2.7 | 3.7 |
| Drought | 2 | 2 | 1 | 1 | 4 | 1.3 | 3.3 |
| Epidemic | 1 | 4 | 1 | 4 | 9 | 3.0 | 4.0 |
| Totals | 21 | 20 | 18 | 19 | 57 | 19 | 5.0 |

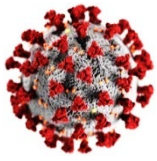
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**Risk Assessment**
1-2 Low Threat
3-4 Moderate Threat
5-6 High Threat
7-8 Extreme Threat

The District is prepared for "All Hazard" responses and has plans to remain reliable and sustainable regardless of the environmental or large-scale incident. There are redundancies in place to keep operations always at the ready.

Risk assessment findings indicate a **higher probability and consequence from naturally caused events**.



The United States has undergone a "National Emergency" due to a **Global Pandemic, the COVID-19** (Novel Coronavirus) outbreak. As of this writing, there are over 676 million confirmed cases worldwide (103.4 mil. US), with over 6.8 million deaths (1.1 mil+ US). Those numbers rose exponentially throughout the year and continue to increase daily. At-Risk populations (> 65) are being significantly harmed. Unprecedented measures are taking place with US Borders shut to travel internationally and mass closings of schools, sports, bars/restaurants, churches, theaters, and many businesses alike to "social distance" to "flatten the curve" to postpone and minimize the spread. States issued "stay home

orders," and only essential businesses are open until positivity rates are lowered. The US economy crashed to 2008 levels and is slowly recovering. Since December 2020, several vaccines have been approved for use, and mass vaccination rollouts are happening worldwide to combat the virus's spread in hopes of gaining herd immunity and reopening quicker. This crisis has dramatically affected the Fire and EMS Services everywhere. Increased responses, PPE/exposure protection, extended hospital turn-around times, isolation, staffing, supply, and more overwhelm the entire healthcare industry. New variants, such as Delta and Omicron, will continue the spread of this pandemic for some time now.

## Large Scale Incidents

Programs to reduce risk and increase preparedness capabilities can be performed in the large-scale event risk assessment. Community risks exceed traditional fire and EMS to include significant scale events. In most cases, these events would be low frequency/severe consequence events on a community basis. Department of Homeland Security (DHS) methodology was used to assess risk for the most anticipated events. Numerical scores were assigned in the assessment process allowing prioritization of risk reduction efforts.

The following assessment characteristics were utilized:

- **Probability**
- **Vulnerability**
- **Onset speed**
- **Impact**
- **Preparedness**
- **Geographic size**
- **Potential for associated MCI**
- **Warning time**
- **Length of event**
- **Consequences**

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- **Hazardous Materials Incident (HM - Low)**
  - Lower-level HazMat responses are usually handled by local Fire Departments, with Higher-level responses by regional teams. NFPA defines a Level 3 HazMat incident as beyond regional or state capabilities. Level 3 incidents may require federal resources during response or cleanup. These incidents pose an immediate severe, long-term risk to the community due to the release of substantial amounts of hazardous materials. This threat event would result from a railroad car release due to the number and type of HazMat transported through the community.




- **Weapons of Mass Destruction Event (WMD - Low)**
  - WMD events involve chemical, biological, and radiological release and exposure. Chemical event symptoms begin immediately after exposure. Radiological and some biological events symptoms may start up to 12 hours after exposure, and others directly.



- **Mass Violence Incident (MVI - Low)**
  - A Mass Violence Incident (MVI) generally has ten (10) or more patients triaged as Yellow or Red. MVI differs from Mass Casualty Incidents (MCI) in that MVI is intentionally caused by human action. MCI can result from non-intentional events such as a vehicle accident. MVI requires tight integration with law enforcement to stabilize the incident and care for victims. Areas and occupancies with large groups of people are soft targets for an MVI. The District has potential targets with MVI probability. Examples of these events are Active Shooter Hostile, explosive devices, or as simple as a car vs. a crowd.




- **Significant Scale Power Failure (PGF - Low)**
  - Heavy reliance on electrical power has created potential power grid failure. A private entity owns, operates, and manages the power grid. Isolated power failures occur during storms several times a year and are short-lasting. A large-scale grid failure would have a significant effect on service demands and associated consequences




- **Public Health Incident (PH - Low)**
  - An increase in public health incidents, such as pandemics and viruses, has been noted in the last few years, and a Historical one began in 2020 (COVID-19). Pandemic effects increase service demands and may lower personnel availabilities due to exposure and resulting illness, longer hospital turnaround time, isolations, and supply issues, to name just a few.




- **Cyber Attack (CA – Low)**
  - Most fire service agencies rely on IT systems for communication and records. Targeted attacks on IT systems have been increasing worldwide. These attacks can include Denial of Service (DOS) and ransomware.




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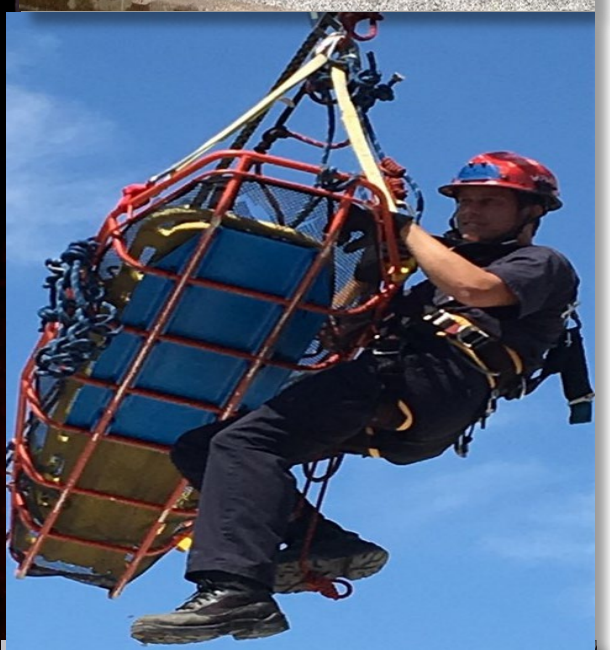
# Risk Assessment for Service Level Classifications

Risk assessments were also conducted for the following primary service types:

**FIRE EMS HAZMAT RESCUE**









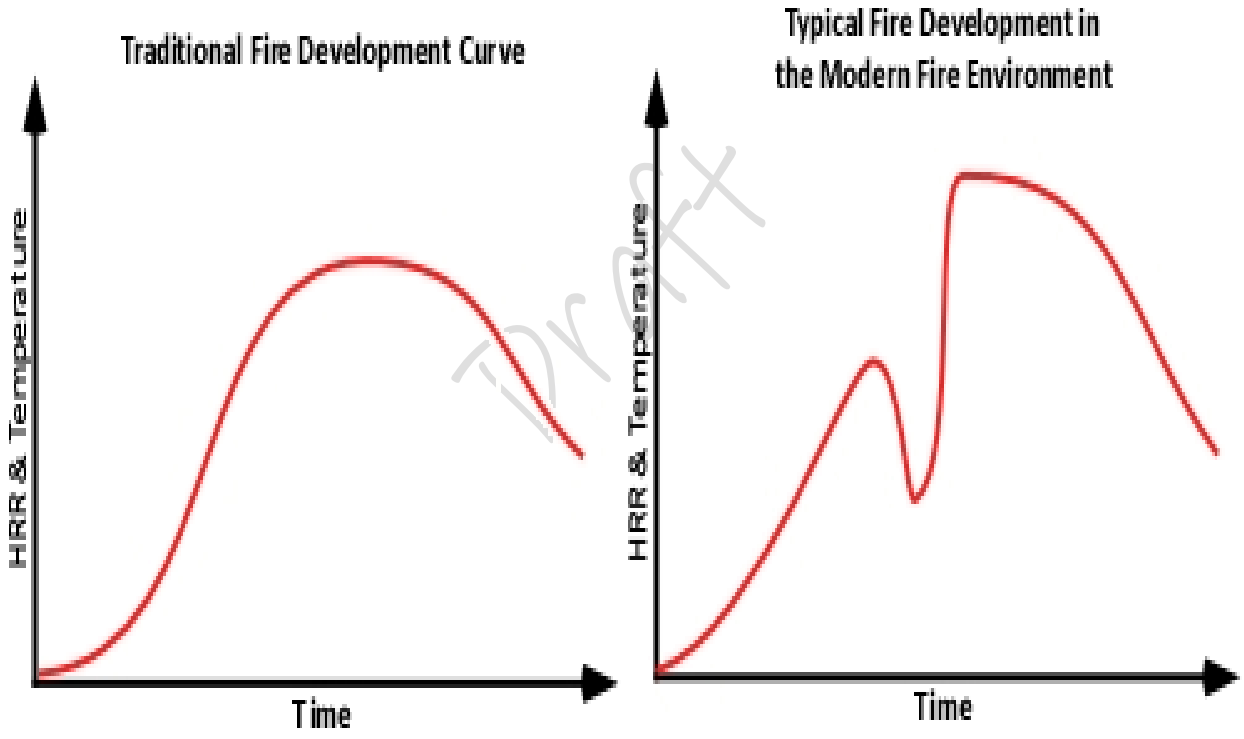
# Fire Risk

**In the US, every year, FIRE KILLS more than all-natural disasters combined.**

(Home Fire Sprinkler Coalition, May 2013)

## Modern Fire Behavior

Thanks to NIST's recent work (National Institute of Scientific Technology) and UL (Underwriters Laboratory), the fire service is learning more now than ever about the effects of fire on modern construction. The graphs represent the time-temperature curve of a past, or "legacy" style home, compared to the dramatically explosive "modern" fire environment in a ventilation-limited fire scenario. These conditions can occur in less than 5 minutes. Standard fire and life safety factors, such as fire flow and code compliance for life safety, are used to determine risk classification. Risk classifications range from Low, Moderate, High, and finally to Special/Maximum. Single-family dwellings, considered typical or moderate risk, comprise most communities.





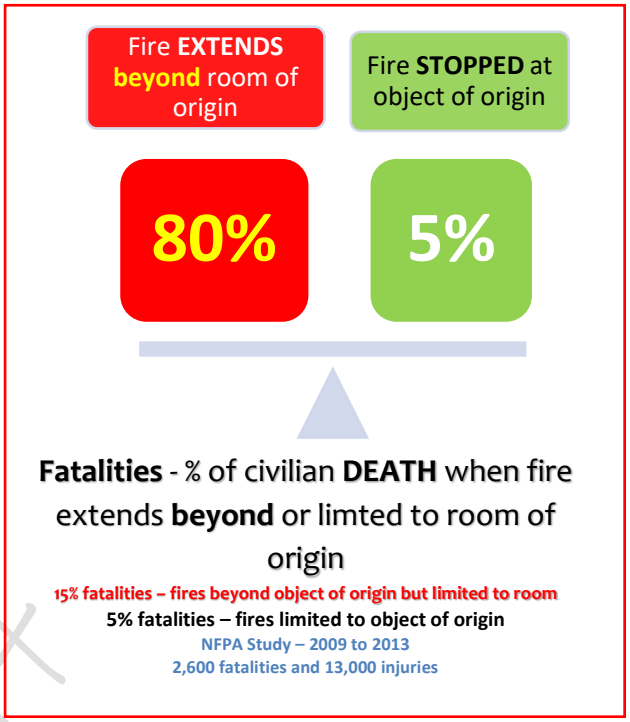

## Fire Spread

Limiting fire growth to the smallest area within an occupancy decreases risk to occupants and firefighters. NFPA statistics have also shown reduced property loss by ideally limiting fires to the room of origin.

Several primary factors influence fire spread:

- Fuel load
- Compartmentalization
- Notification
- Time to apply water

This list is simplified as unlimited variables can influence fire spread. The Fire District does not directly control the first three bullet points. Early detection systems can affect risk by warning occupants and the Fire District early. Water application to fire depends on the appropriate complement of apparatus and qualified personnel arriving on the scene promptly. The initial arrival of personnel can begin fire suppression operations to start controlling and limiting fire spread.




Fire spread is grouped into five categories by NFIRS:

- Limited to the **object** of origin <- **Nationally, 58% of fires were limited to the object of origin**
- Limited to the **room** of origin* **+16% = 74% of fires limited to the room of origin (resulted in 20% fatalities/78% of injuries)**
- Limited to the **floor** of origin
- Limited to the **building** of origin
- Extended **past the structure** of origin

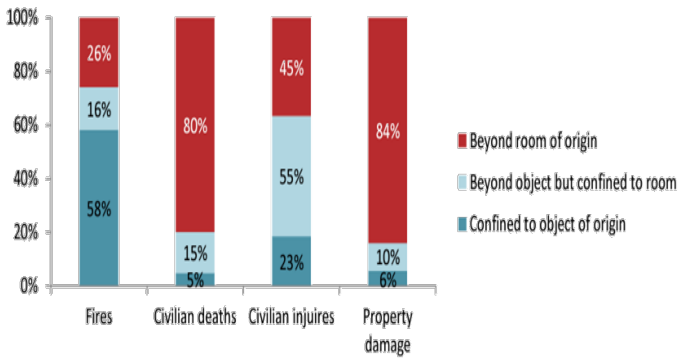
These categories allow fire suppression goals and objectives to be established and measured.

The District effectively limited "WORKING FIRES" to the object or room of origin **65%** of the time.

**NFPA Reported Structure Fires by Extent of Fire Spread**

NFPA – Reported Structure Fires by Extent of Fire Spread, Occupancy, and Loss Rates
https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Building-and-life-safety/OSStructureFiresbyExtentofFlameSpread.ashx?la=en

NFPA – Home Structure Fire Research 2019
https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Building-and-life-safety/oshomes.pdf




Draft

## Fire Incident Response Summary

According to the National Fire Incident Reporting System (NFIRS), a summary of the four main classified fire types is required. These include structures (or fires inside a structure), vehicles, brush/wildland, and other fires classified by NFIRS Types.

In Orland, no part of the District is immune from fire danger. Structural and automobile fires represent the most common types of fire in this area and can be caused by various human, mechanical, and natural factors. Fires can spread to other structures or sites if not extinguished promptly. Proactive efforts, such as fire sprinkler systems, fire alarms, and fire-resistant construction methods, can collectively lessen the likelihood and reduce severity of urban fires.

Below is a summary of the four main classified fire types according to NFIRS. These include structures (or fires inside a structure), vehicles, brush/vegetation (wildland), and other fires classified by NFIRS Types. Also, below is the historical data for fire ground injuries and death to civilians and firefighters, as well as dollar loss/save rates for 2018-2022. Also listed is the Historical data for fire ground injuries, deaths to civilians and firefighters, and dollar loss/save rates for the study period. **[These numbers include Aid Given]**

| FIRES (includes out of District) | 2018 | 2019 | 2020 | 2021 | 2022 | TOTAL | Average | % Fire Incidents |
|---|---|---|---|---|---|---|---|---|
| Structures (fires in) | 114 | 111 | 153 | 195 | 172 | **745** | 149 | *68.3%* |
| Vehicles | 18 | 21 | 11 | 18 | 17 | **85** | 17 | *7.8%* |
| Vegetation/Grass | 19 | 16 | 21 | 27 | 19 | **102** | 20 | *9.4%* |
| Outside/Other | 28 | 19 | 48 | 26 | 37 | **158** | 32 | *14.5%* |
| | **179** | **167** | **233** | **266** | **245** | **1090** | 218 | |
| *Change over the previous year* | | *-6.70%* | *39.52%* | *14.16%* | *-7.89%* | | | |

Draft



## NFIRS Historical Response – Series 100

| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 111 Building fire | 53 | 42 | 66 | 79 | 59 | **299** | 60 | 1% |
| 112 Fires in structures other than in a building | 1 | 2 | 1 | 5 | 7 | **16** | 3 | 0% |
| 113 Cooking fire, confined to container | 5 | 17 | 29 | 8 | 10 | **69** | 14 | 0% |
| 1131 Smoke due to Cooking | 52 | 45 | 50 | 93 | 93 | **333** | 67 | 1% |
| 114 Chimney or flue fire, confined to chimney or flue | | 1 | 2 | 2 | | **5** | 2 | 0% |
| 116 Fuel burner/boiler malfunction, fire confined | | 1 | 1 | 3 | | **5** | 2 | 0% |
| 117 Commercial Compactor fire, confined to rubbish | | | 1 | 1 | | **2** | 1 | 0% |
| 118 Trash or rubbish fire, contained | 3 | 3 | 3 | 4 | 3 | **16** | 3 | 0% |
| **NFIRS 100-118 FIRES IN STRUCTURES** | **114** | **111** | **153** | **195** | **172** | **745** | **149** | 1% |
| *change over previous* | | *-3%* | *38%* | *27%* | *-12%* | | | |
| 120 Fire in mobile prop. used as a fixed struc., other | 1 | | | | | **1** | 1 | 0% |
| 123 Fire in portable building, fixed location | | 1 | | | | **1** | 1 | 0% |
| 130 Mobile property (vehicle) fire, other | | | | 2 | | **2** | 2 | 0% |
| 131 Passenger vehicle fire | 14 | 18 | 11 | 14 | 17 | **74** | 15 | 0% |
| 132 Road freight or transport vehicle fire | 2 | 2 | | 2 | | **6** | 2 | 0% |
| 138 Off-road vehicle or heavy equipment fire | 1 | | | | | **1** | 1 | 0% |
| **NFIRS 120-139 FIRES IN VEHICLES** | **18** | **21** | **11** | **18** | **17** | **85** | **17** | 0% |
| *change over previous* | | *17%* | *-48%* | *64%* | *-6%* | | | |
| 140 Natural vegetation fire, other | 4 | 4 | 4 | 7 | 6 | **25** | 5 | 0% |
| 141 Forest, woods or wildland fire | | 2 | | | | **2** | 2 | 0% |
| 142 Brush, or brush and grass mixture fire | 15 | 5 | 13 | 18 | 10 | **61** | 12 | 0% |
| 143 Grass fire | | 5 | 3 | 2 | 3 | **13** | 3 | 0% |
| 173 Cultivated trees or nursery stock fire | | | 1 | | | **1** | 1 | 0% |
| **NFIRS 140-143 VEGETATION FIRES** | **19** | **16** | **21** | **27** | **19** | **102** | **20** | 0% |
| *change over previous* | | *-16%* | *31%* | *29%* | *-30%* | | | |
| 150 Outside rubbish fire, other | 6 | 2 | 11 | 7 | 16 | **42** | 8 | 0% |
| 151 Outside rubbish, trash or waste fire | 9 | 9 | 14 | 7 | 8 | **47** | 9 | 0% |
| 153 Construction or demolition landfill fire | | 1 | 1 | 1 | 1 | **4** | 1 | 0% |
| 154 Dumpster or other outside trash receptacle fire | 6 | 5 | 10 | 8 | 5 | **34** | 7 | 0% |
| 155 Outside stationary compactor/compacted trash fire | | | 1 | 1 | | **2** | 1 | 0% |
| 160 Special outside fire, other | 3 | | 5 | 2 | 3 | **13** | 3 | 0% |
| 161 Outside storage fire | 1 | | | | | **1** | 1 | 0% |
| 162 Outside equipment fire | 3 | 2 | 5 | | 3 | **13** | 3 | 0% |
| 163 Outside gas or vapor combustion explosion | | | 1 | | 1 | **2** | 1 | 0% |
| **NFIRS 150-163 OUTSIDE FIRES** | **28** | **19** | **48** | **26** | **37** | **158** | **32** | 0% |
| *change over previous* | | *-32%* | *153%* | *-46%* | *42%* | | | |
| | | | | | | | | |
| **NFIRS 100 FIRES** | **179** | **167** | **233** | **266** | **245** | **1090** | **116** | 2% |
| *change over previous* | | *-7%* | *40%* | *14%* | *-8%* | | | |

# Structure Fire Details

| FIRE SPREAD - CONTAINMENT - ALL FIRES | | |
|---|---|---|
| 1 - Confined to object of origin | 15 | 16% |
| 2 - Confined to room of origin | 48 | 51% |
| 3 - Confined to floor of origin | 12 | 13% |
| 4 - Confined to building of origin | 16 | 17% |
| 5 - Beyond building of origin | 4 | 4% |
| | 95 | |

**The District has contained**

**65%**

of **working** structure fires to the ROOM or POINT OF ORIGIN

2018-2022

| Cause Of Ignition | | |
|---|---|---|
| 2 - Unintentional | 51 | 54% |
| 5 - Cause under investigation | 17 | 18% |
| 3 - Failure of equipment or heat source | 15 | 16% |
| U - Cause undetermined after investiga | 8 | 8% |
| 1 - Intentional | 3 | 3% |
| 4 - Act of nature | 1 | 1% |

| Basic Type Of Alarm (FD1.50) | | |
|---|---|---|
| Initial / Still Alarm | 38 | 42% |
| Full Still Alarm | 46 | 51% |
| Box Alarm | 4 | 4% |
| 2nd Alarm | 2 | 2% |

| First Unit Arrived Apparatus Type | | |
|---|---|---|
| Chief officer car | 30 | 33% |
| Engine | 26 | 29% |
| ALS unit | 16 | 18% |
| Quint | 11 | 12% |
| Support apparatus, other | 3 | 3% |
| Truck or aerial | 3 | 3% |
| Tanker or tender | 1 | 1% |

| Property Use | | |
|---|---|---|
| 419 - 1 or 2 family dwelling | 58 | 61% |
| 429 - Multifamily dwelling | 13 | 14% |
| 161 - Restaurant or cafeteria | 7 | 7% |
| 559 - Recreational, hobby, home repair sales, pet store | 2 | 2% |
| 580 - General retail, other | 2 | 2% |
| 581 - Department or discount store | 2 | 2% |
| 141 - Athletic/health club | 1 | 1% |
| 142 - Clubhouse | 1 | 1% |
| 340 - Clinics, doctors offices, hemodialysis cntr, other | 1 | 1% |
| 342 - Doctor, dentist or oral surgeon office | 1 | 1% |
| 400 - Residential, other | 1 | 1% |
| 460 - Dormitory-type residence, other | 1 | 1% |
| 500 - Mercantile, business, other | 1 | 1% |
| 529 - Textile, wearing apparel sales | 1 | 1% |
| 549 - Specialty shop | 1 | 1% |
| 599 - Business office | 1 | 1% |
| 808 - Outbuilding or shed | 1 | 1% |
| | 95 | |

| Floor of Origin | | |
|---|---|---|
| 1 | 70 | 74% |
| 2 | 15 | 16% |
| 3 | 4 | 4% |
| -1 | 0 | 0% |
| 0 | 6 | 6% |

Draft

| Presence Of Detectors | | |
|---|---|---|
| 1 - Present | 74 | 78% |
| false - None present | 3 | 3% |
| N - None present | 6 | 6% |
| U - Undetermined | 10 | 11% |
| | 93 | |

| Smoke Detector Operation | | |
|---|---|---|
| 1 - Fire too small to activate detector | 23 | 24% |
| 2 - Detector operated | 44 | 46% |
| 3 - Detector failed to operate | 4 | 4% |
| U - Undetermined | 24 | 25% |

| Area Of Fire Origin | | | |
|---|---|---|---|
| Cooking area, kitchen | 15 | 16% | |
| Vehicle storage area; garage, carport | 12 | 13% | |
| Laundry area, wash house (laundry) | 8 | 8% | |
| Bathroom, checkroom, lavatory, locker room | 5 | 5% | |
| Common room, den, family room, living room, lounge | 5 | 5% | |
| Outside area, other | 5 | 5% | 53% |
| Equipment or service area, other | 4 | 4% | |
| Roof surface: exterior | 4 | 4% | |
| Assembly or sales area, other | 3 | 3% | |
| Storage area, other | 3 | 3% | |
| Wall assembly, concealed wall space | 3 | 3% | 71% |
| Attic: vacant, crawl space above top story | 2 | 2% | |
| Bedroom - < 5 persons; included are jail or prison | 2 | 2% | |
| Exterior balcony, unenclosed porch | 2 | 2% | |
| Sales area, showroom (excludes display window) | 2 | 2% | |
| Storage room, area, tank, or bin | 2 | 2% | |
| Wall surface: exterior | 2 | 2% | |
| Assembly area - less than 100 persons | 1 | 1% | |
| Ceiling and floor assembly, crawl space between stories | 1 | 1% | |
| Chute/container - trash, rubbish, waste | 1 | 1% | |
| Closet | 1 | 1% | |
| Courtyard, patio, terrace | 1 | 1% | |
| Dining room, cafeteria, bar area, beverage service | 1 | 1% | |
| Duct: hvac, cable, exhaust, heating, or AC | 1 | 1% | |
| Entranceway, lobby | 1 | 1% | |
| Exterior, exposed surface | 1 | 1% | |
| Function areas, other | 1 | 1% | |
| Heating room or area, water heater area | 1 | 1% | |
| Office | 1 | 1% | |
| Other area of fire origin | 1 | 1% | |
| Storage: supplies or tools; dead storage | 1 | 1% | |
| Substructure area or space, crawl space | 1 | 1% | |
| Undetermined | 1 | 1% | |
| | 95 | | |

| Item First Ignited | | |
|---|---|---|
| UU - Undetermined | 12 | 13% |
| 81 - Electrical wire, cable insulation | 9 | 9% |
| 76 - Cooking materials, including edible materials | 8 | 8% |
| 99 - Multiple items first ignited | 8 | 8% |
| 30 - Soft goods, wearing apparel, other | 7 | 7% |
| 11 - Exterior roof covering, surface, finish | 5 | 5% |
| 94 - Dust, fiber, lint, including sawdust and excelsio | 5 | 5% |
| 17 - Structural member or framing | 3 | 3% |
| 20 - Furniture, utensils, other | 3 | 3% |
| 23 - Cabinetry (including built-in) | 3 | 3% |
| 25 - Appliance housing or casing | 3 | 3% |
| 51 - Box, carton, bag, basket, barrel | 3 | 3% |
| 12 - Exterior sidewall covering, surface, finish | 2 | 2% |
| 33 - Linen; other than bedding | 2 | 2% |
| 65 - Flammable liquid/gas - uncontained | 2 | 2% |
| 70 - Organic materials, other | 2 | 2% |
| 96 - Rubbish, trash, waste | 2 | 2% |
| 00 - Item first ignited, other | 1 | 1% |
| 10 - Structural component or finish, other | 1 | 1% |
| 13 - Exterior trim, including doors | 1 | 1% |
| 15 - Interior wall covering excluding drapes, etc. | 1 | 1% |
| 16 - Interior ceiling covering or finish | 1 | 1% |
| 21 - Upholstered sofa, chair, vehicle seats | 1 | 1% |
| 26 - Household utensils | 1 | 1% |
| 31 - Mattress, pillow | 1 | 1% |
| 35 - Wearing apparel on a person | 1 | 1% |
| 37 - Goods not made up, including fabrics and yard g | 1 | 1% |
| 40 - Adornment, recreational material, signs, other | 1 | 1% |
| 42 - Decoration | 1 | 1% |
| 43 - Sign, including outdoor signs such as billboards | 1 | 1% |
| 59 - Rolled, wound material (paper and fabrics) | 1 | 1% |
| 72 - Light vegetation - not crop, including grass | 1 | 1% |
| 92 - Magazine, newspaper, writing paper | 1 | 1% |
| | 95 | |

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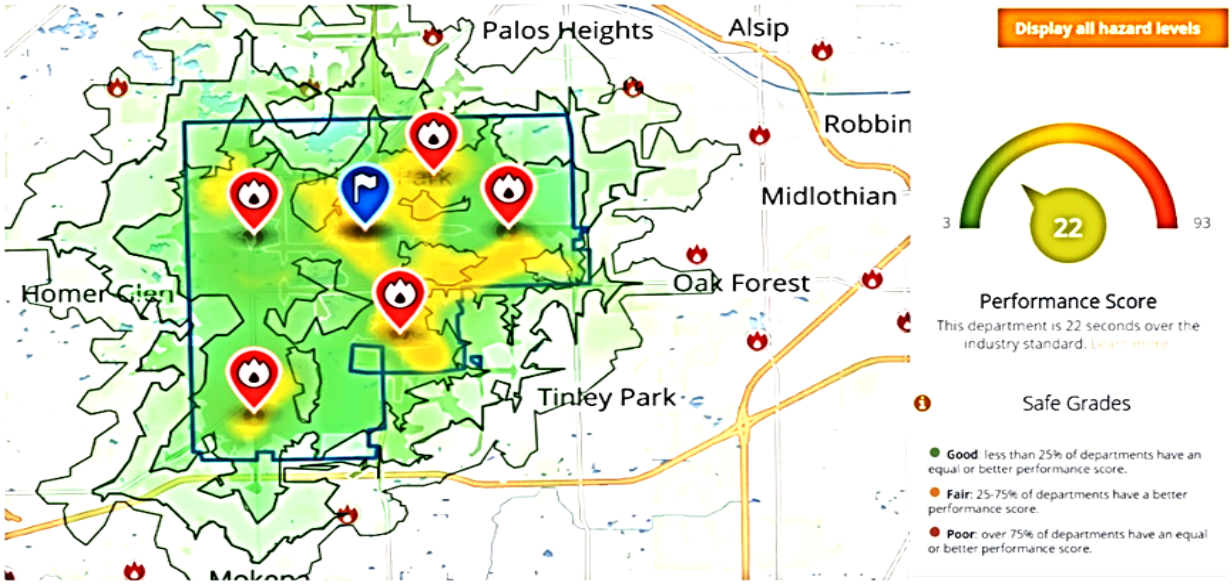
| "Working" Fires Confined to: | 2018 | 2019 | 2020 | 2021 | 2022 | TOTAL | Average/yr | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 1 - Object | 4 | 3 | 4 | 3 | 2 | 16 | 3.2 | 18% |
| 2 - Room | 9 | 1 | 14 | 12 | 7 | 43 | 8.6 | 48% |
| 3 - Floor | 4 | 2 | 4 | 3 | 4 | 17 | 3.4 | 19% |
| 4 - Building | 1 | 2 | 2 | 6 | 2 | 13 | 2.6 | 14% |
| 5 - Beyond | 0 | 0 | 0 | 0 | 1 | 1 | 0.2 | 1% |
| ...of origin | | | | | | | | |
| WORKING FIRES | 18 | 8 | 24 | 24 | 16 | 90 | 18 | |
| TOTAL FIRES IN STRUCTURES | | | | | | | | |
| FIRE LOSS | | | | | | | | |
| Contents | $998,150 | $147,000 | $856,300 | $87,000 | $926,500 | $3,014,950 | $602,990 | |
| Property | $1,102,250 | $513,000 | $1,769,100 | $763,000 | $3,605,000 | $7,752,350 | $1,550,470 | |
| Total Loss | $2,100,400 | $660,000 | $2,625,400 | $850,000 | $4,531,500 | $10,767,300 | $2,153,460 | |
| Pre-Incident Value | $22,650,250 | $1,700,000 | $10,171,000 | $12,971,390 | $14,725,500 | $62,218,140 | $12,443,628 | |
| Property Saved | $20,549,850 | $1,040,000 | $7,545,600 | $12,121,390 | $10,194,000 | $51,450,840 | $10,290,168 | |
| CIVILIAN | | | | | | | | |
| Injury | 3 | 2 | 9 | 2 | 6 | 22 | | |
| Fatality | 1 | 1 | | | | 2 | | |
| FF | | | | | | | | |
| Injury | | | 1 | | 2 | 3 | | |
| STATION | | | | | | | | |
| 1 | 6 | 3 | 2 | 3 | 3 | 17 | 3.4 | 19% |
| 2 | 3 | 0 | 3 | 6 | 2 | 14 | 2.8 | 16% |
| 3 | 2 | 0 | 3 | 5 | 3 | 13 | 2.6 | 14% |
| 4 | 5 | 1 | 8 | 8 | 3 | 25 | 5 | 28% |
| 5 | 1 | 4 | 7 | 1 | 4 | 17 | 3.4 | 19% |
| 6 | 1 | 0 | 1 | 1 | 1 | 4 | 0.8 | 4% |
| | 18 | 8 | 24 | 24 | 16 | 90 | 18 | |
| SHIFT | | | | | | | | |
| Black | 5 | 6 | 4 | 7 | 5 | 27 | 5.4 | 30% |
| Red | 9 | 2 | 4 | 9 | 6 | 30 | 6 | 33% |
| Gold | 4 | 0 | 16 | 8 | 5 | 33 | 6.6 | 37% |
| | 18 | 8 | 24 | 24 | 16 | 90 | 18 | |

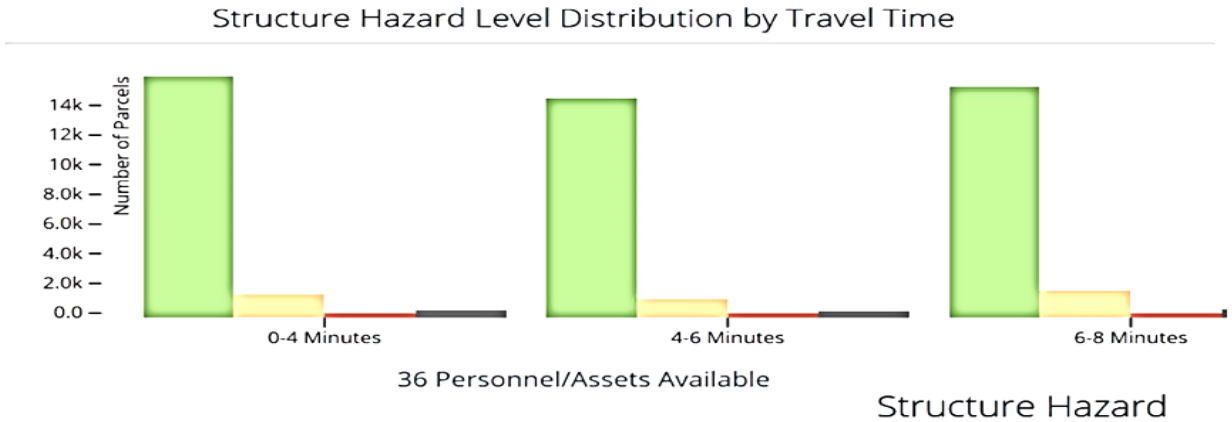
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## Conclusions and Categorizations – Fire Risk

Community Risk Priorities based on the incident assessment and demographic data, the top three priorities for community risk have been identified. The fire risk in the District is considered moderate and in line with national averages and most at-risk populations. These potential risks can be mitigated through various strategies, which will be addressed through a comprehensive community risk reduction plan. They focus on reducing cooking and other small brush/vegetation fires in the home.

# FireCares - Risk Level Assessment




36 Personnel/Assets Available

## Community Risk Assessment

**Fire Risk** — MEDIUM

This community falls into the medium risk category for structure fires when compared to other communities of the same size classification.

**Fire Spread Risk** — MEDIUM

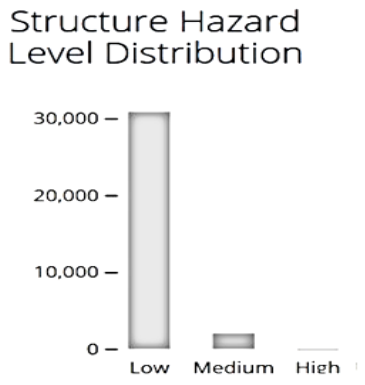
This community falls into the medium risk category for the number of fires spread beyond room of origin when compared to other communities of the same size classification.

**Death and Injury Risk** — MEDIUM

This community falls into the medium risk category for the number of fire-related deaths and injuries when compared to other communities of the same size classification.

- **Low**: less than 25% of departments have an equal or smaller risk value.
- **Medium**: 25-75% of departments have a smaller risk value.
- **High**: over 75% of departments have an equal or smaller risk value.

https://firecares.org




33,413 total structures protected

# Fire Risk level Classification

A definition of "fire risk analysis" considers fire potential (probability), life hazards and economic impact (consequences), occupancy use, construction features, fire protection systems, fire flow requirements, and community risk factors. Through evaluating an events probability, impact, and location (as part of this analysis of existing and potential community risk), the following **TYPE classification** of **fire risk hazard levels** has been established:

**FIRE - RISK**

**LOW** **Outside fires**
*Vehicles, Brush, Refuse*

**MODERATE** **Structures**
***SMALL - MEDIUM:***
*Residential, Multifamily, Commercial*

**HIGH** **Target Hazards**
***LARGE - MEGA:***
*Residential, Multifamily, Commercial*
*or* ***Schools, Hotels, Malls, Nursing,Assisted Living***



**Low-Risk types** are incidents typically requiring a single Fire Company. Examples are small brush and dumpster-type fires. Vehicle fires are also classified as Low Risk. However, the District should consider an additional fire company dispatched for traffic control and workforce tasks. Fully protected (alarmed/sprinklered) structures are also low-risk types of classifications and, therefore, can be sent with a reduced response with the option to upgrade the response level at any time if further information confirming a fire is determined.



**Moderate-Risk types** are the structure fire incidents that comprise almost all Fire Districts. They involve Small to Medium Residential-Multifamily-Commercial occupancies. Typically, they are single-family residential to small six units or less multifamily apartment buildings and small to medium commercial or strip malls. NFPA structure classification, "low" type.




**High-Risk types** are Large to Mega Size Residential-Multifamily-Commercial structures. It includes Target Hazards, which risk a sizable loss of life, loss of economic value to the community, or high property loss. These include sites such as Schools, Hotels, and Skilled Nursing facilities. NFPA structure classification is "medium to high."

**FIRE risk types Historically are primarily classified as LOW to MODERATE**

Draft

# EMS Risk




Risks to the EMS community range from treating and transporting the ill/injured, cardiac and respiratory problems, and the broad spectrum of medical issues to the potential mass casualty.

EMS is the highest demand for service the District provides, accounting for 62% **of incidents** (**65%** *when including vehicle accidents with injuries – categorized to the "Rescue" group)*. The Emergency Medical environment continues to evolve with a changing society. Events such as Covid, active shooters, terrorism, and other manufactured hostile events reshape EMS roles and responsibilities, requiring continued planning and training to meet those risks.





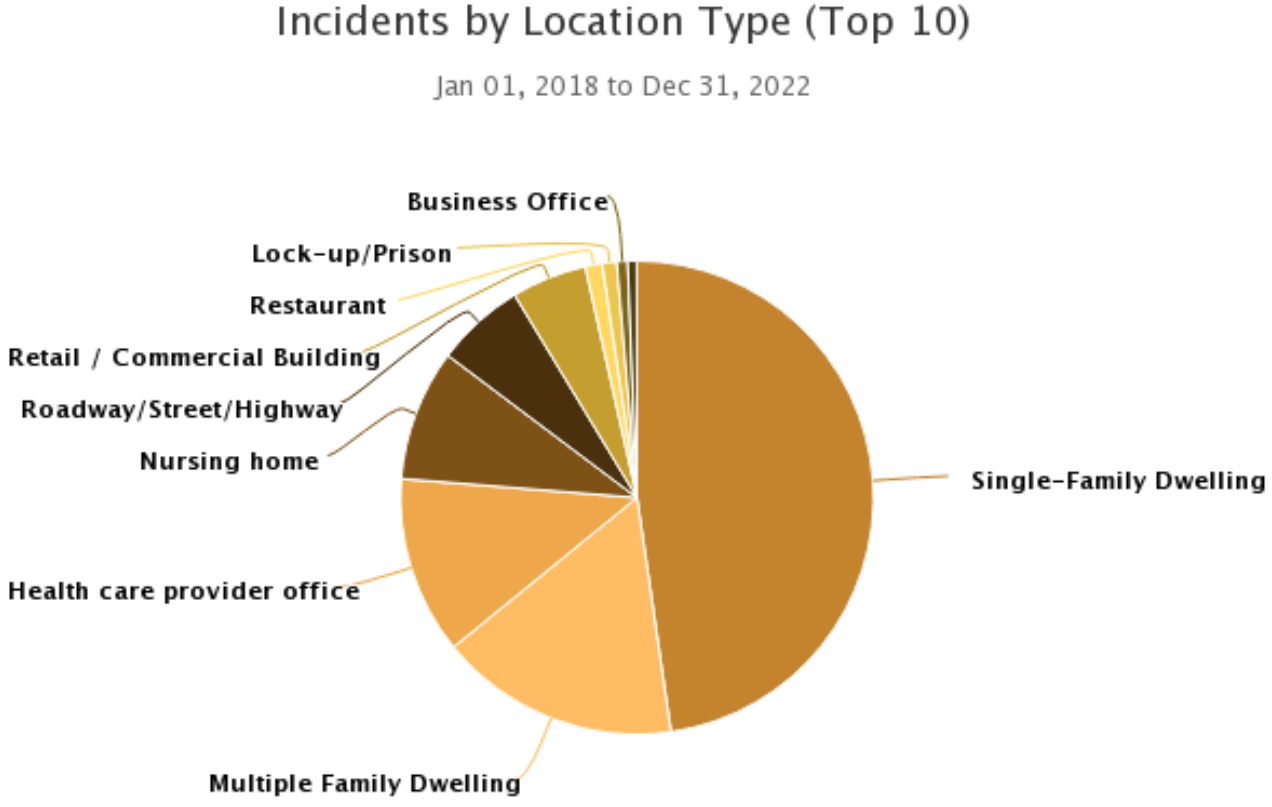
# By Level of Care

**EMS Incident Care Level**

| Incident Year | 2018 | 2019 | 2020 | 2021 | 2022 | | |
|---|---|---|---|---|---|---|---|
| Payment CMS Service Level (ePayment.50) | | | | | | Count of Distinct Incident Numbers Grand Total | Percent of Count of Distinct Incident Numbers Grand Total |
| ALS, IV/Monitor | 3,379 | 3,463 | 3,023 | 3,707 | 4,172 | 17,744 | 48.44% |
| BLS | 1,707 | 2,024 | 1,840 | 1,967 | 2,341 | 9,879 | 26.97% |
| Refused Treatment-No Treatment/No Transport | 818 | 904 | 1,100 | 944 | 1,200 | 4,966 | 13.56% |
| ALS, Meds/Defib/Procedures | 360 | 503 | 450 | 553 | 509 | 2,375 | 6.48% |
| Evaluated - Minor Treatment - No Transport | 300 | 356 | 312 | 324 | 373 | 1,665 | 4.55% |
| Not Reported | | | | | 1 | 1 | 0.00% |
| Grand Total | 6,564 | 7,250 | 6,725 | 7,495 | 8,596 | 36,630 | 100% |

# Top EMS Incident Types

## By Location Type



## By All Location Types

**INCIDENT LOCATION TYPE**

| Scene Incident Location Type | 2018 | 2019 | 2020 | 2021 | 2022 | Total | % |
|---|---|---|---|---|---|---|---|
| Single-Family Dwelling | 2,832 | 2,987 | 3,311 | 3,289 | 3,812 | 16,231 | 44.61% |
| Multiple Family Dwelling | 1,054 | 1,236 | 1,123 | 1,273 | 1,247 | 5,933 | 16.31% |
| Health care provider office | 559 | 640 | 524 | 766 | 802 | 3,291 | 9.05% |
| Roadway/Street/Highway | 632 | 678 | 567 | 620 | 700 | 3,197 | 8.79% |
| Nursing home | 294 | 454 | 367 | 473 | 880 | 2,468 | 6.78% |
| Retail / Commercial Building | 427 | 485 | 343 | 450 | 512 | 2,217 | 6.09% |
| Restaurant | 184 | 163 | 68 | 97 | 112 | 624 | 1.72% |
| Lock-up/Prison | 99 | 113 | 85 | 63 | 84 | 444 | 1.22% |
| Public administrative building | 77 | 77 | 52 | 69 | 75 | 350 | 0.96% |
| Business Office | 69 | 74 | 52 | 59 | 62 | 316 | 0.87% |
| Other recreation area | 37 | 43 | 21 | 34 | 41 | 176 | 0.48% |
| Urgent care center | 19 | 34 | 22 | 32 | 44 | 151 | 0.42% |
| Church/Religious institution | 40 | 27 | 11 | 14 | 30 | 122 | 0.34% |
| Amusement park | 31 | 29 | 13 | 13 | 12 | 98 | 0.27% |
| Not Reported | | | 19 | 72 | 1 | 92 | 0.25% |
| Athletic field | 27 | 21 | 10 | 14 | 7 | 79 | 0.22% |
| Public park | 10 | 22 | 10 | 14 | 15 | 71 | 0.20% |
| Other ambulatory health services establishments | 11 | 9 | 23 | 13 | 12 | 68 | 0.19% |
| Other specified sports and athletic area | 27 | 12 | 8 | 11 | 9 | 67 | 0.18% |
| Elementary school | 12 | 19 | 3 | 13 | 12 | 59 | 0.16% |
| Swimming pool (public) | 15 | 9 | 2 | 12 | 11 | 49 | 0.13% |
| Group Home | 10 | 12 | 8 | 10 | 7 | 47 | 0.13% |
| Middle school | 8 | 9 | 4 | 8 | 6 | 35 | 0.10% |
| Movie house or cinema | 9 | 12 | 2 | 2 | 5 | 30 | 0.08% |
| Unspecified non-institutional (private) residence | 3 | 8 | 4 | 3 | 3 | 21 | 0.06% |
| Unspecified school | 7 | 5 | | 2 | 5 | 19 | 0.05% |
| Daycare center | 2 | 5 | 1 | 5 | 5 | 18 | 0.05% |
| Skating rink | 5 | 4 | 3 | 1 | 4 | 17 | 0.05% |
| Railroad track | 1 | 2 | 2 | 4 | 6 | 15 | 0.04% |
| Service areas | 1 | 4 | 4 | 1 | 4 | 14 | 0.04% |
| Other specified industrial and construction area | 2 | 4 | 3 | | 2 | 11 | 0.03% |
| Hospital | 1 | 1 | 4 | 2 | 1 | 9 | 0.02% |
| Police Station | | | | | 7 | 7 | 0.02% |
| Ambulatory surgery center | 1 | 2 | | 1 | 2 | 6 | 0.02% |
| Cultural building | 1 | | | 3 | 1 | 5 | 0.01% |
| High school | 1 | 1 | | | 2 | 4 | 0.01% |
| Trade school | 2 | | | 1 | 1 | 4 | 0.01% |
| Wilderness area | | | 1 | 1 | 2 | 4 | 0.01% |
| Farm | | | 1 | | 2 | 3 | 0.01% |
| Fire/EMS Station | | | | | 3 | 3 | 0.01% |
| Private garage of single-family (private) house | | | 1 | 1 | 1 | 3 | 0.01% |
| College | 1 | 1 | | | | 2 | 0.01% |
| Factory | | | | 1 | 1 | 2 | 0.01% |
| Building [any] under construction | 1 | | | | | 1 | 0.00% |
| Grand Total | 6,512 | 7,202 | 6,672 | 7,447 | 8,550 | 36,383 | 100% |
| | | 11% | -7% | 12% | 15% | | |

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# By Provider Impression

**Provider Impression**

| Incident Year | 2018 | 2019 | 2020 | 2021 | 2022 | | |
|---|---|---|---|---|---|---|---|
| Situation Provider Primary Impression (eSituation.11) | | | | | | Count of Distinct Incident Numbers Grand Total | Percent of Count of Distinct Incident Numbers Grand Total |
| No complaint, None (Z00) | 953 | 1,320 | 1,394 | 1,119 | 1,471 | 6,257 | 17.01% |
| Weakness, Lethargic (R53.1) | 470 | 504 | 501 | 594 | 797 | 2,866 | 7.79% |
| Acute pain, not elsewhere classified (G89.1) | 321 | 314 | 272 | 360 | 443 | 1,710 | 4.65% |
| Behavioral / psychiatric disorder (F99) | 319 | 339 | 288 | 358 | 331 | 1,635 | 4.44% |
| Cardiac, Angina (1); or Ischemic chest pain (2) (I20.9) | 243 | 244 | 269 | 302 | 330 | 1,388 | 3.77% |
| Altered mental status (R41.82) | 185 | 229 | 207 | 220 | 278 | 1,119 | 3.04% |
| Syncope, Loss of Consciousness (R55) | 260 | 246 | 196 | 184 | 229 | 1,115 | 3.03% |
| Respiratory distress, acute (J80) | 114 | 170 | 191 | 251 | 292 | 1,018 | 2.77% |
| Acute abdomen (R10.0) | 192 | 162 | 154 | 217 | 218 | 943 | 2.56% |
| Back Pain (M54.9) | 175 | 214 | 160 | 172 | 212 | 933 | 2.54% |
| Chest Pain, Other [non-cardiac] (R07.89) | 112 | 141 | 89 | 158 | 198 | 698 | 1.90% |
| Injury of head (S09.90) | 99 | 127 | 116 | 152 | 193 | 687 | 1.87% |
| Headache, Head Pain (R51) | 119 | 149 | 101 | 105 | 146 | 620 | 1.69% |
| Dizziness (R42) | 126 | 107 | 88 | 131 | 136 | 588 | 1.60% |
| Malaise, Light Headed, Dizzy (R53.81) | 100 | 122 | 82 | 111 | 153 | 568 | 1.54% |
| Seizures without status epilepticus (G40.909) | 101 | 121 | 102 | 106 | 123 | 553 | 1.50% |
| Stroke, CVA (I63.9) | 86 | 91 | 81 | 123 | 156 | 537 | 1.46% |
| Injury of lower leg (S89.9) | 96 | 116 | 98 | 98 | 92 | 500 | 1.36% |
| COVID-19 (U07.1) | | | 102 | 157 | 95 | 354 | 0.96% |
| Cardiac arrhythmia/dysrhythmia (I49.9) | 58 | 69 | 71 | 88 | 65 | 351 | 0.95% |
| Injury of hip (S79.91) | 64 | 78 | 67 | 70 | 71 | 350 | 0.95% |
| Injury of shoulder or upper arm (S49.9) | 51 | 77 | 69 | 73 | 79 | 349 | 0.95% |
| Respiratory, COPD with exacerbation (J44.1) | 57 | 82 | 65 | 77 | 68 | 349 | 0.95% |
| Fever (R50.9) | 79 | 76 | 72 | 55 | 66 | 348 | 0.95% |
| Allergic Reaction (T78.40) | 70 | 74 | 50 | 75 | 77 | 346 | 0.94% |

## By Top Causes of Injury

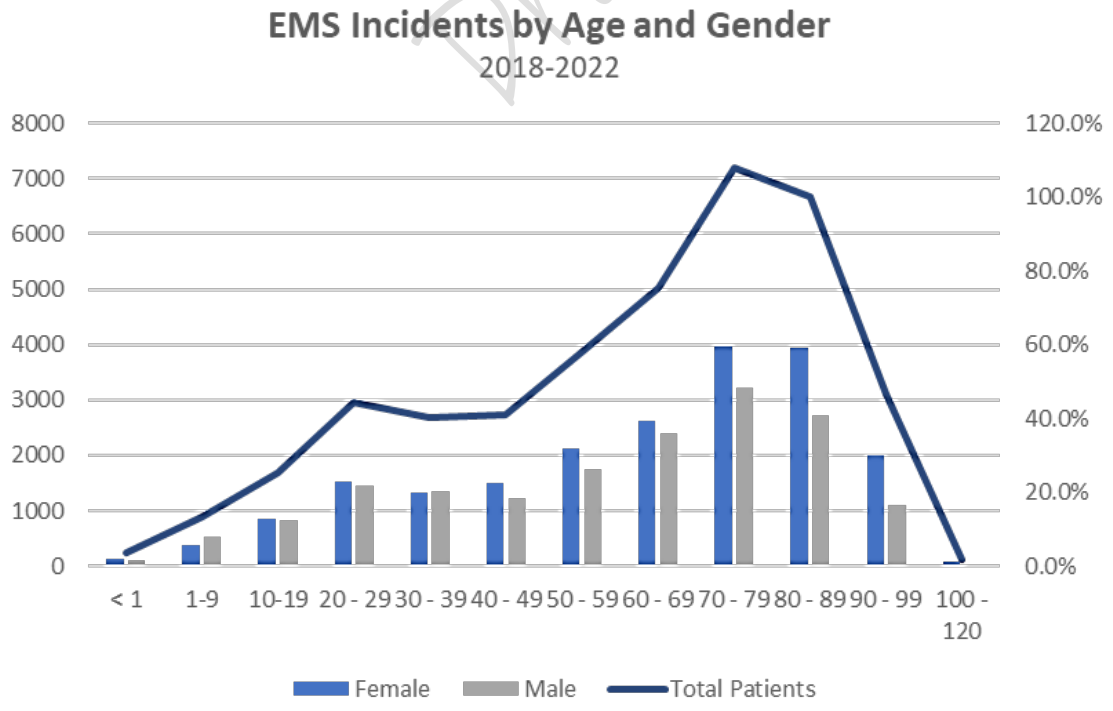
**Top Causes of Injury**

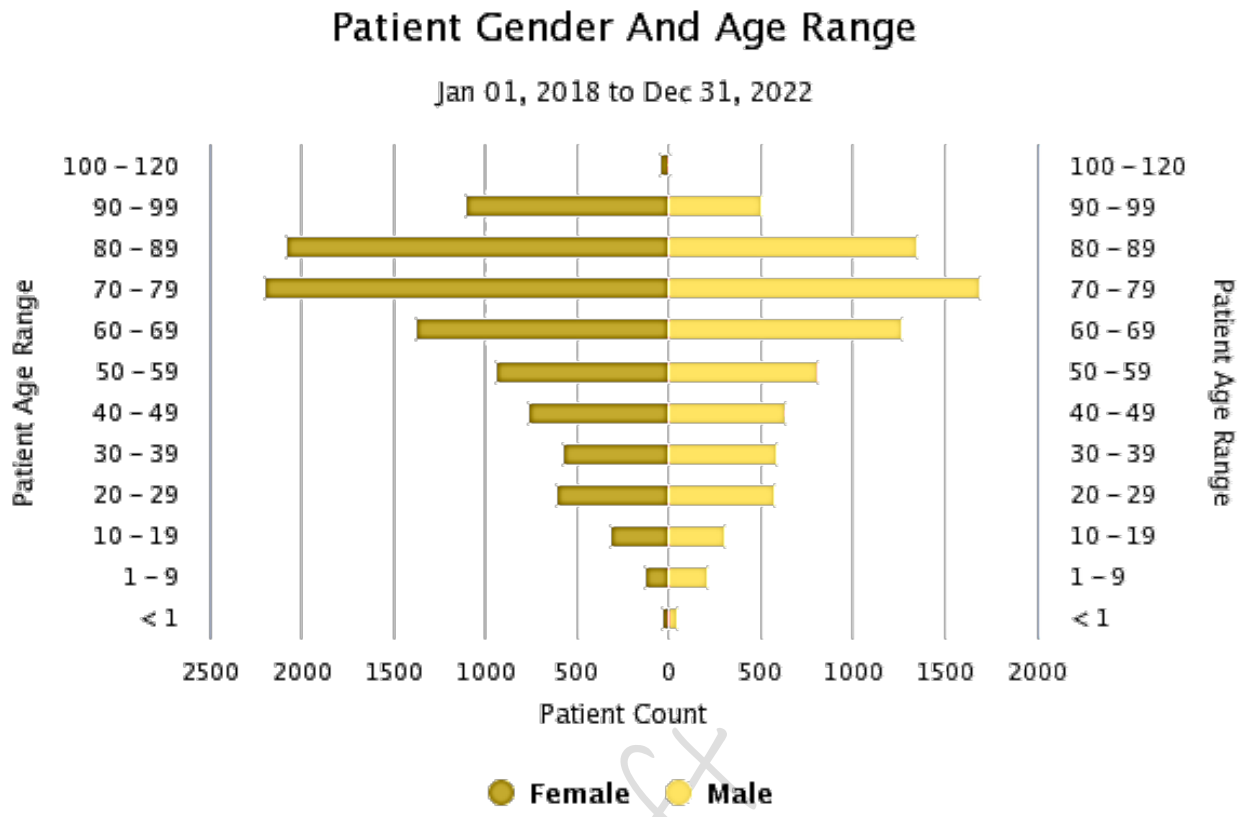
| Incident Year | 2018 | 2019 | 2020 | 2021 | 2022 | | |
|---|---|---|---|---|---|---|---|
| Injury Cause Of Injury Description List (eInjury.01) | | | | | | Count of Distinct Incident Numbers Grand Total | Percent of Count of Distinct Incident Numbers Grand Total |
| Fall on same level from slipping, tripping and stumbling | 517 | 647 | 480 | 573 | 553 | 2,770 | 35.80% |
| Car occupant (driver) (passenger) injured in unspecified traffic accident | 252 | 298 | 180 | 245 | 238 | 1,213 | 15.68% |
| Other slipping, tripping and stumbling and falls | 89 | 96 | 111 | 110 | 212 | 618 | 7.99% |
| Fall (on) (from) unspecified stairs and steps | 78 | 61 | 81 | 83 | 102 | 405 | 5.23% |
| Fall from bed | 69 | 62 | 58 | 41 | 72 | 302 | 3.90% |
| Slipping, tripping and stumbling without falling | 28 | 58 | 58 | 60 | 75 | 279 | 3.61% |
| Fall from chair | 69 | 56 | 38 | 35 | 47 | 245 | 3.17% |
| Assault by bodily force | 32 | 46 | 37 | 43 | 27 | 185 | 2.39% |
| Contact with blunt object, undetermined intent | 36 | 28 | 30 | 28 | 25 | 147 | 1.90% |
| Fall from or off toilet | 20 | 16 | 20 | 11 | 17 | 84 | 1.09% |
| Accidental hit, strike, kick, twist, bite or scratch by another person | 20 | 19 | 5 | 12 | 16 | 72 | 0.93% |
| Fall from other furniture | 10 | 13 | 21 | 8 | 18 | 70 | 0.90% |
| Fall on and from playground equipment | 17 | 21 | 9 | 10 | 7 | 64 | 0.83% |
| Assault by blunt object | 9 | 17 | 9 | 12 | 15 | 62 | 0.80% |
| Striking against or struck by other objects | 15 | 14 | 11 | 10 | 12 | 62 | 0.80% |
| Other fall from one level to another | 14 | 8 | 11 | 12 | 11 | 56 | 0.72% |
| Crashing of motor vehicle, undetermined intent | 15 | 8 | 5 | 5 | 19 | 52 | 0.67% |
| Caught, crushed, jammed or pinched in or between objects | 9 | 10 | 12 | 5 | 9 | 45 | 0.58% |
| Fall from non-moving wheelchair, nonmotorized scooter and motorized mobility scooter | 4 | 5 | 13 | 13 | 9 | 44 | 0.57% |
| Accidental striking against or bumped into by another person | 7 | 16 | 6 | 2 | 11 | 42 | 0.54% |
| Contact with knife, sword or dagger | 6 | 11 | 9 | 5 | 9 | 40 | 0.52% |
| Fall on and from ladder | 4 | 7 | 5 | 8 | 12 | 36 | 0.47% |
| Contact with dog | 7 | 3 | 7 | 11 | 7 | 35 | 0.45% |

# Patients by Age Group & Gender

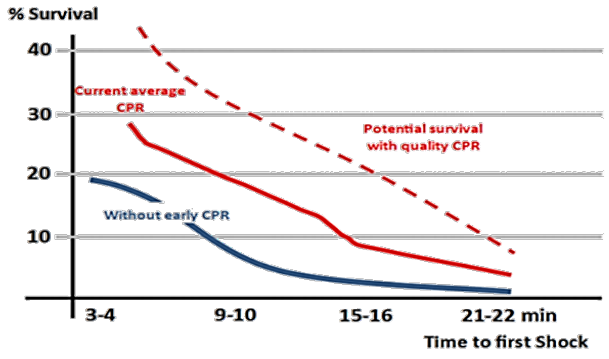
| Patient Age Range | # of Inc | % of Total Inc | # of Inc | % of Total Inc | # of Inc | % of Total Inc | # of Inc | % of Total Inc | |
|---|---|---|---|---|---|---|---|---|---|
| | Female | | Male | | Unknown | | TOTAL | | |
| < 1 | 119 | 0.32% | 109 | 0.29% | 1 | 0.00% | 229 | 0.6% | |
| 1-9 | 371 | 1.00% | 515 | 1.39% | 2 | 0.01% | 888 | 2.4% | |
| 10-19 | 845 | 2.27% | 824 | 2.22% | 6 | 0.02% | 1,675 | 4.5% | |
| 20 - 29 | 1,521 | 4.09% | 1,444 | 3.89% | 3 | 0.01% | 2,968 | 8.0% | |
| 30 - 39 | 1,321 | 3.56% | 1,355 | 3.65% | 4 | 0.01% | 2,680 | 7.2% | |
| 40 - 49 | 1,507 | 4.06% | 1,230 | 3.31% | 2 | 0.01% | 2,739 | 7.4% | |
| 50 - 59 | 2,112 | 5.68% | 1,755 | 4.72% | 7 | 0.02% | 3,874 | 10.4% | |
| 60 - 69 | 2,628 | 7.07% | 2,398 | 6.45% | 3 | 0.01% | 5,029 | 13.5% | |
| 70 - 79 | 3,971 | 10.69% | 3,220 | 8.67% | 7 | 0.02% | 7,198 | 19.4% | |
| 80 - 89 | 3,933 | 10.58% | 2,720 | 7.32% | 13 | 0.03% | 6,666 | 17.9% | |
| 90 - 99 | 1,988 | 5.35% | 1,112 | 2.99% | 3 | 0.01% | 3,103 | 8.4% | |
| 100 - 120 | 86 | 0.23% | 18 | 0.05% | 1 | 0.00% | 105 | 0.3% | 59.5% |
| | 20,402 | | 16,700 | | 52 | | 37,154 | | |
| | 55% | | 45% | | | | | | |

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Patient Gender And Age Range
Jan 01, 2018 to Dec 31, 2022
Patient Age Range
100 – 120
90 – 99
80 – 89
70 – 79
60 – 69
50 – 59
40 – 49
30 – 39
20 – 29
10 – 19
1 – 9
< 1
2500 2000 1500 1000 500 0 500 1000 1500 2000
Patient Count
Female
Male

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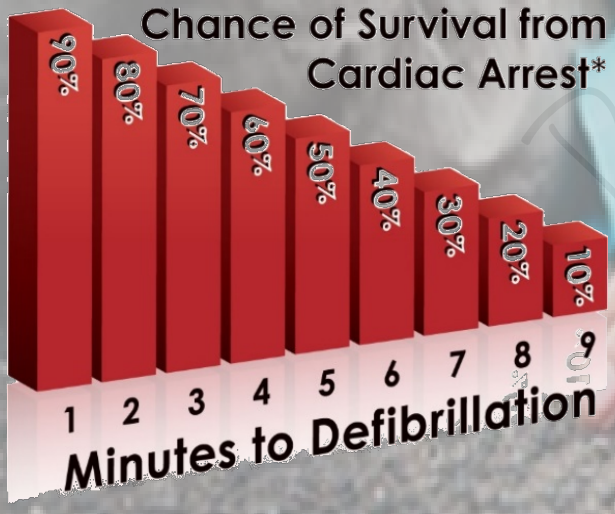

% Survival
40
30
20
10
Current average CPR
Potential survival with quality CPR
Without early CPR
3-4
9-10
15-16
21-22 min
Time to first Shock

# Cardiac Arrest




**A sudden cardiac arrest patient not defibrillated within eight to ten minutes has virtually no chance of survival.**

EMS service-level objectives are typically designed to provide medical intervention within six minutes. Intervention includes early recognition, activation of 911, and bystander CPR until the arrival of emergency responders. Respiratory and traumatic injuries are also heavily time and resource dependent. Survivability dramatically decreases in cardiac and respiratory arrest situations beyond four to six minutes without proper intervention. Early defibrillation is a critical link in the American Heart Association's Chain of Survival. Early defibrillation supports converting the heart from a chaotic rhythm back to normalcy. Oxygenated blood is not circulated throughout the body when the heart is in fibrillation. Without defibrillation within six minutes, the patient likely dies. The odds of survival decrease every minute without defibrillation.




Recognizing the cardiac arrest event, activating the EMS system, and beginning CPR as quickly as possible increases survival rates. Training residents and access to AEDs in public buildings have supported increased survival. Patient contact times increase during responses to high rises and other large structures. The initiation of CPR and early defibrillation are critical initial links in the survival chain. The heart may start to beat chaotically in sudden cardiac arrest, requiring an electrical shock through a defibrillator to restore regular operation and od flow. **Survival is reduced each minute CPR or defibrillation does not occur.** Witness-driven CPR and access to AEDs dramatically increase survival.

From 2018-2022, there has been 348 Cardiac/Respiratory Arrests in the District ***(average 70/year)***

**R.O.S.C. Survival Rate = 52.3% *average*** (2018-22)

**NATIONAL R.O.S.C. average: 7-11%**

**R.O.S.C. – Return Of Spontaneous Circulation*

*The District is developing strategies **to continue improving** this critically important outcome measure.*

# Cardiac Arrest Outcomes - Utstein

## Cardiac Arrest ROSC (Utstein Protocol)

| Non-Traumatic Etiology Survival Rates | | | | | | | ???? |
|---|---|---|---|---|---|---|---|
| Overall | 19.4% | 13.8% | 11.0% | 10.1% | 10.5% | 13.0% | 12.6% |
| | 62 | 58 | 73 | 69 | 86 | 348 | |
| Bystander Witnessed | 36.8% | 36.8% | 12.5% | 19.2% | 13.3% | 23.7% | 22.0% |
| | 19 | 19 | 24 | 26 | 30 | 118 | |
| Unwitnessed | 11.8% | 0.0% | 7.7% | 2.8% | 2.3% | 4.9% | 4.9% |
| | 34 | 30 | 39 | 36 | 44 | 183 | |
| **UTSTEIN** | 77.8% | 60.0% | 37.5% | 41.7% | 44.4% | 52.3% | |
| # | 9 | 5 | 8 | 12 | 9 | 43 | 43 |
| **BYSTANDER INTERVENTION** | | | | | | | |
| **UTSTEIN (Bystander)** | 100.0% | 66.7% | 50.0% | 42.9% | 25.0% | 56.9% | 58.3% |
| # | 6 | 3 | 4 | 7 | 4 | 24 | 24 |
| CPR | 40% | 23% | 30% | 40% | 34.1% | 33.2% | 33.5% |
| | 30 | 31 | 40 | 43 | 41 | 185 | 185 |
| AED - PUBLIC | 11% | 0% | 14% | 50% | 0% | 15.1% | 14.8% |
| | 9 | 4 | 7 | 4 | 3 | 27 | 27 |

## Cardiac Arrest by Initial Rhythm & Combined with ROSC

| 2018-2022 | VF/VT | | ASYSTOLE | | OTHER RHYTHM | | COMBINED TOTAL | |
|---|---|---|---|---|---|---|---|---|
| TOTAL RESUSCITATION ATTEMPTS | 348 | | 348 | | 348 | | 348 | |
| of Total had Initial Rhythm | 81 | 23% | 213 | 61% | 54 | 16% | 348 | 100% |
| of Total to ROSC | 44 | 13% | 63 | 18% | 33 | 9% | 140 | 40% |
| **Intitial Rhythm to ROSC** | 54.3% | 55% | 29.6% | 30% | 61% | 63% | 49% | 49% |
| Died in Field | 16 | 5% | 92 | 26% | 5 | 1% | 113 | 32% |
| Died in ED | 22 | 6% | 71 | 20% | 25 | 7% | 118 | 34% |
| Admitted | 43 | 12% | 50 | 14% | 24 | 7% | 117 | 34% |
| Admitted - *DATA INCOMPLETE | 4 | | 12 | | 2 | | 18 | |
| Died in Hospital | 9 | 3% | 30 | 9% | 14 | 4% | 53 | 15% |
| **ROSC to Discharge ALIVE** | 30 | 68% | 6 | 10% | 8 | 24% | 44 | 31% |
| CPC 1or 2 | 29 | 97% | 5 | | 6 | | 40 | |
| CPC 3 or 4 | 1 | 3% | 1 | | 2 | | 4 | |
| **Initial Rhythm to Discharge ALIVE** | | 37% | | 3% | | 15% | | 13% |

# Cardiac Arrest Outcomes – separated by Initial Rhythm with ROSC

| COMBINED - WITNESSED & NOT WITNESSED | | | | | | | TOTAL RESUSCITATION ATTEMPTS | |
|---|---|---|---|---|---|---|---|---|
| VF/VT | 17 | 14 | 17 | 19 | 14 | 81 | 23% | of Total had VF/VT |
| ROSC | 10 | 6 | 8 | 10 | 10 | 44 | 13% | of Total to VF with ROSC |
| | 58.8% | 42.9% | 47.1% | 52.6% | 71.4% | 54.3% | 55% | VF to ROSC |
| Died in Field | 2 | 3 | 7 | 4 | 0 | 16 | 5% | of Total Died in Field |
| Died in ED | 5 | 5 | 5 | 6 | 1 | 22 | 6% | of Total Died in ED |
| Admitted | 10 | 6 | 5 | 9 | 13 | 43 | 12% | Admitted - *DATA INCOMPLETE |
| Died in Hospital | 0 | 2 | 1 | 4 | 2 | 9 | 3% | Died in Hospital |
| Discharged Alive | 10 | 4 | 4 | 5 | 7 | 30 | 68% | from ROSC to Discharge Alive |
| CPC 1 or 2 | 9 | 4 | 4 | 5 | 7 | 29 | 97% | CPC 1 or 2 |
| CPC 3 or 4 | 1 | 0 | 0 | 0 | 0 | 1 | 3% | CPC 3 or 4 |
| *INCOMPLETE DATA | | | | | 4 | | 37% | VF to Discharge Alive |

| COMBINED - WITNESSED & NOT WITNESSED | | | | | | | TOTAL RESUSCITATION ATTEMPTS | |
|---|---|---|---|---|---|---|---|---|
| ASYSTOLE | 36 | 34 | 43 | 40 | 60 | 213 | 61% | of Total had ASYSTOLE |
| ROSC | 15 | 7 | 15 | 11 | 15 | 63 | 18% | of Total to ASYSTOLE with ROSC |
| | 41.7% | 20.6% | 34.9% | 27.5% | 25.0% | 29.6% | 30% | ASYSTOLE to ROSC |
| Died in Field | 11 | 19 | 18 | 17 | 27 | 92 | 26% | of Total Died in Field |
| Died in ED | 19 | 9 | 17 | 16 | 10 | 71 | 20% | of Total Died in ED |
| Admitted | 6 | 6 | 8 | 7 | 23 | 50 | 14% | Admitted - *DATA INCOMPLETE |
| Died in Hospital | 5 | 4 | 6 | 7 | 8 | 30 | 9% | Died in Hospital |
| Discharged Alive | 1 | 2 | 2 | 0 | 1 | 6 | 10% | from ROSC to Discharge Alive |
| CPC 1or 2 | 0 | 2 | 2 | 0 | 1 | 5 | 83% | CPC 1 or 2 |
| CPC 3 or 4 | 1 | 0 | 0 | 0 | 0 | 1 | 17% | CPC 3 or 4 |
| *INCOMPLETE DATA | | | | | 12 | | 3% | ASYSTOLE to Discharge Alive |

| COMBINED - WITNESSED & NOT WITNESSED | | | | | | | TOTAL RESUSCITATION ATTEMPTS | |
|---|---|---|---|---|---|---|---|---|
| OTHER RHYTHM | 9 | 10 | 13 | 10 | 12 | 54 | 16% | of Total had ASYSTOLE |
| ROSC | 6 | 9 | 6 | 7 | 5 | 33 | 9% | of Total to ASYSTOLE with ROSC |
| | 66.7% | 90.0% | 46.2% | 70.0% | 41.7% | 61.1% | 63% | ASYSTOLE to ROSC |
| Died in Field | 0 | 1 | 2 | 1 | 1 | 5 | 1% | of Total Died in Field |
| Died in ED | 6 | 2 | 6 | 4 | 7 | 25 | 7% | of Total Died in ED |
| Admitted | 3 | 7 | 5 | 5 | 4 | 24 | 7% | Admitted - *DATA INCOMPLETE |
| Died in Hospital | 2 | 5 | 3 | 3 | 1 | 14 | 4% | Died in Hospital |
| Discharged Alive | 1 | 2 | 2 | 2 | 1 | 8 | 24% | from ROSC to Discharge Alive |
| CPC 1or 2 | 0 | 2 | 2 | 1 | 1 | 6 | 75% | CPC 1 or 2 |
| CPC 3 or 4 | 1 | 0 | 0 | 1 | 0 | 2 | 25% | CPC 3 or 4 |
| *INCOMPLETE DATA | | | | | 2 | | 15% | ASYSTOLE to Discharge Alive |

# EMS Risk Conclusions and Categorizations

Additional research and data analysis is needed to identify the most frequent primary impression involved: traumatic injuries, chest pain, altered level of consciousness, abdominal symptoms, etc. The current data shows that traumatic injuries, because of falls, are the highest frequency in nature. Non-traumatic cardiopulmonary arrest cases represented a relatively small number of EMS incidents. Most occurred at home, and most presented with an initial rhythm of ventricular fibrillation (V-Fib). In 2022, the **saving rate for cardiac arrest patients in V-Fib reached 71% (the national average is 11%).**

The emergency medical environment continues to evolve with a changing society. Events such as terrorism, active shooter, and other manufactured hostile events reshape EMS roles and responsibilities, requiring continued planning and training to meet those risks. EMS incident data showed that most ground-level falls occurred among 65 years and older, typically female. The types of injuries were usually hip and lower-extremity fractures. While such injuries can be significant in younger people, they are often much more devastating for the elderly. They frequently result in long-term functional impairment, nursing home admission, and increased mortality. Ground-level falls are preventable by making homes safer by reducing tripping hazards, improving lighting, and adding grab rails in bathrooms. In addition, regular exercise to improve strength and balance, annual eye exams, taking calcium and Vitamin D supplements, and ensuring that any medicines they take do not have side effects, such as dizziness or drowsiness, can all help to reduce the potential for falls.

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# EMS Risk level Classification

The District has identified that emergency medical services are critical to the community through strategic planning. Statistical data substantiates that this is the highest level of service demand in all response zones.

Although the consequence of an individual incident may not be high (typically limited to one fire company and one ambulance company), the probability of multiples of these incidents occurring concurrently is typical (**48.5% of the time**) - ***simultaneous incidents occur of any nature***). Thus, emergency medical incidents are of high importance and have an exceedingly high impact on District resources.

EMS Incidents can be broken into three significant TYPE group categories (with response) – Low, Moderate, and High. The chart to the right is the corresponding Critical TASKS associated with each Risk Group necessary to mitigate them successfully.

| EMS - RISK | |
|---|---|
| LOW | **Single Patient** |
| | *Injured/Illness* |
| MODERATE | **Severe Life Threat** |
| | *Cardiac Arrest/Trauma/Extrication* |
| HIGH | **Multi/Mass Casualty** |
| | *5 or more Pts* |

| EMS - TASKS / ERF | |
|---|---|
| **LOW** | |
| Command/Safety/Family Liaison | 1 |
| Patient Assessment/Treatment | 1 |
| Paramedic in Charge/ Reporting | 1 |
| Patient Movement/Transport | 2 |
| **TOTAL ERF** | **4-5** |
| **MODERATE** | |
| Command/Safety/Family Liaison | 1 |
| Patient Assessment/Treatment | 1 |
| Paramedic in Charge/ Reporting | 1 |
| Patient Movement/Transport | 2 |
| Resuscitation/Stabilization/Extricate | 2 |
| **TOTAL ERF** | **7** |
| **HIGH** | |
| Command | 3 |
| Scene Safety | 1 |
| Medical | 2 |
| Triage | 4 |
| Treatment | 6 |
| Transportation | 12 |
| Staging | 1 |
| **L ERF** | **29** |

## NFIRS Historical Response – Series 300-321, 3211

| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 300 Rescue, emergency medical call (EMS) call, other | 12 | 4 | | | | 16 | 8 | 0% |
| 321 EMS call, excluding vehicle accident with injury | 5,898 | 6,477 | 6,035 | 6,780 | 7,819 | 33,009 | 6,602 | 63% |
| 3211 Cardiac Arrest | 76 | 55 | 61 | 91 | 99 | 382 | 76 | 1% |
| IRS 300-3211 EMS | 5986 | 6536 | 6096 | 6871 | 7918 | 33,407 | 6681 | 64% |
| change over previous | | 9% | -7% | 13% | 15% | | | |

**EMS risk types are primarily classified as LOW to MODERATE**

# Rescue Risk

## Technical Rescue Risks

Rescue risks vary from elevator removal to pin-in vehicle accidents to Special Operations. Technical Rescue covers a wide range of incidents, including confined space rescue, trench collapse, low/high angle rescue, water/ice rescue, and structural collapse. The hazard levels are established for technical rescue risk per Special Operations – Rope, Confined Space, Trench, and Water/Ice Rescue discipline. The District has begun locating and assessing critical technical rescue hazard characteristics. Below-grade and confined space hazards exist. These "Special Operations" type incidents are rare. However, when they occur, they fit the "low frequency, high risk" category and must be trained diligently. There are corresponding Critical Tasks associated with the **High-Risk type of Group that is strictly Technician Level** team deployments supported by the initial Operations level response.

**RESCUE - RISK**

LOW **Elevator entrapment**
*Occupied, Lock Out,Wires Down*

MODERATE **MVA w/ extrication**
*Vehicle into Building*

HIGH **Spec Operations Technicians (TRT)**
*Confined Space, Trench,*
Structure Collapse, Water/Ice
Low/High Angle Rope Rescues






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## NFIRS Historical Response – Series 320-381

| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 322 Vehicle accident with injuries | 218 | 248 | 164 | 182 | 192 | **1004** | 201 | *2%* |
| 3221 MVA w/injuries EXTRICATION | | | | | 3 | **3** | 3 | *300%* |
| 323 Motor vehicle/pedestrian accident (MV Ped) | 9 | 10 | 7 | 12 | 10 | **48** | 10 | *0%* |
| 324 Motor vehicle accident no injuries | 242 | 272 | 173 | 234 | 276 | **1197** | 239 | *2%* |
| 3241 MVA no injuires EXTRICATION | | | | | 3 | **3** | 3 | *300%* |
| 331 Lock-in (if lock out , use 511 ) | 3 | 5 | 2 | 2 | 2 | **14** | 3 | *0%* |
| 340 Search, other | | | 1 | | | **1** | 1 | *0%* |
| 342 Search for person in water | 2 | 2 | 2 | | | **6** | 2 | *0%* |
| 350 Extrication, rescue, other | 1 | 1 | | | | **2** | 1 | *0%* |
| 351 Extrication of victim(s) from building/structure | 2 | | | 1 | | **3** | 2 | *0%* |
| 352 Extrication of victim(s) from vehicle | | | 2 | | | **2** | 2 | *0%* |
| 353 Removal of victim(s) from stalled elevator | 18 | 13 | 12 | 16 | 6 | **65** | 13 | *0%* |
| 355 Confined space rescue | | | 1 | | | **1** | 1 | *0%* |
| 360 Water & ice related rescue, other | 3 | | | | | **3** | 3 | *0%* |
| 361 Swimming/recreational water areas rescue | | | | | 2 | **2** | 2 | *0%* |
| 363 Swift water rescue | | 1 | 1 | | | **2** | 1 | *0%* |
| 364 Surf rescue | 1 | 1 | | | | **2** | 1 | *0%* |
| 365 Watercraft rescue | | | | | 1 | **1** | 1 | *0%* |
| 370 Electrical rescue, other | | | | | 2 | **2** | 2 | *0%* |
| 372 Trapped by power lines | | | | 1 | 1 | **2** | 1 | *0%* |
| 381 Rescue or EMS standby | 6 | 5 | 4 | 7 | 4 | **26** | 5 | *0%* |
| IRS 322 - 381 RESCUE | 505 | 558 | 369 | 455 | 502 | 2389 | 478 | *5%* |
| *change over previous* | | *10%* | *-34%* | *23%* | *10%* | | | |

**RESCUE risk types are primarily classified as LOW to MODERATE**

# Hazmat Risk

A Hazardous Material (HazMat) release risk can occur in commercial, industrial, farm, and transportation applications. Flammable/combustible products are located throughout the District. Fuel spills, natural gas leaks, and carbon monoxide incidents are included in this category. Hazardous conditions within the District have included power lines down or arcing/shorting out.

Most potential exposure for high-risk incidents in the District includes transportation, roadway, rail, electrical, and pipelines, which require a regional response Technician Level response.







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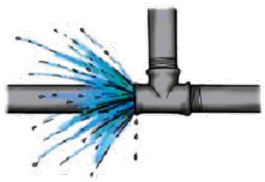
## NFIRS Historical Response

| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 400 Hazardous condition, other | 4 | 2 | 1 | 1 | 2 | **10** | 2 | 0% |
| 410 Flammable gas or liquid condition, other | 1 | 3 | 2 | 3 | 1 | **10** | 2 | 0% |
| 411 Gasoline or other flammable liquid spill | 6 | 13 | 6 | 4 | 1 | **30** | 6 | 0% |
| 412 Gas leak (natural gas or LPG) | 93 | 122 | 96 | 99 | 76 | **486** | 97 | 1% |
| 4122 Gas Leak - Outside | | | 19 | 32 | 27 | **78** | 26 | 0% |
| 413 Oil or other combustible liquid spill | | 2 | | | | **2** | 2 | 0% |
| 420 Toxic condition, other | 1 | 1 | 1 | | | **3** | 1 | 0% |
| 421 Chemical hazard (no spill or leak) | 1 | 2 | 1 | 3 | | **7** | 2 | 0% |
| 422 Chemical spill or leak | 4 | 4 | 3 | 2 | 4 | **17** | 3 | 0% |
| 423 Refrigeration leak | | | 1 | 1 | | **2** | 1 | 0% |
| 424 Carbon monoxide incident | 53 | 51 | 50 | 43 | 36 | **233** | 47 | 0% |
| 440 Electrical wiring/equipment problem, other | 12 | 12 | 1 | 3 | 9 | **37** | 7 | 0% |
| 441 Heat from short circuit (wiring), defective/worn | 3 | 6 | 3 | 6 | 3 | **21** | 4 | 0% |
| 442 Overheated motor | 5 | 12 | 4 | 5 | 3 | **29** | 6 | 0% |
| 443 Light ballast breakdown | 2 | 1 | | | | **3** | 2 | 0% |
| 444 Power line down | 14 | 10 | 22 | 20 | 11 | **77** | 15 | 0% |
| 445 Arcing, shorted electrical equipment | 19 | 19 | 12 | 18 | 10 | **78** | 16 | 0% |
| 461 Building or structure weakened or collapsed | 1 | 2 | | 1 | | **4** | 1 | 0% |
| 463 Vehicle accident, general cleanup | | | | | 1 | **1** | 1 | 0% |
| 481 Attempt to burn | | | | 1 | | **1** | 1 | 0% |
| NFIRS 400 HAZARDOUS | 219 | 262 | 222 | 242 | 184 | 1129 | 226 | 2% |
| *change over previous* | | *20%* | *-15%* | *9%* | *-24%* | | | |

**HAZMAT risk types are primarily classified as LOW to MODERATE**

# Service/Other

Non-Emergency "Service" incidents make up a significant percentage of responses in the District. These incidents are not measured in benchmark standards for response time. Descriptions for these types of incidents include cover assignment/change of quarters, lock-out, assist police or other agency, water leak, smoke removal, and more, listed in the following Historical response charts. Incidents involving "554 Assist invalid" could be included in EMS incidents.











## NFIRS Historical Response – Series 500, 600

| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 500 Service Call, other | 52 | 41 | 45 | 77 | 98 | **313** | 63 | 1% |
| 510 Person in distress, other | 2 | 22 | 1 | 3 | 9 | **37** | 7 | 0% |
| 511 Lock-out | 56 | 58 | 35 | 31 | 44 | **224** | 45 | 0% |
| 512 Ring or jewelry removal | | 2 | 1 | 2 | 9 | **14** | 4 | 0% |
| 520 Water problem, other | 6 | 11 | 4 | 4 | 5 | **30** | 6 | 0% |
| 522 Water or steam leak | 10 | 18 | 9 | 7 | 18 | **62** | 12 | 0% |
| 531 Smoke or odor removal | 48 | 36 | 26 | 29 | 19 | **158** | 32 | 0% |
| 540 Animal problem, other | 1 | 1 | | | 1 | **3** | 1 | 0% |
| 541 Animal problem | 2 | | 1 | 1 | 1 | **5** | 1 | 0% |
| 542 Animal rescue | 6 | 3 | 5 | 7 | 8 | **29** | 6 | 0% |
| 550 Public service assistance, other | 30 | 33 | 12 | 23 | 36 | **134** | 27 | 0% |
| 551 Assist police or other governmental agency | 20 | 33 | 18 | 32 | 17 | **120** | 24 | 0% |
| 552 Police matter | 4 | 5 | 8 | 7 | 6 | **30** | 6 | 0% |
| 553 Public service | 48 | 30 | 37 | 23 | 24 | **162** | 32 | 0% |
| 554 Assist invalid | 653 | 766 | 776 | 903 | 1,169 | **4267** | 853 | 8% |
| 555 Defective elevator, no occupants | 2 | 9 | 28 | 4 | 1 | **44** | 9 | 0% |
| 5551 Elevator Alarm - No Occupants | 16 | 15 | 29 | 40 | 52 | **152** | 30 | 0% |
| 561 Unauthorized burning | 2 | 2 | 3 | 1 | 2 | **10** | 2 | 0% |
| 571 Cover assignment, standby, moveup | 120 | 153 | 76 | 55 | 77 | **481** | 96 | 1% |
| NFIRS 500 SERVICE | 1078 | 1238 | 1114 | 1249 | 1596 | 6275 | 1255 | 12% |
| *change over previous* | | *15%* | *-10%* | *12%* | *28%* | | | |

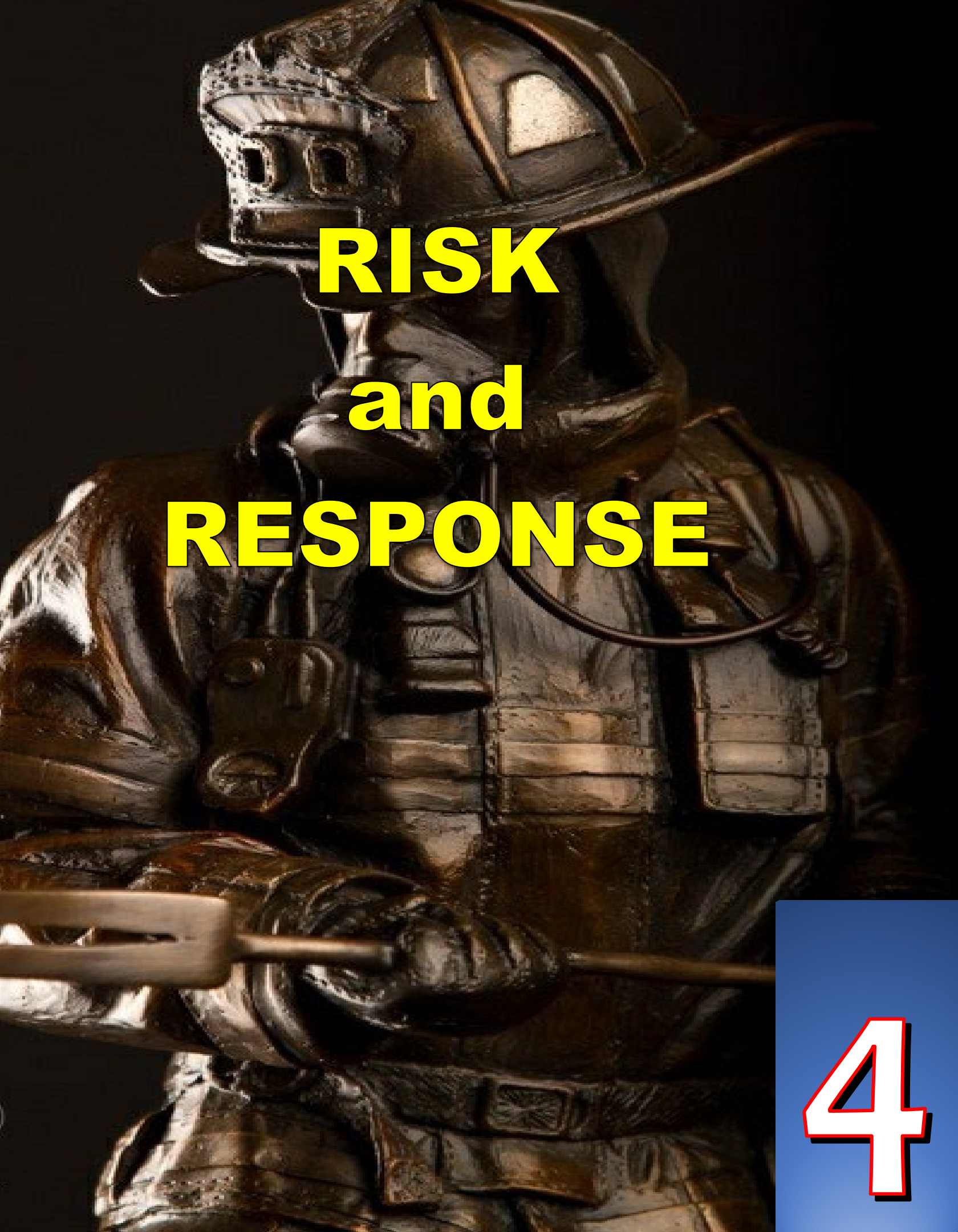
| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 600 Good intent call, other | 32 | 43 | 33 | 16 | 15 | **139** | 28 | 0% |
| 611 Dispatched & canceled en route | 320 | 311 | 260 | 271 | 365 | **1527** | 305 | 3% |
| 621 Wrong location | 3 | 3 | 3 | 4 | 2 | **15** | 3 | 0% |
| 622 No incident found on arrival of incident address | 59 | 74 | 58 | 42 | 52 | **285** | 57 | 1% |
| 631 Authorized controlled burning | 1 | 1 | 9 | 6 | 3 | **20** | 4 | 0% |
| 632 Prescribed fire | | 1 | 1 | | | **2** | 1 | 0% |
| 641 Vicinity alarm (incident in other location) | 2 | | 1 | | | **3** | 2 | 0% |
| 650 Steam, other gas mistaken for smoke, other | 4 | 5 | 3 | 2 | 6 | **20** | 4 | 0% |
| 651 Smoke scare, odor of smoke | 19 | 15 | 37 | 34 | 30 | **135** | 27 | 0% |
| 6511 Smell of Smoke | 7 | 13 | 7 | 23 | 14 | **64** | 13 | 0% |
| 652 Steam, vapor, fog or dust thought to be smoke | 12 | 3 | 6 | 12 | 11 | **44** | 9 | 0% |
| 653 Barbecue, tar kettle | | | | 1 | | **1** | 1 | 0% |
| 661 EMS call, party transported by non-fire agency | 7 | 4 | 3 | 3 | 7 | **24** | 5 | 0% |
| 671 Hazmat release investigation w/ no hazmat | 16 | 23 | 10 | 5 | 7 | **61** | 12 | 0% |
| 672 Biological Hazaard Investigation, None Found | | 2 | | 1 | | **3** | 2 | 0% |
| NFIRS 600 GOOD INTENT / CANCELED | 482 | 498 | 431 | 420 | 512 | 2343 | 469 | 4% |
| *change over previous* | | *3%* | *-13%* | *-3%* | *22%* | | | |

# NFIRS Historical Response – Series 700. 800. 900

| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 700 False alarm or false call, other | 66 | 64 | 75 | 95 | 116 | **416** | 83 | 1% |
| 710 Malicious, mischievous false call, other | 2 | 3 | 4 | 4 | 10 | **23** | 5 | 0% |
| 711 Municipal alarm system, malicious false alarm | 5 | 5 | 3 | 19 | 19 | **51** | 10 | 0% |
| 712 Direct tie to FD, malicious/false alarm | 6 | 6 | 4 | 4 | 7 | **27** | 5 | 0% |
| 713 Telephone, malicious false alarm | | | | | 1 | **1** | 1 | 0% |
| 714 Central station, malicious false alarm | 1 | | 1 | 2 | 4 | **8** | 2 | 0% |
| 715 Local alarm system, malicious false alarm | | 2 | 3 | 4 | 4 | **13** | 3 | 0% |
| 721 Bomb scare - no bomb | 1 | | | 1 | | **2** | 1 | 0% |
| 730 System malfunction, other | 26 | 116 | 188 | 9 | 12 | **351** | 70 | 1% |
| 7301 Trouble Alarm - System/Line | 484 | 518 | 423 | 763 | 654 | **2842** | 568 | 5% |
| 731 Sprinkler activation due to malfunction | 10 | 10 | 5 | 12 | 3 | **40** | 8 | 0% |
| 732 Extinguishing system activation due to malfunction | 1 | 2 | | | | **3** | 2 | 0% |
| 733 Smoke detector activation due to malfunction | 106 | 137 | 113 | 99 | 108 | **563** | 113 | 1% |
| 734 Heat detector activation due to malfunction | 10 | 6 | 10 | 6 | 8 | **40** | 8 | 0% |
| 735 Alarm system sounded due to malfunction | 98 | 79 | 87 | 115 | 132 | **511** | 102 | 1% |
| 736 CO detector activation due to malfunction | 26 | 40 | 24 | 17 | 30 | **137** | 27 | 0% |
| 740 Unintentional transmission of alarm, other | 40 | 33 | 31 | 35 | 29 | **168** | 34 | 0% |
| 741 Sprinkler activation, no fire - unintentional | 3 | 12 | 5 | 3 | 3 | **26** | 5 | 0% |
| 7411 Broken/Frozen Sprinkler Pipe | 7 | 7 | | 9 | 29 | **52** | 13 | 0% |
| 742 Extinguishing system activation | | 2 | | | 1 | **3** | 2 | 0% |
| 743 Smoke detector activation, no fire - unintentional | 131 | 149 | 152 | 192 | 147 | **771** | 154 | 1% |
| 744 Detector activation, no fire - unintentional | 43 | 37 | 41 | 55 | 54 | **230** | 46 | 0% |
| 745 Alarm system sounded, no fire - unintentional | 137 | 104 | 100 | 114 | 148 | **603** | 121 | 1% |
| 746 Carbon monoxide detector activation, no CO | 48 | 39 | 64 | 54 | 70 | **275** | 55 | 1% |
| NFIRS 700 FALSE | 1251 | 1371 | 1333 | 1612 | 1589 | 7156 | 1431 | 14% |
| *change over previous* | | *10%* | *-3%* | *21%* | *-1%* | | | |

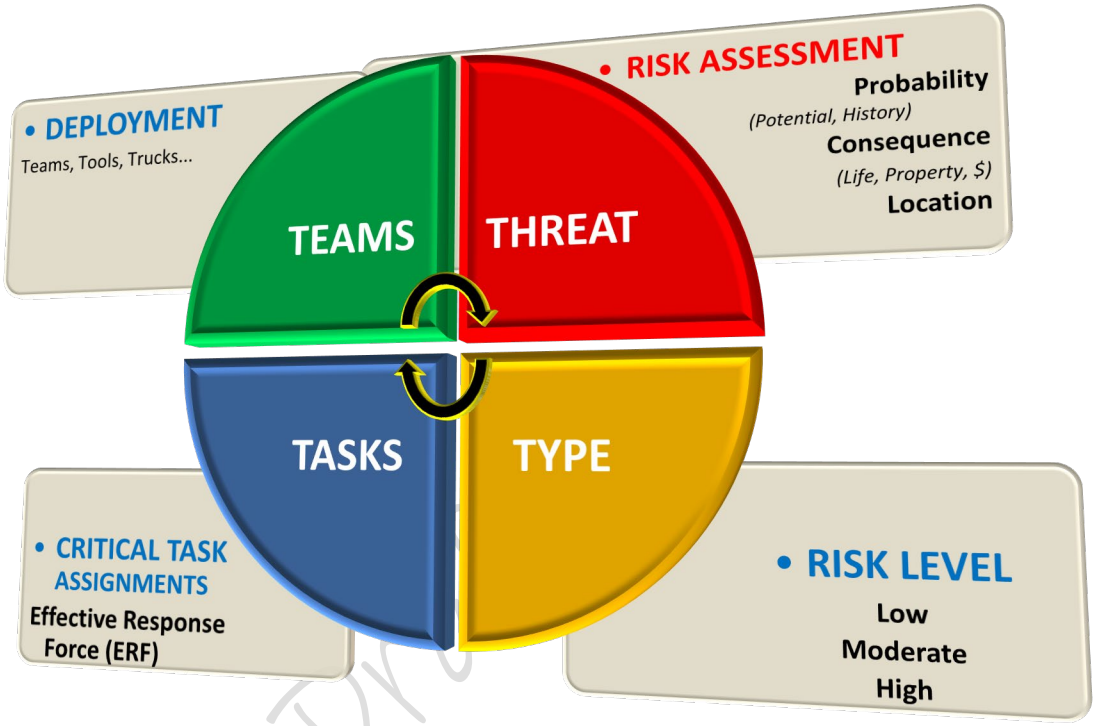
| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 813 Wind storm, tornado/hurricane assessment | | 1 | | | | **1** | 1 | 0% |
| 814 Lightning strike (no fire) | | 1 | | | 2 | **3** | 2 | 0% |
| 815 Severe weather or natural disaster standby | | 1 | | | | **1** | 1 | 0% |
| NFIRS 800 WEATHER | 0 | 3 | 0 | 0 | 2 | 5 | 1 | 0% |
| *change over previous* | | *300%* | *-100%* | | *200%* | | | |

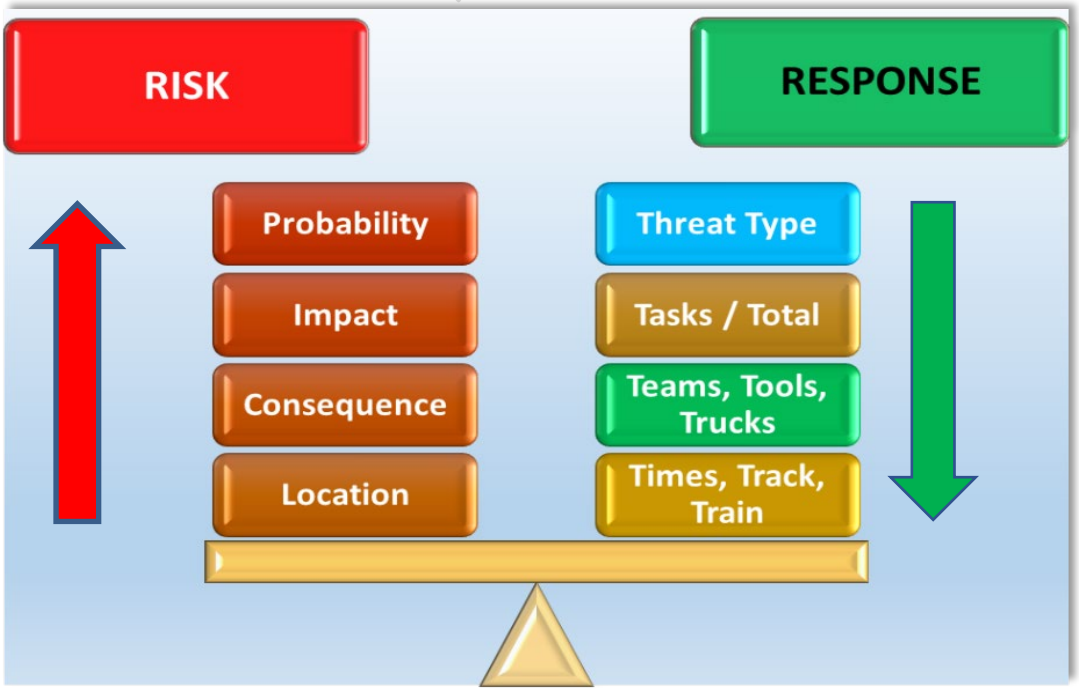
| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 900 Special type of incident, other | 1 | 7 | 3 | 5 | | **16** | 4 | 0% |
| 911 Citizen complaint | 3 | 1 | 1 | 1 | | **6** | 2 | 0% |
| NFIRS 900 SPECIAL / OTHER | 4 | 8 | 4 | 6 | 0 | 22 | 4 | 0% |
| *change over previous* | | *100%* | *-50%* | *50%* | *-100%* | | | |


RISK
and
RESPONSE
4

# Section 4 – Risk & Response

Providing the optimum protection levels and proactive Standards of Cover for the entire District depends on the Risk Assessment, and it is imperative to outweigh the **RESPONSE TO THE RISK.**



# "Top Ten T's" – Risk Assessment and Response Cycle

A simple way to understand why and why the District responds to incidents can be described in the chart below as the basis of how a Risk Assessment becomes a Response Plan. These steps are broken down into a flowchart formula.

**THREAT**
- **RISK ANALYSIS** — *FIRE, EMS, RESCUE, HAZMAT, SERVICE*
  - Probability *(Potential, History)*
  - Consequence / Impact *(Life, Property, $)*
  - Location / Occupancy

**TYPE**
- **RISK LEVEL CATEGORY/CLASSIFICATION** — *[for each Response Group - Fire, EMS, Rescue, Hazmat]*
  - LOW
  - MODERATE
  - HIGH

**TASKS**
- **CRITICAL TASK ASSIGNMENTS**
  - Positions & Functions required to safely mitigate the threat/risk
  - **WHAT** needs to be done

**TOTAL**
- **EFFECTIVE RESPONSE FORCE (E.R.F.)**
  - HOW MANY personnel required to complete the Tasks above quickly & efficiently

**TEAMS**
TOOLS TRUCKS
- **DEPLOYMENT PLAN**
  - RESPONSE Plan that is dispatched to deliver the Total E.R.F.

**TIMES**
- **BASELINE & BENCHMARK MEASURES**
  - First Due (**Distribution**) - goals to obtain 90% of all Incidents: ***Call to Arrival time [ usually < 6:20 ]***
  - Balance of Alarm (**Concentration**) - **E.R.F.** arrival time ***[usually < 10:20 CTA - 90% of all incidents)***

**TRACK**
- **PERFORMANCE EVALUATIONS**
  - Measures & Monitors to improve future response
  - Continuous Quality Improvement (**CQI**)

**TRAIN**
- **JOB PERFORMANCE REQUIREMENTS (JPR's)**
  - Timed training evolutions - tasks needed after arrival
  - Back to **TOP** - **Continuous Quality Improvement** (**CQI**)

# Threat - Analysis

Analyzing the THREAT or Risk in all service categories can be accomplished in several ways. Two focus and starting points include the PROBABILITY of an incident occurring and the CONSEQUENCE/IMPACT that may result if this threat were to happen in all Risk Response Categories to the District – i.e.:

**FIRE EMS RESCUE HAZMAT**

- **PROBABILITY** can be determined by analyzing the POTENTIAL for an incident, with Historical demand as a critical indicator.
- **CONSEQUENCE** and **IMPACT** can also be determined by the potential and Historical demand of prior incidents viewed through a scoring matrix emphasizing effects on Life, Property, or Economics.
- **LOCATION/OCCUPANCY** are essential measures.

Using a scoring system, such as a Structure Risk Assessment, the Occupancy Vulnerability Assessment Profile (OVAP), or the Threat and Hazard Identification and Risk Assessment (THIRA) from FEMA, allows other measurements to determine a Risk Score and determination of a Threat/Risk level category.

All emergency services provided (**FIRE, EMS, RESCUE, HAZMAT**) should be analyzed and classified as one of 3 risk type levels:

- **LOW**
- **MODERATE**
- **HIGH**

**SPECIAL can also be utilized** as the risk type beyond HIGH, such as Target Hazards, Aircraft Rescue Fire Fighting (ARFF), Wildland, or Marine.




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# Risk Assessment Methodology and Categorization

Risk assessment includes determining and defining the community's distinct threats based on occupancies such as single-family, multi-family, commercial, and other special-type structures. Each scenario presents unique problems and requires an appropriate Fire, Rescue, or EMS response. After analysis of these and all other factors, the District had chosen to use the following structure assessment to help define its risk:

**SHOPS** – ***S**ize, **H**eight, **O**ccupancy, **P**roblem, and **S**core* as the basis to classify the potential risks associated.
"**SHOPS**" is also Blue Card Command "size up" as the acronym for defining a structure's:
**Size, Height, Occupancy, Problem, Strategy**, and tie in perfectly with a scoring system to determine a Structural Risk Assessment for most threat level responses – **EMS, FIRE, and SPECIAL OPERATIONS.**

| STRUCTURE RISK ASSESSMENT | | | | |
|---|---|---|---|---|
| **SIZE** | | | | |
| PRECONNECT REACH | Small | Medium | Large | Mega |
| | 1 | 2 | 3 | 4 |
| **HEIGHT** | | | | |
| STORIES | One | Two | Three | Four+ |
| | 1 | 2 | 3 | 4 |
| **OCCUPANCY** | | | | |
| TYPE | Residential | Multifamily | Commercial | Target |
| | 1 | 2 | 3 | 4 |
| **PROBLEM** | | | | |
| NATURE | EMS | FIRE | SPEC OP | SERVICE |
| | 1 | 2 | 3 | 0 |
| **RISK SCORE** | | | | |
| LOW= < 3 | MODERATE = 4-9 | | | HIGH = > 10 |

For example, this chart of typical structures common in the District and service risks is scored according to the SHOP's guide.

| SHOPS | Size | Height | Occupancy | Problem | SCORE |
|---|---|---|---|---|---|
| RESIDENTIAL | 2 | 2 | 1 | 1 | 6 |
| MULTIFAMILY | 3 | 3 | 2 | 1 | 9 |
| COMMERCIAL | 3 | 1 | 3 | 2 | 9 |
| TARGET | 4 | 4 | 4 | 2 | 14 |

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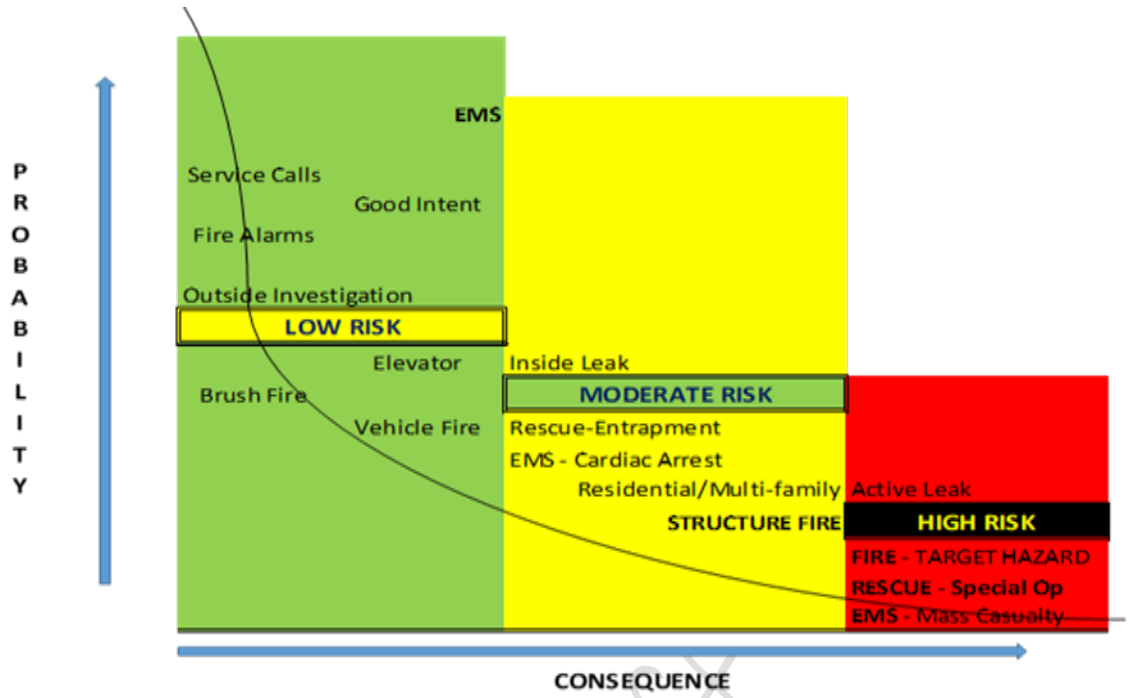
### Example "SHOPS" scoring matrix

Points are scored on a structured assessment. The structure assessment utilizes Size, Height, Occupancy, Problem, and Special. This assessment reflects the personnel needed to mitigate an incident based on critical task analysis, "Task Math," and impact the District and community. More significant, taller buildings require more personnel to mitigate incidents in these structures and have different community impacts and risk considerations. The last "S" for Special would allow the District to add a multiplier as needed [i.e., a + for a Target Hazard or - for fully protected].

Risk Level Factors

- Inability of occupants to take self-preserving actions
- Construction features
- Lack of built-in fire protection
- Hazardous structures
- Lack of needed fire flow
- Nature of the occupancy or its contents, etc.

# Probability and Consequence Model




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| FIRES | PROBABILITY | CONSEQUENCE | RISK |
|---|---|---|---|
| ***Structure*** | | | |
| Residential s-m | Low | Moderate | Moderate |
| Multi-Family s-m | Low | Moderate | Moderate |
| Commercial s-m | Low | Moderate | Moderate |
| Target (+Large L-XL | Low | High | High |
| ***Non-Structure*** | | | |
| Oustide | Moderate | Low | Low |
| Vehicle | Moderate | Low | Low |
| **EMS** | | | |
| Medical | High | Low | Low |
| Cardiac Arrest | Low | High | Moderate |
| Mass Casualty | Low | High | High |
| **RESCUE** | | | |
| Elevator/Lock-out | Moderate | Low | Low |
| Entrapment | Low | Moderate | Moderate |
| Special Ops | Low | High | High |
| **HAZMAT** | | | |
| Outside Invest | Low | Low | Low |
| Inside Leak | Moderate | Moderate | Moderate |
| Active Leak | Low | High | High |

# Type – Classification of Risk Level

| RISK RESPONSE |
|---|
| LOW |
| MODERATE |
| HIGH |

Once the hazard assessment is complete, a risk level can be classified by category for all-hazard response.

These assignments then have corresponding critical TASKS that must be assigned and accomplished. Examples of Threat/Risk TYPE levels per Response type are listed below.

SPECIAL, an additional level could be added as a category above HIGH if necessary.

**Most Low-risk level types are primarily first-due company assignments and, as such, are the prevalent incident responses.**

## FIRE - RISK

**LOW** — **Outside fires**
*Vehicles, Brush, Refuse*

**MODERATE** — **Structures**
***SMALL - MEDIUM:***
*Residential, Multifamily, Commercial*

**HIGH** — **Target Hazards**
***LARGE - MEGA:***
*Residential, Multifamily, Commercial*
*or* ***Schools, Hotels, Malls, Nursing,Assisted Living***

## EMS - RISK

**LOW** — **Single Patient**
*Injured/Illness*

**MODERATE** — **Severe Life Threat**
*Cardiac Arrest/Trauma/Extrication*

**HIGH** — **Multi/Mass Casualty**
*5 or more Pts*

## HAZMAT - RISK

**LOW** — **Investigations - Outside Incident**
*CO Detector (no illnesss), Fuel spill, Odor*

**MODERATE** — **Static**
*Inside Gas leak, CO Detector w/ illness*

**HIGH** — **Dynamic/Active release**
*Level A - Technical Team may be needed*

## RESCUE - RISK

**LOW** — **Elevator entrapment**
*Occupied, Lock Out,Wires Down*

**MODERATE** — **MVA w/ extrication**
*Vehicle into Building*

**HIGH** — **Spec Operations Technicians (TRT)**
*Confined Space, Trench,*
*Structure Collapse, Water/Ice*
*Low/High Angle Rope Rescues*

For **"Structure Fires,"** - NFPA classifies Low-Hazard Occupancies slightly differently.

The NFPA Fire Protection Handbook defines hazard levels of occupancies by type. Each hazard level carries inherent risks.

- **Low-Hazard Occupancies** — Two- or three-family dwellings and scattered small business and industrial occupancies.

  **The District classifies these as MODERATE-RISK TYPE responses**

- **Medium-Hazard Occupancies** — Apartments, offices, mercantile, and industrial occupancies not typically requiring extensive rescue by fire fighting forces.

  **The District classifies these as HIGH-RISK TYPE responses**

- **High-Hazard Occupancies**— Schools, hospitals, nursing homes, explosive plants, refineries, high-rise buildings, and other high-life hazard or large fire potential occupancies.

  **The District classifies these as TARGET HAZARDS responses**

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# Tasks/ Total (E.R.F.)

Once a TYPE level has been identified, several critical TASK Assignments are determined to mitigate the situation effectively and efficiently. Additionally, an **ERF** (Effective Response Force) of the **personnel** necessary to accomplish these tasks is allocated to each level type.

LOW, MODERATE, and HIGH categorize these TASKS for All-Hazard responses – EMS, FIRE, RESCUE, and HAZMAT. Typically, SERVICE/INVESTIGATIONS are classified as LOW Levels.

**TASKS & TOTAL [ERF]** ***PER RISK TYPE & LEVEL***

The

| EMS - TASKS / ERF | |
|---|---|
| **LOW** | |
| Command/Safety/Family Liaison | 1 |
| Patient Assessment/Treatment | 1 |
| Paramedic in Charge/ Reporting | 1 |
| Patient Movement/Transport | 2 |
| **TOTAL ERF** | **4-5** |
| **MODERATE** | |
| Command/Safety/Family Liaison | 1 |
| Patient Assessment/Treatment | 1 |
| Paramedic in Charge/ Reporting | 1 |
| Patient Movement/Transport | 2 |
| Resuscitation/Stabilization/Extricate | 2 |
| **TOTAL ERF** | **7** |
| **HIGH** | |
| Command | 3 |
| Scene Safety | 1 |
| Medical | 2 |
| Triage | 4 |
| Treatment | 6 |
| Transportation | 12 |
| Staging | 1 |
| **TOTAL ERF** | **29** |

| FIRE - TASKS / ERF | |
|---|---|
| **LOW** | |
| Command/Safety | 1 |
| Fire Attack/Investigation | 1 |
| Pump Operations | 1 |
| | **3** |
| Vehicle fires & Alarm Investigations | 7 |
| **TOTAL ERF** | **7-9** |
| **MODERATE** | |
| Command Aide/Safety | 2 |
| Fire Attack - 2nd (Backup) | 2 |
| Pump Operations/Aerial | 2 |
| Search/Rescue | 2 |
| OnDeck - Rapid Intervention | 2 |
| Ventilation | 2 |
| Utilities | 1 |
| EMS - Medical/Rehab | 2 |
| **TOTAL ERF** | **15** |
| **HIGH** | |
| Command/Safety | 4 |
| Fire Attack - 1st & 2nd (Backup) | 4 |
| Pump Operations/Aerial | 2 |
| Forcible Entry | 2 |
| Search/Rescue | 3 |
| OnDeck - Rapid Intervention | 4 |
| Water Supply | 1 |
| Ventilation | 3 |
| Utilities | 2 |
| EMS - Medical/Rehab | 4 |
| **TOTAL ERF** | **29** |

| HAZMAT - TASKS / ERF | |
|---|---|
| **LOW** | |
| Command/Safety | 1 |
| Investigation | 2 |
| **TOTAL ERF** | **3** |
| **MODERATE** | |
| Command/Safety | 1 |
| Hazmat Sector Officer | 1 |
| Investigation/Entry | 2 |
| Backup | 2 |
| Science/Research | 1 |
| EMS/Treatment | 2 |
| **TOTAL ERF** | **9** |
| **HIGH** | |
| Command | 1 |
| Safety | 1 |
| Hazmat Sector Officer | 1 |
| Entry | 2 |
| Backup | 2 |
| Science/Research | 2 |
| Decon | 3 |
| EMS/Treatment | 2 |
| **TOTAL ERF** | **14** |

**number of TASKS needed to safely and efficiently mitigate the situation determines the TOTAL number of personnel required to complete those task**s – many of them simultaneously (i.e., "**Task Math**").

Thus, the **TOTAL** number of personnel equates to the Effective Response Force **(ERF).**



High-risk type levels for HAZMAT and RESCUE incidents usually require a regional response team.

These are low-frequency high risks events.

****Special Operations Teams needed****

| RESCUE - TASKS / ERF | |
|---|---|
| **LOW** | |
| Command/Safety | 1 |
| Extrication | 2 |
| TOTAL ERF | 3 |
| **MODERATE** | |
| Command/Safety | 1 |
| Rescue Sector Officer | 1 |
| Stabilization | 2 |
| Extrication | 2 |
| Medical | 1 |
| TOTAL ERF | 7 |
| **HIGH** | |
| Special Op's Teams Level | |

**RESCUE - TASKS / ERF**

**HIGH - Special Op's Teams Level**

| COLLAPSE | |
|---|---|
| Incident Command | 1 |
| Rescue Officer | 1 |
| Safety | 1 |
| EMS / Treatment | 2 |
| Rescue Squad Officers | 2 |
| Rescue Specialists | 8 |
| Monitoring | 1 |
| Cut Station | 2 |
| Equipment Log | 1 |
| TOTAL ERF | 19 |

| CONFINED SPACE | |
|---|---|
| Incident Command | 1 |
| Rescue Officer | 1 |
| Safety | 1 |
| EMS / Treatment | 2 |
| Rescue Team & Back-up | 4 |
| Rigging / Haul Team | 5 |
| Monitoring | 1 |
| Ventilation | 1 |
| Air supply | 1 |
| Attendant | 1 |
| Scribe | 1 |
| TOTAL ERF | 19 |

| ROPE | |
|---|---|
| Incident Command | 1 |
| Rescue Officer | 1 |
| Safety | 1 |
| EMS / Treatment | 2 |
| Rescue Team & Back-up | 4 |
| Rigging / Haul Team | 5 |
| TOTAL ERF | 14 |

| TRENCH | |
|---|---|
| Incident Command | 1 |
| Rescue Officer | 1 |
| Safety | 1 |
| EMS / Treatment | 2 |
| Rescue Team & Back-up | 4 |
| Rigging / Haul Team | 5 |
| Monitoring | 1 |
| Ventilation | 1 |
| Shoring Team | 8 |
| TOTAL ERF | 24 |

| WATER | |
|---|---|
| Incident Command | 1 |
| Rescue Officer | 1 |
| Safety | 1 |
| EMS / Treatment | 2 |
| Rescue Team & Back-up | 4 |
| Rope Tenders | 4 |
| TOTAL ERF | 13 |



## Critical Tasks

Some critical task definitions for structure fires are shown below:

- Attack lines – *used to control and extinguish fires. Capable of a minimum of 150+ GPM.*
- Search and Rescue – *To meet OSHA requirements, the search and removal of live victims generally require two personnel inside with two outside.*
- Ventilation – *removing toxic smoke, heat, and other gases from a structure. It must be coordinated with the attack to avoid an extension or additional risk to interior crews.*
- Water supply/Pump ops – establishing *a positive water supply requiring one qualified driver/operator.*
- Incident Command (IC) – Transfers and *provides command and control for the incident upon arrival from the initial arriving officer.*
- A backup line provides *additional water supply for interior crews.*
- Rapid Intervention Crews/On-Deck (RIC) – *two (2) firefighters minimum to aid or assist interior crews if needed (rescue/resources)*
- Exposure line – *protection for internal or external areas threatened by fire spread.*

Additional tasks shall be required, such as salvage and overhaul. It should also be noted that crews may be assigned multiple tasks as incident needs require. Automatic Aid (AA) and Mutual Aid (MA) are utilized to provide appropriate staffing and apparatus levels. Critical tasks must be conducted timely and appropriately to mitigate the incident and differ based on incident types and unique circumstances. These tasks for Fire, EMS, HazMat, Technical, and Water Rescue represent those required, which may need to be modified for specific events. In all incidents, firefighter safety remains paramount. Several variables can impact an incident that cannot always be accounted for. These variables introduce a level of ability to operations magnified by a lack of staff, apparatus, or plans.

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Critical tasks may vary due to the following factors:

- Building Construction
- Number of floors
- Number of occupants
- Exposures
- Extent/phase of fire
- Built-in protection systems
- Patient condition and safety concerns

**Critical tasks determine staffing requirements and apparatus needs**. These factors are dependent upon the CRA-SOC findings and conditions. Strategies to be utilized are dependent on staffing and apparatus as well. Fire growth and life safety risks combine to establish fire ground priorities to mitigate losses. Fire control and life safety are strongly correlated but can also be two different activities. Fire control applies a suppressant, most likely water, to control and extinguish a fire. Life safety relates to searching for and removing victims from an affected area. Fire control activities are accomplished using hose lines that may fall into either handheld or master stream categories. Hose lines are primarily used in interior or offensive operations but can be used quickly, outside first, then inside ("quick hit"). Master streams are designed to be used from stationary or fixed positions. Hand lines can flow up to 250 gallons per minute (GPM), while master streams can exceed 1,000 GPM. A pre-flashover vs. post-flashover fire shall require different approaches based upon a fire extent. The decision on which strategy to use depends on the fire phase, life safety threat, and several resources, among other factors. **The District recognizes two types of strategy: offensive and defensive**. These strategies align with staffing and response levels established through risk assessment and Historical patterns. The District usually responds with two (2) to three (3) certified personnel on each suppression unit and two (2) cross-trained firefighters/medics on each ambulance, providing a range of strategies that can be initiated on arrival.

- **Offensive Strategy i**nvolves interior operations. Interior attacks contain risk and require compliance with OSHA 2 in/2 out unless there is evidence of life safety on arrival or dispatch information. Objectives are to confine the fire to the object or room of origin to minimize life safety risks to civilians and firefighters.
- **Defensive Strategy** attacks are supported from the outside and may involve a structure that is not tenable for offensive operations or deemed unsafe in risk/reward assessments.
- **"Quick hit"** reduces fire volume and spreads minimal risk to firefighters. Quick hit attacks are a ***combined exterior then interior*** operation. UL research has found that this technique can be beneficial due to rapid-fire growth and time requirements to deploy interior crews, which can be used to buy time for the arrival of additional personnel.

**Critical tasks must be conducted promptly and appropriately to mitigate the incident**. Such assignments shall differ based on incident types, severity, and unique circumstances.

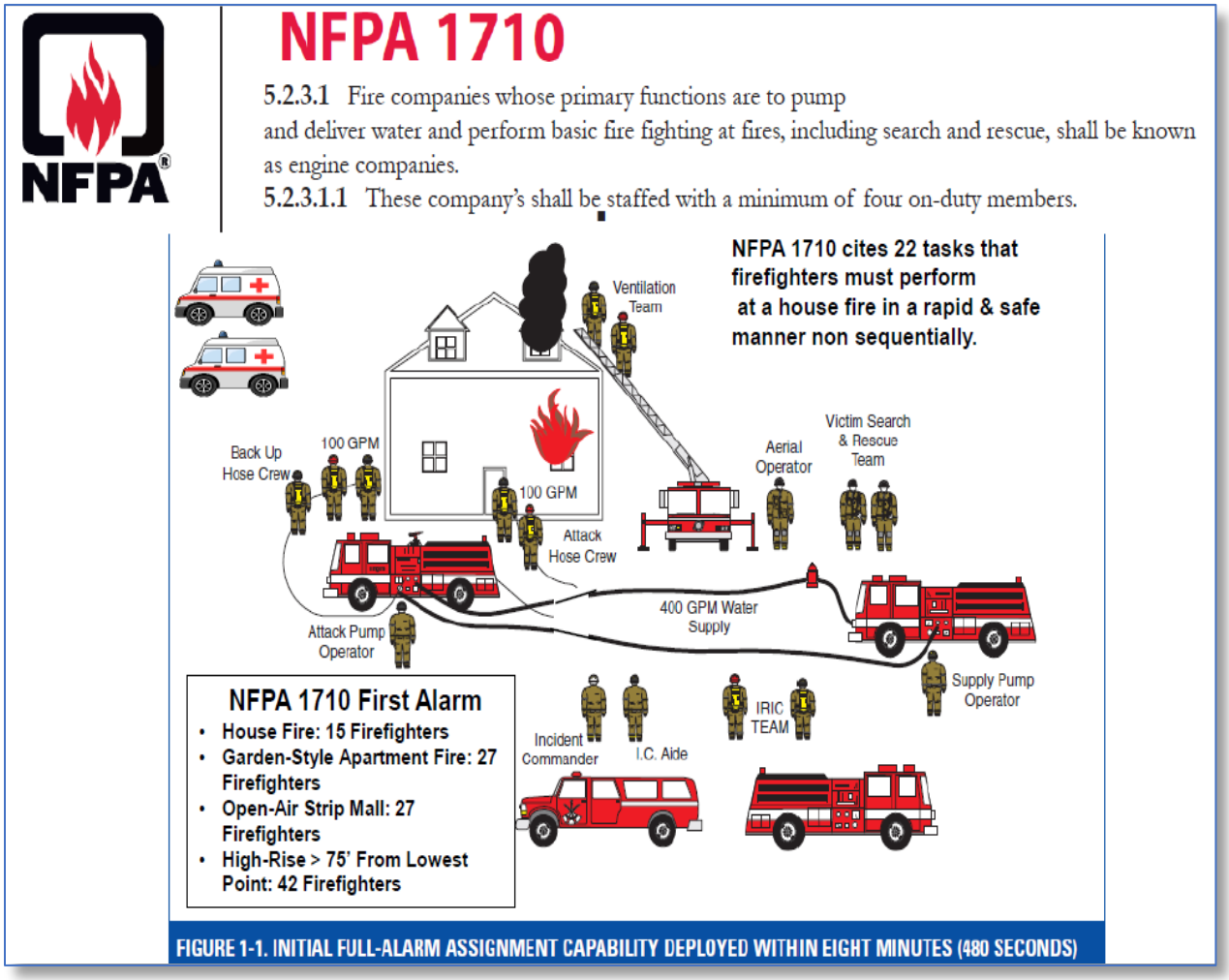
**In all incidents, rescue and firefighter safety remains paramount.**




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**"Task Math"** - Moderate risk type-level structure fires

| NFPA 1710 FULL ALARM ASSIGNMENT - RESIDENTIAL STRUCTURE FIRE (MODERATE RISK) | | |
|---|---|---|
| TASK | FIREFIGHTERS REQUIRED | COMPANY TYPICALLY ASSIGNED |
| INCIDENT COMMAND/SAFETY | 2 | CHIEF OFFICER |
| ATTACK LINE | 2 | ENGINE |
| BACK-UP LINE | 2 | ENGINE |
| ON DECK - RAPID INTERVENTION | 2 | ENGINE or TRUCK or AMB |
| PUMP OPERATIONS / AERIAL | 2 | ENGINEER |
| SEARCH & RESCUE | 2 | ENGINE or TRUCK |
| VENTILATION / UTILITIES | 2 | TRUCK |
| WATER SUPPLY | 1 | ENGINE |



# Teams / Tools / Trucks - Deployment

Critical tasks for each service level are identified to establish an Effective Response Force (**ERF**) to meet performance objectives determined and defined as essential major tasks to stabilize the incident.

Life safety is a priority in establishing critical tasks. Therefore, ERF determines the minimum staffing and apparatus required to arrive on the scene within an objective-based time frame to accomplish essential tasks.

After the critical **TASKS** are determined and an **ERF** is established indicating the personnel needed to accomplish these tasks, a deployment Response Plan is programmed into Dispatch CAD to bring those assigned personnel and apparatus/equipment required.

These plans would automatically escalate if an alarm elevated levels, from a LOW to MODERATE or MODERATE to HIGH.

## RESPONSE PLAN

| EMS RESPONSE | Nature | ENG | TRK | AMB | CHF | # FF | FIRST DUE | ERF |
|---|---|---|---|---|---|---|---|---|
| LOW | Medical | 1 - closest | | 1 | | 5 | 6:20 | 10:20 |
| MODERATE | Cardiac / Traumatic Arrest | 2 - closest | | 1 | 1 | 9 | 6:20 | |
| | Pin-In/Extrication (RESCUE) | 2 - closest | | 3 | 1 | 13 | | 10:20 |
| HIGH | Multi/Mass Casualty | 3 | 2 | 5 | 1 | 26 | 6:20 | 10:20 |
| | *BOX ALARM - ADDITIONAL* | *2* | *1* | *4* | *3* | *46* | | |
| | | | | | | TOTAL | | |

| FIRE RESPONSE | Nature | ENG | TRK | AMB | CHF | # FF | FIRST DUE | ERF |
|---|---|---|---|---|---|---|---|---|
| LOW | **OUTSIDE** Grass/Refuse | 1 - closest | | | | 3 | 6:20 | |
| | **ALARM*/INVESTIGATION/VEHICLE** | 1* | 1 | 1 | 1 | 9 | | 10:20 |
| MODERATE | **STRUCTURES** Small - Medium (R,M,C) | 2 | 2 | 1 | 1 | 15 | 6:20 | 10:20 |
| HIGH | Large - Mega (R,M,C) **TARGET HAZARDS** | 4 | 3 | 2 | 2 | 30 | 6:20 | 10:20 |
| | *BOX ALARM - ADDITIONAL +* | *3* | *2* | *2* | *3* | *52* | | |
| | *M ultiFamily Alarm +1Eng | | | | | TOTAL | | |

| HAZMAT RESPONSE | Nature | ENG | TRK | AMB | CHF | # FF | FIRST DUE | ERF |
|---|---|---|---|---|---|---|---|---|
| LOW | **OUTSIDE** / Investigation CO (no illness), Fuel Spill | 1 - closest | | | | 3 | 6:20 | 10:20 |
| MODERATE | **INSIDE** / Static Release CO (with illness), inside Gas leak | 1 | 1 | 1 | 1 | 9 | 6:20 | 10:20 |
| HIGH | **DYNAMIC** / Active Release ***Level A Team Response needed** | 2 | 1 | 2 | 1 | 14 | 6:20 | 10:20 |
| | *BOX ALARM - ADDITIONAL +* | | | | | | | |
| | | | | | | TOTAL | | |

| RESCUE RESPONSE | Nature | ENG | TRK | AMB | CHF | # FF | FIRST DUE | ERF |
|---|---|---|---|---|---|---|---|---|
| LOW | Elevator entrapment Lock Out, Wires down | 1 - closest | | | | 3 | 6:20 | 10:20 |
| MODERATE | **MVA w/ Extrication** Vehicle into building | 1 | 1 | 1 | 1 | 9 | 6:20 | 10:20 |
| HIGH | **SPECIAL OPERATIONS - TRT** Con Space, Collapse, Rope, Water | 2 | 2 | 2 | 2 | 18 | 6:20 | 10:20 |
| | *BOX ALARM - ADDITIONAL +* | | | | | | | |
| | | | | | | TOTAL | | |

# Times

*NFPA 1710*

Therefore, the District's benchmark time goals coincide with the National Fire Protection Association (NFPA) 1710 – the Standards for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Districts.

### Distribution

Distribution is the geographic location of all **first-due** resources for initial intervention.

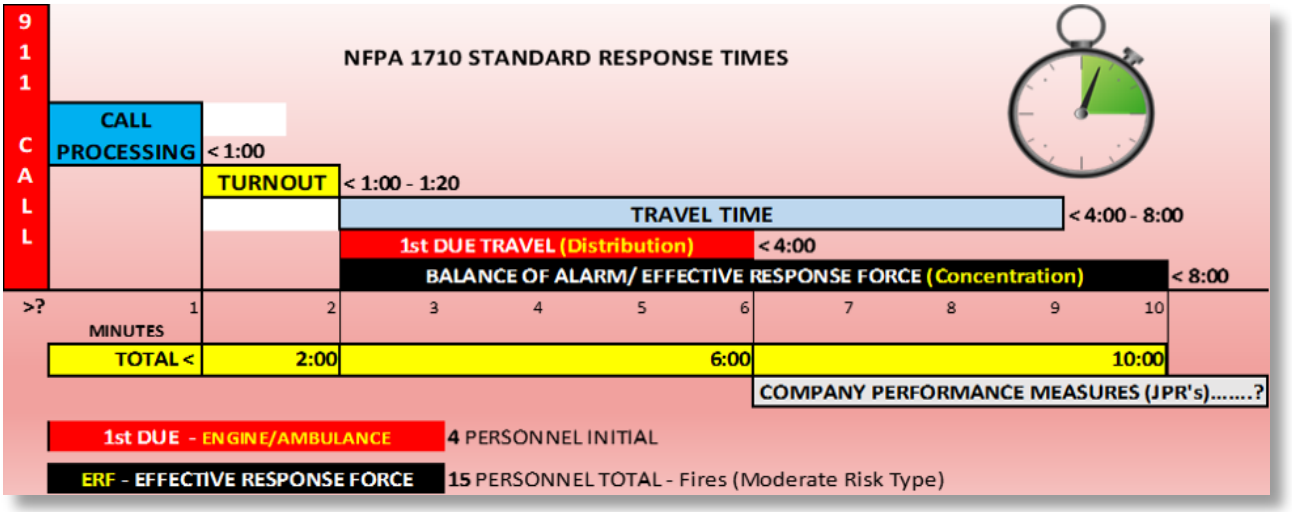
### Concentration

Concentration is the spacing of multiple resources arranged so that an initial "effective response force" (ERF) can arrive on the scene within the time frames outlined by the response time and on-scene performance objectives. It is also known as the **"balance" of the alarm.**

| NFPA 1710 RESPONSE BENCHMARKS (MODERATE RISK) | |
|---|---|
| **TASK** | **TIME (<)** |
| DISPATCH – CALL PROCESSING | 1 MINUTE |
| TURNOUT TIME (EMS) | 1 MINUTE |
| TURNOUT TIME (NON-EMS) | 1 MINUTE 20 SECONDS |
| ARRIVAL OF FIRST ENGINE COMPANY (TRAVEL TIME) | 4 MINUTES |
| ARRIVAL OF FULL ALARM (ERF) ASSIGNMENT (TRAVEL TIME) | 8 MINUTES |
| CALL TO ARRIVAL OF FIRST RESPONDER UNIT (DISTRIBUTION) | 5 MINUTES 20 SECONDS |
| CALL TO ARRIVAL OF ERF (CONCENTRATION) | 10 MINUTES 20 SECONDS |

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**Total Response Time – "Hello to Hello time" – 911 pickup to Firefighter/Paramedic arrival**



## Benchmark Goal: 90% of all Emergency Incidents

# NFPA 1710

**EMERGENCY CALL PROCESSING**
- < 1:00

**TURNOUT**
- < 1:00 EMS
- < 1:20 FIRE

**TRAVEL**
- < 4:00 (First Due)
- < 8:00 (Balance)

**ARRIVAL FIRST DUE**
- < 6:00 EMS
- < 6:20 FIRE

**ARRIVAL BALANCE OF ALARM**
- < 10:20 E.R.F. Effective Response Force
- < 10:00 EMS



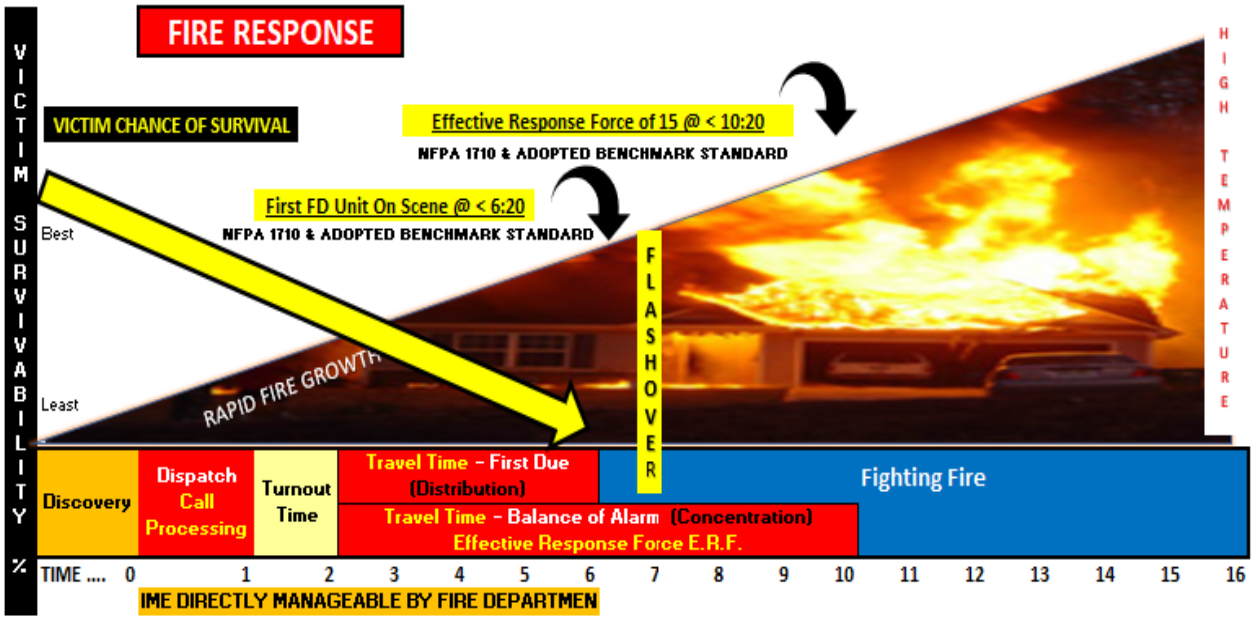
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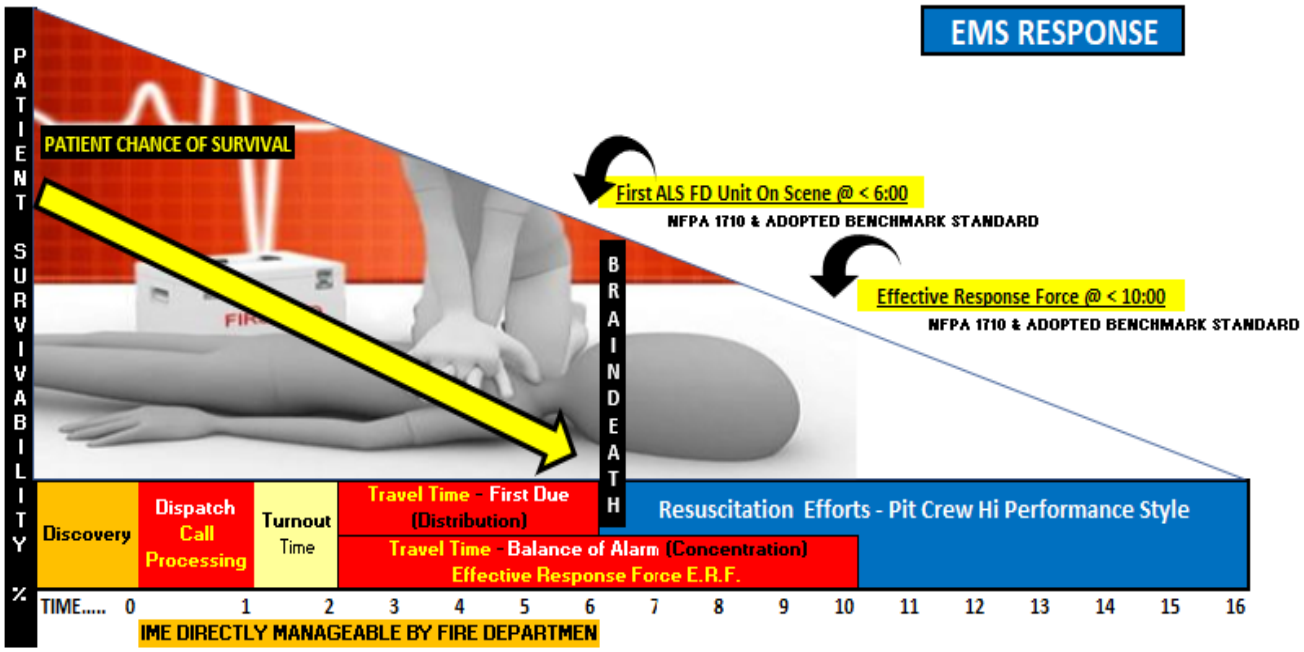
**TOTAL RESPONSE TIME (*aka CALL TO ARRIVAL*)**

**is the measurement that**

## Comparing Fire Suppression and EMS Capabilities

**Arrival within 6 to 7 minutes** or less to both types of emergencies is **critical regarding survivability!**




For every minute delay in access to a defibrillator - chances of survival drop by 7-10 %

**SECONDS COUNT**

**MINUTES MATTER!**



## Track

As part of the ongoing **Continuous Quality Improvement** (**CQ**I) program, we must regularly measure the District's responses performance to these "Threats" and risks to **ensure efficient effective delivery of services** rendered that meet or exceed the District's benchmarks.



and **and**

## Train

Additionally, training on Critical **Task Assignments performance and proficiency** must ensure rapid completion once the units and personnel arrive on the scene. Establishing **Job Performance Requirements** (**JPR**) baseline and benchmark times that meet or exceed minimum NFPA standards or goals set by the District shall ensure CQI is the goal.



# RISK and RESPONSE - Total Deployment Plan (all combined)

| TYPE OF RISK | TYPICAL NATURE | TASKS | TOTAL ERF | TEAMS (TOOLS/TRUCKS) | | | | | TIMES | | TRACK-TRAIN | TONES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RISK LEVEL | TYPTICAL Nature | TASKS | # FF | ENG | TRK | AMB | CHF | # FF | FIRST DUE | ERF | | |
| EMS RESPONSE | | | | | | | | | | | | |
| LOW | **SINGLE PATIENT** *Injured/Illness* | Command/Safety/Family Liason | 1 | 1 - *closest* fire company | | 1 | | | 6:00 | 10:00 | TRACK (PERFORMANCE) TRAIN | STILL |
| | | Patient Assessment/Treatment | 1 | | | | | | | | | |
| | | Paramedic in Charge/ Documentation | 1 | | | | | | | | | |
| | | Patient Movement/Transport | 2 | | | | | | | | | |
| | | TOTAL ERF | 5 | | | | | 5 | | | | |
| MODERATE | **SEVERE LIFE THREAT** *Cardiac / Traumatic Arrest* **VEHICLE ACCIDENT** Pin-In/Extrication+( *in RESCUE* *) | Command/Safety/Family Liason | 1 | 1 - *closest* fire company | | 1 | 1 | | 6:00 | 10:00 | | FULL STILL |
| | | Patient Assessment/Treatment | 1 | | | | | | | | | |
| | | Paramedic in Charge/ Documentation | 1 | | | | | | | | | |
| | | Patient Movement/Transport | 2 | | | | | | | | | |
| | | Resusitation/Stabilization/Extrication | 1 | | | | | | | | | |
| | | TOTAL ERF | 6 | | | | | 6 | | | | |
| HIGH | **MASS CASUALTY** *5 or more Pts* | Command | 3 | 3 | 2 | 6 | 3 | | 6:00 | 15:00 | | GENERAL |
| | | Scene Safety | 1 | | | | | | | | | |
| | | Medical | 2 | | | | | | | | | |
| | | Triage | 4 | | | | | | | | | |
| | | Treatment | 6 | | | | | | | | | |
| | | Transportation | 12 | | | | | | | | | |
| | | Staging | 1 | | | | | | | | | |
| | | TOTAL ERF | 29 | | | | | 29 | | | | |

| | RISK LEVEL TYPE | TYPICAL Nature | TASKS | # FF | ENG | TRK | AMB | CHF | # FF | FIRST DUE | ERF | TRACK-TRAIN | TONES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FIRE RESPONSE | LOW | **INVESTIGATIONS, OUTSIDE FIRES** -Grass/Refuse **ALARMS** (Fully Protected) | Command/Safety | 1 | 1 - *closest* Fire Unit | | | | | 6:20 | 10:20 | TRACK (PERFORMANCE) TRAIN | STILL |
| | | | Fire Attack/Investigation | 1 | | | | | | | | | |
| | | | Pump Operations | 1 | | | | | | | | | |
| | | | | 3 | | | | | 3 | | | | |
| | | | ALARM INVESTIGATION / CAR FIRE | 7 | 1 | 1 | *1 | 1 | | | | | |
| | | | TOTAL ERF | 7-9 | | | if available | | 9 | | | | |
| | MODERATE | **WORKING STRUCTURES** Small to Medium: Residential, Multifamily, Commercial | Command Aide/Safety | 2 | 2 | 2 | 1 | 1 | | 6:20 | 10:20 | | FULL STILL |
| | | | Fire Attack - 2nd (Backup) | 2 | | | | | | | | | |
| | | | Pump Operations/Aerial | 2 | | | | | | | | | |
| | | | Search/Rescue | 2 | | | | | | | | | |
| | | | OnDeck - Rapid Intervention | 2 | | | | | | | | | |
| | | | Ventilation | 2 | | | | | | | | | |
| | | | Utilities | 1 | | | | | | | | | |
| | | | EMS - Medical/Rehab | 2 | | | | | 15 | | | | |
| | | | TOTAL ERF | 15 | | | | | | | | | |
| | | | *UPGRADE - WORKING FIRE* | 24 | +1 | +1 | +1 | +1 | 24 | | | | |
| | HIGH | **TARGET HAZARDS &** Large to Mega: **Residential, Multifamily, Commercial** | Command/Safety | 4 | 4 | 3 | 2 | 4 | | 6:20 | 15:00 | | GENERAL |
| | | | Fire Attack - 1st & 2nd (Backup) | 4 | | | | | | | | | |
| | | | Pump Operations/Aerial | 2 | | | | | | | | | |
| | | | Forcible Entry | 2 | | | | | | | | | |
| | | | Search/Rescue | 3 | | | | | | | | | |
| | | | OnDeck - Rapid Intervention | 4 | | | | | | | | | |
| | | | Water Supply | 1 | | | | | | | | | |
| | | | Ventilation | 3 | | | | | | | | | |
| | | | Utilities | 2 | | | | | | | | | |
| | | | EMS - Medical/Rehab | 4 | | | | | | | | | |
| | | | TOTAL ERF | 29 | | | | | 29 | | | | |

## HAZMAT RESPONSE

| RISK LEVEL TYPE | TYPICAL Nature | TASKS | # FF | ENG | TRK | AMB | CHF | # FF | FIRST DUE | ERF |
|---|---|---|---|---|---|---|---|---|---|---|
| LOW | **OUTSIDE / Investigation** *CO (no illness), Fuel Spill, Odor Wires down, Flooding* | Command/Safety | 1 | **1** - *Closest* Fire Unit | | | | 3 | 6:20 | 10:20 |
| | | Investigation | 1 | | | | | | | |
| | | Mitigation | 1 | | | | | | | |
| | | | | | | | | | | |
| | | TOTAL ERF | 3 | | | | | | | |
| MODERATE | **INSIDE / Static Release** *Inside Spill/Gas leak, CO (with illness)* | Command/Safety | 1 | 1 | 1 | 1 | 1 | 9 | 6:20 | 10:20 |
| | | Hazmat Sector Officer | 1 | | | | | | | |
| | | Investigation/Entry | 2 | | | | | | | |
| | | Backup | 2 | | | | | | | |
| | | Science/Research | 1 | | | | | | | |
| | | EMS/Treatment | 2 | | | | | | | |
| | | TOTAL ERF | 9 | | | | | | | |
| HIGH | **Dynamic/Active release** **Level A Team Response needed* | Command | 1 | 2 | 1 | 2 | 1 | 14 | 6:20 | 15:00 |
| | | Safety | 1 | | | | | | | |
| | | Hazmat Sector Officer | 1 | | | | | | | |
| | | Entry | 2 | | | | | | | |
| | | Backup | 2 | | | | | | | |
| | | Science/Research | 2 | | | | | | | |
| | | Decon | 3 | | | | | | | |
| | | EMS/Treatment | 2 | | | | | | | |
| | | TOTAL ERF | 14 | | | | | | | |

TRACK (PERFORMANCE (TRAIN) — STILL / FULL STILL / GENERAL

## RESCUE RESPONSE

| RISK LEVEL TYPE | TYPICAL Nature | TASKS | # FF | ENG | TRK | AMB | CHF | # FF | FIRST DUE | ERF |
|---|---|---|---|---|---|---|---|---|---|---|
| LOW | **Elevator entrapment** *Lock Out, Flooding, Damage Assessment* | Command/Safety | 1 | **1** - *closest* Fire Company | | | | 3 | 6:20 | 10:20 |
| | | Extrication | 2 | | | | | | | |
| | | | | | | | | | | |
| | | TOTAL ERF | 3 | | | | | | | |
| MODERATE | **MVA** | Command/Safety | 1 | 1 | | 1 | 1 | 6 | 6:20 | 10:20 |
| | | Rescue Sector Officer | 1 | | | | | | | |
| | | Medical | 2 | | | | | | | |
| | | EMS/Treatment/Pt Movement | 2 | | | | | | | |
| | | | 6 | | | | | | | |
| | **MVA w/ Extrication (PIN-IN)** Vehicle into building | Stabilization | 2 | +1 | +1 or closest Squad | +1 | | | | |
| | | Extrication | 4 | | | | | | | |
| | | EMS/Treatment/Pt Movement | 2 | | | | | | | |
| | | TOTAL ERF | 14 | 2 | 1 | 2 | 1 | 14 | | |
| | **SPECIAL OPERATIONS - TRT** ***REQUIRES REGIONAL TEAM** *Confined Space, Trench, Structure Collapse, Water/Ice, Rope Rescues* | **SPEC OP'S TEAM NEEDS** | MIN. | 2 | 1 | 2 | 2 | 15 | 6:20 | 15:00 |
| | | Rope (High Angle) | 14 | | | | | | | |
| | | Water (Ice/Dive) | 18 | | | | | | | |
| | | Structural Collapse | 18 | | | | | | | |
| | | Confined Space | 19 | | | | | | | |
| | | Trench | 24 | | | | | | | |
| | | TOTAL ERF | 13-24 | | | | | | | |

TRACK (PERFORMANCE (TRAIN) — STILL / FULL STILL

## RESCUE - RISK TYPE

| WATER | |
|---|---|
| Incident Command | 1 |
| Rescue Officer | 1 |
| Safety | 1 |
| EMS / Treatment | 2 |
| Rescue Team & Back-up | 4 |
| Rope Tenders | 4 |
| TOTAL ERF | 13 |

| ROPE | |
|---|---|
| Incident Command | 1 |
| Rescue Officer | 1 |
| Safety | 1 |
| EMS / Treatment | 2 |
| Rescue Team & Back-up | 4 |
| Rigging / Haul Team | 5 |
| TOTAL ERF | 14 |

| COLLAPSE | |
|---|---|
| Incident Command | 1 |
| Rescue Officer | 1 |
| Safety | 1 |
| EMS / Treatment | 2 |
| Rescue Squad Officers | 2 |
| Rescue Specialists | 8 |
| Cut Station | 2 |
| Equipment Log | 1 |
| TOTAL ERF | 18 |

| CONFINED SPACE | |
|---|---|
| Incident Command | 1 |
| Rescue Officer | 1 |
| Safety | 1 |
| EMS / Treatment | 2 |
| Rescue Team & Back-up | 4 |
| Ventilation | 1 |
| Monitoring | 1 |
| Rigging / Haul Team | 5 |
| Scribe | 1 |
| Attendant | 1 |
| Air supply | 1 |
| TOTAL ERF | 19 |

| TRENCH | |
|---|---|
| Incident Command | 1 |
| Rescue Officer | 1 |
| Safety | 1 |
| EMS / Treatment | 2 |
| Rescue Team & Back-up | 4 |
| Ventilation | 1 |
| Monitoring | 1 |
| Rigging / Haul Team | 5 |
| Shoring Team | 8 |
| TOTAL ERF | 24 |



# SERVICE DEMAND & PERFORMANCE

5

# Section 5 -- Service Demand and Performance

## Why Measure Performance?

In the book *Reinventing Government*, the authors state:

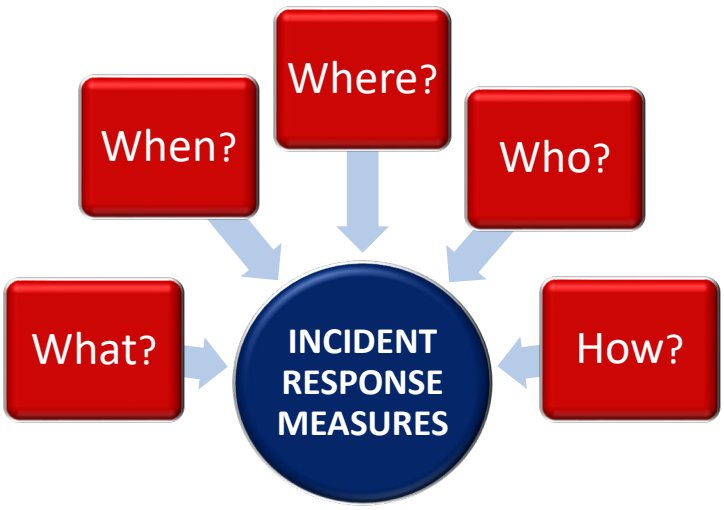
- *"If you do not measure the results of your plan, you cannot tell success from failure.*
- *If you cannot see success, you cannot reward it.*
- *If you cannot reward success, you are probably rewarding failure.*
- *If you cannot see success, you cannot learn from it.*
- *If you cannot recognize failure, you cannot correct it.*
- *If you **can demonstrate results**, you **can win public support**."*

Success in the modern Fire Service can be measured in lives resuscitated and saved structure fires stopped near their origin, and satisfaction surveys are fact-based metrics. Without these baseline measurements and benchmark goals, we operate on opinion. **Each minute of delay is critical to the occupants' and firefighters' safety and is directly related to property damage.** Reflex and response charts provide emergency responders with a general timeline of events. It highlights significant benchmarks. Variations of fire growth must also be considered when developing a response strategy. The **shortest possible response times create the highest probabilities of resuscitation.** Another vital evaluation point lost in most agencies is when crews reach the patient's side. Often the clock stops when the vehicle arrives or stops at the address. The key to a successful outcome is the point the patient is contacted. When evaluating total response time for EMS calls, this period can be substantial and affect the outcome due to delayed intervention.

IF YOU DON'T KNOW THE SCORE, THEN HOW DO YOU KNOW YOU'RE **WINNING?**

Draft

# Incident Response Measures / Service Demand




## Service Demand Measures

Several factors are typically analyzed and measured to review the system's incident deployment and response performance, referred to as "Service Demand."

Incident-specific questions such as:

***What, When, Where, Who, and How*** - provide deep insight into multiple levels of analysis for numerous years of data.

**WHAT:**

**What type of incident is it?**

- Fire, EMS, Rescue, Hazard, Service/Other are the main types.
- Nature of call or NFIRS (National Fire Incident Reporting System) Codes a consistent typing formula.

**WHEN:**

**When did the incident occur?**

- These time measures start MACRO and end MICRO – Year, Month, Day of Week, and Hour of Day.

**WHERE:**

**Where was the incident location and occupancy?**

- Actual GIS plotting and occupancy-type trends are reviewed.

**WHO:**

**Who responded to the incident?**

- Shift, what station, what unit(s)

**HOW:**

**How well did they perform?**

- Did the system perform as expected and planned?
- Did they respond within benchmark times or better?

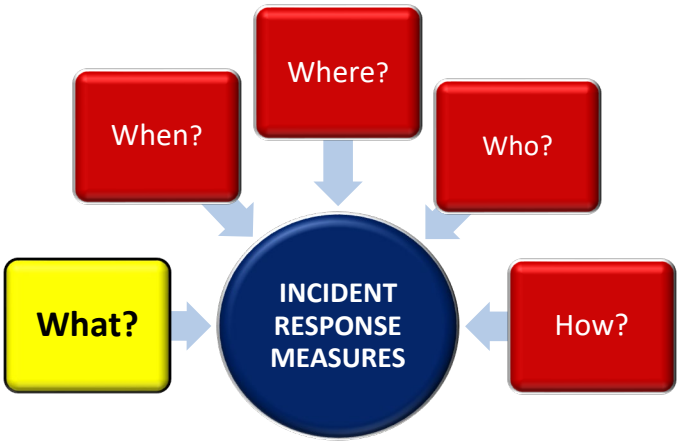



**If not, then why not?**

The emergency response plans can be predicted/planned by exploring these metrics, & others in this section.

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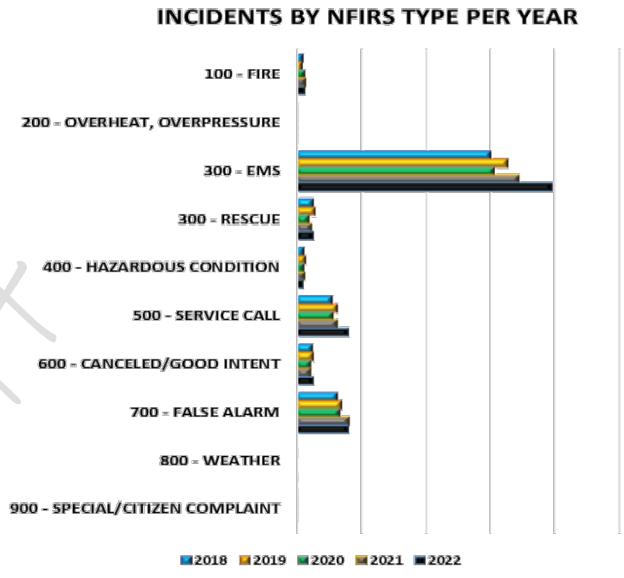
# WHAT - Types




## Types of Incidents

Listed are the types and number of incident responses from 2018 to 2022.

From January 1, 2018, through December 31, 2022 – the Fire District was dispatched to **53,845 incidents,** or an average of **10,769 annually (a high of 12,549 in 2022).** Incident types are based on the National Fire Incident Reporting System (NFIRS) standard definition developed through the US Fire Administration, National Fire Data Center. Incident type is defined as the situation found upon arrival by emergency providers. It covers the large variety of calls the modern fire district responds to daily and is divided into nine (9) series. Within each series are additional codes that define the incident more specifically. Each incident type is listed with the total volume.

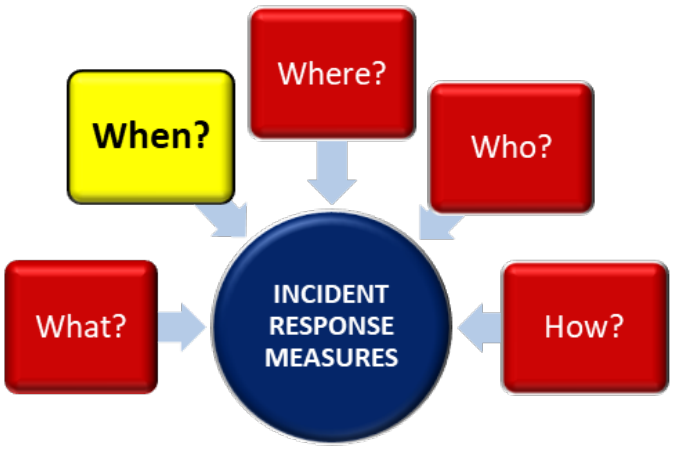



Draft

## NFIRS Code Summary

| INCIDENT TYPE | 2018 | 2019 | 2020 | 2021 | 2022 | Total | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| **100 - FIRE** | 179 | 167 | 233 | 266 | 245 | **1,090** | *218* | *2%* |
| 200 - OVERHEAT, OVERPRESSURE | 6 | 11 | 2 | 9 | 1 | **29** | *6* | *0%* |
| **300 - EMS** | 5,986 | 6,536 | 6,096 | 6,871 | 7,918 | **33,407** | *6681* | *62%* |
| **300 - RESCUE** | 505 | 558 | 369 | 455 | 502 | **2,389** | *478* | *4%* |
| 400 - HAZARDOUS CONDITION | 219 | 262 | 222 | 242 | 184 | **1,129** | *226* | *2%* |
| **500 - SERVICE CALL** | 1,078 | 1,238 | 1,114 | 1,249 | 1,596 | **6,275** | *1255* | *12%* |
| 600 - CANCELED/GOOD INTENT | 482 | 498 | 431 | 420 | 512 | **2,343** | *469* | *4%* |
| **700 - FALSE ALARM** | 1,251 | 1,371 | 1,333 | 1,612 | 1,589 | **7,156** | *1431* | *13%* |
| 800 - WEATHER | 0 | 3 | 0 | 0 | 2 | **5** | *1* | *0%* |
| 900 - SPECIAL/CITIZEN COMPLAINT | 4 | 8 | 4 | 6 | 0 | **22** | *4* | *0%* |
| **TOTAL** | **9,710** | **10,652** | **9,804** | **11,130** | **12,549** | 53,845 | *10769* | *100.0%* |
| *Change over previous* | | *9.7%* | *-8.0%* | *13.5%* | *12.7%* | | | |

# When - Service Demand (Incident Frequency)




## Service demand occurrences

Call volume affects when a company can respond to emergencies within its respective first-due area.

Under optimal conditions, the call volume distribution should be evenly divided when stations are located appropriately. This section focuses on concentration on fundamental workload issues and shall break this volume of incidents down from macro to micro specifics.

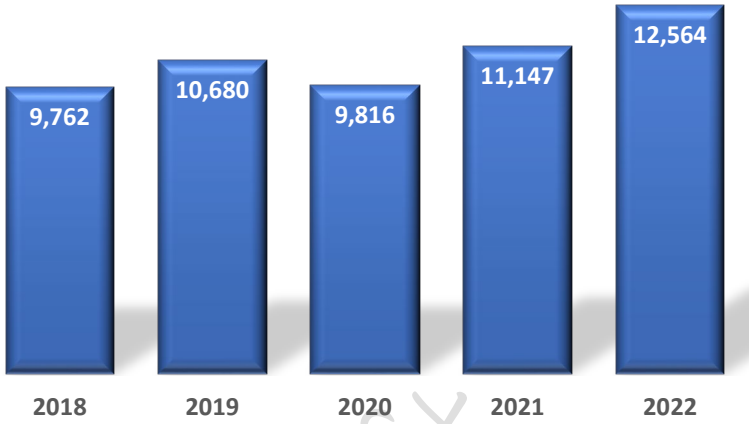
- **YEARLY**
- **MONTHLY**
- **DAY OF WEEK**
- **HOUR OF DAY**



# Incidents per:

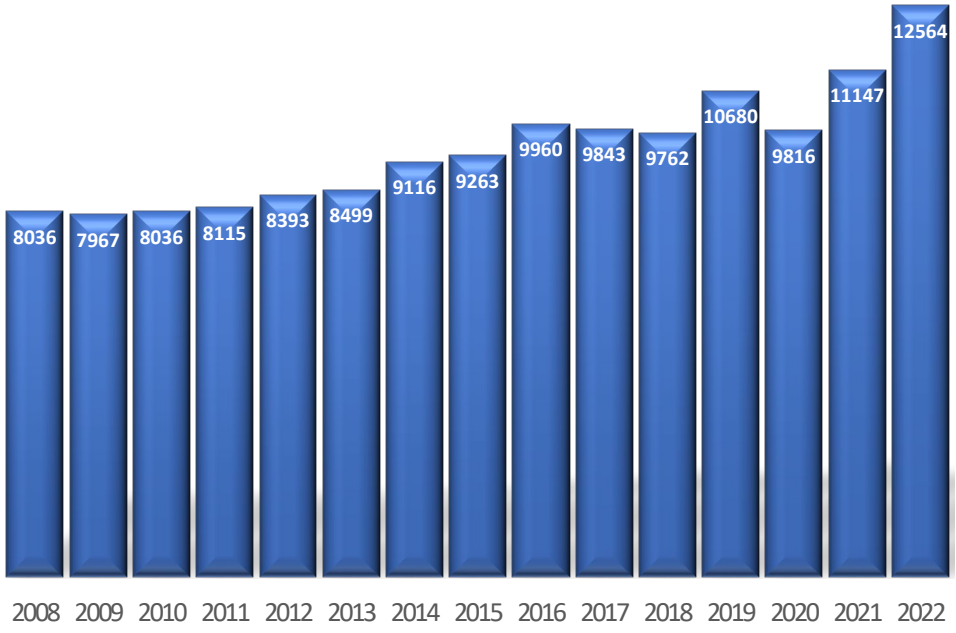
## Year

### Incidents per Year
2018-2022



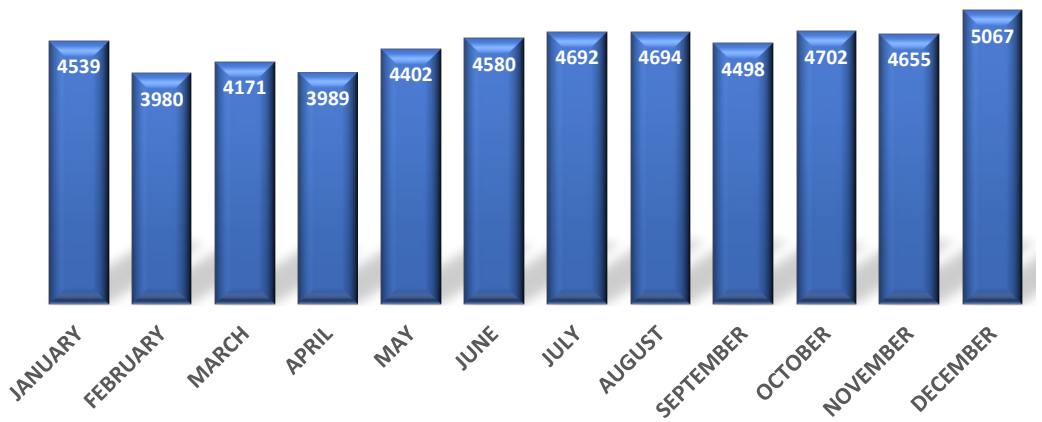

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### Incidents per Year
2008-2022



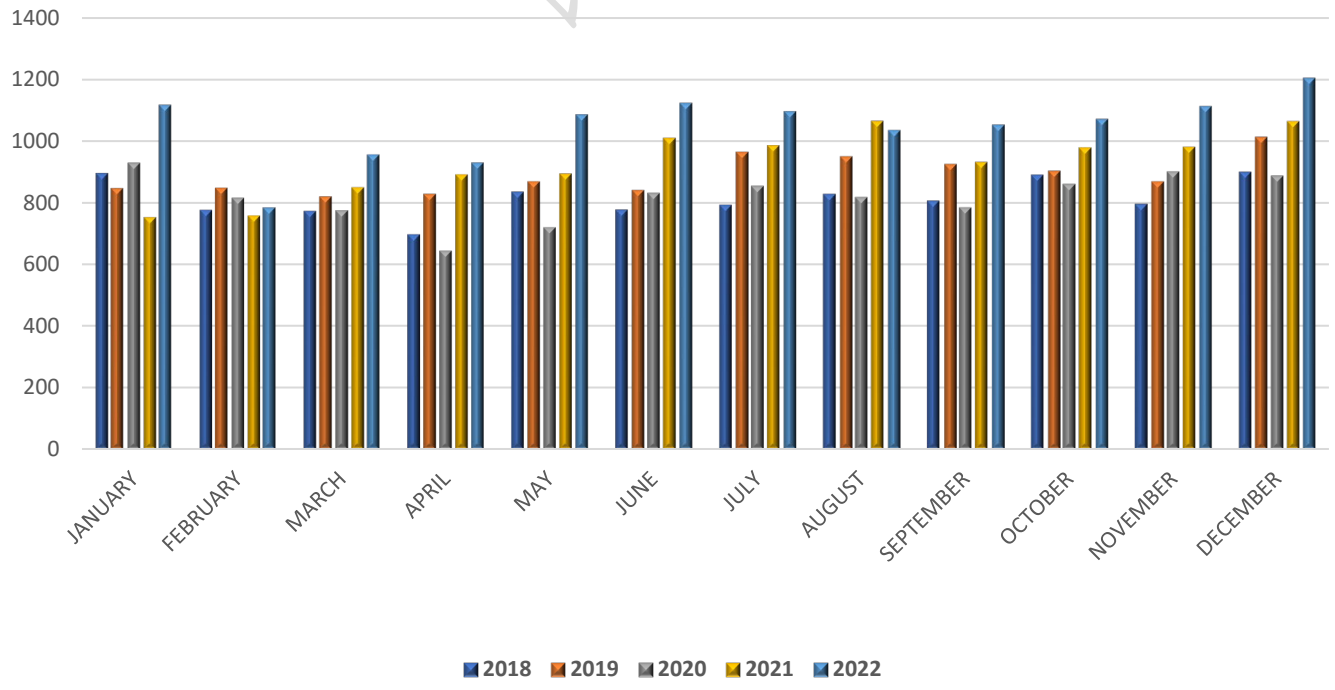
## Month

### Incidents per Month
2018-2022

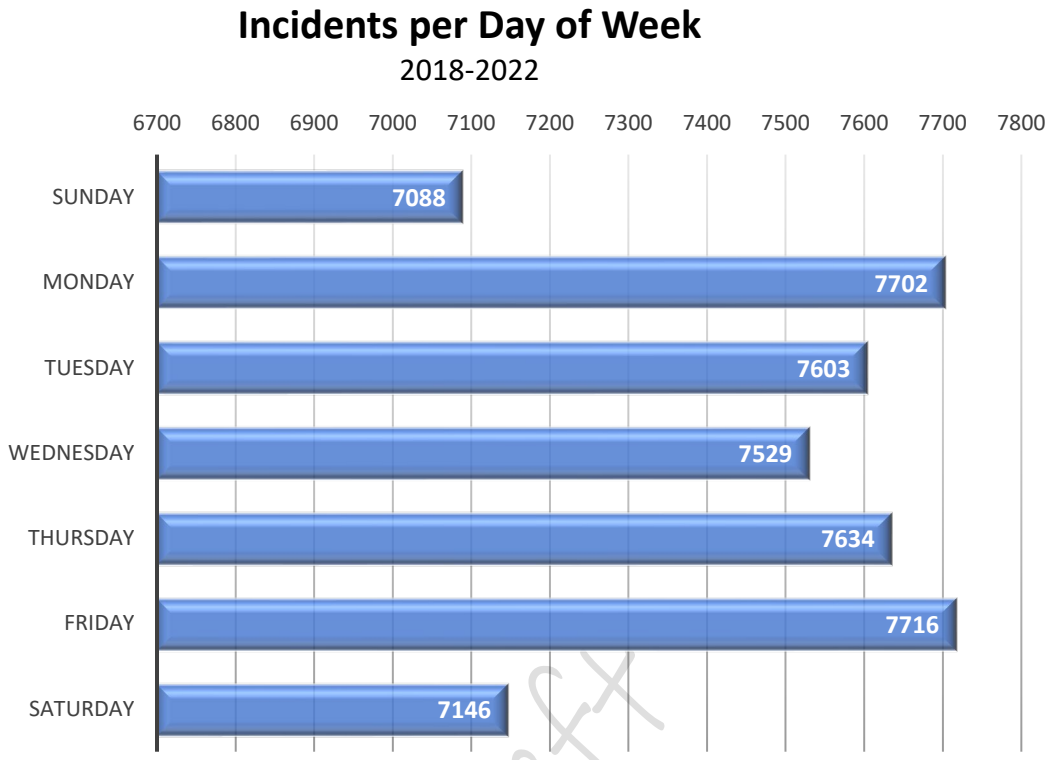



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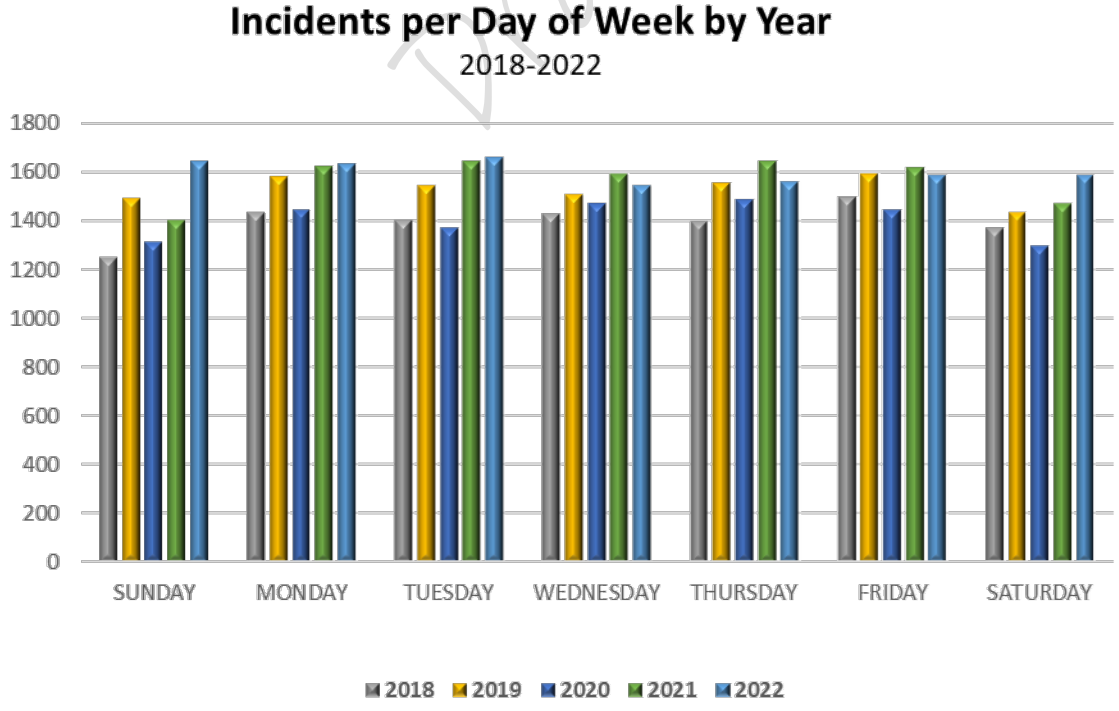
### Incidents by Month per Year
2018-2022



# Day


Incidents per Day of Week
2018-2022
6700
6800
6900
7000
7100
7200
7300
7400
7500
7600
7700
7800
SUNDAY
7088
MONDAY
7702
TUESDAY
7603
WEDNESDAY
7529
THURSDAY
7634
FRIDAY
7716
SATURDAY
7146

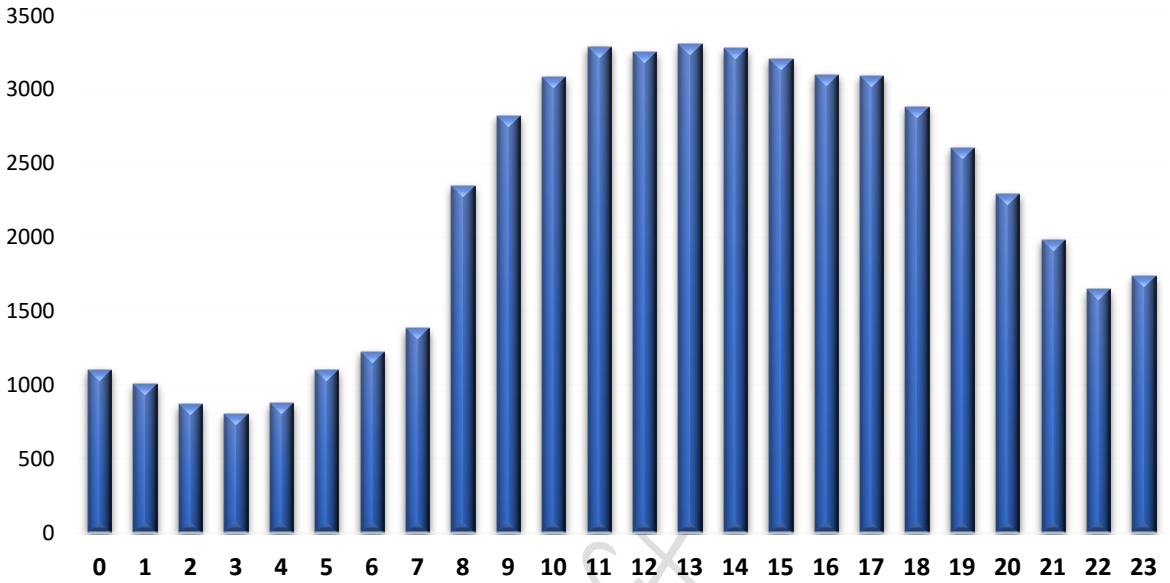
Draft


Incidents per Day of Week by Year
2018-2022
1800
1600
1400
1200
1000
800
600
400
200
0
SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY
2018
2019
2020
2021
2022

Hour

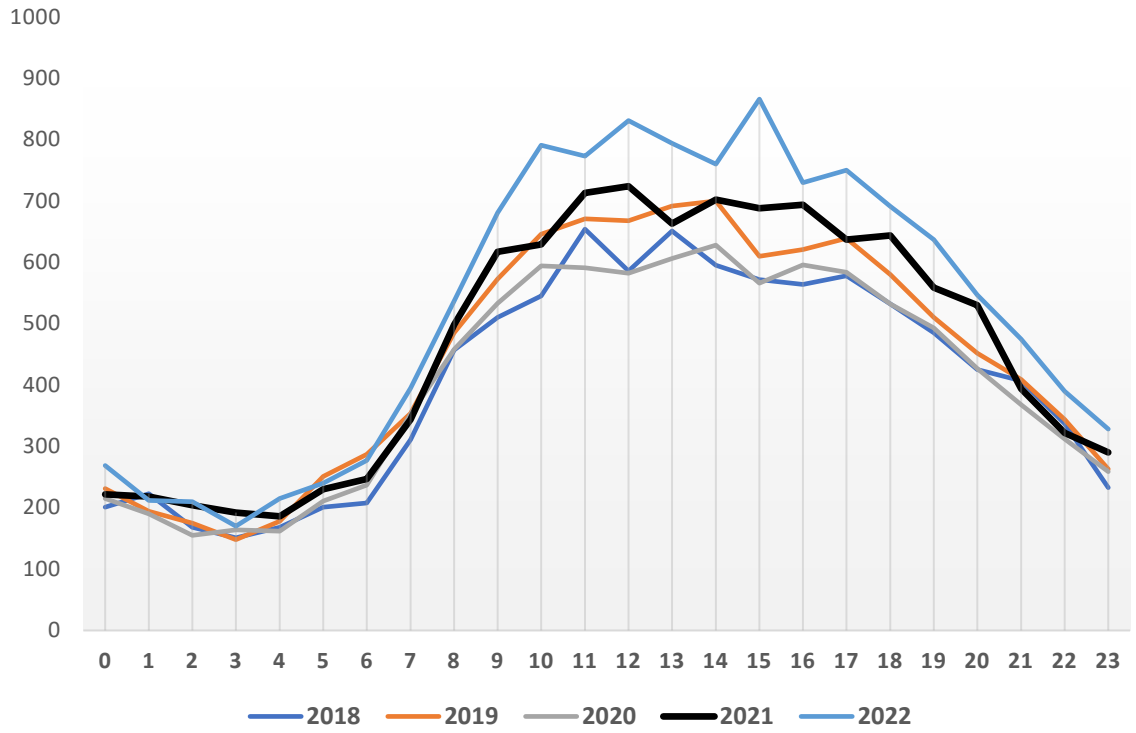
## Incidents per Hour of Day

2018-2022




## Incidents per Hour of Day by Year

2018-2022



# Hour of Day by Year

## Temporal

**2018-2022**

| | 2018 | 2019 | 2020 | 2021 | 2022 | | | |
|---|---|---|---|---|---|---|---|---|
| 00:00-00:59 | 201 | 231 | 215 | 222 | 269 | 1138 | 2% | |
| 01:00-01:59 | 223 | 194 | 190 | 218 | 212 | 1037 | 2% | |
| 02:00-02:59 | 168 | 175 | 155 | 204 | 210 | 912 | 2% | |
| 03:00-03:59 | 151 | 148 | 164 | 192 | 170 | 825 | 2% | |
| 04:00-04:59 | 168 | 178 | 162 | 186 | 215 | 909 | 2% | |
| 05:00-05:59 | 201 | 251 | 211 | 230 | 240 | 1133 | 2% | |
| 06:00-06:59 | 208 | 287 | 237 | 247 | 277 | 1256 | 2% | |
| 07:00-07:59 | 311 | 354 | 352 | 344 | 395 | 1756 | 3% | |
| 08:00-08:59 | 457 | 485 | 458 | 498 | 537 | 2435 | 5% | |
| 09:00-09:59 | 510 | 573 | 533 | 617 | 681 | 2914 | 5% | |
| 10:00-10:59 | 545 | 646 | 594 | 629 | 791 | 3205 | 6% | |
| 11:00-11:59 | 654 | 671 | 591 | 713 | 773 | 3402 | 6% | |
| 12:00-12:59 | 586 | 668 | 582 | 724 | 831 | 3391 | 6% | |
| 13:00-13:59 | 651 | 692 | 606 | 663 | 794 | 3406 | 6% | 73% |
| 14:00-14:59 | 595 | 700 | 628 | 702 | 760 | 3385 | 6% | |
| 15:00-15:59 | 572 | 610 | 566 | 688 | 866 | 3302 | 6% | |
| 16:00-16:59 | 564 | 621 | 596 | 694 | 730 | 3205 | 6% | |
| 17:00-17:59 | 578 | 639 | 584 | 637 | 750 | 3188 | 6% | |
| 18:00-18:59 | 532 | 580 | 532 | 644 | 691 | 2979 | 6% | |
| 19:00-19:59 | 485 | 510 | 493 | 559 | 637 | 2684 | 5% | |
| 20:00-20:59 | 425 | 452 | 427 | 530 | 547 | 2381 | 4% | |
| 21:00-21:59 | 407 | 409 | 368 | 394 | 475 | 2053 | 4% | |
| 22:00-22:59 | 337 | 344 | 312 | 322 | 390 | 1705 | 3% | |
| 23:00-23:59 | 233 | 263 | 259 | 290 | 328 | 1373 | 3% | |
| Total | 9762 | 10681 | 9815 | 11147 | 12569 | 53974 | | |

# Hour of Day by Month

**2018-2022**

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **00:00-00:59** | 72 | 77 | 83 | 73 | 103 | 106 | 98 | 102 | 111 | 112 | 93 | 98 | 1128 |
| **01:00-01:59** | 101 | 63 | 78 | 68 | 95 | 93 | 91 | 94 | 67 | 91 | 98 | 85 | 1024 |
| **02:00-02:59** | 71 | 67 | 58 | 59 | 68 | 71 | 93 | 84 | 70 | 81 | 81 | 93 | 896 |
| **03:00-03:59** | 80 | 48 | 64 | 57 | 66 | 67 | 76 | 77 | 67 | 66 | 72 | 71 | 811 |
| **04:00-04:59** | 73 | 57 | 54 | 70 | 57 | 98 | 83 | 82 | 78 | 76 | 82 | 81 | 891 |
| **05:00-05:59** | 97 | 83 | 88 | 87 | 97 | 94 | 92 | 96 | 91 | 113 | 86 | 91 | 1115 |
| **06:00-06:59** | 112 | 101 | 93 | 81 | 106 | 88 | 121 | 121 | 100 | 102 | 104 | 114 | 1243 |
| **07:00-07:59** | 154 | 119 | 140 | 107 | 138 | 156 | 137 | 159 | 151 | 154 | 162 | 161 | 1738 |
| **08:00-08:59** | 223 | 176 | 194 | 166 | 193 | 182 | 205 | 216 | 195 | 200 | 202 | 257 | 2409 |
| **09:00-09:59** | 252 | 236 | 215 | 235 | 241 | 222 | 216 | 238 | 257 | 271 | 260 | 237 | 2880 |
| **10:00-10:59** | 243 | 258 | 215 | 226 | 245 | 246 | 269 | 281 | 293 | 292 | 295 | 312 | 3175 |
| **11:00-11:59** | 274 | 237 | 302 | 239 | 252 | 301 | 315 | 274 | 253 | 295 | 305 | 313 | 3360 |
| **12:00-12:59** | 309 | 275 | 224 | 232 | 286 | 282 | 306 | 266 | 302 | 273 | 280 | 298 | 3333 |
| **13:00-13:59** | 287 | 213 | 249 | 267 | 271 | 287 | 289 | 314 | 298 | 297 | 302 | 309 | 3383 |
| **14:00-14:59** | 275 | 253 | 258 | 226 | 287 | 291 | 274 | 299 | 298 | 317 | 271 | 302 | 3351 |
| **15:00-15:59** | 270 | 216 | 236 | 236 | 268 | 299 | 300 | 276 | 276 | 307 | 297 | 296 | 3277 |
| **16:00-16:59** | 267 | 237 | 250 | 245 | 270 | 270 | 294 | 247 | 265 | 249 | 268 | 307 | 3169 |
| **17:00-17:59** | 271 | 240 | 249 | 265 | 260 | 276 | 271 | 272 | 248 | 241 | 259 | 308 | 3160 |
| **18:00-18:59** | 240 | 204 | 249 | 224 | 213 | 250 | 244 | 270 | 252 | 260 | 269 | 272 | 2947 |
| **19:00-19:59** | 216 | 192 | 209 | 208 | 225 | 221 | 230 | 257 | 227 | 242 | 194 | 244 | 2665 |
| **20:00-20:59** | 185 | 156 | 191 | 185 | 179 | 241 | 215 | 211 | 191 | 192 | 181 | 227 | 2354 |
| **21:00-21:59** | 147 | 166 | 153 | 152 | 177 | 160 | 177 | 187 | 165 | 184 | 166 | 198 | 2032 |
| **22:00-22:59** | 120 | 133 | 127 | 125 | 120 | 146 | 170 | 135 | 143 | 153 | 141 | 176 | 1689 |
| **23:00-23:59** | 109 | 101 | 95 | 100 | 87 | 133 | 126 | 136 | 100 | 134 | 96 | 133 | 1350 |
| **Total** | 4448 | 3908 | 4074 | 3933 | 4304 | 4580 | 4692 | 4694 | 4498 | 4702 | 4564 | 4983 | |

# Hour of Day by Day of Week

| | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Total |
|---|---|---|---|---|---|---|---|---|
| 00:00-00:59 | 163 | 153 | 142 | 139 | 167 | 181 | 193 | 1,138 |
| 01:00-01:59 | 148 | 129 | 138 | 138 | 124 | 163 | 197 | 1,037 |
| 02:00-02:59 | 124 | 120 | 121 | 138 | 136 | 125 | 148 | 912 |
| 03:00-03:59 | 116 | 106 | 112 | 114 | 121 | 124 | 132 | 825 |
| 04:00-04:59 | 119 | 123 | 125 | 116 | 135 | 149 | 142 | 909 |
| 05:00-05:59 | 170 | 157 | 168 | 172 | 158 | 146 | 162 | 1,133 |
| 06:00-06:59 | 205 | 177 | 200 | 166 | 185 | 161 | 162 | 1,256 |
| 07:00-07:59 | 250 | 239 | 250 | 257 | 277 | 233 | 250 | 1,756 |
| 08:00-08:59 | 370 | 372 | 362 | 390 | 336 | 331 | 274 | 2,435 |
| 09:00-09:59 | 438 | 449 | 458 | 441 | 440 | 365 | 323 | 2,914 |
| 10:00-10:59 | 473 | 500 | 469 | 490 | 486 | 401 | 386 | 3,205 |
| 11:00-11:59 | 526 | 526 | 504 | 503 | 533 | 415 | 395 | 3,402 |
| 12:00-12:59 | 526 | 527 | 481 | 504 | 492 | 429 | 432 | 3,391 |
| 13:00-13:59 | 497 | 486 | 514 | 530 | 548 | 413 | 418 | 3,406 |
| 14:00-14:59 | 522 | 535 | 497 | 470 | 499 | 425 | 437 | 3,385 |
| 15:00-15:59 | 502 | 481 | 496 | 515 | 458 | 443 | 407 | 3,302 |
| 16:00-16:59 | 471 | 454 | 465 | 489 | 466 | 432 | 428 | 3,205 |
| 17:00-17:59 | 517 | 450 | 467 | 472 | 440 | 423 | 419 | 3,188 |
| 18:00-18:59 | 426 | 404 | 404 | 455 | 441 | 468 | 381 | 2,979 |
| 19:00-19:59 | 394 | 419 | 378 | 375 | 398 | 368 | 352 | 2,684 |
| 20:00-20:59 | 337 | 341 | 349 | 322 | 360 | 371 | 301 | 2,381 |
| 21:00-21:59 | 248 | 270 | 308 | 280 | 311 | 324 | 312 | 2,053 |
| 22:00-22:59 | 247 | 245 | 210 | 252 | 262 | 265 | 224 | 1,705 |
| 23:00-23:59 | 164 | 179 | 169 | 198 | 226 | 251 | 186 | 1,373 |
| Total | 7,953 | 7,842 | 7,787 | 7,926 | 7,999 | 7,406 | 7,061 | 53,974 |

# Hour of Day by Station

**Station-Hour Demand Spreadsheet**

2018-2022

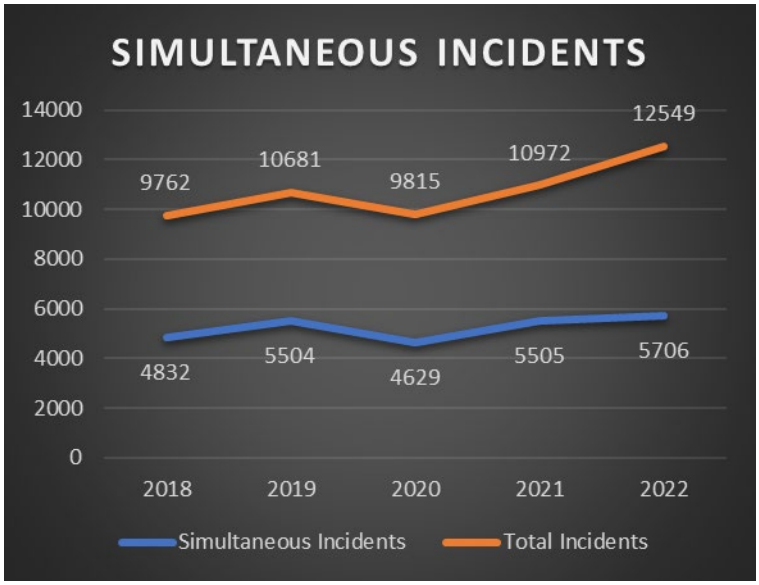
| Station | 4 | 1 | 2 | 5 | 6 | 3 |
|---|---|---|---|---|---|---|
| 00:00-00:59 | 7.81% | 4.98% | 6.23% | 5.30% | 6.49% | 3.54% |
| 01:00-01:59 | 6.89% | 5.18% | 6.36% | 5.78% | 4.79% | 3.07% |
| 02:00-02:59 | 7.09% | 4.13% | 5.56% | 4.68% | 5.05% | 2.57% |
| 03:00-03:59 | 5.74% | 3.87% | 5.54% | 3.90% | 4.24% | 2.67% |
| 04:00-04:59 | 6.13% | 3.82% | 5.11% | 5.33% | 5.32% | 3.23% |
| 05:00-05:59 | 8.16% | 4.71% | 6.10% | 5.43% | 5.26% | 3.08% |
| 06:00-06:59 | 6.66% | 4.28% | 6.75% | 5.25% | 6.31% | 3.92% |
| 07:00-07:59 | 10.70% | 8.94% | 11.56% | 7.70% | 8.32% | 5.90% |
| 08:00-08:59 | 13.12% | 11.19% | 12.95% | 12.04% | 10.73% | 7.81% |
| 09:00-09:59 | 15.81% | 15.74% | 14.03% | 18.01% | 11.22% | 9.23% |
| 10:00-10:59 | 18.14% | 18.46% | 14.94% | 14.61% | 12.54% | 9.56% |
| 11:00-11:59 | 18.74% | 20.94% | 17.43% | 15.93% | 11.63% | 8.57% |
| 12:00-12:59 | 20.07% | 21.38% | 14.79% | 16.55% | 12.38% | 9.06% |
| 13:00-13:59 | 19.39% | 19.89% | 14.51% | 15.86% | 12.04% | 9.57% |
| 14:00-14:59 | 18.80% | 20.57% | 16.22% | 16.57% | 12.21% | 8.56% |
| 15:00-15:59 | 18.37% | 18.48% | 14.96% | 14.09% | 10.83% | 7.90% |
| 16:00-16:59 | 17.48% | 18.20% | 15.87% | 13.14% | 11.52% | 7.97% |
| 17:00-17:59 | 18.82% | 17.53% | 15.59% | 13.46% | 11.95% | 7.79% |
| 18:00-18:59 | 18.40% | 16.60% | 13.83% | 11.53% | 10.61% | 7.33% |
| 19:00-19:59 | 15.48% | 15.86% | 12.19% | 11.18% | 9.83% | 7.04% |
| 20:00-20:59 | 14.16% | 12.14% | 11.05% | 10.66% | 8.28% | 6.26% |
| 21:00-21:59 | 12.20% | 12.88% | 10.16% | 10.29% | 7.71% | 5.50% |
| 22:00-22:59 | 9.69% | 9.83% | 9.96% | 7.57% | 6.61% | 4.25% |
| 23:00-23:59 | 8.42% | 6.34% | 8.20% | 6.81% | 5.82% | 4.34% |
| **Overall** | **13.18%** | **12.33%** | **11.25%** | **10.49%** | **8.82%** | **6.20%** |
| **Runs** | **11,245** | **11,785** | **9,642** | **8,564** | **7,646** | **4,979** |

# Simultaneous Incidents

Simultaneous incidents occur when other incidents are underway, and a new incident begins. The list below shows the proportion of simultaneous incident occurrence by the number of simultaneous incidents, where "1 or more" means at least two incidents open, and "2 or more" means at least three incidents open.
The ability to respond to multiple simultaneous incidents significantly affects response times and "reliability."

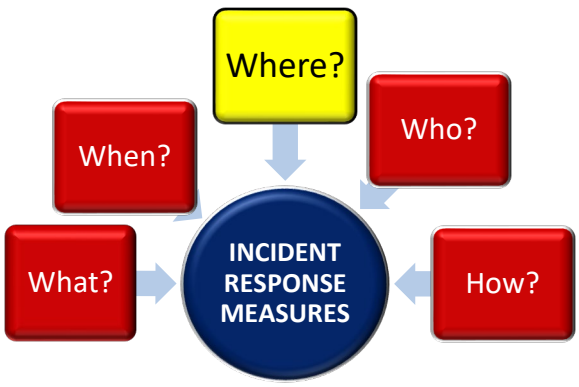
**48.50%** for **1** or more simultaneous incidents.
**16.06%** for **2** or more simultaneous incidents.
**4.12%** for **3** or more simultaneous incidents.
**0.82%** for **4** or more simultaneous incidents





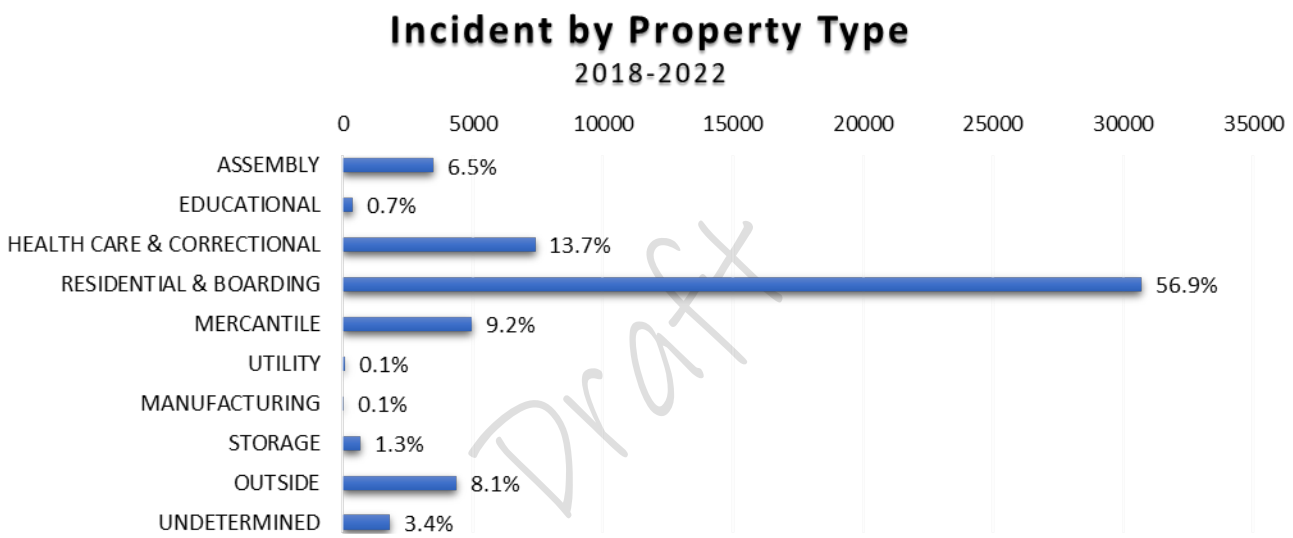

| Simultaneous Incidents | | | | Total | |
|---|---|---|---|---|---|
| | # of | # change | % change | Incidents | % concurrent |
| **2018** | 4832 | | | 9762 | ***49%*** |
| **2019** | 5504 | 672 | *13.9%* | 10681 | ***52%*** |
| **2020** | 4629 | -875 | *-15.9%* | 9815 | ***47%*** |
| **2021** | 5505 | 876 | *18.9%* | 10972 | ***50%*** |
| **2022** | 5706 | 201 | *3.7%* | 12549 | ***45%*** |

# WHERE - Incident Location




## Property Type/Use

The location of an incident can be categorized by the property use type or outside physical setting and is also geolocated by GIS specialists for analysis.




| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 100 SERIES - ASSEMBLY | 733 | 797 | 489 | 709 | 757 | 3485 | 697.0 | 6.5% |
| change over previous | 0% | 9% | -39% | 45% | 7% | | | |
| 200 SERIES - EDUCATIONAL | 80 | 81 | 62 | 79 | 89 | 391 | 78.2 | 0.7% |
| change over previous | 0% | 1% | -23% | 27% | 13% | | | |
| 300 SERIES - HEALTH CARE & CORRECTIONAL | 1157 | 1445 | 1209 | 1575 | 2018 | 7404 | 1480.8 | 13.7% |
| change over previous | 0% | 25% | -16% | 30% | 28% | | | |
| 400 SERIES - RESIDENTIAL & BOARDING | 5358 | 5801 | 5971 | 6428 | 7146 | 30704 | 6140.8 | 56.9% |
| change over previous | 0% | 8% | 3% | 8% | 11% | | | |
| 500 SERIES - MERCANTILE | 933 | 993 | 892 | 1066 | 1092 | 4976 | 995.2 | 9.2% |
| change over previous | 0% | 6% | -10% | 20% | 2% | | | |
| 600 SERIES - UTILITY | 6 | 17 | 16 | 16 | 10 | 65 | 13.0 | 0.1% |
| change over previous | 0% | 183% | -6% | 0% | -38% | | | |
| 700 SERIES - MANUFACTURING | 2 | 5 | 8 | 10 | 10 | 35 | 7.0 | 0.1% |
| change over previous | 0% | 150% | 60% | 25% | 0% | | | |
| 800 SERIES - STORAGE | 141 | 120 | 139 | 130 | 164 | 694 | 138.8 | 1.3% |
| change over previous | 0% | -15% | 16% | -6% | 26% | | | |
| 900 SERIES - OUTSIDE | 918 | 966 | 752 | 808 | 921 | 4365 | 873.0 | 8.1% |
| change over previous | 0% | 5% | -22% | 7% | 14% | | | |
| UUU Undetermined or BLANK | 434 | 456 | 277 | 325 | 331 | 1823 | 364.6 | 3.4% |
| change over previous | 0% | 5% | -39% | 17% | 2% | | | |

# Incidents: Count - Year by Property Use (Frequency by Type)

**Incidents: Count - Year by Property Use**

There are 52,176 Incident records being analyzed.

| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 100 Assembly, other | 9 | 18 | 2 | 5 | 4 | **38** | 7.6 | 0.1% |
| 110 Fixed use recreation places, other | 26 | 25 | 12 | 15 | 13 | **91** | 18.2 | 0.2% |
| 111 Bowling alley | 6 | 4 | 4 | 3 | 4 | **21** | 4.2 | 0.0% |
| 113 Electronic amusement center | 11 | 4 | 1 | 4 | 5 | **25** | 5.0 | 0.0% |
| 114 Ice rink: indoor, outdoor | 13 | 6 | 8 | 16 | 17 | **60** | 12.0 | 0.1% |
| 115 Roller rink: indoor or outdoor | | | 1 | | | **1** | 1.0 | 0.0% |
| 116 Swimming facility: indoor or outdoor | 12 | 11 | 3 | 13 | 18 | **57** | 11.4 | 0.1% |
| 120 Variable use amusement, recreation places | 27 | 28 | 7 | 12 | 20 | **94** | 18.8 | 0.2% |
| 121 Ballroom, gymnasium | 13 | 7 | 12 | 30 | 23 | **85** | 17.0 | 0.2% |
| 122 Convention center, exhibition hall | 4 | 3 | 3 | 8 | 5 | **23** | 4.6 | 0.0% |
| 124 Playground | 7 | 8 | 6 | 5 | 9 | **35** | 7.0 | 0.1% |
| 129 Amusement center: indoor/outdoor | 18 | 33 | 10 | 44 | 19 | **124** | 24.8 | 0.2% |
| 130 Places of worship, funeral parlors | 6 | 4 | 3 | 1 | 4 | **18** | 3.6 | 0.0% |
| 131 Church, mosque, synagogue, temple, chapel | 51 | 58 | 41 | 50 | 59 | **259** | 51.8 | 0.5% |
| 134 Funeral parlor | 4 | 3 | 1 | 2 | 3 | **13** | 2.6 | 0.0% |
| 140 Clubs, other | 2 | 2 | 3 | 1 | 1 | **9** | 1.8 | 0.0% |
| 141 Athletic/health club | 47 | 52 | 31 | 31 | 26 | **187** | 37.4 | 0.3% |
| 142 Clubhouse | 9 | 10 | 3 | 8 | 11 | **41** | 8.2 | 0.1% |
| 144 Casino, gambling clubs | | 2 | | | | **2** | 2.0 | 0.0% |
| 150 Public or government, other | 17 | 37 | 29 | 51 | 32 | **166** | 33.2 | 0.3% |
| 151 Library | 6 | 10 | 4 | 4 | 14 | **38** | 7.6 | 0.1% |
| 152 Museum | 1 | 2 | | | 1 | **4** | 1.3 | 0.0% |
| 155 Courthouse | | 1 | | | | **1** | 1.0 | 0.0% |
| 160 Eating, drinking places | 19 | 27 | 10 | 6 | 11 | **73** | 14.6 | 0.1% |
| 161 Restaurant or cafeteria | 388 | 387 | 264 | 370 | 416 | **1825** | 365.0 | 3.4% |
| 162 Bar or nightclub | 16 | 26 | 17 | 12 | 14 | **85** | 17.0 | 0.2% |
| 170 Passenger terminal, other | | 1 | 2 | | | **3** | 1.5 | 0.0% |
| 173 Bus station | 1 | 3 | 1 | 3 | 3 | **11** | 2.2 | 0.0% |
| 174 Rapid transit station | 2 | 4 | 5 | 5 | 8 | **24** | 4.8 | 0.0% |
| 180 Studio/theater, other | 1 | | | 1 | 1 | **3** | 1.0 | 0.0% |
| 183 Movie theater | 17 | 20 | 6 | 9 | 16 | **68** | 13.6 | 0.1% |
| 186 Film/movie production studio | | 1 | | | | **1** | 1.0 | 0.0% |
| **100 SERIES - ASSEMBLY** | **733** | **797** | **489** | **709** | **757** | **3485** | 697.0 | 6.5% |
| *change over previous* | | *9%* | *-39%* | *45%* | *7%* | | | |
| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
| 200 Educational, other | 2 | 8 | 4 | 5 | 2 | **21** | 4.2 | 0.0% |
| 210 Schools, non-adult | 1 | 4 | 5 | 13 | 13 | **36** | 7.2 | 0.1% |
| 211 Preschool | 5 | 8 | 8 | 10 | 18 | **49** | 9.8 | 0.1% |
| 213 Elementary school, including kindergarten | 24 | 34 | 22 | 18 | 23 | **121** | 24.2 | 0.2% |
| 215 High school/junior high school/middle school | 27 | 16 | 13 | 17 | 12 | **85** | 17.0 | 0.2% |
| 241 Adult education center, college classroom | 13 | 7 | 3 | 4 | 8 | **35** | 7.0 | 0.1% |
| 254 Day care, in commercial property | 8 | 4 | 7 | 10 | 13 | **42** | 8.4 | 0.1% |
| 255 Day care, in residence, licensed | | | | 2 | | **2** | 2.0 | 0.0% |
| **200 SERIES - EDUCATIONAL** | **80** | **81** | **62** | **79** | **89** | **391** | 78.2 | 0.7% |
| *change over previous* | | *1%* | *-23%* | *27%* | *13%* | | | |
| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
| 300 Health care, detention, & correction, other | 8 | 11 | 8 | 96 | 133 | **256** | 51.2 | 0.5% |
| 311 24-hour care Nursing homes, 4 or more persons | 380 | 543 | 475 | 550 | 946 | **2894** | 578.8 | 5.4% |
| 321 Mental retardation/development disability facility | 8 | 15 | 3 | 13 | 10 | **49** | 9.8 | 0.1% |
| 322 Alcohol or substance abuse recovery center | 2 | 1 | 1 | 2 | | **6** | 1.5 | 0.0% |
| 323 Asylum, mental institution | | 4 | 1 | | | **5** | 2.5 | 0.0% |
| 331 Hospital - medical or psychiatric | 3 | 7 | 47 | 27 | 17 | **101** | 20.2 | 0.2% |
| 340 Clinics, Doctors offices, hemodialysis centers | 350 | 472 | 366 | 426 | 505 | **2119** | 423.8 | 3.9% |
| 341 Clinic, clinic-type infirmary | 94 | 114 | 57 | 162 | 132 | **559** | 111.8 | 1.0% |
| 342 Doctor, dentist or oral surgeon's office | 180 | 130 | 146 | 203 | 164 | **823** | 164.6 | 1.5% |
| 343 Hemodialysis unit | 7 | 9 | 6 | 4 | 6 | **32** | 6.4 | 0.1% |
| 361 Jail, prison (not juvenile) | 21 | 41 | 44 | 28 | 14 | **148** | 29.6 | 0.3% |
| 365 Police station | 104 | 98 | 55 | 64 | 91 | **412** | 82.4 | 0.8% |
| **300 SERIES - HEALTH CARE & CORRECTIONAL** | **1157** | **1445** | **1209** | **1575** | **2018** | **7404** | 1480.8 | 13.7% |
| *change over previous* | | *25%* | *-16%* | *30%* | *28%* | | | |
| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
| 400 Residential, other | 19 | 94 | 49 | 22 | 43 | **227** | 45.4 | 0.4% |
| 419 1 or 2 family dwelling | 3,814 | 3,892 | 4,242 | 4,539 | 5,028 | **21515** | 4303.0 | 39.9% |
| 429 Multifamily dwellings | 1,446 | 1,736 | 1,628 | 1,796 | 1,980 | **8586** | 1717.2 | 15.9% |
| 439 Boarding/rooming house, residential hotels | 8 | 8 | 2 | | 3 | **21** | 5.3 | 0.0% |
| 449 Hotel/motel, commercial | 48 | 49 | 46 | 63 | 72 | **278** | 55.6 | 0.5% |
| 459 Residential board and care | 22 | 22 | 4 | 6 | 20 | **74** | 14.8 | 0.1% |
| 460 Dormitory type residence, other | 1 | | | 2 | | **3** | 1.5 | 0.0% |
| **400 SERIES - RESIDENTIAL & BOARDING** | **5358** | **5801** | **5971** | **6428** | **7146** | **30704** | 6140.8 | 56.9% |
| *change over previous* | | *8%* | *3%* | *8%* | *11%* | | | |

| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 500 Mercantile, business, other | 125 | 129 | 131 | 165 | 218 | 768 | 153.6 | 1.4% |
| 511 Convenience store | 11 | 26 | 15 | 13 | 23 | 88 | 17.6 | 0.2% |
| 519 Food and beverage sales, grocery store | 102 | 97 | 114 | 118 | 123 | 554 | 110.8 | 1.0% |
| 529 Textile, wearing apparel sales | 43 | 37 | 21 | 15 | 25 | 141 | 28.2 | 0.3% |
| 539 Household goods, sales, repairs | 32 | 37 | 20 | 17 | 9 | 115 | 23.0 | 0.2% |
| 549 Specialty shop | 123 | 90 | 56 | 59 | 32 | 360 | 72.0 | 0.7% |
| 557 Personal service, including barber & beauty shops | 24 | 25 | 21 | 22 | 20 | 112 | 22.4 | 0.2% |
| 559 Recreational, hobby, home repair sales, pet store | 14 | 24 | 16 | 14 | 19 | 87 | 17.4 | 0.2% |
| 564 Laundry, dry cleaning | 6 | 1 | 1 | 3 | 2 | 13 | 2.6 | 0.0% |
| 569 Professional supplies, services | 16 | 9 | 13 | 9 | 7 | 54 | 10.8 | 0.1% |
| 571 Service station, gas station | 28 | 42 | 34 | 38 | 55 | 197 | 39.4 | 0.4% |
| 579 Motor vehicle or boat sales, services, repair | 47 | 44 | 46 | 57 | 43 | 237 | 47.4 | 0.4% |
| 580 General retail, other | 114 | 157 | 167 | 287 | 214 | 939 | 187.8 | 1.7% |
| 581 Department or discount store | 115 | 106 | 99 | 98 | 109 | 527 | 105.4 | 1.0% |
| 592 Bank | 25 | 53 | 38 | 44 | 41 | 201 | 40.2 | 0.4% |
| 593 Office: veterinary or research | 3 | 3 | 7 | 1 | 8 | 22 | 4.4 | 0.0% |
| 596 Post office or mailing firms | 1 | 3 | 2 | 1 | 2 | 9 | 1.8 | 0.0% |
| 599 Business office | 104 | 110 | 91 | 105 | 142 | 552 | 110.4 | 1.0% |
| **500 SERIES - MERCANTILE** | **933** | **993** | **892** | **1066** | **1092** | **4976** | 995.2 | 9.2% |
| *change over previous* | | 6% | -10% | 20% | 2% | | | |
| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
| 600 Utility, defense, agriculture, mining, other | 3 | 1 | 1 | | | 5 | 1.7 | 0.0% |
| 635 Computer center | | 1 | 1 | | | 2 | 1.0 | 0.0% |
| 639 Communications center | 1 | 2 | 1 | | 3 | 7 | 1.8 | 0.0% |
| 640 Utility or Distribution system, other | 1 | 2 | | 3 | 1 | 7 | 1.8 | 0.0% |
| 642 Electrical distribution | | 2 | | | | 2 | 2.0 | 0.0% |
| 644 Gas distribution, pipeline, gas distribution | 1 | | | 3 | | 4 | 2.0 | 0.0% |
| 645 Flammable liquid distribution, pipeline, flammable | | | 1 | | | 1 | 1.0 | 0.0% |
| 647 Water utility | | | 1 | | | 1 | 1.0 | 0.0% |
| 648 Sanitation utility | | | | 1 | | 1 | 1.0 | 0.0% |
| 669 Forest, timberland, woodland | | 9 | 11 | 9 | 6 | 35 | 8.8 | 0.1% |
| **600 SERIES - UTILITY** | **6** | **17** | **16** | **16** | **10** | **65** | 13.0 | 0.1% |
| *change over previous* | | 183% | -6% | 0% | -38% | | | |
| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
| 700 Manufacturing, processing | 2 | 5 | 8 | 10 | 10 | 35 | 7.0 | 0.1% |
| **700 SERIES - MANUFACTURING** | **2** | **5** | **8** | **10** | **10** | **35** | 7.0 | 0.1% |
| *change over previous* | | 150% | 60% | 25% | 0% | | | |
| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
| 800 Storage, other | 4 | 2 | 3 | 4 | 1 | 14 | 2.8 | 0.0% |
| 808 Outbuilding or shed | 1 | 1 | 1 | 3 | 1 | 7 | 1.4 | 0.0% |
| 819 Livestock, poultry storage | | 1 | | | 3 | 4 | 2.0 | 0.0% |
| 839 Refrigerated storage | | | | 1 | | 1 | 1.0 | 0.0% |
| 880 Vehicle storage, other | 2 | 1 | 3 | 6 | 5 | 17 | 3.4 | 0.0% |
| 881 Parking garage, (detached residential garage) | 1 | 1 | 5 | 2 | | 9 | 2.3 | 0.0% |
| 882 Parking garage, general vehicle | 11 | 11 | 8 | 13 | 13 | 56 | 11.2 | 0.1% |
| 888 Fire station | 113 | 92 | 114 | 92 | 127 | 538 | 107.6 | 1.0% |
| 891 Warehouse | 6 | 8 | 4 | 6 | 7 | 31 | 6.2 | 0.1% |
| 898 Dock, marina, pier, wharf | | | | | 1 | 1 | 1.0 | 0.0% |
| 899 Residential or self storage units | 3 | 3 | 1 | 3 | 6 | 16 | 3.2 | 0.0% |
| **800 SERIES - STORAGE** | **141** | **120** | **139** | **130** | **164** | **694** | 138.8 | 1.3% |
| *change over previous* | | -15% | 16% | -6% | 26% | | | |
| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
| 900 Outside or special property, other | 11 | 40 | 28 | 38 | 22 | 139 | 27.8 | 0.3% |
| 922 Tunnel | 1 | 1 | | | | 2 | 1.0 | 0.0% |
| 926 Outbuilding, protective shelter | 1 | 1 | 2 | 1 | | 5 | 1.3 | 0.0% |
| 931 Open land or field | 33 | 19 | 27 | 18 | 15 | 112 | 22.4 | 0.2% |
| 935 Campsite with utilities | | | 1 | 1 | | 2 | 1.0 | 0.0% |
| 936 Vacant lot | 6 | 3 | 3 | 1 | 2 | 15 | 3.0 | 0.0% |
| 938 Graded and cared-for plots of land | 2 | 5 | 2 | 1 | 4 | 14 | 2.8 | 0.0% |
| 940 Water area, other | 3 | 2 | 1 | 1 | 4 | 11 | 2.2 | 0.0% |
| 946 Lake, river, stream | 2 | 3 | 1 | 2 | 3 | 11 | 2.2 | 0.0% |
| 951 Railroad right of way | 1 | | | 1 | | 2 | 1.0 | 0.0% |
| 952 Railroad yard | 2 | | 1 | 2 | 3 | 8 | 2.0 | 0.0% |
| 960 Street, other | 66 | 100 | 81 | 114 | 191 | 552 | 110.4 | 1.0% |
| 961 Highway or divided highway | 95 | 91 | 87 | 73 | 56 | 402 | 80.4 | 0.7% |
| 962 Residential street, road or residential driveway | 183 | 214 | 157 | 172 | 152 | 878 | 175.6 | 1.6% |
| 963 Street or road in commercial area | 231 | 235 | 165 | 200 | 226 | 1057 | 211.4 | 2.0% |
| 965 Vehicle parking area | 276 | 248 | 191 | 176 | 239 | 1130 | 226.0 | 2.1% |
| 981 Construction site | 1 | 1 | 1 | 3 | 3 | 9 | 1.8 | 0.0% |
| 983 Pipeline, power line or other utility right of way | 3 | 3 | 2 | 1 | | 9 | 2.3 | 0.0% |
| 984 Industrial plant yard - area | 1 | | 2 | 3 | 1 | 7 | 1.8 | 0.0% |
| **900 SERIES - OUTSIDE** | **918** | **966** | **752** | **808** | **921** | **4365** | 873.0 | 8.1% |
| *change over previous* | | 5% | -22% | 7% | 14% | | | |
| Property Use | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
| BLANK | 421 | 447 | 270 | 317 | 325 | 1,780 | 356.0 | 3.3% |
| PROPERTY USE | 5 | 2 | 3 | 5 | 2 | 17 | 3.4 | 0.0% |
| NNN None | 8 | 5 | 1 | 3 | 1 | 18 | 3.6 | 0.0% |
| UUU Undetermined | | 2 | 3 | | 3 | 8 | 2.7 | 0.0% |
| **UUU Undetermined or BLANK** | **434** | **456** | **277** | **325** | **331** | **1823** | 364.6 | 3.4% |
| *change over previous* | | 5% | -39% | 17% | 2% | | | |
| **Totals** | **9,762** | **10,681** | **9,815** | **11,147** | **12,569** | **53,974** | | |

**Incidents: Count - Year by Property Use**

There are 53,974 Incident records being analyzed.

| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| 419 1 or 2 family dwelling | 3,814 | 3,892 | 4,242 | 4,539 | 5,028 | **21,515** | 4303 | 39.9% |
| 429 Multifamily dwellings | 1,446 | 1,736 | 1,628 | 1,796 | 1,980 | **8,586** | 1717 | 15.9% |
| 311 24-hour care Nursing homes, 4 or more persons | 380 | 543 | 475 | 550 | 946 | **2,894** | 579 | 5.4% |
| 340 Clinics, Doctors offices, hemodialysis centers | 350 | 472 | 366 | 426 | 505 | **2,119** | 424 | 3.9% |
| 161 Restaurant or cafeteria | 388 | 387 | 264 | 370 | 416 | **1,825** | 365 | 3.4% |
| UUU Undetermined | 421 | 447 | 270 | 317 | 354 | **1,809** | 362 | 3.4% |
| 965 Vehicle parking area | 276 | 248 | 191 | 176 | 239 | **1,130** | 226 | 2.1% |
| 963 Street or road in commercial area | 231 | 235 | 165 | 200 | 226 | **1,057** | 211 | 2.0% |
| 580 General retail, other | 114 | 157 | 167 | 287 | 214 | **939** | 188 | 1.7% |
| 962 Residential street, road or residential driveway | 183 | 214 | 157 | 172 | 152 | **878** | 176 | 1.6% |
| 342 Doctor, dentist or oral surgeon's office | 180 | 130 | 146 | 203 | 164 | **823** | 165 | 1.5% |
| 500 Mercantile, business, other | 125 | 129 | 131 | 165 | 218 | **768** | 154 | 1.4% |
| 341 Clinic, clinic-type infirmary | 94 | 114 | 57 | 162 | 132 | **559** | 112 | 1.0% |
| 519 Food and beverage sales, grocery store | 102 | 97 | 114 | 118 | 123 | **554** | 111 | 1.0% |
| 599 Business office | 104 | 110 | 91 | 105 | 142 | **552** | 110 | 1.0% |
| 960 Street, other | 66 | 100 | 81 | 114 | 191 | **552** | 110 | 1.0% |
| 888 Fire station | 113 | 92 | 114 | 92 | 127 | **538** | 108 | 1.0% |
| 581 Department or discount store | 115 | 106 | 99 | 98 | 109 | **527** | 105 | 1.0% |
| 365 Police station | 104 | 98 | 55 | 64 | 91 | **412** | 82 | 0.8% |
| 961 Highway or divided highway | 95 | 91 | 87 | 73 | 56 | **402** | 80 | 0.7% |
| 549 Specialty shop | 123 | 90 | 56 | 59 | 32 | **360** | 72 | 0.7% |
| 449 Hotel/motel, commercial | 48 | 49 | 46 | 63 | 72 | **278** | 56 | 0.5% |
| 131 Church, mosque, synagogue, temple, chapel | 51 | 58 | 41 | 50 | 59 | **259** | 52 | 0.5% |
| 300 Health care, detention, & correction, other | 8 | 11 | 8 | 96 | 133 | **256** | 51 | 0.5% |
| 579 Motor vehicle or boat sales, services, repair | 47 | 44 | 46 | 57 | 43 | **237** | 47 | 0.4% |
| 400 Residential, other | 19 | 94 | 49 | 22 | 43 | **227** | 45 | 0.4% |
| 592 Bank | 25 | 53 | 38 | 44 | 41 | **201** | 40 | 0.4% |
| 571 Service station, gas station | 28 | 42 | 34 | 38 | 55 | **197** | 39 | 0.4% |
| 141 Athletic/health club | 47 | 52 | 31 | 31 | 26 | **187** | 37 | 0.3% |
| 150 Public or government, other | 17 | 37 | 29 | 51 | 32 | **166** | 33 | 0.3% |
| 361 Jail, prison (not juvenile) | 21 | 41 | 44 | 28 | 14 | **148** | 30 | 0.3% |
| 529 Textile, wearing apparel sales | 43 | 37 | 21 | 15 | 25 | **141** | 28 | 0.3% |
| 900 Outside or special property, other | 11 | 40 | 28 | 38 | 22 | **139** | 28 | 0.3% |
| 129 Amusement center: indoor/outdoor | 18 | 33 | 10 | 44 | 19 | **124** | 25 | 0.2% |
| 213 Elementary school, including kindergarten | 24 | 34 | 22 | 18 | 23 | **121** | 24 | 0.2% |
| 539 Household goods, sales, repairs | 32 | 37 | 20 | 17 | 9 | **115** | 23 | 0.2% |
| 931 Open land or field | 33 | 19 | 27 | 19 | 15 | **113** | 23 | 0.2% |
| 557 Personal service, including barber & beauty shops | 24 | 25 | 21 | 22 | 20 | **112** | 22 | 0.2% |
| 331 Hospital - medical or psychiatric | 3 | 7 | 47 | 27 | 17 | **101** | 20 | 0.2% |
| 120 Variable use amusement, recreation places | 27 | 28 | 7 | 12 | 20 | **94** | 19 | 0.2% |
| 110 Fixed use recreation places, other | 26 | 25 | 12 | 15 | 13 | **91** | 18 | 0.2% |
| 511 Convenience store | 11 | 26 | 15 | 13 | 23 | **88** | 18 | 0.2% |
| 559 Recreational, hobby, home repair sales, pet store | 14 | 24 | 16 | 14 | 19 | **87** | 17 | 0.2% |
| 121 Ballroom, gymnasium | 13 | 7 | 12 | 30 | 23 | **85** | 17 | 0.2% |
| 162 Bar or nightclub | 16 | 26 | 17 | 12 | 14 | **85** | 17 | 0.2% |
| 215 High school/junior high school/middle school | 27 | 16 | 13 | 17 | 12 | **85** | 17 | 0.2% |
| 459 Residential board and care | 22 | 22 | 4 | 6 | 20 | **74** | 15 | 0.1% |
| 160 Eating, drinking places | 19 | 27 | 10 | 6 | 11 | **73** | 15 | 0.1% |
| 183 Movie theater | 17 | 20 | 6 | 9 | 16 | **68** | 14 | 0.1% |
| 114 Ice rink: indoor, outdoor | 13 | 6 | 8 | 16 | 17 | **60** | 12 | 0.1% |
| 116 Swimming facility: indoor or outdoor | 12 | 11 | 3 | 13 | 18 | **57** | 11 | 0.1% |
| 882 Parking garage, general vehicle | 11 | 11 | 8 | 13 | 13 | **56** | 11 | 0.1% |
| 569 Professional supplies, services | 16 | 9 | 13 | 9 | 7 | **54** | 11 | 0.1% |
| 211 Preschool | 5 | 8 | 8 | 10 | 18 | **49** | 10 | 0.1% |
| 321 Mental retardation/development disability facility | 8 | 15 | 3 | 13 | 10 | **49** | 10 | 0.1% |
| 254 Day care, in commercial property | 8 | 4 | 7 | 10 | 13 | **42** | 8 | 0.1% |
| 142 Clubhouse | 9 | 10 | 3 | 8 | 11 | **41** | 8 | 0.1% |
| 100 Assembly, other | 9 | 18 | 2 | 5 | 4 | **38** | 8 | 0.1% |
| 151 Library | 6 | 10 | 4 | 4 | 14 | **38** | 8 | 0.1% |
| 210 Schools, non-adult | 1 | 4 | 5 | 13 | 13 | **36** | 7 | 0.1% |
| 700 Manufacturing, processing | 2 | 5 | 8 | 10 | 11 | **36** | 7 | 0.1% |
| 124 Playground | 7 | 8 | 6 | 5 | 9 | **35** | 7 | 0.1% |
| 241 Adult education center, college classroom | 13 | 7 | 3 | 4 | 8 | **35** | 7 | 0.1% |
| 669 Forest, timberland, woodland | | 9 | 11 | 9 | 6 | **35** | 9 | 0.1% |
| 343 Hemodialysis unit | 7 | 9 | 6 | 4 | 6 | **32** | 6 | 0.1% |
| 891 Warehouse | 6 | 8 | 4 | 6 | 7 | **31** | 6 | 0.1% |
| 113 Electronic amusement center | 11 | 4 | 1 | 4 | 5 | **25** | 5 | 0.0% |
| 174 Rapid transit station | 2 | 4 | 5 | 5 | 8 | **24** | 5 | 0.0% |
| 122 Convention center, exhibition hall | 4 | 3 | 3 | 8 | 5 | **23** | 5 | 0.0% |
| 593 Office: veterinary or research | 3 | 3 | 7 | 1 | 8 | **22** | 4 | 0.0% |
| 111 Bowling alley | 6 | 4 | 4 | 3 | 4 | **21** | 4 | 0.0% |
| 200 Educational, other | 2 | 8 | 4 | 5 | 2 | **21** | 4 | 0.0% |
| 439 Boarding/rooming house, residential hotels | 8 | 8 | 2 | | 3 | **21** | 5 | 0.0% |
| NNN None | 8 | 5 | 1 | 3 | 2 | **19** | 4 | 0.0% |
| 130 Places of worship, funeral parlors | 6 | 4 | 3 | 1 | 4 | **18** | 4 | 0.0% |
| PROPERTY USE | 5 | 2 | 3 | 5 | 2 | **17** | 3 | 0.0% |
| 880 Vehicle storage, other | 2 | 1 | 3 | 6 | 5 | **17** | 3 | 0.0% |
| 899 Residential or self storage units | 3 | 3 | 1 | 3 | 6 | **16** | 3 | 0.0% |
| 936 Vacant lot | 6 | 3 | 3 | 1 | 2 | **15** | 3 | 0.0% |
| 800 Storage, other | 4 | 2 | 3 | 4 | 1 | **14** | 3 | 0.0% |
| 938 Graded and cared-for plots of land | 2 | 5 | 2 | 1 | 4 | **14** | 3 | 0.0% |
| 134 Funeral parlor | 4 | 3 | 1 | 2 | 3 | **13** | 3 | 0.0% |
| 564 Laundry, dry cleaning | 6 | 1 | 1 | 3 | 2 | **13** | 3 | 0.0% |
| 173 Bus station | 1 | 3 | 1 | 3 | 3 | **11** | 2 | 0.0% |
| 940 Water area, other | 3 | 2 | 1 | 1 | 4 | **11** | 2 | 0.0% |
| 946 Lake, river, stream | 2 | 3 | 1 | 2 | 3 | **11** | 2 | 0.0% |
| 140 Clubs, other | 2 | 2 | 3 | 1 | 1 | **9** | 2 | 0.0% |
| 596 Post office or mailing firms | 1 | 3 | 2 | 1 | 2 | **9** | 2 | 0.0% |
| 881 Parking garage, (detached residential garage) | 1 | 1 | 5 | 2 | | **9** | 2 | 0.0% |
| 981 Construction site | 1 | 1 | 1 | 3 | 3 | **9** | 2 | 0.0% |
| 983 Pipeline, power line or other utility right of way | 3 | 3 | 2 | 1 | | **9** | 2 | 0.0% |
| 952 Railroad yard | 2 | | 1 | 2 | 3 | **8** | 2 | 0.0% |
| UUU Undetermined | | 2 | 3 | | 3 | **8** | 3 | 0.0% |
| 639 Communications center | 1 | 2 | 1 | | 3 | **7** | 2 | 0.0% |
| 640 Utility or Distribution system, other | 1 | 2 | | 3 | 1 | **7** | 2 | 0.0% |
| 808 Outbuilding or shed | 1 | 1 | 1 | 3 | 1 | **7** | 1 | 0.0% |
| 984 Industrial plant yard - area | 1 | | 2 | 3 | 1 | **7** | 2 | 0.0% |
| 322 Alcohol or substance abuse recovery center | 2 | 1 | 1 | 2 | | **6** | 2 | 0.0% |
| 323 Asylum, mental institution | | 4 | 1 | | | **5** | 3 | 0.0% |
| 600 Utility, defense, agriculture, mining, other | 3 | 1 | 1 | | | **5** | 2 | 0.0% |
| 926 Outbuilding, protective shelter | 1 | 1 | 2 | 1 | | **5** | 1 | 0.0% |
| 152 Museum | 1 | 2 | | | 1 | **4** | 1 | 0.0% |
| 644 Gas distribution, pipeline, gas distribution | 1 | | | 3 | | **4** | 2 | 0.0% |
| 819 Livestock, poultry storage | | 1 | | | 3 | **4** | 2 | 0.0% |
| 170 Passenger terminal, other | | 1 | 2 | | | **3** | 2 | 0.0% |
| 180 Studio/theater, other | 1 | | | 1 | 1 | **3** | 1 | 0.0% |
| 460 Dormitory type residence, other | 1 | | | 2 | | **3** | 2 | 0.0% |
| 144 Casino, gambling clubs | | 2 | | | | **2** | 2 | 0.0% |
| 255 Day care, in residence, licensed | | | | 2 | | **2** | 2 | 0.0% |
| 635 Computer center | | 1 | 1 | | | **2** | 1 | 0.0% |
| 642 Electrical distribution | | 2 | | | | **2** | 2 | 0.0% |
| 922 Tunnel | 1 | 1 | | | | **2** | 1 | 0.0% |
| 935 Campsite with utilities | | | 1 | 1 | | **2** | 1 | 0.0% |
| 951 Railroad right of way | 1 | | | 1 | | **2** | 1 | 0.0% |
| 115 Roller rink: indoor or outdoor | | | 1 | | | **1** | 1 | 0.0% |
| 155 Courthouse | | 1 | | | | **1** | 1 | 0.0% |
| 186 Film/movie production studio | | 1 | | | | **1** | 1 | 0.0% |
| 645 Flammable liquid distribution, pipeline, flammable | | | 1 | | | **1** | 1 | 0.0% |
| 647 Water utility | | | 1 | | | **1** | 1 | 0.0% |
| 648 Sanitation utility | | | | 1 | | **1** | 1 | 0.0% |
| 839 Refrigerated storage | | | | 1 | | **1** | 1 | 0.0% |
| 898 Dock, marina, pier, wharf | | | | | 1 | **1** | 1 | 0.0% |
| **Totals** | **9,762** | **10,681** | **9,815** | **11,147** | **12,569** | **53,974** | | 100.0% |

# High-Frequency locations

2018-2022

| Use | PropertyUseDesc | AddressString | Description | # of EMS | # of Fire | # of Other | Total # Incidents |
|---|---|---|---|---|---|---|---|
| Health/Correction | Clinics, Doctors offices, hemo | 15300 West AVE | PALOS PRIMARY CARE | 1072 | 1 | 54 | **1127** |
| Health/Correction | Doctor, dentist or oral surgeo | 9550 167th ST | MIDWEST PHYSICIANS | 819 | 1 | 11 | **831** |
| Health/Correction | 24-hour care Nursing homes, 4 | 16450 S 97th AVE | ALDEN OF ORLAND | 706 | 4 | 63 | **773** |
| Health/Correction | Police station | 15100 Ravinia AVE | ORLAND PARK POLICE STATION | 673 | 0 | 23 | **696** |
| Health/Correction | 24-hour care Nursing homes, 4 | 10820 Orland Pky | EVERGREEN SENIOR LIVING | 526 | 1 | 72 | **599** |
| Health/Correction | 24-hour care Nursing homes, 4 | 14601 John Humphrey DR | LEXINGTON HEALTH CARE. | 473 | 2 | 32 | **507** |
| Health/Correction | 24-hour care Nursing homes, 4 | 7420 W 159th ST | HEARTIS VILLAS ASSISTED LIVING | 436 | 2 | 59 | **497** |
| Health/Correction | Restaurant or cafeteria | 14290 La Grange RD | UC MEDICINE | 432 | 0 | 27 | **459** |
| Health/Correction | 24-hour care Nursing homes, 4 | 16051 La Grange RD | BROOKDALE | 293 | 0 | 93 | **386** |
| Health/Correction | Clinics, Doctors offices, hemo | 10 Orland Square DR | ADVANCED URGENT CARE | 315 | 0 | 17 | **332** |
| Health/Correction | Public or government, other | 14601 John Humphrey | LEXINGTON HEALTH CARE | 231 | 0 | 10 | **241** |
| Assembly | Mercantile, business, other | 66 Orland Square DR | GIZMO'S | 165 | 1 | 58 | **224** |
| Business | General retail, other | 9245 159th ST | WALMART | 150 | 1 | 72 | **223** |
| Business | Specialty shop | 288 Orland SQ | ORLAND SQUARE MALL | 132 | 3 | 69 | **204** |
| Assembly | Church, mosque, synagogue, tem | 11100 Orland Parkway | PARKVIEW CHRISTIAN CHURCH | 70 | 4 | 116 | **190** |
| Health/Correction | Restaurant or cafeteria | 15300 West | PALOS PRIMARY CARE | 163 | 0 | 8 | **171** |
| Health/Correction | Mercantile, business, other | 16051 La Grange | BROOKDALE | 121 | 2 | 34 | **157** |
| Hotel | Hotel/motel, commercial | 8800 159th ST | GEORGIOS COMFORT INN | 121 | 1 | 33 | **155** |
| Health/Correction | 24-hour care Nursing homes, 4 | 8021 W 151st ST | CHARTER SENIOR LIVING | 106 | 3 | 41 | **150** |
| Health/Correction | Clinics, Doctors offices, hemo | 9570 159th ST | PHYSICIANS IMMEDIATE CARE | 137 | 0 | 1 | **138** |
| Business | Department or discount store | 1 Orland Square | MACY'S | 91 | 0 | 39 | **130** |
| Assembly | Athletic/health club | 16333 La Grange RD | LIFE TIME FITNESS | 92 | 2 | 26 | **120** |
| Business | Mercantile, business, other | 288 Orland Square Dr | ORLAND SQUARE | 122 | 2 | 106 | **230** |
| Assembly | Ice rink: indoor, outdoor | 10700 160th ST | ARTIC ICE ARENA | 60 | 0 | 37 | **97** |
| Health/Correction | Clinics, Doctors offices, hemo | 9550 167th | ADVOCATE HEALTH CARE | 87 | 0 | 6 | **93** |
| Storage | Fire station | 9790 W 151st ST | **FIRE STATION 1** | 79 | 0 | 13 | **92** |
| Business | General retail, other | 9915 W 159th ST | COSCO | 62 | 0 | 24 | **86** |
| Business | Food and beverage sales, groce | 15701 S 71st CT | I LOVE KICKBOXING | 58 | 0 | 23 | **81** |
| Hotel | Hotel/motel, commercial | 16245 La Grange RD | HOMEWOOD SUITES | 28 | 3 | 41 | **72** |
| Business | Food and beverage sales, groce | 9350 W 159th ST | JEWEL | 68 | 0 | 4 | **72** |
| Boarding House | Residential board and care | 15415 Harlem AVE | THOMAS PLACE | 49 | 0 | 21 | **70** |
| Business | Personal service, including ba | 9245 159th | WALMART | 47 | 1 | 21 | **69** |
| Storage | Fire station | 15100 S 80th AVE | **FIRE STATION 2** | 65 | 0 | 3 | **68** |
| Business | Department or discount store | 3 Orland Square DR | J C PENNY'S | 45 | 0 | 23 | **68** |
| Health/Correction | Hemodialysis unit | 9160 159th ST | FRENIUS DIALYSIS | 61 | 0 | 4 | **65** |
| Business | Mercantile, business, other | 9504 142nd ST | MARIONO'S | 40 | 3 | 22 | **65** |
| Business | Specialty shop | 1 Orland Park PL | DICK'S SPORTING GOODS | 7 | 0 | 56 | **63** |
| Assembly | Restaurant or cafeteria | 16333 La Grange | LIFETIME FITNESS | 50 | 0 | 13 | **63** |
| Business | General retail, other | 14225 95th AVE | OP DERMATOLOGY | 19 | 0 | 44 | **63** |
| Assembly | Food and beverage sales, groce | 15845 La Grange RD | UNCLE JULIO'S | 25 | 4 | 34 | **63** |
| Assembly | Restaurant or cafeteria | 15690 Harlem AVE | COOPER'S HAWK | 39 | 0 | 22 | **61** |
| Assembly | Movie theater | 16350 La Grange RD | MARCUS THEATER | 48 | 0 | 12 | **60** |
| Health/Correction | Doctor, dentist or oral surgeo | 16660 107th AVE | DULY HEALTH CARE | 54 | 0 | 4 | **58** |
| Business | Mercantile, business, other | 3 Orland Square | ORLAND SQUARE MALL | 31 | 0 | 26 | **57** |
| Assembly | Athletic/health club | 15430 West AVE | PALOS FITNESS | 44 | 0 | 13 | **57** |
| Business | Specialty shop | 14273 Wolf RD | Pyramid super market | 0 | 1 | 56 | **57** |
| Business | Mercantile, business, other | 15400 La Grange RD | DARVIN FURNITURE | 22 | 0 | 32 | **54** |
| Storage | Fire station | 17640 Wolf RD | **FIRE STATION 6** | 48 | 0 | 6 | **54** |
| Business | Department or discount store | 7300 W 159th ST | HOME DEPOT | 22 | 0 | 31 | **53** |
| Storage | None | 12300 S Harlem AVE | PALOS HEIGHTS FIRE STATION 1 | 1 | 0 | 49 | **50** |
| Health/Correction | Mercantile, business, other | 14620 La Grange RD | CONTINUING CARE OF TIMBERLINE KNOLLS | 43 | 0 | 5 | **48** |
| Health/Correction | Police station | 16035 94th AVE | ORLAND HILLS PD | 46 | 0 | 1 | **47** |
| Assembly | Food and beverage sales, groce | 17400 Wolf RD | JOEY'S RED HOTS | 7 | 2 | 37 | **46** |
| Business | Food and beverage sales, groce | 2 Orland Square | ORLAND SQUARE | 25 | 0 | 21 | **46** |
| Business | Household goods, sales, repair | 17930 Wolf RD | JEWEL FOOD STORE | 31 | 1 | 12 | **44** |
| Assembly | Restaurant or cafeteria | 16310 La Grange RD | WU'S HOUSE | 16 | 0 | 28 | **44** |
| Business | Mercantile, business, other | 15690 Harlem | COOPERS HAWK | 25 | 1 | 17 | **43** |
| Assembly | Restaurant or cafeteria | 15215 La Grange RD | OLIVE GARDEN | 16 | 1 | 26 | **43** |
| Assembly | Food and beverage sales, groce | 11351 W 159th | SPORTSPLEX | 36 | 0 | 7 | **43** |
| Assembly | Fire station | 8851 W 143rd ST | FIRE STATION 5 | 37 | 0 | 5 | **42** |
| Health/Correction | Specialty shop | 9570 159th | PHYSICIANS MEDICAL | 42 | 0 | 0 | **42** |
| Assembly | Restaurant or cafeteria | 16156 La Grange RD | ROCK BOTTOM BREWERY | 5 | 2 | 35 | **42** |
| Business | Fixed use recreation places, o | 9915 W 159th | COSTCO | 27 | 0 | 14 | **41** |
| Hotel | Water utility | 8800 W 159th | GEORGIOS COMFORT INN | 24 | 1 | 16 | **41** |
| Assembly | Assembly, other | 16350 La Grange | MARCUS THEATRES | 22 | 0 | 19 | **41** |
| Business | Doctor, dentist or oral surgeo | 14315 108th AVE | MEDICAL CENTER | 25 | 0 | 16 | **41** |
| Business | Mercantile, business, other | 15752 La Grange RD | ULTA | 8 | 0 | 33 | **41** |
| Business | Restaurant or cafeteria | 4 Orland Square | CARSON'S | 29 | 0 | 11 | **40** |
| Manufacturing | Business office | 10500 167th | PANDUIT | 17 | 0 | 23 | **40** |
| Assembly | Restaurant or cafeteria | 15503 La Grange RD | RED ROBIN BURGERS | 6 | 3 | 31 | **40** |
| Assembly | Elementary school, including k | 14327 Highland AVE | ST. MIKE'S CHURCH | 23 | 0 | 17 | **40** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Assembly | Food and beverage sales, groce | 15200 S 94th AVE | CAJUN BOIL | 16 | 0 | 23 | 39 |
| Assembly | Water utility | 8801 W 143rd | RIVIERA COUNTRY CLUB | 20 | 0 | 19 | 39 |
| Assembly | Fire station | 304 Orland SQ | CHEESE CAKE FACTORY | 36 | 1 | 1 | 38 |
| Health/Correction | Adult education center, colleg | 18230 Orland PKY | CTF ILLINOIS | 30 | 0 | 7 | 37 |
| Education | High school/junior high school | 10801 W 159th ST | CENTURY SCHOOL | 19 | 0 | 17 | 36 |
| Business | Specialty shop | 101 Orland Park PL | MARSHALL'S | 24 | 0 | 11 | 35 |
| Assembly | Bank | 15630 La Grange RD | MILLERS ALE HOUSE | 19 | 1 | 15 | 35 |
| Storage | Fire station | 8815 W 123rd ST | PALOS FIRE STATION 1 | 0 | 0 | 35 | 35 |
| Assembly | Food and beverage sales, groce | 9281 W 159th ST | TACO BELL | 7 | 4 | 24 | 35 |
| Assembly | Mercantile, business, other | 15610 La Grange RD | CHUY'S | 12 | 0 | 22 | 34 |
| Assembly | Eating, drinking places | 49 Orland Square DR | DAVE AND BUSTER\'S | 14 | 0 | 20 | 34 |
| Business | General retail, other | 15601 La Grange RD | LOWE\'S | 10 | 0 | 24 | 34 |
| Assembly | Church, mosque, synagogue, tem | 15100 S 80th | FIRE STATION 2 | 31 | 1 | 1 | 33 |
| Assembly | Mercantile, business, other | 15430 West | PALOS HEALTH & FITNESS | 13 | 0 | 20 | 33 |
| Assembly | Restaurant or cafeteria | 14135 La Grange RD | PF CHANGS | 17 | 0 | 16 | 33 |
| Assembly | Athletic/health club | 8801 W 143rd ST | RIVERIA COUNTRY CLUB | 22 | 0 | 11 | 33 |
| Business | Undetermined | 4 Orland SQ | SEARS | 24 | 0 | 9 | 33 |
| Business | Department or discount store | 15850 S 94th AVE | TARGET | 28 | 0 | 5 | 33 |
| Storage | Fire station | 15101 Wolf RD | **FIRE STATION 3** | 32 | 0 | 0 | 32 |
| Assembly | Bar or nightclub | 8888 159th ST | GEOGIOS COMFORT INN | 22 | 1 | 9 | 32 |
| Business | Department or discount store | 3 Orland Park PL | KOHLS | 24 | 3 | 5 | 32 |
| Storage | Bank | 8815 W 123rd | PALOS FIRE STATION 1 | 3 | 0 | 29 | 32 |
| Business | Service station, gas station | 16707 La Grange RD | CIRCLE K GAS STATION | 12 | 0 | 19 | 31 |
| Business | Residential board and care | 15400 La Grange | DARVIN FURNITURE | 9 | 0 | 22 | 31 |
| Assembly | Restaurant or cafeteria | 14459 La Grange RD | PAPA JOE\'S | 18 | 0 | 13 | 31 |
| Business | Motor vehicle or boat sales, s | 8910 159th ST | CJ Mazda | 4 | 1 | 25 | 30 |
| Assembly | Fire station | 16515 94th AVE | **FIRE STATION 4** | 29 | 0 | 1 | 30 |
| Assembly | Public or government, other | 9790 W 151st | ORLAND FIRE DISTRICT | 29 | 0 | 1 | 30 |
| Health/Correction | Police station | 16035 94th | ORLAND HILLS PD | 30 | 0 | 0 | 30 |
| Assembly | Public or government, other | 14807 Ravinia AVE | ORLAND TOWNSHIP | 28 | 0 | 2 | 30 |
| Business | Preschool | 14273 Wolf | PARTY PARADISE | 0 | 1 | 29 | 30 |
| Assembly | General retail, other | 8903 159th ST | SHERWIN WILLIAMS PAINT STORE | 0 | 0 | 30 | 30 |
| Health/Correction | Textile, wearing apparel sales | 9160 159th | DIALYSIS CENTER | 26 | 0 | 3 | 29 |
| Hotel | 24-hour care Nursing homes, 4 | 16245 La Grange | HOMEWOOD SUITES | 14 | 1 | 14 | 29 |
| Business | Restaurant or cafeteria | 50 Orland Park | ORLAND PARK PLACE MALL | 0 | 0 | 29 | 29 |
| Assembly | Church, mosque, synagogue, tem | 15050 Wolf RD | ST FRANCIS CHURCH | 19 | 0 | 10 | 29 |
| Business | Personal service, including ba | 24 Orland Square DR | STRIP MALL - FLAVZ | 1 | 6 | 22 | 29 |
| Boarding House | Hotel/motel, commercial | 16000 Wolf RD | VISTA MOTEL | 26 | 0 | 3 | 29 |
| Business | General retail, other | 7300 W 159th | HOME DEPOT | 4 | 0 | 24 | 28 |
| Business | Food and beverage sales, groce | 9350 W 159th | JEWEL | 17 | 0 | 11 | 28 |
| Assembly | Restaurant or cafeteria | 15110 La Grange RD | NAFF NAFF GRILL | 1 | 1 | 26 | 28 |
| Assembly | Library | 14921 Ravinia AVE | ORLAND LIBRARY | 14 | 0 | 14 | 28 |
| Business | Clinic, clinic-type infirmary | 14680 La Grange RD | WALGREENS | 20 | 0 | 8 | 28 |
| Education | Specialty shop | 16124 La Grange RD | CHILDREN OF AMERICA | 7 | 2 | 18 | 27 |
| Business | Mercantile, business, other | 9011 W 151st ST | KICK HIGHER MARTIAL ARTS | 0 | 3 | 24 | 27 |
| Business | Mercantile, business, other | 8300 W 159th | LEXUS OF ORLAND | 4 | 0 | 23 | 27 |
| Assembly | Fixed use recreation places, o | 14750 Ravinia AVE | ORLAND PARK CIVIC CENTER | 14 | 0 | 13 | 27 |
| Assembly | Restaurant or cafeteria | 15608 Harlem AVE | OUTBACK STEAKHOUSE | 21 | 2 | 4 | 27 |
| Business | Professional supplies, service | 17831 Wolf RD | STRIP MALL - DON'S | 0 | 0 | 27 | 27 |
| Business | Department or discount store | 7960 W 159th ST | WALGREENS | 22 | 2 | 3 | 27 |
| Assembly | Restaurant or cafeteria | 16737 La Grange RD | WENDY'S | 5 | 1 | 21 | 27 |
| Business | Service station, gas station | 15080 La Grange | ART VAN FURNITURE | 4 | 0 | 22 | 26 |
| Business | Restaurant or cafeteria | 15537 La Grange RD | BONEFISH | 22 | 0 | 4 | 26 |
| Assembly | Eating, drinking places | 15300 La Grange RD | HOOTER'S | 18 | 0 | 8 | 26 |
| Education | Schools, non-adult | 8851 W 151st ST | JERLING JUNIOR HIGH SCHOOL | 9 | 0 | 17 | 26 |
| Business | Restaurant or cafeteria | 18060 Wolf | MO;S CHINESE KITCHEN | 0 | 0 | 26 | 26 |
| Assembly | Clubhouse | 14700 S 82nd AVE | SILVER LAKE COUNTRY CLUB | 16 | 0 | 10 | 26 |
| Assembly | Eating, drinking places | 14461 La Grange RD | DUNKIN DOUGHNUT'S | 2 | 4 | 19 | 25 |
| Storage | Parking garage, general vehicl | 16352 La Grange RD | MARCUS THEATER | 3 | 0 | 22 | 25 |
| Business | Mercantile, business, other | 15701 S 71st | MEJIER | 11 | 0 | 14 | 25 |
| Health/Correction | Bank | 8021 W 151st | AUTUMN LEAVES | 7 | 2 | 15 | 24 |
| Assembly | Playground | 15600 West AVE | CENTENIAL PARK | 23 | 1 | 0 | 24 |
| Business | Restaurant or cafeteria | 9156 159th ST | MO's KITCHEN | 0 | 0 | 24 | 24 |
| Assembly | Restaurant or cafeteria | 15900 La Grange RD | PETEY'S II | 14 | 0 | 10 | 24 |
| Assembly | Restaurant or cafeteria | 7120 W 159th ST | S2 EXPRESS GRILL | 3 | 2 | 19 | 24 |
| Business | Eating, drinking places | 15615 La Grange RD | T-MOBILE | 1 | 0 | 23 | 24 |
| Health/Correction | Business office | 14741 Ravinia AVE | DULY HEALTH | 17 | 0 | 6 | 23 |
| Business | Business office | 10811 W 143rd ST | KODAK MECHANICAL | 9 | 0 | 14 | 23 |
| Business | Mercantile, business, other | 14225 95th | ORLAND CROSSING | 4 | 0 | 19 | 23 |
| Business | Food and beverage sales, groce | 2 Orland Square DR | SEARS | 14 | 1 | 8 | 23 |
| Business | Convenience store | 17955 Wolf RD | WALGREENS | 10 | 0 | 13 | 23 |
| Business | Vehicle storage, other | 15752 La Grange | JOANNES | 4 | 0 | 18 | 22 |
| Assembly | Assembly, other | 14700 Ravinia AVE | ORLAND PARK VILLAGE HALL. | 12 | 0 | 10 | 22 |
| Storage | Hospital - medical or psychiat | 12300 S Harlem | PALOS HEIGHTS FIRE STATION 1 | 1 | 0 | 21 | 22 |
| Assembly | Church, mosque, synagogue, tem | 16530 104th AVE | PRAYER CENTER | 7 | 0 | 15 | 22 |
| Business | Mercantile, business, other | 11243 W 143rd ST | ROCCO VINO'S | 0 | 0 | 22 | 22 |
| Assembly | Mercantile, business, other | 14327 Highland | ST MICHEAL CHURCH | 18 | 0 | 4 | 22 |
| Business | Eating, drinking places | 31 Orland Square DR | STRIP MALL | 4 | 0 | 18 | 22 |
| Business | None | 7600 W 159th ST | THORTON GAS STATION | 13 | 0 | 9 | 22 |
| Business | Mercantile, business, other | 290 Orland Park | BUY BUY BABY | 0 | 0 | 21 | 21 |
| Assembly | Clubhouse | 10700 W 153rd ST | CRYSTAL TREE CLUB HOUSE | 11 | 0 | 10 | 21 |
| Business | Food and beverage sales, groce | 9351 159th ST | JEWEL FOOD STORE | 19 | 0 | 2 | 21 |
| Assembly | High school/junior high school | 15215 La Grange | OLIVE GARDEN | 12 | 0 | 9 | 21 |
| Business | Specialty shop | 50 Orland Park PL | ORLAND PARK PLACE | 0 | 0 | 21 | 21 |
| Business | Specialty shop | 9277 159th ST | PET SMART | 4 | 0 | 17 | 21 |
| Health/Correction | Hospital - medical or psychiat | 10745 165th ST | PREMIER PSYCHIATRY | 21 | 0 | 0 | 21 |
| Business | Textile, wearing apparel sales | 15625 S 94th AVE | SAVERS | 18 | 1 | 2 | 21 |
| Business | Restaurant or cafeteria | 14680 La Grange | WALLGREENS | 21 | 0 | 0 | 21 |
| Assembly | Specialty shop | 15765 Harlem AVE | ARBYS | 2 | 4 | 14 | 20 |
| Business | Church, mosque, synagogue, tem | 9310 159th | AUTOZONE | 0 | 0 | 20 | 20 |
| Business | General retail, other | 304 Orland Square Dr | CHEESECAKE FACTORY | 20 | 0 | 0 | 20 |
| Assembly | Restaurant or cafeteria | 15605 La Grange RD | CHICK FILLET | 6 | 0 | 14 | 20 |
| Assembly | Restaurant or cafeteria | 15735 Harlem AVE | CHILI\'S | 4 | 0 | 16 | 20 |
| Business | General retail, other | 16308 107th AVE | CONTROLLED ENVIROMENTAL | 1 | 0 | 19 | 20 |
| Assembly | Hospital - medical or psychiat | 17640 Wolf | FIRE STATION 6 | 19 | 0 | 1 | 20 |
| Business | Specialty shop | 15864 La Grange RD | LAKEVIEW PLAZA B | 0 | 0 | 20 | 20 |
| Health/Correction | Clinics, Doctors offices, hemo | 10719 160th ST | MIDWEST ORTHOPEDIC | 18 | 0 | 2 | 20 |
| Storage | Fire station | 10728 163rd PL | ORLAND FIRE TRAINING CTC | 13 | 1 | 6 | 20 |
| Business | General retail, other | 304 Orland Square | ORLAND SQUARE | 20 | 0 | 0 | 20 |
| Assembly | Church, mosque, synagogue, tem | 16550 104th AVE | PRAYER CENTER | 1 | 0 | 19 | 20 |
| Assembly | General retail, other | 9310 159th ST | SHISH KABOB | 1 | 0 | 19 | 20 |
| Health/Correction | 24-hour care Nursing homes, 4 | 10501 Emilie LN | SMITH CROSSING NURSING HOME | 0 | 0 | 20 | 20 |
| Health/Correction | 24-hour care Nursing homes, 4 | 12828 La Grange RD | SUNRISE ASSISTED LIVING | 9 | 0 | 11 | 20 |
| Business | Business office | 15415 Harlem | THOMAS PLACE | 18 | 0 | 2 | 20 |
| Business | Household goods, sales, repair | 15770 La Grange RD | VALUE CITY FURNITURE | 2 | 0 | 18 | 20 |
| Assembly | Restaurant or cafeteria | 15801 Harlem AVE | WHITE CASTLE | 9 | 0 | 11 | 20 |

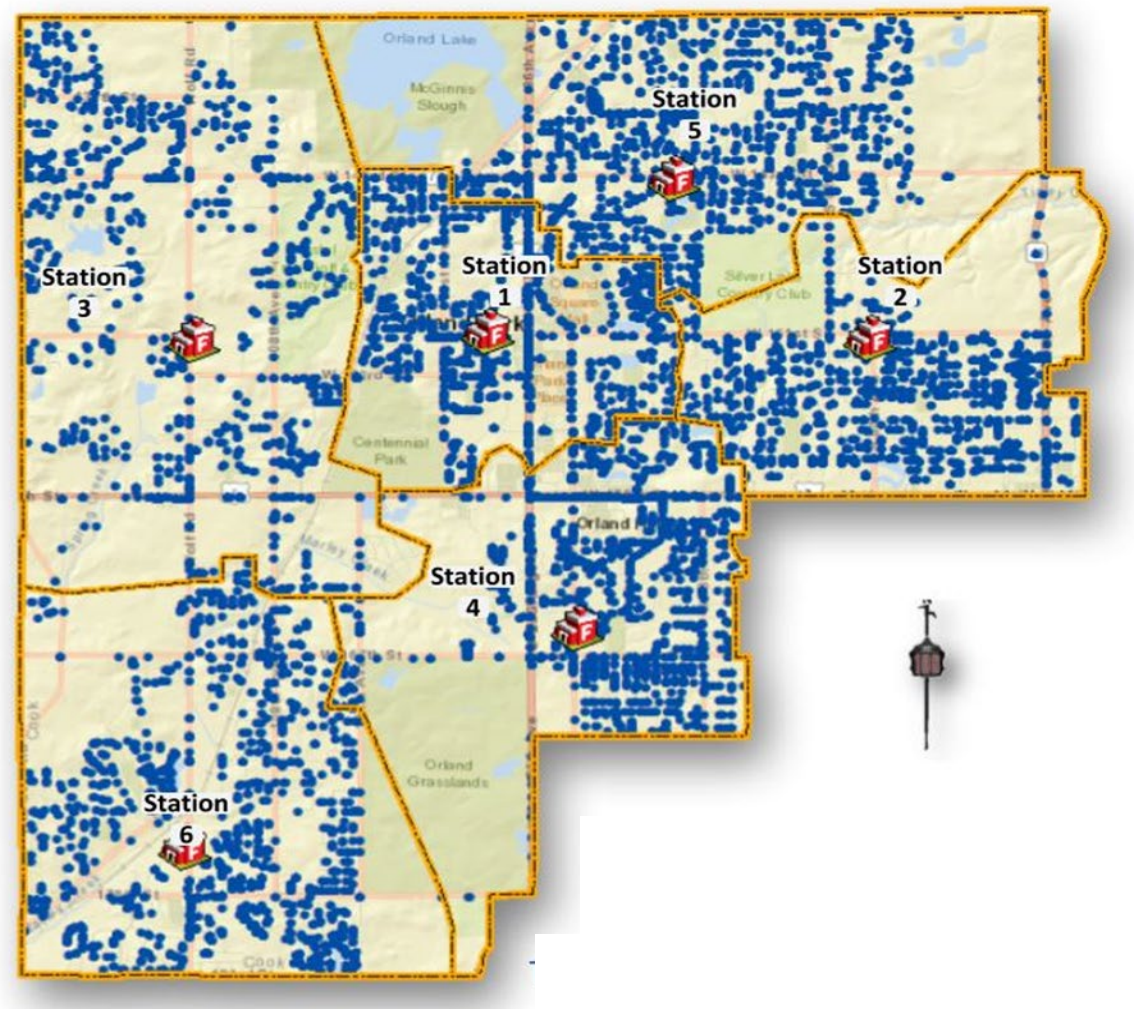
# Geolocation – GIS Mapping Visualizations

## District-wide (Geographic Information System – GIS) Plottings

### Incident Locations (Color-Coded Dot)

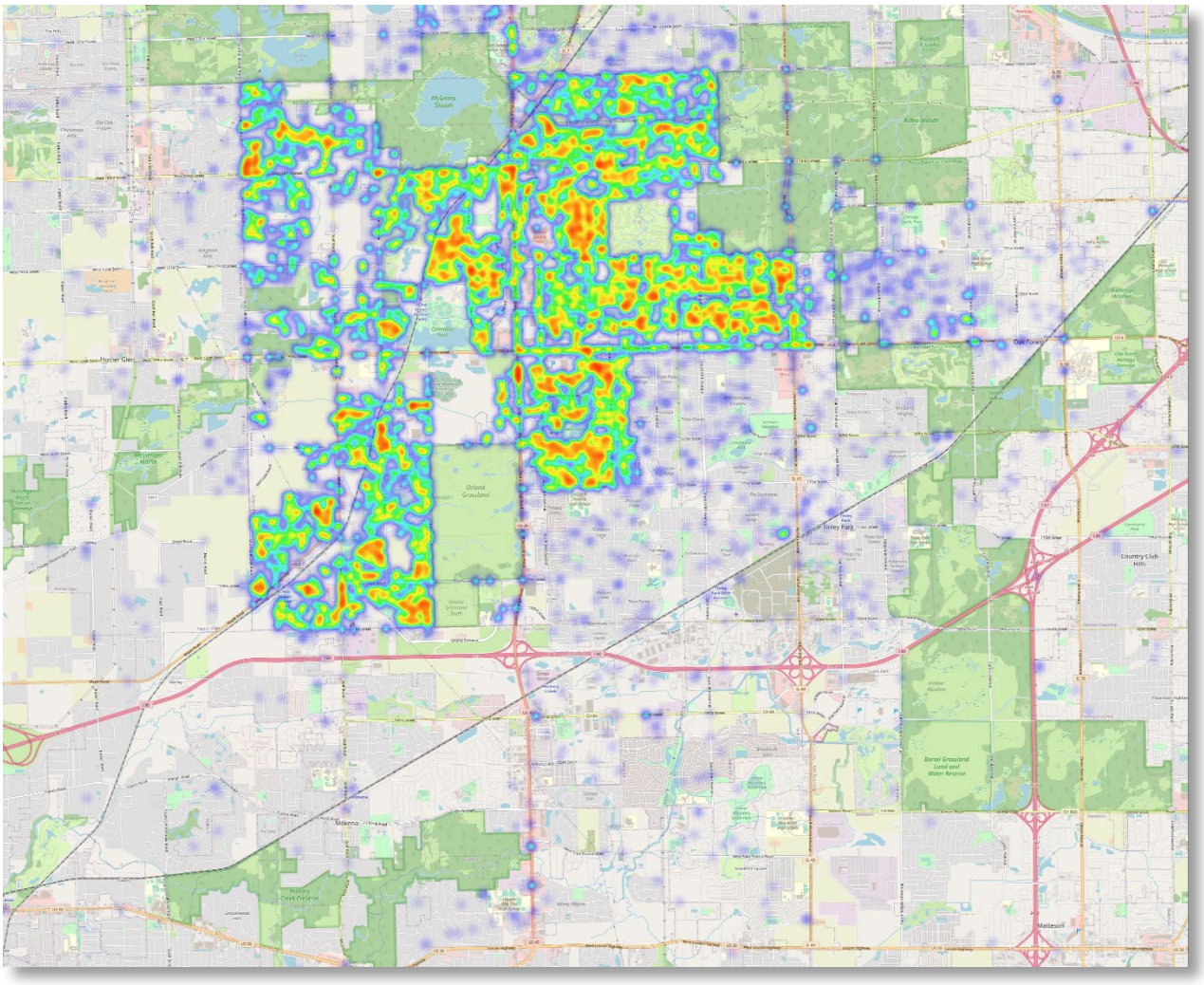
All Incidents

Study Incidents



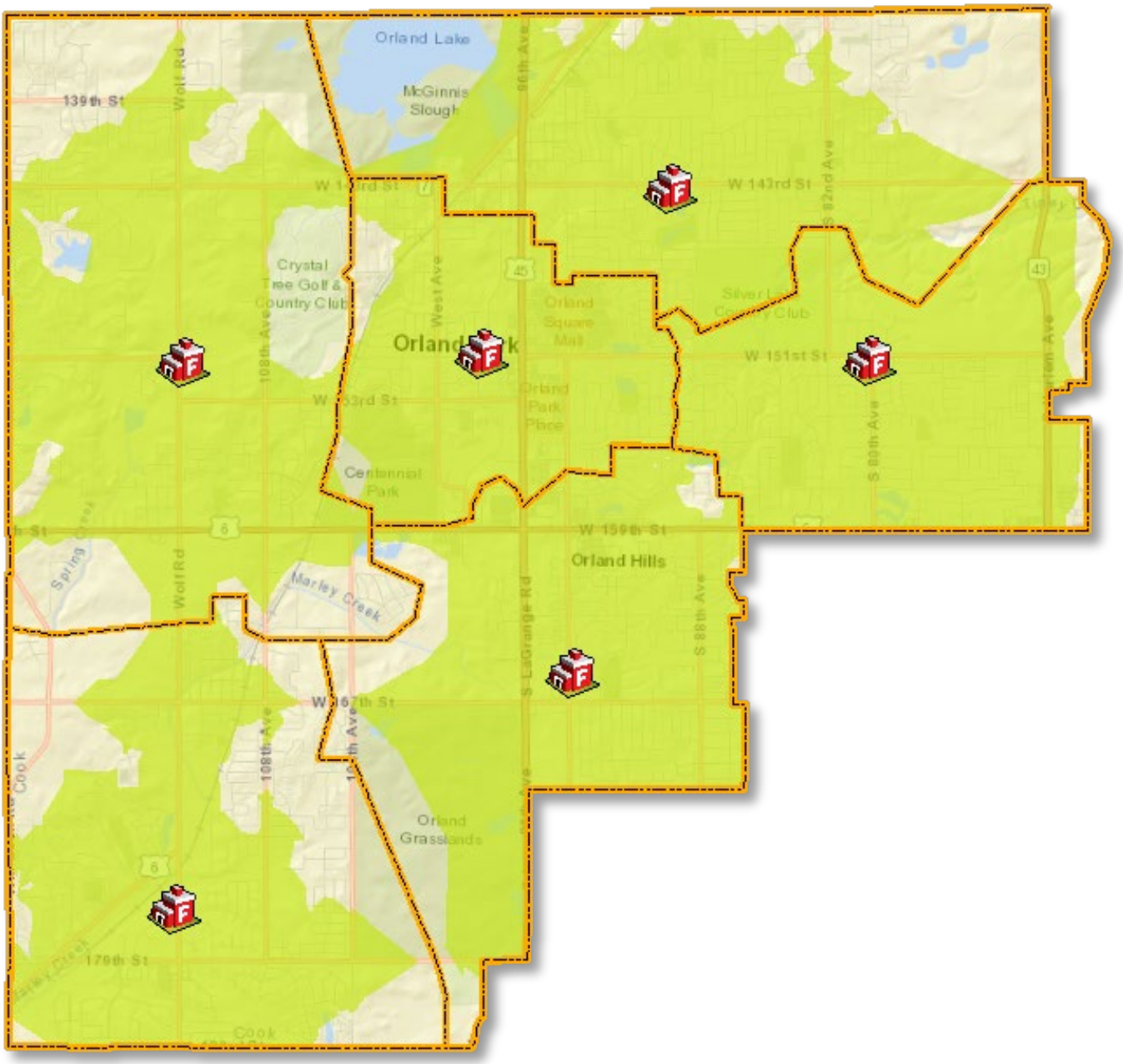
# Incident Frequency (Heat Map)

ALL INCIDENTS 2018-2023

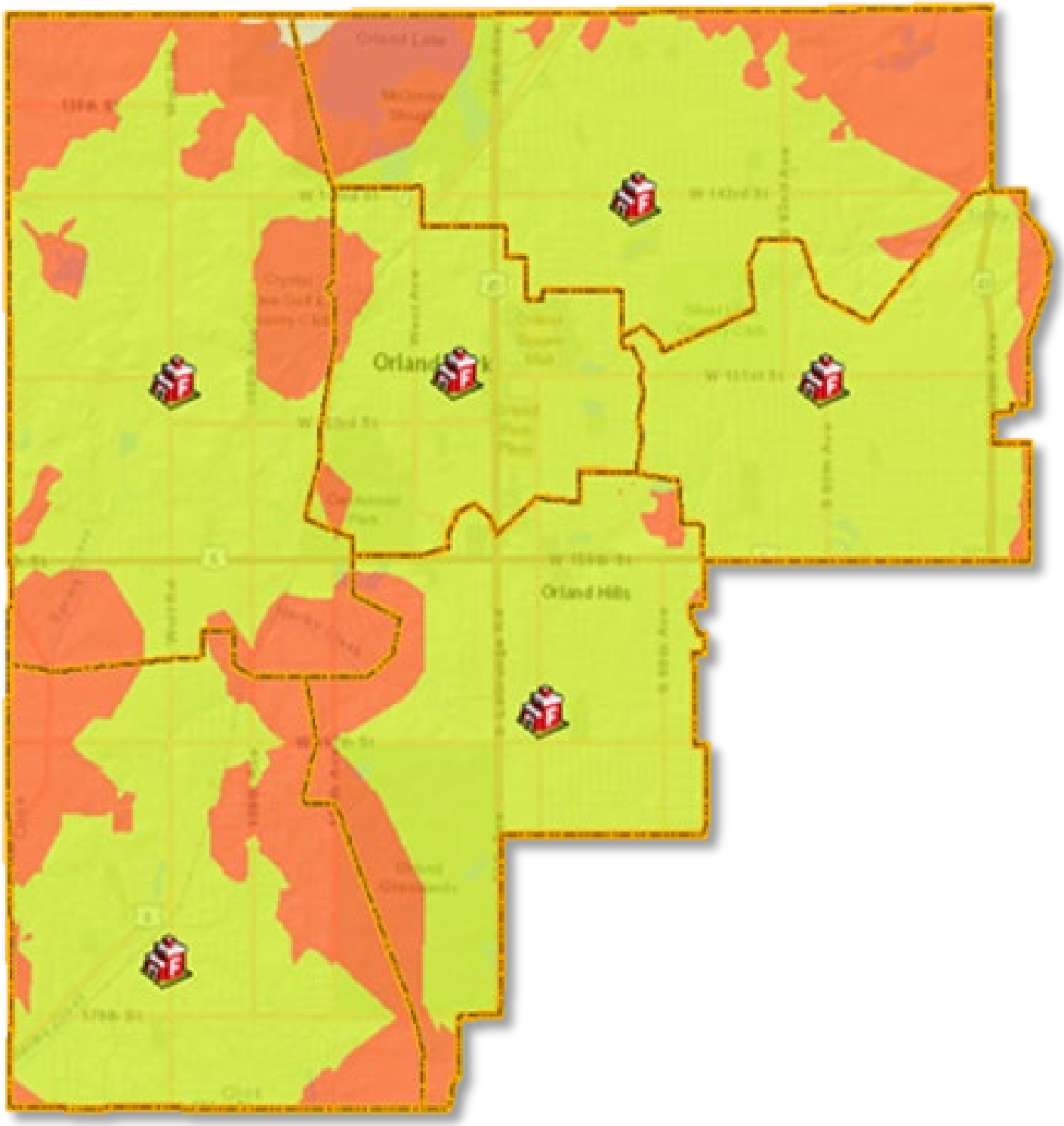


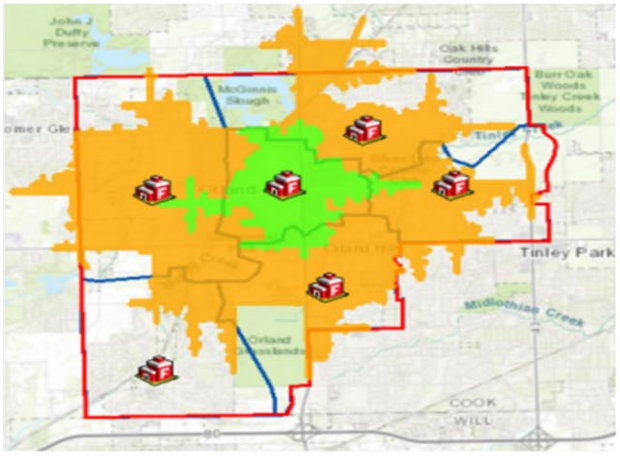
# TRAVEL TIME - 4/8-min Coverage Area

Four-minute travel time from the Stations is the benchmark goal. It is indicated on this map in green, utilizing GIS modeling and current street configurations and speed limits.

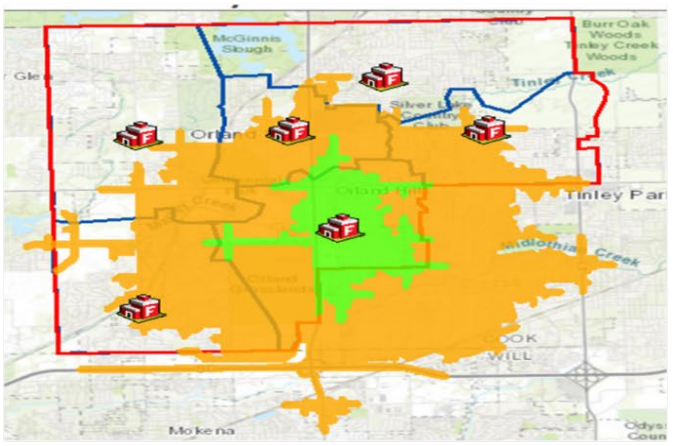


# Travel Time – 4 & 8 minutes per station

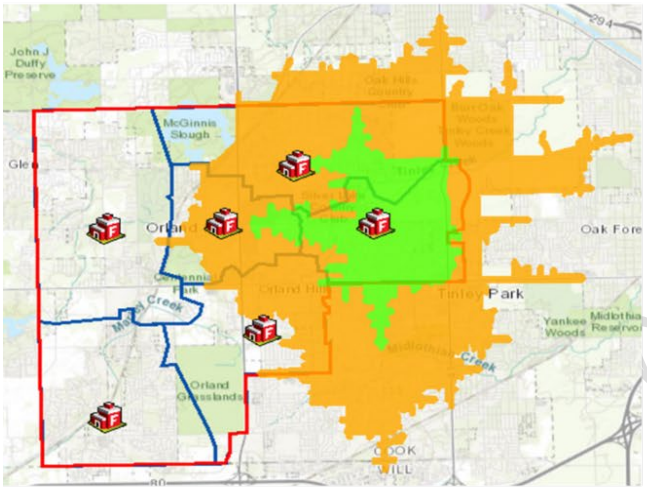




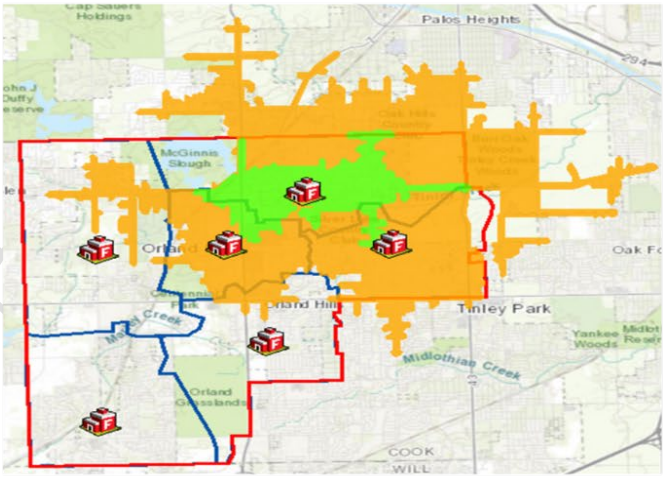

**STATION 1** – 4/8 Minute **TRAVEL** Time



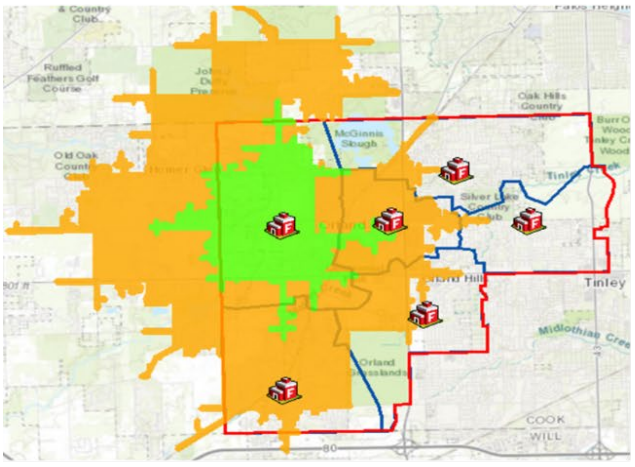

**STATION 4** – 4/8 Minute **TRAVEL** Time



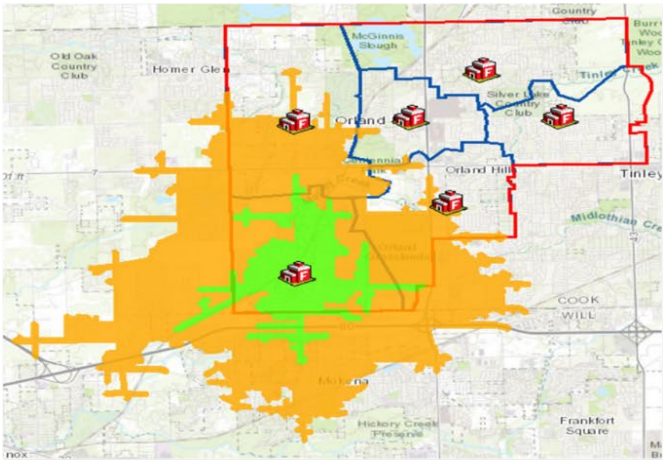

**STATION 2** – 4/8 Minute **TRAVEL** Time




**STATION 5** – 4/8 Minute **TRAVEL** Time

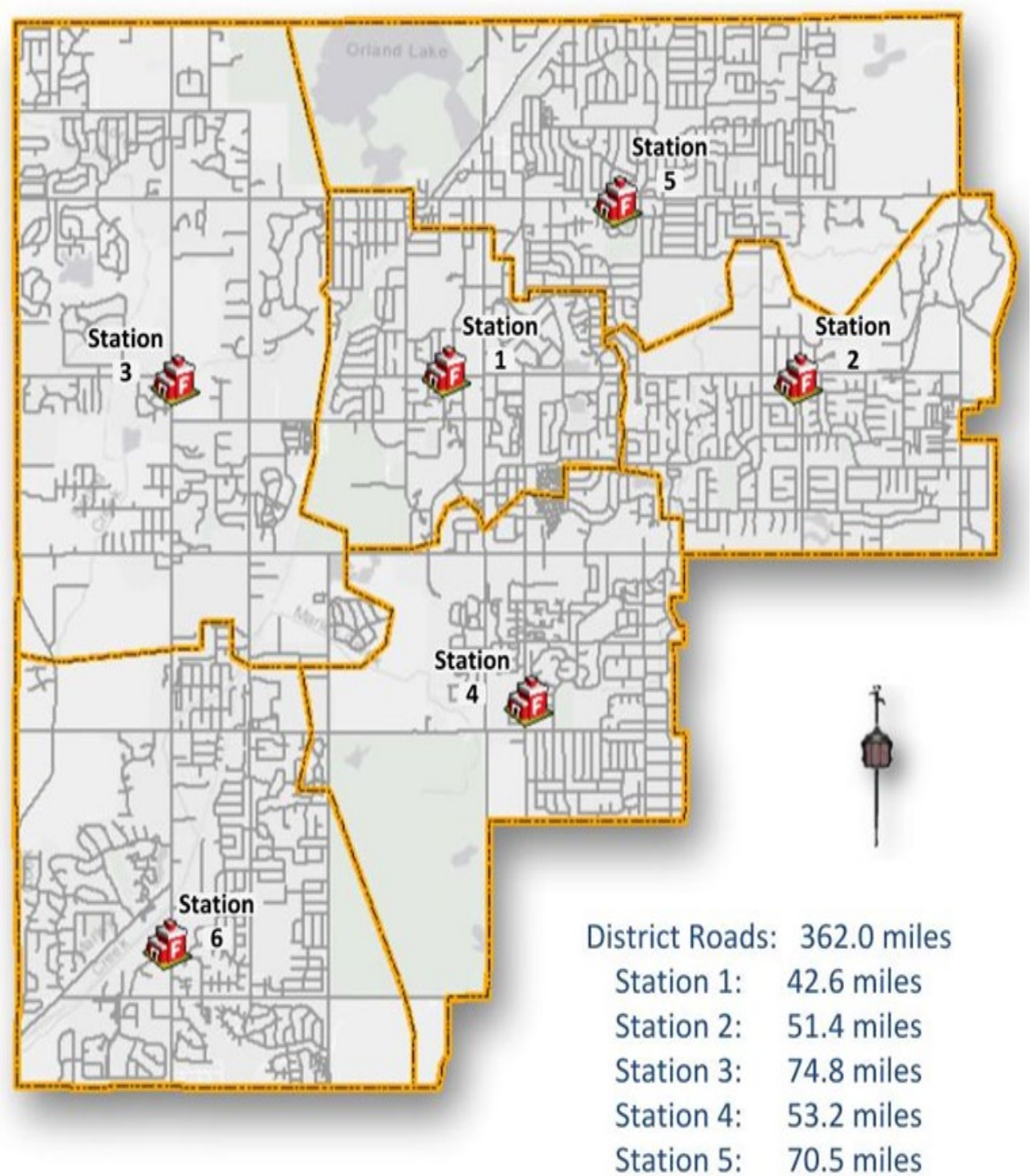



**STATION 3** – 4/8 Minute **TRAVEL** Time



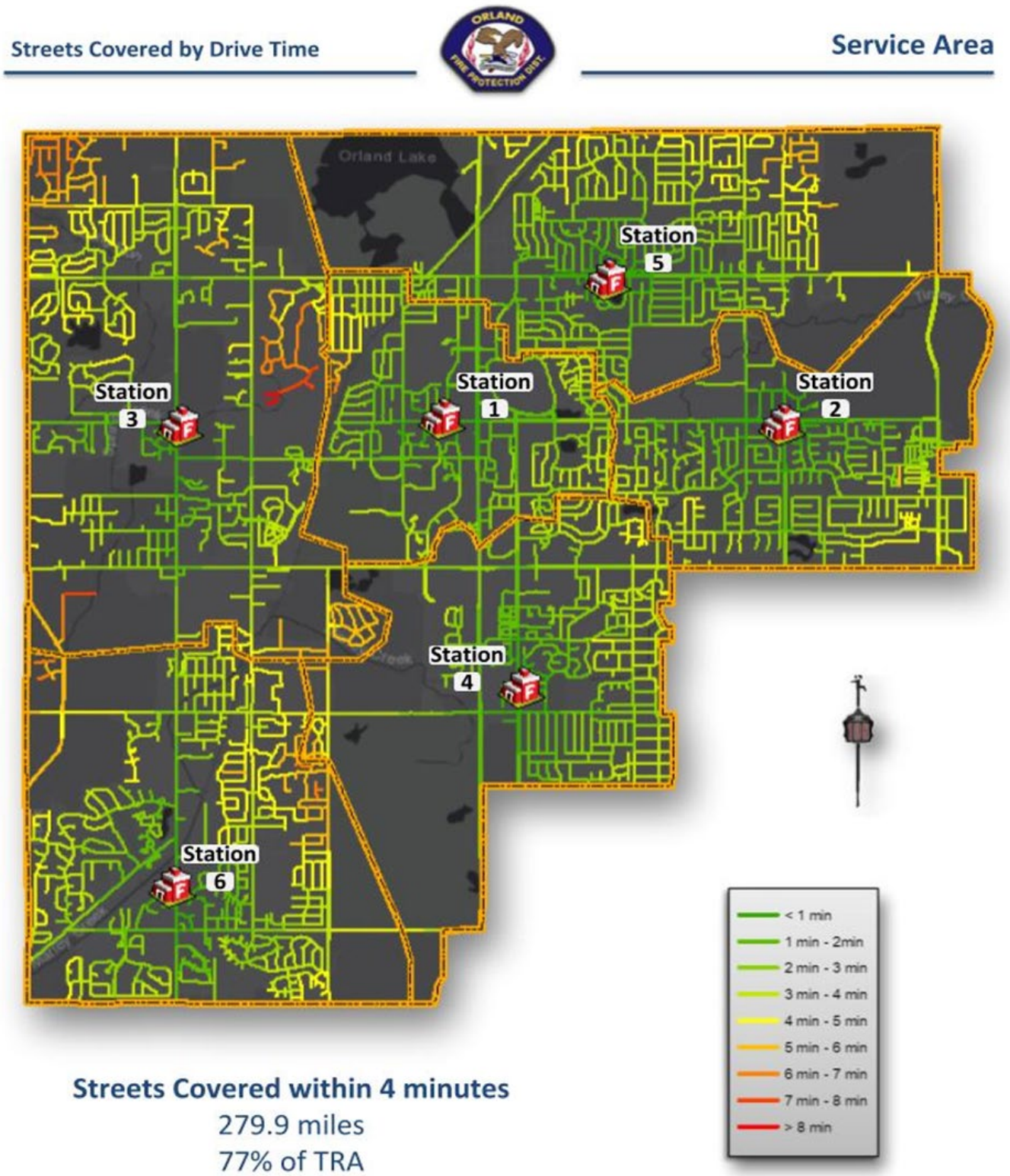

**STATION 6** – 4/8 Minute **TRAVEL** Time

# Streets Network



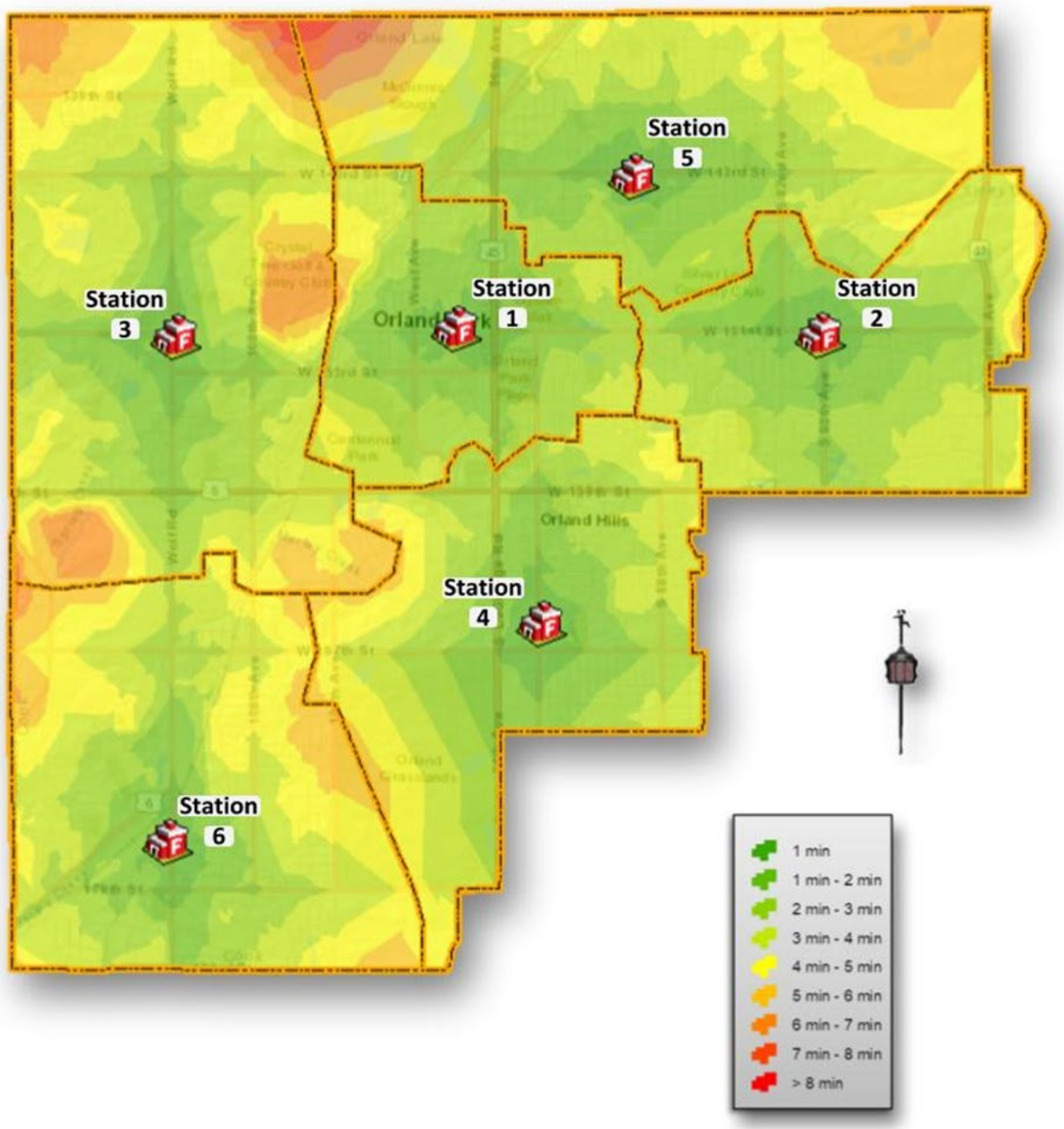

| | |
|---|---|
| District Roads: | 362.0 miles |
| Station 1: | 42.6 miles |
| Station 2: | 51.4 miles |
| Station 3: | 74.8 miles |
| Station 4: | 53.2 miles |
| Station 5: | 70.5 miles |
| Station 6: | 69.5 miles |

## Drive Time by minute

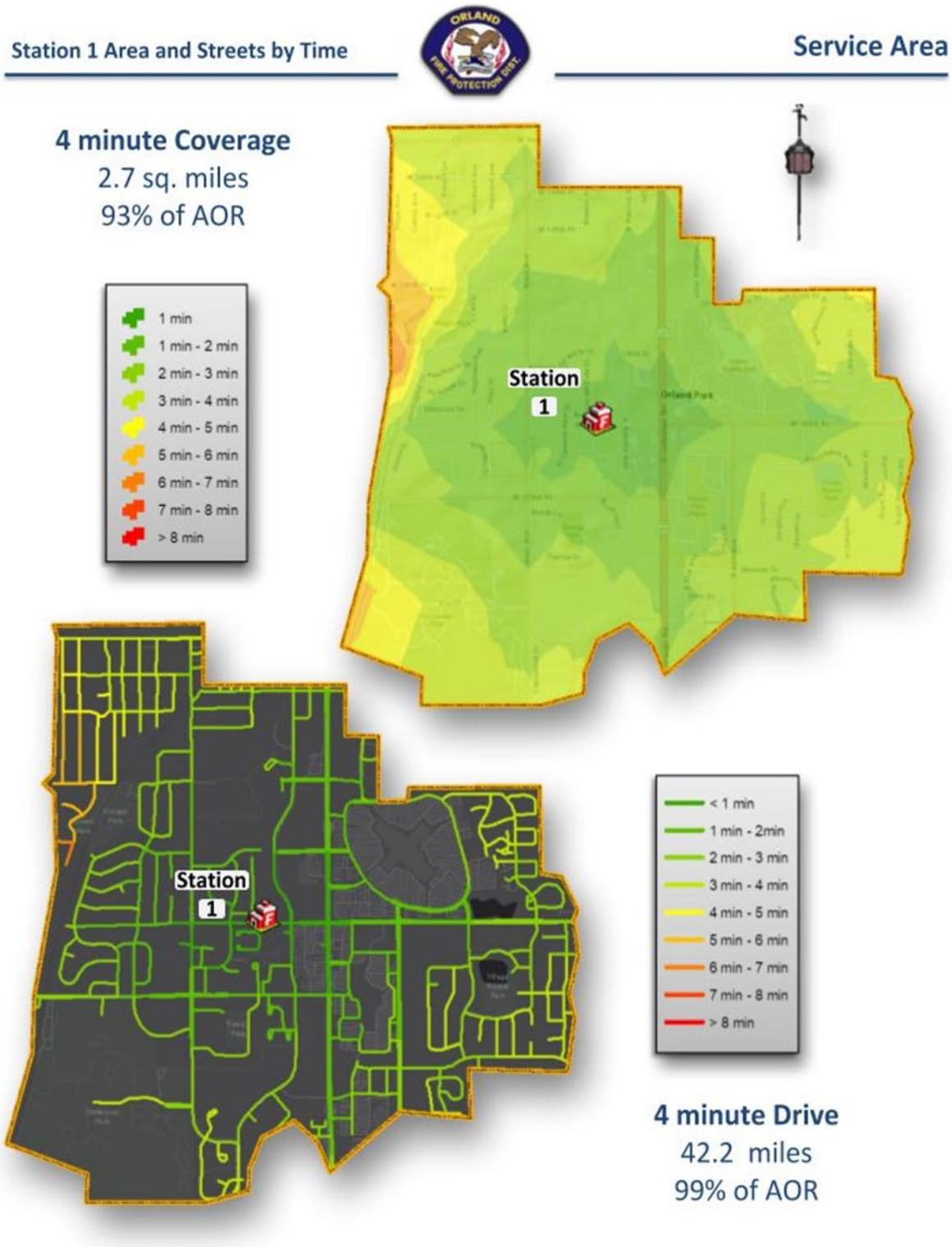


## Area Served by Drive Time

## Service Area

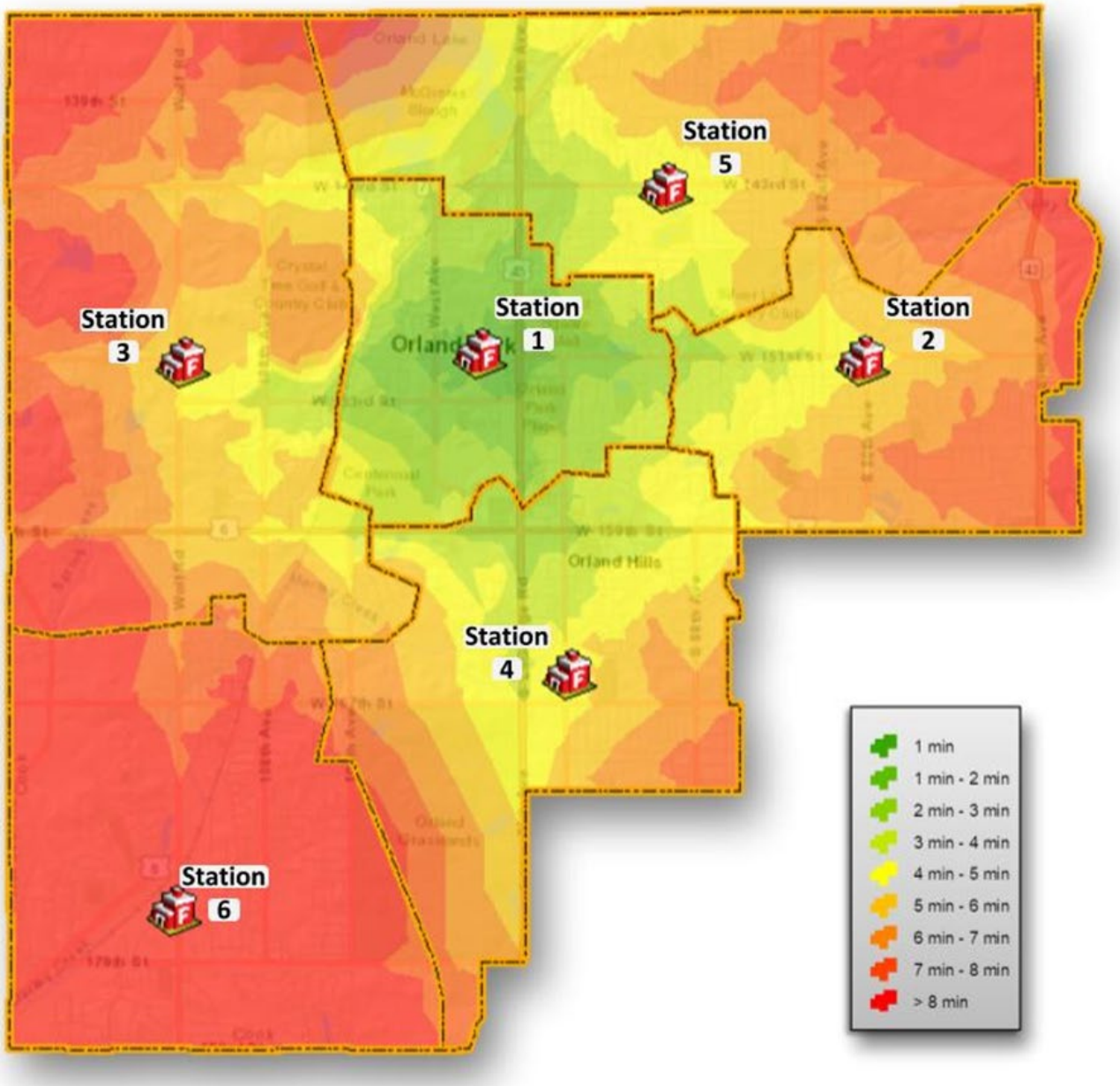


# Station 1 – Still District Coverage



## District Coverage - Station 1

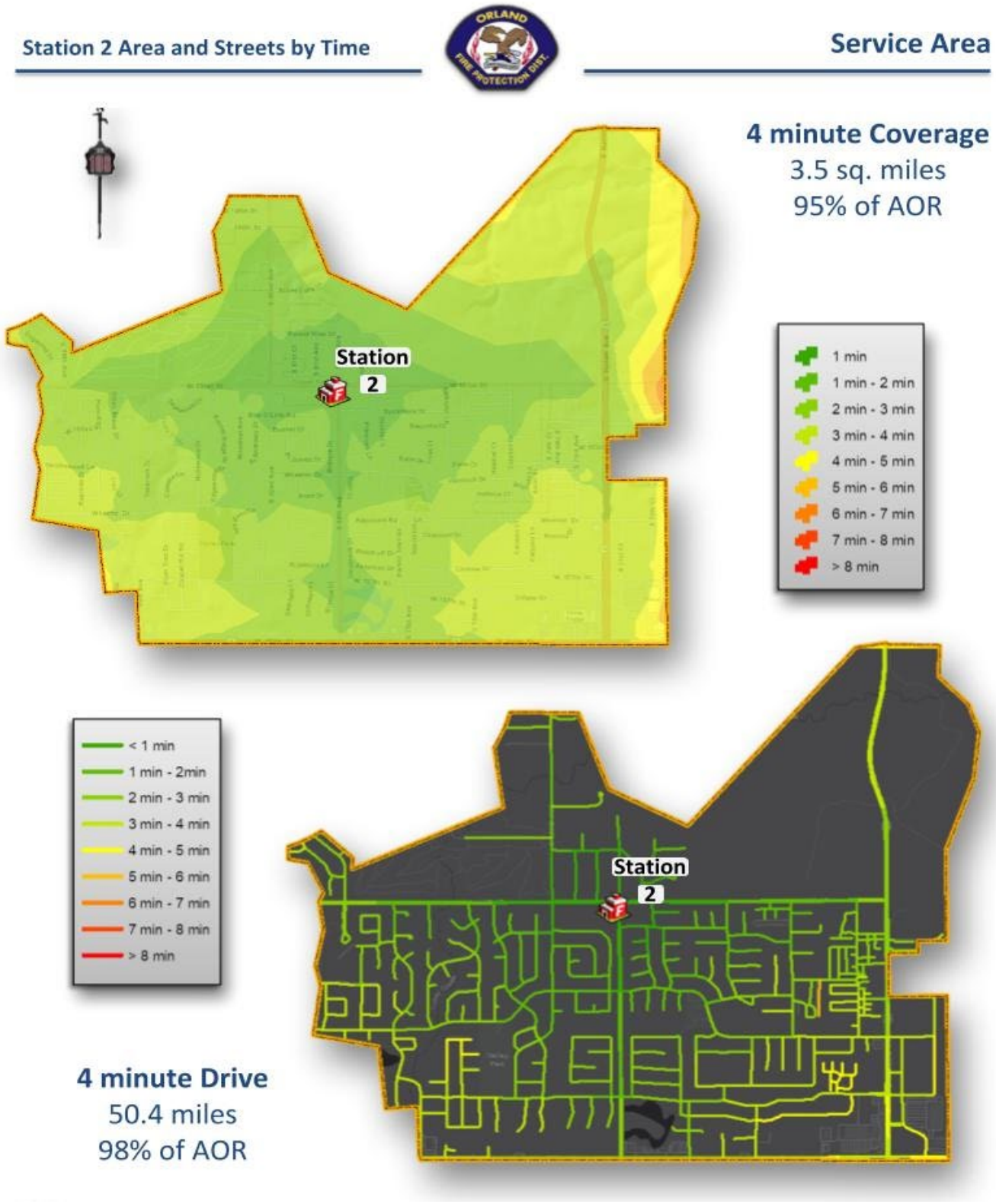
## Service Area




**4 minute Coverage**
5.1 sq. miles
17% of TRA

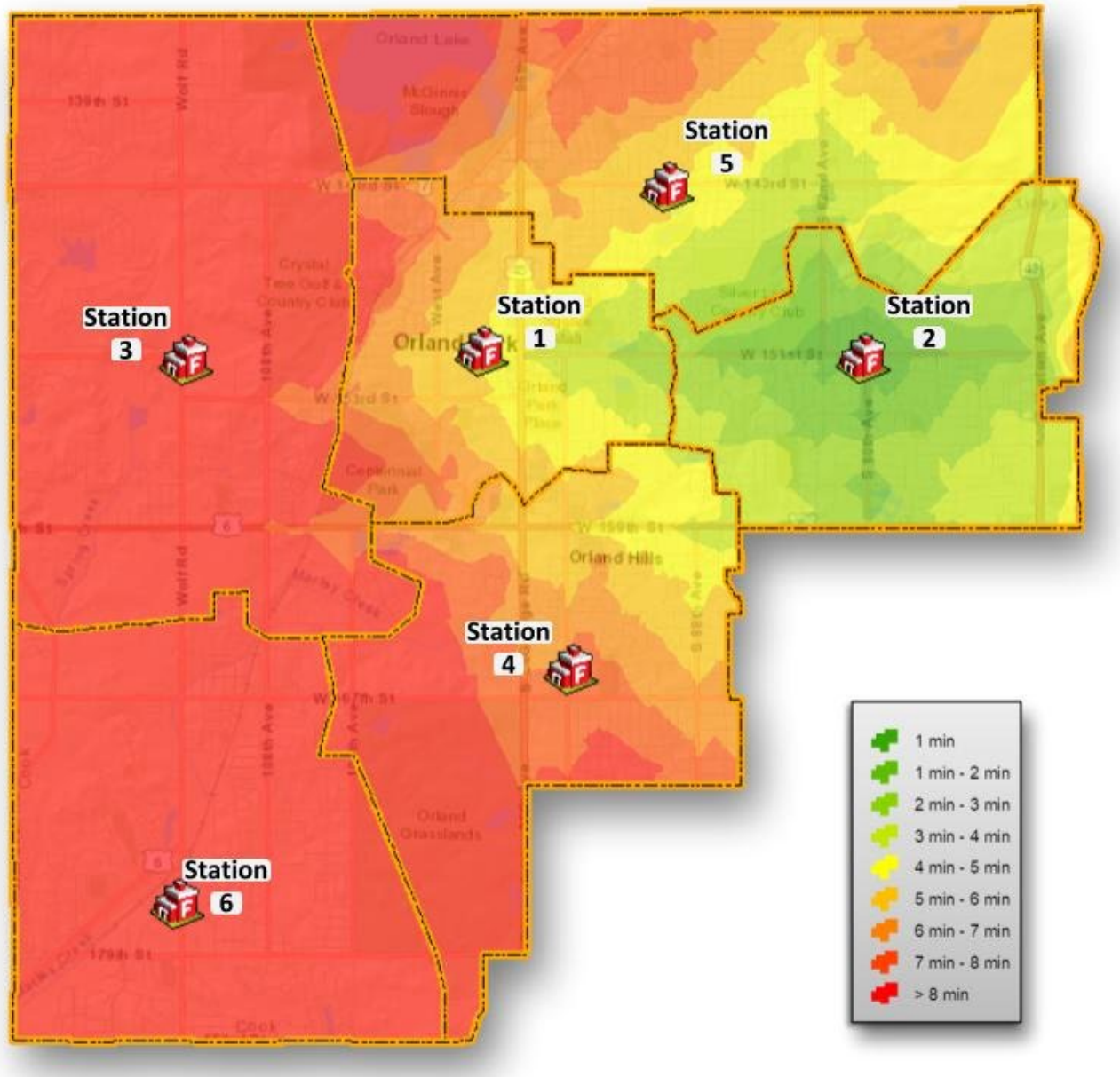
**8 minute Coverage**
21.7 sq. miles
74% of TRA

# Station 2 – Still District Coverage



## District Coverage - Station 2

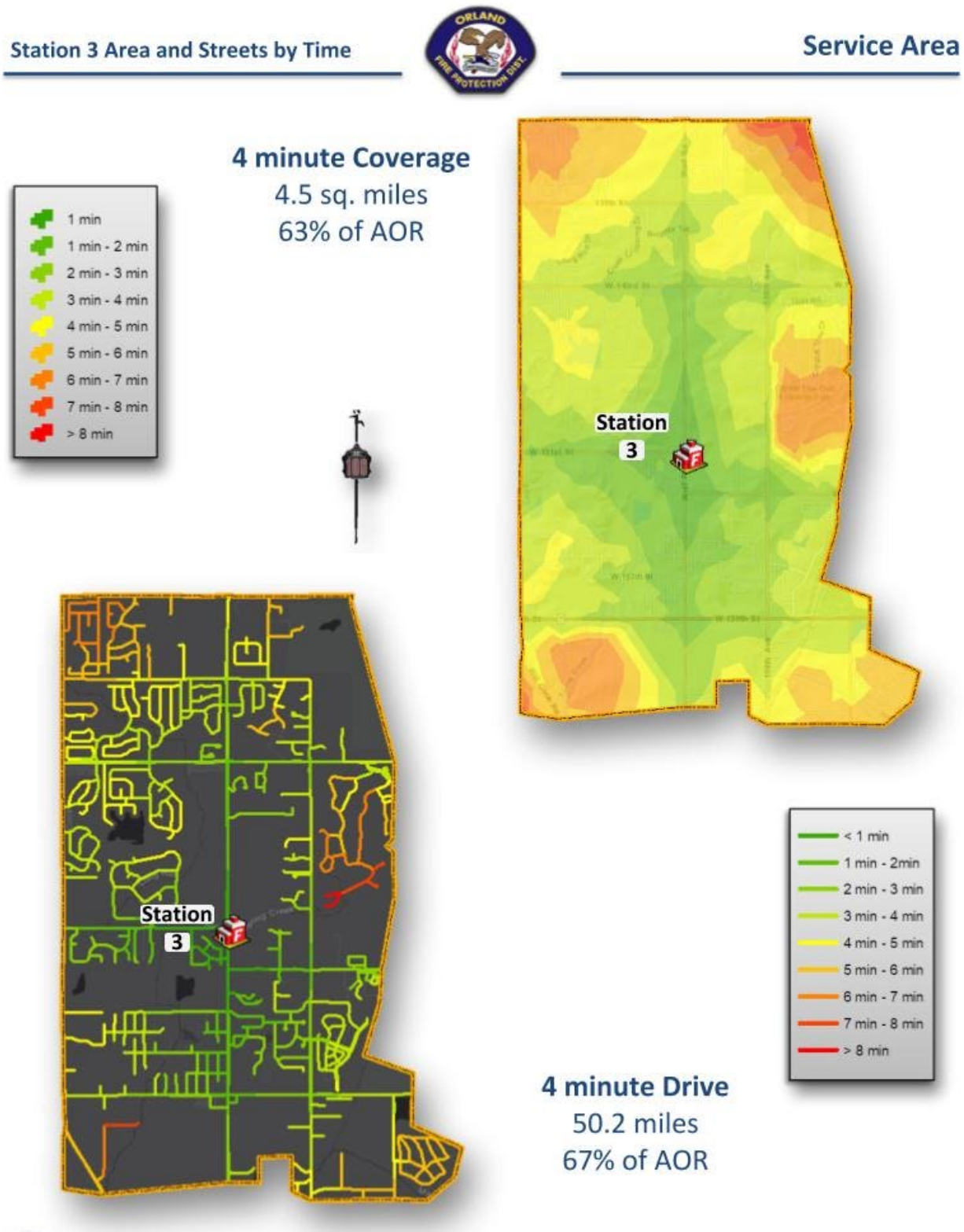
## Service Area




**4 minute Coverage**
5.0 sq. miles
17% of TRA

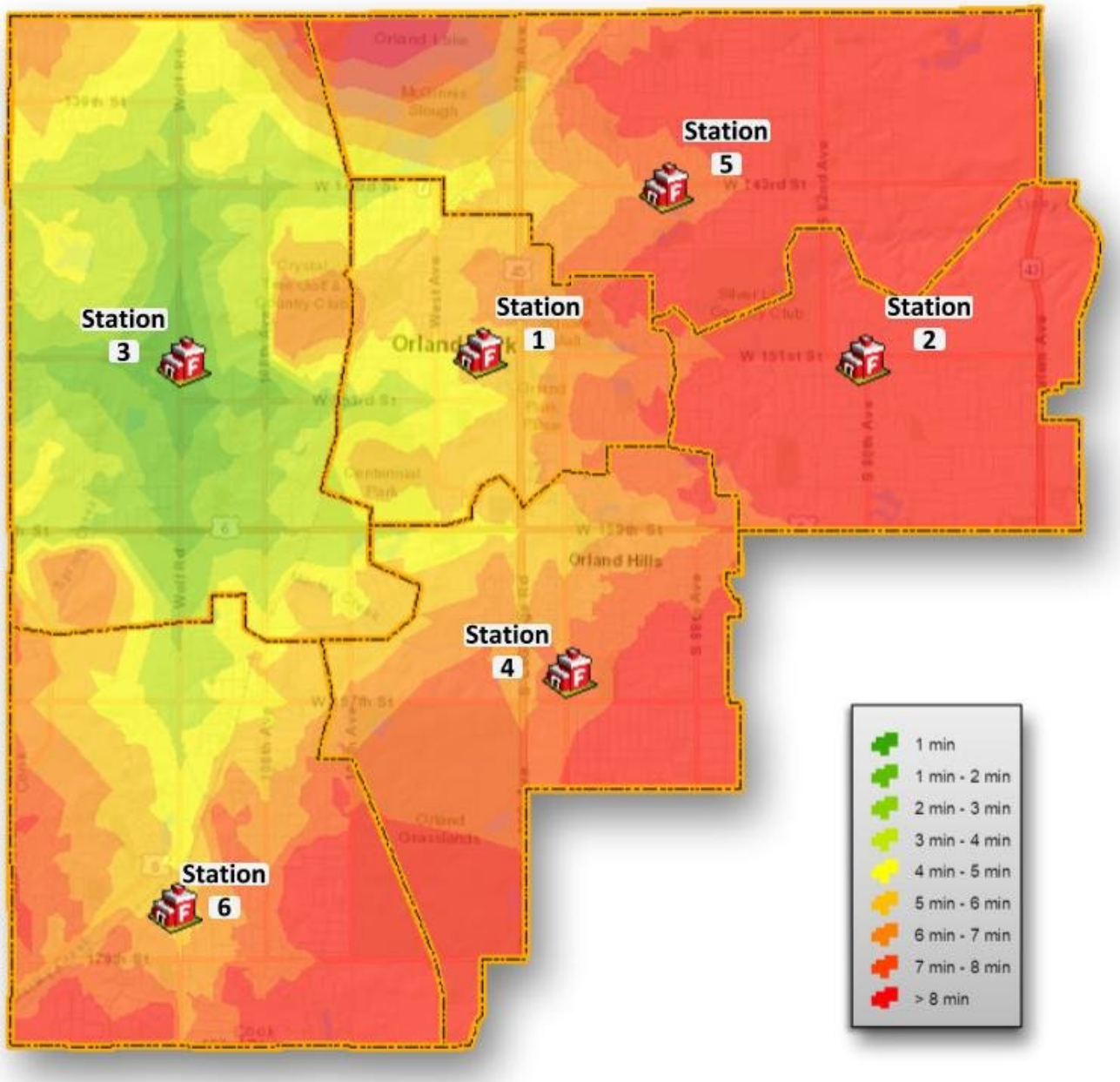
**8 minute Coverage**
14.4 sq. miles
49% of TRA

# Station 3 – Still District Coverage



## District Coverage - Station 3

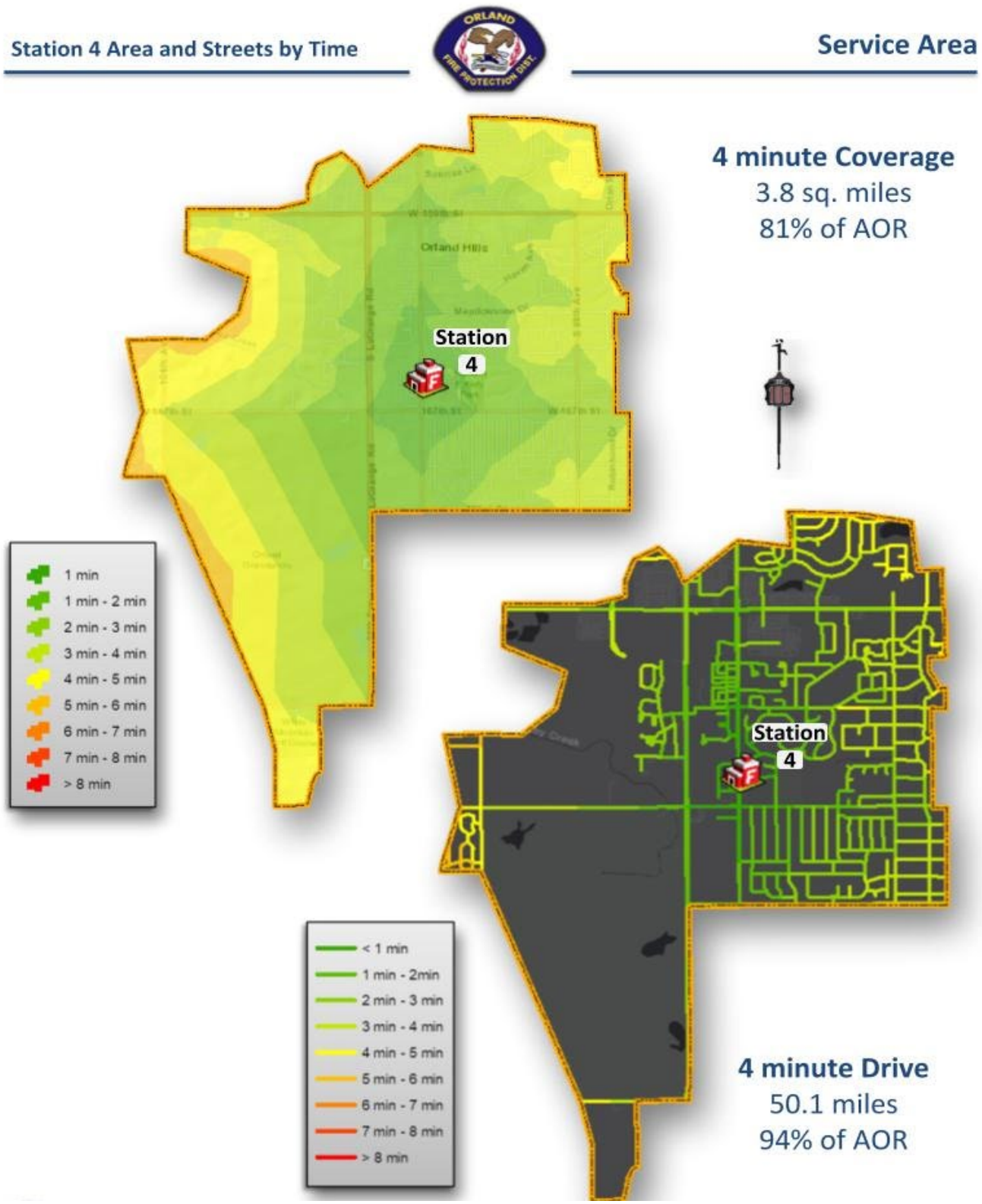
## Service Area




**4 minute Coverage**
5.0 sq. miles
17% of TRA

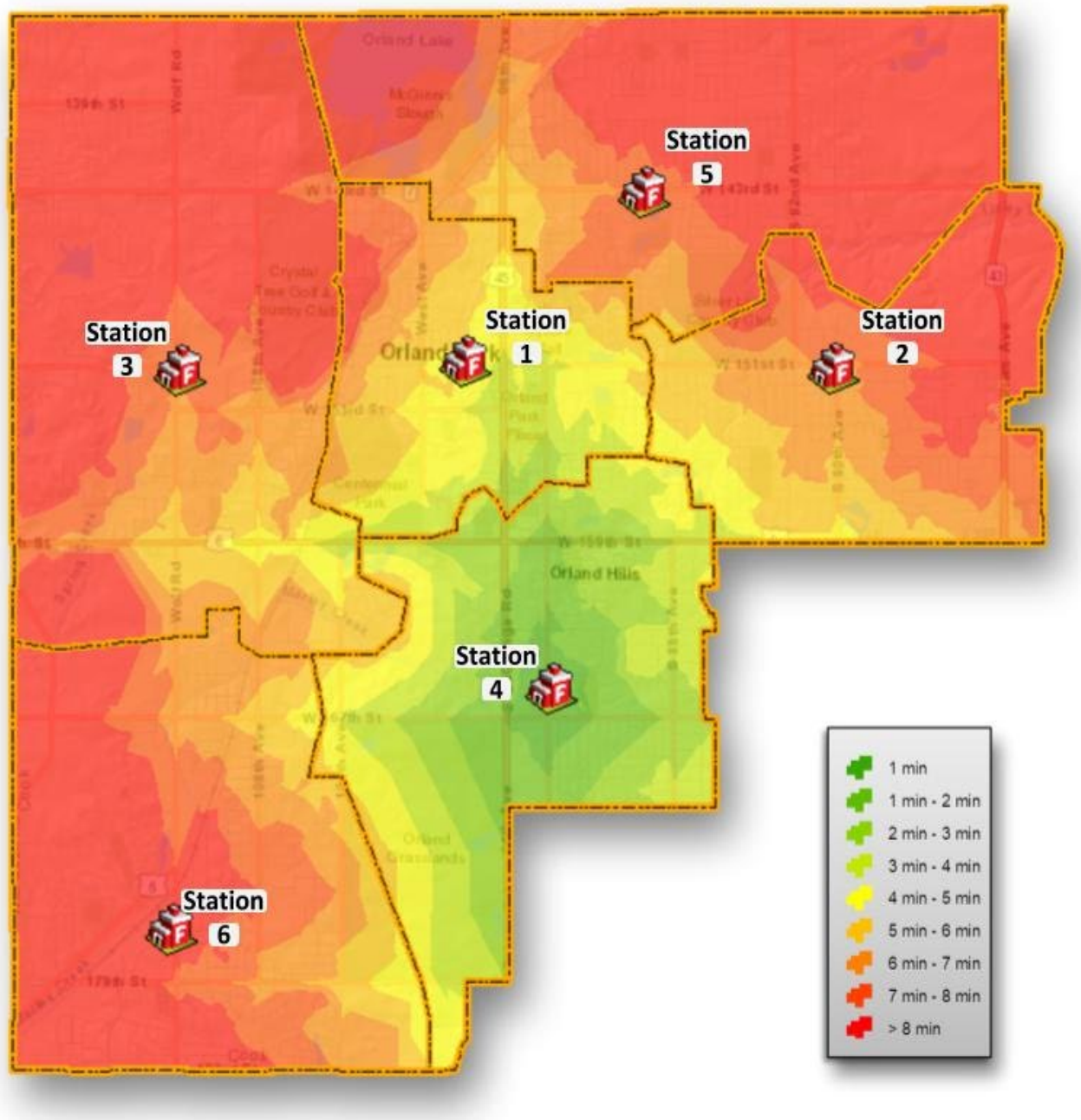
**8 minute Coverage**
19.3 sq. miles
65% of TRA

# Station 4 – Still District Coverage



## District Coverage - Station 4

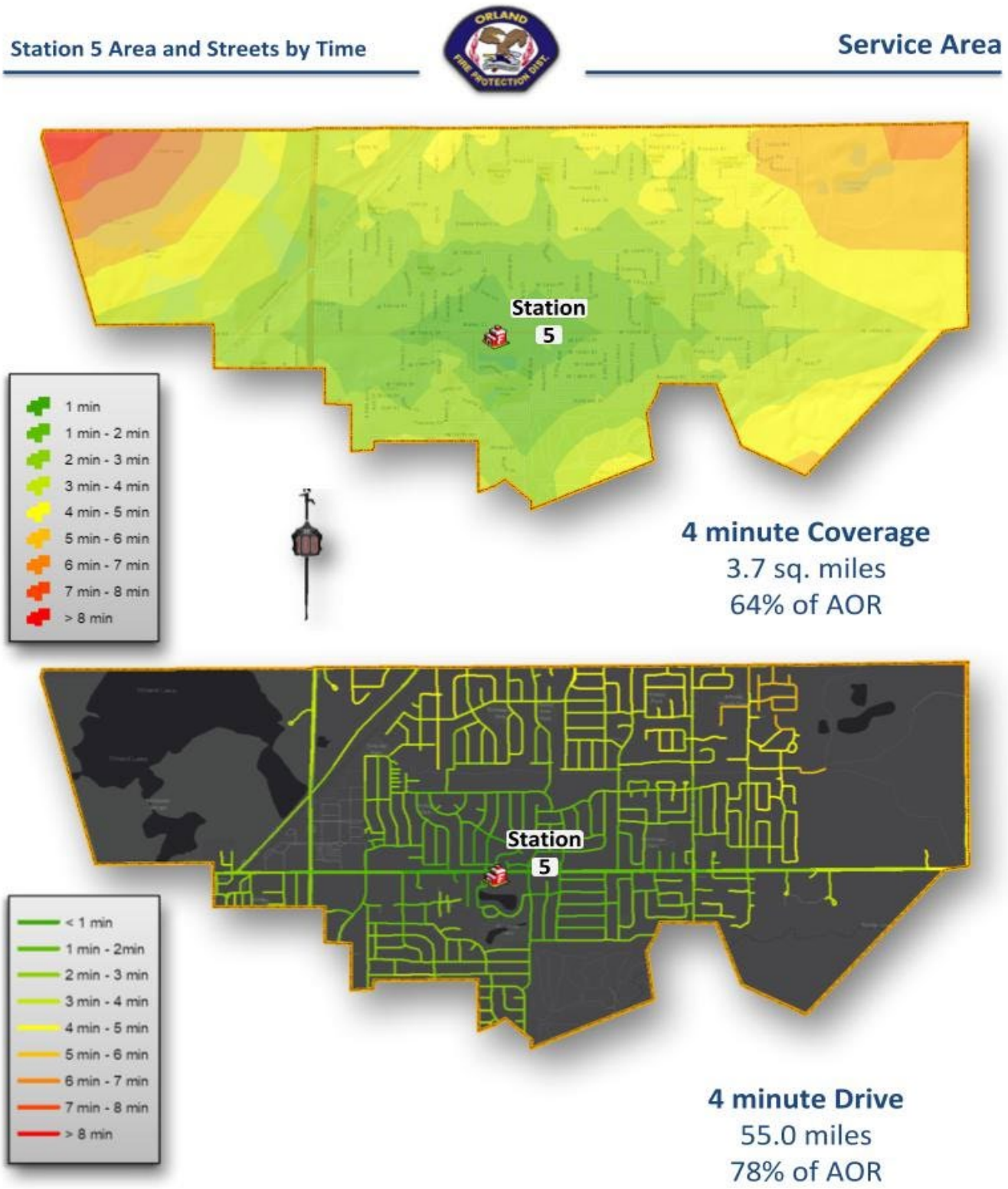
## Service Area




**4 minute Coverage**
4.5 sq. miles
15% of TRA

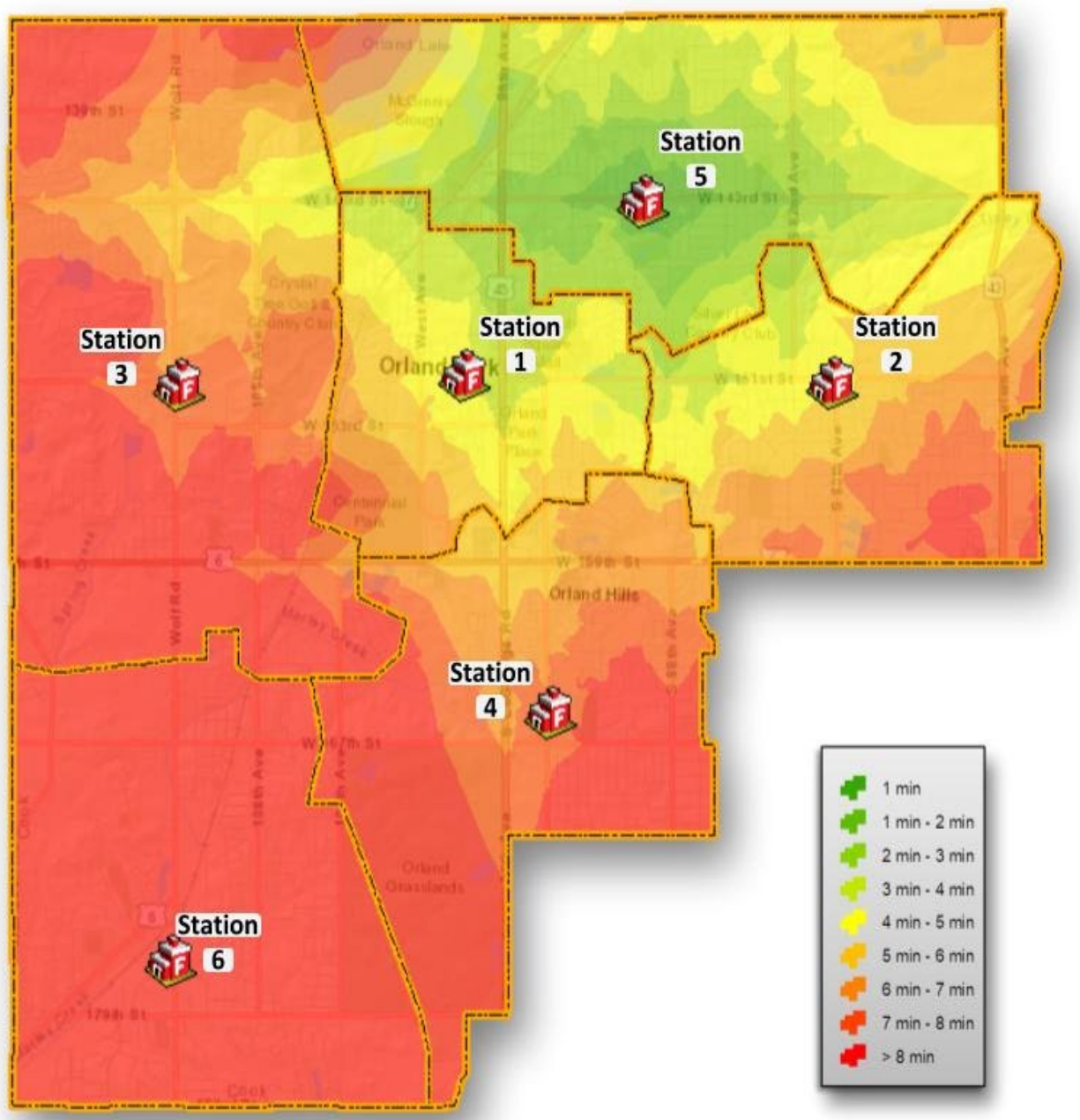
**8 minute Coverage**
17.2 sq. miles
58% of TRA

# Station 5 – Still District Coverage



## District Coverage - Station 5

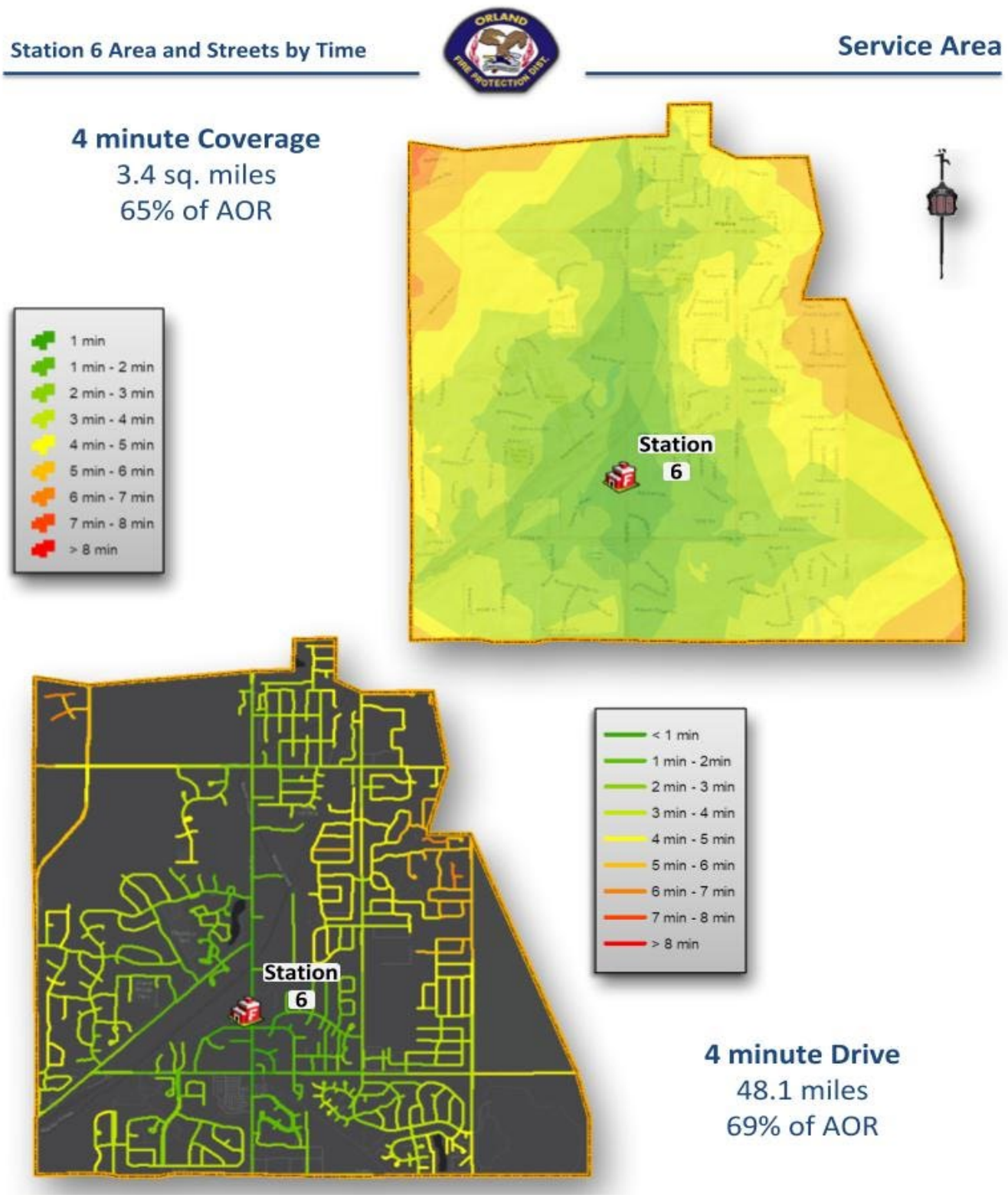
## Service Area




**4 minute Coverage**
4.9 sq. miles
17% of TRA

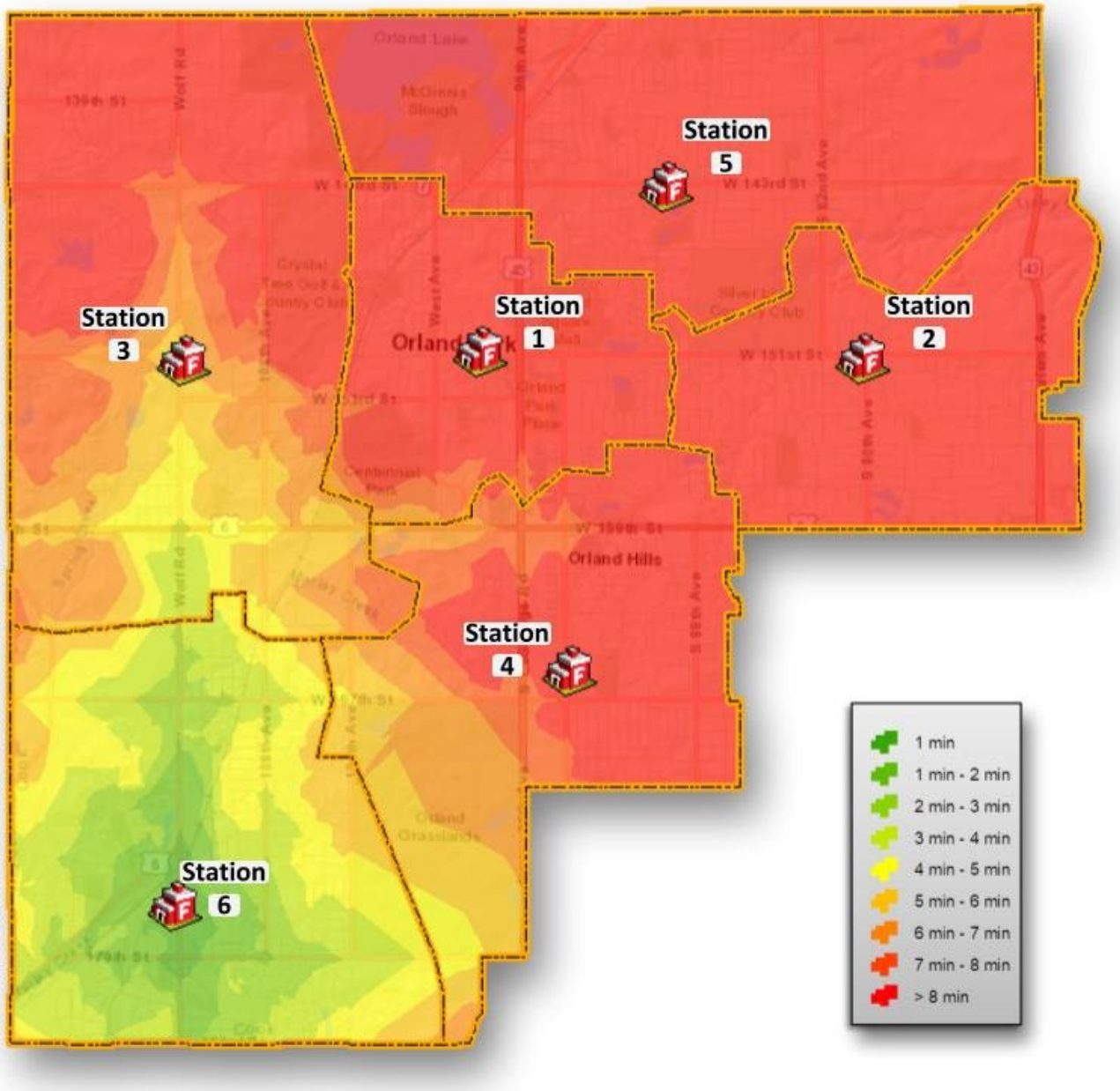
**8 minute Coverage**
17.9 sq. miles
61% of TRA

# Station 6 – Still District Coverage



## District Coverage - Station 6

## Service Area




**4 minute Coverage**
3.6 sq. miles
12% of TRA

**8 minute Coverage**
11.8 sq. miles
40% of TRA

## WHERE – ON THE MAP – THE INCIDENTS

The NFIRS Group Codes below will illustrate the TYPES of the incident and the physical geo-located site in the following maps.

**All Incidents**

NFIRS Group 100 - FIRE
NFIRS Group 200 - OVERHEAT/OVERPRESSURE
NFIRS Group 300 - RESCUE/EMS
NFIRS Group 400 – HAZARDOUS CONDITION
NFIRS Group 500 – SERVICE CALL
NFIRS Group 600 – CANCELED/GOOD INTENT
NFIRS Group 700 – SERVICE CALL
NFIRS Group 800 – SEVERE WEATHER
NFIRS Group 900 – SPECIAL/CITIZEN COMPLAINT

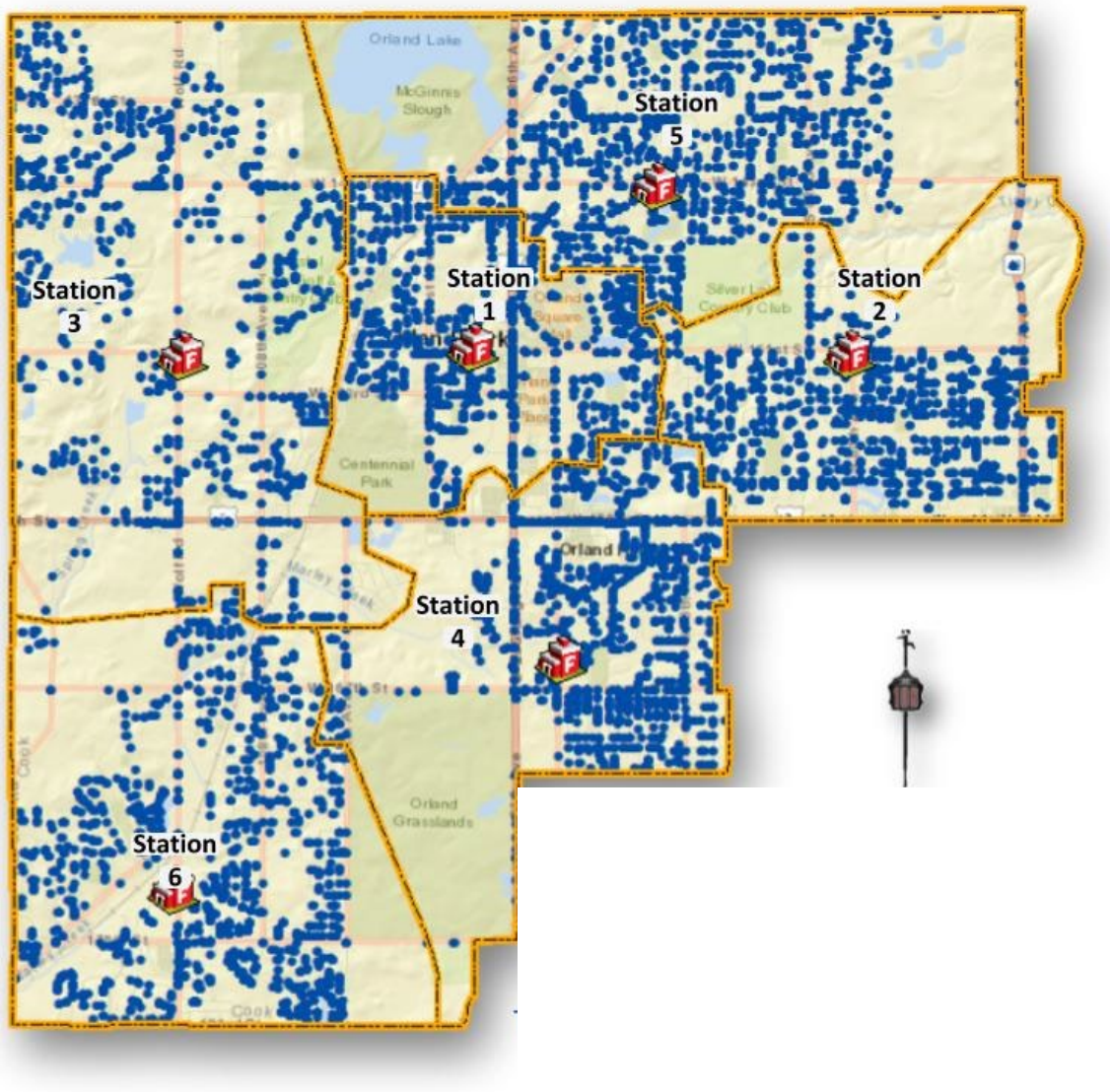
# The next section illustrates INCIDENT location and TYPE as NFIRS GROUP above by District Authority (TRA) and Station Still (AOR)

Draft

TRA = Total Responses Area (Fire District Jurisdiction)
AOR = Area of Responsibility (Station Still District)

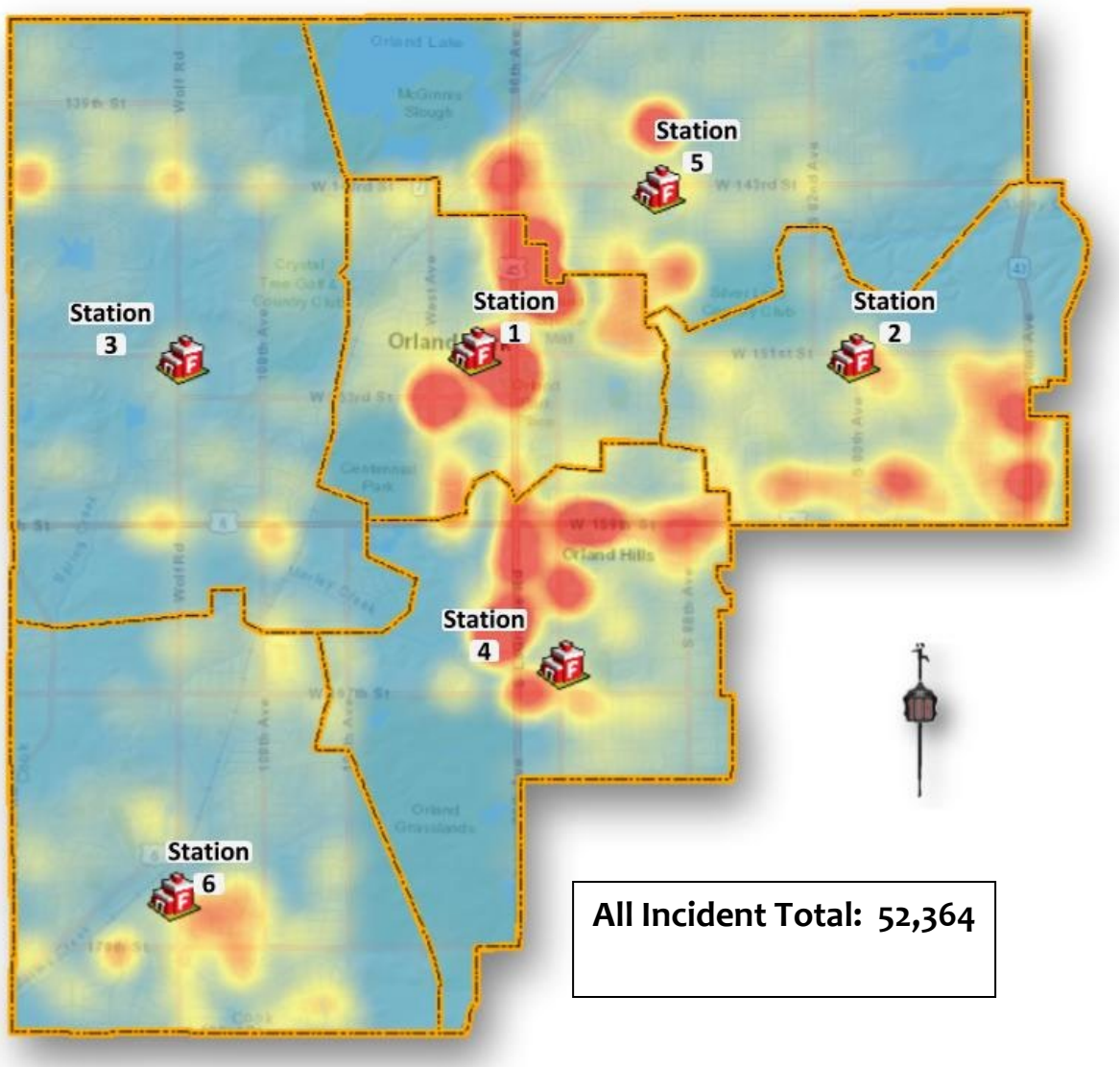
All Incidents

Study Incidents



All Incidents

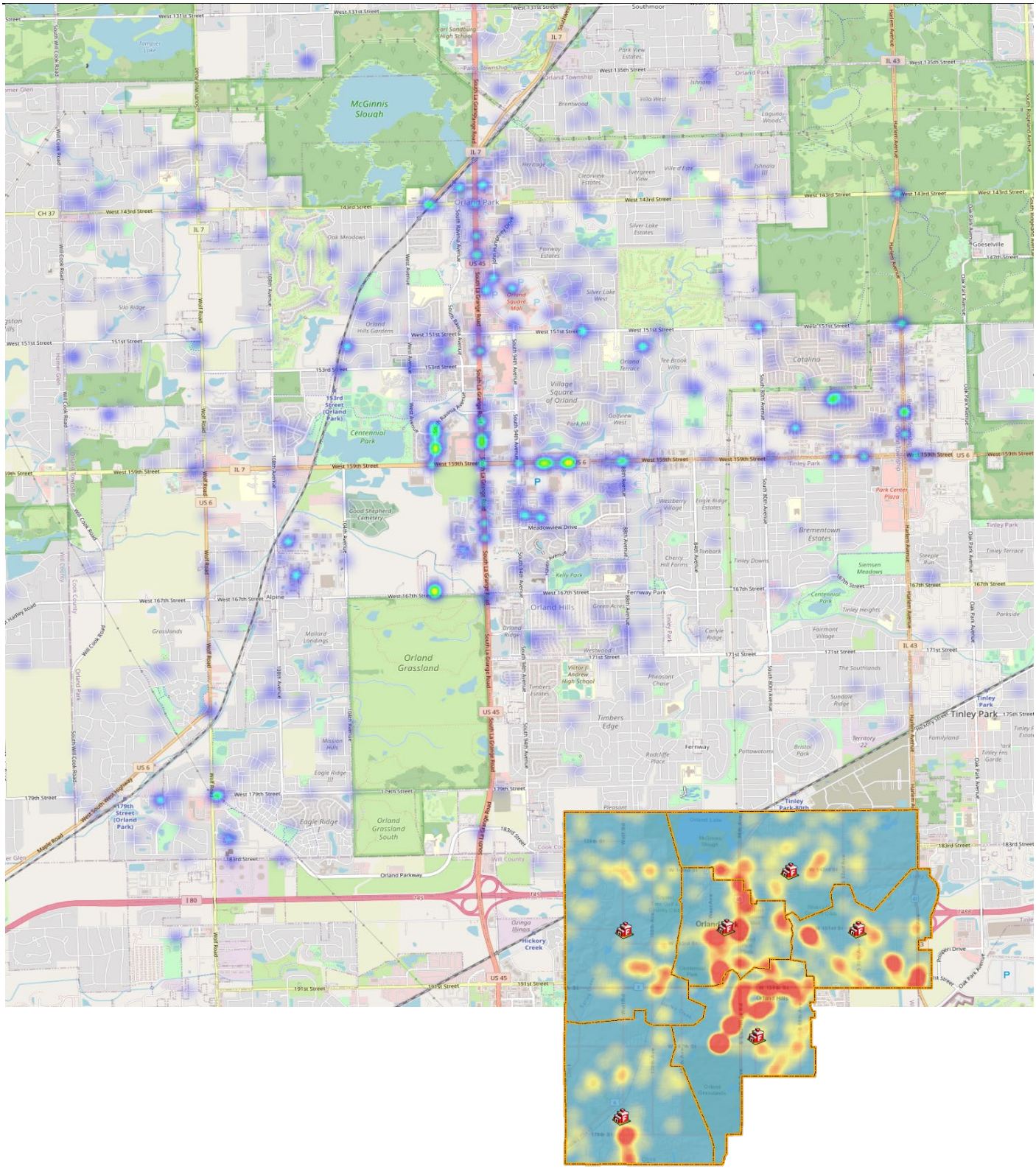
Incident Hotspots




**All Incident Total: 52,364**

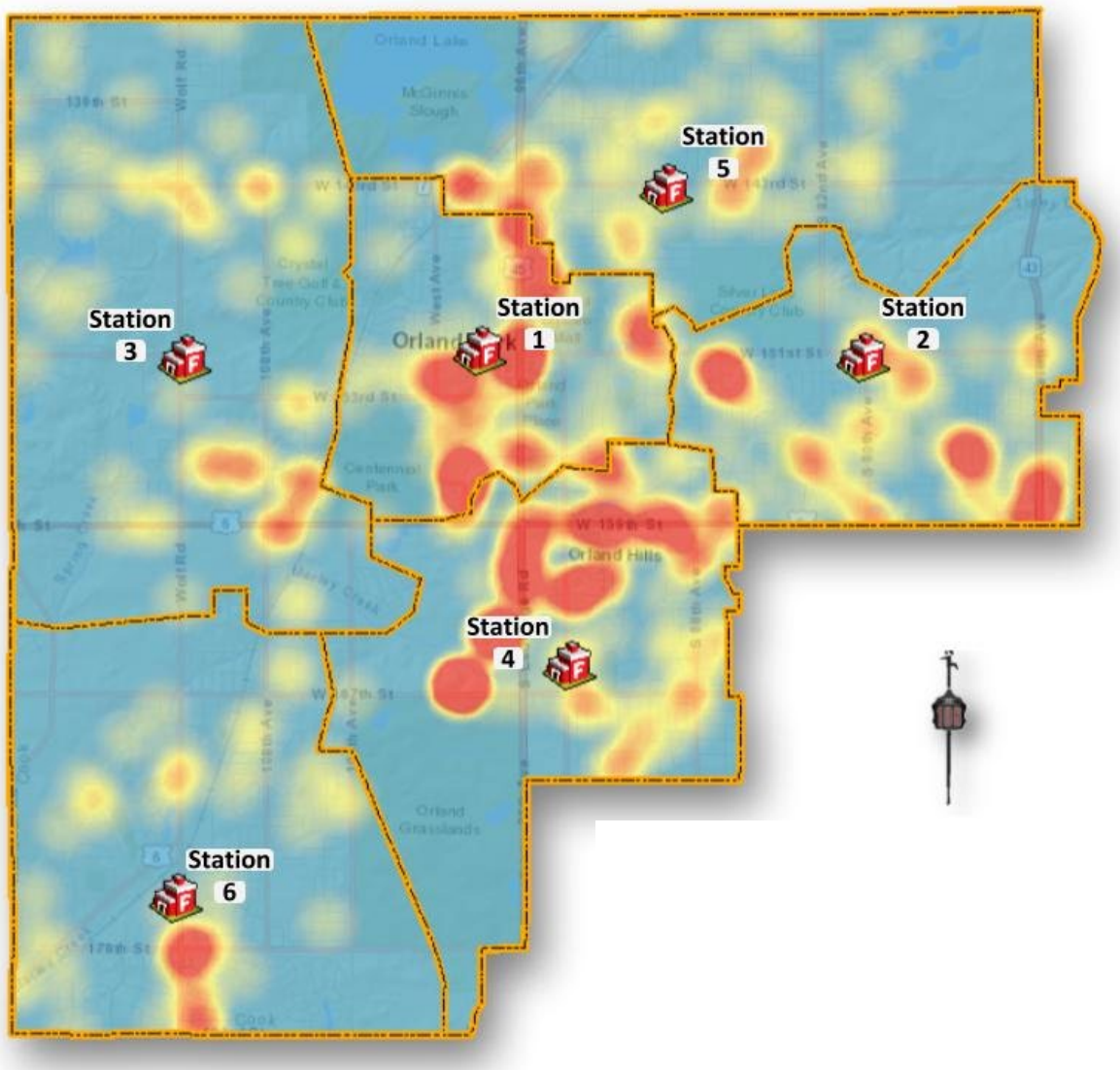
# NFIRS Type Coded [100-900] Incident Frequency (Heat Maps)

## NFIRS 100 – FIRES



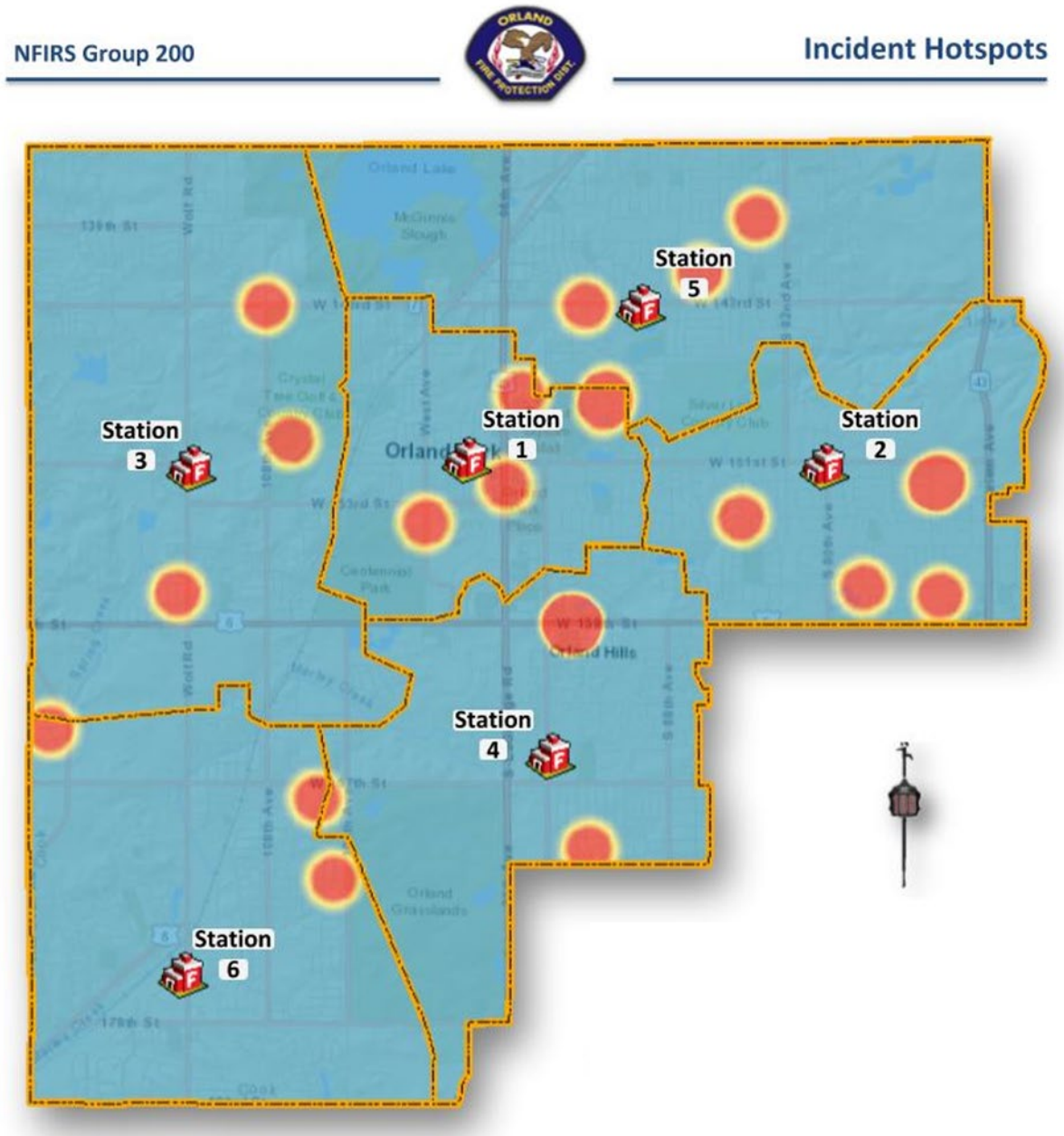
NFIRS Group 100

Incident Hotspots



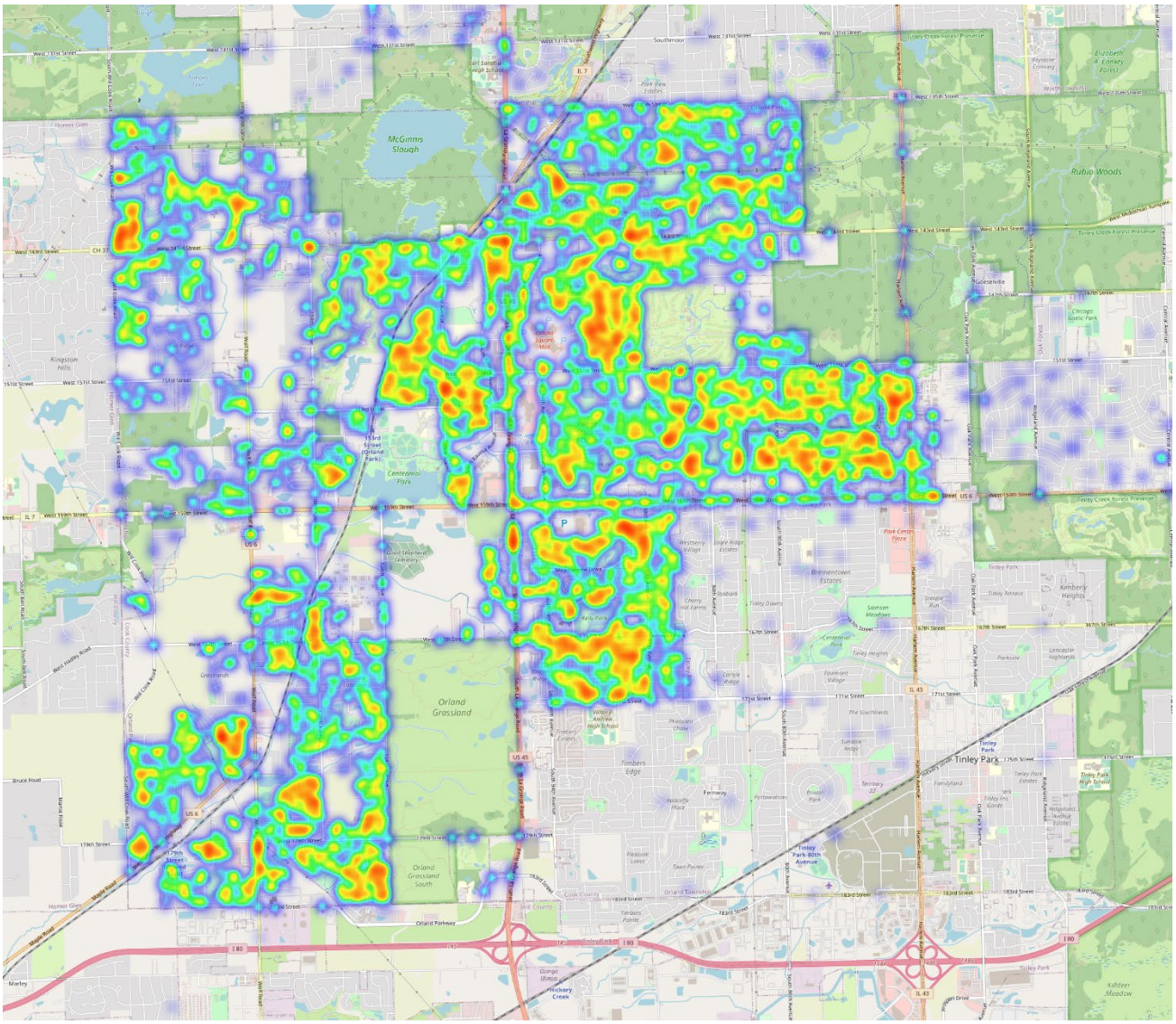

NFIRS 100: Fire

# NFIRS 200 – OVERHEAT/OVERPRESSURE



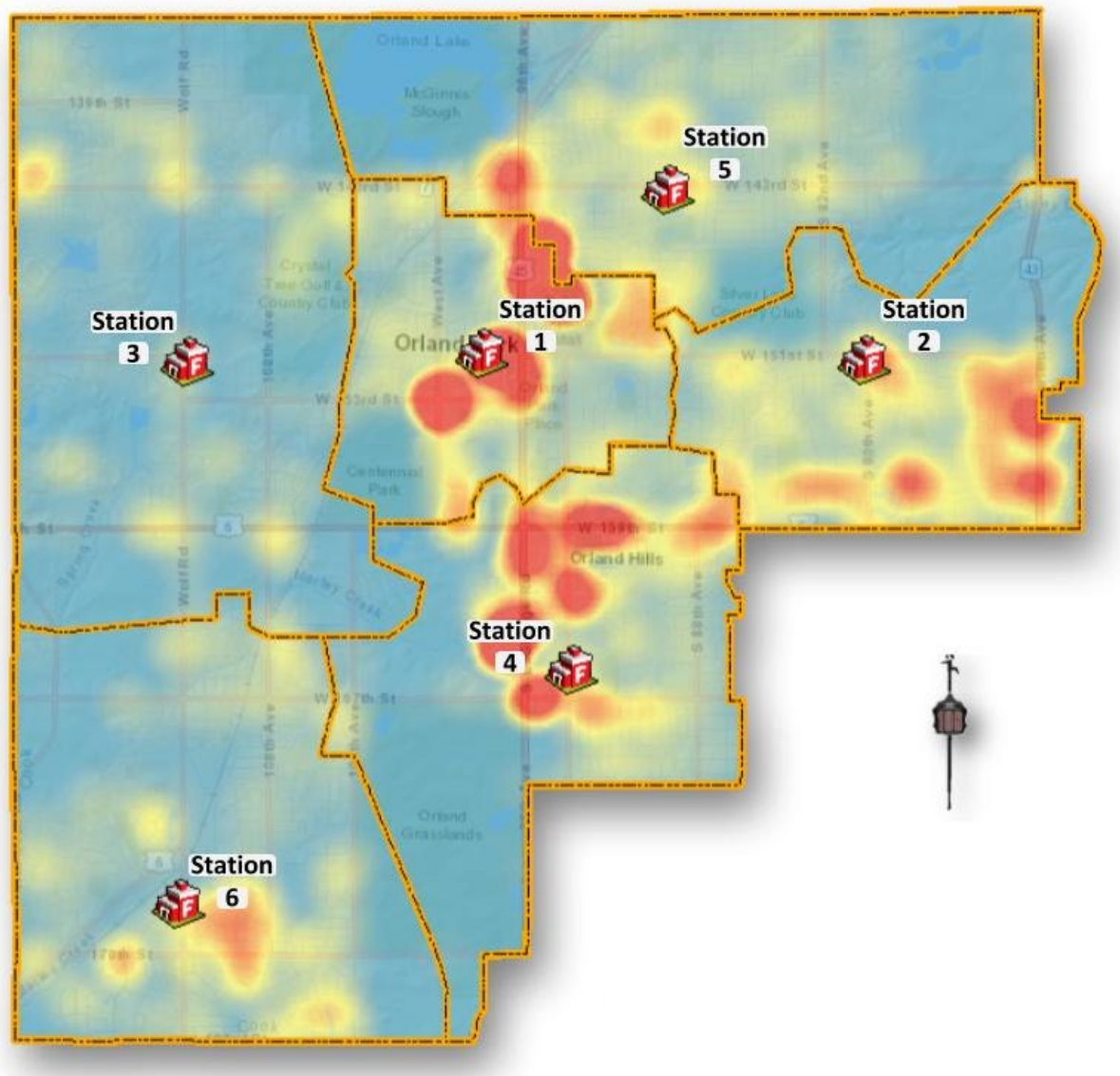

NFIRS 200: Overpressure Rupture Explosion
Overheat No Fire

# NFIRS 300 – EMS/RESCUE



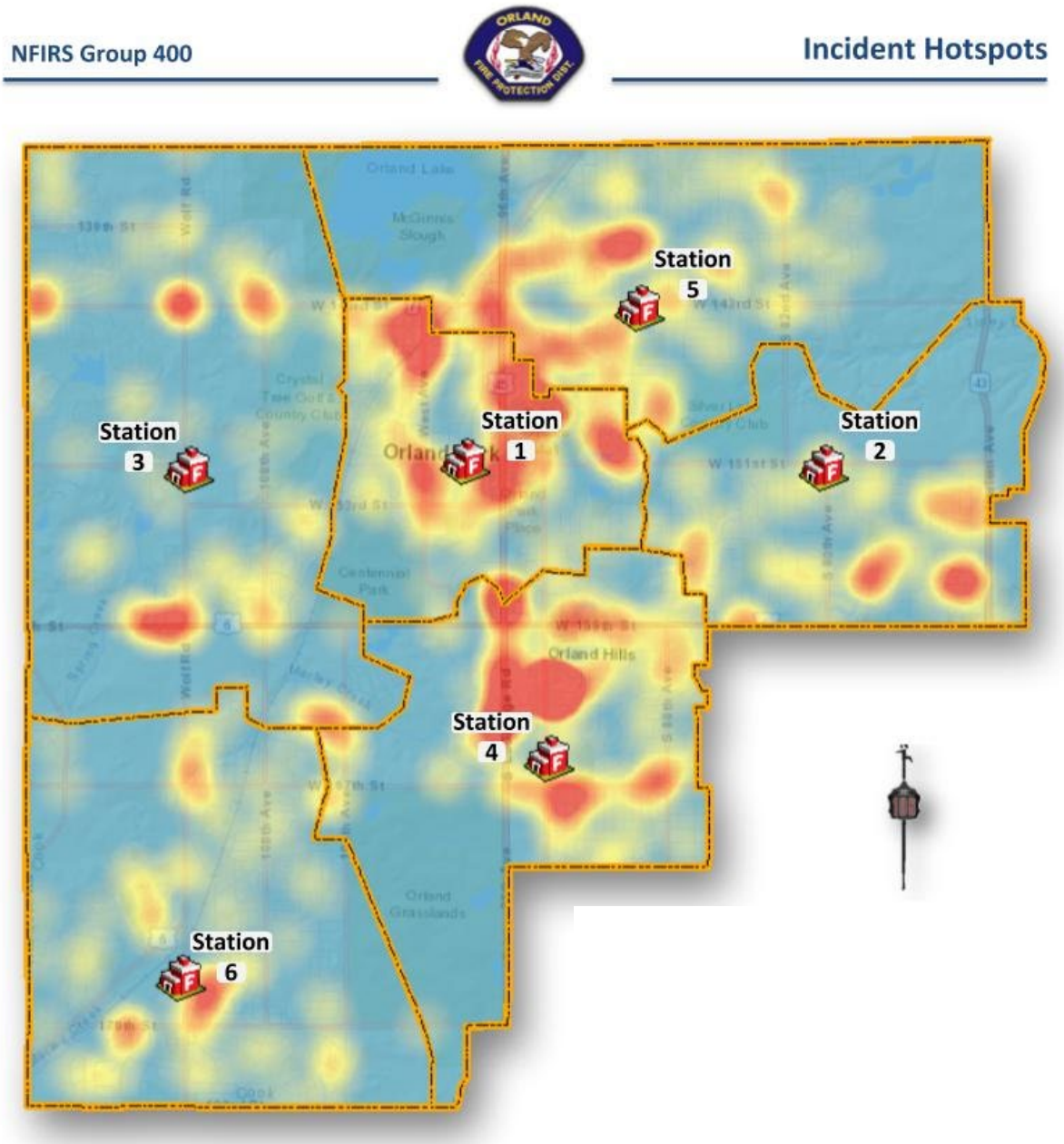
NFIRS Group 300

## Incident Hotspots



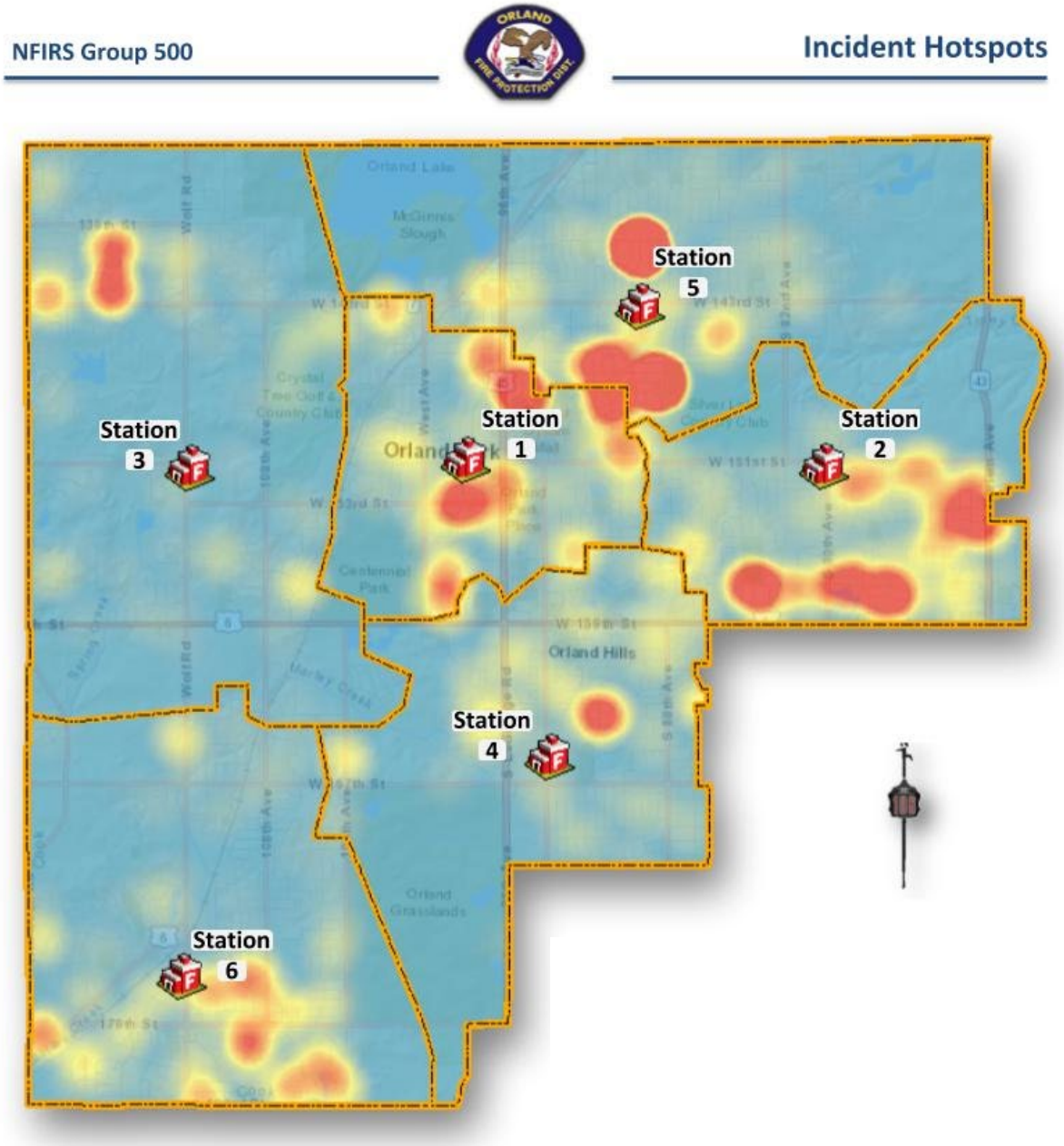

NFIRS 300: Rescue EMS

# NFIRS 400 – HAZARDOUS CONDITION



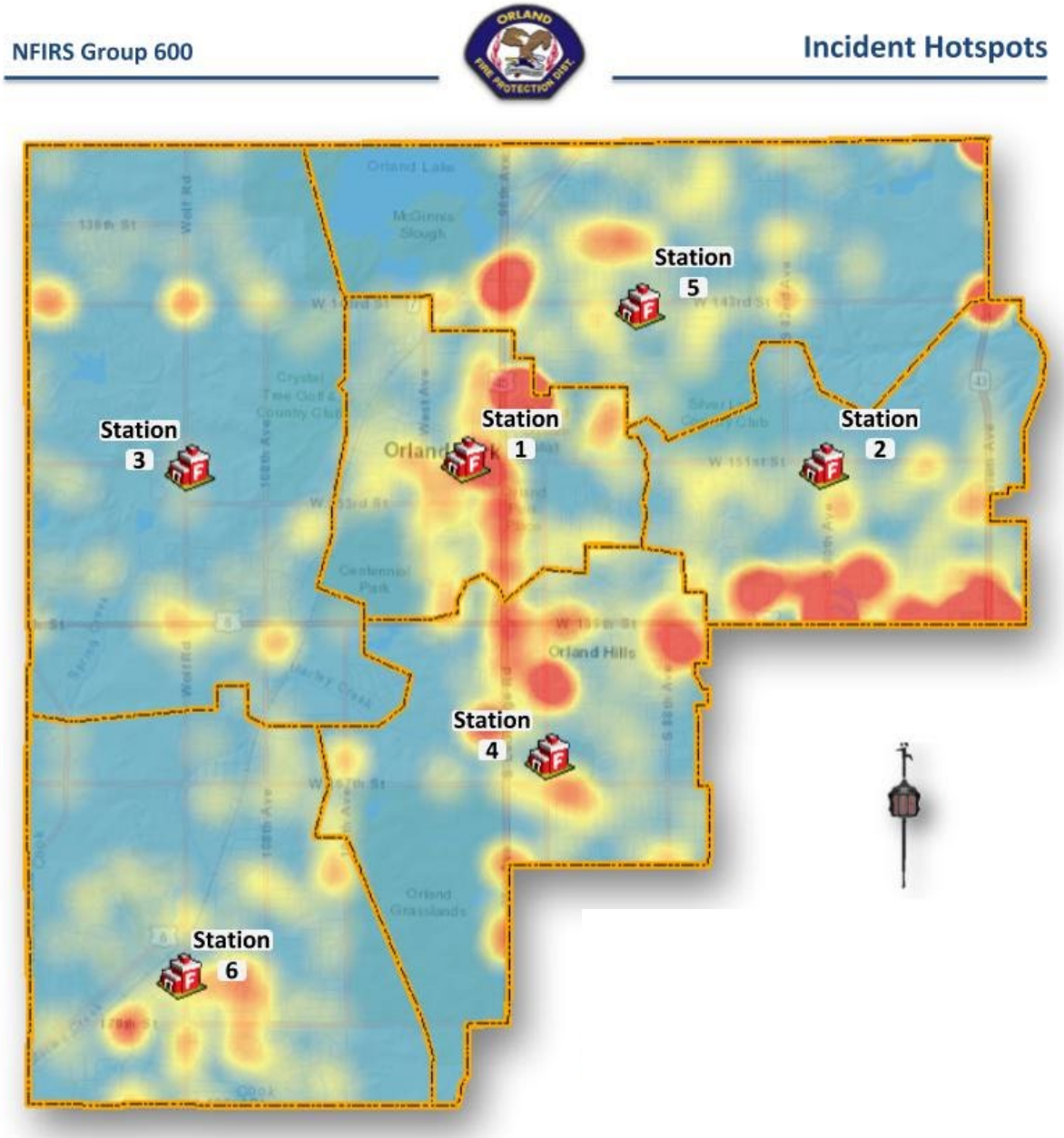

NFIRS 400: Hazardous Condition No Fire

# NFIRS 500 – SERVICE CALLS



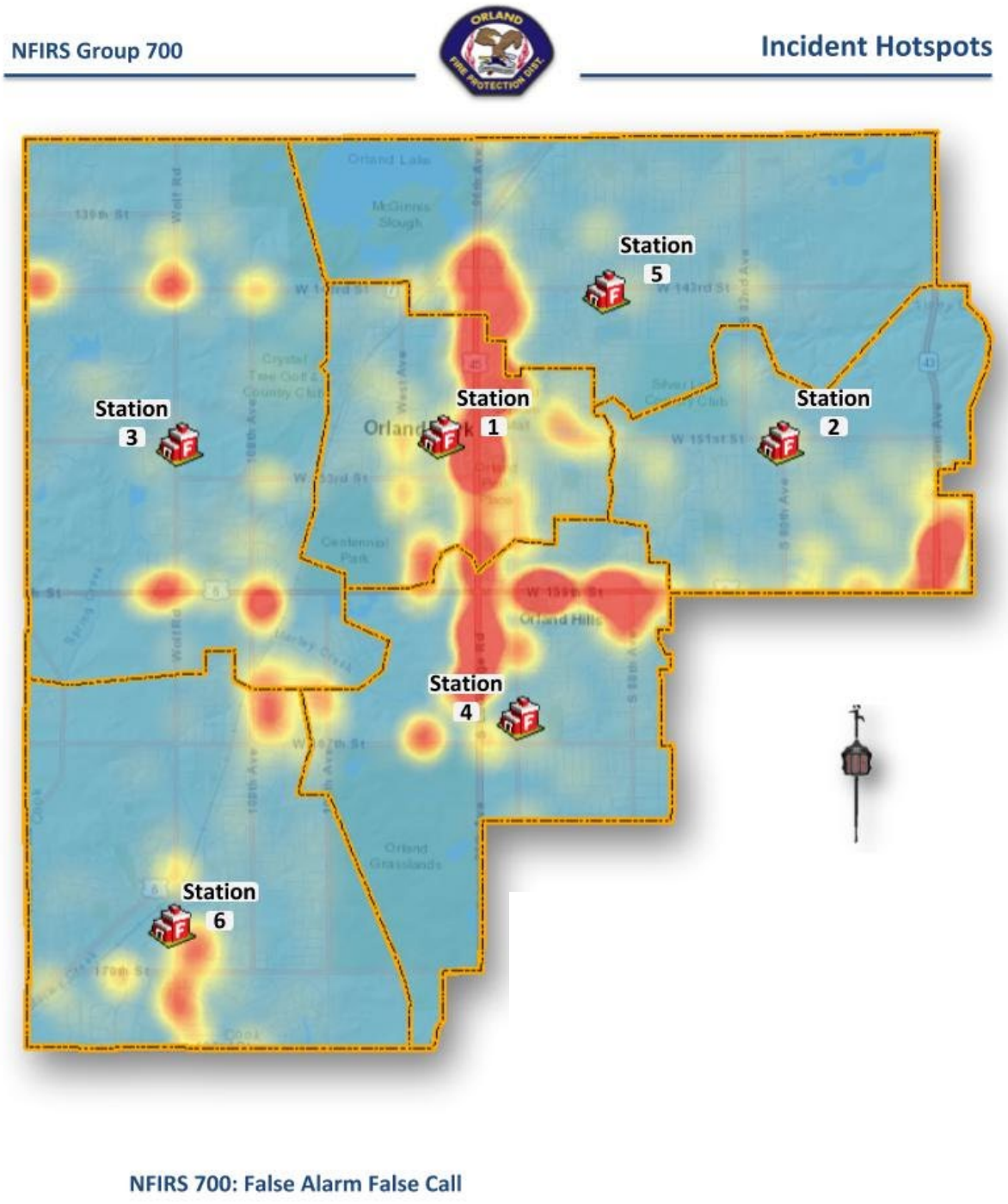

NFIRS 500: Service Call

# NFIRS 600 – CANCELED/GOOD INTENT



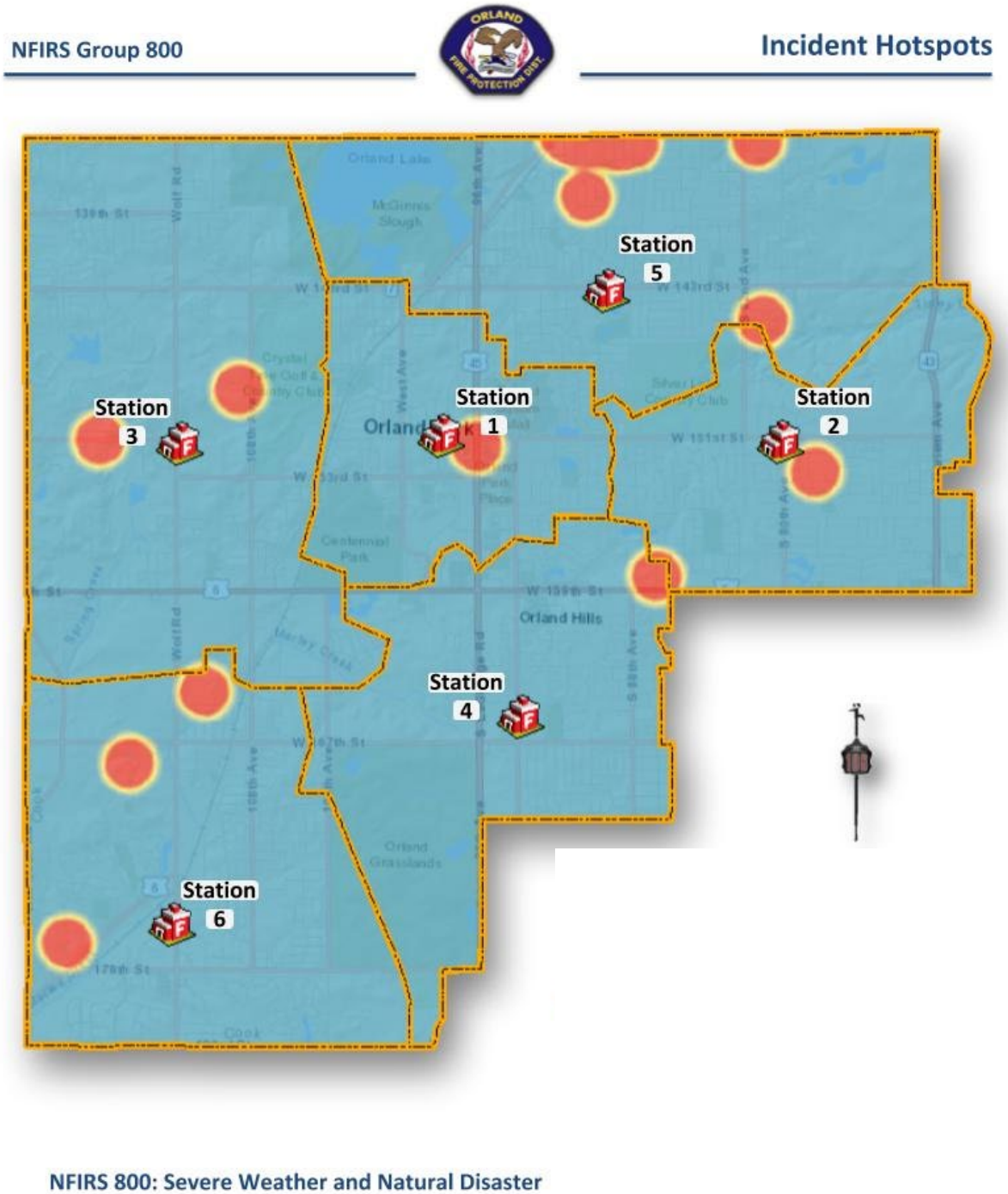

NFIRS 600: Canceled Good Intent

# NFIRS 700 – FALSE ALARM



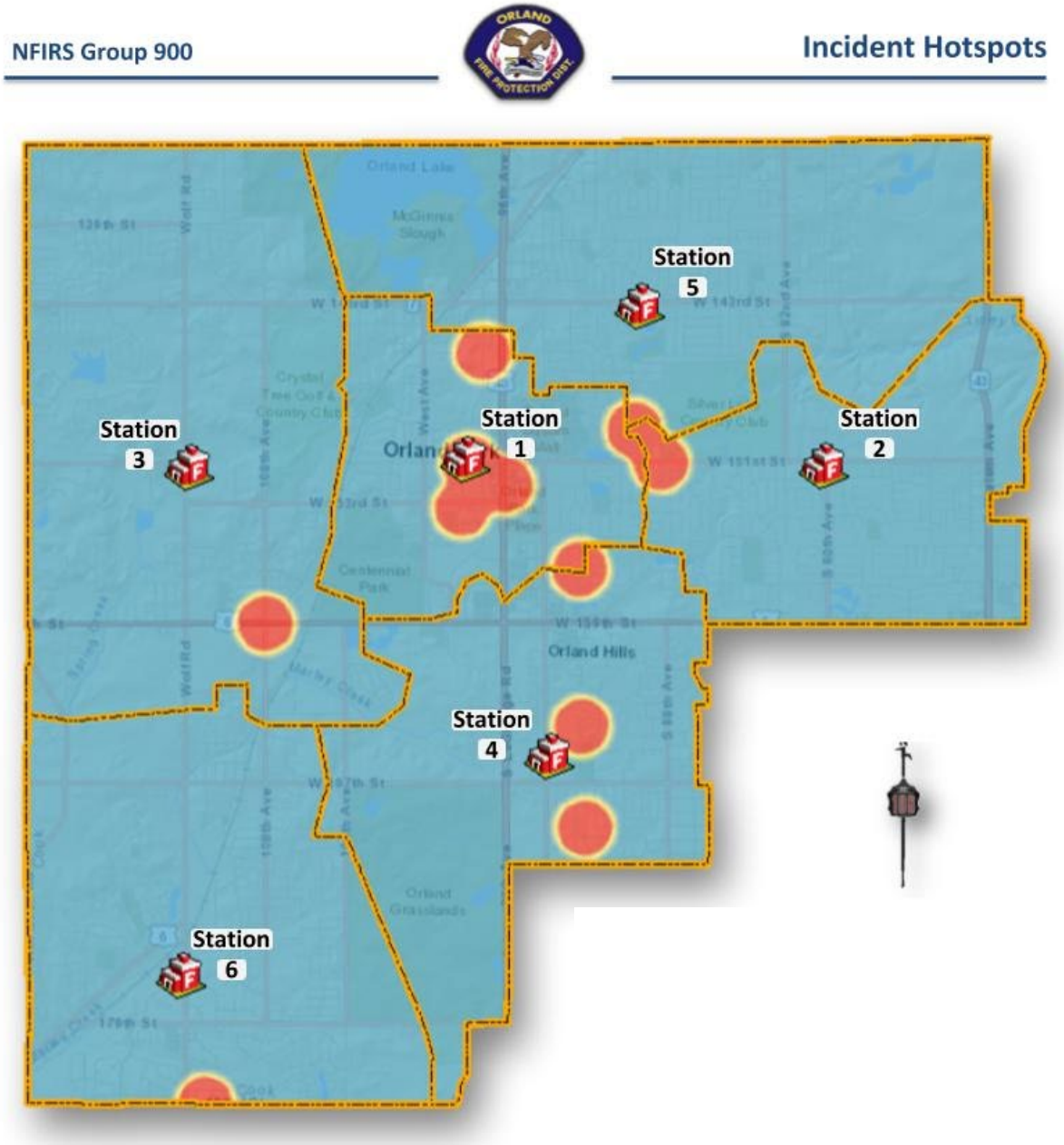

NFIRS 700: False Alarm False Call

# NFIRS 800 – SEVERE WEATHER AND NATURAL DISASTER




NFIRS 800: Severe Weather and Natural Disaster

# NFIRS 900 – SPECIAL INCIDENT TYPE



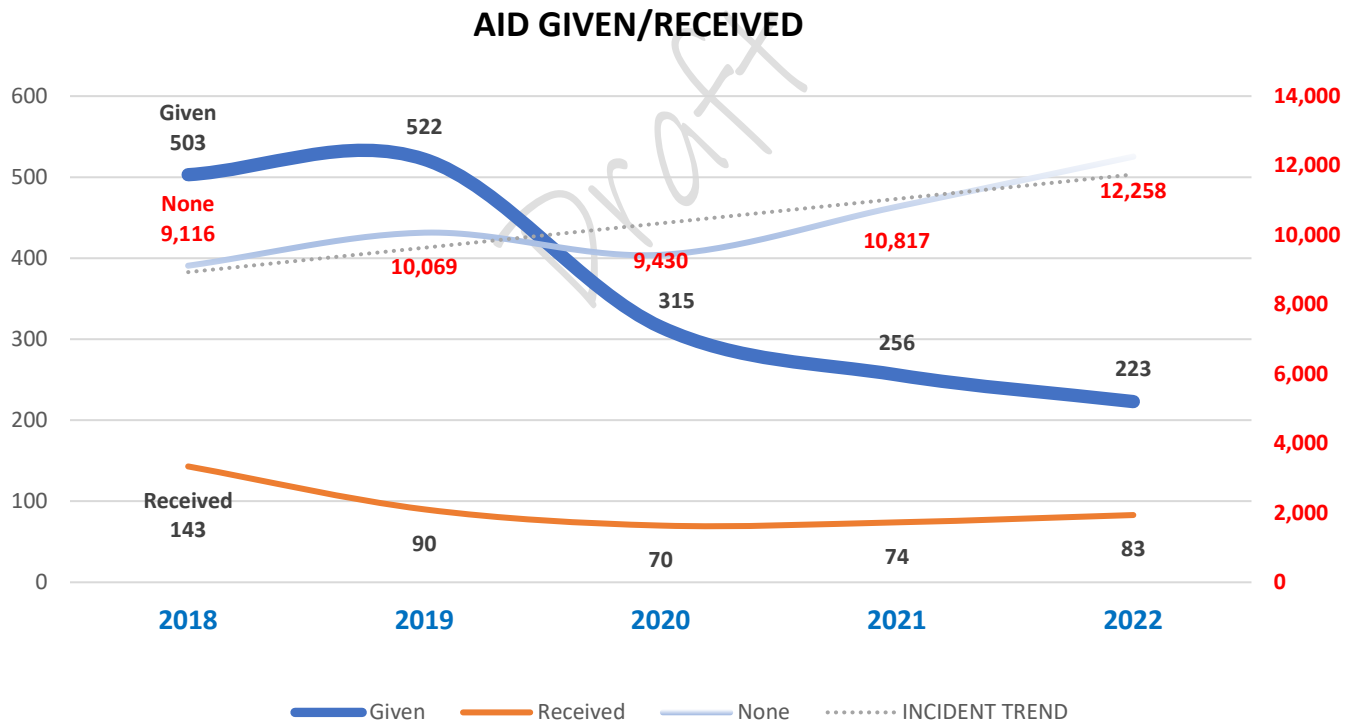

NFIRS 900: Special Incident Type

# WHERE -JURISDICTIONS

## Mutual & Automatic Aid

Incidents: Count - Year by Aid Type

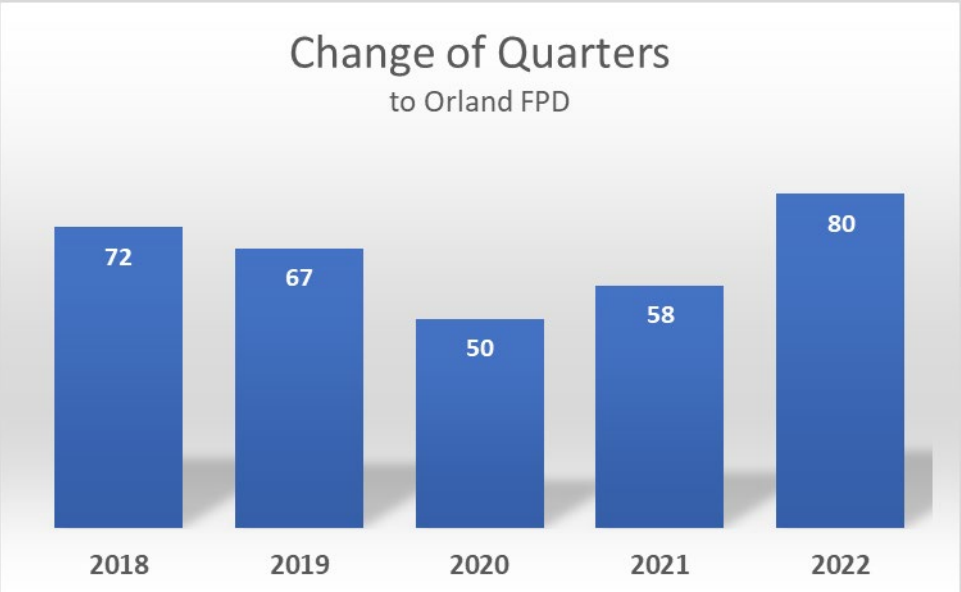
| Year | 2018 | 2019 | 2020 | 2021 | 2022 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|
| RECEIVED | 143 | 90 | 70 | 74 | 83 | 460 | 92 | *0.9%* |
| *Change over previous* | | -37.1% | -22.2% | 5.7% | 12.2% | | | |
| GIVEN | 503 | 522 | 315 | 256 | 223 | 1819 | 364 | *3.4%* |
| *Change over previous* | | 3.8% | -39.7% | -18.7% | -12.9% | | | |
| NONE | 9,116 | 10,069 | 9,430 | 10,817 | 12,258 | 51,690 | 10,338 | *95.8%* |
| Totals | 9,762 | 10,681 | 9,815 | 11,147 | 12,564 | 53,969 | 10,794 | |
| *Change over previous* | | 9.4% | -8.1% | 13.6% | 12.7% | | | |



Incidents: Count - Year by City

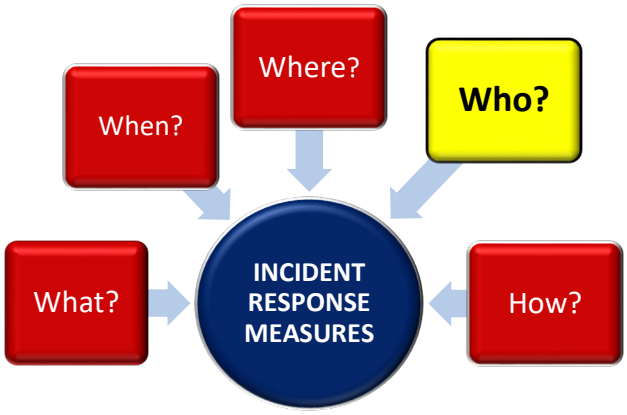
**There are 5,781 Incident records being analyzed.**

| Year | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | Totals | Average | % of Inc |
|---|---|---|---|---|---|---|---|---|---|
| **BEECHER** | **594** | **682** | **814** | **830** | **718** | **952** | **4,590** | **765** | *79.4%* |
| PEOTONE | 65 | 72 | 72 | 74 | 56 | 68 | **407** | 68 | *7.0%* |
| CRETE | 29 | 32 | 44 | 39 | 24 | 35 | **203** | 34 | *3.5%* |
| GRANT PARK | 29 | 18 | 29 | 15 | 25 | 18 | **134** | 22 | *2.3%* |
| CEDAR LAKE | 3 | 15 | 19 | 20 | 11 | 12 | **80** | 13 | *1.4%* |
| MONEE | 8 | 12 | 10 | 11 | 4 | 10 | **55** | 9 | *1.0%* |
| PARK FOREST | 5 | 10 | 12 | 6 | 2 | 3 | **38** | 6 | *0.7%* |
| SAUK VILLAGE | 3 | 2 | 4 | 6 | 9 | 9 | **33** | 6 | *0.6%* |
| UNIVERSITY PARK | 8 | 6 | 3 | 4 | 2 | 5 | **28** | 5 | *0.5%* |
| MANTENO | 3 | 1 | 4 | 3 | 5 | 5 | **21** | 4 | *0.4%* |
| MOMENCE | | 2 | 4 | 9 | 3 | 3 | **21** | 4 | *0.4%* |
| SOUTH CHICAGO HEIGHT | 2 | 3 | 4 | 4 | | 4 | **17** | 3 | *0.3%* |
| BOURBONNAIS | 1 | 2 | 1 | 2 | 5 | 1 | **12** | 2 | *0.2%* |
| MATTESON | | 2 | 2 | 3 | 4 | 1 | **12** | 2 | *0.2%* |
| RICHTON PARK | 4 | 3 | 1 | | 3 | 1 | **12** | 2 | *0.2%* |
| FORD HEIGHTS | 2 | | 1 | 4 | | 4 | **11** | 3 | *0.2%* |
| KANKAKEE | 3 | 3 | 2 | 1 | 1 | 1 | **11** | 2 | *0.2%* |
| LOWELL | 1 | 2 | 2 | 1 | 1 | 4 | **11** | 2 | *0.2%* |
| FRANKFORT | 2 | 3 | 1 | 2 | | 2 | **10** | 2 | *0.2%* |
| STEGER | 2 | 1 | 2 | 1 | 2 | 2 | **10** | 2 | *0.2%* |
| CHICAGO HEIGHTS | 1 | 4 | 1 | 3 | | | **9** | 2 | *0.2%* |
| BRADLEY | 2 | 1 | 3 | | 1 | 1 | **8** | 2 | *0.1%* |
| DYER | | 2 | | 2 | | 2 | **6** | 2 | *0.1%* |
| PEMBROKE | 2 | | 1 | 2 | | | **5** | 2 | *0.1%* |
| PEMBROKE TOWNSHIP | | | | 2 | | 2 | **4** | 2 | *0.1%* |
| HOPKINS PARK | 1 | 1 | 1 | | | | **3** | 1 | *0.1%* |
| LYNWOOD | 1 | | | | 2 | | **3** | 2 | *0.1%* |
| OLYMPIA FIELDS | 1 | | | 2 | | | **3** | 2 | *0.1%* |
| ST. ANNE | | 2 | 1 | | | | **3** | 2 | *0.1%* |
| MANHATTAN | | | | | | 2 | **2** | 2 | *0.0%* |
| AURORA | | | 1 | | | | **1** | 1 | *0.0%* |
| BURNHAM | 1 | | | | | | **1** | 1 | *0.0%* |
| CALUMET PARK | | 1 | | | | | **1** | 1 | *0.0%* |
| CRETE TOWNSHIP | | | | | 1 | | **1** | 1 | *0.0%* |
| DOLTON | | | | | 1 | | **1** | 1 | *0.0%* |
| ELWOOD | | 1 | | | | | **1** | 1 | *0.0%* |
| FLOSSMOOR | | | 1 | | | | **1** | 1 | *0.0%* |
| HARVEY | | | 1 | | | | **1** | 1 | *0.0%* |
| HOMEWOOD | | 1 | | | | | **1** | 1 | *0.0%* |
| JOLIET | | | | 1 | | | **1** | 1 | *0.0%* |
| LAKE HILLS | 1 | | | | | | **1** | 1 | *0.0%* |
| MOKENA | 1 | | | | | | **1** | 1 | *0.0%* |
| MORRIS | | | | | | 1 | **1** | 1 | *0.0%* |
| NEW LENOX | | | | 1 | | | **1** | 1 | *0.0%* |
| PALOS PARK | | 1 | | | | | **1** | 1 | *0.0%* |
| ST. JOHN | | | | | | 1 | **1** | 1 | *0.0%* |
| SCHNEIDER | | 1 | | | | | **1** | 1 | *0.0%* |
| SOUTH HOLLAND | | | | | 1 | | **1** | 1 | *0.0%* |
| WILMINGTON | | 1 | | | | | **1** | 1 | *0.0%* |
| Totals | **775** | **887** | **1,041** | **1,048** | **881** | **1,149** | **5,781** | 964 | |




| CHANGE OF QUARTERS to Orland 2018-2022 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Fire Department | 2018 | 2019 | 2020 | 2021 | 2022 | TOTAL | Average |
| Nortwest Homer | 22 | 21 | 9 | 10 | 20 | 82 | 16 |
| Homer | 11 | 10 | 9 | 12 | 10 | 52 | 10 |
| Palos FPD | | | 3 | 12 | 26 | 41 | 14 |
| Lemont | 9 | 6 | 5 | 5 | 7 | 32 | 6 |
| Frankfort | 9 | 4 | 6 | 3 | 2 | 24 | 5 |
| Lockport | 9 | 3 | 2 | 6 | 4 | 24 | 5 |
| Crestwood | 3 | 4 | 7 | 1 | 6 | 21 | 4 |
| Matteson | 6 | 5 | 3 | 5 | 1 | 20 | 4 |
| Oak Forest | N/A | 6 | 5 | 2 | 2 | 15 | 4 |
| Country Club Hills | 3 | 2 | 1 | 0 | 2 | 8 | 2 |
| North Palos FPD | 0 | 6 | 0 | 2 | 0 | 8 | 2 |
| TOTAL | 72 | 67 | 50 | 58 | 80 | 327 | 65 |
| *Change over previous year* | | *-7%* | *-25%* | *16%* | *38%* | | |

# Who – Response Resources




## Unit Workload

An essential workload indicator is the number of responses per unit **and** the time spent on those responses. The amount of time a unit is unavailable is crucial in analyzing concentration and reliability.

One workload issue is the number of calls a unit responds to within its first due area versus the number it responds to outside its first due area, known as reliability.

There are, generally, three (3) reasons for **responses** outside of the first due area:

- Concurrent calls outside a unit "still" district or area of responsibility
- Calls requiring multiple units
- Special capabilities of the unit are required in another area of the District or aid given outside the District.

Fire, Rescue, HazMat, and EMS calls routinely require adjacent units and shall be discussed further in this section. This section analyzes the Station, the Shifts, and the Units that responded to the Incidents.
Unit workload looks at how many incidents a unit responded to and how much time those units spent on those incidents; therefore, being unavailable for additional calls decreases reliability performance.
The busiest units or companies include trucks, primarily T1, as it is in the center of town. At least one truck is deployed on most fire incidents (alarms, vehicles, reported fires, etc.). It is also the first responder to the Orland Park PD (a high-frequency EMS incident request location).

As EMS accounts for 63%, the five primary ambulances are busy. (A1 is currently only brought up if manpower exceeds the minimum level.)

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# Unit Responses

| UNIT RESPONSES | 2018 | 2019 | 2020 | 2021 | 2022 | 2018-2022 | Aver/Yr | Average/day |
|---|---|---|---|---|---|---|---|---|
| **AMBULANCES** | | | | | | | | |
| **A1** | 262 | 230 | 300 | 370 | 281 | **1,443** | 288.6 | 0.79 |
| **A2** | 1808 | 1946 | 1854 | 2006 | 2448 | **10,062** | 2012.4 | 5.51 |
| **A3** | 1213 | 1331 | 1273 | 1468 | 1645 | **6,930** | 1386.0 | 3.80 |
| **A4** | 1959 | 2076 | 1874 | 2228 | 2439 | **10,576** | 2115.2 | 5.80 |
| **A5** | 1868 | 1930 | 1675 | 1927 | 2323 | **9,723** | 1944.6 | 5.33 |
| **A6** | 1134 | 1395 | 1289 | 1499 | 1683 | **7,000** | 1400.0 | 3.84 |
| **ENGINES** | | | | | | | | |
| **E1** | 419 | 192 | 388 | 1453 | 3 | **2,455** | 491.0 | 1.35 |
| **E2** | 1890 | 2026 | 1941 | 2135 | 2400 | **10,392** | 2078.4 | 5.69 |
| **E3** | 1173 | 1222 | 1124 | 1296 | 1312 | **6,127** | 1225.4 | 3.36 |
| **E4** | 300 | 278 | 222 | 488 | 179 | **1,467** | 293.4 | 0.80 |
| **E5** | 1801 | 1972 | 1648 | 1771 | 2062 | **9,254** | 1850.8 | 5.07 |
| **E6** | 1300 | 1591 | 1477 | 1647 | 1773 | **7,788** | 1557.6 | 4.27 |
| **TRUCKS** | | | | | | | | |
| **T1** | 1998 | 2411 | 2083 | 1450 | 2807 | **10,749** | 2149.8 | 5.89 |
| **T4** | 1841 | 2074 | 2077 | 2353 | 2539 | **10,884** | 2176.8 | 5.96 |
| **T7** | 5 | | 3 | | 1 | **9** | 3.0 | 0.01 |
| **SERVICE** | | | | | | | | |
| **U1** | | | 23 | 243 | 239 | **505** | 1.4 | |
| **BATTALION CHIEFS** | | | | | | | | |
| **B6** | 1165 | 1564 | 1429 | 1697 | 1759 | **7,614** | 1522.8 | 4.17 |
| *BAT1* | 7 | 5 | 38 | 14 | 10 | **74** | 14.8 | 0.04 |
| *BAT2* | 104 | 43 | 15 | 6 | 8 | **176** | 35.2 | 0.10 |
| *BAT3* | 110 | 11 | | 11 | 2 | **134** | 33.5 | 0.09 |
| *BAT4* | 242 | 22 | | | 1 | **265** | 88.3 | 0.24 |
| *C1* | 26 | 30 | 22 | 46 | 31 | **155** | 31.0 | 0.08 |
| *C2* | 42 | 76 | 56 | 53 | 49 | **276** | 55.2 | 0.15 |
| *C3* | 16 | 26 | 19 | 33 | 17 | **111** | 22.2 | 0.06 |
| *C4* | 39 | 73 | 39 | | 42 | **193** | 48.3 | 0.13 |
| *6108* | 2 | 7 | 23 | 19 | 20 | **71** | 14.2 | 0.04 |
| *EMS1* | 4 | 8 | 8 | 33 | 22 | **75** | 15.0 | 0.04 |
| *FPB1* | 20 | 16 | 1 | | 1 | **38** | 9.5 | 0.03 |
| *FPB2* | 62 | 23 | | 1 | 1 | **87** | 21.8 | 0.06 |
| *Train1* | 6 | 1 | 2 | 2 | 1 | **12** | 2.4 | 0.01 |
| *Support 1* | 104 | 41 | | | | **145** | 72.5 | 0.20 |
| **SQUADS** | | | | | | | | |
| **S2** | 4 | | 1 | 4 | | **9** | 3.0 | 0.01 |
| **S3** | 1 | 4 | 1 | 3 | 1 | **10** | 2.0 | 0.01 |
| **S5** | 11 | 14 | 5 | 4 | 3 | **37** | 7.4 | 0.02 |
| **S6025** | 2 | 3 | 5 | 29 | 17 | **56** | 11.2 | 0.03 |
| **TOTAL APPARATUS RESPONSES** | **20,938** | **22,641** | **20,915** | **24,289** | **26,119** | **114,902** | 22,980.4 | 62.96 |
| Change over previous | | 8% | -8% | 16% | 8% | | | |

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# Unit Hour Utilization / UHU

Unit workload is an essential measure in the analysis. Unit Hour Utilization (UHU) is an accepted measurement tool to evaluate response workloads. UHU considers the number of incidents and time committed against the available time. The following formula is utilized:

$$\frac{\text{(number of incidents) * (time committed per incident)}}{\text{Time Period}}$$

UHU is limited because only emergency response incidents are considered in the calculation. **Other activities such as training, inspections, and others are not considered in calculations.** UHU is a technical measure of commitment time. UHU can be calculated on various periods per day, month, or year. The estimates provided below are based on a year to avoid short-term fluctuations. UHU calculations result in a percentage number and are expressed as a decimal. A UHU of .25 would represent that 25% of the period is committed to incidents. It is generally accepted that a UHU over .35 illustrates an overcommitted unit.

Resource types may experience differing levels of workload based on commitment time. Suppression units may see a shorter commitment time, while ambulances may see more time due to transport and turnaround time. IDPH regulations require a written EMS report to be completed and submitted before an ambulance can return to service. This process is now completed digitally and can take 20-40 minutes for a detailed report. Hospital location is another factor in commitment time. Transport hospitals are in nearby communities and not within the District, which prolongs time commitment as units may be unavailable due to transport requirements.

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Shift operations and activities, such as mandatory training, physical fitness, inspections, and others, should be calculated to estimate total work time. Total Committed Time could add an aggregate of four to six hours daily of non-emergency UHU required actions; vehicle checks/maintenance, meals/shopping, training, fire prevention activities, fitness, and return time from incidents as per this example list.

| **Sample - DAILY ACTIVITY** | Average Time |
|---|---|
| **Roll Call** | |
| Operations Review | 0.25 |
| DQD - Daily Quick Drill | |
| EMS & Fire Topics | 0.5 |
| **Apparatus & Small Tools** | |
| Operations/Functions/Review | 1 |
| Meal Shopping | 0.5 |
| **Department Directed Training** | |
| Daily Scheduled Drill | 1 |
| [1,2,4, or 8 hrs - class dependent] | |
| LUNCH | 1 |
| Preplan/Building Familiarization | 1 |
| Physical Fitness | 1 |
| Public Education/Relations | 0.5 |
| **Company Directed Training** | |
| Per Company Officer | varies |
| **Average Daily Hours** | **6.75** |

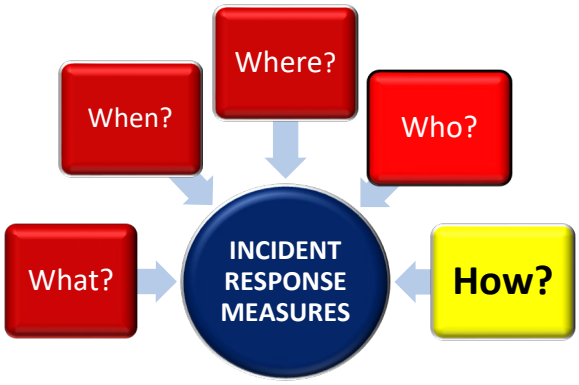
# UHU Temporal

**Unit-Hour Utilization Spreadsheet**

Report based on 112,611 apparatus response records from 1/1/2018 to 12/31/2022

| Vehicle | A4 | A5 | A2 | A3 | A6 | T4 | T1 | E2 | E5 | E6 | E3 | BAT6 | A1 | E1 | E4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0:00 | 7.41% | 6.52% | 6.93% | 4.36% | 5.49% | 4.29% | 3.20% | 3.81% | 3.62% | 3.43% | 2.37% | 2.39% | 0.98% | 0.58% | 0.80% |
| 1:00 | 6.81% | 6.03% | 5.63% | 4.21% | 3.72% | 3.86% | 3.30% | 3.43% | 3.34% | 2.97% | 2.45% | 2.83% | 0.71% | 0.74% | 0.58% |
| 2:00 | 6.68% | 5.51% | 4.64% | 3.06% | 4.57% | 4.32% | 2.89% | 2.66% | 2.64% | 3.17% | 2.03% | 2.47% | 0.71% | 0.64% | 0.41% |
| 3:00 | 5.35% | 4.40% | 4.76% | 3.67% | 3.68% | 3.33% | 2.71% | 2.67% | 2.56% | 2.67% | 1.71% | 1.69% | 0.50% | 0.71% | 0.44% |
| 4:00 | 6.32% | 5.04% | 4.88% | 3.34% | 4.64% | 3.54% | 2.96% | 2.97% | 2.90% | 3.30% | 1.99% | 2.26% | 0.42% | 0.61% | 0.49% |
| 5:00 | 6.95% | 4.91% | 5.65% | 3.72% | 4.53% | 4.53% | 3.36% | 3.55% | 3.26% | 3.64% | 2.49% | 2.10% | 0.52% | 0.73% | 0.87% |
| 6:00 | 6.84% | 5.91% | 6.66% | 4.54% | 5.16% | 3.95% | 3.26% | 4.15% | 3.58% | 3.65% | 2.46% | 2.92% | 0.60% | 0.60% | 0.46% |
| 7:00 | 11.22% | 9.76% | 10.84% | 7.87% | 8.56% | 6.00% | 4.81% | 5.55% | 5.24% | 4.89% | 4.28% | 3.45% | 1.13% | 1.17% | 0.86% |
| 8:00 | 13.76% | 14.37% | 12.59% | 11.07% | 10.48% | 7.14% | 6.71% | 7.52% | 7.68% | 7.03% | 5.54% | 4.38% | 1.95% | 1.68% | 1.13% |
| 9:00 | 17.19% | 18.70% | 15.27% | 13.16% | 12.15% | 8.48% | 7.81% | 8.14% | 9.63% | 6.34% | 6.47% | 4.34% | 1.77% | 2.16% | 1.38% |
| 10:00 | 19.97% | 17.78% | 15.59% | 15.57% | 12.89% | 9.63% | 9.58% | 8.83% | 9.41% | 7.12% | 7.08% | 4.51% | 3.38% | 2.20% | 1.27% |
| 11:00 | 20.38% | 19.26% | 18.78% | 15.93% | 13.66% | 10.76% | 10.32% | 10.17% | 9.63% | 7.07% | 6.06% | 5.86% | 2.75% | 2.42% | 1.51% |
| 12:00 | 22.04% | 19.82% | 16.89% | 15.29% | 12.50% | 10.98% | 10.65% | 9.38% | 9.57% | 7.50% | 6.89% | 6.35% | 2.93% | 2.36% | 1.57% |
| 13:00 | 20.91% | 21.15% | 17.18% | 15.25% | 12.43% | 10.41% | 10.83% | 9.11% | 9.82% | 7.76% | 6.40% | 6.06% | 3.04% | 2.76% | 1.62% |
| 14:00 | 21.57% | 19.49% | 16.52% | 13.86% | 13.10% | 10.70% | 10.98% | 8.98% | 9.18% | 7.19% | 6.42% | 6.44% | 3.07% | 2.39% | 1.49% |
| 15:00 | 19.72% | 18.18% | 16.87% | 14.48% | 11.32% | 10.36% | 11.45% | 9.23% | 8.88% | 6.77% | 5.69% | 6.16% | 2.44% | 2.15% | 1.39% |
| 16:00 | 18.07% | 19.40% | 17.60% | 12.90% | 11.63% | 10.36% | 10.07% | 9.38% | 8.73% | 6.94% | 5.78% | 7.21% | 2.70% | 2.96% | 1.08% |
| 17:00 | 19.14% | 17.76% | 15.16% | 13.20% | 11.87% | 10.13% | 10.56% | 8.81% | 8.20% | 7.74% | 6.11% | 6.75% | 2.64% | 2.57% | 1.31% |
| 18:00 | 18.87% | 15.50% | 15.90% | 10.66% | 10.30% | 10.12% | 10.19% | 8.11% | 7.10% | 6.10% | 5.83% | 5.79% | 2.93% | 2.93% | 1.19% |
| 19:00 | 15.72% | 15.67% | 13.80% | 10.29% | 9.02% | 8.24% | 9.68% | 7.49% | 7.13% | 5.81% | 4.73% | 5.17% | 3.41% | 1.80% | 1.42% |
| 20:00 | 14.34% | 12.64% | 13.26% | 8.03% | 7.99% | 8.50% | 8.35% | 7.11% | 7.27% | 5.17% | 4.83% | 5.56% | 1.78% | 1.80% | 0.85% |
| 21:00 | 11.94% | 11.55% | 11.84% | 7.19% | 7.14% | 6.47% | 6.63% | 6.37% | 6.23% | 4.63% | 3.92% | 3.94% | 1.63% | 1.42% | 0.87% |
| 22:00 | 10.14% | 9.49% | 8.97% | 6.27% | 6.07% | 5.88% | 5.55% | 5.17% | 4.75% | 4.38% | 3.45% | 3.70% | 1.38% | 1.20% | 0.67% |
| 23:00 | 8.48% | 8.61% | 7.47% | 5.46% | 5.25% | 5.13% | 4.37% | 4.39% | 4.28% | 4.04% | 3.03% | 2.91% | 0.88% | 1.08% | 0.58% |
| Overall | 13.74% | 12.81% | 11.82% | 9.31% | 8.67% | 7.38% | 7.09% | 6.54% | 6.44% | 5.39% | 4.50% | 4.38% | 1.84% | 1.65% | 1.01% |
| Runs | 10,584 | 9,729 | 10,071 | 6,938 | 7,005 | 10,894 | 10,764 | 10,411 | 9,268 | 7,802 | 6,142 | 7,619 | 1,444 | 2,471 | 1,469 |

# How - Performance




There are several ways to measure performance. One of the more critical ways is to measure activities vs. outputs vs. outcomes.

**Outcomes are the things that matter most to the community.**

**Activities** show what we have done.

- Training, Inspections, and Responding to emergencies

**Outputs** show how much we accomplish with our activities.

- Completed xx hours of Training, xx % of inspections
- Responded to fires within X minutes, X % of the time

**Outcomes** show what is in it for the community.

- How likely will their life (or their family) be saved?
- How much of their property shall be saved (value, capabilities, business operations)?
- What shall be their quality of life?
- How much shall this cost them if they support (or do not) my local FD (out of pocket)?

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Two outcome performances that can be directly measured include **fires contained to the room** of origin and **cardiac arrest survival rates.**



**How are we doing?**

## Performance and Outcome Measures

Performance measures should establish the following characteristics to be considered valid and verifiable:

- Meaningful
- Understandable to internal and external stakeholders
- Based on goals and objectives related to a strategic plan
- Controllable by organizational action
- Useful
- Reliable
- Accurate in assessing the performance
- Comparable
- Sustainable
- Value to obtain should not exceed the effort to collect

Performance objectives have been developed based on the community and the District's expectations, risk assessment, critical task functions, and planning zones. Each category of emergency service type was reviewed, and performance times were established. Current performance and goals viewed in the context demonstrate current capabilities and what would be shown in the future. **A baseline is a term used to describe recent performance. Benchmark is used to describe a future performance level objective**.

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## Community Expectations

This section compares performance to objectives. Community expectations influence performance.
Specific conclusions discovered after strategic planning can be summarized in the identification of four Strategic Priority areas:

- Financial Sustainability
- Community Involvement
- Operational Effectiveness
- Workforce Development

Each of these areas dovetails into the focus of a continual process and establishing performance measures.



# Fire Loss / Save Rate

An essential measure of fireground performance is keeping a fire in the room of origin and not spreading. According to a recent NFPA study, the chances of death in a home fire that is:

**Contained to the room of origin = 5%, Past Room of Origin = 80%!**

Furthermore, studies have shown that the **cost of burn injuries:**

- One year in a Burn Center = $ 2.6 Million
- Average stay = 14 weeks ($700,000)
- Loss of income at work?
- *What is the cost of Pain and Suffering?*

**The District has contained**

**65%**

of **working** structure fires to the ROOM or POINT OF ORIGIN

**2018-2022**

The cost of being displaced by a fire for a year:

- Original mortgage payments
- The insurance deductible and any under-coverage costs
- The added cost of rental and insurance
- Moving costs
- Work and school commutes
- Lost financial records, taxes, ownership documents

The baseline performance measure in the District for **structure fire responses**:

**65 % of ALL FIRES IN BUILDINGS were limited to an object or room of origin**

# EMS Cardiac Arrest Save Rate

Cardiac arrest survival/saves are an excellent "outcome" performance measure. For cardiac arrest patients since **2018 (348 total)**, the "save rate" for patients in cardiac arrest was **55%** (**140 patients**), in which the patient had Return of Spontaneous Circulation (ROSC) at the time of arrival to the hospital**.**

This outcome is above the estimated **national data average of 12%.** For the **81** patients with an initial V-Fib rhythm, **55% (44)** were "saved" with ROSC to the hospital.

**72%**

**Cardiac Arrest**

**Save Rate**

**2022**

The 2018-2022 baseline performance measure in the District for **cardiac arrest resuscitation**:

**49 % of CARDIAC ARREST (*any rhythm*) were "saved" with ROSC upon arrival at the hospital**

# Stakeholder Input

The Polco/NRC conducted a 2021 **survey titled the NCS Report for the Village of Orland Park**.

The National Community Survey™ (The NCS™) report is about the "livability" of Orland Park. A livable community is a place that is not simply habitable, but that is desirable. It is where people live and where they want to live. The experts developed the survey from the National Research Center at Polco.

The following section highlights were taken directly from this report. Here is the link for the entire report: https://public.tableau.com/views/OrlandParkNCSResults2021/About?:language=en-US&:display_count=n&:origin=viz_share_link.

Great communities are partnerships of the government, private sector, community-based organizations, and residents, all geographically connected. The NCS captures residents' opinions considering ten central facets of a community:

- Economy
- Mobility
- Community Design
- Utilities
- Safety
- Natural Environment
- Parks and Recreation
- Health and Wellness
- Education, Arts, and Culture
- Inclusivity and Engagement






## Safety Emphasis

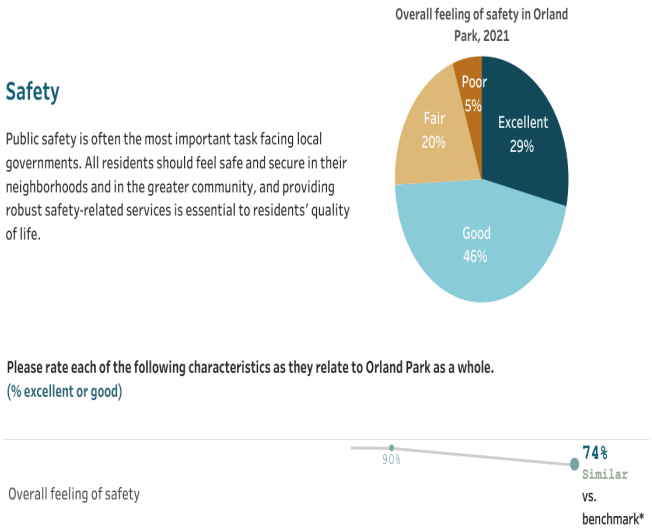
Public safety is **often the most crucial task facing local governments**. All residents should feel safe and secure in their neighborhoods and the greater community, and providing robust safety-related services is essential to residents' quality of life.

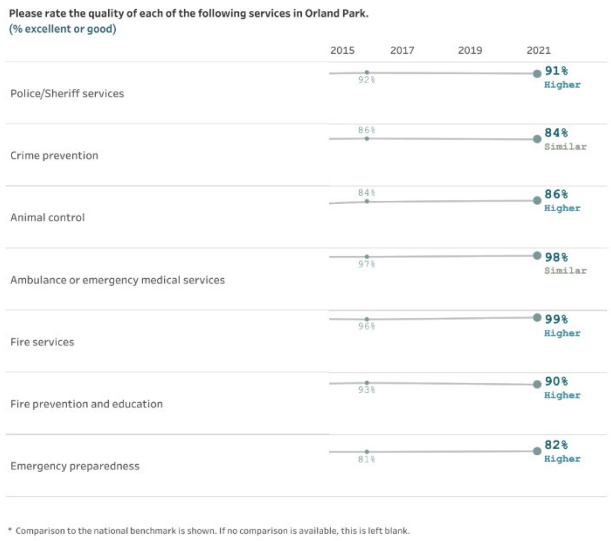
***Safety is an essential facet of the community to residents, and ratings for safety-related services are exceptional.***

When asked about aspects of the community Orland Park should focus on in the next two years, almost all respondents **(96%) rated the importance of the overall feeling of safety in the city as essential or very important**, while about three-quarters rated the quality of this item as excellent or good; this relatively higher-importance, lower-quality rating compared to other facets of the community indicates that safety could be considered an important area of focus for the Village. The quality rating for an overall feeling of safety declined from 2016 to 2021, as did the score for feeling safe in Orland Park's downtown/commercial area during the day (83% in 2021).

**Residents also noted extremely high levels of satisfaction with Safety-related services in Orland Park: virtually all residents gave excellent or good ratings to fire services (99%) and ambulance/EMT services (98%),** and at least 8 in 10 were pleased with police services, fire prevention and education, animal control, and emergency preparedness. **These ratings were all higher than the national benchmarks and, in some cases, were ranked within the top ten communities nationwide in Polco/NRC's benchmark database.**

Finally, in a customized survey question unique to Orland Park, residents were asked to assign a level of importance to various actions the Village could take in the next five years. Nearly 9 in 10 residents felt that enhancing and investing in community policing and public safety programs was essential. In contrast, 84% felt that making annual investments in facilities and equipment for police and public works was important. Out of 12 action items in the list, these were #2 and #4, respectively.



# Patient Survey

As part of the Continuous Quality Improvement program, the District mails survey cards to the patients transported to the hospital by the paramedics to gauge the level of satisfaction with the services provided. This information helps gauge our level of service, feedback from patients, and ways to improve. These results are invaluable as they directly reflect service delivery's impact on the customers (patients).

| *8/16/2018 - 2/2/2023* **2,136 responses** | Excellent | Very Good | Average | Fair | Poor | N/A | Very Good to Excellent |
|---|---|---|---|---|---|---|---|
| How would you rate the manner in which your call for service was handled by our **911 DISPATCH CENTER**? | **90.8%** | **5.1%** | 0.6% | 0.1% | 0.0% | 3.2% | **95.9%** |
| **How would you rate the following of OUR PERSONNEL:** | | | | | | | |
| The **level of professionalism** exhibited | **95.8%** | **3.7%** | 0.2% | 0.1% | 0.1% | 0.0% | **99.6%** |
| The level of **competence, courtesy, and concern** displayed | **95.6%** | **3.8%** | 0.1% | 0.1% | 0.2% | 0.0% | **99.5%** |
| The **explanation of care**, questions or services provided | **94.0%** | **5.1%** | 0.5% | 0.1% | 0.2% | 0.0% | **99.1%** |
| **Overall**, how would you **rate the care** you received from us? | **96.4%** | **3.1%** | 0.1% | 0.1% | 0.2% | 0.0% | **99.5%** |




Our records indicate that you were recently provided with Paramedic ambulance services from the Orland Fire District.

We sincerely hope your health has improved since our Emergency Medical Services (**EMS**) were provided to you.

As part of the Fire District's continuing effort to improve the quality of services provided to our residents and guests, we ask that you please take the time to complete a brief survey regarding your experience with the District.

For your convenience, we provide two options. You may **complete an online survey through our website:** (www.OrlandFire.org) OR complete our survey on the enclosed postage paid postcard and drop it in the mail!

**AS ALWAYS, THERE IS NO CHARGE TO RESIDENTS FOR AMBULANCE SERVICE.** Orland Fire District only invoices health insurance carriers for medical services provided.

If you would like to discuss any concerns regarding patient care or our service, please call EMS Lieutenant at 708-873-2715.

Once again, we wish you good health and hope the EMS we provided in your time of need exceeded your expectations.

FIRE CHIEF
ORLAND FIRE RESCUE
ISO CLASS 1

**ORLAND FIRE PROTECTION DISTRICT FIRE/RESCUE or EMS- SURVEY**

| ***Please rate the following:*** | ***Circle One*** | | | | |
|---|---|---|---|---|---|
| 1. How would you rate the manner in which your call for service was handled by our **911 Dispatch Center?** | Excellent | Very Good | Good | Fair | Poor |
| 2. Response time of Firefighters/Paramedics | Excellent | Very Good | Good | Fair | Poor |
| 3. Our professionalism, competency, concern, & courtesy | Excellent | Very Good | Good | Fair | Poor |
| 4. Our explanation of questions/services/treatment options | Excellent | Very Good | Good | Fair | Poor |
| 5. Overall experience with the Orland Fire District | Excellent | Very Good | Good | Fair | Poor |

***Tell us your thoughts:***

Please include any additional comments or observations that you consider important.

_____

_____

Would you like us to contact you? ____YES ____NO

If yes, please give your name and daytime phone number_____

**Thank you for your response. Please join our EMAIL list for notification of upcoming events:**_____

Fire/EMS Survey Link

Visit us at: www.orlandfire.org

**THANKS FOR HELPING US HELP YOU!**

# Performance and Outcome Measures

## Deployment Performance

Deployment performance can be measured using three concepts: Distribution (what and where), Concentration (how much), and Reliability (how well). These concepts shall be used to create performance objectives and performance measures for response times and determine the District's ability to provide an effective response force for each risk category for each service provided.

### Distribution (First Due) Performance

Distribution is the systematic locating of geographically distributed first-due resources (stations, apparatus, and personnel) for all-risk initial intervention. Distribution locations, also known as "points of service delivery," are established to ensure the rapid deployment of resources to intervene in routine emergencies and bring them to a successful conclusion. For the most part, this is **time and distance analysis**. The distribution system is set up to provide the appropriate emergency response to the variety of risks identified in the previous section.

The District uses an "all-risk" concept in that each first-due station is equipped and staffed to provide a sufficient baseline response. The distribution system's effectiveness is the authority covered by the first due units within adopted public policy response times. Specific performance objectives have been established for each service provided. A distribution network is considered successful when it can provide a resource to the scene of an emergency with the correct apparatus, equipment, and staffing to complete the following:

1. Assessment of the situation and take Command
2. Establishment of a plan of action capable of mitigating the emergency
3. Request for appropriate resources if necessary
4. Intervention to stop/impede the escalation of the emergency

The current distribution of resources for the District can be traced to several events throughout its history. The location and spacing of stations have depended on funding, land availability, infrastructure, and expected growth.

Distribution implies that certain risks shall require resources beyond that available on the initial attack. The depth of coverage includes analyzing whether enough resources are available within acceptable time frames to amass staffing, equipment, and apparatus to deal with identified risk levels. Distribution performance measurement emergencies are those incidents that directly impact the placement of fire stations and the resources in the stations. EMS, Rescue incidents, and structure fires are the key measured emergencies or Priority 1 calls. Measurement of incidents from the Records Management Systems (RMS), GIS, and StatsFD database are reviewed based on incident type codes with outliers removed. Other incidents are not modeled as they do not overly affect deployment but are a subset of the total workload. Incidents outside the District areas are not used for analysis.

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Measuring the distribution system is typically accomplished using Travel Time or Total Response Time of first-due company resources. Travel Time is when the emergency unit begins responding to its arrival at the emergency scene. Total Response Time starts when the request for emergency services is received at the dispatch center and extends to the arrival of the first emergency unit at the emergency scene, including turnout from unit notification to the response.

## Concentration (Balance of Alarm or Effective Response Force - ERF)

Concentration is defined as the number and spacing of resources needed to achieve an "effective response force," or ERF, which can be assembled at the scene of an emergency within a specified period for each given risk and level of service. An effective response force is the accumulation of resources necessary to stop the emergency's escalation and bring it to a conclusion. In other words, concentration can place enough resources on a specific call to keep the event from becoming a significant emergency. Thus, concentration considers risk versus cost.

Both factors are variables, thus: **Increased Risk = Increased Concentration**

Concentration can be measured in several ways. The most common approach calculates the community's percentage covered by an effective response force within adopted times. A first-alarm assignment is considered an effective response force for fire incidents. In arriving at a concentration level for the District, the challenge is balancing how much overlap should be between station response areas. Some overlap is necessary to maintain response times and provide backup for distribution when first-due units are committed. A successful concentration network means that the system can provide the correct equipment, apparatus, and staffing to the scene of an emergency to complete the following:

1. Stop the emergency from continuing to escalate
2. Provide for the safety and security of citizens and emergency workers
3. Complete all critical tasks promptly
4. Provide for Incident Management and transfer of Command

Resources' location and spacing have depended on funding, land availability, and infrastructure. Most of the areas now served started with limited development and minimal risk. As time passed and development continued, the population base and risk increased. The current concentration is measured using calls for service and the system performance of the company resources.

## Resiliency

These could be wide-scale and far-reaching events such as severe weather extremes, massive, prolonged power outages, floods, mass casualty events, or multiple concurrent incidents that require a response and resilience. The dictionary definition of resilience is "the capacity to recover quickly from difficulties." The fire service translates to how well we bounce back from adversity regardless of the cause. Even our Firefighters individually learn to "respond, handle the emotionally challenging scene, then return" to some normalcy.

The District response system is built on reliability, consistency, redundancy, and performance (including speed). There may be times when the system is pushed and stressed. Severe weather incidents such as thunderstorms (or worse – tornados) spread resources thin as altered response levels are instituted. Procedures such as the "Storm Mode" response dispatches the closest fire company to investigation and alarm activations (without tone alerts – just radio notification).

The ability to recover to "normalcy" can include multiple considerations, such as:

- **Capability** – developed early through trained KSA (knowledge, skills, abilities)
- **Capacity** – resources ready state (mechanically sound and properly equipped)
- **Reliability** – the number of times a unit can respond to incidents in-still area as the first due
- **Availability** – use of resources and ability to add units to response or coverage

# Station Reliability

## Company Availability (Units / Stations - Out Of Service (OOS)

The CPSE Manual defines response reliability as the probability that the required staff and apparatus will be available when a fire or emergency call is received. If every piece of fire department apparatus were available in its desired location every time a fire/EMS call was received, then the department's response reliability would be 100%. A substitute company must be assigned from another station if a call is received for an incident in which the closest units are already committed to another incident. If the substitute station is too far away, that company cannot respond within the maximum prescribed travel time.

Availability refers to the number of hours the company can respond to an incident over the hours it is in service. If a company is unavailable 80% of the time, expecting the unit to perform at the 80th percentile is unreasonable. In 24 hours, if a unit is committed or unavailable for other reasons for six hours, it has only 75% availability remaining. A fire company unavailable for response provides no service to the community.

| | EMS Incidents | Fire Incidents | Other Incidents | Total Incidents | % of Total Incidents | Station Reliability | 90th Percentile Response Time (PSAP to Arrival) |
|---|---|---|---|---|---|---|---|
| **Station 1** | 7666 | 241 | 3851 | **11,758** | **22%** | 75% | 14:24:00 |
| **Station 2** | 6491 | 187 | 2970 | **9,648** | **18%** | 93% | 5:16:48 |
| **Station 3** | 3213 | 120 | 1651 | **4,984** | **9%** | 94% | 7:55:12 |
| **Station 4** | 7561 | 278 | 3414 | **11,253** | **21%** | 83% | 10:19:12 |
| **Station 5** | 5684 | 150 | 2742 | **8,576** | **16%** | 91% | 14:52:48 |
| **Station 6** | 5222 | 112 | 2321 | **7,655** | **14%** | 94% | 10:04:48 |
| **Overall** | **35,842** | **1,088** | **17,039** | **53,969** | **100%** | 87% | 13:55:12 |

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## Response Time Measures

The rapid deployment of resources to emergencies is another distribution factor to consider. The Fire District uses a nationally recognized incident count to inform management better and determine resource allocation and deployment decisions. The use of "incident count" has been the District's raw reference numbers for deployment issues and data collection on response volumes. Incident count data is typically used and reported to describe service demand changes over time. The number and type of resources (i.e., Engines, Trucks, Ambulances) assigned or committed to each event are subject to operational policy. Thus, data that reflect the number of times a resource is "dispatched" to an event are not best suited for performing trend/Historical or comparative analysis of incidents.

Response times are the most frequently used measuring system performance related to the overall response time. Reviewing the CAD and RMS data, the Fire District tracks four response elements—turnout time, travel, on-scene time, and when companies are available. Additionally, call handling time is also measured (the time "Dispatch" picks up the 911 call to the time units are notified or "dispatched").

## Response Time Performance

A chain of events is initiated when an emergency incident occurs or is discovered. Time elements are not controllable but can be enhanced by early recognition and notification. This can be especially critical in structure fires and cardiac arrest events. Due to technological limitations, initial call processing and dispatch may occur from two locations due to cellular tower placement and configuration. The four main components of measuring "Total Response Time" or TRT (**Call to Arrival**) is from the initial 911 pickup at a Dispatch center – "Processing the call" and notifying the stations/units, the units "turning out" from notification to en route, "travel time" – how long it takes to get to the scene for both the initial responders and the rest/balance of the Effective Response Force.

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Due to the community's characteristics, the District utilizes a single demand zone, Urban/Suburban, representing a population density of 2-3,000 per square mile, consisting of single-family, multi-family residential, mixed Commercial, and business occupancies.

Response time performance is shown in the following tables. Performance is demonstrated in structure fires, EMS, HazMat, TRT, and Water incidents. Components of the response continuum are broken down to reflect distinct segments. These include **call processing** time, **turnout** time, **travel** time, and **total response time**.

The District benchmark response goals reflect the National Fire Protection Association (NFPA) – National Standards NFPA 1710.

| NFPA 1710 RESPONSE BENCHMARKS – 90% of Emergency Incidents | |
|---|---|
| **Task** | **Time (< or equal to)** |
| **Call Processing** (Dispatch) | 1 minute |
| **Turnout Time** (EMS) | 1 minute |
| **Turnout Time** (FIRE) | 1 minute 20 seconds |
| **Travel Time** - First Engine or Ambulance | 4 minutes |
| **Travel Time** - Full Alarm Assignment **(ERF)** | 8 minutes |
| **TOTAL RESPONSE TIME (1st EMS/FIRE Company)** | **6:00 / 6:20 minutes** |
| **TOTAL RESPONSE TIME (Effective Response Force - ERF)** | **10: 00 / 10:20 minutes** |

# Benchmark Statements (Goals)

The District has developed objectives for each significant service: Fire suppression, Emergency Medical Services (EMS), Rescue, and Special Operations. These performance objectives further define the quality and quantity of services. The "Benchmark" performance goals are per risk type. Once baseline (actual) times are determined and benchmarks (goals) are set, the two primary components of a Continuous Quality Improvement program are in place.




## Fire

For **90 percent** of **all** fire incidents, the Fire District shall arrive with a "first due/distribution" total response time in less than **6 minutes 20 seconds with at least three personnel** with enough resources to stop the escalation of the fire and keep the fire to an area of involvement upon arrival. Initial response resources shall be capable of establishing Command, forcing entry if needed, containing the fire, rescuing at-risk victims, performing salvage operations, and providing for the responders' safety and the public. Apparatus shall have a minimum pump capacity of 1500 GPM and 750-gallon water tanks for Engines and 300+ gallons for Trucks. A positive water supply shall be established, and a hose line deployed attacking the fire flowing a minimum of 150 GPM within 5 minutes of arrival or less.

For **Moderate-risk** type fires, the "balance of alarm/concentration" (or Effective Response Force [ERF]) shall arrive in less than **10 minutes and 20 seconds (*total response time*) with a minimum of 15 personnel.** The ERF can transfer Command/Safety, deploy a backup line, complete forcible entry, search and rescue at-risk victims, ventilate the structure, control utilities, perform salvage and overhaul, assuming IRIC/RIT in on-deck positions (complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out), control utilities, other functions as ordered by Command as required, and occupant need services. The District standard operating procedures shall do these operations.

**High-Risk type classified incidents shall have a minimum of 29 personnel within 15 minutes total response time.** "General alarm" deployment of resources shall allow Command to sector/divide/group the structure for a better span of control and accountability and adjust Risk Management Plan and IAP as needed.

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## EMS

For 90 percent of **all** emergency medical incidents, the Fire District shall arrive "first due/distribution" in less than **6 minutes with at least two personnel** ALS trained and equipped, capable of assessing scene safety and establishing command, sizing up the situation, conducting an initial patient assessment, obtaining vitals and documenting patient's medical history, initiating mitigation efforts within one minute of arrival to provide medical services that shall stabilize the situation, provide care and support to the victim and reduce, reverse or eliminate the conditions that have caused the emergency while providing for the safety of the responders, and provide transportation of patient(s) if necessary to appropriate medical facilities in an effective, efficient manner.

**Low-risk** incidents or **Moderate risk** incidents where resuscitation/rescue of victims is required, the Fire District ERF shall arrive in less than **10 minutes total response time with five personnel minimum (or six personnel for Moderate risks).** The ERF brings resources to stabilize the situation and resuscitate/extricate the victim(s) from the emergency or location without causing further harm to the victim, responders, the public, and the environment. Simultaneously, completing the patient assessment, providing appropriate treatment, performing defibrillation, initiating cardiopulmonary resuscitation (CPR), and providing intravenous (IV) access-medication administration with positive airway control.

Suppose High-Level responses are necessary for ERF concentration. In that case, they shall arrive in less than **15 minutes with 28 personnel** once dispatched, performing positions and functions directed by Command, including Medical, Triage, and Transport sectors.

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## Rescue / Special Operations

For 90 percent of all Special Operations incidents (such as Technical Rescue and Water Rescue), the Fire District shall arrive "first due/distribution" in less than **6 minutes 20 seconds total response time (with at least three personnel)** with resources to complete the following functions. Establish Command, stabilize the situation, stop the escalation of the incident, contain the hazard where applicable, initiate an action plan, properly size up to determine if a moderate or high-level technical rescue response is required, request additional resources if needed, provide advanced life support to any victim without endangering response personnel or the public.

ERF Concentration per M**oderate Type level** shall arrive in less than **10 minutes, 20 seconds total response time with nine personnel** necessary to the victim safely and efficiently.

The ERF shall be capable of appointing a site safety officer, establishing patient contact, staging, and apparatus setup, providing technical expertise, knowledge, skills, and abilities during technical rescue incidents, and providing first responder and ALS medical support. High-Risk type-level ERF shall arrive in less than 15 minutes with minimum numbers of personnel ranging from 14-28 once dispatched, depending on specialty/situation. Then, a Technician/Team level response is necessary for ERF Concentration.

# Hazmat

For 90 percent of all hazardous materials response incidents, the total response time for the first-due unit's arrival, staffed with **three personnel minimum, shall be 6 minutes 20 seconds** for all risk levels. The first-due unit shall be capable of establishing command, sizing up and assessing the situation to determine the presence of a potentially hazardous material or explosive device, determining the need for additional resources, estimating the potential harm without intervention, and begin establishing a hot, warm, and cold zone.

**Moderate risk** ERF Concentration level shall arrive in less than **10 minutes 20 seconds with nine personnel minimum** necessary to isolate, identify, and mitigate the hazard safely and efficiently.

For **High-risk** level incidents, the total response time for the arrival of the effective response force (ERF) includes the hazardous materials response team, staffed with **15 personnel within 15 minutes** in all areas. The ERF shall be capable of appointing a site safety officer and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident by District standard operating guidelines.

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# Response Time - Performance

## ***Baseline Tme Charts (Actual)

Historically, actual baseline times for the District are as follows, with 90% benchmark goals.

***NO AID GIVEN***




IMAGETREND 2018-2022

| PERFORMANCE MEASURES<br>90% of Incidents | BENCHMARK GOAL | FIRE/EMS INCIDENTS<br>Benchmark Achieved | FIRE/EMS INCIDENTS<br>90% Baseline Time | ALL INCIDENTS<br>Benchmark Achieved | ALL INCIDENTS<br>90% Baseline Time |
|---|---|---|---|---|---|
| CALL PROCESSING | < 1:00 | 95.6% | 0:47 | 92.9% | 0:53 |
| TURNOUT | < 1:20 | 69.2% | 1:56 | 64.3% | 2:02 |
| TRAVEL | < 4:00 | 92.0% | 3:48 | 86.2% | 4:28 |
| CTA - CALL TO ARRIVAL | < 6:20 | 94.4% | 5:45 | 88.3% | 6:36 |
| *"TOTAL RESPONSE TIME"* | | 35,404 Incidents | | 52,308 Incidents | |

**BENCHMARK MET % - 1ST UNIT**

| Year | Total Incidents | Alarm Handling (1:00) | Turnout (1:20) | Travel (4:00) | Total Response (6:20) |
|---|---|---|---|---|---|
| 2018 | **9,762** | 94% | 58% | 85% | 87% |
| 2019 | **10,680** | 94% | 61% | 86% | 88% |
| 2020 | **9,816** | 93% | 62% | 88% | 89% |
| 2021 | **11,147** | 92% | 66% | 87% | 88% |
| 2022 | **12,564** | 91% | 72% | 85% | 88% |
| **Overall** | **53,969** | **93%** | **64%** | **86%** | **88%** |

# FIRE

| (LOW RISK) FIRE 90th Percentile Times - Baseline | | | 2018-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| Alarm Handling | Pick-up to Dispatch | Urban | 1:02 | 1:09 | 1:07 | 0:58 | 0:58 | 0:59 | 1:00 |
| Turnout Time | Turnout Time 1st Unit | Urban | 2:22 | 2:07 | 2:21 | 2:25 | 2:28 | 2:32 | 1:20 |
| Travel Time | Travel Time 1st Unit Distribution | Urban | 5:15 | 5:18 | 5:18 | 5:11 | 5:20 | 5:08 | 4:00 |
| | Travel Time ERF Concentration | Urban | SAME AS ABOVE | -- | -- | -- | -- | -- | SAME AS ABOVE |
| Total Response Time | Total Response Time 1st Unit on Scene Distribution | Urban | 7:41 | 7:44 | 7:45 | 7:34 | 7:47 | 7:39 | 6:20 |
| | | | 7,641 | 1,647 | 1,764 | 1,490 | 1,455 | 1,285 | |
| | Total Response Time ERF Concentration | Urban | SAME AS ABOVE | -- | -- | -- | -- | -- | SAME AS ABOVE |
| | | | | -- | -- | -- | -- | -- | |

**Fires - LOW** ---> Incident Type Codes 100, 120, 122, 130, 131, 132, 134, 136, 137, 138, 150, 151, 152, 153, 154, 155,
160, 161, 162, 1621, 163, 164, 440, 441, 442, 443, 444, 445, 480, 481, 482, 631, 632, 650, 6511, 652, 653, 814, 7@@

**ERF = 3**

| (MODERATE RISK) FIRE 90th Percentile Times - Baseline | | | 2018-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| Alarm Handling | Pick-up to Dispatch | Urban | 0:46 | 0:48 | 0:47 | 0:48 | 0:45 | 0:36 | 1:00 |
| Turnout Time | Turnout Time 1st Unit | Urban | 2:06 | 1:47 | 1:58 | 2:03 | 2:17 | 2:23 | 1:20 |
| Travel Time | Travel Time 1st Unit Distribution | Urban | 4:38 | 4:08 | 4:34 | 5:01 | 4:40 | 4:15 | 4:00 |
| | Travel Time ERF Concentration | Urban | 11:06 | 9:14 | 10:02 | 12:02 | 11:47 | 11:36 | 8:00 |
| Total Response Time | Total Response Time 1st Unit on Scene Distribution | Urban | 6:39 | 6:29 | 6:39 | 7:04 | 6:19 | 6:35 | 6:20 |
| | | | 458 | 88 | 130 | 97 | 73 | 70 | |
| | Total Response Time ERF Concentration | Urban | 12:15 | 9:45 | 11:08 | 14:03 | 13:31 | 13:23 | 10:20 |
| | | | 77 | 14 | 20 | 18 | 11 | 14 | |

**Fires - MODERATE** ---> Incident Type Codes 110, 111, 112, 113, 114, 115, 116, 117, 118, 121, 123, 2@@

**ERF = 15**

| (HIGH RISK) FIRE 90th Percentile Times - Baseline | | | 2018-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| Alarm Handling | Pick-up to Dispatch | Urban | 0:40 | 0:40 | 0:36 | 0:41 | n/a | 0:27 | 1:00 |
| Turnout Time | Turnout Time 1st Unit | Urban | 1:15 | 0:50 | 1:14 | 1:12 | n/a | 1:05 | 1:20 |
| Travel Time | Travel Time 1st Unit Distribution | Urban | 2:21 | 1:52 | 2:02 | 1:15 | n/a | 2:19 | 4:00 |
| | Travel Time ERF Concentration | Urban | 18:39 | 8:07 | 14:17 | 10:32 | n/a | 23:42 | 8:00 |
| Total Response Time | Total Response Time 1st Unit on Scene Distribution | Urban | 3:43 | 3:22 | 3:56 | 3:08 | n/a | 3:12 | 6:20 |
| | | | 8 | 1 | 3 | 1 | 0 | 3 | |
| | Total Response Time ERF Concentration | Urban | 14:50 | 9:37 | 15:26 | 11:43 | n/a | 13:32 | 10:20 |
| | | | 7 | 1 | 3 | 1 | 0 | 2 | |

**Fires - HIGH** ---> Incident Type Codes 133, 135, 1112, 429- multifamily residential

**29**

# EMS

| (LOW RISK) EMS 90th Percentile Times - Baseline | | | 2017-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| **Alarm Handling** | Pick-up to Dispatch | Urban | **0:43** | 0:46 | 0:46 | 0:43 | 0:40 | 0:39 | **1:00** |
| **Turnout Time** | Turnout Time 1st Unit | Urban | **1:51** | 1:43 | 1:48 | 1:55 | 1:57 | 1:57 | **1:00** |
| **Travel Time** | Travel Time 1st Unit **Distribution** | Urban | **4:00** | 4:02 | 3:55 | 3:54 | 4:00 | 4:00 | **4:00** |
| | Travel Time ERF **Concentration** | Urban | **4:01** | 4:03 | 3:57 | 3:55 | 4:01 | 4:03 | **8:00** |
| **Total Response Time** | Total Response Time 1st Unit on Scene **Distribution** | Urban | **5:58** | 6:00 | 5:57 | 5:53 | 6:00 | 6:02 | **6:00** |
| | | | **32,825** | 4,632 | 7,674 | 6,777 | 7,229 | 6,513 | |
| | Total Response Time ERF **Concentration** | Urban | **5:59** | 6:00 | 5:58 | 5:55 | 6:00 | 6:03 | **10:04** |
| | | | **32,452** | 4,627 | 7,656 | 6,734 | 7,160 | 6,275 | |

**EMS - LOW** ---> Incident Type Codes 300, 311, 320, 321, 381, 554, 661

**ERF = 5**

| (MODERATE RISK) EMS 90th Percentile Times - Baseline | | | 2017-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| **Alarm Handling** | Pick-up to Dispatch | Urban | **:42** | :49 | :46 | :34 | :37 | :41 | **1:00** |
| **Turnout Time** | Turnout Time 1st Unit | Urban | **1:48** | 1:43 | 1:29 | 1:53 | 1:41 | 2:08 | **1:00** |
| **Travel Time** | Travel Time 1st Unit **Distribution** | Urban | **3:43** | 3:26 | 3:51 | 3:43 | 3:41 | 3:42 | **4:00** |
| | Travel Time ERF **Concentration** | Urban | **13:46** | 11:26 | 12:21 | 14:55 | 12:29 | 15:34 | **8:00** |
| **Total Response Time** | Total Response Time 1st Unit on Scene **Distribution** | Urban | **5:34** | 5:28 | 5:35 | 5:31 | 5:35 | 5:22 | **6:00** |
| | | | **378** | 92 | 76 | 76 | 63 | 71 | |
| | Total Response Time ERF **Concentration** | Urban | **15:38** | 13:34 | 14:24 | 17:17 | 14:01 | 17:30 | **10:04** |
| | | | **330** | 78 | 67 | 69 | 56 | 60 | |

**EMS - MODERATE** ---> Incident Type Codes 3211 ***(Cardiac Arrest)***

**ERF = 9**

| (HIGH RISK) EMS 90th Percentile Times - Baseline | | | 2017-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| **Alarm Handling** | Pick-up to Dispatch | Urban | | | | | | | **1:00** |
| **Turnout Time** | Turnout Time 1st Unit | Urban | | | | | | | **1:00** |
| **Travel Time** | Travel Time 1st Unit **Distribution** | Urban | | | | | | | **4:00** |
| | Travel Time ERF **Concentration** | Urban | | | | | | | **8:00** |
| **Total Response Time** | Total Response Time 1st Unit on Scene **Distribution** | Urban | | | | | | | **6:00** |
| | | | | | | | | | |
| | Total Response Time ERF **Concentration** | Urban | | | | | | | **10:04** |
| | | | | | | | | | |

**EMS - HIGH** ---> Incident Type Codes ***MASS CASUALTY**

**ERF = 26**

# RESCUE

| (LOW RISK) RESCUE 90th Percentile Times - Baseline Performance | | | 2017-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| Alarm Handling | Pick-up to Dispatch | Urban | 0:48 | 0:59 | 0:52 | 0:57 | 0:48 | 0:38 | 1:00 |
| Turnout Time | Turnout Time 1st Unit | Urban | 1:53 | 1:48 | 1:41 | 1:45 | 1:52 | 2:07 | 1:20 |
| Travel Time | Travel Time 1st Unit Distribution | Urban | 5:44 | 5:20 | 6:07 | 4:50 | 5:55 | 5:41 | 4:00 |
| | Travel Time ERF Concentration | Urban | ERF same as above | -- | -- | -- | -- | -- | ERF same as above |
| Total Response Time | Total Response Time 1st Unit on Scene Distribution | Urban | 7:59 | 7:57 | 9:52 | 7:30 | 7:23 | 7:58 | 6:20 |
| | | | 466 | 68 | 70 | 62 | 131 | 135 | |
| | Total Response Time ERF Concentration | Urban | ERF same as above | -- | -- | -- | -- | -- | ERF same as above |
| | | | -- | -- | -- | -- | -- | -- | |

**Rescue - LOW** ---> Incident Type Codes 331, 353, 460, 463, 511, 555, 5551, 811, 812, 813

**ERF = 3**

| (MODERATE RISK) RESCUE 90th Percentile Times - Baseline Performance | | | 2017-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| Alarm Handling | Pick-up to Dispatch | Urban | :36 | :40 | :37 | :36 | :34 | :33 | 1:00 |
| Turnout Time | Turnout Time 1st Unit | Urban | 1:44 | 1:41 | 1:44 | 1:38 | 1:44 | 1:54 | 1:20 |
| Travel Time | Travel Time 1st Unit Distribution | Urban | 3:29 | 3:33 | 3:30 | 3:24 | 3:33 | 3:28 | 4:00 |
| | Travel Time ERF Concentration | Urban | 6:40 | 6:54 | 6:34 | 6:27 | 6:48 | 6:41 | 8:00 |
| Total Response Time | Total Response Time 1st Unit on Scene Distribution | Urban | 5:20 | 5:26 | 5:24 | 5:07 | 5:15 | 5:29 | 6:20 |
| | | | 1,998 | 244 | 428 | 347 | 519 | 460 | |
| | Total Response Time ERF Concentration | Urban | 7:54 | 8:05 | 8:03 | 7:27 | 7:59 | 7:59 | 10:20 |
| | | | 1,639 | 205 | 353 | 297 | 420 | 364 | |

**Rescue - MODERATE** ---> Incident Type Codes 322, 323, 324, 340, 341, 342, 352, 370, 371, 372

**ERF = 9**

| (HIGH RISK) RESCUE 90th Percentile Times - Baseline Performance | | | 2017-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| Alarm Handling | Pick-up to Dispatch | Urban | 1:34 | 0:59 | 0:53 | 0:58 | 1:57 | 3:06 | 1:04 |
| Turnout Time | Turnout Time 1st Unit | Urban | 1:08 | 0:24 | 0:55 | 0:50 | 2:32 | 1:02 | 1:00 |
| Travel Time | Travel Time 1st Unit Distribution | Urban | 4:25 | | 4:25 | | | | 4:00 |
| | Travel Time ERF Concentration | Urban | #DIV/0! | | | | | | 8:00 |
| Total Response Time | Total Response Time 1st Unit on Scene Distribution | Urban | 6:13 | | 6:13 | | | | 6:04 |
| | | | 1 | | 1 | | | | |
| | Total Response Time ERF Concentration | Urban | #DIV/0! | | | | | | 10:04 |
| | | | 0 | | | | | | |

**Rescue - HIGH** ---> Incident Type Codes 343, 350, 351, 354, 355, 356, 357, 360, 361, 362, 363, 364, 365, 461, 462

**ERF = 18** *+ Regional Technical Rescue Team*

# HAZMAT

| (LOW RISK) HAZMAT 90th Percentile Times - Baseline | | | 2017-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| Alarm Handling | Pick-up to Dispatch | Urban | 0:47 | 0:48 | 0:54 | 0:46 | 0:41 | 0:39 | 1:00 |
| Turnout Time | Turnout Time 1st Unit | Urban | 2:13 | 1:51 | 2:03 | 2:20 | 2:13 | 2:26 | 1:00 |
| Travel Time | Travel Time 1st Unit Distribution | Urban | 5:45 | 6:58 | 5:48 | 4:41 | 5:26 | 5:31 | 4:00 |
| | Travel Time ERF Concentration | Urban | ERF same as above | -- | -- | -- | -- | -- | ERF same as above |
| Total Response Time | Total Response Time 1st Unit on Scene Distribution | Urban | 8:28 | 9:03 | 8:24 | 7:50 | 8:30 | 8:55 | 6:00 |
| | | | 611 | 137 | 113 | 128 | 130 | 103 | |
| | Total Response Time ERF Concentration | Urban | ERF same as above | -- | -- | -- | -- | -- | ERF same as above |
| | | | -- | -- | -- | -- | -- | -- | |

**Haz Mat - LOW**---> Incident Type Codes 400, 410, 411, 4122, 413, 420, 421, 671, 736, 746

**ERF = 3**

| (MODERATE RISK) HAZMAT - 90th Percentile Times - Baseline | | | 2017-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| Alarm Handling | Pick-up to Dispatch | Urban | 0:47 | 0:49 | 0:42 | 0:47 | 0:51 | 0:45 | 1:04 |
| Turnout Time | Turnout Time 1st Unit | Urban | 2:10 | 1:49 | 2:17 | 2:07 | 2:12 | 2:14 | 1:00 |
| Travel Time | Travel Time 1st Unit Distribution | Urban | 4:32 | 4:56 | 4:28 | 4:19 | 4:39 | 4:34 | 4:00 |
| | Travel Time ERF Concentration | Urban | 7:45 | 12:19 | 7:43 | 7:29 | 6:48 | 8:33 | 8:00 |
| Total Response Time | Total Response Time 1st Unit on Scene Distribution | Urban | 6:51 | 6:57 | 6:27 | 7:07 | 6:41 | 6:43 | 6:04 |
| | | | 707 | 111 | 142 | 146 | 168 | 140 | |
| | Total Response Time ERF Concentration | Urban | 9:05 | 7:54 | 8:59 | 8:55 | 8:03 | 9:53 | 10:04 |
| | | | 222 | 3 | 70 | 49 | 53 | 47 | |

**HazMat - MODERATE** ---> Incident Type Codes 412, 422, 423, 424, 672, 751

**ERF = 9**

| (HIGH RISK) HAZMAT - 90th Percentile Times - Baseline | | | 2017-2022 | 2022 | 2021 | 2020 | 2019 | 2018 | Agency Benchmark |
|---|---|---|---|---|---|---|---|---|---|
| Alarm Handling | Pick-up to Dispatch | Urban | 2:17 | 5:47 | 1:39 | 0:37 | 1:42 | 0:41 | 1:04 |
| Turnout Time | Turnout Time 1st Unit | Urban | 2:18 | 3:02 | 2:22 | 2:00 | 1:46 | 0:04 | 1:00 |
| Travel Time | Travel Time 1st Unit Distribution | Urban | 13:55 | 14:15 | 13:59 | 4:07 | 21:12 | 16:03 | 4:00 |
| | Travel Time ERF Concentration | Urban | #DIV/0! | | | | | | 8:00 |
| Total Response Time | Total Response Time 1st Unit on Scene Distribution | Urban | 15:42 | 21:24 | 17:31 | 6:10 | 36:38 | 17:44 | 6:04 |
| | | | 19 | 4 | 2 | 4 | 5 | 4 | |
| | Total Response Time ERF Concentration | Urban | #DIV/0! | | | | | | 10:04 |
| | | | 0 | | | | | | |

**HazMat - HIGH** ---> Incident Type Codes 430, 431, 451, 471

**ERF = 14** *+ Regional HazMat Technnician Team*

# Baseline Performance Charts (Per Threat & Type)

## DEMAND AND PERFORMANCE SUMMARY CHARTS (EXCLUDES Mutual Aid)

90% Baseline Performance

*NO AID GIVEN*

| All Incidents - Department-Wide 90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Travel-Distribution | 04:14 (49,713) | 04:17 (8,826) | 04:13 (9,753) | 04:09 (9,194) | 04:13 (10,374) | 04:19 (11,566) |
| Travel-2nd Arrival | 05:29 (42,003) | 05:33 (7,344) | 05:24 (8,176) | 05:20 (7,725) | 05:29 (8,764) | 05:38 (9,994) |
| Dispatch to Arrival | 05:39 (51,049) | 05:47 (9,217) | 05:41 (10,148) | 05:34 (9,419) | 05:36 (10,523) | 05:34 (11,742) |
| Call to Arrival-Distribution | 06:20 (51,415) | 06:23 (9,222) | 06:17 (10,143) | 06:15 (9,479) | 06:22 (10,677) | 06:22 (11,894) |
| Call to Arrival-2nd Arrival | 07:16 (42,509) | 07:20 (7,610) | 07:10 (8,296) | 07:06 (7,791) | 07:17 (8,799) | 07:23 (10,013) |
| Scene Duration | 51:48 (51,043) | 55:28 (9,191) | 51:46 (10,091) | 54:20 (9,425) | 51:25 (10,579) | 47:40 (11,757) |
| Total Duration | 56:02 (51,535) | 59:53 (9,245) | 56:07 (10,150) | 58:24 (9,498) | 55:34 (10,716) | 51:55 (11,926) |

| Fire & EMS - Department-Wide 90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Travel-Distribution | 03:46 (35,207) | 03:49 (6,254) | 03:43 (6,904) | 03:42 (6,431) | 03:44 (7,291) | 03:53 (8,327) |
| Travel-2nd Arrival | 05:31 (34,780) | 05:35 (6,137) | 05:27 (6,858) | 05:21 (6,357) | 05:31 (7,173) | 05:40 (8,255) |
| Dispatch to Arrival | 05:07 (36,087) | 05:14 (6,545) | 05:05 (7,144) | 05:05 (6,581) | 05:05 (7,386) | 05:05 (8,431) |
| Call to Arrival-Distribution | 05:42 (36,095) | 05:47 (6,547) | 05:39 (7,143) | 05:39 (6,582) | 05:43 (7,390) | 05:43 (8,433) |
| Call to Arrival-2nd Arrival | 07:16 (35,162) | 07:19 (6,352) | 07:11 (6,950) | 07:07 (6,404) | 07:18 (7,189) | 07:21 (8,267) |
| Scene Duration | 55:25 (36,074) | 60:15 (6,527) | 55:31 (7,138) | 57:57 (6,583) | 54:26 (7,391) | 50:15 (8,435) |
| Total Duration | 59:39 (36,087) | 64:17 (6,540) | 59:47 (7,138) | 62:08 (6,583) | 58:44 (7,391) | 54:41 (8,435) |

| EMS - Department-Wide 90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | 00:54 (37,196) | 00:48 (6,572) | 00:49 (7,237) | 00:53 (6,818) | 00:57 (7,664) | 00:59 (8,905) |
| Turnout | 01:57 (36,635) | 02:04 (6,327) | 02:02 (7,123) | 02:00 (6,741) | 01:55 (7,609) | 01:47 (8,835) |
| Travel-Distribution | 03:58 (36,472) | 04:01 (6,322) | 03:58 (7,032) | 03:54 (6,673) | 03:54 (7,579) | 04:04 (8,866) |
| Travel-2nd Arrival | 05:38 (34,851) | 05:46 (6,012) | 05:33 (6,695) | 05:28 (6,449) | 05:38 (7,280) | 05:45 (8,415) |
| Dispatch to Arrival | 05:19 (37,330) | 05:27 (6,602) | 05:25 (7,253) | 05:15 (6,821) | 05:16 (7,677) | 05:18 (8,977) |
| Call to Arrival-Distribution | 05:56 (37,337) | 05:58 (6,605) | 05:57 (7,252) | 05:51 (6,823) | 05:54 (7,680) | 05:59 (8,977) |
| Call to Arrival-2nd Arrival | 07:24 (35,209) | 07:28 (6,216) | 07:21 (6,769) | 07:13 (6,495) | 07:25 (7,301) | 07:28 (8,428) |
| Scene Duration | 54:27 (37,328) | 59:09 (6,584) | 54:56 (7,247) | 56:59 (6,825) | 53:31 (7,687) | 49:32 (8,985) |
| Total Duration | 58:43 (37,342) | 63:08 (6,597) | 59:15 (7,247) | 61:07 (6,825) | 57:54 (7,687) | 53:53 (8,986) |

| All Fires - Department-Wide 90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | 01:20 (736) | 01:06 (139) | 01:06 (130) | 01:36 (157) | 01:33 (164) | 01:12 (146) |
| Turnout | 02:02 (717) | 02:20 (134) | 02:11 (125) | 01:55 (155) | 01:53 (162) | 01:54 (141) |
| Travel-Distribution | 04:31 (728) | 04:41 (138) | 03:36 (123) | 04:40 (156) | 05:06 (163) | 04:13 (148) |
| Travel-2nd Arrival | 04:44 (421) | 04:31 (85) | 04:06 (82) | 04:49 (81) | 05:12 (82) | 04:38 (91) |
| Dispatch to Arrival | 05:54 (742) | 06:07 (139) | 05:10 (132) | 06:00 (160) | 05:59 (163) | 05:35 (148) |
| Call to Arrival-Distribution | 06:48 (743) | 07:02 (139) | 05:55 (132) | 07:02 (159) | 07:14 (165) | 06:22 (148) |
| Call to Arrival-2nd Arrival | 06:29 (430) | 06:37 (86) | 05:58 (87) | 06:53 (82) | 06:45 (83) | 06:29 (92) |
| Scene Duration | 38:14 (741) | 43:08 (140) | 34:38 (131) | 40:28 (158) | 39:20 (165) | 31:47 (147) |
| Total Duration | 43:34 (743) | 48:18 (140) | 38:26 (131) | 47:05 (160) | 43:34 (165) | 36:44 (147) |

| Building Fires - Department-Wide 90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | 00:59 (460) | 00:48 (79) | 00:56 (78) | 01:07 (108) | 00:58 (114) | 00:53 (81) |
| Turnout | 01:53 (445) | 01:58 (75) | 01:56 (73) | 02:01 (106) | 01:51 (113) | 01:37 (78) |
| Travel-Distribution | 03:33 (443) | 03:34 (75) | 03:13 (71) | 03:38 (107) | 03:33 (111) | 03:29 (79) |
| Travel-2nd Arrival | 04:30 (396) | 04:30 (69) | 04:31 (66) | 04:15 (93) | 04:17 (93) | 04:41 (75) |
| Dispatch to Arrival | 04:54 (459) | 05:03 (78) | 04:33 (78) | 05:11 (108) | 05:04 (115) | 04:22 (80) |
| Call to Arrival-Distribution | 05:30 (459) | 05:35 (78) | 04:56 (78) | 05:42 (108) | 05:50 (115) | 04:51 (80) |
| Call to Arrival-2nd Arrival | 06:00 (401) | 05:54 (71) | 05:54 (68) | 05:51 (94) | 06:23 (93) | 05:52 (75) |
| Scene Duration | 64:30 (461) | 78:14 (79) | 37:52 (78) | 63:26 (108) | 57:01 (115) | 65:54 (81) |
| Total Duration | 68:27 (461) | 82:55 (79) | 41:03 (78) | 68:04 (108) | 62:39 (115) | 68:56 (81) |

| Technical Rescue - Department-Wide 90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | 01:06 (466) | 01:06 (94) | 00:51 (98) | 01:02 (105) | 01:11 (86) | 01:11 (83) |
| Turnout | 02:06 (463) | 02:22 (94) | 02:02 (98) | 01:53 (103) | 01:55 (86) | 01:52 (82) |
| Travel-Distribution | 05:41 (462) | 06:05 (93) | 05:38 (98) | 05:37 (104) | 05:49 (84) | 05:27 (83) |
| Travel-2nd Arrival | 06:24 (19) | 05:24 (2) | 06:24 (10) | 07:08 (4) | | 02:55 (3) |
| Dispatch to Arrival | 07:09 (471) | 07:20 (95) | 06:54 (100) | 07:05 (105) | 07:11 (87) | 06:43 (84) |
| Call to Arrival-Distribution | 07:57 (473) | 08:17 (95) | 07:23 (100) | 07:45 (106) | 08:21 (88) | 07:38 (84) |
| Call to Arrival-2nd Arrival | 07:47 (20) | 07:48 (2) | 07:28 (10) | 12:33 (5) | | 05:06 (3) |
| Scene Duration | 19:48 (472) | 20:59 (95) | 20:04 (100) | 16:35 (105) | 21:41 (88) | 16:49 (84) |
| Total Duration | 25:28 (473) | 25:49 (95) | 25:18 (100) | 21:42 (106) | 28:41 (88) | 22:30 (84) |

| Haz Mat - Department-Wide 90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | 01:16 (589) | 01:28 (101) | 01:26 (125) | 00:55 (127) | 01:16 (106) | 01:23 (130) |
| Turnout | 02:19 (579) | 02:34 (98) | 02:22 (122) | 02:36 (124) | 02:15 (106) | 01:52 (129) |
| Travel-Distribution | 05:47 (583) | 05:33 (101) | 05:30 (123) | 04:46 (125) | 05:50 (105) | 06:56 (129) |
| Travel-2nd Arrival | 05:08 (104) | 03:30 (12) | 04:22 (28) | 04:12 (24) | 05:24 (19) | 04:55 (21) |
| Dispatch to Arrival | 07:27 (590) | 07:16 (101) | 07:27 (125) | 06:48 (128) | 07:15 (106) | 08:11 (130) |
| Call to Arrival-Distribution | 08:19 (591) | 08:41 (101) | 08:43 (125) | 07:49 (128) | 08:17 (106) | 08:51 (131) |
| Call to Arrival-2nd Arrival | 07:06 (105) | 06:05 (13) | 06:43 (28) | 06:24 (24) | 07:42 (19) | 07:06 (21) |
| Scene Duration | 24:07 (592) | 19:57 (102) | 23:27 (125) | 27:19 (128) | 24:17 (106) | 24:16 (131) |
| Total Duration | 30:08 (592) | 28:56 (102) | 31:08 (125) | 30:15 (128) | 29:56 (106) | 32:15 (131) |

# Demand and Performance Summary Charts

**90% Baseline Performance**

*ALL INCIDENTS - INCLUDING MUTUAL AID*

| All Incidents - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | **01:01 (52,625)** | 00:57 (9,501) | 00:56 (10,441) | 00:59 (9,761) | 01:03 (10,912) | 01:07 (12,010) |
| Turnout | **02:02 (51,162)** | 02:09 (9,175) | 02:06 (10,184) | 02:04 (9,486) | 02:00 (10,636) | 01:49 (11,681) |
| Travel-Distribution | **04:22 (50,867)** | 04:30 (9,150) | 04:25 (10,037) | 04:14 (9,386) | 04:17 (10,562) | 04:24 (11,732) |
| Travel-2nd Arrival | **05:31 (42,513)** | 05:35 (7,436) | 05:26 (8,269) | 05:23 (7,836) | 05:33 (8,883) | 05:41 (10,089) |
| Dispatch to Arrival | **05:49 (52,583)** | 06:02 (9,646) | 05:58 (10,607) | 05:42 (9,680) | 05:40 (10,726) | 05:40 (11,924) |
| Call to Arrival-Distribution | **06:31 (52,969)** | 06:39 (9,672) | 06:34 (10,593) | 06:25 (9,750) | 06:28 (10,876) | 06:29 (12,078) |
| Call to Arrival-2nd Arrival | **07:20 (43,075)** | 07:24 (7,733) | 07:14 (8,398) | 07:10 (7,914) | 07:21 (8,922) | 07:27 (10,108) |
| Scene Duration | **52:19 (52,511)** | 56:04 (9,542) | 52:27 (10,474) | 55:01 (9,687) | 51:50 (10,831) | 48:02 (11,977) |
| Total Duration | **56:40 (53,346)** | 60:35 (9,747) | 56:46 (10,671) | 59:08 (9,812) | 56:13 (10,968) | 52:20 (12,148) |

| Fire & EMS - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | **00:54 (36,596)** | 00:50 (6,632) | 00:51 (7,241) | 00:55 (6,686) | 00:57 (7,538) | 00:56 (8,499) |
| Turnout | **01:56 (35,919)** | 02:03 (6,355) | 02:00 (7,103) | 01:59 (6,580) | 01:54 (7,461) | 01:45 (8,420) |
| Travel-Distribution | **03:50 (35,727)** | 03:53 (6,341) | 03:46 (7,002) | 03:44 (6,516) | 03:49 (7,431) | 03:55 (8,437) |
| Travel-2nd Arrival | **05:33 (35,120)** | 05:36 (6,187) | 05:28 (6,904) | 05:24 (6,417) | 05:34 (7,275) | 05:42 (8,337) |
| Dispatch to Arrival | **05:10 (36,654)** | 05:19 (6,649) | 05:09 (7,246) | 05:07 (6,678) | 05:09 (7,533) | 05:07 (8,548) |
| Call to Arrival-Distribution | **05:46 (36,648)** | 05:51 (6,648) | 05:43 (7,239) | 05:42 (6,677) | 05:47 (7,534) | 05:47 (8,550) |
| Call to Arrival-2nd Arrival | **07:19 (35,525)** | 07:22 (6,413) | 07:13 (6,997) | 07:10 (6,471) | 07:23 (7,295) | 07:24 (8,349) |
| Scene Duration | **55:44 (36,714)** | 60:48 (6,644) | 55:44 (7,254) | 58:22 (6,696) | 54:46 (7,553) | 50:29 (8,567) |
| Total Duration | **60:05 (36,727)** | 65:08 (6,657) | 60:11 (7,254) | 62:42 (6,696) | 59:00 (7,553) | 54:57 (8,567) |

| EMS - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | **00:54 (37,482)** | 00:49 (6,610) | 00:50 (7,293) | 00:53 (6,870) | 00:57 (7,743) | 00:59 (8,966) |
| Turnout | **01:57 (36,901)** | 02:04 (6,362) | 02:02 (7,174) | 02:01 (6,786) | 01:55 (7,683) | 01:47 (8,896) |
| Travel-Distribution | **04:00 (36,742)** | 04:02 (6,357) | 04:01 (7,086) | 03:55 (6,718) | 03:56 (7,656) | 04:06 (8,925) |
| Travel-2nd Arrival | **05:39 (35,031)** | 05:47 (6,023) | 05:35 (6,717) | 05:30 (6,487) | 05:39 (7,341) | 05:47 (8,463) |
| Dispatch to Arrival | **05:21 (37,619)** | 05:30 (6,644) | 05:27 (7,308) | 05:15 (6,869) | 05:18 (7,757) | 05:18 (9,041) |
| Call to Arrival-Distribution | **05:58 (37,623)** | 06:02 (6,646) | 06:00 (7,307) | 05:52 (6,871) | 05:57 (7,759) | 06:01 (9,040) |
| Call to Arrival-2nd Arrival | **07:26 (35,395)** | 07:28 (6,231) | 07:23 (6,791) | 07:15 (6,534) | 07:27 (7,363) | 07:31 (8,476) |
| Scene Duration | **54:30 (37,623)** | 59:20 (6,626) | 55:02 (7,304) | 57:03 (6,877) | 53:34 (7,767) | 49:36 (9,049) |
| Total Duration | **58:51 (37,637)** | 63:28 (6,639) | 59:25 (7,304) | 61:11 (6,877) | 58:00 (7,767) | 53:55 (9,050) |

| All Fires - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | **01:20 (760)** | 01:10 (143) | 01:06 (136) | 01:36 (161) | 01:37 (172) | 01:15 (148) |
| Turnout | **02:05 (738)** | 02:20 (138) | 02:11 (131) | 01:55 (158) | 01:53 (169) | 01:54 (142) |
| Travel-Distribution | **04:45 (750)** | 04:59 (142) | 03:39 (129) | 04:40 (159) | 05:07 (170) | 04:13 (150) |
| Travel-2nd Arrival | **04:51 (436)** | 04:31 (87) | 04:12 (86) | 05:10 (83) | 05:12 (87) | 04:44 (93) |
| Dispatch to Arrival | **05:59 (765)** | 06:25 (143) | 05:29 (138) | 06:05 (164) | 06:00 (170) | 05:36 (150) |
| Call to Arrival-Distribution | **06:59 (766)** | 07:18 (143) | 06:05 (138) | 07:11 (163) | 07:14 (172) | 06:25 (150) |
| Call to Arrival-2nd Arrival | **06:47 (446)** | 06:41 (88) | 06:12 (91) | 07:07 (85) | 07:16 (88) | 06:44 (94) |
| Scene Duration | **38:28 (765)** | 43:08 (144) | 33:49 (137) | 40:47 (162) | 39:20 (173) | 35:20 (149) |
| Total Duration | **43:34 (767)** | 48:18 (144) | 38:11 (137) | 48:09 (164) | 43:34 (173) | 38:32 (149) |

| Building Fires - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | **01:30 (663)** | 01:30 (110) | 01:29 (106) | 01:26 (150) | 01:45 (172) | 01:25 (125) |
| Turnout | **02:09 (623)** | 02:16 (106) | 02:30 (105) | 02:04 (141) | 01:58 (155) | 01:58 (116) |
| Travel-Distribution | **08:20 (592)** | 04:40 (96) | 07:57 (95) | 05:44 (136) | 08:44 (153) | 09:44 (112) |
| Travel-2nd Arrival | **05:41 (475)** | 05:01 (81) | 05:12 (76) | 05:39 (108) | 06:46 (118) | 05:17 (92) |
| Dispatch to Arrival | **10:59 (628)** | 08:04 (104) | 10:06 (105) | 10:57 (145) | 11:09 (160) | 13:15 (114) |
| Call to Arrival-Distribution | **11:34 (620)** | 08:46 (103) | 09:26 (99) | 11:47 (144) | 11:34 (159) | 14:46 (115) |
| Call to Arrival-2nd Arrival | **08:35 (491)** | 07:12 (86) | 07:17 (79) | 08:51 (114) | 10:10 (120) | 07:38 (92) |
| Scene Duration | **104:37 (682)** | 111:28 (114) | 97:18 (112) | 95:30 (153) | 101:54 (174) | 108:58 (129) |
| Total Duration | **119:11 (682)** | 127:28 (114) | 118:12 (112) | 107:34 (153) | 117:37 (174) | 123:28 (129) |

| Technical Rescue - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | **01:08 (468)** | 01:06 (94) | 00:52 (99) | 01:02 (105) | 01:11 (86) | 01:13 (84) |
| Turnout | **02:06 (465)** | 02:22 (94) | 02:06 (99) | 01:53 (103) | 01:55 (86) | 01:52 (83) |
| Travel-Distribution | **05:42 (464)** | 06:05 (93) | 05:38 (99) | 05:37 (104) | 05:49 (84) | 05:28 (84) |
| Travel-2nd Arrival | **06:30 (20)** | 05:24 (2) | 06:24 (10) | 07:08 (4) | | 06:30 (4) |
| Dispatch to Arrival | **07:09 (473)** | 07:20 (95) | 06:54 (101) | 07:05 (105) | 07:11 (87) | 07:02 (85) |
| Call to Arrival-Distribution | **07:57 (475)** | 08:17 (95) | 07:36 (101) | 07:45 (106) | 08:21 (88) | 07:49 (85) |
| Call to Arrival-2nd Arrival | **07:48 (21)** | 07:48 (2) | 07:28 (10) | 12:33 (5) | | 09:31 (4) |
| Scene Duration | **19:48 (474)** | 20:59 (95) | 20:04 (101) | 16:35 (105) | 21:41 (88) | 16:49 (85) |
| Total Duration | **25:28 (475)** | 25:49 (95) | 25:18 (101) | 21:42 (106) | 28:41 (88) | 22:30 (85) |

| Haz Mat - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | **01:17 (596)** | 01:28 (102) | 01:26 (125) | 00:55 (127) | 01:31 (112) | 01:23 (130) |
| Turnout | **02:19 (585)** | 02:34 (98) | 02:22 (122) | 02:36 (124) | 02:15 (112) | 01:52 (129) |
| Travel-Distribution | **05:50 (588)** | 05:33 (101) | 05:30 (123) | 04:46 (125) | 06:25 (110) | 06:56 (129) |
| Travel-2nd Arrival | **05:10 (105)** | 03:30 (12) | 04:22 (28) | 04:12 (24) | 05:24 (20) | 04:55 (21) |
| Dispatch to Arrival | **07:36 (596)** | 07:16 (102) | 07:27 (125) | 06:48 (128) | 07:38 (111) | 08:11 (130) |
| Call to Arrival-Distribution | **08:29 (597)** | 08:41 (102) | 08:43 (125) | 07:49 (128) | 08:32 (111) | 08:51 (131) |
| Call to Arrival-2nd Arrival | **07:08 (107)** | 06:24 (14) | 06:43 (28) | 06:24 (24) | 09:11 (20) | 07:06 (21) |
| Scene Duration | **25:42 (599)** | 20:55 (103) | 23:27 (125) | 27:19 (128) | 26:29 (112) | 24:16 (131) |
| Total Duration | **30:37 (599)** | 29:01 (103) | 31:08 (125) | 30:15 (128) | 32:43 (112) | 32:15 (131) |

# Response Segment Breakdown Review

## Call Processing

**BENCHMARK** (90% of Incidents)

**< 1:04 (1:00)**

Illinois established that 911 calls are transferred to the PSAP designated by the law enforcement district's jurisdiction (Orland Park Police- primarily). NFPA 1221, Standards for Installation, Maintenance, and Use of Emergency Services Communications Systems, 2016 Edition, establishes a PSAP transfer performance standard of ≤ 30 seconds 95% of the time. Transfer times from PSAP1 (OPPD) to PSAP2 (OCD) are not tracked.

| Call Processing Analysis | | | | | | |
|---|---|---|---|---|---|---|
| **90% Baseline Performance** | **Overall** | **2018** | **2019** | **2020** | **2021** | **2022** |
| **Department-Wide** | **00:58 (51,122)** | 00:53 (9,144) | 00:54 (10,059) | 00:56 (9,456) | 01:01 (10,664) | **01:05 (11,799)** |

NFPA 1710 requires that 90% of all calls must be "processed" in less than 64 seconds (95% < 106 seconds).

*Times are 90% performance measures with **NO AID** given and outliers removed.

| Fire & EMS - Department-Wide 90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Call Processing | **00:53 (35,989)** | 00:48 (6,522) | 00:49 (7,135) | 00:54 (6,578) | 00:55 (7,379) | **00:55 (8,375)** |

However, there is another time that needs to be reviewed. It is the time before the call is initiated. Per NFPA 1221 & 1710, the time an emergency call is initiated to being answered (ring time) is <15 sec for 95% of all calls and <40 for 99%. If a Primary PSAP (Public Safety Answering Point) differs from the Fire/EMS Dispatcher, that call must be transferred in less than 30 seconds. These times, thus far, have not been obtained to validate compliance.

Fire & EMS (Emergency) Incidents – No Aid given

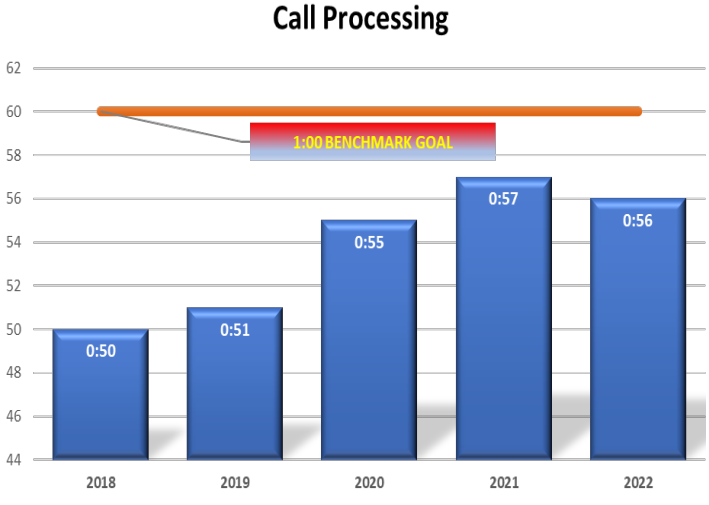
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The overall baseline times show **achieves** this 1:00 benchmark by **0:07 seconds**

**Other benchmark times before Fire Dispatch picking up 911 calls to be processed** ***(Not analyzed here)***

911 Call Answered (**Ring Time**) **< 15 sec 95%** *< 40 sec 99%*

PSAP 1 transfer to PSAP 2 **< 30 sec 90%**
*(If not primary PSAP)*




**Call Processing –**
***("911 – Where and What is your Emergency?")***

Call Processing **< 60 sec 90%** *< 106 sec 95%*



# Turnout

**BENCHMARK** (90% of Incidents)

**< 1:00 - EMS**

**< 1:20 - FIRES**

The time when the Stations or Units are notified of the incident until the "wheels are turning," and the unit is heading to the incident. Numerous factors may influence turnout times, including station alerting, physical station configuration, vehicle placement, "jump companies" – reactive response depending on the incident type, day/night calls, crew activity, etc.

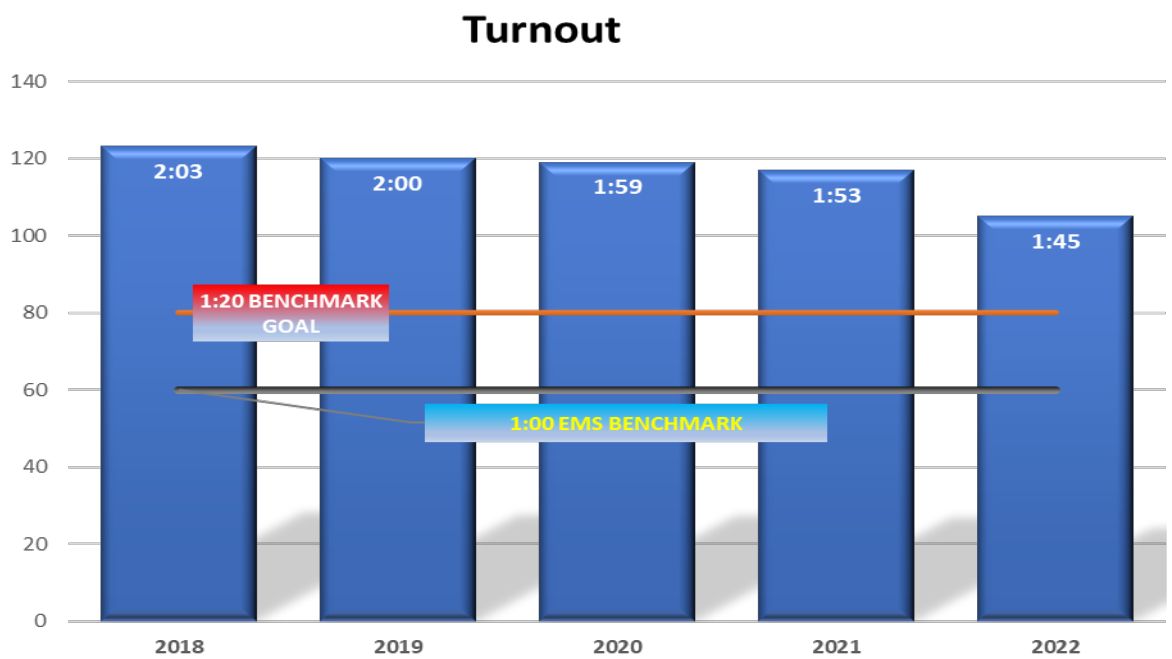
| Turnout Time Analysis | | | | | | |
|---|---|---|---|---|---|---|
| **90% Baseline Performance** | **Overall** | **2018** | **2019** | **2020** | **2021** | **2022** |
| Department-Wide | **02:01 (49,821)** | 02:08 (8,802) | 02:05 (9,849) | 02:03 (9,262) | 01:59 (10,420) | **01:49 (11,488)** |
| Station 1 | **01:56 (10,962)** | 02:03 (1,977) | 01:59 (2,134) | 01:57 (1,948) | 01:55 (2,334) | **01:46 (2,569)** |
| Station 2 | **01:56 (8,753)** | 02:02 (1,423) | 02:02 (1,642) | 02:00 (1,700) | 01:51 (1,857) | **01:45 (2,131)** |
| Station 3 | **02:08 (4,683)** | 02:19 (912) | 02:07 (925) | 02:07 (869) | 02:07 (983) | **02:01 (994)** |
| Station 4 | **02:00 (10,370)** | 02:09 (1,765) | 02:07 (2,034) | 02:04 (1,929) | 01:57 (2,282) | **01:42 (2,360)** |
| Station 5 | **01:59 (7,682)** | 02:02 (1,456) | 02:01 (1,633) | 02:02 (1,431) | 01:58 (1,426) | **01:53 (1,736)** |
| Station 6 | **02:08 (7,282)** | 02:18 (1,203) | 02:10 (1,466) | 02:10 (1,385) | 02:07 (1,536) | **01:53 (1,692)** |

*Times are 90% performance measures with **NO AID** given and outliers removed.

| **Fire & EMS - Department-Wide 90% Baseline Performance** | **Overall** | **2018** | **2019** | **2020** | **2021** | **2022** |
|---|---|---|---|---|---|---|
| Turnout | **01:56 (35,365)** | 02:03 (6,256) | 02:00 (6,997) | 01:59 (6,487) | 01:53 (7,323) | **01:45 (8,302)** |

FIRE & EMS Incidents (Emergency) – No Aid Given

The overall baseline times show **exceeds** this 1:20 benchmark by **0:36 seconds**



# Travel

**BENCHMARK** (90% of Incidents)

**< 4:00 – First Due Unit (Engine)**

*< 6:00* - Second-due Engine (per new 2020 edition NFPA 1710)*

**< 8:00 – Effective Response Force (ERF) / Balance of Alarm**

The time from the unit responds to when it arrives on the scene. These times are impacted by the distance of the location of an incident from the responding station or unit, street network (configurations, speed limits, etc.), traffic, traffic control devices, construction, train crossings, type of apparatus responding, weather, AVL dispatching, and others.

| Travel Time Analysis<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Department-Wide | **04:14 (49,713)** | 04:17 (8,826) | 04:13 (9,753) | 04:09 (9,194) | 04:13 (10,374) | **04:19 (11,566)** |
| Station 1 | **04:20 (10,778)** | 04:14 (1,936) | 04:10 (2,058) | 04:11 (1,905) | 04:21 (2,310) | **04:45 (2,569)** |
| Station 2 | **03:54 (8,745)** | 04:01 (1,443) | 03:47 (1,628) | 03:45 (1,684) | 03:53 (1,851) | **04:00 (2,139)** |
| Station 3 | **05:02 (4,688)** | 05:03 (912) | 04:47 (918) | 05:06 (872) | 05:02 (982) | **05:10 (1,004)** |
| Station 4 | **04:07 (10,418)** | 04:02 (1,795) | 04:24 (2,042) | 04:13 (1,927) | 04:11 (2,279) | **03:56 (2,375)** |
| Station 5 | **03:59 (7,711)** | 03:54 (1,464) | 04:03 (1,628) | 03:53 (1,425) | 03:52 (1,421) | **04:07 (1,773)** |
| Station 6 | **04:06 (7,289)** | 04:24 (1,216) | 04:10 (1,464) | 03:56 (1,381) | 03:53 (1,529) | **04:08 (1,699)** |

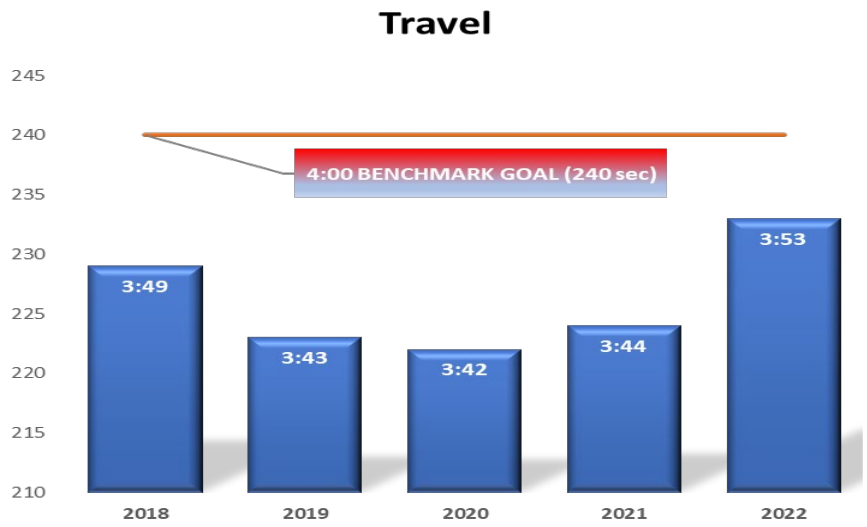
*Times are 90% performance measures with **NO AID** given and outliers removed.

| Fire & EMS - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Travel-Distribution | **03:46 (35,207)** | 03:49 (6,254) | 03:43 (6,904) | 03:42 (6,431) | 03:44 (7,291) | **03:53 (8,327)** |
| Travel-2nd Arrival | **05:31 (34,780)** | 05:35 (6,137) | 05:27 (6,858) | 05:21 (6,357) | 05:31 (7,173) | **05:40 (8,255)** |

| All Incidents - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Travel-Distribution | **04:14 (49,713)** | 04:17 (8,826) | 04:13 (9,753) | 04:09 (9,194) | 04:13 (10,374) | **04:19 (11,566)** |
| Travel-2nd Arrival | **05:29 (42,003)** | 05:33 (7,344) | 05:24 (8,176) | 05:20 (7,725) | 05:29 (8,764) | **05:38 (9,994)** |

FIRE & EMS Incidents (Emergency) – No Aid Given

The overall baseline times show **achieving** this 4:00 benchmark by **0:14**



# Call To Arrival (Total Response Time)

**BENCHMARK** (90% of Incidents)

**< 6:00 - 6:20 - First Due Unit**

**< 10:00 - 10:20 - Effective Response Force (ERF) / Balance of Alarm**

The Call to Arrival (CTA)/"**Total Response Time**" or "Hello to Hello" time from the 911 call to the first unit and ERF arrives, including all response segments: from **Call Processing** to **Turnout to Travel** for the **1st Arriving Company**.

| Call to Arrival Analysis<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| **Department-Wide** | **06:20 (51,415)** | **06:23 (9,222)** | **06:17 (10,143)** | **06:15 (9,479)** | **06:22 (10,677)** | **06:22 (11,894)** |
| Station 1 | **06:22 (11,291)** | 06:19 (2,021) | 06:13 (2,221) | 06:07 (1,994) | 06:22 (2,393) | **06:39 (2,662)** |
| Station 2 | **06:00 (9,141)** | 05:58 (1,607) | 05:58 (1,679) | 05:51 (1,726) | 06:00 (1,912) | **06:05 (2,217)** |
| Station 3 | **07:10 (4,787)** | 07:10 (929) | 06:56 (945) | 07:05 (886) | 07:14 (1,005) | **07:20 (1,022)** |
| Station 4 | **06:15 (10,772)** | 06:06 (1,856) | 06:28 (2,132) | 06:21 (1,989) | 06:23 (2,351) | **05:52 (2,444)** |
| Station 5 | **06:03 (7,874)** | 06:02 (1,499) | 06:09 (1,663) | 05:55 (1,463) | 05:53 (1,446) | **06:09 (1,803)** |
| Station 6 | **06:14 (7,461)** | 06:38 (1,246) | 06:11 (1,488) | 06:10 (1,421) | 06:03 (1,568) | **06:09 (1,738)** |

*Times are 90% performance measures with **NO AID** given and outliers removed

| EMS - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Dispatch to Arrival | **05:19 (37,330)** | 05:27 (6,602) | 05:25 (7,253) | 05:15 (6,821) | 05:16 (7,677) | **05:18 (8,977)** |
| **Call to Arrival-Distribution** | **05:56 (37,337)** | **05:58 (6,605)** | **05:57 (7,252)** | **05:51 (6,823)** | **05:54 (7,680)** | **05:59 (8,977)** |

| All Fires - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Dispatch to Arrival | **05:54 (742)** | 06:07 (139) | 05:10 (132) | 06:00 (160) | 05:59 (163) | **05:35 (148)** |
| **Call to Arrival-Distribution** | **06:48 (743)** | **07:02 (139)** | **05:55 (132)** | **07:02 (159)** | **07:14 (165)** | **06:22 (148)** |

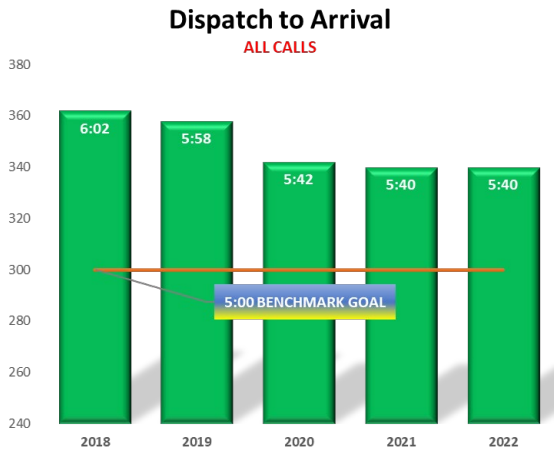
| All Incidents - Department-Wide<br>90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Dispatch to Arrival | **05:49 (52,583)** | 06:02 (9,646) | 05:58 (10,607) | 05:42 (9,680) | 05:40 (10,726) | 05:40 (11,924) |
| **Call to Arrival-Distribution** | **06:31 (52,969)** | **06:39 (9,672)** | **06:34 (10,593)** | **06:25 (9,750)** | **06:28 (10,876)** | **06:29 (12,078)** |

*DISPATCH TO ARRIVAL times EXCLUDE CALL PROCESSING = Turnout + Travel

FIRE & EMS Incidents (Emergency) – No Aid Given

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The baseline times **achieve** the 6:00 benchmark by **0:04 (EMS)** & **exceeds** the 6:00 benchmark by **0:24 (FIRES)**







Scene

## Duration

The time from the arrival of the first unit until the last unit leaves the scene. There is no benchmark time. However, the longer the units commit to the incident, the less likely they are to respond to another incident.

**Scene Duration Analysis**

| 90% Baseline Performance | Overall | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| **Department-Wide** | **51:48 (51,043)** | **55:28 (9,191)** | **51:46 (10,091)** | **54:20 (9,425)** | **51:25 (10,579)** | **47:40 (11,757)** |
| Station 1 | **45:05 (11,186)** | 46:20 (2,005) | 43:44 (2,205) | 49:11 (1,974) | 44:59 (2,372) | **43:11 (2,630)** |
| Station 2 | **50:58 (9,062)** | 59:18 (1,597) | 53:02 (1,675) | 55:33 (1,717) | 48:55 (1,887) | **43:28 (2,186)** |
| Station 3 | **56:15 (4,759)** | 63:31 (927) | 54:11 (938) | 55:53 (884) | 55:54 (993) | **52:42 (1,017)** |
| Station 4 | **53:34 (10,660)** | 55:22 (1,850) | 55:04 (2,118) | 55:40 (1,973) | 53:08 (2,322) | **50:21 (2,397)** |
| Station 5 | **54:10 (7,842)** | 56:27 (1,490) | 52:57 (1,653) | 56:36 (1,458) | 55:21 (1,444) | **49:48 (1,797)** |
| Station 6 | **50:56 (7,434)** | 51:55 (1,247) | 49:23 (1,487) | 54:16 (1,419) | 51:20 (1,559) | **48:29 (1,722)** |

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# PLAN FOR MAINTAINING & IMPROVING CAPABILITIES

6

# Section 6 – Plan for Maintaining & Improving

## Plan for Maintaining and Improving Response Capabilities

The plan is to develop, maintain, and improve response capabilities.

## Compliance / Review Methodology

Implementing a plan to guide improving and maintaining Standards of Cover (SOC) response capabilities and performance has been a goal for the Fire Protection District. The District is committed to developing the SOC process to continually analyze the data and use the analytics for continual improvement to achieve this goal. Therefore, with the Chief's facilitation, the team shall be assigned to manage the compliance outlined in the following steps.




**Step 1 – Establish and Review Performance Objectives to establish performance objectives.**

- Identify services provided.
- Defined level of service.
- Identify and categorize levels of risk.
- Developed performance distribution/concentration measures and associated objectives.

While much of this process may remain the same with each CRA-SOC process, reviewing the underlying organizational assumptions and ensuring they are accurate and relevant is essential. This can be in the form of environmental scanning with an emphasis on community expectations, updating and establishing any new performance measures shall occur when:

- The District delivers changes in the type(s) of services.
- New mandated laws or regulations require a difference in the method of service delivery.
- Significant changes occur within the District boundaries.
- The Board of Trustees or the Fire Chief must adjust performance service delivery and associated performance objectives.

### Step 2 – Evaluate Performance Objectives at all levels.

Performance at a District-wide level

| | | |
|---|---|---|
| **DAILY** | **STATION/UNIT** LEVEL | (including CQI on EMS) |
| **MONTHLY** | **SHIFT/ BATTALION** LEVEL | (each/all three shifts) |
| **QUARTERLY** | **OPERATIONS/ADMIN** LEVEL | (review all shifts) |
| **YEARLY** | **OPS/ADMIN/BATTALIONS** | (SOC/Deployments) |

### Step 3 – Develop Compliance Strategies that shall include, but are not limited to:

- Ensure the maximization of existing resources.
- Evaluation of partnering opportunities.
- Consideration of alternate means of service delivery.
- Create recommendations for allocating additional financial resources to improve service delivery.
- Individual or group actions that can improve service delivery.
- Recommend response performance reporting systems.

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### Step 4 – Communicate Expectations

This edition of the CRA-SOC clearly outlines service level-response performance objectives. These performance objectives must be communicated to the operations personnel responsible for service delivery. The methods for communicating objective performance expectations may include, but are not limited to:

- Direct communication with crews by the Chiefs.
- Publish and post the CRA-SOC on the District internet and in-station.
- Exploring near real-time live delivery of response expectations via email alerts.

### Step 5 – Validate Compliance

Chiefs shall monitor response performance data each Shift for gross deviance from performance standards:

- Monthly performance reports that include performance data by unit, station, and Shift shall be developed, standardized, and distributed to all personnel through the chain of command.
- Quarterly performance reports shall be developed and delivered at the quarterly meetings.

A comprehensive annual performance report shall be developed. The annual report shall include all aspects of performance compliance for the previous calendar year, any significant trends identified by analyzing performance, any new external influences or altered conditions, new growth, development trends, and new or

changing risks. The annual report shall be submitted to the Chief and Board of Trustees for review and comments.

### Step 6 – Make Necessary Adjustments

Reviewing the information developed to validate compliance and performance "gaps" can be identified and formulated for improvement developed by the Command Staff.

### Annual Review of the CRA-SOC Document

In addition to developing an annual performance report as outlined, the SOC team shall review yearly the entire CRA-SOC to make any necessary adjustments. Following the SOC team's annual review, the Board of Trustees shall review and adopt the CRA-SOC annually.



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# Accreditation Overview

It is recommended that the District continue to achieve Accreditation status. This Community Risk Assessment / Standards of Cover (CRA/SOC) is one of the three components needed. The other two are a STRATEGIC PLAN and SELF-ASSESSMENT MANUAL.




**What is Accreditation?**

CFAI accreditation is a process of agency self-assessment. The Center for Public Safety Excellence (CPSE) and the Commission on Fire Accreditation International (CFAI) provide the accreditation model, various accreditation publications and training, and access to experienced peer assessors.

Working towards, achieving, and maintaining accreditation shall:

- Raise the profile of your agency with your community.
- Emphasize your agency's dedication to excellence to your stakeholders.
- Establish an agency-wide culture of continuous improvement.
- Assist with communicating your leadership philosophies.
- Build positive relationships with your labor groups.
- Offer independent verification and validation of your agency's operations.
- Provide accurate, objective data and information for your elected officials.

Accredited agencies are often described as community-focused, data-driven, outcome-focused, strategic-minded, well-organized, equipped, adequately staffed, and trained.

Part of the reason for this is the holistic scope of the CFAI model. It includes **eleven categories** with **252 performance indicators** that cover the span of fire and emergency service operations:

- Governance and Administration
- Assessment and Planning
- Goals and Objectives
- Financial Resources
- Programs
- Physical Resources
- Human Resources
- Training and Competency
- -External Systems Relationship

Category 5 (Programs) covers the whole gamut:

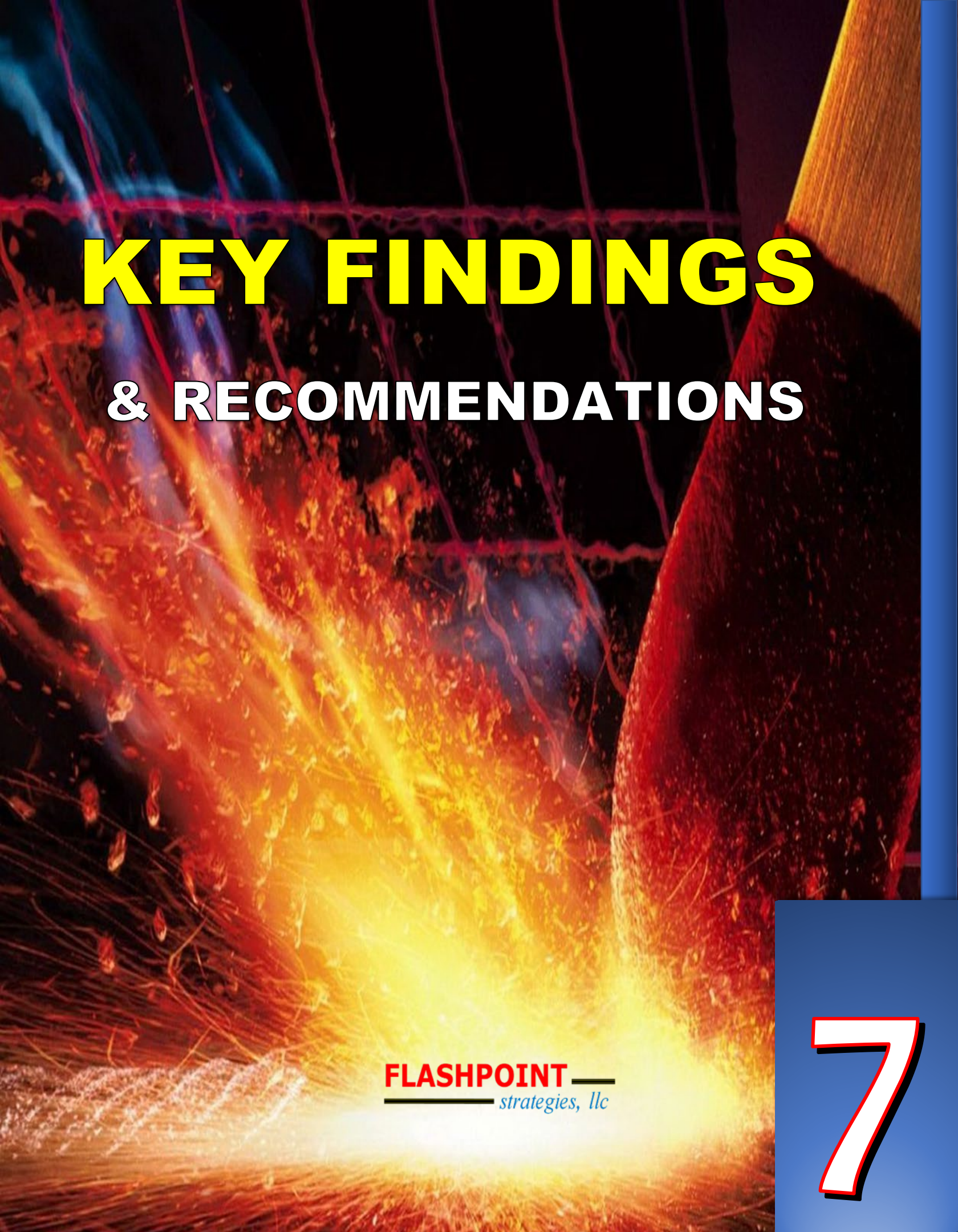
- Community Risk Reduction
- Public Education
- Fire Investigations
- Domestic Preparedness
- Fire Suppression
- EMS
- Technical Rescue
- Hazmat
- Aviation Rescue and Firefighting
- Marine and Shipboard Rescue and Firefighting
- Wildland Firefighting

Like many fire and emergency services agencies, you may live in a world between public service and private demand. Your agency's goals include reducing property and life loss and promoting employee safety. However, you often find yourself making choices. Before making choices, wouldn't you want to know your current status? That is where self-assessment is invaluable. Self-assessment is an excellent way of coping with the rise of performance-based budgeting. This type of budgeting requires measuring, benchmarking, and analysis, all of which are in the CFAI model. Government accountability has also been an emerging trend for the last few decades. Self-assessment provides a reliable response to increased oversight by managers and elected officials and potential criticism from the community.

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**Accreditation – Is it worth it?**

Agency accreditation is a voluntary process. Some agencies seek a dollar-for-dollar return on investment before pursuing accreditation. The real investment is agency staff time, and the yield is a better-run, higher-performing agency. Accreditation is recognition of achievement Internationally. It shows your community that your agency performs to industry best practices and holds itself accountable through an external peer review. Document review and onsite assessment by CFAI peer assessors are comprehensive. Accreditation reports often include peer recommendations for improvement beyond those your agency may have considered.



# KEY FINDINGS

## & RECOMMENDATIONS

FLASHPOINT strategies, llc

7

# Section 7 – Key Findings & Recommendations

## Key Findings & Recommendations

These findings and recommendations are a result of the Board of Trustees oversight and efforts to continually examine and improve the most **effective, efficient** emergency services to the entire Fire Protection District. An extensive review of data was conducted from multiple sources: including NFIRS, CAD, RMS, Budgets, Audits, Annual Reports, and more. Data analytics utilizing Continuum, GIS, StatsFD, and other software were part of this process. Below are several recommendations and observations made during site visits, discussions with the membership & Command Staff, and the Accreditation process. These are *in no order*, but all help the District continue to improve and meet its mission. Lastly, it is about how we can do what we do better. The development of these Standards of Cover has allowed the District to examine extensively who we are (as a Fire Rescue Service) and how we got here, what we do, and how well we do it. These conclusions and recommendations will make the District the absolute best that the District can be. That is what District stakeholders (patients, victims, guests, business owners, community partners, and dedicated staff) demand and hold the District accountable to. After all, it is the District's mission: "Dedicated to PRESERVING LIFE and PROPERTY while valuing full ACCOUNTABILITY to each other and people WE SERVE." Let's also remember our renewed motto & focus on all that we do:

***Semper Paratus Servio*** – "*Always Ready to Serve – Better, Fast, Safer, & Smarter*"

Draft

**ADMIN**

- Expanding and strengthening the Administrative oversight and structure into programs and services will improve the District's span of control, minimizing and eliminating redundancies, inefficiencies, and inconsistencies – including creating Captain & Division Chief positions.
- Continue monthly staff & officer meetings with a structured format & feedback reporting to all.
- The District's baseline times mostly meet the National Standard benchmarks (including the crucial Call to the Arrival time of 90% < 6:00) except for turnout time. This needs to be maintained or reduced, and baselines adjusted for continuous improvement.
- Data Analytics & GIS modeling is exceptional but must be maintained for timely decisions.
- Multiple technology platforms need to be consolidated, coordinated, and improved.
- Data input must be improved for consistency (GI-GO), and analysis is prioritized.
- Conflicting data issues need to be eliminated.
- Continue & expand the use of Committees for further input & expertise
- Formalize the succession planning processes.
- Further research offering Community Home Health/Paramedicine services & functions.
- Fire Prevention codes need to be updated across all AHJs and enforced.
- Maintain ISO 1 & Accreditation statuses.
- Reorganization & refocusing of IT Division.
- Improve documentation (EMS & Fire).
- Lieutenants must review the EMS reports created by their crew for accuracy/detail. Shift Battalion Chiefs should be responsible for checking the fire reports produced by their Company Officers. Operations Chiefs will also need to verify/validate fire reports created by all shifts & investigations.
- After Action Reports must be completed on all significant incidents with distribution/reviews to all shifts (including Dispatch).

- Continue re-branding efforts to emphasize what the District represents/does.

**APPARATUS**

- Consider the use of a "mini pumper" type or squad to run in place of the Tower Ladder on non-fire calls

**STAFFING**

- As call volume rises & performance data shows - increase minimum staffing levels to staff Ambulance 1 (or peak period initially), & Service type Utility Squad or Mini-pumper
- The District must strive to staff four-person fire companies to meet NFPA 1710 compliance standards to improve efficiency and safety on emergency scenes.
- Station 7 staffing and deployment costs/benefits need further evaluation
- Fire Prevention staffing is insufficient. Increase and possibly utilize a "trouble car" to help reduce the load on the line personnel and stacking of overnight trouble alarms.
- Researching & reducing Duty Injuries & minimizing time rehab/for back to work

**STATIONS**

- Consider the addition of Station 7 at or near the CTC & western boundaries to improve response times in the gap areas and Training Campus oversight (possibly including relocation of Tower Ladder to this location to minimize wear/tear @ Station 1 from excessive non-fire runs).
- Investigate the possibility of moving Station 3 further north (or a substation @ 143/Wolf NW corner)
- Station 3's current location is not ideal; therefore, an exploration into alternate sites and deployment needs to be conducted to improve service to the NW quadrant (Planning Zone #1+).
- Formalize the work order process with software solutions

**TRAINING**

- All new personnel must be certified, and existing members re-certified in Blue Card ICS.
- An On-site Campus manager is needed for oversight and scheduling of the busy training site
- Expand the use of the Campus in the late afternoon, evenings, and weekends to multi-disciplinary & jurisdictional benefits (Public Safety/Public Works & other partnerships, EMT & possible Paramedic classes to help grow future hires)
- Host CPAT training year-round
- JPR times (Job Performance Requirement) scene goal times must be established (NFPA 1401 drills) for Critical Tasks Assignments.
- Continue the site & prop construction per the Training Master Plan to include the construction of the full-scale houses (mirroring typical housing stock layout where most of our fires occur)
- Secure additional parking & overflow options (possibly a lot across from the new Shops.
- Revisit the Annual Officers Educational & Training Retreats
- Must prioritize, formalize, & emphasize the Company Officer development program
- Special Op's team development, training, certifications, and deployment need further emphasis

**DISPATCH**

- Continue expansion plans and increase regionalization use
- Expand & completely remodel/update the Center for more efficient workflow & ergonomics
- Handoff times from the OPPD Primary PSAP and the District's PSAP must be evaluated and monitored for compliance with the NFPA standard benchmark of < 30 sec.
- Backup / Redundant capabilities reinstalled @ the CTC

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**FLEET MAINTENANCE**

- Continue the regionalization plan of servicing other Districts & Departments
- Inservice the fleet maintenance software solution as soon as possible
- Increase staffing as the need keeps expanding – reduce turnaround/OOS times
- Future forecast for additional expansions or options as the needs will increase

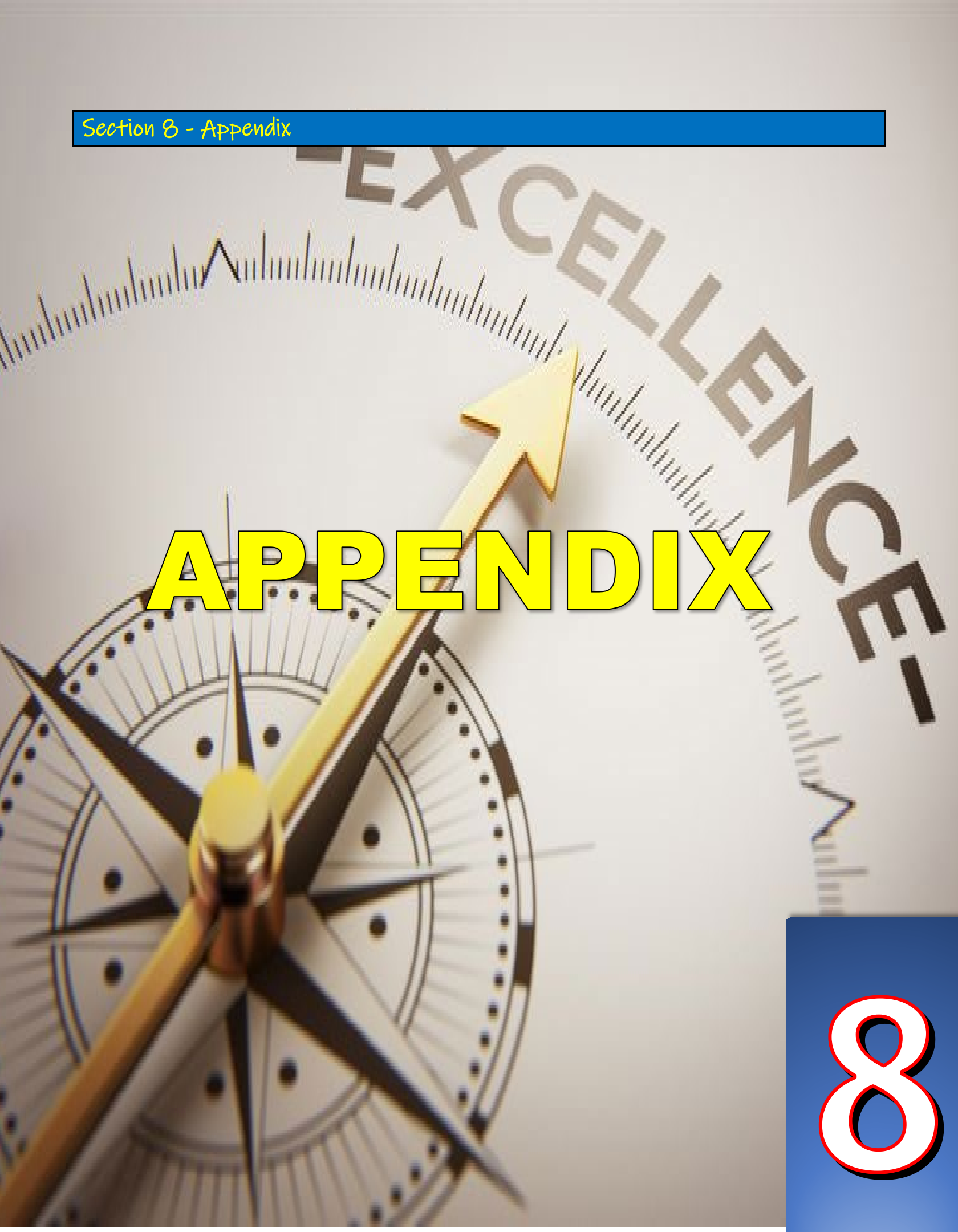
## Additional Recommendations

**Merger and Consolidations**

- **A new Illinois law (30 ILCS 805/8.45) *requires all Special Districts (starting 6/10/23) to conduct a Consolidation Efficiency study.*** The Fire District has many growth opportunities, especially regarding consolidation and merger potential with neighboring fire protection districts. However, these arrangements, either functional or full consolidation, merit a thorough review and deliberations as a cost-effective force multiplier reducing redundant expenses. This entails much discussion and detailed cost/benefit ratio analysis.
    - ***It is strongly recommended that the District pursue these growth opportunities.***

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# APPENDIX

8

# ORLAND FIRE PROTECTION DISTRICT

## Orland Fire achieves ISO CLASS 1!

On September 5th, 2017, the Orland Fire Protection District was officially awarded the **ISO CLASS 1** rating!

This is the **highest rating possible in the Country!**

Out of **46,042** Fire Departments nationwide, the District is proud to be one among ***only 242 in the entire country*** to achieve this level! In Illinois, there are *only* **12** Class 1 departments out of the **2,162** total in the entire state!

**ISO Reviews and Rates:**

- **EMERGENCY COMMUNICATIONS SYSTEMS**
- **FIRE DEPARTMENT**
- **WATER SUPPLY**
- **COMMUNITY EFFORTS**

## WHAT IS ISO?

Insurance Services Office (ISO) is a leading source of information about property/casualty insurance risk. The organization provides statistical, actuarial, underwriting, and claims data for a broad spectrum commercial and personal lines of insurance.

## WHY ARE ISO RATINGS IMPORTANT?

About every two years, ISO evaluates municipal fire-protection efforts in communities throughout the United States using the **Public Protection Classification** (**PPC**™) program.

PPC is used in several ways to serve as a tool to help:

- Insurance companies **establish premiums for fire insurance.**
- Communities **measure the effectiveness of their fire-protection services.**
- **Communities plan for, budget, and justify improvements.**

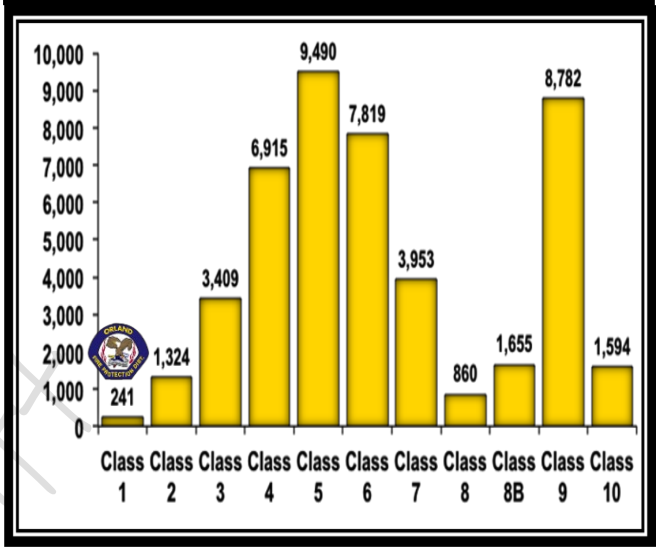
Most U.S. insurers of home and business properties use ISO's PPC in calculating premiums.

**Generally, the insurance price in a community with a good PPC is lower than in a poor one.**



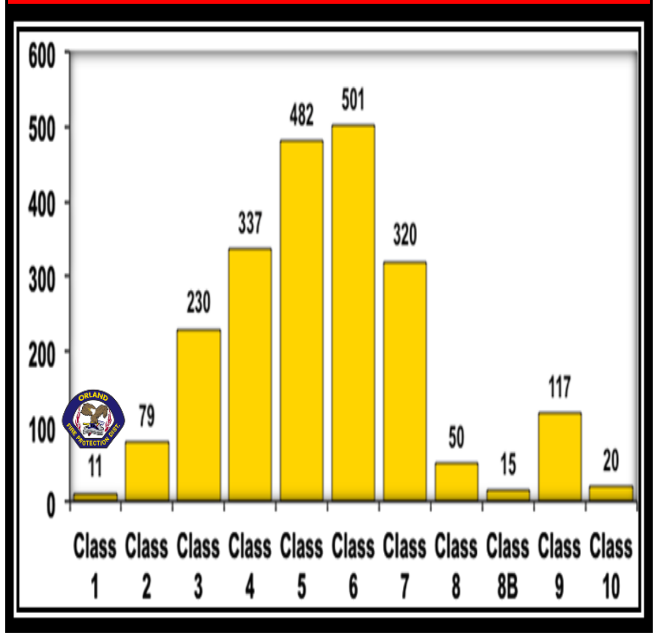

**COUNTRYWIDE:** out of **46,042** Fire Departments in the **COUNTRY**

ISO RATING **CLASS 1**: **242** [Top **1/2%**]




**ILLINOIS:** out of **2,162** Fire Departments in the **STATE**

ISO RATING **CLASS 1**: **12** [Top **1/2%**]




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# WHAT DOES A CLASS 1 COMMUNITY LOOK LIKE?

To determine a community's Public Protection Classification (PPC™), ISO conducts a field survey to observe and evaluate features of the fire protection systems. ISO objectively evaluates four major areas:

## FIRE DEPARTMENT

Analysis of a community's fire suppression capabilities based on the fire department's first-alarm response and ability to minimize potential loss.



Includes review of:

- Engine companies/ladder or service companies
- Geographic deployment of fire companies
- Equipment/reserve equipment
- Automatic Aid Agreements
- Pumping capacity
- Personnel and training

## WATER SUPPLY

Evaluate a community's water supply system to determine the adequacy of fire suppression.



- Hydrant size, type, and installation
- Frequency and completeness of hydrant inspection and flow-testing programs

## EMERGENCY COMMUNICATIONS SYSTEMS

Includes:



- Facilities for the public to report fires
- Staffing, training, and certification of Tele Communicators
- Facilities for dispatching Fire Departments

## COMMUNITY EFFORTS

Local efforts to reduce the risk of fire include:







- Fire prevention codes and enforcement
- Public fire safety education and Fire Investigation programs

ORLAND FIRE PROTECTION DIST.

Residents and business owners should contact their insurance providers to inquire about how **Orland's Class 1 PPC** rating may impact their premiums.

# NFPA Standard 1710

## Organization and Deployment of Fire Suppression Operations, EMS and Special Operations in Career Fire Departments

### History and Purpose

- The 1710 Standard for was originally released in 2001. Following, there have been three revisions (2004, 2010, 2016) with the most recent released in September 2016.
- The standard is applicable to substantially all CAREER fire departments and provides the MINIMUM requirements for resource deployment for fire suppression, EMS and Special Operations while also addressing fire fighter occupational health and safety.
- The 1710 Standard addresses structure fire in three hazard levels. These included low hazard (residential single-family dwellings), medium hazard (three story garden apartments or strip malls), and high hazard structures (high-rise buildings).
- The Standard addresses fire suppression, EMS, Aircraft Rescue and Firefighting, Marine Rescue and Firefighting, Wildland Firefighting, and Mutual and Auto Aid.

### Fire Suppression and Special Operations Provisions

- "Company" is defined as:
  - Group of members under direct supervision
  - Trained and equipped to perform assigned tasks
  - Organized and identified as engine, ladder, rescue, squad or multi-functional companies
  - Group of members who arrive at scene and operate with one apparatus
- EXCEPTION to company arriving on one apparatus:
  - Multiple apparatuses are assigned, dispatched and arrive together
  - Continuously operate together
  - Managed by a single officer
- An Initial Alarm is personnel, equipment and resources originally dispatched upon notification of a structure fire.
- Performance Objectives
  - Alarm Answering Time
    - 15 sec 95%
    - 40 sec 99%
  - Alarm Processing Time
    - 64 sec 90%
    - 106 sec 95%
  - Turnout Time =
    - 60 sec EMS
    - 80 sec Fire
  - First Engine Arrive on Scene Time
    - 240 sec (4 min)
  - Initial Full Alarm (Low and Medium Hazard) Time
    - 480 sec (8 min)
  - Initial Full Alarm – High Hazard/ High-Rise Time
    - 610 sec (10 min 10 sec)



- Fire departments shall set forth criteria for various types of incidents to which they are required/expected to respond. These types of incidents should include but not be limited to the following:
  - Natural disaster
  - Acts of terrorism
  - WMD
  - Large-scale mass casualty





- Given expected firefighting conditions, the number of on-duty members shall be determined through task analysis considering the following criteria:
  - Life hazard protected population
  - Safe and effective performance
  - Potential property loss
  - Hazard levels of properties
  - Fireground tactics employed
- Company Staffing (Crew Size)
  - Engine = minimum 4 on duty
    - High volume/geographic restrictions = 5 minimum on duty
    - Tactical hazards dense urban area = 6 minimum on duty
  - Truck = minimum 4 on duty
    - High volume/geographic restrictions = 5 minimum on duty
    - Tactical hazards dense urban area = 6 minimum on duty
- Initial Alarm Deployment (*number of fire fighters including officers)
  - Low hazard = 15 Fire fighters
  - Medium hazard = 28 Fire fighters
  - High hazard = 43 Fire fighters

## EMS Provisions

- The fire department shall clearly document its role, responsibilities, functions and objectives for the delivery of EMS. EMS operations shall be organized to ensure the fire department's capability and includes members, equipment and resources to deploy the initial arriving company and additional alarm assignments.
- EMS Treatment Levels include:
  - First Responder
  - Basic Life Support (BLS)
  - Advanced Life Support (ALS)
- MINIMUM EMS Provision = First responder/AED
- Authority-Having Jurisdiction (AHJ) should determine if Fire Department provides BLS, ALS services, and/or transport. Patient treatment associated with each level of EMS should be determined by the AHJ based on requirements and licensing within each state/province.
- On-duty EMS units shall be staffed with the minimum members necessary for emergency medical care relative to the level of EMS provided by the fire department.
- Personnel deployed to ALS emergency responses shall include:
  - A minimum of two members trained at the emergency medical technician–paramedic level
  - AND two members trained at the BLS level arriving on scene within the established travel time.
- All fire departments with ALS services shall have a named **medical director** with the responsibility to oversee and ensure quality medical care in accordance with state or provincial laws or regulations and must have a mechanism for immediate communication with EMS supervision and medical oversight.




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# ORLAND FIRE RESCUE DISTRICT

# COMMUNITY RISK ASSESSMENT

# STANDARDS OF COVER




2023 - 2028

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