

Westminster, Colorado Fire Department

Standards of Cover



January, 2019

Westminster Fire Department Standards of Cover

Introduction

This document represents how the City of Westminster provides fire and medical services. The Standards of Cover describes the organization of the City services, how the Fire Department is organized, the locations of facilities and equipment, the staffing for those resources, and the deployment of all resources. A major component is the evaluation of the community for risk and methods of mitigating these risks. Companion documents to the Standards of Cover are the Community Risk Assessment and the City of Westminster All Hazards Mitigation Plan. Both of these documents provide information pertaining to natural- and manmade-hazards. The Standards of Cover also describes information specific to the risk from fires and hazardous materials incidents.

This document reports on the time elements involved in responding to emergencies and categorizes those responses by type of incident, area of the City, and the risk level. The use of aid from neighboring communities, as well as providing them assistance in return, is evaluated as the use of outside resources helps to provide for resiliency in emergency operations. The effectiveness of scene operations is reflected in the time reporting. Efficiency is reported by the use of resources that are matched to the risk level. These are reported as the Effective Response Force, which is created from conducting task analysis of events of each risk type and level. Providing the appropriate level of response to emergency incidents allows for other units to remain available for the next emergency incident. This reliability is critical to handling multiple incidents, as well as providing a timely response to emergencies.

The command staff of the Fire Department has reviewed the data that has been collected, and has endorsed the Plan for Maintaining and Improving Performance. Continuous quality improvement is the cornerstone to providing best practice service delivery to the citizens, and the performance plans will push the organization further to providing those best practices.

Many people have contributed their time and talents to this process, which has taken several years to complete. The Standards of Cover is intended to be a living document which will be updated on a regular basis as new data is evaluated and plans are put in place to improve performance.

The Westminster Fire Department is proud to present this information to the community.

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Executive Summary – Fire Chief Doug Hall

The primary purpose of the Standards of Cover (SOC) is to detail an overview of the risks that residents and the business community may be exposed to within City of Westminster Fire Department (WFD) response area. The results of this community risk assessment creates the foundation on which future policy decisions will be based. This supports the strategic planning process and ensures the Fire Department is able to appropriately and safely respond to situations as they arise. The data and information presented in the SOC was acquired through the use of agency databases, such as the Computer Aided Dispatch (CAD), Geographic Information Services (GIS), and Records Management Systems (RMS) from multiple City departments. Additionally, the community-wide hazard assessments conducted by emergency management staff complimented the data and information presented in the SOC. In managing the Fire Department's accreditation processes, staff utilizes a variety of data analysis tools and methodologies to query data and then deliver reliable quality data and information for optimum organizational decision-making.

The SOC describes our philosophy of how Fire Department activities, programs, and services are delivered throughout the City of Westminster. A continuous improvement strategy has been integrated throughout the Fire Department that utilizes a systematic approach for establishing performance benchmarks for the many activities, programs, and services offered within the Fire Department and externally throughout the community.

A significant focus of the SOC is emergency response capabilities, however, it is important to understand that many disciplines are essential to identifying and mitigating the numerous risks within our community. The SOC represents the foundational efforts of the Fire Department to establish appropriate and realistic resource deployment to the hazards and associated risks specifically identified within the City of Westminster. A community-based risk assessment, of man-made and natural hazards, serves the City well in defining the distribution and concentration of fire stations, deployment and response capabilities, and quantifying service needs in demand zones. Essential in this effort is identifying future community trends in terms of the financial status, socio-economic demographics changes and trends within the built-environment.

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The City of Westminster Fire Department is committed to serving City of Westminster residents and business community through the delivery of the most effective, efficient, and value-based services possible within the constraints and parameters of our financial resources and resource capabilities.

We welcome your input and feedback regarding your experiences with any of our activities, programs, and services. Thank you for your time in reviewing this document.

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Westminster Fire Department Mission Statement:

Our Mission is to Protect Community Interests through Exemplary Service



Our Organizational Values:

Professional

Responsible

Innovative

Dedicated

Ethical



Our Vision Is:

Recognized as the Premiere Fire and EMS Service in the State of Colorado/Region



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Acknowledgements

2019 Westminster City Council

Herb Atchison, Mayor

Anita Seitz, Mayor Pro Tem

David DeMott, Councillor

Michele Haney, Councillor

Sheela Mahnke, Councillor

Katherine Skully, Councillor

Jon Voelz, Councillor

2019 Westminster City Administration

Don Tripp, City Manager

Jody Andrews, Deputy City Manager

Barbara Opie, Deputy City Manager

2019 Westminster Fire Department Administration

Doug Hall, Fire Chief

Bill Work, Deputy Fire Chief

Derik Minard, Deputy Fire Chief

Bob Hose, Fire Marshal

Erik Birk, EMS and Safety Chief

Dave Maikranz, Training and Special Operations Chief

Battalion Chiefs: Paul Spellman, David Varney, Ron McCuiston

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Assistant Accreditation Manager: Scott Maddux

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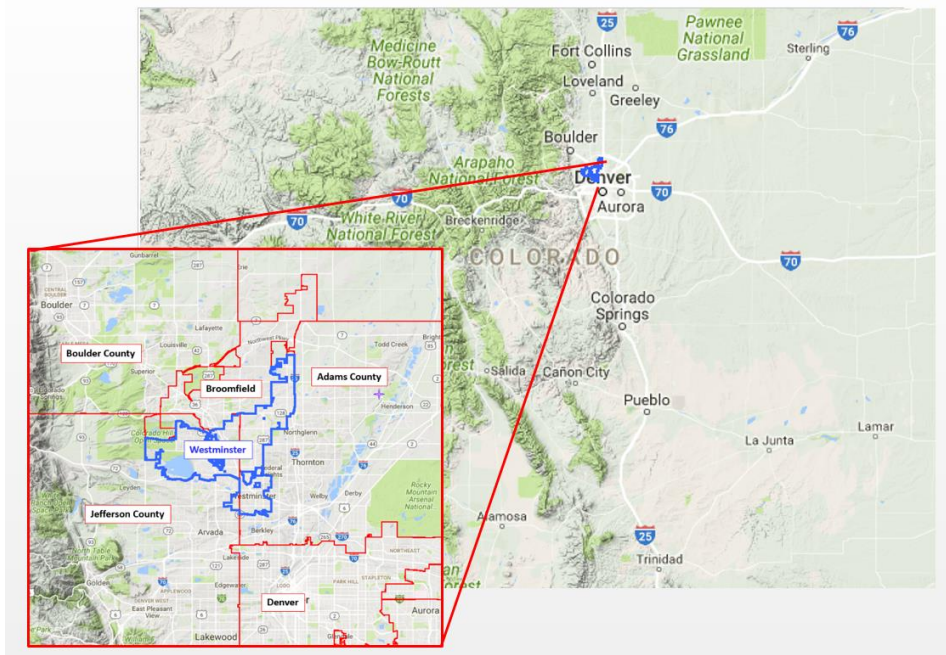
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Community Profile

The City of Westminster began as a series of properties to the northwest of Denver that were homesteaded in the middle 1800's. The area had several creeks, which helped the homesteaders with planting orchards. The area became known as "DeSpain Junction" after an early settler, and was later named "Harris" after a developer who purchased abundant areas of land and subdivided these into small fruit farms. Later, the "Princeton of the West" was built on the highest property in the area, and Westminster University began. On April 4th, 1911, the town of Harris voted to incorporate into a city, and the name was changed to Westminster. On January 7th, 1958 the citizens approved the Home Rule Charter for the City of Westminster.

As the city grew and more development occurred, water rights became important. The city leaders fought to remain independent of the Denver Water Board, and purchased water rights. By the early 1960's, water once again became an issue. Westminster came to an agreement with the Farmers Reservoir and Irrigation Company (FRICO) to raise the level of the dam at Standley Lake to store water for the city. The abundant storage at the lake, located at the western edge of the city, coupled with a new water treatment facility, ensured the city would have an adequate water supply for decades to come.

The city settled into a moderate growth stage during the 1970's, due to its desirable location approximately halfway between downtown Denver and Boulder. The city

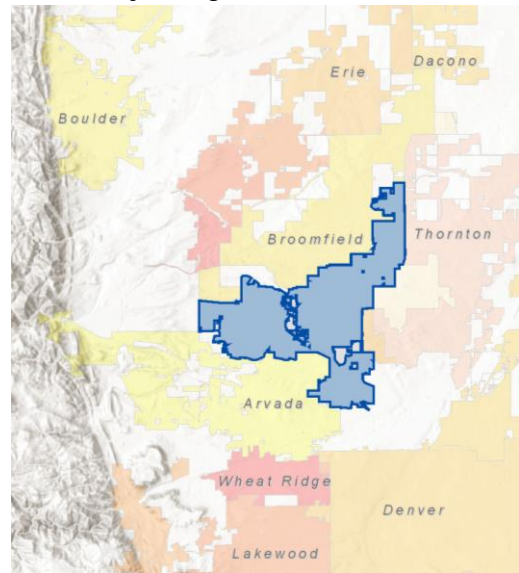


Map 1 - Westminster Location

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expanded and soon lay within parts of two counties (Adams and Jefferson) and three school districts (Westminster, Adams District 12, and Jefferson County). The city was home to a large shopping mall, which underwent several expansions, and served as the hub of city tax revenue. City services grew as more area was annexed and developed. This development started in the southern areas of the city, and over decades expanded toward the north and west. Several cities in the area took part in annexation “wars” with each other that left the boundaries of the cities irregular and non-congruent.

A large part of Westminster has been developed, and the adjoining areas on the east and south are nearing build out. The far western borders of the City have little development while the far northern areas are seeing increased growth. Cities that abut Westminster’s borders are Broomfield to the north and northwest, Thornton, Northglenn, and Federal Heights to the east, and Arvada to the south and southwest. Unincorporated Adams County lies to the south and southeast, and unincorporated Jefferson County lies to the west. There are some unincorporated enclaves within the Westminster city limits.



Map 2 - Neighboring Cities

City Governance

Today, Westminster is a vibrant community, which is spread among 35 square miles with a population of 113,130 residents. The governing body is a Council-Manager form of government. The elected Mayor is the executive officer of the city and serves as a member of the city council. There are six other council members, all elected at-large. The city does not use a ward system for council representation. The City Manager is the chief administrative officer of the city, running the day-to-day operations, and is responsible for appointing his staff as well as the various department directors throughout the city. Two Deputy City Managers assist the City Manager by managing various department directors and have numerous management responsibilities. The Municipal Judge and City Attorney are also appointed by the City Council.

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The ten departments in the city are: Economic Development; Community Development; Fire; Police; Public Works and Utilities; Finance; General Services; Human Resources; Information Technology; and Parks, Recreation and Libraries. Each has an appointed department director that leads their respective area.

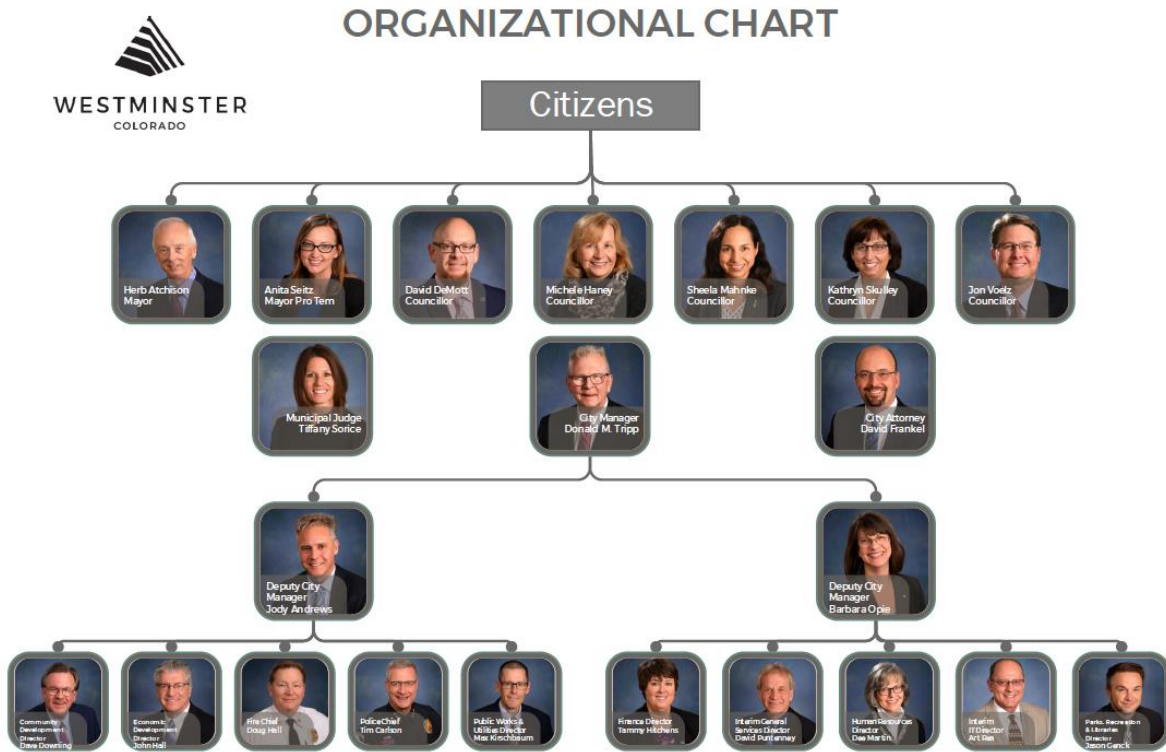


Figure 1 - City Organizational Chart

The City’s mission statement is: “Our job is to deliver exceptional value and quality of life through S-P-I-R-I-T”. The core values of the City are “SPIRIT” which stands for Service, Pride, Integrity, Responsibility, Innovation and Teamwork.

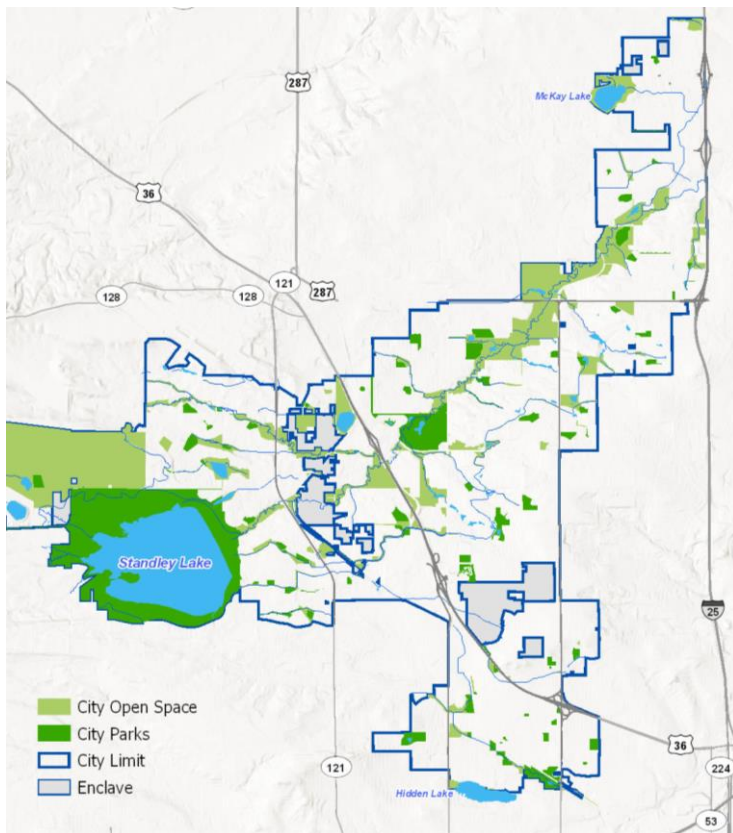
The city is guided by the vision set forth by City Council, including the adoption of a strategic plan. In conjunction with this, Council has adopted the following goals:

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- Visionary Leadership, Effective Governance and Proactive Regional Collaboration
- Vibrant, Inclusive and Engaged Community
- Beautiful, Desirable, Safe and Environmentally Responsible City
- Dynamic, Diverse Economy
- Financially Sustainable Government Providing Excellence in City Services
- Ease of Mobility

Community Character

The city has sections of two highways within the jurisdiction; US 36, which runs southeast to northwest through a central area of the city, and I-25, which runs within and creates an eastern border for the City at its northernmost portions. Standley Lake is within the City



boundaries and lies at the far west edge of the city. Standley Lake is the reservoir designated to hold water for the City of Westminster as well as two other area cities and FRICO. During the summer months, the reservoir and surrounding area is filled with water enthusiasts and other recreation seekers. There are a number of creeks and streams that run throughout the city. Many of these have been incorporated into the open space and trails systems that run through the city and much of the metropolitan area.

Map 3 - Streams, Parks, Open Space

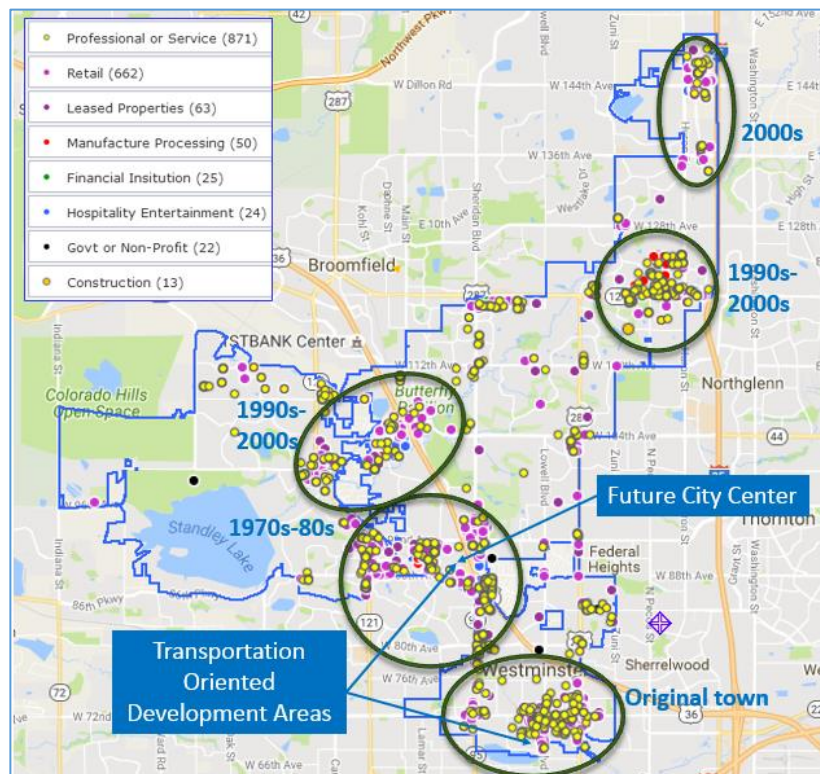
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The residents enjoy the vast open spaces and recreation systems. The city council has resolved to maintain 15 percent of the land within the city borders as open space, and that goal is currently being met. The trail system incorporates with the open space to provide for recreation and enjoyment of the “outdoor” nature of the community.

The majority of housing in the city is of the single-family type, ranging from 700 square foot homes in the older section of the city to 4500-plus square foot homes in some of the newest sections. The city also has a wide range of multi-family housing, and is undergoing a surge in commercial development and housing starts. Residents and visitors enjoy the serenity and the wide variety of open space afforded within the city.

The city is attractive to businesses. These range from the local eatery to the headquarters of large international companies, including Digital Globe, Ball Corporation, and Trimble Navigation.

Several business parks are located throughout the city and house a variety of companies. Many other employment centers and businesses are scattered throughout the City.



Map 4 - Concentrated Business Centers

Shopping centers are located in areas convenient to the citizens and visitors with a full variety of stores and products. Two major shopping areas are located within the city. The first is The Orchards at the far northern end of Westminster alongside I-25, and the second is The Shops at Walnut Creek, located centrally within the city alongside US Highway 36. Both of these areas

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provide an enjoyable and safe outdoor shopping and dining experience. Many other shopping areas are well placed within the city limits for the convenience of the citizens. Most of these shopping areas are concentrated at busy intersections and constitute shopping districts within the city.

The former indoor mall that had been a mainstay of the city for many years fell into decline in the early 2000's and stores began closing. The city took aggressive action regarding redevelopment, and purchased the property and remaining buildings of the former mall in order to guide redevelopment. This area is located on a 105-acre site near US 36 in the central area of the City. The city leaders approached this situation in a deliberate, calculated manner and planned a redevelopment to create an urban "downtown" center for the city. After several years of negotiations with various development partners, the infrastructure was completed and the first buildings are under construction in this downtown area. The city council's vision is "Westminster is the Next Urban Center of the Colorado Front Range" and this downtown area is the centerpiece.

Another long-range project is the redevelopment of the older, southern area of the city. A large part of that redevelopment is being driven by the "Fast Tracks" regional rail station (Westminster Station) that opened in 2016 at the southeast border of the city. This commuter rail line connects the northwest suburbs, which includes Westminster to Denver. At the Denver hub, other connecting mass transit trains spoke out to Denver International Airport and the remaining suburban centers in the metropolitan area. Transit Oriented Development (TOD) is taking place in the immediate area of Westminster Station, creating abundant redevelopment opportunities. Many of the redevelopment areas are planned to incorporate affordable- and workforce-housing options. Westminster Station is currently the end point of the northwest rail line. Further expansion of the line to the northwest is anticipated.

The other development projects taking place within the city are all "in-fill" as the city boundaries are set and generally locked in place due to other jurisdictions abutting the city on most sides. There are a couple of areas available for annexation by the city. As of this time, there is limited opportunity or desire to pursue these annexations. This may change in the future. The only current annexations taking place are for lots and small developments within unincorporated enclaves inside the city borders.

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The city is receptive to citizen input and interaction, and has several boards and commissions on which citizens serve. The city also takes part in several community events each year. These include hosting a concert and fireworks show every July 4th, several other summer events at area parks, the “Halloween Harvest Festival” at the new downtown site, a holiday lighting ceremony at City Hall each December, and several other community events. The city maintains on-going communication with residents through telephone town hall meetings and other outreach programs. A biennial citizen survey of the residents is conducted to solicit feedback.

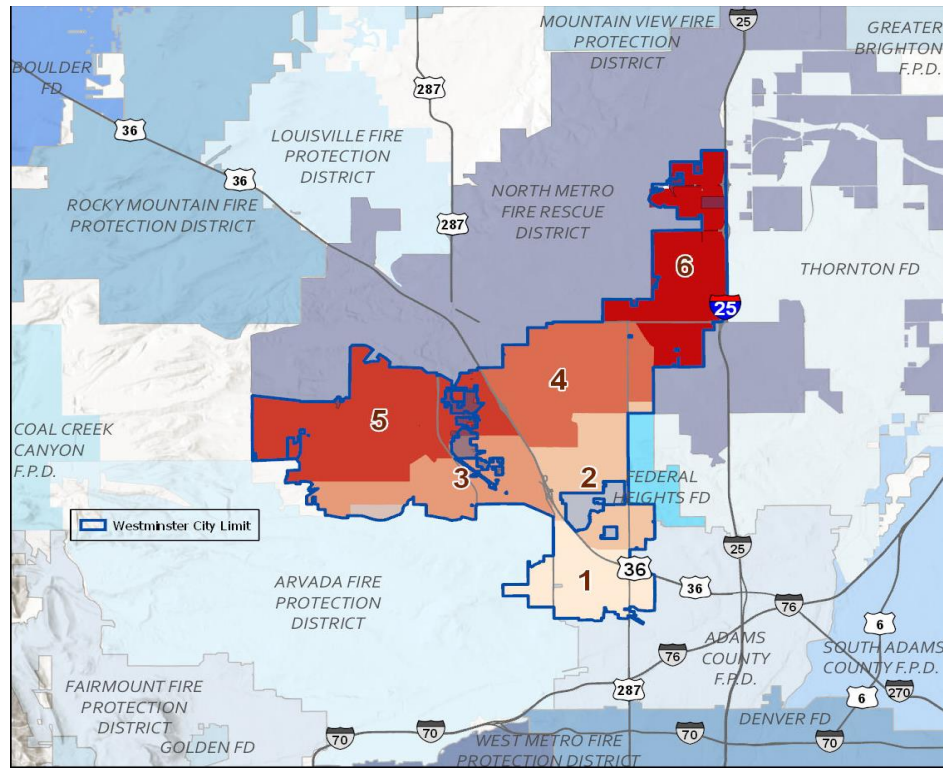
Geography/Topography

Westminster’s total area is 35 square miles. The city lies at the end of the high plains where the transition to the foothills for the Rocky Mountains is located, with elevation ranging from 5,150 feet to 5,772 feet. Westminster’s official elevation is 5,384 feet. The 662-foot gain is generally gradual from the eastern portions to the central and south-central areas, and then steady or slightly declining towards the west and north. The area is generally level with gently rolling topography. There are 3,090 acres of open space, 105 miles of trails, 60 developed parks, and 5 golf courses. The city is crossed by Big Dry Creek in the north and Little Dry Creek in the south, as well as several other creeks and streams throughout the area. There are numerous ponds, reservoirs and irrigation ditches. Standley Lake is the City’s largest body of water at approximately 1200 acres.

The city has a somewhat irregular shape, due in part to the rapid annexation conducted by neighboring cities in the 1970’s. There are several enclaves of land, some fully and others partially developed, that lie within the borders but are not annexed into the city. These areas lie within their respective unincorporated county, and generally do not receive direct city services. The exception is they receive city water. Fire protection in those areas is the responsibility of other fire protection districts, although Westminster assists with response through automatic aid agreements due to the closer proximity of resources. Some of these areas annex into the city as development of parcels take place. There is currently no plan to annex the large, developed tracts into the city. As the city annexes parcels, fire and EMS coverage in these areas become a primary mission of the WFD per city charter. These areas become legally exempted from their prior fire and EMS coverage that had been provided by special fire districts. All areas that are

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within the legal boundaries of the city are provided with fire and EMS coverage by the WFD per the city charter.



Map 5 - Westminster Fire Response Districts and Neighboring Auto/Mutual Aid Agencies

Population/Demographics –

- Approximately 112,812 residents (2017 Estimate; US Census Bureau)*
- 49.6% male, 50.4% female
- Median Age 36.9
- Median household income - \$72,235
 - Per Capita Income - \$36,600
 - 7.6% of Households below poverty level
 - 10.6% of the population lives below the American Community Survey poverty line

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- 7th most populace city in Colorado, 247th in the USA
- Population density is 3,328 per square mile (Urban)
- 6.3% of the population under 5 years old
- 12.9% of the population over 65 years old
- average HH size of 2.54 persons
- 47,459 housing units**
 - ~ 64.9% owner occupied housing (71,875 people)
 - ~ 35.1% renter occupied housing (33,772 people)
- 482 people are in group quarters
- 45,891 households
- 37.8% of the people over age 25 have a Bachelor Degree or higher
- 10.5% of the population is foreign-born
- 17.2% of the population speaks a language other than English in the home
- Ethnicity
 - White alone – 80.5%
 - Hispanic (any race) – 22.0%
 - Asian alone – 5.8%
 - Two or more races – 3.8%
 - Black alone – 1.6%
 - American Indian alone – 1.0%
 - Other race alone – 7.2%
 - Native Hawaiian and Other Pacific Islanders alone – 0.1%

Source unless otherwise noted: Community Analyst – ESRI estimates for 2018 sourced from U.S. Census Bureau, Census 2010 Summary File 1.

* US Census Bureau.

** Westminster Utility Billing Data

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In 2003, the citizens of Westminster passed the aforementioned public safety tax, which provided for an additional 0.6% sales tax to fund additional police, fire, and support staff. The fire department realized an increase of 35 positions through this tax, and several communications center personnel were added under the police department allocation.

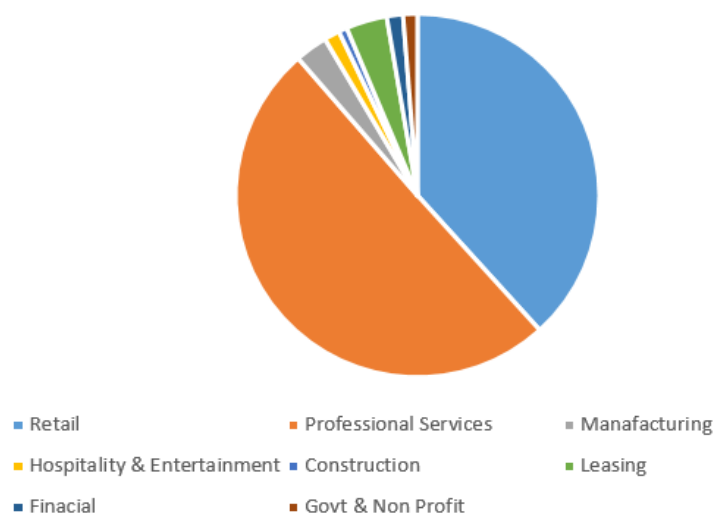
The City of Westminster Finance Department has been awarded a Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association of the United States and Canada (GFOA). 2017 was the 34th consecutive year the city has received this award. A 2018 award is anticipated in mid-2019.

As with many other jurisdictions, Westminster has had upswings and downturns in the local economy. In 2009, the downturn caused the city to eliminate many positions, including 8.7 FTE's in the fire department. As the economy has improved, the city has been working to fund positions as needed. Based on increased work levels, the fire department has hired several new positions and staffing has returned to previous levels. As a result of the 2009 downturn, the city has endeavored to increase its reserves so that it can be sustainable in the event future economic issues take place. The city has also created sustainability in the budget, allocating funds to be set aside for future availability in the event of another downturn.

Building in the city has continued at a rapid pace, including commercial and residential properties. Many of these commercial businesses are retail in nature and will contribute to the continued economic health of the city. Several areas of the City have high concentrations of businesses and related development.

Figure 2

Total Westminster Businesses by Industry



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There are approximately 2,033 businesses registered in the city. Retail and Professional Services are the primary business sectors and provide 24,335 of the 28,905 full-and part-time jobs reported to the City Clerk. Of the businesses registered in the city, 1,610 are small businesses (<50 employees). Westminster Public Schools, Front Range Community College, and Digital Globe are the largest employers with each employing over 1,000 people. There are also three employers that employ between 500-1,000 people and 41 employers that report 100-500 employees. Westminster's 2014 unemployment rate was 4.1%.

Climate

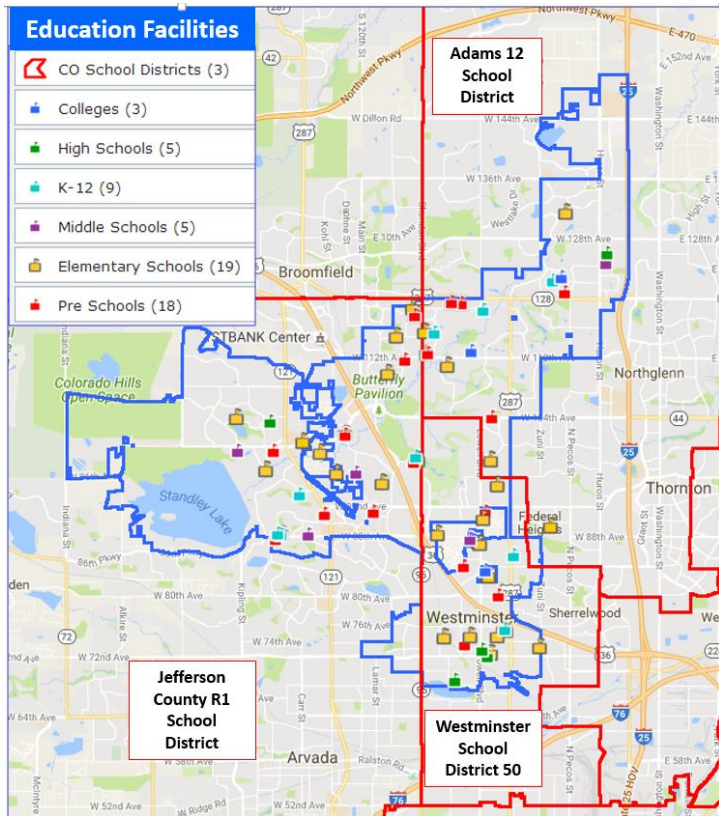
Westminster and the surrounding region has a semi-arid climate. Humidity is generally low year-round and there are four distinct seasons of weather. Generally, there is abundant daily sunshine, with the possibility of weather extremes. The average high temperatures range from 42 degrees F. in January to 89 degrees F. in July. The average low temperatures range from 18 degrees F. in January to 59 degrees F. in July. Extreme temperatures during the seasons occur but are not common. The summertime high temperatures can rise into the upper 90's and 100's, with the record high temperature being 105 degrees F. Winter can also bring about severe cold temperatures. Lows in the teens or below are relatively common, including temperatures below zero. The coldest temperature on record for Westminster is -29 degrees F. Extremes of heat and cold can last for several days, with records of below zero temperature lasting over 100 consecutive hours occurring multiple times within the past 30 years.

Winter storms can occur from late September through May and could bring large amounts of snowfall and blizzards, producing issues that can last several days. Ice storms are rare but can occur. Severe thunderstorms can occur during the spring, summer and fall months, bringing heavy rain, hail, lightning, high winds, flash floods, and on rare occasions, tornadoes. Long spells of rain and conversely, dry weather, can occur presenting differing challenges.

Educational

The City is served by three public school districts (Westminster Public Schools in the central and southern areas, Jefferson County Public Schools in the western portions, and Adams County District 12 Schools in the north and north-central areas of the City), which provide education to the majority of children through the 12th grade. All three of these districts provide service outside of the corporate limits of Westminster. Schools within the City serve outside residents, and in some cases, residents attend schools that lie outside the City boundaries. There

are four high schools, four middle schools, and 21 elementary public schools within the City. Additionally, there are two elementary, one secondary, and one high school that are charter schools. Several day care and pre-schools are also located in the City. Numerous other K-12 schools lie within enclaves of the City and are on various borders of the City. Most of the schools allow open enrollment, which allows students from other local areas to attend, and for city residents to attend outside schools.



Map 7 - Schools and School Districts

Front Range Community College (FRCC), Westminster Campus, is located in the City. The college has an enrollment of over 10,000 students seeking two-year degrees or intending to transfer to four-year institutions. The campus is part of the larger FRCC system. The Westminster Campus shares the College Hill Library with the City of Westminster. College Hill

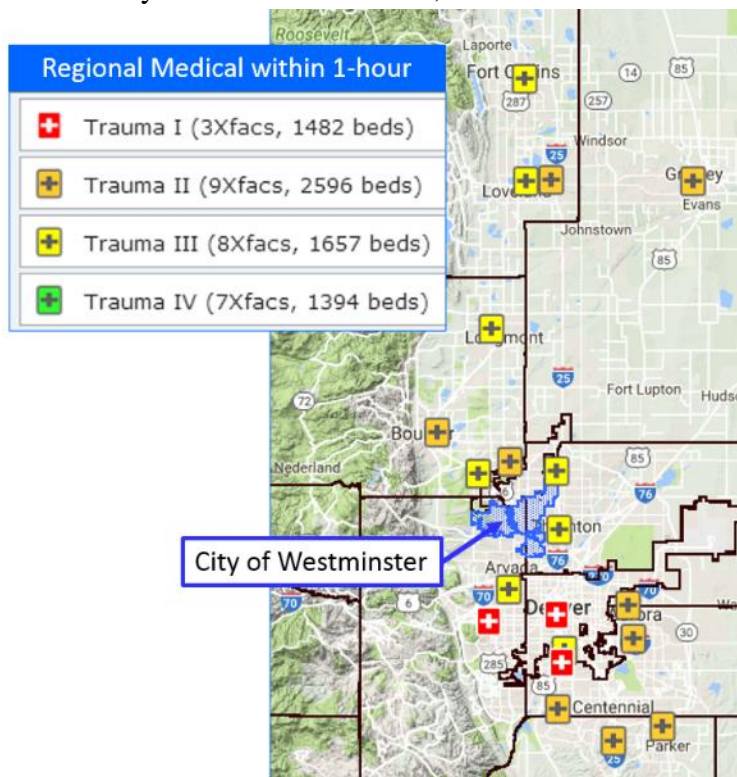
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is the primary City library and connects directly with the college. FRCC Westminster does not have any residential units on the campus.

Westminster is also home to several adult-education universities, all of which are located in the various business parks throughout the city. There are a total of 59 educational facilities within the city, ranging from pre-school through graduate programs.

Health Care

There are several health care facilities of various forms in Westminster. Saint Anthony Hospital has been a presence in the community for over 40 years, and still holds a presence with a new main campus and an additional facility at its original location. The former full service hospital, located in the southern area of the city on the eastern border, has now become a neighborhood health center, providing an emergency room, psychiatric facilities, and other medical intervention facilities. St. Anthony has built a new, modern, full service hospital to better serve the region in the northeast corner of the City, next to I-25. This hospital provides a full range of emergency and medical services and handles a good deal of the Westminster Fire patient transports.



Map 8 - Regional Medical Centers

Other emergency rooms have also been built, with two “stand-alone” emergency department facilities located within close proximity of each other near the western-center of the city. This has provided Westminster with four emergency departments of varying capability

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within its borders. Additional hospitals with emergency departments are located near the City on the eastern and northwestern borders. A Level II trauma center is located a few minutes northwest of the city. An additional Level I trauma center is located near downtown Denver, which is approximately a 15 minute drive from the southern portions of Westminster. Another Level I trauma center located about 15 – 20 minutes to the southwest of Westminster. Although rarely used by Westminster, there are two medical helicopter transport services provided in the Denver metro area.

The city has several urgent care facilities. At times, WFD is called to transport patients from an urgent care or a stand-alone emergency department to a full service hospital. There are also two major insurance based health care centers in the city and WFD responds to emergency transport situations at both of these facilities.

Fire Department Profile

The Westminster Fire Department (WFD) is a career organization that provides a full array of services to the community, including fire suppression, advanced life support and patient transportation, hazardous materials response, technical rescue, and dive rescue response. The Fire Department's support sections include training, emergency medical services, technical services, emergency management and preparedness, and a fire prevention bureau.

The Fire Department has a rich history. It was organized in 1934 by local residents, using a handmade "fire cart", later supplanted by purchased apparatus. In 1951, the first paid person was hired in the position of Fire Marshal. With the exception of this position, the department was entirely volunteer. The fire station was part of the municipal complex, and later became "station one" when another station (two) was built in 1961. A new station one was constructed in 1969 as a stand-alone facility which housed fire administration, and was designed to staff a full-time crew. The remainder of the municipal offices moved to their own facility at that time.

In 1974, a paid Fire Chief was hired, followed shortly by the hiring of two paid firefighters for daytime staffing. The department began to quickly expand and hire more personnel as the city grew. In 1976, Westminster saw their first paramedic firefighter and advanced life support was initiated. The paramedic program quickly expanded and Westminster

Westminster Fire Department Standards of Cover

became a leader in EMS in the Front Range. In 1976, station three was built to cover the west side of the city. At this time, only station one was staffed full-time, and stations two and three were staffed with volunteers. 1980 saw the addition of station four in the northern-central portion of the city, and additional personnel were hired to provide for full-time staffing of this station. At this time, the career personnel provided service from stations one and four with two engines, two paramedic rescue squads, and a Battalion Chief. Volunteers provided additional staffing, particularly during night hours. During the day, one career firefighter each from stations one and four staffed an engine at station three, but returned to their respective stations each night when the volunteers took over staffing at station three.

In 1981, fire station five was built in the northwest part of the city, and more personnel were hired to provide full-time staffing of this station. Station six opened up in the far northern area of the city in 1988, and additional personnel were again hired to staff this station. In 1989, sufficient personnel were available to also staff station three full-time. Station two was still staffed with volunteers, and this district was covered from all sides by other stations.

All of the fire stations were built based on geographic location. Historically, distance between stations with streets that were in existence at the time of build was used to identify station locations. These locations were verified as being in good service locations in the mid-1990's using the RHAVE program, and again in 2006 through an ESCI study based on street layout and building at that time.

A new city hall was built in 1988, and fire administration moved to city hall at that time. Fire station one underwent the first of several renovations to keep it modernized and provide adequate housing for the crews.

Through the 1970's and 1980's, paramedic services were provided by the Fire Department with patient transport being done by District 50 Ambulance. In 1991, District 50 Ambulance advised the City of Westminster that they would be going out of business and no longer provide transport services. The Fire Department and city worked with District 50 to turn the ambulances over to the fire department, which then staffed these units using the firefighter/paramedic personnel that had formerly been assigned to the rescue squads. The Fire Department took over patient transport, which it still provides today. In conjunction with taking over the ambulance transports, more staff were hired, station two was remodeled, and career

Westminster Fire Department Standards of Cover

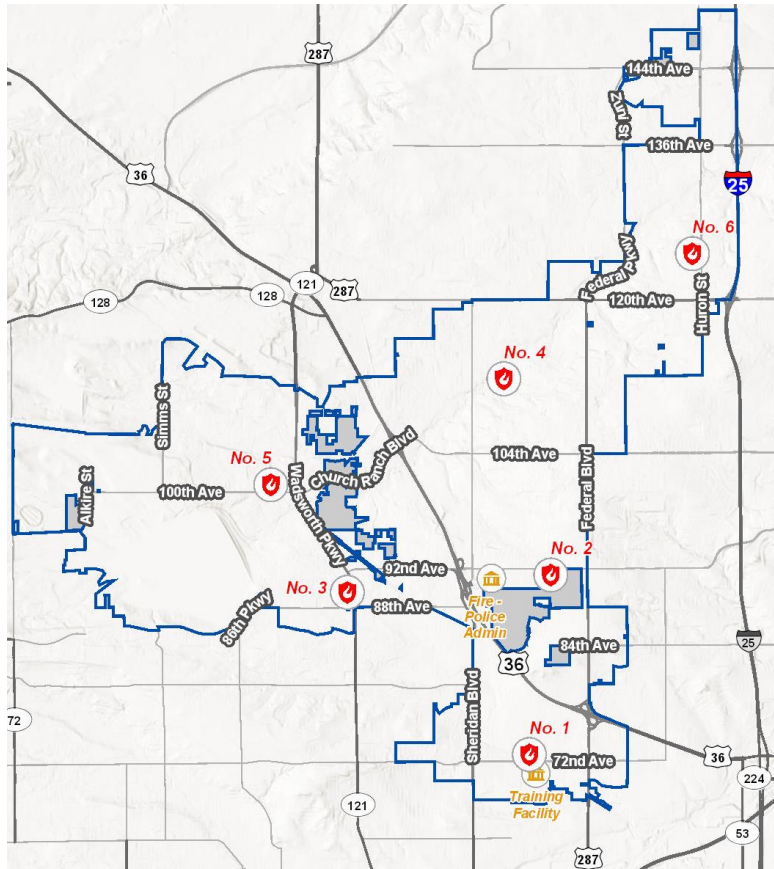
personnel now staffed this station full-time. Due to staffing limitations, the ambulance at station four was cross-staffed with three personnel, who also staffed a truck company. The three-person ambulance crew at station one also initially cross staffed the ambulance with a snorkel (truck company with an articulating boom and basket), but due to medical call volume, this was discontinued within a short period of time. Station four maintained cross staffing until January 1997, when additional personnel were hired and each unit was fully staffed.

During the time of cross staffing, the volunteers were assigned to staff an engine at station four during the night hours. In 1993, this was modified and two of the volunteers provided additional staffing as the fourth person on career-staffed engines during the nighttime hours. Two other volunteers staffed a light-duty squad truck during the nighttime hours. The volunteer program was discontinued in 2000 due to the high cost of administering the program for a limited return. In 2003, a new fire station two was built across the street from the former station, and included a training room, offices, and facilities to house 12 personnel and multiple apparatus.

A 6-story training tower was erected in 1997 on a site in the south end of the city. This facility helps with general fire training, and other city departments use the site for driver and other training. There is no burn facility on this site. Adjoining agencies also use the site for training. When the training tower was built, some basketball hoops were installed at the corner of the lot to provide for recreational opportunities for the neighborhood. Currently, the area is undergoing planning for redevelopment, and the fire department is working with city staff to again make the tower site a part of the community by providing recreational or safety training for citizens.

In 2002, a new Public Safety Center (PSC) was built next to City Hall to house the Police Department and fire administration. This provided expanded space for the increasing needs of the Fire Department, and is close enough to City Hall to provide proper internal- and external-customer service. The fire administration offices are now full, and there is limited room for light duty or any additional personnel to work. Any future staffing additions will require modification of the area to accommodate these positions. A space study for the PSC was conducted in 2018.

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Map 9 - Westminster Fire Department Station and Facility Locations

Today, the WFD staffs all six fire stations and its administration with 143 personnel, including firefighters and civilian staff.

The department is led by a Fire Chief and two Deputy Chiefs who are assigned to the administration division and the operations division. The fire department provides multiple support functions through its administration. A Management Analyst position is staffed with a civilian, who provides data support, including supplying monthly, quarterly, and annual reporting, and performs a myriad of other functions relating to data analysis.

Westminster Fire Department Standards of Cover



Westminster Fire Department 2018 Organizational Chart

Effective: 05/14/2018

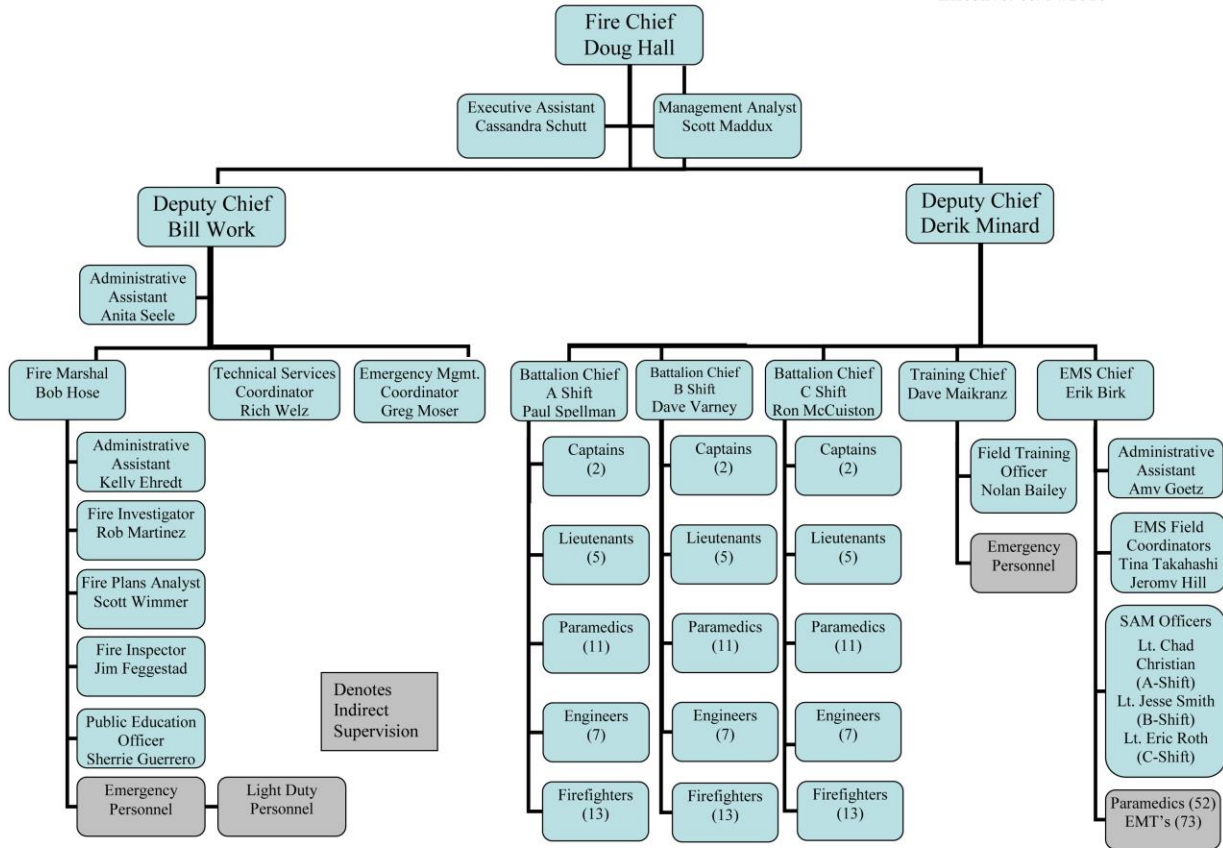


Figure 3 - Westminster Fire Department Organizational Chart

Fire related training and certifications are coordinated and maintained by the Training and Special Operations Chief (Battalion Chief rank), with a Lieutenant assigned as the Field Training Officer. All on-going department and special team trainings are coordinated through this bureau. Recruit academies are completed through a joint North Metro Training Academy in which all of the north area fire departments participate. Each member agency provides at least one instructor during the academy so that a full instructor cadre is available for proper safety and training. Target Solutions was implemented by the WFD in 2017 to help with the tracking of training, testing, certifications and record keeping for the department. This includes all fire and EMS training, as well as fire inspector certifications.

Westminster Fire Department Standards of Cover

The Training and Special Operations Chief also oversees all of the special teams for the fire department, including hazardous materials, dive rescue, technical rescue, and wildland. Team trainings, deployments, and certifications are reviewed and supervised from that position.

Emergency Medical Services is also assigned under the Deputy Chief of Operations, and handled by the EMS and Safety Chief (Battalion Chief rank), who is assisted by two administrative EMS field coordinators, both Lieutenants, and an administrative assistant. Billing for EMS services is contracted out to a third party. The EMS and Safety Chief also has indirect supervision over the three shift Safety and Medical (SAM) officers, (Lieutenant rank). The EMS and Safety Chief oversees safety for the Fire Department, including worker compensation claims, injury reports, and follow up. One of the administrative EMS Lieutenants provides for community outreach and provides training for the public in areas such as fall prevention and senior safety. This person works closely with the Public Education Officer regarding safety and prevention information. The other administrative EMS Lieutenant supports the EMS system by coordinating and conducting internal training, continuous quality improvement, and assisting with EMS related certifications of personnel.

The Emergency Management Coordinator for the City of Westminster is assigned to the Fire Department, under the supervision of the Deputy Fire Chief of Administration. This is a civilian position, and most of the risk assessment, emergency preparedness, and emergency management coordination functions for the city are assigned to this position.

Technical services, including providing liaison support with the emergency communications section, Information Technology Department, vendors, reporting systems, software, and other technological functions are assigned to the Technical Services Coordinator. This is a commissioned Captain position. The Deputy Fire Chief of Administration also supervises this position.

The Fire Prevention Bureau falls under the direction of the Deputy Fire Chief of Administration. The bureau is supervised by the Fire Marshal (Battalion Chief rank), who oversees the plan review process (performed by the Fire Plans Analyst, a Fire Lieutenant with multiple certifications), fire investigations (which is supervised by a fire lieutenant with specific credentials), technical fire inspections (Firefighter with certain credentials assigned to fire prevention), and public education (uniformed civilian position). An administrative assistant is

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also assigned to the fire prevention bureau. The majority of community risk reduction efforts reside within the bureau.

The inspection program is divided between a full-time inspector working in the bureau who handles the majority of the technical inspections, as well as inspections on high-risk occupancies. The line fire crews handle the vast majority of business inspections. All officers of the fire department are required to hold a minimum Fire Inspector I certification through the International Code Council (ICC). Several other department personnel also have this certification, and many personnel have a higher-level inspection certification.

The Public Education Officer (PEO) coordinates public education, overseeing all programming relating to fire- and life-safety. Programs are varied and target all groups of citizens. The programs include education through the schools, older adult centers, and at public events. The WFD hosts an annual citizen fire academy, which helps educate the public in the functions of the fire department. A group of citizen fire academy alumni have formed their own group, named Citizens for Fire department Improvement, Recognition, and Education (CFIRE). This group conducts fundraising to help support non-budgeted programs and events that the fire department holds. Many public events are held throughout each year, and the PEO provides fire- and life-safety programs at the various events to provide additional outreach. The CFIRE group members have received training in public education and they provide assistance and support at these events.

The PEO works with other safety groups, such as SafeKids, Fire and Life Safety Educators of Colorado, the NFPA, and local hospitals to provide programs. As previously noted, the PEO works closely with one of the EMS Field Coordinator Lieutenants to provide for fire- and fall-prevention programs to the older adults of the community. These programs are generally delivered by both people to ensure that all targeted safety aspects are covered. The PEO coordinates a quarterly home safety visit program for older adults in single-family dwellings. Those residents can call for an appointment, and a firefighter and trained CFIRE volunteer will visit the requested properties on that scheduled, quarterly basis. These visits include hazard assessments, fire prevention information, fall prevention, and checking, inspecting, or installing smoke and CO alarms or batteries as warranted.

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Educational programs are determined through a needs assessment, by evaluating historical program effectiveness, and by reviewing national programs to remain aligned with the broader fire safety message. Programs in Westminster are generally tailored to the community, including using the national safety messages but modifying them to address specific demographics and needs in Westminster.

Since the PEO is active in all of the schools in the city, that position is assigned all inspections of educational occupancies. It is beneficial to have these facilities inspected by the PEO since it helps to strengthen the relationship between the PEO and the school officials. The PEO is certified by the State in educational occupancy inspections.

The Fire Plans Analyst works closely with the other city departments, including building, planning, and utilities on construction projects throughout the city. The plans analyst takes part in the original site planning aspects of development and approves plans relating to fire sprinkler and fire alarm systems as well as other fire suppression systems. Plans for new, remodeled, and tenant finishes are coordinated through this position. Taking part in all review steps from the beginning allows for input on access, fire flow requirements, fire hydrant placement, and other long-term issues that may affect fire protection of buildings.

The fire investigation section is organized under one full-time Lieutenant Investigator/Inspector who coordinates the program. The person in this position holds multiple certifications in fire investigation and is a commissioned police officer through the Westminster Police Department. Each of the three operational shifts has three fire investigators assigned to them, forming the remainder of the investigation team. This allows for at least two investigators to be assigned to the majority of structure fire investigations, as well as having assistance for other fire investigations. One investigator from each shift is designated as the shift lead. The ten members of the team regularly attend training and also help to coordinate and provide on-going internal team training. The Lieutenant Investigator/Inspector is available to respond to significant fires, suspicious incidents, or to fires involving injury or death. The WPD provides support for the team with evidence collection and investigation support as needed.

The Fire Lieutenant Investigator/Inspector is also responsible for multiple functions in the fire prevention bureau outside of investigations. These include working with the Local Emergency Planning Committee (LEPC), tracking required Tier II reporting facilities, handling

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citizen complaints, and conducting fire inspections as needed. This position is also required to have a minimum ICC Fire Inspector I certification.

Other administrative staff includes positions that assist with EMS reporting and billing, accounts receivable and payable, and additional support functions that are critical to the daily practice of running a fire department.

123 personnel are assigned to the three shifts, and provide staffing for five engine companies, two truck companies, five medic units (ambulances), one Battalion Chief, and one SAM (Safety and Medical) Officer, all of which provides primary coverage for responses throughout the city. The engines are assigned to stations one, two, three, four and five. Station six houses one of the truck companies, which is run as a quint in that district. Station two houses the other truck company, which responds citywide as a truck but is equipped as a quint. Stations one, two, three, four and six house the medic units. Engine five is staffed with a paramedic to ensure advanced life support is provided on initial response. The Battalion Chief responds citywide from fire station two. The SAM officer responds as the safety officer on major incidents from fire station two. The SAM officer also oversees all EMS reporting for the shift and is the shift safety officer, responsible for follow up and investigations regarding fire service injuries. Although assigned under the EMS Chief, the SAM officers are shift personnel that report to the Battalion Chief for direct supervision.

Each shift is staffed with 41 personnel, with a Battalion Chief in charge of the shift. Shift personnel work a 48/96 schedule, with each shift working 48 consecutive hours followed by 96 hours off, for a 56-hour work week. All but one surrounding fire agency works this schedule.

A heavy rescue vehicle is available for technical rescues, extended incidents, and for air/light needs on scenes. This apparatus is assigned to fire station two, and is not staffed as a primary response unit. A trailer for technical rescue supplies is also assigned with the heavy rescue to respond on technical rescue incidents. A new trailer for this function was purchased in 2017. Technical rescue personnel are primarily assigned to fire station two in order to provide for proper training and equipment maintenance, as well as expedited response.

Two brush trucks are available for weed or brush fires and are for deployment to wildland fires upon request. These trucks are not staffed and are assigned to stations five and six.

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A dive rescue truck along with a Zodiac boat and trailer are available for dive, swift water, or ice rescues. This unit is not staffed. It is housed at station three. Dive team members are primarily assigned to station three to facilitate expedited response and training needs.

The Fire Department maintains a reserve fleet of two engines, one truck company, and two medic units. A third reserve medic will be added in 2020.

Several staff vehicles are in the fleet and some of these are available for emergency response use if necessary.

All fire suppression apparatus are built by Pierce Manufacturing. Pierce is the sole vendor for the WFD. All fire apparatus purchased since 1988 have been Pierce. The sole vendor contract is reviewed and sent out for bid pricing and specification updates every five years, and is approved by the City Council. The fire department purchases new apparatus, with an expectation of 10 years of front line service and five years of reserve service. When new (replacement) apparatus are purchased, the reserve apparatus scheduled for replacement are traded in to the vendor.

All engine and truck companies are specified to be 1500 Gallon per Minute (GPM) capacity apparatus with 500 gallon water tanks. The engine companies also have Class 'A' foam tanks of 25 gallon capacity and Class 'B' foam tanks of 75 gallons. The truck companies do not have any foam capability built into the apparatus. The two front line truck companies each have a 105' aerial ladder.

Engine companies carry 750' of 5" hose for water supply (725' in the hose bed, 25' rolled in a compartment to finish the supply line if necessary or as soft suction); 800' of 3" hose in a split-load, reverse style configuration (400' each) for deployment to a fire department connection (FDC), a horizontal standpipe line, or to supply a Blitzfire ground monitor; 500' of 2-1/2" hose, with two preconnected lines, 200' each, for large fire attack, and 100' pre-packed for standpipe operations; 100' of lightweight 2" hose, pre-packed for standpipe operations or to work off a horizontal standpipe; and 400' of 1-3/4" hose, in two preconnected lines, 200' each, for immediate fire attack. The truck companies have a similar deployment capability except for the 5" supply line (525') and the 3" lines (300'). All fire apparatus conform to NFPA standards and ISO requirements.

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Medic units (ambulances) for the fire department are purchased through vendors based upon a bidding process. Currently, the vendor is AEV. New ambulances have been purchased with an expectation of five years of front line service and two years of reserve status. Presently, at the end of this service life, the ambulance is sent to AEV for a full rebuild of the unit on a new chassis. Each original purchased unit is expected to undergo two rebuilds prior to disposal. This practice has provided an economic benefit to the city. Ambulances are licensed through the local counties for transport of patients, and each unit meets NFPA 1917 and Triple-K GSA standards. All medic units are equipped with full Advanced Life Support (ALS) equipment. Each unit has power load prams, facilitating a method of raising and lowering patients to the ambulance that is safer for both personnel and the patient. Each medic unit is also equipped with a Lucas CPR device. These machines enable safer, more effective CPR to take place both on scenes and during transport to hospitals.

Hazardous material response is based upon the level of the incident and resource needs. All commissioned fire department personnel are trained to Hazardous Materials Operations level, with 21 personnel trained further to the Technician level. A minimum of 15 technician level personnel are assigned to one of the operational shifts, with at least five assigned per shift. The city is part of the Adams-Jefferson (Counties) Hazardous Materials Response Authority (AJHMRA) through Inter-Governmental Agreements. The AJHMRA was created in 1996, combining two separate countywide teams (Adams County and Jefferson County) into one. Each of these teams, and now the AJHMRA, operate with members from fire departments and other agencies throughout those two counties, as well as Broomfield County (which was created after the original IGAs went in effect), and is overseen by a Board of Directors representing various interests from each county. The 21 technician level personnel from WFD are all assigned as part of the AJHMRA. One full-time and one part-time administrative position at the authority are funded through the AJHMRA. The full-time coordinator handles all administrative functions, coordinates trainings, and provides support for equipment purchases and maintenance. This position reports to the Board of Directors. The Westminster Fire Chief serves as a board member, and the Fire Marshal serves as the alternate with proxy voting privileges.

The AJHMRA has eight response vehicles strategically placed throughout the three counties and housed with various fire agencies. These trucks include two command vehicles, two

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large support vehicles, one large decontamination vehicle, a Metropolitan Medical Response System (MMRS) truck for mass decontamination, and other support vehicles. Westminster houses Haz Mat 8 at fire station five. This truck is a large pickup with a shell that provides support functions, but also provides suits and limited monitoring for local incidents. The heavy rescue vehicle at station two also carries equipment that may be used on haz mat incidents.

Team strength varies but is over 100 personnel. Four team trainings take place each year, with the requirement of attendance at three trainings to maintain membership in the team. Job Performance Requirements (JPR's) are handled internally to each department, but can be accomplished at trainings as they apply to specific JPR's. Most of the career fire departments that provide personnel to the team also have several staff members each that can provide team leader functions. Westminster has 4 team leaders. Duties for handling requests for the AJHMRA team are rotated among the team leaders from these respective departments. The team leader then determines the level and amount of response to be provided based upon the incident. The AJHMRA has its own set of Field Operating Guidelines (FOG's) for operational purposes.

The Denver Metropolitan Area has four other large regional haz mat teams that can provide assistance if required. Buckley Air National Guard Base, located approximately 30-40 minutes away from Westminster, has a Civilian Support Team (CST) that can provide assistance with hazardous material incidents. The FBI and EPA have regional offices in the Denver area and provide support depending on the incident. The State of Colorado has a Department of Public Health and Environment, which can assist with specific areas during a hazardous material incident.

The WFD is the Designated Emergency Response Authority (DERA) for hazardous materials incidents in the city, per Colorado Revised Statutes 29-22-102, and adopted by Westminster City Ordinance. For incidents occurring on Interstate or State highways, the Colorado State Patrol is the assigned DERA and responds with their haz-mat team, and other agencies including the AJHMRA and/or WFD provide assistance on those hazardous material incidents.

Technical rescue response is also handled by the WFD. The heavy rescue at station two is equipped with specialized tools for high angle, low angle, collapse, confined space and trench rescue situations. The truck also has additional vehicle extrication equipment, an air compressor

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with a bottle fill station, and supplied air lines. The technical rescue team is part of the North Area Technical Rescue Team (NATR), which is comprised of several fire departments in the northern Denver metro area. Each department provides personnel with varying levels of technical rescue certification and equipment for the differing types of rescues that may be encountered. The NATR Team conducts quarterly team training, each of which is centered on one of the four specific technical rescue disciplines. The entire team is staffed with approximately 75-100 members, including 16 from the WFD. Five technical rescue team members are assigned to each shift, with the other being the Training and Special Operations Chief. The NATR operates under a technical rescue manual promulgated by the Thornton Fire Department. This manual is undergoing adoption by all of the north area technical rescue teams. The team is governed by the north area technical rescue committee with representatives from all 10 agencies. The committee operates under the supervision of the North Area Fire Chiefs Association (NAFCA).

The WFD has five personnel assigned to Urban Search and Rescue (USAR) Colorado Task Force One (COTF-1). Three of these are also assigned to the NATR team. COTF-1 is housed at West Metro Fire Rescue, located within the Denver Metropolitan Area.

The WFD operates a Dive Rescue team, which consists of 18 personnel, with six assigned to each shift. The dive rescue van houses all supplies including suits, air bottles, SCUBA gear, communications equipment, ice rescue equipment, and swift water rescue equipment. The Dive team personnel also carry certifications, which include Swift Water One and Two, Public Safety Diver, and Dive Rescue One. The team is a part of the Metropolitan Dive Rescue Team (MDR), which responds to incidents primarily to the north, west, and south sides of Denver but can respond anywhere in the Denver Metro area for rescue, and outside of the area for recovery purposes when requested and authorized. MDR primarily operates with five fire department dive teams located in the north, west, and south areas around Denver. Members of MDR train six times each year as a team in all aspects of water and ice rescue.

For general technical rescue skills, personnel of the WFD are trained in basics of trench, high- and low-angle, and collapse rescue. They are also trained in dive rescue support and in procedures for immediate assistance in a swift water rescue. WFD staff also receives training on

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ice rescues, and each front line engine and truck is equipped with an ice rescue suit, rope, and associated equipment to perform an immediate ice rescue.

The WFD has a Wild Land team, although there is no true Wildland/Urban Interface (WUI) within the City of Westminster. The team is trained and available for deployment up to a national basis. The two brush trucks owned by the WFD are rated Type 6, and the team can take either of these trucks on a deployment, or a reserve engine if the need is for a Type 1 or Type 2 resource. Members of this team are Red Card certified at a minimum, and several members have higher certifications including division/group supervisors. As such, single resource deployments may take place depending on the need at the time. There are 13 personnel from WFD that are part of this team, with a minimum of four personnel assigned to each shift. Although there are no WUI areas within the city, there is an abundance of open space property and a State designated WUI area on the western City boundary.

In 2006, the city underwent an Insurance Services Office (ISO) evaluation, and improved from a Class 4 to a Class 3 rating. Another evaluation was completed in 2017, and the city improved to a Class 1 rating, which took effect April 1, 2018. The 2017 scores for each category were: 9.25 for Emergency Communications (out of a possible 10); 40.47 for Fire Department (out of a possible 50); 38.60 for Water Supply (out of a possible 40); and 4.84 for Community Risk Reduction (out of a possible 5.50). The total credit was 90.05 out of a possible 105.5. The Divergence was -3.11, for the difference between Water and Fire Department scores.

Community Risk Assessment

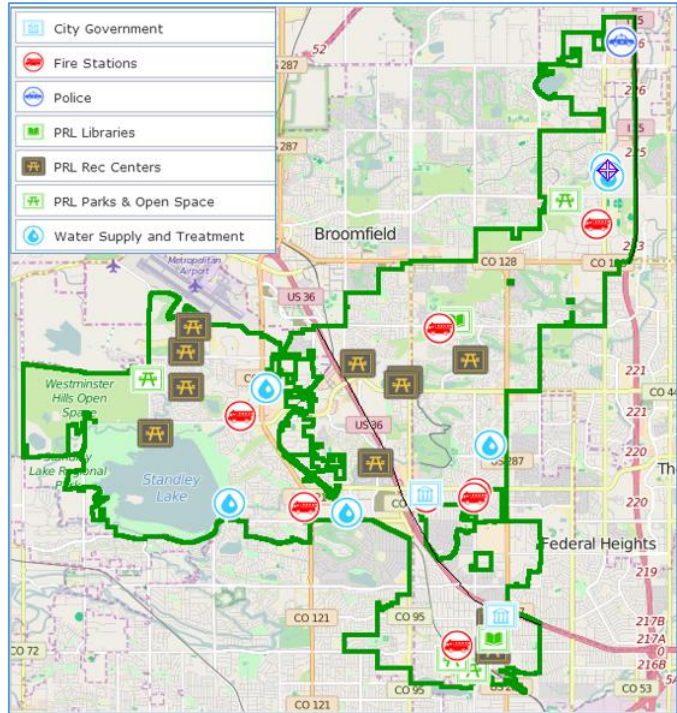
The City of Westminster is subject to numerous natural, technological, and human caused hazards as described in the All-Hazards Community Risk Assessment, and the City of Westminster Hazard Mitigation Plan. Each hazard may exhibit unique characteristics related to warning time, speed of onset, duration, mitigation and prevention options, and consequences. The information contained in the Standards of Cover is based upon the “All Hazards Community Risk Assessment” prepared for the City of Westminster by the Emergency Management Coordinator. See that document for information regarding natural and man-made hazards.

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Infrastructure

Westminster is a relatively young community with much of it having been built in the last 30 years. As a result, much of its infrastructure is comparatively young and has benefited from modern codes and standards. The City owns 309 insured structures with a cumulative 2016 value of \$372,623,059.

The City manages raw water resources, including purification, distribution, and most of the waste water treatment. The City maintains the vast majority of roads within city limits. Westminster depends on surface water from snow pack/mountain run-off coming from the Clear Creek watershed via the Farmer's Highline Canal and the Church Ditch, which originate near Golden, to provide for its raw water needs.



Map 10 – Westminster City Facilities

The City has started an overhaul of its water and wastewater systems to extend their life and support future development.

City Water Critical Infrastructure includes:

- Standley Lake - 43,000 acre-feet of water (primary water storage)
- Semper Water Treatment Plant
- Northwest Water Treatment Plant
- Big Dry Creek Wastewater Treatment Plant
- Big Dry Water Reclamation Plant
- Treated Water Lines – 553.55 miles
- Waste Water Lines – 414.73 miles

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- Water Meter Accounts – 32,746
- City Water Pressure Zones – 13

City Surface Transportation Critical Infrastructure includes:

- Paved Roads - 602 miles (1,120 lane miles) including enclaves
 - 449 centerline miles within City limits
- Bridges - 68
- Parking Lots - 100
- Street Lights - 7,716
- Street Signs - 17,875
- Street Signals - 113
- Storm Sewer Inlets – 2,104

The City's proximity to I-25, I-76, I-70, US Highway 36 and other state highways afford it immediate access to regional ground transportation. The Regional Transportation District (RTD) provides bus service to the City and commuter rail is being developed, with the first rail station (Westminster Station) on the northwest corridor located in Southeast Westminster.

The Burlington Northern Santa Fe Railroad (BNSF) has approximately 7.5 miles of line that cross the City generally from southeast to northwest. Several trains daily carry coal, petroleum, hazardous materials and a wide variety of other cargo. There are no active rail yards or side spurs in Westminster.

The Rocky Mountain Metropolitan Airport (RMMA) borders the northwest corner of the city and provides limited air service. The airport serves as a regional facility that handles small aircraft, flight instruction, and business class aviation, and can handle larger commercial aircraft although there is no regularly scheduled passenger service provided from RMMA. Charter service is available and larger, commercial size jets use the airport. Approximately 4 miles of the eastern approach and take-off pattern for the airport is over Westminster. Residential, open space, retail, entertainment and hotels are located within this approach space.

AT&T, Century Link, Comcast, Level 3, Sprint, T-Mobile and Verizon provide telecommunications and Internet service throughout the City.

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The following is a summary of city infrastructures that are critical for basic public safety, public health, and city operations.

- City Hall
- Municipal Court Building
- Public Safety Center (Police and Fire)
- 6 Fire stations
- Standley Lake (water storage)
- 2 water treatment facilities
- 1 wastewater plant
- 449 miles (center line) of city maintained roads
- 68 city maintained bridges
- 8 miles of BNSF railroad
- 6 miles of US-36 (designated hazmat route)
- 6.5 miles of I-25 (designated hazmat route)

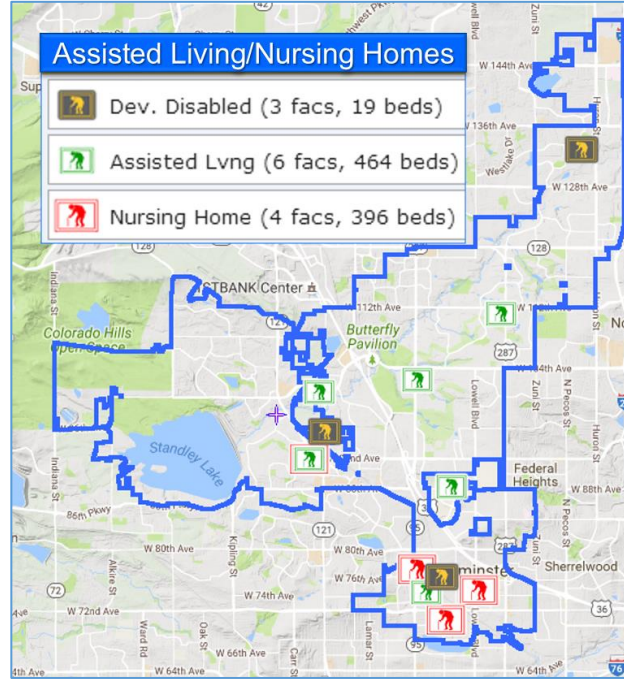
Westminster is primarily residential with a large retail component, business parks, and some light industry. An assessment of the presence of Presidential Policy Directive 21 (PDD-21) designated critical infrastructures and their significance relative to local, regional and national well-being has been conducted, and the various threat levels identified. These specific facilities are identified with the records kept in Fire Department administration. For public safety purposes, these facilities are not identified in this document. The city and public safety departments are aware of these specific facilities.

As an urban community, and based on its geographical, topographical, and geological location, Westminster has a lower than average probability for disaster level incidents. There is always the possibility, but large events are generally unlikely and are rare occurrences. Westminster has more of an urban density level, and uses this standard for response time standards.

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Health Care

The City is home to health care facilities that provide care for older adults, patients needing physical rehabilitation, and specialized care. These centers are located in all parts of the city, and they contribute to additional call loading due to the medical conditions of their clients and the need for emergency services and transports. The Colorado Department of Public Health and Environment data indicates that approximately 14,536 Westminster residents have some form of disability (i.e. mobility, cognitive, sensory, independent living, and self-care). As noted previously, the city has hospitals, stand-alone emergency rooms, and urgent care centers that contribute to the potential risk, and are considered critical in times of large-scale medical events.



Map 12 – Assisted Living & Nursing Facilities

Cultural

There are 26 identified historic sites in the city. The city web site also identifies 13 local landmarks, 4 locally landmarked residences, and 7 sites on the State and/or National Register of Historic Places, as listed below:

- 6 Residences
- 9 Farm, ranch, agriculture related areas
- 4 Commercial facilities
- 2 Civic/government centers
- 4 Educational properties
- 1 Cemetery

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The Butterfly Pavilion and Insect Center, located in the west-central area of the city, is a popular regional attraction of cultural significance. This facility is planning to relocate further north, outside of Westminster, in 2021.

The city has been working to incorporate an arts district along one of the older streets in the original part of the city. Some of the historical buildings are also incorporated around this area.

Historic buildings within the city have been upgraded or redeveloped at times, and when this has taken place, evaluations are conducted to determine if fire protection features can be incorporated into these facilities. The need for maintaining historical significance versus fire protection requirements is evaluated for each project.

Risk Assessment Methodology

In addition to researching risks based upon historical event data, an evaluation was conducted by the Fire Department command staff of the likelihood and impact of several significant, potential incidents that could occur in the city. The evaluations were based on human caused hazards/threats, and natural caused hazards/threats. These evaluations assisted in determining the significance of each type of individual event and focused future planning on specific events. The identified risks were scored on a two-axis scale, those being severity and frequency. The identified events that could be impacted by mitigation were identified, and measures incorporated where appropriate into pre-incident strategies. These included training, updating procedures and/or SOG's, and identifying outside agencies that could assist in the event of an occurrence. Many potential events have already received high levels of mitigation; for instance, the Standley Lake Dam was strengthened significantly, with new outlets created and reinforcement of the dam itself, in the early 2000's. This reduced the likelihood of a catastrophic event, however the impact remains high.

Many of the events have already incorporated trainings, both internally and with outside agencies, and mutual SOG's have been written to outline actions. Other events, particularly those

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of natural occurrence, have received attention at different levels, and prior incident operations have resulted in the current procedures.

All City departments participated in the threat assessments, which provided subject matter expertise to the threats, mitigation efforts, and impacts based on the various incidents. This information as well as the methodologies used were processed and documented in the All Hazards Community Risk Assessment.

Several community meetings have been held, in which citizen input into risks and concerns were identified. These findings were further incorporated into the risk assessment methodology.

The full methodology is contained in the Community Risk Assessment as well as in the Fire Department methodology folder.

Building Fires

The threat from fire citywide is relatively low. Historically, there have been between 30 and 45 building fires a year for the past several years, most of minimal-to-moderate consequence. Commercial fires are also rare but do occur, and damage has been mostly due to the effect smoke has upon stock. The City has adopted and aggressively used the full set of International Codes in building and fire systems reviews as well as conducting inspections, creating a safe environment for the citizens. In 2013, residential fire sprinkler requirements for one- and two-family dwellings took effect. All new homes from January 1st of that year forward are equipped with a life-safety sprinkler system. Effectively, all residential properties built since then are protected by a fire sprinkler system.

The risk classification of occupancies is based upon a building risk assessment that is performed and updated by the inspecting personnel. This risk assessment was adopted after reviewing risk assessment criteria from other agencies and RMS providers. The assessment was modified to incorporate the best practices from all the other criteria. The risk assessment grades each buildings based upon construction type, occupancy, size, floors above- and below-grade, fire protection features, hazardous materials present and other information. The buildings are scored and then placed into one of four categories of risk; low (0-15), moderate (16-30), standard (31-45), and high (Over 45). Low risk businesses are inspected on a triennial schedule, moderate

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risk businesses are inspected biennially, and standard risk businesses are inspected annually. The line fire crews conduct all of these inspections. Businesses that are scored as high risk are inspected on a semi-annual basis, and these inspections are assigned to the inspector in the fire prevention bureau. 100 percent of assigned inspections have been completed from 2013 through 2018. See appendix p. 231 for scoring criteria.

The risk assessments are used to help determine target hazard responses, based upon the risk levels. WFD Command Staff have reviewed the high risk buildings identified by the assessment, and have use this information to guide the selection of high risk, target hazard occupancies. Institutional and historical knowledge was also used by staff in the evaluation of the buildings. The institutional knowledge is the final determining factor if a building will become a target hazard for emergency response.

Westminster has not had an accidental fire death since 2014. There have been three fire deaths from suicide between 2013 and 2018 and one resulting from a motor vehicle accident. Two other deaths occurred in 2018 as a result of an arson fire. The total fire rate is also well below the national average. The rates for the most recent two years available are:

2016	Westminster Total Fire Rate/1000 population	1.56
	National Fire Rate/1000 population	4.6
	Westminster Accidental Death rate/1000 population	0
	National Accidental Death rate/1000 population	9.6
2015	Westminster Total Fire Rate/1000 population	1.4
	National Fire Rate/1000 population	4.5
	Westminster Accidental Death rate/1000 population	0
	National Accidental Death rate/1000 population	7
2017	Westminster Total Fire Rate/1000 population	1.79
	Westminster Accidental Death rate/1000 population	0

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At the time of this writing, the national rates were not available for 2017.

Hazardous Materials

The greatest threat from hazardous materials is on the transportation systems. The BNSF railroad as well as both US Hwy 36 and I-25 are routes for hazardous material transportation. There are also multiple roadways within the city that carry hazardous materials, the most common being fuel for gas stations. There are some fixed facilities that use hazardous materials in production, research and development, however these quantities are generally small. There is one business that specializes in shipping and receiving of hazardous materials.

Several businesses in the City are required to report their hazardous materials per Tier II. The majority of these have small amounts that are in storage, use, or for sale. The quantities normally exceed the reporting requirements by a small amount.

Resource Mobilization and Management

Exceeding available resources is often the initial indication of an extraordinary event requiring the activation of the Emergency Operations Center. The mobilization, tracking, documentation, and demobilization of resources are core functions of Incident Command and the Emergency Operations Center. Resource mobilization in this plan includes both operational resources (first responders and their equipment) and general resources (contract services, food, water, fuel, and other expendable items). Westminster currently has a main EOC, which is located on the ground floor of City Hall. This area is limited in the number of work stations that have computer access, as well as being in a smaller room. There is an adjacent conference room that provides for meetings and other work to take place. The benefit is that this location is co-located in the same building as the city manager's office and the finance department. A secondary EOC is located at the Municipal Services Center, and has been used by the public works personnel during winter storms and flooding situations. Another area that can be used as an EOC is the training room at the PSC. This room has data port access, is large enough to accommodate a number of personnel, and is co-located with fire administration, the police

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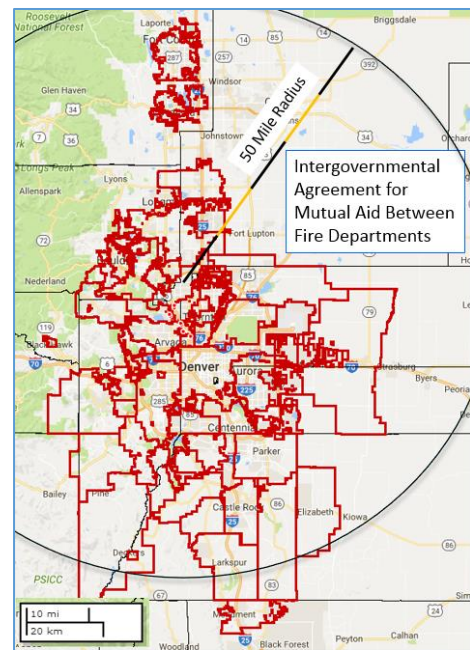
department, and the communications section. The primary challenge with any of these areas is that none were designed initially to be an EOC.

The Incident Commander and Operations Section Chief are responsible for identifying the immediate resources needed to support the actions of fire, police, and public works field operations. In most cases, the need for additional first responders and first response equipment will be met through the robust resources that are available in the Denver metro area and North Central All-Hazards Emergency Management Region.

Automatic and mutual aid resources are routinely coordinated by Westminster Dispatch using Computer Aided Dispatch (CAD) or through dispatch-to-dispatch telephone calls. Westminster Police maintain a close working relationship with neighboring police departments (Arvada, Broomfield, Federal Heights, Northglenn, and Thornton), Adams and Jefferson County sheriff's offices, and can request automatic aid from the Colorado Department of Public Safety/Colorado State Patrol and federal law enforcement agencies such as the FBI through law enforcement channels.

The Westminster Fire Department is one of 52 signatories of the *Intergovernmental Agreement for Mutual Aid between Fire Departments*. This agreement includes the majority of firefighting agencies in the Denver metropolitan and northern Front Range area. Westminster Fire Resources are registered on the Resource Ordering and Status System (ROSS) and WebEOC through the Jefferson County Incident Management Team (IMT).

Westminster participates in the Denver metro area's regional effort to establish standard mutual aid channels and procedures to integrate multiple agencies into field operations.



Map 13 – IGA Mutual Aid Member Agencies

There are currently multiple channels available to all agencies in the front range area for coordination. These include four dedicated channels each for fire, law enforcement and command functions.

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Mutual and Automatic Aid Agreements:

- Intergovernmental Agreement for Mutual Aid Between Fire Departments
- Automatic Aid Agreement with Thornton Fire Department
- Automatic Aid Agreement with Adams County Fire Department
- Automatic Aid Agreement with Arvada Fire Department
- Memorandum of Understanding with West Metro Fire Protection District-Colorado Task Force-One (US&R)
- Intergovernmental Agreement for the Adams Jefferson Hazardous Materials Response Authority
- Intergovernmental Agreement for Metropolitan Dive Rescue
- Memorandum of Understanding Between Colorado Division of Emergency Management and the City of Westminster Volunteer Program (local and statewide volunteer coordination)
- American Red Cross Shelter Agreement
- Colorado's Water/Wastewater Agency Response Network (CoWARN) Mutual Aid and Assistance Agreement
- As of January, 2019, an IGA for North Area Automatic Aid that supersedes prior IGA's

Disaster declarations provide the ability for statewide and national resources in the event of a disaster event which exceeds the capability of the mutual aid system.

The mutual aid system is tested regularly, with drills to assemble strike teams from the north metro area. Additionally, actual incidents, primarily wildfires in the Front Range and foothill areas, regularly require mutual aid response in the earliest stages of the event. These provide experience with the system and resource allocation.

The automatic aid system is used on a regular, daily basis, so it is a readily adaptable system that is ever increasing in capability. However, agencies know that in the event of a large-scale disaster, the automatic aid system will most likely be stressed, with resources unavailable, and outlying mutual aid will be needed.

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Current Deployment and Performance

Overview

The Westminster Fire Department provides full time delivery of emergency services from six fire stations strategically located throughout the city. Each station is staffed with at least one fire apparatus capable of providing immediate fire attack, advanced life support, and initial operations for hazardous materials, technical rescue, or other incidents. Station two has two fire apparatus assigned, an engine company and a truck company.

All personnel are state-certified to at least Firefighter II level, with many personnel holding Fire Officer certifications. All personnel are required to maintain an EMT-Basic level of certification. Several personnel that are fire officers or engineers maintain their paramedic certification and can act in an advanced life support capacity. All personnel are required to maintain a minimum of Hazardous Materials Operations certification. Many personnel maintain additional certifications, several of which relate to their membership on special teams.

Regardless of their assignment, all personnel are expected to perform at, and are trained in, all aspects of firefighting and emergency medical service delivery. Personnel assigned to an engine company may have to take actions normally assigned to a truck company, and vice-versa. At any time, personnel may be assigned to a medic unit. As such, all personnel maintain the ability to perform in any capacity.

For many years, statistical data including response information and times were maintained as the average time for each category. Record keeping was changed beginning in 2016 to maintain data for responses and time sequencing at the 90th percentile. This was further applied retroactively to 2014 in order to enable proper trending and forecasting of performance and needs. Performance of deployment, which is detailed later, will reflect the 90th percentile standard. The average times are still being recorded to assist with long-term trend analysis until such time the 90th percentile data is adequate for these measures. The average may also help determine improvements in data sets below the 90th percentile when the 90th percentile does not move.

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Communications

The communications center for the City of Westminster is based in the Public Safety Building and is under the direction of the Police Department. The communications section is under the supervision of a Police Deputy Chief, and has a civilian staff including an administrator, four supervisors, and 23 communications specialists. A technical services coordinator is also staffed in this section, who maintains and services the radio and related support equipment for the City.

Communications, call receiving, and dispatching for police and fire are done through this center. All 9-1-1 calls are received at this Public Safety Answering Point (PSAP), processed, and dispatched to the appropriate agency and unit assignment. Enhanced systems are in place to rapidly determine the location of the incoming call, and Computer Assisted Dispatch systems are in place to quickly process and assign resources to the incident.

Each shift has a communications specialist assigned as a dedicated fire dispatcher. The general staffing level is a supervisor, dedicated police main channel dispatcher, dedicated police service channel dispatcher, dedicated fire dispatcher, and dedicated call taker. The shifts are staggered so that peak time staffing is addressed to supplement positions during higher call volume times. Any position can receive and input emergency calls, and also dispatch to either police or fire. If a significant incident occurs, a tactical channel is assigned and a communications specialist is assigned to that channel for the duration of that incident.

Emergency Medical Dispatching (EMD) is used by the communications section. Callers for medical service are provided with care instructions based upon the information provided by the caller. The EMD system has been approved through the medical director for the Fire Department and the Association of Public Safety Communications Officials (APCO).

The communications section maintains contact with callers to obtain additional information, and they relay those particulars to the responding crews to provide for rapid size up and deployment of resources upon arrival.

An upgrade to the entire communications center took place in 2017, with new consoles, lighting, computer screens and mapping installed. The center has the most advanced systems,

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including playback ability on phone and radio traffic, multiple call circuit availability, “Text-to-911” capability, and hearing impaired abilities.

Water Supply

The City of Westminster has a robust water supply system, beginning with the watershed from the Clear Creek basin in the mountains through the storage at Standley Lake to the end user. There are two water treatment plants, with a replacement plant scheduled for approximately 2026. The city has an extensive water supply system that is beginning to undergo a large rehabilitation program. Fire hydrants are included in new developments, with hydrant spacing and flow requirements guided by and in accordance with the International Fire Code, the American Water Works Association, and City of Westminster standards. Fire hydrants are dry barrel due to the cold conditions during winter months.

Fire hydrant locations and fire flow requirements are based on the requirements in the International Fire Code. During the adoption of the I-Codes, the pertinent appendices of the IFC (access, fire flow, hydrant location, and others) are adopted as part of the code. Hydrant location and spacing is approved by the fire prevention bureau for all developments.

All areas of the city have coverage by fire hydrants with the exception of Standley Lake Regional Park and the surrounding open space. This area is mostly open with only four buildings in the area. The Fire Department has evaluated these properties and determined that water supply in the event of a fire in any of these properties would be provided by the tank water from the responding fire apparatus.

As upgrades to the water system take place, evaluations are conducted of hydrant availability. If gaps are located, usually outside of development areas on main arteries, the utilities department adds additional fire hydrants in those identified areas to ensure proper spacing and flow.

Fire hydrants are maintained by the Public Works and Utilities Department. This includes the maintenance, pressure testing, and flushing of fire hydrants in the city. The hydrants are also inspected for damage and clearance. The Fire Department conducts flow testing on hydrants for

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new development information. Utilities and the Fire Department are working together on a computer program to access the hydrant information from each department and make it available to both departments. This would also provide for supplemental information to be available on the MDC's in each fire apparatus.

Fire hydrant location mapping is maintained by the GIS section of the City. As new projects and developments take place, the mapping is updated and these updates are "pushed out" to the end users, including the MDC's in fire apparatus. This provides for hydrant locations to be rapidly visible to responding crews.

Staffing

The fire department operates with a rank structure. New hire firefighters are given the rank of "Firefighter". Ranks above the rank of firefighter are earned through promotional testing. A firefighter may test for a Firefighter/Paramedic position or a Fire Engineer position, which are equivalent to each other in rank position and pay. A Fire Lieutenant is the next rank beyond engineer or paramedic. Engineers and paramedics that have a minimum of two years in their position and five years on the fire department are eligible to test for Fire Lieutenant. Firefighters with seven years on the department are also eligible for the Fire Lieutenant test. Fire Lieutenants with two years in grade are eligible to test for Fire Captain, and captains with two years in grade are eligible to test for Battalion Chief level positions. Along with the time-in-grade requirements, there are educational and certification requirements for each position, which are outlined in the Professional Development SOG.

The Battalion Chief rank fills several positions in the organization. Each shift is under the supervision of a Battalion Chief. Three administrative chiefs hold the rank of Battalion Chief. These positions are the Fire Marshal, the EMS and Safety Chief, and the Training and Special Operations Chief. There are two Deputy Fire Chiefs, one assigned to operations, and the other to administration. These positions oversee the battalion chief rank officers. The Fire Chief is the CEO of the department and supervises the Deputy Fire Chiefs.

The minimum staffing on each piece of fire apparatus is three personnel, consisting of an officer, an engineer, and a firefighter. The officer may be a lieutenant or a captain. Each shift has

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two captains and five lieutenants assigned. Each station is assigned one captain to oversee and manage the station activities. The officers on the shifts opposite the captain are lieutenants.

If enough personnel are available for staffing, there may be a fourth firefighter assigned to an apparatus. The fire department has a sequential order for staffing of apparatus with a fourth person based on organizational and community need. The evaluation includes number of responses, location within the city that coincides with the location of the next due unit, functionality of the apparatus, and the type of activities required on a fire ground. The order in which a fourth person is assigned and reasoning:

- Engine 5 (due to remoteness of station)
- Truck 2 (due to truck company functions on fire ground)
- Engine 1 (due to call volume)
- Truck 6 (due to remoteness of station and acting as a truck company)
- Engine 3 (due to longer time of second- and third-due)
- Engine 4 (has other apparatus adjoining on three sides)
- Engine 2 (housed with a second apparatus and has second due help)

There are times throughout the year when full staffing is realized, and all of the seven fire apparatus are staffed with four personnel.

The medic units are assigned to five of the six stations (all but station 5) and have a standard staffing of two personnel, both of whom are firefighters and one of which must be a certified paramedic. At some times, a third firefighter completing their paramedic field internship will be assigned to a medic unit for approximately 15 shifts.

A Battalion Chief is assigned to each shift and responds in a command vehicle from fire station two, which is relatively centrally located in the city.

A Safety and Medical (SAM) officer of a Fire Lieutenant rank, who also holds a paramedic certification as well as safety officer certifications, is assigned to each shift and responds in a command-style vehicle from fire station two. This position is primarily safety related, performing as the on-scene safety officer on major incidents and all structure fires, but also performs administrative duties regarding safety issues, injury reporting and tracking, and EMS quality assurance.

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With the seven fire apparatus, five medic units, one Battalion Chief, and one SAM officer staffed to the minimum level, the minimum staffing each day is 33 personnel. When staffing drops below this level due to illness, vacation, training, or other events, overtime is called to maintain the minimum staffing level. For in-service types of trainings that are conducted on duty, limited apparatus are assigned to each training session in order to maintain coverage in the city. The use of video technology is applied when appropriate for the subject matter to conduct training remotely for the crews.

For each rank except firefighter and paramedic, several personnel from each shift are trained to act out-of-rank when a vacancy occurs. Personnel may work in an acting or provisional role once they have received adequate training and department approval. When a vacancy occurs, personnel from the next lowest rank may work at the vacant level for anywhere from a partial shift to several shifts.

Facilities/Equipment

Fire, EMS, rescue and other assistance is provided through six fire stations strategically located throughout the city. A 5 story training tower is located at the south end of the city in district one. It is equipped with a standpipe and partial sprinkler system for training scenarios. The tower can be used for smoke, hose and ladder evolutions, technical rescue and other trainings. It does not have the capability for live burn training. The grounds are large enough for evolutions and driver training.

The administration is located at the Public Safety Center, along with the Police Department and Communications Section. Most administrative functions are housed at this location. Training and some EMS personnel are housed in offices at stations 2 and 4, respectively.

All fire stations with the exception of station four have drive-through bays for the heavy apparatus, to avoid having to back these trucks into their bay space. Station four is only open to the front and requires backing into quarters. The medic units vary on drive-through or backing only for their bay space.

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Each fire station is equipped with a Nederman vehicle exhaust system with hoses available for all vehicles housed within the respective station. These systems are required to be used on the exhaust of every unit in the stations. These units have been installed and used since 1996. Crews are required to place the exhaust hoses on the apparatus once they have come to a final stop in the station. They are not connected as soon as the apparatus enters the bay due to the added exposure to personnel standing directly above the exhaust while trying to complete the attachment. The exhaust from modern apparatus is much cleaner. Trucks enter the bay at an idle speed and are quickly shut down once stopped. This provides for minimal exhaust exposure.

All fire stations have an extractor washing machine and dryer unit installed to provide for appropriate laundering of turnout gear after exposure incidents. These washers are also used for other clothing and gear that have biological or other exposures.

Every fire station, as well as the Public Safety Center (where the communications section is located) is equipped with a natural gas-fueled generator (diesel at the PSC), each capable of providing extended power for emergency operations, lighting and door operations as needed. The City's Facilities Maintenance Division maintains these generators. The Facilities Maintenance Division is conducting a needs assessment of the generators in the city to ensure that all of them have proper capacity for performance needs.

Station alerting has evolved from using radios with loud tones, to shortened tones, to the current Internet system. Each station and apparatus is programmed into the system. For every call, the communicator will "pre-announce" the units assigned and the type of incident over the radio. Afterwards, station alerting commences, which consists of a soft, intermittent tone that gradually increases in volume. A computer voice then announces the units to respond as well as the type of incident. From 0600 until 2100 hours, the radio systems in the firehouse are "open" so that personnel at each station hear all radio traffic. During the night hours from 2100 to 0600, the radio systems automatically go into an "alert" mode, and open only after being activated by a station alert, then only to those stations and rooms that the responding apparatus are programmed for. These remain open for two minutes before resetting. During a station alert, red lights illuminate the station interior, particularly along the ceilings of hallways and paths used by personnel. These alerting systems greatly reduce the harshness of immediate bright lighting and loud tones and voices during an alert. The station alerting system also allows each bunkroom

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occupant to select the specific apparatus they are assigned to, and the system in that room will only alert if that particular apparatus is assigned to the incident. This allows for lessened sleep disruption when other units respond from the station. In common areas such as dayrooms and kitchens, alerting boxes with four lights are installed. The lights activate by color for the type of unit that is responding. Red lights are for engine responses, blue for medic units, yellow for truck or specialty apparatus, and white for the battalion chief.

Once the alerting system is finished with the specific alerting (approximately ten-to-twenty seconds), the telecommunications operator announces via the radio the units, type of incident, and location, and repeats the information. When the units go enroute via MDC, the communications specialist provides additional information on the incident to the responding units. These updates continue as information is made available during the response.

In conjunction with the station alerting system, “count up” timers have been installed in the bay areas of every station, generally located just in front of the apparatus. These timers indicate, in seconds and minutes, how much time has elapsed from the dispatch time. There are also monitors installed near these timers, which display the location and type of call as well as some incident details and the units responding. Crews can glance at this information to begin their incident size up while preparing to board the apparatus. The count-up timers serve as a reminder to safely expedite turnout times.

Every fire station is equipped with a fire sprinkler system in the living quarters, as well as smoke and carbon monoxide detectors in the stations, particularly the sleeping areas. Stations two and six also have fire alarm systems installed. Station two has a sprinkler system throughout.

Fire extinguishers are placed in living quarters and work areas within each fire station. The shop areas have metal cabinets for storage of cleaning supplies, and any flammable or combustible material is stored in a flammable liquid cabinet.

Each station has a supply of snow shovels, and at least one snow blower. Station two has an all-terrain vehicle that is used for major events to respond to and transport, if necessary, injured people from an event site to a waiting medic unit. This unit can be equipped with a plow to assist with snow removal. City street and parks vehicles also assist with snow removal by plowing the front apparatus aprons of the fire stations during significant snow events.

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The station bay areas are equipped with reverberating heaters. These are generally set at approximately 62-68 degrees in the winter months, but can be adjusted as needed by station personnel.

All fire stations are provided with entry security using a keypad entry system. Each employee is assigned a code for use on doors with keypads. The system is installed on most exterior station doors as well as interior doors at station two between the public meeting room and the crew quarters. The system is overseen by the Fire Lieutenant Investigator/Inspector who has computer control over the assignment of codes, monitoring of the entry, and can perform an audit for door access history. The system was updated in 2017 with a new vendor and new system.

Knox Company Med-Vault units provide narcotics security in all units. Code access is used to unlock the box to gain access to medications. The Fire Lieutenant Investigator/Inspector handles monitoring and audits of the Med-Vaults, in conjunction with the EMS division.

Knox Box key control systems are used throughout the city on commercial and some residential properties. The access keys are strictly controlled and apparatus keys are stored in a Knox Key Secure unit on the apparatus. Access and oversight is by the same methodology as the other access systems.

The City's Facilities Maintenance Division handles building and space maintenance issues. The staff helps to assess needs, including major capital improvement projects (CIP) and handles many day-to-day routine issues. The Fire Department plans for maintenance and CIP projects as part of the budget preparation, and works closely with Facilities Maintenance to facilitate these projects. Facilities Maintenance also uses their budget to pay for improvements and needs in the fire facilities. Fire administration, the station captains, and Facilities Maintenance staff meet annually to assess the on-going maintenance needs as well as CIP projects and long-range needs, and prioritize the requests for projects for the stations.

Fuel for all city vehicles is available from three sites; the main fleet services location, Big Dry Creek water treatment plant, and the parks department shop. The three facilities are distributed far enough apart in the city that most apparatus only have to travel slightly outside of their response areas, if at all, to obtain fuel. In the event that the fuel supplies are out-of-service

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or unavailable, the city has an account with a local commercial gas station that provides both gasoline and diesel. These facilities also have back up power to ensure fuel availability for city vehicles.

Each response unit is equipped with a Mobile Data Computer (MDC), which also provides alarm information, location information, maps of the city and hydrants, and preplan information. The MDC's also have status buttons, and policy dictates that the crewmember in charge will push the enroute button when either the air brake is released, or if already on the road, as soon as the unit is moving to the call. Several other status buttons are not used on the MDC's, as the communications section places units on-scene after those units radio they are on-scene, and when they go available. The only other buttons used by the crews are the "Available Mobile" (AM) and "Available in Quarters" (AQ), which are used when leaving or returning to their station for routine matters or after a call is completed.

Fire Stations/Districts/Evaluation Zones

For fire, EMS and other responses, the city is divided into six districts, each of which has a fire station centrally located. The districts were developed as the city grew and the need for timely fire and emergency response expanded. In the 1990's, Fire Router and RHAVE were used to determine the best locations for fire stations, and the resultant station location outcome was very similar to the current station deployment. There were some recognized areas in the city where responses were more remote, including the farthest north end, the farthest northwest corner, and one area in the central part of the city. Although these areas could benefit from station relocations, this may have required several stations to be moved, some only several blocks. The cost/benefit analysis at that time concluded that station relocation was not worth the expense, particularly based on the limited number of responses.

In the early 2000's, planning began for the construction of a new fire station two. Models again were used to verify the best location for this station. The models demonstrated that the corridor between 92nd and Sheridan to 92nd and Lowell was the best area for this station. The new station was built on Lowell, south of 92nd Avenue, across the street from the former station two.

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In 2006, ESCI was commissioned to provide a management resource study on the Westminster Fire Department. As part of this study, station locations were evaluated, and the plan showed that the stations were currently located in an effective manner. The study recognized the same response gaps that had been found using RHAVE a decade earlier, and recognized that a significant adjustment would have to occur to close these gaps. Since this study was conducted, additional street networks have been constructed, and updated Comprehensive Land Use Plans have been implemented. A great deal of additional growth has also taken place. This has resulted in lengthening overall response times as calls for service increase, specifically in and near the areas of the Promenade, Downtown, and around the Orchards. These areas are noted in the following sections, specifically the Plan for Maintaining and Improving Response Capabilities.

Apparatus placement has evolved, with an apparatus capable of providing fire streams (engine company capability) always located at each station. Truck company equipment has historically moved around as different deployment models have evolved. The current deployment model has a triple-combination pumper apparatus at each station, with truck capability of 105' in aerial length deployed at stations two and six. Station six responds with a single, quint type apparatus. Truck two is also a quint apparatus, but responds primarily as a truck company citywide. Having these two aerial apparatus at these stations provides good distribution of the aerial capabilities of first due apparatus within the city. As development and automatic aid practices evolve, deployment models will be adjusted to provide the best coverage regionally.

Medic unit (ambulance) deployment has evolved as the city has grown. When the transport function was taken over by the fire department, the two ambulances procured from the former transport provider were placed in service at stations one and four, replacing the former paramedic rescue vehicles. Eventually, a third ambulance was placed in service at station three, which helped with first due ambulance coverage on the west side of the city, while providing for better second due ambulance response to the southern areas of the city. As the organization has grown and call volume expanded, five of the six stations became staffed with a medic unit. Station five has the lowest volume of calls, and medics three and four are both deployed close enough to provide rapid service into district five. Due to the lack of a medic unit assigned to

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station five, engine five is assigned a paramedic/firefighter at all times to maintain first due advanced life support services in each district city-wide.

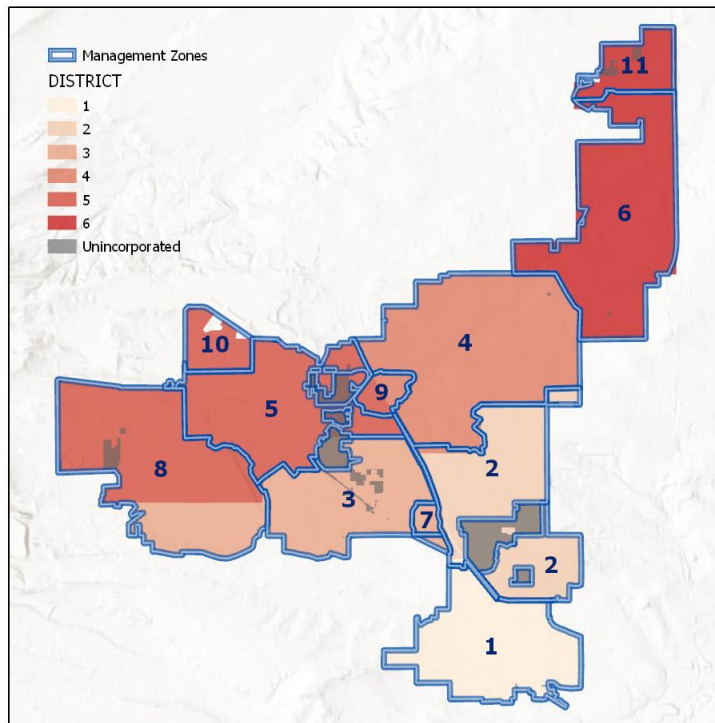
The response order for each district and type of response has historically been based upon station and incident locations. The city was analyzed and response zones instituted based on response order from each station, in a geographic system using the existing street network. In the last few years, the Automatic Vehicle Locator (AVL) capabilities on the apparatus have been used to change to Closest Unit Dispatching (CUD). If an apparatus is not in their station, they may be closer to an incident not in their response district than the unit assigned by the former method. This change is still in progress, and crews are becoming more comfortable with the system. There are still some areas requiring improvement, however using this technology should further reduce overall response times. One interesting note is the response to the furthest southwest area of “district four” has been changed to engine five when using AVL and with both units in their respective stations. This highlights two items; the AVL works properly to send the unit that will have the quickest travel time to an incident, and also that the district mapping for the city is very accurate for districts since this is the only noted change from district boundaries.

The six response districts are used as the primary “management” zones for data analysis, as each district has similar makeup, hazards, occupancies, and travel distance, but only generally differ somewhat on demographics. Historical response data has also been maintained for these particular districts. Several methods were discussed and researched into determining the specific FMZ’s, including by census tract, blocks, or by occupancy use. Some maps were developed and the numbers of zones ranged from 6 to 42. Census tracts were ruled out since they did not match the city limits, blocks were ruled out since there was no correlation by occupancy, demographic, or other identifier, and specific occupancy use was ruled out since each of the six primary districts are so similar in nature it would not provide for enhancement of data analysis. Using the six response zones would provide for a better data analysis as historic response information is stored in this fashion and can be queried easier.

It was determined to incorporate five evaluation areas for future data collection and analysis. These five areas were selected based upon uniqueness of that specific area (zones seven and eight), or because of the known remoteness and previously reported lengthened travel times to those areas (zones nine, ten and eleven). These last three zones can, and have been, addressed

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through various risk reduction activities for fire and life safety as they have been developed. Current deployment mapping has identified the gaps between some districts and may require some modifications to the zones based upon this gap analysis and travel times. For instance, zones seven and nine could be merged. This information will be detailed further in the “Plan for Maintaining and Improving Response Capabilities” section.



Map 14 – Westminster Fire Evaluation (Management) Zones

Districts one to six are the base response districts and all reported data will be based on these six districts. Evaluation zones seven through eleven are “layered” over these six districts and future data analysis will be specific to these zones. This analysis will be independent of the response data analytics in order to maintain trend evaluation within the current districts.

Zone seven is centrally located in the city, and is the site of a major renewal project. An indoor shopping mall used to be on this site, but it is now becoming the new “downtown” for the city. Due to the different street configurations, the varied proposed buildings, the location being at the end of two response areas, the anticipated area density and the development being in its infancy, it was determined to evaluate this area on its own, particularly during the development stage. Being a new development, there is no recent response data available.

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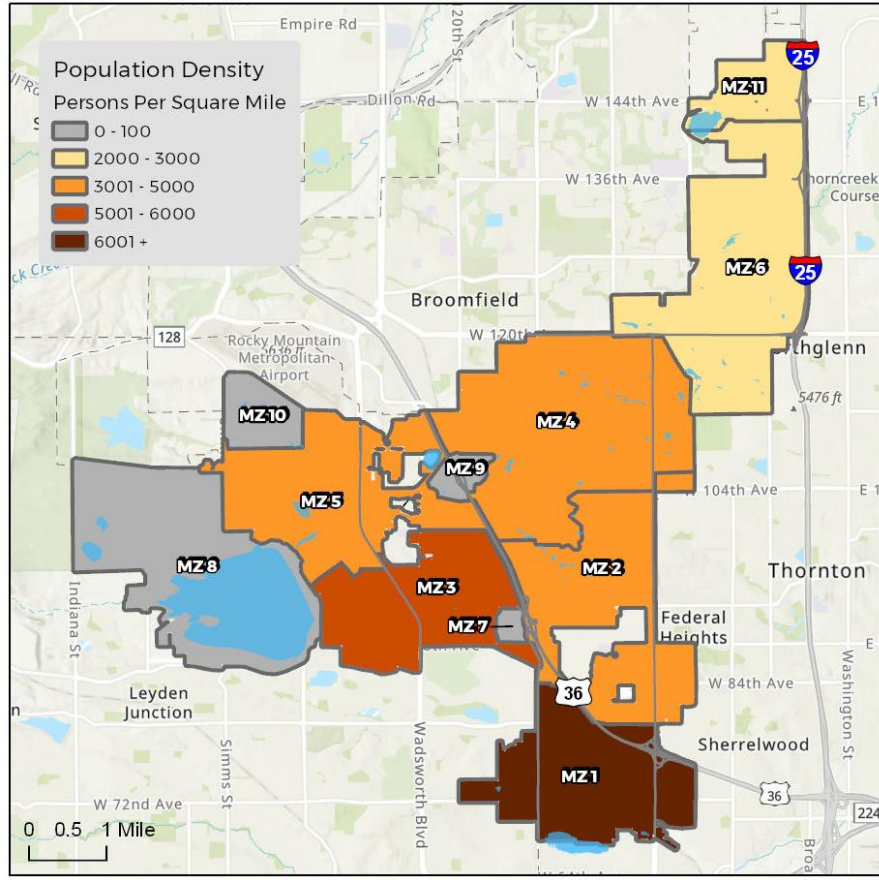
Zone eight is a large reservoir and regional park on the western edge of the city, and due to its unique character, size, opportunities, limited structures, and limited hydrant availability, it was determined to make this entire area into its own zone. This zone includes open space properties on the north and west borders of the regional park, and extends to the western city limits. All of this property is part of the urban zone, but has rural characteristics including limited water supply.

Zone nine is located in the north-central portion of the city, on the borders of districts four and five. This area was previously identified as being remote enough from current stations to have longer travel times. The zone consists primarily of retail, business, and hotels, and is located around US Highway 36 at one of the highway interchanges (104th Avenue/Church Ranch Boulevard). This area has been developed within the past twenty years. Zones nine and seven may be merged, along with parts of zones two and three, due to information discovered in response research. This will be further discussed in the Plan for Maintaining and Improving Performance section.

Zone ten is at the far northwest corner of the city in district five. This area is primarily office park, with a large golf course and recreation center included in its boundaries. This zone also is remote from the nearest station and was previously identified as having extended response travel times. This area has been developed within the past twenty years.

Zone eleven is at the far northeast part of the city in district six. It has a mix of residential, commercial and medical district including a hospital, and borders I-25. The commercial property in this zone is a major tax revenue base for the city. Most of the building in this zone has taken place within the past five to fifteen years.

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Map 15 – Population Density by Evaluation (Management) Zone

Response Guidelines

Emergency incidents such as cardiac arrests and structure fires require rapid response and intervention. Cardiac arrest requires rapid defibrillation, which can be performed by the use of an Automated External Defibrillator, carried by all WFD crews. Studies have demonstrated the need for this rapid defibrillation to enhance survival potential. The chart below compares the survival percentages based on time to defibrillation to the cumulative 90th percentile response times to EMS incidents by WFD from 2014 through 2017.

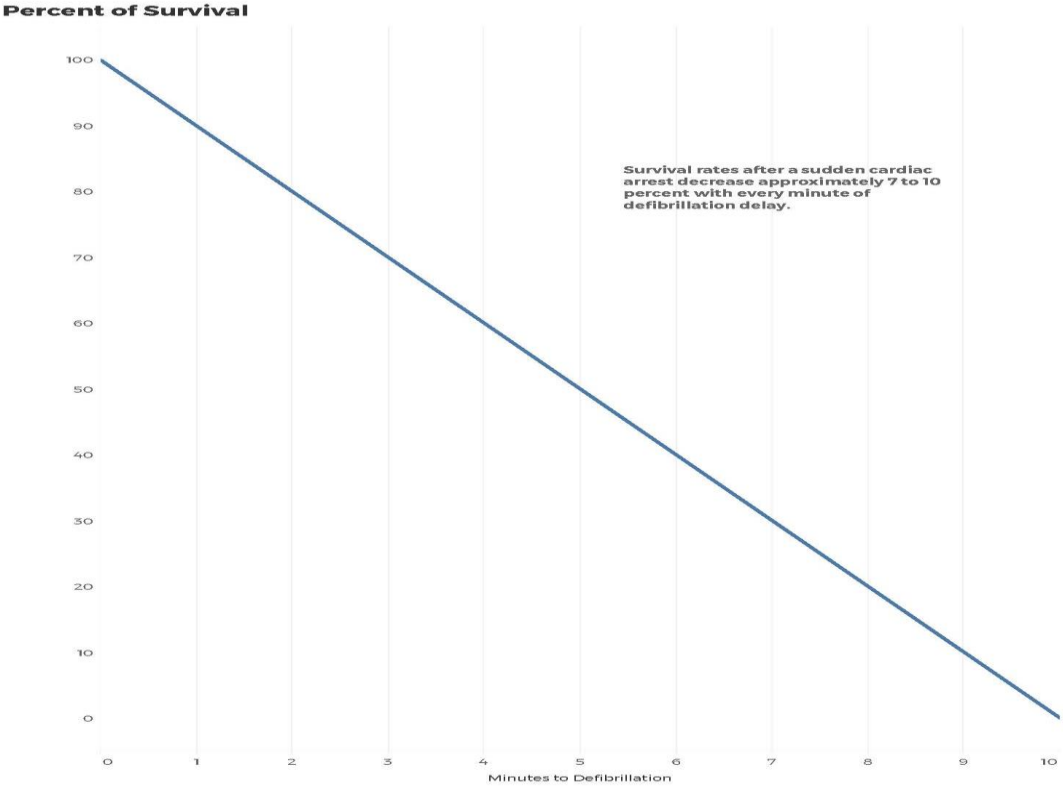


Chart 1 – Survival Percentage Time to Defibrillation

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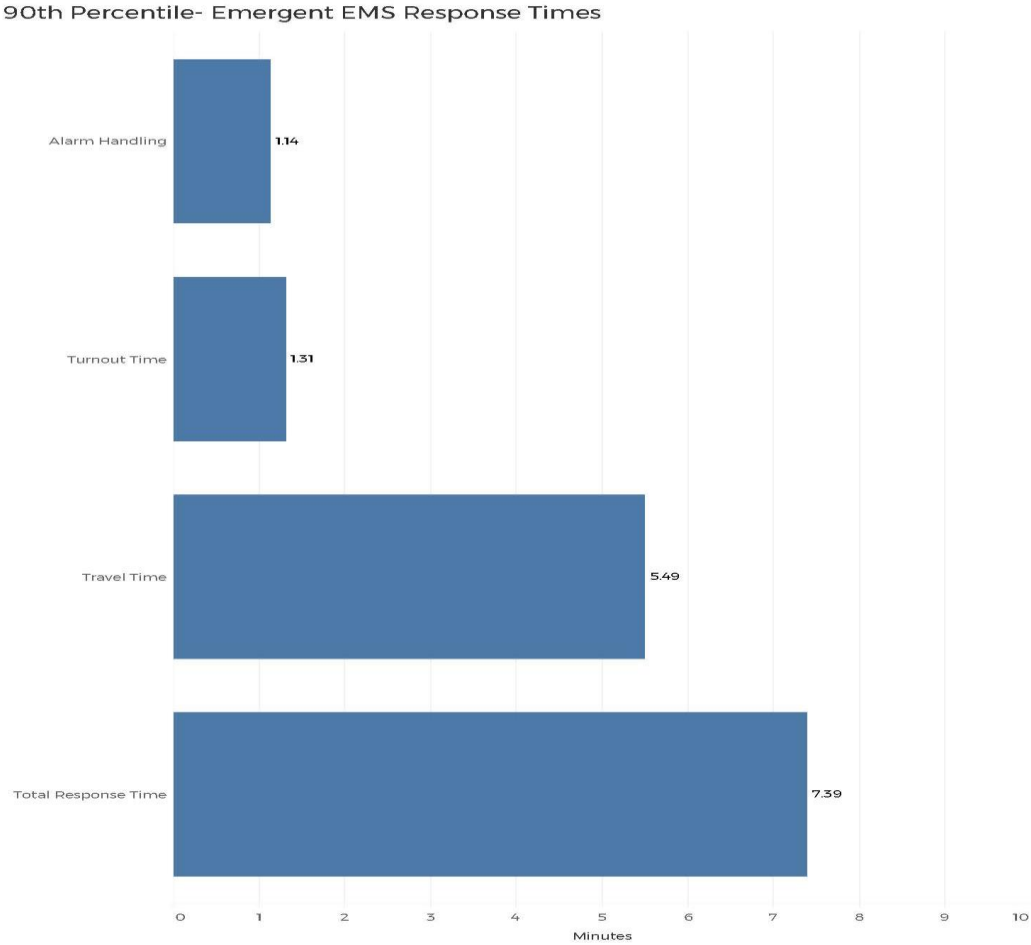


Chart 2 – WFD EMS Response 90th Percentile 2014-2017

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Fires that consume modern furnishings in structures have been shown to burn at a faster rate and produce more toxins than older furnishings. The rapid heat generation produces a quicker time to “flashover” where the entire contents of the room or fire area become consumed at once. The toxicity of the smoke and particles makes survival difficult. Flashover conditions are non-survivable. As with EMS responses, rapid response and deployment for structure fires is critical to effect rescue of viable victims and to employ water quickly to eliminate the flashover potential. The chart below demonstrates timelines for flashover to occur, and the attached chart reflects WFD first due response times at the 90th percentile to structure fires from 2014 through 2017.

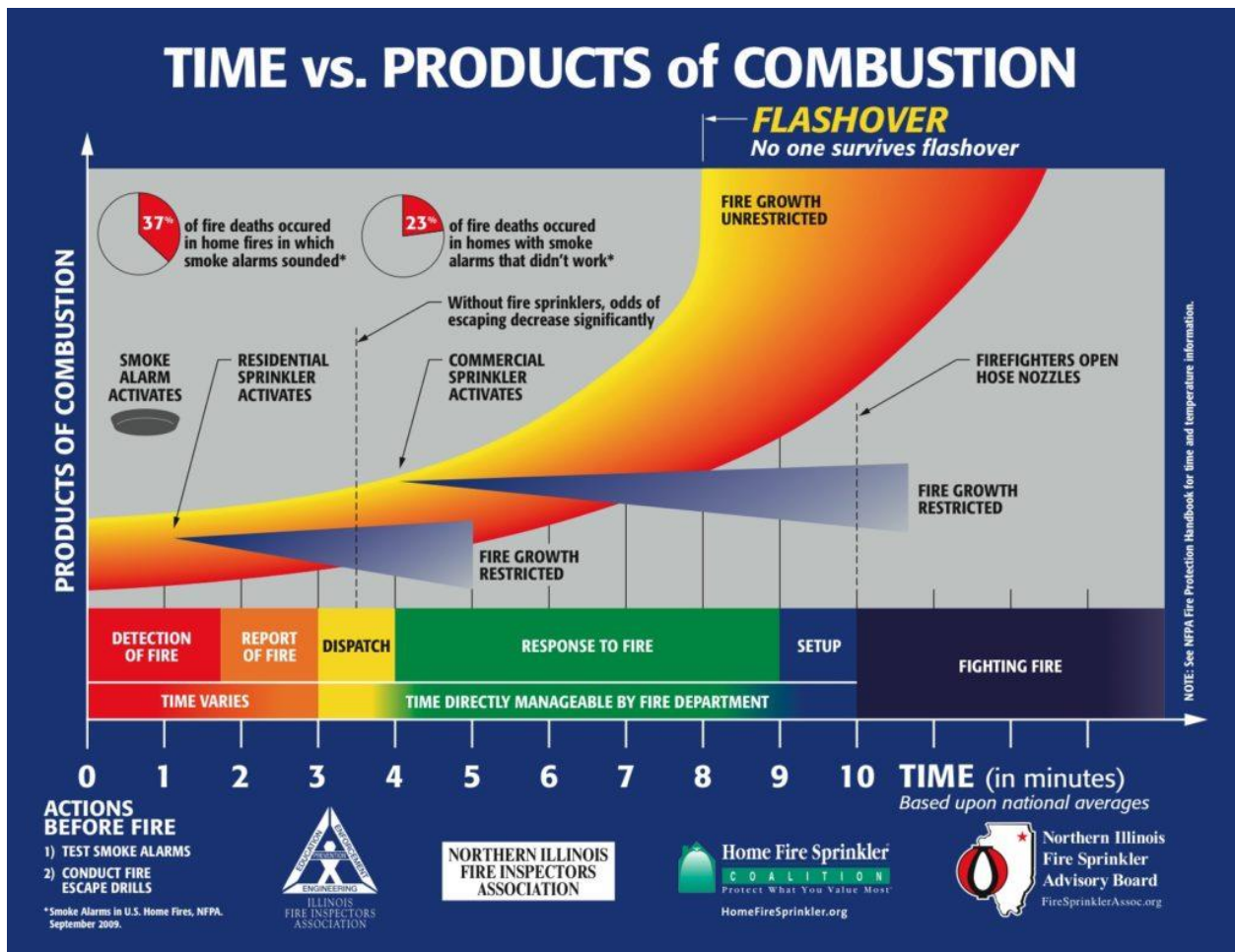


Chart 3 – Flashover Time Chart

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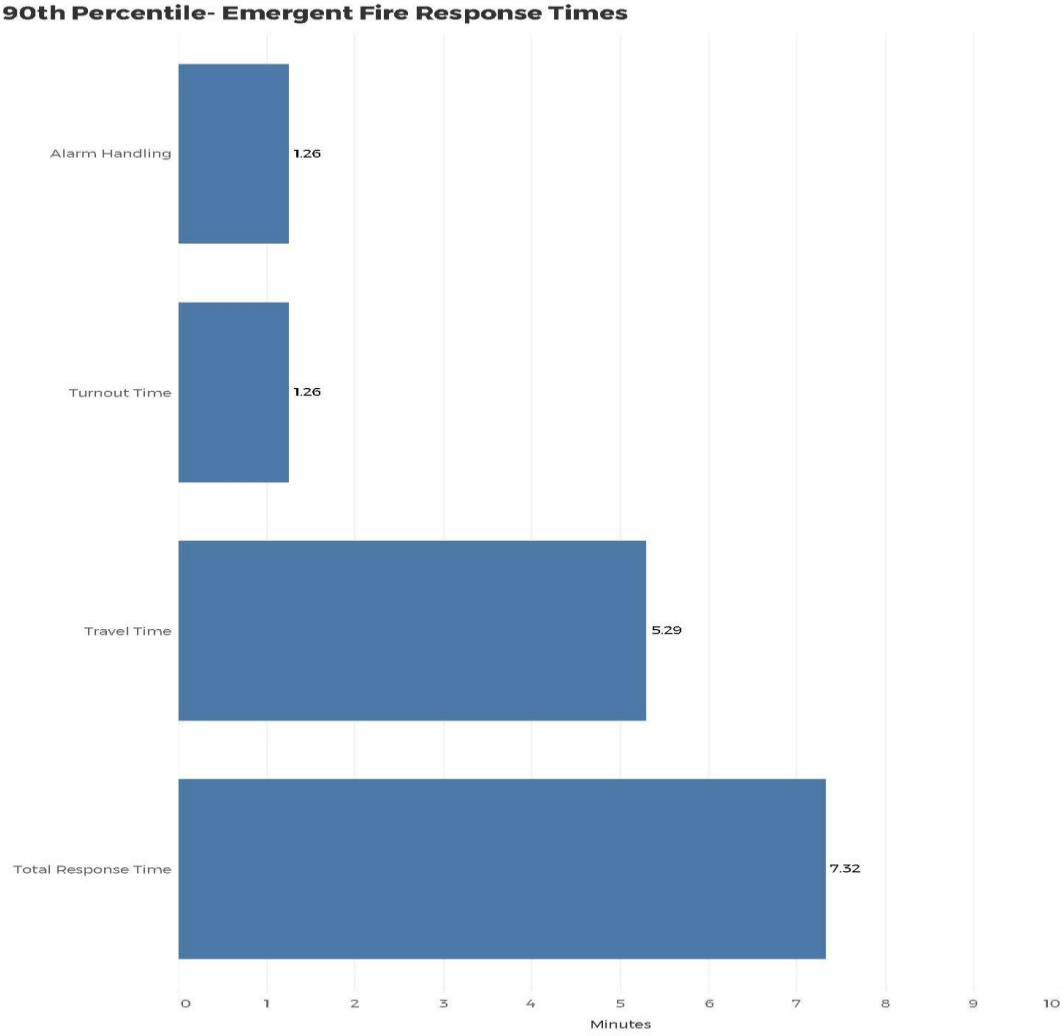


Chart 4 – WFD First-Due Structure Fire Response 90th Percentile 2014-2017

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Responses to calls for service are outlined in SOG OPS 200.01, Response Groups. This document has evolved based upon target hazards, automatic aid resources, and task assessment which developed the Effective Response Force (ERF) for each type of incident and for each risk level. Although response groups for various incidents are delineated in the SOG, the latitude is also noted for a Company Officer, Battalion Chief, or the Incident Commander to request additional resources at any time after the dispatch of the incident. The same discretion is available to reduce the responding force based on information dispatched or discovered during the investigation phase.

Beginning in 2013, several types of service calls were downgraded to a lower risk level and responses to these calls were directed to be in a non-emergent fashion. The determination was made after a review of the acuity of historical calls. For instance, commercial fire alarms that resulted in actual fire incidents occurred less than one percent of the time.

A risk analysis which assigned tasks for each type of response was completed and the ERF for incidents was developed. This analysis helped to adjust and strengthen the SOG. The following indicates the response protocol and ERF for various incidents except structure fires. Those are denoted after this section. The ERF varies based on the type of incident. ERF's are noted in parentheses.

Low risk calls with non-emergent responses (3) include:

- General fire alarm
- Odor investigation/Area smoke investigation
- Residential smoke or CO alarm with no indication of fire or ill person
- Citizen or police assist
- Water evacuation
- Medical alarm
- Lift assist
- Obvious DOA (2)

Low risk calls with emergent responses (3) include:

- Smoke investigation

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- Grass/field fire
- Dumpster/trash fire
- Vehicle fire
- Hazardous condition/haz mat (gas or fuel leak)
- Co-response with a private ambulance company
- Mutual- and Automatic- Aid (based on specific request)

Incidents where fire units need to stage for police to ensure scene safety are also non-emergent responses. The Company Officers and crew members have discretion to respond non-emergent on medical calls that are low acuity by nature, information, or based on historical knowledge.

Moderate risk calls are emergent responses. These incidents include:

- Medical call (5)
- Auto accident (5) - (Extrication is high risk EMS and low risk Technical Rescue)
- Ice rescue (9) - (WFD personnel. Dive operations require additional resources)
- Hazardous material incident Level 2 (7) - (Additional resources respond from the regional AJHMRA team to assist) (20)
- Technical rescue Level 1 (10) - (WFD personnel)

High risk calls are emergent responses. These incidents include:

- Medical calls of violent nature (6)
- Water/dive rescue (18) - (WFD personnel may be supplemented by other regional teams)
- Hazardous Material incident Level 3 (7) - (Supplemented by minimum 13 AJHMRA and State and/or Federal assistance) (20)
- Technical rescue Level 2 (10) - (WFD personnel, additional 10 from North Area Tech Team) (20)

Special risk events are emergent responses. These incidents include:

- Train derailment (24) - (If haz mat involvement, a Level 2 incident is applied and the AJHMRA provides personnel to meet and ERF of 33)

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- Plane crash in city (28)

General low risk incidents are dispatched with one piece of fire apparatus (engine or truck), except obvious DOA's where a medic unit is dispatched.

Moderate risk incidents have varying responses based on the incident type.

Medical calls and auto accidents have a response of one engine or truck and a medic unit. Extrication incidents also respond a Battalion Chief, SAM Officer, and an additional engine or truck. One truck must be in the response for extrication equipment.

Ice rescue incident response includes two engine or truck companies, medic unit, Battalion Chief and/or SAM Officer. The dive team is activated in the event the incident becomes a dive rescue.

Hazardous Material and Technical Rescue incidents of moderate or high risk have responses determined at the time of the incident. The initial response includes the closest engine or truck, medic unit, Battalion Chief, and SAM officer. Due to those special team members deployed at various stations, the rest of the response is fashioned around bringing those personnel and adequate equipment to the scene.

High risk incidents have responses as noted. High risk medical calls respond an engine or truck, medic unit, and the Battalion Chief and/or SAM Officer.

Special incidents are dispatched initially with a high risk structure fire response. Based upon the information presented for the incident, the Battalion Chief will call for the specific resources best suited to meet the ERF needs. This may be as simple as calling for a second alarm, which doubles the initial response force. Automatic aid may respond at this time, including at least one additional Battalion Chief. A Command Staff notification may be broadcast in special circumstances and response may be obtained from this group (administrative chiefs, training division, and off-duty chief officers).

The Fire Department uses "Active 9-1-1" to alert Command Staff and on-duty personnel to incidents. Each command officer selects the apparatus to follow for notifications, (usually the Battalion Chief). On-duty personnel can select apparatus for notifications. This system provides

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for redundancy in alerting and mapping, particularly for automatic aid incidents. Other surrounding agencies also use this system of notification.

Structure fire responses are undergoing revision based upon the risk assessment and ERF requirements. The response for all structure fires has been four engines, one truck, two medic units, and the Battalion Chief. This would provide for a minimum of 20 personnel at the scene. The Battalion Chief, Company Officer or Incident Commander could increase or decrease the response, slow units to non-emergent, or reassign responding units not required at the incident to cover parts of the city depleted by the incident. This response worked exceptionally well, and provided enough personnel rapidly enough to contain incidents quickly. This also allowed for units to be placed back in service rapidly, and provide city coverage as necessary. This increased the resiliency due to incident draw-down. Automatic aid resource responses also assisted in providing resiliency on many occasions due to the fact that one less WFD unit would respond to a fire incident. Due to ISO requirements, automatic aid response of one engine was added on all structure fire incidents beginning in 2018.

The CAD-to-CAD system that is being purchased will provide for a more effective response to all incidents, as well as eliminating district and jurisdictional boundary lines. This will further help to provide resiliency during multi-unit responses. Each agency can customize their response guidelines within the system.

Data has shown a high incidence of structure fires being confined to the room of origin, with some assigned units only in “standby” mode on some incident scenes. As such, ERF’s were developed for varying types of structure fire incidents. The risk levels and ERF’s for structure fires were determined as follows:

- Moderate risk (15) - (Single family residential and multifamily residential with sprinkler systems)
- High risk (19) - (Commercial and multifamily residential without sprinkler systems)
- Target Hazard - (30) – (Target hazard occupancies and buildings over 4 stories)

In conjunction with the Blue Card program that the WFD recently adopted, new response protocols are being reviewed. A “3-1-1” response for structure fire incidents was evaluated but

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was not adopted by the North Area Operations Chiefs at this time. The response for moderate risk structure fires would be modified to three engines, one truck, one medic, the Battalion Chief and the SAM officer. This will continue to be evaluated and reviewed for future adoption.

All structure fires are currently receiving the same basic response of four engines, one truck, two medic units, the Battalion Chief and the SAM Officer. This provides for an ERF for moderate- and high-risk structure fires. Target Hazard fires receive an automatic second alarm to provide the ERF. A new CAD is scheduled to be placed into service in 2020 and it was determined to wait until that time to incorporate the new response levels with the current ERF's. The CAD-to-CAD should come on line at the same time.

The Westminster Communications Center, WPD and WFD are reviewing information related to the purchase and implementation of the new CAD system for the center. This is in conjunction with a new RMS system for the WPD and a separate new RMS system for WFD. The tentative date for these new systems to be implemented is between January 1, 2020 and July 1, 2020. At the implementation time, all upgraded systems including CAD-to-CAD will be working in an integrated fashion, enhancing response performance and data collection.

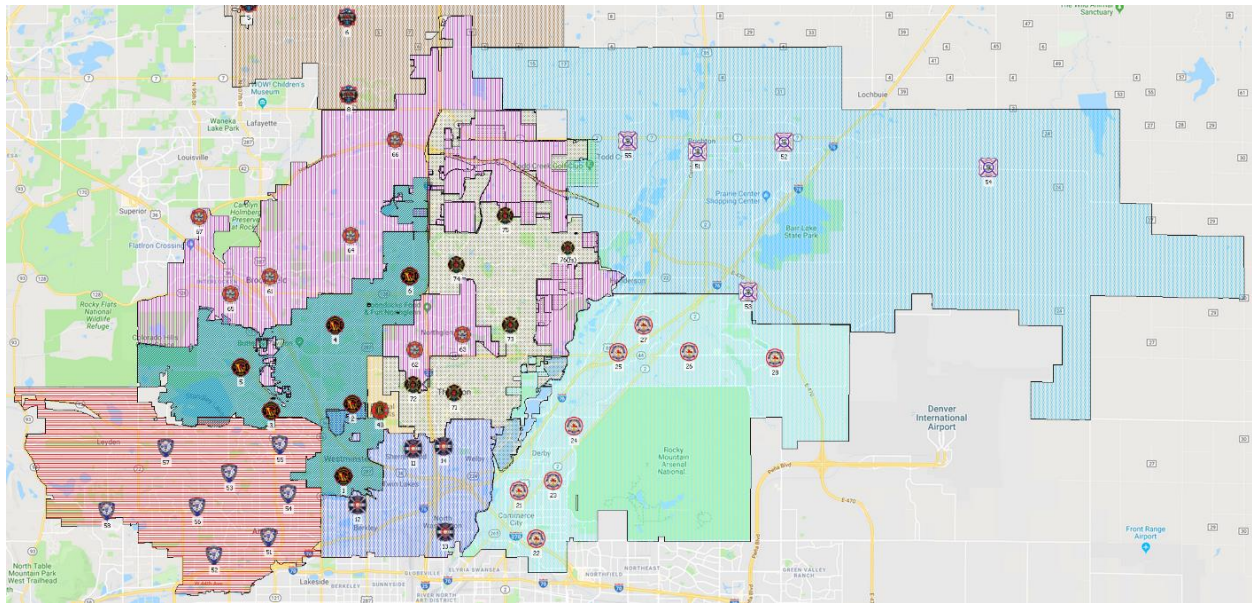
Automatic Aid

There are currently several automatic aid agreements in place between Westminster and immediate surrounding agencies. Additionally, mutual aid agreements are in place, including one that covers agencies from northern Colorado south along the I-25 corridor to south-central Colorado. The automatic aid agreements provide for rapid deployment of closest resources to emergencies, and coverage to assist with reliability for all north metro agencies. Beginning in 2018, an automatic aid engine or truck and Battalion Chief are assigned to every structure fire response in the City. This increases resiliency and helps with closest unit responses. When the CAD-to-CAD system is fully implemented, the closest units will be dispatched regardless of corporate boundaries. Adjoining agencies, locations, and proximity are noted on the following maps.

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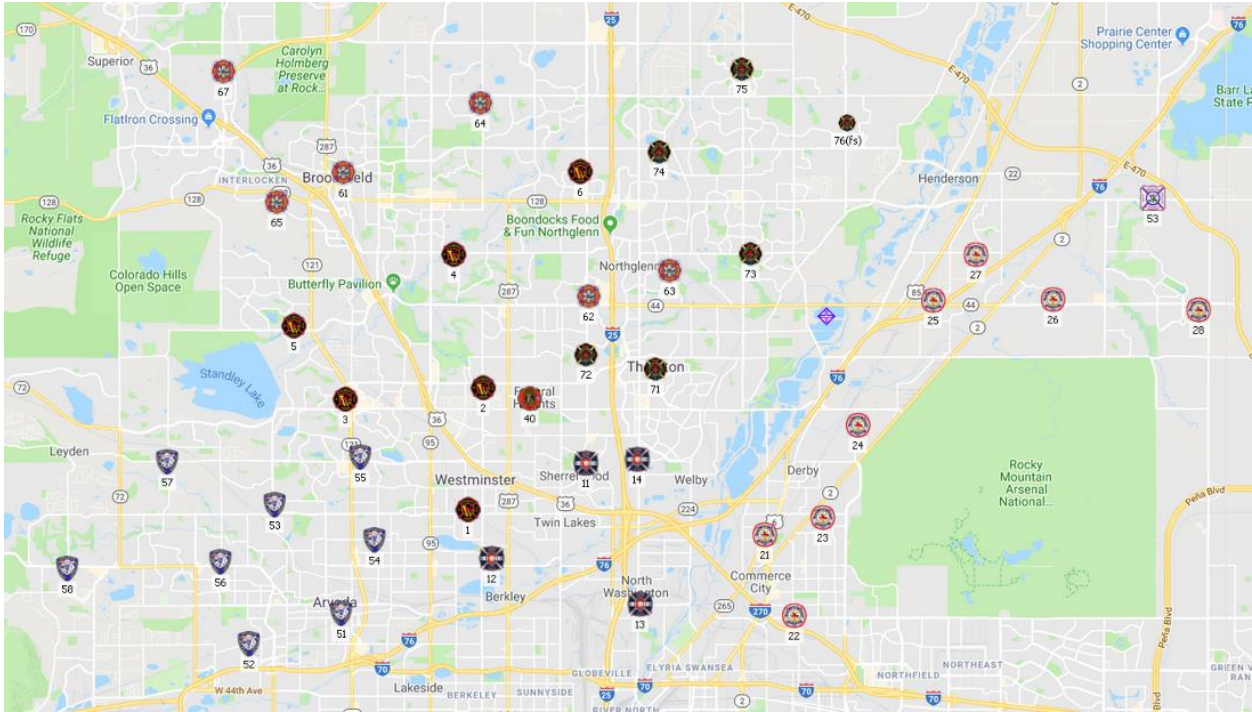
The North Area agencies have recently all authorized through their AHJ's one specific Automatic Aid IGA that supersedes the previous versions, allowing agencies to more readily institute and revise automatic aid.

(Station numbers are based upon regional systems. WFD stations and units are from 1-10. Fire stations are denoted by their number and the fire department symbol for each department.)



Map 16 – North Area Fire Agency Station Locations

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Map 17 – Westminster Immediate Surrounding Area Fire Station Locations by Agency

Evaluation of Deployment and Performance

Statistical response and time data was compiled for four years, 2014 through 2017, and analyzed by year, cumulative year totals, time intervals, type of incident, risk level, and district. Priority incidents, as well as non-priority EMS incidents, were analyzed for response time data. All times are reported for the 90th percentile in each category. The specific intervals are:

Time

Alarm handling (from phone answering to dispatch)

Turnout (from dispatch to 1st unit enroute)

Travel (from enroute to 1st unit arrival)

Total Response (from alarm received until 1st unit arrival)

Effective Response Force Travel (from enroute until ERF arrival)

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Effective Response Force Total Response (from alarm received until ERF arrival)

Incident Type

All priority (emergent response) calls

Structure fires

Non-structure fires

EMS calls

Technical rescues

Hazardous materials

Risk Levels

Low

Moderate

High

(No Target Hazard or Special Incident Calls Reported)

District

The response district the incident occurred in, 1- 6.

The complete time charts can be located in the appendix, as well as the specific methodologies. These provide detailed information on data collection methods. In brief, each time category was analyzed with total data numbers on a bell curve to determine the data thresholds to three standard deviations. Times outside of three standard deviations were excluded as outliers. This provided for approximately 99 percent of the available time data to be analyzed. The following is for the cumulative (2014-2017) time intervals for each category at the 90th percentile.

<u>Category</u>	<u># Incidents</u>	<u>Time Interval (minutes: seconds)</u>
All Priority Incidents	31,926	N/A
Alarm Handling	31,257	1:20
Turnout	31,336	1:35

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Travel (1 st unit)	31,310	6:01
Travel (ERF)	28,282	7:33
Total Response (1 st unit)	31,542	8:00
Total Response (ERF)	29,032	8:52
Structure Fires	147	N/A
Alarm Handling	147	1:26
Turnout	146	1:26
Travel (1 st unit)	146	5:29
Travel (ERF)	97	11:11
Total Response (1 st unit)	147	7:32
Total Response (ERF)	99	13:11
Priority Non-Structure Fires	485	N/A
Alarm Handling	477	1:32
Turnout	472	1:46
Travel (1 st unit)	471	5:54
Travel (ERF)	471	5:54
Total Response (1 st unit)	477	8:20
Total Response (ERF)	477	8:20

These are low risk single unit responses – ERF times are same as 1st unit response times

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Priority EMS	25,865	N/A
Alarm Handling	25,366	1:14
Turnout	25,544	1:31
Travel (1 st unit)	25,551	5:49
Travel (ERF)	23,152	7:32
Total Response (1 st unit)	25,688	7:39
Total Response (ERF)	23,783	8:49

Technical Rescue	53	N/A
Alarm Handling	51	1:21
Turnout	53	1:36
Travel (1 st unit)	53	6:41
Travel (ERF)	53	6:41
Total Response (1 st unit)	53	9:37
Total Response (ERF)	53	9:37

All technical rescue incidents were low risk and only required a single unit response

Hazardous Materials	453	N/A
Alarm Handling	441	1:49
Turnout	433	1:51
Travel (1 st unit)	441	6:57
Travel (ERF)	441	6:57
Total Response (1 st unit)	443	9:25

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Total Response (ERF) 443 9:25

All hazardous material incidents were low risk and only required a single unit response

Figure 4 – City-Wide Cumulative Time Intervals

Fire confinement for 2014 through 2017, based upon NFIRS data was:

- Object of Origin 23.81% of the time
- Room of Origin 43.45% of the time
- Floor of Origin 11.31% of the time
- Building of Origin 19.64% of the time
- Beyond Building 1.79% of the time

Figure 5 – Fire Confinement
Data

What this data does not report, or have capability of reporting, is the status of the fire upon arrival. In many cases, the fire had spread beyond the room, floor, or building of origin prior to the fire department arrival. So, although fires were confined to the origin objects or rooms 67.26% of the time, the efficiency of the firefighting force is not appropriately represented. Beginning with 2018 data, time from arrival until water is on the fire will be tracked to provide for clear data on the efficiency of fire attack upon arrival.

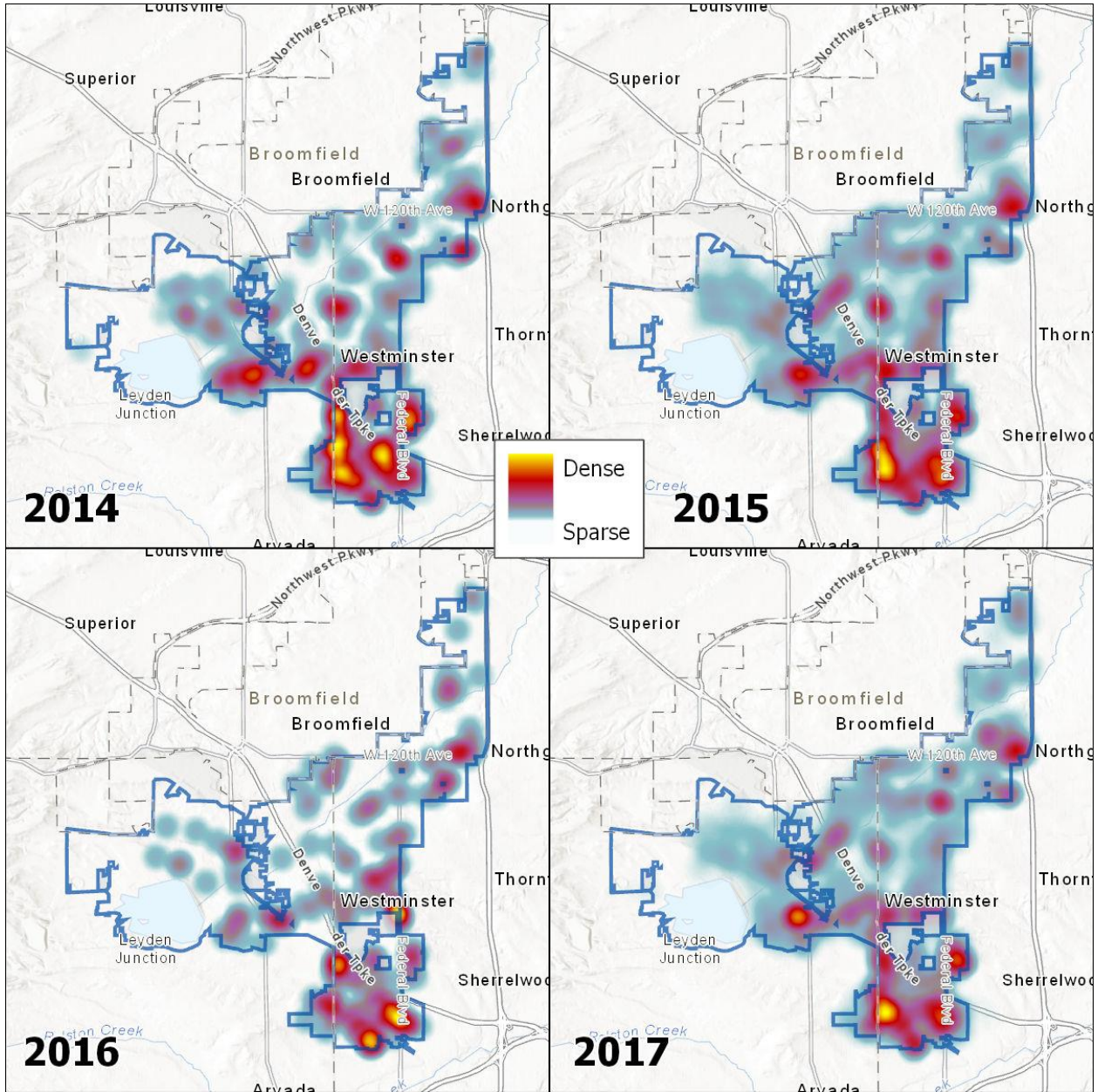
All reporting for time evaluations, with the exception of low risk EMS calls, is based upon priority responses. The total number of all calls for service, including priority and non-priority, is listed below:

- 2014 – 9,968
- 2015 – 10,226
- 2016 – 10,699
- 2017 – 11,558

Figure 6 – Total Calls for Service, 2014-2017

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City-wide, calls were analyzed by call density, incident type, times, and unit usage.



Map 18 – Westminster Call Density by Year

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Westminster Fire Department

Count by Incident Type: Overall

	2014	2015	2016	2017	Grand Total
Rescue and EMS	6,957	7,192	7,513	8,126	29,788
Cancelled- Good Intent	1,078	1,132	1,205	1,312	4,727
Service Call	827	841	895	996	3,559
False Alarm or False Call	710	697	675	678	2,760
Hazardous Condition- No Fire	222	183	219	197	821
Fire	153	159	180	238	730
Special Incident Type	8	8	5	4	25
911 Citizen Complaint	7	4	5	3	19
Overpressure, Rupture, Explosion, Overheat- No Fire	6	2	2	4	14
Severe Weather and Natural Disaster		8		1	9
Grand Total	9,968	10,226	10,699	11,559	42,452

Percent Change Year-Over-Year: Overall

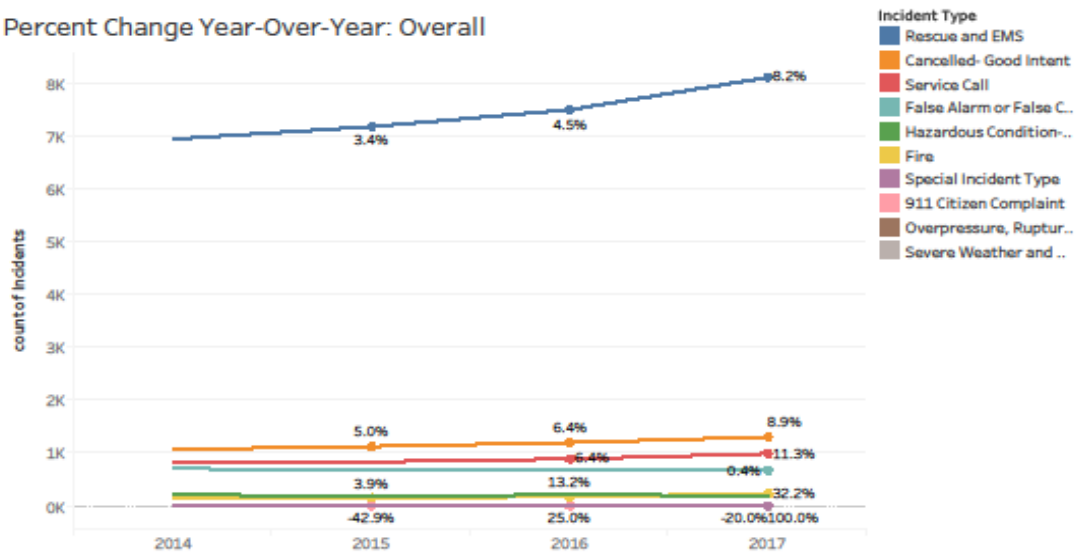
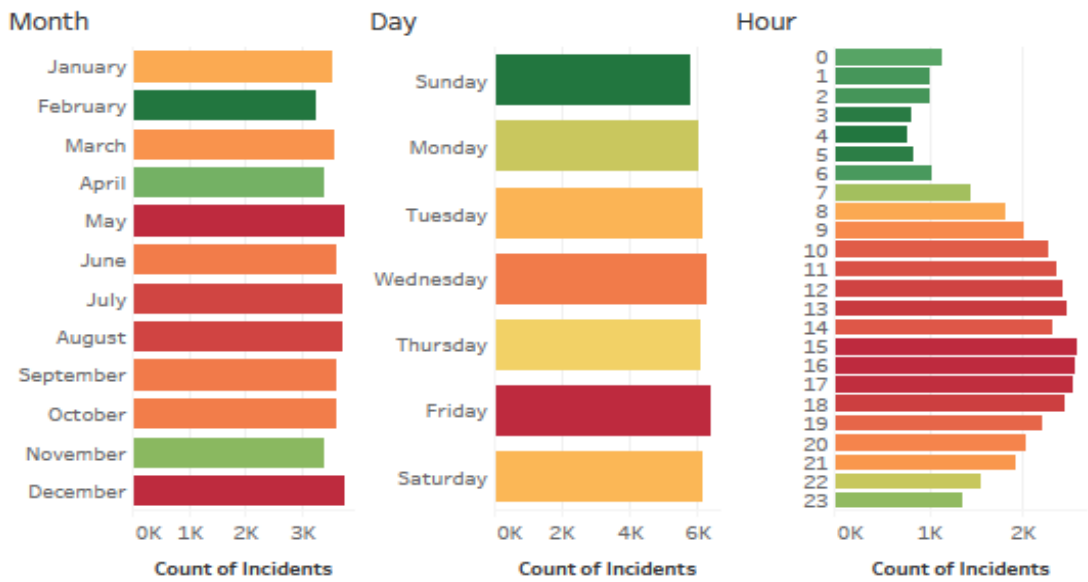


Chart 5 – Count by Incident Type by Year and Cumulative Total

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2014-2017 Overall Incidents by Day and Time of Day; Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	233	139	140	120	128	148	208	1116
1	179	138	133	140	134	111	161	996
2	198	127	113	119	124	144	165	990
3	161	109	95	97	103	110	120	795
4	120	105	109	108	99	89	121	751
5	141	105	105	122	114	119	112	818
6	118	128	158	154	164	153	151	1026
7	147	219	214	227	231	205	174	1417
8	197	263	332	295	262	282	179	1810
9	237	309	303	273	316	282	259	1979
10	285	320	351	357	319	333	300	2265
11	295	351	343	369	338	327	306	2329
12	303	347	311	361	370	348	358	2398
13	319	381	326	360	376	337	349	2448
14	257	331	336	359	343	361	309	2296
15	325	403	338	374	381	394	329	2544
16	295	388	388	367	354	413	336	2541
17	323	343	388	373	363	407	321	2518
18	349	299	389	354	321	344	368	2424
19	304	317	294	295	318	334	334	2196
20	263	256	274	272	280	348	317	2010
21	298	253	255	264	239	293	296	1898
22	210	184	209	239	188	250	259	1539
23	187	192	172	180	173	204	240	1348
Grand T..	5744	6007	6076	6179	6038	6336	6072	42452



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.



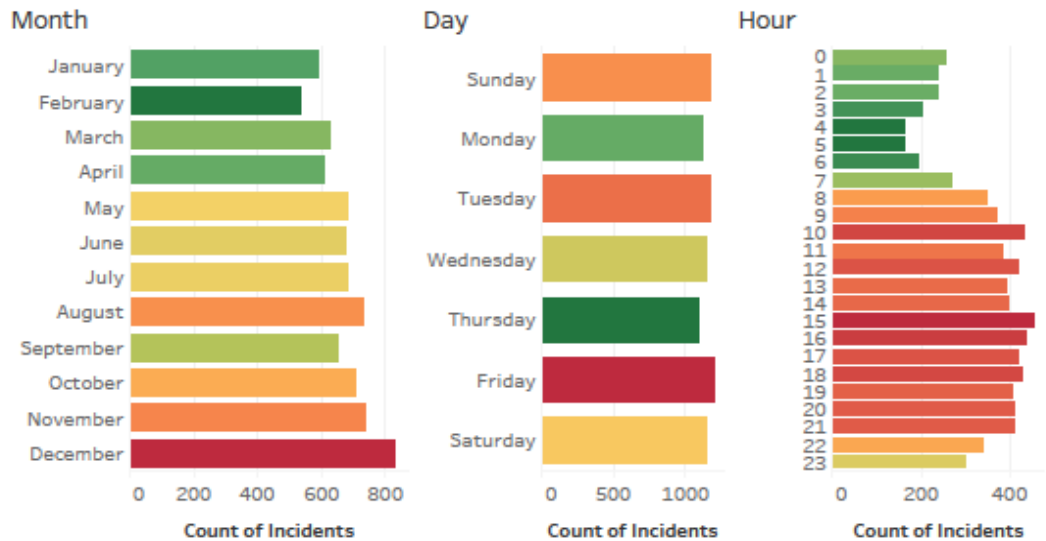
Chart 6 – Total Priority Incidents by Month/Day/Hour 2014-2017

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2014-2017 Overall Non-Priority Incidents by Day and Time of Day; Month, Day, and Hour

Non-Priority

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	52	37	37	17	38	22	51	254
1	52	23	26	32	34	32	37	236
2	50	38	30	13	25	34	47	237
3	52	23	18	26	21	31	28	199
4	24	26	22	27	20	20	24	163
5	35	18	19	23	20	29	19	163
6	21	21	27	28	37	27	29	190
7	36	45	36	40	40	32	37	266
8	32	50	69	63	37	59	36	346
9	43	51	57	55	58	58	49	371
10	59	57	70	63	56	60	64	429
11	51	58	56	63	51	60	45	384
12	64	65	51	56	67	58	57	418
13	49	56	64	61	55	57	52	394
14	46	48	73	57	57	58	58	397
15	65	76	63	62	56	78	55	455
16	56	68	63	60	51	75	64	437
17	51	44	71	66	62	73	51	418
18	69	56	60	60	51	66	65	427
19	53	60	67	49	62	51	62	404
20	48	62	59	62	56	68	56	411
21	76	53	55	54	55	59	58	410
22	42	45	44	62	42	48	54	337
23	39	39	40	43	42	46	51	300
Grand T..	1165	1119	1177	1142	1093	1201	1149	8046



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.



Chart 7 – Total Non-Priority Incidents by Month/Day/Hour 2014-2017

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Westminster Fire Department

Percent Change Year-Over-Year: Engine Unit

Count of Incidents by Engine Unit

	2014	2015	2016	2017	Grand Tot..
E1	2,531	2,602	2,754	2,827	10,714
E2	1,823	1,763	1,894	1,928	7,408
E3		697	1,369	1,503	3,569
E4	1,611	1,615	1,699	1,812	6,737
E5	1,125	1,088	1,028	1,211	4,452
Grand Total	7,090	7,765	8,744	9,281	32,880

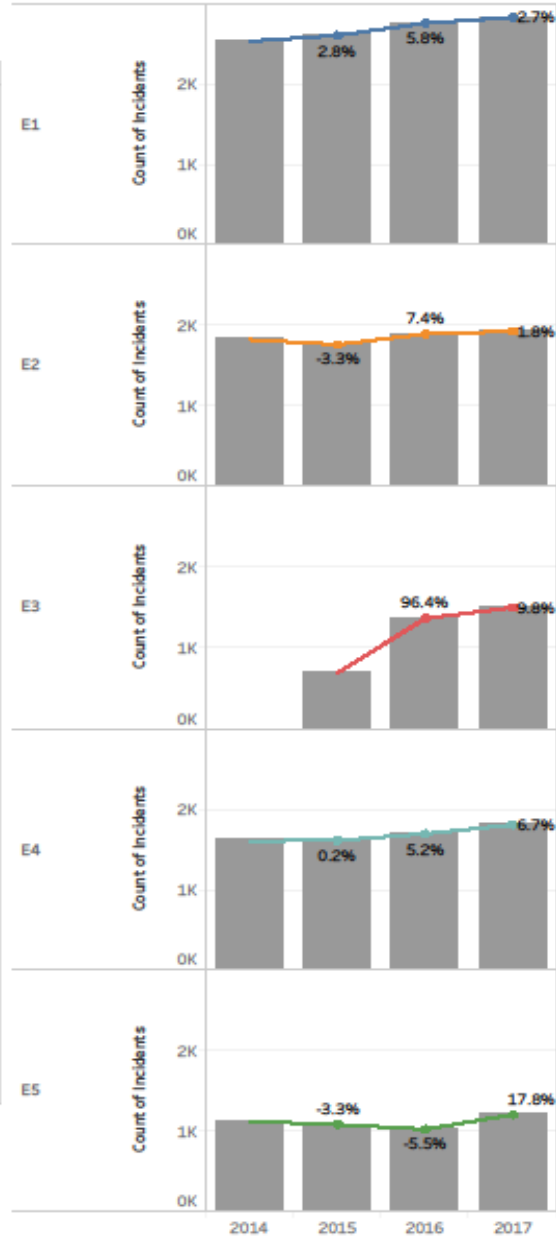


Chart 8 – Count of Incidents and Percent Change by Engine Company 2014-2017

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Westminster Fire Department

Count of Incidents by Truck Unit

	2014	2015	2016	2017	Grand Total
TK2	1,252	1,385	1,335	1,393	5,365
TK6		719	1,479	1,679	3,877
Grand Total	1,252	2,104	2,814	3,072	9,242



Percent Change Year-Over-Year: Truck Unit

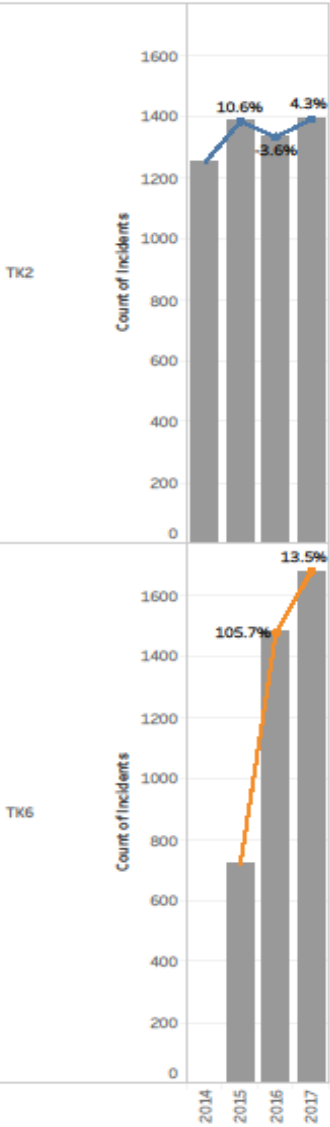


Chart 9 – Count of Incidents and Percent Change by Truck Company 2014-2017

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Westminster Fire Department

Percent Change Year-Over-Year: Medic Unit

Count of Incidents by Medic Unit

	2014	2015	2016	2017	Grand Total
MED1	2,164	2,215	2,334	2,338	9,051
MED2	2,167	2,074	2,189	2,250	8,680
MED3	1,664	1,654	1,718	1,835	6,871
MED4	1,199	1,441	1,494	1,610	5,744
MED6	1,103	1,077	1,128	1,296	4,604
Grand Total	8,297	8,461	8,863	9,329	34,950



Chart 10 - Count of Incidents and Percent Change by Medic Unit 2014-2017

Westminster Fire Department Standards of Cover

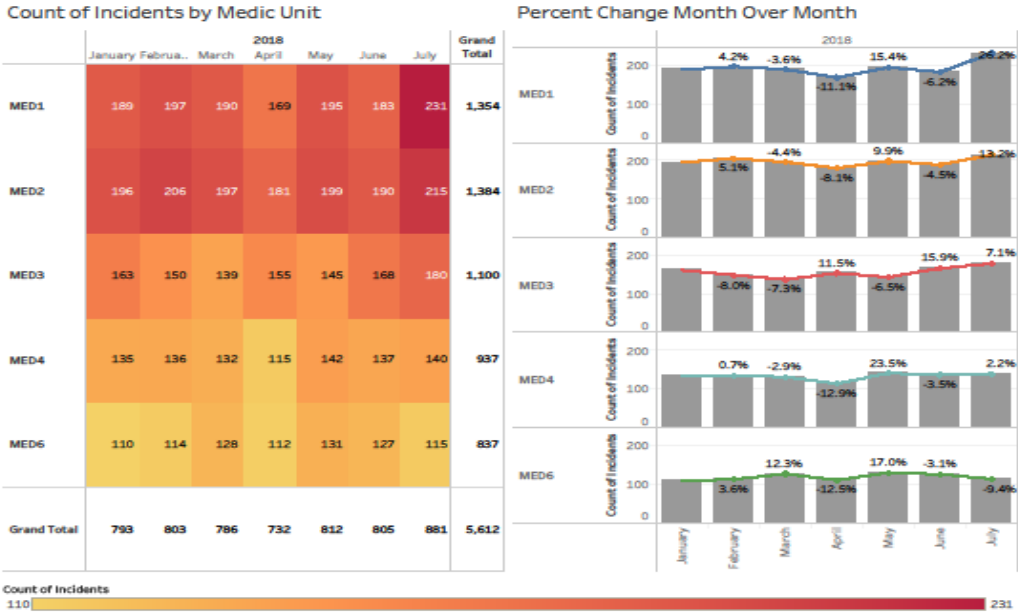


Chart 11 - Count of Incidents and Percent Change by Medic Unit Jan-July 2018

Westminster Fire Department Standards of Cover

The total commitment time for each unit (Unit Hour Utilization or UHU) was analyzed over the four-year period of 2014-2017. The commitment time of each unit is displayed by percentage of use time. A Henrico County, VA. fire agency study suggests that percentages between 16% and 24% are considered the optimal range of use for fire based units, particularly in EMS transport systems. Percentages below 16% have not reached the optimal use/deployment, and above 24% may be approaching saturation levels. These levels are based upon other activities required of fire crews such as training, inspections, pre-planning and fitness. This information and study has not been validated and is used as a general guideline only.

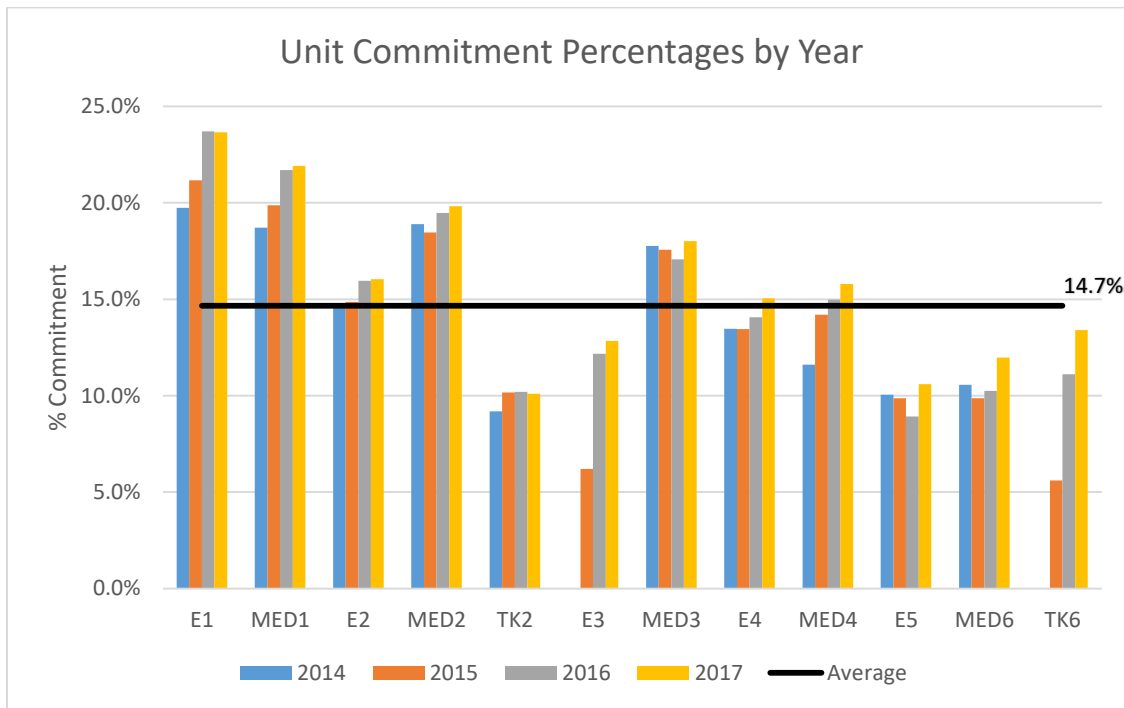
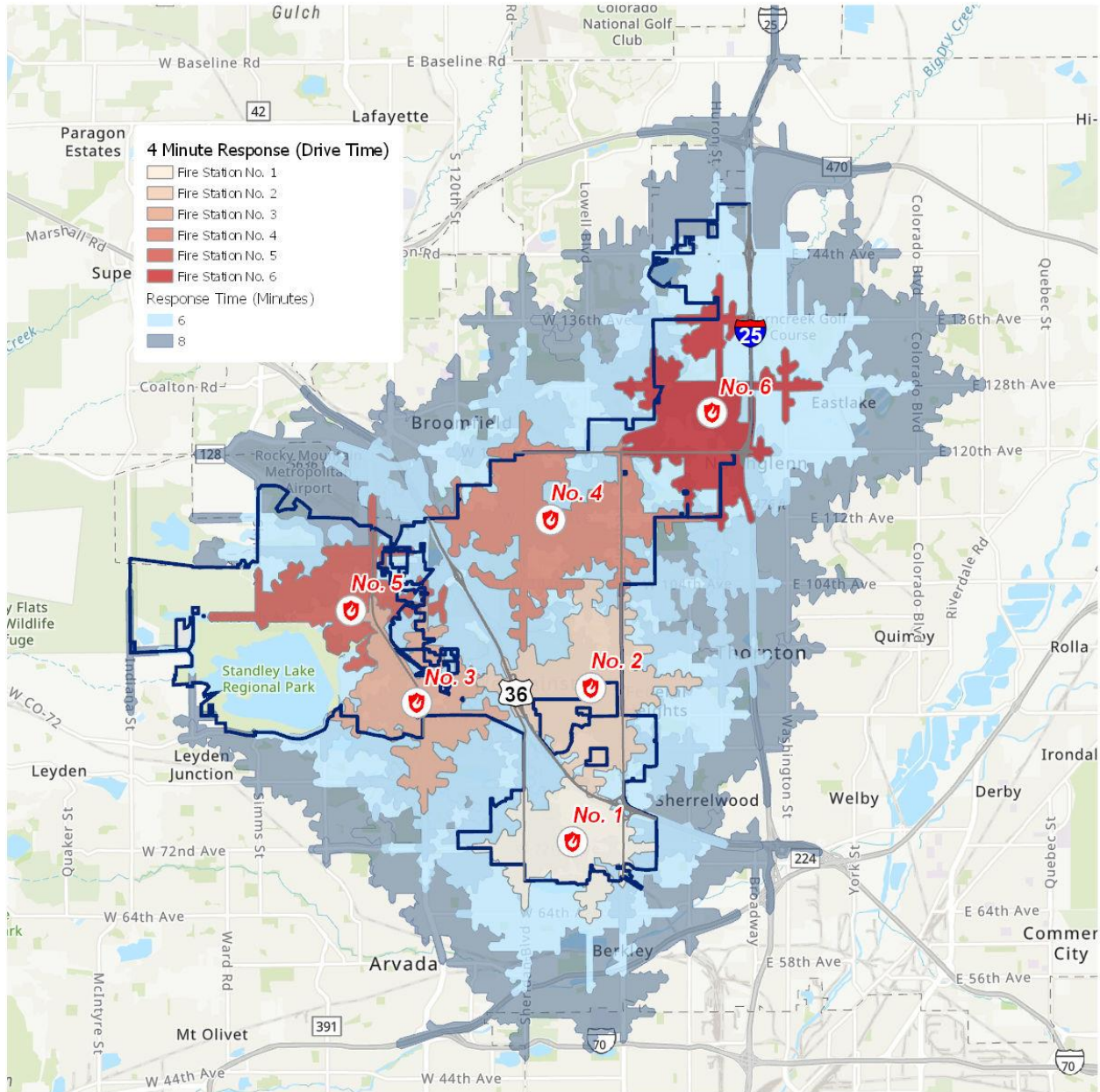


Chart 12 – Unit Commitment Percentages by Year

The numbers for E3 and TK6 in 2014 were not calculated as station 3 had the truck and station 6 had the engine. 2015 numbers are also low as these units were switched between these stations in late 2015 and the other numbers were not run. 2016 and 2017 provide more accurate data for these two specific units.

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Current station locations provide for a four-minute travel time to most of the developed areas of the City. There is a large portion of the City that is within a six-minute travel time, with a few areas within an eight-minute travel time. With the overlapping of the six-minute travel time areas, this accounts for the overall good ERF travel times.



Map 19 – 4, 6, and 8 Minute Travel Times from Westminster Fire Stations

Westminster Fire Department Standards of Cover

The number of responses that each apparatus makes to each district provides a picture of required coverage. This chart includes all responses, which include filling out the ERF for incidents outside of primary response area. However, these instances are relatively minimal, and this chart demonstrates when primary response units are unavailable to respond and other units have to respond and provide coverage.

The chart clearly demonstrates the need for coverage in district one by the amount of times units from station two respond to that district. It also indicates the number of times that Medic Two covers in to other districts. Based on the more centralized location in the City, Medic Two is the primary backup to most of the other surrounding districts.

The other item of note is the amount of responses that Medic Three makes to district five, as this is the only Medic unit on the west side of the City. However, the number of incidents is well within the ability of that unit to handle the responses into both districts.

Westminster Fire Department Standards of Cover

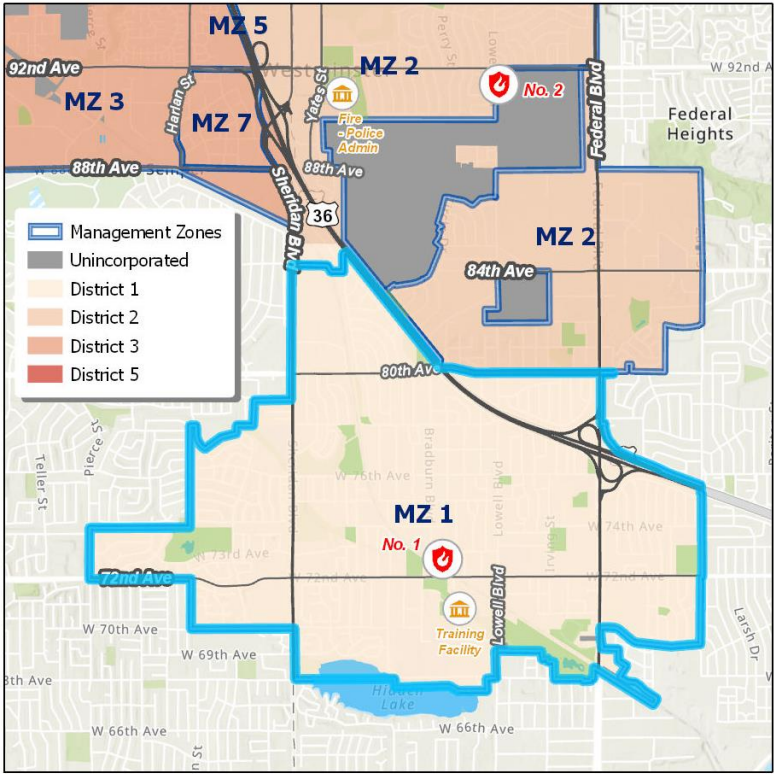
2014-2017 Priority Calls- Apparatus Response by District

	District 1	District 2	District 3	District 4	District 5	District 6	District Not Identified	Out of City
Engine 1	7,987	380	39	17	16	13	8	79
Engine 2	1,221	4,012	324	348	60	92	14	67
Engine 3	132	118	2,199	42	272	15		4
Engine 4	99	183	45	4,049	82	606	1	21
Engine 5	56	54	484	168	2,821	21	4	20
Medic 1	6,429	767	174	41	50	37	16	76
Medic 2	1,633	3,977	757	547	280	146	23	132
Medic 3	516	436	2,818	237	2,027	31	8	47
Medic 4	188	415	222	3,102	414	580	4	33
Medic 6	77	89	44	460	34	3,255	3	36
Truck 2	786	1,928	311	367	103	103	3	31
Truck 6	11	18	10	189	6	2,636	6	51

Chart 13 – Cumulative Responses by District

Westminster Fire Department Standards of Cover

Fire Station One/District One



Map 20 – District 1/Management Zone 1

Fire station one, at 3948 W. 73rd Avenue, is centrally located in the south end of the city. This is the oldest area of the city, and also generates the largest call volume. The district has a mix of housing, business, transportation, and light industrial. Housing stock ranges from large, early 1900’s homes, through a large number of smaller homes built in the 1950’s era, to larger, modern custom homes. There is also an abundance of multi-family dwelling units, some of

Westminster Fire Department Standards of Cover

which are in duplex and fourplex styles, to three- and four-story apartment complexes. Some of these complexes are subsidized housing. Income levels and socio-economic status throughout the district is varied.

There are several nursing- and assisted-living centers in the district, along with multi-family housing complexes for older adults. Several parts of the district are undergoing revitalization, and in two of these areas new housing for older adults has recently been built, along with other housing options. The assisted living centers contribute to the higher call volume of the district based on the numbers of clients and their medically declining status.

The district has several retail centers and retail district areas, mostly along the main thoroughfares in the area. These retail stores range from small shops in older buildings to modern, large specialty and grocery stores from retail chains. Several of the older shopping centers have undergone major redevelopment over the past 10-20 years, and consist of newer buildings with upgraded construction and fire protection features. This district has 653 businesses in the inspection records.

Transportation in the district includes many major thoroughfares including 72nd Ave., Sheridan and Federal Blvds., and 80th Ave. There are several smaller collector streets in the district, as well as many residential streets. US 36, a major freeway in the area, bisects the district as it cuts through from southeast to northwest. US 36 serves as part of the boundary between district one and district two to the north. The highway also causes some restriction in response, causing units to take some minor indirect routing when responding to certain areas within the district. Incidents that occur on the highway are dispatched based upon direction of travel and access point locations. Depending on the location, crews from station one, station two, or station five may respond. The incident location also dictates the location of highway access, which can cause some response delays. This freeway is a major corridor and has a high volume of traffic at most times, particularly during “rush hours”.

The Burlington Northern Santa Fe (BNSF) rail line passes through district one, entering at the southeastern border of the city, and going from the southeast generally to the northwest section of district one. The tracks cross two streets immediately adjacent to and near station one, and the tracks pass just to the south of station one. There are five restricted road crossings in district one where the train crosses streets at grade level. Depending on the location of an

Westminster Fire Department Standards of Cover

incident and the location of fire apparatus upon receipt of the call, train track crossings can impede the response, causing delays in arrival. At times, the second due apparatus (generally from station two) may be called in due to the train delays, if the incident location is appropriate for that response.

As part of the mass transit system in the Denver Metropolitan area, a commuter rail station opened up in 2016 in Westminster near the southeast border. This station is anchoring the Transit Oriented Development (TOD) in this area. The tracks for the commuter rail are adjacent to the BNSF train line within the city, but the commuter line does not interfere with apparatus response. Commuter trains run on schedules based upon ridership numbers, but generally every 15-30 minutes. A parking garage was built by the city in conjunction with the Regional Transportation District across the street from the rail station. Ridership numbers for this train line have exceeded expectations, but no significant increase in call volume has been noted for the immediate area since the station and garage were built.

There is some light industrial in the south-central part of the district. These are generally located in two areas, one near the commuter train station, and the other just northwest of that near fire station one. These areas have older buildings constructed of metal, block, or both, with some wood frame buildings also in the mix. The processes and manufacturing are light in nature, including some auto repair, production, and fabrication facilities. Hazardous materials exist in some of these buildings but are generally in limited quantities. Few of the buildings have any fire protection systems due to the age of the buildings, and the sizes of the businesses in the buildings. In the past fifteen years, three fires of varied consequence have been reported in these areas (2004, 2008, 2015).

The district, like the entire city, is served by water lines owned and operated by the City of Westminster. There are abundant fire hydrants located throughout the area, with good pressures and high flow capabilities. Tanks that provide water storage and distribution are located at the north end of the district, at the top of a hill. The water utility has upgraded the water lines and distribution system by upgrading some main transmission lines to this area. The current tanks are also being replaced with new, larger storage tanks commencing in 2018. The district has one small area, at the southeast corner, where another water district (Crestview) provides service. This water purveyor provided service in the past to a larger area, and also sold

Westminster Fire Department Standards of Cover

water to a private enterprise that controlled its own small water district, which was located within the city and consisted of several square blocks. As redevelopment has taken place, the city has taken over parts of this utility, and now provides service to all but a small area. This area has capable fire flows for the service area, and is supplemented by City of Westminster water located nearby.

Fire district one has been designated fire management zone one. Each of the six response districts in the city has a very similar mix of occupancies, with only a few types of occupancies representing significant call volume or higher risk. Most of these occupancies are the senior care and assisted living facilities. District one has the highest call volume of the six districts, along with the highest number of engine and medic responses. Demographic profiles also indicate that this district has the highest number of poverty level households, with the lowest income level of the six districts in the city.

Total Population	23,640
Median Age	34.1
Female	49.9%
Male	50.1%
Median Household Income	48,881
Per Capita Income	23,561
Households Below Poverty	12.4%
Total Households	9,205
Average Household Size	2.53
Total Housing Units	9,510
Owner Occupied	48.3%
Renter Occupied	48.5%
Vacant	3.2%
White	71.9%
Black	1.9%
American Indian	1.6%
Asian	5.1%
Pacific Islander	0.1%
Other Race	14.9%
Two or More Races	4.3%
Hispanic	41.4%

Chart 14 – District 1 Demographics

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This district also has a larger number of businesses owned and operated by people where English is the second language, as well as a higher residency rate of this same demographic. This causes some challenges for response personnel during both emergency incidents and non-emergency operations such as fire inspections.

The fire hazards in this district include some large businesses, most of which have fire protection systems, and some light industrial buildings, most of which have no fire protection systems. The greater life risk is the assisted and senior living centers located within the district. This was evidenced by the risk assessment score placing the Clear Creek Care Center as the highest risk building in this district. All of these high risk facilities in the district have fire protection systems, including full sprinkler and fire alarm systems, but due to the nature of the clients, the inability of many of the clients to self-preserve, and the large numbers of occupants, the larger risk for a catastrophic incident is within these centers.

Other risks in district one are transportation, due to the freeway and other major roadways, coupled with the high volume and high speeds of the vehicles, and the rail line that goes through the zone. This rail line transports various hazardous materials several times a day, but is limited in speed through the city by Federal Railway Agency (FRA) guidelines. The probability of a rail incident is very low, however the impact and consequences are high, not only to hazards in the area but also due to disruption of commerce from a rail incident.

The highest fire incident risk in this district is from residential properties, based upon historical data. Several fires in both single- and multi-family dwellings have occurred, with injuries being reported periodically. There has not been a fatal fire in this district for several years, and the rate of fire incidence in this zone is low.

Time reporting for all priority calls for district one from 2014 through 2017 is noted below. Call numbers only for district one structure fires, non-structure fires, EMS calls, technical rescue and hazardous materials incidents (priority responses only) are included. Full information for all incident types including breakdowns by risk can be found in the appendix.

Westminster Fire Department Standards of Cover

<u>Category</u>	<u># Incidents</u>	<u>Time Interval (minutes: seconds)</u>
All D1 Priority Incidents	9,219	N/A
Alarm Handling	9,039	1:20
Turnout	9,063	1:32
Travel (1 st unit)	9,069	5:49
Travel (ERF)	8,239	7:06
Total Response (1 st unit)	9,133	7:44
Total Response (ERF)	8,419	8:23

Figure 7 – District 1 Time
and Incident Intervals

Structure Fires	43	N/A
Priority Non-Structure Fires	165	N/A
Priority EMS	7,694	N/A
Technical Rescue	15	N/A
Hazardous Materials	112	N/A

District one has the highest call volume in the city. The majority of the calls are EMS in nature, and the call load has increased each year although only slightly from 2016-2017. The busiest call times are during the daytime, with the heaviest call volumes in the late afternoon hours. Calls by day of the week and month of the year are relatively consistent, with Friday being the busiest day of the week.

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Westminster Fire Department

Count by Incident Type: Station 1

	2014	2015	2016	2017	Grand Total
Rescue and EMS	2,083	2,200	2,337	2,324	8,944
Cancelled- Good Intent	242	225	259	236	962
Service Call	228	233	189	245	895
False Alarm or False Call	117	115	119	111	462
Fire	42	51	61	72	226
Hazardous Condition- No Fire	45	53	51	37	186
911 Citizen Complaint		3	2	1	6
Overpressure, Rupture, Explosion, Overheat- No Fire	1	1	1	2	5
Severe Weather and Natural Disaster		1			1
Grand Total	2,758	2,882	3,019	3,028	11,687

Percent Change Year Over Year: Station 1

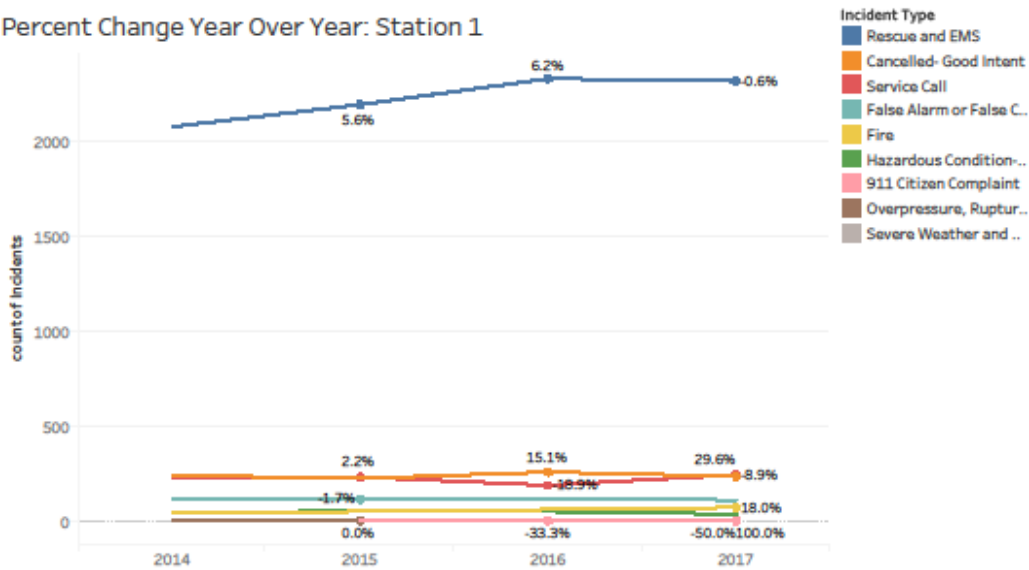
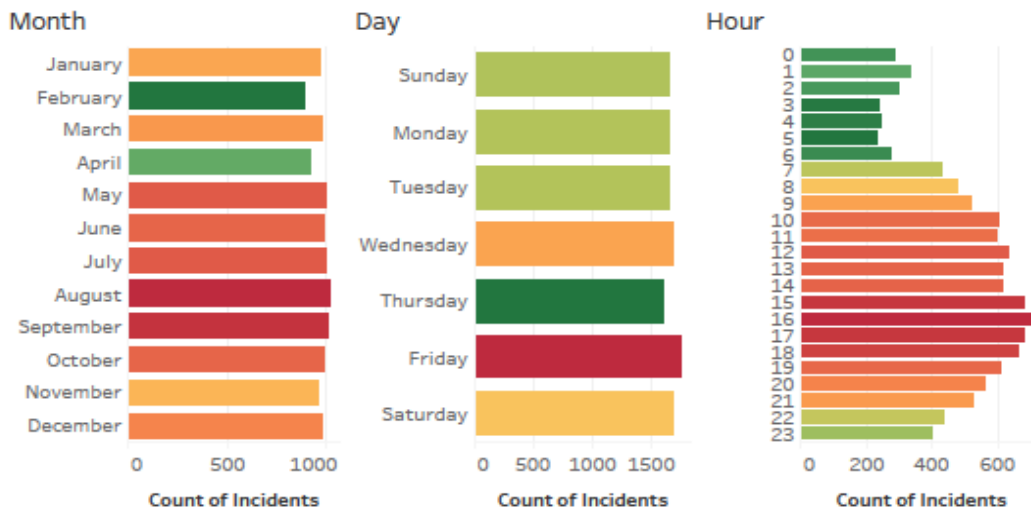


Chart 15 – District 1 Count by Incident Type with Percent Change

Westminster Fire Department Standards of Cover

2014-2017 Station 1 Incidents by Day and Time of Day; Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	58	38	35	30	35	36	58	290
1	60	43	54	49	39	40	49	334
2	54	47	37	38	36	44	45	301
3	52	31	30	26	34	31	33	237
4	41	26	33	38	36	31	44	249
5	37	26	37	27	33	38	33	231
6	41	36	41	37	45	43	32	275
7	48	71	61	72	69	55	53	429
8	60	59	90	70	65	78	58	480
9	60	91	79	74	86	65	63	518
10	88	85	76	88	100	98	70	605
11	84	105	89	96	74	75	75	598
12	79	102	73	96	106	82	94	632
13	91	96	81	86	86	81	95	616
14	72	87	80	109	74	108	87	617
15	99	103	99	93	97	100	92	683
16	82	106	109	106	102	117	81	703
17	101	91	93	106	84	112	96	683
18	98	89	95	99	90	89	106	666
19	91	83	87	70	76	115	86	608
20	75	62	76	79	77	101	95	565
21	80	66	79	72	68	78	87	530
22	58	57	69	69	48	69	66	436
23	49	59	56	58	41	59	79	401
Grand T..	1658	1659	1659	1688	1601	1745	1677	11687



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.

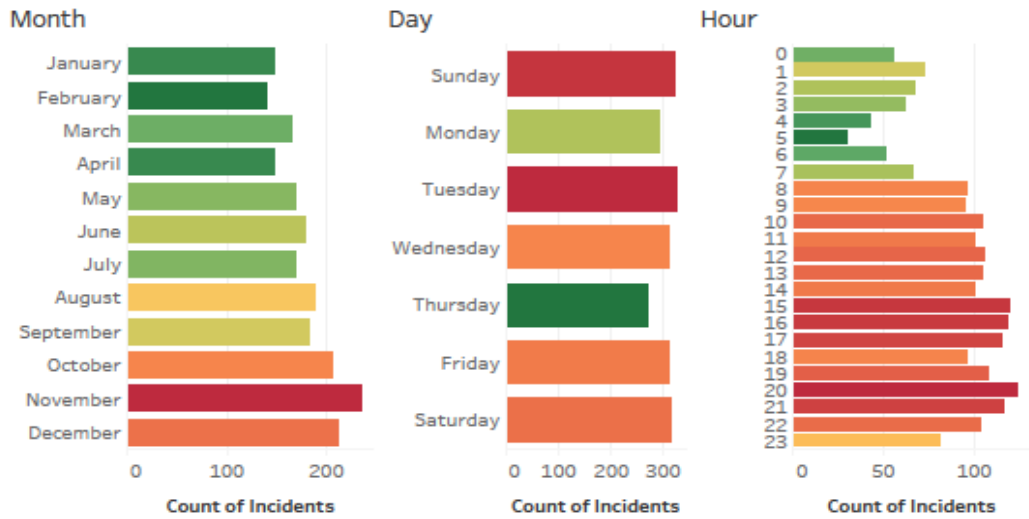


Chart 16 – District 1 Cumulative Priority Incidents by Day, Month, and Hour

Westminster Fire Department Standards of Cover

2014-2017 Station 1 Non-Priority Incidents by Day and Time of Day;
Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	14	10	7	5	6	3	10	55
1	13	9	10	9	8	11	13	73
2	9	11	10	6	9	10	12	67
3	14	4	8	8	7	12	9	62
4	5	5	6	9	5	6	7	43
5	5	2	5	5	4	6	3	30
6	5	8	5	7	10	10	6	51
7	9	9	10	11	5	9	13	66
8	12	12	20	22	8	12	10	96
9	9	19	12	16	17	7	15	95
10	18	16	15	11	16	15	14	105
11	12	19	13	17	8	17	14	100
12	17	16	12	14	19	14	14	106
13	18	16	18	15	9	17	12	105
14	12	12	13	19	13	15	16	100
15	21	17	19	13	15	20	15	120
16	19	20	19	12	14	17	18	119
17	12	13	26	18	14	18	15	116
18	19	12	14	18	7	11	15	96
19	18	13	19	9	16	16	17	108
20	20	14	14	19	20	21	16	124
21	18	14	20	15	18	14	18	117
22	12	13	18	17	13	17	14	104
23	11	8	11	13	10	12	16	81
Grand T..	322	292	324	308	271	310	312	2139



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.



Chart 17 – District 1 Cumulative Non-Priority Incidents by Day, Month, and Hour

Westminster Fire Department Standards of Cover

Fire station one was originally built as part of the city government complex, on the same site as it currently sits. As the city grew, a new city hall was built several blocks away, and the fire station was rebuilt in 1969 in its current location. Since that time, the fire station has undergone several remodels, including: an overhaul in 1988 when fire administration moved to the new (current) city hall; remodeling of the large bunkroom into individual rooms, as well as remodeling of the living quarters in 1993; remodeling of the officer and battalion chief quarters in 1996; and additional remodeling in 2004 after the battalion chief was relocated to new station two. Additional minor remodels have occurred since that time to rearrange rooms and offices on the east side of the station.

The facility is well maintained and has adequate room for the officer and assigned crew members, including one 24-hour rider when necessary. There is one large office/bunkroom for the company officer on the east side of the building, along with a report writing room, an exercise room, the officer restroom and shower, and an additional “guest” restroom. The apparatus bay, three wide and approximately one-and-a-half deep, sits in the middle of the station. The west side houses the crew quarters, including a day room, kitchen, dining area, restrooms and showers for both male and female members, washer and dryer, and six individual bunkrooms. One of the bunkrooms is directly connected to a shower/bath facility and is designed for female members’ use.

The apparatus bay currently houses engine one, medic one, a reserve truck company, and a reserve medic unit. There is room in the bay for routine maintenance and training to take place without having to move all of the apparatus. A workshop with a large variety of tools is next to the bay and attached to a hose tower and a long storage area. The hose tower can be used for drying of fire hose as well as training scenarios, with external doors on the three upper levels. An extractor washer and dryer unit for turnout gear are located in the shop area. Lockers for fire gear are assigned to each firefighter, as well as extras for temporarily assigned personnel, and are placed around the apparatus bay. There are utility, electrical and storage closets that open into the bay area.

The layout of the station is generally conducive for rapid turnout times, with living facilities on both sides of the apparatus bay. The downside of the station layout for rapid turnout is that the bunkrooms are located remote from the apparatus, with bunkrooms at the end of a hall,

Westminster Fire Department Standards of Cover

which opens into the day room. Personnel have to travel this path, and then go through the dining area or through the dayroom to access the bay.

The grounds around the station are also well maintained, and there is a barbeque as well as an outside eating area near the dayroom. The north side, or front of the station, has a public access door, a bench, and a statue dedicated to the volunteer firefighters from years past. The statue is in a landscaped area that creates a nice, high quality feature for the fire station. The south side of the station has a very large pad area, where training or hose testing can take place.

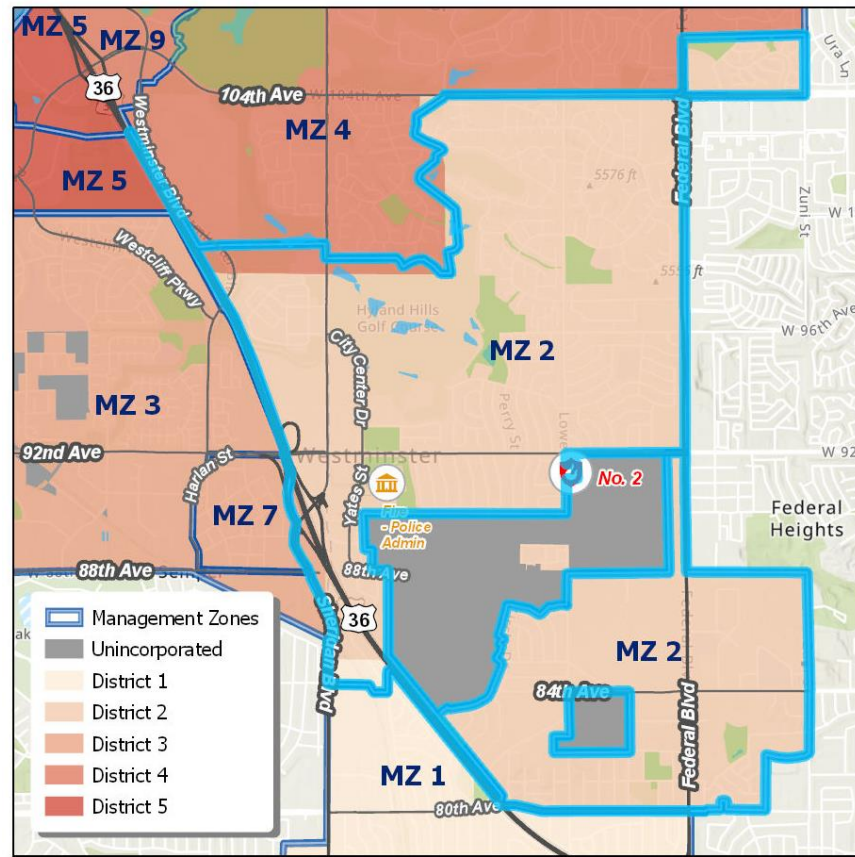
The pump test pit for the department is located on this large pad area, toward the side street so that it is out of the way for responding apparatus. A fire hydrant for training, testing, or refilling of tanks is next to the pump test pit area. The apparatus respond from the south side of the station, which is technically the backside, and can quickly access roadways to any side of the station as well as a major thoroughfare (72nd Ave.).

Upon returning to the station, the engine uses the north drive and door for access, and in winter months, an issue can arise with snow and ice on this north pad. Crews have to remain cognizant and ensure removal of snow and ice to prevent any slipping accidents or incidents.

Station one is located in the center of its geographical first due response district, and historically has had the fastest travel times for first due apparatus in the city. Although the station is almost 50 years old, it is in good condition and is able to deliver quality service and provide a safe, efficient work environment. The station is beginning to show signs of age, and some of the drive areas inside and outside the station were recently replaced due to concrete cracking and disintegration. The facility will continue to be monitored and maintained to ensure effectiveness.

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Fire Station Two/District Two



Map 21 – District 2/Management Zone 2

Fire station two, located at 9150 Lowell Boulevard, is located in the south central area of the city near the eastern border. The district has a diverse mix of housing stock, ranging from smaller, older houses built in the 1940's and 1950's to larger homes and new, small lot, energy

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efficient houses. There is a mix of multi-family housing, with the southern and eastern ends of the district containing larger complexes of apartment houses which have a significantly lower socio-economic demographic, and complexes near the western edge of the zone that have apartment complexes which are newer and generally house middle income earners.

As with the other districts, there are older adult living and assisted living centers in district two. These facilities are relatively new and are protected by sprinkler and alarm systems. These centers generate a good deal of calls for this district.

District two also has a medical district, which consists of a hospital and several medical offices and buildings in the immediate vicinity. The hospital facility is the home of a former major north area hospital, which was re-located several miles north in 2014 to a new building. The current hospital has an emergency department, imaging facilities, and beds for patients. The hospital is a receiving emergency department for ambulance transport. The other medical facilities add some additional call volume to this district.

There are several commercial retail centers, mostly lined along major roadways, which range from older buildings with no fire protection systems to newer, large shopping areas with full fire protection features. The district also has two commercial office parks with multi-story office buildings. One area of district two has several hotels including a 6-story, non-high rise hotel. District two has 442 businesses in the inspection database.

City hall and the public safety center are located several blocks west of station two. A large golf course and other recreation facilities are located within this district. The downtown redevelopment area, a 105-acre former shopping mall site, is located at the western edge of district two. This site is a unique development opportunity for the city. Due to its remoteness at the end of districts two and three, and its particular unique characteristics, the downtown area has been designated for future evaluation as zone seven.

Transportation within district two consists of several major roadways including Federal and Sheridan Boulevards, 92nd and 104th Avenues, as well as collector streets such as Lowell Boulevard and many residential streets. US Highway 36 runs alongside and through the southern and western ends of district two. As with district one to the south, this freeway restricts direct access to some parts of the area. There are several major roadways that provide throughways

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around the freeway. Responses have been established for districts one and two around the freeway and the other access issues due to the highway. For incidents on US 36, station two can access from Sheridan Boulevard or Federal Boulevard, depending on the location and direction of the highway incident.

The BNSF railway also goes through a very small corner of station two's response area. No streets in the first-due district are affected by the railway, but second due access to district one to the south and district three to the west may be impacted by rail crossings in those respective districts.

All of district two is serviced by the city water system, and the area has full fire hydrant coverage. The water pressures and volumes are sufficient to exceed required fire flows. Several of the city's water storage tanks are located within district two at higher points. The city water utility is in the process of upgrading their infrastructure and recently replaced a main transmission line that runs on 104th Avenue at the north border of district two, which included installing some additional fire hydrants on 104th Avenue. Another project replaced a large water transmission line on Sheridan Boulevard, and again several fire hydrants were added along this street in districts two and one.

Fire district two has been designated fire management zone two. This area has similar characteristics to the remainder of the city, including a variety of housing stock, retail centers, and major transportation corridors. The district also has older adult facilities and medical complexes. District two has the second-highest call volume of the six districts in the city. Medic two is the second busiest medic unit, just behind medic one. Station two is centrally located in its district, and in an area conducive to providing second due resources to districts one, three and four, as well as most third-due responses to districts five and six. District two has the greatest concentration of resources, as station two houses an engine, truck, medic unit, Battalion Chief and the Safety and Medical (SAM) officer.

The demographic profile in this district is the most diverse, ranging from lower income households to large homes. Businesses also are diverse, including small shops and convenience stores as well as high-end restaurants, big box stores and specialty shops. There are a moderate number of people that reside and work in this district whose first language is not English.

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Total Population	23,251
Median Age	37.5
Female	50.2%
Male	49.8%
Median Household Income	62,360
Per Capita Income	30,209
Households Below Poverty	8.5%
Total Households	8,749
Average Household Size	2.66
Total Housing Units	8,861
Owner Occupied	65.2%
Renter Occupied	33.6%
Vacant	1.3%
White	73.1%
Black	1.6%
American Indian	1.2%
Asian	6.2%
Pacific Islander	0.1%
Other Race	13.6%
Two or More Races	4.1%
Hispanic	33.9%

Chart 18 – District 2 Demographics

The greatest fire risks in district two, based on historical data, are the multi-family dwelling units, particularly those that do not have fire protection features installed. Although the district has not had an accidental fire death in several years, there have been several residential structure fires in one-, two-, and multi-family dwellings. These fires have resulted in injuries to varying degrees to civilians and firefighters, although on rare occasions. The larger commercial and hotel properties rate higher in risk on building assessments, however the risks within these facilities are mitigated due to the extensive fire protection features that are in those buildings. The highest risk occupancy per the risk assessment data is the 84th Avenue Neighborhood Health Center. This building has many out-patient and some in-patient facilities, and is the site of the former St. Anthony North Hospital. There are full fire protection systems in place which mitigate the risk, however this is still a health care occupancy that may have non-ambulatory people.

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Other risks in this district include transportation incidents, including hazardous materials, on the freeway and major roadways.

Time reporting for all priority calls for district two from 2014 through 2017 is noted below. Call numbers only for district two structure fires, non-structure fires, EMS calls, technical rescue and hazardous materials incidents (priority responses only) are included. Full information for all incident types including breakdowns by risk can be found in the appendix.

<u>Category</u>	<u># Incidents</u>	<u>Time Interval (minutes: seconds)</u>
All D2 Priority Incidents	5,884	N/A
Alarm Handling	5,739	1:20
Turnout	5,749	1:36
Travel (1 st unit)	5,745	5:52
Travel (ERF)	5,154	7:09
Total Response (1 st unit)	5,789	7:51
Total Response (ERF)	5,302	8:24

Figure 8 – District 2 Time

Structure Fires	21	N/A	and Incident Intervals
Priority Non-Structure Fires	89	N/A	
Priority EMS	4,761	N/A	
Technical Rescue	12	N/A	
Hazardous Materials	67	N/A	

District two has the second highest call volume in the city. EMS incidents are by far the greatest number of calls. The call volume has remained consistent with a slight drop in 2016 and a similar increase again in 2017. The early and middle afternoon hours are the busiest times, with a few months being slightly busier than the norm.

Westminster Fire Department Standards of Cover



Westminster Fire Department

Count by Incident Type: Station 2

	2014	2015	2016	2017	Grand Total
Rescue and EMS	1,364	1,383	1,345	1,423	5,515
Cancelled- Good Intent	226	242	274	240	982
Service Call	174	206	219	233	832
False Alarm or False Call	104	128	103	104	439
Hazardous Condition- No Fire	42	36	46	31	155
Fire	24	27	34	37	122
Special Incident Type		3	1		4
Severe Weather and Natural Disaster		2		1	3
Overpressure, Rupture, Explosion, Overheat- No Fire	2				2
911 Citizen Complaint			1		1
Grand Total	1,936	2,027	2,023	2,069	8,055

Percent Change Year Over Year: Station 2

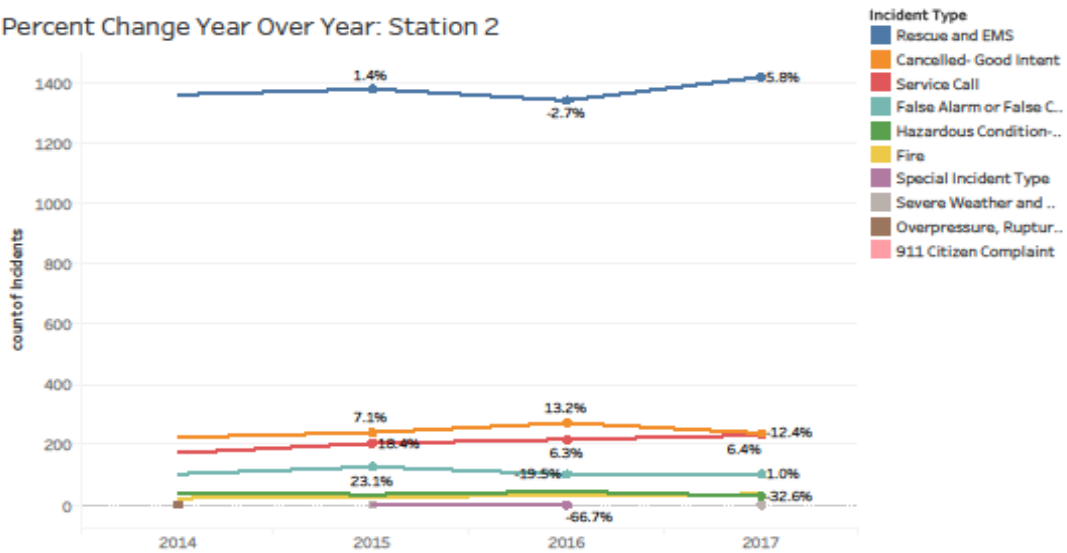
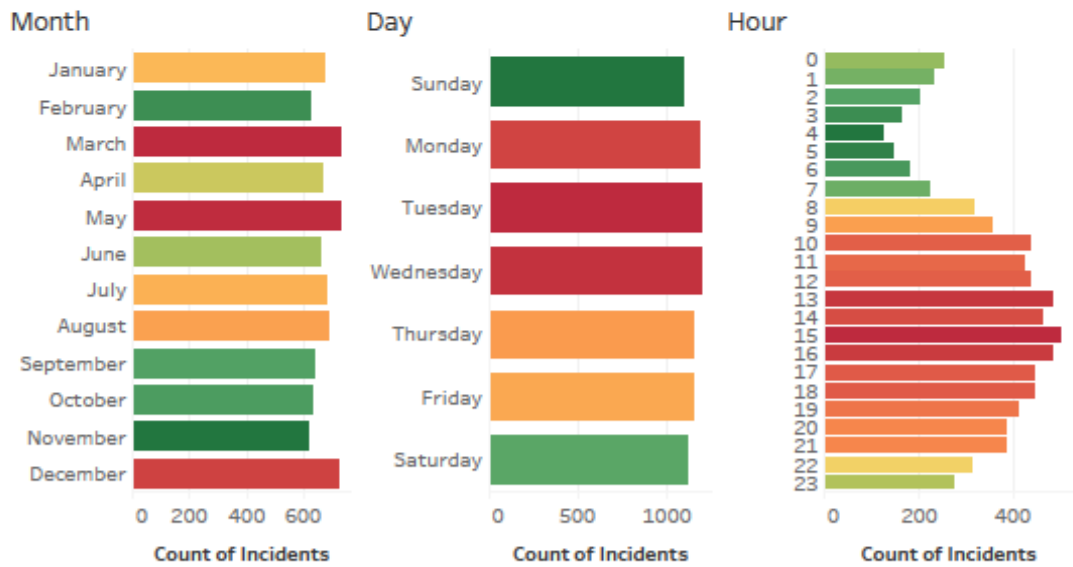


Chart 19 – District 2 Count by Incident Type with Percent Change

Westminster Fire Department Standards of Cover

2014-2017 Station 2 Incidents by Day and Time of Day; Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	53	31	30	27	33	36	42	252
1	40	30	23	37	30	28	40	228
2	40	26	23	24	22	33	30	198
3	35	20	23	22	21	17	23	161
4	22	23	21	18	8	10	21	123
5	27	24	11	18	16	20	27	143
6	16	20	31	34	30	24	24	179
7	23	27	39	41	38	35	17	220
8	25	47	71	56	43	48	24	314
9	43	46	54	61	63	46	44	357
10	56	66	79	61	62	65	49	438
11	48	61	71	56	74	76	39	425
12	59	72	59	67	55	63	63	438
13	60	86	60	74	78	58	68	484
14	60	69	69	65	63	66	68	460
15	46	84	78	74	82	71	66	501
16	48	81	78	69	64	71	69	480
17	60	50	65	61	77	69	62	444
18	70	53	68	71	57	66	59	444
19	54	74	54	62	61	46	58	409
20	47	58	58	52	46	63	62	386
21	69	54	47	54	49	56	57	386
22	39	38	44	48	41	49	52	311
23	44	43	36	37	39	32	43	274
Grand T..	1084	1183	1192	1189	1152	1148	1107	8055



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.

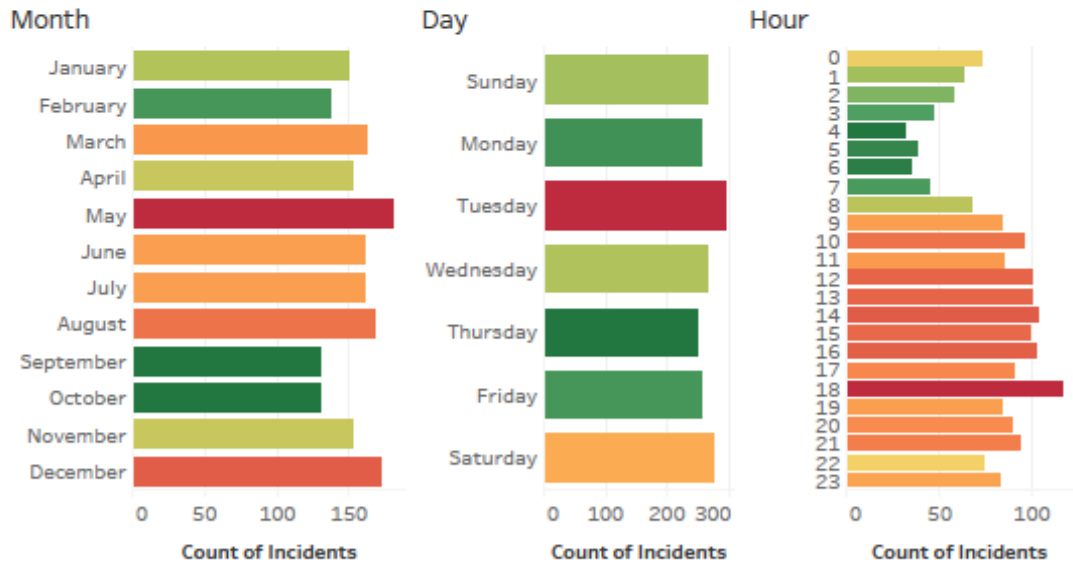


Chart 20 – District 2 Cumulative Priority Incidents by Day, Month, and Hour

Westminster Fire Department Standards of Cover

2014-2017 Station 2 Non-Priority Incidents by Day and Time of Day;
Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	13	10	9	4	14	7	16	73
1	15	4	6	10	8	7	13	63
2	14	11	6	4	2	7	13	57
3	11	5	3	8	6	5	9	47
4	4	8	3	7	2	1	7	32
5	10	7	4	3	2	4	8	38
6	5	2	4	5	6	4	9	35
7	4	6	10	11	8	4	2	45
8	4	10	13	11	8	15	6	67
9	13	9	19	15	12	13	3	84
10	14	15	16	13	15	10	13	96
11	11	9	18	8	16	14	9	85
12	13	13	11	16	16	16	15	100
13	10	13	18	15	15	15	14	100
14	16	9	18	15	11	15	19	103
15	7	20	17	15	13	12	15	99
16	10	14	17	14	13	18	16	102
17	13	7	17	15	17	11	10	90
18	23	14	18	16	17	17	11	116
19	10	14	17	12	10	8	13	84
20	8	14	18	16	7	13	13	89
21	23	10	9	9	11	16	15	93
22	6	16	8	11	10	13	10	74
23	8	14	13	13	10	10	15	83
Grand T..	265	254	292	266	249	255	274	1855



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.



Chart 21 – District 2 Cumulative Non-Priority Incidents by Day, Month, and Hour

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Station two was originally built in 1961 across the street from the current firehouse. It served the district as a volunteer station until 1992, when the station was remodeled to house a full-time crew of three, and paid staff began working at the station. The former station was small but met the needs to house an engine company and crew for many years.



In the late 1990's it was determined that a new replacement station needed to be constructed, and the new facility should be large enough to handle multiple crews and apparatus, the on-duty Battalion Chief, and a training room with associated offices for the training staff. Several models were used, including RHAVE, to determine the best location for the new station. Models indicated that the new station should be housed along the corridor from 92nd Avenue and Sheridan Boulevard to 92nd Avenue and Lowell Boulevard, near the former station two location. A plot of land was purchased across the street from station two, and in 2003 the new station was completed.

The new station two is a large, four bay, one-and-a-half deep station, with living quarters on the north side of the apparatus bay and workshops, storage, and a subterranean hose tower on the south side. The station has nine individual bunk rooms running the length of the living quarters on the east end of the station, with separate shower and bathroom facilities for men and women along this same hall. The middle and west parts of the station house the kitchen, dining area, day room, exercise room, and utility room (washer, dryer and linens). There are two

Westminster Fire Department Standards of Cover

bunk/office rooms on the west side further north for the engine and truck company officers. Next to these rooms is the Battalion Chief's office and bunkroom. There are secured doors between the living quarters and the training area, which is located at the north end of the station. A large training room with seating for about 24 students is located on this end, as well as offices for the Training and Special Operations Chief and the Field Training Officer. The office also houses computers for the on-duty crews to complete reports.

The apparatus bay has doors on both the front and back of each bay, allowing heavy apparatus the ability to drive through, eliminating the need to back into the station. The station houses an engine company, a 105' aerial truck company (quint), a medic unit, the Battalion Chief command vehicle, the SAM officer vehicle, and a non-staffed heavy rescue. All staffed units, except for the SAM officer, respond from the front of the station. The rescue is parked behind the Battalion Chief vehicle so that it can respond out of the front once the command vehicle is moved. The trailer for the heavy rescue is located outside, behind the rescue, for easy attachment when required. The SAM unit responds from the back of the station behind the medic unit.

An alcove area is provided on the north end of the bay, between the two access doors into the living quarters, where most of the turnout gear lockers are located. Additional turnout storage lockers are in the utility area at the south end of the station. There is a hose storage area, as well as a subterranean hose tower, at the southeast corner of the station. To the west of that is a large utility area that houses an air bottle fill station and compressor, extractor washer, turnout gear dryer, and cleaning supplies for the apparatus. West of that is a storage room for EMS supplies, an enclosed shop area, and at the west end is oxygen bottle storage and the stairs to a mezzanine on the south end of the station, as well as a mechanical hose washer. This mezzanine provides storage for additional gear, tools, investigation supplies, as well as a hose repair machine and hose storage, a heavy-duty sewing machine for gear and equipment bags, and the top of the hose tower.

The station layout is conducive to a healthy work environment, with all living facilities located together. The dayroom, kitchen and dining areas are all close to the apparatus bay, resulting in rapid turnout capabilities. The challenges for turnout times are the location of the bunk rooms, which run north-south along the east end of the station. A firefighter in the furthest north bunkroom has to walk the distance of the hallway to the apparatus bay, and then walk

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around the heavy rescue. If assigned to the truck, the firefighter has to walk across the entire bay to get to the apparatus. The truck company is located in the furthest south bay, the engine in the next bay north, the medic in the third bay to the north, and the command vehicle is in the north bay. With the living quarters located on the north side, several seconds may be added to turnout times due to having to traverse the total distance. The officer quarters are further away from the bay than the day room facilities, with the Battalion Chief office the furthest north. The apparatus bay is equipped with several count up timers and incident information monitors.

Station two is well maintained, is still relatively new, and is large enough to handle full staffing of all units, as well as a rider when full staffing is not realized. The kitchen has undergone two minor remodels to accommodate additional storage, but the remainder of the station is still original. The grounds and area are in good condition, with plenty of parking for staff in the rear of the station, as well as additional parking for outside attendees using the training room. A large barbeque is located outside near the kitchen area, with outside seating areas near the barbeque and outside the dayroom.

Apparatus response is not generally an issue, as the street in front of the station, Lowell Boulevard, is only moderately traveled and is of adequate width to handle apparatus coming out of the station. There is no emergency light to alert traffic, so apparatus drivers have to use caution and ensure visibility prior to departing the apron area. An elementary school, which is not in the city limits, is immediately adjacent to the south side of the station. During the school year, particularly in the morning and afternoon when school starts and ends, there is a high volume of vehicles and buses in the immediate vicinity. Lowell Boulevard and parts of 92nd Avenue, north of the station, are “School Zones” with 20 mile-per-hour speeds around school start- and stop-times. During these specific times, response can be delayed due to these circumstances. The front of station two faces west, which provides sunlight during the winter months to facilitate snowmelt on the apron. The rear areas of the station require extra snow removal attention as there is insufficient sunlight to greatly help with snowmelt in that area.

Station two is located in the center of their geographical first-due response area, and historically the travel times to incidents in their first-due area have been adequate. The location, near a significant intersection, provides for a rapid response in any direction. Station two, as noted before, provides second due response to a large area of the city, and the location of this

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station provides timely responses citywide. District two has the second highest call volume of the six districts. Engine and medic two are the second busiest of their respective types of units in the city. Part of the reason for this volume of calls is the large second-due response areas that station two is responsible for. With the AVL and CUD, when the engine and truck are both in quarters, the system will select the “closest unit” for a call. This requires the crews to determine which unit should respond based on the incident type. This also artificially inflates the response numbers for these units as they are regularly assigned for responses where the other unit is designated to respond, and it also causes an artificial inflation of the ‘cancelled enroute’ statistics for both units. This is continually undergoing evaluation to determine how to best address this issue. Although it inflates the statistics, it only has a very minimal effect on actual responses and outcomes.

Station two has excellent facilities to provide for high quality service to not only their first-due district, but on a citywide basis. Being a new facility with outstanding maintenance, it will be able to provide response and other services well into the future.

Within district two is the former fire station two, located at 9051 Lowell Blvd. This building and grounds are used to house reserve and special vehicles, and provide for storage and periodic training. This building is a three bay building, but only two bays are deep enough to house a modern fire apparatus. Two reserve engines are housed in those spaces, and are maintained by the crews from station two across the street.

A 1956 fire engine that was purchased new by the City of Westminster is also housed here. When this engine was taken out-of-service by the city, the fire department volunteers kept and maintained the truck for restoration purposes. The truck has been used for public relations purposes, including providing rides for the public at events. The truck received safety upgrades in 2015. These included remounting the bench seats in the rear and installing new seat belts for all riders. The rear entry area was also modified to make it more conducive for the public.

The bay housing the old engine has been used by the radio technician for the city, for installation and repair of radio systems in police and fire vehicles. Other parts of the bay area are used for miscellaneous storage, as is the former living quarters. Some of this storage is for fire, dive, and technical rescue replacement equipment. Part of the former living quarters is used for training scenarios, such as SCBA and search. One room in the former station is used by the

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department historian for storage and a small work area. In late 2017, a trailer was purchased to store emergency preparedness equipment, including cots and blankets for 150 people. The trailer is housed behind former station two.

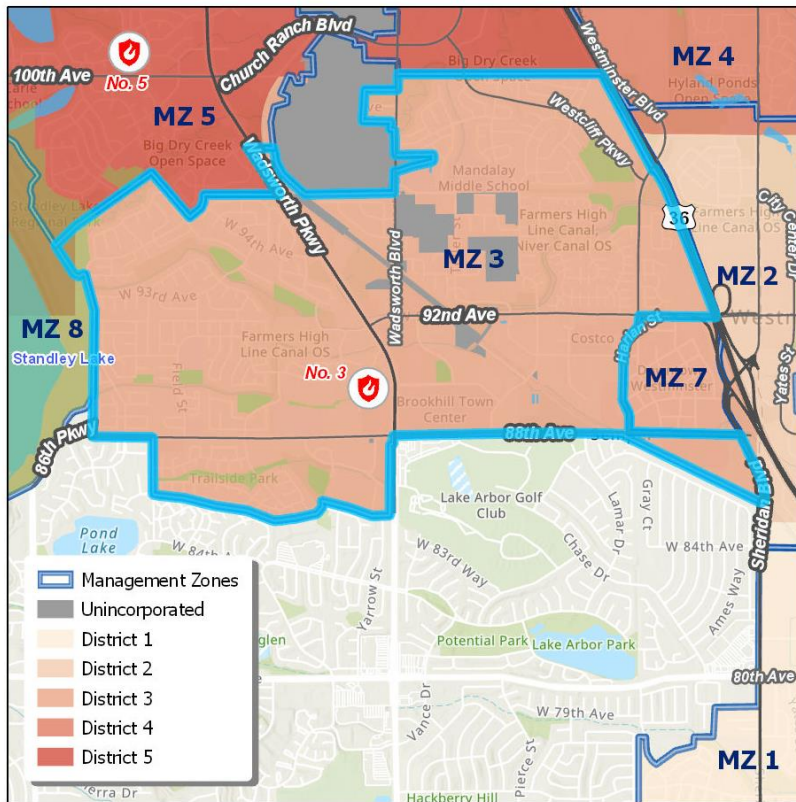
Another trailer that is stored behind former station two is for fire extinguisher training, and was built from a trailer previously used to haul an off-road vehicle. This prop can be brought to a public location and a class presented. The trailer uses propane for the fires, and water extinguishers are used. This is a two-person operation, with one instructor presenting and the second person assigned as safety and holding the “dead-man” switch to control the propane flow.

A larger trailer is also housed outside and has an SCBA maze installed. Fire personnel completed several of these trailers and the modifications to the old “parade” truck, many times using funds secured through City safety awards.

Additional training props located outside the former station include two ventilation drill areas, one for a pitched roof and the other a flat roof. Crews can perform ventilation exercises on these and then replace the wood. The attic space of the pitched roof prop can also be used as a maze.

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Fire Station Three/District Three



Map 22 – District 3/Management Zone 3

Fire station three is located at 7702 W. 90th Avenue on the west side of the city, near the southwestern border. District three also has a diverse range of occupancies although the residential units are relatively newer in age than those in districts one and two. A great deal of

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the single family dwelling stock was built in the 1970's and 1980's, with a few older properties scattered about, and a few subdivisions built within the past ten-to-twenty years. There is one subdivision built in the early 1980's that is made up of manufactured homes. Several homes within the district are much newer and larger, and many are of the custom variety. Most of these are built on lots that were in the unincorporated area northeast of the station. This particular area is a large enclave inside districts three and five that is serviced by a fire protection district and has county services. As development takes place within this area, including custom homes on single lots, many owners have been annexing into the city and de-annexing from that fire protection district.

There are a large amount of multi-family apartments in the district, the majority of which are 3-stories in height. Most of these are massed in an area just to the east of the station, with other complexes scattered to the south and west. The houses in this district are generally moderately sized, ranging around 1500 to 2500 square feet. Currently, no new housing development is taking place within the district, although another multi-family complex is being planned on the site of a former large commercial property. The majority of residents in district three are middle-income earners in a variety of age brackets.

District three has a large complex for older adult living, consisting of duplex patio style homes, a large 6-story apartment style residence connected to two, three-story residential units, and a separate nursing and assisted living facility. The facility allows for independent living through minor assisted living to full assistance, and includes memory care. This area is designed to take residents from post-retirement to death. This complex adds slightly to the call volume for this district. There are also two small urgent care facilities in the district.

District three has a large portion of retail centers in its first response area. These are generally placed along the major thoroughfares and consist of shops and stores built in the 1970's through modern, large national chain stores. Most of these properties are protected by fire protection and suppression systems, however some of the smaller, older businesses are not. At the extreme east end of district three is the site of the former Westminster Mall shopping center, which is being redeveloped into a new downtown for the city. Several streets and infrastructure components have been put in place, and a series of five- and six-story buildings are being constructed on some of the properties. The vision is for this area to be a high density, residential,

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commercial and urban type of setting that relies on mass transit to some degree. All properties within this 105-acre site will have fire protection and suppression systems installed as they are built. Although street widths have been reduced in the area, the fire department has worked closely with city planners and other staff to ensure access, protection, and safety elements are present throughout the area and the buildings. This downtown site has been designated as zone seven for future evaluation.

District three also has a large business area in an office park type complex, and contains some very light industrial and commercial occupancies. Fire protection features are adequate based upon the building and related occupancy. There is a four-story office building in the center of the district, and another office building at the west end, near the fire station. There are 364 businesses listed in the inspection database for district three.

The city's Municipal Services Center (MSC) and main water treatment plant (Semper) are located next to each other within district three. The MSC houses Fleet Maintenance, Facilities Maintenance, and Public Works and Utilities. An Xcel Energy electrical transmission facility is located next to the MSC and Semper.

Transportation in district three primarily consists of main thoroughfares, including 88th and 92nd Avenues and Wadsworth Parkway, and collector streets running through the district in the commercial, residential, and downtown areas. The BNSF railroad enters district three at the far southeastern corner of the response area, and winds through the district in a north-northwest direction, eventually going into district five to the north. The train tracks cross three streets at grade level in the district, which can cause slight response delays. The tracks generally take a straight route on level ground, but at the northern end, the tracks curve along Wadsworth Parkway and veer back to a northeast direction. This curve is the location of a prior derailment caused by vandalism, which resulted in a spill of dry, non-hazardous material.

US 36 Highway creates a border for parts of the far eastern and northeastern portions of the district, but does not generally affect responses. Station three apparatus will respond to incidents on this highway as second due resources or if additional units are required for an incident.

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Standley Lake, a large reservoir that holds the raw water used by the city, lies in the west portion of the district. The main access to the lake and recreational areas is located on the north end, in district five, but there are other entrance areas and recreational portions along the south and west ends. 88th Avenue is the southern city limits in that portion of the city, and Standley Lake lies between 88th and 100th Avenues. The dam runs along the eastern portion of the reservoir. District three responds to incidents at Standley Lake, and depending on the incident type and exact location, will be the primary response or assist as secondary resources. The spillway from the dam flows water into Big Dry Creek, which runs through the city generally to the northeast. Station three generally covers the south side of Big Dry Creek. The entire Standley Lake Regional Park area has been designated as zone eight.

As noted, the main fresh water treatment plant is located in the district. There are no above ground water storage tanks, but there are some underground tanks for use at the plant. The plant does not use any chlorine for water treatment, using an ultraviolet system instead. However, there are other hazardous chemicals that are used in the fresh water process. The chemicals and areas are monitored by staff on a continuous basis for any leaks or unauthorized discharges.

Fire hydrants are distributed throughout the district in an effective fashion, providing full coverage. A new water transmission line was installed in 2013, which helped to boost the pressure and volumes in parts of the district. Due to the treatment plant being so close, there are pressure reduction measures taken within the immediate area to prevent water line breaks. These have caused some lower pressures historically, however the new transmission line installation, as well as further plans pertaining to the new downtown, will further improve the water operations in this area.

District three has been designated as fire management zone three. As with the other districts, this area has a mix of housing units, business, and retail establishments, as well as the large residential and assisted living complex for older adults. This district has historically seen the third largest call volume, however this changed as districts four and six experienced a great deal of development and are becoming much busier. District three is currently the fifth busiest call volume zone in the city. Station three houses an engine company, a medic unit, and the dive

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rescue van and zodiac boat. The dive unit is not staffed. Most dive team personnel are located at station three to enhance dive team training and response times.

This district has a demographic made up of mostly middle-income earners, many of whom own their home, but also consists of many renters and apartment dwellers. Large amounts of people come into the area to shop and work, and many more travel through to get to their work, particularly on Wadsworth Parkway.

Total Population	17,904
Median Age	37.2
Female	51.4%
Male	48.6%
Median Household Income	65,481
Per Capita Income	36,712
Households Below Poverty	6.2%
Total Households	7,607
Average Household Size	2.35
Total Housing Units	7,873
Owner Occupied	58.3%
Renter Occupied	38.3%
Vacant	3.4%
White	86.4%
Black	1.3%
American Indian	0.8%
Asian	4.8%
Pacific Islander	0.1%
Other Race	2.9%
Two or More Races	3.7%
Hispanic	13.6%

Chart 22 – District 3 Demographics

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The risk in this area is mitigated due to the fire protection features of most of the buildings. Many of the commercial properties and most of the multi-family properties have suppression and/or notification systems installed. Occupancies with higher risks all have fire protection systems installed. One of the highest fire loaded properties is a two-story furniture store with partial warehouse. This building has full fire protection features covering its large footprint. Two large hardware stores also have full fire protection features. Single-family dwellings are historically where most of the fires have been. There have also been several fires in the multi-family units, which have caused a few civilian injuries and deaths over the past 30 years. Commercial property fire rates are extremely low. Although there have been no fires of any consequence in the complex, Covenant Village is a high risk occupancy, with a greater risk of a mass-casualty fire incident. Even though this property has full mitigation, including fire suppression, detection and notification, the risk of direct and adjunct injury is much higher due to the older adult population and the number of people in the buildings. This facility is the highest risk property in district three.

Transportation is an identified risk for this zone. Several fatal and otherwise serious accidents have occurred on the corridors within this district, particularly the major thoroughfares. The rail line that bisects the district also transports hazardous materials, and this creates a potential hazard due to the large number of residential units that are adjacent to the rail tracks in this district. One of the greatest threats, albeit less probable, is a dam failure at Standley Lake. If this occurred, it would destroy several hundred homes, many of which are at the north end of district three. The downstream effects in other districts would also be devastating.

Time reporting for all priority calls for district three from 2014 through 2017 is noted below. Call numbers only for district three structure fires, non-structure fires, EMS calls, technical rescue and hazardous materials incidents (only all priority responses) are included. Full information for all incident types including breakdowns by risk can be found in the appendix.

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<u>Category</u>	<u># Incidents</u>	<u>Time Interval (minutes: seconds)</u>
All D3 Priority Incidents	4,369	N/A
Alarm Handling	4,277	1:19
Turnout	4,290	1:36
Travel (1 st unit)	4,275	5:33
Travel (ERF)	3,880	7:27
Total Response (1 st unit)	4,314	7:34
Total Response (ERF)	3,978	8:45

Figure 9 – District 3 Time

Structure Fires	25	N/A	and Incident Intervals
Priority Non-Structure Fires	57	N/A	
Priority EMS	3,502	N/A	
Technical Rescue	4	N/A	
Hazardous Materials	76	N/A	

District three has the fifth highest call volume in the city. As with the other areas, EMS accounts for the largest percentage of calls. Call volumes in this district continue to increase as traffic and other factors increase. There is limited new building currently taking place, however the new downtown area is at the east end of the response area and may contribute to some additional call loading. Call volumes for this district indicate the busier times run from the late mornings through late afternoons, with a higher call volume on Friday and during December. This may be due to the large amount of retail businesses located within the district and the higher populations during those days and months.

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Count by Incident Type: Station 3

	2014	2015	2016	2017	Grand Total
Rescue and EMS	897	896	1,002	1,057	3,852
Cancelled- Good Intent	118	135	107	116	476
False Alarm or False Call	132	110	107	105	454
Service Call	91	98	122	137	448
Hazardous Condition- No Fire	47	26	32	26	131
Fire	21	17	16	36	90
Special Incident Type		4			4
911 Citizen Complaint	1			1	2
Severe Weather and Natural Disaster		1			1
Grand Total	1,307	1,287	1,386	1,478	5,458

Percent Change Year Over Year: Station 3

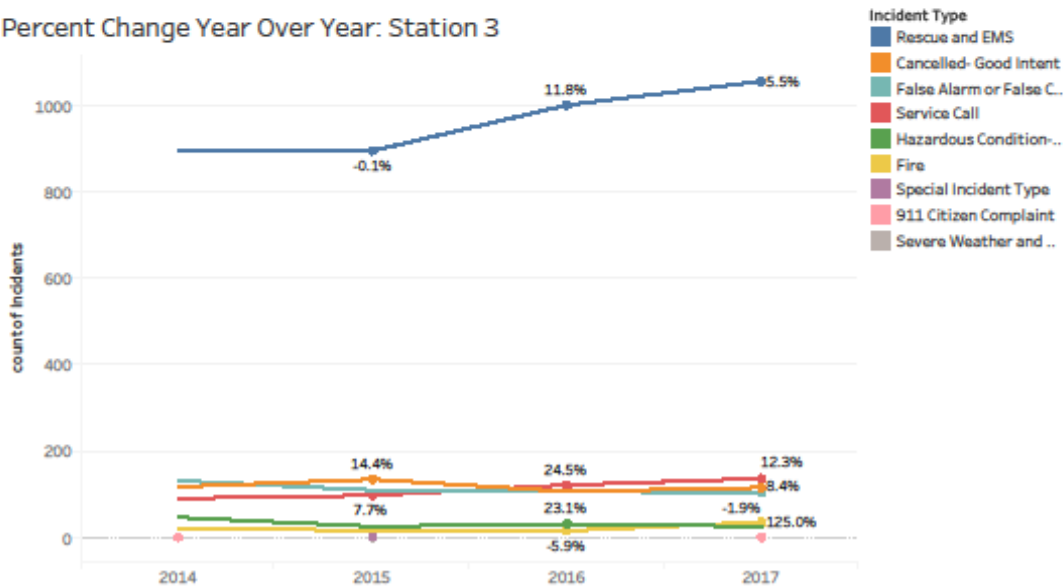
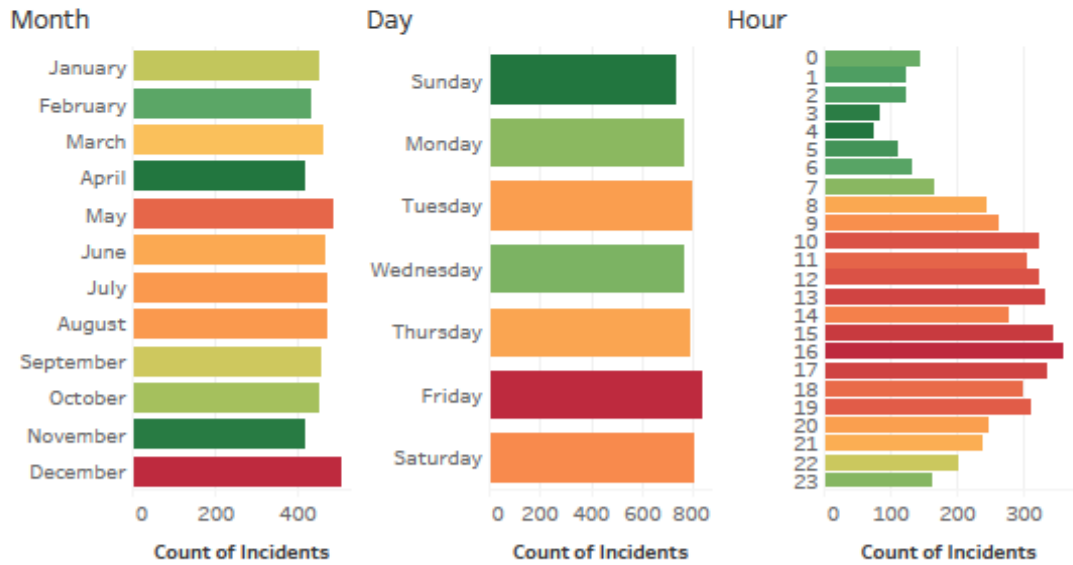


Chart 23 – District 3 Count by Incident Type with Percent Change

Westminster Fire Department Standards of Cover

2014-2017 Station 3 Incidents by Day and Time of Day; Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	29	19	17	11	16	23	27	142
1	26	21	16	14	13	16	15	121
2	22	13	11	16	19	15	24	120
3	12	10	10	12	12	9	16	81
4	12	12	5	12	11	10	10	72
5	16	16	8	15	17	23	13	108
6	15	12	15	21	23	18	26	130
7	14	25	29	18	20	28	28	162
8	19	41	43	46	38	36	17	240
9	32	45	49	28	37	35	34	260
10	32	42	54	48	44	56	44	320
11	34	41	37	50	54	30	56	302
12	35	42	42	41	56	57	47	320
13	48	45	50	42	42	56	48	331
14	34	39	49	34	44	41	34	275
15	40	51	48	51	58	53	39	340
16	44	50	45	52	54	60	50	355
17	45	54	57	47	36	48	45	332
18	48	39	56	42	33	33	45	296
19	47	43	42	41	44	40	53	310
20	31	23	34	33	35	55	36	247
21	31	36	33	32	34	30	39	235
22	34	18	25	34	25	34	29	199
23	28	24	17	18	25	25	23	160
Grand T..	728	761	792	758	790	831	798	5458



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.

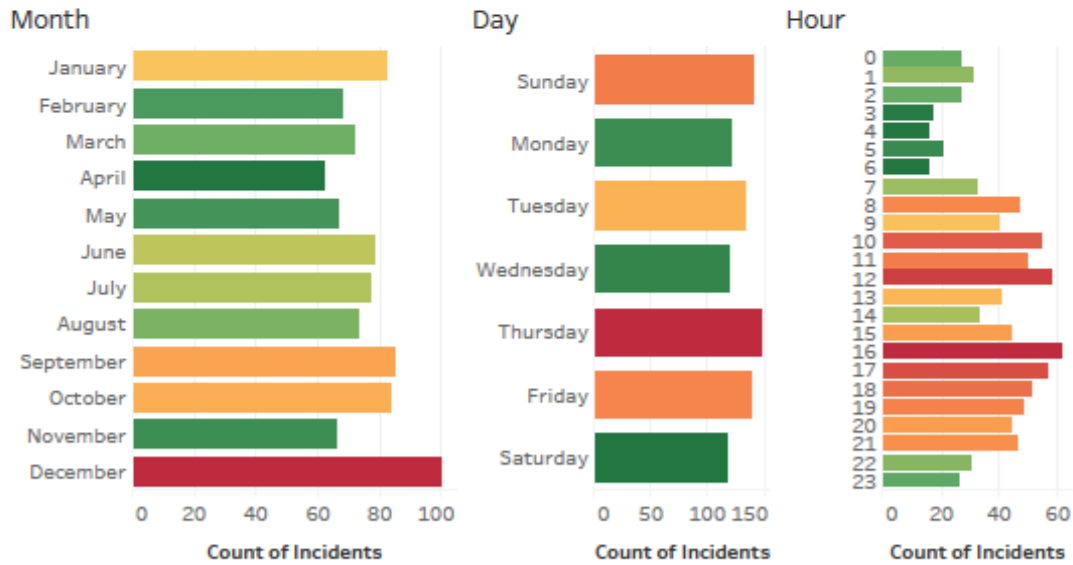


Chart 24 – District 3 Cumulative Priority Incidents by Day, Month, and Hour

Westminster Fire Department Standards of Cover

2014-2017 Station 3 Non-Priority Incidents by Day and Time of Day; Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	7	6	2	1	6	4	1	27
1	11	2	3	4	4	5	2	31
2	4	1	1	2	9	3	7	27
3	5	2			2	2	6	17
4	3	3	1	4	2	2	1	16
5	4	3		2	3	6	2	20
6	2	3	3	2	4		2	16
7	3	7	3	5	3	3	8	32
8	1	8	12	5	6	11	4	47
9	6	5	5	3	8	8	5	40
10	4	7	11	8	7	9	8	54
11	8	5	6	10	7	8	5	49
12	8	12	9	6	10	8	5	58
13	5	4	6	8	9	5	4	41
14	4	5	11	3	4	3	3	33
15	7	6	8	5	8	6	4	44
16	9	5	7	9	11	11	9	61
17	7	10	10	7	11	7	4	56
18	8	4	7	11	6	8	7	51
19	9	6	7	5	6	7	8	48
20	5	6	8	8	3	9	5	44
21	9	4	8	5	8	5	7	46
22	5	2	3	4	4	6	6	30
23	5	4	3	2	6	2	4	26
Grand T..	139	120	134	119	147	138	117	914



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.



Chart 25 – District 3 Cumulative Non-Priority Incidents by Day, Month, and Hour

Westminster Fire Department Standards of Cover

Fire station three was originally built in 1976 as a volunteer facility, with two bays for apparatus and a small area on the east side for a day room, office, and facilities. Career staff was placed in the station full time in 1989. The living quarters was very small, with a day room, kitchen facilities, and bunks all upstairs. In 1993, an expansion took place of the station, which included relocating the current living area. Six individual bunkrooms were built, shower/bath facilities for men and women were completed, and an office, dayroom, kitchen, and exercise room were included in the expansion and remodel. The second phase of this added a third apparatus bay to the west side of the station. The dive rescue truck, boat, and equipment were moved from station five to station three at that time. As call volumes continued to increase, a third ambulance was put in service on a part-time basis at station three beginning in 1995. By 2000, this unit was staffed full-time. With the additional personnel came further space needs, and another addition was completed on the east end of the station. This provided a full day room with workstations and computers, and turned the former day room area into a dining area within the kitchen. Later remodels created a bunkroom inside the office for the company officer and provided for additional storage upstairs.

From 1995 until 2014, deployment models changed and station three housed various units. Currently, it houses an engine, medic, dive van and the boat for the dive team.

Station three is in adequate condition considering its many expansions and remodels, however is at capacity, particularly in the apparatus bay area. The station has entrances at the front (north side) and rear along with adequate personnel parking in the rear. There are seven bunkrooms in the station, all of which are located close to the apparatus room door. The officer's quarters is adequate in size, and close to the rest of the crew quarters. The kitchen and dining areas are appropriately sized. The dayroom is most remote (east) from the apparatus bay. One hallway leads from the living areas of the station to the apparatus bay, thereby lengthening the travel distance for personnel. The base station radio is located near the end of the hallway near the bay.

The bay houses the medic unit nearest the living quarters, the engine in the middle, and the dive rescue truck with boat and associated equipment on the west side. All bays are drive through for the apparatus. Lockers for turnout gear storage are set against the walls and between the engine and dive van, and a shop is located at the southeast corner of the bay. An extractor

Westminster Fire Department Standards of Cover

washer and dryer for turnout gear are located inside this shop area. Although the bay space is limited, there is sufficient room to turnout and respond safely and efficiently. There can only be very limited further expansion on the west side due to lot line setbacks, and the lot is not conducive to any other expansions. Although the station is serving the needs of the community, further room will likely be needed in the future. The challenge regarding turnout times is the distance from the dayroom to the bay area. However, having the bunkrooms closer to the bays allows for nighttime turnout to shave off several seconds. The station is placed on a collector street, approximately one block from a major roadway, and vehicle traffic or other issues do not hamper apparatus exiting from the station. The station fronts toward the north-northeast, which does cause some issues during winter months with very limited sun exposure on the front apron. Snow and ice removal can be hampered by this directional location.

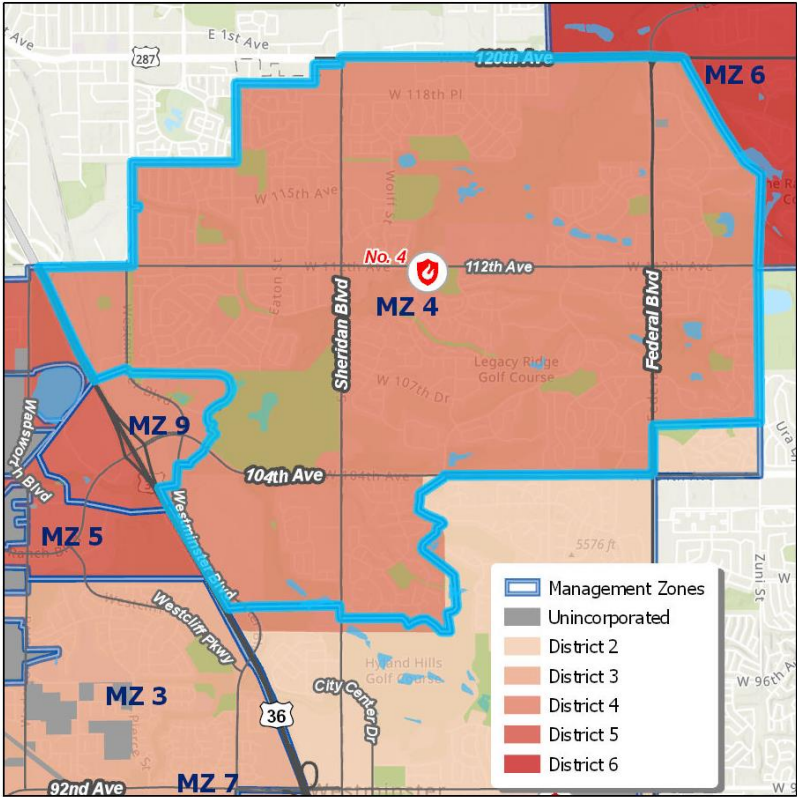
Overall, the station is in adequate condition and is of an acceptable size to handle the current crews assigned. Bay space is limited, with smaller areas between the outside apparatus and the station walls, but there is enough room to maneuver around the apparatus and access gear and equipment on the sides.

Station three is located very centrally in its response district, and is adjacent enough to major thoroughfares to have rapid travel times to the majority of the district. Traffic volumes affect the responses periodically depending on location of the incident, but overall access and travel time is sufficient. Units from station three provide second due engine coverage to district five and parts of district two, as well as third due coverage to parts of districts two, one, and four. The medic unit from district three provides primary ALS and transport for district three and most of district five, located to the north, as well as backup coverage to parts of districts two, one and four. Station three also responds on automatic aid to the enclave within its district, as does station five, due to the much closer response to this area from these stations than the fire protection district responsible for the enclave. This enclave area has many single family properties, as well as a large elementary school.

Fire station three is in a good location, and of adequate condition to provide service for the near future. With proper preventative maintenance and upkeep, the facility should maintain a serviceable condition. The size of the facility, particularly the apparatus bay area, represents a challenge that may have to be addressed in the future.

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Fire Station Four/District Four



Map 23 – District 4/Management Zone 4

Fire station four is located at 4580 W. 112th Avenue in the north central area of the city. District four is a rapidly developing area that has housing stock ranging from 1970's era homes

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to brand new developments, with sizes generally in the range of 1500 square feet to over 4000 square feet. The homes constructed since 2013 all are equipped with residential sprinkler systems, and some of the older stock of large houses have sprinkler systems installed. The district also has multi-family residences spread throughout the district. Many of these are apartments that are protected by fire sprinkler systems, and others are new townhomes that are also protected by residential sprinkler systems. Some subdivisions in this district have gated areas, where access is limited and emergency response is slightly slowed when gaining entry.

This district has two older adult centers, both of which have memory care units. These two facilities have the ability to house adults that require varying levels of care, and contribute moderately to the call volume in this district. Both centers are relatively newer construction, and both have full fire protection and suppression systems installed.

District four has a stand-alone emergency department facility as well as separate urgent care centers. All of these are new to the district, and the emergency department can receive ambulance transports of certain limited criticality patients. These facilities also add to the call volume on a small scale when they have a patient that needs more definitive care, and they call for a fire department medic unit to provide this transport.

There are two major retail centers in this district, one on 120th Avenue, the other being the Promenade on 104th Avenue and Westminster Boulevard. Both of these contain numerous shopping, dining and entertainment areas. Both have been constructed over the past 20 years, with new buildings still being constructed. All of these have fire suppression systems in them and are fully alarmed.

The Promenade has a 24-screen theater, which is the largest money grossing theater in the region, as well as several shops, restaurants, and entertainment venues. The Promenade is undergoing a major remodel, with new buildings being constructed while older ones are demolished. There are other smaller retail strip centers on some of the major intersections in the district, and these mainly consist of one-story retail shops. District four has 247 businesses listed in the fire inspection database.

Across the street from the Promenade lies a 14-story Westin hotel that was built in 1999. This hotel helps to anchor the immediate area. This building is a fully protected high rise, and its

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occupancy rate is typically in the high 90th percent range. This is the highest building in the city. The Promenade and the Westin are immediately adjacent to US Highway 36 at the intersection with 104th Avenue/Church Ranch Boulevard, and are almost exactly halfway between downtown Denver and Boulder. In this area, US 36 divides the response zones of stations four and five. On the west side of the highway (district five) are several additional hotels and another large shopping center, which will be detailed later (district five). North of the Promenade is a new, large apartment complex, and to the north of that are two, five-story office buildings. All of these buildings are protected by suppression and alarm systems. The Promenade area, the shopping area in district five across the highway, this portion of the highway itself, and all the hotels form evaluation zone nine. This area is at the edge of response areas for districts four and five and was previously identified as a possible gap area.

Front Range Community College, Westminster Campus (FRCC), is just east of fire station four. This two-year institution has an enrollment of over 10,000 students, and is part of the larger system of FRCC campuses. Many of the students are part-time, and a large percent enroll immediately after high school. The campus has recently undergone major upgrades, and some of these included improvements to the fire alarm system. The entire campus is protected by fire suppression and alarm systems. The City of Westminster partnered with FRCC and built College Hill Library at the west end of the college building. This library is part of the city's system and serves as the main library, and is available for FRCC students, connecting directly to the college. District four also serves several elementary schools and a secondary school.

North of the college is a large area of land that the city has designated as open space. Big Dry Creek runs through this area. Access is limited, particularly for large apparatus, but brush trucks and medic units can access on several sides. Periodically, weed fires will occur in this area, but no damage outside of the weeds has taken place in over 20 years.

A large, city-owned golf course runs through parts of the district. This course swings from 104th Avenue to approximately 110th Avenue, and from almost Sheridan Boulevard to the east side of Federal Boulevard. The course is popular and quite busy during the season, and winds through a subdivision of homes, with views of the front range of the Rocky Mountains.

District four has several major thoroughfares that run through it, with many providing boundaries for the district. These include 104th, 112th, and 120th Avenues as well as Federal,

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Sheridan, and Westminster Boulevards. As noted, US Highway 36 creates the western border of the district. Station four responds to parts of US 36 on a second-due basis depending on the location and direction. There are several collector streets located within the various residential areas that allow for good access into these neighborhoods. The rail line mentioned earlier also runs through a very small portion of district four at the extreme western border, where the railroad crosses under US 36 and across 112th Avenue. In 1985, this was the location of a head on train crash that killed four rail employees in the opposing trains. The resulting fire caused damage to the US 36 highway overpass, requiring it to be rebuilt.

District four is entirely served by Westminster water, and there are hydrants throughout the district. All developments have well-spaced hydrants, and recently the city provided some additional fire hydrants on 104th Avenue during a water line replacement to supplement the water availability for firefighting.

District four has been designated as fire management zone four. This district is very similar to the others in the type of occupancies, the amount of development, and the current development taking place. District four has historically been the fourth busiest district for call volume, but recently has moved to the third busiest. As development and traffic increase, these trends will be monitored and analyzed. Station four houses an engine, medic unit, and a reserve medic unit.

This zone predominately has a middle-to-upper-middle class income demographic, with most residents being homeowners. There are several rental properties within the district, and many of them market to higher income earners. There are some lower income earners in the district, but these are limited. Several of the homes in the district are on the golf course, and a large part of the Legacy Ridge subdivision is built around the golf course. One area of this subdivision is a gated community with high value custom homes.

Westminster Fire Department Standards of Cover

Total Population	25,070
Median Age	40.3
Female	50.6%
Male	49.4%
Median Household Income	102,141
Per Capita Income	49,009
Households Below Poverty	1.8%
Total Households	9,709
Average Household Size	2.58
Total Housing Units	9,883
Owner Occupied	77.1%
Renter Occupied	21.2%
Vacant	1.8%
White	83.1%
Black	1.4%
American Indian	0.5%
Asian	8.8%
Pacific Islander	0.1%
Other Race	2.8%
Two or More Races	3.3%
Hispanic	12.4%

Chart 26 – District 4 Demographics

As with the other areas, the main fire risk in this district historically has been residential in nature. Almost all the building fires in this district have been residential. No serious injuries or fatalities from accidental fires have been reported in this district in over 25 years. One fatal residential fire in 2018 was the result of a suicide. There has been one minor fire in a commercial property in this district in the preceding 25 years. There have been some small fires in the Westin hotel, but these were minor in nature and resulted in very minimal consequences. The higher life hazard risk in this district would be from a fire at one of the senior or assisted living facilities, due to the age and physical condition of many of the residents of these centers. These facilities have full fire protection features, but the residents are at a higher level of risk due to age, medical

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conditions, and physical limitations. Although fully protected, there are risks from the Westin hotel, as well as the theater, due to unfamiliarity of the occupants as well as the possibility of panic during an incident. Another area of risk from a potential hazardous materials incident is the ice arena next to the Westin, due to the large amount of ammonia stored and used on site (256 tons). These five facilities are the higher risks in the district for multiple casualties, and were scored as the highest hazards in district four.

District four does not have any industrial facilities or other storage or use of hazardous materials, and the only other identified higher risk for injury and death is from transportation. With the high volume of traffic, and major corridors in the district, there have been many accidents of a severe nature, resulting in casualties.

Time reporting for all priority calls for district four from 2014 through 2017 is noted below. Call numbers only for district four structure fires, non-structure fires, EMS calls, technical rescue and hazardous materials incidents (priority responses only) are included. Full information for all incident types including breakdowns by risk can be found in the appendix.

<u>Category</u>	<u># Incidents</u>	<u>Time Interval (minutes: seconds)</u>
All D4 Priority Incidents	4,760	N/A
Alarm Handling	4,667	1:17
Turnout	4,668	1:40
Travel (1 st unit)	4,676	5:51
Travel (ERF)	4,255	7:28
Total Response (1 st unit)	4,703	7:51
Total Response (ERF)	4,356	8:47

Figure 10 – District 4 Time
and Incident Intervals

Structure Fires	23	N/A
Priority Non-Structure Fires	59	N/A

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Priority EMS	3,856	N/A
Technical Rescue	5	N/A
Hazardous Materials	63	N/A

District four has the third highest call volume in the city, and it is on a steady increase. EMS is the largest percentage of calls. Most of the calls are generated in the late afternoon and evening, with some activity jumps in the mid-morning. The days of the week are generally even in call distribution, with Thursday and Saturday having a higher volume. December is the most active month, and this may be due to the shopping areas within district four. The non-priority high volume incident times and days may be indicative of the “lift assist” calls to the older adult facilities that units from station four respond to.

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Westminster Fire Department

Count by Incident Type: Station 4

	2014	2015	2016	2017	Grand Total
Rescue and EMS	1,033	1,072	1,093	1,200	4,398
Cancelled- Good Intent	154	183	177	196	710
Service Call	151	106	142	173	572
False Alarm or False Call	128	130	152	117	527
Hazardous Condition- No Fire	38	30	40	36	144
Fire	27	24	17	18	86
Special Incident Type	4	1	3	1	9
911 Citizen Complaint	4	1	2		7
Overpressure, Rupture, Explosion, Overheat- No Fire	2			1	3
Severe Weather and Natural Disaster		1			1
Grand Total	1,541	1,548	1,626	1,742	6,457

Percent Change Year Over Year: Station 4

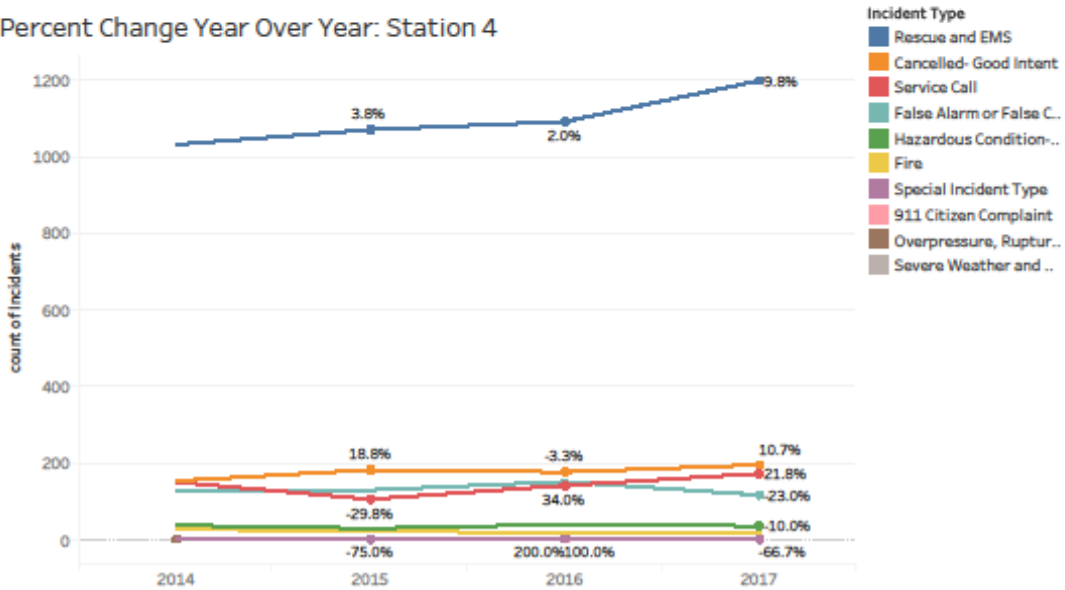
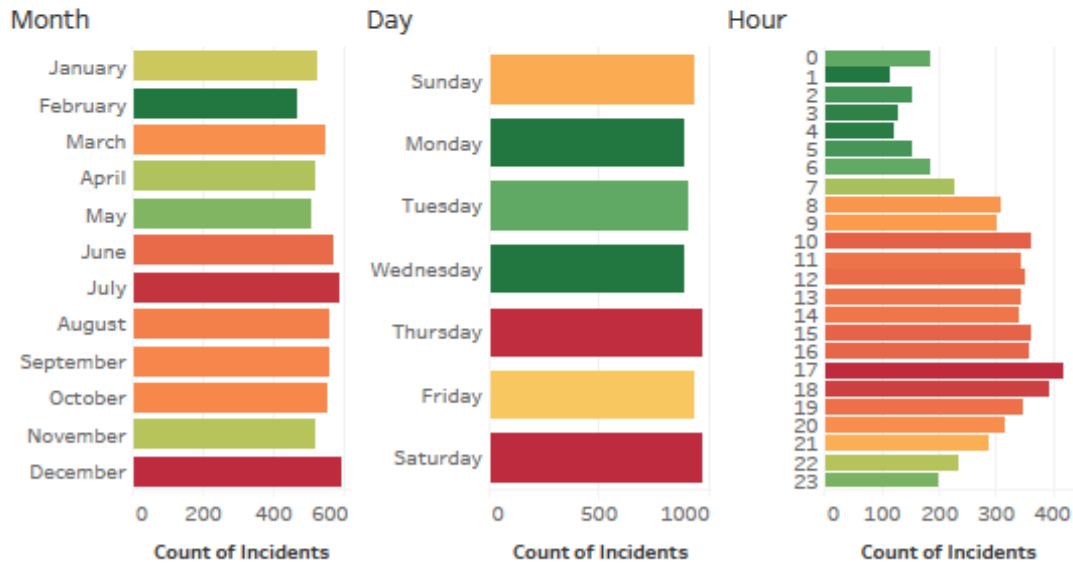


Chart 27 – District 4 Count by Incident Type with Percent Change

Westminster Fire Department Standards of Cover

2014-2017 Station 4 Incidents by Day and Time of Day; Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	41	21	18	20	20	21	39	180
1	21	18	16	11	21	7	17	111
2	34	12	19	13	18	23	30	149
3	25	19	16	15	18	16	17	126
4	23	15	18	13	23	14	14	120
5	30	18	24	24	18	13	24	151
6	15	28	31	20	29	29	29	181
7	29	36	26	34	38	30	32	225
8	37	52	44	44	50	39	39	305
9	50	49	43	35	34	46	43	300
10	48	52	58	62	48	45	46	359
11	49	45	55	59	46	40	47	341
12	42	44	43	58	53	47	61	348
13	48	43	47	44	70	49	39	340
14	43	37	44	51	66	51	46	338
15	52	53	37	55	53	56	50	356
16	44	51	50	56	47	56	50	354
17	48	53	74	42	82	69	44	412
18	67	49	56	48	49	58	64	391
19	44	51	51	43	52	48	54	343
20	47	42	44	30	43	51	56	313
21	39	45	39	44	34	42	41	284
22	28	28	25	39	29	37	47	233
23	27	24	25	25	22	39	35	197
Grand T..	931	885	903	885	963	926	964	6457



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.

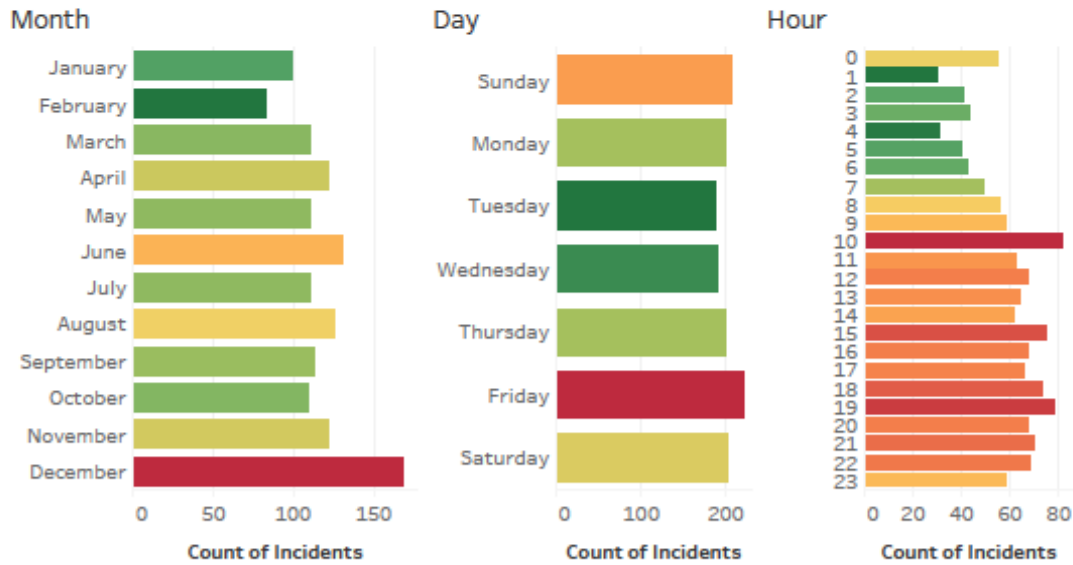


Chart 28 – District 4 Cumulative Priority Incidents by Day, Month, and Hour

Westminster Fire Department Standards of Cover

2014-2017 Station 4 Non-Priority Incidents by Day and Time of Day;
Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	7	6	7	5	8	7	15	55
1	8	3	2	3	7	4	3	30
2	13	4	7	1	7	7	8	41
3	15	7	4	5	5	6	1	43
4	6	6	4	1	7	2	5	31
5	8	3	6	6	6	5	6	40
6	4	6	9	7	9	3	4	42
7	10	11	3	3	9	8	5	49
8	8	7	11	12	7	6	5	56
9	7	8	7	8	5	12	11	58
10	10	8	12	16	9	15	11	81
11	9	10	9	11	9	7	8	63
12	10	9	7	11	12	8	10	67
13	6	12	12	6	11	7	10	64
14	5	4	11	7	12	10	12	61
15	10	15	7	10	10	16	7	75
16	9	9	7	10	7	14	11	67
17	6	6	9	7	11	17	10	66
18	12	12	7	5	9	16	12	73
19	9	13	14	8	13	8	13	78
20	9	12	9	4	11	11	11	67
21	9	14	11	17	7	8	4	70
22	9	9	6	18	7	7	12	68
23	8	5	6	9	7	15	8	58
Grand T..	207	199	187	190	199	219	202	1403



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.



Chart 29 – District 4 Cumulative Non-Priority Incidents by Day, Month, and Hour

Westminster Fire Department Standards of Cover

Fire station four was built in 1980 to provide protection to the rapidly growing north area of the city. The station was built to house a paid crew. The location was picked to provide adequate coverage in all directions, even though the city limits were much further to the northeast. This was done as a long-range plan was in place to later build an additional station in that far northeast area (station 6, opened in 1988). At the time station four was built, station two was staffed with volunteers, and station one was the only career staffed station. When station four opened, a career crew staffed an engine company and a paramedic rescue unit.

The building was designed and built in a tri-level style. The apparatus bay is on the main entry level, as are two guest bathrooms and an office in the day room area, but the remainder of the station is either a flight up or down from this level. The downstairs houses the living quarters for the crew, including a day room, kitchen, dining area, laundry, bunkrooms and bath/shower rooms. The upstairs contains a training/meeting room and three offices. One of these is for the officer on duty and serves as the office and bunkroom. The other two have been remodeled to accommodate the two administrative EMS lieutenants. The apparatus bay has four stalls, only one of which is deep enough for a heavy apparatus. The other three can house a staff vehicle or ambulance. There is limited room between and on the ends of the bays, as well as limited access behind the apparatus. Two alcove areas/rooms were included in the rear bay area, including a room for an air compressor/bottle charging station and oxygen storage, and the other for a shop and storage. A hose tower was constructed at the back of the bay. In the far eastern bay, behind the engine, are some weights and fitness equipment, as well as the extractor washer and dryer. A loft in the bay area was converted in 1997 into a storage room. The former storage room at the back of the shop was remodeled and serves the department as the SCBA equipment storage, testing and repair room. The upstairs training room has a second entry/exit directly outside, at the top of a long set of stairs.

The station has undergone several remodels, including 1995 when the entire living quarters was redone, resulting in the downstairs area being converted from a large bunk room into five individual bunkrooms, bath/shower facilities for men and a separate one for women, and a new kitchen and dayroom. A fire sprinkler system was also installed in the living quarters at that time.

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The apparatus bay houses the engine at the far eastern end, the medic unit next to that, and the reserve medic unit in the bay to the west. The furthest west bay is used for storage of equipment. There are two doors leading into the bay area from the living quarters. One is near the front station entrance, in the main foyer, and the other is next to an office at the top of the stairs from the dayroom. Both of these doors are near the west end of the bay, furthest away from the primary response apparatus positions in the station. This contributes slightly to turnout times being longer, but the greater effect on turnout times is the layout itself. Unless crewmembers are in the bay area, every call that is aired requires an ascent or descent of a flight of stairs. During night hours, when crewmembers have been sleeping, this not only adds to turnout times, but it is a safety factor in navigating stairs while waking. The bay size, being shallow and narrow between apparatus, also contributes to navigating the station and is a contributor to turnout time increases, as well as potential safety issues. The office on the main floor houses the base station radio.

As with the other stations, there is a countup clock and a screen to display alarm details on the wall between the medic unit and engine. None of the bays at fire station four have drive-through capability. This is the only station where the heavy apparatus has to back in to quarters.

Station four is situated on 112th Avenue and faces to the north, which causes some issues in the winter with limited sun exposure for snowmelt on the apron. The parking lot for the fire station is on the west side, with an entrance off 112th. Parking is generally adequate for the crew, visitors, and participants in classroom events, as well as others. This lot is also used by some commuters who then catch the bus on 112th Avenue.

112th Avenue at this point is a four-lane roadway, which is relatively busy, particularly during rush hours. There are traffic lights at the intersection about a half-block west of the station, as well as several hundred feet to the east at another intersection. The light at the intersection just west of the station has a receiver for a signal emitter that can be activated from within the bay upon receipt of a call. This will cause the signal to change to green for the fire apparatus in that direction of travel. The signal at the intersection to the east is further away and up a hill and is not activated by the station emitter, but responds to the traffic preemption signal from the apparatus. The units have to routinely deal with traffic when leaving the station on alarms.

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A creek runs behind the station and has overflowed during heavy rains and flash flood events, and has caused damage to the facility in the past. Behind this creek, and situated on the side street west of the station is an elementary school. During morning and afternoon hours, additional traffic is in the immediate vicinity during the school year. A city park is located on the east and south sides of the fire station. Station four lies at the bottom of a hill that rises toward the east. The hill has a gentle grade for several blocks, but it has contributed to slower response of apparatus in the past. The grade to the west is also uphill but not as steep or long.

For many years discussion has taken place about replacing fire station four, or moving it to a better location nearby. Although no action has taken place, preliminary ideas are being presented for alternatives for the rebuilding of the station to make it more effective and efficient. If this were to occur, it would be several years away. Any change would include the study of other facilities and capabilities.

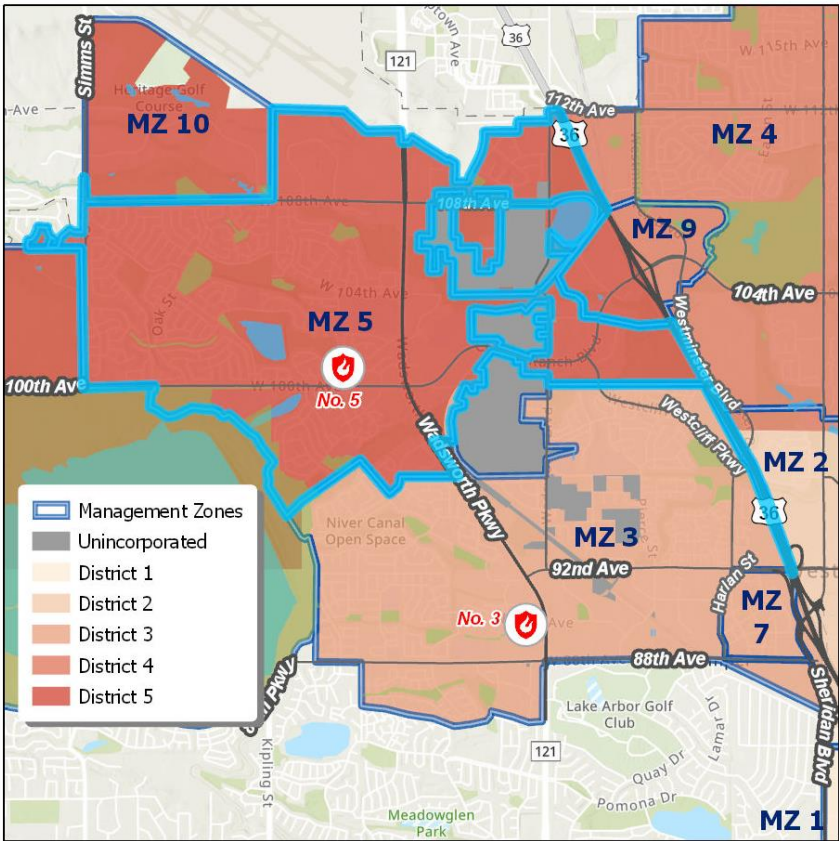
Engine four provides second due response to all of district six, and parts of districts two and five. Medic four provides second due response to all of district six and parts of district two, as well as some primary medic unit response to part of district five.

Station four is located at the center of its response district, with reasonably good access to main roads for reaching the various areas within its response district. Because station four is partly between two north-south major roadways and not adjacent to a major intersection, there are some responses that require “backtracking” during the response. Although this occurs occasionally, if station four was moved to eliminate this, it may cause significant gaps in response to other areas of the district. The location is central enough to provide for adequate travel times to most locations in the district.

Station four is in adequate condition due to quality maintenance and can continue to provide service and house personnel and vehicles for the near future. However, there are several challenges with the station and its location.

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Fire Station Five/District Five



Map 24 – District 5/Management Zone 5

Fire station five, at 10100 Garland Street, is located in the northwest portion of the city. This district has historically been mostly residential, but has seen increased commercial development since the late 1990’s. It is still largely residential, with most of the housing stock

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built since the 1970's. There are still a few areas with new residential construction occurring, including some sporadic properties in the unincorporated enclave in the eastern part of the district.

The district has some multi-family residential apartments and other properties. Of these, only one complex is not protected with a fire sprinkler system. The general demographic of this district is middle-income earners. There are areas where the incomes are much less, and large homes that are upper income level. Some of the housing is located in areas with narrower streets due to codes from the early 1970's, but most of the area is open and very accessible.

Total Population	15,070
Median Age	37.3
Female	49.9%
Male	50.1%
Median Household Income	85,552
Per Capita Income	38,272
Households Below Poverty	3.9%
Total Households	5,669
Average Household Size	2.64
Total Housing Units	5,734
Owner Occupied	76.3%
Renter Occupied	22.5%
Vacant	1.1%
White	87.4%
Black	1.3%
American Indian	0.9%
Asian	3.6%
Pacific Islander	0.1%
Other Race	3.1%
Two or More Races	3.6%
Hispanic	12.7%

Chart 30 – District 5 Demographics

Westminster Fire Department Standards of Cover

There are two assisted living centers in the district, located a few blocks from each other. One of these is a memory center and the other caters to older adults in a residential setting. These centers, particularly the memory care center, contribute significantly to the call volume for the area due to their clientele.

There are two main retail areas within the district. One consists of shops and offices on each of the corners of a major intersection, and the other is a retail district with major shopping, hotels, and restaurants. This particular center, The Shops at Walnut Creek, is on the west side of US 36 Highway across from the Promenade, which is in district four. The center has several buildings housing retail stores, restaurants, and specialty shops. There is access to the Promenade on both Church Ranch Boulevard/104th Avenue, and via an underpass for US 36. A Regional Transportation District park-and-ride is located here, with bus access next to the highway. Parking for the bus service is generally at the east end of the shopping center. Across the street to the south lie additional retail shops and restaurants, as well as four large hotels ranging from five-six stories in height. Another hotel is located about two blocks west of these hotels. All of The Shops at Walnut Creek, and the immediate adjoining area noted, are part of zone nine.

Other stores and shops in district five are individually located in the area along certain main streets or at intersections. Two small distilleries and a small brewery are located within district five. The fire inspection database lists 347 businesses in this district.

Commercial development includes several large office parks. These are modern buildings and are fully protected by alarm and suppression systems. These office parks are located in the eastern portion of the district and at the far northwestern portion of the district. That particular office park area has been designated as evaluation zone ten. This is due to its remoteness and slightly extended travel time. Zone ten contains this entire office park, the adjoining golf course, and a recreation center.

Construction is still on going with new commercial and some light industrial buildings being completed. One international business occupies several buildings in the area and is building more. This business conducts some research and development, and has a laboratory with hundreds of chemicals, all in small quantities. This business has many interests, one of which provides services that require availability to an airport.

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Rocky Mountain Metropolitan Airport (RMMA) is located outside of the city, but abuts to the north border of the city and along a large portion of district five's northern border and all along the north border of zone ten. This airport serves as a regional facility with general aviation, but has a large amount of business aircraft, flight schools, and charter service, which includes some commercial aircraft. This airport is the first alternate for commercial flights from Denver International Airport (DIA) that require an emergency airfield and cannot travel back to DIA. The airport is primarily protected by maintenance crews that staff their ARFF equipment, and is covered by North Metro Fire Rescue (NMFR), who has a station on the airport property. NMFR has an ARFF unit in their station, but it is not staffed and unavailable if the crew is not in the station. This ARFF unit has the ability to leave the airport property for mutual or automatic aid or other requests. The airport is listed as Class A for ARFF fire and rescue. The primary approach and departure zone to the southeast of the airport is directly over the northern portion of district five, and also includes the southwestern part of district four. Several homes and The Shops at Walnut Creek are built in this approach/departure zone. There have been several minor incidents, including aircraft crashes, in and around the airport. One of these resulted in an emergency landing in a field located in district two, and another consisted of a crash at an airshow in 1999 where the plane crashed inside the airshow safety zone, located within district five, just south of the airport, causing some damage to an office building and killing the pilot.

District five has a large high school, a junior high (middle school), and two elementary schools within its area. There are also private schools and charter academies within some of the office/retail space in the district. Another elementary school is located in the enclave within the eastern portion of the area, and station five provides automatic aid for part of this area.

District five is bordered on the east by US 36, and provides coverage to all of the eastbound lanes from the northern city limits to Sheridan Boulevard, as well as westbound from Church Ranch Boulevard to the northern city limits. Other major roadways within the district include Wadsworth Parkway, 100th Avenue, Church Ranch Boulevard, 108th Avenue, Simms Street, and Wadsworth Boulevard. There are several other smaller streets within the commercial areas, and collector streets in the residential areas. Many of these streets and highways are higher speeds, and serious crashes including fatal incidents occur periodically.

Westminster Fire Department Standards of Cover

The BNSF rail line enters district five on the south where it parallels Wadsworth Parkway. The rail line continues northeast through the district, crossing Church Ranch via an overpass and then crossing Wadsworth Boulevard on another overpass. The tracks then go on the north side of The Shops at Walnut Creek before entering district four and then leaving the northern city limits. There have been two train-pedestrian accidents on the tracks in district five in the past several years. No other significant incidents have taken place.

Standley Lake is located at the southwestern end of the district. As previously noted, this area is zone eight. The main entrance to the recreation area is within district five, on the north side of the lake. Primary response to emergencies is provided by station five, with station three available to assist on the south end if necessary and provide second due coverage to the entire lake. The location of the dive team truck and equipment at station three provides for rapid deployment if required. The ranger station and boat dock are located on the north side. The spillway and open space below the dam are accessible from several points on the north and east side of the lake, all within district five.

Woman Creek Reservoir is located at the extreme western end of the city, west of Standley Lake. This reservoir was built to hold water that serves as part of the supply for Standley Lake, but passes through the former Rocky Flats Nuclear Weapons Plant to the west, prior to entering the reservoir. The water can be contained in Woman Creek Reservoir and tested if necessary prior to being released into the raw drinking water storage at Standley Lake. Woman Creek Reservoir is not publicly accessible and is controlled by the utilities (water) division. Woman Creek Reservoir and the land between it and Standley Lake, including Stony Creek Executive Golf Course and the city's open space division facility are part of zone eight.

There are some other smaller lakes in District Five, including Kettner Reservoir, Loon Lake and Mower Reservoir. Kettner and Loon are open to public access, with Kettner lying within a park and open space area, and Loon lake adjacent to an open space area. Paths are in place around Kettner, and Loon Lake has fishing available. There have been ice rescues of people from both of these water areas in the past. Another large but shallow lake is within an enclave of district five (Lower Church Lake). During times of large snowmelt or wet seasons, there is a large amount of water in this lake. During drought conditions, the lake area may be

Westminster Fire Department Standards of Cover

completely dry. Mower Reservoir is located within the open space headquarters (Brauch) property, located within zone eight. This can be accessed by city crews via the Brauch property.

Big Dry Creek runs through the southern edge of district five, from the outlet of Standley Lake toward the east and northeast, on through districts four and six. Runoff in this creek can be significant at times, creating potential swiftwater and flooding issues. Big Dry Creek runs through open space property and has a trail next to it throughout the city.

All of district five is protected by city water, and the area is sufficiently covered with fire hydrants of adequate flow, pressure, and placement. Hydrants do not cover Standley Lake and the areas to the west, however structures are very limited in this zone. There is one small commercial structure in this area for the golf course, two buildings and a shed used by the city's open space division, and the ranger station/nature center at Standley Lake.

One of the city's water treatment plants is located within district five. This plant can handle water services for the entire city if necessary, but generally it supplements the primary plant with water treatment. This facility is not normally staffed, and is run remotely from the main plant. With its location in the district, along with some associated water tanks and other storage at the highest points in the district, there is sufficient pressure to provide required fire flows.

Areas just outside the city limits on the western border lie within a "no man's land" and have no fire protection from any agency. Periodically, station five will respond to auto crashes and medical incidents when requested by the county sheriff for that area, as other area departments refuse to respond. Although no structure fires have taken place in these areas, crews have responded to weed and vehicle fires in the past. There is a lack of fire hydrants in these areas since they are out of the city.

There are two golf courses within district five, one a championship caliber course owned by the city, and the second an executive course that is privately owned. The city owned championship course weaves in and through one of the office parks, located next to the RMMA. This course is located within zone ten. The executive course is located on the western edge of the city and is within zone eight.

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Fire district five has been designated fire management zone five. This district has the lowest number of calls for service of the six response districts in the city, and engine five has the lowest volume of responses of the engines and trucks in the city.

Most of the commercial properties are retail and office park, but there is also some light manufacturing as well as research and development that takes place. These facilities increase the fire risk, however this is mitigated due to the fire protection systems that are in place, as well as their locations within office parks and generally away from the public and housing. One of the research facilities has a wide array of manufacturing and includes government contracts.

District five also has a multi-building campus that provides residential counseling services to minors, many of whom have been placed there under a court order. Due to the varied behavioral issues that these clients deal with, many calls for service are generated on and around this facility on a regular basis. Most of these are medically related, but on rare occasions small fire incidents have occurred. These buildings are institutional facilities and are of older construction, but they have fire protection features such as alarms and sprinklers. The staff also keeps possible incendiary devices away from the clients at the center, and maintain the buildings effectively.

As with the other districts, the largest life threats in district five are in the three institutional occupancies, due to the restricted movements of the clientele. Although the facilities have fire protection systems, the potential for casualties exists in these centers. The highest threat from fire in this district is, and has historically been, from fires in single-family dwellings. In the past twenty years, there have been two fire deaths in this district, neither being accidental. The research and development facilities, as well as the other light manufacturing, have some risk but the fire and life safety risks are limited by the protection features of those buildings, as well as the planning and familiarity of the staff at those businesses. The largest scored risk is at Deveraux Cleo Wallace Center, which is institutional with lock down facilities. One of the manufacturing buildings is the second highest scored risk.

Other risks in this district include transportation incidents, specifically automobile incidents on the main roadways and the freeway. Fatal and other serious accidents occur at least a few times a year in this zone. The BNSF train tracks also go through roughly the center of this district. These trains carry varying types of hazardous materials, and the potential for a rail

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incident is present. However, due to speed restrictions and the lack of at-grade crossings within this district, the probability for a rail incident occurring is very low.

Another potential transportation hazard for zone five is the proximity of the RMMA. A large portion of the eastern and northeast corner of district five is within the approach and takeoff paths for the airport. Most of the remainder of the district is within the airspace of the airport, and general aviation traffic above this area is moderate in volume, particularly on weekends when student-pilots are practicing. The average daily activity for RMMA in 2016 was 391/day. Aircraft and airport safety contribute to the mitigation of incidents of this nature, although several incidents have taken place in the past twenty years within the city, particularly zone five, mostly resulting in minor damage to aircraft. With the large numbers of homes and neighborhoods in these flight paths, the consequence of an aircraft event can range from moderate to high, however the probability is low.

Although it is its own zone, Standley Lake Regional Park is within district five and also adds to the hazard potential in the district. This is a popular regional recreational facility that is very active in the summer months. Several times each year, calls for service take place at Standley Lake. The vast majority of these calls have been medical in nature, and at times are recreation- or boating-related. Fire calls have generally included small trash or weed fires. Standley Lake also houses flooding potential, although past experience has demonstrated that even with a “100 year” storm event, the dam and facility are able to handle additional water without any problems. The spillway from Standley Lake leads into Big Dry Creek, which runs through district five from the dam toward the eastern border of district five. Flooding could impact the creek, depending on the amount of rainfall, the release rate of the dam, and the location along the creek. Several storm water drains feed into Big Dry Creek along its path. Although this creek has gone out of its banks during heavy rain flood events, flooding of adjoining areas has not taken place.

Standley Lake dam was upgraded and reinforced in the early 2000’s, including incorporating a new spillway and release chute in the dam area. This provides for security from a breach of the dam itself. Further downstream to the east, the railroad tracks cross over Big Dry Creek and a recreational trail path, just on the east side of Wadsworth Parkway. The train tracks are elevated at this location, and it is recognized that a significant flooding event could cause

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water to back up against this earthen area, potentially causing a failure of the raised railway “earthen dam” and a large wall of water could be released downstream. The possibility of this is lessened by the ability to control the release from Standley Lake, as well as the large walkway beneath the rail track area where both the creek and recreational trail pass, and which allows for a large volume of water to pass through.

Time reporting for all priority calls for district five from 2014 through 2017 is noted below. Call numbers only for district five structure fires, non-structure fires, EMS calls, technical rescue and hazardous materials incidents (only all priority responses) are included. Full information for all incident types including breakdowns by risk can be found in the appendix.

<u>Category</u>	<u># Incidents</u>	<u>Time Interval (minutes: seconds)</u>
All D5 Priority Incidents	3,177	N/A
Alarm Handling	3,106	1:22
Turnout	3,117	1:34
Travel (1 st unit)	3,123	6:11
Travel (ERF)	2,842	8:52
Total Response (1 st unit)	3,135	8:09
Total Response (ERF)	2,917	10:12

Figure 11 – District 5 Time
and Incident Intervals

Structure Fires	17	N/A
Priority Non-Structure Fires	15	N/A
Priority EMS	2,469	N/A
Technical Rescue	13	N/A
Hazardous Materials	53	N/A

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District five has the lowest call volume in the city. The majority of the calls are EMS related. There was a dip in call volume in 2016 but it rose again the following year. The busiest times for calls are from mid-morning to late afternoon. The days and months slightly vary but it is unknown why this is. There is a great deal of shopping areas in the district, so this may contribute. There are also the older adult centers, so these might add to the non-priority calls having a higher volume at certain times of the day.

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Count by Incident Type: Station 5

	2014	2015	2016	2017	Grand Total
Rescue and EMS	673	654	619	755	2,701
Cancelled- Good Intent	106	117	109	108	440
False Alarm or False Call	98	74	72	90	334
Service Call	68	84	77	70	299
Hazardous Condition- No Fire	21	15	22	26	84
Fire	15	14	21	12	62
911 Citizen Complaint	1			1	2
Overpressure, Rupture, Explosion, Overheat- No Fire	1	1			2
Special Incident Type	1				1
Grand Total	984	959	920	1,062	3,925

Percent Change Year Over Year: Station 5

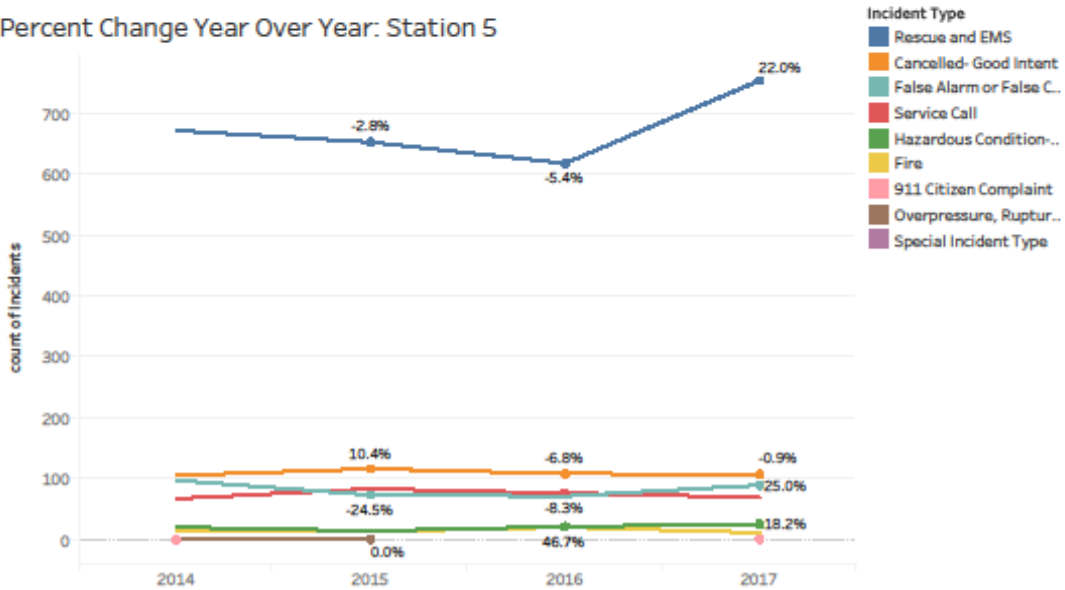
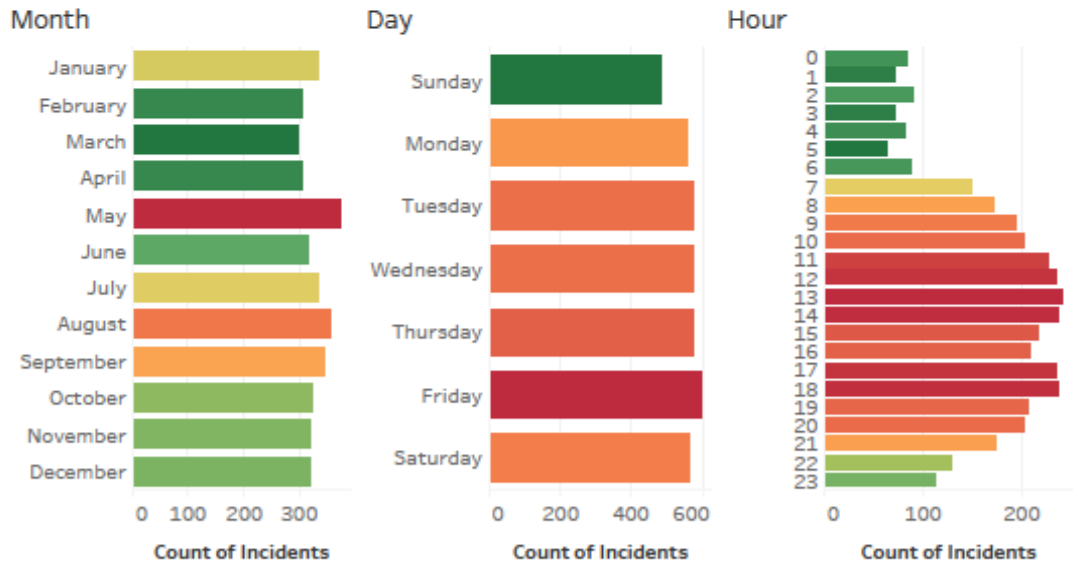


Chart 31 – District 5 Count by Incident Type with Percent Change

Westminster Fire Department Standards of Cover

2014-2017 Station 5 Incidents by Day and Time of Day; Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	12	11	16	14	7	11	14	85
1	8	12	8	9	16	8	10	71
2	19	5	12	11	11	14	18	90
3	17	10	4	8	5	17	10	71
4	10	13	11	12	11	10	15	82
5	12	5	7	11	15	8	5	63
6	14	15	16	7	13	8	15	88
7	14	28	25	28	19	18	16	148
8	24	26	32	26	28	24	12	172
9	23	32	31	30	30	23	25	194
10	27	30	26	35	25	26	34	203
11	22	38	37	40	27	32	31	227
12	30	29	34	32	37	31	41	234
13	24	36	33	35	39	36	37	240
14	24	38	27	41	36	43	29	238
15	26	36	27	31	35	39	21	215
16	24	27	39	16	39	37	27	209
17	20	36	30	44	31	37	36	234
18	24	25	54	37	30	36	31	237
19	26	28	28	25	35	35	29	206
20	24	33	27	32	29	30	28	203
21	27	19	19	13	26	37	32	173
22	18	11	13	21	18	22	26	129
23	15	13	16	14	16	15	24	113
Grand T..	484	556	572	572	578	597	566	3925



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.

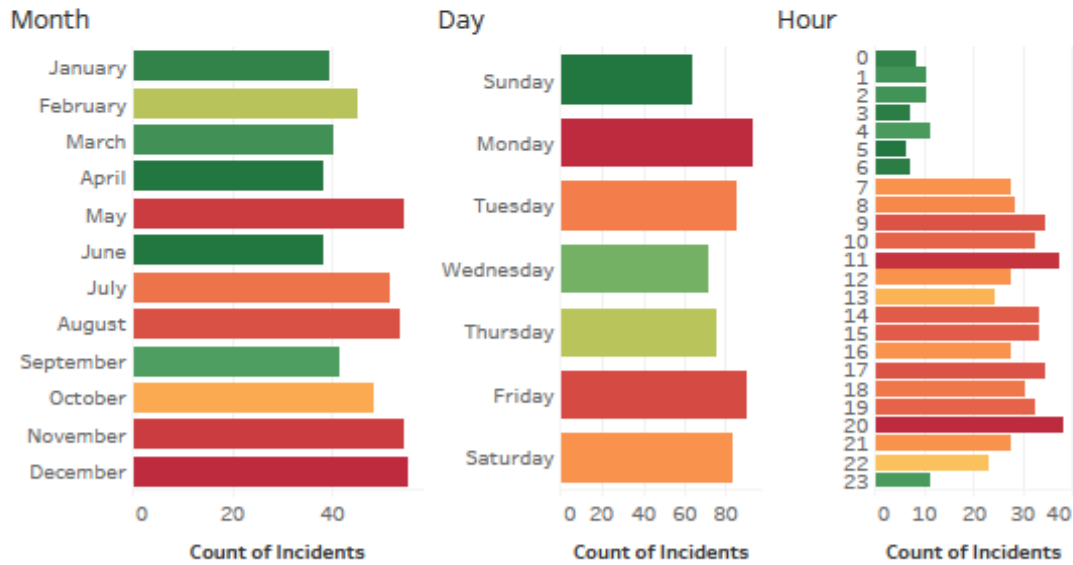


Chart 32 – District 5 Cumulative Priority Incidents by Day, Month, and Hour

Westminster Fire Department Standards of Cover

2014-2017 Station 5 Non-Priority Incidents by Day and Time of Day; Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	1	2	4	1				8
1	1	3			3	1	2	10
2	1	2	2			1	4	10
3	2	2	1	1		1		7
4		3	3		1	2	2	11
5	3	1			2			6
6	1		1		1	1	3	7
7	4	5	3	5	3	3	4	27
8	3	5	3	5	5	4	3	28
9	5	3	5	3	6	6	6	34
10	6	4	5	4	3	2	8	32
11	3	8	6	6	2	7	5	37
12	4	4	4	3	5	3	4	27
13	3	4	4	3	4	2	4	24
14	4	4	6	5	7	7		33
15	2	6	4	5	5	8	3	33
16	1	7	7	2	4	5	1	27
17	1	4	2	6	3	10	8	34
18	2	3	9	3	2	6	5	30
19	3	6	4	4	6	4	4	32
20	4	9	3	7	5	6	4	38
21	3	3	2	3	5	8	3	27
22	4	2	4	5	2	1	5	23
23	2	2	2		1	1	3	11
Grand T..	63	92	84	71	75	89	82	556



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.



Chart 33 – District 5 Cumulative Non-Priority Incidents by Day, Month, and Hour

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Fire station five was constructed in 1981 at its present site. This location serves the district well, as it provides for access to a major roadway, as well as neighborhood access within one or two blocks to several separate subdivisions. There is also a lesser-travelled route through a neighborhood that provides access to the high school, as well as 104th Avenue. This access allows for responses in the neighborhoods to the north of the station. The street that fronts the fire station is a two-lane collector, and traffic volumes do not generally affect responses. The only exception is during the early morning and mid-afternoon hours when school is in session. There are many more cars on the street driven by high school students or their parents at those times. The front of the station faces to the west, which allows for snow and ice melting in the winter months. The station was built with two apparatus bays and apparatus doors on the front and rear of the station, but only had a pad on the front of the station. In 2006, a concrete drive was constructed around the side and rear of the station to allow for heavy apparatus access to the east side, providing for drive-through bays. Although this drive is accessible for engines, it is not of sufficient size or curvature for aerial apparatus to use. Additionally, accessing the rear of the station via this drive is not possible for an aerial apparatus into the south bay, and would be difficult for the north bay. If a third bay to the north was in place, an apparatus may make the turn to gain access in the current, basic configuration. For over twenty-five years, fire station five has been the haz-mat station, with a truck from the Adams-Jeffco Hazardous Material Response Authority (AJHMRA) stationed there. The current assigned vehicle is parked outside the station in the rear, as it does not have any temperature sensitive equipment, and the bay space is limited.

Station five has a small, but adequate living quarters. There are three access doors to the station, two in front and one in the rear. Two of these are keypad access controlled. The main door leads into the office area, and the other front door leads into the apparatus bay. The rear door leads into the bay area. At the front of the station is the office and vestibule, with a door leading to the apparatus bay. The office houses the base station radio, storage cabinets, and desks. Originally, a small community/training room was located at the front, southwest corner of the station. This has since been remodeled into the officer's quarters, housing a bunk, lockers, and office. Between the officer quarters and the front office are bathrooms, including a men's room for staff and the public, and a women's room, which also contains shower facilities for female employees.

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The dayroom and kitchen are located through a doorway from the front office, in the center of the living quarters. The day room and dining area are both in one room, but there is enough room to accommodate both. A sliding glass door leads out to a small patio where a barbeque grill and picnic table are located. On the east side of the dayroom is another hallway that leads to the apparatus bay. Adjoining this hall is a utility room that houses a washer and dryer. A doorway from this hall leads to the bunkrooms and men's bathroom, located at the east end of the station. The bunkroom originally was one large area for all employees, and the crews used lockers to separate the bunk facilities into individual areas. In 1996, fire personnel remodeled this area into a hallway with a workstation and four individual bunkrooms. The workstation has a computer for crewmembers to use in order to access e-mail or complete reports. The men's bathroom is accessed through a door in this hall, and underwent a full remodel in 2017. Adequate facilities and showers are available for the crew at this station.

The bay area is about one-and-a-half deep and houses the front line engine in the south bay, closest to the living quarters, as well as a brush truck in the north bay. A shop is in the southeast corner of the bay with lockers for tool storage next to it. An extractor washer and dryer for turnout gear are located against the south wall in the central part of the bay. Water and drains are located next to this. Additional storage lockers for EMS and other supplies are located in the bay. Turnout gear lockers are located against the north wall of the bay, as well as storage for extra hose. A snowblower and other tools are located in the bay, out of the travel areas. The countup clock and message board are located near the bay doors on the west side. Work out equipment is housed in the rear of the north bay behind the reserve engine.

Station five is in excellent condition and is well maintained. Although it is relatively small, it is adequate for the crewmembers assigned. Generally, only three people are assigned to this station, and when staffing is sufficient, a fourth person is also assigned. The kitchen has undergone a major remodel, and the station interior has been kept up-to-date. The grounds around the station are open and well maintained. Two sheds are located next to the rear bay doors, just outside, to store materials as well as haz-mat training supplies. The haz-mat truck that is stationed here is parked outside the rear apparatus door where the reserve engine is parked. The haz-mat truck is plugged into a charger at this location. The truck is a heavy-duty pickup

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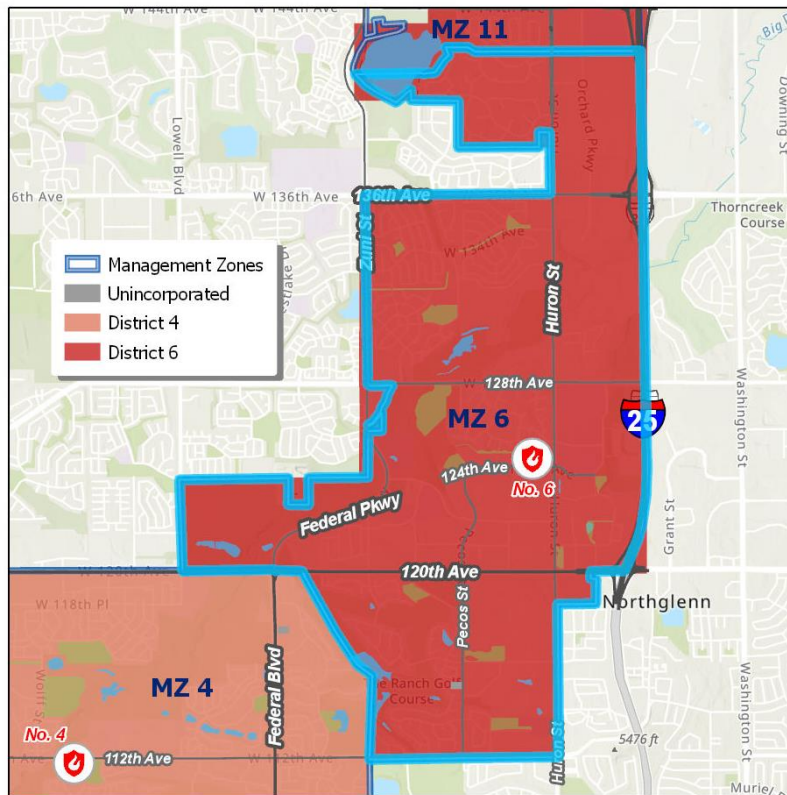
with a shell, and contains suits and other supplies. There is sufficient parking for staff and visitors at station five.

Significant additions and remodeling have been discussed in the past for station five but nothing has taken place. As the fire department is challenged with bay space for apparatus storage, a third bay addition on the north side of the station has been evaluated, but has not been formally requested. As part of this, several ideas for other additions and remodels have been proposed, including creating an enclosure out of the patio area for more living space, and extending the station further east to allow for additional shower and bunk facilities. There has not been a significant need demonstrated for any of this to take place at this time.

The station design allows for good turnout times, due to the proximity of all living quarters, and having two access areas from the living quarters into the bays. The location of the station also provides for easy access to major thoroughfares, and the station is located very central in its response district. However, there are three remote areas of this district where response times are somewhat extended due to distance. These areas have been broken out into their own fire management zones due to the challenges of meeting response time goals in these particular locations.

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Fire Station Six/District Six



Map 25 – District 6/Management Zone 6

Fire station six is located at 999 W. 124th Avenue in the far northeastern part of the city. The station was opened in 1988 to provide coverage to this northeast section. At the time the station opened, there were only a few subdivisions in the district, including a mobile home park. There were several businesses located in the immediate vicinity of station six. The call volume

was very low. A large communications headquarters and manufacturing facility was located in the district, with a large number of employees.

This district currently is mixed in the type of occupancies. Housing stock ranges from multi-family and mobile homes to large custom homes on large lots. A good deal of office and retail are located within the district. There are some research and development occupancies along with light industrial and hazardous materials handling and shipping. A large hospital lies at the north end of the district, and the area around the hospital is experiencing rapid growth.

The majority of the multi-family housing is located in the central area of the district and also at the far northern end. There are several areas of multi-family in the south end that are lower to middle income renters and reside in affordable housing. In addition, multiple hotels are located in that same vicinity, some of which rent rooms on a longer-term basis. This area is along 120th Avenue, which is bordered by commercial and retail properties. There are additional multi-family units at the southern border of district six, which are also generally lower-middle to middle income earners. A new multi-family project is being developed near these units that will target middle-income level residents. The multi-family complexes at the northern end are much newer, fully protected by sprinkler systems, and cater to middle-income earners. Only the newer units are protected by sprinkler systems, with the majority of the multi-family housing in the southern area of the district having no sprinkler protection.

The other housing ranges from large homes in several areas, to smaller single-family homes, to a mobile home park, and also includes several custom home subdivisions. The custom homes are located toward the northern end of the district, and range from being about thirty years old to brand new. All of the housing built since 2013 have residential fire sprinkler systems.

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Total Population	18,488
Median Age	35
Female	50.4%
Male	49.6%
Median Household Income	78,123
Per Capita Income	40,177
Households Below Poverty	8.4%
Total Households	7,115
Average Household Size	2.6
Total Housing Units	7,216
Owner Occupied	60.3%
Renter Occupied	38.3%
Vacant	1.4%
White	82.5%
Black	1.8%
American Indian	0.9%
Asian	5.3%
Pacific Islander	0.2%
Other Race	5.5%
Two or More Races	3.9%
Hispanic	16.3%

Chart 34 – District 6 Demographics

One nursing center is located in district six. This facility has added to the call volume in the district since it opened in 2016, particularly with medical service calls. A large, full service, four-story hospital with an emergency department is located near the northern end of the district, next to the freeway. Associated with this hospital are two medical office buildings. The location is beneficial for rapid transport of critical patients to a medical facility. The hospital is a level three trauma center.

Retail covers a great deal of area within this district. One of the major corridors, 120th Avenue, has a good deal of retail throughout the entire stretch of the district. Shopping, restaurants, and entertainment venues are all available on this corridor. There are general office, office buildings, and a private school as well as some houses located along this corridor.

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Additional retail is located in the northern section of the district. A very large outdoor shopping center lies between Interstate highway 25 and Huron Street, and is the top retail center for sales tax collections in the city. This complex, the Orchards, has a mix of stores, entertainment, restaurants, high end shopping, and also hosts several events throughout the year. The main part of this center was built in the mid-2000's, and additional pad sites are still undergoing development. All of the businesses in this area are fully protected with fire alarm and fire sprinkler systems. During the summer, a concert series takes place on one of the interior streets. The street is closed, a temporary stage is erected, and concertgoers can bring chairs to sit in the street and enjoy the show. There is a carnival that takes place every June, and the Orchards hosts a safety event every spring. The fire department is a part of all of these events, from reviewing and approving the venues and street closures to taking part in the safety events.

South of the Orchards, across 144th Avenue, more retail has been recently built. A good deal of this lies just to the west of the hospital, which is located at the southwest corner of I-25 and 144th Avenue. A new hotel and retail have been built around the hospital.

At the next major street south, 136th Avenue, more retail has been built on both sides of the street next to I-25. These stores include big-box retail, a variety of stores, and some stand-alone pad sites. Another hotel is undergoing review for this area. There are 586 businesses listed in the inspection database for district six.

In the mid 2000's, Westminster worked with the adjoining city on the east side of I-25, Thornton, as well as the Colorado Department of Transportation, to build new bridges with highway access over I-25 at 144th Avenue and 136th Avenue. The city was planning to build additional access at 128th Avenue but that has not taken place yet. The result of these new interchanges has been a large amount of development on both sides of the highway near them. It has also benefitted emergency service agencies by providing more access to the highway for incidents. Westminster has jurisdiction on southbound I-25, and Thornton has jurisdiction on the northbound side. An automatic aid agreement is in place between these two fire departments in which the non-jurisdiction agency will provide a blocking apparatus on the highway for the agency working an incident. Additional access is from 120th Avenue, and then further north at Colorado Highway 7, which is approximately 168th Avenue.

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District six has several major streets, laid out in a grid pattern. The main north-south access roads are I-25, Huron, Pecos and Zuni Streets, and Federal Boulevard. The major east-west arteries include 112th, 120th, 128th, 136th, and 144th Avenues. With station six being located on 124th Avenue just west of Huron Street, it is generally central within the district. However, the farthest northern areas of the district have a slightly extended response time from station six. That specific area, which includes the Orchards, the hospital, and surrounding areas, has been designated as evaluation zone eleven, due to these extended response times. Zone eleven generally encompasses all city limits north of 142nd Avenue.

District six has no rail line and no immediate airport proximity. However, there is general aviation in the area due to RMMA lying several miles west, and the Erie Airpark located outside of the city several miles to the north-northwest.

Within an office park area in district six, there is some light manufacturing and light industrial, but these involve limited hazardous chemicals and no known hazardous processes. There is a hazardous material shipping center that receives, holds, and redistributes minimal to moderate amounts of hazardous materials in the district. All of these facilities are protected by fire alarm and fire sprinkler systems, which greatly mitigate any hazards.

District six is home to an international company that provides satellite imagery to business and government interests. This headquarters is based in a large building on 120th Avenue, which was once part of a headquarters and manufacturing plant for a communications company. In 2013, the new property owner began a complete overhaul of the 105 acre site, and the result is the headquarters for this company as well as several office/warehouse units, a large office building that has been purchased and remodeled by Adams County Government, a large multi-family project, and another commercial office center. This site has received upgraded infrastructure and a great deal of new building.

District six is also home to a large high school, an adjoining large middle school, and two elementary schools, one public and one charter (K-3). The high school also houses the home stadium for the school district for many sporting events.

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As noted, there are several hotels within the district. Most of these are located on the 120th Avenue corridor. Some are of the “suites” variety and cater to longer-range clientele, and others are for shorter, business stays. Additional hotels are planned in this district in the future.

McKay Lake is a moderately sized body of water which lies at the far northwest end of district six. The lake is within an open space area of the city and there are no sponsored recreation activities that take place at this location. This lake does not contribute to the water supply in any jurisdiction. There are local recreation trails in this area.

District six is serviced by city fire hydrants, which are placed at adequate locations and provide thorough coverage throughout the district. The only areas where water supply is somewhat limited are houses that lie outside the city limits but border on the city. There are no freshwater tanks in this district, but due to the negative elevation change in this portion of the city compared to the pump stations and tank locations, water pressures are more than adequate in all areas.

The Big Dry Creek Wastewater Treatment Plant (BDC), and the Reclaimed Water Treatment Plant are both located in district six. These plants are on either side of Big Dry Creek, between Huron and I-25, at about 132nd Avenue. BDC handles about 60 percent of the wastewater treatment for the city, from areas generally north of 88th Avenue. The Metropolitan Wastewater Treatment Plant, located several miles away in Adams County, handles the remaining wastewater treatment for the city. The Reclaimed Water Treatment Plant takes wastewater from BDC, provides additional treatment, and then sends it back into the city for use on parks and other properties for irrigation. Neither of these plants use any type of chlorine process for water purification. Both facilities use UV and other types of purification processes. There are some hazardous chemicals that are used in these processes.

There is a large “Park-and-Ride” parking lot located at the southeast portion of the district, where citizens can park and then take a bus to their work areas, be those downtown Denver, Boulder, or other location. This area does generate periodic calls for various medical incidents, and occasionally for a vehicle fire or other incident.

District six has been designated as fire management zone six. The growth within this district has propelled district six from having the least amount of calls for service to being the

Westminster Fire Department Standards of Cover

fourth busiest in calls for service. As with other districts, the vast majority of calls are for EMS activities, however fire alarms, automatic aid responses and other incidents are increasing.

There are a large amount of retail shoppers that visit the area, as well as many workers that are employed throughout the district in many industries. The large volume of vehicle traffic, both on the adjoining interstate highway and the main streets within the district, contribute significantly to the call volume for accidents and other vehicle-related incidents.

There are a variety of risks within district six, including many businesses, as well as light industrial processes, schools, and a wide array of residential uses. Many of the hazards in the business and industrial buildings have been mitigated through the installation of fire protection systems, including sprinkler and fire alarm systems. The newer areas that have undergone redevelopment have incorporated newer technologies into the existing systems to bring these buildings into code compliance. Most of the multi-family units in the zone have residential sprinkler systems installed, but several of the older units do not. In the past several years, two significant fires have taken place in a condominium complex that is not sprinklered and is made up primarily of rental units. These types of residential units are the highest risk for fire in the district, based upon historical analysis. The single family dwellings also run a degree of risk, and there have been serious fires in these residential units the past few years, but the risk of injury and death, as well as damage and economic impact, are greatest in these older multi-family units.

The highest scored occupancies on the risk assessment were the medical facilities, specifically the Kaiser Medical Building and St. Anthony North Health Campus. An additional high risk with a lower score was a business that handles hazardous material shipments. All of these properties have full fire protection systems.

In the past several years, there have been fires in multi-family units caused by plumbers, accidental causes, and two arsons. The last arson caused extensive damage to a 68-unit building and resulted in two civilian deaths and several additional civilian injuries. Single-family dwelling fires that have occurred have been determined to be accidental. Oily rags caused one commercial fire and it was controlled and contained by the fire sprinkler system, with minimal damage. There are some residential group homes in the district but calls for service have been limited to medical responses at these facilities. The nursing center has a number of patients that are non-ambulatory, but there are full fire protection systems in this building and staff is present at all

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times. As noted, the hospital has full protection features and has a ‘protect-in-place’ program in case of fire, as well as horizontal exiting and other passive and active fire protection features installed throughout.

A large golf course that was built in conjunction with a residential subdivision in the 1970’s winds through part of this district/zone. This course presents a few challenges in that some streets in that area do not go completely through the development, but even with that there is adequate access in this neighborhood.

Time reporting for all priority calls for district six from 2014 through 2017 is noted below. Call numbers only for district six structure fires, non-structure fires, EMS calls, technical rescue and hazardous materials incidents (priority responses only) are included. Full information for all incident types including breakdowns by risk can be found in the appendix.

<u>Category</u>	<u># Incidents</u>	<u>Time Interval (minutes: seconds)</u>
All D6 Priority Incidents	4,511	N/A
Alarm Handling	4,423	1:21
Turnout	4,443	1:32
Travel (1 st unit)	4,416	6:42
Travel (ERF)	3,912	8:02
Total Response (1 st unit)	4,462	8:50
Total Response (ERF)	4,060	9:22

Figure 12 – District 6 Time
and Incident Intervals

Structure Fires	18	N/A
Priority Non-Structure Fires	81	N/A
Priority EMS	3,583	N/A
Technical Rescue	16	N/A
Hazardous Materials	82	N/A

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District six has the fourth highest call volume in the City. Trends indicate that the call volumes will continue to rise at a rapid pace and this district is expected to be the third busiest, passing district four, in the near future. Development in the district six area has increased both the permanent and daily population. Calls for service at the northern end of the district continue to increase, where the response time is the longest (zone 11). This will continue to be monitored for effects. The largest type of calls are EMS related. Most calls occur in the late morning to late afternoon, with Wednesday and Friday being the busiest days, and October and December the busier months.

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Count by Incident Type: Station 6

	2014	2015	2016	2017	Grand Total
Rescue and EMS	847	922	1,047	1,156	3,972
Cancelled- Good Intent	163	166	193	180	702
False Alarm or False Call	130	140	120	145	535
Service Call	84	88	120	110	402
Hazardous Condition- No Fire	29	22	27	35	113
Fire	21	24	29	27	101
Severe Weather and Natural Disaster		3			3
Special Incident Type	1		1	1	3
911 Citizen Complaint	1				1
Overpressure, Rupture, Explosion, Overheat- No Fire				1	1
Grand Total	1,276	1,365	1,537	1,655	5,833

Percent Change Year Over Year: Station 6

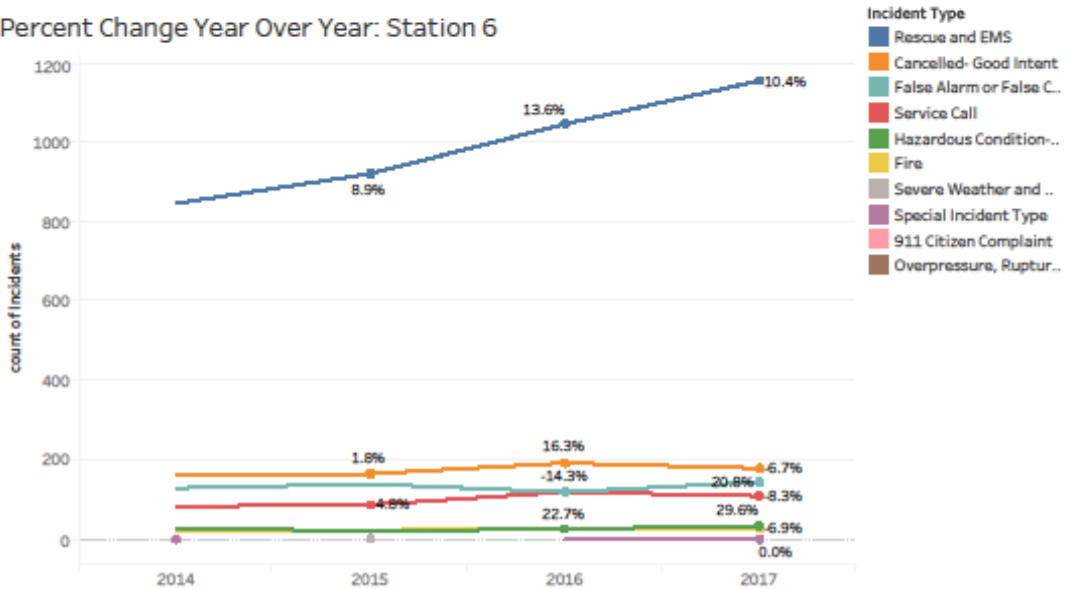
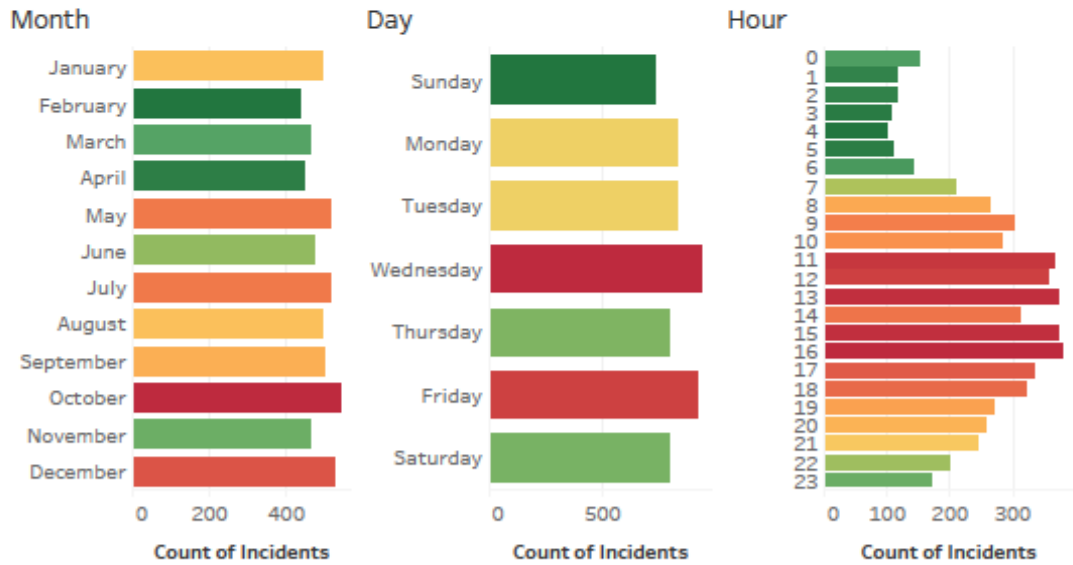


Chart 35 – District 6 Count by Incident Type and Percent Change

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2014-2017 Station 6 Incidents by Day and Time of Day; Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	33	16	23	17	15	19	25	148
1	19	13	15	19	11	12	27	116
2	24	21	10	15	14	14	17	115
3	18	19	12	13	10	18	16	106
4	12	15	18	14	10	14	16	99
5	18	15	16	26	9	16	8	108
6	15	17	18	25	18	24	24	141
7	19	27	33	29	46	35	19	208
8	29	32	47	50	31	50	24	263
9	26	41	38	40	57	54	45	301
10	30	41	49	52	31	35	44	282
11	48	50	46	63	52	60	46	365
12	45	49	48	58	53	64	40	357
13	41	66	47	65	51	48	54	372
14	21	53	60	47	54	43	32	310
15	52	65	39	58	48	58	52	372
16	48	62	58	57	40	63	49	377
17	40	50	62	64	40	54	25	335
18	37	35	51	48	49	49	51	320
19	33	32	27	49	40	43	45	269
20	33	32	31	37	44	44	35	256
21	42	28	34	40	21	43	35	243
22	29	28	30	23	24	32	34	200
23	19	25	20	27	24	29	26	170
Grand T..	731	832	832	936	792	921	789	5833



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.

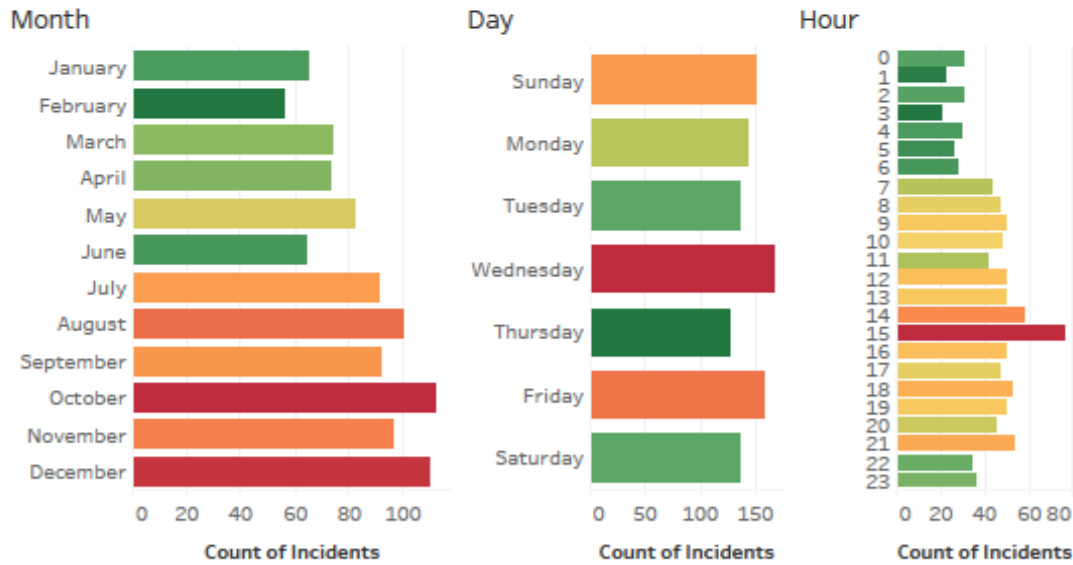


Chart 36 – District 6 Cumulative Priority Incidents by Day, Month, and Hour

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2014-2017 Station 6 Non-Priority Incidents by Day and Time of Day;
Month, Day, and Hour

Hour of ..	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0	8	3	7	1	3	1	8	31
1	2	1	4	6	3	4	2	22
2	7	8	4	4	4	5	3	31
3	5	3	2	4	4	4	2	20
4	6	1	5	5	3	7	2	29
5	5	2	4	6	1	8		26
6	4	2	3	5	4	5	5	28
7	6	5	7	4	12	5	4	43
8	4	8	8	8	3	10	6	47
9	2	5	6	10	7	10	9	49
10	6	6	9	9	4	7	7	48
11	6	7	4	9	7	6	3	42
12	10	11	6	6	3	8	6	50
13	7	3	5	12	6	9	7	49
14	5	13	12	6	8	7	7	58
15	16	11	8	14	5	11	11	76
16	7	10	5	11	1	9	7	50
17	11	3	7	11	6	6	3	47
18	5	10	4	6	9	4	14	52
19	4	8	5	10	10	7	5	49
20	2	7	7	7	9	8	5	45
21	13	8	5	5	5	7	10	53
22	6	3	4	6	6	4	5	34
23	5	5	4	6	7	5	4	36
Grand T..	152	143	135	167	126	157	135	1015



Items shaded darker red indicate a higher number of incidents relative to the overall number of incidents.



Chart 37 – District 6 Cumulative Non-Priority Incidents by Day, Month, and Hour

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Station six was built in 1987 and opened in early 1988 to provide protection to the northern portions of the city. The district developed over time but remained as the lowest response district in the city for many years. After the new outdoor mall opened, a surge in other development and housing began to take place. A local office park also filled in with office/warehouse types of buildings as well as some light manufacturing and industrial, and retail/entertainment centers began to emerge. As the growth rate intensified, the area quickly began to realize more responses, and in a short time this area went from being the lowest call volume to the fourth, and is close to the third busiest in the city.

Station six is a two-bay station that is one-and-a-half deep with drive-through capacity. It currently houses a truck (quint) and a medic unit with minimum staffing of five personnel. A non-staffed brush truck is also assigned here. The station was the first in the city to incorporate individual bunkrooms for the crews, separate bunkroom and wash facilities for female employees, and a separate washroom for the on-duty officer. Station six is protected with a fire sprinkler and alarm systems. The bunkrooms are laid out perpendicular to the apparatus bay, all on one side of a hallway. The bunkroom farthest east has an additional door that can separate the last bunkroom and adjoining wash facility from the other rooms, specifically designed for female employees. The hall has a door leading directly to the bay, with the radio base station located on a desk immediately adjacent to this doorway. This hall and bunkrooms are located at the front of the station. Another door from the apparatus bay leads to the remaining area of the crew quarters, which includes a report writing room, EMS restock area, utility/wash room, kitchen, dining area, day room, and the officer's office at the far east end of the crew area. Between these two hallways also lie a men's restroom and shower area, as well as the women's restroom and shower. A third door from the bay goes directly into the report writing and EMS restock room. The space is adequate for up to six personnel at this station, having a total of six bunkrooms. Exterior doors are numerous at this station. The station faces south and is situated on 124th Avenue, approximately two blocks west of Huron Street. This allows for easy access to the street as well as the ability to move in multiple directions from the station, and helps greatly with snowmelt in the winter on the front side of the station. Crews have to be vigilant for snow removal at the rear of the station as this area receives little if any direct sunlight during winter months.

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The apparatus at station six is a 105-foot aerial 'quint'. Currently, the apparatus assigned to the three closest automatic aid stations all contain aerial apparatus (quint style). All three of these stations may provide second due response for district six. The locations of apparatus on a regional basis will be undergoing an evaluation by the North Area Operations Chiefs in the future so that apparatus placement will be beneficial to all agencies that are part of the automatic aid and CAD-to-CAD agreements.

Station six has undergone some minor remodels, including placing a mezzanine above the workout and shop area at the west end of the station. This mezzanine is used to store uniforms and equipment and is secured with the firefighters assigned to the uniform area having access. The shop and mezzanine area is narrow and runs the length of the station. A subterranean hose tower is at the front of the station in this shop area.

Doors have been installed on the bunkrooms, and the kitchen has undergone a remodel to modernize it and make it more practical. The bathrooms and showers underwent a major remodel in 2017. The room for report writing and EMS restock has been remodeled from an old storage area. This office provides a secluded area to do reports and other work.

As with other stations, an extractor washer and dryer unit are in the bay area. Storage for turnout gear, extra hose, oxygen and other items is available on the sides of the apparatus bay. There is enough room behind medic six for the brush truck.

Station six is located generally in the central area of its response district, with the exception of the furthest northern areas. There are few response challenges at this station, as it has adequate access to the nearby highway and other roadways in the district. Gaining southbound access to the highway requires units to go north and backtrack.

Turnout times may be somewhat affected by the distance of the farthest bunkrooms to the bay area, particularly since crews assigned to the medic unit have to go around the truck and may have furthest to travel to their apparatus. Other times should be adequate as the remaining facilities are relatively close to the bay area, and there are two doors to provide bay access from the living quarters.

At the rear of station six is a large cell phone tower, which had been used by a private company for many years. In 2014, the city upgraded the radio system and used this tower as a

Westminster Fire Department Standards of Cover

repeater tower for the north area. The city currently cohabitates this tower with a cellular communications company, and antennas from both entities are on the structure. Periodically, personnel from the company access the tower facility, but there is adequate room for them to park and perform activities without causing any issues for the station.

Overall, station six is in very good condition and has the ability to serve the citizens well for many years. With the regional efforts to place apparatus and expand automatic aid coverage, there may not be any need to expand this station for the foreseeable future. However, FMZ Eleven will need to be monitored to determine if this aid is effective in modifying response times. With the current location of the automatic aid stations closest to FMZ Eleven, there will still be extended travel times from those stations. Known long-range plans for the adjoining agencies indicate one new station to be constructed to the northeast of FMZ Eleven, but it is still unknown the effect this may have on response times. Further information regarding this is located in the “Plan for Maintaining and Improving Response Capabilities” section.

If expansion of station six becomes necessary, the lot is large enough to allow for some building modification. Given the current layout, additional bays could not be added, but the two bays could be extended to be double deep, and the living quarters could also expand. With the rise in call volume, there may be need for additional resources to be staffed at this station in the future. This will depend on the planning process as noted above.

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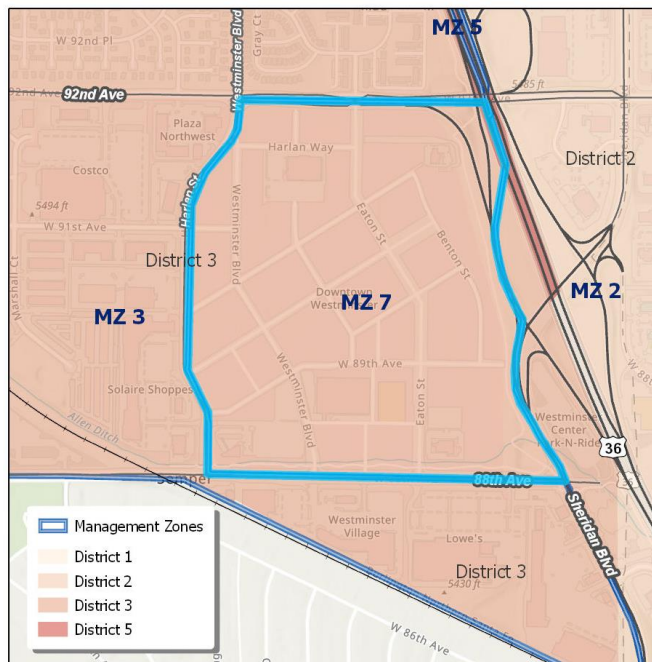
Evaluation Zone Seven



(View looking southwest)



(View looking west)



Map 26 – Evaluation Zone 7

In the central area of the city, between US Highway 36 and Sheridan Boulevard on the east, Harlan Street on the west, 88th Avenue on the south and 92nd Avenue on the north sat a large, indoor shopping mall. This mall had originally been a small indoor shopping center in the 1970's but continued to grow with indoor areas and stores, and large anchor stores on the ends

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and sides as well as stores on pad sites around the perimeter. The mall grew until the mid-1990's when the last large anchor store was built. During the Christmas shopping season, traffic around this center was of such volume that gridlock could take place. The fire department had two ambulances staffed during those years, and from Thanksgiving through Christmas Eve a third ambulance had to be staffed daily during the twelve-hour peak shopping times utilizing overtime personnel. This unit covered the west side of the city as well as the western parts of the mall due to the extreme traffic volume. The mall was the major tax revenue generator for the city.

As with many indoor malls, in the early 2000's the mall began to decline. Shoppers went to other venues, and stores began to close. The city invested a large sum of money to help alleviate traffic both on streets outside the mall and by installing a service loop on mall property that encircled the mall. Even with these and other renovations to the mall itself, rapid decline followed. A new indoor mall had been built in an adjoining jurisdiction approximately ten minutes away on the highway. Over the next several years, all but a few stores closed in the old mall.

Westminster wanted to redevelop the entire property, and took the aggressive step of purchasing the mall building and property from the former owner. The city then demolished the mall, except for one remaining large store that was still operational and profitable. A few other businesses that had been on stand-alone sites, which were independently owned, also remained and continued to conduct business. The city decided to work at turning this 105-acre site into a new, high-density "downtown" area, and included residential, commercial, retail and cultural facilities into planning for the area. Over several years, the city worked with various developers to create a conceptual outline for the area. Streets layouts were decided on and a general plan to build around existing businesses was put into place. As these plans solidified, infrastructure including water and sewer lines, electrical and gas lines, and streets were built in this area.

Currently, there is development of several parcels of property taking place on the site, including residential, restaurant, office, commercial, hotel, and other uses. Several development groups are interested in the site and are working toward acquiring property and building.

This area is undergoing high-density pedestrian friendly development, which will be somewhat unique for the city. Streets are slightly narrower and other challenges may arise. With this unique development, it has been determined to make this area evaluation zone Seven. There

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is very limited historical data for the area in its present state due to the lack of development, and with the possibilities of anything from a one-story restaurant to a high rise residential or office building on site, the area will be evaluated in the future for service delivery needs. This will allow for hazards and risks to be evaluated specific to this unique area within the city. This zone will be re-evaluated as parcels develop, and at those times it will be determined if the area is to stay as its own zone or merge with zone nine.

Currently, there are no plans to build a fire station on this site. Coverage from stations two and three have been acceptable for this area when it was a busy mall site, and even though this area lies at the end of both response zones, prior response times were adequate. However, other evaluations have suggested a civic presence, including the possibility of a small police substation. If this were to occur, the fire department may request that an indoor staging area large enough for a medic unit be included. The Parks, Recreation and Libraries Department has indicated that they are planning for up to 200 events a year on this site, some small and others very large. If these take place, it would be beneficial to have this staging area for the site. Another possibility that has been discussed from a planning perspective is the building of another fire station at some future point, which would be more centralized to cover the Promenade area (zone nine) as well as this downtown area (zone seven). These are very preliminary ideas at this time, as data will still need to be evaluated. More information is contained in the “Plan for Maintaining and Improving Performance” section.

At the time of this writing, the risks for this zone generally consist of technical rescue issues with several construction projects taking place. The fire department has initiated working with various contractors to ensure access and cooperation in the event of an incident, and has provided formal safety training to one contractor and their employees. The other businesses that are in this zone have a low-to-moderate risk from fire, and are protected by fire sprinkler and alarm systems, mitigating additional hazards and risks. The area on the perimeter of the zone is also undergoing upgrades, mainly to utility infrastructure, and traffic flows and management are being studied and streets may also undergo reconstruction. All buildings within this development area will have fire sprinkler systems, alarms, and other fire protection features as needed.

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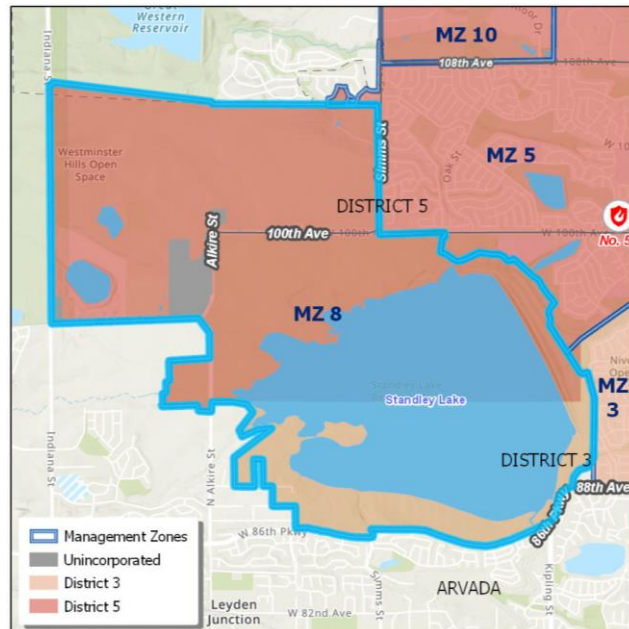
Evaluation Zone Eight



(View looking northeast)



(View looking northwest)



Map 27 – Evaluation Zone 8

At the far west end of the City, laying inside of districts three and five, is Standley Lake. This property has previously been described in detail. The lake, regional park, recreation area, as well as open space property to the north and west are unique within the city. This is the only area in the city that may be considered rural in character due to the open spaces and lack of any residences within city limits. The area has no fire hydrant coverage, however there are only four significant buildings that are in this zone, three of which are relatively small. Three of these are

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owned by the City. Other minor structures are located within the regional park, such as restrooms, and within the City's open space office property, consisting of storage/shop sheds. With the uniqueness of the area and the longer response times to parts of this area, the Standley Lake area and surrounding open space properties have been designated as evaluation zone eight.

Calls for service in this zone historically have been for auto accidents on the main road. This road has two ninety-degree turns on tight curves as it goes to the west around the lake, and one of these curves has been the scene of many rollover auto accidents. Although this is the primary type of call in this zone, the frequency is low. However, automobile accidents are the primary risk in this zone.

Other calls generally have been for medical assistance at or near Standley Lake, including some serious and one fatal injury in the past several years. During the summer months, the lake is a popular attraction, and many boats are on the water each day. There are also camping facilities and many overnight residents. The fatal injury was a result of a water skiing accident, but there have also been medical calls including a cardiac arrest that have taken place in the park the last several years. One multi-patient incident took place where a group of people were on a "dragon boat" when it capsized in high winds. The injuries were minor in nature. Additional calls for service, particularly in the past few years, have been rattlesnake bites near the "dog park" areas, where dog owners can bring their pets and walk them off leash. The areas are known to have rattlesnakes, and appropriate signage is located at the entrances, however several bite injuries have occurred, including three in 2017 alone. These seem to be from people that left the main trail for a short time with, or going after, their dogs.

The city provides ranger services at the park, and this includes a boat to patrol and assist. The rangers help mitigate issues by taking educational and enforcement action as necessary. They also provide a great deal of support on incidents, from providing access, having the boat ready to assist with incidents, to doing CPR and using the on-site AED on patients.

On the west and south sides of the lake are streams that provide water to Standley Lake. In the spring and summer, runoff from snowmelt and flash flooding from thunderstorms can cause swiftwater issues and minor flooding of the adjoining ground. One fatal drowning has occurred due to swiftwater from snowmelt runoff approximately 30 years ago.

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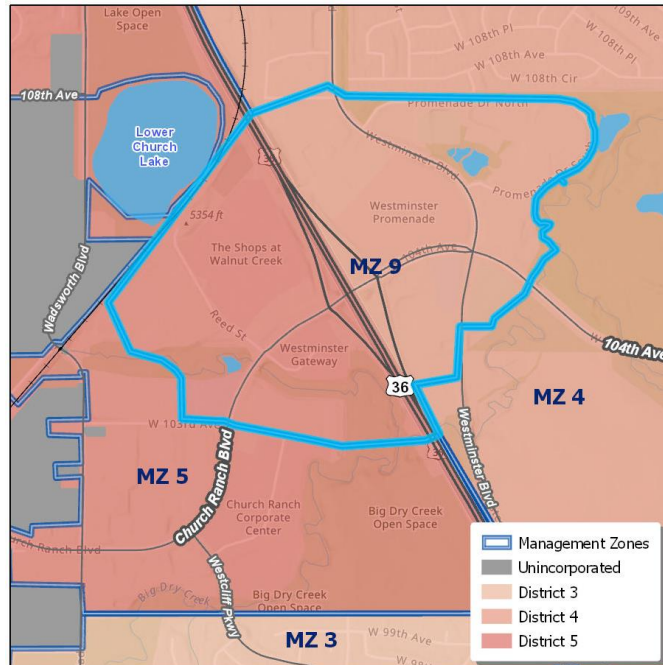
The buildings in this zone include the nature center/ranger station located within the park border, a “quonset hut” style storage building which houses the city’s open space division equipment, the small office building at the open space division, and a small golf course office at the far western end of the zone. None of these buildings or related small structures have any fire protection systems in them. All are readily accessible to responding fire crews. The fire department has determined that, in the event of a fire, and due to the lack of a hydrant system in this zone, tank water from the initial response vehicles will be used as the main water supply source. As each unit carries 500 gallons of water, and since five apparatus are assigned on the initial alarm, this would provide 2500 gallons of water for the initial fire attack. The fire flows for all but the quonset hut can be handled through tank water on the responding apparatus.

The quonset hut is not only larger, but it also may contain several hundred thousand dollars’ worth of equipment used by the open space staff. This building is 16,875 square feet, and 20 feet in height. It is of type IIB construction. The NFPA 704 designation is 4/4/2/Water reactive, based upon some of the chemicals in the flammable storage cabinets. There are limited ignition sources and very limited combustibles in the building. Water tender apparatus are not readily available from nearby automatic aid agencies. Those agencies that have these apparatus may have too long a response time to provide for adequate mitigation. Hydrants are located within a several minute drive of this building. Mower Reservoir is on this site, and is partially accessible to an adjoining roadway. However, this water supply is currently limited and drafting would be difficult due to the elevation change and access. If a dry hydrant, or two of them, were placed into this area, along with allowing this reservoir to fill, the needed water supply may be provided, but the elevation probably would not allow this. Another small stream runs through the zone on the west side of the lake, and if necessary this could provide water. Drafting equipment is not carried on WFD engines, so it is recognized that hard suction would have to arrive from an automatic aid department or be brought from fire station one. If dry hydrants are placed in service, this equipment could be part of that system and left on site. Automatic aid units would be requested to assist with tank water supplies and to shuttle water in the event of an incident at this location. The highest risk in this zone is a fire at the quonset hut facility due to the potential loss and limited water supply.

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The golf course in this zone is a small, nine-hole executive course with a driving and practice range. A small office for golfers to check in is located on site. The building is approximately 1200 square feet. There is limited risk at that facility.

Evaluation Zone Nine



Map 28 – Evaluation Zone 9

In the north central area of the city, within districts four and five, is a large area of commercial, retail, and hotel properties. This area is generally located at US Highway 36 and Church Ranch Boulevard, and encompasses all four corners of this intersection. The area is heavily developed and has a large daytime, and even larger nighttime population due to the eating, entertainment and rest venues. The eastern sides of US 36 are within district four, and the western sides are within district five. This area has the largest concentration of hotel rooms in the city, and one of the largest concentrations of restaurants. The location of these properties is at the furthest ends of the response districts for stations four and five, and also just to the outside extremes for second due coverage from stations two and three. This geographical area has

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previously been identified as being a gap in response due to the geophysical location. As responses to this area are generally extended beyond benchmark times, as well as the larger numbers of people frequenting the area, this area has been designated as evaluation zone nine.

The general boundaries for this zone are: Westminster Boulevard on the east from approximately the 10300 block to the 10800 block, including properties east of Westminster Boulevard on Promenade Drive North and South; Reed Street on the west, including properties on both sides and including properties on Church Ranch Way; Big Dry Creek on the south, and the city limits on the west side of US 36. Recent developments in this zone include residential multi-family, live-work units, a parking garage, a medical office building, hotels, and several commercial and retail properties. Parts of this zone are undergoing redevelopment and other areas are seeing initial development taking place. The tallest building in the city is also located within zone nine. All of this area is located within the Rocky Mountain Metropolitan Airport influence zone, and directly in line with the takeoff and approach patterns for runways 12/30 Left and Right.

Access to the commercial areas within this zone is good, and highway access is available at the center of this zone. The commercial properties and restaurants can see a high volume of traffic within this area, which can sometimes further restrict responses. With the many hotel guests that are in the area, unfamiliarity with streets and other locations can be an issue. Most of the restaurants and hotels serve alcohol, so that may factor in for incidents taking place.

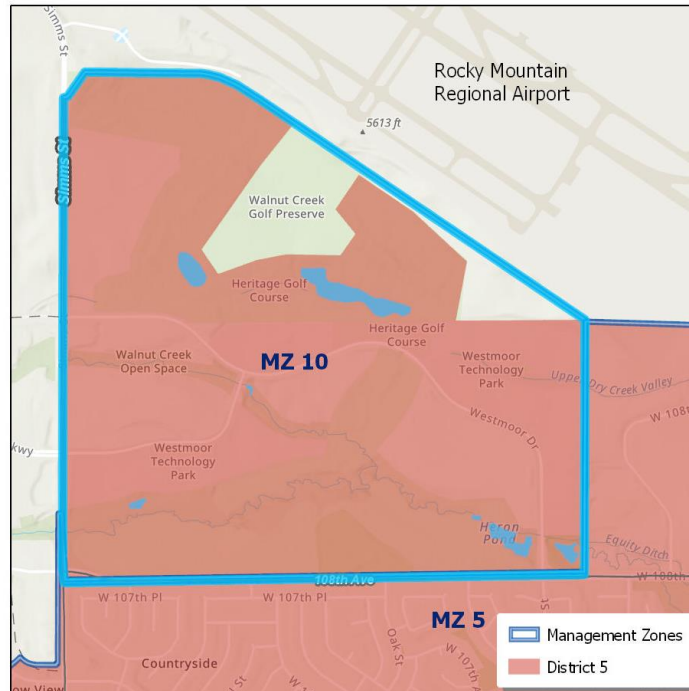
All of this property has been developed since 1997, and due to the codes in place at that time, almost all of the commercial properties are protected by fire alarm and fire sprinkler systems. All of the hotels in this area are also fully protected with alarms, sprinkler systems, and equipped with fire pumps. The largest building, the Westin Hotel, is a code high rise and has additional fire protection features installed. These protection features greatly mitigate the fire risk in this entire zone. However, even though this area is relatively new, it is undergoing redevelopment. Many new businesses are being built, multi-family units are being constructed, and parking garages are replacing surface lots. Due to the changing environment in this area, creating a specific zone for evaluation will help to determine risk changes while evaluating responses and service needs.

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The greatest risk factor in this zone is due to medical assistance calls. The large volume of people that frequent establishments may increase medical calls for service. There are automobile accidents that take place on the main streets in this zone and the adjoining freeway, and sometimes within the properties themselves, and contribute to the call volume. The highest scored property for risk in this zone is the Westin Hotel.

As noted with zone seven, there is some discussion regarding placing a new station in an area that would address responses to both zone seven and zone nine. These are very preliminary in nature and data needs to be evaluated. Currently, zone nine has been addressed through community risk reduction strategies, including the fire protection features previously identified, as well as working to place AED's in specific locations, such as the movie theater and the hotels. It has been determined that this is the best method to manage the current risk in this zone, however data will be monitored to determine the effectiveness of the programs and any need for modification.

Evaluation Zone Ten



Map 29 – Evaluation Zone 10

Another area that has previously been identified as being outside the benchmark response times is located at the far northwest corner of the city in district five. This area includes a business park, a recreation center and a golf course with clubhouse. There are several commercial buildings ranging from two-stories to four-stories in this area. Due to the remoteness of these properties from station five, benchmark times cannot be met on a regular basis. This area has been designated as evaluation zone ten, and is bordered by Simms Street on the west, 108th Avenue on the south, the city limits on the north, and the properties east of Westmoor on the eastern border.

The north border of zone ten is the RMMA, and parts of this zone are directly in the flight path of various aircraft, particularly helicopters that are generally being flown by student pilots. All of the golf course, the office buildings, and a large part of district five are affected to some degree by this air traffic.

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The gap in response has been identified and is generally mitigated due to the extensive fire protection features within the properties in this area, including all buildings protected by fire sprinkler and alarm systems, as well as special systems installed for high tech or other equipment. As with zone nine, all of this property has been developed since 1997 and have met the codes in effect since that time. These protection features mitigate the hazards in this zone. The few fire incidents reported have generally been related to overheated equipment that caused alarm activations, but no other fire protection device activated due to the minor nature of the incidents.

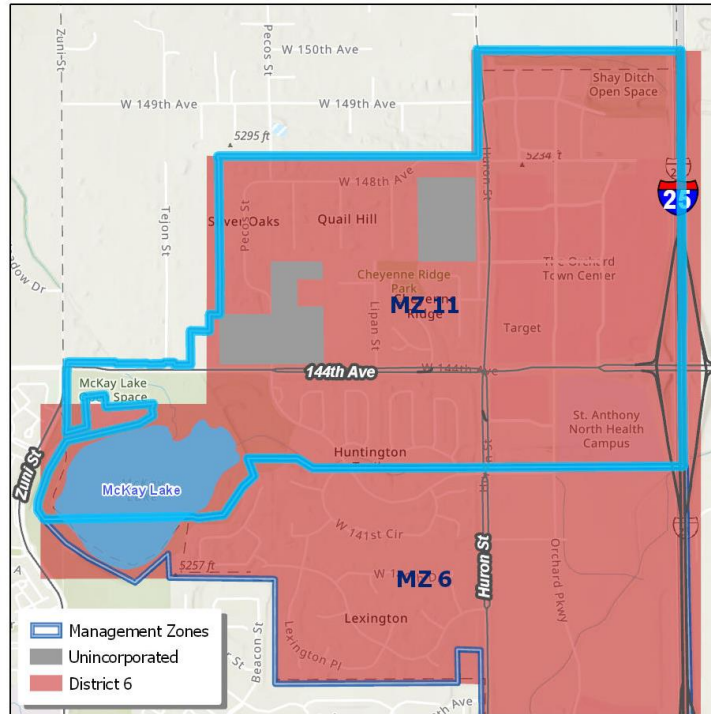
These commercial properties are not congested, and lie within a large, open business park. Traffic and density are light. There is an occasional call for a medical incident within this zone, and periodically accidents occur on the roads. The largest risk is the city's West View Recreation Center, located at the south end of this zone. This center has a large gym, racquetball courts, running track, weight room, and day care/preschool rooms inside. Many older adults use this center, as do many of the employees of the surrounding businesses. As a result, there have been some medical calls at the center, including one cardiac arrest in the last 15 years. The center has an AED available, which was used by staff on the cardiac arrest patient, who survived the incident.

This zone also has a large, 18 hole championship golf course, which winds through the business park areas. Carts are available and are stored in a garage area beneath the clubhouse. A ventilation system has been installed in the cart area to mitigate any hydrogen gas produced by the charging of the carts. The golf course rarely has calls for service.

CRR strategies will continue to be employed to maintain the low risk of this zone.

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Evaluation Zone Eleven



Map 30 – Evaluation Zone 11

The area at the far northeast portion of the city has been previously identified as being beyond benchmark response times. This area lies within district six and is generally north of 142nd Avenue. It includes a large outdoor shopping center, a large hospital and associated medical office buildings, smaller shopping areas, residential multi-family units, and some large, single-family dwellings. The main shopping center has a multitude of stores in a central area, along with stores on pad sites on the perimeter. This area is located about 20 blocks north of fire station six, and travel times are such that response time benchmarks cannot be routinely met.

This area has been designated as evaluation zone eleven. All of the businesses, the hospital and medical office buildings, and the multi-family residential developments have fire sprinkler systems installed, as well as fire alarm systems in the commercial and multi-family properties. The hospital also has more extensive systems, including the use of horizontal exits and a smoke removal system in the large atrium. All of these properties, with the exception of some single-family homes, have been built since 2004, with the hospital completed in 2014.

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These properties have the most up-to-date fire protection features installed, which greatly mitigate the fire risk in these buildings.

The single-family developments consist of very large homes, some of which were built since the late 1990's, and one development built since 2013. The homes in this newer development all have residential sprinkler systems installed. Although these systems are designed to be life-safety, as the multi-family systems are, the systems also greatly mitigate the fire hazard in these properties. As a result, there are very few properties within this zone that do not have fire sprinklers. Properties without sprinkler protection are homes built prior to 2013.

One commercial property fire has taken place in this zone in the past several years, and it was contained and extinguished by the fire sprinkler system. The alarm notified the fire department, and damage was limited.

As with zones nine and ten, the largest risk in this zone is due to medical calls for service. The large, outdoor shopping area hosts several events each year, including a summertime concert series where a stage is set up on a closed internal street. The audience sits within the street area, and businesses on either side receive permits to conduct sidewalk business during the events. Proper planning has resulted in the event taking place for many years without incident. There is an occasional medical call within the area, and the response times are generally longer than desired due to the distances involved.

Another recognized risk is the hospital itself. Although there are many fire- and life-safety systems installed, non-ambulatory patients in this institutional occupancy are at a higher risk for serious injury as a result of an incident. The engineering of the facility, and education of the staff mitigates this risk, however it is recognized that the risk still exists in this facility. The hospital is the highest scoring risk in this zone.

The response times may be reduced in the future with automatic aid operating via the CAD-to-CAD system. The next closest agency fire station is located approximately equidistant north of this zone as station six is located to the south. As such, first due response times may not improve, however second due unit response and ERF times should be markedly better.

With the challenges of this remote zone, CRR strategies will continue to be used for mitigation. As noted, fire protection features are in place, and there is some AED coverage in the

area. Incidents within this zone will be evaluated and corresponding CRR methods will be implemented as needs are identified.

Baseline and Benchmark Statements/Baseline Performance Reference

The baseline data in this report reflects actual performance for the Westminster Fire Department from 2014 through 2017. The time reporting is specifically for priority (emergent response) incidents, with the exception of the Low Risk EMS, which are non-priority. The response data for these particular EMS incidents reflect the changing culture of WFD regarding non-emergent responses, as each year the overall numbers have increased. This also applies to many other incidents, including fire alarms and service calls, as reflected by the variance in data from the time reporting (priority incidents) and the overall incident counts for each year.

The Fire Department does not rely on the use of automatic aid to provide the effective response force for fire and EMS incidents, however automatic aid is available for assistance, based on closest unit response or when demand has expended resources. When the CAD-to-CAD system is implemented, automatic aid will become a regular part of the effective response force, not because of need for resources, but due to the closest units and agencies working together in a seamless, regional environment.

All baseline statements are calculated at the 90th percentile times for the cumulative responses on a city-wide basis for 2014 through 2017.

The following are the WFD baseline statements based on the performance data:

- For 90 percent of all **low risk EMS incidents, the Total Response Time for the arrival of the first-due unit**, staffed with a minimum of two personnel, is 9 minutes and 24 seconds. The first-due unit is capable of assessing the scene, ensuring safety, establishing command, calling for additional resources as needed, providing patient assessment and conducting basic medical procedures and other assistance. Low risk EMS incidents respond one unit; the ERF is met with this response. These are non-emergent responses.

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- For 90 percent of all **moderate risk EMS incidents, the Total Response Time for the arrival of the first-due unit**, staffed with a minimum of two personnel, is 7 minutes and 38 seconds. The first-due unit is capable of assessing the scene, ensuring safety, establishing command, calling for additional resources as needed, perform patient assessment and provide basic life support including defibrillation, and prepare the patient for transportation to the appropriate medical facility.
- For 90 percent of all **moderate risk EMS incidents, the Total Response Time for the Effective Response force**, staffed with a minimum of five personnel, is 8 minutes and 48 seconds. The ERF is capable of maintaining command, ensuring continual scene safety, requesting additional resources as necessary, providing advanced life support measures, and providing transportation of the patient to the appropriate facility.
- For 90 percent of all **high risk EMS incidents, the Total Response Time for the arrival of the first-due unit**, staffed with a minimum of two personnel, is 7 minutes and 55 seconds. The first-due unit is capable of assessing the scene, ensuring safety, establishing command, calling for additional resources as needed, perform patient assessment and provide basic life support including defibrillation, and prepare the patient for transportation to the appropriate medical facility.
- For 90 percent of all **high risk EMS incidents, the Total Response Time for the Effective Response force**, which will achieve a total on-scene complement of a minimum of six personnel, is 12 minutes and 20 seconds. The ERF is capable of maintaining command, ensuring continual scene safety, requesting additional resources as necessary, providing advanced life support measures, and providing transportation of the patient to the appropriate facility.
- For 90 percent of all **moderate risk structure fires, the Total Response Time for the first-due unit**, staffed with three fire personnel and capable of suppression operations, is 7 minutes and 51 seconds. The first on scene unit is capable of conducting size up, establishing command, instituting scene safety, providing for immediate rescue, and initiating fire suppression activities.
- For 90 percent of all **moderate risk structure fires, the Total Response Time for the Effective Response Force**, having a minimum complement of 15

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firefighters and officers, is 12 minutes and 40 seconds. The ERF is capable of formalizing command, ensuring scene safety, providing an uninterrupted water supply, conducting rescue, fire attack, search, ventilation, overhaul and salvage operations, establishing RIC or on-deck crews, and providing rehabilitation and medical care.

- For 90 percent of all **high risk structure fires, the Total Response Time for the first-due unit**, staffed with three fire personnel and capable of suppression operations, is 8 minutes and 24 seconds. The first on scene unit is capable of conducting size up, establishing command, instituting scene safety, providing for immediate rescue, initiating fire suppression activities, and directing placement of next arriving apparatus.
- For 90 percent of all **high risk structure fires, the Total Response Time for the Effective Response Force**, having a minimum complement of 19 firefighters and officers, is 14 minutes and 42 seconds. The ERF is capable of formalizing command, ensuring scene safety, placing apparatus and personnel, providing an uninterrupted water supply, conducting rescue, fire attack, search, ventilation, overhaul and salvage operations, establishing RIC and/or on-deck crews, and provide rehabilitation and medical care.
- (There are no baseline time measures available for target hazard structure fires.) For all **target hazards structure fires, the first-due unit**, staffed with a minimum of three personnel (firefighters and officer), is capable of conducting size up, instituting command, calling for additional resources, placing arriving apparatus, and directing initial activities in conjunction with the WFD SOG's for incident response.
- (There are no baseline time measures available for target hazards structure fires.) For all **target hazard structure fires, the Effective Response Force**, staffed with a minimum of 30 firefighters and officers, is capable of formalizing command, ensuring safety, assigning divisions and/or groups as may be required, controlling building systems, initiating fire attack, search, rescue, ventilation, overhaul, salvage and logistical support, providing for rehabilitation and medical, and establishing RIC and/or on deck crews.

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- For 90 percent of all **low risk technical rescue incidents, the Total Response Time for the first-due unit**, staffed with three fire personnel, is 9 minutes and 37 seconds. The first on scene unit is capable of establishing command, instituting scene safety, providing rescue, calling for additional resources, and completing limited technical rescue activities. The ERF for low risk technical rescues is one unit, so the ERF is met with the first unit arrival.
- (There are no baseline time measures available for moderate risk technical rescues.) For **moderate risk technical rescue incidents, the first-due unit**, staffed with three fire personnel, is capable of establishing command, instituting scene safety, conducting size up, providing immediate limited rescue, and calling for additional resources.
- (There are no baseline time measures available for moderate risk technical rescues.) For **moderate risk technical rescue incidents, the Effective Response Force**, consisting of ten fire personnel (nine personnel for ice rescue incidents), is capable of formalizing command, ensuring continued safety, assigning safety personnel and/or RIC, conducting rescues, and providing medical care.
- (There are no baseline time measures available for high risk technical rescues.) For **high risk technical rescue incidents, the first-due unit**, staffed with three fire personnel, is capable of establishing command, instituting scene safety, conducting size up, providing immediate limited rescue, and calling for additional resources.
- (There are no baseline time measures available for high risk technical rescues.) For **high risk technical rescue incidents, the Effective Response Force**, consisting of 20 fire personnel (18 personnel for dive rescue incidents), is capable of formalizing command, ensuring continued safety, calling for team resources/assistance, assigning safety personnel and/or RIC, conducting technical rescues, and providing medical care.
- For 90 percent of all **low risk hazardous material incidents, the Total Response Time for the first-due unit**, staffed with three fire personnel, is 9 minutes and 25 seconds. The first on scene unit is capable of establishing command, instituting scene safety, beginning identification or identifying the

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product, calling for additional resources if necessary, and completing mitigation of the hazard. The ERF for low risk hazardous material incidents is one unit, so the ERF is met with the first unit arrival.

- (There are no baseline time measures available for moderate risk hazardous material incidents.) For **moderate risk hazardous material incidents, the first-due unit**, staffed with three fire personnel, is capable of establishing command, instituting scene safety, conducting size up, conducting limited defensive actions, beginning identification of the product, and calling for additional resources.
- (There are no baseline time measures available for moderate risk hazardous material incidents.) For **moderate risk hazardous material incidents, the Effective Response Force**, consisting of 20 fire and haz mat personnel, is capable of formalizing command, ensuring continued safety, instituting a haz mat branch, conducting offensive mitigation operations, and providing fire support and medical care.
- (There are no baseline time measures available for high risk hazardous material incidents.) For **high risk hazardous material incidents, the first-due unit**, staffed with three fire personnel, is capable of establishing command, instituting scene safety, conducting size up, conducting limited defensive actions, beginning identification of the product, and calling for additional resources.
- (There are no baseline time measures available for high risk hazardous material incidents.) For **high risk hazardous material incidents, the Effective Response Force**, consisting of 33 fire and haz mat personnel, is capable of formalizing command, ensuring continued safety, calling for team and State/Federal resources/assistance, establishing a haz mat branch, conducting offensive mitigation operations, providing fire and medical support, and establishing liaison activities.

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The Westminster Fire Department reviewed the performance expectations of NFPA 1221 and 1710 as the benchmark times for each interval of performance. After assessing initial data, and seeking an attainable target, it was determined to not use these standards. Instead, the WFD evaluated the same times as used for baselines, and use the current 80th percentile time for the same cumulative 2014-2017 times in each response category as the benchmark. This would provide for a realistic, achievable goal for the organization to improve. Furthermore, two of the current baseline times for ALS response were exceeding the NFPA 1710 standards, so appropriate benchmark times needed to be established for those times. The 80th percentile times provided an improvement for each category that was attainable. As the cumulative times are recalculated annually, these benchmark times will be reassessed to ensure there is a goal of improvement in times.

Several call type categories had no responses for the cumulative years analyzed, which included moderate- and high-risk technical rescue, moderate- and high-risk hazardous material incidents, and target-hazard structure fires. There are also no response time components for the two special operations (tech rescue and haz mat) in NFPA 1710. The WFD used the cumulative time components for moderate risk structure fires for the first due benchmarks for target hazard fires, and all moderate- and high-risk technical and hazardous materials incidents. Moderate level structure fires had a significant enough level of responses to provide for this time. The ERF for moderate risk technical rescue incidents was taken from high risk structure fire incidents, as these represent a similar number of personnel required for the ERF. Target hazard structure fire ERF is based on a single multiple alarm incident that required a similar amount of personnel. High risk technical rescue and moderate- and high-risk hazardous material response ERF's were based on the requirement to assemble regional teams to meet the ERF's.

In order to provide a comparison, the following table represents the baseline (current) time at the 90th percentile, and the benchmark (goal) time at the 80th percentile, as well as the NFPA 1710 recommendation as a reference.

TRT=Total Response Time

SF = Structure Fire

Figure 13 – Comparison times, Baseline to Benchmark

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Time Component	Baseline	Benchmark	NFPA 1710-16
Call Processing Time	1:20	< 1:01	< 1:04
Turnout Fire	1:26	< 1:22	< 1:20
Turnout EMS	1:31	< 1:15	< 1:00
Travel Time, Fire, 1 st Due	5:29	4:58	4:00
Travel Time, Fire, ERF	11:11	10:00	8:00
Travel Time, EMS, 1 st Due	5:49	4:56	4:00
Travel Time, EMS, ALS (ERF)	7:32	6:13	8:00
TRT, Low Risk EMS, 1 st Due	9:24	8:13	6:04
TRT, Moderate Risk EMS, 1 st Due	7:38	6:42	6:04
TRT, Moderate Risk EMS, ERF	8:48	7:27	10:04
TRT, High Risk EMS, 1 st Due	7:55	7:08	N/A
TRT, High Risk EMS, ERF	12:20	10:21	N/A
TRT, Moderate Risk SF, 1 st Due	7:51	7:07	6:20
TRT, Moderate Risk SF, ERF	12:40	11:00	10:24
TRT, High Risk SF, 1 st Due	8:24	6:58	6:20
TRT, High Risk SF, ERF	14:42	13:45	10:24
TRT, Target Hazard SF, 1 st Due	None	7:07	6:20
TRT, Target Hazard SF, ERF	None	18:21	12:34
TRT, Low Risk Tech Rescue, 1 st Due	9:37	7:50	N/A
TRT, Mod Risk Tech Rescue, 1 st Due	None	7:07	N/A
TRT, Mod Risk Tech Rescue, ERF	None	13:45	N/A
TRT, High Risk Tech, 1 st Due	None	7:07	N/A
TRT, High Risk Tech, ERF	None	25:00	N/A
TRT, Low Risk Haz Mat, 1 st Due	9:25	8:17	N/A
TRT, Mod Risk Haz Mat, 1 st Due	None	7:07	N/A
TRT, Mod Risk Haz Mat, ERF	None	25:00	N/A
TRT, High Risk Haz Mat, 1 st Due	None	7:07	N/A
TRT, High Risk Haz Mat, ERF	None	25:00	N/A

Baseline is the 90th percentile (actual performance) and Benchmark is 80th percentile (goal)

The following are the specific WFD benchmark statements:

- The Westminster Communications Center will have an **alarm answering time** of less than 15 seconds 95 percent of the time, and less than 40 seconds 99 percent of the time.
- The Westminster Communications Center will have a **call processing time** of less than 61 seconds 90 percent of the time.
- The Westminster Fire Department will have a **turnout time for all priority fire and special operations incidents** of less than 82 seconds 90 percent of the time
- The Westminster Fire Department will have a **turnout time for all priority EMS incidents** of less than 75 seconds 90 percent of the time
- The Westminster Fire Department will have a **travel time for the first arriving engine or truck that can initiate fire suppression activities** of 4 minutes and 58 seconds or less 90 percent of the time
- The Westminster Fire Department will have a **travel time for the first arriving unit equipped with an AED, at a minimum, to EMS incidents** of 4 minutes and 56 seconds or less 90 percent of the time
- The Westminster Fire Department will have a **travel time for the effective response force to priority fire incidents** of 10 minutes or less 90 percent of the time
- The Westminster Fire Department will have a **travel time for an Advanced Life Support staffed and equipped unit to EMS incidents** of 6 minutes and 13 seconds or less 90 percent of the time
- For 90 percent of all **low risk EMS incidents, the total response time of the first-due unit**, staffed with a minimum of two personnel, shall be 8 minutes, 13 seconds in all areas. This response will be in non-priority mode. The first due unit shall be capable of conducting size up, establishing command, ensuring safety, performing patient assessment, and calling for resources as needed. The ERF for low risk EMS incidents is set at two to match the single resource assigned to these incidents.

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- For 90 percent of all **moderate risk EMS incidents, the total response time of the first-due unit**, staffed with a minimum of two fire personnel, shall be 6 minutes, 42 seconds in all areas. The first-due unit shall be capable of conducting size up, establishing command, assessing scene safety, conduct patient assessment, perform BLS and other medical functions, including the application of an AED, and preparing the patient for transport.
- For 90 percent of all **moderate risk EMS incidents, the total response time of the Effective Response Force, which shall include ALS ability**, staffed with a minimum of five fire personnel, shall be 7 minutes, 27 seconds in all areas. The ERF shall be capable of continuity of command, ensuring on-going scene safety, recording scene events, obtaining medical history and information, providing appropriate treatment, including ALS as necessary, and transporting the patient to the appropriate medical facility.
- For 90 percent of all **high risk EMS incidents, the total response time of the first-due unit**, staffed with a minimum of two fire personnel, shall be 7 minutes, 8 seconds in all areas. The first-due unit shall be capable of conducting size up, establishing command, assessing scene safety, conduct patient assessment, perform BLS and other medical functions, including the application of an AED, and preparing the patient for transport.
- For 90 percent of all **high risk EMS incidents, the total response time of the Effective Response Force, which shall include ALS ability**, staffed with a minimum of six fire personnel, shall be 10 minutes, 21 seconds in all areas. The ERF shall be capable of continuity of command, ensuring on-going scene safety including appointing a safety officer as necessary, recording scene events, obtaining medical history and information, providing appropriate treatment, including ALS as necessary, and transporting the patient to the appropriate medical facility.
- For 90 percent of all **moderate risk structure fire incidents, the total response time of the first-due unit**, staffed with a minimum of two firefighters and an officer, shall be 7 minutes, 7 seconds in all areas. The first-due unit shall be capable of conducting size up, establishing command, performing immediate

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rescue, providing 500 gallons of water and 1500 gallons per minute pumping capacity, advancing an attack line at a minimum of 150 gallons per minute, beginning containment of the fire, and requesting additional resources.

- For 90 percent of all **moderate risk structure fire incidents, the total response time of the Effective Response Force**, staffed with a minimum of 15 firefighters and officers, shall be 11 minutes in all areas. The ERF shall be capable of formalizing command, ensuring on-going scene safety by complying with two-in and two-out and by appointing a safety officer, establishing an uninterrupted water supply, advancing the attack line and providing for a backup and/or secondary line(s) that is (are) capable of flowing a minimum of 150 gallons per minute, performing forcible entry, conducting search and rescue, ventilation, control of utilities, overhaul and salvage.
- For 90 percent of all **high risk structure fire incidents, the total response time of the first-due unit**, staffed with a minimum of two firefighters and an officer, shall be 6 minutes, 58 seconds in all areas. The first-due unit shall be capable of conducting size up, establishing command, performing immediate rescue, providing 500 gallons of water and 1500 gallons per minute pumping capacity, advancing an attack line at a minimum of 150 gallons per minute, beginning containment of the fire, and requesting additional resources.
- For 90 percent of all **high risk structure fire incidents, the total response time of the Effective Response Force**, staffed with a minimum of 19 firefighters and officers, shall be 13 minutes, 45 seconds in all areas. The ERF shall be capable of formalizing command, ensuring on-going scene safety by complying with two-in and two-out and by appointing a safety officer, establishing an uninterrupted water supply, advancing the attack line and providing for a backup and/or secondary line(s) that is (are) capable of flowing a minimum of 150 gallons per minute, supplying building support systems via fire department connections as required, performing forcible entry, conducting search and rescue, ventilation, control of utilities, overhaul and salvage.
- For 90 percent of all **target hazard structure fires, the total response time of the first-due unit**, staffed with a minimum of three personnel (firefighters and

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officer), shall be 7 minutes and 7 seconds. The first-due unit shall be capable of conducting size up, instituting command, calling for additional resources, placing arriving apparatus, conducting immediate rescue, beginning suppression operations, and directing initial activities in conjunction with the WFD SOG's for incident response.

- For 90 percent of all **target hazard structure fires, the total response time of the Effective Response Force**, staffed with a minimum of 30 firefighters and officers, shall be 18 minutes and 21 seconds. The ERF shall be capable of formalizing command, ensuring safety, assigning divisions and/or groups as may be required, controlling building systems, establishing an uninterrupted water supply, initiating fire attack, search, rescue, ventilation, overhaul, salvage and logistical support, supplying building support systems via fire department connections as required, providing for rehabilitation and medical, and establishing RIC and/or on deck crews.
- For 90 percent of all **low risk technical rescue incidents, the total response time for the first-due unit**, staffed with three fire personnel, shall be 7 minutes and 50 seconds. The first on scene unit shall be capable of establishing command, instituting scene safety, providing rescue, calling for additional resources, and completing limited technical rescue activities. The ERF for low risk technical rescues is one unit, so the ERF is met with the first unit arrival.
- For 90 percent of all **moderate risk technical rescue incidents, the total response time for the first-due unit**, staffed with three fire personnel, shall be 7 minutes and 7 seconds. The first on scene unit shall be capable of establishing command, instituting scene safety, conducting size up, providing immediate limited rescue, and calling for additional resources.
- For 90 percent of all **moderate risk technical rescue incidents, the total response time of the Effective Response Force**, consisting of ten fire personnel (nine personnel for ice rescue incidents), shall be 13 minutes and 45 seconds. The ERF shall be capable of formalizing command, ensuring continued safety, assigning safety personnel and/or RIC, conducting rescues, providing back up teams, and providing medical care.

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- For 90 percent of all **high risk technical rescue incidents, the total response time of the first-due unit**, staffed with three fire personnel, shall be 7 minutes and 7 seconds. The first arriving unit shall be capable of establishing command, instituting scene safety, conducting size up, providing immediate limited rescue, and calling for additional resources.
- For 90 percent of all **high risk technical rescue incidents, the total response time of the Effective Response Force**, consisting of 20 fire personnel (18 personnel for dive rescue incidents), shall be 25 minutes. The ERF shall be capable of formalizing command, ensuring continued safety, calling for team resources/assistance, assigning safety personnel and/or RIC, providing back up teams, conducting technical rescues, and providing medical care.
- For 90 percent of all **low risk hazardous material incidents, the Total Response Time for the first-due unit**, staffed with three fire personnel, shall be 8 minutes and 17 seconds. The first on scene unit shall be capable of establishing command, instituting scene safety, beginning identification or identifying the product, calling for additional resources if necessary, and completing mitigation of the hazard. The ERF for low risk technical rescues is one unit, so the ERF is met with the first unit arrival.
- For 90 percent of all **moderate risk hazardous material incidents, the total response time for the first-due unit**, staffed with three fire personnel, shall be 7 minutes and 7 seconds. The first arriving unit shall be capable of establishing command, instituting scene safety, conducting size up, conducting limited defensive actions, beginning identification of the product, and calling for additional resources.
- For 90 percent of all **moderate risk hazardous material incidents, the total response time of the Effective Response Force**, consisting of 20 fire and haz mat personnel, shall be 25 minutes. The ERF shall be capable of formalizing command, ensuring continued safety, instituting a haz mat branch, conducting offensive mitigation operations, conducting research, providing back up teams, establishing decontamination, securing zones, and providing fire support and medical care.

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- For 90 percent of all **high risk hazardous material incidents, the total response time for the first-due unit**, staffed with three fire personnel, shall be 7 minutes and 7 seconds. The first arriving unit shall be capable of establishing command, instituting scene safety, conducting size up, conducting limited defensive actions, beginning identification of the product, and calling for additional resources.
- For 90 percent of all **high risk hazardous material incidents, the total response time for the Effective Response Force**, consisting of 33 fire and haz mat personnel, is 25 minutes. The ERF shall be capable of formalizing command, ensuring continued safety, calling for team and State/Federal resources/assistance, establishing a haz mat branch, conducting offensive mitigation operations, conducting research, providing back up teams, establishing decontamination, securing zones, providing fire and medical support, and establishing liaison activities.
- The Westminster Fire Department will have on **scene times for trauma patients** of 10 minutes or less 90 percent of the time
- The Westminster Fire Department will have **on scene times for medical patients, except cardiac arrests**, of 15 minutes or less 90 percent of the time

The department has been using “at patient” notations for several years, however this time interval has not been tracked. Beginning in 2018, this particular time interval will be tracked for EMS incidents to better determine the gap between apparatus arrival and travel to the patient.

For 2018 data, additional evaluations will be conducted on “water on the fire” times as well as “fire under control” times. These should help provide better insight into the effectiveness on fire scenes. It is recognized that “fire under control” may be somewhat of a subjective measurement, however the department will work to incorporate a definition for this specific time interval. This definition will be based upon the “stopping of the fire progress” or similar type of mark.

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The fire department previously tracked cardiac arrest patient follow up to determine the percent of these patients that recover and are discharged from the hospital. This has not been tracked for several years, however several possible tracking plans are being evaluated, including the Utstein system. Cardiac arrests that are subsequently transported to a hospital will begin to be tracked again in 2019.

Current data is being evaluated to distinguish between turnout times when apparatus is in quarters, and when they are out of the station “on the air”. This data had not been evaluated previously but it will be included to better assess these different situations. A review of almost three years’ worth of data (January 1, 2014 through September 30, 2016) centered on these two statuses was analyzed and outliers were created, baselines determined, and means established. The data demonstrated the following:

- “In station” status turnout time outliers were developed at 20 seconds and 2 minutes based on the thresholds and curve established
- “In station” baseline for turnout times was 1 minute, 36 seconds, 90 percent of the time
- “In station” mean for turnout times was 1 minute, 5 seconds
- “On air” baseline for turnout times was 18 seconds, 90 percent of the time
- “On air” mean for turnout times was 11 seconds

As there is currently no distinction in turnout time reporting from “in station” and “on air”, thresholds were reevaluated based upon the move to three standard deviations of data. This combined all turnout times, whether in the station or on the road, and expanded the thresholds to incorporate a larger amount of data. The newly established thresholds are 5 seconds and 3 minutes. This accounts for on-air times while eliminating “on-view” events, and allowing for lower acuity calls during night hours to be evaluated.

Call processing time thresholds at three standard deviations were established for priority responses at 10 seconds and over 5 minutes and 40 seconds. The baseline was 1 minute, 20 seconds 90 percent of the time.

Travel time thresholds at three standard deviations for all priority incidents were established at 20 seconds and 12 minutes. This allowed for “on-air” situations of a short distance

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while eliminating “on-view” incidents. It also incorporated instances where multiple calls were occurring and units had to travel a longer distance to a call for assistance.

Total response time thresholds at three standard deviations for all priority incidents was established at 1 minute and 16 minutes.

Total involved time thresholds at three standard deviations were established at 3 minutes, 20 seconds, and 6 hours. This accounts for a full range of incidents.

Data was analyzed as noted, and baseline times were determined. These have been noted previously and the full range of baseline times for priority calls (and non-priority, low risk EMS calls) can be reviewed in the appendix.

Initially, the benchmarks were categorized by type of incident (EMS, Fire, Special Response). However, it was determined to maintain the current thresholds for all incident types as they are all priority responses. In the first iteration, it was found that the turnout times for fire and special incidents was almost the same as EMS calls. Travel times should be the same for any priority incident, and dispatch times under the system in use should also be relatively close for each incident type. The baseline performance charts reflect these general findings. The same criteria was used for hazard type, since a moderate risk structure fire should have similar time increments for first due as a high risk or target hazard structure fire.

The benchmark criteria was therefore broken down to structure fire and special operations incidents times, and EMS incident times.

During the reporting period of 2014 through 2017, there were only low risk technical rescue and low risk hazardous material incidents. These incidents had a single unit response, so the ERF time matches the first due unit time. There were also no target hazard structure fires or special risk events to report during this time frame.

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Plan for Maintaining and Improving Response Capabilities

After analysis of the data and other information was completed by the command staff, it was determined that current response and deployment practices were currently effective in the handling of fire, EMS and other types of incidents. Automatic and mutual aid is available and these provide good regional support for emergency incidents. There are some identified gaps in time performance, mostly related to travel, which are discussed below.

The studies of time intervals was completed at the 90th percentile for baseline analysis, at the 80th percentile for benchmark standards, and at the mean to provide a broader picture of the data and the ability to compare current data with past information. These time studies demonstrated overall quality times, but also indicated areas for improvement.

Specific improvements from the time studies can be made from the current 90th percentile to the benchmark 80th percentile in each category. The specific time gaps are as follows, with gap times from NFPA 1710 also noted (NFPA 1710 gap time in parentheses):

- Call Processing Time 19 seconds (16 seconds)
- Turnout Time Structure Fires 4 seconds (6 seconds)
- Turnout Time EMS Incidents 16 seconds (31 seconds)
- Travel Time 1st Due Structure Fires 31 seconds (89 seconds)
- Travel Time 1st Due EMS Incidents 53 seconds (109 seconds)
- ERF Travel Time Structure Fires 71 seconds (191 seconds)
- ALS Travel Time EMS Incidents 79 seconds (*exceed by 29 seconds*)
- Total Response Time Structure Fires 55 seconds (63 seconds)
- Total Response Time EMS Incidents 57 seconds (80 seconds)
- ERF Total Response Time Structure Fires 109 seconds (177 seconds)
- Total Response Time ALS 82 seconds (*exceed by 75 seconds*)

The time gap data indicates that travel times are over the recommendations and may not improve, even to the 80th percentile, until the CAD-to-CAD is implemented. This should help performance in several categories. The ALS times out-perform the NFPA 1710 recommendations, and this may be due to the large number of ALS resources in the City.

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Each fire station has a countup clock to indicate the time that is passing after the call is dispatched. The continued use of these clocks to help crews be cognizant of the turnout times may help improve this time interval for all incident types. Dashboards with time information (see below) will be created, and this will provide current information for all time intervals, and will provide information pertaining to the crews in real time. These can also be used by command staff when reviewing performance and researching improvements.

The times will be analyzed at least annually, and new benchmarks will be created annually based upon the new 80th percentile of performance in each category, provided improvement has been demonstrated.

Further analysis will need to be conducted in the future to determine what coverage gaps exist. Much of this analysis will take place within four management zones (seven, nine, ten and eleven). These need to be prioritized as these areas are outside the travel times from surrounding stations. These gaps have been known to exist, however development over the past 10 years has caused a redirected focus on these areas.

Outcomes will need to be strengthened, which may include cardiac arrest survival rates and other specific measures. Property saved values have been reported for the past several years, and this metric will be evaluated to ensure it is being used as an outcome, with the use continued in the future.

All response data indicates that current growth and development projections can be absorbed into the current deployment model with existing resources. As the city continues to develop and approach buildout, which is anticipated to occur in 2035 with 53,853 dwelling units, additional resources and facilities may be required. This may be necessitated much sooner than buildout time due to the resident, business, and retail shopping population growth. Growth will continue to be monitored through on-going meetings with City staff concerning projects, planning, and growth.

Data analysis needs to be streamlined and expanded, and a new CAD system is undergoing purchase procedures, to be implemented in 2020. In conjunction with that, a new RMS system is budgeted for the Fire Department in 2019, and the plan is for a concurrent implementation of these systems. These will help to streamline data analytics, and provide more

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real-time analysis. Having these systems better integrated will also help eliminate errors in the data. The current system requires data to be exported from each program and then manually merged. This requires a lot of time for data collection and the risk of errors increases. New integrated systems will address these needs.

The CAD-to-CAD regional system is approaching the final stages of purchase and implementation. The “Geo-Com” mapping portion has already begun to incorporate the various agency’s GIS systems into the CAD-to-CAD system. The system will incorporate multiple CAD systems from regional partners, including PSAP’s and dispatch centers, and will improve overall response and deployment capabilities. The Automatic Vehicle Locator (AVL) systems on each piece of regional apparatus will be used by the system to dispatch the closest unit(s) for any incident, regardless of geopolitical boundary, to an incident. The departments in the north area have been working on merging operational SOG’s into one system that all agencies will work from. The same departments have been training together for a number of years. This system should help with lowering times for first due units and the ERF. It will also add to the resiliency and reliability for each agency, and can be programmed to provide for move-ups in the case of a significant incident. The current deployment model requires each individual dispatch agency to contact the surrounding jurisdictions for additional resources. This process can take several minutes before the remaining resources are enroute to the incident. The CAD-to-CAD will eliminate this delay.

As noted previously, the response criteria is undergoing an evaluation that involves the north area departments. As the new CAD systems come on line, these response protocols will be implemented into the system. This will provide for a more appropriate response to incidents based on the risk level of the property and any specific needs. The current response model assigns five fire apparatus, two medic units, a Battalion Chief and the SAM officer on each structure fire. Based on the size of the incident, the type of building, or other factors, the incident commander, company officer or Battalion Chief can modify the response. The updated response groups will better utilize the risk assessment information to match the response to the risk for each incident.

As part of this evaluation, tiered dispatching and response are taking place. The EMD system is being reviewed to determine if a tiered response based on an “Alpha-Bravo-Charlie-

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Delta-Echo” acuity call system would be beneficial for implementation. This could eliminate many low acuity responses by apparatus. The current practice provides for medic units only to be dispatched on specific types of calls, but the change in systems could provide for better resource allocation based on the level of risk and need.

Dispatch procedures will be reviewed as part of this overall process. Currently, a “pre-alert” is given over the radio system by dispatch with the units and type of call provided. This is announced at all times, and it could be eliminated between 2100 and 0600 hours as the radio system in each station is automatically placed in an “alert” mode. Over time the reduction of the pre-alerts may save some time on responses.

The communication section recently underwent an evaluation by a consultant. As part of the recommendation, all of the dispatch SOP’s are being reviewed with many rewritten and upgraded. Other changes are taking place in the center as turnover was found to be excessively high. Plans are in place to address the issues and greatly reduce the turnover rate as well as procedural issues. The Fire Department will continue to monitor and assist in this process, which should result in a more secure and tenured staff with institutional knowledge and experience.

A by-product of the dispatch center updates is the use of preplan data by the communications section and personnel. Several buildings in the City have been preplanned over the years, but depending on the systems in place at the time, the ability to use this information was sporadic. The Police Department has started to also use preplan methodology in their planning for criminal events, and this information is now being placed into the communications system. A joint effort will take place between the communications section and the Fire Department to incorporate preplans into the system, and to upgrade the preplan system to provide for more thorough and additional preplans to be added.

The Blue Card system is being instituted in the Fire Department. Command level officers have completed the training and are certified, and the remaining officers in the department have either started or are waiting to undergo this training. An AFG grant was recently submitted for funding to provide this training and certification to all department personnel. The other regional agencies have undergone training, and their personnel are certified in this system. It is being used by neighboring departments, and WFD has started using this system. As the rest of the department receives the training, safety and effectiveness should further improve. This is a

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change from the ICS system which has been used for over 35 years, but it will improve performance on the fireground, particularly with neighboring agencies.

Deployment will continue to undergo evaluation, particularly with a peak time EMS unit. This has been discussed in the past but there was limited information and data to determine the effectiveness of this program. The committed time information demonstrates that there is some under-utilization of one or two units, and the incident charts demonstrate the peak periods of call loading. Any study will be completed with the knowledge that call volumes across the City continue to increase on an annual basis, and actions taken will need to be monitored and evaluated for effectiveness. This will continue to be studied for potential impacts to service.

Dashboards that incorporate business intelligence and analytics that provide real-time information are being explored. These will be made available on the computers of all the officers in the department when fully implemented. This can help with daily decisions on staffing, apparatus locations, and with additional data that can help make long range decisions. These can be used by command staff for the quarterly evaluation of services and service delivery as they will provide real time and up-to-date data for that specific time period.

Evaluations of several time increments will be conducted. These may help show overall effectiveness or help clarify certain times. These will include:

- “With patient” times, to determine actual response
- Water on the fire times, to establish times from arrival to intervention
- Fire under control times, to determine efficiency of operations
- Enroute times when “Available in Quarters” vs. “Available on Air”
- Arrival times and policies on high risk EMS calls. Currently staging is different from arrival and extends time to be at patient. Policy needs to be reviewed

Saturation levels of apparatus will be monitored. As an apparatus reaches 26% committed time, this should trigger planning for steps to address response if the level reaches 30%. This may involve adding apparatus or altering deployment. These actions may have further effects including capital projects to house additional personnel. An evaluation of these saturation levels and UHU will need to be performed to validate the credibility of these measures.

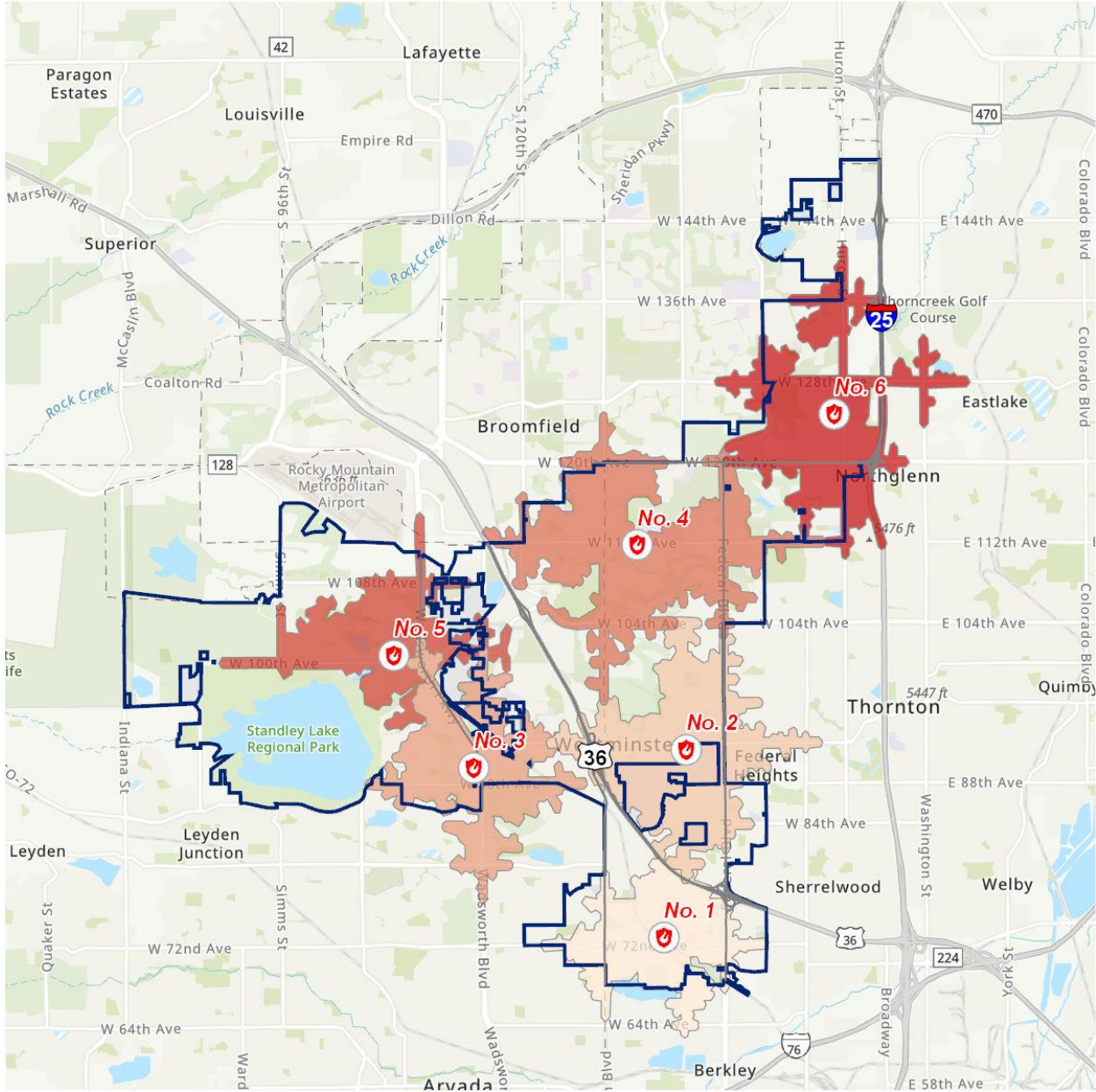
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The department needs to establish a system to follow and monitor cardiac arrest outcomes. Something similar to the Utstein system could be used to track these events. This information may demonstrate the effectiveness of technology such as public AED's or the Lucas CPR devices. A system had been in place previously but there has been no system for several years. This information would demonstrate the outcomes for victims of cardiac arrest.

An evaluation was conducted using travel times and GIS. The current road network on GIS was utilized and the fire stations were placed in the system. This included surrounding fire department stations. A four-minute travel time was used as a base, and the time was modified to 4.25 minutes to account for traffic pre-emption systems on the apparatus as well as the higher speeds responding units may travel at. With this measure, it was determined that this would demonstrate a true four-minute emergency response travel time. The system only uses the street network, so open space areas, golf courses, and undeveloped land had to be identified.

Map 31 was completed with this information, and showed that current travel times from the stations left response gaps in several areas, three of which were identified in previous reports. These three have been identified as Management Zones Nine, Ten, and Eleven. Additional areas that are part of the road network were found to be outside of the travel time. These included areas on Sheridan and Federal Boulevards that are remote from stations one and two. However, the largest gap areas with development and current call loading taking place were the Promenade and the Orchards. The new downtown area was also part of the gap extending from the Promenade.

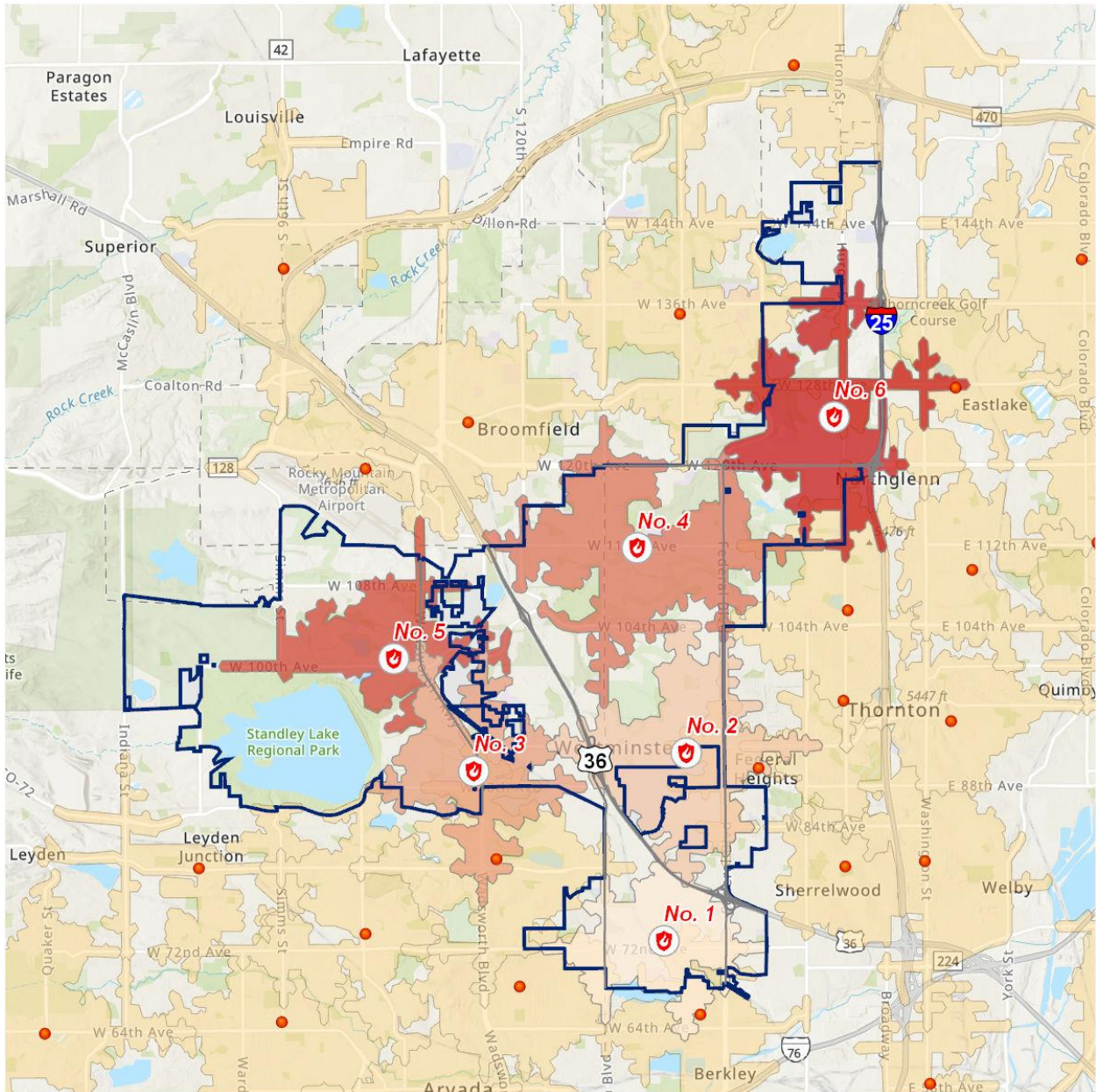
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Map 31 – Current 4 Minute Travel Time from Westminster Fire Stations

Map 32 was then created, with the WFD stations in their current location and the surrounding fire department stations identified. The four-minute travel time (again using the 4.25 minute measure) was used to determine travel from these surrounding agencies. This would simulate response once CAD-to-CAD was implemented. The results showed that only a few areas had some minor relief in travel time from other department facilities.

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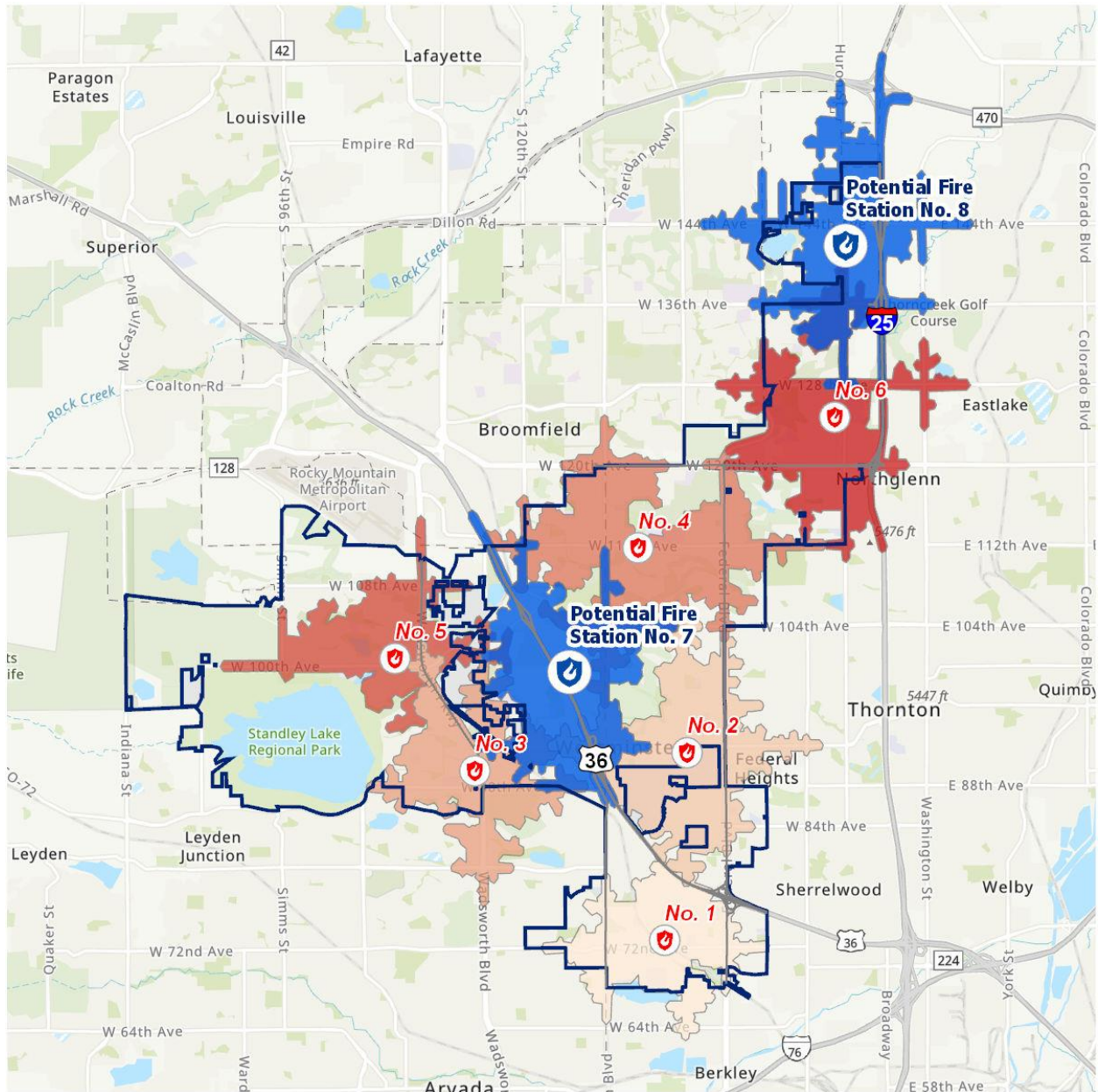


Map 32 – Current 4 Minute Travel Time from Westminster Stations and Adjoining Jurisdictions

Several iterations were done including moving multiple stations and adding additional ones. Each time, the gap areas only moved and were not eliminated. Map 33 left the WFD stations in place at their current locations, and two additional stations were added into the two most prominent gap areas, near the Promenade and south of the Orchards. These provided

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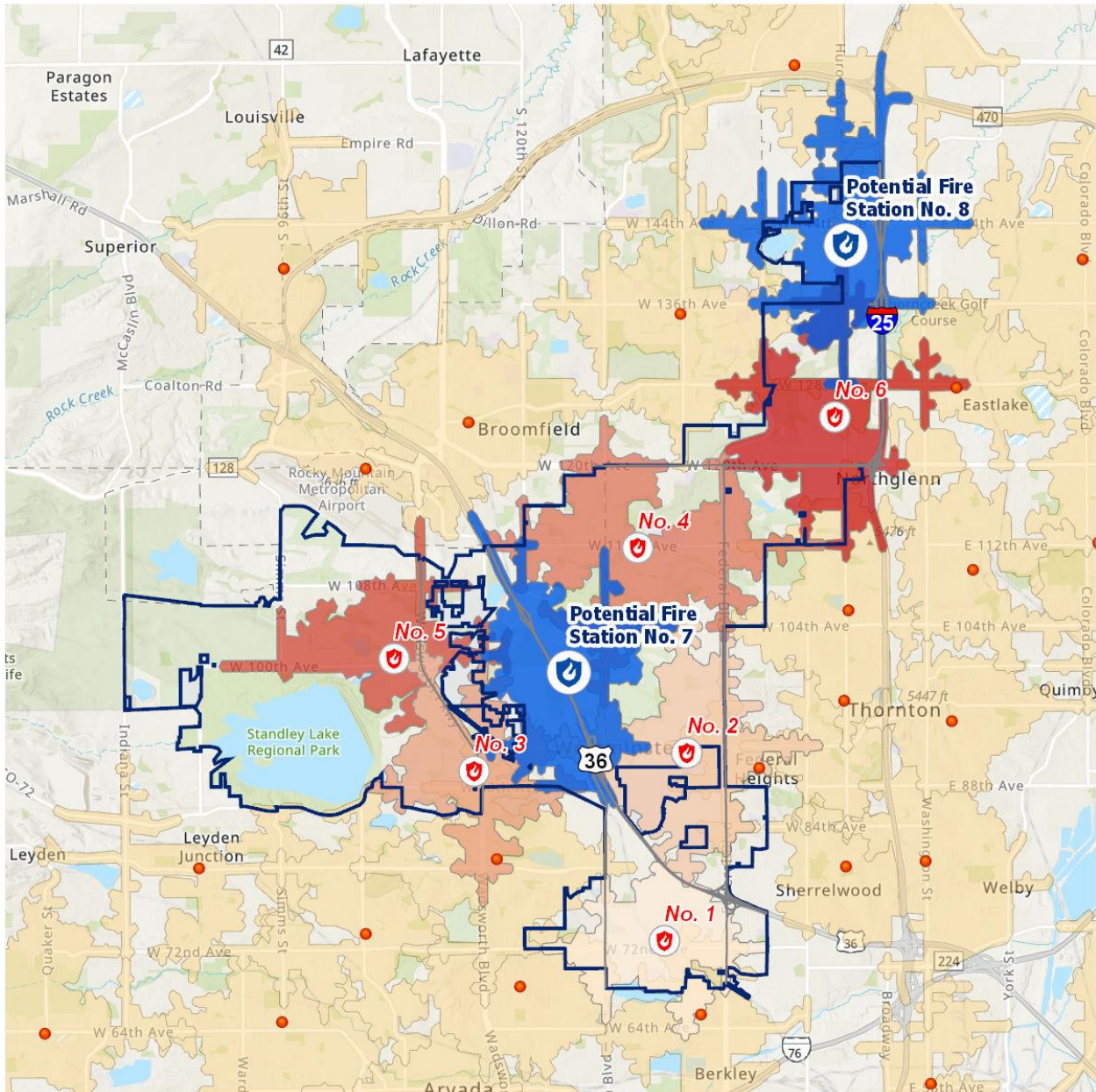
coverage of the gap areas, particularly the Promenade, the Orchards, downtown. Several smaller gap areas were also covered by these stations. The station coverage areas did not extend very far outside of Westminster boundaries.



Map 33 – Potential 4 Minute Travel Time from Westminster Stations with 2 Additional Stations

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Map 34 provided the final analysis which included the two proposed stations with the adjoining jurisdictions having their four-minute travel times incorporated. This provided some insight into second and third due units and the potential ERF coverage.



Map 34 – Potential 4 Minute Travel Time with 2 Additional Westminster Stations and Adjoining Jurisdictions

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Currently, the call volume is being adequately handled by the current deployment and facilities. The only current issues are the extended response times to these areas for the calls that do occur.

The stations were tentatively identified as Potential Fire Station 7 and Potential Fire Station 8. If the need presents itself for one or both additional stations, data at that time should provide for information on which station would be more of a priority.

A specific space study and needs assessment has been budgeted for 2019 for the Fire Department. The City has allocated \$75,000 to fund a facility, space, and needs study to be completed by a third party. This will provide further insight regarding new stations, apparatus deployment, and any other needs. This study should help improve overall performance, and provide verification of the information contained in this document.

Another area to assist with performance is the continuation of department personnel attending meetings with planning and other City staff. These groups include the Comprehensive Plan, which provides insight to the department on potential development, densities, and characteristics of the area. Other groups that personnel are assigned to are the Downtown Oversight Group, the TOD Working Group, PAR and Pre-App Groups (planning and application meetings for owners/developers), and others. These meetings are critical to long-range planning based upon development and buildout in the City.

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Correlation of CRA/SOC Document to CFAI Accreditation Model

PI/CC	Text	SOC/CRA Page #
1A.10	The governing body publishes a mission statement.	15
CC 1B.1	The administrative structure reflects the agency's mission, goals, objectives, size and complexity	15, 31
1B.2	Financial, equipment, and personnel resource allocation reflects the agency's mission, goals, and objectives	15, 31, 55, 202
2A.1	Service area boundaries for the agency are identified, documented, and legally adopted by the authority having jurisdiction	19-20
2A.2	Boundaries for other service responsibility areas, such as automatic aid, mutual aid, and contract areas, are identified, documented, and appropriately approved by the authority having jurisdiction	49-51, 75
CC 2A.3	The agency has a documented and adopted methodology for organizing the response areas into geographical planning zones	27-30, 61- 65
CC 2A.4	The agency assesses the community by planning zone and considers the population density within planning zones and population areas, as applicable, for the purpose of developing total response time standards	6-9. 20-22, 40-49, 61- 66, 94-102, 105-112, 118-127, 130-139, 143-155, 159-170
2A.6	The agency utilizes its adopted planning zone methodology to identify response area characteristics such as population, transportation systems, area land use, topography, geography, geology, physiography, climate, hazards and risks, and service provision capability demands	6-19, 26- 28. 16-27, 40-49, 73- 78, 94-102, 105-112, 118-127, 130-139,

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		143-155, 159-170
2A.7	Significant socio-economic and demographic characteristics for the response area are identified, such as key employment types and centers, assessed values, blighted areas, and population earning characteristics	8-9, 16-27, 97, 108, 122, 134, 144, 161
2A.9	The agency identified critical infrastructure within the planning zones	11-21, 36, 40-45, 94- 97, 105- 107, 118- 121, 130- 133, 143- 148, 159- 164
CC 2B.1	The agency has a documented and adopted methodology for identifying, assessing, categorizing, and classifying risks throughout the community or area of responsibility	40-51 4-5, 18-21, 150-156
2B.2	The historical emergency and non-emergency service demands frequency for a minimum of three immediately previous years and the future probability of emergency and non-emergency service demands, by service type, have been identified and documented by planning zone.	77-93, 98- 122, 109- 112, 123- 127, 135- 139, 151- 155, 166- 170
CC 2B.4	The agency's risk identification, analysis, categorization, and classification methodology has been utilized to determine and document the different categories and classes of risks within each planning zone.	40-51, 98, 108-109, 123, 134- 135, 149- 151, 165- 166 4-5, 19-21,

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		150-156
2B.5	Fire protection and detection systems are incorporated into the risk analysis	46-48
2B.6	The agency assesses critical infrastructure within the planning zones for capabilities and capacities to meet the demands posed by the risks	11-21. 40-44, 53-55, 94-97, 105-107, 118-121, 130-133, 143-148, 159-164
CC 2C.1	Given the levels of risks, area of responsibility, demographics, and socio-economic factors, the agency has determined, documented, and adopted a methodology for the consistent provision of service levels in all service program areas through response coverage strategies	66-76, 202-212
CC 2C.2	The agency has a documented and adopted methodology for monitoring its quality of emergency response performance for each service type within each planning zone and total response area	77-93
2C.3	Fire protection systems and detection systems are identified and considered in the development of appropriate response strategies	47-48, 71-75
CC 2C.4	A critical task analysis of each risk category and risk class has been conducted to determine the first-due and effective response force capabilities, and a process is in place to validate and document the results	66-75
CC 2C.5	The agency has identified the total response time components for delivery of services in each service program area and found those services consistent and reliable within the entire response area	77-81, 187-203
2C.6	The agency has identified the total response time components for delivery of services in each service program area and assessed those services in each planning zone	77-81, 98-102, 109-112, 123-

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		127, 135-139, 151-155, 166-170
CC 2C.7	The agency has identified efforts to maintain and improve its performance in the delivery of its emergency services for the past three (initial accreditation agencies) to five (currently accredited agencies) immediately previous years.	52-61, 66-93, 202-212
2C.8	The agency's resiliency has been assessed through its deployment policies, procedures, and practices	49-57, 73-74
CC 2D.1	The agency has a documented and adopted methodology for assessing performance adequacies, consistencies, reliabilities, resiliencies, and opportunities for improvement for the total response area	77-93, 187-212
2D.2	The agency continuously monitors, assesses, and internally reports, at least quarterly, on the ability of the existing delivery system to meet expected outcomes and identifies the remedial actions most in need of attention	77-93
CC 2D.3	The performance monitoring methodology identifies, at least annually, future external influences, altering conditions, growth and development trends, and new or changing risks, for purposes of analyzing the balance of service capabilities with new conditions or demands	34, 212
2D.4	The performance monitoring methodology supports the annual assessment of the efficiency and effectiveness of each service program at least annually in relation to industry research	187-201
CC 2D.6	Performance gaps for the total response area, such as inadequacies, inconsistencies, and negative trends, are determined at least annually	77-93, 187-212

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CC 2D.7	The agency has systematically developed a continuous improvement plan that details actions to be taken within an identified timeframe to address existing gaps and variations	187-212
2D.8	On at least an annual basis, the agency formally notified the authority having jurisdiction (AHJ) of any gaps in the operational capabilities and capacity of its current delivery system to mitigate the identified risks within its service area, as identified in its standards of cover	187-212
2D.9	On at least an annual basis, the agency formally notified the AHJ of any gaps between current capabilities, capacity, and the level of service approved by the AHJ	27-40, 187-212
3B.4	Published materials accurately portray the agency's goals and objectives as well as mission, vision and values in context	6
CC 4C.1	Given current and anticipated revenues, the agency can maintain adopted levels of service	22-24, 27-40, 55-61
4C.5	The agency projects future asset maintenance costs with related funding plans	22-24, 57-61
CC 5A.1	The authority having jurisdiction has an adopted fire prevention and building code	47
CC 5A.2	The code enforcement program ensures compliance with applicable fire protection laws, local jurisdiction, hazard abatement, and agency objectives as defined in the community risk assessment and standards of cover	32-35, 47-48
CC 5A.3	The program has sufficient staff with specific expertise to meet the community risk reduction program goals, objectives, and identified community risks	32-35
5A.4	A plan review process ensures that adopted codes and ordinances determine the construction of buildings and infrastructure (such as hydrants, access, street width)	34, 47
5A.6	The community risk reduction program identifies the frequency that occupancies are inspected.	47-48

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CC 5B.1	The public education program (such as development and delivery) targets specific risks, behaviors, and audiences identified through incident, demographic, program data analysis, community risk assessment, and standards of cover	32-34
CC 5B.2	The program has sufficient staff with specific expertise to meet the public education program goals, objectives, and identified community risks	32-34
5B.4	There are programs in place that identify large loss potential or high risk audiences (such as low socio-economic status, age, cultural/ethnic differences where appropriate), forge partnerships with those who serve those constituencies, and enable specified programs to mitigate fires and other emergency incidents (such as home safety visits, smoke alarm installations, free bicycle helmet programs, fall prevention programs, etc.).	32-34
CC 5C.3	The program has sufficient staff with specific expertise to meet the fire investigation, origin, and cause program goals, objectives, and identified community risks	34-35
CC 5D.1	The agency publishes an all-hazards plan that defines roles and responsibilities of all participating departments and/or external agencies. The agency identifies and authorizes an appropriate multi-agency organizational structure to carry out the all-hazards plan predetermined functions and duties	CRA (EOP, HMP)
5D.3	The agency identifies and documents outside agency support	49-51, 75-77
5D.6	The agency conducts and documents a vulnerability assessment and has operational plans to protect the agency's specific critical infrastructure, including but not limited to materials, supplies, apparatus, facilities, security, fuel, and information systems	40-51 CRA
CC 5E.1	Given its standards of cover and emergency deployment objectives, the agency meets its staffing, response time, station(s), pumping	31, 35-36, 57-59, 61-

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	capacity, apparatus, and equipment deployment objectives for each type and magnitude of fire suppression incident(s)	93, 187-212
CC 5F.1	Given its standards of cover and emergency deployment objectives, the agency meets its staffing, response time, station(s), apparatus, and equipment deployment objectives for each type of and magnitude of emergency medical incident(s)	31-32, 35-37, 61-93, 187-212
CC 5G.1	Given the agency's standards of cover and emergency deployment objectives, the agency meets its staffing, response time, station(s), apparatus, and equipment deployment objectives for each type and level of risk of a technical rescue incident(s)	31-32, 35-36, 38-39, 71-78, 80, 83, 190, 192-193, 197-198
5G.2	The agency establishes minimum training and operational standards; compliant with local, state/provincial, and national standards, and that all personnel who function in the technical rescue program meet training and operational standards	38-39
CC 5H.1	Given the agency's standards of cover and emergency deployment objectives, the agency meets its staffing, response time, station(s), apparatus, and equipment deployment objectives for each type and magnitude of hazardous material incident.	31-32, 37-38, 49, 83, 187, 190-193, 198-199 41-45
5H.2	The agency maintains appropriate training, operations policies, and documentation that response personnel are compliant with all applicable hazardous materials regulations and laws	37-38
5H.4	The agency complies with all aspects of applicable hazardous materials regulations such as, annual refresher training, medical monitoring of response personnel, annual physical examinations as applicable per standards, and exposure record retention	37-38
6A.1	The development, construction, or purchase of physical resources is consistent with the agency's goals and strategic plan	57-61, 202-212

Westminster Fire Department Standards of Cover

CC 6A.2	The governing body, administration, and staff are involved in the planning for physical facilities	57-61
6B.1	Each function or program has adequate facilities and storage space (e.g., operations, community risk reduction, training, support services, and administration)	27-33, 57-61, 103-104, 113-117, 128-129, 140-142, 156-158, 171-173, 202-212
6B.2	Buildings and outbuildings are clean and in good repair, and the surrounding grounds are well kept. Maintenance is conducted in a systemic and planned manner	60, 103-104, 113-117, 128-129, 140-142, 156-158, 171-173,
CC 6B.3	Facilities comply with federal, state/provincial, and local codes and regulations at the time of construction, required upgrades for safety are identified, and where resources allow, addressed. For those items that warrant further attention, a plan for implementation is identified in the agency's long term capital improvement plan (i.e. fire alarm systems, sprinkler system, seismic, vehicle exhaust system, asbestos abatement, etc.).	57-61, 103-104, 113-117, 128-129, 140-142, 156-158, 171-173, 202-212
CC 6C.1	Apparatus types are appropriate for the functions served (e.g., operations, staff support services, specialized services, and administration)	35-39

Westminster Fire Department Standards of Cover

6C.2	A current replacement schedule exists for all apparatus and support vehicles based on current federal and state/provincial recognized standards, vehicle condition, department needs, and requirements	36
6D.5	The reserve vehicle fleet is adequate or a documented contingency plan is in place for the event that apparatus must be taken out of service	36, 103, 116, 141
CC 7A.1	A human resources manager is designated	15
CC 8C.1	Facilities and apparatus are provided to support the agency's all-hazards training needs. The agency has plans addressing any facilities and apparatus not available internally to complete training activities.	29-32, 41
CC 9A.1	The agency establishes minimum fire flow requirements for new development in accordance with nationally and internationally recognized standards. This information should be included in the fire risk evaluation and pre-fire planning process	32, 34, 54-55
CC 9A.2	An adequate and reliable water supply is available for firefighting purposes for identified risks. The identified water supply sources are sufficient in volume and pressure based on nationally and internationally recognized structures, to control and extinguish fires	40, 54-55
9A.3	The agency maintains regular contact with the managers of public and private water systems to stay informed about available water supplies	34, 54-55
9A.4	The agency maintains copies of current water supply sources and hydrant maps for its service area	54-55, 61
9A.5	Hydrant adequacy and placement reflect the locality's known hazards and the agency's needs for dealing with those hazards. Hydrant placement is based on nationally and internationally recognized standards	34, 54-55
9A.6	Fire hydrants are located so that each is visible and accessible at all times	34, 54-55

Westminster Fire Department Standards of Cover

9A.7	Public fire hydrants are inspected, tested, and maintained in accordance with nationally and internationally recognized standards. The agency's fire protection related processes are evaluate, at least annually, to ensure adequate and readily available public or private water	34, 54-55
9A.8	The agency identifies and plans for alternate sources of water supply for those areas without hydrants, where hydrant flows are insufficient, or in the event of a major disruption in public water supply capabilities	34, 54-55, 147-148, 177-179
9A.9	The agency has operational procedures in place outlining the available water supply	54-55
CC 9B.1	A system is in place to ensure communications with portable, mobile, and fixed communications systems in the field. When an area is identified as not being capable of adequate emergency scene communications, such as inside buildings or below grade level, an operational plan is written	53-54, 58-59, 61
9B.3	The agency's communications center is adequately equipped and designed, (e.g. security, telephones, radios, equipment status, alarm devices, computers, address files, dispatching circuits, playback devices, recording systems, printers, consoles, desk, chairs, lighting, and map displays)	53-54
9B.4	The uninterrupted electrical power supply for the primary communications equipment in the communications center is reliable and has automatic backup capability	58
9B.5	Adequate numbers of fire or emergency dispatchers, supervisors, and management personnel are on duty to handle the anticipated call volume	53-54
9B.6	A maintenance program is in place with regularly scheduled system tests	53-54
9B.9	The interoperability of the communications system is evaluated and documented. The agency has processes in place to provide for	51-54

Westminster Fire Department Standards of Cover

	interoperability with other public safety agencies in the field including: portable, mobile, and fixed communications systems, tools, and equipment	
9B.11	The dispatch process utilizes a formal and recognized Emergency Medical Dispatch (EMD) system that allows for pre-arrival instructions and adequate triaging of medical calls for service	53-54
CC 10A.1	The agency develops and maintains outside relationships that support its mission, operations, and/or cost effectiveness	49-51, 75-77

Westminster Fire Department Standards of Cover

Appendices/Exhibits

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WFD SOG 101.01 Methodologies XXX

WFD Specific Methodologies XXX

Westminster Fire Department Standards of Cover

Westminster Fire Department Building Risk Assessment Categories

Category	Parameters	Points
Construction Type	Type I – Fire Resistive	1
Construction Type	Type II – Non-Combustible	5
Construction Type	Type III – Ordinary	3
Construction Type	Type IV – Heavy Timber	2
Construction Type	Type V – Wood Frame	4
Square Footage	1 – 7,500 square feet	1
Square Footage	7,501 – 15,000	2
Square Footage	15,001 – 25,000	3
Square Footage	25,001 – 40,000	5
Square Footage	Over 40,000	8
Number of Above-Grade Floors	1-2	1
Number of Above-Grade Floors	3-6	5
Number of Above-Grade Floors	Over 6	10
Presence of Below-Grade Floors	No floors below grade	0
Presence of Below-Grade Floors	Floors exist below grade	3
Occupancy Classification	Assembly	15
Occupancy Classification	Business	4
Occupancy Classification	Educational	15
Occupancy Classification	Factory Industrial	14
Occupancy Classification	Hazardous	25
Occupancy Classification	Institutional	20
Occupancy Classification	Mercantile	10
Occupancy Classification	Residential	15
Occupancy Classification	Storage/Miscellaneous	5
Occupant Load	0-10	1
Occupant Load	11-50	2
Occupant Load	51-100	3
Occupant Load	101-300	4
Occupant Load	301-2,000	6
Occupant Load	2,001-10,000	8
Occupant Load	Over 10,000	12
Sprinkler System	Present	0
Sprinkler System	None	5
Fire Alarm System	Present	0
Fire Alarm System	None	5
Hazardous Materials	Present	5
Hazardous Materials	None	0

Westminster Fire Department Standards of Cover

<u>Ice Rescue</u>		<u>Water/Dive Rescue</u>		<u>Level 1 Haz Mat Incident</u>	
<u>Task</u>	<u># Personnel</u>	<u>Task</u>	<u># Personnel</u>	<u>Task</u>	<u># Personnel</u>
IC	1	IC	1	IC/Safety	1
Safety	1	Safety	1	Pump Operator	1
Rescuer	1	Water Ops	1	Attack/Monitor	1
Backup	1	Dive Safety	1		
Medical	2	Divers	3		
Support	3	Back Up Divers	3		
		Communications	1		
ERF	9	Topside	1	ERF	3
		Support	2		
		Rehab	2		
		Medical	2		
		ERF	18		
<u>Level 2 Haz Mat Incident (Only WFD non-Technician Personnel-HM personnel from AJHMRA per their FOG's)</u>		<u>AJHMRA ERF Level 2 Incident (Includes WFD HM Technicians) (For Informational Purposes Only)</u>		<u>Train Derailment with Hazardous Materials Involvement - Combined ERF from each category</u>	
<u>Task</u>	<u># Personnel</u>	<u>Task</u>	<u># Personnel</u>		
IC	1	Branch Director	1		
Pump Operator	1	Research	1	Train Derailment	16
Medical	2	Liaison	1	Level 2 Haz Mat	20
Support	2	Safety	1	Reduction for duplication	-3
Safety	1	Equipment/Logistics	1		
		Entry Team Supervisor	1		
WFD ERF	7	Entry	2		
		Backup	2		
		Decon Team Supervisor	1		
		Decon	2		
		AJHMRA ERF	13	ERF	33
Level 2 HM ERF	20				

Westminster Fire Department Standards of Cover

<u>Technical Rescue Level 1 (WFD Personnel Only)</u>		<u>Technical Rescue Level 2 (North Metro Team Response)</u>			
<u>Task</u>	<u># Personnel</u>	<u>Task</u>	<u># Personnel</u>		
IC	1	Tech Ops	1		
Safety	1	Rescue	2		
Rescue	2	Back Up	2		
Backup	2	Rehab	2		
Support	2	Support	2		
Medical	2	Tech Safety	1		
		Tech Team ERF	10		
ERF	10				
		Level 2 Technical ERF	20		
<u>EMS</u>					
<u>Low Risk</u>		<u>Moderate Risk</u>		<u>High Risk</u>	
<u>Task</u>	<u># Personnel</u>	<u>Task</u>	<u># Personnel</u>	<u>Task</u>	<u># Personnel</u>
Medical Evaluation	2	Medical Evaluation ALS	2	Medical Evaluation ALS	2
		Support, BLS	2	Support, BLS	2
		Command/Safety	1	Command	1
				Safety	1
ERF	2	ERF	5	ERF	6

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority Calls – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

0:20 to 16:00
1:00 to 20:00

All Priority Calls - 90th Percentile Times – Baseline Performance		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		31,926	7,796	7,958	7,795	8,377
Alarm Handling	Pick-up to Dispatch	1:20 <i>n=31,257</i>	1:22 <i>n=7,597</i>	1:22 <i>n=7,789</i>	1:22 <i>n=7,655</i>	1:13 <i>n=8,216</i>
Turnout Time	Turnout Time 1st Unit	1:35 <i>n=31,336</i>	1:36 <i>n=7,664</i>	1:36 <i>n=7,817</i>	1:35 <i>n=7,644</i>	1:32 <i>n=8,211</i>
Travel Time	Travel Time 1st Unit Distribution	6:01 <i>n=31,310</i>	6:01 <i>n=7,645</i>	6:06 <i>n=7,793</i>	6:03 <i>n=7,654</i>	5:53 <i>n=8,218</i>
	Travel Time ERF Concentration	7:33 <i>n=28,282</i>	7:37 <i>n=6,874</i>	7:30 <i>n=7,028</i>	7:34 <i>n=6,825</i>	7:31 <i>n=7555</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	8:00 <i>n=31,542</i>	8:00 <i>n=7,705</i>	8:05 <i>n=7,869</i>	8:05 <i>n=7,712</i>	7:46 <i>n=8,274</i>
	Total Response Time ERF Concentration	8:52 <i>n=29,032</i>	9:00 <i>n=7,119</i>	8:50 <i>n=7,208</i>	8:54 <i>n=6,980</i>	8:48 <i>n=7725</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Structure Fires – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Structure Fires - 90th Percentile Times		Cumulative	2017	2016	2015	2014
Baseline Performance – Priority Calls		2014 – 2017				
<i>Number of Incidents (before excluding outliers)</i>		146	44	29	35	38
Alarm Handling	Pick-up to Dispatch	1:26 <i>n=146</i>	1:27 <i>n=44</i>	1:13 <i>n=29</i>	1:35 <i>n=35</i>	1:30 <i>n=38</i>
Turnout Time	Turnout Time 1st Unit	1:27 <i>n=145</i>	1:21 <i>n=44</i>	1:32 <i>n=29</i>	1:23 <i>n=35</i>	1:31 <i>n=37</i>
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:49 <i>n=145</i>	5:50 <i>n=44</i>	6:06 <i>n=28</i>	5:38 <i>n=35</i>	5:13 <i>n=38</i>
	Travel Time ERF Concentration	11:11 <i>n=97</i>	10:45 <i>n=33</i>	9:22 <i>n=19</i>	10:24 <i>n=21</i>	12:43 <i>n=24</i>
Total Response Time	Total Response Time 1 st Engine/Truck On Scene Distribution	7:55 <i>n=146</i>	7:19 <i>n=44</i>	8:06 <i>n=29</i>	7:55 <i>n=35</i>	7:49 <i>n=38</i>
	Total Response Time ERF Concentration	13:11 <i>n=99</i>	12:02 <i>n=33</i>	10:51 <i>n=19</i>	14:38 <i>n=22</i>	15:40 <i>n=25</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Moderate Risk Structure Fires – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk Structure Fires - 90th Percentile Times – Baseline Performance – Priority Calls		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		<i>109</i>	<i>32</i>	<i>22</i>	<i>24</i>	<i>31</i>
Alarm Handling	Pick-up to Dispatch	1:19 <i>n=109</i>	1:23 <i>n=32</i>	1:15 <i>n=22</i>	1:13 <i>n=24</i>	1:22 <i>n=31</i>
Turnout Time	Turnout Time 1st Unit	1:23 <i>n=109</i>	1:22 <i>n=32</i>	1:13 <i>n=22</i>	1:13 <i>n=24</i>	1:38 <i>n=31</i>
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:44 <i>n=108</i>	5:22 <i>n=32</i>	6:16 <i>n=21</i>	5:30 <i>n=24</i>	5:08 <i>n=31</i>
	Travel Time ERF Concentration	10:23 <i>n=72</i>	10:26 <i>n=25</i>	9:51 <i>n=13</i>	9:00 <i>n=15</i>	13:11 <i>n=19</i>
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	7:51 <i>n=109</i>	7:17 <i>n=32</i>	8:34 <i>n=22</i>	7:53 <i>n=24</i>	7:49 <i>n=31</i>
	Total Response Time ERF Concentration	12:40 <i>n=73</i>	11:59 <i>n=24</i>	10:43 <i>n=13</i>	10:55 <i>n=16</i>	17:03 <i>n=20</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All High Risk Structure Fires – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk Structure Fires - 90th Percentile Times – Baseline Performance – Priority Calls		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		37	12	7	11	7
Alarm Handling	Pick-up to Dispatch	1:41 <i>n=37</i>	1:29 <i>n=12</i>	N/A	2:09 <i>n=11</i>	N/A
Turnout Time	Turnout Time 1st Unit	1:27 <i>n=37</i>	1:18 <i>n=12</i>	N/A	1:27 <i>n=11</i>	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	6:34 <i>n=37</i>	7:11 <i>n=12</i>	N/A	5:47 <i>n=11</i>	N/A
	Travel Time ERF Concentration	13:18 <i>n=15</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	8:24 <i>n=37</i>	7:54 <i>n=12</i>	N/A	8:55 <i>n=11</i>	N/A
	Total Response Time ERF Concentration	14:42 <i>n=15</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Priority Non-Structure Fires – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

All Non-Structure Fires - 90th Percentile Times – Baseline Performance – Priority Calls		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		485	134	136	109	106
Alarm Handling	Pick-up to Dispatch	1:32 <i>n=477</i>	1:34 <i>n=132</i>	1:41 <i>n=132</i>	1:27 <i>n=109</i>	1:13 <i>n=104</i>
Turnout Time	Turnout Time 1st Unit	1:46 <i>n=472</i>	1:51 <i>n=130</i>	1:49 <i>n=131</i>	1:38 <i>n=107</i>	1:30 <i>n=104</i>
Travel Time	Travel Time 1st Engine/Truck Distribution	5:54 <i>n=471</i>	6:00 <i>n=130</i>	5:57 <i>n=129</i>	6:03 <i>n=108</i>	5:12 <i>n=104</i>
	Travel Time ERF Concentration	5:54 <i>n=471</i>	6:00 <i>n=130</i>	5:57 <i>n=129</i>	6:03 <i>n=108</i>	5:12 <i>n=104</i>
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	8:20 <i>n=477</i>	8:44 <i>n=132</i>	8:46 <i>n=132</i>	7:49 <i>n=108</i>	7:18 <i>n=106</i>
	Total Response Time ERF Concentration	8:20 <i>n=477</i>	8:44 <i>n=132</i>	8:46 <i>n=132</i>	7:49 <i>n=108</i>	7:18 <i>n=106</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority EMS Calls – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

EMS - 90th Percentile Times – Baseline Performance – Priority Calls		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		25,865	6,541	6,511	6,320	6,493
Alarm Handling	Pick-up to Dispatch	1:14 <i>n=25,366</i>	1:18 <i>n=6,384</i>	1:17 <i>n=6,392</i>	1:17 <i>n=6,216</i>	1:06 <i>n=6,374</i>
Turnout Time	Turnout Time 1st Unit	1:31 <i>n=25,544</i>	1:33 <i>n=6,489</i>	1:32 <i>n=6,439</i>	1:31 <i>n=6,225</i>	1:29 <i>n=6,411</i>
Travel Time	Travel Time 1st Unit Distribution	5:49 <i>n=25,551</i>	5:53 <i>n=6,462</i>	5:55 <i>n=6,427</i>	5:52 <i>n=6,247</i>	5:36 <i>n=6,415</i>
	Travel Time ERF Concentration	7:32 <i>n=23,152</i>	7:36 <i>n=5,849</i>	7:30 <i>n=5,816</i>	7:34 <i>n=5,574</i>	7:27 <i>n=5,913</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:39 <i>n=25,688</i>	7:46 <i>n=6,489</i>	7:46 <i>n=6,474</i>	7:44 <i>n=6,287</i>	7:18 <i>n=6,449</i>
	Total Response Time ERF Concentration	8:49 <i>n=23,783</i>	8:59 <i>n=6,050</i>	8:49 <i>n=5,972</i>	8:52 <i>n=5,712</i>	8:41 <i>n=6,049</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Low Risk EMS Calls – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Low Risk EMS - 90th Percentile Times Baseline Performance – Non Priority		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		2,908	1,227	748	663	270
Alarm Handling	Pick-up to Dispatch	1:28 <i>n=2,861</i>	1:30 <i>n=1,208</i>	1:34 <i>n=738</i>	1:24 <i>n=648</i>	1:13 <i>n=267</i>
Turnout Time	Turnout Time 1st Unit	1:38 <i>n=2,859</i>	1:39 <i>n=1,208</i>	1:39 <i>n=739</i>	1:34 <i>n=646</i>	1:31 <i>n=268</i>
Travel Time	Travel Time 1st Unit Distribution	7:22 <i>n=2,853</i>	7:09 <i>n=1,199</i>	7:25 <i>n=739</i>	7:35 <i>n=647</i>	7:26 <i>n=268</i>
	Travel Time ERF Concentration	7:22 <i>n=2,853</i>	7:09 <i>n=1,199</i>	7:25 <i>n=739</i>	7:35 <i>n=647</i>	7:26 <i>n=268</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:24 <i>n=2,872</i>	9:15 <i>n=1,206</i>	9:42 <i>n=746</i>	9:44 <i>n=653</i>	8:59 <i>n=270</i>
	Total Response Time ERF Concentration	9:24 <i>n=2,872</i>	9:15 <i>n=1,206</i>	9:42 <i>n=746</i>	9:44 <i>n=653</i>	8:59 <i>n=270</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Moderate Risk Priority EMS Calls – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		25,711	6,481	6,457	6,314	6,459
Alarm Handling	Pick-up to Dispatch	1:14 <i>n=25,215</i>	1:18 <i>n=6,325</i>	1:17 <i>n=6,338</i>	1:17 <i>n=6,210</i>	1:06 <i>n=6,342</i>
Turnout Time	Turnout Time 1st Unit	1:31 <i>n=25,391</i>	1:33 <i>n=6,410</i>	1:33 <i>n=6,385</i>	1:31 <i>n=6,219</i>	1:29 <i>n=6,377</i>
Travel Time	Travel Time 1st Unit Distribution	5:49 <i>n=25,400</i>	5:53 <i>n=6,403</i>	5:55 <i>n=6,374</i>	5:52 <i>n=6,241</i>	5:36 <i>n=6,382</i>
	Travel Time ERF Concentration	7:31 <i>n=22,660</i>	7:33 <i>n=5,749</i>	7:29 <i>n=5,718</i>	7:34 <i>n=5,442</i>	7:27 <i>n=5,751</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:38 <i>n=25,535</i>	7:46 <i>n=6,438</i>	7:45 <i>n=6,409</i>	7:44 <i>n=6,281</i>	7:18 <i>n=6,415</i>
	Total Response Time ERF Concentration	8:48 <i>n=23,257</i>	8:55 <i>n=5,933</i>	8:46 <i>n=5,870</i>	8:51 <i>n=5,571</i>	8:40 <i>n=5,883</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All High Risk Priority EMS Calls – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		<i>194</i>	<i>60</i>	<i>54</i>	<i>46</i>	<i>34</i>
Alarm Handling	Pick-up to Dispatch	1:26 <i>n=190</i>	1:43 <i>n=59</i>	1:20 <i>n=54</i>	1:22 <i>n=45</i>	1:21 <i>n=32</i>
Turnout Time	Turnout Time 1st Unit	1:27 <i>n=193</i>	1:30 <i>n=59</i>	1:28 <i>n=54</i>	1:28 <i>n=46</i>	1:25 <i>n=34</i>
Travel Time	Travel Time 1st Unit Distribution	6:09 <i>n=190</i>	6:08 <i>n=59</i>	6:38 <i>n=53</i>	6:17 <i>n=45</i>	5:50 <i>n=33</i>
	Travel Time ERF Concentration	10:39 <i>n=169</i>	9:45 <i>n=52</i>	9:47 <i>n=48</i>	11:25 <i>n=39</i>	11:13 <i>n=30</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:55 <i>n=192</i>	7:45 <i>n=59</i>	8:29 <i>n=54</i>	9:11 <i>n=45</i>	7:33 <i>n=34</i>
	Total Response Time ERF Concentration	12:20 <i>n=183</i>	12:19 <i>n=58</i>	11:40 <i>n=50</i>	12:36 <i>n=43</i>	11:45 <i>n=32</i>

**Westminster Fire Department
All Priority Technical Rescue Calls – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Technical Rescue - 90th Percentile Times - Baseline Performance – Priority Calls (All Low Risk)		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		53	8	19	13	13
Alarm Handling	Pick-up to Dispatch	1:21 <i>n=51</i>	N/A	1:27 <i>n=18</i>	1:30 <i>n=13</i>	0:58 <i>n=13</i>
Turnout Time	Turnout Time 1st Unit	1:36 <i>n=53</i>	N/A	1:41 <i>n=19</i>	1:16 <i>n=13</i>	1:35 <i>n=13</i>
Travel Time	Travel Time 1st Unit Distribution	6:41 <i>n=53</i>	N/A	6:54 <i>n=19</i>	5:31 <i>n=13</i>	8:08 <i>n=13</i>
	Travel Time ERF Concentration	6:41 <i>n=53</i>	N/A	6:54 <i>n=19</i>	5:31 <i>n=13</i>	8:08 <i>n=13</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:37 <i>n=53</i>	N/A	10:06 <i>n=19</i>	7:18 <i>n=13</i>	10:12 <i>n=13</i>
	Total Response Time ERF Concentration	9:37 <i>n=53</i>	N/A	10:06 <i>n=19</i>	7:18 <i>n=13</i>	10:12 <i>n=13</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority Haz Mat Calls – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Hazardous Materials - 90th Percentile Times – Baseline Performance – Priority Calls (All Low Risk)		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		453	99	116	91	147
Alarm Handling	Pick-up to Dispatch	1:49 <i>n=441</i>	1:56 <i>n=95</i>	2:33 <i>n=113</i>	1:35 <i>n=89</i>	1:28 <i>n=144</i>
Turnout Time	Turnout Time 1st Unit	1:51 <i>n=433</i>	1:52 <i>n=96</i>	1:52 <i>n=109</i>	1:48 <i>n=86</i>	1:50 <i>N=142</i>
Travel Time	Travel Time 1st Unit Distribution	6:57 <i>n=441</i>	7:22 <i>n=99</i>	6:46 <i>n=111</i>	7:02 <i>n=88</i>	6:57 <i>n=143</i>
	Travel Time ERF Concentration	6:57 <i>n=441</i>	7:22 <i>n=99</i>	6:46 <i>n=111</i>	7:02 <i>n=88</i>	6:57 <i>n=143</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:25 <i>n=443</i>	9:26 <i>n=99</i>	9:36 <i>n=113</i>	9:13 <i>n=88</i>	9:30 <i>n=144</i>
	Total Response Time ERF Concentration	9:25 <i>n=443</i>	9:26 <i>n=99</i>	9:36 <i>n=113</i>	9:13 <i>n=88</i>	9:30 <i>n=144</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Priority Calls District 1 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

All Priority Calls - 90th Percentile Times - Baseline Performance – District 1		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		9,219	2,127	2,380	2,305	2,407
Alarm Handling	Pick-up to Dispatch	1:20 <i>n=9,039</i>	1:26 <i>n=2,084</i>	1:23 <i>n=2,333</i>	1:19 <i>n=2,255</i>	1:11 <i>n=2,367</i>
Turnout Time	Turnout Time 1st Unit	1:32 <i>n=9,063</i>	1:30 <i>n=2,094</i>	1:35 <i>n=2,338</i>	1:35 <i>n=2,261</i>	1:29 <i>n=2,370</i>
Travel Time	Travel Time 1st Unit Distribution	5:49 <i>n=9,069</i>	6:00 <i>n=2,097</i>	5:46 <i>n=2,337</i>	5:53 <i>n=2,266</i>	5:35 <i>n=2,369</i>
	Travel Time ERF Concentration	7:06 <i>n=8,239</i>	7:15 <i>n=1,886</i>	6:58 <i>n=2,107</i>	7:09 <i>n=2,031</i>	7:01 <i>n=2,215</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:44 <i>n=9,133</i>	7:58 <i>n=2,110</i>	7:43 <i>n=2,358</i>	7:57 <i>n=2,281</i>	7:22 <i>n=2,384</i>
	Total Response Time ERF Concentration	8:23 <i>n=8,419</i>	8:38 <i>n=1,938</i>	8:16 <i>n=2,152</i>	8:32 <i>n=2,074</i>	8:11 <i>n=2,255</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Structure Fires District 1 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Structure Fires - 90th Percentile Times		Cumulative	2017	2016	2015	2014
–		2014 – 2017				
Baseline Performance – District 1						
<i>Number of Incidents (before excluding outliers)</i>		42	17	10	8	7
Alarm Handling	Pick-up to Dispatch	1:09 <i>n=42</i>	1:17 <i>n=17</i>	1:10 <i>n=10</i>	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:26 <i>n=42</i>	1:23 <i>n=17</i>	1:46 <i>n=10</i>	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:13 <i>n=42</i>	5:17 <i>n=17</i>	5:25 <i>n=10</i>	N/A	N/A
	Travel Time ERF Concentration	10:48 <i>n=31</i>	11:05 <i>n=14</i>	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	6:23 <i>n=42</i>	6:15 <i>n=17</i>	7:03 <i>n=10</i>	N/A	N/A
	Total Response Time ERF Concentration	11:59 <i>n=31</i>	12:39 <i>n=14</i>	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
Moderate Risk Structure Fires District 1 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 1		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		28	10	6	5	7
Alarm Handling	Pick-up to Dispatch	1:03 <i>n=28</i>	:44 <i>n=10</i>	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:15 <i>n=28</i>	1:22 <i>n=10</i>	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:16 <i>n=28</i>	5:25 <i>n=10</i>	N/A	N/A	N/A
	Travel Time ERF Concentration	10:00 <i>n=22</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	6:22 <i>n=28</i>	6:32 <i>n=10</i>	N/A	N/A	N/A
	Total Response Time ERF Concentration	11:22 <i>n=22</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
High Risk Structure Fires District 1 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 1		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		<i>14</i>	<i>7</i>	<i>4</i>	<i>3</i>	<i>0</i>
Alarm Handling	Pick-up to Dispatch	<i>1:22 n=14</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>0</i>
Turnout Time	Turnout Time 1st Unit	<i>1:39 n=14</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>0</i>
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	<i>4:50 n=14</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>0</i>
	Travel Time ERF Concentration	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>0</i>
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	<i>6:36 n=14</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>0</i>
	Total Response Time ERF Concentration	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>0</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Priority Non-Structure Fires District 1 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Non-Structure Fires - 90th Percentile Times – Baseline Performance – District 1 Priority Calls		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		<i>165</i>	<i>49</i>	<i>45</i>	<i>38</i>	<i>33</i>
Alarm Handling	Pick-up to Dispatch	1:27 <i>n=162</i>	2:02 <i>n=49</i>	1:27 <i>n=43</i>	1:20 <i>n=38</i>	1:04 <i>n=32</i>
Turnout Time	Turnout Time 1st Unit	1:46 <i>n=159</i>	1:47 <i>n=47</i>	2:01 <i>n=42</i>	1:42 <i>n=38</i>	1:29 <i>n=32</i>
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:46 <i>n=160</i>	6:08 <i>n=47</i>	5:50 <i>n=43</i>	6:05 <i>n=38</i>	4:29 <i>n=32</i>
	Travel Time ERF Concentration	5:46 <i>n=160</i>	6:08 <i>n=47</i>	5:50 <i>n=43</i>	6:05 <i>n=38</i>	4:29 <i>n=32</i>
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	8:27 <i>n=164</i>	8:44 <i>n=49</i>	8:25 <i>n=44</i>	8:06 <i>n=38</i>	5:53 <i>n=33</i>
	Total Response Time ERF Concentration	8:27 <i>n=164</i>	8:44 <i>n=49</i>	8:25 <i>n=44</i>	8:06 <i>n=38</i>	5:53 <i>n=33</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority EMS Calls – District 1 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

EMS - 90th Percentile Times – Baseline Performance – Priority Calls – District 1		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		7,694	1,810	2,004	1,927	1,953
Alarm Handling	Pick-up to Dispatch	1:15 <i>n=7,549</i>	1:22 <i>n=1,775</i>	1:17 <i>n=1,965</i>	1:16 <i>n=1,888</i>	1:04 <i>n=1,921</i>
Turnout Time	Turnout Time 1st Unit	1:30 <i>n=7,597</i>	1:29 <i>n=1,792</i>	1:33 <i>n=1,974</i>	1:32 <i>n=1,896</i>	1:27 <i>n=1,935</i>
Travel Time	Travel Time 1st Unit Distribution	5:43 <i>n=7,608</i>	5:58 <i>n=1,797</i>	5:42 <i>n=1,976</i>	5:46 <i>n=1,904</i>	5:22 <i>n=1,931</i>
	Travel Time ERF Concentration	7:03 <i>n=6,943</i>	7:12 <i>n=1,625</i>	6:56 <i>n=1,794</i>	7:07 <i>n=1,709</i>	6:54 <i>n=1,815</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:30 <i>n=7,649</i>	7:52 <i>n=1,802</i>	7:32 <i>n=1,990</i>	7:33 <i>n=1,915</i>	7:04 <i>n=1,942</i>
	Total Response Time ERF Concentration	8:19 <i>n=7,100</i>	8:36 <i>n=1,669</i>	8:09 <i>n=1,832</i>	8:29 <i>n=1,751</i>	8:05 <i>n=1,848</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Low Risk Non-Priority EMS Calls District 1 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Low Risk EMS - 90th Percentile Times – Baseline Performance – Non-Priority Calls District 1		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		<i>1,080</i>	<i>467</i>	<i>280</i>	<i>232</i>	<i>101</i>
Alarm Handling	Pick-up to Dispatch	1:26 <i>n=1,068</i>	1:30 <i>n=461</i>	1:30 <i>n=279</i>	1:19 <i>n=227</i>	1:09 <i>n=101</i>
Turnout Time	Turnout Time 1st Unit	1:35 <i>n=1,068</i>	1:35 <i>n=463</i>	1:38 <i>n=278</i>	1:32 <i>n=226</i>	1:23 <i>n=101</i>
Travel Time	Travel Time 1st Unit Distribution	6:53 <i>n=1,065</i>	6:38 <i>n=459</i>	7:06 <i>n=278</i>	7:17 <i>n=227</i>	6:21 <i>n=101</i>
	Travel Time ERF Concentration	6:53 <i>n=1,065</i>	6:38 <i>n=459</i>	7:06 <i>n=278</i>	7:17 <i>n=227</i>	6:21 <i>n=101</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	8:47 <i>n=1,074</i>	8:35 <i>n=461</i>	8:48 <i>n=279</i>	9:53 <i>n=232</i>	8:04 <i>n=101</i>
	Total Response Time ERF Concentration	8:47 <i>n=1,074</i>	8:35 <i>n=461</i>	8:48 <i>n=279</i>	9:53 <i>n=232</i>	8:04 <i>n=101</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Moderate Risk Priority EMS Calls District 1 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 1		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		7,656	1,796	1,993	1,925	1,942
Alarm Handling	Pick-up to Dispatch	1:15 <i>n=7,512</i>	1:22 <i>n=1,762</i>	1:17 <i>n=1,954</i>	1:16 <i>n=1,886</i>	:50 <i>n=1,911</i>
Turnout Time	Turnout Time 1st Unit	1:30 <i>n=7,560</i>	1:29 <i>n=1,779</i>	1:16 <i>n=1,963</i>	1:32 <i>n=1,894</i>	1:27 <i>n=1,925</i>
Travel Time	Travel Time 1st Unit Distribution	5:43 <i>n=7,571</i>	5:58 <i>n=1,783</i>	5:42 <i>n=1,966</i>	5:46 <i>n=1,903</i>	5:22 <i>n=1,921</i>
	Travel Time ERF Concentration	7:03 <i>n=6,790</i>	7:11 <i>n=1,602</i>	6:56 <i>n=1,770</i>	7:07 <i>n=1,659</i>	6:50 <i>n=1,759</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:30 <i>n=7,611</i>	7:52 <i>n=1,788</i>	7:32 <i>n=1,979</i>	7:33 <i>n=1,913</i>	7:04 <i>n=1,932</i>
	Total Response Time ERF Concentration	8:17 <i>n=6,939</i>	8:34 <i>n=1,644</i>	8:09 <i>n=1,806</i>	8:27 <i>n=1,697</i>	8:03 <i>n=1,792</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All High Risk Priority EMS Calls District 1 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 1		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		49	14	11	13	11
Alarm Handling	Pick-up to Dispatch	1:17 <i>n=47</i>	1:10 <i>n=13</i>	1:05 <i>n=11</i>	:53 <i>n=12</i>	1:22 <i>n=11</i>
Turnout Time	Turnout Time 1st Unit	1:29 <i>n=48</i>	1:23 <i>n=13</i>	1:40 <i>n=11</i>	1:25 <i>n=13</i>	1:26 <i>n=11</i>
Travel Time	Travel Time 1st Unit Distribution	5:51 <i>n=48</i>	5:52 <i>n=14</i>	4:48 <i>n=10</i>	5:38 <i>n=13</i>	6:02 <i>n=11</i>
	Travel Time ERF Concentration	10:48 <i>n=45</i>	13:05 <i>n=13</i>	6:52 <i>n=9</i>	11:16 <i>n=12</i>	7:41 <i>n=11</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:32 <i>n=49</i>	7:24 <i>n=14</i>	7:08 <i>n=11</i>	7:26 <i>n=13</i>	7:04 <i>n=11</i>
	Total Response Time ERF Concentration	12:32 <i>n=48</i>	14:31 <i>n=14</i>	10:36 <i>n=10</i>	12:36 <i>n=13</i>	8:47 <i>n=11</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Technical Rescues District 1 – 90th Percentiles**



Thresholds:

Call Processing 0:10 to 5:40
 Turnout 0:05 to 3:00
 Travel 0:20 to 12:00
 Total 1:00 to 16:00
 Committed 3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
 1:00 to 20:00

Technical Rescues - 90th Percentile Times – Baseline Performance – Priority Calls District 1 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		15	3	7	3	2
Alarm Handling	Pick-up to Dispatch	1:02 <i>n=14</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:35 <i>n=15</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	5:15 <i>n=15</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	5:15 <i>n=15</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:01 <i>n=15</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	7:01 <i>n=15</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Hazardous Materials District 1 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Hazardous Materials - 90th Percentile Times – Baseline Performance – Priority Calls District 1 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		<i>112</i>	<i>21</i>	<i>28</i>	<i>30</i>	<i>33</i>
Alarm Handling	Pick-up to Dispatch	1:56 <i>n=108</i>	1:26 <i>n=20</i>	2:18 <i>n=27</i>	2:02 <i>n=30</i>	1:53 <i>n=32</i>
Turnout Time	Turnout Time 1st Unit	1:36 <i>n=108</i>	1:31 <i>n=20</i>	1:20 <i>n=27</i>	1:34 <i>n=30</i>	1:47 <i>n=31</i>
Travel Time	Travel Time 1st Unit Distribution	6:40 <i>n=108</i>	4:26 <i>n=21</i>	7:44 <i>n=27</i>	6:08 <i>n=29</i>	7:04 <i>n=32</i>
	Travel Time ERF Concentration	6:40 <i>n=108</i>	4:26 <i>n=21</i>	7:44 <i>n=27</i>	6:08 <i>n=29</i>	7:04 <i>n=32</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:07 <i>n=108</i>	6:29 <i>n=21</i>	9:39 <i>n=27</i>	8:50 <i>n=29</i>	9:57 <i>n=31</i>
	Total Response Time ERF Concentration	9:07 <i>n=108</i>	6:29 <i>n=21</i>	9:39 <i>n=27</i>	8:50 <i>n=29</i>	9:57 <i>n=31</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Priority Calls District 2 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

All Priority Calls - 90th Percentile Times - Baseline Performance – District 2		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		5,884	1,302	1,435	1,472	1,675
Alarm Handling	Pick-up to Dispatch	1:20 <i>n=5,739</i>	1:22 <i>n=1,266</i>	1:24 <i>n=1,395</i>	1:20 <i>n=1,442</i>	1:13 <i>n=1,636</i>
Turnout Time	Turnout Time 1st Unit	1:36 <i>n=5,749</i>	1:38 <i>n=1,268</i>	1:35 <i>n=1,407</i>	1:35 <i>n=1,437</i>	1:33 <i>n=1,637</i>
Travel Time	Travel Time 1st Unit Distribution	5:52 <i>n=5,745</i>	5:49 <i>n=1,262</i>	5:55 <i>n=1,400</i>	5:55 <i>n=1,444</i>	5:47 <i>n=1,639</i>
	Travel Time ERF Concentration	7:09 <i>n=5,154</i>	7:13 <i>n=1,115</i>	6:59 <i>n=1,267</i>	7:17 <i>n=1,279</i>	7:02 <i>n=1,493</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:51 <i>n=5,789</i>	7:52 <i>n=1,280</i>	7:55 <i>n=1,410</i>	8:01 <i>n=1,453</i>	7:39 <i>n=1,646</i>
	Total Response Time ERF Concentration	8:24 <i>n=5,302</i>	8:30 <i>n=1,169</i>	8:20 <i>n=1,297</i>	8:37 <i>n=1,314</i>	8:12 <i>n=1,522</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Structure Fires District 2 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Structure Fires - 90th Percentile Times		Cumulative	2017	2016	2015	2014
–		2014 – 2017				
Baseline Performance – District 2						
<i>Number of Incidents (before excluding outliers)</i>		21	5	4	6	6
Alarm Handling	Pick-up to Dispatch	1:18 <i>n=21</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:42 <i>n=21</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	6:16 <i>n=21</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	10:00 <i>n=13</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	8:38 <i>n=21</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	12:42 <i>n=14</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
Moderate Risk Structure Fires District 2 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 2		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		14	4	4	2	4
Alarm Handling	Pick-up to Dispatch	1:17 <i>n=14</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:35 <i>n=14</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	6:06 <i>n=14</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	N/A	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	7:54 <i>n=14</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	12:07 <i>n=10</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
High Risk Structure Fires District 2 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 2		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		7	1	0	4	2
Alarm Handling	Pick-up to Dispatch	N/A	N/A	0	N/A	N/A
Turnout Time	Turnout Time 1st Unit	N/A	N/A	0	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	N/A	N/A	0	N/A	N/A
	Travel Time ERF Concentration	N/A	N/A	0	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	N/A	N/A	0	N/A	N/A
	Total Response Time ERF Concentration	N/A	N/A	0	N/A	N/A

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Priority Non-Structure Fires District 2 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Non-Structure Fires - 90th Percentile Times – Baseline Performance – Priority Calls District 2		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		89	25	27	20	17
Alarm Handling	Pick-up to Dispatch	1:23 <i>n=88</i>	1:21 <i>n=24</i>	1:01 <i>n=27</i>	1:33 <i>n=20</i>	2:01 <i>n=17</i>
Turnout Time	Turnout Time 1st Unit	1:47 <i>n=87</i>	2:06 <i>n=24</i>	1:41 <i>n=26</i>	1:35 <i>n=20</i>	1:37 <i>n=17</i>
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	4:57 <i>n=86</i>	5:06 <i>n=24</i>	4:51 <i>n=26</i>	4:54 <i>n=20</i>	4:18 <i>n=16</i>
	Travel Time ERF Concentration	4:57 <i>n=86</i>	5:06 <i>n=24</i>	4:51 <i>n=26</i>	4:54 <i>n=20</i>	4:18 <i>n=16</i>
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	7:09 <i>n=87</i>	7:00 <i>n=24</i>	7:06 <i>n=27</i>	7:11 <i>n=20</i>	7:37 <i>n=17</i>
	Total Response Time ERF Concentration	7:09 <i>n=87</i>	7:00 <i>n=24</i>	7:06 <i>n=27</i>	7:11 <i>n=20</i>	7:37 <i>n=17</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority EMS Calls – District 2 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

EMS - 90th Percentile Times – Baseline Performance – Priority Calls – District 2		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		4,761	1,113	1,167	1,181	1,300
Alarm Handling	Pick-up to Dispatch	1:15 <i>n=4,667</i>	1:20 <i>n=1,086</i>	1:21 <i>n=1,143</i>	1:14 <i>n=1,163</i>	1:07 <i>n=1,275</i>
Turnout Time	Turnout Time 1st Unit	1:31 <i>n=4,699</i>	1:35 <i>n=1,095</i>	1:30 <i>n=1,159</i>	1:31 <i>n=1,161</i>	1:28 <i>n=1,284</i>
Travel Time	Travel Time 1st Unit Distribution	5:43 <i>n=4,706</i>	5:42 <i>n=1,090</i>	5:45 <i>n=1,152</i>	5:52 <i>n=1,170</i>	5:31 <i>n=1,285</i>
	Travel Time ERF Concentration	7:06 <i>n=4,253</i>	7:10 <i>n=977</i>	6:57 <i>n=1,054</i>	7:22 <i>n=1,044</i>	6:59 <i>n=1,178</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:18 <i>n=1,639</i>	7:39 <i>n=1,099</i>	7:38 <i>n=1,159</i>	7:42 <i>n=1,175</i>	7:13 <i>n=1,291</i>
	Total Response Time ERF Concentration	8:18 <i>n=4,372</i>	8:18 <i>n=1,020</i>	8:16 <i>n=1,077</i>	8:36 <i>n=1,072</i>	8:00 <i>n=1,203</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Low Risk Non-Priority EMS Calls District 2 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

EMS - 90th Percentile Times – Baseline Performance – Low Risk Non-Priority Calls District 2		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		623	263	146	179	35
Alarm Handling	Pick-up to Dispatch	1:32 <i>n=611</i>	1:30 <i>n=256</i>	1:35 <i>n=143</i>	1:33 <i>n=178</i>	1:18 <i>n=34</i>
Turnout Time	Turnout Time 1st Unit	1:36 <i>n=610</i>	1:36 <i>n=256</i>	1:36 <i>n=145</i>	1:32 <i>n=175</i>	1:28 <i>n=34</i>
Travel Time	Travel Time 1st Unit Distribution	7:32 <i>n=607</i>	7:21 <i>n=255</i>	7:35 <i>n=145</i>	7:55 <i>n=172</i>	6:51 <i>n=35</i>
	Travel Time ERF Concentration	7:32 <i>n=607</i>	7:21 <i>n=255</i>	7:35 <i>n=145</i>	7:55 <i>n=172</i>	6:51 <i>n=35</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:40 <i>n=610</i>	9:31 <i>n=256</i>	9:34 <i>n=146</i>	10:00 <i>n=173</i>	8:38 <i>n=35</i>
	Total Response Time ERF Concentration	9:40 <i>n=610</i>	9:31 <i>n=256</i>	9:34 <i>n=146</i>	10:00 <i>n=173</i>	8:38 <i>n=35</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Moderate Risk Priority EMS Calls District 2 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 2		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		4,730	1,101	1,157	1,179	1,293
Alarm Handling	Pick-up to Dispatch	1:14 <i>n=4,636</i>	1:19 <i>n=1,074</i>	1:21 <i>n=1,133</i>	1:14 <i>n=1,161</i>	1:07 <i>n=1,268</i>
Turnout Time	Turnout Time 1st Unit	1:31 <i>n=4,668</i>	1:35 <i>n=1,083</i>	1:30 <i>n=1,149</i>	1:31 <i>n=1,159</i>	1:28 <i>n=1,277</i>
Travel Time	Travel Time 1st Unit Distribution	5:41 <i>n=4,666</i>	5:41 <i>n=1,078</i>	5:45 <i>n=1,142</i>	5:52 <i>n=1,168</i>	5:31 <i>n=1,278</i>
	Travel Time ERF Concentration	7:05 <i>n=4,103</i>	7:09 <i>n=947</i>	6:54 <i>n=1,029</i>	7:16 <i>n=1,003</i>	6:59 <i>n=1,124</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:30 <i>n=4,693</i>	7:38 <i>n=1,087</i>	7:37 <i>n=1,149</i>	7:43 <i>n=1,173</i>	7:12 <i>n=1,284</i>
	Total Response Time ERF Concentration	8:14 <i>n=4,216</i>	8:16 <i>n=988</i>	8:13 <i>n=1,052</i>	8:30 <i>n=1,028</i>	8:00 <i>n=1,148</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All High Risk Priority EMS Calls District 2 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 2		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		43	12	10	14	7
Alarm Handling	Pick-up to Dispatch	1:47 <i>n=43</i>	1:46 <i>n=12</i>	1:55 <i>n=10</i>	1:10 <i>n=14</i>	N/A
Turnout Time	Turnout Time 1st Unit	1:22 <i>n=43</i>	1:20 <i>n=12</i>	1:15 <i>n=10</i>	1:47 <i>n=14</i>	N/A
Travel Time	Travel Time 1st Unit Distribution	7:45 <i>n=43</i>	6:22 <i>n=12</i>	7:12 <i>n=10</i>	8:10 <i>n=14</i>	N/A
	Travel Time ERF Concentration	11:07 <i>n=38</i>	7:07 <i>n=12</i>	N/A	11:38 <i>N=11</i>	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:43 <i>n=43</i>	7:46 <i>n=12</i>	8:58 <i>n=10</i>	10:00 <i>n=14</i>	N/A
	Total Response Time ERF Concentration	11:47 <i>n=40</i>	8:18 <i>n=12</i>	N/A	12:49 <i>n=13</i>	N/A

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Technical Rescues District 2 – 90th Percentiles**



Thresholds:

Call Processing 0:10 to 5:40
 Turnout 0:05 to 3:00
 Travel 0:20 to 12:00
 Total 1:00 to 16:00
 Committed 3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
 1:00 to 20:00

Technical Rescues - 90th Percentile Times – Baseline Performance – Priority Calls District 2 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		12	2	2	4	4
Alarm Handling	Pick-up to Dispatch	1:06 <i>n=12</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:22 <i>n=12</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	6:00 <i>n=12</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	6:00 <i>n=12</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:14 <i>n=12</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	7:14 <i>n=12</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Hazardous Materials District 2 – 90th Percentiles**



Thresholds:

Call Processing 0:10 to 5:40
Turnout 0:05 to 3:00
Travel 0:20 to 12:00
Total 1:00 to 16:00
Committed 3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Hazardous Materials - 90th Percentile Times – Baseline Performance – Priority Calls District 2 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		67	9	19	11	28
Alarm Handling	Pick-up to Dispatch	1:17 <i>n=63</i>	N/A	1:31 <i>n=18</i>	1:01 <i>n=10</i>	1:02 <i>n=27</i>
Turnout Time	Turnout Time 1st Unit	1:55 <i>n=64</i>	N/A	1:54 <i>n=18</i>	1:43 <i>n=10</i>	1:53 <i>n=27</i>
Travel Time	Travel Time 1st Unit Distribution	6:39 <i>n=65</i>	N/A	6:19 <i>n=19</i>	6:49 <i>n=10</i>	6:11 <i>n=27</i>
	Travel Time ERF Concentration	6:39 <i>n=65</i>	N/A	6:19 <i>n=19</i>	6:49 <i>n=10</i>	6:11 <i>n=27</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:02 <i>n=65</i>	N/A	8:20 <i>n=19</i>	9:15 <i>n=10</i>	8:37 <i>n=27</i>
	Total Response Time ERF Concentration	9:02 <i>n=65</i>	N/A	8:20 <i>n=19</i>	9:15 <i>n=10</i>	8:37 <i>n=27</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Priority Calls District 3 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

All Priority Calls - 90th Percentile Times - Baseline Performance – District 3		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		4,369	1,111	1,091	1,010	1,157
Alarm Handling	Pick-up to Dispatch	1:19 <i>n=4,277</i>	1:18 <i>n=1,075</i>	1:22 <i>n=1,068</i>	1:26 <i>n=995</i>	1:13 <i>n=1,139</i>
Turnout Time	Turnout Time 1st Unit	1:36 <i>n=4,290</i>	1:35 <i>n=1,096</i>	1:36 <i>n=1,071</i>	1:38 <i>n=989</i>	1:35 <i>n=1,134</i>
Travel Time	Travel Time 1st Unit Distribution	5:33 <i>n=4,275</i>	5:13 <i>n=1,094</i>	5:35 <i>n=1,061</i>	5:32 <i>n=989</i>	5:47 <i>n=1,131</i>
	Travel Time ERF Concentration	7:27 <i>n=3,880</i>	7:14 <i>n=1,005</i>	7:20 <i>n=975</i>	7:33 <i>n=874</i>	7:31 <i>n=1,028</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:34 <i>n=94314</i>	7:05 <i>n=1,101</i>	7:38 <i>n=1,070</i>	7:34 <i>n=1,001</i>	7:58 <i>n=1,142</i>
	Total Response Time ERF Concentration	8:45 <i>n=3,978</i>	8:27 <i>n=1,033</i>	8:38 <i>n=990</i>	8:44 <i>n=896</i>	8:55 <i>n=1,059</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Structure Fires District 3 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Structure Fires - 90th Percentile Times		Cumulative	2017	2016	2015	2014
–		2014 – 2017				
Baseline Performance – District 3						
<i>Number of Incidents (before excluding outliers)</i>		25	9	4	4	8
Alarm Handling	Pick-up to Dispatch	1:20 <i>n=25</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:07 <i>n=25</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:47 <i>n=25</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	9:39 <i>n=17</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	7:54 <i>n=25</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	13:23 <i>n=18</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
Moderate Risk Structure Fires District 3 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 3		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		24	9	4	4	7
Alarm Handling	Pick-up to Dispatch	1:20 <i>n=24</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:03 <i>n=24</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:48 <i>n=24</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	9:50 <i>n=15</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	7:55 <i>n=24</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	14:25 <i>n=16</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
High Risk Structure Fires District 3 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 3		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>
Alarm Handling	Pick-up to Dispatch	N/A	<i>0</i>	<i>0</i>	<i>0</i>	N/A
Turnout Time	Turnout Time 1st Unit	N/A	<i>0</i>	<i>0</i>	<i>0</i>	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	N/A	<i>0</i>	<i>0</i>	<i>0</i>	N/A
	Travel Time ERF Concentration	N/A	<i>0</i>	<i>0</i>	<i>0</i>	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	N/A	<i>0</i>	<i>0</i>	<i>0</i>	N/A
	Total Response Time ERF Concentration	N/A	<i>0</i>	<i>0</i>	<i>0</i>	N/A

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Priority Non-Structure Fires District 3 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Non-Structure Fires - 90th Percentile Times – Baseline Performance – Priority Calls District 3		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		57	22	12	10	13
Alarm Handling	Pick-up to Dispatch	1:41 <i>n=56</i>	1:34 <i>n=21</i>	2:29 <i>n=12</i>	1:17 <i>n=10</i>	1:32 <i>n=13</i>
Turnout Time	Turnout Time 1st Unit	1:44 <i>n=56</i>	1:40 <i>n=21</i>	1:49 <i>n=12</i>	1:31 <i>n=10</i>	1:31 <i>n=13</i>
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:58 <i>n=56</i>	5:17 <i>n=21</i>	5:52 <i>n=12</i>	5:44 <i>n=10</i>	6:08 <i>n=13</i>
	Travel Time ERF Concentration	5:58 <i>n=56</i>	5:17 <i>n=21</i>	5:52 <i>n=12</i>	5:44 <i>n=10</i>	6:08 <i>n=13</i>
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	9:01 <i>n=56</i>	9:01 <i>n=21</i>	8:59 <i>n=12</i>	7:09 <i>n=10</i>	8:08 <i>n=13</i>
	Total Response Time ERF Concentration	9:01 <i>n=56</i>	9:01 <i>n=21</i>	8:59 <i>n=12</i>	7:09 <i>n=10</i>	8:08 <i>n=13</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority EMS Calls District 3 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 3		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		3,502	928	884	828	862
Alarm Handling	Pick-up to Dispatch	1:14 <i>n=3,434</i>	1:13 <i>n=928</i>	1:18 <i>n=869</i>	1:21 <i>n=816</i>	1:03 <i>n=850</i>
Turnout Time	Turnout Time 1st Unit	1:34 <i>n=3,459</i>	1:31 <i>n=920</i>	1:32 <i>n=874</i>	1:35 <i>n=815</i>	1:34 <i>n=850</i>
Travel Time	Travel Time 1st Unit Distribution	5:21 <i>n=3,459</i>	5:09 <i>n=919</i>	5:19 <i>n=871</i>	5:27 <i>n=817</i>	5:25 <i>n=852</i>
	Travel Time ERF Concentration	7:27 <i>n=3,139</i>	7:13 <i>n=849</i>	7:23 <i>n=798</i>	7:48 <i>n=721</i>	7:27 <i>n=771</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:10 <i>n=3,477</i>	6:52 <i>n=920</i>	7:05 <i>n=877</i>	7:25 <i>n=825</i>	7:13 <i>n=855</i>
	Total Response Time ERF Concentration	8:40 <i>n=3,212</i>	8:29 <i>n=871</i>	8:38 <i>n=813</i>	8:56 <i>n=738</i>	8:37 <i>n=790</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Low Risk Non-Priority EMS Calls District 3 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Low Risk EMS - 90th Percentile Times – Baseline Performance – Non-Priority Calls District 3		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		259	122	84	47	6
Alarm Handling	Pick-up to Dispatch	1:32 <i>n=255</i>	1:28 <i>n=122</i>	1:36 <i>n=83</i>	1:24 <i>n=44</i>	N/A
Turnout Time	Turnout Time 1st Unit	1:40 <i>n=256</i>	1:45 <i>n=121</i>	1:34 <i>n=84</i>	1:35 <i>n=45</i>	N/A
Travel Time	Travel Time 1st Unit Distribution	7:07 <i>n=254</i>	7:07 <i>n=119</i>	6:40 <i>n=84</i>	6:35 <i>n=45</i>	N/A
	Travel Time ERF Concentration	7:07 <i>n=254</i>	7:07 <i>n=119</i>	6:40 <i>n=84</i>	6:35 <i>n=45</i>	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:23 <i>n=257</i>	9:23 <i>n=121</i>	8:34 <i>n=84</i>	9:23 <i>n=46</i>	N/A
	Total Response Time ERF Concentration	9:23 <i>n=257</i>	9:23 <i>n=121</i>	8:34 <i>n=84</i>	9:23 <i>n=46</i>	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Moderate Risk Priority EMS Calls District 3 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 3		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		3,479	922	873	828	856
Alarm Handling	Pick-up to Dispatch	1:14 <i>n=3,412</i>	1:13 <i>n=893</i>	1:19 <i>n=858</i>	1:21 <i>n=816</i>	1:03 <i>n=845</i>
Turnout Time	Turnout Time 1st Unit	1:34 <i>n=3,436</i>	1:32 <i>n=914</i>	1:33 <i>n=863</i>	1:35 <i>n=815</i>	1:34 <i>n=844</i>
Travel Time	Travel Time 1st Unit Distribution	5:22 <i>n=3,437</i>	5:09 <i>n=913</i>	5:19 <i>n=860</i>	5:27 <i>n=817</i>	5:25 <i>n=847</i>
	Travel Time ERF Concentration	7:27 <i>n=3,083</i>	7:14 <i>n=839</i>	7:24 <i>n=784</i>	7:49 <i>n=708</i>	7:27 <i>n=752</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:10 <i>n=3,454</i>	6:52 <i>n=914</i>	7:05 <i>n=866</i>	7:25 <i>n=825</i>	7:13 <i>n=849</i>
	Total Response Time ERF Concentration	8:40 <i>n=3,153</i>	8:29 <i>n=859</i>	8:38 <i>n=799</i>	8:56 <i>n=725</i>	8:37 <i>n=770</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All High Risk Priority EMS Calls District 3 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 3		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		28	6	11	5	6
Alarm Handling	Pick-up to Dispatch	1:13 <i>n=27</i>	N/A	1:05 <i>n=11</i>	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:12 <i>n=28</i>	N/A	1:01 <i>n=11</i>	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	4:55 <i>n=27</i>	N/A	4:47 <i>n=11</i>	N/A	N/A
	Travel Time ERF Concentration	8:26 <i>n=24</i>	N/A	6:50 <i>n=11</i>	N/A	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	6:41 <i>n=28</i>	N/A	6:19 <i>n=11</i>	N/A	N/A
	Total Response Time ERF Concentration	9:34 <i>n=26</i>	N/A	7:51 <i>n=11</i>	N/A	N/A

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Technical Rescues District 3 – 90th Percentiles**



Thresholds:

Call Processing 0:10 to 5:40
 Turnout 0:05 to 3:00
 Travel 0:20 to 12:00
 Total 1:00 to 16:00
 Committed 3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
 1:00 to 20:00

Technical Rescues - 90th Percentile Times – Baseline Performance – Priority Calls District 3 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		4	0	2	0	2
Alarm Handling	Pick-up to Dispatch	N/A	0	N/A	0	N/A
Turnout Time	Turnout Time 1st Unit	N/A	0	N/A	0	N/A
Travel Time	Travel Time 1st Unit Distribution	N/A	0	N/A	0	N/A
	Travel Time ERF Concentration	N/A	0	N/A	0	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	N/A	0	N/A	0	N/A
	Total Response Time ERF Concentration	N/A	0	N/A	0	N/A

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Hazardous Materials District 3 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Hazardous Materials - 90th Percentile Times – Baseline Performance – Priority Calls District 3 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		76	15	19	13	29
Alarm Handling	Pick-up to Dispatch	1:52 <i>n=76</i>	1:47 <i>n=15</i>	2:22 <i>n=19</i>	1:39 <i>n=13</i>	1:26 <i>n=29</i>
Turnout Time	Turnout Time 1st Unit	1:47 <i>n=72</i>	1:36 <i>n=14</i>	2:02 <i>n=19</i>	1:42 <i>n=11</i>	1:40 <i>n=28</i>
Travel Time	Travel Time 1st Unit Distribution	7:17 <i>n=74</i>	7:37 <i>n=15</i>	6:54 <i>n=19</i>	6:31 <i>n=13</i>	5:36 <i>n=27</i>
	Travel Time ERF Concentration	7:17 <i>n=74</i>	7:37 <i>n=15</i>	6:54 <i>n=19</i>	6:31 <i>n=13</i>	5:36 <i>n=27</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:50 <i>n=75</i>	9:32 <i>n=15</i>	11:32 <i>n=19</i>	8:41 <i>n=13</i>	7:11 <i>n=28</i>
	Total Response Time ERF Concentration	9:50 <i>n=75</i>	9:32 <i>n=15</i>	11:32 <i>n=19</i>	8:41 <i>n=13</i>	7:11 <i>n=28</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Priority Calls District 4 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

All Priority Calls - 90th Percentile Times - Baseline Performance – District 4		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		4,760	1,187	1,144	1,188	1,241
Alarm Handling	Pick-up to Dispatch	1:17 <i>n=4,667</i>	1:18 <i>n=1,157</i>	1:17 <i>n=1,120</i>	1:20 <i>n=1,170</i>	1:13 <i>n=1,220</i>
Turnout Time	Turnout Time 1st Unit	1:40 <i>n=4,668</i>	1:46 <i>n=1,166</i>	1:40 <i>n=1,120</i>	1:38 <i>n=1,167</i>	1:38 <i>n=1,215</i>
Travel Time	Travel Time 1st Unit Distribution	5:51 <i>n=4,676</i>	5:51 <i>n=1,166</i>	5:52 <i>n=1,123</i>	5:55 <i>n=1,168</i>	5:46 <i>n=1,219</i>
	Travel Time ERF Concentration	7:28 <i>n=4,255</i>	7:19 <i>n=1,047</i>	7:16 <i>n=1,018</i>	7:22 <i>n=1,057</i>	7:44 <i>n=1,133</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:51 <i>n=4,703</i>	7:53 <i>n=1,173</i>	7:50 <i>n=1,126</i>	8:02 <i>n=1,177</i>	7:41 <i>n=1,227</i>
	Total Response Time ERF Concentration	8:47 <i>n=4,356</i>	8:51 <i>n=1,086</i>	8:35 <i>n=1,045</i>	8:36 <i>n=1,074</i>	9:00 <i>n=1,151</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Structure Fires District 4 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Structure Fires - 90th Percentile Times		Cumulative	2017	2016	2015	2014
–		2014 – 2017				
Baseline Performance – District 4						
<i>Number of Incidents (before excluding outliers)</i>		23	7	3	6	7
Alarm Handling	Pick-up to Dispatch	1:36 <i>n=23</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:27 <i>n=23</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:18 <i>n=23</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	8:50 <i>n=17</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	7:23 <i>n=23</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	10:08 <i>n=17</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
Moderate Risk Structure Fires District 4 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 4		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		19	6	2	6	5
Alarm Handling	Pick-up to Dispatch	1:35 <i>n=19</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:30 <i>n=19</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:11 <i>n=19</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	8:57 <i>n=11</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	7:20 <i>n=19</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	10:33 <i>n=11</i>	N/A	N/A	N/A	N/A

n/a – No ERF arrival

Westminster Fire Department Standards of Cover

Westminster Fire Department
High Risk Structure Fires District 4 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 4		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		<i>4</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>2</i>
Alarm Handling	Pick-up to Dispatch	N/A	N/A	N/A	0	N/A
Turnout Time	Turnout Time 1st Unit	N/A	N/A	N/A	0	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	N/A	N/A	N/A	0	N/A
	Travel Time ERF Concentration	N/A	N/A	N/A	0	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	N/A	N/A	N/A	0	N/A
	Total Response Time ERF Concentration	N/A	N/A	N/A	0	N/A

n/a – No ERF arrival

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority Non-Structure Fires District 4 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Non-Structure Fires - 90th Percentile Times – Baseline Performance – Priority Calls District 4		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		59	10	14	16	19
Alarm Handling	Pick-up to Dispatch	1:17 <i>n=57</i>	1:27 <i>n=10</i>	1:36 <i>n=13</i>	1:11 <i>n=16</i>	1:07 <i>n=18</i>
Turnout Time	Turnout Time 1st Unit	1:53 <i>n=57</i>	1:58 <i>n=10</i>	1:23 <i>n=14</i>	2:29 <i>n=15</i>	1:13 <i>n=18</i>
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	6:19 <i>n=58</i>	6:54 <i>n=10</i>	6:42 <i>n=13</i>	5:21 <i>n=16</i>	5:10 <i>n=19</i>
	Travel Time ERF Concentration	6:19 <i>n=58</i>	6:54 <i>n=10</i>	6:42 <i>n=13</i>	5:21 <i>n=16</i>	5:10 <i>n=19</i>
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	7:53 <i>n=58</i>	9:12 <i>n=10</i>	8:43 <i>n=13</i>	7:40 <i>n=16</i>	7:16 <i>n=19</i>
	Total Response Time ERF Concentration	7:53 <i>n=58</i>	9:12 <i>n=10</i>	8:43 <i>n=13</i>	7:40 <i>n=16</i>	7:16 <i>n=19</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority EMS Calls District 4 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 4		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		3,856	1,007	945	966	938
Alarm Handling	Pick-up to Dispatch	1:13 <i>n=3,786</i>	1:13 <i>n=985</i>	1:14 <i>n=928</i>	1:14 <i>n=950</i>	1:06 <i>n=923</i>
Turnout Time	Turnout Time 1st Unit	1:37 <i>n=3,800</i>	1:42 <i>n=995</i>	1:38 <i>n=930</i>	1:35 <i>n=953</i>	1:35 <i>n=922</i>
Travel Time	Travel Time 1st Unit Distribution	5:31 <i>n=3,807</i>	5:36 <i>n=996</i>	5:35 <i>n=934</i>	5:33 <i>n=954</i>	5:18 <i>n=923</i>
	Travel Time ERF Concentration	7:21 <i>n=3,471</i>	7:18 <i>n=905</i>	7:13 <i>n=844</i>	7:12 <i>n=859</i>	7:36 <i>n=863</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:29 <i>n=3,825</i>	7:34 <i>n=999</i>	7:33 <i>n=936</i>	7:34 <i>n=961</i>	7:15 <i>n=929</i>
	Total Response Time ERF Concentration	8:42 <i>n=3,560</i>	8:50 <i>n=936</i>	8:26 <i>n=869</i>	8:30 <i>n=876</i>	8:55 <i>n=879</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Low Risk Non-Priority EMS Calls District 4 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Low Risk EMS - 90th Percentile Times – Baseline Performance – Non-Priority Calls District 4		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		456	176	117	86	77
Alarm Handling	Pick-up to Dispatch	1:27 <i>n=446</i>	1:31 <i>n=174</i>	1:24 <i>n=114</i>	1:13 <i>n=82</i>	1:15 <i>n=76</i>
Turnout Time	Turnout Time 1st Unit	1:45 <i>n=446</i>	1:48 <i>n=172</i>	1:49 <i>n=114</i>	1:42 <i>n=84</i>	1:41 <i>n=76</i>
Travel Time	Travel Time 1st Unit Distribution	6:58 <i>n=448</i>	6:20 <i>n=171</i>	7:11 <i>n=115</i>	7:43 <i>n=85</i>	7:27 <i>n=77</i>
	Travel Time ERF Concentration	6:58 <i>n=448</i>	6:20 <i>n=171</i>	7:11 <i>n=115</i>	7:43 <i>n=85</i>	7:27 <i>n=77</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	8:57 <i>n=449</i>	8:27 <i>n=172</i>	8:53 <i>n=116</i>	9:24 <i>n=84</i>	8:39 <i>n=77</i>
	Total Response Time ERF Concentration	8:57 <i>n=449</i>	8:27 <i>n=172</i>	8:53 <i>n=116</i>	9:24 <i>n=84</i>	8:39 <i>n=77</i>

**Westminster Fire Department
All Moderate Risk Priority EMS Calls District 4 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 4		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		3,831	993	938	965	935
Alarm Handling	Pick-up to Dispatch	1:13 <i>n=3,761</i>	1:14 <i>n=971</i>	1:14 <i>n=921</i>	1:14 <i>n=949</i>	1:06 <i>n=920</i>
Turnout Time	Turnout Time 1st Unit	1:37 <i>n=3,775</i>	1:41 <i>n=981</i>	1:38 <i>n=923</i>	1:35 <i>n=952</i>	1:35 <i>n=919</i>
Travel Time	Travel Time 1st Unit Distribution	5:30 <i>n=3,782</i>	5:34 <i>n=982</i>	5:35 <i>n=927</i>	5:32 <i>n=953</i>	5:18 <i>n=920</i>
	Travel Time ERF Concentration	7:19 <i>n=3,417</i>	7:12 <i>n=889</i>	7:12 <i>n=830</i>	7:12 <i>n=847</i>	7:35 <i>n=851</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:29 <i>n=3,800</i>	7:33 <i>n=985</i>	7:32 <i>n=929</i>	7:34 <i>n=960</i>	7:15 <i>n=926</i>
	Total Response Time ERF Concentration	8:39 <i>n=3,499</i>	8:44 <i>n=914</i>	8:24 <i>n=855</i>	8:30 <i>n=863</i>	8:55 <i>n=867</i>

**Westminster Fire Department
All High Risk Priority EMS Calls District 4 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 4		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		31	14	7	7	3
Alarm Handling	Pick-up to Dispatch	1:17 n=31	:58 n=14	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:34 n=31	1:45 n=14	N/A	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	6:09 n=31	6:02 n=14	N/A	N/A	N/A
	Travel Time ERF Concentration	10:26 n=26	9:16 n=11	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	8:16 n=31	7:49 n=14	N/A	N/A	N/A
	Total Response Time ERF Concentration	12:29 n=29	12:40 n=13	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Technical Rescues District 4 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Technical Rescues - 90th Percentile Times – Baseline Performance – Priority Calls District 4 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		5	2	2	1	0
Alarm Handling	Pick-up to Dispatch	N/A	N/A	N/A	N/A	0
Turnout Time	Turnout Time 1st Unit	N/A	N/A	N/A	N/A	0
Travel Time	Travel Time 1st Unit Distribution	N/A	N/A	N/A	N/A	0
	Travel Time ERF Concentration	N/A	N/A	N/A	N/A	0
Total Response Time	Total Response Time 1st Unit On Scene Distribution	N/A	N/A	N/A	N/A	0
	Total Response Time ERF Concentration	N/A	N/A	N/A	N/A	0

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Hazardous Materials District 4 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Hazardous Materials - 90th Percentile Times – Baseline Performance – Priority Calls District 4 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		63	13	13	14	23
Alarm Handling	Pick-up to Dispatch	1:56 <i>n=62</i>	1:56 <i>n=12</i>	2:39 <i>n=13</i>	1:21 <i>n=14</i>	1:33 <i>n=23</i>
Turnout Time	Turnout Time 1st Unit	1:59 <i>n=61</i>	1:56 <i>n=13</i>	1:50 <i>n=11</i>	1:49 <i>n=14</i>	1:59 <i>n=23</i>
Travel Time	Travel Time 1st Unit Distribution	5:53 <i>n=62</i>	6:04 <i>n=13</i>	5:12 <i>n=12</i>	5:41 <i>n=14</i>	6:15 <i>n=23</i>
	Travel Time ERF Concentration	5:53 <i>n=62</i>	6:04 <i>n=13</i>	5:12 <i>n=12</i>	5:41 <i>n=14</i>	6:15 <i>n=23</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	8:36 <i>n=62</i>	9:24 <i>n=13</i>	8:15 <i>n=12</i>	8:23 <i>n=14</i>	8:17 <i>n=23</i>
	Total Response Time ERF Concentration	8:36 <i>n=62</i>	9:24 <i>n=13</i>	8:15 <i>n=12</i>	8:23 <i>n=14</i>	8:17 <i>n=23</i>

**Westminster Fire Department
All Priority Calls District 5 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

All Priority Calls - 90th Percentile Times - Baseline Performance – District 5		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		3,177	797	713	823	844
Alarm Handling	Pick-up to Dispatch	1:22 <i>n=3,106</i>	1:23 <i>n=773</i>	1:20 <i>n=703</i>	1:30 <i>n=811</i>	1:13 <i>n=819</i>
Turnout Time	Turnout Time 1st Unit	1:34 <i>n=3,117</i>	1:31 <i>n=784</i>	1:36 <i>n=699</i>	1:34 <i>n=806</i>	1:34 <i>n=828</i>
Travel Time	Travel Time 1st Unit Distribution	6:11 <i>n=3,123</i>	5:49 <i>n=779</i>	6:25 <i>n=701</i>	6:32 <i>n=809</i>	6:09 <i>n=834</i>
	Travel Time ERF Concentration	8:52 <i>n=2,842</i>	8:44 <i>n=710</i>	9:09 <i>n=628</i>	8:59 <i>n=735</i>	8:29 <i>n=769</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	8:09 <i>n=3,135</i>	7:47 <i>n=783</i>	8:35 <i>n=704</i>	8:36 <i>n=814</i>	7:55 <i>n=834</i>
	Total Response Time ERF Concentration	10:12 <i>n=2,917</i>	10:12 <i>n=732</i>	10:35 <i>n=649</i>	10:21 <i>n=753</i>	9:49 <i>n=783</i>

**Westminster Fire Department
All Structure Fires District 5 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Structure Fires - 90th Percentile Times – Baseline Performance – District 5		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		17	2	4	6	5
Alarm Handling	Pick-up to Dispatch	1:21 <i>n=17</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:20 <i>n=17</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:54 <i>n=16</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	12:27 <i>n=12</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	7:51 <i>n=17</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	13:35 <i>n=12</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
Moderate Risk Structure Fires District 5 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 5		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		15	2	4	5	4
Alarm Handling	Pick-up to Dispatch	1:11 <i>n=15</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:19 <i>n=15</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	5:55 <i>n=14</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	11:11 <i>n=10</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	7:27 <i>n=15</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	12:52 <i>n=10</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

**Westminster Fire Department
High Risk Structure Fires District 5 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 5		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		2	0	0	1	1
Alarm Handling	Pick-up to Dispatch	N/A	0	0	N/A	N/A
Turnout Time	Turnout Time 1st Unit	N/A	0	0	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	N/A	0	0	N/A	N/A
	Travel Time ERF Concentration	N/A	0	0	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	N/A	0	0	N/A	N/A
	Total Response Time ERF Concentration	N/A	0	0	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority Non-Structure Fires District 5 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Non-Structure Fires - 90th Percentile Times – Baseline Performance – Priority Calls District 5		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		42	9	16	8	9
Alarm Handling	Pick-up to Dispatch	1:51 <i>n=41</i>	N/A	2:11 <i>n=15</i>	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:34 <i>n=41</i>	N/A	1:16 <i>n=15</i>	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	5:17 <i>n=40</i>	N/A	6:29 <i>n=14</i>	N/A	N/A
	Travel Time ERF Concentration	5:17 <i>n=40</i>	N/A	6:29 <i>n=14</i>	N/A	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:31 <i>n=40</i>	N/A	10:02 <i>n=14</i>	N/A	N/A
	Total Response Time ERF Concentration	7:31 <i>n=40</i>	N/A	10:02 <i>n=14</i>	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority EMS Calls – 90th Percentiles – District 5



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 5		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		2,469	649	556	614	650
Alarm Handling	Pick-up to Dispatch	1:16 <i>n=2,416</i>	1:18 <i>n=631</i>	1:17 <i>n=549</i>	1:23 <i>n=606</i>	1:07 <i>n=630</i>
Turnout Time	Turnout Time 1st Unit	1:28 <i>n=2,436</i>	1:27 <i>n=641</i>	1:28 <i>n=551</i>	1:29 <i>n=602</i>	1:29 <i>n=642</i>
Travel Time	Travel Time 1st Unit Distribution	5:59 <i>n=2,445</i>	5:44 <i>n=640</i>	6:07 <i>n=552</i>	6:15 <i>n=608</i>	5:57 <i>n=645</i>
	Travel Time ERF Concentration	9:02 <i>n=2,219</i>	9:00 <i>n=581</i>	9:27 <i>n=493</i>	9:16 <i>n=553</i>	8:44 <i>n=592</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:46 <i>n=2,454</i>	7:31 <i>n=643</i>	8:07 <i>n=553</i>	7:58 <i>n=612</i>	7:25 <i>n=646</i>
	Total Response Time ERF Concentration	10:20 <i>n=2,286</i>	10:20 <i>n=600</i>	10:59 <i>n=511</i>	10:31 <i>n=570</i>	9:54 <i>n=605</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Low Risk Non-Priority EMS Calls District 5 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Low Risk EMS - 90th Percentile Times – Baseline Performance – Non-Priority Calls District 5		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		<i>177</i>	<i>91</i>	<i>53</i>	<i>25</i>	<i>8</i>
Alarm Handling	Pick-up to Dispatch	1:35 <i>n=176</i>	1:35 <i>n=91</i>	1:40 <i>n=53</i>	1:27 <i>n=24</i>	N/A
Turnout Time	Turnout Time 1st Unit	1:23 <i>n=172</i>	1:22 <i>n=89</i>	1:34 <i>n=52</i>	1:05 <i>n=23</i>	N/A
Travel Time	Travel Time 1st Unit Distribution	7:48 <i>n=174</i>	7:28 <i>n=89</i>	8:49 <i>n=53</i>	7:20 <i>n=24</i>	N/A
	Travel Time ERF Concentration	7:48 <i>n=174</i>	7:28 <i>n=89</i>	8:49 <i>n=53</i>	7:20 <i>n=24</i>	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:54 <i>n=175</i>	9:42 <i>n=90</i>	10:53 <i>n=53</i>	8:33 <i>n=24</i>	N/A
	Total Response Time ERF Concentration	9:54 <i>n=175</i>	9:42 <i>n=90</i>	10:53 <i>n=53</i>	8:33 <i>n=24</i>	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Moderate Risk Priority EMS Calls District 5 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 5		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		2,450	644	547	614	645
Alarm Handling	Pick-up to Dispatch	1:16 <i>n=2,398</i>	1:18 <i>n=626</i>	1:17 <i>n=540</i>	1:23 <i>n=606</i>	1:07 <i>n=626</i>
Turnout Time	Turnout Time 1st Unit	1:28 <i>n=2,417</i>	1:27 <i>n=636</i>	1:28 <i>n=542</i>	1:29 <i>n=602</i>	1:29 <i>n=637</i>
Travel Time	Travel Time 1st Unit Distribution	5:59 <i>n=2,427</i>	5:44 <i>n=636</i>	6:08 <i>n=543</i>	6:15 <i>n=608</i>	5:56 <i>n=640</i>
	Travel Time ERF Concentration	9:01 <i>n=2,186</i>	9:00 <i>n=573</i>	9:25 <i>n=483</i>	9:17 <i>n=548</i>	8:41 <i>n=582</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:46 <i>n=2,436</i>	7:31 <i>n=639</i>	8:09 <i>n=544</i>	7:58 <i>n=612</i>	7:25 <i>n=641</i>
	Total Response Time ERF Concentration	10:20 <i>n=2,249</i>	10:19 <i>n=591</i>	10:52 <i>n=500</i>	10:32 <i>n=565</i>	9:53 <i>n=593</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All High Risk Priority EMS Calls District 5 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 5		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		20	5	9	1	5
Alarm Handling	Pick-up to Dispatch	1:10 <i>n=19</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:27 <i>n=20</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	5:53 <i>n=19</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	10:30 <i>n=16</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:07 <i>n=19</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	15:47 <i>n=19</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Technical Rescues District 5 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Technical Rescues - 90th Percentile Times – Baseline Performance – Priority Calls District 5 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		<i>13</i>	<i>0</i>	<i>3</i>	<i>6</i>	<i>4</i>
Alarm Handling	Pick-up to Dispatch	1:15 <i>n=12</i>	0	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:21 <i>n=13</i>	0	N/A	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	6:52 <i>n=13</i>	0	N/A	N/A	N/A
	Travel Time ERF Concentration	6:52 <i>n=13</i>	0	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	9:50 <i>n=13</i>	0	N/A	N/A	N/A
	Total Response Time ERF Concentration	9:50 <i>n=13</i>	0	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Hazardous Materials District 5 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Hazardous Materials - 90th Percentile Times – Baseline Performance – Priority Calls District 5 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		53	15	16	9	13
Alarm Handling	Pick-up to Dispatch	1:33 <i>n=52</i>	1:24 <i>n=14</i>	1:38 <i>n=16</i>	N/A	1:30 <i>n=13</i>
Turnout Time	Turnout Time 1st Unit	1:54 <i>n=47</i>	1:43 <i>n=14</i>	2:11 <i>n=14</i>	N/A	1:45 <i>n=12</i>
Travel Time	Travel Time 1st Unit Distribution	5:48 <i>n=51</i>	6:23 <i>n=15</i>	5:22 <i>n=15</i>	N/A	5:07 <i>n=13</i>
	Travel Time ERF Concentration	5:48 <i>n=51</i>	6:23 <i>n=15</i>	5:22 <i>n=15</i>	N/A	5:07 <i>n=13</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	8:18 <i>n=52</i>	8:26 <i>n=15</i>	7:44 <i>n=16</i>	N/A	8:09 <i>n=13</i>
	Total Response Time ERF Concentration	8:18 <i>n=52</i>	8:26 <i>n=15</i>	7:44 <i>n=16</i>	N/A	8:09 <i>n=13</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority Calls District 6 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

All Priority Calls - 90th Percentile Times - Baseline Performance – District 6		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		4,511	1,267	1,195	996	1,053
Alarm Handling	Pick-up to Dispatch	1:21 <i>n=4,423</i>	1:23 <i>n=1,237</i>	1:24 <i>n=1,170</i>	1:22 <i>n=981</i>	1:15 <i>n=1,035</i>
Turnout Time	Turnout Time 1st Unit	1:32 <i>n=4,443</i>	1:40 <i>n=1,251</i>	1:35 <i>n=1,182</i>	1:27 <i>n=983</i>	1:23 <i>n=1,027</i>
Travel Time	Travel Time 1st Unit Distribution	6:42 <i>n=4,416</i>	6:38 <i>n=1,242</i>	6:58 <i>n=1,171</i>	6:34 <i>n=977</i>	6:34 <i>n=1,026</i>
	Travel Time ERF Concentration	8:02 <i>n=3,912</i>	8:04 <i>n=1,111</i>	8:06 <i>n=1,035</i>	7:34 <i>n=849</i>	8:12 <i>n=917</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	8:50 <i>n=4,462</i>	8:52 <i>n=1,253</i>	9:08 <i>n=1,183</i>	8:43 <i>n=985</i>	8:39 <i>n=1,041</i>
	Total Response Time ERF Concentration	9:22 <i>n=4,060</i>	9:38 <i>n=1,161</i>	9:25 <i>n=1,075</i>	9:03 <i>n=869</i>	9:38 <i>n=955</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Structure Fires District 6 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Structure Fires - 90th Percentile Times – Baseline Performance – District 6		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		18	4	4	5	5
Alarm Handling	Pick-up to Dispatch	1:42 <i>n=18</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:56 <i>n=17</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	8:01 <i>n=18</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	N/A	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	9:38 <i>n=18</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	N/A	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
Moderate Risk Structure Fires District 6 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 6		2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		9	1	2	2	4
Alarm Handling	Pick-up to Dispatch	N/A	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	N/A	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	N/A	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	N/A	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	N/A	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	N/A	N/A	N/A	N/A	N/A

n/a = no ERF arrival

Westminster Fire Department Standards of Cover

Westminster Fire Department
High Risk Structure Fires District 6 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk Structure Fires - 90th Percentile Times – Baseline Performance – District 6		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		9	3	2	3	1
Alarm Handling	Pick-up to Dispatch	N/A	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	N/A	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	N/A	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	N/A	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	N/A	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	N/A	N/A	N/A	N/A	N/A

n/a = no ERF arrival

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Priority Non-Structure Fires District 6 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Non-Structure Fires - 90th Percentile Times – Baseline Performance – Priority Calls District 6		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		81	23	23	19	16
Alarm Handling	Pick-up to Dispatch	1:44 <i>n=80</i>	1:31 <i>n=22</i>	1:29 <i>n=23</i>	1:38 <i>n=19</i>	1:45 <i>n=16</i>
Turnout Time	Turnout Time 1st Unit	1:36 <i>n=80</i>	1:40 <i>n=23</i>	1:54 <i>n=23</i>	1:29 <i>n=18</i>	1:16 <i>n=16</i>
Travel Time	Travel Time 1st Arriving Engine/Truck Distribution	6:56 <i>n=78</i>	6:08 <i>n=22</i>	7:03 <i>n=22</i>	6:26 <i>n=18</i>	7:51 <i>n=16</i>
	Travel Time ERF Concentration	6:56 <i>n=78</i>	6:08 <i>n=22</i>	7:03 <i>n=22</i>	6:26 <i>n=18</i>	7:51 <i>n=16</i>
Total Response Time	Total Response Time 1st Engine/Truck On Scene Distribution	9:42 <i>n=79</i>	9:09 <i>n=22</i>	10:03 <i>n=23</i>	8:45 <i>n=18</i>	9:36 <i>n=16</i>
	Total Response Time ERF Concentration	9:42 <i>n=79</i>	9:09 <i>n=22</i>	10:03 <i>n=23</i>	8:45 <i>n=18</i>	9:36 <i>n=16</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Priority EMS Calls – 90th Percentiles – District 6



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 6		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		3,583	1,034	955	804	790
Alarm Handling	Pick-up to Dispatch	1:14 <i>n=3,514</i>	1:14 <i>n=1,008</i>	1:17 <i>n=938</i>	1:16 <i>n=793</i>	1:06 <i>n=775</i>
Turnout Time	Turnout Time 1st Unit	1:28 <i>n=3,553</i>	1:37 <i>n=1,026</i>	1:28 <i>n=951</i>	1:24 <i>n=798</i>	1:20 <i>n=778</i>
Travel Time	Travel Time 1st Unit Distribution	6:28 <i>n=3,535</i>	6:26 <i>n=1,020</i>	6:41 <i>n=942</i>	6:23 <i>n=794</i>	6:17 <i>n=779</i>
	Travel Time ERF Concentration	8:00 <i>n=3,126</i>	7:53 <i>n=912</i>	8:20 <i>n=833</i>	7:27 <i>n=687</i>	8:10 <i>n=694</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	8:23 <i>n=3,559</i>	8:22 <i>n=1,026</i>	8:43 <i>n=948</i>	8:22 <i>n=799</i>	8:06 <i>n=786</i>
	Total Response Time ERF Concentration	9:16 <i>n=3,252</i>	9:19 <i>n=954</i>	9:33 <i>n=870</i>	8:50 <i>n=704</i>	9:17 <i>n=724</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All Low Risk Non-Priority EMS Calls District 6 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Low Risk EMS - 90th Percentile Times – Baseline Performance – Non-Priority Calls District 6		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		313	108	68	94	43
Alarm Handling	Pick-up to Dispatch	1:26 <i>n=305</i>	1:25 <i>n=104</i>	1:43 <i>n=66</i>	1:23 <i>n=93</i>	1:14 <i>n=42</i>
Turnout Time	Turnout Time 1st Unit	1:36 <i>n=307</i>	1:46 <i>n=107</i>	1:36 <i>n=64</i>	1:24 <i>n=93</i>	1:31 <i>n=43</i>
Travel Time	Travel Time 1st Unit Distribution	8:03 <i>n=305</i>	7:56 <i>n=106</i>	8:17 <i>n=64</i>	8:03 <i>n=94</i>	7:25 <i>n=41</i>
	Travel Time ERF Concentration	8:03 <i>n=305</i>	7:56 <i>n=106</i>	8:17 <i>n=64</i>	8:03 <i>n=94</i>	7:25 <i>n=41</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	10:34 <i>n=308</i>	10:33 <i>n=106</i>	10:50 <i>n=65</i>	9:57 <i>n=94</i>	9:49 <i>n=43</i>
	Total Response Time ERF Concentration	10:34 <i>n=308</i>	10:33 <i>n=106</i>	10:50 <i>n=65</i>	9:57 <i>n=94</i>	9:49 <i>n=43</i>

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Moderate Risk Priority EMS Calls District 6 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Moderate Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 6		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		3,565	1,025	949	803	788
Alarm Handling	Pick-up to Dispatch	1:14 <i>n=3,496</i>	1:15 <i>n=999</i>	1:17 <i>n=932</i>	1:16 <i>n=792</i>	1:06 <i>n=773</i>
Turnout Time	Turnout Time 1st Unit	1:28 <i>n=3,535</i>	1:37 <i>n=1,017</i>	1:28 <i>n=945</i>	1:24 <i>n=797</i>	1:20 <i>n=776</i>
Travel Time	Travel Time 1st Unit Distribution	6:28 <i>n=3,517</i>	6:26 <i>n=1,011</i>	6:41 <i>n=936</i>	6:23 <i>n=793</i>	6:17 <i>n=777</i>
	Travel Time ERF Concentration	7:52 <i>n=3,081</i>	7:45 <i>n=899</i>	8:11 <i>n=822</i>	7:27 <i>n=677</i>	8:09 <i>n=683</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	8:23 <i>n=3,541</i>	8:22 <i>n=1,017</i>	8:43 <i>n=942</i>	8:22 <i>n=798</i>	8:06 <i>n=784</i>
	Total Response Time ERF Concentration	9:09 <i>n=3,201</i>	9:12 <i>n=937</i>	9:25 <i>n=858</i>	8:50 <i>n=693</i>	9:14 <i>n=713</i>

Westminster Fire Department Standards of Cover

**Westminster Fire Department
All High Risk Priority EMS Calls District 6 – 90th Percentiles**



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

High Risk EMS - 90th Percentile Times – Baseline Performance – Priority Calls District 6		Cumulative 2014 - 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		23	9	6	6	2
Alarm Handling	Pick-up to Dispatch	1:14 <i>n=23</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	1:10 <i>n=23</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	6:28 <i>n=22</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	10:10 <i>n=20</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	7:53 <i>n=22</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	11:32 <i>n=21</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Technical Rescues District 6 – 90th Percentiles



Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Technical Rescues - 90th Percentile Times – Baseline Performance – Priority Calls District 6 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		16	5	4	5	2
Alarm Handling	Pick-up to Dispatch	1:54 <i>n=16</i>	N/A	N/A	N/A	N/A
Turnout Time	Turnout Time 1st Unit	2:04 <i>n=16</i>	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	8:17 <i>n=16</i>	N/A	N/A	N/A	N/A
	Travel Time ERF Concentration	8:17 <i>n=16</i>	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Unit On Scene Distribution	12:01 <i>n=16</i>	N/A	N/A	N/A	N/A
	Total Response Time ERF Concentration	12:01 <i>n=16</i>	N/A	N/A	N/A	N/A

Westminster Fire Department Standards of Cover

Westminster Fire Department
All Hazardous Materials District 6 – 90th Percentiles




Thresholds:

Call Processing	0:10 to 5:40
Turnout	0:05 to 3:00
Travel	0:20 to 12:00
Total	1:00 to 16:00
Committed	3:20 to 6:00:00

ERF Thresholds:

:20 to 16:00
1:00 to 20:00

Hazardous Materials - 90th Percentile Times – Baseline Performance – Priority Calls District 6 (All Low Risk)		Cumulative 2014 – 2017	2017	2016	2015	2014
<i>Number of Incidents (before excluding outliers)</i>		82	26	21	14	21
Alarm Handling	Pick-up to Dispatch	1:44 <i>n=80</i>	1:10 <i>n=26</i>	2:48 <i>n=20</i>	1:25 <i>n=14</i>	1:24 <i>n=20</i>
Turnout Time	Turnout Time 1st Unit	1:50 <i>n=81</i>	1:53 <i>n=26</i>	1:45 <i>n=21</i>	1:19 <i>n=13</i>	1:37 <i>n=21</i>
Travel Time	Travel Time 1st Unit Distribution	8:00 <i>n=81</i>	7:57 <i>n=26</i>	6:55 <i>n=20</i>	8:52 <i>n=14</i>	9:01 <i>n=21</i>
	Travel Time ERF Concentration	8:00 <i>n=81</i>	7:57 <i>n=26</i>	6:55 <i>n=20</i>	8:52 <i>n=14</i>	9:01 <i>n=21</i>
Total Response Time	Total Response Time 1st Unit On Scene Distribution	10:51 <i>n=81</i>	10:37 <i>n=26</i>	9:11 <i>n=20</i>	10:15 <i>n=14</i>	11:01 <i>n=21</i>
	Total Response Time ERF Concentration	10:51 <i>n=81</i>	10:37 <i>n=26</i>	9:11 <i>n=20</i>	10:15 <i>n=14</i>	11:01 <i>n=21</i>

Westminster Fire-Rescue Operations Guideline		
	Response Groups	SOG: 200.01
Issue Date: 01-96	Review Date: 3-25-19	Revision Date: 3-25-19

Purpose

The purpose of this SOG is to establish tiered response groups for Dispatch and Fire Department personnel.

Scope

This document shall apply to all personnel involved in emergency response. In situations not specifically covered in this document, the Battalion Chief will decide what the nature of the response shall be. If the Battalion Chief is not readily available to make a prompt determination, the company with first-due responsibility in the area requiring service shall respond to evaluate the incident.

Dispatch personnel have the initial responsibility of deploying apparatus according to this guideline. Fire Department personnel, especially Company and Chief Officers, are responsible for enforcement of this guideline.

MDC Response Procedures

All units will put themselves en-route using the status buttons on the Mobile Data Computers (MDC). Units will not air this status over the radio with the following exceptions:

- The unit does not have a MDC
- The unit’s MDC is out of service or has no connection to the network
- Personnel are not with the apparatus – They should advise and copy information via portable
- Dispatch advises to do otherwise

The status of “en-route” shall occur when a unit releases the parking brake and begins moving. If the crew is away from their apparatus or delayed going en-route, they shall state their unit # and that they “copy the call via portable.” Once back in their assigned apparatus, the crew shall utilize the MDC to place themselves en-route.

Dispatch will monitor units going en-route (or notified delayed en-route) and once all units are in that status, or one minute has elapsed, dispatch shall air the additional information about the call to responding units.

Command Staff Response Page

During incidents where the Incident Commander (IC) needs assistance in managing or filling command positions at the scene because of the complexity, size, political sensitivity, resource demands, or potential media significance, the IC shall notify dispatch of the need for a Response Page. This page will require a response to the scene by the Fire Department Staff listed in the FIRE EVENTS notification group. Dispatch maintains a list of personnel included in the FIRE EVENTS notification group.

Westminster Fire Department Standards of Cover

Response Groups / Types

On all responses, additional resources may be requested at the discretion of a Company Officer, Incident Commander or Battalion Chief. Such requests may occur after receiving additional information en-route, after the situation has been sized-up, or as the situation intensifies.

RESPONSE APPARATUS	RESPONSE TYPE	
(1) ENGINE <i>or</i> (1) TRUCK	NON-EMERGENT	EMERGENT
	FALM - General Fire Alarm ODOR - Odor Investigation SMOK - Area Smoke Investigation CARB - CO Investigation FIRE - Cold Fire Investigation FUEL - Gas or Fuel Leak and/or Clean Up FCIT - Citizen Assist/Lift Assist FASP - Fire Assist Police and/or Blood Draw with PD WAEV - Water Evacuation MALM - Medical Alarm	SMOK - Possible Structure Fire/Smoke Inside Structure FFIR - Grass or Field Fire DFIR - Dumpster Fire VEHF - Vehicle Fire TFIR - Trash Fire CORS - Co-Response with Private Ambulance MUTA - Mutual Aid Response AUTO - Automatic Aid Response HAZF - Hazard Condition HAZM - HazMat METH - Meth Lab

(1) ENGINE, (1) TRUCK, (1) MEDIC UNIT	EMERGENT	
	DROW - Animal Subtype - Animal Rescue (In Water)	

(1) ENGINE or (1) TRUCK and (1) MEDIC UNIT	EMERGENT	
	ACCI CHES CHOK DIFF DIST DOWN INJP	ILLP OVER SEIZ STRO UNRE DROW SUIC

(1) ENGINE or (1) TRUCK and (1) MEDIC UNIT, SAM	EMERGENT	
	DOA - Possible DOA	CPR - CPR in Progress

Westminster Fire Department Standards of Cover

<p>(2) ENGINES and (1) TRUCK <i>Primary Unit Emergent; Secondary Unit Non-Emergent</i></p>	EMERGENT
	FALM - Target Hazard Fire Alarm (Target Hazard)

<p>BATTALION CHIEF, SAM, (4) ENGINES, (1) TRUCK, (2) MEDIC UNITS <i>AUTO AID - BATTALION CHIEF and either (1) ENGINE or (1) TRUCK</i></p>	EMERGENT
	<p>STRU - Working Structure Fire RAIL - Train Derailment EXPL - Explosion</p>
	<i>When all WFD Medic Units are Out of Service (OOS), the next due (5th) Engine Company and a mutual aid Medic Unit or a Private Ambulance shall be dispatched</i>
<p>BATTALION CHIEF, (4) ENGINES, (1) TRUCK, (1) MEDIC UNIT</p>	SECOND ALARM EMERGENT
	ANY SECOND ALARM EVENT

<p>BATTALION CHIEF, SAM, (4) ENGINES, (1) TRUCK, (2) MEDIC UNITS <i>AUTO AID - BATTALION CHIEF, (1) ENGINE, (1) TRUCK</i></p>	EMERGENT
	PLAN - Plane Crash

<p>BATTALION CHIEF, SAM, (1) ENGINE, (1) TRUCK, (1) MEDIC UNIT</p>	SPECIAL TYPE - EMERGENT
	ACCI (EXT) - Auto Extrication Trapped Party

<p>BATTALION CHIEF, SAM, (1) ENGINE or (1) TRUCK, (1) MEDIC UNIT</p>	SPECIAL TYPE - EMERGENT
	SHOO - Shootings HAZT - HazMat Team Response
	STAB - Stabbings DIVE - Dive Call

<p>BATTALION CHIEF, SAM (1) ENGINE or (1) TRUCK, (1) MEDIC UNIT, DIVE 1</p>	SPECIAL TYPE - EMERGENT DIVE RESPONSE
	DIVE - Dive Team Call Out or Water Response within City Limits - Incident Occurred in the last 90 Minutes

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BATTALION CHIEF, SAM <i>(1) ENGINE or</i> <i>(1) TRUCK</i>	SPECIAL TYPE - EMERGENT HAZMAT RESPONSE
	HAZT - Hazardous Materials Responses within City Limits.

RESPONSE TO INJURY ACCIDENTS ON HIGHWAYS	
US 36 RESPONSE	
ENGINE 5, MEDIC 4, NORTH METRO ENGINE	DENVER BOUND - HWY 287 to SHERIDAN
ENGINE 3, TRUCK 2, MEDIC 2	DENVER BOUND - SHERIDAN TO ZUNI
ENGINE 1, MEDIC 1, ADAMS COUNTY ENGINE or TRUCK	BOULDER BOUND - ZUNI TO SHERIDAN
TRUCK 2, MEDIC 2, ENGINE 3	BOULDER BOUND - SHERIDAN TO HWY287

I-25 RESPONSE	
TRUCK 6, MEDIC 6 <i>**Thornton Dispatch shall be contacted to request TRUCK 74 or ENGINE 75 as a BLOCKING APPARATUS</i>	SOUTHBOUND AND SOUTH OF 160TH AVENUE

Dive Team Call-Out or Water Response

EMERGENT “Rescue Mode” - Within City Limits: - Incident occurred within the last 90 minutes.

Ponds, Lakes, Creeks, or Rivers –

DIVE - Battalion Chief, SAM, 1 Engine or 1 Truck, 1 Medic Unit, Dive 1

Then:

Step 1 – In an “Active Water Rescue”, air all pertinent information. The B/C will contact Dive Team leader to discuss specific plans. After discussion, the B/C will air the specific tactical plan and what units are needed.

Step 2 – *If asked by B/C or Dive Operations Leader*, - Notify closest back up dive team; West Metro Dispatch (Dive 2), South Metro Dispatch (Dive 3) or Thornton Dispatch for Thornton divers. Advise them we have a rescue situation. Inform them of the location, Command designation, tactical channel in use, and cell phone number of the IC.

“Rescue Mode” – Out of City – Water Rescue

Step 1 - Tone out B/C, air specific jurisdiction and location. The B/C will contact Dispatch to get additional information i.e. IC designation, contact cell phone number, and tactical channel. All officers/divers will go to WFD Training channel (6) to await discussion of specific plans with B/C after receiving additional information from dispatch. A tactical plan, rendezvous point, and other specifics will be implemented and relayed back to Dispatch.

Westminster Fire Department Standards of Cover

Step 2 – Notify B/C or Dive Operations Leader if we are the first dive team being requested by the outside agency, (Example: City of Broomfield, Thornton, Arvada or ADCOM).

The B/C or Dive Operations Leader should request that Dispatch contact the closest back up dive team via JeffCom Dispatch (West Metro) or MetCom Dispatch (South Metro) and have their team respond.

Non-Emergent - “Recovery Mode” Water Recovery – Vehicle / Body / Evidence: – Incident occurred at least 90 minutes prior to Dispatch receiving call.

Contact Battalion Chief and pass on the recovery information. The B/C will determine the availability of resources, personnel, and equipment and will contact the shift dive leader and discuss operational plans. Most property recoveries will be performed by off duty divers.

**For Technician Level incidents, as defined by NFPA 1006, the Incident Safety Officer (ISO) should determine the need for a rescue technician - trained ISO or assistant ISO. The need for a rescue technician – trained ISO or assistant ISO should be communicated to the Incident Commander.*

Hazardous Materials Responses

Hazardous Materials Responses – Within City Limits:

HAZT - Battalion Chief, SAM, 1 Engine or 1 Truck

Dispatch will ascertain the particulars of the incident and relay it to the responding engine. Based upon information provided, the company officer may, at his/her discretion, request additional resources. These may include additional engines, trucks, medic units or a hazardous materials team response.

On any hazardous materials call within the city limits where personnel are in level ‘A’ or ‘B’ suits, (including the support of law enforcement agencies on drug or other clandestine operations), WFD shall provide a minimum of one engine and one medic unit to stand by. The incident commander may upgrade the level of response.

Callout Levels:

Level 1 - Any hazardous materials incident whose mitigation can be completed by the resources available within the jurisdiction itself (by WFD only) On level 1 incidents, on-duty technicians and resources can be requested by the incident commander and the Battalion Chief will coordinate any personnel or staffing changes as the incident requires.

Level 2 - An incident requiring personnel, tools and equipment, resources or proficiencies of the regional hazmat team. Adams/Jeffco Hazmat team is/will be notified to respond. All WFD on-duty technicians may be called to assist at a level 2 callout. If an incident within the city escalates to a level 2 response, WFD will maintain incident command, with the hazmat team working either under operations or as a separate branch in the ICS system, depending on the size of the incident. WFD will be responsible for all support needs of the hazmat team, (water supply, suppression, medical, etc.)

Westminster Fire Department Standards of Cover

When an incident within the city escalates to a level 2 response, JeffCom will be notified (303-969-0298) to call the on-duty team leader to request the response. JeffCom Fire Dispatch is the agency responsible for paging and dispatching the hazmat authority.

Level 3 - The incident is of a size, nature, or complexity that it requires the use of state or federal resources to assist in mitigation of the incident.

Hazardous Materials Responses – Outside City:

When a level 2 response request comes from outside of the city, JeffCom Dispatch will page all hazmat team members notifying them of the incident.

On level 2 incidents outside of the city, when the page for a level 2 response, the on duty technicians and/or officers at those respective stations will go to WFD channel 4 along with the Battalion Chief and will coordinate the response and staffing. On level 2 calls, the hazmat members of the WFD will respond to the incident scene. It is up to the Battalion Chief and Team Leader to decide how team members will be transported, (i.e. by the hazmat vehicle, a staff vehicle, an Engine, etc.)

**All hazmat related incidents are handled in accordance with NFPA 472 and CFR 1910.120 guidelines, along with the protocols and best practices of the hazmat authority and the authority having jurisdiction.*

***For hazardous materials responses, the Incident Safety Officer (ISO) should determine the need for a hazardous materials technician - trained ISO or assistant ISO. The need for a hazardous materials technician -trained ISO or assistant ISO should be communicated to the Incident Commander. As established by NFPA 472, the Hazardous Materials Safety Officer shall work within the hazardous materials branch/group.*


Westminster Fire Department Safety Officer Response –

Westminster Fire Department Incident Commanders can request a Safety Officer response to any incident that requires additional safety-related oversight.

Safety Officers may respond to medical incidents in addition to those outlined above. Safety Officers may respond emergent to medical incidents when they are the closest unit to the incident and there is a need for emergent medical care. Safety Officers may respond to medical incidents to oversee medical care and performance of EMS personnel. In these circumstances, these responses should be non-emergent.

Mutual/Auto Aid Responses Outside the City of Westminster

Westminster Fire Department Safety Officers will respond to mutual/auto aid responses outside of the City of Westminster only when requested by the Incident Commander.

Westminster Fire-Rescue Administrative Guideline		
	<p>Methodologies</p>	<p>SOG: 100.02</p>
<p>Issue Date: 1-28-19</p>	<p>Review Date: N/A</p>	<p>Revision Date: N/A</p>

Purpose

This SOG outlines the processes used by the Westminster Fire Department to document specific methodologies used for departmental activities.

Scope

This SOG applies to all personnel involved with incorporating a specific methodology used by the department as well as any personnel that may use information from the processes that have been defined.

Guideline

There are many programs and activities that take place throughout the Westminster Fire Department. These range from analytical programs to maintenance duties. Each one should have an outlined methodology to ensure continuity of operations for each program. Having a documented methodology should provide the ability for anyone to perform any of the listed operations.

Every employee of the fire department has assigned responsibilities and duties. Many of the procedures for these duties have been learned by verbal direction, direct training, or trial and error. To ensure future functionality, each employee should review their duties and complete a methodology form that outlines the specific program and the functions to complete that program. These should be as detailed as possible in order to provide clear direction.

The “Methodology Book” is a folder located on the R drive. A template is located in the folder. Instructions on completing the template are listed below. There is no requirement for approval or authorization to complete, update and save these documents.

Supervisors should assign personnel to complete a methodology document relating to their assigned duties or programs. For example, an employee is responsible for maintaining extrication equipment. That employee should be assigned to complete the methodology form, documenting the methods of maintenance, schedules, any particulars such as the type of fluids to use, and can supplement it with photographs placed directly into the document.

Each methodology document should be updated as changes are made to that particular program. The documents should be reviewed on a regular basis for any needed changes.

Westminster Fire Department Standards of Cover

To complete a new form:

- Open the “Methodology Template”.
- Go to “File” and click on “Save As”
- Under “Current Folder”, click in the “Methodology Book” area
- Name the new document (such as ‘Extrication Tool Maintenance’)
- Save the document


This will take you back to the new document for editing. At this time:

- Replace the word “Title” with the name of the new document
- If you know the specific PI’s that are referenced, put those numbers under “CFAI References”
- If you do not know the references, contact the accreditation manager or assistant to obtain the PI numbers
- If this is a new document, put the current date in “Issue Date”
- If this is a revision, leave the issue date as it is, and put the current date in “Revision Date”
- If this is a revision, put the current “Version #” on the document. It would be the next higher number than the current version
- Place your cursor one space below the header box and type the content/instructions

Be as detailed as possible. Acceptable formats are paragraphs or bullet points.

Save the document in the Completed folder when complete.

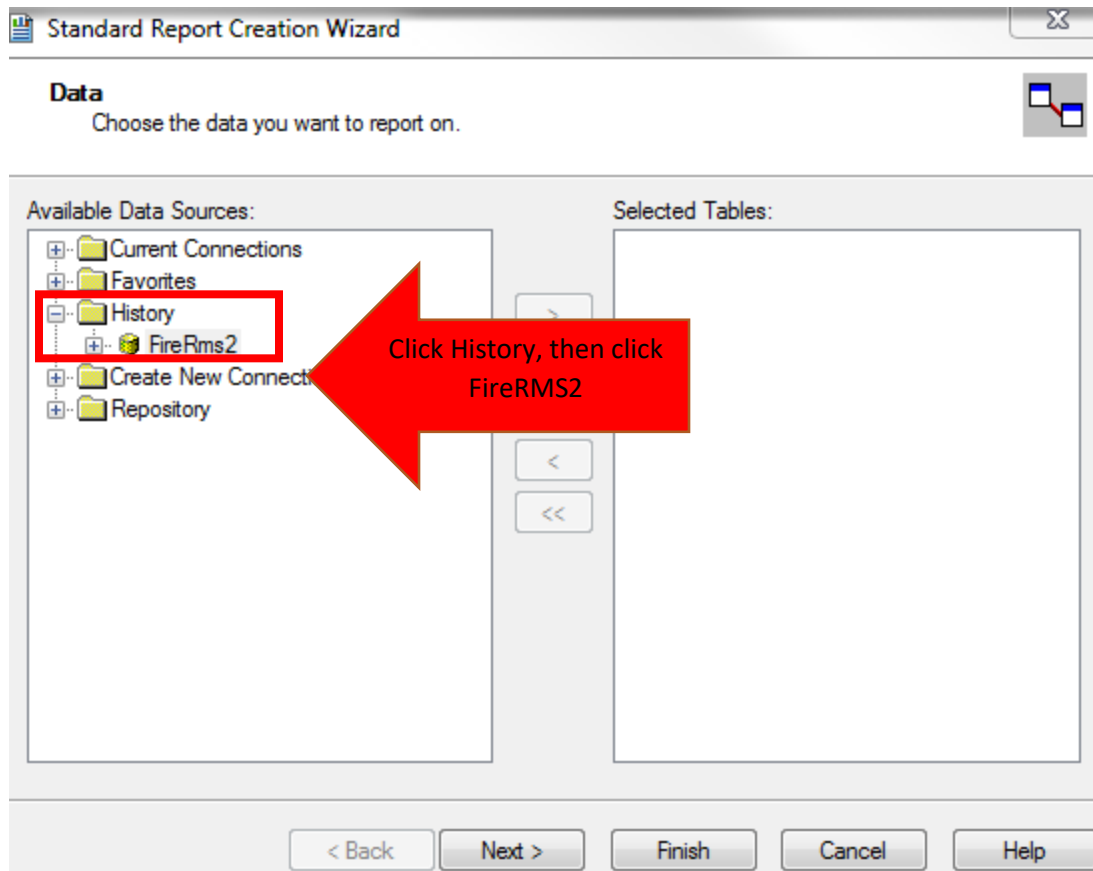
Westminster Fire Department Standards of Cover

	Incident Response Analysis- Crystal Reports	CFAI References: PI # 2D.2
Issue Date: 02-12-19	Revision Date: N/A	Version #: 1

Open Crystal Reports- Select **File** then select the **New Report** button:

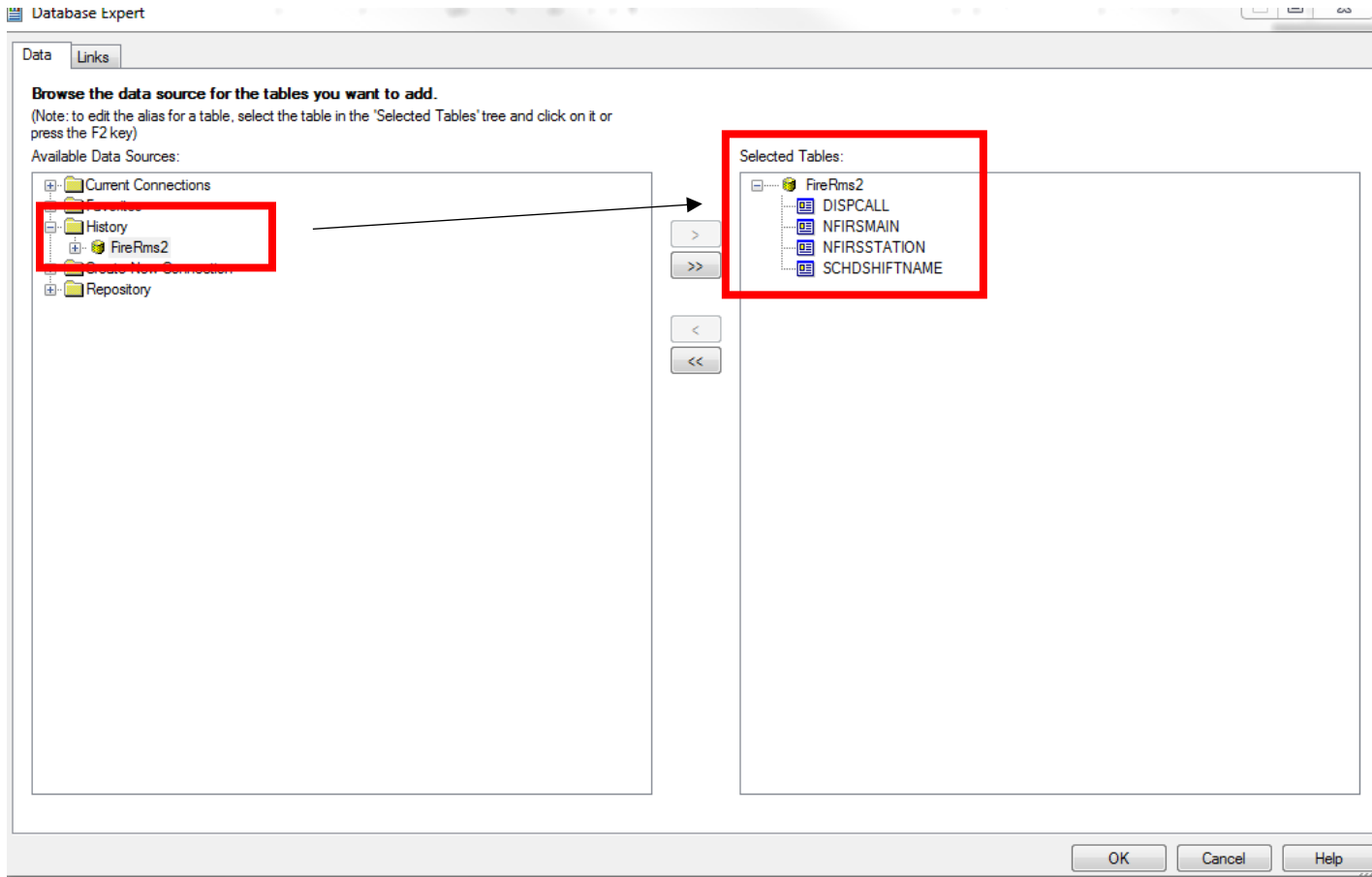


The **Data** pane will open and you will be required to select an available data source. First, select the **History** folder then select **FireRMS2**:



From the FireRMS2 data source you will need to **select DISPCALL, NFIRSMAN, NFIRSSTATION, SCHDSHIFTNAME:**

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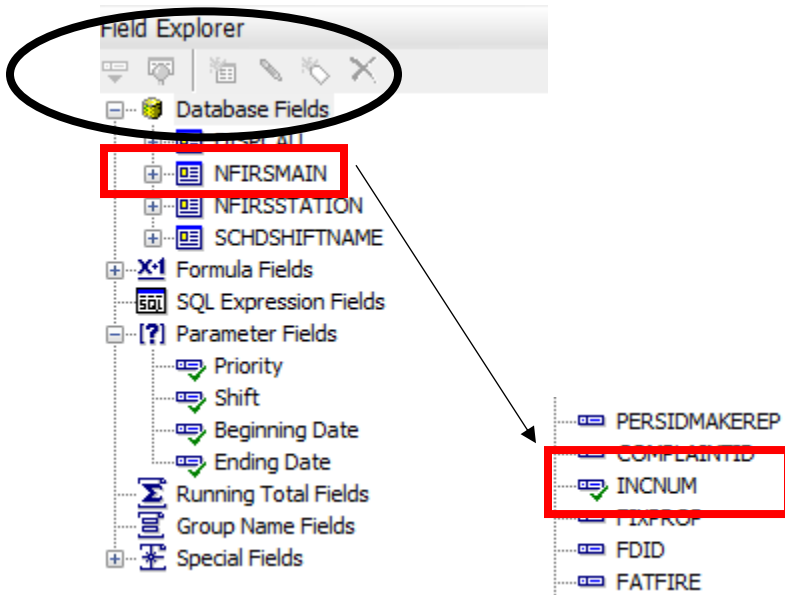


Now that you have selected your tables, you can begin pulling the data you need and building any necessary calculations. At minimum the data points you will need will be the **Incident Number, Date, Address, Incident Type, Shift, Station, Alarm Time, Call Process Time, Travel Response Time, Total Response Time** and **Total Committed Time**. You will also need to define parameters including **Beginning and End Dates, Priority, and Shift**. It will also be necessary to **exclude NFIRS 611 (Dispatched and cancelled enroute) calls**. We will tackle each of these in turn starting in the below sections:

Data Points

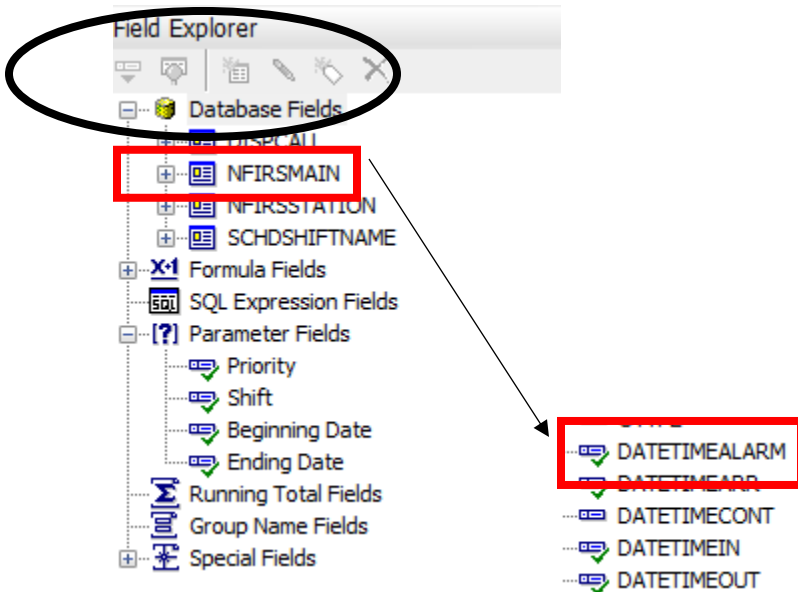
Incident Number:

This is found in the **NFIRSMAIN** table in the **Field Explorer**, under **Database Fields**, the field is named **INCNUM**:



Date:

This is found in **NFIRSMAIN** table in the **Field Explorer**, under **Database Fields**, the field is named **DATETIMEALARM**:



Address:

The **Address** field is a formula field, thus the field has to be calculated. To build the formula, click the **Formula Workshop** button and enter the following code:

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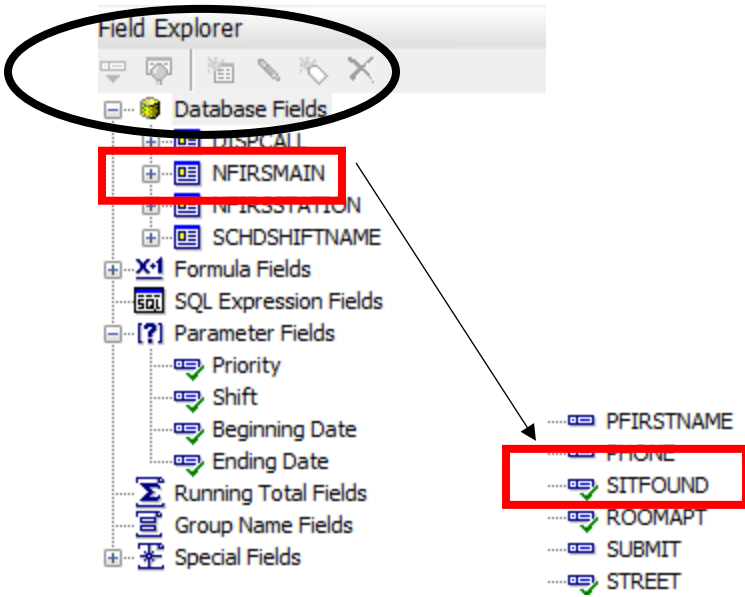
Click Here First

Then Enter the Following Code

```
If {NFIRSMAIN.LOCTYPE} = '1' then
  ( if {NFIRSMAIN.ROOMAPT}= '' then
    {NFIRSMAIN.STRNUM} + " " + {NFIRSMAIN.STREET}
    else
    {NFIRSMAIN.STRNUM} + " " + {NFIRSMAIN.STREET} + " Apt/Suite " + {NFIRSMAIN.ROOMAPT})
else
  If {NFIRSMAIN.LOCTYPE} = '2' then
    "On " + {NFIRSMAIN.STREET} + " at " + {NFIRSMAIN.CROSS1}
  else
    If {NFIRSMAIN.LOCTYPE} = '3' then
      "In front of " + {NFIRSMAIN.STREET}
    else
      If {NFIRSMAIN.LOCTYPE} = '4' then
        "Rear of " + {NFIRSMAIN.STREET}
      else
        If {NFIRSMAIN.LOCTYPE} = '5' then
          "Adjacent to " + {NFIRSMAIN.STREET}
```

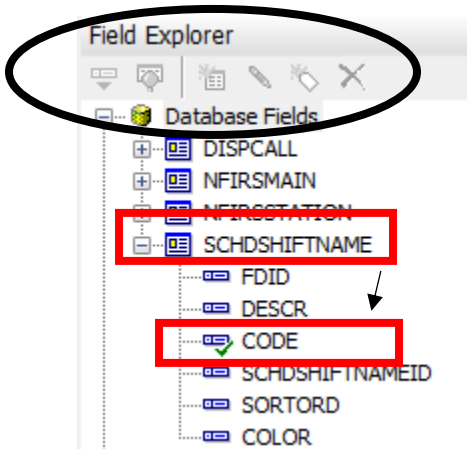
Incident Type:

This is found in **NFIRSMAIN** table in the **Field Explorer**, under **Database Fields**, the field is named **SITFOUND**:



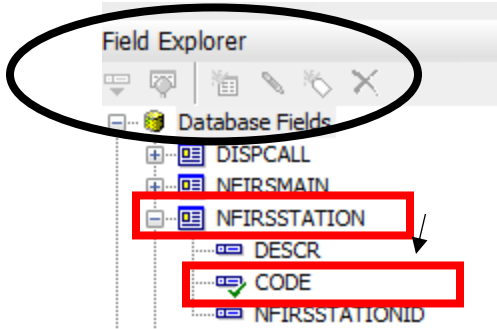
Shift:

This is found in **SCHDSHIFTNAME** table in the **Field Explorer**, under **Database Fields**, the field is named **CODE**:



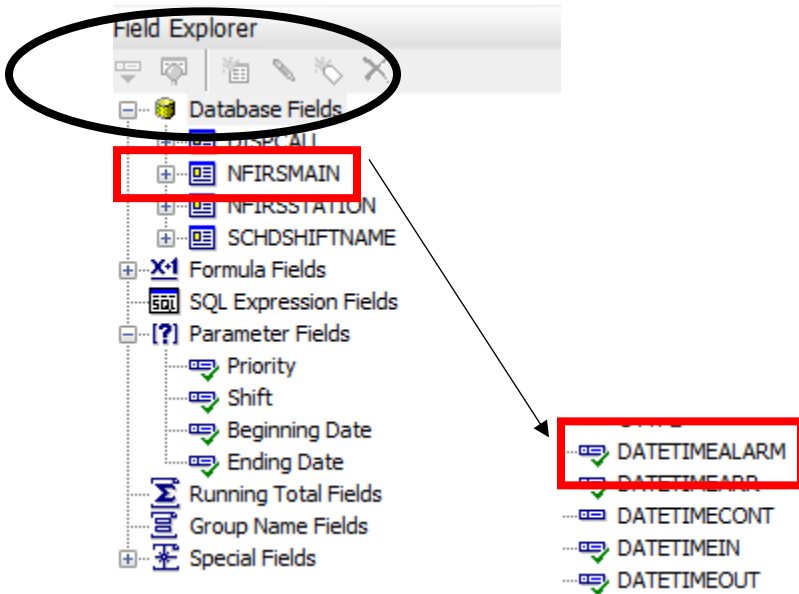
Station:

This is found in **NFIRSTATION** table in the **Field Explorer**, under **Database Fields**, the field is named **CODE**:



Alarm:

This is found in **NFIRSMAIN** table in the **Field Explorer**, under **Database Fields**, the field is named **DATETIMEALARM**:



Call Process Time:

The **Call Process Time** field is a formula field, thus the field has to be calculated. To build the formula, click the **Formula Workshop** button and enter the following code:

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File Edit View Insert Format Database Report Window Help

Arial 8

Formula Workshop - Formula Editor - CallProcess

Save and close Save

Crystal Syntax Exception

Functions

Report Custom Functions
Repository Custom Functions
Formula Fields
 Address
 CallProcess
 DisplayDateRange
 First Unit Turnout
 Priority
 TotalInvolvedTime
 TotalResponse
 TravelResponse
SQL Expression Fields
Selection Formulas
Formatting Formulas

```
WhilePrintingRecords;  
NumberVar CallProcessSec := 0;  
NumberVar hrs := 0;  
NumberVar min := 0;  
NumberVar sec := 0;  
If {NFIRSMAIN.DATETIMEALARM} < {DISPCALL.DATETIMEDISP} Then  
  If (({DISPCALL.DATETIMEDISP} - {NFIRSMAIN.DATETIMEALARM}) * 86400) > 0 Then  
    CallProcessSec := ({DISPCALL.DATETIMEDISP} - {NFIRSMAIN.DATETIMEALARM}) * 86400;  
    hrs := Truncate(CallProcessSec/3600);  
    min := Truncate((CallProcessSec - (hrs * 3600))/60);  
    sec := CallProcessSec - ((hrs * 3600) + (min * 60));  
    ToText(hrs,"00") + ":" + ToText(min,"00") + ":" + ToText(sec,"00")
```

Click Here First

Then Enter the Following Code

Turnout Time:

The **Turnout Time** field is a formula field, thus the field has to be calculated. To build the formula, click the **Formula Workshop** button and enter the following code:

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The screenshot shows the Microsoft Access Formula Editor interface. The top menu bar includes File, Edit, View, Insert, Format, Database, Report, Window, and Help. Below the menu is a toolbar with various icons. A red box highlights the 'X-1' icon in the toolbar, with a red arrow pointing to it and a callout box that says "Click Here First". Another red arrow points from the 'X-1' icon down to a large red-bordered box containing VBA code. A second callout box says "Then Enter the Following Code".

```
WhilePrintingRecords:
NumberVar FirstUnitTurnoutSec := 0;
NumberVar hrs := 0;
NumberVar min := 0;
NumberVar sec := 0;
If {DISPCALL.DATETIMEDISP} < {NFIRSMMAIN.DATETIMEOUT} Then
  If (({NFIRSMMAIN.DATETIMEOUT} - {DISPCALL.DATETIMEDISP}) * 86400) > 0 Then
    FirstUnitTurnoutSec := ({NFIRSMMAIN.DATETIMEOUT} - {DISPCALL.DATETIMEDISP}) * 86400;
    hrs := Truncate(FirstUnitTurnoutSec/3600);
    min := Truncate((FirstUnitTurnoutSec - (hrs * 3600))/60);
    sec := FirstUnitTurnoutSec - ((hrs * 3600) + (min * 60));
    ToText(hrs,"00") + ":" + ToText(min,"00") + ":" + ToText(sec,"00")
```

Travel Response Time:

The **Travel Response Time** field is a formula field, thus the field has to be calculated. To build the formula, click the **Formula Workshop** button and enter the following code:

The screenshot shows the 'Formula Workshop - Formula Editor - TravelResponse' window. The top toolbar includes a button with a grid icon, which is highlighted by a red arrow and labeled 'Click Here First'. Below the toolbar, the 'Functions' pane on the left lists various fields, including 'TravelResponse'. The main editor area contains the following code:

```
WhilePrintingRecords;
NumberVar TravelResponseSec := 0;
NumberVar hrs := 0;
NumberVar min := 0;
NumberVar sec := 0;
If {NFIRSMIN.DATETIMEOUT} < {NFIRSMIN.DATETIMEARR} Then
  If (({NFIRSMIN.DATETIMEARR}-{NFIRSMIN.DATETIMEOUT}) * 86400) > 0 Then
    TravelResponseSec := ({NFIRSMIN.DATETIMEARR}-{NFIRSMIN.DATETIMEOUT}) * 86400;
    hrs := Truncate(TravelResponseSec/3600);
    min := Truncate((TravelResponseSec - (hrs * 3600))/60);
    sec := TravelResponseSec - ((hrs * 3600) + (min * 60));
    ToText(hrs,"00") + ":" + ToText(min,"00") + ":" + ToText(sec,"00")
```

Total Response Time:

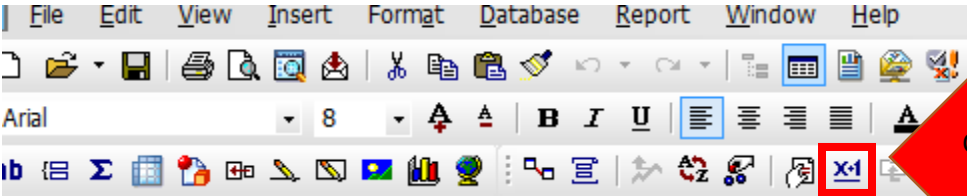
The **Total Response Time** field is a formula field, thus the field has to be calculated. To build the formula, click the **Formula Workshop** button and enter the following code:

The image shows a software interface with a menu bar (File, Edit, View, Insert, Format, Database, Report, Window, Help) and a toolbar. A red arrow points to the 'Formula Workshop' button (represented by a document with a grid icon) in the toolbar, with the text 'Click Here First'. Below this, a window titled 'Formula Workshop - Formula Editor - TotalResponse' is shown. A red arrow points from the 'Formula Workshop' button to this window. A white box with the text 'Then Enter the Following Code' is positioned to the right of the window. The main area of the window contains a code block for the 'TotalResponse' formula, which is enclosed in a red rectangular box. The code is as follows:

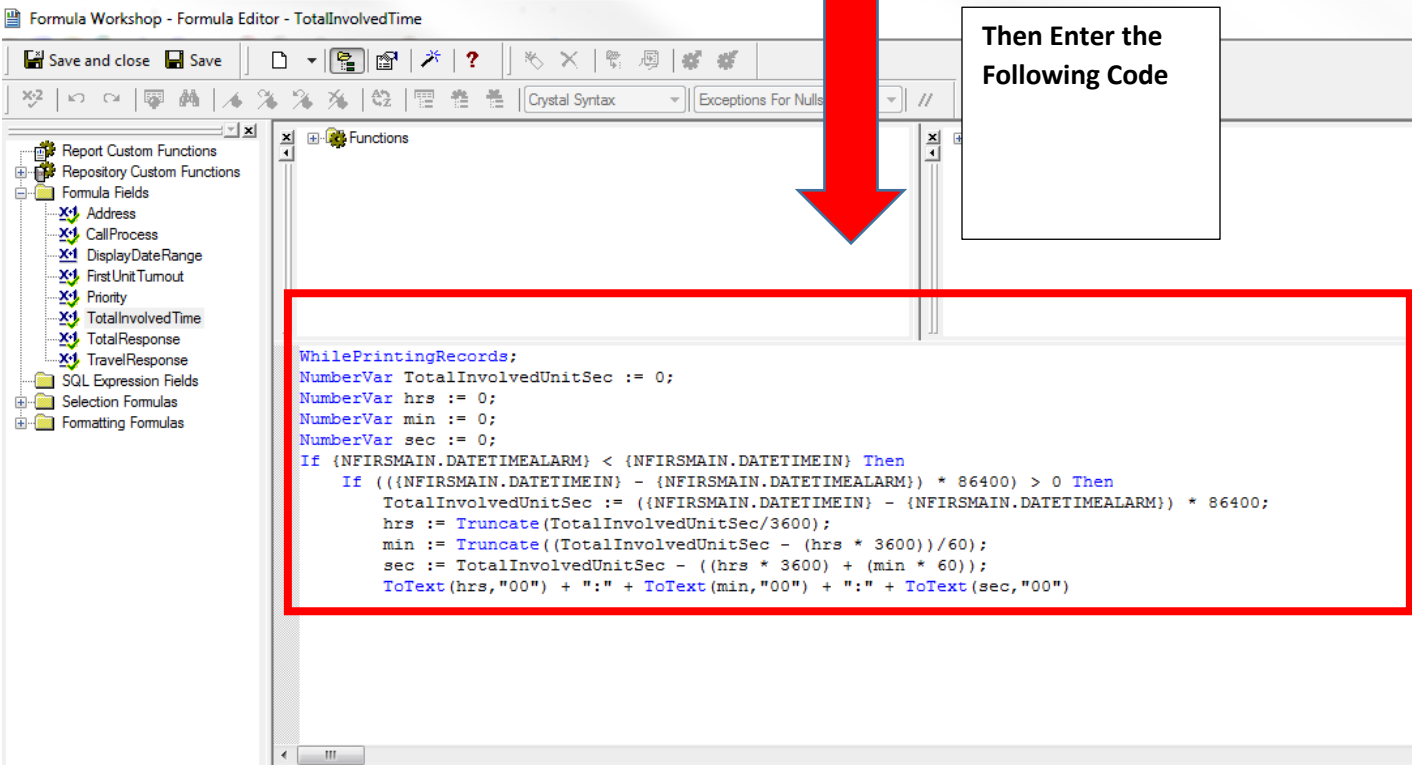
```
WhilePrintingRecords;
NumberVar TotalResponseSec := 0;
NumberVar hrs := 0;
NumberVar min := 0;
NumberVar sec := 0;
If {NFIRSMAIN.DATETIMEALARM} < {NFIRSMAIN.DATETIMEARR} Then
  If (({NFIRSMAIN.DATETIMEARR} - {NFIRSMAIN.DATETIMEALARM}) * 86400) > 0 Then
    TotalResponseSec := ({NFIRSMAIN.DATETIMEARR} - {NFIRSMAIN.DATETIMEALARM}) * 86400;
    hrs := Truncate(TotalResponseSec/3600);
    min := Truncate((TotalResponseSec - (hrs * 3600))/60);
    sec := TotalResponseSec - ((hrs * 3600) + (min * 60));
    ToText(hrs,"00") + ":" + ToText(min,"00") + ":" + ToText(sec,"00")
```

Total Committed Time:

The **Total Committed Time** field is a formula field, thus the field has to be calculated. To build the formula, click the **Formula Workshop** button and enter the following code:



Click Here First



Then Enter the Following Code

Parameters

Beginning Date and Ending Date:

This parameter defines the time period for the incidents. In the Record Selection Formula Editor it is defined by the logic statement **{NFIRSMAIN.DATETIMEALARM} in {?Beginning Date} to {?Ending Date}**.

Shift:

This parameter defines the shift(s) in which the incidents occurred and it is defined by the logic statement **{SCHDSHIFTNAME.CODE} = {?Shift}**

Priority:

The **Priority** parameter is based off of a formula field, thus the field has to be calculated. To build the formula, click the **Formula Workshop** button and enter the following code:

The screenshot shows the 'Formula Workshop - Formula Editor - Priority' window. The menu bar includes File, Edit, View, Insert, Format, Database, Report, Window, and Help. The toolbar contains various icons, with the 'Formula Workshop' icon (a blue square with a white 'X') highlighted by a red box and a red arrow pointing to it from a red callout box that says 'Click Here First'. Below the toolbar, the 'Functions' pane is visible on the left, listing categories like Report Custom Functions, Repository Custom Functions, Formula Fields, and Selection Formulas. The main editor area contains the following code, which is enclosed in a red box:

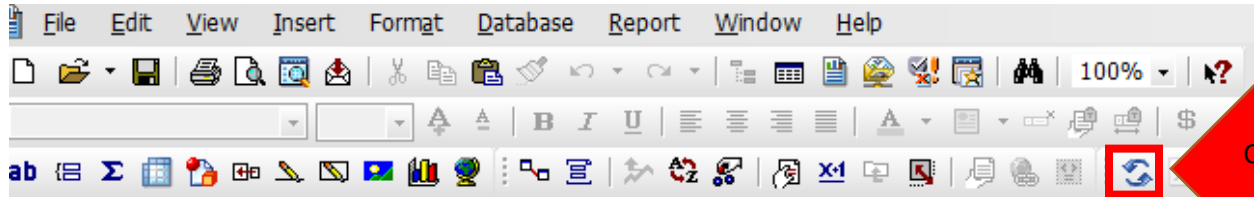
```
if {NFIRSMAIN.PRIORITY} = 'Y'  
then 'Y'  
else 'N'
```

 A second red arrow points from the 'Click Here First' callout down to the code box. To the right of the code box is a white callout box with a black border that says 'Then Enter the Following Code'.

Priority cont'd:

This parameter whether the incidents were priority incidents and it is defined by the logic statement **{@Priority} = {?Priority}**

Parameters are entered when one first runs the report. To run a report, first click the **Refresh** button:



Click Here First


You will then be prompted to select the parameters you wish to use:

A screenshot of the 'Enter Values' dialog box. It contains four sections for parameter selection:

- Enter Priority:** Available Values: Y - Priority, N - Non Priority. Selected Values: (empty). Buttons: Remove, Remove All.
- Enter Shift:** Available Values: A, B, C. Selected Values: (empty). Buttons: Remove, Remove All.
- Enter Beginning Date:** Please enter DateTime in format "yyyy-mm-dd hh:mm:ss". (Empty text input field).
- Enter Ending Date:** Please enter DateTime in format "yyyy-mm-dd hh:mm:ss". (Empty text input field).

Exclusion:

NFIRS 611 (Dispatched and cancelled enroute) calls are excluded from all of our reports. In the Record Selection Formula Editor it is defined by the logic statement **{NFIRSMAIN.SITFOUND} <> "611"**.

	<p>First Due Data Retrieval and Evaluation</p>	<p>CFAI References: 2C.5, 2C.6, 2D.1</p>
<p>Issue Date: 11-01-18</p>	<p>Revision Date: N/A</p>	<p>Version #: 1</p>

The data being used for time and incident studies is derived from the Records Management System (RMS) of the fire department, as well as from the Computer Aided Dispatch (CAD) system. “Crystal” reports are written to extract times from the RMS system for first arriving units. The time breakdowns are:

- Call Received Time (Pickup to Dispatch)
- Dispatch Time
- Enroute Time
- Arrival Time (1st unit)
- With Patient Time (as of 2019)
- Water on Fire Time (as of 2019)
- Cleared Time (last unit)

The communications section retrieves and provides call answering times, (ring time to pick up time) which are maintained and reported by them.

These times are used to determine the exact time intervals for evaluation. These intervals are:

- Call Processing
- Turnout
- Travel
- Total Response
- Total Committed

The data is exported to Excel. A data analysis sheet is completed in order to determine the percentiles of time. The Excel workbook is separated into sheets by year as well as cumulative data for a minimum of the past three years to a maximum of the past five years.

The incident type which is established by the NFIRS report under “Type of Incident Found” is extracted. All times, dates and incident types are tied to the unique incident number.

The shift and station/district of event are exported.

Response priority codes from RMS are also retrieved and placed on the spreadsheet with a filter. Building fire (NFIRS code 111) information is extracted and placed in a separate tab. The locations are reviewed to determine if the building is a low, moderate, or high risk facility and a column is created to filter the data as such.

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All other fires are extracted by using all NFIRS 100 series codes except 111.

Extrications are noted by a “Type of Action Taken” code on the NFIRS report (22) and extracted into another tab as low risk technical rescues. These are later merged with other NFIRS codes for low risk technical rescues, described below.

EMS calls are sorted into risk levels based upon response type (priority or non-priority) and the Nature Code from CAD. Non-priority responses are low risk events. The majority of priority responses are moderate risk. High risk EMS events are identified with one of the following CAD nature codes:

Dist	Disturbance with injuries
Drow	Drowning
Shoo	Shooting
Suic	Suicide
Stab	Stabbing

The data sets for the specific reportable incidents is captured and analyzed including using a bell curve with the time sets. The data is calculated to three standard deviations. This is evaluated on the bell curve, and these become the parameters of the data to be evaluated. Any data outside of these are outliers and will require evaluation regarding their individual times. This system should allow for approximately 99% of the data to be evaluated.

	<h2>Calculating ERF Times</h2>	<p>CFAI References: 2C.5, 2C.6, 2D.1</p>
<p>Issue Date: 11-01-18</p>	<p>Revision Date: N/A</p>	<p>Version #: 1</p>

The Effective Response Force (ERF) is established by the command staff for each type and risk level of incident. The ERF times are established using time data from CAD that is matched to the NFIRS data from RMS in Excel to ensure the correct Incident Type is being used for data analysis.

The ERF is taken from CAD data for each year. The CAD data has all categories including incident number, date, addresses, cross streets, latitude and longitude, as well as every time and status for each assigned unit. The CAD information is obtained from IT or the Management Analyst and exported to Excel.

The ERF is initially based upon the nature code from dispatch on the original CAD data workbook. When the final times are moved to a working Excel book, the incidents are cross-referenced with the RMS data so that the NFIRS Type Codes are used to determine the exact incident and calculate the proper ERF. The Excel CAD formulas are designed to “stop the clock” as soon as the ERF threshold (personnel) arrives on scene regardless of the type of, or number of units assigned.

Once the Excel workbook with the CAD data is compiled, the methodology and use of formulas as outlined below are used to establish the ERF times and move them to a working Excel workbook. The data columns should be:

- A Event Number
- B Event Date and Time added to CAD
- C Event Address
- D Unit Number at Address
- E GIS X Coordinate
- F GIS Y Coordinate
- G Cross Street 1
- H Cross Street 2
- I District Assignment (Station)
- J Priority Type
- K Nature Type Code
- L New Column to be inserted and labeled “ERF” (for incident type)

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- M Sub-type Code
- N Event Type Description
- O Primary Unit Assigned
- P Unit ID Number (Assigned to Call)
- Q Unit Type
 - EN Engine
 - AM Medic
 - AE Truck
 - BC Battalion Chief
 - SA Sam Officer
 - DV Dive Van
- R New Column to be inserted for Personnel Assigned (number)
- S Unit Status
 - DP Dispatched
 - ER Enroute
 - AR Arrived
 - WP With Patient
 - TR Transport
 - TA Transport Arrive
 - AM Available Mobile
 - AV Available
- T New Column to be inserted and labeled “ERF” (formula)
- U New Column to be inserted and labeled “ERF Time”
- V Unit Status Time (Based on status in S)
- W First Unit Dispatched (for incident)
- X First Unit Enroute (for incident)
- Y First Unit Arrived (for incident)
- Z Time Event Closed

Steps to create the ERF Book:

- Hide columns B-J
- Insert new column L for “ERF”
- Hide columns M-P
- Insert new column R for personnel per unit
- Insert new column T for ERF
- Insert new column U for ERF Time
- Add “Vlookup” Data from other sheets to columns AB and AC (Unit Type and Personnel Assigned)
- Add “Vlookup” Data from other sheets to columns AE and AF (Type Code and ERF)
- Copy or create “Vlookup” Formula to L2 (=vlookup(K2, AE:AF, 2, 0))
- Copy or create “Vlookup” Formula to R2 (=vlookup(Q2, AB:AC, 2, 0))
- Copy or enter Formula to T2:
 - =sumifs(\$R\$1:R2,\$S\$1:S2,“AR”, \$A\$1:A2,A2)

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- Copy or enter Formula to U2:
 - =if(and(T2>=L2,S2="AR"),V2,"")
- Ensure column U is on correct date/time format:
 - Custom – (\$-409) m/d/yyyy h:mm:ss AM/PM:@
- Sort by Incident # then by Status Time, oldest - newest
- Create a New "ERF Final" Workbook
 - Copy from ERF Book into this book and "Paste Values"
 - Then copy (recopy) columns 'B' and 'U-Z' and "Paste Formatting"
 - Alternatively, copy all and reformat under custom
 - Custom – (\$-409) m/d/yyyy h:mm:ss AM/PM:@
 - Save and close the First ERF Book
- Delete columns C-J (Event Address to Priority); delete columns of unit status time, dispatched time, arrived time, and closed time.
- "Clear Contents" of columns "Unit Type" and "Primary"
- Move the "ERF Time" from column D to column G, then delete D
- Label columns as follows"
 - G "ERF Travel Time" (then format time to 13:30:55)
 - H "ERF Total Response Time" (then format time to 13:30:55)
 - I "District"
 - J "Incident Type"
 - K "Priority"
 - L Leave Blank
- Sort data by "ERF Time"
- Remove Duplicates by Incident #
- Calculate the ERF Travel Time
 - "F# - E#" (ERF Time – First Enroute Time)
- Calculate the ERF Total Response Time
 - F# - D# (ERF Time – Event Added to CAD Time)
- Open the Incident Data Book (RMS data for first unit)
 - Ensure all data is available (filters)
 - Make sure when copying that entire column is copied over
 - Copy Incident Number column from this book to the "ERF Final" book into columns Q, T, and W
 - "Text to Columns" for columns Q, T, and W
 - Label these three columns as "Inc #"
 - Copy District Number to Column R in the "ERF Final" book and label "Dist"
 - Copy Inc Type to Column U in the "ERF Final" book and label "Inc Type"
 - Copy Priority to Column X in the "ERF Final" book and label "Pri"
- In the "ERF Final" Book:
 - Create Vlookup for column I (=vlookup(A2,Q:R,2,0))
 - Create Vlookup for column J (=vlookup(A2,T:U,2,0))
 - Create Vlookup for column K (=vlookup(A2,W:X,2,0))
 - Put filters on the headings
 - Go to the bottom of the "ERF Times" and clear the contents of F, G, and H below this level
 - Create a new sheet "Analysis"

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- Copy the analysis information from prior sheets and paste the formulas
- Format times to 13:30:55
- Format bins to custom h:mm:ss
- Format % columns to %
- Highlight the 90th % and 80th %

The final workbook has the ability to calculate the ERF Travel and ERF Total Response Times based upon incident type (NFIRS code), district, and priority. The workbook can remain for the individual year. Data from each year can be copied to another workbook for cumulative data analysis and reporting over a five-year period.

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	How to Pull CAD data for ERF Calculations	CFAI References: PI #'s (e.g. 2D.1)
Issue Date: 3-05-19	Revision Date: N/A	Version #: 1

Pull CAD data- How to

First, here's a link to the table Schema:

file:///C:/Users/smaddux/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/TX2N4KH5/db_schema_both.htm

Open SQL Server 2014 manager.

Your log in is:

Server Name: CAD3-18

Database Name: archive92

User Name: cadreporter

Password: ch3rrybl0ss0m

You saved the pertinent queries in

G: CAD Queries/CAD queries.sql


Once you are in SQL Server, open your saved queries. It looks like this:

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```
CAD queries.sql - C...2 (cadreporter (59)) X
select * from agency_event where ag_id = 'FIRE' and cdts between '20180101000000' and '20190101000000'
select * from EVCOM where cdts between '20180101000000' and '20190101000000'
and comm like '%WATER ON FIRE%'
select * from EVCOM where cdts between '20180101000000' and '20190101000000'
and comm like '%WITH PATIENT%'
select * from INCIDENT_TRACKING where cdts between '20180101000000' and '20190101000000'
and STATE_DESC like '%Water on the Fire%'
select * from INCIDENT_TRACKING where cdts between '20180101000000' and '20190101000000'
and STATE_DESC like '%Fire Under Control%'
select * from INCIDENT_TRACKING where cdts between '20180101000000' and '20190101000000'
and STATE_DESC like '%Fire Out%'
select * from agency_event where ag_id = 'FIRE' and cdts between '20180101000000' and '20190101000000'
select * from UN_HI where ag_id = 'FIRE' and cdts between '20180101000000' and '20190101000000'
SELECT * FROM SP_AD --COMMON PLACE NAMES
```

The very top query will pull all the data you need. Tweak the years to reflect the current year.

Highlight the query you want to run and hit the Execute button.

	<h2>Outlier Calculations</h2>	<p>CFAI References:</p> <p style="text-align: center;">PI #'s</p>
<p>Issue Date: 03-18-19</p>	<p>Revision Date: N/A</p>	<p>Version #: 1</p>

Outlier Calculations

All time interval data will be analyzed at the 90th percentile, and if there are less than 10 incidents, the data will still be analyzed, but not included in the final analysis.

Only emergent responses will be included. Dispatched and cancelled en-route responses will be excluded (NFIRS 611).

Mutual aid and automatic aid apparatus into the city are included.

Response time intervals to be analyzed:

Alarm Handling (Pick-up to Dispatch)

Turnout Time (1st Due Unit)

Travel Time (1st Due Unit)

Total Response Time (1st Due Unit)

Travel Time ERF

Total Response Time ERF

Additionally for structure fire responses:

Travel Time (1st Due Engine or Truck)

Total Response Time (1st Due Engine or Truck)

Outliers are defined as:

Alarm Handling: >10 seconds and <5 minutes 40 seconds

Turnout Time >5 seconds and <3 minutes

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Travel Time >20 seconds and <12 minutes

Total Response Time >1 minute and <16 minutes

Travel Time ERF >20 seconds and <16 minutes

Total Response ERF >1 minute and <20 minutes

Data analysis

All Calls - Priority calls excluding 611

Structure Fires – 111

Low Risk Structure Fires-

Moderate Risk Structure Fires-

Non-Structure Fires- 100 series excluding 111

EMS- 321, 322, 323

Low Risk EMS-

Moderate Risk EMS-

High Risk EMS-

Technical Rescue- 312, extrications (322), 314, 341,342, 350, 351, 352, 353, 354, 355, 356, 357, 361, 363, 364, 365, 372, 461

Hazardous Materials- 400, 410, 411, 412, 413, 420, 421, 422, 423, 424, 431, 451

Data is analyzed using Tableau, Crystal Reports, and Excel using data from Records Management System and CAD.

Data reports will be presented quarterly and annually at Command Staff meetings.

To examine the outliers themselves, an outlier report, detailing the call incident number and call times will be forwarded monthly for analysis to the Tech Services Coordinator for further analysis.