# **LEE'S SUMMIT FIRE DEPARTMENT** STANDARDS OF COVER

"Firefighter Silhouette" at Bryan C. Pottberg Memorial Park | Lee's Summit, Missouri (photo courtesy of Linda Pulse)

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### **Executive Summary**

The City of Lee's Summit Fire Department (LSFD) was given legal authority to provide fire protection services in the City of Lee's Summit on October 12, 1971. Since then, the department has grown into an all hazards organization presently consisting of 128 uniformed and 16 non-uniformed men and women. The department's operational infrastructure consists of one communications center, seven fire stations, five pumpers, two quints/trucks, five rescue ambulances, one Assistant Chief of Operations, and one Battalion Chief of Operations. The department's scope of operational service has expanded throughout the years to now include: emergency medical services, hazardous materials response, technical rescue, and fire suppression. The LSFD also provides emergency services to the cities of Greenwood, Missouri and Unity Village, Missouri by contractual agreement.



The City of Lee's Summit is located in the southeast sector of the Kansas City Metropolitan area. Lee's Summit is south centrally located in Jackson County (primarily) and Cass County, Missouri, USA. Lee's Summit has a land mass of 65.87 miles and an elevation of 1,037 feet above sea level. The terrain consists of slight rolling hills resulting in some low lying areas which can produce flooding and swift water during heavy periods of rain. Lee's Summit has been known historically as a community of lakes. The city is home to four county and two private community lakes. In total, the community enjoys 3,375 acres of lake water. Lee's Summit is located in the Midwest region of the United States and is classified as having humid continental climate, experiencing all four seasonal

extremes. Lee's Summit is home to 91,364 residents as reported by the 2010 US Census and has the 6<sup>th</sup> largest population in the state of Missouri. The population of the City of Greenwood, Missouri is 5,221 residents, and the population of Unity Village, Missouri is 99 residents as also documented by the 2010 US Census. The department serves its community with funding from the City of Lee's Summit's General Fund. A history of the department and a description of its coverage area are included in <u>section A</u>.

The department is led by Fire Chief Rick Poeschl who manages the administration division and coordinates the emergency management program. The support services division is responsible for budgeting, budget control, purchasing, building and equipment maintenance, and also serves as the department custodian of records. The prevention division is responsible for the department's loss prevention programs, youth and adult fire education programs, building plans review, and inspections of new and existing businesses. The training division is responsible for developing and delivering training covering all service delivery areas including fire suppression, emergency medical services, technical rescue, hazardous materials, and emergency management. The training division is also responsible for ensuring all applicable, local, state, and federal training requirements are met or exceeded. The department communications center dispatches both emergency and non-emergency calls for eight regional fire department's effective response force to the community.

<u>Section D</u> of the standards of cover (SOC) document includes a risk assessment which describes a three dimensional or axis risk classification model used to establish levels of risk in each of the





department's operational programs: fire, emergency medical services, hazardous materials, and technical rescue. The evaluated dimensions were: probability of occurrence, community consequence, and impact to the department's ability to further protect the community. Resultant scores for low, moderate, high and maximum levels were identified while considering an associated critical task analysis of responders and equipment to establish baselines and benchmark service level objectives for each emergency program provided to the community.

Historical department response performance is assessed in <u>section E</u> which measures distribution and concentration response data. The current placement of department resources reflects a historical focus on distribution, or the first arriving unit; and not concentration, or the arrival of an effective response force. This level of response performance analysis had not been performed prior to the development of this document which identifies challenges particularly in call processing time, turnout time, and concentration travel time.

A travel time or "drive time" analysis was performed to determine areas of the community which can be reached in four minutes or less and five minutes or less. The city's geographic information system (GIS) was utilized to model the response capabilities on existing city streets and highways. Service gaps were identified based on areas of the community identified as metropolitan or urban population density which could not be reached from a fire station in four minutes or less. Gaps were also found in areas of the community identified as suburban and rural densities which could not be reached from a fire station in five minutes or less. Additional travel studies were conducted against travel times of eight and ten minutes for the arrival of the multiple resources needed on an incident, or the "effective response force." Several service gaps were identified particularly in the northern and southern response districts. To evaluate resource reliability, a study of incidents was performed by response district and emergency service zone. Incident demand by service program was compared by response district to provide an analysis. Incident demand by service program, risk location, assessed values, and reported fire loss was analyzed by emergency service zones (ESZ's) which are <sup>3</sup>/<sub>4</sub> square mile map encompassing all response areas. The quantitative incident demand data was placed into a thermal density map by service program to show "hot spots" and visually identify historical probability of incidents. Incident demand by hour of day, day of week, and month of year was evaluated to identify trends which provided insight for more efficient and effective resource planning.

Department response performance for all programs was assessed from January 1, 2012 through August 2, 2015. The results are included in <u>section E</u>. Department response performance from 2012-2014 had not been closely monitored or assessed, and was not evaluated relative to any quality benchmark as it was prior to this study. Several components of the total response time identify needs for improvement. Call processing/Alarm Handling is documented as consistently above desirable levels with the greatest deviation from the benchmarks on high risk fires. Turnout times are deviating greatly in all programs and risk levels, in some risk levels 235% of the benchmark. Concentration travel times are greatly deviating from the benchmark which is consistent with the travel time study using GIS to evaluate the capabilities of current deployment locations/stations.

Benchmark response objectives included in <u>section F</u> for all LSFD operational programs represent what are considered best practices, and were developed using industry standards such as NFPA 1710: *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, 2010 edition,* NFPA 1221: *Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems,* the Center for Public Safety Excellence (CPSE) and Commission on Fire





Accreditation International (CFAI) documents: *CFAI: Fire and Emergency Service Self-Assessment Manual*, 8<sup>th</sup> Edition, and CFAI: Standards of Cover, 5<sup>th</sup> Edition.

<u>Section G</u> of the SOC describes the methodology of continuous improvement the department will use to ensure baseline performance in all service delivery areas improve over time. The compliance team will continuously monitor response performance compliance with monthly, quarterly, and annual reports. The development of the system for regular analysis with recommendations is designed to coincide with the annual department budget development process as funding requests for the next fiscal year can be formulated as necessary, if funding resources permit.

### **Recommendations**

Analysis of the current SOC study led to the following recommendations to address gaps in key areas:

#### Immediate (within 12 months) Recommendations:

- 1. Evaluate processes within the Communications Center to ensure processing procedures are as efficient as possible to ensure the fastest process possible. Investigate the ability to add resources to enhance operation effectiveness.
- 2. Evaluate the process of station notification for calls and the procedures performed for turn out.
- 3. The current process of pulling data for compliance monitoring needs to be changed. Currently, only one individual is able to extract data from the records management system. It is then manually queried through Excel and evaluated for quality assurance by the accreditation manager. Frequently the current process will bottleneck and result in regularly missed timelines. Aggressively investigate technology to assist in the compliance monitoring process.
- 4. Investigate technology to include mobile data terminals inside all apparatus with integrated deployment mapping. This technology would greatly enhance turn out time and avoid spending time at a wall map or referencing a map book inside an apparatus. Frequently resources are not able to announce their response status due to radio traffic being tied up by other units. Mobile data will allow resources to activate their status through the computer system and more efficiently document a more accurate deployment. This occurs frequently during multiple unit responses.
- 5. Aggressively investigate the addition of an automatic vehicle location (AVL) deployment system. AVL technology can automatically identify the closest appropriate resources to respond to different types of emergency incidents. The current system does not dispatch the closest resources to emergency incidents, but sends resources which fall into geographical planning districts. This enhanced system would provide the community with the fastest response time possible which will save lives and property.
- 6. The department should consider repositioning Rescue 6 to station #2. District 2 has the second highest EMS demand by district and currently relies on adjacent district rescues to respond. Given the geographical positioning of station #2, the infrastructure in the immediate area may allow for greater resiliency against demand to cover other districts within the community. If the rescue is moved from station 6, evaluate the ability to replace a rescue to district 6 as soon as possible.
- 7. Provide training on incident reporting frequently to ensure incidents are documented and performance data is collected and allocated properly.
- 8. Continue to build the administrative, training, support services, prevention, communications, and operations divisions to support the growth of the department to efficiently and effectively manage the needs of the community.





#### Near Term (within 2-5 years) recommendations:

- 1. The department should look closely at the organizations records management (Fire Data Management or "FDM") capabilities. If the system is unable to meet the needs of the organization, evaluate other records management systems to ensure the department is using a system to efficiently and effectively meet its needs.
- 2. The department should replace the station within district 3 with a station suited to meet the needs of the community. District 3 has the highest EMS demand of any district and needs an ambulance. The new station should be built not only with existing demand in mind, but also consider additional development within its response capabilities. Consider moving Rescue 7 to the new station #3.
- 3. Consider additional staffed resources at stations #1 and #3. Additional units would address reliability issues identified within these high demand districts. Investigate the ability to begin utilizing a new deployment resource similar to a squad. This resource would assist with reliability challenges for fire apparatus, particularly with EMS demand.
- 4. Closely monitor development along 50 Highway between Blackwell Road and 7 Highway. This development will increase demand for district 6.
- 5. Re-evaluate the positioning of the station #7 ladder. Consider the fire risks and evaluate deployment modeling from station #3 or station #1. Ensure the ladder truck is in the best position to respond most efficiently to tactical related risk structures.
- 6. Evaluate minimum staffing qualifications to begin staffing paramedics on all fire department apparatus. Based on the minimum staffing qualifications, the distribution (first arriving unit) data does not ensure that a paramedic is present for advanced life support for patient care. It isn't until the effective response force arrives that a single paramedic is on scene. By having a paramedic on all resources, it provides a higher level of care during a medical emergency and would be compliant with NFPA 1710 with a second paramedic on scene. This staffing would be consistent with the National Institute for Standards and Technology (NIST) Field Experiments Study documented in <u>appendix A</u>.

#### Long Term (within 5-10 years) recommendations:

- 1. Construct an additional station in the northern portion of district 4. Given the infrastructure in place and modeled travel time, resources deployed from station #4 cannot physically get to several emergency service zones in that area to meet industry benchmarks. This issue will be compounded with the residential development area at Lakewood way and Bowlin Road. Development within district 4 is increasing with the Catholic High School on Strother Road and the continued development of Wilshire at Lakewood. Development also continues to increase in the area of Strother Road and Independence.
- 2. Construct an additional station in the area around the Bailey Road Bridge joining North and South 291. This location is a challenge to get to against the response benchmarks and will continue to develop with the 50 Highway/291 interchange development. This station would have great mobility throughout the community given the major infrastructure in the immediate area.
- **3.** Closely monitor the development in the area of New Longview and the development of Paragon Star. These two locations are trouble response areas from station #3. Consider constructing an additional station in the area.
- 4. Develop a plan to address the travel time issues identified in the metro/urban and suburban areas of Greenwood. Consider creative deployment concepts. A consideration may be to deploy a different response unit (squad) out of a fixed location within the City of Greenwood.
- **5.** Require a staffing plan which includes minimum staffing of four firefighters on every fire apparatus to which will be compliant with NFPA 1710 standards. This staffing will allow for the effective response force to arrive sooner with less physical resources to transport personnel to higher risk incidents.





### A. Description of Community Served

### Introduction

Lee's Summit, Missouri is located in the southeast sector of the Kansas City Metropolitan area. Lee's Summit is south centrally located in Jackson County (primarily) and Cass County, Missouri with land mass of 65.87 miles and elevation of 1,037 feet above sea level.







### Legal Basis

On October 12, 1971 the City of Lee's Summit Board of Aldermen Ordained Chapter 16 ½ within amended Ordinance 1317 thereby providing for a modern efficient fire department. Upon this act, and approval by the Mayor, the fire department became legally established within the Code of Ordinances for the city of Lee's Summit, Missouri. Contracted fire department response services are also provided for Greenwood Missouri, and Unity Village Missouri. As of 2015 there are no current automatic aid agreements with other agencies.

### History of the Agency

The Lee's Summit Fire Department (LSFD) is an organization with a rich history of serving the community. An article in the Lee's Summit Ledger of 1875 tells of a local man, Mr. G.W. Robaugh, had perfected a fire pump and sold to the community for \$100.00.

Another article in the 1885 edition of the Ledger reports of the LSFD having its first building located at Third and Douglas. As the city and the populist grew, so did the need for a larger and more proficient department.

The morning of January 14, 1889 a fire erupted in the Opera House Block. Citizens and volunteers alike turned out and made a gallant fight to subdue the fire and save as much as they could.

An article in the Kansas City Star dated December 19, 1909 gives an account of a large fire in Lee's Summit. The fire started from a stove which was located over the M. A. grocery store. In a few minutes the entire business section seemed doomed. The LSFD was badly in need of assistance. The fire company had only a gasoline pump with which to work. Water was pumped from a public well.





Two streams were being directed on the fire when the pump broke and the volunteers were helpless. Aid was sought from the Kansas City Fire Department.

A special train was made up of two flat cars and a caboose. The fire engine and reel was from No. 1 station in Kansas City. Nine men were taken along with Co. 6 and Assistant Chief Alex Henderson in charge. They traveled along the Missouri Pacific line and reached Lee's Summit at 1 o'clock in the morning. The fire was eventually extinguished.

In an article from the Lee's Summit Journal, in 1921 the city moved into the modern era of firefighting and attempted to buy the city's first motorized fire engine. City officials purchased a Ford chassis from Norfleet & Turnoff. A chemical engine and a hose carrying device was part of the new equipment.

Over the years the city would continue to upgrade its equipment and train volunteers.

In 1957 a 20 million dollar Western Electric Plant broke ground. The city fathers realized the time had come for a more structured department. They hired the first full time Chief, William Kenagy Jr.

In 1963 there were 3 full time fire personnel. By 1967 there were 8 full time fire personnel and 11 volunteers.

An article in the Lee's Summit Journal April 15, 1971 states the volunteers and professional firefighters tamed a fire at the W.R. McKee lumber yard. The article listed the names of the members that totaled 30 individuals.

On October 12, 1971 the Board of Alderman of the City of Lee's Summit ordained that the Code of Ordinances of the City of Lee's Summit be amended by adding a Chapter to be numbered 16  $\frac{1}{2}$  to read as follows:

"The purpose of this Chapter is to provide a modern efficient Fire Department for the City of Lee's Summit, Missouri and to vest responsibility for the direction and control of the department to the Chief. The office of Fire Chief shall be in the unclassified service of the City and shall not be subject to Civil Service of Merit Laws which may affect the City"<sup>1</sup>

In 1972 the fire department took over the EMS and transport service which had been privately owned. The LSFD is thought to be the first to combine fire suppression with Emergency Medical services in the state of Missouri.

In 1975 the department started sending firefighters to Paramedic Training.

As the years went by, the city annexed surrounding land and expanded response coverage. Four additional stations were built and fire trucks and additional personnel were added.<sup>2</sup>

As of 2015, the LSFD employs 120 line personnel operating from seven fire stations along with additional support personnel. The department responds to approximately 9000 calls for fires, hazmat, rescues and medical services yearly. The department has contracts with nine agencies for dispatch services.

<sup>&</sup>lt;sup>1</sup> Code of Ordinances 16 <sup>1</sup>/<sub>2</sub>, City of Lee's Summit, Missouri 1971

<sup>&</sup>lt;sup>2</sup> <u>A History of the Lee's Summit Fire Department</u>, Captain Mike Wallace (retired)





### Service Milestones

Over a decade long summary of the improvements the LSFD has made with the support of the community they serve from 2003-2015:

2003

• Replaced and trained six recruit firefighters.

2004

- Replaced and trained five recruit firefighters.
- Communications Center hired one communications specialist.
- Began using Fire Data Management (FDM) computer program for National Fire Incident Reporting System (NFIRS).
- Purchased Pierce Lance Pumping Apparatus with CAFS (compressed air foam system) P12, now in reserve at Headquarters.
- Purchased Pierce Lance Pumping Apparatus with CAFS (compressed air foam system) P5, still in active service, station #5.

2005

• Began hiring process to staff fire station #7 upon its completion. Hired 10 new recruit firefighters.

2006

- Replaced and trained six recruit firefighters.
- Communications Center hired one communications specialist.
- Fire headquarters at 207 S.E. Douglas Street was remodeled.
- Provided coverage for Prairie Township Ambulance District for the year.
- Began using Image Trend, a computer-based EMS reporting service.
- Began replacing bunker gear with improved design

2007

- Upgraded the city's EOC and added web conferencing (NefSis system) at all fire stations.
- Upgraded to Lifepak 12 for defibrillation and twelve-lead cardiac monitoring.
- Introduced CPAP (constant positive airway pressure) device on all ambulances.
- Purchased Medtec ambulance R11, placed in reserve at Headquarters.
- Purchased Pierce Lance pumping apparatus with CAFS (compressed air foam system) P3, in service station #3.
- Purchased Pierce Lance pumping apparatus with CAFS (compressed air foam system) P6 in service station #6.
- Dedicated and staffed fire station #7 which includes a three story training facility, located at 2150 SW Scherer Road.

2008

- Replaced and trained eleven recruit firefighters. Facilitated an in-house fire academy, the first fire training academy course in LSFD history.
- Communications Center hired one communications specialist.
- Added global positioning services (GPS) mapping units to all front line apparatus.





- Purchased new fire hose nozzles to improve effectiveness of CAFS (compressed air foam system).
- Installed improved air monitoring equipment to Squad 1 vehicle, improved air monitoring equipment placed on all apparatus.
- Purchased Ford Expedition response car 9, still in active service, Headquarters.
- Purchased Ford F250 utility truck U1, still in active service at Headquarters.
- Purchased Pierce Lance pumping apparatus with CAFS (compressed air foam system) P4, in service station #4.
- Purchased John Deere all-terrain vehicle Squad 4, still in active service, Space Center Underground, District 4.
- Purchased Ford Expedition Response Car10, still in active service, station #7.
- Purchased John Deere all-terrain vehicle G1, still in active service, station #7.

2009

- Replaced and trained six recruit firefighters.
- Snow plow purchased for department's utility vehicle to assist with fire station drive clearing and to assist on emergency incidents in inclement weather.
- Purchased Pierce Lance pumping apparatus with CAFS (compressed air foam system) P1, still in active service, Headquarters.
- Purchased Medtec ambulance R12, now in reserve at Headquarters.
- Purchased Medtec ambulance, R4.
- Purchased Medtec ambulance, R5.
- Purchased Medtec ambulance, R6.
- Purchased Medtec ambulance, R7.

2010

- Communications Center hired one communications specialist.
- Administrative assistant to fire chief hired.
- Public education instructors began using a power point supplement as a teaching aide for Grades 1-5 in all area elementary schools.
- Purchased Pierce Velocity Aerial Ladder 105 feet T2, still in active service, station #2.

2011

- Replaced and trained four recruit firefighters.
- Dedicated and staffed a replacement station for station #2, located at 2000 NE Rice Road.
- CCC (Continuous Cardiac Compressions) medical protocol was adopted, and Lucas 2 Device, a device which provides external chest compressions during a cardiac arrest, was placed in service.

2012

- Replaced and trained one recruit firefighter.
- Upgraded portable radio system department-wide.
- Purchased Horton ambulance R1, still in active service, Headquarters.
- Purchased Pierce Velocity Aerial Ladder 105 feet T7, still in active service, station #7
- First City of Lee's Summit/ IAFF 2195 labor contract is signed.





#### 2013

- Replaced and trained three recruit firefighters.
- Communications Center hired one communications specialist.
- Pleasant Hill Fire Protection District added by contract to the Fire Communications center to provide dispatch services.
- Purchased Pierce Saber hazardous material/specialized rescue Squad 1, still in active service at Headquarters.
- Five New Lifepack model 15 cardiac monitors placed in service on all active service ambulances.
- The department finalized the community driven strategic plan, formalizing a new mission statement and adopting department core values.

#### 2014

- Replaced and trained three recruit firefighters.
- Communications Center Specialist replaced and trained.
- Pumper 5 was replaced with a new Pierce Velocity CAFS Pumper.
- Five front line ambulances were replaced with new Terrastar Type 1 ambulances; Rescues 1, 4, 5, 6, and 7.
- Hosted the first awards and achievements ceremony in 15 years.
- Four committees from the department's strategic plan are formed to begin work representing four of the nine strategic initiatives; workforce planning, training, technology, and internal communications.
- An additional department core value is added: "Excellence."

#### 2015

- New Fire Chief appointed.
- Nine firefighters were replaced and trained.
- Dedicated a full time accreditation manager from January through June.
- Added a management analyst to the administration division.



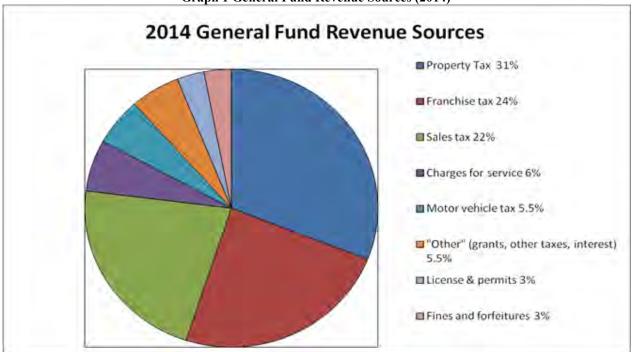


### **Financial Basis**

The LSFD budget comes out of the city's General Fund, which is shared by ten city departments. The fire department's budget is developed by input from staff members who look at existing and possible new programs and services, staffing requirements, and past fiscal year trends. All revenue received from contract services or ambulance billing goes into the city's General Fund.

Once the department's budget is developed, the Chief of the Department, with the help of staff, presents it to the City Manager. The City Manager in turn, presents the General Fund budget to the Finance and Budget Committee of the City Council. Once the Committee members evaluate and recommend passage of the total budget, it is forwarded to the full Council for passage.

The city budget is formulated by revenue predictions based on actual income and predicted trends.



### Graph 1 General Fund Revenue Sources (2014)





#### Area Description

#### **Topography**

The terrain consist of slight rolling hills resulting in some low lying areas that can produce flooding and swift water during heavy periods of rain. North and south regions include residential lakes with County Park lakes located toward the west central and northeast areas of the city. Undeveloped sections consist of approximately 1,200 acres



of city parks and greenways, pockets of native trees, native grasslands, and agricultural. Residential developments consist mostly of transplanted trees and lawn grass conducive for region. It is not uncommon for residential neighborhoods to be located adjacent to agricultural farm and livestock properties. A former underground mined cave, which is now utilized for subterranean warehouse rental space utilizing 1.5 million square feet, is located in extreme north city limits.

Lee's Summit has historically been known as a community of lakes. The city is home to four county and two private community lakes. In total, the community enjoys 3,375 acres of lake water. The four county lakes are Longview Lake (930 acres), Blue Springs Lake (720 acres), Prairie Lee Lake (150 acres), and Lake Jacomo (720 acres). The two private community lakes are Raintree Lake (240 acres) and Lakewood Lake (365 acres). Both private lakes and three of the four county lakes have marinas which dock mostly non-commercial fishing, pontoon style watercraft, and small sailboats. Citizens from the greater Kansas City area and region enjoy the county lakes and parks. There are not any rivers within the city but several creeks are present.

Lee's Summit is bordered by Independence, Missouri to the north, Unity Village, Missouri to the Northwest, Kansas City, Missouri to the west, Raymore, Missouri to the southwest, Greenwood, Missouri to the southeast and primarily unincorporated areas to the east. Ingress to, and egress from the city are primarily served by maintained federal, state, and city roadways. Traffic flow and accessibility can be affected by weather conditions and rush hour volume.

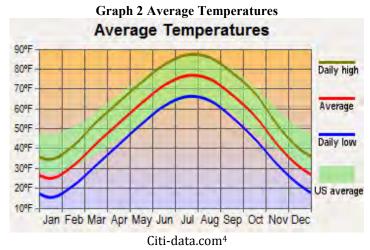




#### **Climate**

Lee's Summit, Missouri is located in the Midwest and experiences four seasons. The region is classified as a humid continental climate.  $^{\rm 3}$ 

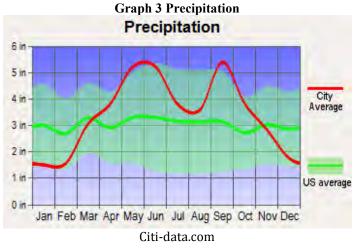
According to data compiled at the Lees Summit Municipal Airport weather station from 2002 to 2012, over the course of the year, temperatures typically range from 21° F to 90° F.



The warm season lasts from late May through early September with an average daily high temperature above 79° F. Temperatures rise to 90° F or higher on average 40 to 50 days annually. Temperatures over 100° F are rare, but they have occurred on multiple days as recently as 2012, which coincided with severe drought.

The cold season lasts from late November through late February with an average daily high temperature below 48° F. Lee's Summit experiences freezing temperatures annually. There is an average of 110 days below 32° F. Temperatures below zero are infrequent, but occur on average two to five days a year.

Lee's Summit averages 41" of rain annually. Spring, summer, and early fall precipitation comes largely in the form of showers or thunderstorms. Measurable precipitation occurs on average about 100 days a year. The region has experienced rainfall upwards of 3-4" in a 24-hour period. Thunderstorms have occurred in the winter months, but are most frequent from April to July.



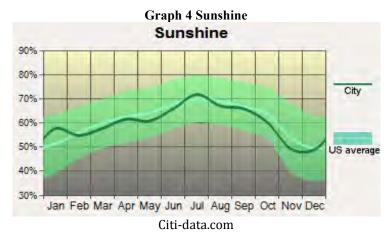






Snowfall averages approximately 17" annually. The region has experienced 8-10" of snowfall in a 24-hour period. Snow has been known to fall as early as October, and as late as May. However, most of it falls in the months of December, January, and February. Winter precipitation can sometimes borderline between rain and snow. These situations can produce freezing drizzle or freezing rain resulting in hazardous conditions for transportation.

The length of daylight varies significantly over the course of the year. The least amount is December 21st with 9:26 hours of daylight. The most is June 20th with 14:55 hours of daylight.



### **Population**

Lee's Summit has the 6th largest population of any city in Missouri, and ranks 4th based on population increase in the State. In the MARC (Mid-America Regional Council) region, Lee's Summit ranks 3rd in population growth. As of the 2010 US Census Report, there were 91,364 people, 34,429 households, and 25,126 families residing in the city. The population density was 1,442.2 inhabitants per square mile.

In 2012, the city of Lee's Summit published the city's Development Report. In it, the city estimated the population growth annually since the 2010 Census Report, using the City's residential building permit data. The new estimate of the City's population is 92,292.<sup>5</sup>

- Lee's Summit contains five statistically significant zip codes:
- In the geographical center, 64063 (5.53 square miles) the population is 20,186, with a density of 3,650.15 people per square mile
- In the western region of the city, 64081 (13.24 square miles) the population is 18,042, with a population density of 1,368.94 people per square mile.
- In the southern region of the city, 64082 (20.83 square miles) the population is 5,651, with a population density of 277.11 people per square mile.

<sup>&</sup>lt;sup>5</sup> cityofls.net/Development/Demographics-and-statistics.aspx





- The eastern region of the city, 64086 (36.22 square miles) the population is 19,727, with a population density of 568.44 people per square mile.
- The northern region of the city, 64064 (22.13 square miles) the population is 11,265, with a population density of 522.58 people per square mile.<sup>6</sup>

### Disaster Potentials

In January 2004, Lee's Summit developed an Emergency Operation Plan. This plan establishes policies and procedures that will allow respective governments of Lee's Summit to save lives, minimize injuries, protect property, preserve functioning civil government, and maintain economic activities essential to its survival and recovery from natural and technological hazards. It establishes the guidelines for conducting efficient, effective, coordinated emergency operations involving the use of all resources belonging to these jurisdictions or available to them.

Other emergency operation resources;

(MARCER) Mid-America Regional Council Emergency Rescue Committee

(LEPC) Mid-America Local Planning Emergency Committee

(MMRS) Metropolitan Medical Response System

Homeland Security National Response Plan

Regional Natural Hazards Mitigation Plan

Metro Chiefs IMS Plan

With local and regional planning that has taken place; the city, region, and state have built systems which efficiently and effective organize resources to mitigate large scale incidents in the area.

#### Mid-America Regional Council

MARC works with local governments, public safety and emergency service agencies, and committees, MARC coordinates the preparation of a number of regional emergency plans. Some of these plans are as follows:

#### -Mid-America LEPC and Regional Hazardous Materials Emergency Preparedness Plan (RHMEPP)

This <u>plan</u> provides an administrative framework for hazardous materials planning and response for the nine counties (Cass, Clay, Jackson, Platte and Ray counties in Missouri and Johnson, Leavenworth and Wyandotte counties in Kansas) served by the Mid-America Local Emergency Planning Committee (LEPC). The RHMEPP is not an operational document, but rather a plan to assist emergency response agencies, local governments and the private sector in planning for hazardous materials emergencies. This regional plan is designed to meet the requirements of SARA Title III, the Missouri Emergency Response Commission and the Kansas Commission on Emergency Planning and Response. It includes a hazard assessment for the area and outlines hazardous materials response capabilities to address the identified hazards.

#### -Tactical Interoperability Communications (TIC) Plan

The Tactical Interoperable Communications (TIC) Plan describes how interoperable communications will be accomplished in accordance with the communications resources available in the region and what agencies maintain these resources. The TIC Plan also documents procedures for the activation and deactivation of regional interoperable communications resources.

<sup>&</sup>lt;sup>6</sup> <u>www.zip-codes.com/city/MO-LEES-SUMMIT.asp</u>





#### -Regional Hazard Mitigation Plan

Cass, Clay, Jackson, Platte and Ray counties (the Missouri counties of the MARC region), along with 47 other jurisdictions, updated the <u>Regional Multi-Hazard Mitigation Plan</u> in order to sustain actions designed to reduce or eliminate long-term risk to people and property from natural and other hazards.

#### -Port Risk Management/Mitigation Plan

This plan contains prioritized initiatives for implementation for the Port Area, which stretches for more than 110 miles of the Missouri and Kansas Rivers flowing through two states and five counties. Sites assessed included Critical Infrastructure/Key Resources (CI/KR); industrial, chemical, and water treatments plants, power plants; petroleum tank farms and terminals; petroleum pipeline operators; rail and vehicle bridges; rail yards; and critical control centers.

#### -Regional Evacuation Plan

The Kansas City Regional Mass Evacuation Plan, still in development, provides a vehicle for collaboration in planning, communication, information sharing, and coordination of activities/operations before, during, and after a regional emergency or disaster requiring an evacuation.

#### -Plan Bulldozer

Plan Bulldozer is a regional mutual aid agreement with the heavy contractors in the metropolitan area. Plan Bulldozer describes the types of heavy equipment resources potentially available to local jurisdictions and provides 24-hour contact information for accessing these resources. The plan's Emergency Resource Catalog is compiled and published by the Heavy Constructors Association of the Greater Kansas City Area and the Kansas City Chapter of the Associated General Contractors of America. Emergency officials may contact MARC for a copy of Plan Bulldozer.

#### -Regional Health Care Coordination System (RHCS) Guide

The Regional Health Care Coordination System (RHCS) Guide was developed for the member hospitals of the Regional Homeland Security Coordinating Committee (RHSCC) Hospital Subcommittee, who represent health care organizations and agencies in the nine-county, bi-state Kansas City metropolitan region. The RHCS Guide sets forth guidelines for the hospitals intended to augment and enhance their ability to coordinate their activities, and share information and resources during a major health and medical event. The RHCS Guide is maintained by the RHSCC Hospital Subcommittee.

#### -Region A Healthcare Emergency Response Guide (HERG)

The Region A Health Care Emergency Response Guide (HERG) provides information to assist hospitals, local government agencies and other emergency services organizations with response to a major public health and medical emergency. This regional guide is designed to help these agencies and organizations coordinate their efforts, augment local resources and enhance the region's overall public health and medical emergency response capability.

#### -Kansas City Metropolitan Medical Response System (KCMMRS) Plan

Developed in 2006, this regional plan describes the coordination of emergency activities in response to the human health consequences of an incident resulting in mass casualties. Although sections of the KCMMRS Plan deal specifically with an event involving Chemical, Biological, Radiological, Nuclear or Explosive (CBRNE) agents, the actions described.<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> <u>http://www.marc.org/Emergency-Services-9-1-1/Plans.aspx</u>





#### Weather Disaster

Lee's Summit experiences "extreme" climate events, and such events must be considered part of the normal climate. Among these extreme climatic events are high-intensity rains, protracted drought, heat waves and cold waves, ice storms, windstorms, and tornadoes. These events may lead to other environmental disturbances such as flooding and fires.





National Weather Service NOAA<sup>8</sup>

Due to elevated temperatures and lack of precipitation as recent as 2012, residents experienced heat related emergencies, grass and wild land fires, water rationing, structural damage from ground shifting, and agricultural losses.

Local thunderstorms have produced very heavy rains with pea to softball sized hail and wind gusts exceeding 60 MPH. Residents experienced flash flooding, downed power lines producing power loss, uprooted trees, lightning strikes to structures, and a microburst in 1996 resulting in localized heavy property damage.

Winter storms in the region have generated "heavy" accumulation of snow or ice. Residents experienced downed power lines producing power loss, property damage, infrastructure failures, and extremely hazardous road conditions creating traffic flow problems, and neighborhood isolation until residential roadways were cleared. Lee's Summit Fire Department responses had to be prioritized at times during ice storms in years 2002, 2005, and 2007, due to volume of incidents.

Actual tornado touch downs in Lee's Summit have been minimal over the years but remain an eminent threat due to proximity within "Tornado Alley", a region where warm gulf air mixes with Rocky Mountain and Canadian cold air masses producing violent storms.

The evening of July 1, 2015, a storm produced two tornados that touched down in Lee's Summit. These two tornados were rated as a category F-1 and a category F-0 on the Fujita Tornado Damage Scale. The damage assessment from this storm has not been completely assessed as the event was still very recent at the development of this document. Initial reports include a number of damaged structures and commercial occupancies. Initial assessments include 14 commercial structures damaged including 35 business occupancies. The bulk of the commercial damage was in the area of

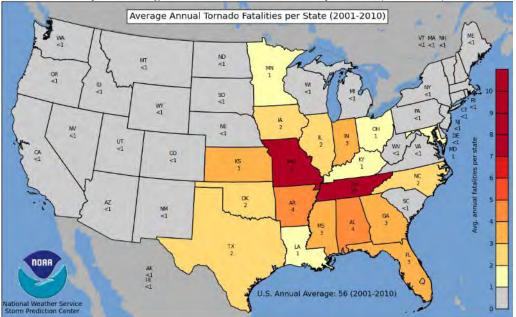
<sup>&</sup>lt;sup>8</sup> http://www.spc.noaa.gov/wcm/

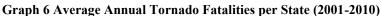




the Douglas Station Business Park. Also impacted were two Lee's Summit R-7 School District Buildings – Lee's Summit North High School and Sunset Valley Elementary School. Both of the school structures sustained minor exterior damage to the roof/fascia/HVAC screening areas. Specific damage to residential structures and trees are not included in this information as the assessment has not yet been finalized.

A category F-5 tornado touched down 4.2 miles from Lee's Summit in 1957 that killed 44 and injured 207. In 1977 an F-4 tornado occurred approximately 21 miles away. Historical tornado data reports 332 tornadoes within 50 miles of Lee's Summit since 1950, 86 since 2003.





National Weather Service NOAA

In 2011 a deadly EF-5 tornado devastated the City of Joplin, MO resulting in 116 fatalities and destroying much of the community. Joplin, MO is approximately 142 miles South of Lee's Summit.



In 1996, the department responded to a microburst located in the Raintree Lake subdivision in the southern portion of the city limits. This weather incident severely damaged several homes. This incident lasted several days and utilized most of the department's resources.

Raintree Lake subdivision microburst, 1996

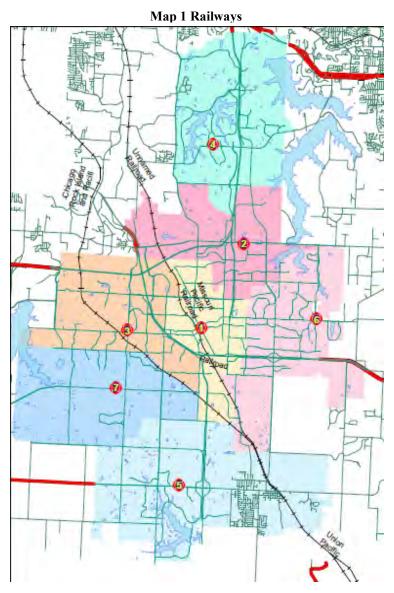




#### **Railway Disaster**

Lee's Summit has approximately 6.5 miles of active railway located within city limits, 8.5 miles including contracted city of Greenwood, Missouri. The railway is now owned and operated by Union Pacific, but was originally built by Missouri Pacific in 1905. Several downtown streets were built along the northwest – southeast direction of the track. Part of the city's current name (Summit) is derived from the fact the train depot is located along the highest elevation of railway between Kansas City and St. Louis.

The line is utilized for both freight and passenger service. Freight trains ordinarily contain agricultural, automotive, chemicals, coal, industrial products and intermodal. Amtrak provides passenger service twice daily for northbound and twice daily for southbound departures. Nearly 197,000 passengers traveled the Missouri River Runner service corridor from Kansas City to St. Louis in 2012.





While Lees Summit has not experienced a derailment, there has been train versus auto collisions at the two railroad crossing intersections in the area of service. There are business and residential corridors along the railway. Two of the four railroad crossing intersections in Lee's Summit city limits are centrally located in the Historic Downtown Main Street core where festivals and concerts are conducted annually. LSFD apparatus have a response option of utilizing unimpeded 2nd Street to avoid delays during railway crossing use, and festivals in the downtown core. The two other railroad crossings are on less traveled response routes, but could pose delays encountering railway use.





#### **Hazardous Materials**

Lee's Summit is served by major highway corridors including I-470, US 40, US 50, M-291, M-150, and M-350. Semi-tractor trailers transporting various hazardous materials utilize these roadways every day.

Union Pacific annual statistics show 9087 freight loads traveling through Lee's Summit in 2014 by railway with reportable quantities meeting CFR 49 parts 15 and 1520.

Lee's Summit also has several target-hazard businesses that are identified by preplan. A few examples of target-hazard businesses within Lee's Summit are a semi-conduction manufacturer located in mixed use occupancy, a consumer cleaning solution manufacturer located within Lee's Summit's core business region, an explosives distributor located in the contracted service area in Greenwood, Mo, and radioactive hazards located within several medical/dental facilities in Lee's Summit.

Typically, the largest contributors for hazardous materials responses in Lee's Summit are minor fuel spills, MVC mitigation, and residential carbon monoxide detector activation.

#### **Terrorist Event**

Living in post 9/11 era, consideration must be given to possible terroristic events. Just as other metro areas and municipalities, Lee's Summit is at risk for chemical, biological, radiological, nuclear, and explosive incidents.

#### Dam Failure

Several man-made lakes are located within or borderline Lee's Summit. Lakewood and Raintree are residential lakes with dams located in Lee's Summit. Blue Springs Lake, Lake Jacomo, Longview Lake, and Prairie Lee Lake are county lakes that straddle Lee's Summit's borders. Failure of any one of these sizeable lake dams could cause significant flooding and property damage in Lee's Summit and the surrounding area.

#### Earthquake

Lee's Summit is located approximately 300 miles from the nearest seismic zone known as the New Madrid Fault. Seismic activity has been recorded 5 times since 1999 within 20 to 80 miles of Lee's Summit, registering on average, 3.1 magnitude. Lee's Summit is considered a peripheral location and could be expected to receive collateral damage from a major earthquake in the New Madrid Seismic Zone.

#### Aircraft Emergency

Lee's Summit Municipal Airport is located in the north-central sector of the city. The regional airport is a non-towered facility, with no onsite air traffic control, that is primarily utilized by smaller aircraft. The airport is not required to have onsite fire and rescue support.

According to airport administrative staff, Lee's Summit Municipal Airport experiences approximately 52,000 take-



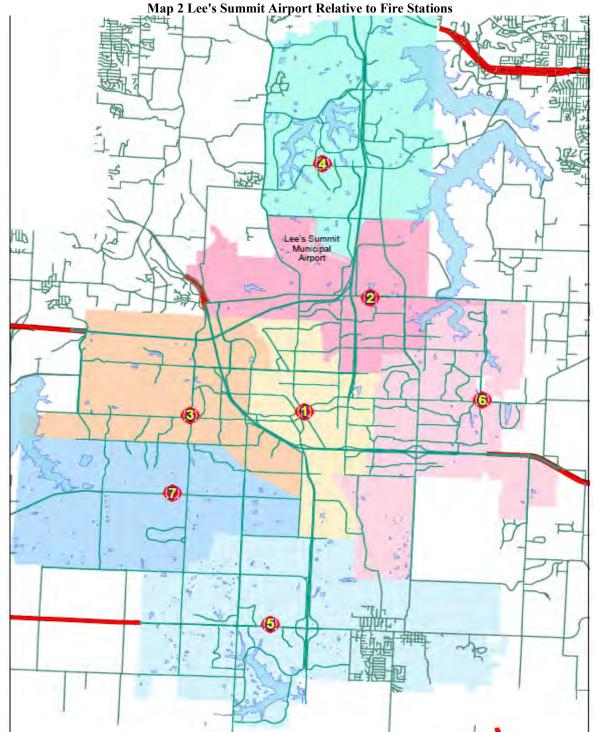
off/landings annually. LSFD records indicate nine downed aircraft responses at, or near, the airport in the past 10 years. Runways are positioned in north south and east west directions. Residential





homes and businesses are located directly in landing patterns of both runways. A five story hospital is located just south of the airport.

LSFD provides response to the airport in the areas of Suppression, EMS, and Rescue services. LSFD apparatus are equipped with foam capabilities. Station #2 is located less than two roadway miles southeast of airport.







### Area Development

Lee's Summit is a developing community that has retained much of its rich history. Many of its older homes and businesses are located downtown in protected historic districts dedicated to preserving the community's history. The city has six major highway corridors, as well as 14 highway interchanges, and is also served by Union Pacific Railroad and Amtrak.

Located Southeast of Kansas City, Lee's Summit has been one of the fastest growing suburban communities in the Midwest for several decades. Lee's Summit has ranked second overall in residential building permits issued over the past 10 years for comparable cities in the Kansas City metro area. Housing growth in Lee's Summit has increased by 22.4% from 2002-2012, even factoring in four consecutive years of growth less than 1% (2008-2012).<sup>9</sup>

The median age of homes in Lee's Summit is 16 years, with 72% of those homes owned, 21% rented and 6% not occupied. In 2011, 334 Lee's Summit properties were sold. The median sale price of a home in Lee's Summit in the previous year was \$159,735.

During the last decade, non-residential development in Lee's Summit was steady until 2005. The development of Summit Woods Crossing and Summit Fair Shopping Centers continued through the economic downturn in 2008, as well as the additions to St Luke's Hospital and several other businesses new construction. Lee's Summit currently has about 82 percent residential, versus 18 percent commercial assessed valuation, giving the city a base of commercial and industrial taxpayers. The market value of real and personal property in the city exceeded \$7.9 billion in 2010.

Between 2000 and 2009, Lee's Summit experienced a 23% increase in the number of local business establishments, from 1,865 in 2000, to 2,298 in 2010. Employment in Lee's Summit is estimated at 29,828 excluding Government workers, which make up 3.3% of work force. Manufacturing employment in Lee's Summit accounts for only 2.3% of the metro area total, with significantly larger percentages in the metal and plastics industry, 4.1% and 9.5% respectively, 52% of Lee's Summits' workforce is involved in the Service Sector. Service industries include professional, scientific, technical, health care, food and lodging. Of Lee's Summit total employment: 6% is in construction, 17% is in retail trade, 7% of local jobs are in finance, insurance, and real estate. The unemployment rate is 5.4% (July 2013).

There are 21 businesses in Lee's Summit with 200 employees or more, and eight businesses with 500 or more employees. Since 2000, Lee's Summit has added over 1.8 million square feet of new industrial space. This translates into over 1.128 billion dollars in capital investment. Lees' Summit has three major business park areas in the city. In total Lee's Summit has over 2,000 acres in industrial and business developments that range in size from 1-300 acres. There is also an underground business area in Lee's Summit.

The total available industrial and flex space in Lee's Summit is approximately 648,000 square feet. The city has also added 1.4 million square feet of office space since 2000.

The city is anticipating this level of development to increase due to the stabilization of the national economy and the actions taken by the city to encourage growth.

<sup>&</sup>lt;sup>9</sup> http://www.leessummit.org/





### **Development Projects by Fire District (as of August 2015)**

Fire District 1 (central region of the city, includes the historic downtown)

- Missouri Innovation Campus- A combined educational /commercial complex approximately 200,000 square feet in size. To be located in the area of Ward Road and Tudor Road.
- Mid-sized hotel with approximately 50 rooms. To be located in the area of Ward Road and Tudor Road.
- Combined multi-family retail development proposed in the area of Ward Road and Chipman Road.
- A large 291 and 50 Highway infrastructure project with new development in the Adessa property on the East and West sides of 291 Highway.

Fire District 2 (north central region of the city, includes Unity Village)

- A large international manufacture business with approximately 500 employees is proposed to move into the area of Independence Avenue and McBaine Street.
- A combined retail/commercial development in the area of Strother Road and Independence Avenue proposed to be approximately 100,000 square feet of new development.
- A mid-sized family activity center located at McBaine Drive and Independence Avenue.
- A commercial warehouse on McBaine Drive at approximately 50,000 square feet.
- A senior living/skilled nursing facility has been proposed in the Colbern Road corridor, unknown the number of rooms or beds.
- Tudor Road infrastructure development West of Douglas Street to Ward Road.
- Blue Parkway developments to the North of 50 Highway following infrastructure improvements.

Fire District 3 (west central region of the city, includes the western gateway)

- The Commons at John Knox Village, a multi-story senior living center located in the John Knox Village campus.
- The Meadows at John Knox Village, multiple multi-story senior living facilities located in the John Knox Village campus.
- Autumn Leaves at Third Street and Kessler is a 52 unit memory care nursing facility.
- Summit Place development in the area of Ward Road and Blue Parkway. This development includes two major anchor retail stores including a wholesale club and additional commercial pad sites.
- A large commercial/entertainment development located at 470 Highway and View High Drive. A combined sporting venue with commercial, residential, and hotel with a conference center occupancy.
- Continued development of the New Longview area with 309 multi-family residential units. Located in the area of Third Street and View High Drive.
- Continued development of the retail shopping development in the area of Blue Parkway and Chipman Road.

Fire District 4 (northern region of the city, includes the northern gateway)

- A Private High School in the area of Strother Road and Lee's Summit Road.
- Multiple multi-story senior living facilities and additional four-plexes in the area of Manhattan Drive and Meadowview Drive.
- Residential development in the area of Akin Boulevard and Morgan Drive. This includes 74 townhomes and a clubhouse.





- Residential development in the area of Bowlin Road east of Lakewood Way. This includes 160 residential lots with a proposed senior living/nursing facility.
- Continued development of the large residential subdivision in the area of Woods Chapel Road and Park Ridge Boulevard with 100 additional lots of single family residential.

Fire District 5 (southern region of the city, includes the City of Greenwood)

- Continued development of the large residential subdivision in the northwest corner of Ward Road and 150 Highway.
- Continued development of a mid-sized subdivision in the area of Hook Road and Pryor Road with approximately 75 additional lots.
- A twenty-four hour Walmart in the area of 150 Highway and Market Street.
- Continued development of the large subdivision in the southwest corner of 150 Highway and Ward Road including an additional 200 single family lots.
- Continued development of a large subdivision in the area of Ward Road and County Line Road with an additional 180 lots of single family residential.
- Continued development of the mid-sized subdivision in the area of Pryor Road and Sage Canyon Road.

Fire District 6 (eastern region of the city, includes the eastern gateway)

- A multi-story senior living center in the area of Battery Drive and Shenandoah Drive.
- Residential development in the area of Todd George Road and Scruggs Road. Ninety three single family residential lots.
- Continued single family residential development of the large subdivision in the area of Langsford Road and Millstone.
- Continued single family residential development of the large subdivision in the area of Langsford Road and Wood Street.
- Major infrastructure development with an additional interchange at 50 highway and Blackwell with frontage road extension for approximately two miles to the East.
- Commercial development in the area of Todd George Road and Blue Parkway including a large grocery store and multiple commercial/retail shops.

Fire District 7 (southwestern region of the city)

• Continued single family residential development of the large subdivision in the area of Pryor Road and Eagle Creek Drive.

Note: Total employment by place of work estimates from Mid-America Regional Council (MARC) are somewhat different than estimates from County Business Patterns due to a difference in geography since the MARC data is for Eastern Jackson County not the City of Lee's Summit, and the fact that the MARC estimates include government employment.



Summit Fair Retail Shopping Center





#### Water Distribution

The City of Lee's Summit is currently served by two primary water purveyors: Lee's Summit Water Utilities (LSWU) and Public Water and Sewer District #13 (PWSD13). The LSWU and PWSD13 provide reliable water throughout the city with the exception of several areas along the city borders that are served by the neighboring jurisdictions such as the City of Independence, City of Kansas City, and Cass County Public Water District #3. LSWU receives its water from two suppliers, the City of Kansas City and the City of Independence. LSWU has a storage capacity of 34.7 million gallons per day (MGD). PWSD13 covers areas of the northeast central portions of the city. PWSD13 receives its water from the Tri-County Water Authority. PWSD has a storage capacity of 1 million gallons.

The department serves two additional areas by contract. Those areas are Unity Village and the City of Greenwood. Unity Village is served by its own water system and has its own storage capacity of 100,000 gallons. Fire hydrants within Unity Village are supplied by both Unity Village and LSWU. In the event that the areas served by Unity Village water need additional volume, there are emergency interconnects for supplementation from LSWU.

The City of Greenwood is served by Public Water and Sewer District #12 (PWSD12) and Cass County Water District #6 (CWD6). PWSD12 receives its water from the City of Kansas City and the Tri-County Water Authority. PWSD12 has a storage capacity of 1 million gallons and receives 1.5 MGD from the City of Kansas City and 162,869 gallons daily at minimum for the Tri-County Water Authority according to Tri-County staff. LSWU has emergency interconnects to supplement all purveyors in all areas of service including contract service areas.

#### Water Operations

Supplying effective water to the fire ground is an important tactical consideration and can play a part in the overall strategy of the incident. As a general guideline, whenever the incident is within one thousand five hundred (1,500) feet of an adequate fire hydrant, a supply line is established between the hydrant and the fire ground. Whenever the incident is farther than one thousand five hundred (1,500) feet from an adequate water supply, a rural water operation is established.

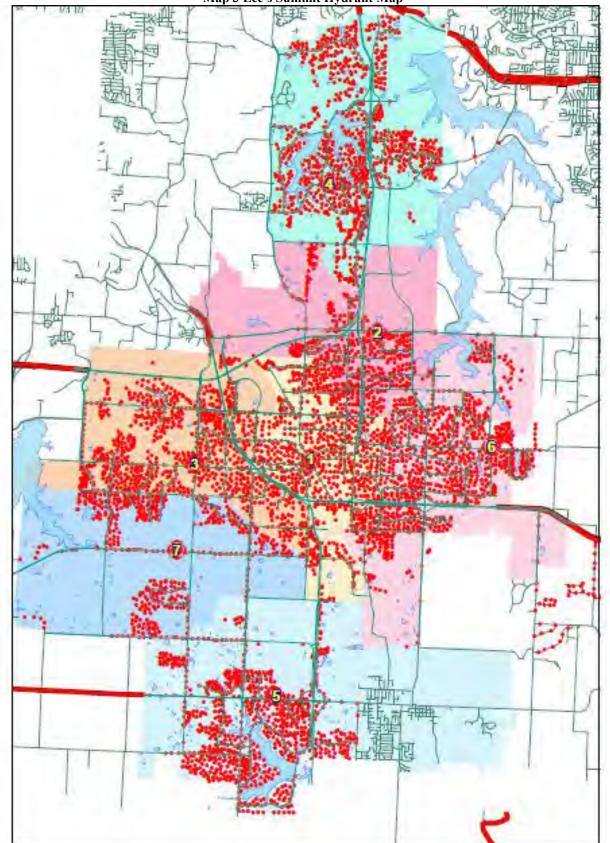
Per department Standard Operating Guideline V, a minimum of two "water tankers," from mutual aid agencies, is requested by the incident commander to establish a rural water operation. This is at the discretion of the incident commander if a relay pump operation is not the best tactical consideration. Additional tankers may be requested dependent on the incident.

The prevention division has weekly meetings with LSWU staff to discuss and work through development plans to ensure adequate water for fire protection is considered in the planning process.





Map 3 Lee's Summit Hydrant Map

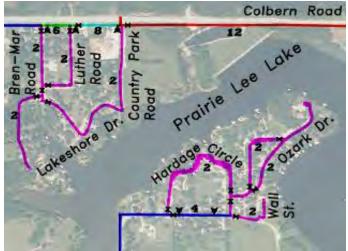


This map includes the contracted areas of Unity Village and the City of Greenwood.



#### **Computer Aided Dispatch (CAD) Alerts for Rural Water Operations**





Map 4 CAD Example, ESZ 176 W

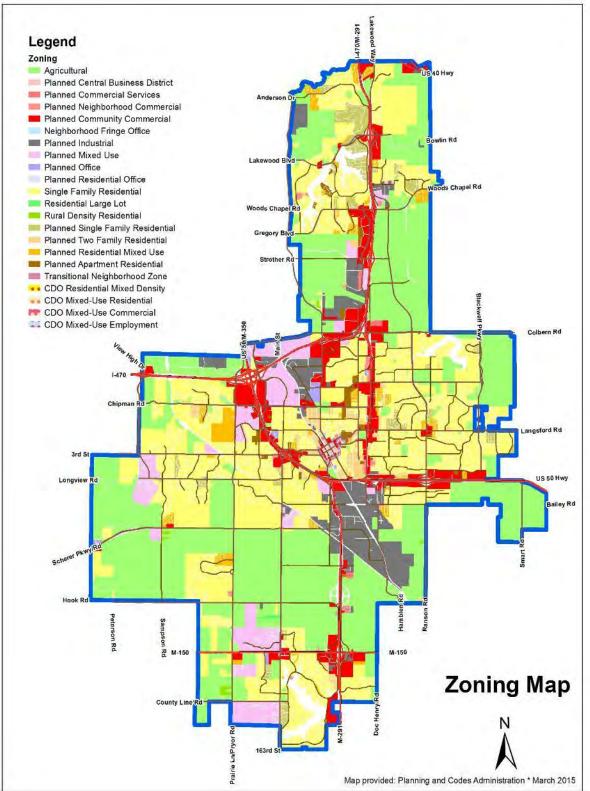
Along Lakeshore, Bren-Mar, Luther, Hardage Circle, Hardage Lane, and County Park Road are single family residential structures which are potentially greater than one thousand five hundred (1,500) feet from a hydrant. These structures have CAD alerts to notify of rural water supply operations. Mutual aid response is available from Prairie Township Fire Protection District. The department trains with mutual aid companies on establishing an effective rural water supply annually.

Other areas of risk with structures greater than 1,500 feet from a hydrant are in these ESZ's: 156S, 155Y, 156W, 175B, 176A, 176E, 176W, 176X, 176Y, 193R, 193V, 194P, 194T, 194X, 195S, 195T, 195U, 195X, 195Z, 196C, 196N, 196W, 214C, 214H, 215C, 215D, 216A, 216B, 216E, 216J, and 216K. These individual zones assessment studies can be seen in <u>appendix B</u>. In the past three years, the department hasn't had the need to utilize a rural water supply operation during a fire incident.





Map 5 Zoning







### **Demographic Features**

In 2006 CNN/Money and Money magazine ranked Lee's Summit 44th on its list of the 100 Best Cities to live in the United States. That ranking improved to 27th on the 2010 list.<sup>10</sup> The City of Lee's Summit encompasses a total geographic area of 65.87 square miles in Jackson and Cass counties. Lee's Summit has a council-manager type government. The city is divided into four city council districts roughly equal in population. The median household income in Lee's Summit is \$72,390 and the median family income is \$91,483.

United States Census data from 2010<sup>11</sup> and the American Community Survey in 2011<sup>12</sup> showed nearly 31% of population is between 35-54, with the median age in 2012 being 37.2 years old. 95.3% of Lee's Summits' population are high school graduates and nearly 51% are college graduates. The estimated median home value is \$221,439.<sup>13</sup>

The median age in the city was 37.2 years. 28% of residents were under the age of 18; 7.1% were between the ages of 18 and 24; 27% were from 25 to 44; 26.6% were from 45 to 64; and 11.5% were 65 years of age or older. The gender makeup of the city was 47.9% male and 52.1% female.

There were 36,679 housing units at an average density of 579.0 per square mile in Lee's Summit. The racial makeup of the city was 79.57% White, 12.87% African American, 0.07% Native American, 1.09% Asian, and 2.9% from two or more races. Hispanic or Latino of any race made up 3.5% of the population.

There were 34,429 households of which 39.5% had children under the age of 18 living within them, 58.3% were married couples living together, 10.9% had a female householder with no husband present, 3.8% had a male householder with no wife present, and 27.0% were non-families. 22.8% of all households were made up of individuals and 8.9% had someone living alone who was 65 years of age or older. The average household size was 2.63 and the average family size was 3.11.

The city is served by five school districts, with Lee's Summit R-VII handling the majority of the nearly 30% of the population between the ages of 5-20 years old. The city also has a community college and two college annexes. Lee's Summit is also home to John Knox Retirement Community as well as several assisted living institutions that house a large number of the nearly 11.5% of the population that are 65 years old and older.

### **B.** Services Provided

### Service Delivery Programs

The Operations Division is comprised of three shifts, A-Shift, B-Shift, and C-Shift. One hundred twenty personnel are assigned to this division, forty personnel per shift. This division provides overall management and response to both emergency and non-emergency incidents including fire, emergency medical services, rescue, hazardous materials, and emergency management responses. Each respective shift is led by an Assistant Chief of Operations who is assisted by a Battalion Chief of Operations. Three Captains are assigned to each of the seven fire stations, one per shift. Each of the seven fire stations houses three to ten personnel per shift. The minimum staffing requirement is thirty-three personnel per shift.

<sup>&</sup>lt;sup>10</sup> 2006 CNN/Money magazine 100 best cities to live

<sup>&</sup>lt;sup>11</sup> http://www.census.gov/2010census

<sup>&</sup>lt;sup>12</sup> https://www.census.gov/programs-surveys/acs/

<sup>&</sup>lt;sup>13</sup> citi-data.com





#### **Fire Suppression**

The Lee's Summit Fire Department (LSFD) is staffed and equipped to respond to fire incidents within the city, contract areas including the City of Greenwood, Unity Village, and mutual aid when requested. As of 2015, the department doesn't provide automatic aid by current agreement. The fire department has seven stations. Stations #1, #3, #4, #5, and #6 house front-line pumpers and stations #2 and #7 house front line ladder trucks. Fire stations #2 and



#3 house a wild land fire apparatus which is cross staffed from the pumper/ladder crew. Station #1 houses two pumpers that are in reserve status. Each pumper and ladder truck's minimum staffing is three (one captain or comparable, one engineer for pumpers/fire specialist for ladder trucks, and one firefighter) personnel with the state certification of Firefighter I & II. The wild land fire apparatus are staffed with two personnel from a pumper/ladder truck when the situation arises and may be staffed during high-fire hazard days with overtime personnel. All front-line pumpers and reserves carry 500 gallons of water, 25 gallons of class A foam and 25 gallons of class B foam, with a pumping capacity of 1,250 gallons per minute. All pumpers also utilize Compressed Air Foam System (CAFS). Both ladder trucks have 105 foot ladders and carry 500 gallons of water, with a pumping capacity of 1,250 gallons per minute.



Each pumper/ladder truck carries 800 feet of 4" supply line, 400 feet of pre-connected 1.75" fire hose, 200 feet of pre-connected 2.5" fire hose and 100 feet of pre-connected 1.75" fire hose known as the "bumper line." Additional fire hose is carried in various lengths form – 1" forestry line, 1.75" fire hose, 2.5" fire hose and 4" supply line.

Each pumper/quint carries four self-contained breathing apparatus (SCBA), one thermal imaging camera (TIC), air monitoring equipment, and a multitude of various hand tools.





Wild land fire apparatus are 4X4 pickup trucks that carry 200 gallons of water with a pump capacity of 250 gallons per minute. Each wild land fire apparatus carries various amounts of forestry line, tools and Indian Packs. Staffing when needed consists of two personnel (one Captain or comparable and one Firefighter).

Each rescue ambulance is staffed with a minimum of two personnel with the state certification of Firefighter I & II. Each rescue carries two SCBAs and various small firefighting hand-tools.





The department has two frontline command vehicles with a minimum staffing of one person (Assistant Chief, Battalion Chief or comparable) and are housed out of station #1 and station #7. Each command vehicle has one SCBA, one TIC, and various air monitoring equipment.

#### Rescue

The LSFD is staffed and equipped to respond to basic rescue incidents within the city, contract areas and mutual aid when requested. Each pumper and ladder truck carries equipment that can be utilized and deployed in the initial phase of a rescue. All firefighters are trained to the minimum of the awareness level. Depending on the technicality of the rescue, the department may be able to mitigate the incident or stabilize the incident while waiting on Regional Technical Mutual Aid units to perform the rescue. Mutual Aid would most likely come from Central Jackson County Fire Protection District located in Blue Springs or Kansas City Fire Department.

Equipment carried by pumpers and ladder trucks consist of: high angle equipment, swift water rescue equipment, ice rescue equipment, and auto extrication equipment.

Station #1 has a dual use apparatus, Squad 1. This apparatus carries additional equipment for high angle rescue, swift water rescue, and ice rescue equipment. In addition, Squad 1 carries equipment for trench rescue and confined space rescue.

#### Medical

The LSFD is staffed and equipped to respond to basic life support (BLS) and advanced life support (ALS) emergency incidents within the city, contract areas and mutual aid when requested.

The department has five rescues (ground transport ambulances), located at stations #1, #4, #5, #6, and #7. Each rescue is staffed at a minimum, with a Missouri state licensed emergency medical technician (EMT) (EMT-Basic) and paramedic (EMT-Paramedic). Station #1 also has two reserve rescues that are staffed on an as needed basis.







All pumpers and ladder trucks carry BLS and ALS equipment. All sworn members of the department are at a minimum Missouri state licensed EMT Basics; many others are also licensed paramedics. Depending on personnel available, pumpers and ladders may have a paramedic staffed but it is not required as minimum staffing of the unit.

The rescues/pumpers/ladder trucks carry an assortment of BLS/ALS equipment and medications (e.g.: heart monitors and cardiac drugs, advanced airway adjuncts, oxygen and

respiratory drugs, bandages, splints, etc.) that can be utilized in many different applications depending on the medical emergency.

#### **Hazardous Materials**

The LSFD is staffed and equipped to respond to hazardous material (HazMat) incidents within the city, contract areas, and mutual aid when requested.

The department has a HazMat team with personnel certified by the Missouri Division of Fire Safety in Hazardous Materials Awareness, Operations, and Technician levels. The team is one of several teams in the area available to respond for mutual aid if requested. All



pumpers/ladder trucks/rescues/command vehicles carry minimal equipment such as air monitoring equipment and dam, dyke and divert equipment. Two apparatus at station #1 are designated specifically for use with hazmat. Those vehicles are a command vehicle which carries multiple air monitoring equipment and computers to assist in identification applications. Squad 1 carries additional monitoring and detection equipment as well as hazmat suits and SCBA bottles that air supply lasts longer than the traditional firefighting air bottles.

#### **Specialized Services**

The LSFD is staffed and equipped to respond to limited specialized services within the city, contract areas, and mutual aid when requested.

The department has an 18' John Boat that has been retrofitted for fire department operations. This water response unit is stationed at station #2 and cross staffed. Boat 2 can also be manned with personnel from other responding apparatus. The boat can be utilized for surface water rescue and personnel transport for medical calls on the water. Boat operation training is facilitated by the department.

The department also has a subterranean space (cave) that is utilized by multiple different business types. The department has an unmanned apparatus Squad 4 stationed inside the subterranean space. This apparatus is a John Deere Gator with a trailer that carries extra airpacks, hose, ventilation fan and extinguishers. This response vehicle is utilized on fire incidents inside the





subterranean space. It is staffed by the first arriving pumper or ladder truck crew on scene of a fire incident. The department has standard operational guidelines for all operations within the subterranean space due to the specialized operations. The department responds to all incidents in the subterranean space covering all mission programs.



The Prevention Division is responsible for the department's loss prevention programs, Fire Investigation Unit, youth and adult fire education programs; building plans reviews, and inspections of new construction and existing businesses. Four personnel are assigned to this division, led by the Assistant Chief of Prevention who is assisted by a Battalion Chief, a Captain, and a media specialist.

The Training Division is responsible for developing and delivering training covering all service delivery areas including fire protection, emergency medical services, rescue operations, hazardous materials, and emergency management. This division maintains training records and assists with EMS re-licensure. This division is responsible for ensuring all applicable, local, state, and federal training requirements are met and or exceeded.

The department's communications center and emergency medical services billing unit function as part of the administration division. The communications center dispatches both emergency and non-emergency calls for eight fire department agencies (2015), contracted with the city, in addition to the LSFD, through the Regional Communications Center. The communications center is managed by a Communications Center Supervisor, four lead communication specialists, eight communication specialists, and an emergency medical services billing specialist. The communications center and administration division are led by the Chief of the Department who coordinates the emergency management program. This division is supported by an office coordinator and a management analyst.

The Support Services Division directs and manages the administrative operations of the department including budgeting, budget control, purchasing, building and equipment maintenance, and is the department's custodian of records. There are three personnel assigned to this division which is led by the Assistant Chief of Support Services, and assisted by a support specialist and an office coordinator.





### **Current Deployment**

### **Points of Service Delivery and Resources**

There are seven fire stations located throughout the city of Lee's Summit which provide services not only to citizens of Lee's Summit, but also provide coverage to the city of Greenwood and the village of Unity Village through contractual agreements.

Map 6 Fire Stations and Response Zones

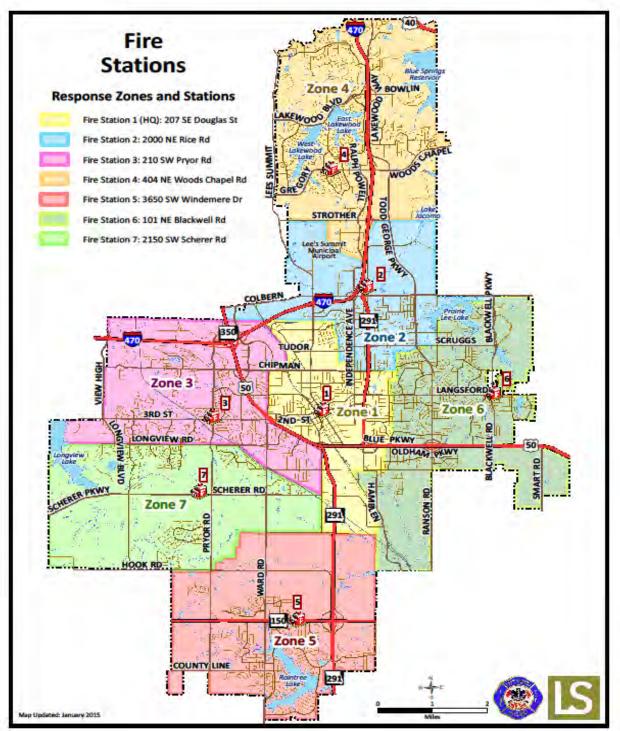








Image 1 LSFD Station #1 / Headquarters

Fire Department Headquarters is located at 207 SE Douglas and was dedicated in October of 1976. The Assistant Chief of Operations, Pumper 1, Rescue 1 and Squad 1 which is cross-staffed deploy from this station. The department's administrative staff and divisions, communications center, EMS billing office, and multiple, reserve apparatus are also housed at Fire Department Headquarters.



Image 2 LSFD Station #2

Station #2 is located at 2000 NE Rice Road and was dedicated in July 2011. Truck 2 and Grass 2 deploy from this station.







Image 3 LSFD Station #3

Station #3 is located at 210 SW Pryor Road and was dedicated in January of 1971. It houses Pumper 3 and Grass 3.



Image 4 LSFD Station #4

Station #4 is located at 404 NE Woods Chapel Road and was dedicated in February of 1977. Pumper 4 and Rescue 4 deploy from this station.







Image 5 LSFD Station #5

Station #5 is located at 3650 SW Windemere Drive and was dedicated in September of 1980. Pumper 5 and Rescue 5 deploy out of this station.



Image 6 LSFD Station #6

Station #6 is located at 101 NE Blackwell Road and was dedicated in April of 1998. Pumper 6 and Rescue 6 are deployed out of this station.



Image 7 LSFD Station #7

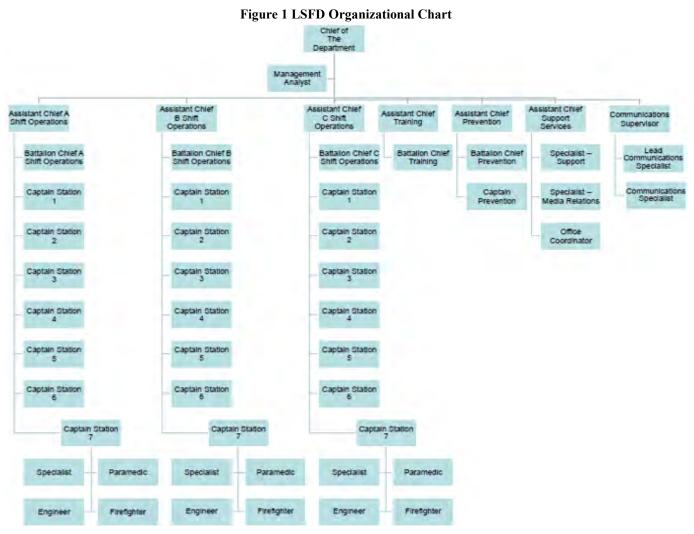
Station #7 is located at 2150 SW Scherer Road and was dedicated in March of 2007. The shift Battalion Chief, Truck 7, and Rescue 7 deploy from this station. The station was constructed to include a three story training facility for practical training sessions that encompass all service delivery areas of the department.





#### Resources

The department's budget includes funding for 146 full time equivalent positions. The Chief of the Department oversees all divisions and personnel within the department. A management analyst is assigned to the Chief of the Department. The organization is divided into four separate divisions: Operations, Prevention, Training, and Support Services.



There are three types of status for each piece of apparatus:

- S Staffed Minimum personnel required to staff these units are listed.
- C Cross Staffed Personnel may utilize this apparatus dependent on the type of incident they are responding to.
- R Reserve These apparatus are utilized when a staffed unit is out-of-service for mechanical issues or may be utilized by recalled personnel in times of high call volume. Station #1, Fire Headquarters 207 SE Douglas

Apparatus is listed below the station it is assigned.





#### Table 1 Apparatus Lists, Descriptions, Statuses, Personnel

			pparatus Lists, Descriptions, Statuses, Person	nel	
Station #1 – 2	207 SE Doug	glas			
Radio ID	Asset #	Year	Description	Status	Min. Personnel
Pumper 1	14688	2009	Pierce Lance Pumping Apparatus	S	3
Rescue 1	16874	2014	Terrastar Ambulance	S	2
Car 9	14632	2008	Ford Expedition Response Chief	S	1
Pumper 11	12784	2004	Pierce Pumping Apparatus	R	NA
Pumper 12	12783	2004	Pierce Pumping Apparatus	R	NA
Rescue 11	16170	2013	Terrastar Ambulance	R	NA
Rescue 12	15244	2009	Medtec Ambulance	R	NA
Utility 1	15895	2011	Ford F250 Utility truck	R	NA
Utility 2	14669	2008	Ford F250 Utility truck	R	NA
Squad 1	16837	2013	Pierce Saber HazMat / Heavy Rescue	С	NA
Boat 2	16864	2014	Triton Flat Bottom Boat	С	NA
Station #2 –	2000 NE Ri	ce Road			
Radio ID	Asset #	Year	Description	Status	Min. Personnel
Truck 2	15507	2010	Pierce Velocity Aerial Ladder	S	3
Grass 2	9512	1996	Ford F250 Wildland Fire Apparatus	С	NA
Station #3 –	210 SW Pry	or Road			
Radio ID	Asset #	Year	Description	Status	Min. Personnel
Pumper 3	13831	2007	Pierce Lance Pumping Apparatus	S	3
Grass 3	11193	2001	Ford F250 Wildland Fire Apparatus	С	NA
Station #4 –	404 NE Wo	ods Chap	el Road		
Radio ID	Asset #	Year	Description	Status	Min. Personnel
Pumper 4	14645	2007	Pierce Lance Pumping Apparatus	S	3
Rescue 4	16856	2014	Terrastar Ambulance	S	2
			d in Station 4's district at Space Center Summit, MO.	Undergro	ound located at
Squad 4	14647			С	NA

#### Station #5 – 3650 SW Windemere Drive

Radio ID	Asset #	Year	Description	Status	Min. Personnel
Pumper 5	16880	2015	Pierce Pumping Apparatus	S	3
Rescue 5	16875	2014	Terrastar Ambulance	S	2

### Station #6 – 101 NE Blackwell Road

Radio ID	Asset #	Year	Description	Status	Min. Personnel
Pumper 6	14229	2007	Pierce Lance Pumping Apparatus	S	3
Rescue 6	16876	2014	Terrastar Ambulance	S	2

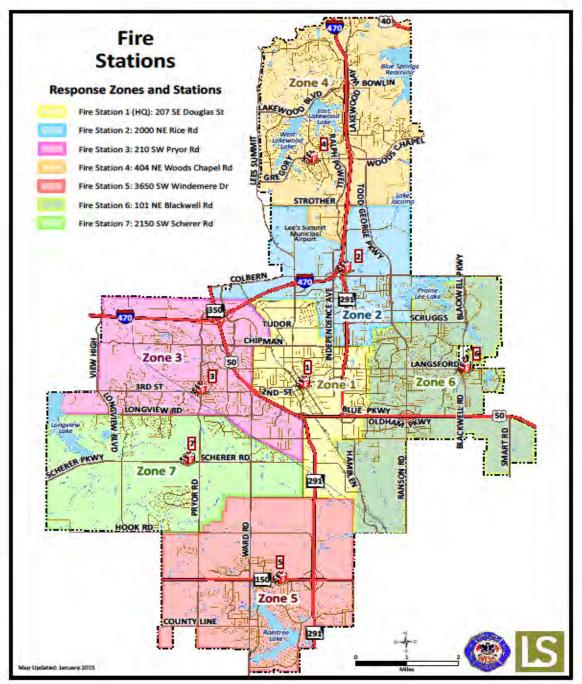
### Station #7 – 2150 SW Scherer Road

Radio ID	Asset #	Year	Description	Status	Min. Personnel
Truck 7	16139	2012	Pierce Velocity Aerial Ladder	S	3
Rescue 7	16877	2014	Terrastar Ambulance	S	2
Car 10	16871	2014	Ford Response Chief	S	1
Gator 1	14646	2008	John Deere All Terrain Vehicle	R	NA





### **Response Areas**



#### Map 7 Response Zones and Stations

### Community Response History

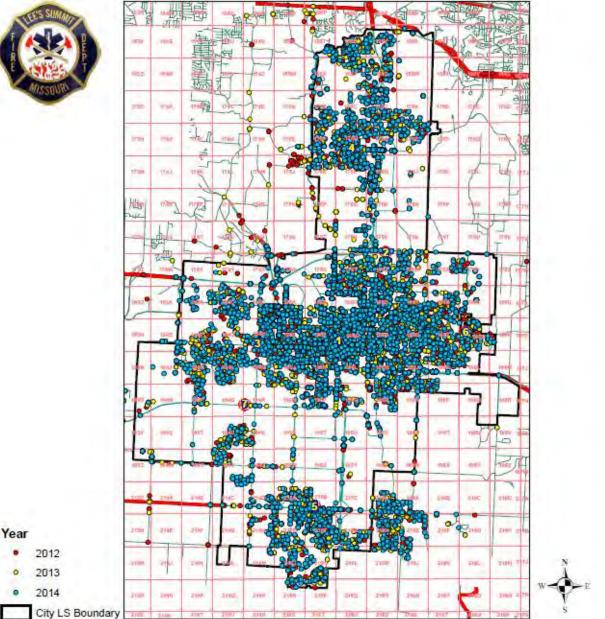
The following table depicts the service demand in the jurisdiction by incident type. The categories are established based on the type of incident found at the scene. EMS incidents include emergency medical calls and non-emergency patient transfers. Fire incident examples include car and structure fires as well as smoke alarms. Hazardous Materials/Conditions would be fuel spills, carbon monoxide, gas line breaks, or other hazardous materials related incidents. Rescue incidents include all motor vehicle collisions and other technical rescue events.



#### Table 2 LSFD Demand History

Number of incidents by year	2012	2013	2014
Fire	1,787	1,643 - <mark>8.05%</mark>	1,818 +10.65%
EMS	6,063	6,184 +1.99%	6,244 +0.97%
Hazardous Materials	411	391 -4.86%	409 +4.60%
Rescue	549	541 -1.45%	545 +0.73%
Total Incidents	8,810	8,759 -0.57%	9,016 +2.93%

Map 8 Response Demand (2012-2014) Geographically Plotted







### C. Community Expectations and Performance Goals

### **Community Expectations**

### Service Delivery Program Transitions

**Performance Monitoring for Total Response Time (TRT) and Effective Response Force (ERF)** In 2014 the Lee's Summit Fire Department (LSFD) recognized its method for response performance monitoring was not based on a current model according to the National Fire Protection Association (NFPA) and Commission on Fire Accreditation International (CFAI). Performance regarding response time was being monitored based on the average of travel time only, and not the 90<sup>th</sup> percent value showing a more reliable assessment. In addition, the department was monitoring first arrival units only and not an effective response force (ERF). These new performance monitoring trends are based on the NFPA's consensus standards to monitor ERF. The department has since developed standard operating procedures ensuring all units announce their status while responding to emergency incidents. The department is identifying additional processes and systems to more accurately document performance including a plan to acquire mobile data and additional mapping technologies to streamline the communication of unit status without tying up radio frequencies.

Through a community risk assessment, the department identified formal levels of response for each program type. These risk levels will be monitored against the critical tasks associated with the risk to monitor a reliable ERF. This model of performance monitoring will ensure the organization is able to identify positive and negative trends in response performance to maintain an efficient operational force to engage its missions more effectively in the future.

The study of the historical deployment model against the critical tasks associated with the hazards and risks resulted in changes in the deployment resources. The previous deployment was not based on specific critical task work within the agency. The critical task and resource changes we're based closely on NFPA 1710: Standard for the organization and deployment of fire suppression operations emergency medical operations, and special operations to the public by career fire departments; research by the National Institute of Standards and Technology (NIST); and LSFD standard operational guidelines (SOG's).

### Performance Expectation Goals

### Mission Statement

We, the members of the Lee's Summit Fire Department are committed to our community and those we serve with a long standing tradition of providing safe and efficient services while saving lives, minimizing risk and protecting property utilizing a team of emergency professionals.

### **Performance Goals**

Historically, the department has utilized a goal of a five minute emergency response travel time for the first arriving unit at the scene of an emergency incident. This five minute goal was unwritten but has been expressed during council meetings and discussions with the public.

During the accreditation process, it became apparent that basing our performance goals on travel time alone didn't include all information necessary to make informed decisions on areas in which improvement was indicated and achievable. Travel time was but one indicator of a larger, more accurate process in determining a more transparent and detailed process in measuring performance appropriateness.





Moving forward, the department will analyze multiple timeframes to provide a better understanding the various components.

### **Community Service Expectations**

The public provided a total of 77 expectations of the LSFD and its personnel during the external stakeholders meeting. The top ten expectations received are listed verbatim and in priority order below.

- 1. To provide fast emergency service in times of crisis. Quick emergency response meeting industry best practices.
- 2. Expertise in the field- both well-trained and physically proficient knowledge and performance. Maintain a professional staff with training and competencies greater than the accepted mean levels.
- 3. Professionalism on calls and when meeting fire staff at community events. Professionalism from all staff.
- 4. Up-to-date and above standard equipment / facilities. That the firefighters have the equipment they need to do the job.
- 5. Connect to and part of the community. Engaged in community and collaborative in region, state, nation...
- 6. Be understanding of emotions of victims. Use courteous and polite language and behavior and exercise discipline while a patient is within hearing distance.
- 7. Courtesy. Courteous.
- 8. Training. Ongoing training for fire / EMS. I expect LSFD to grow their knowledge and education to keep up with current trends and a changing environment.
- 9. Professionally certified personnel in all positions. Professionally credentialed (or certified) fire chiefs, officers, supervisors, inspectors, paramedics, fire truck drivers, firefighters, and dispatchers.
- 10. Great leadership. Leadership within the department that creates a department that meets the needs of the community and personnel.

#### **Community Service Priorities**

The public was asked to prioritize the programs delivered by the department during the external stakeholders meeting through a process of direct comparison. Below are the results of that process.

PROGRAMS	RANKING	SCORE
Emergency Medical Services	1	270
Rescue - Basic and Advanced	2	232
Fire Suppression	3	212
Fire Prevention	4	124
Hazardous Materials Mitigation	5	110
Domestic Preparedness Planning and Response	6	98
Public Fire/EMS Safety Education	7	84
Fire Investigation	8	74



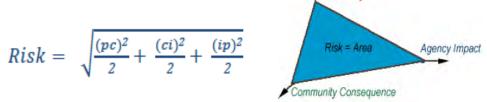


### D. Community Risk Assessment and Risk Levels

### Risk Assessment Methodology

### Methodology

In order to conduct a community risk assessment, it is important to evaluate current service demands as well as to assess risk based on each of the department's service delivery areas. The department elected to use the Commission on Fire Accreditation International's (CFAI) recommendation of evaluating probability and consequence with the addition of impact as a third factor in the assessment. This tri-axial measurement utilized Heron's Formula Modified for Tetrahedrons to produce a quantifiable value to risk based on values representing each axis in the formula.



A group of fire officers who represented several decades of fire service experience identified the risk scores in each axis. The group included three Captains, including the President of Local 2195 IAFF Lee's Summit Firefighters Association and an Assistant Chief from the Operations division.

The group used the aforementioned formula based on the probability of the event occurring, the consequence to the community (life safety, property, and environment), and the impact on the fire departments ability to protect the community with residual resources to score hazard types associated with risk. These scores assisted in the identification of risk levels in the department's major program types; fire, emergency medical services (EMS), rescue, and hazardous materials. Four risk levels were identified low, moderate, high, and maximum. These risk levels assisted in the development of the deployment levels to mass an effective response force against the risk to the community. The greater the score value in each axis, the greater the total score resulted from the calculation. This total value is shown as a mass in the appearance of a triangular shape. The greater the area of the triangle mass, the greater the risk. Risk levels in each program differed in the ranges of risk scoring. The scoring ranges are detailed in each program assessment. Reference appendix C to view the risk assessment scoring specifics by program.

One of the axis' scored was "impact." This impact score was based on the resources needed to engage the critical tasks associated with mitigating a hazard within the community as a risk location. These critical task resources were identified by referencing a consensus standard the National Fire Protection Association (NFPA) and internal standard operational guidelines, resulting in a formalized effective response force to mitigate different incidents within different areas of our community. Other considerations in the development of the effective response force were the probability of an event occurring and the consequence to the community in loss of life, property, and the environment. The output from the formula resulted in the different levels of risk mass displayed as a triangle.

The levels of risk were associated with the residual department forces available against the hazards in the community "impact." As impact was one of the three factors in determining the risk mass it was directly associated in the scoring levels. Effectively, the greater the response, the greater the score resulted. This is due to the resulting coverage for the community being less and less due to a larger effective response force engaging the critical tasks for different incidents throughout the community.





#### **Planning Areas/Zones**

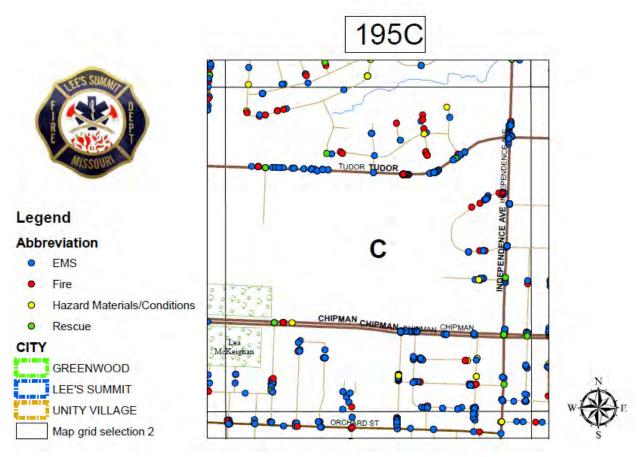
The department utilizes two geographical components to analyze risk and incident response data, Emergency Service Zones (ESZs) and Station Response districts.

#### **Emergency Service Zones**

ESZs are geographical areas that are <sup>3</sup>/<sub>4</sub> by <sup>3</sup>/<sub>4</sub> mile grids within the city, and are based on the Gallup Map Book grid system which is the primary map system utilized by the fire department. In addition, the department's Fire Data Management (FDM) Computer Aided Dispatch (CAD) and record management system (RMS) utilizes this system for statistical information.

One difficulty in utilizing this system is that it is specific to the fire department and therefore creates challenges when obtaining other geographic information system (GIS) information such as population density, roadway mile information, and other statistical information.

In each zone, fire risk and non-fire risk will be evaluated and documented showing the highest level of risk in each zone. Specific information for all one hundred-thirty-nine ESZs is represented in <u>appendix B</u>. An example is provided here:



**Map 9 ESZ 195C** 

Table 3 ESZ 195C Assessed	Value (	(2014)	
---------------------------	---------	--------	--

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195C	\$89,097,273	\$72,339,639	\$16,612,158	\$145,474





#### **ESZ Characteristics:**

This ESZ is comprised primarily of dense residential and some business. A local high school is addressed at 901 NE Douglas which has an influx for traffic during school events. An elderly independent living apartment complex is located in the northeast corner of the zone and is a frequent location for EMS events. This zone has several apartment complexes and multifamily residences. The redeveloped Lea McKeighan Park sits at the southwest corner of the zone. Chipman Road is a major thoroughfare and runs East/West through the southern portion of this ESZ. The population density of this zone is metropolitan at 3,802 in a <sup>3</sup>/<sub>4</sub> mile square.

#### **Jurisdictional Boundaries:**

North: Woodbury Drive South: Buttonwood Avenue and Hamel Street East: Independence Avenue West: Green Street and Bronco Xing

#### **Highest Fire Risk Location:**

A local apartment complex located at 600 NE Howard Street are 2.5 story garden style apartments unprotected by a fire suppression system or monitored fire detection system. These units pose a threat to rapid fire propagation with multiple residents affected.

#### **Highest EMS Risk Location:**

A mid-sized senior living center is located at 1098 NE Independence Avenue. Due to the number of elderly residents with increased medical risks, this facility poses a high non-fire risk by emergency medical service demand.

#### Highest HazMat Risk Location:

Due to the composition of this ESZ being dense residential, the highest risk location for a Hazardous Material event is in residential structures with carbon monoxide.

#### **Highest Rescue Risk Location:**

The intersections of Chipman Road and Douglas Street, and Tudor Road and Douglas Street are frequent locations for motor vehicle collisions.

Table 4 Demand History					
Number of incidents	2012	2013	2014		
EMS	401	388	440		
Fire	62	75	76		
HazMat	10	16	7		
Rescue	7	15	14		
Total	480	494	537		

#### **Table 5 Fire Loss History** Fire loss 2013 2014 2012 Life loss 0 0 0 Property loss \$12,000.00 \$1.200.00 \$5,000.00 Assessed value \$190,000.00 \$1,000,000.00 \$5,000.00





#### **Station Response Districts**

Station response districts are another geographical division within the city. These districts are based on the station and apparatus that are first due to this area. This is based on current 2015 deployment locations within the city. Analyzing data based on Station Response districts such as total response time and effective response force will aid in future decision making as it pertains to placement, staffing, and additional resources.

There are currently seven fire response districts within the city. Inside each response district is a deployment location for emergency operations, a fire station. These deployment locations are the primary response areas for the community. Frequently units will respond from different areas throughout the community. This occurs while performing non-emergent functions, such as training, business fire inspections, public education events, refueling, and maintenance transitions.

Tuble o Historical Deployment Demana					
Number of incidents by year	2012	2013	2014		
Fire	1,787	1,643 - <mark>8.05%</mark>	1,818 +10.65%		
EMS	6,063	6,184 +1.99%	6,244 +0.97%		
Hazardous Materials	411	391 -4.86%	409 +4.60%		
Rescue	549	541 -1.45%	545 +0.73%		
Total	8,810	8,759 - <mark>0.57%</mark>	9,016 +2.93%		

#### **Table 6 Historical Deployment Demand**

Table 7	Historical l	Fire Loss

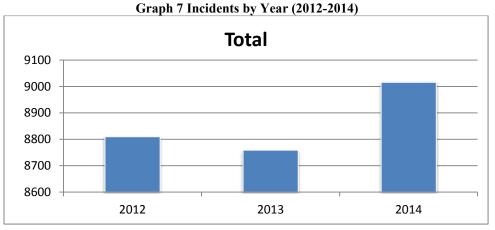
Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$387,900	\$105,000	\$208,250
Assessed value	\$7,503,200	\$3,073,800	\$3,808,900





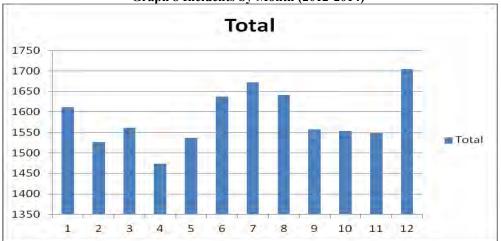
#### **Response Statistics**

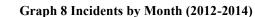
The department is staffed to operate the operations division 24-hours a day, 365-days a year. To evaluate the probability of occurrences against the staffing deployment, the organization analyzed incidents over the past three years. The analysis included incidents by year, month, day, and hour. The data depicted below corresponds with the amount of incidents by year from 2012-2014.



The analysis taken from this graph shows a slight drop in incidents from 2012 to 2013, but an increase in incidents in the year 2014.

The data depicted below corresponds with the months of the year and the numerical assignment as follows: January (1) – December (12).



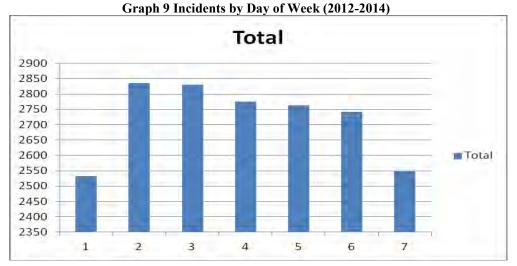


The analysis taken from the graph shows the lowest number of incident occurring in the month of April and the highest occurring in December. The months of June (6), July (7), and August (8) are higher in incident demand looking from a seasonal (summer) evaluation.



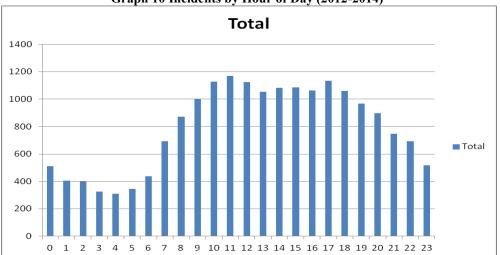


The data depicted below corresponds with the days of the week and the numerical assignment as follows: Sunday (1) – Saturday (7).



The analysis, taking into account the days of the week, shows a drop in incidents on the weekends. The highest incident demand occurring on Mondays and the lowest on Sundays.

The data depicted below corresponds with the hours of the days using military time.



Graph 10 Incidents by Hour of Day (2012-2014)

The analysis, taking into account the hours of the day, shows a rapid increase in incidents starting at 0600 and peaking close to 1100. Incident demand remains relatively consistent from 1100 to 1700. From 1700 to 0400 incidents steadily decrease.

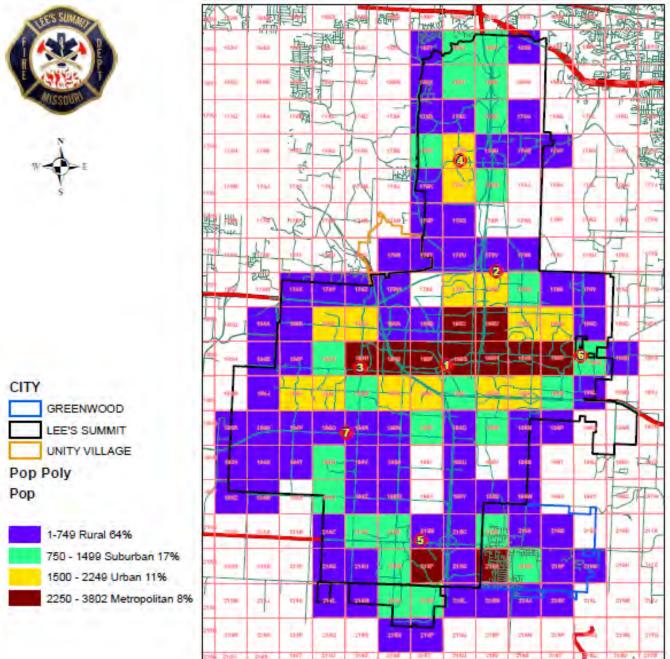
### **Population Density**

The overall population density for the jurisdiction falls into the Suburban standard as described in the CFAI Fire and Emergency Service Self-Assessment Manual (FESSAM). The overall population density is approximately 1,442.2 inhabitants per square mile. The ranges in the legend below are based on the adjusted values from the FESSAM, as the departments ESZ's are <sup>3</sup>/<sub>4</sub> mile squares.





**Map 10 Population Density** 







#### **Risk Assessment**

In each program, risk levels were established based on the output from Heron's Formula Modified for Tetrahedrons. The separation in the levels were identified with the natural break in score based on the deployment level to meet the critical task needs in order to mitigate the hazard type and risk location in each category. As a result, risk level separations for scoring levels were different in each program.

#### **Fire Suppression Services**

The community was assessed to evaluate what the fire risks are and where they are located geographically. Three major considerations were evaluated when evaluating for fire risk, they are as follows:

1. The probability of the event occurring or likelihood on the incident based off historical data documented in the past three years.

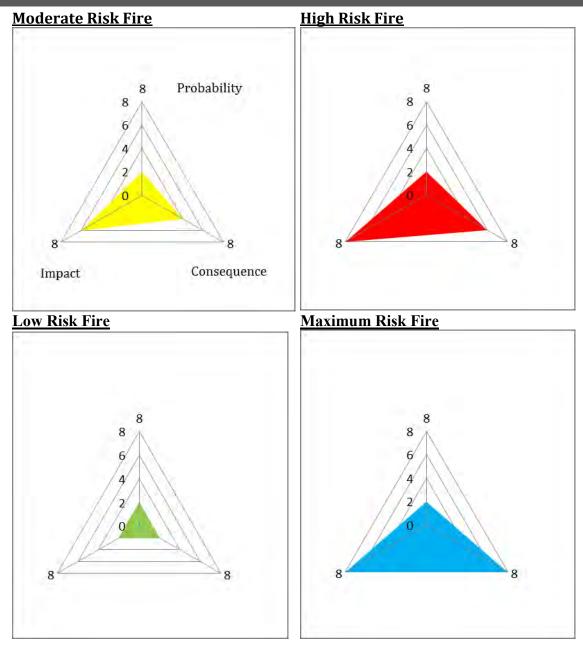
2. The consequence to the community, which is based on the loss of life or debilitating injury, financial loss to the community, and the effect on community infrastructure.

3. The impact to the operational fleet, which is based on the critical tasks associated with the incident.

These three factors were scored from low to maximum depending on the hazard against the incident type, facility, or location. Scores ranged from low to maximum based on loss of life potential, the presence of fire suppression or detection systems, building height, and the occupant types within a dwelling.







### **Fire Risk Level Classification**

<b>Low</b> hazard/risk score:	4.89 - 12.32
Moderate hazard/risk score:	12.33 - 13.85
High hazard/risk score:	13.86 - 28.15
Maximum hazard/risk score:	28.16 +





Moderate	High
<ul> <li>Outbuilding/ shed/ detached garage fire</li> <li>Transport/ commercial vehicle fire</li> <li>Aircraft fire</li> <li>Flue fire</li> <li>Automatic alarm with sprinkler flow</li> <li>Automatic alarm at a target hazard</li> <li>Lightning strike</li> <li>Odor of smoke in a structure</li> </ul>	<ul> <li>Fire with structural exposures</li> <li>Residential structure fire</li> <li>Commercial structure fire non-target hazard</li> <li>In flight aircraft emergency</li> </ul>
Low	Max
<ul> <li>Appliance fire contained</li> <li>Boat fire</li> <li>Unknown type fire</li> <li>Gas grill fire no exposures</li> <li>Rubbish fire</li> <li>Dumpster/trash fire</li> <li>Residential auto alarm</li> <li>Passenger vehicle fire</li> <li>Power lines down</li> <li>Natural cover fire/mulch</li> <li>Commercial auto alarm non target hazard</li> <li>*Smoke detector no smoke</li> <li>*Citizen / PD assist</li> <li>*Hazards check</li> <li>*Helicopter stand by</li> <li>*Odor investigation</li> </ul>	<ul> <li>Target hazard structure fire</li> <li>Commercial aircraft fire/ crash</li> </ul>

\* Indicates a non-emergent response

### Fire Critical Task Analysis

#### Table 8 Critical Task Analysis: Fire Risk - Low

Critical Task	Number of Personnel
Command / Safety	1
Pump Operations	1
Fire Attack	1
	Number of Units
Pumpers or Ladder Trucks (Quints)	1
Total Firefighters	3



The list of critical tasks and staffing associated are needed to mitigate a low level of fire risk incident. A few examples of these types of incidents are passenger vehicle fires, rubbish fires, dumpster fires, and automatic alarms at non-target hazard locations. This risk level assignment will determine the effective response force deployment to mitigate the reported incident.





Table 9 Critical Tasks Analysis: Fire Risk - Moderate

Critical Task	Number of Personnel
Command / Safety	1
Pump Operations	1
Fire Attack	2
Back Up Line / Exposure	2
Ventilation / Utility Control / Search / Medical	3
	Number of Units
Pumpers, Ladder Trucks (Quints) or Grass Rigs	2
ALS Rescue Ambulance	1
Chief Officers	1
Total Firefighters	9



The list of critical tasks and staffing associated are needed to mitigate a moderate level of fire risk incident. A few examples of these types of incidents are natural cover fires, lightning strike on a structure, commercial vehicle fires, outbuilding/shed fires and odor of smoke in a building. This risk level assignment will determine the effective response force deployment to mitigate the reported incident.

#### Table 10 Critical Task Analysis: Fire Risk - High

Critical Task	Number of Personnel
Command	1
Safety	1
Pump Operations / Water Supply	1
Fire Attack	2
Back Up Line	2
Search	2
Ventilation	2
Medical / Rehab	2
Rapid Intervention Crew (RIC)	3
Aerial Operations / Utility / Exposures	2
	Number of Units
Pumpers	3
Ladder Truck (Quint)	1
ALS Rescue Ambulances	2
Chief Officers	2
Total Firefighters	18

Prior to August 3, 2015, the department deployed a modified response of 14 firefighters as an initial response. Upon confirming the high risk level fire as a working residential or commercial fire, the incident would then be upgraded from 14 firefighters to 24 firefighters. This initial deployment included three pumpers or ladders (quints) (non-specific), two rescue ambulances, and one chief officer. The previous upgraded response would deploy an additional two pumpers or quints (non-specific), two chief officers, and an additional rescue ambulance. An initial deployment of 14 upgraded to 24. This practice made the deployment a reactionary force, and not a response force.







Based on the critical tasks associated with the incident, guidance from NFPA 1710 and recent scientific studies, a true ERF was identified. This deployment includes the resources needed to engage the hazards and conditions associated with the incident.

Critical Task	Number of Personnel
Command	1
Operations Chief	1
Safety	1
Pump Operations/Water Supply	2
Fire Attack	4
Search	6
Ventilation	3
Medical	4
Rehab	2
Rapid Intervention Crew (RIC)	3
Aerial Operations/ Utility/ Exposures	4
	Number of Units
Pumpers	4
Ladder Trucks (Quints)	2
ALS Rescue Ambulances	4
Special Operations Squad	1
Chief Officers	3
Total Firefighters	31

#### Table 11 Critical Task Analysis: Fire Risk - Maximum

The list of critical tasks and staffing associated are needed to mitigate a maximum level of fire risk incident. A few examples of these types of incidents are target hazard structure fires, and commercial aircraft fires/crashes.

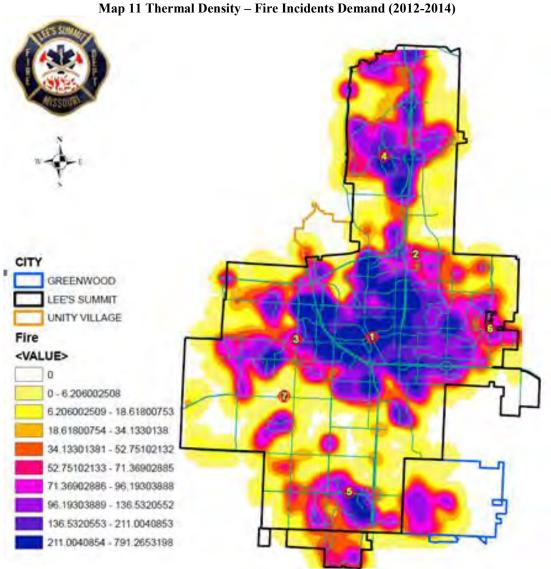
Resource deployment changes were identified through the critical task study. Changes were identified to establish an ERF for maximum fire risk structures within the authority having jurisdiction.

Prior to August 3, 2015, the department deployed a modified response of 14 firefighters as an initial response. Upon confirming the fire as a working fire, the incident would then be upgraded from 14 firefighters to 24 firefighters. This deployment included three pumpers or quints (non-specific), two rescue ambulances, and one chief officer. The previous upgraded response would deploy an additional two pumpers or ladder trucks (quints) (non-specific), two chief officers, and an additional rescue ambulance. An initial deployment of 14 upgraded to 27. This practice made the deployment a reactionary force and not a response force.





Based on the critical tasks associated with the incident, guidance from NFPA 1710 and recent scientific studies, a true ERF was identified. This deployment includes the resources needed to engage the hazards associated with the incident at the risk level as seen above. The ERF deployment includes six pumpers, two ladder trucks (quints), four rescue ambulances, one special operations squad, and three chief officers; 31 firefighters total.



### **Emergency Medical Services**

The community was assessed to evaluate what the emergency medical risks are and where they are located geographically. Three major considerations were evaluated when evaluating for emergency medical risk, they are as follows:

1. The probability of the event occurring, or the likelihood on the incident based off historical data documented in the past three years.

2. The consequence to the community, which is based on the loss of life or debilitating injury, financial loss to the community, and the effect on community infrastructure. Most EMS events are tragic and serious in nature, however the effect is usually on the patient and their family alone and not any other part of the community. This resulted in most of the scoring consequence to be low or moderate.

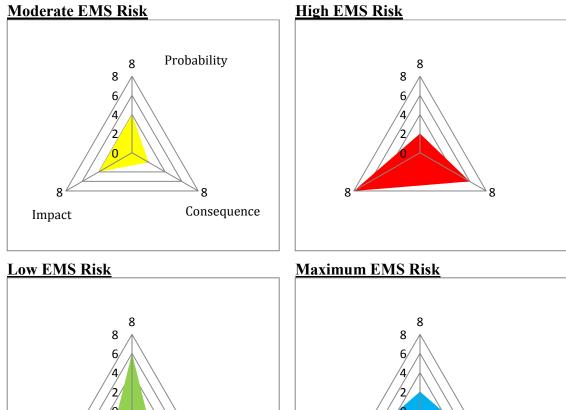




3. The impact the incident has against the operational forces of the department is based on the critical tasks associated with the incident. When looking at impact for this risk profile, two specific factors play into the risk scoring; the medical equipment needed based on the incident type and the number of patients involved. Regarding the moderate risk EMS incidents, the impact score is higher due to an additional resource as part of a critical task being an automated compression device for the task of consistent and highly effective CPR. Due to the low number and placement of this particular piece of equipment, a chief officer is added to the incident with the Lucas device on their vehicle, thus increasing the effective response force to a moderate risk due to an increasing impact to the risk scoring.

The risk level is determined in this program due to the complaint of the patient or patients. This is regardless of their location. If the hazard being the patient is located in a compromised location adding an additional hazard, it changes the risk type to a different risk program. For example, if the patient is trapped in a car it becomes a rescue response. If the patient is trapped in a building on fire, it becomes a fire response.

These three factors were scored from low to maximum depending on the hazard or hazards against the incident type, facility, or location. Scores ranged from low to maximum based on probability, consequence, and impact.







### **EMS Risk Level Classification**

<b>Low</b> hazard/risk score:	4.89 - 16.24
Moderate hazard/risk score:	16.25 – 19.79
High hazard/risk score:	19.80 – 25.91
Maximum hazard/risk score:	25.92 +

<b>Moderate</b> <ul> <li>*SWAT/ESS police assist</li> <li>Cardiac arrest</li> </ul>	<b>High</b> • EMS alarm 5-7 patients
Low <ul> <li>*Rescue standby (non-emergency)</li> <li>*Patient transfer (non-emergency)</li> <li>Emergency EMS alarm single patient/ including medical alarms</li> </ul>	Maximum <ul> <li>EMS alarm 8 or more patients (MCI EMS)</li> </ul>

\* indicates a non-emergency response

### EMS Critical Task Analysis

Table 12 Critical Task Analysis: EMS Risk - Low

Critical Task	Number of Personnel
Command / Documentation	1
Patient Care/ Transportation	2
Additional Patient Care Providers	2
	Number of Units
Pumper or Ladder Truck (Quint)	1
ALS Rescue Ambulance	1
Total Firefighters	5

The list of critical tasks and staffing associated are needed to mitigate a low level of EMS risk incident type. A few examples of these types of incidents are a medical alarm or other single patient emergency medical request. This risk level assignment will determine the effective response force deployment to mitigate the reported incident.

Table 13 Critical Task Analysis: EMS Risk - Moderate	
Critical Task	Number of Personnel
Command Documentation / Lucas Device	1
Patient Care / Transport	2
Additional Patient Care Providers	3
	Number of Units
Pumper or Ladder Truck (Quint)	1
ALS Rescue Ambulances	1
Chief Officer	1
Total Firefighters	6

### Table 13 Critical Task Analysis: EMS Risk - Moderate

The list of critical tasks and staffing associated are needed to mitigate a moderate level of EMS risk incident. An example of this incident is a reported cardiac arrest. This risk level assignment will determine the effective response force deployment to mitigate the reported incident.





Table 14 Critical Task Analysis: EMS Risk - High

Table 14 Chucai Task Analysis: ENIS Kisk - High	
Critical Task	Number of Personnel
Command	1
Safety	1
Triage Officer	1
Treatment Officer	1
Transport Officer	1
Patient Care / Transport	8
Additional Patient Care Providers	6
	Number of Units
Pumpers or Ladder Trucks (Quints)	3
ALS Rescue Ambulances	4
Chief Officers	2
Total Firefighters	19

The list of critical tasks and staffing associated are needed to mitigate a high level of EMS risk incident. An example of this incident is an EMS alarm with 5-7 patients. This risk level assignment will determine the effective response force deployment to mitigate the reported incident.



This critical tasking was identified through work not previously developed at this high level of EMS risk. This ERF was implemented on August 3, 2015.

Table 15 Chucai Task Analysis: ENIS Kisk - Maximum	
Critical Task	Number of Personnel
Command	1
Safety	1
Triage Officer	1
Treatment Officer	1
Transport Officer	1
Patient Care/ Transport	12
Additional Patient Care Providers	13
	Number of Units
Pumpers or Ladder Trucks (Quints)	5
ALS Rescue Ambulances	6
Chief Officers	3
Total Firefighters	30

Table 15 Critical Task Analysis: EMS Risk - Maximum

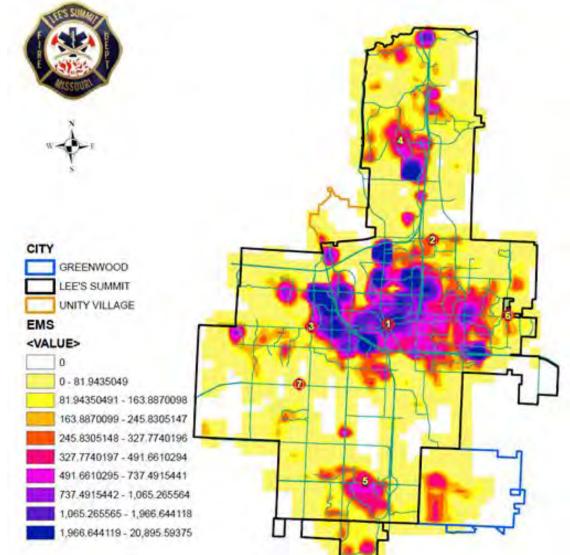
The list of critical tasks and staffing associated are needed to mitigate a high level of EMS risk incident. An example of this incident is an EMS alarm with eight or more patients (referred to as a mass casualty incident or MCI). This risk level assignment will determine the ERF deployment to mitigate the reported incident.

This critical tasking was identified through work not previously developed at this maximum level of EMS risk. This ERF was implemented on August 3, 2015.





Map 12 Thermal Density – EMS Demand (2012-2014)



#### Hazardous Materials / Conditions Services

The community was assessed to evaluate what the hazardous material risks are and where they are located geographically. Three major considerations were evaluated when evaluating for hazardous material risk, they are as follows:

1. The probability of the event occurring, or the likelihood on the incident based off historical data documented in the past three years. Due to the relatively low frequency of these events they were scored low in probability.

2. The consequence to the community, which is based on the loss of life or debilitating injury, financial loss to the community, and the effect on community infrastructure. Hazardous materials events affect the community in several ways. Not only are they dangerous to health, react to other materials in the area, but can affect the community infrastructure by roadway and water systems. Fortunately these events are usually infrequent, but the risk is present. These types of events can have a great effect on the community.

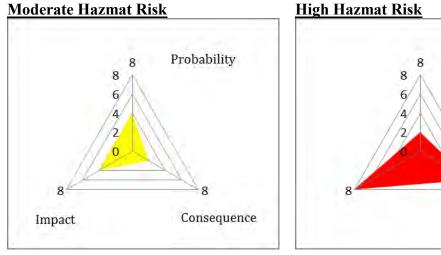
3. The impact the incident has against the operational forces of the department based on the critical tasks associated with the incident given the location of the hazard.



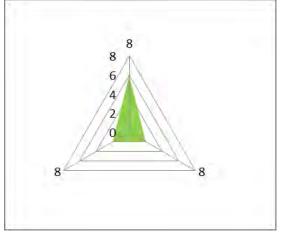


The risk level is determined in this program due to the volume or type of hazardous material and if patients are present. These factors affect the amount of critical tasks needed to mitigate the risk, thus changing the risk level.

These three factors were scored from low to maximum depending on the hazard against the incident type, facility, or location. Scores ranged from low to maximum based on probability, consequence, and impact.



#### Low Hazmat Risk

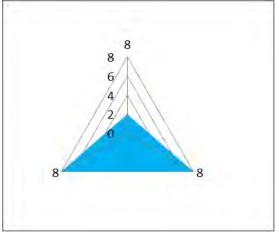


### Hazmat Risk Level Classification

<b>Low</b> hazard/risk score:	4.89 - 8.42
Moderate hazard/risk score:	8.43 - 19.59
High hazard/risk score:	19.60 - 36.76
Maximum hazard/risk score:	36.77 +

### **High Hazmat Risk**

### **Maximum Hazmat Risk**







Moderate	High
<ul> <li>Odor of natural gas inside a structure</li> <li>Fuel spill 20-55 gallons</li> <li>Gas line break</li> <li>Automatic gas alarm</li> <li>CO alarm with symptoms</li> <li>*EOD threat</li> </ul>	<ul> <li>Chemical Spill or release in transit</li> <li>Industrial chemical spill or release</li> <li>Radiological incident</li> <li>Fuel spill &gt; 55 gallons</li> </ul>
Low	Maximum
<ul> <li>*Fuel spill &lt; 20 gallons</li> <li>*Non injury MVC hazard check</li> <li>*Unknown odor investigation</li> <li>*CO alarm / no symptoms</li> <li>*Odor of natural gas outside</li> <li>Electrical wiring/equipment problem</li> </ul>	<ul> <li>Mass casualty hazmat event</li> <li>Weapons of mass destruction incident</li> <li>Hazmat event with significant community impact</li> </ul>

#### \* indicates a non-emergency response

#### Hazardous Materials / Condition Critical Task Analysis

Table 16 Critical Task Analysis: Hazmat Risk - Low

Critical Task	Number of Personnel
Command/Safety	1
Investigation/ Mitigation	2
	Number of Units
Pumper or Ladder Truck (Quint)	1
Total Firefighters	3

The list of critical tasks and staffing associated are needed to mitigate a low level of hazmat risk by incident type and location. An example of this type of incident is a carbon monoxide detector activation in a structure with symptoms. This risk level assignment will determine the ERF deployment to mitigate the reported incident.

#### Table 17 Critical Task Analysis: Hazmat Risk - Moderate

Critical Task	Number of Personnel
Command/Safety	1
HazMat Group Supervisor	1
HazMat Operations	5
Medical/Rehab	2
	Number of Units
Pumpers or Ladder Trucks (Quints)	2
ALS Rescue Ambulances	1
Chief Officers	1
Total Firefighters	9

The list of critical tasks and staffing associated are needed to mitigate a moderate level of hazmat risk by incident type and location. An example of this type of incident is a gas line break or a fuel spill between 20 and 55 gallons. This risk level assignment will determine the ERF deployment to mitigate the reported incident.





Resource deployment changes were identified through the critical task study. Changes were identified to establish an ERF for moderate risk hazmat incidents within the areas of service. Deployment changes went into effect August 3, 2015.

Critical Task	Number of Personnel
Command	1
Safety	1
HazMat Group Supervisor	1
HazMat Operations	8
Support Operations	6
Medical/ Rehab	2
	Number of Units
Pumpers or Ladder Trucks (Quints)	3
ALS Rescue Ambulances	3
Special Operations Squad	1
Chief Officers	2
Total Firefighters	19

#### Table 18 Critical Task Analysis: Hazmat Risk - High



The list of critical tasks and staffing associated are needed to mitigate a high level of hazmat risk by incident type and location. An example of this type of incident is a chemical release in transit or a fuel spill greater than 55 gallons. This risk level assignment will determine the ERF deployment to mitigate the reported incident.

Resource deployment changes were identified through the critical task study. Changes were identified to establish an ERF for high risk hazmat incidents within the areas of service. Deployment changes went into effect August 3, 2015.

Critical Task	Number of Personnel
Command	1
Safety	1
HazMat Group Supervisor	1
HazMat Operations	11
Support Operations	9
Medical/ Rehab	4
Transport	4
	Number of Units
Pumpers or Ladder Trucks (Quints)	6
ALS Rescue Ambulances	4
Special Operations Squad	1
Chief Officers	3
Total Firefighters	31

Table 19 Critical Task Analysis: Hazmat Risk - Maximum

The list of critical tasks and staffing associated are needed to mitigate a maximum level of hazmat risk by incident type and location. An example of this type of incident is a mass casualty hazardous

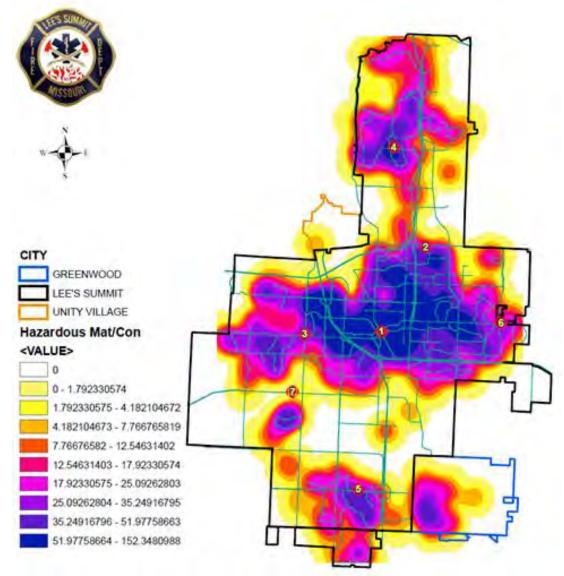




materials event or weapons of mass destruction event. This risk level assignment will determine the ERF deployment to mitigate the reported incident.

Resource deployment changes were identified through the critical task study. Changes were identified to establish an ERF for maximum risk hazmat incidents within the areas of service. Deployment changes went into effect August 3, 2015.

#### Map 13 Thermal Density – HazMat Demand (2012-2014)



#### **Rescue Services**

The community was assessed to evaluate what the rescue risks are and where they are located geographically. Three major considerations were evaluated when evaluating for rescue risk, they are as follows:

1. The probability of the event occurring, or the likelihood on the incident based off historical data documented in the past three years. Based off historical probability the highest probability rescue event type is a motor vehicle collision.

2. The consequence to the community, which is based on the loss of life or debilitating injury, financial loss to the community, and the effect on community infrastructure. Technical rescue





events are broad in spectrum incident types. Consequence can vary in severity, given the location of a rescue event possibly involving a road or highway affecting a large amount of people. These incidents can also involve large groups of people.

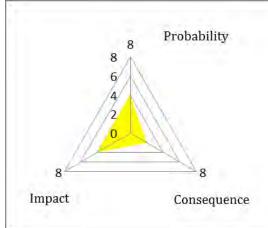
3. The impact the incident has against the operational forces of the department based on the critical tasks associated with the incident.

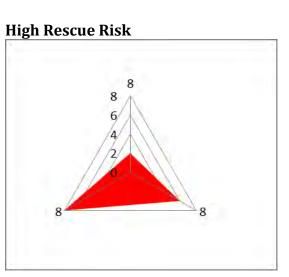
The risk level is determined in this program due to the location or position of a victim. The individual is a victim to the location being the hazard. The location or position threatening a victim can change the risk type to a different risk program. For example, if the patient is trapped in a car it's a rescue response. If the patient is trapped in a building on fire, it becomes a fire response.

These three factors were scored from low to maximum depending on the hazard against the incident type, facility, or location. Scores ranged from low to maximum based on probability, consequence, and impact.

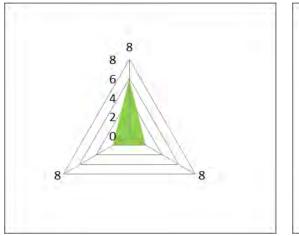
### **Rescue Risk Level Classification**



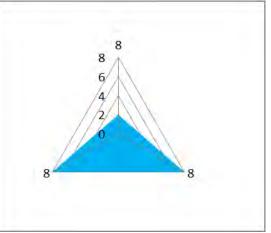




### Low Rescue Risk



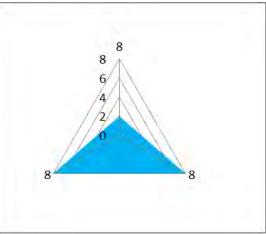
### Maximum Rescue Risk Tier I







### Maximum Rescue Risk Tier II



Low hazard/risk score:	4.89 - 12.32
Moderate hazard/risk score:	12.33 - 13.85
High hazard/risk score:	13.86 - 19.79
Maximum Tier I (MVC) hazard/risk score:	19.80 - 36.76
Maximum Tier II (Disaster) hazard/risk score:	36.77 +

Moderate	Hig	;h
<ul> <li>MVC with extrication</li> <li>Injury MVC with 1-4 patients</li> <li>Vehicle into a building</li> <li>Swimming pool rescue</li> <li>Elevator rescue</li> <li>Machinery/ Industrial rescue</li> </ul>	<ul> <li>MVC with 5-7 patients</li> <li>Injury MVC involving a bus</li> <li>Boat accident</li> <li>Swift water rescue</li> <li>High angle rescue</li> <li>Water/ Ice rescue</li> <li>Confined space rescue</li> <li>Trench rescue</li> <li>Structure collapse</li> </ul>	
Low	Max Tier I Max Tier II	
<ul> <li>*Minor entrapment</li> <li>*Subject locked out of a structure</li> <li>Subject locked in a vehicle</li> <li>Unknown injury MVC</li> <li>Minor injury MVC</li> <li>Pedestrian Struck</li> </ul>	• MVC with 8 or more patients	• Natural or manmade disaster

\* indicates a non-emergency response





### **Rescue Critical Task Analysis**

Table 20 Critical Task Analysis: Rescue Risk - Low

Critical Task	Number of Personnel
Command/Safety	1
Patient Care/Transport	2
Additional Patient Care Providers/ Hazard Mitigation	2
	Number of Units
Pumper or Ladder Truck (Quint)	1
ALS Rescue Ambulance	1
Total Firefighters	5

The list of critical tasks and staffing associated are needed to mitigate a low level of rescue risk by incident type and location. An example of this type of incident is a subject locked in a vehicle or a reported minor injury motor vehicle collision. This risk level assignment will determine the ERF deployment to mitigate the reported incident.

Critical Task	Number of Personnel
Command/Safety	1
Patient Care/ Transport	4
Extrication/ Additional Patient Care Providers/	6
Hazard Mitigation	
	Number of Units
Pumper or Ladder Truck (Quint)	2
ALS Rescue Ambulance	2
Chief Officer	1
Total Firefighters	11

### Table 21 Critical Task Analysis: Dosaus Disk Madarata

The list of critical tasks and staffing associated are needed to mitigate a moderate level of rescue risk by incident type and location. An example of this type of incident is a vehicle into a building or an injury motor vehicle collision with 2-4 patients. This risk level assignment will determine the ERF deployment to mitigate the reported incident.

Resource deployment changes were identified through the critical task study. Changes were identified to establish an ERF for moderate risk rescue incidents within the areas of service. Deployment changes went into effect August 3, 2015.





Table 22 Critical Task Analysis: Rescue Risk - High

Critical Task	Number of Personnel
Command	1
Safety	1
Patient Care Providers / Hazard Mitigation	3
Rescuers / Extrication	6
Transport/ Rehab/ Additional Patient Care	8
	Number of Units
Motor Vehicle Collision	
Pumpers or Ladder Trucks (Quints)	3
ALS Rescue Ambulance	4
Chief Officers	2
or	
Technical Rescue	
Pumpers or Quints (aerial apparatus)	3
ALS Rescue Ambulance	3
Special Operations Squad	1
Chief Officers	2
Total Firefighters	19



The list of critical tasks and staffing associated are needed to mitigate a high level of rescue risk by incident type and location. An example of this type of incident is a swift water rescue or an injury motor vehicle collision with 5 -7 patients. This risk level assignment will determine the ERF deployment to mitigate the reported incident.

Resource deployment changes were identified through the critical task study. Changes were identified to establish an ERF for high risk rescue incidents within the areas of service. Deployment changes went into effect August 3, 2015.

Critical Task	Number of Personnel
Command	1
Safety	1
Patient Care Providers / Hazard Mitigation	6
Rescuers/ Extrication	8
Transport/ Rehab/ Additional Patient Care	14
	Number of Units
Pumpers or Ladder Trucks (Quints)	5
ALS Rescue Ambulances	6
Chief Officers	3
Total Firefighters	30

Tahle 23	Critical	Tack Ana	lvcice	Rescue	Rick -	Maximum	Tier I (	(MVC)	
Table 20	Critical	1 asix / xina	1 9 515.	nescue	TTOR -	Maannum	I ICI I		







The list of critical tasks and staffing associated are needed to mitigate a maximum tier I level of rescue risk by incident type and location. An example of this type of incident is an injury motor vehicle collision with eight or more patients. This risk level assignment will determine the ERF deployment to mitigate the reported incident.

Resource deployment changes were identified through the critical task study. Changes were

identified to establish an ERF for maximum tier I risk rescue incidents within the areas of service. Deployment changes went into effect August 3, 2015.

Table 24 Critical Task Analysis: Rescue Risk - Maximum Tier II (Disaster)		
Critical Task	Number of Personnel	
Command	1	
Safety	1	
Rescue Group Supervisors	3	
Rescue Operations	9	
Support Operations	9	
Medical/ Rehab	4	
Transport	4	
Pumpers or Ladder Trucks (Quints)	6	
ALS Rescue Ambulances	4	
Special Operations Squad	1	
Chief Officers	3	
Total Firefighters	31	

The list of critical tasks and staffing associated are needed to mitigate a maximum tier II level of rescue risk by incident type and location. An example of this type of incident is a natural or manmade disaster. This risk level assignment will determine the ERF deployment to mitigate the reported incident.

Resource deployment changes were identified through the critical task study. Changes were identified to establish an ERF for maximum tier II risk rescue incidents within the areas of service. Deployment changes went into effect August 3, 2015.

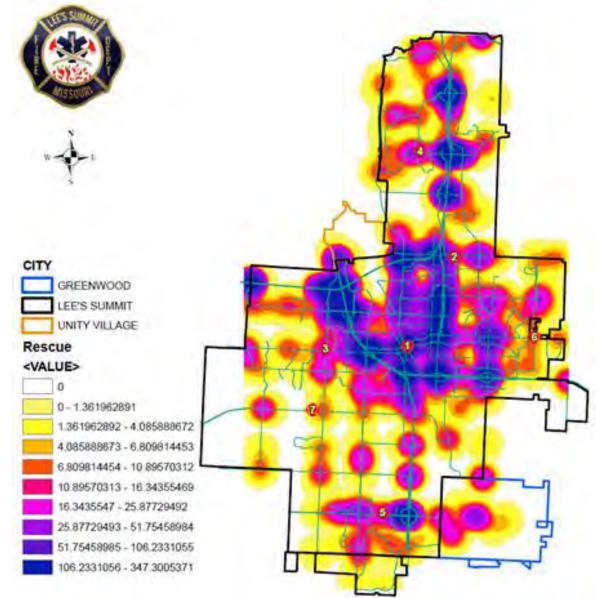


Raintree Lake subdivision in Lee's Summit, following a microburst. 1996





Map 14 Thermal Density – Rescue Demand (2012-2014)



### Probability/Consequence / Impact of Event Risk

The aforementioned workgroup scored three factors to assess risk as a hazard and its association in the community of Lee's Summit to develop a quantifiable value to risk for each program type.

Heron's Formula Modified for Tetrahedrons

$$Risk = \sqrt{\frac{(pc)^2}{2} + \frac{(ci)^2}{2} + \frac{(ip)^2}{2}}$$

The quantified number reflects as a mass in the shape of a triangle. The larger the mass of the triangle, the greater the risk is associated with an event type and location. See <u>appendix C</u> to view the risk assessment scoring by program.

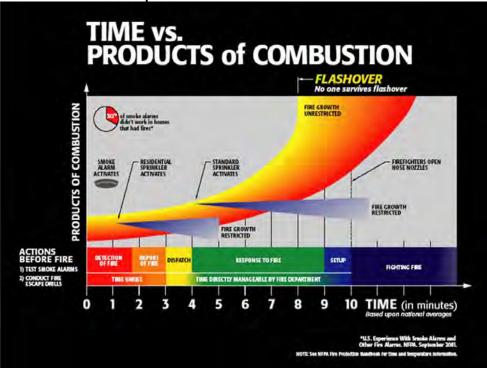




### E. Historical Perspective and Summary of System Performance

### **Distribution Factors**

To effectively mitigate emergency incidents, personnel and equipment must be appropriately distributed throughout the response area to respond in a timely manner. The greatest threat to life and property during a fire incident is at the point known as flashover which, dependent on conditions, will occur 4-10 minutes after the free burning phase of the fire. Therefore, without early intervention (evacuation, extinguisher or sprinkler discharge, etc.), fire personnel must be actively engaged in fire suppression within 10 minutes of the fire to have the best opportunity of preventing flashover and supporting life and property loss prevention.



**Graph 11 Time vs. Products of Combustion** 

The department has seven deployment locations located geographically. Each station has at minimum one fire apparatus within the deployment location. Apparatus are identified by a deployment station number represented as a district planning area. Each planning area is evaluated by population served, road miles, and area in miles protected and assessed value. Travel time capability is shown from fire stations.

Fire Response District	Area Protected in Miles	
District #1	5.84	
District #2 (includes Unity Village)	(8.51) Lee's Summit alone is 6.54	
District #3	9.26	
District #4	11.91	
District #5 (includes Greenwood)	(15.71) Lee's Summit alone is 11.20	
District #6	10.72	
District #7	10.48	

#### Table 25 Area Protected by Fire Response District





#### Table 26 Road Miles Protected by Fire Response District

Fire Response District	Area Protected in Road Miles		
District #1	86.25		
District #2 (includes Unity Village)	(69.04) Lee's Summit alone is 65.31		
District #3	109.65		
District #4	105.54		
District #5 (includes Greenwood)	(115.64) Lee's Summit alone is 88.81		
District #6	110.45		
District #7	54.67		

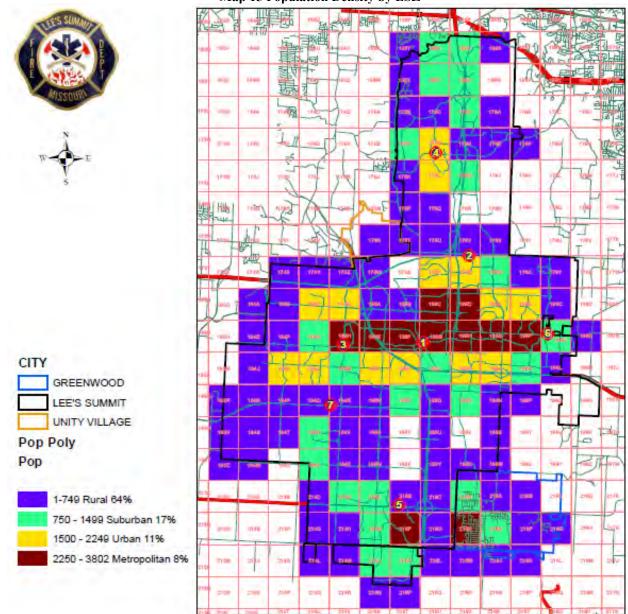
Table 27 Population Served by Fire Response District			
Fire Response District	Population Served		
District #1	18,325		
District #2 (includes Unity Village)	(9,863) Lee's Summit alone is 9,764		
District #3	17,322		
District #4	14,275		
District #5 (includes Greenwood)	(14,310) Lee's Summit alone is 9,089		
District #6	17,769		
District #7	7,048		

Response District	Total Assessed Value	Residential Assessed Value	Commercial Assessed Value	Agricultural Assessed Value
District #1	\$367,165,431.00	\$239,317,453.00	\$127,649,162.00	\$198,908.00
District #4	\$315,716,805.00	\$242,683,888.00	\$72,883,367.00	\$149,595.00
District #3	\$307,893,407.00	\$194,301,980.00	\$113,297,187.00	\$294,133.00
District #6	\$290,980,691.00	\$246,366,848.00	\$44,430,784.00	\$183,086.00
District #5 (includes Greenwood)	\$255,200,055.00	\$213,194,392.00	\$39,330,574.00	\$402,792.00
District #2 (includes Unity Village)	\$166,564,559.00	\$75,481,862.00	\$90,934,560.00	\$148,239.00
District #7	\$129,806,839.00	\$122,753,733.00	\$6,799,430.00	\$253,589.00





Map 15 Population Density by ESZ



### **Response Performance Data Collection and Monitoring For Total Response Time (TRT)**

### **Total Response Time**

This is the total time from receiving the call to arriving on scene with the first unit and an effective response force (ERF). This is calculated by adding several components of response performance. The sum of alarm handling, turn out, and travel time. This is tracked for the travel time of the first arriving unit and the effective response force. All data is aggregated by population density, program type, and risk level. The values documented in the performance tables are the performance at the 90<sup>th</sup> fractal. This value represents the actual response at the 90<sup>th</sup> percent of the responses.

### Alarm Handling Time

This is the first component collected as a piece contributing to the total response time. Alarm handling time begins when a call is received within the fire department communications center or





Public Safety Answering Point (PSAP), until the notification to emergency units to deploy to an emergency.

In the city of Lee's Summit, the fire department communications center is a secondary PSAP and the police department is the primary PSAP. Currently, there is no process in place to collect the handling time between the primary and secondary PSAP's.

Prior to 2013, the begin- and end-points for data collection of alarm handling time were different. Until 2013, the time stopped when a department pre-alert tone was sounded and not when a particular unit was notified. This process changed in 2013 to when the first department resource station tone is sounded. This process is still in place and is reflected in the performance tables. As reflected in the tables, alarm handling time lengthened beginning in 2013 after the change.

### **Turnout Time**

This is the second component collected as a piece contributing to the total response time. Turnout time begins with the station notification tone and ends when each resource is manually entered into the computer by a dispatcher following a verbal report of an "en route" declaration over the radio. As each unit verbally announces their "en route" status, it is manually updated into the computerized records management system by a fire department dispatcher.

Several challenges are present to delay en route performances:

1. A means of communication between the unit going en route and the fire department communication center must be available to allow for the status to be reported. Frequently, radio traffic "ties up" the frequency inhibiting the units to declare their status.

The more units assigned to an incident, the more radio traffic is caused by multiple units reporting their en route status. For example, a low risk EMS incident deploys two resources versus a high risk fire incident deploying six. Usually, units deploy within a relatively close amount of time which causes units to be covered by other units declaring their status. This process can cause errors.

- 2. Several human processes are in place which allow for human error.
  - Fire resources verbally announcing status over the radio
  - Fire dispatchers verbally acknowledging status over the radio

- Fire dispatchers physically enter each unit status in to the computer after acknowledging status over the radio.

- 3. Station notification systems in place impacting the ability for fire department resources to deploy as efficiently as possible. When an incident is assigned to a station, a rip-and run document is automatically printed in each fire station assigned simultaneously with the station alert tone. This rip-and-run document has the alarm address, cross-streets, incident nature, and alarm number to reference the emergency incident location from a physical paper map. This process is helpful if the printer is close to the firefighters to retrieve while responding to the station wall map in order reference the call location. Each station has one printer and usually the printer is located near the station computer in the station captain's office.
- 4. A paper map is referenced during every response prior to going en route to ensure the location and most efficient routing. If responding from the fire station, the rip-and-run is collected and cross referenced at a station wall map prior to going to the apparatus and responding. This process delays the turnout time. If a resource is not in a station, the address and cross street must be written down and cross referenced against a paper map within the apparatus before going en route. If going en route while mobile, and not in a station, the responding unit does not





have the alarm number nor other computer aided dispatch (CAD) information to assist with the incident. When additional information is in the CAD, dispatchers will give the information over the radio but not until all units have announced their en route status.

Station wall maps and apparatus maps are updated periodically, but frequently incidents occur in areas that are new development and not updated on the paper maps. This is not as much of an issue for units when they deploy within their own districts as they are more in touch with local development, but when resources have to respond to areas of the city which are not their primary response area it can cause for confusion and delayed responses.

### **Distribution Travel Time**

This is the third component collected as part of the total response time. Distribution begins when the dispatched unit is documented en route, and ends when the unit is documented on scene. The distribution travel time is the travel time of the first arriving resource to an incident. Not all resources are considered equal as not all units dispatched can be considered associated with the distribution data, specifically with the programs of fire, rescue, and hazmat risk. Below are the rules for distribution data:

#### Fire Incidents

The first arriving unit documented in the response performance data cannot be a chief officer or a rescue ambulance. The first arriving unit must be a pumper or ladder.

This direction was provided by technical advisors with the Center for Public Safety Excellence (CPSE) Technical Advisor Program (TAP). The reason is that neither a chief officer nor a rescue ambulance alone can perform a critical task associated with a fire incident.

#### EMS Incidents

A rescue or pumper/ladder can count as the first arriving unit in the service program. All resources deployed except a chief officer count as first arriving unit.

#### HazMat Incidents

The first arriving unit documented in the response performance data cannot be a chief officer or a rescue ambulance. The first arriving unit must be a pumper or ladder.

This direction was provided by technical advisors with the Center for Public Safety Excellence (CPSE) Technical Advisor Program (TAP). The reason is that neither a chief officer nor a rescue ambulance alone can perform a critical task associated with a fire incident.

#### **Rescue Incidents**

The first arriving unit documented in the response performance data cannot be a chief officer or a rescue ambulance. The first arriving unit must be a pumper, or a ladder.

This direction was provided by technical advisors with the Center for Public Safety Excellence (CPSE) Technical Advisor Program (TAP). The reason is that neither a chief officer nor a rescue ambulance alone can perform a critical task associated with a fire incident.

### Factors which effect the distribution travel time:

- 1. The radio frequency must be open to allow for the status to be updated by unit arriving on scene. Frequently the radio frequency is tied up by other incident radio traffic causing a delay in the ability for the arriving unit to report on scene.
- 2. Response district resiliency impacts the travel time into higher demand areas. For example, if the primary response resource to respond to an incident is committed to another assignment,





the second due unit is assigned and has to travel physically farther to arrive on scene. The busier the district, the less resilient it is; thus relying on other resources.

3. The currently deployment system within the CAD doesn't always send the closest unit to the call. This is due to the deployment being tied to the fire apparatus district boundaries and not necessarily the closest unit available. Fire department apparatus do not have automatic vehicle location (AVL) to automatically identify the closest unit to the emergency.

#### **Concentration Travel Time**

The fourth component collected as part of the total response time is the arrival of all the resources assigned to the incident, also known as the ERF, which is referred to as concentration. This time begins when the first unit is documented en route until the last unit arrives on-scene.

The same factors that affect distribution impact concentration. Concentration, or ERF, has not been historically tracked prior to beginning the accreditation process and instituting the accreditation model. Planning processes have not focused on the ERF but on the arrival of the first unit. This will need to be looked at closely in future planning of the department.

### **Travel Time Potential**

In order to evaluate deployment capability against industry benchmarks, travel time polygons were developed. These polygons were developed through the City of Lee's Summit's ITS Division using GIS software showing the amount of area traveled in an amount of time. This information can show coverage against industry benchmarks.

#### **Response Performance Data and Distribution/Concentration Flags**

In May of 2015, the department went live with a response performance flag system within its records management system to enhance the emergency response queries. The department developed two record flags which are purposed with capturing distribution and concentration/ERF deployments specifically by definition. These flags are documented by the NFIRS report writer following the incident. These flags will allow the department to more precisely capture true distribution and concentration/ERF performances in the future.

The flag system went operational following a specific training process to ensure compliance. The training was facilitated by the department's accreditation manager and each operational shift commander.

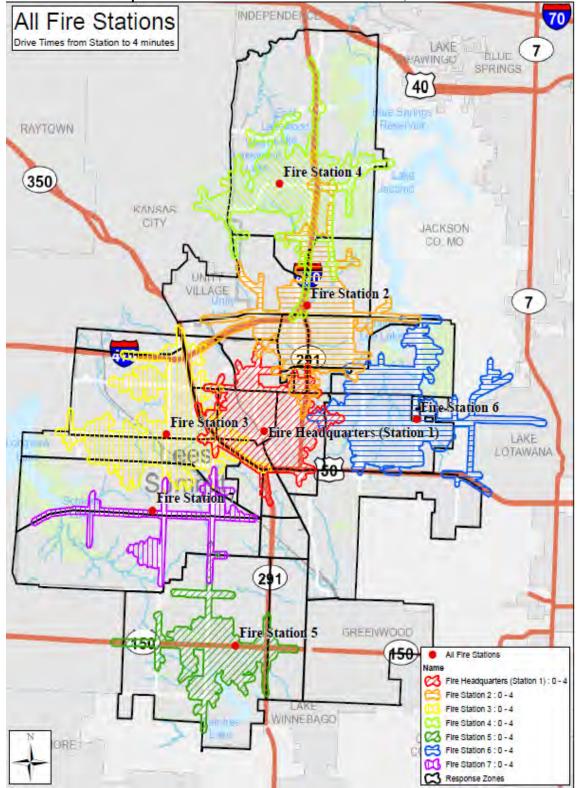
Prior to the development of these flags, all data was included into the response data sets. This included at time units who may have been reduced to a non-emergency response or units who may have not responded emergency to the incident. With this system in place, along with the compliance methodology, the department will be able to see a clearer picture of its response capabilities and limitations.





### Travel time from stations at 4 minutes (CFAI urban/metro density standard)

This map shows the travel capabilities within 4 minutes from <u>all</u> current deployment locations. This is the benchmark standard for a first arriving resource at the 90th percent of responses within metro and urban density emergency service zones.



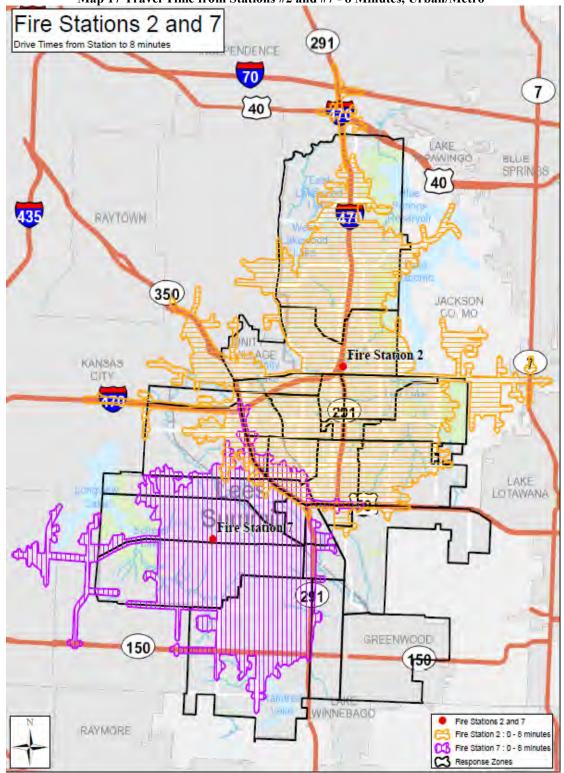






### Travel time from stations at 8 minutes (CFAI urban/metro density standard)

This map shows the travel capabilities within 8 minutes from each of the current <u>ladder truck</u> deployment locations. This is the benchmark standard for the arrival of the entire effective response force at the 90<sup>th</sup> percent of responses within metro and urban density emergency service zones.



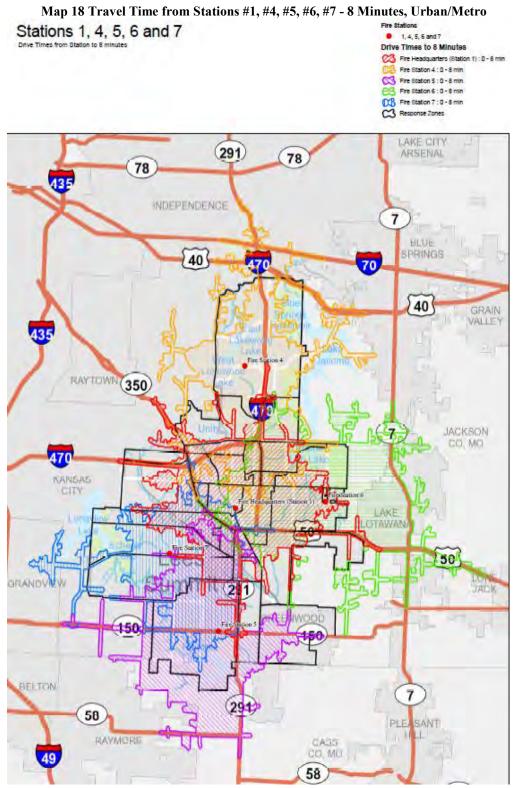
Map 17 Travel Time from Stations #2 and #7 - 8 Minutes, Urban/Metro





### Travel time from stations at 8 minutes (CFAI urban/metro density standard)

This map shows the travel capabilities within 8 minutes from each of the current advanced life support <u>rescue ambulance</u> deployment locations. This is the benchmark standard for the arrival of the entire effective response force at the 90<sup>th</sup> percent of responses within metro and urban density emergency service zones.

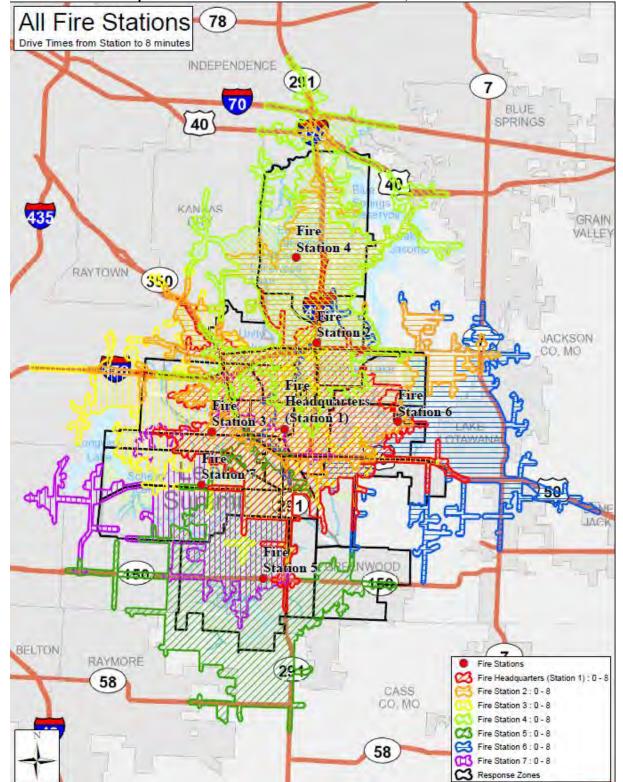






### Travel time from stations at 8 minutes (CFAI urban/metro density standard)

This map shows the travel capabilities within 8 minutes from <u>all</u> current deployment locations. This is the benchmark standard for the arrival of the entire ERF at the 90<sup>th</sup> percent of responses within metro and urban density emergency service zones.



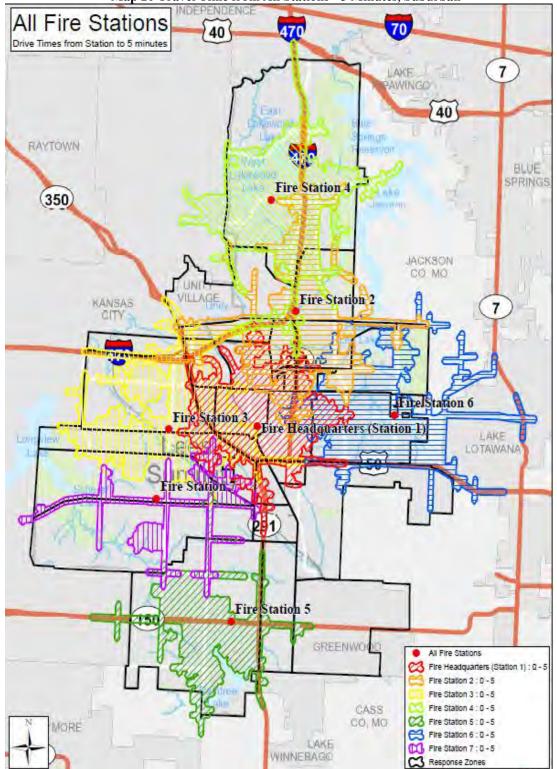
Map 19 Travel Time from All Stations - 8 Minutes, Urban/Metro





### Travel time from stations at 5 minutes (CFAI suburban density standard)

This map shows the travel capabilities within 5 minutes from <u>all</u> current deployment locations. This is the benchmark standard for the arrival of the first resource at the 90<sup>th</sup> percent of responses within suburban density emergency service zones. The department has adopted this standard for rural densities as well.



Map 20 Travel Time from All Stations - 5 Minutes, Suburban

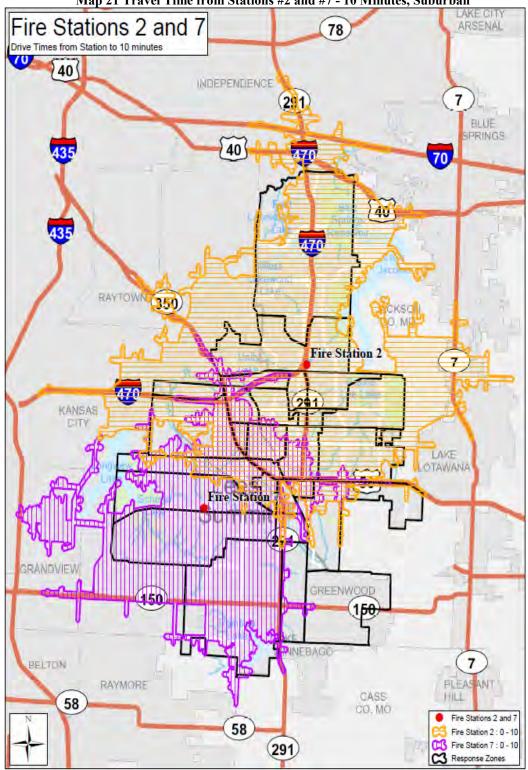
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### Travel time from stations at 10 minutes (CFAI suburban density standard)

This map shows the travel capabilities within 10 minutes from each of the current <u>ladder truck</u> deployment locations. This is the benchmark standard for the arrival of the entire ERF at the 90<sup>th</sup> percent of responses within suburban density emergency service zones. The department has adopted the suburban standard for its rural emergency service zones as well.



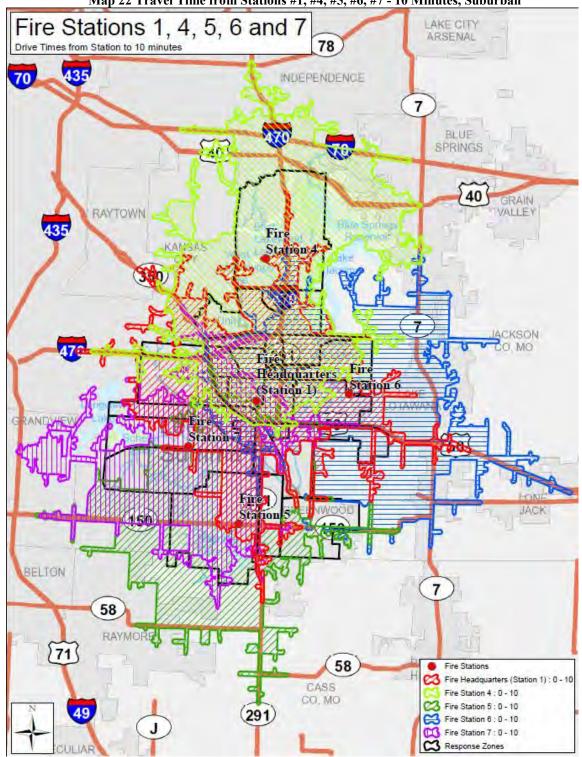
Map 21 Travel Time from Stations #2 and #7 - 10 Minutes, Suburban





### Travel time from stations at 10 minutes (CFAI suburban density standard)

This map shows the travel capabilities within 10 minutes from each advanced life support <u>rescue</u> <u>ambulance</u> deployment location. This is the benchmark standard for the arrival of the entire ERF at the 90<sup>th</sup> percent of responses within suburban density emergency service zones. The department has adopted the suburban standard for its rural emergency service zones as well.



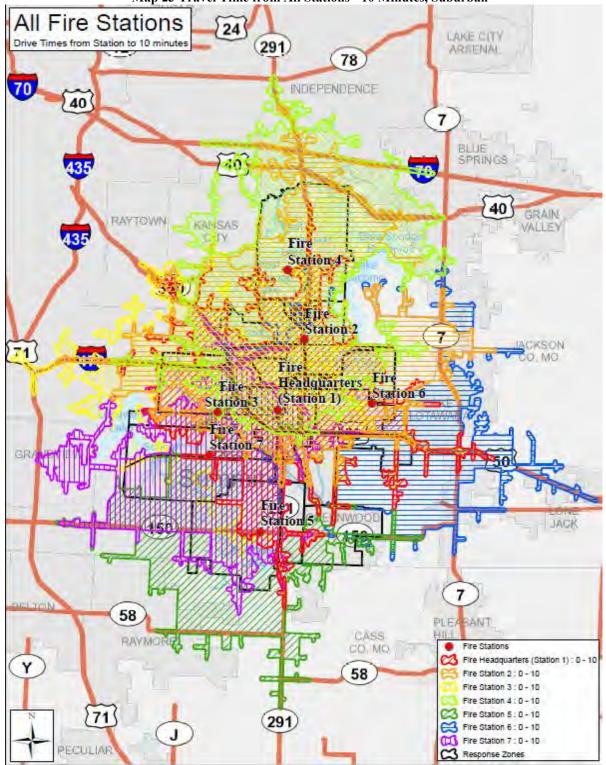
Map 22 Travel Time from Stations #1, #4, #5, #6, #7 - 10 Minutes, Suburban





### Travel time from stations at 10 minutes (CFAI suburban density standard)

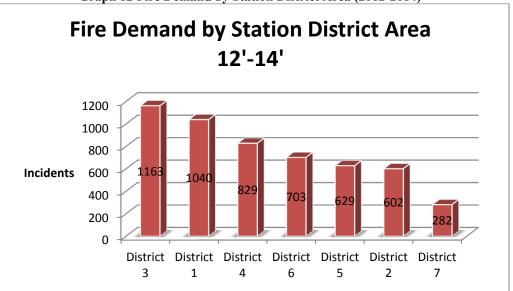
This map shows the travel capabilities within 10 minutes from each deployment location. This is the benchmark standard for the arrival of the entire ERF at the 90<sup>th</sup> percent of responses within suburban density emergency service zones. The department has adopted the suburban standard for its rural emergency service zones as well.



Map 23 Travel Time from All Stations - 10 Minutes, Suburban

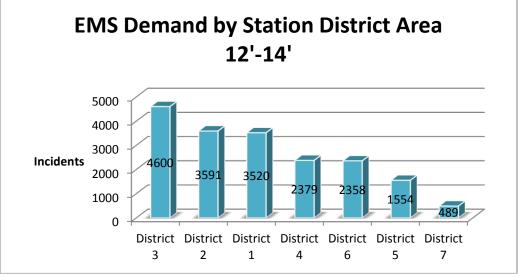






Graph 12 Fire Demand by Station District Area (2012-2014)

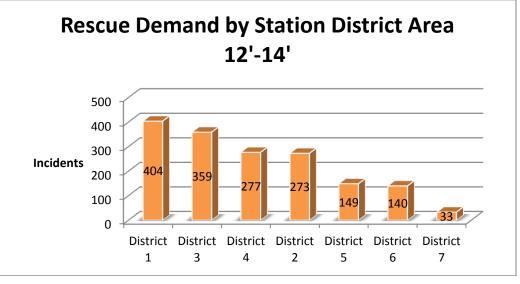
Graph 13 EMS Demand by Station District Area (2012-2014)



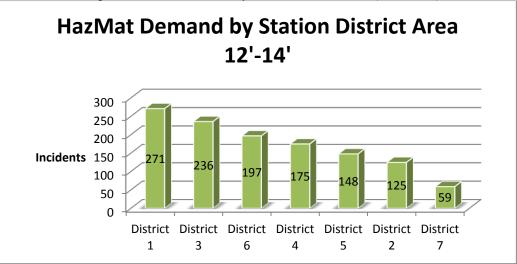




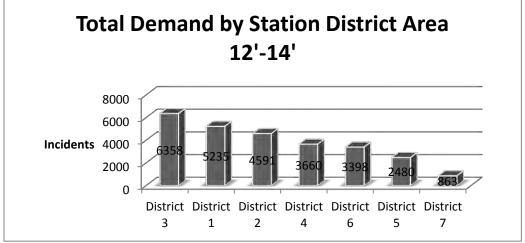
Graph 14 Rescue Demand by Station District Area (2012-2014)



Graph 15 HazMat Demand by Station District Area (2012-2014)



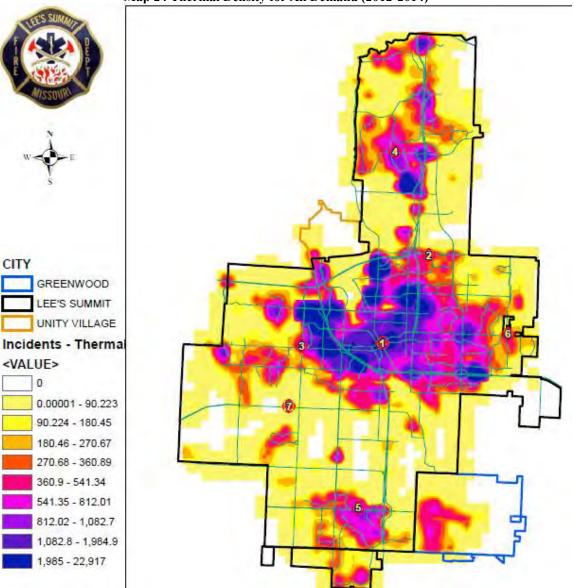
Graph 16 Total Demand by Station District Area (2012-2014)







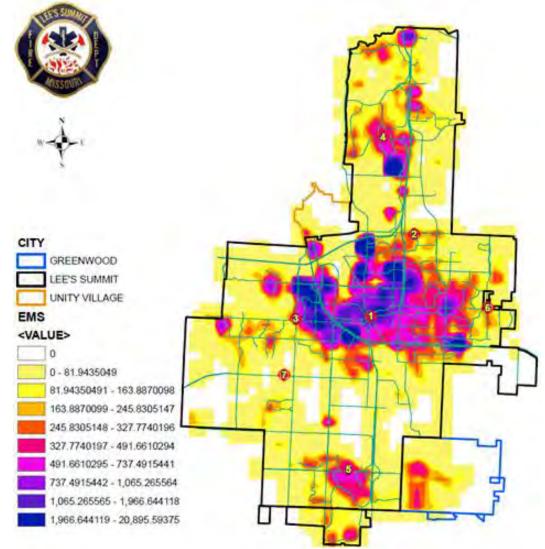
Areas of incident distribution and concentration are plotted into a thermal density map showing incidents in reference to deployment locations. Due to the volume of EMS incidents, the total incident concentration map is closely matching the EMS density map. The other program maps show the distribution of their occurrences.







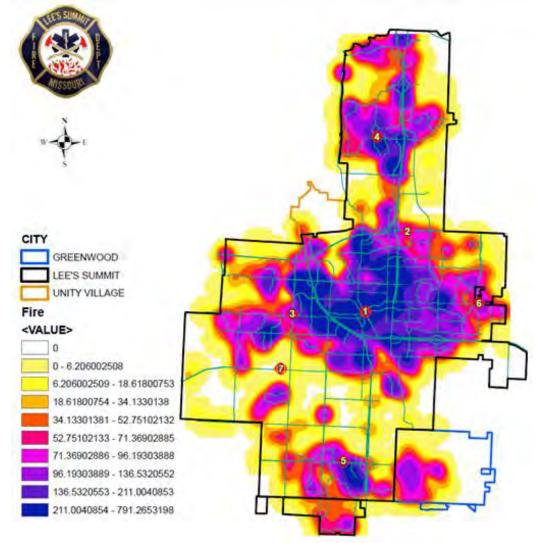
Map 25 Thermal Density - EMS Demand (2012-2014)







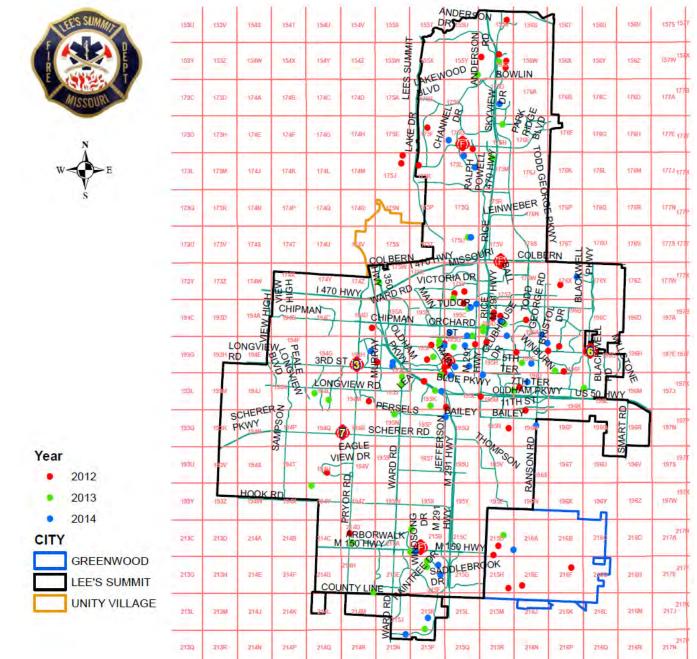
Map 26 Thermal Density - Fire Incidents Demand (2012-2014)







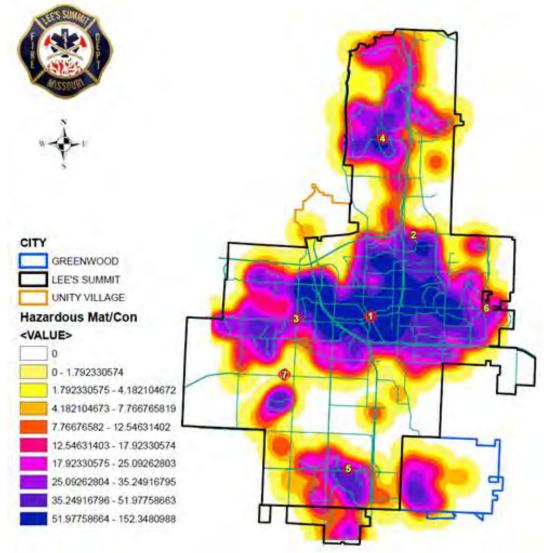
#### Map 27 NFIRS Code 111 / Structure Fire Locations (2012-2014)







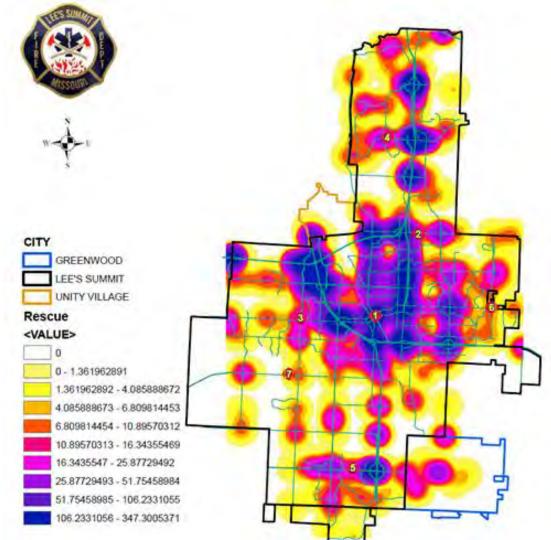
Map 28 Thermal Density – HazMat Demand (2012-2014)







Map 29 Thermal Density - Rescue Demand (2012-2014)



#### District Incident Comparison by Program from 2012-2014

#### Table 29 Fire Program Incident Demand by District (2012-2014)

District 3	1163
District 1	1040
District 4	829
District 6	703
District 5	629
District 2	602
District 7	282

#### EMS Program Incident Demand by District (2012-2014)

District 3	4600
District 2	3591
District 1	3520
District 4	2379
District 6	2358
District 5	1554
District 7	489





#### Table 31 Rescue Program Incident Demand by District (2012-2014)

District 1	404
District 3	359
District 4	277
District 2	273
District 5	149
District 6	140
District 7	33

#### Table 32 HazMat Program Incident Demand by District (2012-2014)

District 1	271
District 3	236
District 6	197
District 4	175
District 5	148
District 2	125
District 7	59

#### Table 33 Total Incident Demand by District (2012-2014)

District 3	6358
District 1	5235
District 2	4591
District 4	3660
District 6	3398
District 5	2480
District 7	863

### **Reliability Factors**

Several responsibilities impact the reliability/availability of fire department resources, including: operational incidents, training/administrative duties, prevention/education activities, and maintenance items. The following tables quantify the percent of time primary units responded to emergency incidents within their district. The percentages do not necessarily reflect the percentage of time a unit was available within the city, but what percent of the time they responded to incidents within their district. This data was taken from the LSFD's records management system, FDM.

#### District 1

District 1 has a pumper and rescue assigned as primary response units. Both units are deployed out of station #1. The percent of time the primary units responded to incidents within district 1 are as follows:

Unit	2012-2014	2014	2013	2012
Pumper 1	91.73%	92.40%	91.77%	91.07%
Rescue 1	80.40%	79.48%	82.07%	79.94%





#### **District 2**

District 2 has a ladder truck and three rescues which split the district as primary response units. The ladder truck is stationed at station #2 within district 2. The three rescues which respond into district 2 are not deployed from station #2, but from stations #1, #4, and #6. The percent of time the primary units responded to incidents within district 2 are as follows:

Unit	2012-2014	2014	2013	2012
Truck 2	93.43%	93.94%	95.08%	91.11%
Rescues 1, 4, and 6	85.46%	86.24%	85.07%	85.02%

#### **District 3**

District 3 has a pumper and two rescues which split the district as primary response units. The pumper is stationed at station #3 within district 3. The two rescues which respond into district 3 are not deployed from station #2, but from stations #7 and #1. The percent of time the primary units responded to incidents within district 3 are as follows:

Unit	2012-2014	2014	2013	2012
Pumper 3	91.37%	91.17%	90.80%	92.16%
Rescues 7 and 1	83.55%	84.36%	83.02%	83.20%

#### **District 4**

District 4 has a pumper and rescue assigned as primary response units. Both units are deployed out of station #4. The percent of time the primary units responded to incidents within district 4 are as follows:

Unit	2012-2014	2014	2013	2012
Pumper 4	94.68%	95.31%	95.14%	93.75%
Rescue 4	87.50%	88.56%	89.22%	85.16%

#### **District 5**

District 5 has a pumper and rescue assigned as primary response units. Both units are deployed out of station #5. The percent of time the primary units responded to incidents within district 5 are as follows:

Unit	2012-2014	2014	2013	2012
Pumper 5	96.73%	96.18%	96.89%	97.35%
Rescue 5	87.50%	88.56%	89.22%	85.16%

#### **District 6**

District 6 has a pumper and rescue assigned as primary response units. Both units are deployed out of station #6. The percent of time the primary units responded to incidents within district 6 are as follows:

Unit	2012-2014	2014	2013	2012
Pumper 6	95.33%	96.06%	95.31%	94.63%
Rescue 6	86.28%	85.53%	86.74%	86.51%

#### **District 7**

District 7 has a ladder truck and rescue assigned as primary response units. Both units are deployed out of station #7. The percent of time the primary units responded to incidents within district 7 are as follows:

Unit	2012-2014	2014	2013	2012
Truck 7	97.12%	97.41%	96.65%	97.45%
Rescue 7	90.44%	94.96%	89.52%	87.23%





### Baseline Performance Tables (2012-August 2, 2015)

The following baseline tables show response performance in each program risk level. As identified, several factors impact the performance ability of the department. The department is continuously developing response improvement strategies to improve several components of the total response time. Several of these are identified in the strategic recommendations of the standards of cover.

### Why August 2nd, 2015 as a cut off for performance data?

On August 3, 2015, the department went live with a new deployment model based specifically on a critical task analysis. This new response matrix is a new deployment model with different resources in several risk levels which would skew the performances data shown previously. In each performance table, the asterisk (\*) next to the year 2015 is meant to indicate the cutoff of August 2, 2015.

	Low Risk Fire		2012- 2015*	2015*	2014	2013	2012
		Metro- Urban	n = 852 01:16	n = 148 01:18	n = 224 01:17	n = 210 01:18	n = 270 01:10
Alarm Handling	Pick-up to Dispatch	Suburban	n = 328 01:25	n = 57 01:31	n = 85 01:32	n = 91 01:27	n = 95 00:56
		Rural	n = 536 01:27	n = 96 01:39	n = 151 01:31	n = 125 01:26	n = 164 01:16
		Metro- Urban	n = 852 02:41	n = 148 02:42	n = 224 02:25	n = 210 02:42	n = 270 02:44
Turnout Time	Turnout Time 1st Unit	Suburban	n = 328 02:45	n = 57 02:41	n = 85 02:24	n = 91 02:38	n = 95 03:06
		Rural	n = 536 02:48	n = 96 02:32	n = 151 02:46	n = 125 02:42	n = 164 03:01
	Trevel Time 1 st	Metro- Urban	n = 827 05:47	n = 142 05:38	n = 218 5:35	n = 206 05:52	n = 261 05:54
	Travel Time 1st Unit <b>Distribution</b>	Suburban	n = 322 07:11	n = 56 06:12	n = 85 07:02	n = 87 07:24	n = 94 07:19
Travel		Rural	n = 508 07:18	n = 90 06:27	n = 144 07:25	n = 119 07:30	n = 155 07:16
Time	Travel Time ERF	Metro- Urban	n = 827 05:47	n = 142 05:38	n = 218 05:35	n = 206 05:52	n = 261 05:54
		Suburban	n = 322 07:11	n = 56 06:12	n = 85 07:02	n = 87 07:24	n = 94 07:19
	Concentration	Rural	n = 508 07:18	n = 90 06:27	n = 144 07:25	n = 119 07:30	n = 155 07:16
	T ( 1 D	Metro- Urban	n = 827 08:40	n = 142 08:25	n = 218 08:32	n = 206 08:50	n = 261 08:41
	Total Response Time 1st Unit	Suburban	n = 322 09:52	n = 56 09:03	n = 85 10:06	n = 87 09:48	n = 94 10:18
Total	Distribution	Rural	n = 508 10:32	n = 90 09:31	n = 144 10:58	n = 119 10:30	n = 155 10:33
Response Time	Total Deservice	Metro- Urban	n = 827 08:40	n = 142 08:25	n = 218 08:32	n = 206 08:50	n = 261 08:41
	Total Response Time ERF	Suburban	n = 322 09:52	n = 56 09:03	n = 85 10:06	n = 87 09:48	n = 94 10:18
	Concentration	Rural	n = 508 10:32	n = 90 09:31	n = 144 10:58	n = 119 10:30	n = 155 10:33





N	Ioderate Risk Fir	e	2012- 2015*	2015*	2014	2013	2012
		Metro-	n = 19	n = 4	n = 3	n = 6	n = 6
		Urban	01:12	01:12	01:52	02:45	00:52
Alarm Handling	Pick-up to Dispatch	Suburban	n = 10 01:35	n = 5 01:22	n = 3 02:12	n = 2 01:35	n = 0
		Rural	n = 4 01:09	n = 1 01:09	n = 0	n = 1 00:53	n = 2 00:37
		Metro- Urban	n = 19 02:50	n = 4 01:53	n = 3 02:09	n = 6 03:15	n = 6 02:12
Turnout Time	Turnout Time 1st Unit	Suburban	n = 10 01:45	n = 5 01:45	n = 3 03:08	n = 2 01:18	n = 0
		Rural	n = 4 02:22	n = 1 00:23	n = 0	n = 1 02:22	n = 2 02:07
	Troval Time	Metro- Urban	n = 12 04:49	n = 3 04:27	n = 2 04:49	n = 3 03:54	n = 4 02:46
	Travel Time 1st Unit <b>Distribution</b>	Suburban	n = 7 05:10	n = 3 02:53	n = 2 05:10	n = 2 02:16	n = 0
Travel		Rural	n = 3 04:30	n = 1 04:22	n = 0	n = 1 04:30	n = 2 04:17
Time	Travel Time ERF	Metro- Urban	n = 4 10:37	n = 2 10:37	n = 1 07:12	n = 1 07:42	n = 0
		Suburban	n = 2 12:19	n = 1 12:19	n = 1 04:53	n = 0	n = 0
	Concentration	Rural	n = 2 14:24	n = 1 06:36	n = 0	n = 1 14:24	n = 0
	T ( 1 D	Metro- Urban	n = 12 07:47	n = 3 07:21	n = 2 07:47	n = 3 06:58	n = 4 06:01
	Total Response Time 1st Unit	Suburban	n = 7 09:23	n = 3 05:57	n = 2 09:23	n = 2 05:46	n = 0
Total	Distribution	Rural	n = 3 07:45	n = 1 05:54	n = 0	n = 1 07:45	n = 2 06:43
Response Time	Total Deeperation	Metro- Urban	n = 4 12:29	n = 2 12:29	n = 1 10:09	n = 1 11:01	n = 0
	Total Response Time ERF <b>Concentration</b>	Suburban	n = 2 15:21	n = 1 15:21	n = 1 09:40	n = 0	n = 0
	Concentration	Rural	n = 2 18:15	n = 1 09:06	n = 0	n = 1 18:15	n = 0





	High Risk Fires		2012- 2015*	2015*	2014	2013	2012
		Metro-	n = 278	n = 39	n = 67	n = 89	n = 83
		Urban	01:34	02:02	01:54	01:43	01:02
Alarm	Pick-up to	Suburban	n = 83	n = 14	n = 19	n = 14	n = 36
Handling	Dispatch	Suburbali	02:07	02:07	01:45	01:12	00:49
		Rural	n = 86	n = 18	n = 25	n = 16	n = 27
			01:40	02:09	02:00	01:00	01:23
		Metro-	n = 278	n = 39	n = 67	n = 89	n = 83
		Urban	02:28	02:22	02:28	02:14	02:35
Turnout	Turnout Time	Suburban	n = 83	n = 14	n = 19	n = 14	n = 36
Time	1st Unit		02:45	02:28	02:26	02:17	02:40
		Rural	n = 86	n = 18	n = 25	n = 16	n = 27
		Matua	02:19	02:15	02:18	02:10	02:30
		Metro-	n = 165	n = 22 04:23	n = 45	n = 50	n = 48
	Travel Time	Urban	04:23		04:19	04:51	04:13
	1st Unit	Suburban	n = 63 05:24	n = 9 04:35	n = 14 04:55	n = 13 05:24	n = 27 06:38
	Distribution		n = 60	n = 15	n = 15	n = 11	n = 19
Travel		Rural	n = 60 05:17	n = 13 06:46	04:31	n = 11 05:01	07:15
Time		Metro-	n = 56	n = 11	n = 17	n = 19	n = 9
1 11110		Urban	11:45	08:47	10:42	10:15	15:26
	Travel Time		n = 13	n = 5	n = 4	n = 3	n = 1
	ERF	Suburban	12:19	12:11	12:47	08:10	10:53
	Concentration		n = 18	n = 10	n = 4	n = 4	n = 0
		Rural	14:04	11:06	14:04	14:10	N/A
		Metro-	n = 165	n = 22	n = 45	n = 50	n = 48
	T ( 1 D	Urban	07:41	07:42	07:44	07:41	07:09
	Total Response	Colorado en	n = 63	n = 9	n = 14	n = 13	n = 27
	Time 1st Unit Distribution	Suburban	08:45	08:20	08:45	08:07	09:21
T 1	Distribution	Dermal	n = 60	n = 15	n = 15	n = 11	n = 19
Total Decreases		Rural	08:15	09:21	07:45	07:50	10:20
Response Time		Metro-	n = 56	n = 11	n = 17	n = 19	n = 9
Time	Total Response	Urban	16:07	16:07	15:14	16:51	20:44
	Time ERF	Suburban	n = 13	n = 5	n = 4	n = 3	n = 1
	Concentration	Suburball	15:58	15:58	16:55	14:13	13:37
		Rural	n = 18	n = 10	n = 4	n = 4	n = 0
		No Marimun	21:16	14:42	22:40	21:16	N/A

No Maximum Risk Fire Data to Report





	Low Risk EMS		2012-2015*	2015*	2014	2013	2012
		Metro- Urban	n = 11481 01:03	n = 1989 01:09	n = 3200 01:09	n = 3147 01:02	n = 3145 00:45
Alarm Handling	Pick-up to Dispatch	Suburban	n = 2722 01:03	n = 459 01:10	n = 790 01:12	n = 774 01:08	n = 699 00:54
		Rural	n = 3089 01:05	n = 506 01:07	n = 902 01:10	n = 821 01:03	n = 860 00:49
		Metro- Urban	n = 11481 02:33	n = 1989 02:15	n = 3200 02:30	n = 3147 02:37	n = 3145 02:41
Turnout Time	Turnout Time 1st Unit	Suburban	n = 2722 02:35	n = 459 002:12	n = 790 02:32	n = 774 02:31	n = 699 02:52
		Rural	n = 3089 02:26	n = 506 01:59	n = 902 02:31	n = 821 02:26	n = 860 02:30
	Travel Time 1st	Metro- Urban	n = 11411 05:06	n = 1978 05:00	n = 3186 05:01	n = 3130 05:13	n = 3117 05:08
	Unit Distribution	Suburban	n = 2706 06:43	n = 458 06:37	n = 787 06:45	n = 768 06:47	n = 693 06:34
Travel		Rural	n = 3064 06:17	n = 502 06:00	n = 897 06:14	n = 817 06:36	n = 848 06:24
Time	Travel Time ERF	Metro- Urban	n = 6879 07:27	n = 1772 07:06	n = 2693 07:38	n = 1633 07:32	n = 781 07:11
		Suburban	n = 1679 09:21	n = 396 09:21	n = 639 09:25	n = 422 09:49	n = 222 07:27
	Concentration	Rural	n = 1836 08:51	n = 443 08:28	n = 716 09:21	n = 437 08:33	n = 240 08:48
	Total Response	Metro- Urban	n = 11411 07:45	n = 1978 07:38	n = 3186 07:48	n = 3130 07:54	n = 3117 07:43
	Time 1st Unit Distribution	Suburban	n = 2706 09:22	n = 458 09:06	n = 787 09:31	n = 768 09:25	n = 693 09:23
Total Response	Distribution	Rural	n = 3064 09:00	n = 502 08:23	n = 897 09:08	n = 817 09:08	n = 848 08:48
Time	Total Decreases	Metro- Urban	n = 6879 10:19	n = 1772 09:54	n = 2693 10:38	n = 1633 10:26	n = 781 09:58
	Total Response Time ERF <b>Concentration</b>	Suburban	n = 1679 11:48	n = 396 11:28	n = 639 12:07	n = 422 12:02	n = 222 10:27
	Concentration	Rural	n = 1836 11:31	n = 443 11:20	n = 716 12:02	n = 437 10:22	n = 240 11:37





Μ	loderate Risk EM	S	2012- 2015*	2015*	2014	2013	2012
		Metro-	n = 254	n = 44	n = 70	n = 71	n = 69
		Urban	01:06	01:30	01:06	01:06	00:47
Alarm Handling	Pick-up to	Suburban	n = 76	n = 16	n = 22	n = 18	n = 20
	Dispatch	Suburbali	01:06	01:13	01:33	01:00	00:54
		Rural	n = 59	n = 9	n = 21	n = 16	n = 13
			01:23	00:53	01:30	01:42	00:52
		Metro-	n = 254	n = 44	n = 70	n = 71	n = 69
		Urban	02:26	01:59	02:28	02:21	02:40
Turnout	Turnout Time	Suburban	n = 76	n = 16	n = 22	n = 18	n = 20
Time	1st Unit	Suburball	02:19	01:49	02:18	02:16	02:40
		Rural	n = 59	n = 9	n = 21	n = 16	n = 13
			02:15	02:50	01:56	02:06	01:45
		Metro-	n = 216	n = 40	n = 61	n = 58	n = 57
	Travel Time 1st Unit	Urban	04:22	04:57	04:22	04:25	04:17
		Suburban	n = 74	n = 16	n = 21	n = 18	n = 19
	Distribution	Suburbali	06:23	06:23	06:20	06:37	06:35
	Distribution	Rural	n = 52	n = 7	n = 19	n = 15	n = 11
Travel			06:16	05:45	06:54	06:52	06:16
Time		Metro-	n = 91	n = 23	n = 34	n = 25	n = 9
	Travel Time	Urban	09:23	08:00	08:02	11:53	13:03
	ERF	Suburban	n = 22	n = 9	n = 8	n = 4	n = 1
	Concentration	Suburbali	11:04	12:50	15:44	10:32	08:18
	Concentration	Rural	n = 17	n = 4	n = 8	n = 2	n = 3
			12:01	10:39	10:04	13:31	12:01
		Metro-	n = 216	n = 40	n = 61	n = 58	n = 57
	Total Response	Urban	07:25	07:55	07:29	06:47	07:08
	Time 1st Unit	Suburban	n = 74	n = 16	n = 21	n = 18	n = 19
	Distribution	Suburbun	09:01	08:15	08:28	09:36	09:54
Total	2150116401011	Rural	n = 52	n = 7	n = 19	n = 15	n = 11
Response			08:47	07:22	09:15	08:51	08:23
Time		Metro-	n = 91	n = 23	n = 34	n = 25	n = 9
	Total Response	Urban	13:52	11:56	12:23	14:49	16:45
	Time ERF	Suburban	n = 22	n = 9	n = 8	n = 4	n = 1
	Concentration	Sucurouit	19:09	14:47	20:14	19:09	19:35
	201100110 ution	Rural	n = 17	n = 4	n = 8	n = 2	n = 3
		ligh or Mari	18:32	12:04	12:16	21:39	18:32

No High or Maximum Risk EMS Data to Report





	Low Risk Rescue		2012- 2015*	2015*	2014	2013	2012
		Metro-	n = 496	n = 71	n = 134	n = 149	n = 142
		Urban	01:24	01:36	01:27	01:30	01:00
Alarm Handling	Pick-up to Dispatch	Suburban	n = 169 01:37	n = 28 01:25	n = 51 01:47	n = 46 01:41	n = 44 01:48
0	Ĩ	Rural	n = 501 01:35	n = 83 01:49	n = 148 01:35	n = 138 01:42	n = 132 01:16
		Metro-	n = 496	n = 71	n = 134	n = 149	n = 142
		Urban	02:30	02:15	02:26	02:40	02:25
Turnout Time	Turnout Time 1st Unit	Suburban	n = 169 02:30	n = 28 02:46	n = 51 02:30	n = 46 02:24	n = 44 02:31
		D 1	n = 501	n = 83	n = 148	n = 138	n = 132
		Rural	02:36	02:26	02:31	02:41	02:40
		Metro-	n = 411	n = 61	n = 109	n = 124	n = 117
	Travel Time 1st	Urban	04:27	04:30	04:21	04:40	04:19
	Unit	Suburban	n = 136	n = 23	n = 44	n = 36	n = 33
	<b>Distribution</b>	Suburban	06:25	04:30	06:49	n = 124  04:40  n = 36  06:01  n = 120  07:22  n = 71	06:44
		Rural	n = 412	n = 69	n = 116	n = 120	n = 107
Travel			07:08	07:10	07:24	07:22	06:24
Time		Metro-	n = 256	n = 55	n = 95	n = 71	n = 35
	Travel Time	Urban	06:47	06:29	07:04	06:55	05:38
	ERF	Suburban	n = 73 08:45	n = 22 06:40	n = 32 09:47	n = 14 11:20	n = 5 03:47
	Concentration	<b>D</b> 1	n = 219	n = 55	n = 83	n = 50	n = 31
		Rural	09:28	08:15	10:01	08:09	08:41
		Metro-	n = 411	n = 61	n = 109	n = 124	n = 117
	Total Desmanas	Urban	07:36	07:25	07:45	07:45	07:23
	Total Response Time 1st Unit	Suburban	n = 136	n = 23	n = 44	n = 36	n = 33
	<b>Distribution</b>	Suburban	09:16	07:50	09:06	09:14	12:08
Total	Distribution	Rural	n = 412	n = 69	n = 116	n = 120	n = 107
		Kulai	10:14	10:24	10:14	10:38	09:56
Response Time		Metro-	n = 256	n = 55	n = 95	n = 71	n = 35
Time	Total Response	Urban	10:10	10:04	10:21	10:34	09:10
	Time ERF	Suburban	n = 73	n = 22	n = 32	n = 14	n = 5
	Concentration	Suburball	12:07	09:23	12:44	13:54	05:50
		Rural	n = 219	n = 55	n = 83	n = 50	n = 31
		ixuiui	13:02	12:27	14:27	11:56	15:54





Moderate Risk Rescue			2012- 2015*	2015*	2014	2013	2012
Alarm Handling		Metro-	n = 187	n = 26	n = 65	n = 46	n = 50
		Urban	01:27	01:24	01:54	01:17	01:04
	Pick-up to	Suburban	n = 67	n = 12	n = 17	n = 16	n = 22
	Dispatch		01:36	01:41	01:57	03:04	00:59
		Dural	n = 241	n = 44	n = 74	n=54	n = 69
			01:45	02:00	01:35	01:56	01:32
			n = 187	n = 26	n = 65	n = 46	n = 50
		Urban	02:08	02:01	01:49	02:23	02:20
Turnout	Turnout Time	Suburban	n = 67	n = 12	n = 17	n = 16	n = 22
Time	1st Unit	Suburbali	02:27	02:19	02:27	02:16	03:03
		Rural	n = 241	n = 44	n = 74	n=54	n = 69
			02:22	01:56	02:19	02:28	02:37
	Travel Time 1st Unit <b>Distribution</b>		n = 84	n = 11	n = 30	n = 19	n = 24
		Urban	04:38	03:47	04:38	04:45	04:09
		Suburban	n = 43	n = 7	n = 14	n = 9	n = 13
			05:34	05:16	05:34	06:50	05:19
		Rural	n = 160	n = 28	n = 46	n = 37	n = 49
Travel			07:16	06:53	07:35	06:17	08:00
Time	Travel Time ERF <b>Concentration</b>		n = 41	n = 10	n = 20	n = 7	n = 4
		Urban	07:12	06:16	07:12	06:29	09:44
		Suburban	n = 10	n = 5	n = 3	n = 1	n = 1
			10:34	11:13	07:10	07:08	10:34
		Rural	n = 53	n = 13	n = 22	n = 11	n = 7
			11:47	09:28	10:53	10:51	11:48
			n = 84	n = 11	n = 30	n = 19	n = 24
	Total Response	Urban	07:43	06:40	07:56	09:22	07:11
	Time 1st Unit	Suburban	n = 43	n = 7	n = 14	n = 9	n = 13
	Distribution	Rural Metro- Urban Suburban Rural Metro- Urban Suburban Rural Metro- Urban Suburban	08:31	08:33	08:08	09:58	08:05
Total Response Time	Distribution	Rural	n = 160	n = 28	n = 46	n = 37	n = 49
		Kurai	10:37	10:15	10:51	10:30	10:57
	Total Response Time ERF		n = 41	n = 10	n = 20	n = 7	n = 4
		Urban	11:05	09:05	11:05	09:51	12:18
		Suburban	n = 10	n = 5	n = 3	n = 1	n = 1
	Concentration	Suburball	12:29	15:10	10:11	10:56	12:29
		Rural	n = 53	n = 13	n = 22	n = 11	n = 7
		Rulai	16:48	14:54	19:05	21:13	15:39





High Risk Rescue		2012- 2015*	2015*	2014	2013	2012	
Alarm Handling	Pick-up to Dispatch	Metro-	n = 4	n = 1	n = 2	n = 1	n = 0
		Urban	01:09	00:39	01:09	01:09	
		Suburban	n = 4 01:59	n = 1 01:59	n = 0	n = 1 00:43	n = 2 01:30
		Rural	n = 8 02:32	n = 2 01:32	n = 2 00:59	n = 2 02:32	n = 2 01:37
		Metro- Urban	n = 4 02:00	n = 1 01:33	n = 2 01:31	n = 1 02:00	n = 0
Turnout Time	Turnout Time 1st Unit	Suburban	n = 4 01:38	n = 1 01:34	n = 0	n = 1 01:19	n = 2 01:38
		Rural	n = 8 02:39	n = 2 01:57	n = 2 02:39	n = 2 01:35	n = 2 01:00
	Travel Time 1st Unit <b>Distribution</b>	Metro- Urban	n = 4 03:20	n = 1 00:01	n = 2 03:20	n = 1 01:55	n = 0
Travel		Suburban	n = 3 07:50	n = 0	n = 0	n = 1 07:50	n = 2 07:11
		Rural	n = 8 17:01	n = 2 17:01	n = 2 04:54	n = 2 04:08	n = 2 06:45
Time	Travel Time ERF <b>Concentration</b>	Metro- Urban	n = 0	n = 0	n = 0	n = 0	n = 0
		Suburban	n = 1 06:00	n = 0	n = 0	n = 1 06:00	n = 0
		Rural	n = 0	n = 0	n = 0	n = 0	n = 0
	Total Response Time 1st Unit <b>Distribution</b>	Metro- Urban	n = 4 06:17	n = 1 02:13	n = 2 06:17	n = 1 05:13	n = 0
Total Response Time		Suburban	n = 3 11:13	n = 0	n = 0	n = 1 10:56	n = 2 11:13
		Rural	n = 8 20:01	n = 2 20:01	n = 2 07:51	n = 2 06:57	n = 2 10:41
	Total Response Time ERF <b>Concentration</b>	Metro- Urban	n = 0	n = 0	n = 0	n = 0	n = 0
		Suburban	n = 1 11:34	n = 0	n = 0	n = 1 11:34	n = 0
		Rural	n = 0	n = 0	n = 0	n = 0	n = 0

No Maximum Risk Rescue Data to Report





Low Risk Hazardous Conditions		2012- 2015*	2015*	2014	2013	2012	
Alarm Handling		Metro-	n = 146	n = 78	n = 23	n = 22	n = 23
		Urban	01:23	01:30	01:31	01:20	00:58
	Pick-up to	Suburban	n = 67	n = 42	n = 8	n = 8	n = 9
	Dispatch		01:26	01:35	01:19	01:05	00:44
		Rural	n = 46	n = 18	n = 14	n = 11	n = 3
			01:55	02:10	01:55	01:09	00:40
		Metro-	n = 146	n = 78	n = 23	n = 22	n = 23
	т (т <sup>.</sup>	Urban	02:32	02:19	02:33	03:04	02:35
Turnout	Turnout Time 1st Unit	Suburban	n = 67 03:02	n = 42 03:08	n = 8 03:02	n = 8 02:26	n = 9 02:32
Time	Ist Unit		n = 46	n = 18	n = 14	n = 11	n = 3
		Rural	n = 46 02:43	n = 18 02:43	n = 14 02:31	n = 11 02:30	n = 3 07:48
		Metro-	n = 140	n = 74	n = 23	n = 21	n = 22
	Travel Time 1st Unit	Urban	06:43	11 = 74 06:52	05:58	06:59	11 - 22 05:42
		Suburban	n = 67	n = 42	n = 8	n = 8	n = 8
			07:59	09:55	06:55	07:37	08:00
	Distribution		n = 46	n = 18	n = 14	n = 11	n = 3
Travel		Rural	07:49	08:47	06:11	07:10	04:21
Time	Travel Time ERF <b>Concentration</b>	Metro-	n = 140	n = 74	n = 23	n = 21	n = 22
		Urban	06:43	06:52	05:58	06:59	05:42
		C to the state of	n = 67	n = 42	n = 8	n = 8	n = 8
		Suburban	07:59	09:55	06:55	07:37	08:00
		Rural	n = 46	n = 18	n = 14	n = 11	n = 3
			07:49	08:47	06:11	07:10	04:21
	Total Response	Metro-	n = 140	n = 74	n = 23	n = 21	n = 22
		Urban	09:49	10:06	09:49	10:47	08:17
	Time 1st Unit	Suburban	n = 67	n = 42	n = 8	n = 8	n = 8
	Distribution	Suburbun	11:07	11:47	10:36	10:39	11:07
Total Response Time	Distribution	Rural	n = 46	n = 18	n = 14	n = 10	n = 3
			10:41	12:06	09:44	08:53	10:05
	Total Response Time ERF	Metro-	n = 140	n = 74	n = 23	n = 21	n = 22
		Urban	09:49	10:06	09:49	10:47	08:17
		Suburban	n = 67	n = 42	n = 8	n = 8	n = 8
	Concentration	Rural	11:07	11:47	10:36	10:39	11:07
			n = 46 10:41	n = 18 12:06	n = 14 09:44	n = 11 08:53	n = 3
			10:41	12:06	09:44	08:55	10:05





Moderate Risk Hazardous Conditions		2012- 2015*	2015*	2014	2013	2012	
Alarm Handling	Pick-up to Dispatch	Metro- Urban	n = 12 02:27	n = 0	n = 4 02:44	n = 8 02:27	n = 0
		Suburban	n = 5 01:27	n = 0	n = 1 01:27	n = 2 00:35	n = 2 00:53
		Rural	n = 5 01:40	n = 0	n = 1 01:40	n = 2 00:53	n = 2 00:57
		Metro- Urban	n = 12 02:11	n = 0	n = 4 02:11	n = 8 02:18	n = 0
Turnout Time	Turnout Time 1st Unit	Suburban	n = 5 02:57	n = 0	n = 1 01:05	n = 2 02:57	n = 2 02:07
		Rural	n = 5 04:21	n = 0	n = 1 00:47	n = 2 01:34	n = 2 04:21
	Travel Time 1st Unit <b>Distribution</b>	Metro- Urban	n = 10 03:07	n = 0	n = 3 03:36	n = 7 02:52	n = 0
		Suburban	n = 3 03:21	n = 0	n = 1 02:22	n = 1 02:54	n = 1 03:21
Travel Time		Rural	n = 5 06:54	n = 0	n = 1 06:17	n = 2 06:19	n = 2 06:54
	Travel Time ERF <b>Concentration</b>	Metro- Urban	n = 0	n = 0	n = 0	n = 0	n = 0
		Suburban	n = 2 11:53	n = 0	n = 1 11:00	n = 1 11:53	n = 0
		Rural	n = 1 07:57	n = 0	n = 0	n = 1 07:57	n = 0
Total Response Time	Total Response	Metro- Urban	n = 10 05:55	n = 0	n = 3 07:40	n = 7 05:55	n = 0
	Time 1st Unit Distribution	Suburban	n = 3 06:12	n = 0	n = 1 05:08	n = 1 06:12	n = 1 06:03
	Distribution	Rural	n = 5 11:55	n = 0	n = 1 08:44	n = 2 07:34	n = 2 11:55
	Total Response Time ERF <b>Concentration</b>	Metro- Urban	n = 0	n = 0	n = 0	n = 0	n = 0
		Suburban	n = 2 15:31	n = 0	n = 1 13:32	n = 1 15:31	n = 0
		Rural	n = 1 10:49	n = 0	n = 0	n = 1 10:49	n = 0

No High or Maximum Risk HAZMAT Data to Report





## F. Performance Objectives and Measurement Statements

## **Performance Objectives - Benchmarks**

## Fire Suppression Services Program

## **Distribution Benchmarks**

For 90 percent of all low, moderate, high and maximum risk fires, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 6 minutes and 20 seconds in metro and urban areas; 7 minutes and 20 seconds in suburban areas; and 7 minutes and 20 seconds in rural areas. The first-due unit for all risk levels shall be capable of: providing 500 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing a back-up line and advancing an attack line, each flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

## **Concentration Benchmarks**

For 90 percent of all <u>low risk fires</u>, the total response time for the arrival of the effective response force (ERF), staffed with 3 firefighters and officers, shall be: 6 minutes and 20 seconds in metro and urban areas; 7 minutes and 20 seconds in suburban areas; and 7 minutes and 20 seconds in rural areas. The ERF for <u>low risk fires</u> shall be capable of: establishing an uninterrupted water supply; hoisting a ground ladder; performing forcible entry; and advancing and attack line. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>moderate risk fires</u>, the total response time for the arrival of the ERF, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF for <u>moderate risk fires</u> shall be capable of: establishing command; providing an uninterrupted water supply; advancing an attack line and back up line for fire control; complying with Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; performing search and rescue; controlling utilities; and establishing an advanced life support (ALS) medical group capable of transportation of a patient to the hospital. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>high risk fires</u>, the total response time for the arrival of the effective response force (ERF), staffed with 18 firefighters and officers, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF for <u>high risk fires</u> shall be capable of: establishing command; appointing a site safety officer; establishing a rapid intervention crew; providing an uninterrupted water supply; advancing an attack line and a backup line for fire control; complying OSHA requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; establishing an ALS medical group capable of transportation of a patient to the hospital; operating an aerial fire apparatus; and performing salvage and overhaul. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.





For 90 percent of all <u>maximum risk fires</u>, the total response time for the arrival of the ERF, staffed with 31 firefighters and officers, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF for <u>maximum risk fires</u> shall also be capable of: establishing incident command; appointing an operations division officer; appointing a site safety officer; providing an uninterrupted water supply; advancing an attack line and a backup line for fire control; complying with OSHA two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure, controlling utilities; establishing a ALS medical group capable of transporting multiple patients to the hospital; Establishing an ALS rehabilitation group; establishing a rapid intervention group; controlling utilities; and establishing two elevated streams into service from aerial ladders. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

## **Emergency Medical Services Program**

## **Distribution Benchmarks**

For 90 percent of all low, moderate, high and maximum risk EMS incidents, the total response time for the arrival of the first-due unit staffed with 2 firefighters EMT-B, shall be: 6 minutes in metro and urban areas; 6 minutes in suburban areas; and 7 minutes in rural areas. The first-due unit for all risk levels shall be capable of: initiating command; providing basic life support (BLS) tasks; performing a patient assessment; initiating oxygen therapy; monitoring blood glucose; applying an Automated External Defibrillator (AED); controlling bleeding, and performing cardio-pulmonary resuscitation (CPR). These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

## **Concentration Benchmarks**

For 90 percent of all <u>low risk EMS</u>, the total response time for the arrival of the effective response force (ERF), staffed with 3 firefighters, 1 firefighter paramedic, and 1 officer; (5) total, shall be: 10 minutes in metro and urban areas; 12 minutes in suburban areas; and 12 minutes in rural areas. The ERF shall be capable of: establishing incident command; performing a patient assessment; performing advanced airway maneuvers; applying advanced airway adjuncts; operating a mechanical ventilator; performing and interpreting 4, 12 and 15 lead electro-cardiograms; performing synchronized cardio-version; performing defibrillation; monitoring carbon dioxide waveforms; administering nasal, oral, mucosal, venous, sub-lingual, sub-cutaneous, intra-muscular, and intraosseous medication; performing drug dose calculations; operating a mechanical medication infusion pump; monitoring body temperature; monitoring blood glucose; applying traction, rigid and semi-rigid splints; assessing blood pressure and pulse rate; establishing venous or intraosseous access; contacting all regional hospital emergency departments by radio; and transporting a patient on a secured wheeled cot to a hospital. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>moderate risk EMS</u>, the total response time for the arrival of the ERF, staffed with 3 firefighters, 1 firefighter paramedic, and 2 officers, (6) total, shall be: 10 minutes in metro and urban areas; 12 minutes in suburban areas; and 12 minutes in rural areas. The ERF shall be capable of: establishing incident command; performing a patient assessment; performing advanced airway maneuvers; applying advanced airway adjuncts; operating a mechanical ventilator; performing and interpreting 4, 12 and 15 lead electro-cardiograms; performing synchronized cardio-version; performing defibrillation; monitoring carbon dioxide waveforms; administering





nasal, oral, mucosal, venous, sub-lingual, sub-cutaneous, intra-muscular, and intraosseous medication; performing drug dose calculations; operating a mechanical medication infusion pump; monitoring body temperature; monitoring blood glucose; applying traction, rigid and semi-rigid splints; assessing blood pressure and pulse rate; establishing venous or intraosseous access; contacting all regional hospital emergency departments by radio; applying the Lucas compression device; and transporting a patient on a secured wheeled cot to a hospital. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all high risk EMS, the total response time for the arrival of the ERF, staffed with 10 firefighters, 4 firefighter paramedics and 5 officers, (19) total, shall be 10 minutes in metro urban areas; 12 minutes in suburban areas; and 12 minutes in rural areas. The ERF shall also be capable of: establishing incident command; establishing a safety officer; establishing a triage officer; establishing a transport officer; establishing a treatment officer; performing a patient assessments; performing advanced airway maneuvers; applying advanced airway adjuncts; operating mechanical ventilators; performing and interpreting 4, 12 and 15 lead electro-cardiograms; performing synchronized cardio-version; performing defibrillation; monitoring carbon dioxide waveforms; administering nasal, oral, mucosal, venous, sub-lingual, sub-cutaneous, intra-muscular, and intraosseous medications; performing drug dose calculations; operating mechanical medication infusion pumps; monitoring body temperature; monitoring blood glucose; applying traction, rigid and semi-rigid splints; assessing blood pressure and pulse rates; establishing venous or intraosseous access; contacting all regional hospital emergency departments by radio; applying the Lucas compression device; and begin treatment and transport for a minimum of 5 to 7 patients to a hospital. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all maximum risk EMS, the total response time for the arrival of the ERF, staffed with 19 firefighters, 6 firefighter paramedics and 5 officers, (30) total, shall be 10 minutes in metro and urban areas; 12 minutes in suburban areas; and 12 minutes and in rural areas. The ERF shall be capable of: establishing incident command; establishing a safety officer; establishing a triage officer; establishing a transport officer; establishing a treatment officer; performing a patient assessments; performing advanced airway maneuvers; applying advanced airway adjuncts; operating mechanical ventilators; performing and interpreting 4, 12 and 15 lead electro-cardiograms; performing synchronized cardio-version; performing defibrillation; monitoring carbon dioxide waveforms; administering nasal, oral, mucosal, venous, sub-lingual, sub-cutaneous, intra-muscular, and intraosseous medications; performing drug dose calculations; operating mechanical medication infusion pumps; monitoring body temperature; monitoring blood glucose; applying traction, rigid and semi-rigid splints; assessing blood pressure and pulse rates; establishing venous or intraosseous access; contacting all regional hospital emergency departments by radio; applying the Lucas compression device; and begin treatment and transport for a minimum of 8 or more patients to a hospital. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.





## Hazardous Materials Services Program

## HazMat Distribution Benchmarks

For 90 percent of all hazardous materials response incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, (3) total, shall be: 6 minutes and 20 seconds in metro and urban areas; 7 minutes and 20 seconds in suburban areas; and 7 minutes and 20 seconds in rural areas. The first-due unit shall be capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

#### HazMat Concentration Benchmarks

For 90 percent of all <u>low risk hazardous materials response incidents</u>, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response team, staffed with 2 firefighters and 1 officer, (3) total, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF shall be capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone in accordance with department standard operating guidelines.

For 90 percent of all <u>moderate risk hazardous materials response incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 5 firefighters, 1 firefighter paramedic and 3 officers, (9) total, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF shall be capable of: establishing command; appointing a site safety officer; appointing a hazmat group supervisor; establishing a hazmat operations group; establishing an ALS medical group; and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with department standard operating guidelines.

For 90 percent of all <u>high risk hazardous materials response incidents</u>, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response team, staffed with 11 firefighters, 3 firefighter paramedics, and 5 officers, (19) total, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF shall be capable of: establishing command; appointing a site safety officer; appointing a hazmat group supervisor; establishing an ALS medical group; establishing a hazmat operations group; establishing a support operations group; and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with department standard operating guidelines.

For 90 percent of all <u>maximum risk hazardous materials response incidents</u>, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response team, staffed with 21 firefighters, 4 firefighter paramedics and 6 officers, (31) total, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF shall be capable of: establishing command; appointing a site safety officer; appointing a hazmat group supervisor; establishing an ALS medical group; establishing a hazmat operations group; establishing a support operations group; establishing a transportation group; and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with department standard operating guidelines.





#### **Rescue Services Program**

#### **Rescue Distribution Benchmarks**

For 90 percent of all rescue incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, (3) total, shall be: 6 minutes and 20 seconds in metro and urban areas; 7 minutes and 20 seconds in suburban areas; and 7 minutes and 20 seconds in rural areas. The first-due unit shall be capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel in accordance with department standard operating guidelines.

#### **Rescue Concentration Benchmarks**

For 90 percent of all <u>low risk rescue incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 3 firefighters, 1 firefighter paramedic, and 1 officer, (5) total, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF shall be capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; force entry into a vehicle; and providing ALS care to a victim in accordance with department standard operating guidelines.

For 90 percent of all <u>moderate risk rescue incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 6 firefighters, 2 firefighter paramedics and 3 officers, (11) total, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF shall be capable of: establishing incident command; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing ALS medical care and transportation for up to 4 victims in accordance with department standard operating guidelines.

For 90 percent of all <u>high risk rescue incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 10 firefighters, 4 firefighter paramedics and 5 officers, (19) total, shall be: 10 minutes and 20 seconds in metro and urban areas; \_12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF shall be capable of: establishing incident command; establishing a site safety officer; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing ALS medical care and transportation for up to 7 victims involved in a motor vehicle collision (MVC) in accordance with department standard operating guidelines.

For 90 percent of all <u>maximum tier I risk rescue incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 16 firefighters, 6 firefighter paramedics and 8 officers, (30) total, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and 20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF shall be capable of: establishing incident command; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing ALS medical care and transportation for 8 or more victims involved in a MVC in accordance with department standard operating guidelines.

For 90 percent of all <u>maximum tier II risk rescue incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 18 firefighters, 4 firefighter paramedics, and 9 officers, (31) total, shall be: 10 minutes and 20 seconds in metro and urban areas; 12 minutes and





20 seconds in suburban areas; and 12 minutes and 20 seconds in rural areas. The ERF shall be capable of: establishing incident command; establishing a site safety officer; establishing a rescue group supervisor; staffing rescue and support group operations; establishing an ALS medical group; establishing an ALS rehab group; establishing an ALS transportation group; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incident involving a natural or man-made disaster in accordance with department standard operating guidelines.

## **Performance Objectives - Baselines**

All performance objective baseline statements are based on the aggregate data from the previous three years identified in the response performance tables.

## **Fire Suppression Services Program**

## **Distribution Baselines**

For 90 percent of all low risk fires, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, (3) total, is: 8 minutes and 40 seconds in metro and urban areas; 9 minutes and 52 seconds in suburban areas; and 10 minutes and 32 seconds in rural areas. The first-due unit for all risk levels shall be capable of: providing 500 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing a back-up line and advancing an attack line, each flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all moderate risk fires, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, (3) total is: 7 minutes and 47 seconds in metro and urban areas; 9 minutes and 23 seconds in suburban areas; and 7 minutes and 45 seconds in rural areas. The first-due unit for all risk levels shall be capable of: providing 500 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing a back-up line and advancing an attack line, each flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all high risk fires, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer is: 7 minutes and 41 seconds in metro and urban areas; 8 minutes and 45 seconds in suburban areas; and 8 minutes and 15 seconds in rural areas. The first-due unit for all risk levels shall be capable of: providing 500 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing a back-up line and advancing an attack line, each flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all maximum risk fires, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer; (3) total, will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The first-due unit for all risk levels shall be capable of: providing 500 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing





a back-up line and advancing an attack line, each flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

## **Concentration Baselines**

For 90 percent of all <u>low risk fires</u>, the total response time for the arrival of the effective response force (ERF), staffed with 2 firefighters and 1 officer; (3) total is: 8 minutes and 40 seconds in metro and urban areas; 9 minutes and 52 seconds in suburban areas; and 10 minutes and 32 seconds in rural areas. The ERF is capable of: establishing an uninterrupted water supply; hoisting a ground ladder; performing forcible entry; and advancing and attack line. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>moderate risk fires</u>, the total response time for the arrival of the ERF, staffed with 6 firefighters and 3officers; (9) total is: 12 minutes and 29 seconds in metro and urban areas; 15 minutes and 21 seconds in suburban areas; and 18 minutes and 15 seconds in rural areas. The ERF is capable of: establishing command; providing an uninterrupted water supply; advancing an attack line and back up line for fire control; complying with Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; performing search and rescue; controlling utilities; and establishing an advanced life support (ALS) medical group capable of transportation of a patient to the hospital. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>high risk fires</u>, the total response time for the arrival of the effective response force (ERF), staffed with 12 firefighters and 6 officers; (18) total is: 16 minutes and 7 seconds in metro and urban areas; 15 minutes and 58 seconds in suburban areas; and 21 minutes and 16 seconds in rural areas. The ERF is capable of: establishing command; appointing a site safety officer; establishing a rapid intervention crew; providing an uninterrupted water supply; advancing an attack line and a backup line for fire control; complying OSHA requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; establishing an ALS medical group capable of transportation of a patient to the hospital; operating an aerial fire apparatus; and performing salvage and overhaul. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>maximum risk fires</u>, the total response time for the arrival of the ERF, staffed with 22 firefighters and 9 officers; (31) total, will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The ERF is capable of: establishing incident command; appointing an operations division officer; appointing a site safety officer; providing an uninterrupted water supply; advancing an attack line and a backup line for fire control; complying with OSHA two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure, controlling utilities; establishing an ALS medical group capable of transporting multiple patients to the hospital; Establishing an ALS rehabilitation group; establishing a rapid intervention group; controlling utilities; and establishing two elevated streams into service from aerial ladders. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.





## **Emergency Medical Services Program**

## **Distribution Baselines**

For 90 percent of all <u>low risk EMS incidents</u>, the total response time for the arrival of the first-due unit, staffed with 2 firefighters certified as an EMT-B is: 7 minutes and 45 seconds in metro and urban areas; 9 minutes and 22 seconds in suburban areas; and 9 minutes and 0 seconds in rural areas. The first-due unit for all risk levels shall be capable of: initiating command; providing basic life support (BLS) tasks; performing a patient assessment; initiating oxygen therapy; monitoring blood glucose; applying an Automated External Defibrillator (AED); controlling bleeding, and performing cardio-pulmonary resuscitation (CPR). These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>moderate risk EMS incidents</u>, the total response time for the arrival of the firstdue unit, staffed with 2 firefighters certified as an EMT-B is: 7 minutes and 25 seconds in metro and urban areas; 9 minutes and 1 second in suburban areas; and 8 minutes and 47 seconds in rural areas. The first-due unit for all risk levels shall be capable of: initiating command; providing basic life support (BLS) tasks; performing a patient assessment; initiating oxygen therapy; monitoring blood glucose; applying an Automated External Defibrillator (AED); controlling bleeding, and performing cardio-pulmonary resuscitation (CPR). These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>high risk EMS incidents</u>, the total response time for the arrival of the first-due unit, staffed with 2 firefighters certified as an EMT-B will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The first-due unit for all risk levels shall be capable of: initiating command; providing basic life support (BLS) tasks; performing a patient assessment; initiating oxygen therapy; monitoring blood glucose; applying an Automated External Defibrillator (AED); controlling bleeding, and performing cardiopulmonary resuscitation (CPR). These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>maximum risk EMS incidents</u>, the total response time for the arrival of the first-due unit, staffed with 2 firefighters certified as an EMT-B will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The first-due unit for all risk levels shall be capable of: initiating command; providing basic life support (BLS) tasks; performing a patient assessment; initiating oxygen therapy; monitoring blood glucose; applying an Automated External Defibrillator (AED); controlling bleeding, and performing cardio-pulmonary resuscitation (CPR). These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

## **Concentration Baselines**

For 90 percent of all <u>low risk EMS</u>, the total response time for the arrival of the effective response force (ERF), staffed with 3 firefighters, 1 firefighter paramedic, and 1 officer; (5) total is: 10 minutes and 19 seconds in metro and urban areas; 11 minutes and 48 seconds in suburban areas; and 11 minutes and 31 seconds in rural areas. The ERF is capable of: establishing incident command; performing a patient assessment; performing advanced airway maneuvers; applying advanced airway adjuncts; operating a mechanical ventilator; performing and interpreting 4, 12 and 15 lead electro-cardiograms; performing synchronized cardio-version; performing defibrillation; monitoring carbon dioxide waveforms; administering nasal, oral, mucosal, venous, sub-lingual, sub-





cutaneous, intra-muscular, and intraosseous medication; performing drug dose calculations; operating a mechanical medication infusion pump; monitoring body temperature; monitoring blood glucose; applying traction, rigid and semi-rigid splints; assessing blood pressure and pulse rate; establishing venous or intraosseous access; contacting all regional hospital emergency departments by radio; and transporting a patient on a secured wheeled cot with lights and sirens to a hospital. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>moderate risk EMS</u>, the total response time for the arrival of the ERF, staffed with 3 firefighters, 1 firefighter paramedic, and 2 officers, (6) total is: 13 minutes and 52 seconds in metro and urban areas; 19 minutes and 2 seconds in suburban areas; and 18 minutes and 32 seconds in rural areas. The ERF is capable of: establishing incident command; performing a patient assessment; performing advanced airway maneuvers; applying advanced airway adjuncts; operating a mechanical ventilator; performing and interpreting 4, 12 and 15 lead electro-cardiograms; performing synchronized cardio-version; performing defibrillation; monitoring carbon dioxide waveforms; administering nasal, oral, mucosal, venous, sub-lingual, sub-cutaneous, intra-muscular, and intraosseous medication; performing drug dose calculations; operating a mechanical medication pump; monitoring body temperature; monitoring blood glucose; applying traction, rigid and semi-rigid splints; assessing blood pressure and pulse rate; establishing venous or intraosseous access; contacting all regional hospital emergency departments by radio; applying the Lucas compression device; and transporting a patient on a secured wheeled cot with lights and sirens to a hospital. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all high risk EMS, the total response time for the arrival of the ERF, staffed with 10 firefighters, 4 firefighter paramedics and 5 officers; (19) total will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The ERF is capable of: establishing incident command; establishing a safety officer; establishing a triage officer; establishing a transport officer; establishing a treatment officer; performing a patient assessments; performing advanced airway maneuvers; applying advanced airway adjuncts; operating mechanical ventilators; performing and interpreting 4, 12 and 15 lead electrocardiograms; performing synchronized cardio-version; performing defibrillation; monitoring carbon dioxide waveforms; administering nasal, oral, mucosal, venous, sub-lingual, sub-cutaneous, intra-muscular, and intraosseous medications; performing drug dose calculations; operating mechanical medication infusion pumps; monitoring body temperature; monitoring blood glucose; applying traction, rigid and semi-rigid splints; assessing blood pressure and pulse rates; establishing venous or intraosseous access; contacting all regional hospital emergency departments by radio; applying the Lucas compression device; and begin treatment and transport for a minimum of 5 to 7 patients with lights and sirens to a hospital. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all <u>maximum risk EMS</u>, the total response time for the arrival of the ERF, staffed with 19 firefighters, 6 firefighter paramedics and 5 officers; (30) total, will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The ERF is capable of: establishing incident command; establishing a safety officer; establishing a triage officer; establishing a transport officer; establishing a treatment officer; performing a patient assessments; performing advanced airway maneuvers; applying advanced airway adjuncts; operating mechanical ventilators; performing and interpreting 4, 12 and 15 lead





electro-cardiograms; performing synchronized cardio-version; performing defibrillation; monitoring carbon dioxide waveforms; administering nasal, oral, mucosal, venous, sub-lingual, subcutaneous, intra-muscular, and intraosseous medications; performing drug dose calculations; operating mechanical medication infusion pumps; monitoring body temperature; monitoring blood glucose; applying traction, rigid and semi-rigid splints; assessing blood pressure and pulse rates; establishing venous or intraosseous access; contacting all regional hospital emergency departments by radio; applying the Lucas compression device; and begin treatment and transport for a minimum of 8 or more patients with lights and sirens to a hospital. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

## **Hazardous Materials Services Program**

## HazMat Distribution Baselines

For 90 percent of all <u>low risk hazardous materials</u> response incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer; (3) total is: 9 minutes and 49 seconds in metro and urban areas; 11 minutes and 7 seconds in suburban areas; and 10 minutes and 41 seconds in rural areas. The first-due unit is capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

For 90 percent of all <u>moderate risk hazardous materials</u> response incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer; (3) total is: 5 minutes and 55 seconds in metro and urban areas; 6 minutes and 12 seconds in suburban areas; and 11 minutes and 55 seconds in rural areas. The first-due unit is capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

For 90 percent of all <u>high risk hazardous materials</u> response incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer; (3) total, will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The first-due unit is capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

For 90 percent of all <u>maximum risk hazardous materials</u> response incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer; (3) total, will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The first-due unit is capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

## HazMat Concentration Baselines

For 90 percent of all <u>low risk hazardous materials response incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 2 firefighters and 1 officer, (3) total, is: 9 minutes and 49 seconds in metro and urban areas; 11 minutes and 7 seconds in suburban areas; and 10 minutes and 41 seconds in rural areas. The ERF is capable of: establishing command; sizing





up and assessing the situation to determine the presence of a potential hazardous material; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone in accordance with department standard operating guidelines.

For 90 percent of all <u>moderate risk hazardous materials response incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 5 firefighters, 1 firefighter paramedic, and 3 officers, (9) total is not established in metro and urban areas as there have not been any historical deployments associated with the risk level; 15 minutes and 31 seconds in suburban areas; and 10 minutes and 49 seconds in rural areas. The ERF is capable of: establishing command; appointing a site safety officer; appointing a hazmat group supervisor; establishing a hazmat operations group; establishing an ALS medical group; and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with department standard operating guidelines.

For 90 percent of all <u>high risk hazardous materials response incidents</u>, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response unit, staffed with 11 firefighters, 3 firefighter paramedics, and 5 officers, (19) total will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The ERF is capable of: establishing command; appointing a site safety officer; appointing a hazmat group supervisor; establishing an ALS medical group; establishing a hazmat operations group; establishing a support operations group; and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with department standard operating guidelines.

For 90 percent of all <u>maximum risk hazardous materials response incidents</u>, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response unit, staffed with 18 firefighters, 4 firefighter paramedics, and 9 officers; (31) total , will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The ERF is capable of: establishing command; appointing a site safety officer; appointing a hazmat group supervisor; establishing an ALS medical group; establishing a hazmat operations group; establishing a support operations group; establishing a transportation group; and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with department standard operating guidelines.

## **Rescue Services Program**

## **Rescue Distribution Baselines**

For 90 percent of <u>low risk technical rescue incidents</u>, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, (3) total, is: 7 minutes and 36 seconds in metro and urban areas; 9 minutes and 16 seconds in suburban areas; and 10 minutes and 14 seconds in rural areas. The first-due unit is capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel in accordance with department standard operating guidelines.

For 90 percent of <u>moderate risk technical rescue incidents</u>, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, (3) total, is: 7 minutes and 43 seconds in metro and urban areas; 8 minutes and 31 seconds in suburban areas; and 10 minutes and 37 seconds in rural areas. The first-due unit is capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing





basic life support to any victim without endangering response personnel in accordance with department standard operating guidelines.

For 90 percent of <u>high risk technical rescue incidents</u>, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, (3) total, is: 6 minutes and 17 seconds in metro and urban areas; 11 minutes and 13 seconds in suburban areas; and 20 minutes and 1 second in rural areas. The first-due unit is capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel in accordance with department standard operating guidelines.

For 90 percent of <u>maximum tier I risk technical rescue incidents</u>, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, (3) total, will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The first-due unit is capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel in accordance with department standard operating guidelines.

For 90 percent of <u>maximum tier II risk technical rescue incidents</u>, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, (3) total, will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The first-due unit is capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel in accordance with department standard operating guidelines.

## **Rescue Concentration Baselines**

For 90 percent of all <u>low risk rescue incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 3 firefighters, 1 firefighter paramedic and 1 officers, (5) total, is: 10 minutes and 10 seconds in metro and urban areas; 12 minutes and 7 seconds in suburban areas; and 13 minutes and 2 seconds in rural areas. The ERF shall be capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; force entry into a vehicle; and providing ALS care to a victim in accordance with department standard operating guidelines.

For 90 percent of all <u>moderate risk rescue incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 6 firefighters, 2 firefighter paramedics, and 3 officers, (11) total, is: 11 minutes and 5 seconds in metro and urban areas; 12 minutes and 29 seconds in suburban areas; and 16 minutes and 48 seconds in rural areas. The ERF is capable of: establishing incident command; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing ALS medical care and transportation for up to 4 victims in accordance with department standard operating guidelines.

For 90 percent of all <u>high risk rescue incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 10 firefighters, 4 firefighter paramedics, and 5 officers, (19) total, is: unknown in metro and urban areas with no historical deployment data; 11 minutes and 34 seconds in suburban areas; and unknown in rural areas with no historical deployment data. The ERF is capable of: establishing incident command; establishing a site safety officer; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and





abilities during technical rescue incidents; and providing ALS medical care and transportation for up to 7 victims involved in a motor vehicle collision (MVC) in accordance with department standard operating guidelines.

For 90 percent of all <u>maximum tier I risk rescue incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 16 firefighters, 6 firefighter paramedics, and 8 officers including the technical unit, (30) total, will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The ERF is capable of: establishing incident command; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing ALS medical care and transportation for 8 or more victims involved in a MVC in accordance with department standard operating guidelines.

For 90 percent of all <u>maximum tier II risk rescue incidents</u>, the total response time for the arrival of the effective response force (ERF), staffed with 18 firefighters, 4 firefighter paramedics, and 9 officers including the technical response unit, (31) total, will be updated to identify a baseline when a deployment occurs. There is no historic data at this level of risk to identify a baseline. The ERF is capable of: establishing incident command; establishing a site safety officer; establishing a rescue group supervisor; staffing rescue and support group operations; establishing an ALS medical group; establishing an ALS rehab group; establishing an ALS transportation group; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incident involving a natural or man-made disaster in accordance with department standard operating guidelines.





## G. Compliance Methodology

The department will be following the Commission on Fire Accreditation International (CFAI) model for performance compliance as identified in CFAI Standards of Cover 5<sup>th</sup> Edition. An organizational policy will document this policy.

#### Lee's Summit Fire Department

#### Performance Compliance Methodology Model



## Phase 1.

Establish or Review Performance Measures:

• Identify what performance measure will be monitored and how often they will be reviewed internally vs. externally.

## Phase 2.

Evaluate Performance:

• Evaluate performance as part of an ongoing quality assurance program to ensure organizational compliance against the performance measures.

## Phase 3.

**Develop Compliance Strategies:** 

- Immediate action items to close the gaps in particular catchment areas.
- Resources that can be/should reallocated.
- Alternative methods to provide service at the desired level.
- Budget estimates as necessary while considering the cost benefit.
- Maximization of existing resources.
- Develop a plan of action.

## Phase 4.

Communicate Expectations to the Organization:

- Provide appropriate levels of training/direction for all affected personnel.
- Explain the method of measuring compliance to personnel who are expected to perform the services.
- Provide feedback mechanisms.
- Communicate consequences for noncompliance.
- Empower personnel within the organization to <u>identify the need</u> to modify processes as necessary to comply should there be a conflict with new methods.

## Phase 5.

## Validate Compliance:

Develop and deploy verification tools and or techniques which can be used by the organization on an ongoing basis to verify compliance of the measures.

• Review of the performance by company vs. overall performance.

## Phase 6.

Make Adjustments and Repeat the Process:

- It is necessary to review changes to ensure service levels have been maintained or improved.
- Adjustments will be made as the need arises on a continuous basis.



## Compliance Team / Responsibility

## Monthly Compliance

To ensure the agency is meeting or exceeding current service level objectives, monthly monitoring of service level baselines must be conducted on a regular basis. The Compliance Team, made up of the Accreditation Manager, Communications Supervisor, and other assistants will review service level baselines on a monthly basis. Included in the review shall be a summary of the results of the service level objectives consisting of:

- Call processing times all emergency incidents
- Department wide turn-out times
- Operational demand by program for the department
- Operational demand to incidents by unit

An analysis will be performed of current results with previous results and calculations of the difference between time periods.

To aid in the collection and presentation of this information, the Compliance Team will work as a group to assemble all required information and assist department administration in the interpretation of data and considerations for improvement towards achieving targets (benchmarks). The final report will be presented to the Chief of the Department by the fifth business day of every month. This report will be reviewed monthly at the fire department staff meeting, and shared with the labor group in monthly labor/ management meetings.

A report is developed monthly and presented to the Public Safety Advisory Board (PSAB), which is an appointed board by City Council made up of Lee's Summit residents. A city council member attends all meetings as a liaison to the city council. The report contains demand by program for the month and a trend from the previous year. It also includes demand by unit and station month to date and year to date.

## **Quarterly Compliance**

To ensure the agency is meeting current service level objectives, quarterly monitoring of service level baselines must be conducted on a regular basis. The Compliance Team, made up of the Accreditation Manager, Fire Department Management Analyst, Communications Supervisor, and other assistants will review service level baselines on a quarterly basis. Included in the review shall be a summary of the results of the service level objectives consisting of:

- Response performance report for all programs and risk levels (full performance tables)
  - Processing, turn-out, distribution, and concentration by population density
- Turn-out times by shift and company
- Operational program demand by department
- Operational program demand by district

An analysis will be performed of current results with previous results, and calculations of the difference in results between time periods.

To aid in the collection and presentation of this information, the Compliance Team will work as a group to assemble all required information and assist department administration in the interpretation of data and considerations for improvement towards achieving targets (benchmarks). The final report will be presented to the Chief of the Department by the fifth business day of the corresponding quarterly month.

This report will be reviewed quarterly (April, July, October, and January) at the fire department staff meeting, and shared with the labor group at the monthly labor/ management meetings.





## Annual Compliance

To ensure the agency is meeting current service level objectives, monitoring of service level baselines must be conducted on a regular basis. The Compliance Team, made up of the Accreditation Manager, Fire Department Management Analyst, Communications Supervisor, and other assistants will review service level baselines on an annual basis. Included in the review shall be a summary of the results of the service level objectives consisting of:

- Response performance report for all programs and risk levels (full performance tables)
  - $\circ$   $\,$  Call processing, turnout, distribution, and concentration
- Turn-out times by company
- Operational program demand by department
- Operational program demand by district
- Operational program demand by emergency service zone (ESZ)
- Operational demand by unit

An analysis will be performed of the results with previous year's results, and calculations of the difference in results between years.

To aid in the collection and presentation of this information, the Compliance Team will work as a group to assemble all required information and assist department administration in the interpretation of data and considerations for improvement towards achieving targets (benchmarks). The final report will be presented to the Chief of the Department no later than the 10th business day in January. This report will be reviewed annually in January at the fire department staff meeting, and shared with the labor group at the monthly labor/ management meetings.

Outputs from the annual analysis is designed to coincide with the annual department development process as funding requests for the next fiscal year can be formulated as necessary, if funding resources permit.

## **Annual External Performance Report**

An annual performance report will be created for external stakeholders and made viewable on the department's website. This report will include:

- Annual response times
- Demand by program
- Trends identified

An annual compliance report will be generated and submitted to the Commission on Fire Accreditation International (CFAI) for review.

## **Standards of Cover Compliance**

The Standards of Cover (SOC) document will be completely rewritten every five years to match accreditation cycles. Prior to the fourth year in each accreditation cycle, a formal SOC team will be established for the development and writing of the next SOC. The next edition of the LSFD's SOC will be published in the year 2020.

The next SOC team will be established in the fall of 2018.

## Constant Improvement Strategy

The department is committed to continuous improvement. The purpose of the performance monitoring is to ensure the department is able to meet the dynamic needs of the community and ensure the organization continues to improve to engage these challenges.





## H. Overall Evaluation and Conclusions

## **Evaluation Methodology and Determinations**

This document would not be complete without an evaluation and analysis of the information obtained throughout the process. The purpose of this section is to provide a very brief summary of the document findings, provide some initial conclusions and make some initial recommendations. The term "initial" is used as this document is meant to be a living one, and will be referred to, updated and re-evaluated continuously over the coming years. This document provides the Lee's Summit Fire Department (LSFD) with documented current service levels and will act as a basis for future planning; assisting the department on its path toward continuous improvement.

## **Evaluation Methodology**

The development of this Standards of Cover (SOC) document was achieved using several disciplines for information. Personnel with specific knowledge in the specific categories either were significant contributors or authors to those portions. These individuals were members of: the LSFD SOC Committee, LSFD Administration Division, LSFD Prevention Division, LSFD Operations Division, LSFD Training Division, LSFD ESZ Task Force, and the LSFD Communications Center. Several outside sources had significant input as well, including members of the city of Lee's Summit Information Technology Services Department, Lee's Summit Water Utilities, and the City of Lee's Summit Planning Division.

Multiple sources were referenced to obtain data found throughout this document. The majority of the data came from the following sources: LSFD's FDM software database, Lee's Summit Water Utilities, Jackson County Assessor's Office, and the 2010 United States Census

Information and data obtained was reviewed by members of the SOC Committee and LSFD administrative personnel to determine relevancy and usefulness. Once determinations were made, information was entered into the document.

## **Evaluation Determinations**

New evaluation tools were utilized in this document which had never been considered by the LSFD prior to the development of this document while working towards the Commission on Fire Accreditation International (CFAI) accreditation model. The concepts of: response time at the 90<sup>th</sup> fractal performance broken down to call processing, turn out, response first unit (distribution), response of the effective response force (concentration), and the total response time. These service level objectives were measured against consensus standards such as the National Fire Protection Association (NFPA) and the CFAI standards.

By measuring response data at the total response time, it has allowed the department to see a clear picture of reliably how long it takes for resources to arrive when a citizen or business requests LSFD services. Ultimately, when a citizen needs assistance, their focus is how long it takes from the time the place the 911 call until the necessary units arrive on scene to provide the needed assistance. The data identified in this document shows areas of needed improvement.

Data was compiled not only by station response district and emergency service zone, but also by population density and service program provided. With this data, the department thoroughly assessed performance by quantitative data in all areas of responsibility.





## **Reliability - Planning Areas**

Several responsibilities impact the reliability/availability of fire department resources, including: operational incidents, training/administrative duties, prevention/education activities, and maintenance items.

Operational incidents impact the reliability for a resource to respond due to already being on an incident. Another factor of operational responsibilities is the type of incident, and role of a resource at different types of incidents. For example, a structure fire incident has a much longer commit time of multiple units than a citizen assist with a smoke detector and a single resource. Another example: an emergency medical call has a fire apparatus and a paramedic ambulance response. The roles of the two resources are specific and effect the commit time of the resource. An ambulance commit time is usually more due to transporting the patient to a hospital. In some cases several miles outside the city limits. Due to the commit time on most incidents, pumpers and trucks are more reliable than paramedic ambulances.

Training and administrative duties impact the location of resources throughout the city. Practical training evolutions are held at LSFD station #7 located in the southwestern portion of the city. These practical evolutions are scheduled by the training and operations divisions allowing firefighters to train using firefighting skills, rescue techniques, and hazmat operational skills. Evolutions range in scope from involving a single fire unit to multiple units to simulate real world situations. During these evolutions other available units are repositioned in attempt to cover for units involved in training evolutions. Administrative activities involve committee meetings and other staff activities at LSFD Headquarters, stations #6 and #7. These three stations are utilized for committee meetings for accreditation work, strategic planning, and guidance document development due to the presence of a conference room.

Prevention and education activities displace resources usually during the day. Operational resources perform fire inspections for most businesses throughout the area of authority having jurisdiction (AHJ). Resources are physically moved from their deployment locations (fire station) to perform fire inspections. The resource is available but the activity effects the turn out and travel time to an incident. Fire education activities can occur anywhere. These events range from a fire station tour, to an educational session at a day care, or a curious child in a parking lot.

Apparatus maintenance impacts all fire department resources. When planned, the impact to reliability is minimal but when unplanned it can have an impact on turn-out and travel time to an incident. One current process which impacts the reliability of a resource is the single fueling location for all fire resources. This location is located at Fire Headquarters (station #1). When a resource needs fuel, they must leave their primary response area and refuel. Generally this occurs when a resource is down to <sup>3</sup>/<sub>4</sub> of a tank of fuel.

Of the front line fire apparatus reliability, the least reliable is Pumper 3 at 91.37% from 2012-2014. The least reliable rescue is Rescue 1 at 80.40%. The least reliable ladder truck is Truck 2 at 93.43%.

## **Performance Determinations**

Evaluating performance by service level against a benchmark has allowed for the identification of response performance gaps specific to response time objectives relative to population densities. Each component of the total response time is measured against consensus benchmark standards.

## Call Handling/Processing Analysis

Baseline performance data ranges from 01:05 in low risk EMS to 02:07 in high risk fire against a 01:00 benchmark. Processing procedures should be re-evaluated to ensure they are as efficient as possible.





#### **Turn-out Analysis**

Unit turn out times at all risk levels in all programs shows measurable deviation. Baseline data for low risk EMS was 02:35 against a benchmark of 01:00 and high risk fire 02:45 against the benchmark 01:20.

#### **Travel Time Distribution Analysis**

Baseline performance in the low risk EMS program located in metro/urban density zones was 05:06 against a benchmark of 04:00. This data set was the highest of all programs and risk levels at 11,411 incidents from 2012 through August 2, 2015. Rural baseline was 06:17 against a 05:00 benchmark but the most deviating zones were the suburban zones at 06:43 against a 05:00 benchmark.

Baseline performance in the high risk fire program located in metro/urban density zones was 04:23, close in proximity to the benchmark at 04:00. Rural baseline was 05:17 against a 05:00 benchmark and suburban was the furthest deviating at 05:24 against a 05:00 benchmark.

#### **Travel Time Concentration Analysis**

Baseline performance in the low risk EMS program located in metro/urban density zones was 7:27 against the 08:00 benchmark. Rural baselines were 8:51 against a 10:00 benchmark and suburban was 9:21 against the 10:00 benchmark.

Baseline performance in the high risk fire program located in metro/urban density zones was 11:45 against the 08:00 benchmark, the farthest deviating for the risk level. Rural baselines were 14:04 against a 10:00 benchmark and suburban was 12:19 against the 10:00 benchmark.

## **Total Response Time Distribution Analysis**

Baseline performance data in the low risk EMS program located in the metro/urban density zones was 07:45 against the 06:00 benchmark. Rural baselines were 09:00 against the 07:00 benchmark and suburban was 09:22 against the 07:00 benchmark.

Baseline performance data in the high risk fire program located in the metro/urban density zones was 07:41 against the 06:20 benchmark. Rural baselines were 08:15 against 07:20 benchmark and suburban was 08:45 against 07:20 benchmark.

## **Total Response Time Concentration Analysis**

Baseline performance in the low risk EMS program located in the metro/urban density zones was 10:19 against the benchmark of 10:00. Rural baselines were 11:31 beating the 12:00 benchmark and suburban was 11:48 against the 12:00 benchmark.

Baseline performance in the high risk fire program located in metro/urban density zones was 16:07 against a benchmark of 10:20. Rural baselines were 21:16 against a benchmark of 12:20 and suburban was 15:58 against a benchmark of 12:20.

## Conclusions

Moderate to significant deviation in processing and turn out have had a significant impact on the total response time baselines. When adding the moderately deviating travel time response, particularly in high risk fire concentration; the baseline is deviating greatly.





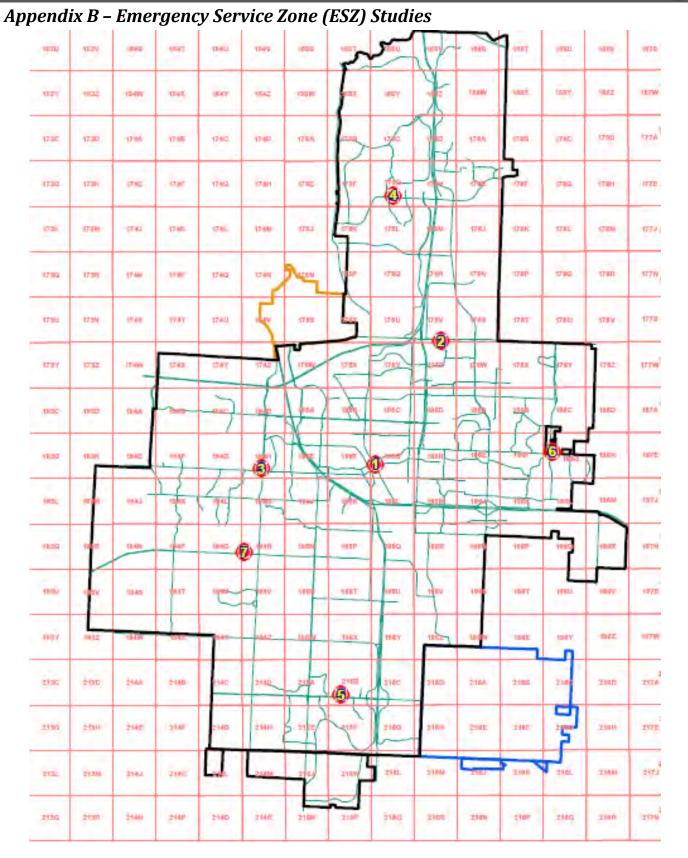
## Appendices

## Appendix A – NIST EMS Field Experiments Study

In the National Institute for Standards and Technology EMS Field Experiments Study (2001), it is stated:

While resource deployment is addressed in the context of three basic scenarios, it is recognized that public policy decisions regarding the cost-benefit of specific deployment decisions are a function of many factors including geography, resource availability, community expectations as well as population demographics that drive EMS call volume. While this report contributes significant knowledge to community and fire service leaders in regard to effective resource deployment for local EMS systems, other factors contributing to policy decisions are not addressed. The results however do establish a technical basis for the effectiveness of first responder crews and ALS configuration with at least one ALS level provider on first responder crews. The results also provide valid measures of total crew size efficiency in completing on-scene tasks some of which involve heavy lifting and tasks that require multiple responders to complete.

These experimental findings suggest that ALS provider placement and crew size can have an impact on some task start times in trauma and cardiac scenarios, especially in the latter tasks leading to patient packaging. To the extent that creating time efficiency is important for patient outcomes, including an ALS trained provider on an engine and using engine crew sizes of four are worth considering. The same holds for responder safety – for access and removal and other tasks in the response sequence, the availability of additional hands can serve to reduce the risks of lifting injuries or injuries that result from fatigue (e.g., avoid having small crews repeatedly having to ascend and descend stairs). Cost considerations for EMS response and crew configurations were not considered in this study. (46)



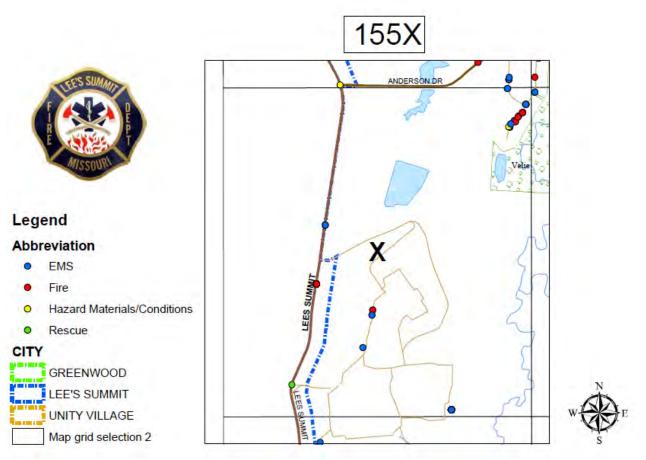








155 X



#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
155X	\$4,366,360	\$1,106,119	\$3,231,408	\$28,836

#### **ESZ Characteristics:**

This ESZ is comprised primarily of residential with a section of subterranean space. This subterranean space includes some retail business, manufacturing and large document storage. Lee's Summit Road runs north/south along the western edge with Anderson Road running east/west along the northern edge. Most of the construction has occurred since the 1960's and is traditional wood frame housing. The population density is listed as rural at 161 people in this <sup>3</sup>/<sub>4</sub> of a mile square.





155 X

## Jurisdictional Boundaries:

North: Anderson Drive South: Space Center Circle (Subterranean) East: Moonlight Meadow Drive West: Lee's Summit Road

## **Highest Fire Risk Location:**

The greatest fire risk in this area would include entire Subterranean complex however more specifically the manufacturing business at 220 NW Space Center Circle. This business manufactures and distributes corrugated packing supplies which are mostly paper cardboard. During operating hours, this large subterranean space has a significant population, increasing the hazard to life.

## **Highest EMS Risk Location:**

The greatest EMS risk location would be the Subterranean Complex at 5351 NW Lee's Summit Road. This complex holds multiple businesses types including document storage, manufacturing and retail. This area holds a large amount of machinery and has a large amount of over the road trucks moving in and out of it. There is also a large work force in this space each day.

## Highest Hazmat Risk Location:

There is no significant history of hazmat risk associated with this ESZ however the greatest risk is CO in the residential areas.

## **Highest Rescue Risk Location:**

There is no significant history of Rescue risk associated with this ESZ however the greatest risk area would be Lee's Summit Road due to its layout including many blind curves and high traffic thru the area.

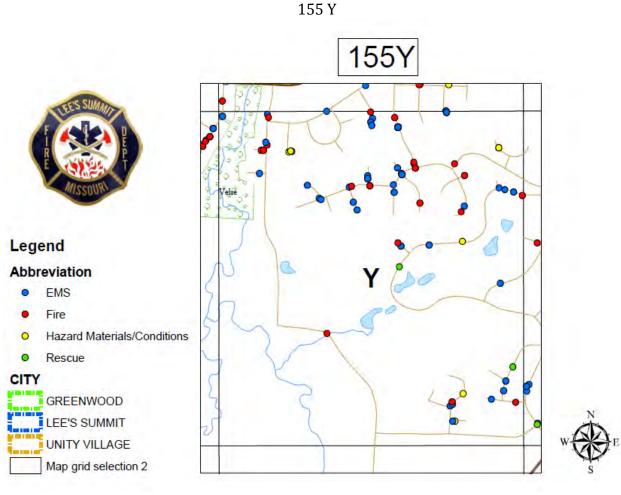
## **Demand History**

Number of incidents	2012	2013	2014
EMS	9	11	19
Fire	5	7	14
HazMat	0	2	1
Rescue	2	0	1
Total	16	20	35

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
155Y	\$21,217,859	\$20,865,010	\$331,455	\$21,420

## **ESZ Characteristics:**

This ESZ is comprised primarily of suburban residential homes. These homes are primarily single family dwellings built since the 1960's in a traditional wood frame fashion. Maybrook Road runs north/south near the western edge with Northgate Xing making a horse shoe configuration running mainly east/west from the eastern edge and back. This area is zoned as suburban with the population listed at 947people in this <sup>3</sup>/<sub>4</sub> of a mile square.





155Y

## Jurisdictional Boundaries:

North: Velie Road South: St Andrews Circle East: Wedgewood Lane West: Maybrook Road

## **Highest Fire Risk Location:**

The greatest fire risk is an approximate 100 acre plot of rural ground near Maybrook and Bowlin Road. This area, if on fire, would be difficult to manage given its limited access and would require significant personnel. A large wild land fire in this area also poses a considerable threat to numerous homes on the area. Areas along Maybrook Road have structures further close to 1,500 feet from a hydrant. This area has a CAD rural water alert notification.

## **Highest EMS Risk Location:**

The highest EMS risk location historically has been the homes on Hidden Ridge Lane however there is no specific cause.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this ESZ is CO in the residential areas.

## **Highest Rescue Risk Location:**

The greatest rescue risk is the City of Lee's Summit-Water pump station at Maybrook and St Andrews.

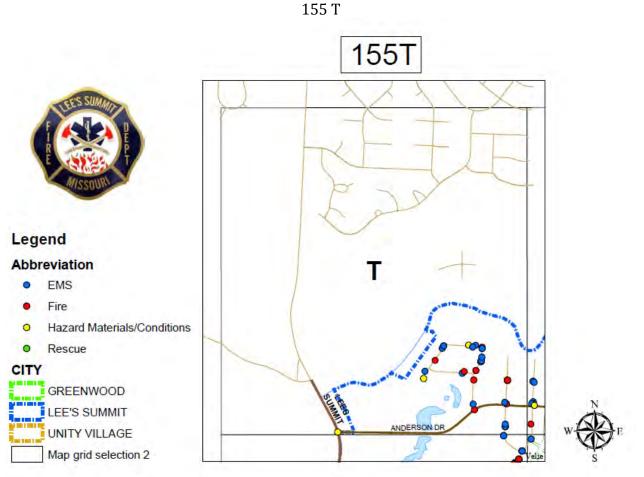
## **Demand History**

Number of incidents	2012	2013	2014
EMS	16	26	27
Fire	8	10	6
HazMat	5	2	1
Rescue	2	1	0
Total	31	39	34

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	<b>Total Assessed</b>	Assessed	Assessed	Assessed
E32 #	Value	<b>Residential Value</b>	<b>Commercial Value</b>	Agricultural Value
155T	\$4,379,028	\$4,321,742	\$56,732	\$554

## **ESZ Characteristics:**

This ESZ is comprised primarily of multi-family residential wood frame structures. The LSFD is primarily responsible for only a small portion of this ESZ. Anderson Drive is the primary route thru this ESZ running east/west along the Southern border. This ESZ does include a portion of the Little Blue Trace River. The population density of this zone is listed as rural with 627 people in this <sup>3</sup>/<sub>4</sub> mile square.





155 T

## **Jurisdictional Boundaries:**

North: Northern City Limits/Little Blue Trace River South: Anderson Drive East: Sunrise Meadow Lane/Circle West: Lee's Summit Road

## **Highest Fire Risk Location:**

The greatest fire risk historically has been the multifamily homes located on Plantation Drive.

## **Highest EMS Risk Location:**

The highest EMS risk historically has been the multifamily homes on Plantation Drive.

#### Highest Hazmat Risk Location:

The highest hazmat risk historically has been the multifamily homes on Plantation Drive due to CO.

#### **Highest Rescue Risk Location:**

The highest risk location for rescue is the Little Blue Trace River. During heavy rains the river has the potential to flood and become powerful.

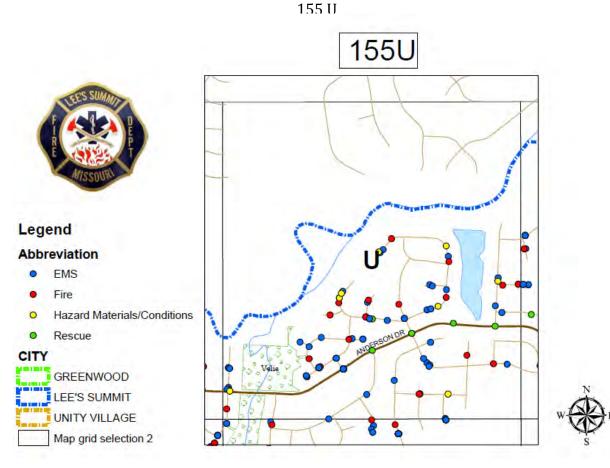
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	2	13	8
Fire	5	1	6
HazMat	1	0	2
Rescue	0	0	0
Total	8	14	16

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$4,000	\$0	\$0
Assessed value	\$90,000	\$0	\$0







## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
155U	\$21,194,865	\$18,099,483	\$3,095,384	\$0

## **ESZ Characteristics:**

This ESZ is primarily comprised of suburban residential homes and includes an elementary school. These homes are primarily single family dwellings built since the 1980's and are traditional wood framed construction. The elementary school is one of two Blue Springs elementary schools in the Lee's Summit city limits. Anderson Road runs east/west along the southern border with the Little Blue Trace River creating the northern border. This area is zoned as suburban with its population listed at 1,086 people in this <sup>3</sup>/<sub>4</sub> mile zone.





155 U

## Jurisdictional Boundaries:

North: Little Blue Trace River South: Anderson Road East: Turquoise Drive West: Moonlight Meadow Court

## **Highest Fire Risk Location:**

The highest fire risk is Voy Spears Elementary School located on Anderson Road due to its high capacity during school hours.

## **Highest EMS Risk Location:**

The highest EMS risk historically has been the multifamily homes on Hidden Valley Lane.

#### Highest Hazmat Risk Location:

The highest hazmat risk is Voy Spears Elementary School located on Anderson Road due to its high life hazard capacity during school hours.

#### **Highest Rescue Risk Location:**

The highest risk location for rescue is the Little Blue Trace River. During heavy rains the river has the potential to flood and become powerful.

#### **Demand History**

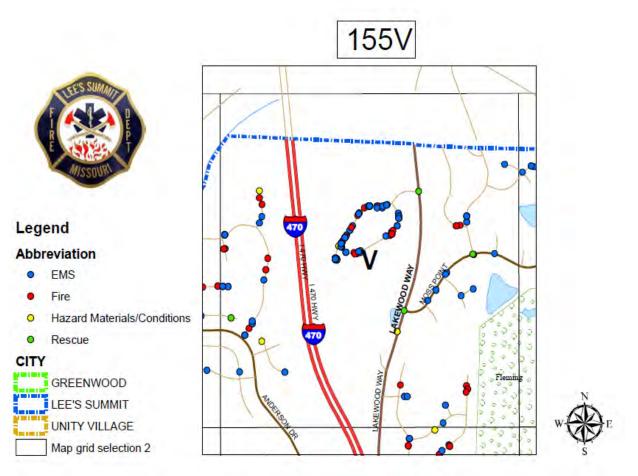
Number of incidents	2012	2013	2014
EMS	14	20	23
Fire	11	12	8
HazMat	0	2	6
Rescue	1	3	2
Total	26	37	39

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





155 V



## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
155V	\$19,991,007	\$16,305,428	\$3,682,640	\$2,942

## **ESZ Characteristics:**

This ESZ is primarily comprised of suburban residential homes and has 470 Highway that runs North/South in the center of the area. This highway is a four lane 70 MPH roadway that has significant usage daily. It connects the entire southeast portion of the Kansas City Metro area linking Lee's Summit to multiple major highways. The homes in this area are wood framed, ranging from 1,000 to 5,000 square feet. This area is zoned as suburban with the population listed at 1,070 people in this <sup>3</sup>/<sub>4</sub> mile area.





155 V

## Jurisdictional Boundaries:

North: Northern City Limits South: Anderson Road East: Lakewood Way West: 470 Highway

## **Highest Fire Risk Location**:

The greatest fire risk is the Crown Point Church located on Lakewood Way due to the high capacity during service.

## **Highest EMS Risk Location:**

The greatest EMS risk historically has been the Kensington and Devon Drive area. This area is a maintenance free area and attracts an older population.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this ESZ is CO in the residential areas.

## **Highest Rescue Risk Location:**

The greatest risk for need of rescue is 470 Highway due to the significant volume of traffic and the average speed of the roadway.

## **Demand History**

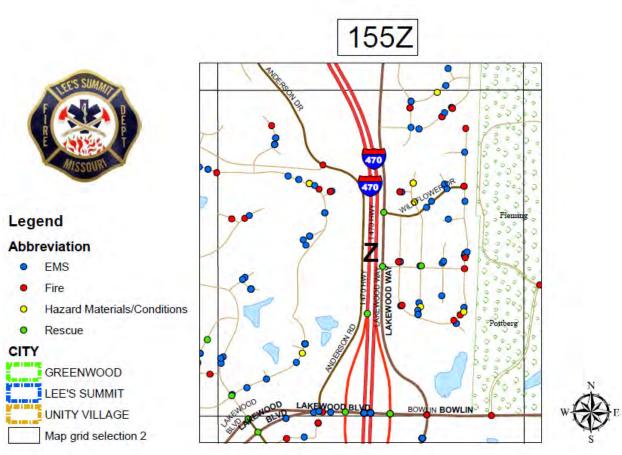
Number of incidents	2012	2013	2014
EMS	54	58	78
Fire	22	14	21
HazMat	2	1	2
Rescue	1	0	3
Total	79	73	104

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





155 Z



#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value	
155Z	\$18,431,122	\$18,361,614	\$68,960	\$531	

## **ESZ Characteristics:**

This ESZ is primarily comprised of suburban residential with some retail. The area is split by 470 Highway that runs north/south. This highway is a four lane 65 MPH roadway that has significant usage daily. It connects the entire Southeast portion of the Kansas City Metro area linking Lee's Summit to multiple major highways. The homes in this area are wood framed, ranging from 1,000 to 5,000 square feet. This area is zoned as suburban with the population listed at 1,036 people in this <sup>3</sup>/<sub>4</sub> mile area.





155 Z

## Jurisdictional Boundaries:

North: Timber Hills Drive South: Lakewood Boulevard East: Lakeridge Road West: Northgate Xing

## **Highest Fire Risk Location:**

The greatest fire risk historically has been the housing addition surrounding Wildflower Drive.

## **Highest EMS Risk Location:**

The greatest EMS risk historically has been the housing addition surrounding Wildflower Drive.

## Highest Hazmat Risk Location:

The greatest hazmat risk is located on 470 Highway due to the large volume of traffic and transportation usage.

## **Highest Rescue Risk Location:**

The greatest rescue risk is located on 470 Highway due to the large volume of traffic and transportation usage.

## **Demand History**

Number of incidents	2012	2013	2014
EMS	41	25	21
Fire	16	18	16
HazMat	1	7	3
Rescue	24	18	20
Total	82	68	60

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$29,700	\$0	\$0
Assessed value	\$29,700	\$0	\$0







## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
156S	\$2,901,911	\$1,978,253	\$921,131	\$2,520

## **ESZ Characteristics:**

This ESZ is primarily comprised of rural county park space with some suburban residential and one family entertainment business. This area also includes the northern most portion of Blue Springs Lake, the Blue Springs Lake Dam and its Northern most boat ramp. The homes in this area are 3,000-5,000 square feet single family dwellings and are traditional wood frame structures. The single current business is a family golf park with a driving range, putting course and bumper boats. The golf park is located of 40 Highway and has an extended response time due to the need to access from another municipality. This area is zoned as rural with a population of 64 people in this <sup>3</sup>/<sub>4</sub> mile square.





156 S

## Jurisdictional Boundaries:

North: 40 Highway South: Lakeridge Road East: NA West: Moss Point Road

## **Highest Fire Risk Location:**

The greatest fire risk for this area is the Family Golf Park located at 1501 NE US Highway 40. This is the greatest fire risk due to the volume of guest at the business each day. Areas along Lake Ridge Road have areas further than 1,500 feet from a hydrant. This area has a CAD rural water alert notification.

## Highest EMS Risk Location:

The greatest EMS risk has historically been the residential area located on NE Longridge Road.

## Highest Hazmat Risk Location:

The greatest hazmat risk is 40 Highway due to the high volume of traffic.

## **Highest Rescue Risk Location:**

The greatest Rescue risk is 40 Highway due to the high volume of traffic.

## **Demand History**

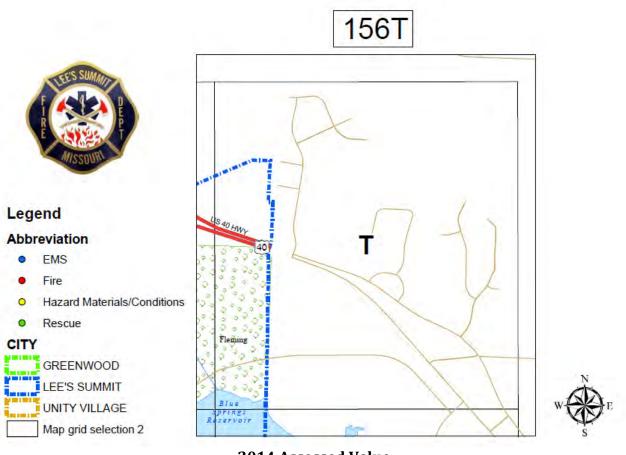
Number of incidents	2012	2013	2014
EMS	3	5	0
Fire	0	0	0
HazMat	1	0	0
Rescue	2	3	4
Total	6	3	4

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0









## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
156T	\$1,171,658	\$213,889	\$957,770	\$0

#### **ESZ Characteristics:**

This ESZ is primarily comprised of single and multi-family dwellings with some commercial however the LSFD is only responsible for a small portion of this area as shown in the image included. This area is zoned rural with zero population.





156 T

## Jurisdictional Boundaries:

North: 40 Highway South: Blue Springs Lake East: Eastern City Limits West: NA

## **Highest Fire Risk Location:**

The wooded area surrounding the lake is the greatest fire risk due to reduced ability to access it.

## **Highest EMS Risk Location:**

The greatest EMS risk is 40 Highway due to its high volume of traffic.

## Highest Hazmat Risk Location:

The greatest hazmat risk is 40 Highway due to its high volume of traffic.

#### **Highest Rescue Risk Location:**

The greatest Rescue risk is 40 Highway due to its high volume of traffic.

#### **Demand History**

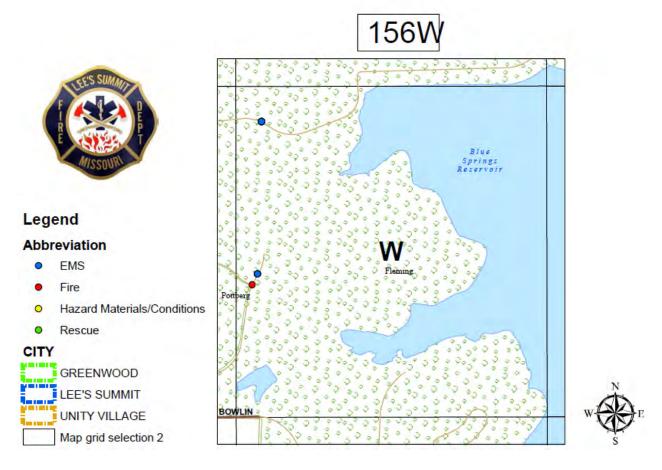
Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





156 W



## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
156W	\$969,240	\$0	\$969,240	\$0

## **ESZ Characteristics:**

This ESZ is primarily comprised of wooded area surrounding Blue Springs Lake. It also includes the Blue Springs campground and beach. This area receives high volumes of traffic during the warmer seasons at the campground, the beach and on the lake. This area is zoned as rural with a population of 0 people in this <sup>3</sup>/<sub>4</sub> mile area.





156 W

## Jurisdictional Boundaries:

North: Lakeridge Road South: County Park Road East: County Park Road West: Campground Road

## **Highest Fire Risk Location:**

The greatest fire risk is the campground. This area is primarily RV's some with high value and with the potential of occupants trapped. Areas along Campground Road and Lake Ridge Road have areas further than 1,500 feet from a hydrant. This area has a CAD rural water alert notification.

## **Highest EMS Risk Location:**

The greatest EMS risk is the beach area due to the high volume of people that utilize the area daily.

## Highest Hazmat Risk Location:

The greatest hazmat risk is on the lake itself due to the high volume of boat traffic carrying gasoline and oil.

## **Highest Rescue Risk Location:**

The greatest rescue risk is on the lake itself due to the high volume of boat traffic.

## **Demand History**

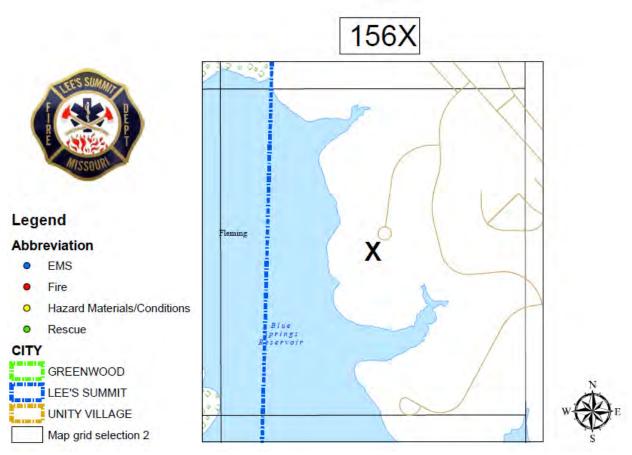
Number of incidents	2012	2013	2014
EMS	2	4	2
Fire	6	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	8	4	2

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





156 X



## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
156X	\$212,630	\$0	\$212,630	\$0

## **ESZ Characteristics:**

This ESZ is primarily comprised of Blue Spring Lake. This area receives significant traffic during boating season. Only a small portion of the area is covered by the LSFD and can only be accessed by water. This area is zoned as rural with a population of zero is this <sup>3</sup>/<sub>4</sub> mile.





156 X

## Jurisdictional Boundaries:

North: Blue Springs Lake South: Blue Springs Lake East: Eastern City limits West: Blue Springs Lake

## **Highest Fire Risk Location:**

The greatest fire risk is the on the lake itself due to the high volume of boat traffic.

## **Highest EMS Risk Location:**

The greatest EMS risk is the on the lake itself due to the high volume of boat traffic.

## Highest Hazmat Risk Location:

The greatest hazmat risk is the on the lake itself due to the high volume of boat traffic.

## **Highest Rescue Risk Location:**

The greatest rescue risk is the on the lake itself due to the high volume of boat traffic.

## **Demand History**

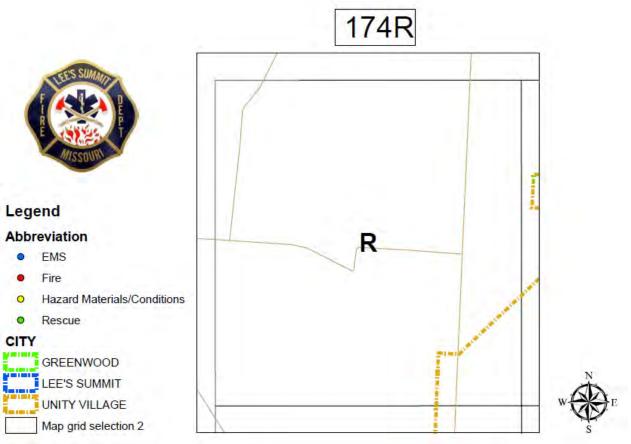
Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





174 R



#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
174R	\$62,743	\$54,606	\$0	\$8,137

## **ESZ Characteristics:**

As indicated by gold border, this ESZ has a small section in the southeast corner that is included within contracted service response area provided for Unity Village, MO. A single residential structure is located along the Unity Village border just west of Rhinehart Road. The remainder of that area consists of agricultural surrounded by pockets of native trees. The population is rural with less than 10 residents in the zone.





174 R

## **Jurisdictional Boundaries:**

North: None South: Rhinehart Road East: Rhinehart Road West: Rhinehart Road

## **Highest Fire Risk Location:**

The single family residence located west of Rhinehart Road along Unity Village border is the highest fire risk location.

## **Highest EMS Risk Location:**

The single family residence located west of Rhinehart Road along Unity Village border is the highest EMS risk location.

## **Highest Hazmat Location:**

Given the amount of farmland within the ESZ, the use of pesticides and fertilizers on the soil would be the greatest hazmat risk in this ESZ. These containers could be mobile throughout the farmland.

## **Highest Rescue Risk Location:**

The only roadway located within the Unity Village border is Rhinehart Road and would pose the highest risk for motor vehicle collisions.

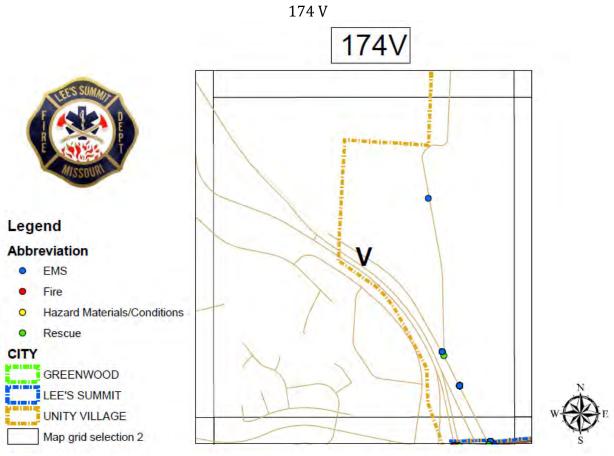
## **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







## 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
174V	\$548,355	\$121,398	\$424,745	\$2,213

## **ESZ Characteristics:**

This ESZ has a section indicated by gold border that is included within contracted service response area provided for Unity Village, Mo. There is a mix of business, highway, sparse residential, and a school. Highway 350 runs through northwest/southeast. The World Headquarters of Unity religious campus/conference center is located just east of NW Blue Parkway. The elementary school is a little farther north on NW Blue Parkway.





174 V

## Jurisdictional Boundaries:

North: Rhinehart Road South: Blue Parkway East: Unity Circle West: Highway 350

## **Highest Fire Risk Location:**

Some buildings located within the Unity campus are nearly 100 years old. There are several restored and newer multiple story inter-connected office buildings in the main core of the campus.

## **Highest EMS Risk Location:**

The demand for EMS is likely to be more concentrated in the elementary school during the week and Unity campus on weekends.

## Highest Hazmat Risk Location:

Highway 350 poses greatest risk as hazardous materials are frequently transported along this route.

## **Highest Rescue Location:**

The intersection at Rhinehart Road and NW Blue Parkway is the only area with recent history of motor vehicle collisions (MVC's); however, Highway 350 is a major commuting route that could produce MVCs.

nistoi y					
Number of incidents	2012	2013	2014		
EMS	8	9	5		
Fire	0	3	3		
HazMat	0	0	2		
Rescue	0	0	1		
Total	8	12	11		
	Number of incidents EMS Fire HazMat Rescue	Number of incidents2012EMS8Fire0HazMat0Rescue0	Number of incidents20122013EMS89Fire03HazMat00Rescue00		

## **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





174 X



#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
174X	\$462,174	\$321,104	\$134,388	\$6,679

## **ESZ Characteristics:**

This ESZ indicates jurisdiction by blue border. There is a mix of highway infrastructure, sparse estate sized residential, with pockets of native trees and grasslands. The railroad line indicated is currently non-operational. The Little Blue River Basin is present within this ESZ. Interstate Highway 470 runs east/west with interchange at View High Drive. This ESZ is rural in density with a population of 12 within jurisdictional boundary.





174 X

## **Jurisdictional Boundaries:**

North: I-470 South: Cedar Creek Lane East: I-470 West: View High Drive

## **Highest Fire Risk Location:**

The large estate type residential homes located on Cedar Creek Lane are the highest risk location.

## **Highest EMS Risk Location:**

The highest EMS risks are incidents along the I-470 corridor.

## Highest Hazmat Risk Location:

I-470 poses the greatest risk as hazardous materials are frequently transported along this route.

## **Highest Rescue Location:**

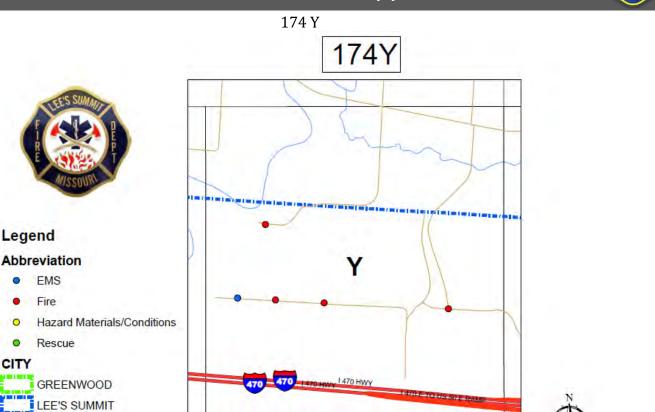
Motor Vehicle Collisions along the I-470 corridor, as this route is a major traffic artery for commuting during rush hour.

#### **Demand History**

Number of incidents	2012	2013	2014
EMS	3	1	3
Fire	6	5	5
HazMat	0	0	0
Rescue	7	14	14
Total	16	20	22

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





## **2014 Assessed Value**

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
174Y	\$1,251,446	\$1,042,847	\$203,420	\$5,178

## **ESZ Characteristics:**

UNITY VILLAGE Map grid selection 2

0

0

0 CITY

This ESZ indicates jurisdiction by blue border. There is a mix of highway infrastructure, rural type residential, and a section of single family residential neighborhood homes. A strip mine rock quarry is also located within ESZ. Interstate 470 runs east/west. Clifford Road/Quarry Park Road also runs east/west. This ESZ is rural in density with a population of 57 within jurisdictional boundary.





174 Y

## Jurisdictional Boundaries:

North: Fitzgerald South: I-470 East: Lowenstein Drive West: Clifford Road

## **Highest Fire Risk Location:**

The single family residential structures located throughout ESZ.

## **Highest EMS Risk Location:**

The section of single family residential structures located in SW area of ESZ.

#### Highest Hazmat Risk Location:

I-470 poses the greatest risk, as hazardous materials are frequently transported along this route.

#### **Highest Rescue Location:**

Motor Vehicle Collisions are the highest rescue risk location along the I-470 corridor.

#### **Demand History**

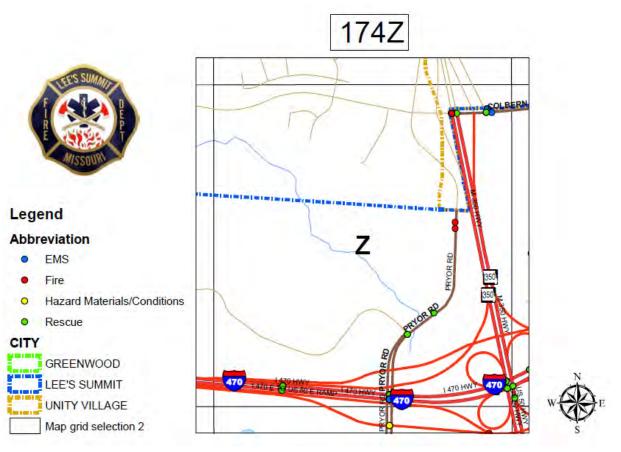
Number of incidents	2012	2013	2014
EMS	0	0	1
Fire	2	2	1
HazMat	0	2	0
Rescue	0	0	0
Total	2	4	2

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





174 Z



## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
174Z	\$253,480	\$185,358	\$66,903	\$1,220

## **ESZ Characteristics:**

This ESZ has gold border that defines contracted service response area provided for Unity Village, Mo. and blue border indicating response jurisdiction boundary. There is a mix of highway infrastructure, rural type residential homes and a strip mine rock quarry. I-470 runs east/west and interchanges with Highway 350. Prior Road runs north/south. This ESZ is rural in density with a population of seven within jurisdictional boundary.





174 Z

## Jurisdictional Boundaries:

North: Colbern Road South: I-470 East: Highway 350 West: Quarry Park Road

## **Highest Fire Risk Location:**

The residential homes located on Prior Road north of I-470.

## **Highest EMS Risk Location:**

EMS incidents within the I-470 and 350 corridor.

#### Highest Hazmat Risk Location:

I-470 and Highway 350 pose greatest risk, as hazardous materials are frequently transported along these routes.

#### **Highest Rescue Location:**

Motor Vehicle Collisions along the I-470 and Highway 350 clover interchange/corridor, as this route is a major traffic artery for commuting during rush hour.

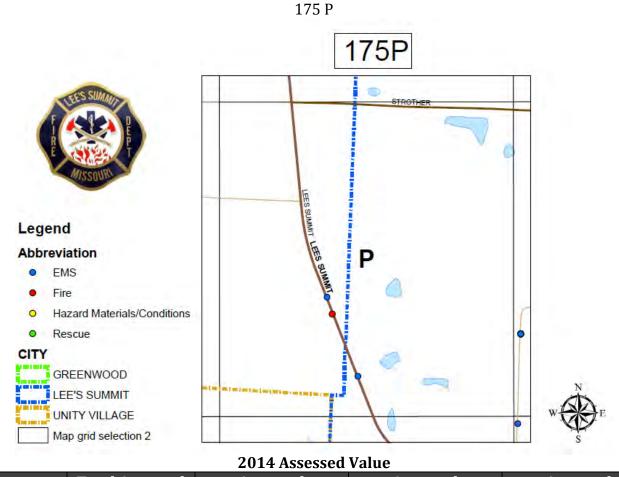
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	21	7	3
Fire	12	5	11
HazMat	0	0	0
Rescue	34	30	40
Total	67	42	54

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175P	\$620,525	\$597,273	\$0	\$23,254

## **ESZ Characteristics:**

This ESZ is primarily comprised of open ground and contains a few suburban style, wood framed homes. This area is primarily Lee's Summit however part is Unity Village and part is Kansas City. This ESZ is zone as rural with a population of 30 people in this <sup>3</sup>/<sub>4</sub> square mile area.





175 P

## Jurisdictional Boundaries:

North: Strother Road South: Douglas Street East: Douglas Street West: City limits

## **Highest Fire Risk Location:**

The greatest fire risks are the single family residential structures in the area.

## **Highest EMS Risk Location:**

The greatest EMS risks are the single family residential structures in the area.

## Highest Hazmat Risk Location:

The greatest hazmat risk is Lee's Summit Road due to its daily traffic volume.

#### **Highest Rescue Risk Location:**

The greatest rescue risk is Lee's Summit Road due to its daily traffic volume.

#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	2	0
Fire	1	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	1	2	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175T	\$422,348	\$401,577	\$0	\$20,770

#### **ESZ Characteristics:**

This ESZ is primarily comprised of undeveloped ground however does include about ten single family homes. This area is divided by the boundary of the City of Lee's Summit and Unity Village. This ESZ is zoned as rural with a population of 25 in this <sup>3</sup>/<sub>4</sub> mile area.





175 T

## Jurisdictional Boundaries:

North: Douglas Street South: Colbern Road East: Douglas Street West: Old Lee's Summit Road

## **Highest Fire Risk Location:**

The greatest fire risks are the single family homes located in the area.

## **Highest EMS Risk Location:**

The greatest EMS risks are the single family homes located in the area.

#### Highest Hazmat Risk Location:

The greatest hazmat risk in this area is Lee's Summit Road due to its high volume of traffic.

#### **Highest Rescue Risk Location:**

The greatest rescue risk in this area is Lee's Summit Road due to its high volume of traffic.

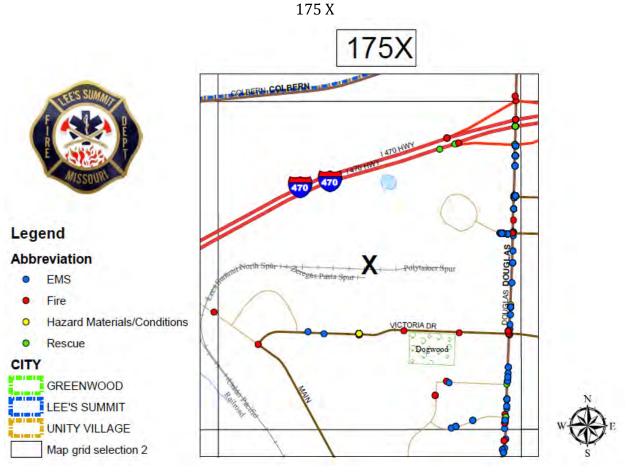
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	2	3	0
Fire	4	4	1
HazMat	0	0	1
Rescue	3	7	4
Total	9	14	6

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### **2014 Assessed Value**

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175X	\$36,139,077	\$9,411	\$36,117,717	\$11,949

#### **ESZ Characteristics:**

This ESZ is primarily comprised of light industrial/warehouse space and is also home to St. Luke's East (SLE) Hospital. SLE is a large, five story, hospital structure that sees a high volume of patients each day. Also attached to this structure are multiple outpatient offices each with high daily patient volume. This area also has a segment of 470 Highway that has a significant traffic volume. The population of this zone is 0 and is rural in density.





175 X

## Jurisdictional Boundaries:

North: Colbern Road South: Victoria Drive East: Douglas Street West: Main Street

## **Highest Fire Risk Location**:

The greatest fire risk for this area is St. Luke's East Hospital due to its high daily occupancy and the acuity of its occupancy.

## **Highest EMS Risk Location:**

The greatest EMS risk for this area is St. Luke's East Hospital due to its high daily occupancy and the acuity of its occupancy.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is 470 Highway due to its significant volume of traffic.

## **Highest Rescue Risk Location:**

The greatest rescue risk in this area is 470 Highway due to its significant volume of traffic.

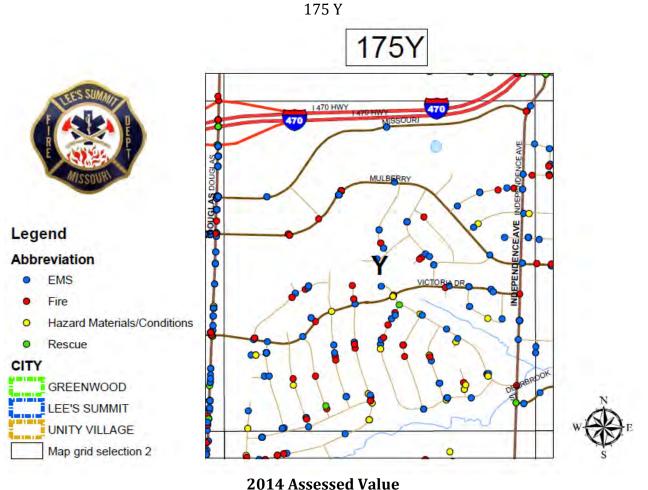
## **Demand History**

Number of incidents	2012	2013	2014
EMS	571	513	545
Fire	52	37	37
HazMat	5	4	3
Rescue	27	16	12
Total	655	570	597

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
175Y	\$33,397,427	\$20,216,552	\$13,178,921	\$2,000

## **ESZ Characteristics:**

This ESZ is partially comprised of Suburban residential structures and partially of commercial structures. The homes in this area are primarily traditional wood frame, single family and measure between 1,500 and 3,000 square feet. This area also contains multiple medical offices (among other businesses) and a Lee's Summit Elementary School. 470 Highway enters this area running east/west. This interstate carries significant traffic daily including hazardous materials. This area is zoned Urban with a population of 1,742 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 Y

## **Jurisdictional Boundaries:**

North: 470 Highway South: Victoria Drive East: Independence Avenue West: Douglas Street

## **Highest Fire Risk Location:**

The greatest fire risks for this area are the single family residential structures.

## **Highest EMS Risk Location:**

The greatest EMS risk in this area has historically been the residential areas.

#### Highest Hazmat Risk Location:

The greatest hazmat risk in this area is 470 Highway due to its significant volume of traffic.

#### **Highest Rescue Risk Location:**

The greatest rescue risk in this area is 470 Highway due to its significant volume of traffic.

#### **Demand History**

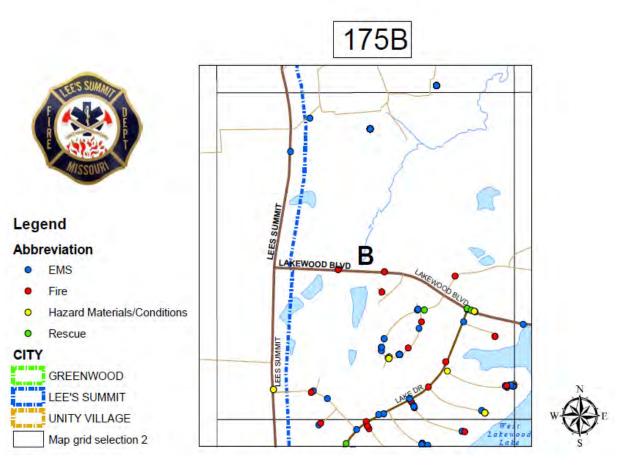
Number of incidents	2012	2013	2014
EMS	39	48	47
Fire	29	17	16
HazMat	14	4	7
Rescue	1	1	1
Total	87	82	92

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$3,000	\$0	\$0
Assessed value	\$3,000	\$300	\$0





175 B



#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
175B	\$8,105,585	\$8,092,007	\$35	\$13,554

## **ESZ Characteristics:**

This ESZ is primarily comprised of suburban residential structures with a large portion of it being unimproved territory. The homes in this area are primarily single family dwellings that are traditional wood frame structures. These structures range from approximately 1,200 to 3,500 square feet. Lakewood Blvd splits the middle of this area running East/West to Lee's Summit Road. A small portion of Lakewood Lake also falls in this grid however is not easily accessed here. This area is listed as rural with a population of 402 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 B

## Jurisdictional Boundaries:

North: Lakewood Boulevard South: Lake Drive East: Lake Drive West: City Limits/Near Lee's Summit Road

## **Highest Fire Risk Location:**

The greatest fire risk is the home located at 350 NW Lakewood Drive. This homes setback measures at 300 feet and has bridge near the street that cannot be crossed by a pumper, greatly extending the preparation time to prepare for attack/rescue. Areas along Lee's Summit Road and Lakewood Boulevard have structures further than 1,500 feet from a hydrant. This area has a CAD rural water alert notification.

## **Highest EMS Risk Location:**

The greatest risk for EMS historically has been the homes along Lake Drive.

## Highest Hazmat Risk Location:

The greatest hazmat risk is the homes in the area due to possible carbon monoxide.

## **Highest Rescue Risk Location:**

The greatest rescue risk is Lakewood Boulevard due to its moderate level of traffic flowing thru the area.

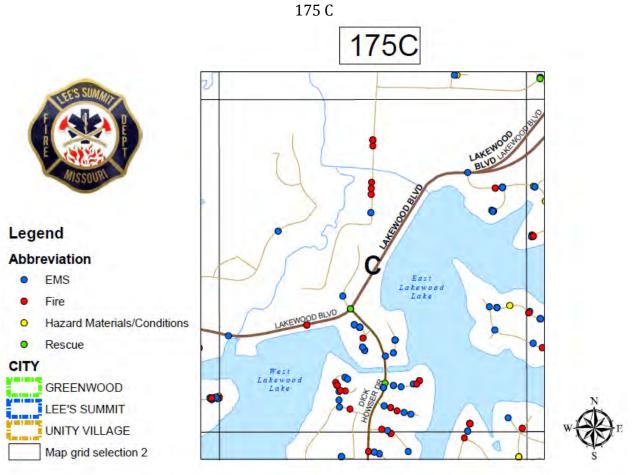
Number of incidents	2012	2013	2014
EMS	11	10	22
Fire	7	8	18
HazMat	3	5	2
Rescue	2	1	2
Total	23	24	44

## **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175C	\$14,365,013	\$14,204,363	\$158,538	\$2,110

## **ESZ Characteristics:**

This ESZ is primarily comprised of Suburban residential structures and contains a large portion of Lakewood Lake. The homes in this area are traditional wood frame, single family and measure between 2,000 and 5,000 square feet. This area also includes between 40% and 50% of Lakewood Lake which is highly travelled during boating season. Dick Howser Drive enters the Southern portion of this area running north/south. This road intersects with Lakewood Boulevard which runs east/west and splits the area. This area is zoned rural with a population of 491 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 C

## Jurisdictional Boundaries:

North: Lakewood Boulevard South: Dick Howser Drive East: Lakewood Boulevard West: Lakewood Boulevard

## **Highest Fire Risk Location:**

The greatest fire risks for this area are the homes located on Maybrook Road due to the extended travel time to that portion of this ESZ.

## **Highest EMS Risk Location:**

The greatest EMS risk has historically been the homes located off of Dick Howser Drive.

## Highest Hazmat Risk Location:

The greatest hazmat risk is on the lake due to boating traffic carrying gasoline.

## **Highest Rescue Risk Location:**

The greatest risk for rescue is on the lake due to the inherent water hazard.

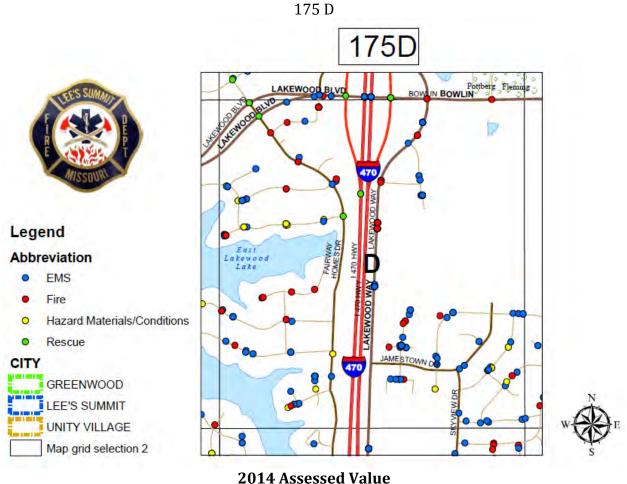
## **Demand History**

Number of incidents	2012	2013	2014
EMS	14	15	21
Fire	6	5	15
HazMat	2	0	3
Rescue	1	1	1
Total	23	21	40

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175D	\$32,696,323	\$24,443,774	\$8,250,998	\$1,555

## **ESZ Characteristics:**

This ESZ is primarily comprised of suburban residential structures with several small businesses. This area also contains a gas station located at Bowlin Road and Lakewood Way and a large church located at 4725 NE Lakewood Way. This area is split by I-470 that runs north/south. This interstate carries significant traffic daily including hazardous materials. The homes in this area are primarily traditional wood framed ranging from 2,000 to 6,000 square feet. The population density of this zone is Suburban at 1,363 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 D

## **Jurisdictional Boundaries:**

North: Lakewood Boulevard/Bowlin Road South: Jamestown Drive East: Lakewood Way West: Fairway Holmes Drive

## **Highest Fire Risk Location**:

The greatest fire risk for this area a large church located on Lakewood Way, due to its high occupancy.

## **Highest EMS Risk Location:**

The greatest EMS risk in this area a cancer medical clinic located at 4881 NE Goodview Circle, due to the clientele.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is cancer clinic located at 4881 NE Goodview Circle, due to the radioactive material kept on site.

## **Highest Rescue Risk Location:**

The greatest rescue risk in this area is 470 Highway due to its significant volume of traffic.

## Demand History

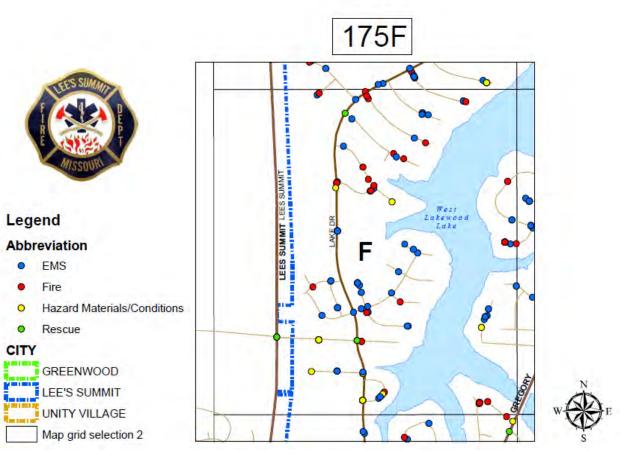
Number of incidents	2012	2013	2014
EMS	53	59	83
Fire	23	20	30
HazMat	8	8	3
Rescue	0	2	3
Total	93	92	119

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$5,000
Assessed value	\$0	\$0	\$300,000









## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175F	\$17,650,294	\$17,216,407	\$427,430	\$6,475

## **ESZ Characteristics:**

This ESZ is primarily comprised of suburban residential structures and contains a large portion of Lakewood Lake. The homes in this area are traditional wood frame, single family and measure between 2,000 and 5,000 square feet. This area also includes between 40% and 50% of Lakewood Lake which is highly travelled during boating season and a community pool. Lake Drive enters the southern portion of this area running north/south and intersects with Lakewood Boulevard which runs east/west, just north of this ESZ. This area is zoned suburban with a population of 934 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 F

## Jurisdictional Boundaries:

North: Shagbark South: Bluebeech East: Edgewater West: Lee's Summit Road

## **Highest Fire Risk Location**:

The greatest fire risks for this area are the homes located on the side roads, off of Lake Drive in this ESZ.

## Highest EMS Risk Location:

The greatest EMS risk has historically been the homes located on the side roads, off of Lake Drive in this ESZ.

## Highest Hazmat Risk Location:

The greatest hazmat risk is on the lake due to boating traffic carrying gasoline.

## **Highest Rescue Risk Location:**

The greatest risk for rescue is on the lake due to the inherent water hazard.

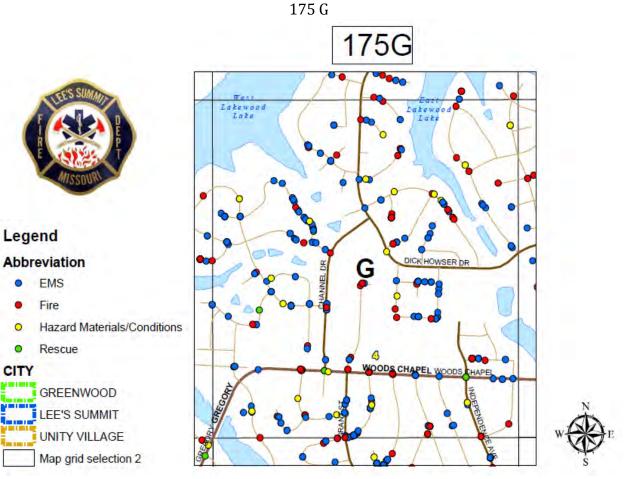
## **Demand History**

Number of incidents	2012	2013	2014
EMS	32	23	23
Fire	18	7	21
HazMat	6	2	5
Rescue	0	2	3
Total	56	34	52

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$1,200	\$0	\$0
Assessed value	\$250,000	\$250,000	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
175G	\$33,430,367	\$30,825,434	\$2,604,084	\$805

## **ESZ Characteristics:**

This ESZ is primarily comprised of Suburban residential structures and contains LSFD station #4. The homes in this area are both traditional wood frame, single family homes, with several duplex style homes and measure between 1,200 and 5,000 square feet. The main roadway in this area is Woods Chapel Road which enters runs east/west on the Southern portion of this ESZ. This road intersects with Chanel Road which runs north/south and splits the area. This area is zoned urban with a population of 2,045 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 G

## Jurisdictional Boundaries:

North: Dick Howser Drive South: Woods Chapel Drive East: Dick Howser Drive West: Shoreview Drive

## **Highest Fire Risk Location:**

The greatest fire risks for this area has traditionally been scattered through this ESZ. The greatest risk would be the duplex style occupancies due to their multi-family design.

## **Highest EMS Risk Location:**

The greatest EMS risk has historically been scattered throughout this area.

## Highest Hazmat Risk Location:

The greatest hazmat risk is NE Woods Chapel Road due to its moderate level of traffic.

#### **Highest Rescue Risk Location:**

The greatest risk for rescue is NE Woods Chapel Road due to its moderate level of traffic.

## **Demand History**

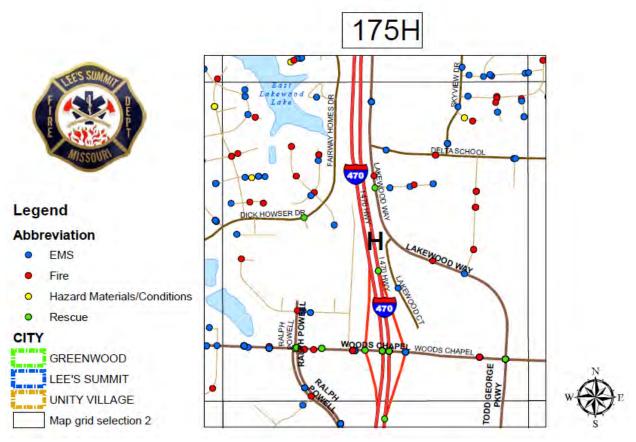
Number of incidents	2012	2013	2014
EMS	76	71	63
Fire	42	23	23
HazMat	8	9	15
Rescue	5	4	1
Total	131	107	102

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$1,500	\$0	\$0
Assessed value	\$1,500	\$2,500	\$280,000





175 H



#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175H	\$28,543,926	\$12,016,723	\$16,522,879	\$4,347

## **ESZ Characteristics:**

This ESZ is partially comprised of suburban residential structures and partially of commercial structures. The homes in this area are primarily traditional wood frame, single family and measure between 2,000 and 5,000 square feet. This area also contains light manufacturing businesses and a Blue Springs Middle School. 470 Highway splits the middle of this area running north/south. This interstate carries significant traffic daily including hazardous materials. This area is zoned rural with a population of 595 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 H

## Jurisdictional Boundaries:

North: Delta School Road South: Woods Chapel Road East: Sun Court West: Courtney Drive

## **Highest Fire Risk Location:**

The greatest fire risks for this area are the business located on Port Drive, due to their manufacturing capabilities.

## **Highest EMS Risk Location:**

The greatest EMS risk in this area has historically been the residential areas.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is 470 Highway due to its significant volume of traffic.

## **Highest Rescue Risk Location:**

The greatest rescue risk in this area is 470 Highway due to its significant volume of traffic.

## **Demand History**

Number of incidents	2012	2013	2014
EMS	38	50	43
Fire	30	31	27
HazMat	3	1	3
Rescue	39	23	36
Total	110	105	109

<b>Fire loss</b>	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$15,000	\$0
Assessed value	\$0	\$84,000	\$0









#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175K	\$17,914,836	\$10,728,897	\$7,178,353	\$7,605

## **ESZ Characteristics:**

This ESZ is primarily comprised of suburban residential structures and contains a small portion of Lakewood Lake. The homes in this area are traditional wood frame, single family and measure between 2,000 and 5,000 square feet. This area also includes less than 10% of Lakewood Lake which is highly travelled during boating season. This ESZ also contains two government facilities for children. Gregory Boulevard runs thru this area from east to west. Lee's Summit Road also runs adjacent to the city limits. This area is zoned rural with a population of 548 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 K

## Jurisdictional Boundaries:

North: Gregory South: Strother Road East: Gregory West: Western City Limits

## **Highest Fire Risk Location:**

The greatest fire risk for this area is the Lakeview Woods state school due to the status of its students.

## **Highest EMS Risk Location:**

The greatest EMS risk has historically been the homes located throughout the area.

## Highest Hazmat Risk Location:

The greatest hazmat risk is on the lake due to boating traffic carrying gasoline.

## **Highest Rescue Risk Location:**

The greatest risk for rescue is on the lake due to the inherent water hazard.

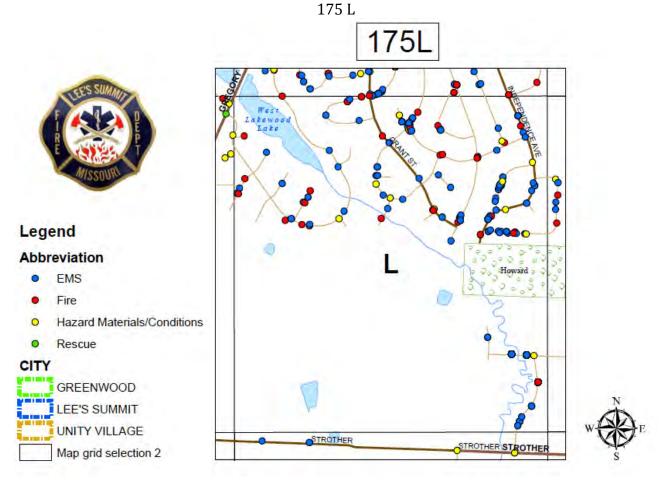
## **Demand History**

Number of incidents	2012	2013	2014
EMS	21	15	23
Fire	4	6	6
HazMat	4	1	4
Rescue	4	1	0
Total	33	23	33

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$1,500
Assessed value	\$0	\$0	\$1,500







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175L	\$13,938,167	\$13,466,815	\$469,696	\$1,641

#### **ESZ Characteristics:**

This ESZ is primarily comprised of suburban residential structures and also contains Wilshire at Lakewood, a skilled nursing facility, located at 600 NE Meadowview Drive. The homes in this area are traditional wood frame, single and multi-family and measure between 1,000 and 2,500 square feet. Both Grant and Independence enter this ESZ from the north and run north/south. This area is zoned urban with a population of 1,881 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 L

# Jurisdictional Boundaries:

North: Woods Chapel Road South: Strother Road East: Independence West: Beechwood

# **Highest Fire Risk Location:**

The greatest fire risk for this area is Wilshire at Lakewood due to its occupancy load and its inability to self-evacuate.

## **Highest EMS Risk Location:**

The greatest EMS risk has historically been Wilshire at Lakewood due to its skilled nursing status.

## Highest Hazmat Risk Location:

The greatest hazmat risk has historically been the homes in the area.

## **Highest Rescue Risk Location:**

The greatest risks for rescue are the homes in the area.

## **Demand History**

Number of incidents	2012	2013	2014
EMS	378	229	205
Fire	35	25	34
HazMat	3	3	7
Rescue	0	0	0
Total	416	257	246

<b>Fire loss</b>	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$5,000
Assessed value	\$0	\$0	\$160,000







## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175M	\$14,180,272	\$3,411,031	\$10,752,762	\$16,480

## **ESZ Characteristics:**

This ESZ is partially comprised of Fairways at Lakewood (a large apartment complex) and of numerous offices including law and medical companies. 470 Highway splits the middle of this area running north/south. This interstate carries significant traffic daily including hazardous materials. This area is zoned suburban with a population of 1,011 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 M

# Jurisdictional Boundaries:

North: Akin Drive South: Strother Road East: Todd George Parkway West: Ralph Powell Road

## **Highest Fire Risk Location**:

The greatest fire risk for this area is the Fairways at Lakewood apartment complex, due to its high occupancy during the evening and night time hours.

# **Highest EMS Risk Location:**

The greatest EMS risk in this area has historically been scattered throughout the office complexes in this area.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is 470 Highway due to its significant volume of traffic.

## **Highest Rescue Risk Location:**

The greatest Rescue risk in this area is 470 Highway due to its significant volume of traffic.

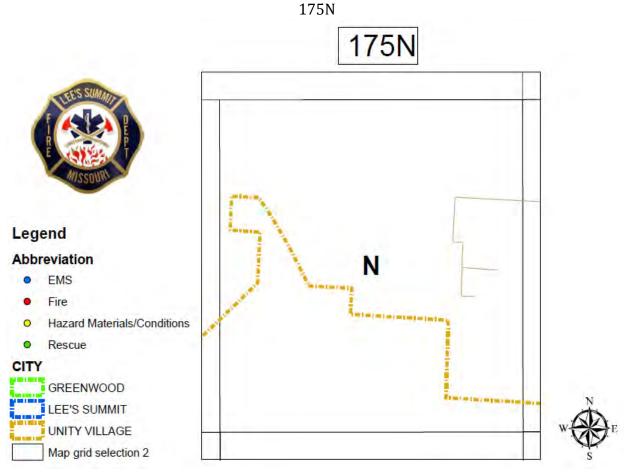
## **Demand History**

Number of incidents	2012	2013	2014
EMS	55	36	47
Fire	18	19	27
HazMat	2	0	1
Rescue	3	2	1
Total	78	57	76

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175N	\$110,792	\$105,706	\$0	\$5,086

## **ESZ Characteristics:**

This ESZ is primarily comprised of treed land belonging to Unity Village, with the other portion being the responsibility of KCFD. No structures are known to be in this area however a segment of the Union Pacific Railroad does run thru the area. The population is zero and rural in density.





175 N

## Jurisdictional Boundaries:

North: Unity Village city limits South: NW Colbern Road East: Lee's Summit Road West: Rhinehart Road

### **Highest Fire Risk Location:**

The greatest risk is the Union Railroad due to its high daily volume.

## **Highest EMS Risk Location:**

The greatest risk is the Union Railroad due to its high daily volume.

### Highest Hazmat Risk Location:

The greatest risk is the Union Railroad due to its high daily volume.

#### **Highest Rescue Risk Location:**

The greatest risk is the Union Railroad due to its high daily volume.

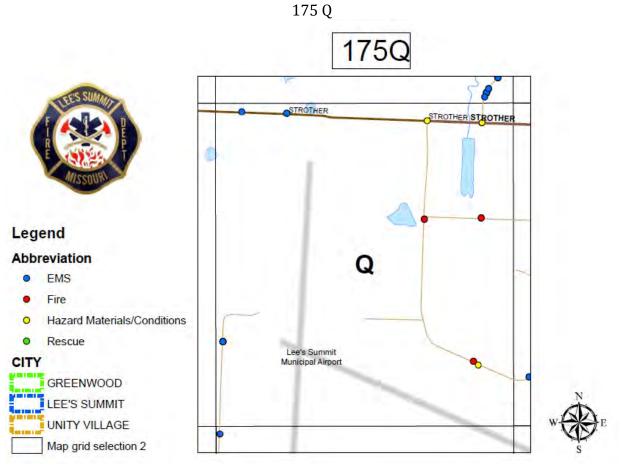
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175Q	\$9,603,953	\$32,464	\$9,565,933	\$5,556

## **ESZ Characteristics:**

This ESZ is comprised of several large industrial buildings and of the Lee's Summit Municipal Airport. Most of the industrial buildings house various light manufacturing and warehouse style facilities and have a moderate risk to life involved. The airport is home to approximately 200 small aircraft, including a charter service and on average will have 10-40 departures/arrivals per day. This facility also holds approximately 15,000 gallons of fuel on-site and sells around 300 gallons per day. These fuels are 100 Low Lead, 91 Octane Aviation fuel and Jet "A" Aviation fuel. This area is zoned rural with a population of two people in this <sup>3</sup>/<sub>4</sub> mile area.





175 Q

# Jurisdictional Boundaries:

North: Strother Road South: Douglas Road East: Independence West: Lee's Summit Road

# **Highest Fire Risk Location:**

The greatest fire risks for this area are the industrial facilities due to their light manufacturing processes and occupancy.

# **Highest EMS Risk Location:**

The greatest EMS risk in this area is the airport due to its personnel on-site.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is the Lee's Summit Municipal Airport due to its storage of highly flammable fuel.

## **Highest Rescue Risk Location:**

The greatest rescue risk in this area is the industrial facilities due to their light manufacturing processes and occupancy.

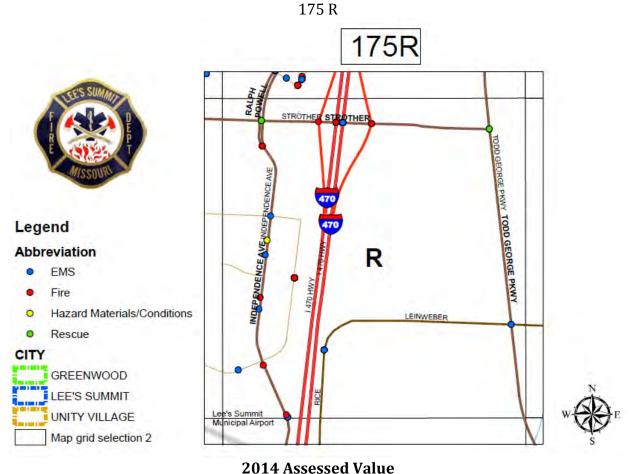
## **Demand History**

Number of incidents	2012	2013	2014
EMS	6	1	0
Fire	6	5	0
HazMat	1	1	2
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







Total Assessed Assessed Assessed Assessed Assessed	
ESZ # Total Assessed Assessed Assessed Assessed	d
Value Residential Value Commercial Value Agricultural	Value
175R \$5,833,240 \$0 \$5,815,817 \$17,423	

# **ESZ Characteristics:**

This ESZ is partially comprised of light manufacturing, retail and open ground. This are includes Frontier Justice, a firearms dealer and firing range. This firing range has multiple lanes and can handle up to 50 caliber BMG. The range is monitored during all active shooting and has an intricate ventilation system to maintain fresh air at all times. 470 Highway splits the middle of this area running north/south. This interstate carries significant traffic daily including hazardous materials. Population is zero and rural in density.





175 R

# Jurisdictional Boundaries:

North: Strother Road South: Leinweber East: Todd George Road West: Independence

## **Highest Fire Risk Location**:

The greatest fire risk for this area is the MO DOT facility due to its storage of machinery and roadway repair products.

## **Highest EMS Risk Location:**

The greatest EMS risk in this area has historically been the Urgent Care facility located on McBaine Drive.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is 470 Highway due to its significant volume of traffic.

## **Highest Rescue Risk Location:**

The greatest Rescue risk in this area is 470 Highway due to its significant volume of traffic.

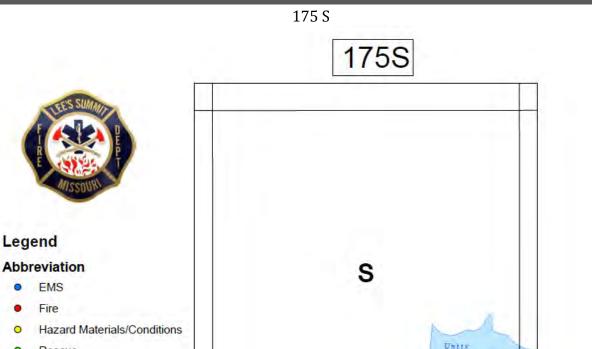
## **Demand History**

Number of incidents	2012	2013	2014
EMS	29	29	24
Fire	15	7	6
HazMat	1	2	2
Rescue	13	17	12
Total	58	55	44

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







**2014 Assessed Value** 

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
175S	\$4,627,350	\$241,567	\$4,378,287	\$7,496

## **ESZ Characteristics:**

Rescue

GREENWOOD LEE'S SUMMIT UNITY VILLAGE Map grid selection 2

• CITY

This ESZ is primarily comprised of wooded area. No structures are known to be in the area. It does have a portion of Unity Lake that is primarily used for water supply and fishing. This area is zoned as rural however no population is listed for this <sup>3</sup>/<sub>4</sub> mile area.





175 S

# **Jurisdictional Boundaries:**

North: Unity city limits South: Colbern Road East: Unity city limits West: Unity city limits

## **Highest Fire Risk Location:**

The greatest fire risk for this area is the wooded area that makes up this ESZ.

## **Highest EMS Risk Location:**

The greatest EMS risk in this area is near the lake due to foot traffic to this area.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is near the lake due to foot traffic to this area.

### **Highest Rescue Risk Location:**

The greatest rescue risk in this area is near the lake due to foot traffic to this area.

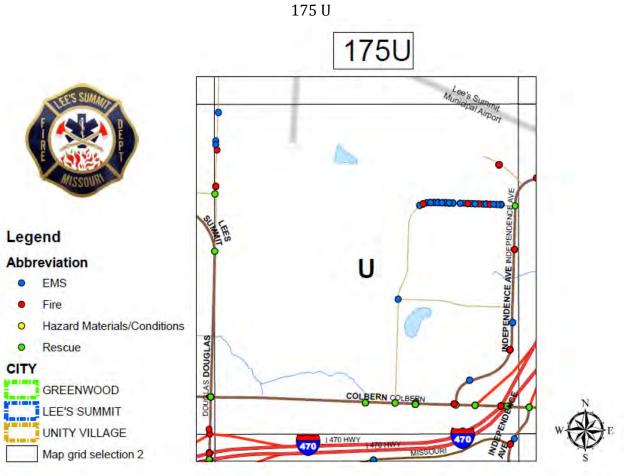
### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
175U	\$8,171,733	\$942,134	\$7,220,257	\$9,340

## **ESZ Characteristics:**

This ESZ partially comprised of large retail facilities and of a large apartment complex. Multiple car dealers are located on Colbern Road and Independence Avenue. Also the Crossroads apartment complex is located on Towncenter Boulevard. This ESZ is zoned as rural with the population listed at 454 people in this <sup>3</sup>/<sub>4</sub> mile area.





175 U

# Jurisdictional Boundaries:

North: Lee's Summit Municipal Airport South: Colbern Road East: Independence West: Lee's Summit Road

# **Highest Fire Risk Location**:

The greatest fire risk for this area is the Crossroads Apartment complex due to its large occupancy at night.

# **Highest EMS Risk Location:**

The greatest EMS risk in this area is the Crossroads Apartment complex due to its large occupancy at night.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is the short segment of 470 Highway due to its significant volume of traffic.

## **Highest Rescue Risk Location:**

The greatest rescue risk in this area is the short segment of 470 Highway due to its significant volume of traffic.

## **Demand History**

Number of incidents	2012	2013	2014
EMS	24	27	35
Fire	18	17	20
HazMat	2	1	3
Rescue	16	11	11
Total	60	56	69

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$4,000
Assessed value	\$0	\$0	\$400,000





#### **2014 Assessed Value**

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175V	\$4,164,676	\$93,705	\$4,052,486	\$18,486

#### **ESZ Characteristics:**

This ESZ is primarily comprised of undeveloped ground, however does include two large car dealerships, an elementary school, middle school and LSFD station #2. This area is also divided by 470 Highway which has a significant traffic volume each day. This ESZ is zoned as rural with a population listed at seven people in this <sup>3</sup>/<sub>4</sub> square mile area.





175 V

# Jurisdictional Boundaries:

North: Leinweber Road South: Colbern Road East: Todd George Road West: Independence Avenue

## **Highest Fire Risk Location**:

The greatest fire risks for this area are the two schools due to their large occupancy during school hours.

## **Highest EMS Risk Location:**

The greatest EMS risks in this area are the two schools due to their large occupancy during school hours.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is 470 Highway due to its significant volume of traffic.

## **Highest Rescue Risk Location:**

The greatest rescue risk in this area is 470 Highway due to its significant volume of traffic.

## **Demand History**

Number of incidents	2012	2013	2014
EMS	18	18	11
Fire	6	9	13
HazMat	1	1	2
Rescue	6	6	9
Total	31	34	35

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
175W	\$5,903,044	\$733,559	\$5,093,256	\$76,239

## **ESZ Characteristics:**

This ESZ is partially comprised of warehouse/light industrial space and of residential areas. These homes are mostly single family wood frame homes measuring around 1,500 square feet. The area is divided by 470 Highway which has a significant daily volume of traffic. This area is zoned Rural with the population listed at 92 people in this <sup>3</sup>/<sub>4</sub> square mile area. The northern edge of the Summit Technology campus is in the southern portion of the ESZ. This is the only maximum fire risk structure identified in the current risk assessment due to its size, mixed occupancies with hazardous materials, and type of suppression system in place.





175 W

# Jurisdictional Boundaries:

North: Colbern Road South: Ward Road East: Union Pacific Railroad West: Blue Parkway

# **Highest Fire Risk Location**:

The greatest fire risk for this area is the Summit Technology building due to hazards found inside the structure and multiple occupancy types.

# **Highest EMS Risk Location:**

The greatest EMS risk in this area has historically been the doctor's office located on Blue Parkway.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is Summit Technology Center due to hazardous material occupancies.

## **Highest Rescue Risk Location:**

The greatest Rescue risk in this area is 470 Highway due to its significant volume of traffic.

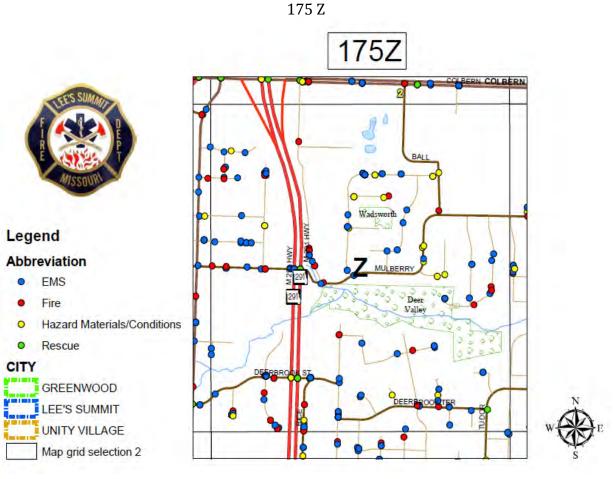
## Demand History

Number of incidents	2012	2013	2014
EMS	43	34	53
Fire	11	11	13
HazMat	0	0	0
Rescue	7	2	11
Total	61	47	77

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$1,500	\$0
Assessed value	\$0	\$92,500	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
175Z	\$34,584,133	\$17,228,875	\$17,354,711	\$551

#### **ESZ Characteristics:**

This ESZ is partially comprised of Suburban residential structures and partially of commercial structures. The homes in this area are primarily traditional wood frame, single family and measure between 1,500 and 3,000 square feet. This area also contains multiple retail facilities of many different varieties. This area is split north/south by 291 Highway which has moderate daily traffic. This area is zoned urban with a population of 1,599 people in this <sup>3</sup>/<sub>4</sub> mile square.





175 Z

# Jurisdictional Boundaries:

North: Colbern Road South: Deerbrook East: Todd George Road West: Independence

# **Highest Fire Risk Location:**

The greatest fire risks for this area are the residential areas due to their nightly occupancy.

## **Highest EMS Risk Location:**

The greatest EMS risk in this area has historically been the residential areas.

## Highest Hazmat Risk Location:

The greatest hazmat risk in this area is 291 Highway due to its significant volume of traffic.

## **Highest Rescue Risk Location:**

The greatest rescue risk in this area is 291 Highway due to its significant volume of traffic.

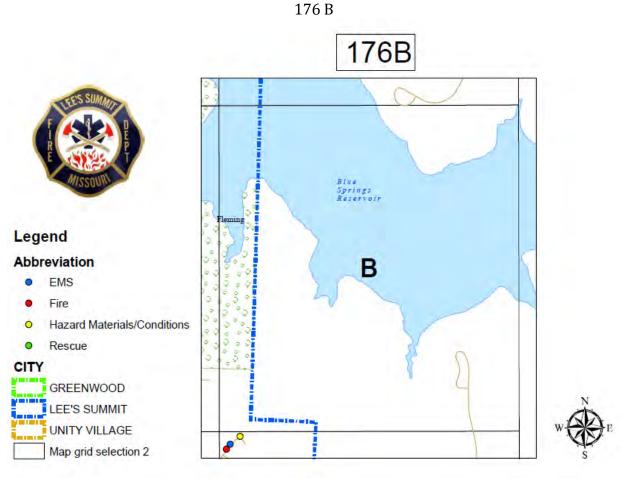
### **Demand History**

Number of incidents	2012	2013	2014
EMS	50	51	48
Fire	20	18	26
HazMat	10	5	10
Rescue	7	8	8
Total	87	82	92

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
176B	\$42,798	\$42,798	\$0	\$0

## **ESZ Characteristics:**

This ESZ is comprised primarily of Blue Springs Lake. The western portion of the zone contains the eastern perimeter of Fleming Park. The southeast corner has a section of Shelter A Road and also contains Shelter A. This road is utilized for lake and shelter house access. This ESZ is a popular zone for recreational activities, particularly in the spring and summer months.





176 B

# Jurisdictional Boundaries:

North: N/A South: Shelter A Road East: N/A West: N/A

## **Highest Fire Risk Location:**

The potential of wild land fires would be the greatest concern in this zone.

## **Highest EMS Risk Location:**

Blue Springs Lake is a frequent popular spot for outdoor recreational activities.

# Highest Hazmat Risk Location:

There is the potential for a fuel spill from a boat on the lake.

### **Highest Rescue Location:**

The possibility of a water or boating rescue poses the greatest risk in this zone.

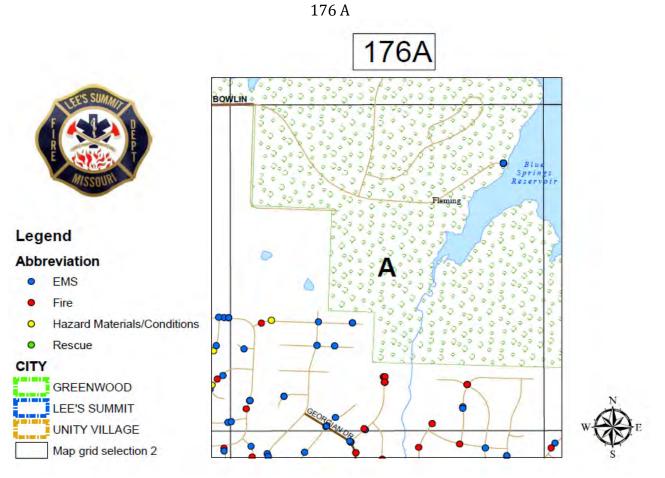
### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
176A	\$8,802,707	\$8,520,960	\$278,870	\$2,890

## **ESZ Characteristics:**

This ESZ is a strong representation of diversity. The northern portion of the zone contains Bowlin Road. This is a high traffic road that is utilized constantly throughout the year. The eastern portion is highlighted by Blue Springs Lake, a popular local destination for recreation, particularly in the spring and summer months. The southern area is comprised of heavy residential (primarily single family homes). The majority of the zone contains Fleming Park which is used throughout the year, but is more utilized in the spring and summer months.





176 A

# Jurisdictional Boundaries:

North: Bowlin Road South: Ridgeline Street East: Alhambra Street West: Blue Jay Street

# **Highest Fire Risk Location:**

The highest fire risk in the zone would be in the residential neighborhoods in the southern portion of the zone. The Blue Springs Lake Marina is further than 1,500 feet from a hydrant. This area has a CAD rural water alert notification.

## **Highest EMS Risk Location:**

Recent call history in this zone indicates the residential neighborhoods in the southern portion of the zone.

## **Highest Hazmat Risk Location:**

There is the potential of a fuel spill in the lake or into the creek in the residential neighborhood.

## **Highest Rescue Location:**

The park and lake dominate this zone. These are both a source of recreational activity.

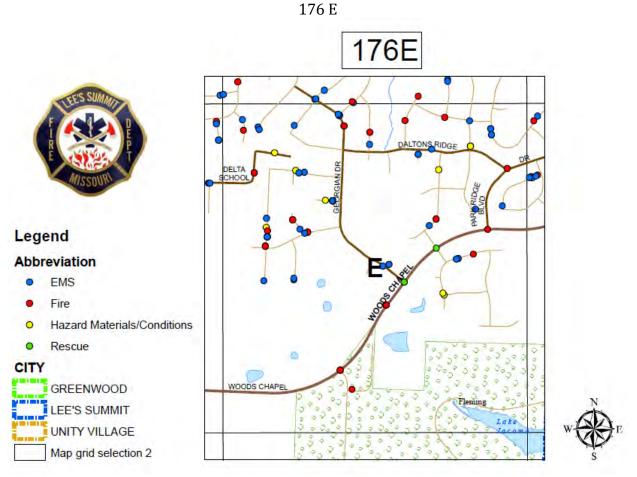
## **Demand History**

Number of incidents	2012	2013	2014
EMS	9	8	11
Fire	7	3	6
HazMat	0	1	0
Rescue	0	1	0
Total	16	13	17

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
176E	\$18,131,245	\$17,392,519	\$730,676	\$8,057

## **ESZ Characteristics:**

The focal point of this ESZ is high traffic Woods Chapel Road. This road travels east/west through the center of the zone and travels the entire width of the zone. The southern portion of this zone is comprised of Fleming Park and a small portion of Lake Jacomo. The remainder of the ESZ contains, primarily, established neighborhoods of single family residences.





176 E

# Jurisdictional Boundaries:

North: Dalton's Ridge South: Woods Chapel Road East: Timberlake West: Delta School Road

# **Highest Fire Risk Location:**

The fire risk for this ESZ would be evenly distributed between the residences that make up the northern portion of the zone. All of the residences are of similar construction and age. A few residential structures in the area of Woods Chapel Road and Beach Road are further than 1,500 feet from a hydrant. This area has a CAD rural water alert notification.

## **Highest EMS Risk Location:**

The highly traveled Woods Chapel Road contains the possibility of a motor vehicle collision.

## Highest Hazmat Risk Location:

A fuel spill in the southeast corner of the zone would contaminate Lake Jacomo.

## **Highest Rescue Location:**

Motor vehicle collisions along Woods Chapel Road are the highest risk location.

## **Demand History**

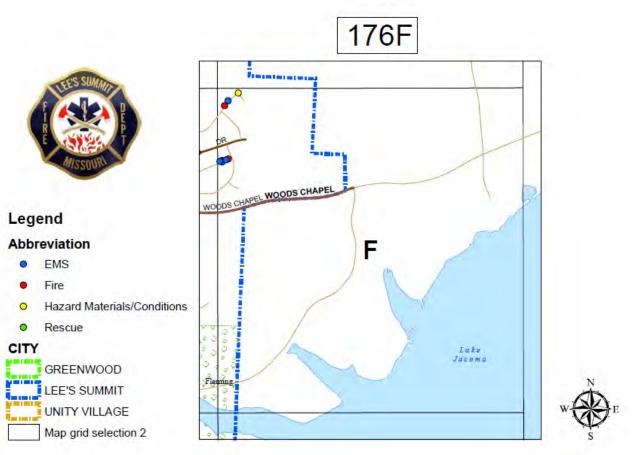
Number of incidents	2012	2013	2014
EMS	11	17	18
Fire	16	7	16
HazMat	4	1	4
Rescue	1	2	1
Total	32	27	39

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0









## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
176F	\$1,560,134	\$1,061,079	\$495,606	\$3,448

## **ESZ Characteristics:**

This ESZ is split between Lake Jacomo and mostly undeveloped land that is divided by the east/west traveling Woods Chapel Road. The majority of this zone is not under the coverage of LSFD. The eastern portion of this zone lies within the coverage of LSFD, while the remainder contains mutual aid possibilities with CJC Fire District. The portion within the city's boundaries contains the outskirts of a residential neighborhood.





176 F

# Jurisdictional Boundaries:

North: Woods Chapel Road South: N/A East: Shelter A West: Park Road

# **Highest Fire Risk Location**:

Residences in the northwest corner of the zone contain the greatest fire risk. These are mostly single family, similarly constructed homes.

# **Highest EMS Risk Location:**

Highly traveled Woods Chapel Road and the mutual aid possibilities at Lake Jacomo provide the greatest EMS risk within this zone.

# Highest Hazmat Risk Location:

There is the potential for mutual aid response on a fuel spill at Lake Jacomo.

## **Highest Rescue Location:**

There is the possibility of a motor vehicle collision on Woods Chapel Road, which travels through the center of the zone.

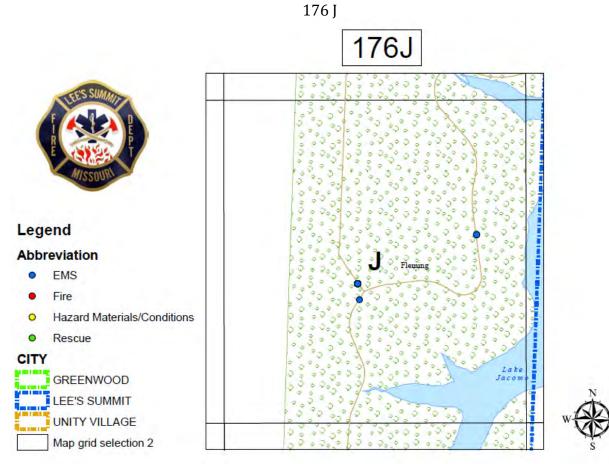
## **Demand History**

Number of incidents	2012	2013	2014
EMS	0	3	2
Fire	1	0	1
HazMat	1	0	0
Rescue	0	0	0
Total	2	3	3

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
176J	\$718,411	\$0	\$708,768	\$9,643

## **ESZ Characteristics:**

This ESZ is mainly comprised of Fleming Park. With the exception of three park access roads and a portion of Lake Jacomo in the southeast portion of the zone, Fleming Park is the dominate feature of this zone.





176 J

## Jurisdictional Boundaries:

North: N/A South: Beach Road East: West Park West: Rennau Drive

## **Highest Fire Risk Location:**

The highest fire risk of this zone would be wild land fire potential.

## **Highest EMS Risk Location:**

Utilizing past demand history, the greatest EMS risk has been, historically, EMS calls along the park access roads.

## **Highest Hazmat Risk Location**

There is the potential for a fuel spill in Lake Jacomo in the southeast corner of the zone.

## **Highest Rescue Location:**

The park and lake are popular for recreational activities.

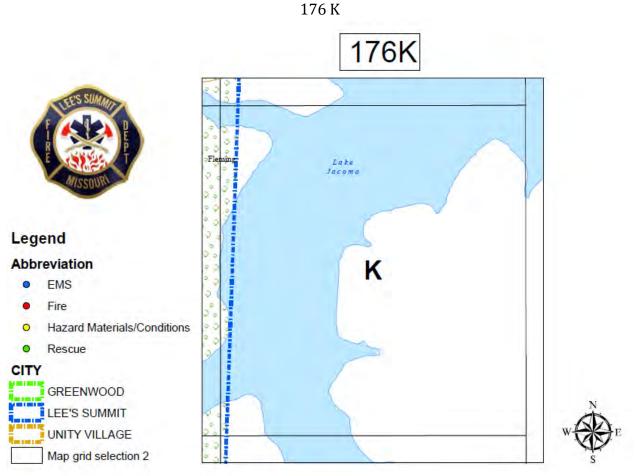
## **Demand History**

Number of incidents	2012	2013	2014
EMS	5	12	2
Fire	0	3	0
HazMat	0	1	2
Rescue	0	0	0
Total	5	16	4

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

_						
	ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value	
	176K	\$472,748	\$0	\$472,748	\$0	

## **ESZ Characteristics:**

This ESZ contains an extremely small portion of LSFD response area. This area is limited to the very west portion of the zone. Small portions of Fleming Park and Lake Jacomo are contained in this area. The remainder of the zone would be relegated to mutual aid calls, predominately to Lake Jacomo.





176 K

# Jurisdictional Boundaries:

North: N/A South: N/A East: N/A West: N/A

# **Highest Fire Risk Location:**

The fire risk potential would be wild land fire potential in Fleming Park, on the extreme east of the zone.

# **Highest EMS Risk Location:**

There is the potential of a medical call on the east side of the zone (western LSFD boundary). The other potential would be a mutual aid call throughout the remainder of the zone.

# Highest Hazmat Risk Location:

There is a potential for a gas/fuel spill on the lake.

## **Highest Rescue Risk Location:**

A portion of the lake lies on the western edge of the zone, an area popular for recreational activity.

## **Demand History**

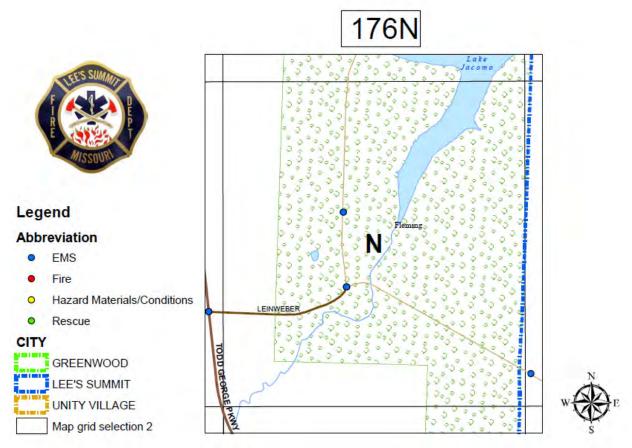
Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





176 N



## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
176N	\$957,549	\$0	\$953,982	\$3,567

# **ESZ Characteristics:**

This ESZ is comprised primarily of Fleming Park acreage. A moderately traveled road (Leinweber Road) enters the zone on the west side and travels to about the midpoint of the ESZ. Leinweber Road ends and forks into Beach Road, which can be traveled north or south. The northeast portion of the zone contains a portion of Lake Jacomo.





176 N

# Jurisdictional Boundaries:

North: Beach Road South: Beach Road East: N/A West: Leinweber

## **Highest Fire Risk Location**:

Wild land fires would provide the greatest threat within this zone; primarily along the park access roads, within Fleming Park.

# **Highest EMS Risk Location:**

EMS calls would be most likely along the moderately traveled Leinweber Road. This was historically proven, utilizing previous demand history.

## Highest Hazmat Risk Location:

There is the potential of a fuel spill on Lake Jacomo or on the creek that travels through the remainder of the zone.

## **Highest Rescue Risk Location:**

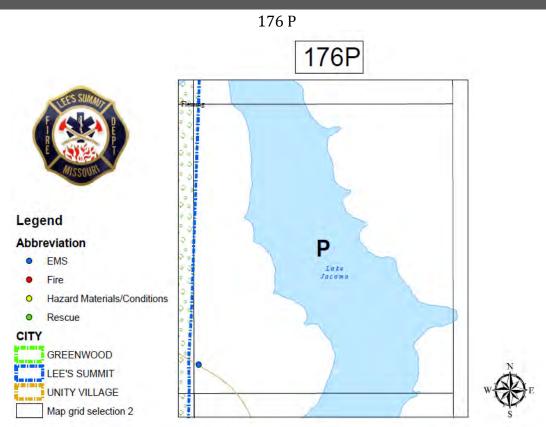
There is the possibility of a motor vehicle collision on Leinweber Road.

## **Demand History**

Number of incidents	2012	2013	2014
EMS	1	0	2
Fire	1	0	1
HazMat	0	0	0
Rescue	0	1	0
Total	2	1	3

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





#### **2014 Assessed Value**

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
176P	\$24,807	\$0	\$24,807	\$0

### **ESZ Characteristics**:

This ESZ is nearly entirely comprised of mutual aid area containing Lake Jacomo. The extremely small portion that is within LSFD response area is a narrow area containing Fleming Park and undeveloped land.





176 P

# **Jurisdictional Boundaries:** North: N/A

South: Beach Road East: Beach Road West: N/A

# **Highest Fire Risk Location:**

Wild land fires within the small portion of Fleming Park and undeveloped land.

# **Highest EMS Risk Location:**

An EMS incident within Fleming Park, or mutual aid, predominately Lake Jacomo.

# Highest Hazmat Risk Location:

The location would be a mutual aid call on a fuel spill in the lake.

# **Highest Rescue Location:**

The lake area for a mutual aid boating or water rescue is the highest risk location.

# **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	1
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	1

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







# 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
176S	\$1,286,070	\$776,402	\$494,011	\$15,661

# **ESZ Characteristics:**

This ESZ contains the frequently traveled two lane road Todd George Parkway north/south and highly traveled Colbern Road east/west throughout the zone. The Parkway is two lanes north of Colbern Road and four lanes to the south. The extreme southern portion of the zone has single family residential dwellings and the northeast corner has Fleming Park. The far eastern portion of the map is mutual aid area.





176 S

# Jurisdictional Boundaries:

North: Todd George Road South: Colbern Road East: N/A West: Todd George Road

# **Highest Fire Risk Location:**

The single family residential homes on the southern portion of the zone present the greatest risk of fire.

# **Highest EMS Risk Location:**

Utilizing the past demand history, the greatest amount of EMS calls would likely occur in the southern residential neighborhoods.

# Highest Hazmat Risk Location:

Trucks potentially containing hazardous materials frequently travel down Colbern Road.

# **Highest Rescue Location:**

Motor vehicle accidents along high traffic Colbern Road provide the greatest risk.

# Demand History

Number of incidents	2012	2013	2014
EMS	4	11	13
Fire	0	4	3
HazMat	0	1	0
Rescue	2	6	5
Total	6	22	21

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
176T	Not Available	Not Available	Not Available	Not Available

# **ESZ Characteristics:**

This ESZ is comprised nearly entirely of mutual aid area which contains Lake Jacomo and undeveloped land. High traffic Colbern Road does travel east/west throughout the extreme southern portion of the zone. That is the only part of the ESZ that lies within LSFD response area.





176 T

# Jurisdictional Boundaries:

North: Beach Road South: Colbern Road East: N/A West: Beach Road

# **Highest Fire Risk Location**:

There is the potential for wild land fires throughout the zone, particularly along Beach Road.

# Highest EMS Risk Location:

The greatest likely hood of an EMS call would pertain to motor vehicle accidents along Colbern Road.

# Highest Hazmat Risk Location:

There is the possibility of fuel contamination in Lake Jacomo, which lies within the mutual aid area of the zone.

# **Highest Rescue Risk Location:**

There is the potential for a motor vehicle collision along the highly travelled Colbern Road.

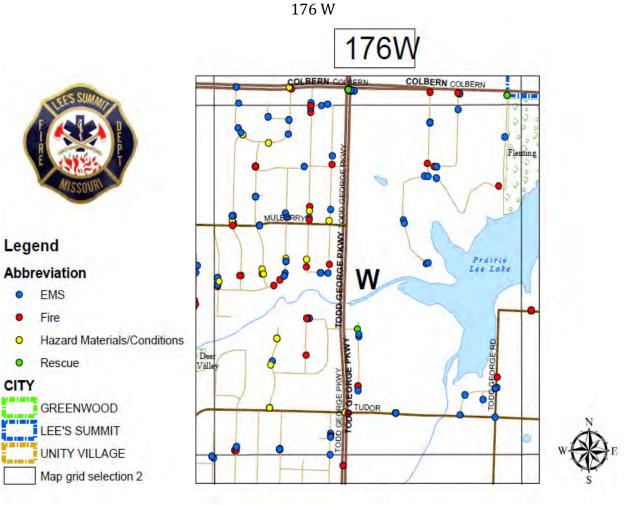
# **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	1
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	1

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







# 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
176W	\$18,446,594	\$18,132,746	\$312,526	\$1,380

# **ESZ Characteristics:**

This ESZ contains high traffic Todd George Parkway running north/south throughout the center of the zone. The northeast portion of the zone contains an older neighborhood of homes that encompass Prairie Lee Lake. This neighborhood is also without fire hydrants. The nearest hydrant is at the intersection of Colbern Road and County Park Road. The southeast area contains a small neighborhood and Prairie Lee Lake. The western side of the zone is comprised of dense neighborhoods, containing mostly like style single family residences.





176 W

# **Jurisdictional Boundaries:**

North: Burgundy South: Tudor Road East: Todd George Road West: Ivory

# **Highest Fire Risk Location:**

The northeast neighborhood is at high risk due to a lack of hydrants in the neighborhood. The nearest hydrant is at Colbern Road and County Park Road. This neighborhood contains no other hydrants. This area has a CAD rural water alert notification.

# **Highest EMS Risk Location:**

Utilizing past demand history, it was determined that EMS calls are traditionally spread fairly evenly throughout the residential areas of the map page.

# Highest Hazmat Risk Location:

There is the potential of a fuel spill at Prairie Lee Lake.

# **Highest Rescue Risk Location:**

The intersection of Todd George Parkway and Tudor Road is a frequent location for motor vehicle collisions.

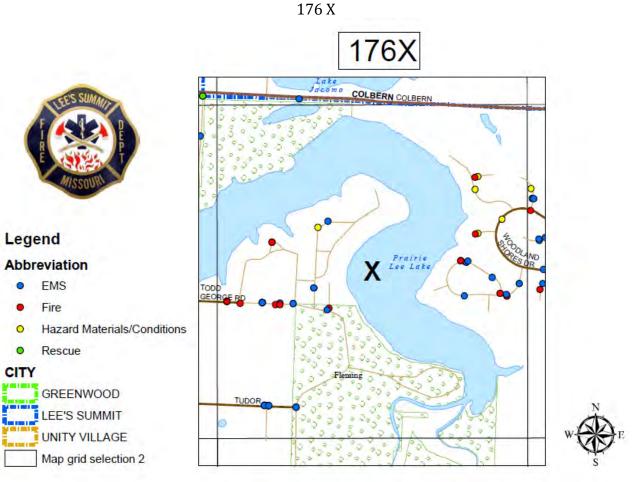
# **Demand History**

Number of incidents	2012	2013	2014
EMS	29	38	28
Fire	15	12	11
HazMat	5	6	7
Rescue	1	0	0
Total	50	56	46

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







# 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
176X	\$10,843,595	\$10,458,797	\$374,974	\$9,822

# **ESZ Characteristics:**

This ESZ contains the majority of Prairie Lee Lake. The eastern portion of the zone is comprised of an affluent neighborhood that borders the lake. The western portion contains spread out residential that contains no fire hydrants. The closest hydrants are located along the north/south portion of Todd George Road that is not contained within this ESZ. The remainder of the zone is undeveloped land, including Fleming Park.





176 X

# **Jurisdictional Boundaries:**

North: Colbern Road South: Tudor Road East: Woodland Shores Drive West: Todd George Road

# **Highest Fire Risk Location:**

The area at the greatest risk is the neighborhood in the western portion of the zone. This is determined by the complete lack of hydrants. The closest hydrants are located on the north/south portion of Todd George Road, which is not contained within this zone. This area has a CAD rural water alert notification.

# **Highest EMS Risk Location:**

Utilizing past demand history, the greatest amount of EMS calls has occurred in the western residential neighborhood.

# Highest Hazmat Risk Location:

There is the potential for a fuel spill at Prairie Lee Lake.

# **Highest Rescue Risk Location:**

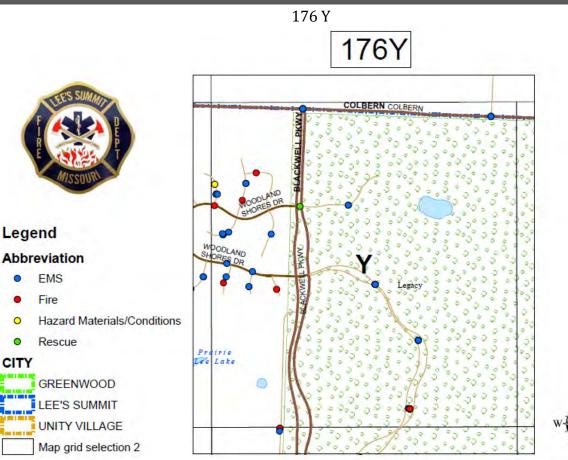
There is the possibility of a water rescue at Prairie Lee Lake.

# **Demand History**

Number of incidents	2012	2013	2014
EMS	7	9	9
Fire	7	9	8
HazMat	2	2	2
Rescue	0	0	0
Total	16	20	19

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$100,000	\$0	\$75,000
Assessed value	\$159,000	\$0	\$680,000





#### 2014 Assessed Value

ESZ :	#	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
176	Y	\$6,626,434	\$6,606,464	\$0	\$9,970

# **ESZ Characteristics:**

This ESZ contains both Blackwell Parkway travelling north/south and Colbern Road travelling east/west. The eastern portion of the zone contains Legacy Park which is a highly utilized sports complex. Legacy Park contains multiple baseball, softball, soccer and football fields. In addition, there is a very popular running path, disc golf course, picnic areas and a lot of green space. The western portion of the zone contains the affluent Woodland Shores subdivision.





176 Y

# **Jurisdictional Boundaries:**

North: Colbern Road South: Blackwell Road East: Legacy Park Drive West: Woodland Shores Drive

# **Highest Fire Risk Location:**

The Woodland Shores neighborhood contains large single family residences that hold a high property value. Areas along Blackwell Road and Coneflower Road are further than 1,500 feet from a hydrant. This area has a CAD rural water alert notification.

# **Highest EMS Risk Location:**

Legacy Park is a very popular sports complex that has a multitude of activities, particularly in the spring, summer, and fall months.

# Highest Hazmat Risk Location:

Trucks containing hazardous materials frequently travel Colbern Road.

# **Highest Rescue Risk Location:**

The intersection of Blackwell Parkway and Colbern Road is a possible location for motor vehicle collisions.

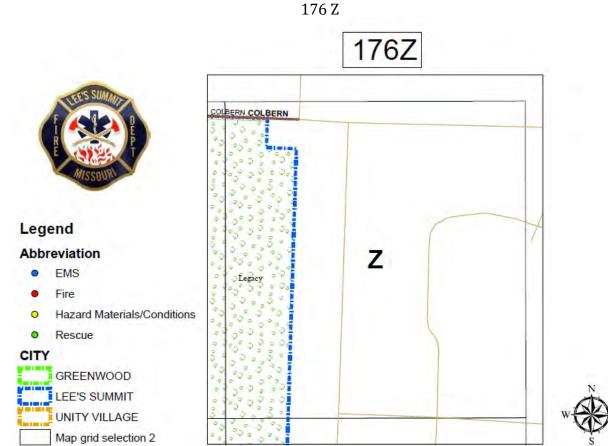
# **Demand History**

Number of incidents	2012	2013	2014
EMS	11	11	14
Fire	2	0	5
HazMat	0	1	0
Rescue	4	0	1
Total	17	12	20

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







# 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
176Z	\$283,253	\$0	\$283,253	\$0

# **ESZ Characteristics:**

This ESZ contains a majority of mutual aid area. The extreme western portion of the zone is the only area that lies within the LSFD response area. This portion of the zone contains Legacy Park and undeveloped land. Colbern Road runs east/west throughout the northern part of the zone.





176 Z

# **Jurisdictional Boundaries:**

North: Colbern Road South: 101<sup>st</sup> Street East: Stonehaus Drive West: Windsor Drive

# **Highest Fire Risk Location:**

There is the possibility of wild land fire at Legacy Park and within the undeveloped mutual aid area.

# **Highest EMS Risk Location:**

The greatest risk location of an EMS call is at Legacy Park.

# Highest Hazmat Risk Location:

Trucks containing hazardous materials travel Colbern Road.

#### **Highest Rescue Risk location:**

The highest risk location is motor vehicle collisions on Colbern Road.

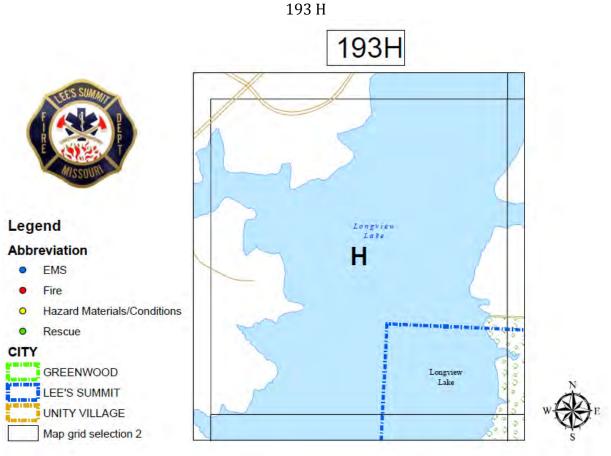
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







# 2014 Assessed Value

ESZ #	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
193H	\$18,017,436	\$17,969,649	\$46,406	\$1,341

# **ESZ Characteristics:**

This ESZ is small due to the edge of the city limits being in the SE corner of the ESZ. It is comprised of a small amount of the golf course and primarily of Longview Lake. No structures or residents are in this ESZ.





193 H

# Jurisdictional Boundaries:

North: City limits (No road identifier). South: Longview Lake (No road identifier). East: Fred Arbanas Gold Course (No road Identifier). West: City limit in Longview Lake (No road identifier).

# **Highest Fire Risk Location:**

No structural fire risk is noted for this ESZ with possible vegetation as the highest risk.

# **Highest EMS Risk Location:**

Highest EMS potential would be the small area of the golf course.

#### Highest Hazmat Risk Location:

Highest hazmat risk would be from a boat fuel leak into the lake in this ESZ.

#### **Highest Rescue Location:**

Highest potential for rescue in this ESZ would be a water rescue around the area of water.

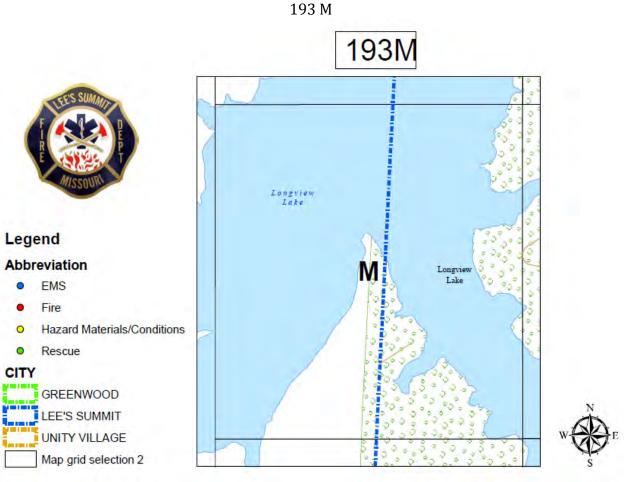
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







# 2014 Assessed Value

ESZ #	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
193M	\$351,985	\$0	\$351,984	\$0

# **ESZ Characteristics:**

This ESZ is comprised of mostly Longview Lake and some forest area surrounding it. The city limit cuts the ESZ almost in half as the east half is in the city of Lee's Summit.





193 M

# Jurisdictional Boundaries:

North: Longview Lake (No road identifier). South: Forest area and Longview Lake (No road identifier). East: Longview Road West: City limits (No road identifier).

# **Highest Fire Risk Location**:

Highest fire risk for this ESZ is an out building at Longview Lake County Park. No other significant structures noted.

# **Highest EMS Risk Location:**

The demand for this zone would be low with the county park being the only significant gathering point.

# **Highest Hazmat Location:**

This would be from fuel leaks of boats on the lake.

# **Highest Rescue Location:**

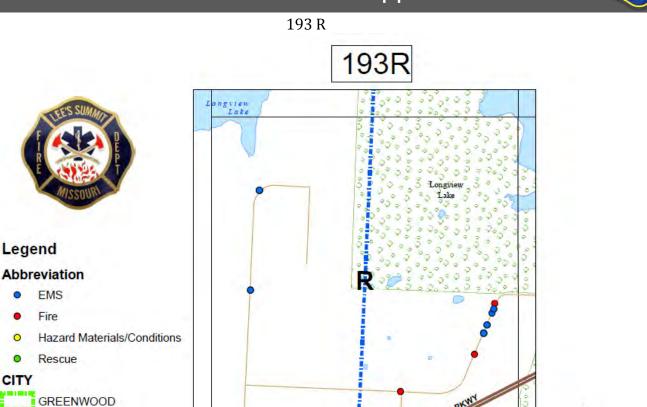
Water rescues would be most likely in this ESZ.

#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	1	0	0
Total	1	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





# **2014 Assessed Value**

ESZ #	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
193R	\$695,870	\$673,730	\$17,634	\$4,504

#### **ESZ Characteristics:**

Legend

0

0 0

CITY

EMS

Fire

LEE'S SUMMIT UNITY VILLAGE Map grid selection 2

This ESZ is sparsely populated and comprised of single family dwellings. It is at the western most edge of the city and considered rural. It does have a larger thoroughfare running through the SE corner.





193 R

# Jurisdictional Boundaries:

North: Woodland area (No road identifier). South: Scherer Parkway East: Scherer Road West: Western City limits (No road identifier).

# **Highest Fire Risk Location:**

The highest fire risk for this ESZ would be the single family homes in the zone. The area of Scherer Lane and Scherer Parkway are further than 1,500 feet from a hydrant. This area has a CAD rural alert notification.

# **Highest EMS Risk Location:**

The highest EMS risk for this ESZ would be the single family homes in the zone.

# Highest Hazmat Risk Location:

The highest hazmat risk will be carbon monoxide within the single family homes.

# **Highest Rescue Risk Location:**

The highest rescue risk would be along Scherer Parkway associated with motor vehicle collisions.

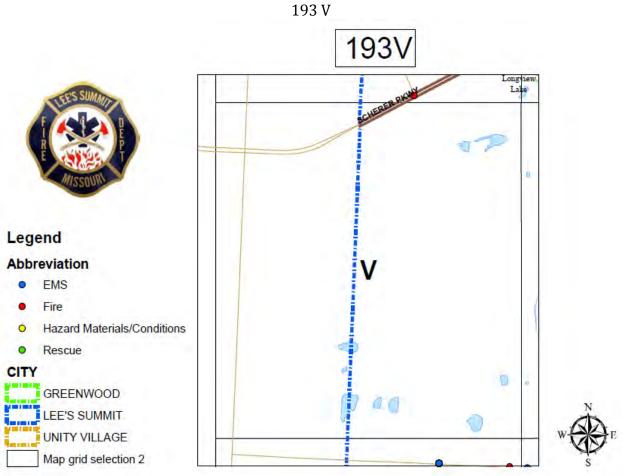
# **Demand History**

Number of incidents	2012	2013	2014
EMS	5	4	3
Fire	3	1	1
HazMat	0	0	0
Rescue	0	1	0
Total	8	6	4

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
193V	\$387,938	\$321,729	\$33,525	\$32,683

# **ESZ Characteristics:**

This ESZ is characterized mostly by open rural land. It does have some small structures and single family homes. The city limit cuts the ESZ in half running north to south and has a small park of Scherer Parkway running at the northern end. The population is 12 and rural in density.





193 V

# Jurisdictional Boundaries:

North: Scherer Parkway South: Open land (No road identified). East: Open land (No road identified). West: West city limits (No road identified).

### **Highest Fire Risk Location:**

The highest fire risk for this ESZ would be wild land fires or a single family dwelling along Scherer Parkway. The area Scherer Parkway is further than 1,500 feet from a hydrant. This area has a CAD rural alert notification.

#### **Highest EMS Risk Location:**

The highest EMS risk would come from the residents of this ESZ or a passerby.

#### Highest Hazmat Risk Location:

Due to limited roadways the main hazmat potential would be on Scherer Parkway or possibly any farm equipment.

#### **Highest Rescue Risk Location:**

The highest rescue location for this ESZ would be from Scherer Parkway and MVC's.

#### **Demand History**

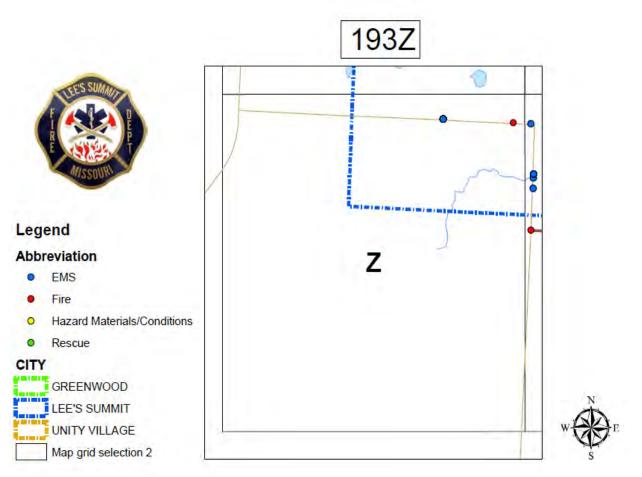
Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





193 Z



# 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
193Z	\$156,106	\$150,946	\$0	\$5,160

# **ESZ Characteristics:**

This ESZ is comprised of sparsely populated rural land. Mostly open land with single family homes and smaller structures. This ESZ is further narrowed by the city limits.





193 Z

# Jurisdictional Boundaries:

North: 137<sup>th</sup> Street South: City limits (No road identified). East: Peterson Road West: City limits (No road identified).

# **Highest Fire Risk Location**:

History shows very low frequency of fire incidents. The highest risk would be to the single family homes in the ESZ.

# **Highest EMS Risk Location:**

The highest EMS risk for this ESZ would be to the residents living in the homes.

# Highest Hazmat Risk Location:

The highest hazmat risk for this ESZ is along 137<sup>th</sup> Street as it is the longest stretch of road in the ESZ and most likely for a MVC and the release of hazardous materials.

# **Highest Rescue Risk Location:**

The highest rescue risk for this ESZ is also along 137<sup>th</sup> Street and MVC's along that stretch of road.

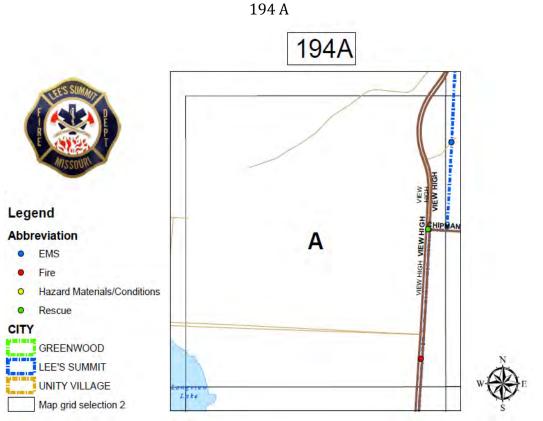
# **Demand History**

Number of incidents	2012	2013	2014
EMS	9	6	6
Fire	0	1	0
HazMat	0	0	0
Rescue	0	0	0
Total	9	7	6

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
194A	\$178,382	\$178,258	\$0	\$123

# **ESZ Characteristics:**

Due to the city limits this ESZ is very small and has a very low frequency of emergency services. Two single family homes are located on Chipman Road on the eastern edge of the ESZ. The population density is rural with a population of seven.





194 A

# Jurisdictional Boundaries:

North: Open land (No road identifier). South: Chipman Road East: Open land (No road identifier). West: West city limits (No road identifier).

# **Highest Fire Risk Location:**

The two single family residential structures on the eastern edge of the zone are the highest fire risk location.

# **Highest EMS Risk Location:**

The two single family residential structures on the eastern edge of the zone are the highest EMS risk location.

# **Highest Hazmat Risk Location:**

The highest risk in this ESZ would be from MVC's releasing chemicals on Chipman Road.

# **Highest Rescue Risk Location:**

The highest risk in the ESZ would be from MVC's on Chipman Road.

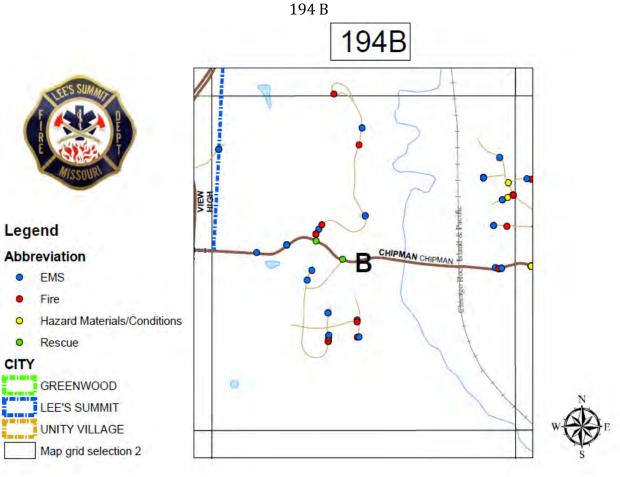
# **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	1	0
HazMat	0	0	0
Rescue	1	0	1
Total	1	1	1

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194B	\$6,800,589	\$6,780,885	\$0	\$19,701

#### **ESZ Characteristics:**

This ESZ is characterized by a rural population density with 330. The ESZ is primarily residential single family homes. Chipman Road runs from east to west in the middle of the ESZ. The emergency calls in this ESZ appear to be evenly distributed throughout.





194 B

# Jurisdictional Boundaries:

North: Cedar Creek Lane South: Edgewood Trail East: Bent Tree West: City limits (No road identifier).

# **Highest Fire Risk Location:**

The fire risk in the ESZ is evenly spread throughout, with single family homes being the predominant risk.

# **Highest EMS Risk Location:**

The EMS risk in this ESZ is spread evenly throughout, with no one area higher than the other associated with single family residences.

#### Highest Hazmat Risk Location:

History for this ESZ shows the highest hazmat risk to be along Chipman Road due to MVC's.

#### **Highest Rescue Risk Location:**

The highest rescue risk for this ESZ is along Chipman Road due to MVC's.

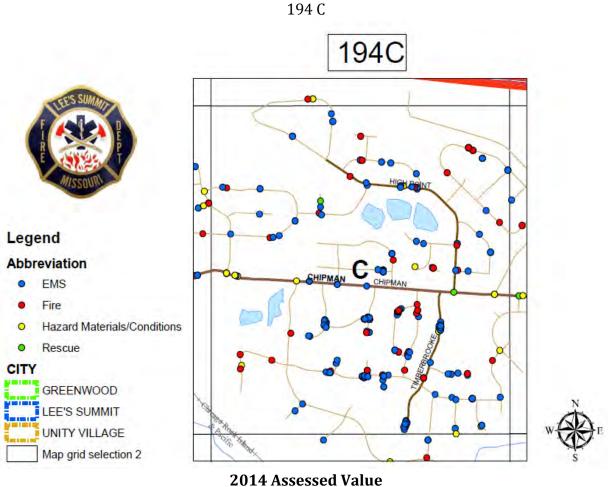
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	5	12	16
Fire	3	6	8
HazMat	1	0	2
Rescue	0	0	2
Total	9	18	28

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







# ESZ #Total AssessedAssessedAssessedAssessedValueResidential ValueCommercial ValueAgricultural Value194C\$31,436,461\$31,086,266\$347,826\$2,341

# **ESZ Characteristics:**

This ESZ is characterized by an urban population density and populated by mainly single family homes at 1,956. The ESZ has a major road (Chipman Road) running east to west through middle of it. The emergency calls for this ESZ are evenly dispersed and are not heavily concentrated to one area over another and associated usually with single family homes.





194 C

# Jurisdictional Boundaries:

North: Lowenstein Drive South: Riven Rock Trail East: Brookhaven Drive West: Bent Tree Drive

# **Highest Fire Risk Location:**

The fire risk for this ESZ is the single family residential structures.

# **Highest EMS Risk Location:**

The EMS risk for this ESZ is evenly spread throughout and not concentrated in one area over another and associated with the single family residential structures.

# Highest Hazmat Risk Location:

The highest hazmat risk remains along Chipman Road and due to MVC's along this road.

# **Highest Rescue Risk Location:**

The highest rescue risk in this ESZ is along Chipman Road and due to MVC's along this road.

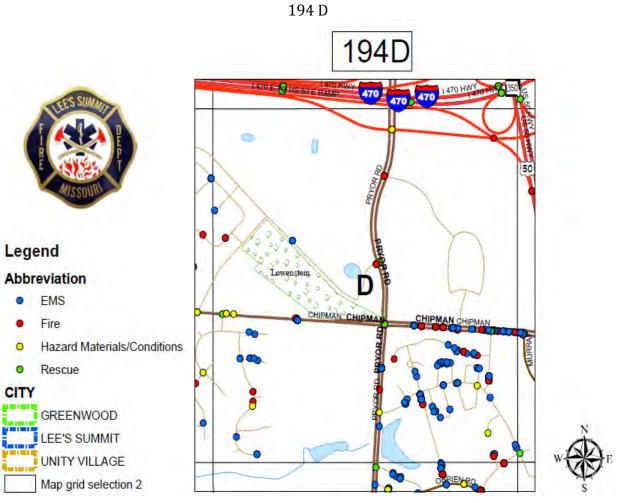
# **Demand History**

Number of incidents	2012	2013	2014
EMS	62	64	79
Fire	29	20	19
HazMat	5	4	10
Rescue	2	1	2
Total	98	89	110

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







# 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194D	\$30,480,456	\$9,738,412	\$20,741,629	\$408

# **ESZ Characteristics:**

This ESZ is characterized by an urban population density at 2,211. The ESZ is comprised of single family homes and a large population of elderly and assisted living. This ESZ has a nursing facility and a large shopping complex. The major roads in this ESZ are Chipman Road running east to west and Pryor Road running north to south. It also has a portion of the on ramp to 50 Highway from I-470.





194 D

# **Jurisdictional Boundaries:**

North: I-470 to 50 Highway on ramp South: Highcliffe Drive East: NW Peace Parkway West: Brookridge

# **Highest Fire Risk Location:**

The highest fire risk for property damage would be located in the shopping complex off of Chipman Road in the NE corner of the ESZ. With several big box stores being in that complex, all of which are covered by sprinkler systems. The highest fire risk for life would be the nursing facility located to the west of Pryor Road and south of Chipman Road.

# **Highest EMS Risk Location:**

The highest EMS risk for this ESZ would be the nursing care facility located west of Pryor Road and south of Chipman Road.

# Highest Hazmat Risk Location:

The highest risk for hazmat in this ESZ is along both Pryor Road and Chipman Road. This is due to large trucks moving hazardous materials and MVC's along these roads.

# **Highest Rescue Risk Location:**

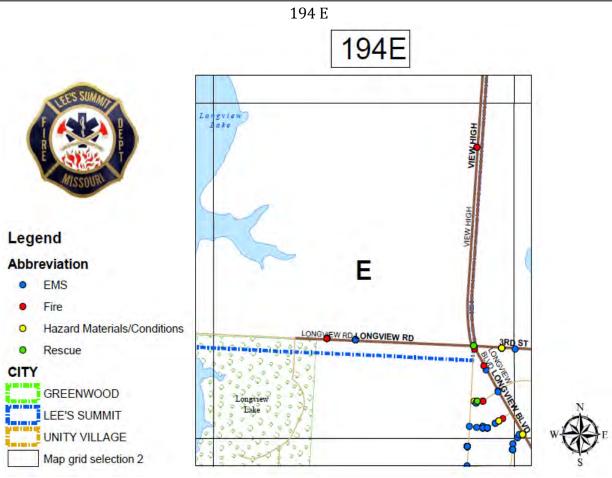
The highest risk for rescue in this ESZ is along both Chipman Road and Pryor Road due to MVC's.

istor y			
Number of incidents	2012	2013	2014
EMS	226	202	236
Fire	53	36	57
HazMat	6	11	7
Rescue	11	10	10
Total	296	259	310

# Demand History

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$13,000	\$0	\$0
Assessed value	\$2,500,000	\$0	\$0





# 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194E	\$10,447,396	\$596,048	\$9,851,235	\$112

# **ESZ Characteristics:**

This ESZ is characterized by a rural population density at 208. The city limit further shrinks this ESZ as well. The ESZ has a baseball field complex within it which increases population during the summer months. Some businesses are along Longview Boulevard and the Community college is near which also increases traffic during the daytime. View High Road is the major road running north to south and is also the west city limit boundary.





194 E

# **Jurisdictional Boundaries:**

North: City limit just south of Longview Road South: Open land (No road identifier). East: Longview Boulevard West: Unnamed Road

# **Highest Fire Risk Location:**

The highest fire risk for this ESZ would be the community college on Longview Boulevard.

# Highest EMS Risk Location:

The highest EMS risk for this ESZ would be the community college on Longview Boulevard.

# Highest Hazmat Risk Location:

The highest hazmat risk would be from fluids due to MVC's along View High Drive and Longview Boulevard.

#### **Highest Rescue Risk Location:**

The highest rescue risk would be along View High Drive and Longview Road due to MVC's.

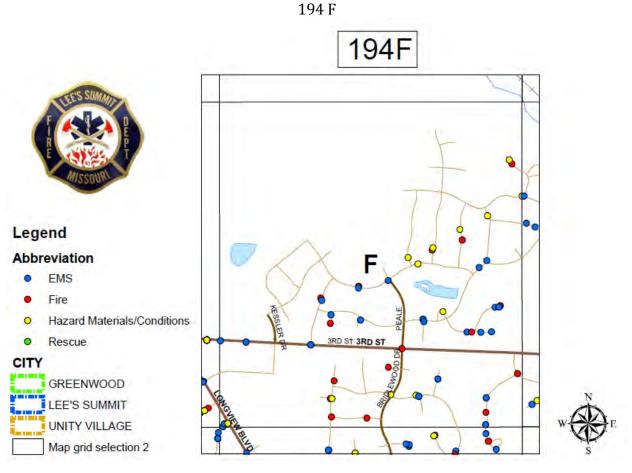
# **Demand History**

Number of incidents	2012	2013	2014
EMS	22	18	21
Fire	6	1	6
HazMat	1	1	2
Rescue	0	4	2
Total	29	24	31

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
194F	\$19,471,943	\$19,160,979	\$287,521	\$23,433

# **ESZ Characteristics:**

This ESZ is comprised of a rural population density of 696. The majority of this zone is single family homes with some undeveloped land in the NW corner. 3<sup>rd</sup> Street is the major road running west to east in the bottom half of the zone.





194 F

# Jurisdictional Boundaries:

North: Thoreau Street South: Walker Street East: Wintergarden West: Kessler Drive

# **Highest Fire Risk Location:**

The highest fire risk in this zone is the single family residential structures.

# **Highest EMS Risk Location:**

The EMS risk for this ESZ is evenly distributed throughout and associated with the single family residential structures.

# Highest Hazmat Risk Location:

The highest hazmat risk would be along 3<sup>rd</sup> Street from MVC's and fuel spills.

# **Highest Rescue Risk Locations:**

The highest rescue risk would be along 3<sup>rd</sup> Street from MVC's.

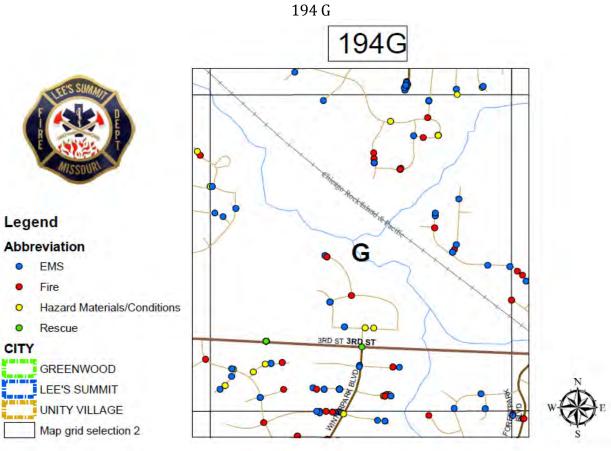
# **Demand History**

Number of incidents	2012	2013	2014
EMS	12	12	6
Fire	11	9	3
HazMat	3	3	5
Rescue	0	0	0
Total	26	24	14

<b>Fire loss</b>	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







# 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194G	\$21,298,778	\$19,280,180	\$2,018,523	\$47

#### **ESZ Characteristics:**

This ESZ is characterized by a suburban population density with 786 residents. The majority of this zone is comprised of single family homes. There is one elementary school located in this zone. 3<sup>rd</sup> Street runs from west to east and is the major section of roadway for this ESZ.





194 G

### Jurisdictional Boundaries:

North: Riven Rock Trail South: Winterview Ridge East: Cody Street West: Morton Street

#### **Highest Fire Risk Location:**

For this zone the highest fire risk location is the elementary school located on 3<sup>rd</sup> Street.

#### **Highest EMS Risk Location:**

The EMS risk for this ESZ is balanced throughout the single family residential structures.

#### Highest Hazmat Risk Location:

The highest hazmat risk for this ESZ would be along 3<sup>rd</sup> Street and attributed to fluid leaks from MVC's.

#### **Highest Rescue Risk Location:**

The highest rescue risk location for this ESZ would be along 3<sup>rd</sup> Street and attributed to MVC's.

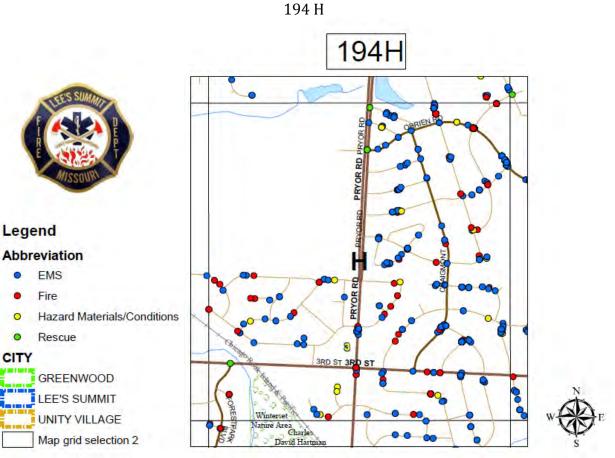
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	25	20	12
Fire	9	10	9
HazMat	4	3	6
Rescue	1	0	2
Total	39	33	29

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194H	\$18,017,436	\$17,969,649	\$46,406	\$1,341

#### **ESZ Characteristics:**

This ESZ is characterized by a metropolitan population density with 2,952 residents. The zone is comprised of single family homes West of Pryor Road and an elderly independent living to the East of Pryor Road and north of 3<sup>rd</sup> Street. Some of the elderly independent living areas have multi-family dwellings. LSFD station #3 is located at the intersection of 3<sup>rd</sup> Street and Pryor Road. Pryor Road runs north and south and cuts the ESZ in half and 3<sup>rd</sup> Street runs west to east in the bottom portion of the zone.





194 H

## Jurisdictional Boundaries:

North: Cherry Street South: 4<sup>th</sup> Street East: Pinnell Street West: Whitlock Street

#### **Highest Fire Risk Location:**

The highest fire risk for this zone would be located East of Pryor Road and north of 3<sup>rd</sup> Street. This is the area with mostly elderly independent living and all of the multi-family dwellings.

## **Highest EMS Risk Location:**

The highest EMS risk for this ESZ would be the area East of Pryor Road and north of 3<sup>rd</sup> Street as this is where most of the elderly independent living is located.

#### Highest Hazmat Risk Location:

The highest risk for hazmat in this ESZ would be carbon monoxide inside single family residences.

### **Highest Rescue Risk Location:**

The highest rescue risk for this ESZ would be along Pryor Road or 3<sup>rd</sup> Street due to MVC's.

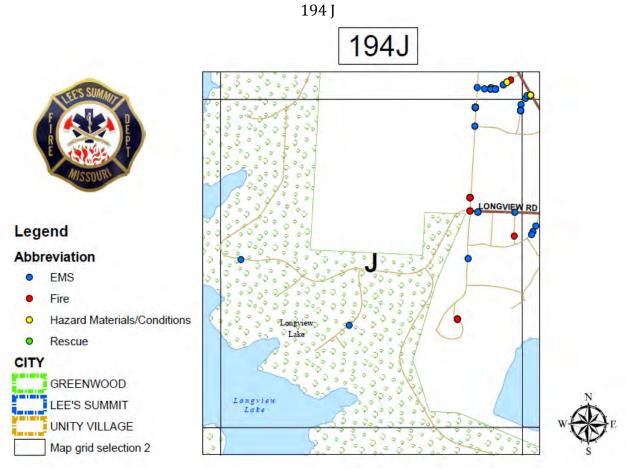
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	155	165	180
Fire	41	28	48
HazMat	8	11	9
Rescue	1	8	1
Total	205	212	238

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$200.00
Assessed value	\$0	\$0	\$140,000.00







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194J	\$15,141,394	\$3,289,314	\$11,847,190	\$4,884

#### **ESZ Characteristics:**

This ESZ is characterized by a rural population density with 327 residents. This zone contains most of the metropolitan community college to the west of Longview Road. It also has some multi story multi-family buildings as well in the NE corner of the ESZ.





194 J

## Jurisdictional Boundaries:

North: Kessler Drive South: County Park Road East: Ovation Street West: Longview Road

### **Highest Fire Risk Location:**

The highest fire risk would be the multi-story multi-family apartment complexes in the NW corner of the ESZ.

### **Highest EMS Risk Location:**

The highest EMS risk is located in the NW corner of the ESZ in the apartment buildings.

### Highest Hazmat Risk Location:

The highest hazmat risk is located along Longview Road where fuel spills from motor vehicle collisions occur.

### **Highest Rescue Risk Location:**

The highest rescue risk is located along Longview Road due to motor vehicle collisions.

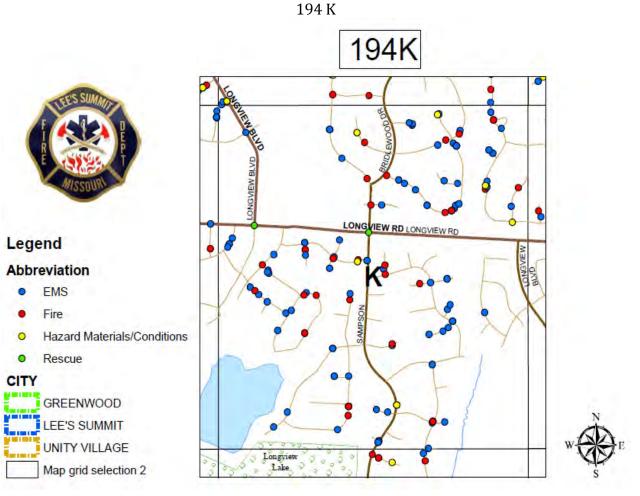
#### Demand History

Number of incidents	2012	2013	2014
EMS	23	29	30
Fire	3	2	4
HazMat	1	3	2
Rescue	1	1	0
Total	28	35	36

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194K	\$34,877,835	\$34,854,294	\$259	\$23,263

#### **ESZ Characteristics:**

This ESZ is characterized by an urban population density of 1,666 residents. The zone is comprised primarily of single family residential structures. Longview Road is the major west to east road the runs the northern portion of the ESZ.





194 K

#### Jurisdictional Boundaries:

North: SW Bridlewood Lane South: 13<sup>th</sup> Street East: Winterwalk Lane West: SW Redbuck Circle

#### **Highest Fire Risk Location:**

The fire risk for this balanced throughout with the single family residential structures.

#### **Highest EMS Risk Location:**

The EMS risk for this ESZ is evenly distributed throughout associated with the single family residential structures.

#### Highest Hazmat Risk Location:

The highest hazmat risk location is carbon monoxide within the single family residential structures.

#### **Highest Rescue Risk Location:**

The highest risk for rescue is along Longview Road and associated to motor vehicle collisions.

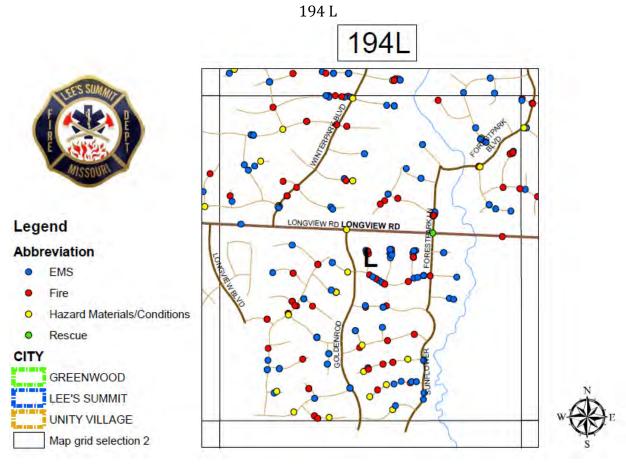
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	31	43	24
Fire	10	20	16
HazMat	3	4	5
Rescue	0	2	0
Total	44	69	45

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194L	\$37,636,918	\$37,369,938	\$266,948	\$0

#### **ESZ Characteristics:**

This ESZ is characterized by an urban population density with 1,874 residents. The zone is primarily single family structures consisting of wood frame construction and approximately 2,000-5,000 square feet each. The zone has a major road (Longview Road) running through the middle of it.





194 L

### Jurisdictional Boundaries:

North: Winterview Ridge South: 12<sup>th</sup> Terrace East: Forestpark Boulevard West: Winterhill Street

#### **Highest Fire Risk Location:**

The fire risk is balanced throughout the zone with the single family, wood frame residential structures.

### **Highest EMS Risk Location:**

The EMS risk location is associated with the population within the single family residential structures.

#### Highest Hazmat Risk Location:

The highest hazmat risk would be carbon monoxide within the residential structures.

### **Highest Rescue Risk Location:**

The highest rescue risk would be along Longview Road due to motor vehicle collisions.

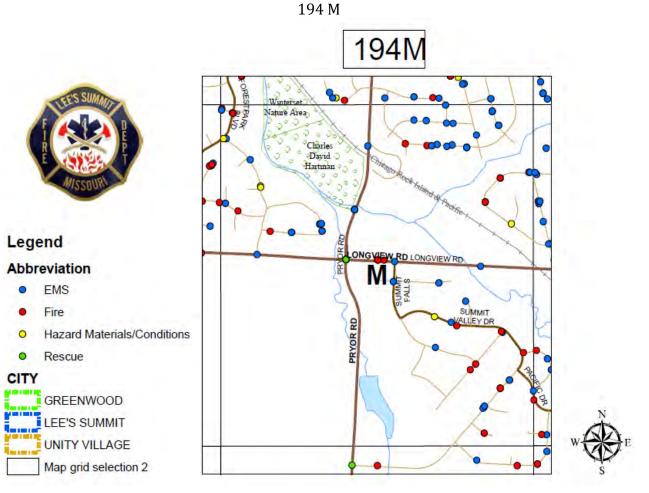
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	31	43	24
Fire	10	20	16
HazMat	3	4	5
Rescue	0	2	0
Total	44	69	45

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194M	\$15,684,354	\$15,608,485	\$65,561	\$10,306

#### **ESZ Characteristics:**

This ESZ is characterized by a suburban population density of 927 residents. The zone is comprised of single family homes of various sizes ranging from approximately 1,000-5,000 square feet and has two major roads going through it. Pryor Road runs north to south and Longview Road runs west to east. The southwestern section of the zone is undeveloped land. In the northwestern portion of the zone is a memorial park with softball fields.





194 M

### Jurisdictional Boundaries:

North: 5<sup>th</sup> Street South: Summit Hill Drive East: Summit Valley Drive West: Forestpark Boulevard

#### **Highest Fire Risk Location:**

The highest fire risk location is a large single family residential structure on the corner of Longview Road and Pryor Road.

### **Highest EMS Risk Location:**

The EMS risk for this ESZ is spread throughout the ESZ. There is not one area at a higher risk than another and is associated with the residential density of single family residential structures.

#### Highest Hazmat Risk Location:

The highest Hazmat risk for this zone is carbon monoxide within the single family residential structures.

### **Highest Rescue Risk Location:**

The highest rescue risk for this ESZ would be along either Pryor Road or Longview Road. This would be due to MVC's that occur in this zone

#### **Demand History**

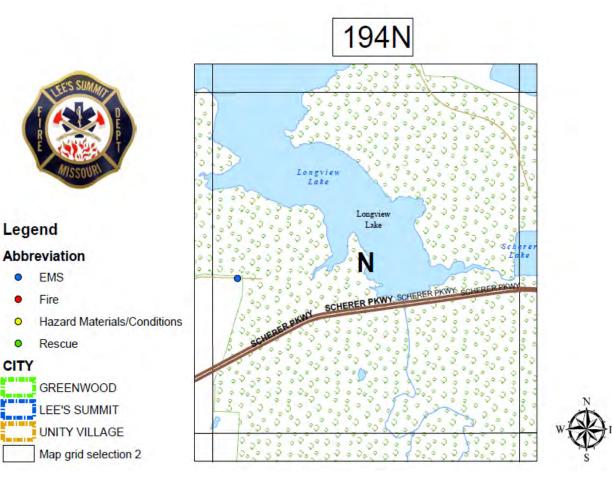
Number of incidents	2012	2013	2014
EMS	18	24	20
Fire	9	6	13
HazMat	1	2	3
Rescue	4	1	1
Total	32	33	37

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0



194 N





#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194N	\$955,932	\$74,252	\$881,680	\$0

## **ESZ Characteristics:**

This ESZ is characterized by a rural population density of seven residents. A few single family residential structures are located on the western side of the zone. Scherer Parkway is the major road running west to east in this ESZ. This ESZ has a large amount of Longview Lake north of Scherer Parkway.





194 N

### Jurisdictional Boundaries:

North: No road identifier. South: No road identifier. East: No road identifier. West: No road identifier.

#### **Highest Fire Risk Location:**

The highest fire risk for this ESZ is the single family structures on the west side of the zone.

### Highest EMS Risk Location:

The highest EMS risk for this ESZ would be along Scherer Parkway as it is the only road with homes on it.

#### Highest Hazmat Risk Location:

The highest hazmat risk location would be along Scherer Parkway associated with carbon monoxide and the single family structures.

### **Highest Rescue Risk Location:**

The highest rescue risk location would be along Scherer Parkway associated with motor vehicle collisions.

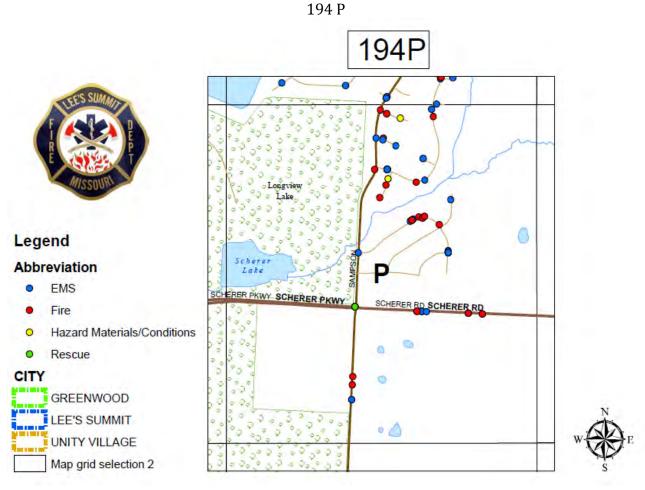
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	1	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	1	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194P	\$6,979,290	\$6,694,622	\$269,492	\$15,173

#### **ESZ Characteristics:**

This ESZ is characterized by a rural population density of 347 residents. It is comprised of single family homes park land, and undeveloped land. Scherer Parkway/Road is the major west to east road, and Sampson Road runs north to south.





194 P

### **Jurisdictional Boundaries:**

North: 13<sup>th</sup> Terrace South: No road identifier East: Antiquity Street West: Unnamed Road

#### **Highest Fire Risk Location:**

The highest fire risk location for this zone is the single family residential structures on Sampson Road, south of Scherer Road. This elevated risk is due to an extended distance from the nearest hydrant at Scherer Road. This area has a CAD rural water alert notification.

### **Highest EMS Risk Location:**

The highest EMS risk for this ESZ is located to the east of Sampson Road in the neighborhood subdivision.

#### Highest Hazmat Risk Location:

The highest hazmat risk location for this zone would be the subdivision east of Sampson Road with carbon dioxide within the residential structures.

### **Highest Rescue Risk Location:**

The highest rescue risk location for this ESZ would be along Scherer Parkway/Road due to motor vehicle collisions.

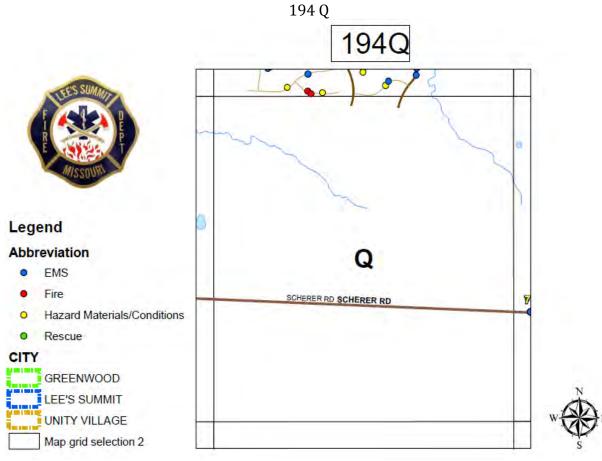
Number of incidents	2012	2013	2014
EMS	14	14	9
Fire	10	8	11
HazMat	4	0	0
Rescue	1	1	3
Total	29	23	23

#### **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194Q	\$1,191,395	\$1,173,472	\$0	\$17,922

#### **ESZ Characteristics:**

This ESZ is characterized by a rural population density of 57 residents. The zone is comprised of mostly open land with Scherer Road being the major road running east to west. Single family residential structures are located in the north/central portion of the zone.





194 Q

### Jurisdictional Boundaries:

North: No road identifier. South: No road identifier. East: No road identifier. West: No road identifier.

### **Highest Fire Risk Location**:

The highest fire risk location is the single family residential structures in the north/central portion of the zone.

### **Highest EMS Risk Location:**

The highest EMS risk for this zone is the single family structures in the north/central area.

#### Highest Hazmat Risk Location:

The highest hazmat risk for this zone is the single family residential structures in the north central portion with carbon monoxide.

### **Highest Rescue Risk Location:**

The highest rescue risk for this zone would be from motor vehicle collisions on Scherer Road.

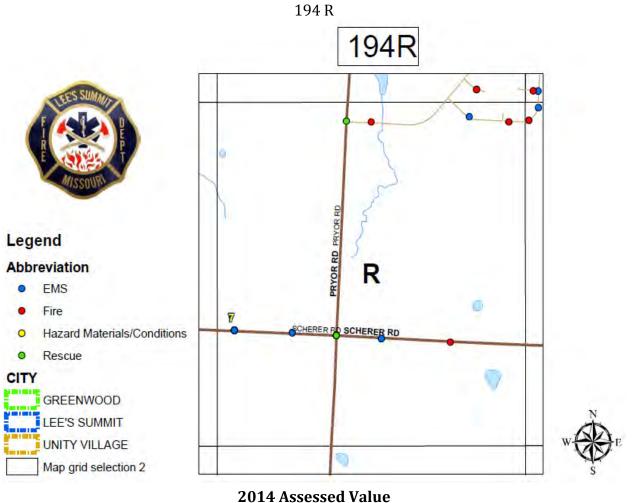
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
194R	\$3,600,436	\$1,886,704	\$1,688,928	\$24,805

#### **ESZ Characteristics:**

This ESZ is characterized by a rural population density with 97 residents. The zone is comprised of mostly open land with few single family homes. LSFD station #7 is located in this zone west of the Scherer/Pryor intersection. Scherer Road is the major west to east running road and Pryor Road is the major road running north to south.





194 R

### Jurisdictional Boundaries:

North: Summit Hill Drive South: No road identifier. East: No road identifier. West: No road identifier.

#### **Highest Fire Risk Location:**

The highest fire risk for this zone is the fire station.

#### **Highest EMS Risk Location:**

The highest EMS risk location is the single family residences on Scherer Road.

#### Highest Hazmat Risk Location:

The highest hazmat risk for this ESZ is the single family homes associated with carbon monoxide.

#### **Highest Rescue Risk Location:**

The highest rescue risk for this ESZ would be at the intersection of Scherer Road and Pryor Road associated with motor vehicle collisions.

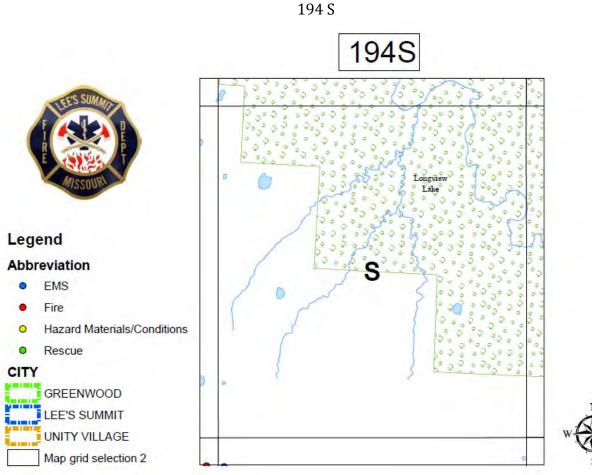
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	4	5	7
Fire	1	3	1
HazMat	0	0	1
Rescue	0	1	2
Total	5	9	11

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$30,000.00







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194S	\$86,904	\$0	\$83,771	\$3,133

#### **ESZ Characteristics:**

This ESZ is characterized by rural population density with 0 residents. It is comprised of almost exclusively open land and trees. It has no major roads going through it.





194 S

### Jurisdictional Boundaries:

North: No road identifier. South: No road identifier. East: No road identifier. West: No road identifier.

#### **Highest Fire Risk Location:**

The highest fire risk for this zone would be the park land from wild land fires.

#### **Highest EMS Risk Location:**

The only EMS risk for this zone would be from random hikers.

## Highest Hazmat Risk Location:

The highest hazmat risk would be from chemical dumping in the parkland.

### **Highest Rescue Risk Location:**

The rescue risk location for this zone would be from hikers in the park.

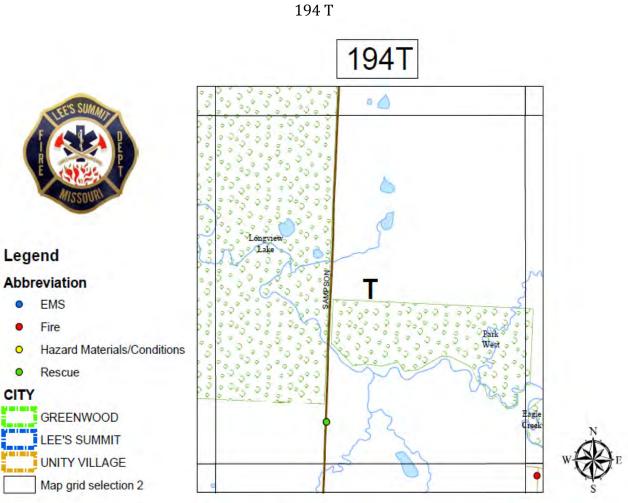
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

<b>Fire loss</b>	2012	2013	2014
Life loss	0	0	0
Property loss	0	0	0
Assessed value	0	0	0







#### **2014 Assessed Value**

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194T	\$465,591	\$151,894	\$304,003	\$9,693

## **ESZ Characteristics:**

This ESZ is characterized by rural population density with seven residents. It is comprised of mostly open land and forest. Sampson Road is the only major road that runs north to south. A single family residential structure is in the southeastern portion of the zone on Sampson Road.





194 T

## **Jurisdictional Boundaries:**

North: No road identifier. South: No road identifier. East: No road identifier. West: No road identifier.

### **Highest Fire Risk Location:**

The highest fire risk location is the single family residence in the south eastern portion of the zone, on Sampson Road. The distance is greater than 1,500 feet to a hydrant from the residential structure along Sampson Road. This area has a CAD rural water alert notification.

### **Highest EMS Risk Location:**

The EMS risk to this zone is the single family residence in the south eastern portion of the zone, on Sampson Road.

#### **Highest Hazmat Risk Location:**

The highest hazmat risk for this zone is the single family residence in the south eastern portion of the zone, on Sampson Road, and associated with carbon monoxide.

### **Highest Rescue Risk Location:**

The highest rescue risk for this ESZ is along Sampson Road associated with motor vehicle collisions.

#### **Demand History**

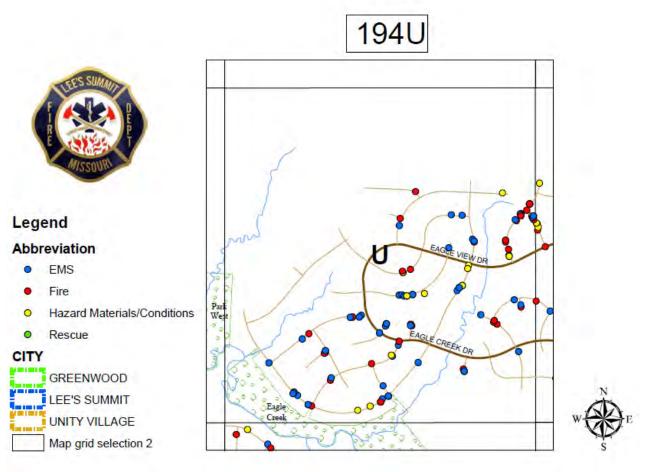
Number of incidents	2012	2013	2014
EMS	0	1	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	1
Total	0	1	1

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





194 U



#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194U	\$21,170,186	\$21,169,028	\$0	\$1,143

#### **ESZ Characteristics:**

This ESZ is characterized by a suburban population density of 1,242 residents. It is comprised of mostly single family homes with some multi-family dwellings as well. The residential area of the zone backs up to a treed green space on the south and western sides. There are no commercial properties in this zone.





194 U

### Jurisdictional Boundaries:

North: Deer Run Court South: Golden Eagle Drive East: Rambling Vine West: Golden Eagle Drive

#### **Highest Fire Risk Location:**

The highest fire risk location is the multifamily townhomes within the zone.

#### **Highest EMS Risk Location:**

The EMS risk for this ESZ is evenly distributed throughout the residential structures.

#### Highest Hazmat Risk Location:

The hazmat risk for the ESZ is evenly distributed throughout associated with carbon monoxide incidents.

#### **Highest Rescue Risk Location:**

The highest rescue risk location would be motor vehicle collisions on Eagle Creek Drive, with the highest posted speed limit in the zone at 35 mph.

#### **Demand History**

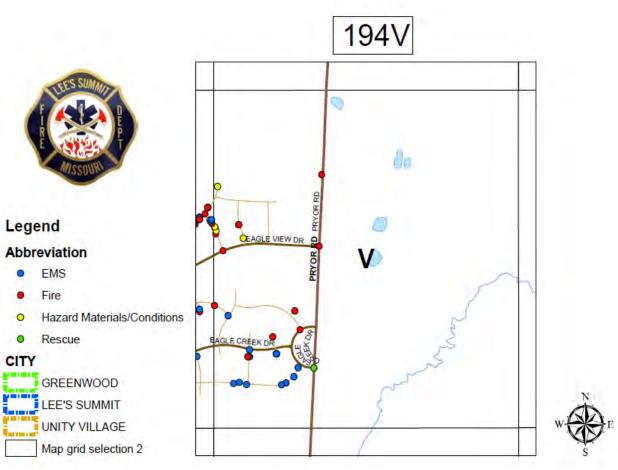
Number of incidents	2012	2013	2014
EMS	14	24	27
Fire	13	18	12
HazMat	7	7	2
Rescue	0	0	0
Total	34	49	41

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0









## 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194V	\$5,213,907	\$5,192,774	\$0	\$21,142

## **ESZ Characteristics:**

This ESZ is characterized by a rural population density of 463 residents. It is comprised of mostly single family homes and some multi-family townhomes. The main neighborhood has a subdivision pool. The major road for this ESZ is Pryor Road running north to south.





194 V

#### Jurisdictional Boundaries:

North: Timbertrace South: Post Oak Road East: No road identifier West: Gooseberry Lane

### **Highest Fire Risk Location:**

The highest fire risk location is the multifamily residential structures within Eagle Creek Subdivision.

### **Highest EMS Risk Location:**

The EMS risk for this ESZ is balanced throughout the residential structures in the zone.

#### Highest Hazmat Risk Location:

The highest hazmat risk location is the residential structures in the zone associated with carbon monoxide.

#### **Highest Rescue Risk Location:**

The highest rescue risk location in this zone would be at the subdivision pool.

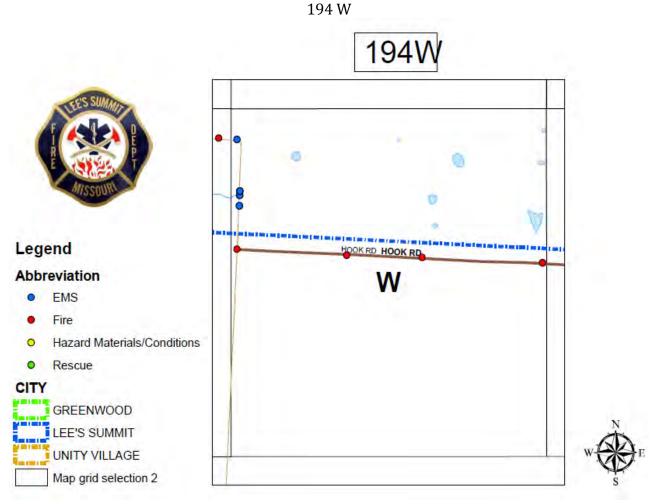
#### Demand History

Number of incidents	2012	2013	2014
EMS	6	8	1
Fire	3	7	4
HazMat	2	1	1
Rescue	0	2	0
Total	11	18	6

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194W	\$358,278	\$340,706	\$0	\$17,570

#### **ESZ Characteristics:**

This ESZ is characterized by a rural population density with 50 residents. It is comprised of mostly open land with several single family homes. Hook Road is the major road running east to west in the zone. The zone is cut with approximately the southern 2/3 outside of the city limits.





194 W

### Jurisdictional Boundaries:

North: No road identifier. South: No road identifier. East: No road identifier. West: Peterson Road

#### **Highest Fire Risk Location:**

The highest fire risk location is the single family homes within the zone.

#### **Highest EMS Risk Location:**

The EMS risk for this ESZ is mostly contained to the small number of houses along Peterson Road, just inside the city limits.

#### Highest Hazmat Risk Location:

The highest risk location would be the single family residences associated with carbon monoxide.

#### **Highest Rescue Risk Location:**

The highest rescue risk location is the intersection of Hook Road and Peterson Road associated with motor vehicle collisions.

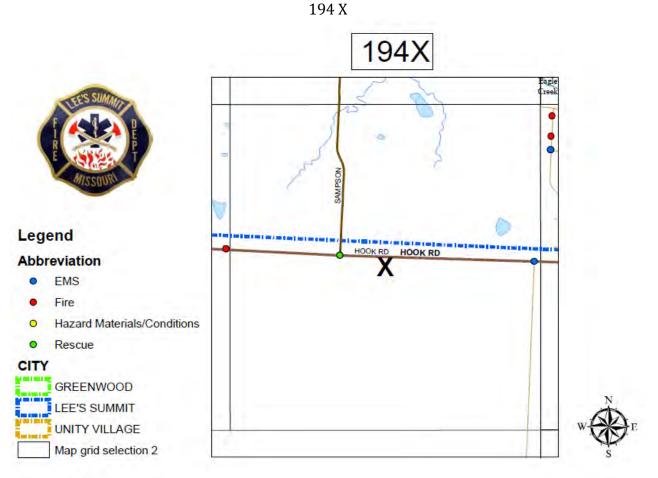
#### Demand History

Number of incidents	2012	2013	2014
EMS	2	8	1
Fire	1	3	2
HazMat	0	0	0
Rescue	0	0	0
Total	3	11	3

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
194X	\$147,604	\$132,669	\$0	\$14,934

#### **ESZ Characteristics:**

This ESZ is characterized by open land with no population within it; designating it as rural in density. The city limit is just north of Hook Road. Sampson Road is the only other road in the ESZ and it runs north and south.





194 X

### Jurisdictional Boundaries:

North: No road identifier. South: South city limit. East: No road identifier. West: No road identifier.

#### **Highest Fire Risk Location:**

The fire risk for this ESZ would be wild land fires due to the amount of open land. The area around Hook Road and Sampson Road is further than 1,500 feet from a hydrant. This area has a CAD rural water alert notification.

### **Highest EMS Risk Location:**

EMS risk for this ESZ is very low as it would be associated with travelers along the roadways.

#### Highest Hazmat Risk Location:

The highest hazmat risk location would be along Sampson Road due to fluid leaks from MVC's.

### **Highest Rescue Risk Location:**

The highest rescue risk for this ESZ would be along Sampson Road due to motor vehicle collisions.

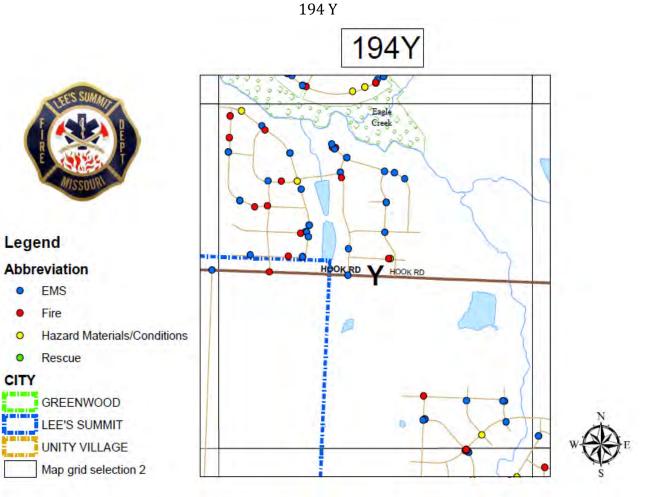
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	2	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	1	1
Total	2	1	1

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194Y	\$16,316,239	\$16,296,718	\$0	\$19,518

#### **ESZ Characteristics:**

This ESZ is characterized by a suburban population density with 796 residents. This zone is mainly comprised of single family homes approximately 2,000-3,000 square feet in size. The southwest corner of the zone is outside the city limits. Hook Road is the major road for this zone running east to west.





194 Y

### Jurisdictional Boundaries:

North: Carlton Drive South: Morris Drive East: Roberts Drive West: Kristin Drive

#### **Highest Fire Risk Location**:

The fire risk for this ESZ is concentrated to the subdivision Monarch View and the single family residential structures.

## **Highest EMS Risk Location:**

The EMS risk for this ESZ is concentrated in the denser population within the Monarch View subdivision.

### Highest Hazmat Risk Location:

The highest hazmat risk would be the single family residential structures associated with carbon monoxide.

### **Highest Rescue Risk Location:**

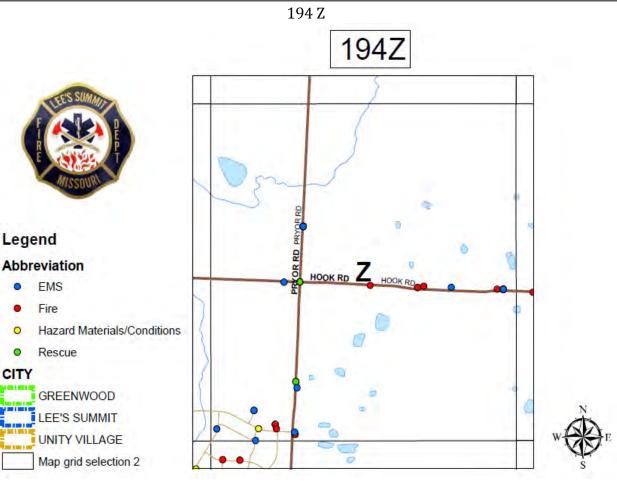
The highest rescue risk would be along Hook road associated with motor vehicle collisions.

#### **Demand History**

Number of incidents	2012	2013	2014
EMS	11	16	10
Fire	9	3	9
HazMat	2	1	1
Rescue	0	0	0
Total	22	20	20

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
194Z	\$3,748,561	\$1,364,847	\$2,361,334	\$22,373

#### **ESZ Characteristics:**

This ESZ is characterized by a rural population density with 104 residents. There are single family homes in the SW corner of the zone with a majority of the remainder as open land. Hawthorn Hill Elementary School is located at the corner of Pryor Road and Hook Road. Pryor Road is the major north to south road and Hook Road is the major east to west road.





194 Z

## Jurisdictional Boundaries:

North: No road identifier. South: Kline Avenue East: No road identifier. West: Tiara Lane

#### **Highest Fire Risk Location:**

The highest fire risk for this zone is the elementary located at Pryor and Hook Road.

#### **Highest EMS Risk Location:**

The highest EMS risk location is the elementary school with the concentration of people during school sessions.

#### Highest Hazmat Risk Location:

The highest hazmat risk location is the single family home associated with carbon monoxide.

#### **Highest Rescue Risk Location:**

The highest rescue risk would be at the intersection of Hook and Pryor Road associated with motor vehicle collisions.

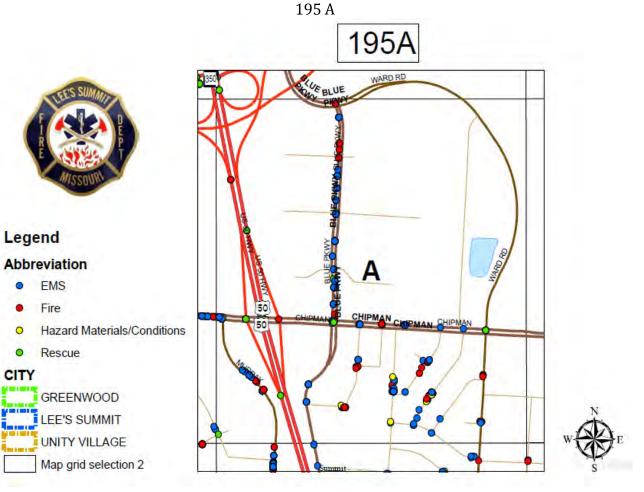
#### Demand History

Number of incidents	2012	2013	2014
EMS	8	11	11
Fire	8	3	2
HazMat	0	0	1
Rescue	0	1	3
Total	16	15	17

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195A	\$42,726,714	\$7,098,562	\$35,598,533	\$29,640

#### **ESZ Characteristics:**

This ESZ has a mix of residential, industrial, retail, business, and highway infrastructure. 50 Highway runs north/south and Chipman Road, a major roadway runs east/west. Single family residences and a multifamily apartment complex are located South of Chipman Road and east of 50 Highway. A newly developed retail shopping complex is located on the west side of Blue Parkway, north of Chipman Road. A large technology complex is located on the east side of Blue Parkway, north of Chipman Road. South of Chipman Road, on the west side of 50 Highway, a portion of a large nursing home campus is positioned. In this Campus, a moderate sized assembly space is located which seats 2,000. This ESZ is rural in density with a population of 647 within the <sup>3</sup>/<sub>4</sub> mile square.





195 A

# Jurisdictional Boundaries:

North: Blue Parkway South: Carroll Street East: Ward Road West: Murray Road

### **Highest Fire Risk Location:**

A technology campus is located at 777 NE Blue Parkway. This structure is a mixed use with industrial, business, educational, and governmental tenants. Due to the inconsistent fire protection system throughout the complex and an open space basement which is partially suppressed, this structure is the highest fire risk structure in the city.

### **Highest EMS Risk Location:**

Due to the amount of populous which fills the technology campus daily at 777 NE Blue Parkway, it is the highest EMS risk location within the ESZ.

# Highest Hazmat Risk Location:

The technology campus located at 777 NE Blue Parkway has a current tenant which has hazardous materials storage on site.

### **Highest Rescue Risk Location:**

The intersection of Chipman Road and Blue Parkway is a frequent location for motor vehicle locations with moderate speeds.

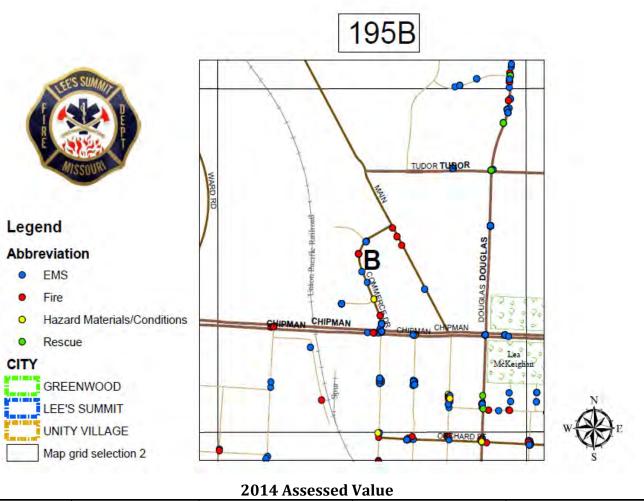
Number of incidents	2012	2013	2014
EMS	144	137	164
Fire	48	54	52
HazMat	6	12	10
Rescue	17	31	26
Total	215	234	252

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





195 B



ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195B	\$15,787,742	\$2,744,947	\$12,943,892	\$98,894

# **ESZ Characteristics:**

This ESZ is comprised of a mix of dense residential, parks, and some commercial business. The Union Pacific railroad runs north/south through the zone. Chipman Road runs east/west through the southern third of the ESZ. The local police headquarters is positioned on the northwest corner of Douglas Street and Tudor Road. A portion of a local high school is positioned at the southeast corner of Tudor Road and Douglas Street. A portion of the newly developed Lea McKeighan Park is located on the southeastern corner of Chipman Road and Douglas Street. An urgent care medical facility is located on Commerce Drive. The residential structures are mostly single family homes South of Chipman Road. The population is 372 making this ESZ rural in population density.





195 B

# Jurisdictional Boundaries:

North: Tudor Road South: Maggie Street East: Douglas Street West: Ward Road

# **Highest Fire Risk Location:**

A local high school is located at 901 NE Douglas Street is approximately 20 year old, has a fire suppression and monitored detection system. The enrollment was approximately 1,900 students in 2014. In the event of a fire, the hazard would likely be quickly confined due to the protection system. However, the collateral effects to the community make this the highest fire risk location in the ESZ.

# **Highest EMS Risk Location:**

A local high school is located at 901 NE Douglas Street. Due to the concentration of people given the enrollment and employment of the facility, this is the highest EMS risk location within the ESZ.

# Highest Hazmat location:

The railroad which runs North/South facilitates a means for transportation of hazardous materials in large quantity. This railroad is the highest risk location for hazmat within this ESZ.

### **Highest Rescue Risk:**

The intersection of Douglas Street and Tudor Road is a frequent location for motor vehicle collisions.

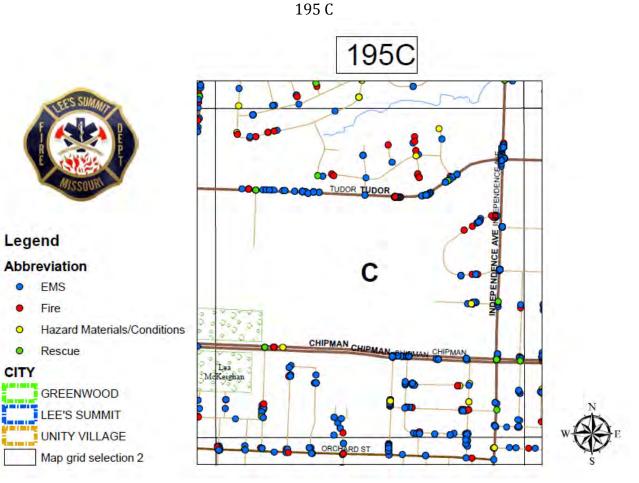
Number of incidents	2012	2013	2014
EMS	238	175	161
Fire	23	20	15
HazMat	7	6	5
Rescue	10	7	7
Total	278	208	188

### **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195C	\$89,097,273	\$72,339,639	\$16,612,158	\$145,474

### **ESZ Characteristics:**

This ESZ is comprised primarily of dense residential and some business. A local high school is addressed at 901 N Douglas which has an influx for traffic during school events. An elderly independent living apartment complex is located in the northeast corner of the zone and is a frequent location for EMS events. This zone has several apartment complexes and multifamily residences. The redeveloped Lea McKeighan Park sits at the southwest corner of the zone. Chipman road is a major thoroughfare and runs east/west through the southern portion of this ESZ. The population density of this zone is metropolitan at 3,802 in a <sup>3</sup>/<sub>4</sub> mile square.





195 C

# Jurisdictional Boundaries:

North: Woodbury Drive South: Buttonwood Avenue and Hamel Street East: Independence Avenue West: Green and Bronco Xing

### **Highest Fire Risk Location:**

A local apartment complex located at 600 NE Howard Street are 2 ½ story garden style apartments unprotected by a fire suppression system or monitored fire detection system. These units pose a threat to rapid fire propagation with multiple residents affected.

# **Highest EMS Risk Location:**

A mid-sized senior living center is located at 1098 NE Independence Avenue. Due to the number of elderly residents with increased medical risks, this facility poses a high non-fire risk by emergency medical service demand.

### Highest Hazmat Risk Location:

Due to the composition of this ESZ being dense residential, the highest risk location for a Hazardous Material event is in residential structures with carbon monoxide.

### **Highest Rescue Risk Location:**

The intersections of Chipman Road and Douglas Street, and Tudor Road and Douglas Street are frequent locations for motor vehicle collisions.

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	Number of incidents	2012	2013	2014
	EMS	401	388	440
	Fire	62	75	76
	HazMat	10	16	7
	Rescue	7	15	14
	Total	480	494	537

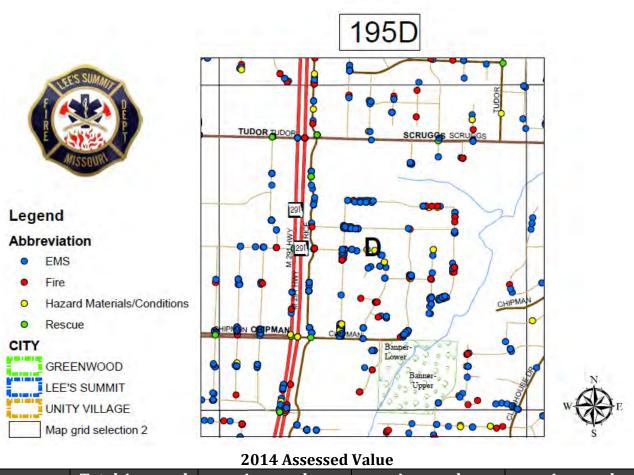
### **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$12,000.00	\$1,200.00	\$5,000.00
Assessed value	\$190,000.00	\$1,000,000.00	\$5,000.00





195 D



ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195D	\$32,114,930	\$16,273,977	\$15,840,657	\$336

# **ESZ Characteristics:**

This ESZ is comprised of a major commercial corridor on 291 Highway which runs North/South. Several large commercial businesses operate along this stretch of 291 Highway. Single family and multifamily residences are located throughout, and a local park is positioned in the southeastern portion of the zone. Several fast food restaurants are along 291 Highway and a gas station is located on the northeastern corner of 291 Highway and Scruggs Road. This ESZ has a population of 2,518 and is identified as metropolitan density.





195 D

# Jurisdictional Boundaries:

North: Fawn Street South: Columbus Street East: Barnes Street West: Balboa Street

# **Highest Fire Risk Location:**

A large commercial retail business is located at 1000 Sam Walton Lane. This business has a fire detection and suppression system. This business if destroyed would have a significant impact on the tax revenue in the community.

# **Highest EMS Risk Location:**

An independent elderly apartment building is located at 750 NE Tudor and is a frequent location for emergency medical incidents due to the high number of elderly residents.

# Highest Hazmat Risk Location:

291 Highway is a thoroughfare which connects 470 and 50 Highways; multiple tractor trailers carrying large quantities of hazardous materials travel this section of 291 annually.

# **Highest Rescue Risk Location:**

The intersection of 291 Highway and Chipman Road is a frequent location for motor vehicle collisions annually.

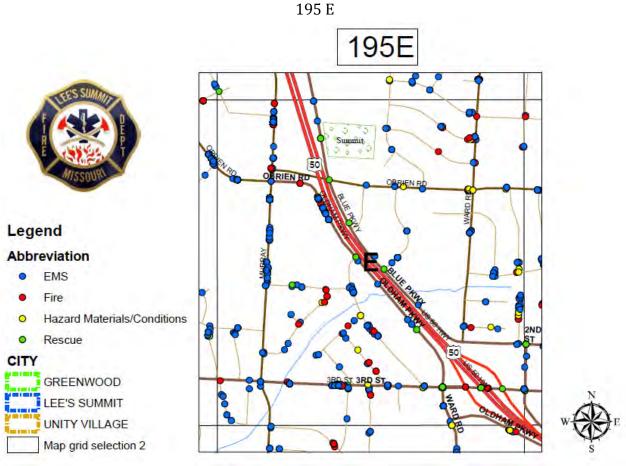
Number of incidents	2012	2013	2014
EMS	159	238	188
Fire	49	41	48
HazMat	10	9	12
Rescue	7	15	14
Total	237	302	269

### **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$16,000	\$3,150
Assessed value	\$0	\$146,000	\$290,000







2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195E	\$27,684,909	\$13,098,437	\$14,582,290	\$4200

### **ESZ Characteristics:**

This ESZ is comprised of a mixture of single family and multi-family residential, business, retail, and highway infrastructure. 50 Highway runs diagonal through the ESZ northwest to southeast. An urgent care medical clinic is located at 228 NW Oldham Parkway and is a frequent location for EMS incidents. Two elementary schools are located within the zone at 200 NW Ward Road and 130 NW Murray Road. The population is metropolitan in density with 2,659 people within this <sup>3</sup>/<sub>4</sub> mile ESZ.





195 E

# **Jurisdictional Boundaries:**

North: Ward Road South: Rogers Road East: Oxford Street West: Pinnel Street

### **Highest Fire Risk Location:**

An elementary school is located at 200 NW Road. This facility if damaged by fire would have an impact to the life safety of students and faculty. The financial impact would impact the rest of the community as the facility is funded through taxes.

# **Highest EMS Risk Location:**

The urgent care facility located at 228 NW Oldham Parkway evaluates multiple patients a day resulting in requests for EMS services to provide ambulance transportation to local hospitals.

### Highest Hazmat Risk Location:

50 Highway runs diagonal through the ESZ and provides a means for transportation of large quantities of hazardous materials daily.

# **Highest Rescue Risk Location:**

The intersection of Ward Road and  $3^{rd}$  Street is a frequent location for low and moderate speed motor vehicle collisions.

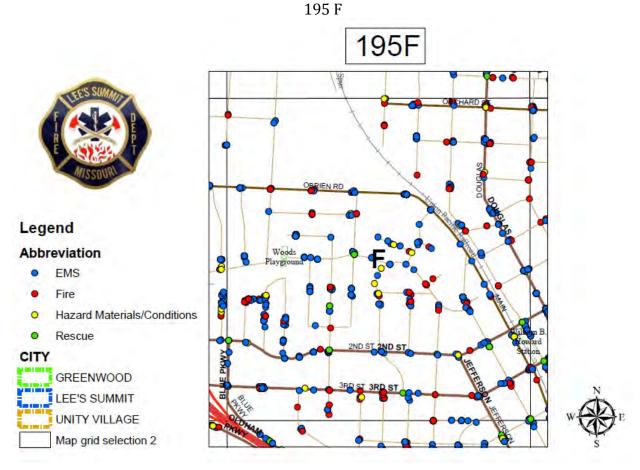
Number of incidents	2012	2013	2014
EMS	375	366	348
Fire	57	75	63
HazMat	13	15	16
Rescue	32	27	29
Total	477	483	456

### **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$3,000.00	\$20,000.00	\$25,000.00
Assessed value	\$3,000.00	\$92,000.00	\$87,000.00







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195F	\$26,164,078	\$17,338,155	\$8,825,824	\$0

### **ESZ Characteristics:**

This ESZ is comprised primarily of dense single family and some multifamily residential structures, the historic business district, and a railroad line. Douglas Street is the major north/south thoroughfare. 2<sup>nd</sup> and 3<sup>rd</sup> Streets are the major east/west thoroughfares. Many of the buildings in this ESZ are 50 years or older with balloon frame construction. The population of this ESZ is 2,553 and metropolitan in density.





195 F

# **Jurisdictional Boundaries:**

North: Orchard Street South: 3<sup>rd</sup> Street East: Douglas Road West: Hillcrest Street

### **Highest Fire Risk Location:**

The historic business district structures are older two story building with businesses on the main floor and loft style apartments on the second. Fires will result in rapid propagation and rapid structural degradation.

# **Highest EMS Risk Location:**

The EMS risk within this location is evenly dispersed throughout the ESZ except during times of downtown festivals when the historic district is filled with people resulting in an exponentially greater number in the amount of medical hazards within the location.

### Highest Hazmat Risk Location:

The railroad line provides a means for large quantities of hazardous materials to be transported frequently.

### **Highest Rescue Risk:**

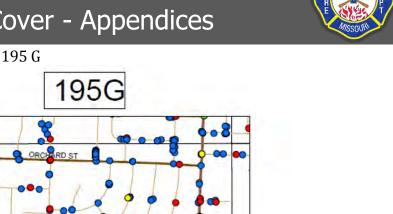
The risk in this ESZ for rescue events has historically been low in frequency; however the moderate speed motor vehicle collisions occur throughout the ESZ in no specific location.

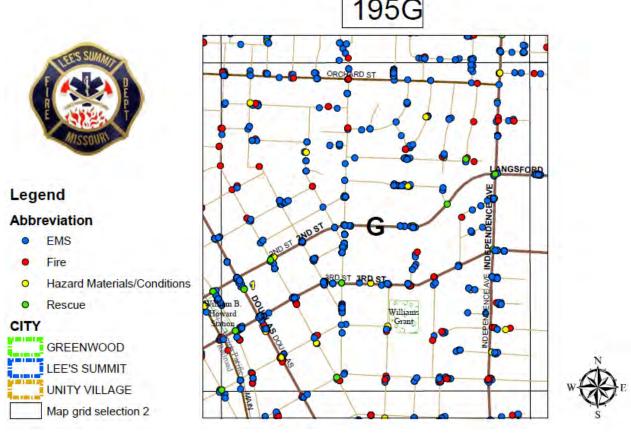
Number of incidents	2012	2013	2014
EMS	171	214	216
Fire	60	51	53
HazMat	18	11	18
Rescue	12	17	17
Total	261	293	304

### **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$40,500.00	\$30,000.00
Assessed value	\$0	\$154,500.00	\$50,000.00







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195G	\$70,070,682	\$53,168,430	\$16,902,275	\$0

#### **ESZ Characteristics:**

This ESZ is comprised primarily of dense residential with some business. Lee's Summit City Hall is addressed at 220 SE Green Street. 2<sup>nd</sup> Street runs East/West and splits the zone in the middle. This district has multiple early 1900's construction single family residences with balloon frame construction. The southwest portion of this zone is a part of the Historic Lee's Summit District. Several times a year festivals fill the streets with vendors and people in the historic district. Many of the buildings in the historic district are over 100 years old and present challenges for firefighting operations. An elementary school is located at 2<sup>nd</sup> and Green Street. The population density of this zone is metropolitan at 3,068 people in this 3/4 mile square.





195 G

# **Jurisdictional Boundaries**

North: Orchard Street South: 5<sup>th</sup> Street East: Douglas Street West: Independence Avenue

# **Highest Fire Risk Location:**

The historic buildings along 3<sup>rd</sup> street between Douglas and Main Street are two-story's in height with loft apartments on the second story and businesses on the main floor. These buildings pose a threat to life given the rapid propagation of fire spread and rapid building degradation during a fire event.

# **Highest EMS Risk Location:**

The demand in this zone for EMS is dispersed evenly throughout the ESZ as the risk hasn't historically focused into a specific location within the zone. However, during festivals the historic corridor is filled with people increasing the risk on Douglas, 3<sup>rd,</sup> and Main Streets.

# Highest Hazmat Risk Location:

The railroad runs through the southwest corner of the zone through the historic district. Hazardous materials frequently travel along this line.

### **Highest Rescue Location:**

The intersection of 2<sup>nd</sup> Street and Douglas Street is a frequent location for motor vehicle collisions.

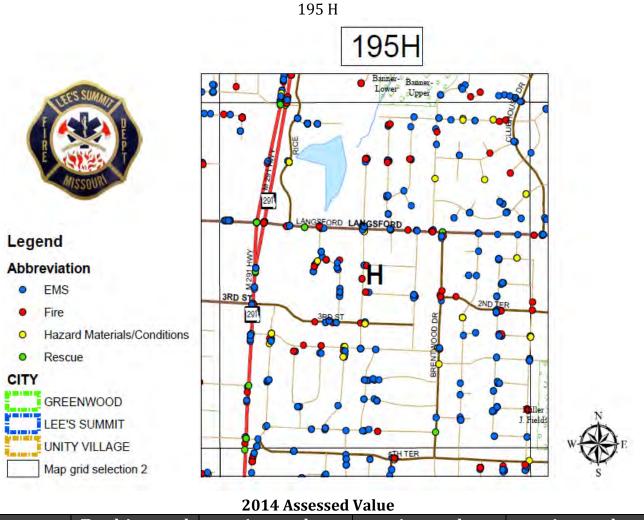
Number of incidents	2012	2013	2014
EMS	293	275	362
Fire	76	60	66
HazMat	31	19	23
Rescue	20	20	22
Total	420	374	473

# **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$2,545	\$0	\$0
Assessed value	\$383,000	\$0	\$0







ESZ #	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
195H	\$85,962,699	\$78,420,015	\$7,542,451	\$370

# **ESZ Characteristics:**

This ESZ is comprised of a retail, business, and dense residential structures. MO 291 Highway runs North/South on the western side of the ESZ. A large grocery retail is located at the intersection of Langsford Road and Rice Road. A gas station is located on the west side of the grocery store along with a medium sized pond. This ESZ has a population of 2,283 with a metropolitan density.





195 H

# **Jurisdictional Boundaries:**

North: Columbus Street South: 5<sup>th</sup> Street East: MO 291 Highway West: Claremont Street

### **Highest Fire Risk Location:**

The large grocery store located at the intersection of Lansford Road and Rice Road would have a significant effect fiscally in lost tax revenue in addition to the impact to the quality of life for all of the shoppers.

# **Highest EMS Risk Location:**

The large grocery store located at the intersection of Langford and Rice road demand the highest volume of people within the ESZ making this the location for highest EMS risk.

### Highest Hazmat Risk Location:

The gas station located on the West side of the intersection of Langsford Road and Rice road has gasoline and diesel fuel underground storage.

# **Highest Rescue Risk Location:**

The intersection of MO 291 Highway and Langsford Road is a frequent location of moderate speed motor vehicle collisions.

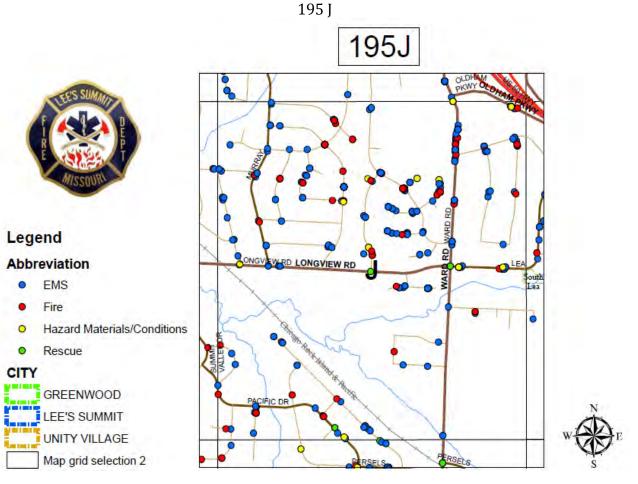
Number of incidents	2012	2013	2014
EMS	124	143	136
Fire	52	47	47
HazMat	11	10	15
Rescue	25	23	18
Total	212	223	216

### **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$30,000.00	\$0	\$0
Assessed value	\$30,000.00	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
195J	\$26,233,105	\$21,384,607	\$4,844,705	\$3780

### **ESZ Characteristics:**

This ESZ is comprised of mixed retail and grocery and dense residential single family structures. Longview Road and Ward Road bifurcates the ESZ with the mixed retail being in the center northern half of the ESZ. The Chicago Rock Island Railroad line is not currently in use and is not active but still poses a potential risk for changes in status. In the mixed retail and grocery portion of the ESZ, a large grocery store is positioned on the west side of Ward Road at the northern portion of the ESZ. Two gas stations are in this zone, one the east side of Ward Road, the other on the northwest corner of the grocery store. The population of the ESZ is 1,822 and urban in density.





195 J

# Jurisdictional Boundaries:

North: 5<sup>th</sup> Street South: Pacific Circle East: Merrit Street West: Savannah Street

# **Highest Fire Risk Location:**

The large grocery store located at 310 SW Ward Road is the highest fire risk location due to the impact to the community of lost sales tax and lives affected.

# **Highest EMS Risk Location:**

Given the large amount of people to utilize the grocery store and the concentration of people, the grocery store at 310 SW Ward Road is the highest EMS risk location.

# Highest Hazmat Risk Location:

The gas station located on the east side of Ward Road in the northeastern portion of the ESZ is over twenty years old and in close proximity to 50 Highway with underground fuel storage.

# **Highest Rescue Risk Location:**

The intersection of Ward Road and Longview Road is a frequent location for moderate speed motor vehicle collisions.

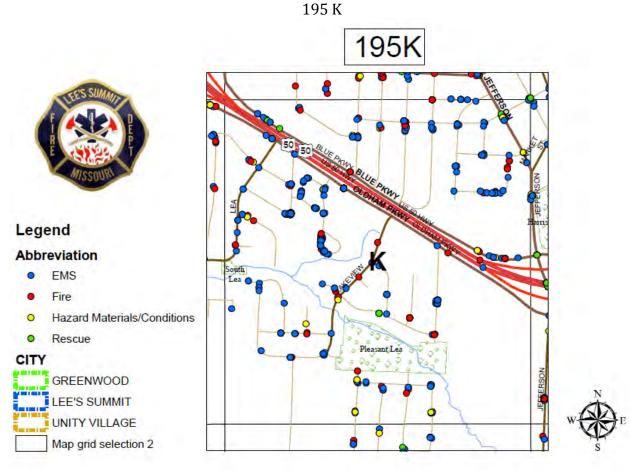
### **Demand History**

Number of incidents	2012	2013	2014
EMS	87	144	120
Fire	41	29	26
HazMat	5	10	9
Rescue	1	4	0
Total	134	187	155

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$2,000	\$0
Assessed value	\$0	\$2,000	\$0







### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195K	\$23,584,215	\$14,453,057	\$9,131,177	\$0

### **ESZ Characteristics:**

This ESZ has a mix of business, retail, highway, schools, and dense residential. 50 Highway runs through the ESZ east/west. A retail strip mall is located at 300 SW Blue Parkway and includes a medium sized grocery store. Several churches are located on Oldham Parkway and two schools are located on Percels Road, an elementary and a middle school. The population of the ESZ is 1,953 and urban in density.





195 K

# **Jurisdictional Boundaries:**

North: 4<sup>th</sup> Terrace South: Halloway Street East: Lea Street West: Jefferson Street

# **Highest Fire Risk Location:**

The middle school located at 630 SW Percels is destroyed by fire would have a significant impact to the lives of the 860 student's enrolled and additional faculty. The loss would have a fiscal impact as the school is publicly funded.

# **Highest EMS Risk Location:**

The Pleasant Lea School campus on Persels Road has two schools with a dense population of kids and faculty.

# Highest Hazmat Risk Location:

50 Highway provides a means for transportation of large quantities of hazardous materials through the ESZ.

# **Highest Rescue Risk Location:**

This ESZ hasn't shown to have a high probability of rescue type events however; the intersection of 5<sup>th</sup> Street and Jefferson Street has been a location of several motor vehicle collisions.

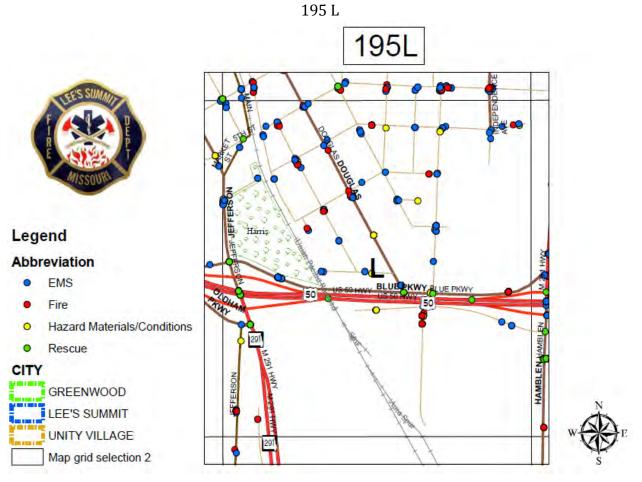
### **Demand History**

Number of incidents	2012	2013	2014
EMS	290	272	334
Fire	40	48	34
HazMat	11	6	9
Rescue	7	1	4
Total	348	327	381

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$28,500	\$0	\$0
Assessed value	\$300,000	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
195L	\$19,517,964	\$6,239,587	\$13,259,421	\$18,959

#### **ESZ Characteristics:**

This ESZ has a mix of residential, business, and major transportation thoroughfares. The Union Pacific railroad runs north/south through the ESZ. 50 Highway runs east/west through the zone and 291 Highway South runs north/south through the ESZ. The residential district is primarily older single family residences which make up a portion of the historic Lee's Summit district. A local High School is located at 400 SE Blue Parkway and two gas stations are located at Blue Parkway and Jefferson Street. Two children's daycare facilities are located in the zone, one on Douglas at Blue Parkway and the other on Jefferson Street, north of Blue Parkway. A water park is located on the corner of Jefferson and Blue Parkway within Harris Park. This ESZ is suburban in density with a population of 1,026 within a <sup>3</sup>/<sub>4</sub> mile square.





195 L

### **Jurisdictional Boundaries:**

North: 5<sup>th</sup> Street South: Oldham Parkway East: Independence Avenue West: Jefferson Street/South 291 Highway

### **Highest Fire Risk Location:**

A local high school at 400 SE Blue Parkway was built in 1953 and has had multiple structural additions since to support the growing community and current enrollment of approximately 1,900 students.

# **Highest EMS Risk Location:**

A local high school located at 400 SE Blue Parkway is a frequent location for emergency medical events due to the concentration of people and extracurricular activities.

### Highest Hazmat Risk Location:

The local railroad facilitates a means for hazardous materials transportation which occurs regularly.

### **Highest Rescue Risk Location:**

The intersections of 291 Highway South at Oldham Parkway and Blue Parkway in addition to Douglas Street and Blue Parkway are frequent locations for motor vehicle collisions.

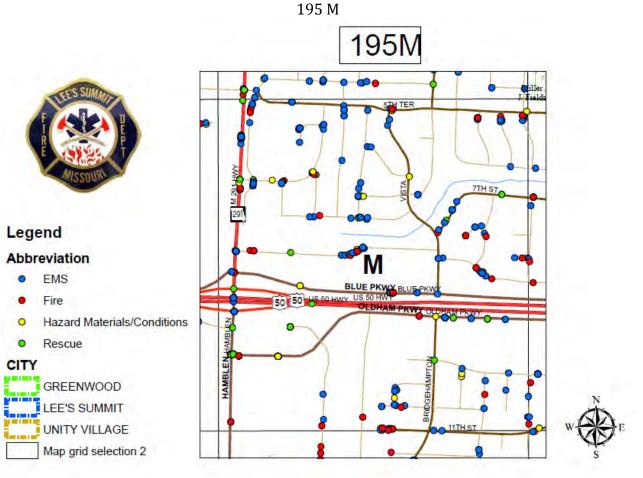
HIS	story			
	Number of incidents	2012	2013	2014
	EMS	87	71	56
	Fire	36	27	30
	HazMat	6	8	12
	Rescue	14	24	15
	Total	143	130	113

# Demand History

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$2,200,000	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195M	\$30,858,257	\$16,230,835	\$14,625,122	\$2280

#### **ESZ Characteristics:**

This ESZ is a mix of large and small building retail, residential, and highway infrastructure. Along Oldham Parkway a large construction retail store is located along with several large car dealerships. Blue Parkway to the north of 50 Highway has several restaurants and smaller strip malls. 291 Highway north runs north/south and south of 50 Highway turns into Hamblen Road. Dense residential make up most of the rest of the ESZ. The population for the ESZ is 1,742 people and is urban in density.





195 M

### **Jurisdictional Boundaries:**

North: 5<sup>th</sup> Terrace South: 11<sup>th</sup> Street East: Granada Street West: 291 Highway North

# **Highest Fire Risk Location:**

The large construction retail store located at 651 SE Oldham Parkway is the highest fire risk location with contents resulting in rapid fire propagation. It is suppressed but the loss of this building would have a fiscal impact to sales tax revenue to the community.

# **Highest EMS Risk Location:**

The large construction retail store located at 651 SE Oldham Parkway due to the large amount of people who frequent this store resulting in a high concentration of people within the building.

# Highest Hazmat Risk Location:

A gas station is located on the corner of 291 Highway North and Vista Street. This location holds large quantities of gasoline and diesel in storage.

# **Highest Rescue Risk Location:**

50 Highway is a frequent location for motor vehicle collisions due to the speed limit the damage which occurs from these high speed incidents usually result more technical rescue efforts.

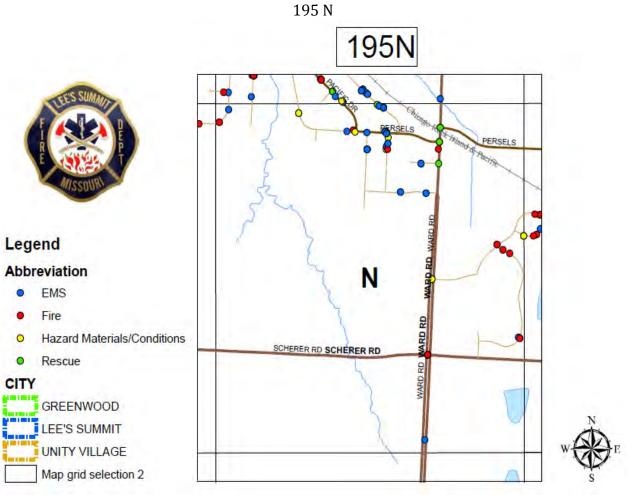
story				
Number of incidents	2012	2013	2014	
EMS	97	131	78	
Fire	41	53	45	
HazMat	13	8	5	
Rescue	22	16	27	
Total	173	208	155	

# Demand History

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







### 2014 Assessed Value

ESZ #	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
195N	\$7,763,042	\$7,240,498	\$508,332	\$14,224

### **ESZ Characteristics:**

This ESZ has two major roadways which intersect, Ward Road and Scherer Road. The structures within this ESZ are primarily single family residential with little or no business. Most of the other land in the zone is grassland or wooded. The Chicago Rock Island railroad line is not currently being utilized but has existing tracks which could be used at another time. The population of this ESZ is 446 and rural in density.





195 N

# Jurisdictional Boundaries:

North: Pacific Street South: Scherer Road East: Hedgewood Street West: Creekside Street

### **Highest Fire Risk Location:**

The highest fire risk structures in this ESZ are the single family residences located at the north and eastern portions of the ESZ.

# **Highest EMS Risk Location:**

The highest EMS risk locations in this zone are the single family residence located at the north and eastern portions of the ESZ.

### Highest Hazmat Risk Location:

The highest hazmat risk location is the single family residences located at the north and eastern portions of the ESZ with the risk of carbon monoxide.

# **Highest Rescue Risk Location:**

The highest rescue risk location within this ESZ is the intersection of Ward Road and Percels Road in the northern portion of the zone. This location is frequent to motor vehicle collisions.

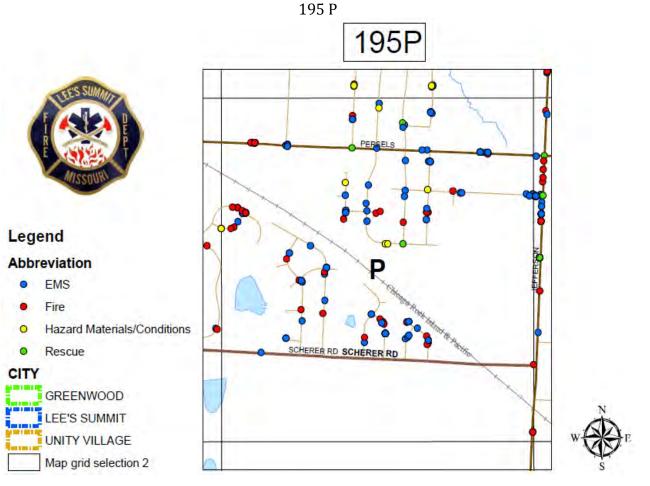
### **Demand History**

Number of incidents	2012	2013	2014
EMS	9	14	8
Fire	4	6	5
HazMat	1	2	5
Rescue	2	4	1
Total	16	26	19

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$75,000	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195P	\$17,916,601	\$12,671,852	\$5,242,881	\$1,831

#### **ESZ Characteristics:**

This ESZ is a mixture of residential, church, and educational structures. The structures which primarily make up this ESZ are single family residences. A private school is located at 1500 SW Jefferson Street. The Chicago Rock Island railroad line runs through the ESZ but is currently not active. The population of the ESZ is 1,249 and is suburban in density.





195 P

# Jurisdictional Boundaries:

North: Mission Court South: Scherer Road East: Jefferson Street West: Hedgewood Terrace

### **Highest Fire Risk Location**:

A large church is located at 414 SW Percels Road. If destroyed, the loss would have an impact to the large congregation.

# **Highest EMS Risk Location:**

The risk given consistent population density by location type would be the private school located at 1500 Jefferson Street.

### Highest Hazmat Risk Location:

Given the structure types within this ESZ the highest risk would be carbon monoxide within the single family residences.

# **Highest Rescue Risk Location:**

Percels Road is a common location for moderate speed motor vehicle collisions.

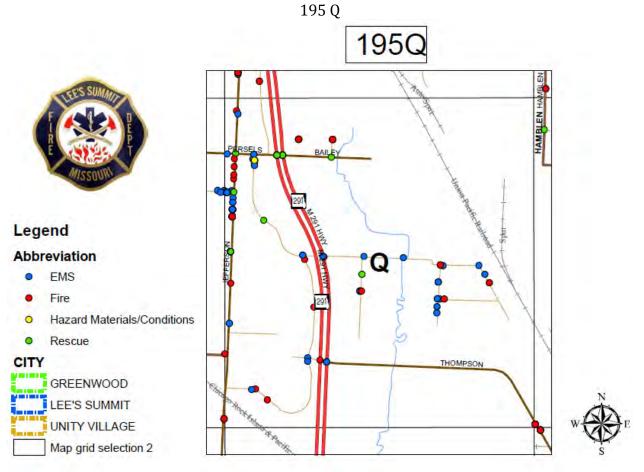
### **Demand History**

Number of incidents	2012	2013	2014
EMS	48	37	50
Fire	19	28	24
HazMat	2	1	4
Rescue	1	1	3
Total	70	67	81

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
195Q	\$11,647,262	\$491,237	\$11,143,358	\$12,655

#### **ESZ Characteristics:**

This ESZ is comprised of manufacturing, warehouse, industrial, and some residential structures. 291 Highway South runs north/south with Thompson Road and Bailey Road as the major cross streets. The single family residential structures are located in the center of the ESZ off of 16<sup>th</sup> Street. A large warehouse distribution center is located at 420 SE Thompson Road. Several small businesses are located on Market Street the Western outer road from 291 Highway South. An active rail line runs north to east through the ESZ. The population of this ESZ is 126 and is rural in density.





195 Q

# Jurisdictional Boundaries:

North: Bailey Road South: Market Street East: Willow Road West: Jefferson Street

# **Highest Fire Risk Location:**

The large warehouse distribution center located at 420 SE Thompson is the highest fire risk location due to the fire load and the impact to the community given the fiscal result of loss.

# **Highest EMS Risk Location:**

The EMS risk in this ESZ due to a low population is dispersed evenly. Due to the amount of workers in the facility adding to the amount of EMS hazards, the large warehouse located at 420 SE Thompson would be the highest EMS risk location.

# Highest Hazmat Risk Location:

The active rail line provides a means for large quantities of hazardous material to be transported through the ESZ.

# **Highest Rescue Risk Location:**

The intersection of 291 Highway South and Bailey Road is a common location for moderate to high speed motor vehicle collisions.

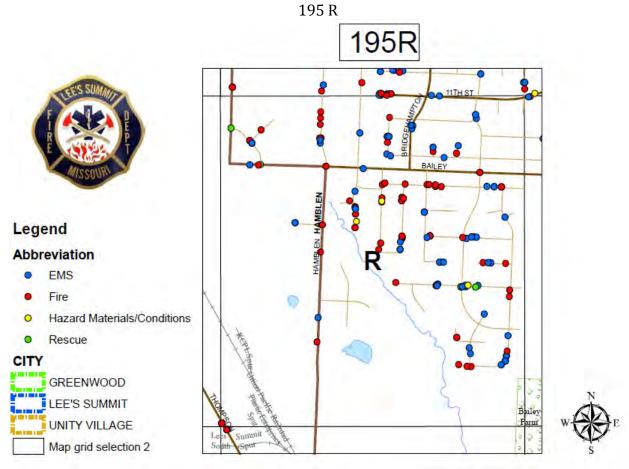
SLULY			
Number of incidents	2012	2013	2014
EMS	15	30	24
Fire	29	26	25
HazMat	2	3	1
Rescue	3	0	2
Total	52	63	57

# Demand History

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$5,000	\$0
Assessed value	\$0	\$5,000	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195R	\$22,977,411	\$15,645,591	\$7,326,789	\$4,993

### **ESZ Characteristics:**

This ESZ is mixture of single and multi-family residential with industry and business present within the <sup>3</sup>/<sub>4</sub> mile square. The residential structures within this zone were built around the year 2000 and are primarily wood frame construction. A rail line travels through the southwest portion of the zone carrying diverse commodities, including hazardous materials. At 500 SE Transport Drive is a business park which stores buses for the R7 school district. A mixed use business park is located at SE Century Drive and SE Bailey Road. The population density in this zone is 1,385 and suburban in density.





195 R

# Jurisdictional Boundaries:

North: 11<sup>th</sup> Street South: No street designation East: Dalton Street West: Hamblen Road

### **Highest Fire Risk Location:**

Given the property value and the impact to the community given the loss of school transportation, the property at 500 SE Transport Drive owned by the R7 school district which stores the buses for the district is the highest fire risk location.

# **Highest EMS Risk Location:**

The highest risk location for EMS has historically been balanced throughout the zone with no concentration in any specific area. With that the location of hazards being people would be in the multi family structures south of Bailey Road.

### **Highest Hazmat Risk Location:**

The highest hazmat risk location is the rail line in the southwest portion of the zone carrying hazardous materials in large quantities.

### **Highest Rescue Risk Location:**

The highest rescue risk location is located at 1460 SE Hamblen Road in the industrial park.

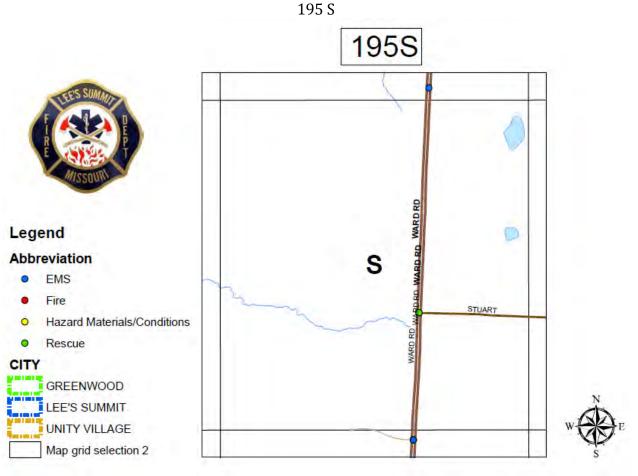
### **Demand History**

Number of incidents	2012	2013	2014
EMS	20	38	25
Fire	22	18	36
HazMat	2	3	1
Rescue	3	0	2
Total	47	59	64

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$2,000	\$0	\$0
Assessed value	\$2,000	\$0	\$0







### 2014 Assessed Value

ESZ #	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
195S	\$186,087	\$162,959	\$0	\$23,129

### **ESZ Characteristics:**

This ESZ is primarily agricultural with two single family residences; one on Stuart Road, the other Ward Road. Ward Road is frequently traveled by buses to a local high school just to the south of the ESZ. The population of this zone is seven and is rural in density.





195 S

# **Jurisdictional Boundaries:**

North: Stuart Road South: Stuart Road East: Ward Road West: Ward Road

# **Highest Fire Risk Location:**

The residential structure located on Stuart Road loss by fire would have a greater impact due to the square footage and taxable impact to the community. The structure on Stuart Road is approximately 1,500 feet from a hydrant. This area has a CAD rural water alert notification.

# **Highest EMS Risk Location:**

The two residential structures in the ESZ share the highest EMS risk.

### Highest Hazmat Risk location:

Given the amount of farmland within the ESZ, the use of pesticides and fertilizers on the soil would be the greatest hazmat risk in this ESZ. These containers would be mobile throughout the farmland.

# **Highest Rescue Risk location:**

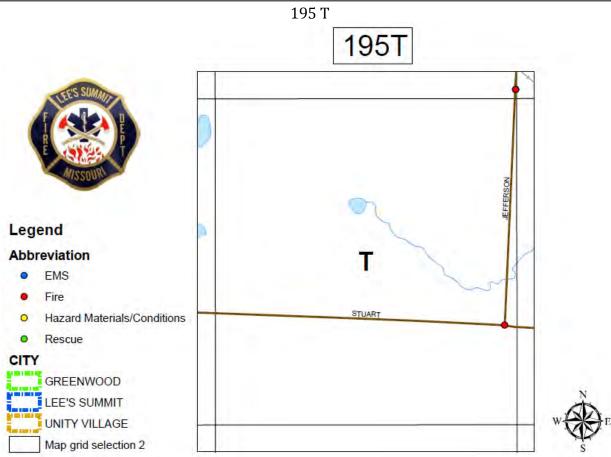
The intersection of Stuart Road and Ward Road is the highest risk location due to the moderate to high speeds and the history of motor vehicle collisions.

### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	1	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	1	0
Total	0	2	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





#### 2014 Assessed Value

ESZ #	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
195T	\$61,595	\$25,957	\$\$0	\$35,639

#### **ESZ Characteristics:**

This ESZ is primarily all farmland with a single small pond. One single family residence is located in the northeast corner of the ESZ on Jefferson Street. The two roadways in the zone are Jefferson Street and Stuart Road.





195 T

# **Jurisdictional Boundaries:**

North: Stuart Road South: Stuart Road East: Jefferson Street West: Jefferson Street

### **Highest Fire Risk Location:**

The single family residence on Jefferson Street in the northeast corner of the ESZ is the highest fire risk location. No hydrants are present within this ESZ. This area has a CAD rural water alert notification.

# **Highest EMS Risk Location:**

The single family residence on Jefferson Street in the northeast corner of the ESZ is the highest EMS risk location.

### Highest Hazmat Risk Location:

Given the amount of farmland within the ESZ, the use of pesticides and fertilizers on the soil would be the greatest hazmat risk in this ESZ. These containers would be mobile throughout the farmland.

# **Highest Rescue Risk Location:**

The intersection of Stuart Road and Jefferson would pose the highest risk location for a motor vehicle collision within the ESZ.

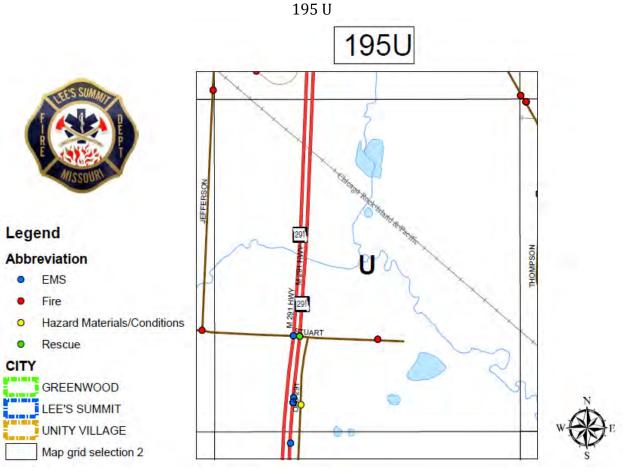
### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	1
HazMat	0	0	0
Rescue	0	1	0
Total	0	1	1

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195U	\$4,970,102	\$3,040	\$4,932,834	\$34,228

#### **ESZ Characteristics:**

This ESZ is primarily undeveloped with a few businesses and some industry. 291 Highway runs north and south through the zone and the Rock Island rail line runs northeast and southwest. The rail line is currently inactive. 291 Highway is frequently traveled by commuters to the city and occasionally freight loads. The population for this zone is 12 and is rural in density.





195 U

# Jurisdictional Boundaries:

North: No designated road South: No designated road East: No designated road West: No designated road

# **Highest Fire Risk Location:**

The highest fire risk location is the business at 150 SE Stuart Road. Areas on the west side of 291 Highway are greater than 1,500 feet from the closest hydrant. This area has a CAD rural water alert notification.

# **Highest EMS Risk Location:**

A few single family residences are located on Old 291 Highway, an outer road south of Stuart Road.

# Highest Hazmat Risk Location:

The business at 150 SE Stuart Road is a concrete business. Chemicals used in the development of concrete could pose a risk to contamination or injury. Also, 291 Highway is frequently traveled by freights carrying hazardous materials.

# **Highest Rescue Risk Location:**

291 Highway has been a frequent location to motor vehicle collisions throughout the zone, but the intersection of Stuart and 291 has shown increased frequency.

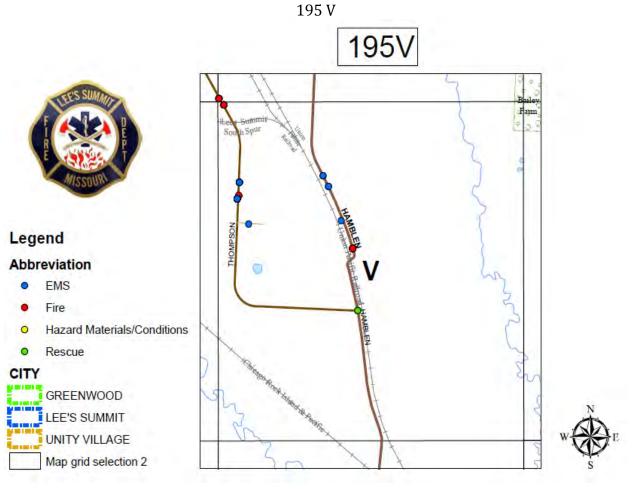
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	2	4	11
Fire	2	1	4
HazMat	1	1	1
Rescue	3	2	1
Total	8	8	17

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195V	\$2,096,653	\$0	\$2,084,974	\$11,679

#### **ESZ Characteristics:**

This ESZ is primarily commercial with warehouse storage and city support facilities, including a resource recovery park. The large warehouse is located at 420 SE Thompson Drive and the resource recovery park is located at 2101 SE Hamblen Road. At the resource recovery park a structure is identified as a household hazardous waste storage area. The population in this zone is zero and rural in density.





195 V

# Jurisdictional Boundaries:

North: No road designation South: No road designation East: No road designation West: No road designation

# **Highest Fire Risk Location:**

The highest fire risk location is the large warehouse facility at 420 SE Thompson Drive.

# Highest EMS Risk Location:

Due to the amount of workers in an area the highest EMS risk location would be the large warehouse located at 420 SE Thompson Drive.

#### Highest Hazmat Risk Location:

The highest hazmat risk location is the hazardous waste storage structure located at 2101 SE Hamblen Road. This structure is small and is a temporary facility to house household hazardous waste delivered by the community.

#### **Highest Rescue Risk Location:**

The highest rescue risk location is the large warehouse structure located at 420 SE Thompson Drive.

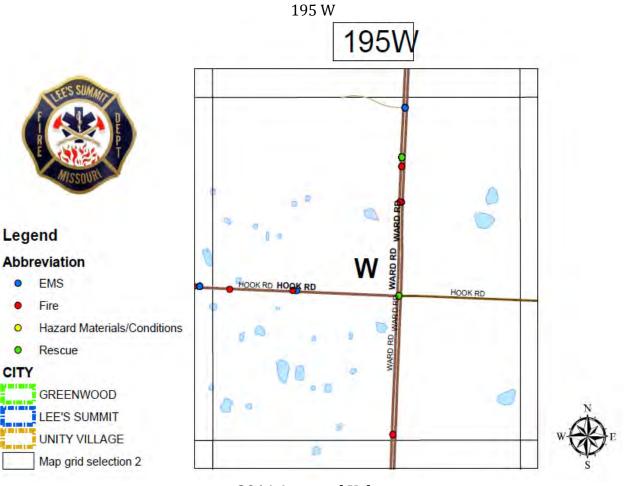
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	6	7	9
Fire	15	17	17
HazMat	1	0	1
Rescue	0	3	1
Total	22	27	28

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
195W	\$11,102,224	\$1,026,265	\$10,031,404	\$44,556

#### **ESZ Characteristics:**

This ESZ has some single family residences and a large high school located at 2600 Titan Crossing. The enrollment of the high school in 2014 was 1,773 students. On the school campus are two gymnasiums, a large football stadium, four baseball diamonds, and several tennis courts. The single family residences in the zone are on large lots and have long setbacks from the road. The population for this zone is 50 and is rural in density.





195 W

# Jurisdictional Boundaries:

North: Titan Crossing South: No road designation East: No road designation West: No road designation

# **Highest Fire Risk Location:**

The high school at 2600 Titan Crossing poses the highest fire risk location within the ESZ.

# **Highest EMS Risk Location:**

The high school at 2600 SW Titan Crossing poses the highest EMS risk location in the ESZ.

#### Highest Hazmat Risk Location:

The high school at 2600 SW Titan Crossing poses the highest hazmat risk location in the ESZ.

#### **Highest Rescue Risk Location:**

The highest rescue risk location is the intersection of Ward Road and Titan Road Crossing. This is a frequent location for motor vehicle collisions.

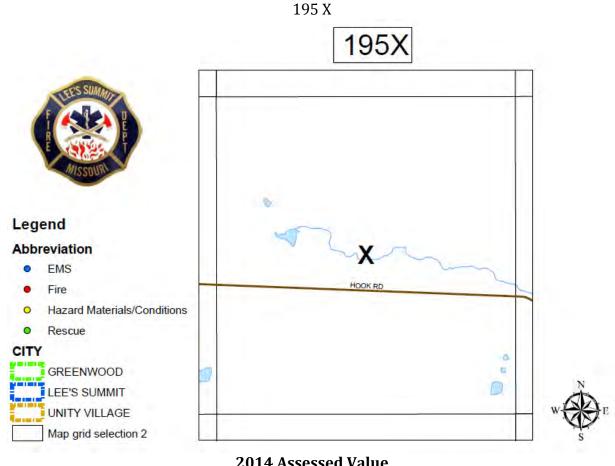
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	23	21	11
Fire	5	9	10
HazMat	0	0	0
Rescue	0	4	3
Total	28	34	24

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$2,000
Assessed value	\$0	\$0	\$2,000







ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value	
195X	\$24,011	\$0	\$0	\$24,011	

# **ESZ Characteristics:**

This ESZ is primarily agricultural with a single two lane road traveling east and west. There are no current structures within this ESZ but there are fields which are farmed seasonally. The population of this zone is zero and the density is rural.





195 X

# Jurisdictional Boundaries:

North: No road designation South: No road designation East: No road designation West: No road designation

### **Highest Fire Risk Location:**

The highest fire risk location would be the agricultural fields to the north and south of Hook road from grass fires. The western side of the ESZ along Hook Road is greater than 1,500 feet from the nearest hydrant. This area has a CAD rural water alert notification.

# **Highest EMS Risk Location:**

The highest EMS risk would be medical emergencies which may occur within a vehicle while traveling on Hook Road.

#### **Highest Hazmat Risk Location:**

The highest hazmat risk location would be the agricultural fields and agricultural chemical use.

# **Highest Rescue Risk Location:**

The highest rescue risk location would be motor vehicle collisions while traveling on Hook Road.

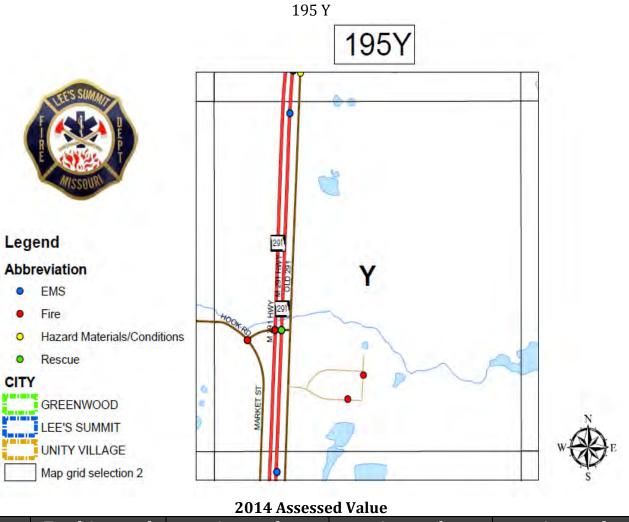
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value	
195Y	\$1,662,189	\$251,862	\$1,395,800	\$14,527	
1951	φ1,002,109	\$ZJ1,00Z	φ1,393,000	JI4,J4/	

# **ESZ Characteristics:**

This ESZ is comprised of a mixture of single family residences and business. On 30<sup>th</sup> Terrace are several businesses which make a loop to the north of a moderate sized golf course. 291 Highway runs north and south within the ESZ and is a frequently traveled roadway for freight loads, including hazardous materials. The population for the zone is 17 and rural in density.





195 Y

# Jurisdictional Boundaries:

North: No roadway designation South: No roadway designation East: No roadway designation West: No roadway designation

# **Highest Fire Risk Location:**

The highest fire risk location is the small business park on 30<sup>th</sup> Terrace north of the golf course.

# **Highest EMS Risk Location:**

The highest EMS risk location within this ESZ is the golf course given the delay in access to patients suffering a medical emergency on the course.

#### Highest Hazmat Risk Location:

The highest hazmat risk location is 291 Highway with freights carrying hazardous materials over the highway.

#### **Highest Rescue Risk Location:**

The highest rescue risk location within the zone is 291 Highway given a frequent location for motor vehicle collisions. More frequency has been located at 291 Highway and Hook Road.

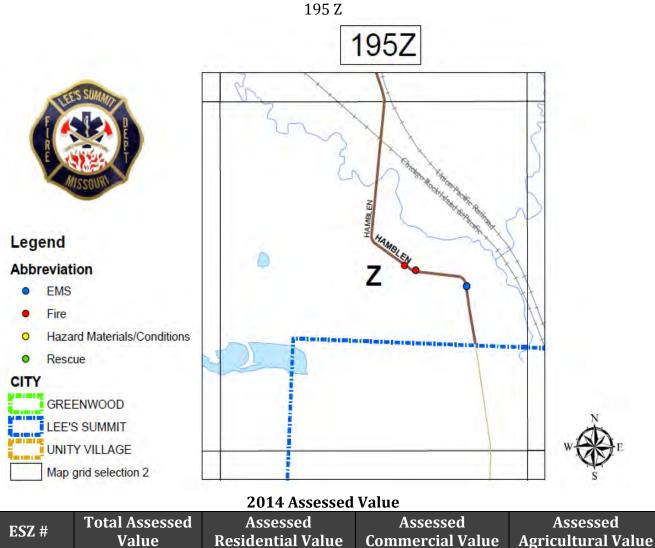
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	4	2	0
Fire	3	3	1
HazMat	0	0	0
Rescue	3	4	2
Total	10	9	3

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### **ESZ Characteristics:**

\$165,155

195Z

This ESZ has some single family residences with outbuildings behind the primary residences along Hamblen Road. The Union Pacific rail line runs northwest and southeast in the northeastern portion of the zone. The population of the zone is 12, and the density is rural.

\$0

\$10,429

\$154,726





195 Z

#### Jurisdictional Boundaries:

North: Hamblen Road is the only road within this zone South: Hamblen Road is the only road within this zone. East: Hamblen Road is the only road within this zone. West: Hamblen Road is the only road within this zone.

#### **Highest Fire Risk Location:**

The highest fire risk location is the single family residences along Hamblen Road. There are no hydrants within this ESZ. This area has a CAD alert rural water notification.

# **Highest EMS Risk Location:**

The highest EMS risk location is the single family residences along Hamblen Road.

#### Highest Hazmat Risk Location:

The highest hazmat risk location is the Union Pacific rail line in the northeastern portion of the zone carrying hazardous materials.

# **Highest Rescue Risk Location:**

The highest rescue risk location is Hamblen Road as it crosses the rail line. This has a potential for motor vehicle collisions which would cause severe damage and most likely involve significant extrication.

#### **Demand History**

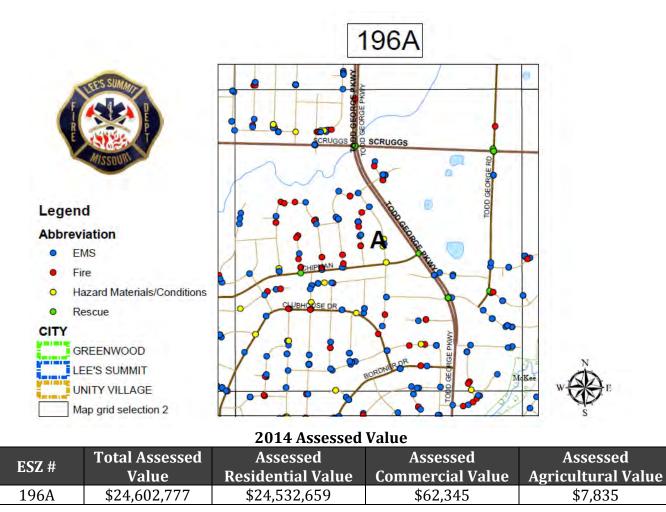
Number of incidents	2012	2013	2014
EMS	2	0	1
Fire	1	2	0
HazMat	0	0	0
Rescue	0	0	0
Total	3	2	1

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





196 A



# **ESZ Characteristics:**

This ESZ contains the highly traveled Todd George Road and Scruggs Road. The Majority of this zone consists of single family residential homes that encompass Todd George Road. The southeast corner of the zone contains a portion of McKee Park. The intersection of Todd George Road and Scruggs has been the location of a few serious motor vehicle collisions in recent years. The population is 2,092 within the zone and classified as urban in density.





196 A

# Jurisdictional Boundaries:

North: Scruggs Road South: Bordner Drive East: Todd George Road West: Clubhouse Drive

# **Highest Fire Risk Location:**

Recent call history dictates that the greatest fire risk is with the single family residences within this zone.

# **Highest EMS Risk Location:**

Traditionally, the greatest EMS risk is at single family residences.

#### Highest Hazmat Risk Location:

Trucks containing hazardous material traveling Todd George Parkway make it the highest risk location.

# **Highest Rescue Risk Location:**

The intersection at Todd George and Scruggs has been the location of several MVC's.

#### **Demand History**

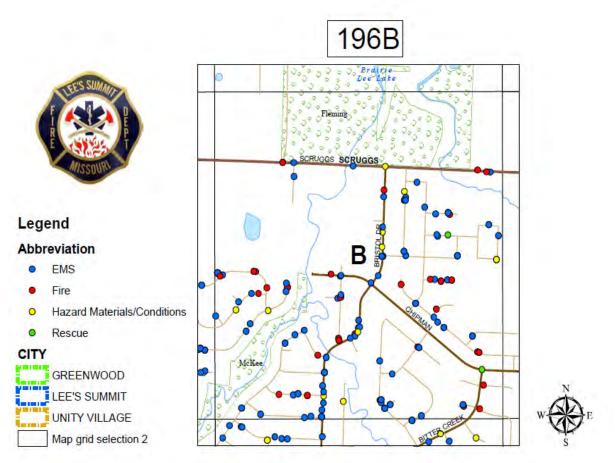
Number of incidents	2012	2013	2014
EMS	53	48	52
Fire	17	15	22
HazMat	14	9	5
Rescue	5	6	3
Total	89	78	82

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





196 B



#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196B	\$21,126,493	\$21,045,102	473,238	\$8,193

# **ESZ Characteristics:**

This ESZ is mostly comprised of similar single family residential homes. The northern portion of the zone contains the southern portion of Fleming Park. Scruggs Road, which travels east/west throughout the northern portion, is the most utilized road in the zone. The remainder of the zone is the previously mentioned residential, with the exception of McKee Park, which is located in the southwest corner. The population is 1,616 in the zone and classified as urban in density.





196 B

# Jurisdictional Boundaries:

North: Scruggs Road South: Belvoir Street East: Bitter Creek Drive West: Patterson Street

#### **Highest Fire Risk Location:**

Single family residences pose the greatest fire risk in this zone.

# **Highest EMS Risk Location:**

Many residential EMS calls have occurred throughout the residences within this zone, particularly along Bristol.

#### Highest Hazmat Risk Location:

The potential for a boat fuel spill in Prairie Lee Lake in the northern part of this zone is the highest risk location.

# **Highest Rescue Risk Location:**

The potential for an MVC along Scruggs is the highest risk location.

#### **Demand History**

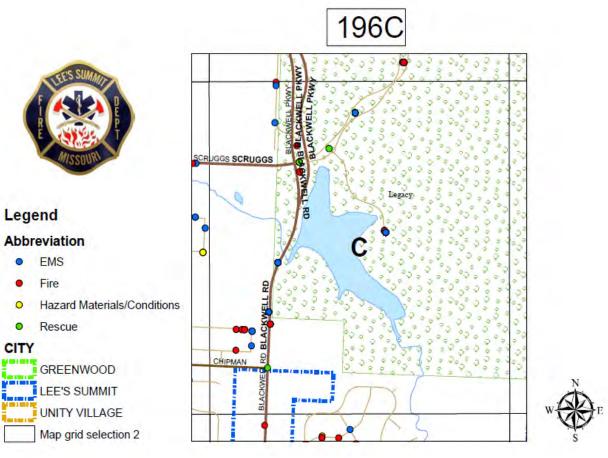
Number of incidents	2012	2013	2014
EMS	46	43	32
Fire	13	19	11
HazMat	5	6	2
Rescue	1	2	2
Total	65	70	47

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





196 C



2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196C	\$12,049,775	\$2,870,157	\$9,178,969	\$645

# **ESZ Characteristics:**

This ESZ is dominated by Legacy Park. This park is most populated in the spring, summer, and fall months. There are several baseball, softball, soccer, and football fields. There is also a running path, disc golf course, fishing area, and picnic area that are all popular during these seasons. Blackwell Road travels the length of the zone north/south on the western portion. Blackwell Road intersects with Scruggs in the northwest section. There are also the outskirts of residential neighborhoods in the southwest portion. The population in the zone is 154 in the zone and classified as rural in density.





196 C

# Jurisdictional Boundaries:

North: Legacy Park Drive South: Chipman Road East: N/A West: Blackwell Road

# **Highest Fire Risk Location:**

There are single family residences in the southwest corner of the zone. Blackwell Road north of Scruggs Road is an area close to 1,500 feet from the closest hydrant. This area has a CAD rural water alert notification.

# **Highest EMS Risk Location:**

Legacy Park is the highest risk location due to the sports activities.

#### Highest Hazmat Risk Location:

Fuel spills along Blackwell Road would be the highest risk location.

# **Highest Rescue Risk Location:**

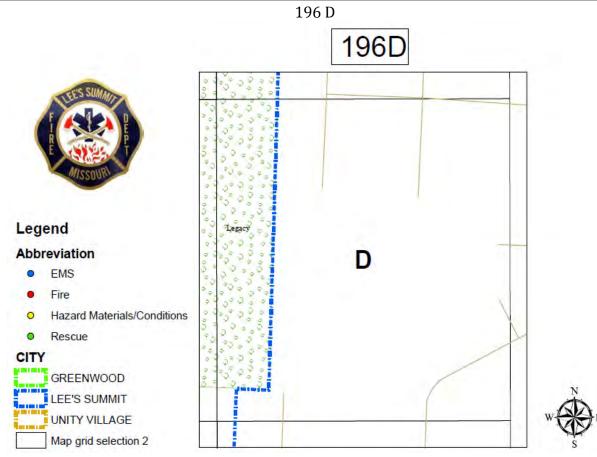
MVC'S at the intersection of Blackwell and Scruggs are the highest risk location.

# Demand History

Number of incidents	2012	2013	2014
EMS	21	16	26
Fire	7	6	12
HazMat	0	0	0
Rescue	5	1	3
Total	33	23	41

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196D	Not Available	Not Available	Not Available	Not Available

#### **ESZ Characteristics:**

This ESZ is nearly entirely mutual aid area, with the exception of Legacy Park, which borders the western section of the zone. Zero population is identified within this zone classifying it as rural in density.





196 D

# **Jurisdictional Boundaries:**

North: 101st South: Milton Thompson Road East: Stonehaus Drive West: Windsor Drive

#### **Highest Fire Risk Location:**

A wild land fire at Legacy Park would be the highest fire risk location.

#### **Highest EMS Risk Location:**

An EMS call at Legacy Park would the highest risk location.

#### **Highest Hazmat Risk Location:**

Fertilizers and pesticides used at Legacy Park would be the highest risk location.

#### **Highest Rescue Risk Location:**

Rescue incidents within Legacy Park are the highest risk location.

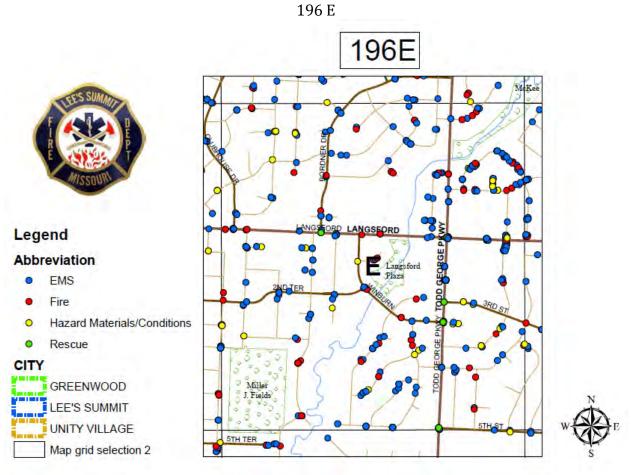
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196E	\$29,044,328	\$26,172,740	\$2,871,538	\$0

#### **ESZ Characteristics:**

This ESZ is predominately residential. Highly traveled Todd George Parkway travels north/south throughout the eastern portion of the zone. Langford Road, another highly traveled road, travels east/west throughout the center of the zone. The southwest corner of the zone contains Miller J. Fields, a local park, and the remainder of the zone is comprised of similarly constructed single family residential. The exception would be the intersection of Langsford Road and Todd George Parkway. This intersection has two gas stations and two pharmacies, along with several other small businesses in the area. The population in the zone is 3,071 making the density metropolitan.





196 E

# Jurisdictional Boundaries:

North: Deerfield Circle South: 5<sup>th</sup> Street East: Greystone Street West: Claremont Street

### **Highest Fire Risk Location**:

There are several single family residences within this zone with similar size, age, and construction style.

# **Highest EMS Risk Location:**

History has indicated that the majority of EMS calls within this zone occur in single family residences.

#### Highest Hazmat Risk Location:

There is the potential for a spill in the creek that runs diagonal throughout the ESZ.

# **Highest Rescue Risk Location:**

The intersection of Todd George and Langsford for motor vehicle collisions is the highest risk location.

#### **Demand History**

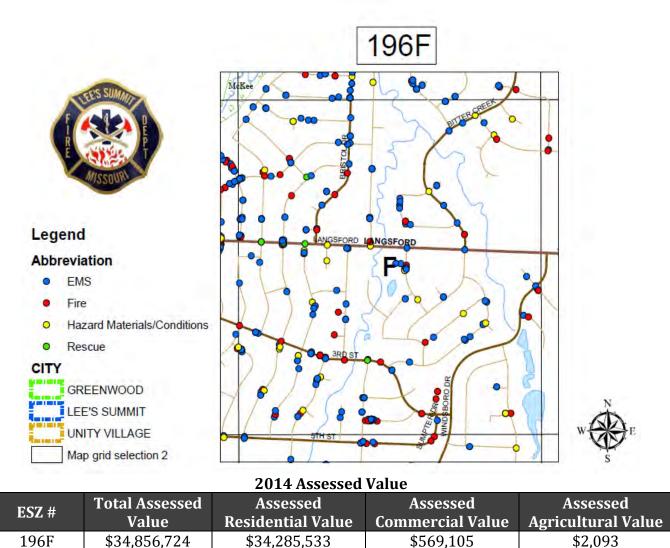
Number of incidents	2012	2013	2014
EMS	121	116	120
Fire	44	33	38
HazMat	14	17	12
Rescue	15	14	8
Total	194	180	178

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$20,000	\$500	\$11,500
Assessed value	\$150,000	\$160,000	\$385,000





196 F



#### **ESZ Characteristics:**

This ESZ is highlighted with the highly traveled Langsford Road which runs east/west through the center of the zone. The remainder of this zone is comprised, primarily, of similarly constructed single family residential. This zone sits directly west of the zone that contains LSFD station #6. The population is 2,528 making the density metropolitan.





196 F

# Jurisdictional Boundaries:

North: Cookson Street South: Meeting Street East: Williamsburg Drive West: Flagstone Drive

### **Highest Fire Risk Location:**

Single family residences pose the greatest risk in this ESZ.

# **Highest EMS Risk Location:**

The majority of EMS incidents occur at the single family residences within this ESZ.

# Highest Hazmat Risk Location:

There is a potential for a fuel spill along Langsford Road.

#### **Highest Rescue Risk Location:**

Motor vehicle collisions along Langsford Road are the highest risk location.

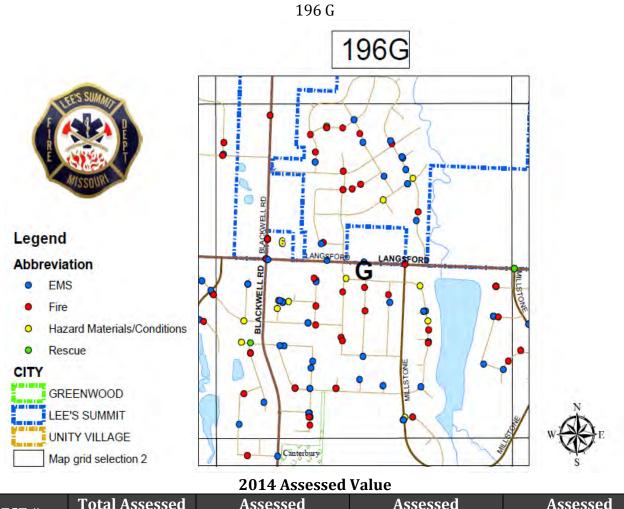
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	61	68	57
Fire	21	17	14
HazMat	8	11	5
Rescue	0	4	2
Total	90	100	78

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$3,500	\$0	\$0
Assessed value	\$440,000	\$0	\$0







ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196G	\$28,851,106	\$27,241,186	\$1,607,477	\$2,433

#### **ESZ Characteristics:**

This ESZ is home to LSFD station #6. Ironically, station #6 borders the Lee's Summit boundary. The residential neighborhood directly north/east of station #6 is not within LSFD response area. Likewise, the extreme northwest portion of the ESZ is not LSFD response area. The remainder of the zone is, mostly, similarly constructed single family residential. LSFD station #6 sits at the intersection of Langsford Road and Blackwell Road. Both of these roads are highly traveled. The population is 1,239 in the zone making the density classification suburban.





196 G

# Jurisdictional Boundaries:

North: Parkwood Drive South: Stillwater Drive East: Waterwheel Street West: Blackwell Road

### **Highest Fire Risk Location:**

This zone has several single family residences that pose the greatest risk. Most residences in the zone are of similar size, age, and construction type.

# **Highest EMS Risk Location:**

The majority of EMS calls occur at single family residences within this zone.

#### Highest Hazmat Risk Location:

Hazardous materials traveling along Langsford Road is the highest risk location.

#### **Highest Rescue Risk Location:**

The intersection of Langsford Road and Blackwell is the highest risk location for MVC's.

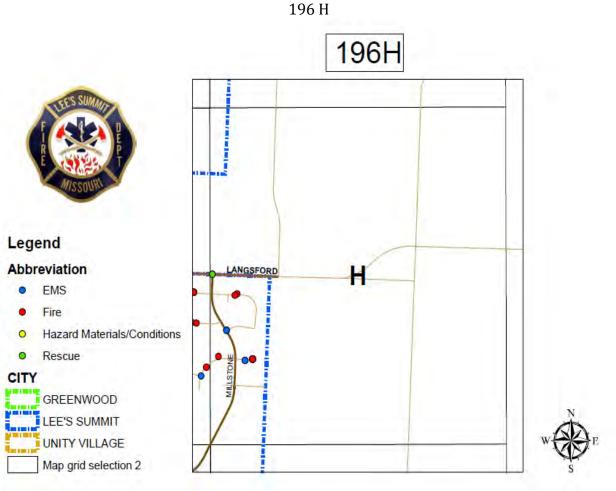
# **Demand History**

Number of incidents	2012	2013	2014
EMS	26	32	23
Fire	12	25	15
HazMat	5	5	5
Rescue	2	1	0
Total	45	63	43

<b>Fire loss</b>	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196H	\$3,213,666	\$3,211,515	\$0	\$2,147

### **ESZ Characteristics:**

This ESZ borders the eastern boundary of the LSFD response zone. The northwest portion of the zone is undeveloped and the southwest portion of the zone is single family residential. The population of the zone is 109 and rural in density.





196 H

#### Jurisdictional Boundaries:

North: N/A South: N/A East: Milton Thompson Road West: Millstone Avenue

### **Highest Fire Risk Location:**

Single family residences in the southwest portion of the zone are of similar size, age, and construction type as the highest risk location.

# **Highest EMS Risk Location:**

Single family residences in the southwest portion of the zone historical have shown to be of greater risk.

# Highest Hazmat Risk Location:

Carbon monoxide incidents at single family residential structures within the ESZ are the highest risk location.

# **Highest Rescue Risk Location:**

Motor vehicle collisions in the area of Millstone and Langsford Road are the highest risk location.

#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	2	2
Fire	7	1	2
HazMat	0	0	0
Rescue	2	0	0
Total	9	3	4

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0

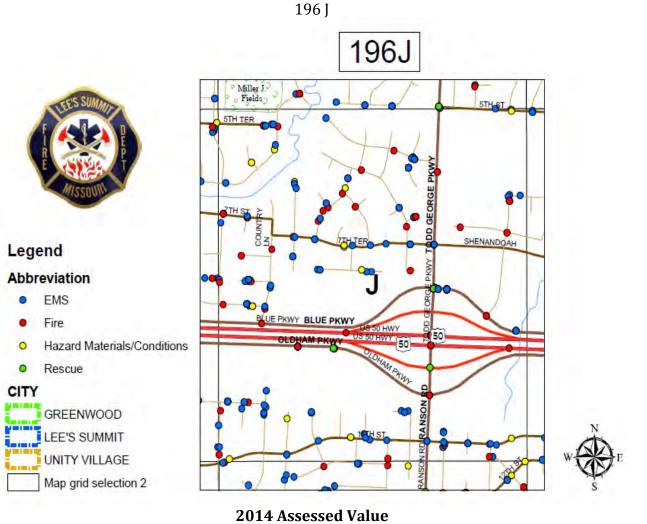




ssessed

4652

ltural Value



	2014 Assessed value					
#	<b>Total Assessed</b>	Assessed	Assessed	As		
#	Value	<b>Residential Value</b>	Commercial Value	Agricu		

\$19,931,815

# **ESZ Characteristics:**

\$26,150,801

ESZ

196

This ESZ is a strong representation of variety. The zone is dominated by the very highly traveled 50 Highway that travels east/west throughout the center of the zone. Todd George Parkway. Is also represented running north/south in the eastern portion. Blue Parkway and Oldham Parkway are the high traffic outer roads that run parallel to 50 Highway. There are many businesses that sit along these outer roads. Prairie View Elementary (the most populated elementary school in the state) sits to the east of Todd George Parkway, just north of 7<sup>th</sup> Street. The remainder of the zone is mostly single family residential. The population of the zone is 1,787 and urban in density.

\$6,218,329





196 J

# Jurisdictional Boundaries:

North: 5<sup>th</sup> Terrace South: 11<sup>th</sup> Street East: Cumberland Road West: Claremont Street

### **Highest Fire Risk Location:**

Prairie View Elementary, which is located just north of Shenandoah and east of Todd George Parkway.

# **Highest EMS Risk Location:**

Single family residences throughout the ESZ have shown equal risk to EMS incidents.

#### Highest Hazmat Risk Location:

Hazardous materials along the highly travelled 50 Highway are the highest risk location.

#### **Highest Rescue Risk Location:**

The highest risk location is MVC's along 50 Highway.

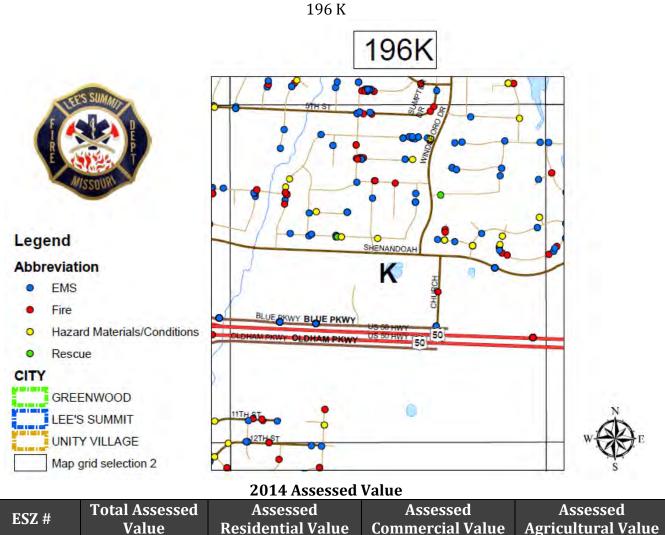
# **Demand History**

Number of incidents	2012	2013	2014
EMS	65	103	56
Fire	24	30	31
HazMat	9	9	5
Rescue	10	14	16
Total	108	156	108

<b>Fire loss</b>	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$3000	\$0
Assessed value	\$0	\$850,000	\$0







#### **ESZ Characteristics:**

\$34,033,867

196K

This is another ESZ that shines with diversity. The northern portion of the zone is mostly single family residential. The highly traveled 50 Highway runs east/west through the zone. Blue Parkway and Oldham Parkway are the outer roads that run along 50 Highway. Lee's Summit Medical Center is addressed off of Blue Parkway. The hospital is located between Shenandoah and Blue Parkway. The Benton House (retirement village) is located directly east, neighboring Lee's Summit Medical Center. The population of the zone is 1,390 and suburban in density.

\$15,828,900

\$5,141

\$18,198,818





196 K

#### Jurisdictional Boundaries:

North: 5<sup>th</sup> Street South: 12<sup>th</sup> Street East: Williamsburg Drive West: Pendleton Drive

# **Highest Fire Risk Location:**

Lee's Summit Hospital and a nursing home are located north of Blue Parkway and south of Shenandoah.

# **Highest EMS Risk Location:**

The retirement home just east of Lee's Summit Medical Center is the highest risk location.

#### Highest Hazmat Risk Location:

A hazardous material spills along 50 Highway is the highest risk location.

#### **Highest Rescue Risk Location:**

MVC's along 50 Highway are the highest risk location.

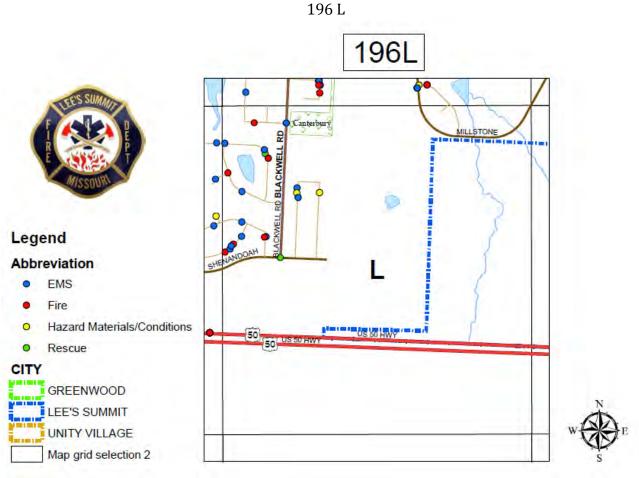
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	222	261	265
Fire	22	17	20
HazMat	9	5	5
Rescue	0	2	1
Total	253	285	291

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196L	\$5,576,579	\$5,527,763	\$46,788	\$2,027

#### **ESZ Characteristics:**

This ESZ contains a portion of 50 Highway. A section of the eastern portion of the zone is comprised of mutual aid area. Much of the zone is undeveloped. The northwest portion of the zone is comprised of single family residential. The population of the zone is 297 and rural in density.





196 L

# Jurisdictional Boundaries:

North: Canterbury Street South: US 50 Highway East: N/A West: Blackwell Road

# **Highest Fire Risk Location**:

The single family residences in the northwest corner of the zone are the highest risk location.

# **Highest EMS Risk Location:**

The single family residences in the northwest corner of the zone are the highest risk location.

#### Highest Hazmat Risk Location:

A Hazardous spill along 50 Highway is the highest risk location.

#### **Highest Rescue Risk Location:**

Motor vehicle collisions along 50 Highway are the highest risk location.

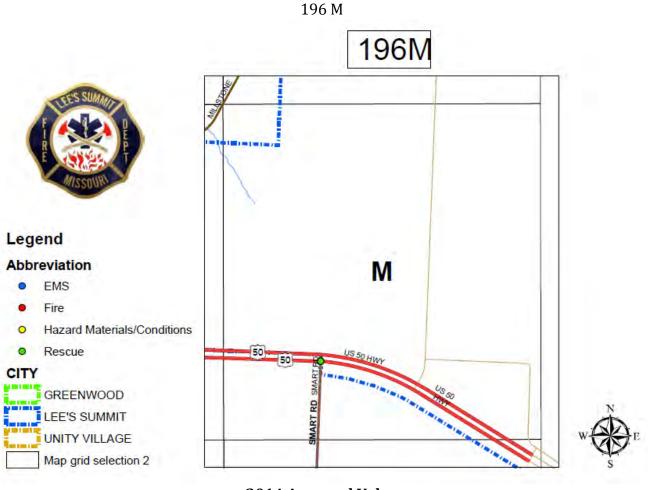
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	2	6	5
Fire	1	3	3
HazMat	0	1	1
Rescue	2	0	0
Total	5	10	9

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$300	\$400
Assessed value	\$0	\$160,000	\$400







2014 Assessed	Value
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ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196M	\$955	\$0	\$0	\$955

# **ESZ Characteristics:**

This ESZ is mostly mutual aid area. A portion of 50 Highway runs through the zone and the intersection of 50 Highway and Smart Road has historically seen quite a few MVC's. The portion of the zone that is in LSFD response area is predominately undeveloped land. The population density of the zone is rural with zero population within the jurisdiction.





196 M

# **Jurisdictional Boundaries:**

North: N/A South: US 50 Highway East: Milton Thompson Road West: N/A

### **Highest Fire Risk Location:**

A wild land fire in the zone is the highest fire risk location.

# **Highest EMS Risk Location:**

EMS calls along 50 Highway is the highest risk location.

# Highest Hazmat Risk Location:

A Hazardous material spill along 50 Highway is the highest risk location.

#### **Highest Rescue Risk Location:**

Motor vehicle collisions along 50 Highway are the highest risk location.

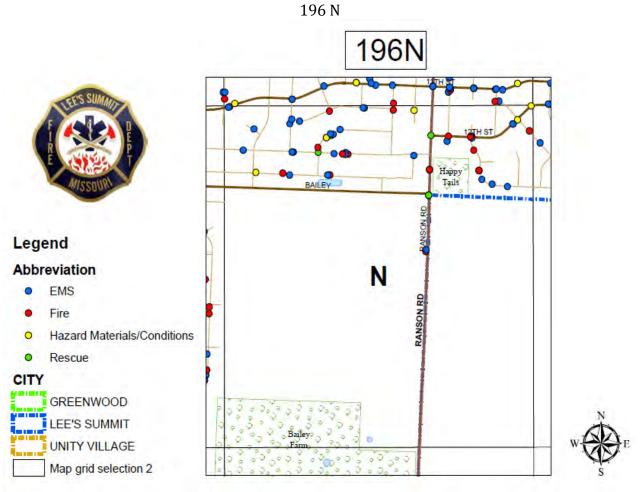
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	1	0
Fire	1	0	0
HazMat	0	0	0
Rescue	1	3	1
Total	2	4	1

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196N	\$10,263,313	\$10,089,993	\$160,497	\$12,844

#### **ESZ Characteristics:**

The northern portion of this zone is comprised of neighborhoods consisting of similarly constructed single family residences. Moderately traveled Ranson Road travels north/south throughout the center of the zone. The southwest corner contains a portion of Bailey Farm. The population of the zone is 749 and rural in density.





196N

# **Jurisdictional Boundaries:**

North: 11<sup>th</sup> Terrace South: N/A East: Ranson Road West: Country Lane

# **Highest Fire Risk Location:**

Single family residences in the northern portion of the zone are of similar size, age, and construction type. The area of Ranson Road south of Bailey Road is greater than 1,500 feet from a hydrant. This area has a CAD rural water alert notification.

# **Highest Non-Fire Risk Location:**

Single family residences in the northern portion of the zone are of greater population density than the southern portion of the zone as the highest risk location.

#### **Highest Hazmat Risk Location:**

Fuel spills along Ranson Road are the highest risk location.

#### **Highest Rescue Risk Location:**

Motor vehicle collisions along Ranson Road are the highest risk location.

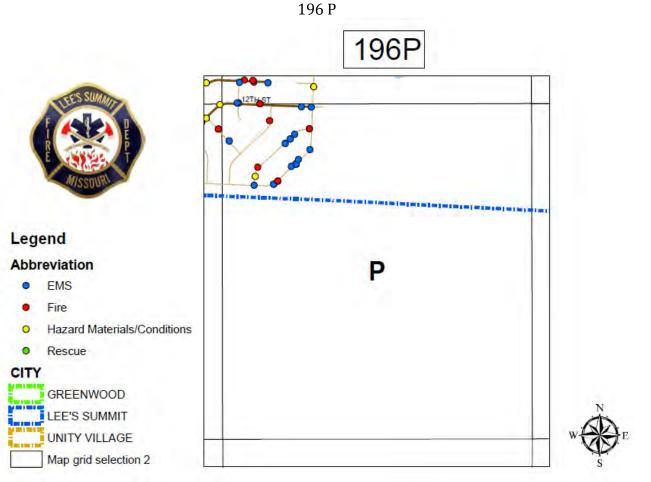
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	10	14	11
Fire	6	2	9
HazMat	2	2	3
Rescue	0	1	3
Total	18	19	26

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$1,500
Assessed value	\$0	\$0	\$160,000







#### **2014 Assessed Value**

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value	
196P	\$3,512,385	\$3,501,508	\$0	\$10,878	

#### **ESZ Characteristics:**

The northwest corner of this ESZ contains a small portion of a neighborhood with, primarily, single family homes. The remainder of this zone is mostly mutual aid area. The population of the zone is 297 making the density classification rural.





196 P

### Jurisdictional Boundaries:

North: 12th Street South: N/A East: N/A West: Rosehill Street

# **Highest Fire Risk Location:**

Single family residences in northwest corner of zone are of similar age, size, and construction type.

# Highest EMS Risk Location:

Single family residences in northwest corner of zone are the concentration of population in the zone and the highest risk location.

#### Highest Hazmat Risk Location:

Carbon monoxide incidents within the single family residences in the northwest corner of the zone are the highest risk location.

# **Highest Rescue Risk Location:**

Motor vehicle collisions along 12<sup>th</sup> Street are the highest risk location.

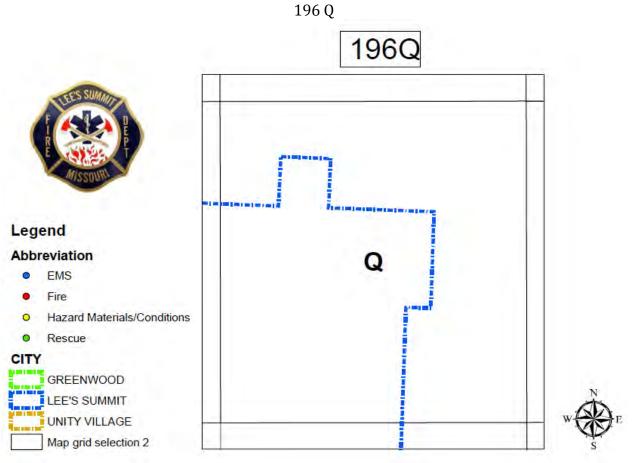
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	6	9	2
Fire	2	2	1
HazMat	0	0	1
Rescue	0	0	0
Total	8	11	4

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### **2014 Assessed Value**

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196Q	\$51,561	\$0	\$26,573	\$24,988

#### **ESZ Characteristics:**

The southwest corner of this ESZ is undeveloped mutual aid area and the remainder of the zone is undeveloped Lee's Summit area. The population is zero and the ESZ is rural by density.





196 Q

### **Jurisdictional Boundaries:**

North: N/A South: N/A East: N/A West: N/A

# **Highest Fire Risk Location:**

A grass fire throughout the ESZ is the highest fire risk location.

# **Highest EMS Risk Location:**

The ESZ is equal in EMS risk as there is no population within the zone.

#### Highest Hazmat Risk Location:

Chemicals which may be used on the grassland pose the highest hazmat risk.

#### **Highest Rescue Risk Location:**

The highest rescue risk location is balanced throughout the zone with no specific hazards.

#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





196 R



#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196R	\$102,203	\$38,617	\$34,575	\$29,010

#### **ESZ Characteristics:**

The majority of this zone is undeveloped Lee's Summit area with Smart Road travelling north/south. The eastern portion of this zone is mutual aid area. The population within this zone is zero making the classification rural in density.





196 R

# Jurisdictional Boundaries:

North: N/A South: N/A East: N/A West: Smart Road

# **Highest Fire Risk Location:**

Wild land fires in the zone are the highest fire risk location as it's undeveloped.

# **Highest EMS Risk Location:**

An EMS incident on Smart Road would be the highest risk location.

#### Highest Hazmat Risk Location:

A mutual aid fuel spill along 50 Highway is the highest risk location.

#### **Highest Rescue Risk Location:**

A motor vehicle collision along Smart Road is the highest risk location in the zone.

#### **Demand History**

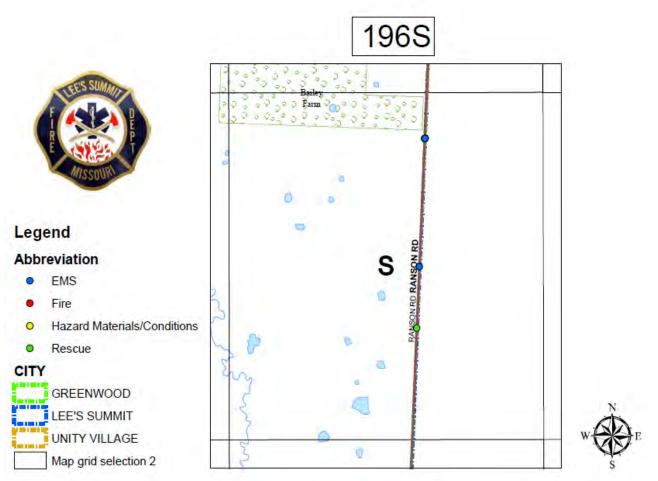
Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





196 S



#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
196S	\$457,883	\$425,779	\$0	\$32,105

#### **ESZ Characteristics:**

This ESZ is divided by Ranson Road, which travels north/south. Everything to the west of Ranson is Lee's Summit, while everything to the east is mutual aid. The northwest corner of the zone contains Bailey Farm. The population of the zone is 17 making the zone rural in density by classification.





196 S

# Jurisdictional Boundaries:

North: N/A South: N/A East: Ranson Road West: N/A

# **Highest Fire Risk Location:**

The Bailey Farm in the northwest corner of the zone is the highest risk location.

# **Highest EMS Risk Location:**

An EMS incident along Ranson Road is the highest risk location.

# Highest Hazmat Risk Location:

A fuel spill along Ranson Road is the highest risk location.

#### **Highest Rescue Risk Location:**

A motor vehicle collision along Ranson Road is the highest risk location.

#### **Demand History**

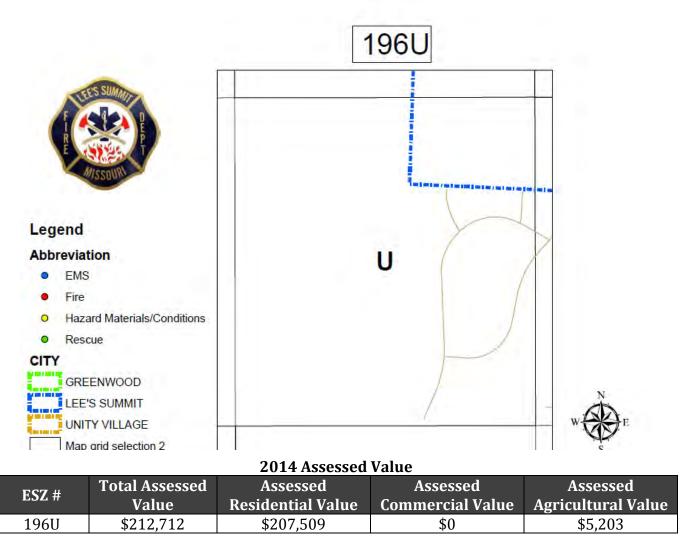
Number of incidents	2012	2013	2014
EMS	5	3	3
Fire	0	1	0
HazMat	0	0	0
Rescue	0	0	0
Total	5	4	3

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





196 U



# **ESZ Characteristics:**

The northeast corner of this ESZ is undeveloped Lee's Summit area. The remainder of the zone is mutual aid area. The population within the area of jurisdiction is zero making the zone classification rural in density.





196 U

# Jurisdictional Boundaries:

North: N/A South: N/A East: Poindexter Road West: N/A

# **Highest Fire Risk Location:**

Wild land fires in this ESZ are the greatest risk.

# **Highest EMS Risk Location:**

Mutual aid requests for assistance to the southern portion of the ESZ are the highest risk location.

#### Highest Hazmat Risk Location:

Mutual aid incidents to the southern portion of the zone involving carbon monoxide make the highest risk location.

#### **Highest Rescue Risk Location:**

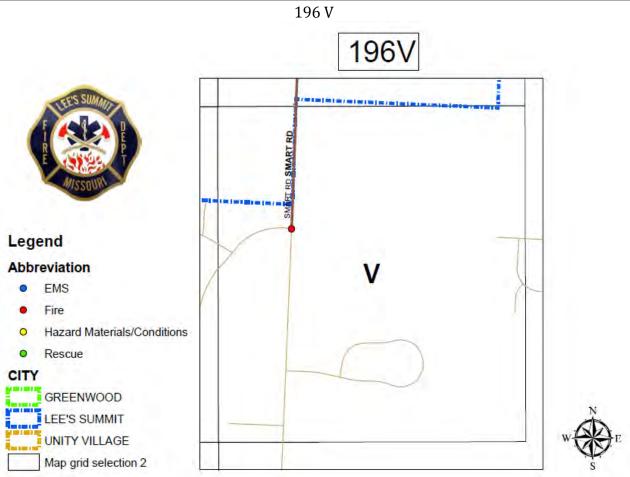
Mutual aid MVCs to the southern portion of the zone are the highest risk location.

#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196V	\$153,745	\$153,745	\$0	\$0

#### **ESZ Characteristics:**

The extreme northwest corner of this ESZ is undeveloped Lee's Summit coverage area. The remainder of this zone is mutual aid area. The population in the area of jurisdiction for this zone is zero. Thus the population classification is rural in density.





196 V

#### **Jurisdictional Boundaries:**

North: N/A South: Bob White East: Howard Street West: Smart Road

# **Highest Fire Risk Location:**

There is the potential for a vehicle fire along Smart Road.

# **Highest EMS Risk Location:**

There is the potential for an EMS call along Smart Road.

# Highest Hazmat Risk Location:

Fuel spill along Smart Road is the highest risk location.

#### **Highest Rescue Risk Location:**

Motor vehicle collisions along Smart Road are the highest risk location.

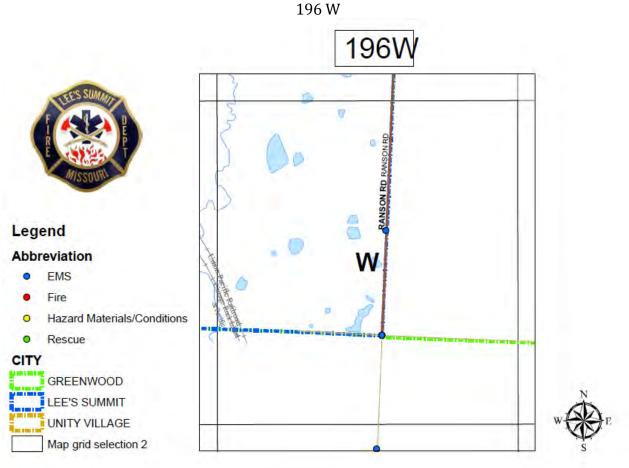
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	1	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	1	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196W	\$521,833	\$501,430	\$6,521	\$13,885

### **ESZ Characteristics:**

Ranson Road travels north/south throughout the center of the zone. Hook Road travels east/west throughout most of the zone. The northwest portion of this zone consists of undeveloped Lee's Summit, with many small ponds. The remainder of the zone is mutual aid area. The population of the area of jurisdiction is 28 making the density rural by classification.





196 W

### **Jurisdictional Boundaries:**

North: N/A South: Browning Road East: Ranson Road West: N/A

### **Highest Fire Risk Location:**

The single family residences along Ranson Road are the highest risk location in the ESZ. The northern portion of the ESZ on Ranson has areas close to 1,500 feet from a hydrant as well as Hook Lane. This area has a CAD rural water alert notification.

# **Highest EMS Risk Location:**

An EMS incident in the single family residences along Ranson Road is the highest risk location.

#### Highest Hazmat Risk Location:

A hazardous material spill from vehicles along Ranson is the highest risk location.

# **Highest Rescue Risk Location:**

A motor vehicle collision at the intersection of Ranson and Hook is the highest risk location.

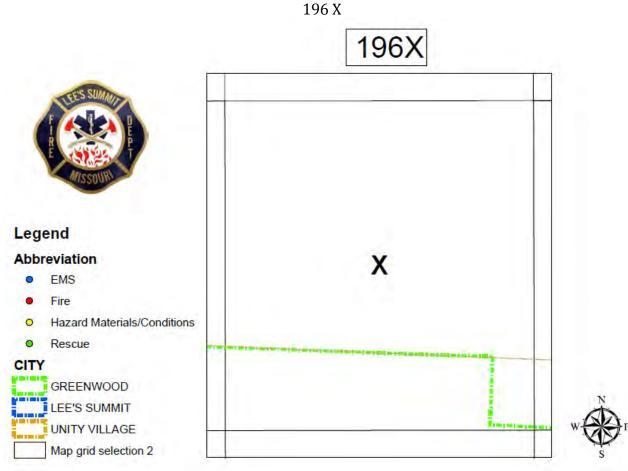
# Demand History

Number of incidents	2012	2013	2014
EMS	1	0	1
Fire	1	0	0
HazMat	0	0	0
Rescue	4	1	1
Total	6	1	2

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
196X	\$1,023,023	\$0	\$1,017,082	\$5,941

#### **ESZ Characteristics:**

The northern portion of this ESZ is undeveloped mutual aid area. The southern portion of this ESZ is the City of Greenwood. Missouri state conservation land takes up most of this ESZ (James A. Reed). The population within the area of jurisdiction is zero, making the population density rural by classification.





196 X

# Jurisdictional Boundaries:

North: N/A South: Browning Road East: N/A West: N/A

# **Highest Fire Risk Location:**

A grass fire within the James A. Reed Conservation area would be difficult to manage and have an impact not only on property loss, but to sportsmen in the area.

# **Highest EMS Risk Location:**

An EMS incident along Browning Road is the highest risk location.

#### Highest Hazmat Risk Location:

A vehicle transporting hazardous materials along Browning Road is the highest risk location.

#### **Highest Rescue Risk Location:**

A motor vehicle collision along Browning Road is the highest risk location.

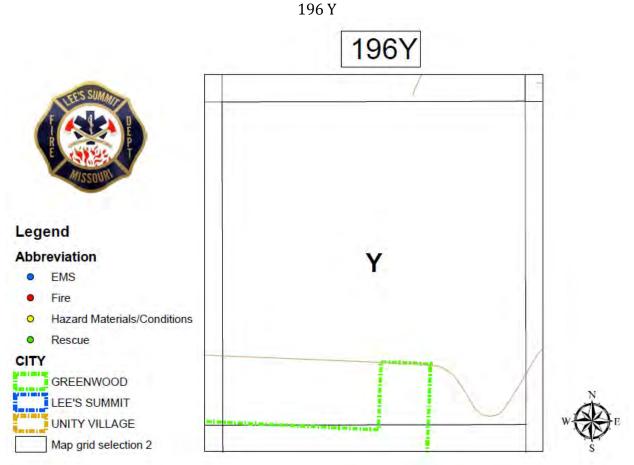
# Demand History

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	2
Total	0	0	2

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
196Y	\$2,691	\$0	\$0	\$2,691

#### **ESZ Characteristics:**

The majority of this ESZ is undeveloped mutual aid area. The southern portion is the City of Greenwood. The population within this zone is zero and rural by density. No structures are in this ESZ.





196 Y

# **Jurisdictional Boundaries:**

North: N/A South: Browning Road East: N/A West: N/A

# **Highest Fire Risk Location:**

Grass fires in this ESZ poses the highest risk location.

# **Highest EMS Risk Location:**

An EMS call along Hook road in the highest EMS risk location.

#### Highest Hazmat Risk Location:

With the agricultural work in the zone, fertilizers and other chemical poses the highest risk in the location.

#### **Highest Rescue Risk Location:**

Motor vehicle collisions along Hook Road make it the highest risk location.

#### **Demand History**

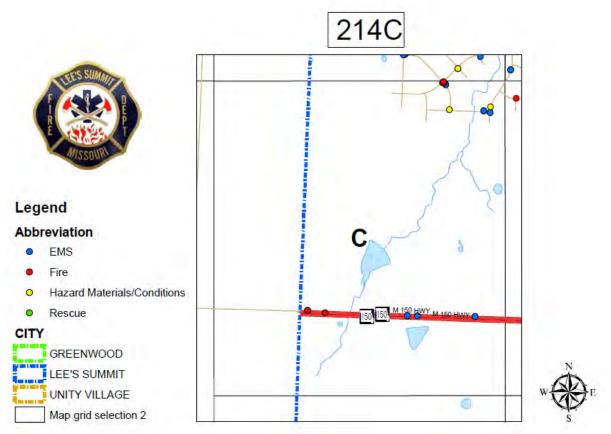
Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





214 C



#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
214C	\$2,744,539	\$2,734,707	\$0	\$9,835

#### **ESZ Characteristics**:

This ESZ indicates jurisdiction by blue border. There is a mix of State Highway route, estate sized residential, and rural type parcels with pockets of native trees. Highway 150 runs east/west through south section of jurisdiction. This ESZ is rural in density with a population of 149 within jurisdictional boundary.





214 C

# Jurisdictional Boundaries:

North: Chase Drive South: Highway 150 East: None West: None

# **Highest Fire Risk Location:**

Due to size of estate style structure and probable rural water operation, the residence located at 2250 SW Highway 150. Areas along 150 Highway are longer than 1,500 from a hydrant. This area has a CAD alert rural water notification.

# **Highest EMS Risk Location:**

The demand for EMS is primarily dispersed in the residential neighborhood located in the NE section as well as the Highway 150 corridor.

#### **Highest Hazmat Risk Location:**

Highway 150 poses the greatest risk as hazardous materials are frequently transported along this route.

#### **Highest Rescue Location:**

Motor Vehicle Collisions along the Highway 150 corridor.

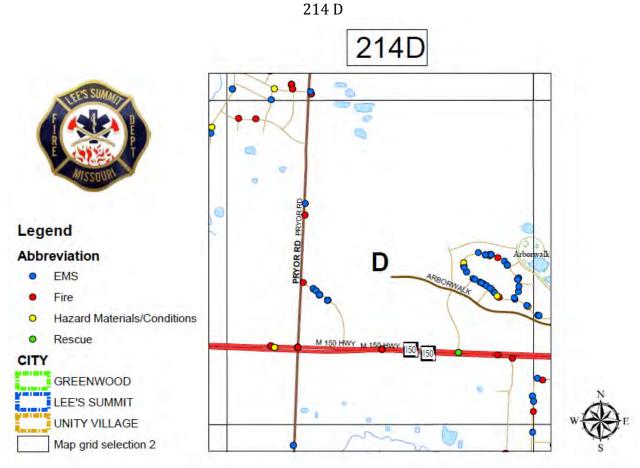
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	7	6	3
Fire	3	1	2
HazMat	0	0	2
Rescue	0	0	0
Total	10	7	5

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
214D	\$7,747,263	\$5,309,428	\$2,409,557	\$28,285

#### **ESZ Characteristics:**

This ESZ is a mix of State Highway route, rural type parcels, neighborhood type single family and multi-family townhome residential, and a large church. Highway 150 runs east/west through south section. The Church complex is located east of Pryor just north of Highway 150. The population density is Suburban at 882.





214 D

# Jurisdictional Boundaries:

North: Amber Lane South: State Highway 150 East: Pryor Road West: Boulder Drive

# **Highest Fire Risk Location:**

Due to size of buildings and occupancy potential, the church located at 1800 SW Arbor Drive will be highest risk.

# **Highest Non-Fire Risk Location:**

The demand in this zone for EMS is dispersed primarily within the residential neighborhood areas.

#### Highest Hazmat Risk Location:

Highway 150 poses greatest risk, as hazardous materials are frequently transported along this route.

# **Highest Rescue Location:**

Motor Vehicle Collisions along the Highway 150 corridor.

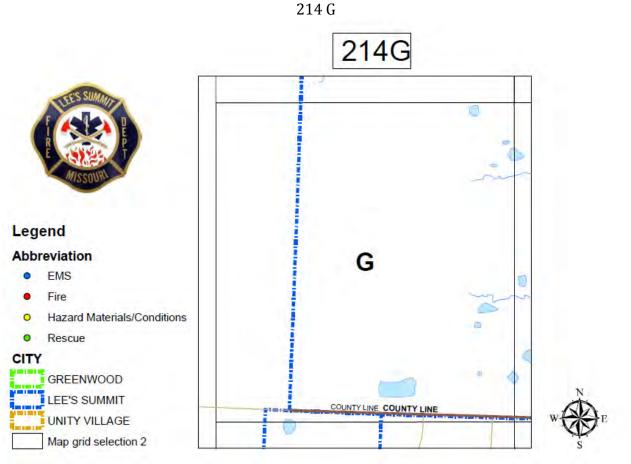
#### Demand History

Number of incidents	2012	2013	2014
EMS	9	21	24
Fire	9	3	10
HazMat	3	1	3
Rescue	1	2	2
Total	22	27	39

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$67,000	\$0	\$0
Assessed value	\$167,000	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
214G	\$302,417	\$282,314	\$0	\$20,103

#### **ESZ Characteristics:**

This ESZ indicates jurisdiction by blue border. The area within jurisdiction consists mostly of rural/agricultural type parcels with a few residential structures. County Line Road runs east/west in south section. This ESZ is rural in density with a population of 15 within jurisdictional boundary.





214 G

# Jurisdictional Boundaries:

North: None South: County Line Road East: None West: None

#### **Highest Fire Risk Location:**

The sparse residential structures located within jurisdiction.

# Highest Non-Fire Risk Location:

The demand within jurisdiction for EMS is dispersed evenly throughout the ESZ as the risk has no recent historical data to support a specific location within the zone.

#### Highest Hazmat Risk Location:

The use of pesticides and fertilizers on the soil would be the greatest hazmat risk in this ESZ.

#### **Highest Rescue Location:**

The demand within jurisdiction for Rescue is dispersed evenly throughout the ESZ as the risk has no recent historical data to support a specific location within the zone.

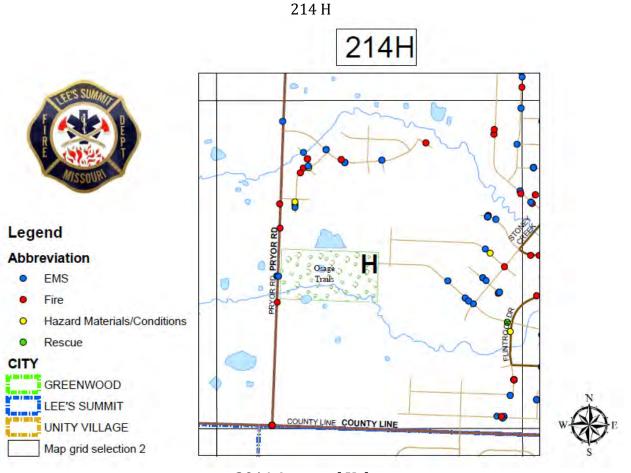
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
214H	\$11,747,241	\$11,686,656	\$43,344	\$17,231

#### **ESZ Characteristics:**

This ESZ indicates jurisdiction north of blue border. The area within jurisdiction is a mix of rural/agricultural type parcels and single family residential neighborhoods. Pryor Road is the primary north/south thoroughfare, and County Line Road is the primary east/west thoroughfare. There is a walking trail park located mid zone just east of Pryor Road. This ESZ is rural in density with a population of 516 within jurisdictional boundary.





214 H

# Jurisdictional Boundaries:

North: Napa Valley Drive South: County Line Road East: Flintrock Drive West: Pryor Road

# **Highest Fire Risk Location:**

The highest fire risk has a distributed history of incidents among the residential structures located within jurisdiction. Areas along Pryor Road have structures close to 1,500 feet from a hydrant. This area has a CAD alert rural water notification.

# **Highest EMS Risk Location:**

The demand in this zone for EMS is dispersed primarily within the residential neighborhood areas.

#### Highest Hazmat Risk Location:

The use of pesticides and fertilizers on the soil would be the greatest hazmat risk in this ESZ.

#### **Highest Rescue Location:**

Motor Vehicle Collisions on roadways within jurisdiction of zone.

#### **Demand History**

Number of incidents	2012	2013	2014
EMS	8	12	15
Fire	10	6	10
HazMat	0	1	3
Rescue	1	0	1
Total	19	19	29

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$20,000
Assessed value	\$0	\$0	\$315,000









#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value	
214L	\$28,480	\$22,760	\$0	\$5,720	

#### **ESZ Characteristics:**

This ESZ indicates jurisdiction by blue border. There is a mix of agricultural, one residential structure with a few outbuildings, pockets of native trees and a couple large ponds. The area represented is located in Cass County, as opposed to most of jurisdiction typically located in Jackson County. Primary access is County Line Road. This ESZ is rural in density with a population of two within jurisdictional boundary.





214 L

# Jurisdictional Boundaries:

North: County Line Road South: None East: None West: None

# **Highest Fire Risk Location:**

A single residential structure located at 2355 SW County Line Road.

# **Highest EMS Risk Location:**

The demand within jurisdiction for EMS is dispersed evenly throughout the ESZ as the risk has no recent historical data to support a specific location within the zone.

#### Highest Hazmat Risk Location:

The use of pesticides and fertilizers on the soil would be the greatest hazmat risk in this ESZ.

#### **Highest Rescue Location:**

The demand within jurisdiction for Rescue is dispersed evenly throughout the ESZ as the risk has no recent historical data to support a specific location within the zone.

# **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
214M	\$1,515,662	\$1,472,662	\$0	\$5,610

#### **ESZ Characteristics:**

This ESZ indicates jurisdiction by blue border. There is a mix of agricultural and ongoing new residential development in NE section. The area represented is located in Cass County, as opposed to most of jurisdiction typically located in Jackson County. Primary route for access is County Line Road located to the north. This ESZ is rural in density with a population of 79 within jurisdictional boundary.





214 M

# Jurisdictional Boundaries:

North: County Line Road South: Waterloo Drive East: Prairie Lane West: Beckham Drive

# **Highest Fire Risk Location:**

The residential neighborhood homes located in the NE section.

# Highest EMS Risk Location:

The residential homes and neighborhood pool located in the NE section are the highest risk location.

#### Highest Hazmat Risk Location:

Chemical application and storage for the neighborhood pool at 1335 SW Cornwall Road.

#### **Highest Rescue Location:**

The demand within jurisdiction for Rescue is dispersed evenly throughout the ESZ as the risk has no recent historical data to support a specific location within the zone.

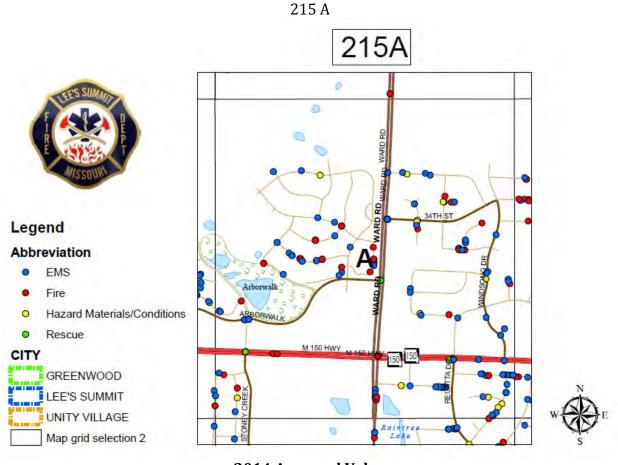
# **Demand History**

Number of incidents	2012	2013	2014
EMS	1	3	6
Fire	1	0	2
HazMat	0	0	0
Rescue	0	0	0
Total	2	3	8

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
215A	\$20,471,905	\$17,031,640	\$3,435,700	\$4,572

#### **ESZ Characteristics:**

This ESZ is a mix of mostly single family residential housing and commercial business. Highway 150 is a major thoroughfare that runs east/west through the ESZ. The residential area in this ESZ is made up of mostly newer construction single family residences. On the west side of this ESZ is a large multi-family apartment complex located at 1328 SW Arborwalk Drive. There is also a gas station located off Stoney Creek and 150. There is a pediatric doctor's office located at 34<sup>th</sup> St and Ward Road. This ESZ is suburban in density with a population of 1,291 within a <sup>3</sup>/<sub>4</sub> square mile.





215 A

### **Jurisdictional Boundaries:**

North: NA South: Lemans Drive East: Windsor Drive West: Stoney Creek Drive

### **Highest Fire Risk Location:**

The highest fire risk is the large multi- family apartment complex located at 1328 SW Arborwalk Drive. There is limited access for fire apparatus with narrow roadway making positioning difficult.

# **Highest EMS Risk Location:**

A pediatric physician's office located at 995 SW 34<sup>th</sup> Street is the largest EMS Risk center in this ESZ due to the number of children that are seen there on a daily basis.

# Highest Hazmat Risk Location:

Highway 150 which is a large thoroughfare that goes east/west is the largest threat for a hazmat incident due to the large number of tractor trailers that carry hazardous materials that use it for transportation.

#### **Highest Rescue Risk Location:**

The intersection of Highway 150 and Ward is a frequent location for motor vehicle collisions.

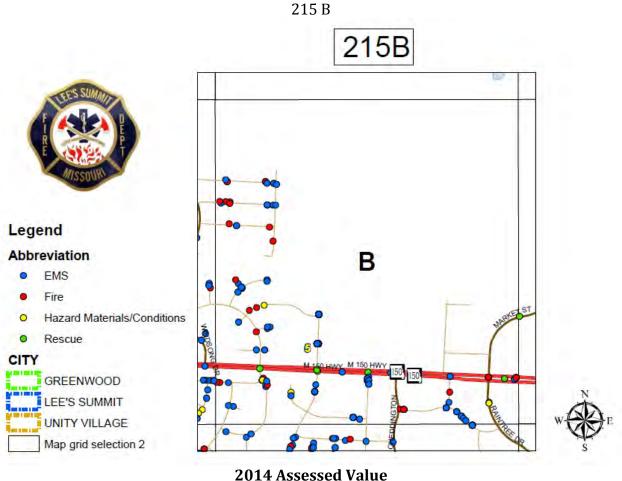
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	37	39	48
Fire	13	16	11
HazMat	3	7	3
Rescue	1	5	7
Total	54	67	69

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







_					
	ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
	215B	\$17,363,831	\$8,179,245	\$9,180,656	\$3,949

#### **ESZ Characteristics:**

This ESZ is a mix of mostly newer construction single family residential, commercial structures and two large educational facilities. Highway 150 is a major thoroughfare that runs east/west through this ESZ. A local middle school is located at 3500 SW Windemere Drive, behind the middle school there is a large aquatics center that is used by all 3 high schools in Lee's Summit. A local elementary school is located at 3651 SW Windemere Drive. A children's daycare facility is also located in this zone off Highway 150 and Cheddington. LSFD station #5 is located in this ESZ. This ESZ is rural in density with a population of 669 in a <sup>3</sup>/<sub>4</sub> mile square.





215 B

### **Jurisdictional Boundaries:**

North: NA South: Greenwich Drive East: Raintree Drive West: NA

### **Highest Fire Risk Location:**

The highest fire risk in this location is a large commercial strip mall structure off of 150 and Cheddington. There is a large grocery store and furniture store at this location. Due to the large square footage and fire load this location is the highest risk.

# **Highest EMS Risk Location:**

Both of the local schools in this ESZ would be the highest risk location for EMS, due to the high number of students that are at both on a daily basis.

#### **Highest Hazmat Risk Location:**

Highway 150 that runs east/west though this ESZ is the highest hazmat risk location due to the fact that it is frequently traveled by tractor trailers carrying hazardous materials.

# **Highest Rescue Risk Location:**

The intersection of Highway 150 and Raintree Drive is a frequent location for motor vehicle collisions.

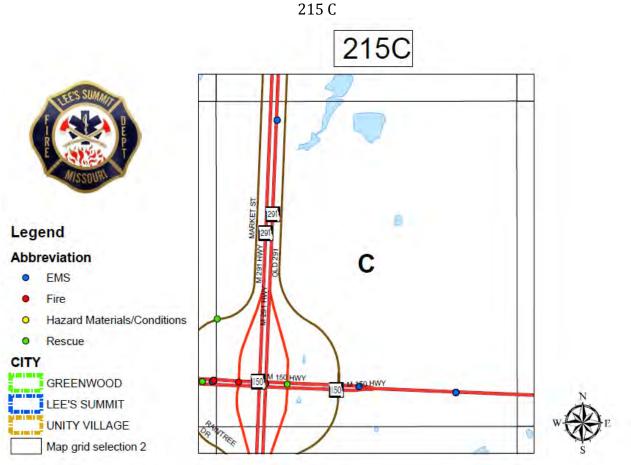
Number of incidents	2012	2013	2014
EMS	49	53	52
Fire	25	13	26
HazMat	6	2	3
Rescue	11	11	6
Total	91	79	87

#### **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$5,000	\$0	\$0
Assessed value	\$220,000	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
215C	\$1,550,942	\$232,660	\$1,295,144	\$23,139

# **ESZ Characteristics:**

This ESZ is a very sparsely populated, with a few commercial structures located on Highway 150 right off a 291. There are two major thoroughfares that run through this ESZ. Highway 291 runs north/south and Highway 150 runs east/west. The population density of this zone is rural with a population of seven.





215 C

### **Jurisdictional Boundaries:**

North: NA South: Highway 150 East: Old 291 Highway West: Market Street

### **Highest Fire Risk Location:**

The few commercial structures located right off Highway 291 on M 150 Highway would be the highest fire risk in this specific location. Market Street in the northwestern portion of the ESZ has areas farther than 1,500 feet from a hydrant. This area has a CAD alert rural water notification.

## **Highest EMS Risk Location:**

Due to the very low population and commercial businesses in this ESZ there is a very low EMS call load. The two major highways that run through this ESZ would be the highest EMS risk locations.

### Highest Hazmat Risk Location:

291 Highway which runs north/south through this ESZ is the highest hazmat risk location due to the extremely high number of tractor trailers that carry hazardous materials that use it for transportation.

### **Highest Rescue Location:**

Highway 291 is a frequent location for motor vehicle collisions.

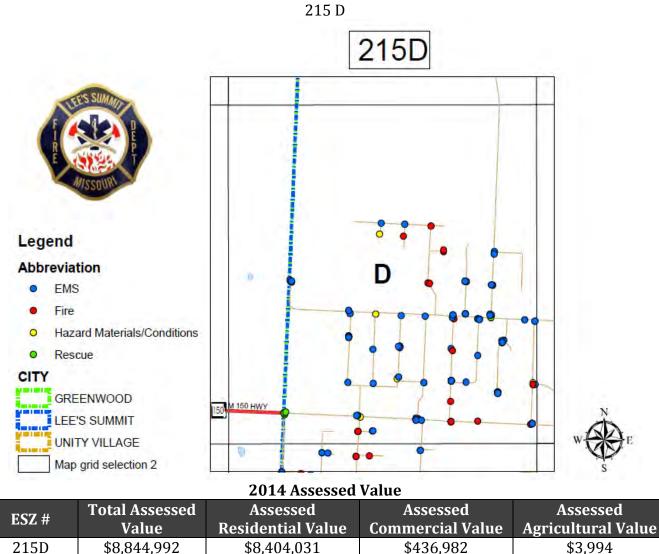
Number of incidents	2012	2013	2014
EMS	7	3	7
Fire	4	0	4
HazMat	0	0	1
Rescue	9	4	13
Total	20	7	25

## Demand History

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







### **ESZ Characteristics:**

This ESZ is comprised almost entirely of single family residential housing. M Highway 150 runs east/west through this zone, the city limits of Lee's Summit and Greenwood is in this zone. Highway 150 turns into West Main Street and you enter Greenwood city limits. This is a very high traffic road that is used constantly throughout the year. A majority of the residential homes in this zone are newer construction within the last 20 years. This ESZ is suburban in density with a population of 886 people within a <sup>3</sup>/<sub>4</sub> square mile.





215 D

## **Jurisdictional Boundaries:**

North: Kimberly Drive South: Main Street East: 13<sup>th</sup> Avenue West: Doc Henry Road

### **Highest Fire Risk Location:**

The highest fire risk in this zone would be the residential neighborhoods, which the zone mostly consists of. Areas along Hamblen Road are longer than 1,500 feet from the closest hydrant. This area has a CAD alert rural water notification.

### **Highest EMS Risk Location:**

Recent call history shows that the residential neighborhoods in the center of this specific zone are the highest for EMS call load.

### **Highest Hazmat Risk Location:**

M Highway 150/Main Street is the highest hazmat risk location due to the high number of tractor trailers that use this thoroughfare to transport hazardous materials on a daily basis.

### **Highest Rescue Location:**

M Highway 150/Main Street is a frequent location for motor vehicle collisions.

### **Demand History**

Number of incidents	2012	2013	2014
EMS	31	36	39
Fire	8	7	13
HazMat	5	1	3
Rescue	4	1	2
Total	48	45	57

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





#### **2014 Assessed Value**

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
215E	\$22,404,026	\$22,249,795	\$148,754	\$5,459

### **ESZ Characteristics:**

This ESZ is made up almost entirely of single family residential structures. A majority are of newer construction and 3,500 plus square feet in size. A large portion of Raintree Lake is in the eastern portion of the zone, this lake is a popular local destination for recreation, particularly in the spring and summer months. Ward Road is a fairly busy thoroughfare that travels north/south right down the center of the zone. This ESZ is suburban in density with a population of 1,358 within a 3/4 square mile.





215 E

## Jurisdictional Boundaries:

North: Harbor Drive South: Merryman Drive East: Gull Point Drive West: Flintrock Drive

### **Highest Fire Risk Location:**

The large homes that border Raintree Lake are the highest fire risk location in the zone due to their large square footage.

## **Highest EMS Risk Location:**

Call history has shown that the neighborhoods throughout this EZS have high call loads for EMS.

### Highest Hazmat Risk Location:

Raintree Lake, the recreational activities on the lake pose a threat for a hazmat incident due to the possibility of a large fuel spill.

### **Highest Rescue Risk Location:**

Raintree Lake due to the large amount of boating that goes on here during the spring and summer months.

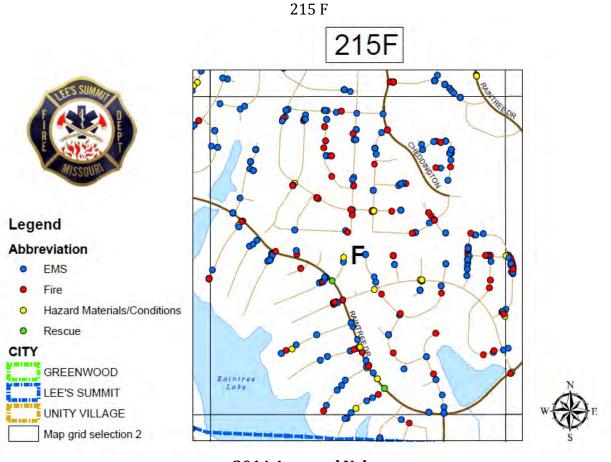
### **Demand History**

Number of incidents	2012	2013	2014
EMS	37	37	57
Fire	15	7	18
HazMat	3	7	3
Rescue	1	1	2
Total	56	52	80

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
215F	\$35,752,252	\$32,425,386	\$3,326,105	\$736

### **ESZ Characteristics:**

This particular ESZ is comprised entirely of single family residential homes. A majority of the homes are of newer construction and are mostly 3,500 plus square feet in size. A portion of Raintree Lake is within the zone. This lake is a popular local destination for recreational activities, especially during the spring and summer months. Also a portion of the lake that is known as the Duck Pond is in the zone. This is a small section where recreational activity such as boating is not allowed. This population density of this zone is Metropolitan at 2,426 people in the <sup>3</sup>/<sub>4</sub> square mile.





215 F

## Jurisdictional Boundaries:

North: Brielle Street South: Bowspirit Street East: No identifier West: No identifier

### **Highest Fire Risk Location:**

The highest fire risk in the zone is the large homes that border Raintree Lake. Some of these homes are 4,000 plus square feet in size.

### **Highest EMS Risk Location:**

Recent call history has shown that the homes throughout the zone are the highest risk for EMS.

### Highest Hazmat Risk Location:

Raintree Lake is the highest risk for a hazmat incident in the zone due to the potential of a fuel spill.

### **Highest Rescue Risk Location:**

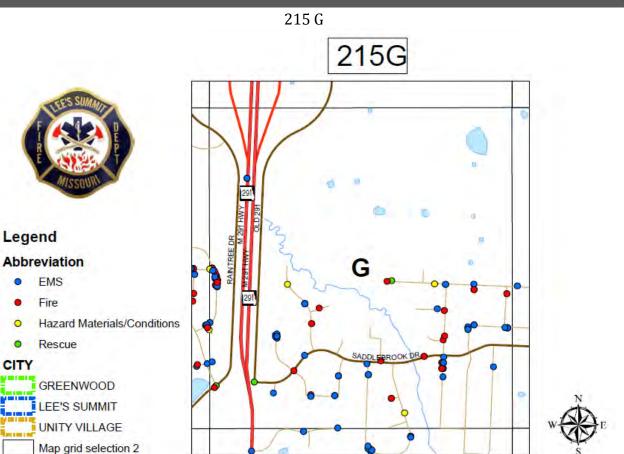
With all the recreational activity that goes on at Raintree Lake this is the highest risk location for a rescue.

#### **Demand History**

Number of incidents	2012	2013	2014
EMS	72	78	69
Fire	23	32	36
HazMat	9	10	4
Rescue	1	0	2
Total	105	120	111

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$1,000
Assessed value	\$0	\$0	\$1,000





#### **2014 Assessed Value**

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
215G	\$13,703,144	\$13,555,203	\$136,061	\$11,865

#### **ESZ Characteristics:**

This area is made up of mostly open fields in the northern half and a neighborhood consisting of fairly large residential homes in southern half. MO 291 Highway is a very busy thoroughfare that runs north/south along the western portion of the zone. This ESZ is Rural in density with a population of 659 within the <sup>3</sup>/<sub>4</sub> square mile.





215 G

## **Jurisdictional Boundaries:**

North: No Identifier South: Citation Street East: Stirrup Streer West: Raintree Drive

## **Highest Fire Risk Location:**

The highest fire risk location is the large homes in the neighborhood in the Southeast corner of the zone.

## **Highest EMS Risk Location:**

Call history has shown that the neighborhood in the southern part of the ESZ has had the highest call load in the last few years.

### Highest Hazmat Risk Location:

291 Highway that runs north/south through the zone is the highest risk for a hazmat incident due to the extremely high number of tractor trailers carrying hazardous materials that use it on a daily basis.

### **Highest Rescue Risk Location:**

291 Highway has been a frequent location for motor vehicle collisions in the past.

### **Demand History**

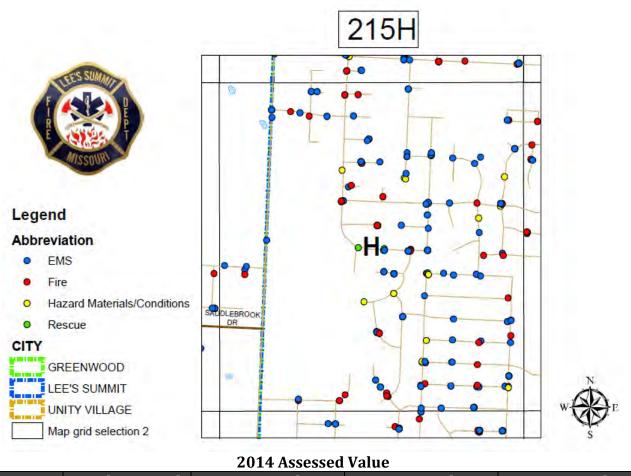
Number of incidents	2012	2013	2014
EMS	15	17	26
Fire	18	13	12
HazMat	3	1	1
Rescue	2	1	0
Total	38	32	39

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





215 H



ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
215H	\$21,763,074	\$21,460,915	\$281,474	\$20,695

## **ESZ Characteristics:**

This ESZ is made up entirely of residential neighborhoods that are comprised of single family residential homes. These homes are mostly of newer construction. The Lee's Summit and Greenwood City Limits run North/South in the western portion of the zone. Doc Henry is the dividing line between the two cities. The population density of this zone is rural at 516 people in the 3/4 mile square.





215 H

## Jurisdictional Boundaries:

North: Walnut Drive South: Aspen Street East: Huntington Drive West: Doc Henry Road

### **Highest Fire Risk Location:**

The residential structures in the eastern portion of the zone are the highest risk for fire.

### Highest EMS Location:

Recent call history in this zone indicates that residential neighborhoods in the eastern portion of the zone.

### Highest Hazmat Risk Location:

Call history shows the residences in this zone have been the location of several hazmat incidents in the past, mainly fuel spills or carbon monoxide calls.

### **Highest Rescue Risk Locations:**

Doc Henry Road has been the location of several motor vehicle collisions in the past.

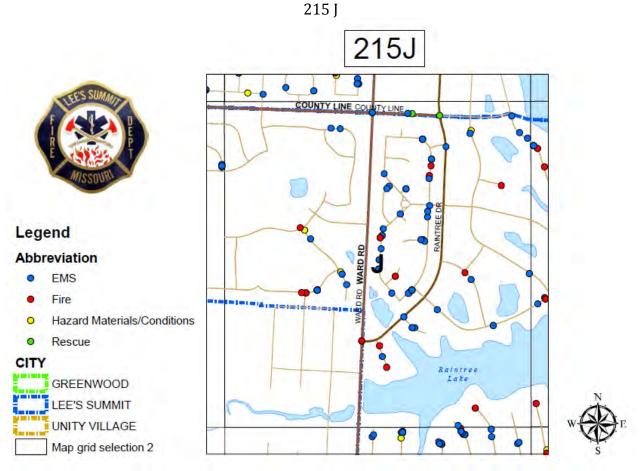
### **Demand History**

Number of incidents	2012	2013	2014
EMS	46	47	35
Fire	13	26	14
HazMat	4	8	8
Rescue	3	3	0
Total	65	82	60

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### **2014 Assessed Value**

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
215J	\$19,262,348	\$17,930,203	\$0	\$360

#### **ESZ Characteristics:**

This ESZ is comprised mostly of single family residential structures. The majority is of newer construction and some (mostly one's bordering Raintree Lake) are very large in size, over 4,000 square feet. Ward Road is a fairly busy thoroughfare that runs north/south down the center of the zone. The southwest corner of the zone is out of Lee's Summit city limits. A fairly large portion of Raintree Lake is found in this zone. This lake is a popular destination for recreational activities, boating in particular, during the spring and summer months. The population density of this zone is Suburban at 853 people in the <sup>3</sup>/<sub>4</sub> square mile.





215 J

## Jurisdictional Boundaries:

North: County Line Road South: No identifier East: Gull Point Drive West: Beckham Street

### **Highest Fire Risk Location**:

The highest fire risk location in this zone is the large residential structures bordering Raintree Lake.

### Highest EMS Risk Location:

Recent call history has shown that the neighborhoods in the northwest corner of this zone have had the highest EMS call load.

### Highest Hazmat Risk Location:

Raintree Lake poses the highest risk location for a hazmat incident in the zone due to the potential of fuel spill.

### **Highest Rescue Risk Location:**

Raintree Lake, due to the high amount of recreational activities, boating in particular, that take place here.

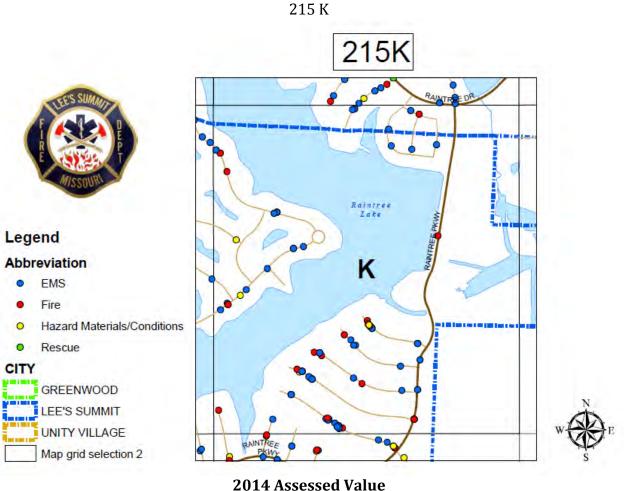
### **Demand History**

Number of incidents	2012	2013	2014
EMS	15	18	30
Fire	3	4	12
HazMat	1	1	1
Rescue	3	3	0
Total	22	26	43

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value	
215K	\$16,752,881	\$16,190,359	\$0	\$2,011	

## **ESZ Characteristics:**

This ESZ is comprised largely of single family residential homes. A majority of the homes are of newer construction and over 3,500 square feet plus in size. Also a large portion of Raintree Lake is found in this zone. This lake is a popular local destination for recreational activities, especially in the spring and summer months. The Raintree Lake Dam is found in this zone, it is just west of Raintree Parkway and South of Raintree Drive. This ESZ is suburban in density with a population of 788 within a <sup>3</sup>/<sub>4</sub> mile square.





215 K

## **Jurisdictional Boundaries:**

North: No Identifier South: Seagull Drive East: Raintree Parkway West: Gull Point Drive

### **Highest Fire Risk Location:**

The large homes in the residential neighborhoods in the zone are the highest risk for fire. Due to the size of some of the homes bordering Raintree Lake (over 5,000 square feet), this could create difficulties for fire suppression operations.

## **Highest EMS Risk Location:**

Recent call history in this zone indicates the residential neighborhoods throughout the zone have the highest EMS call volume.

### Highest Hazmat Risk Location:

Raintree Lake has the highest risk for a hazmat incident in this zone due to the potential for a fuel spill caused by all the recreational activity that takes place on the lake.

### **Highest Rescue Risk Location:**

With all the recreational activity that goes on during the spring and summer months on Raintree Lake this is the highest risk for a rescue location in the zone.

## **Demand History**

Number of incidents	2012	2013	2014
EMS	34	32	24
Fire	6	11	14
HazMat	4	2	2
Rescue	0	0	0
Total	44	45	40

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$15,000
Assessed value	\$0	\$0	\$222,000





#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
215L	\$1,912,742	\$1,912,742	\$0	\$0

### **ESZ Characteristics:**

Only a very small portion of this particular ESZ is under Lee's Summit jurisdiction. Lee's Summit city limits runs east/west in the northern section of this zone. The neighborhood in this zone is made up entirely of large (3,500 square feet plus) single family residential homes. Raintree Lake in this zone, there is no recreational activity or boating on this portion of the lake. This zone is rural in density with a population of 87.





215 L

## Jurisdictional Boundaries:

North: No identifier South: South City limits (no identifier) East: Lariat Street West: Mo Highway 291

### **Highest Fire Risk Location:**

The highest fire risk would be the large homes in the residential neighborhoods in the northern portion of the zone.

### **Highest EMS Risk Location:**

Recent call history in the zone indicates that the residential neighborhood is the highest for EMS call volume.

### Highest Hazmat Risk Location:

Although there is no recreational activity (boating) on the portion of Raintree Lake in this ESZ there is still potential for runoff from a fuel spill which could cause a hazmat incident.

### **Highest Rescue Location:**

The portion of Raintree Lake in the zone creates the potential for the highest rescue risk.

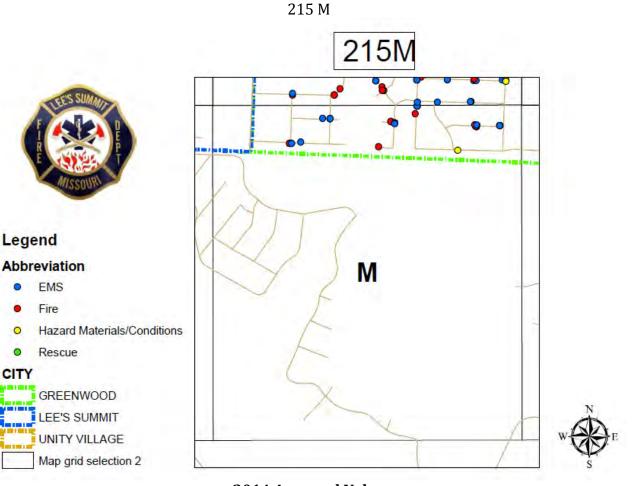
### Demand History

Number of incidents	2012	2013	2014
EMS	1	6	4
Fire	0	1	0
HazMat	0	0	0
Rescue	0	0	0
Total	1	7	4

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value	
215M	\$5,006,445	\$5,006,190	\$0	\$270	

### **ESZ Characteristics:**

A very large portion of this ESZ is outside of Lee's Summit city limits. The very northwest corner of the zone is Lee's Summit city limits, the rest is Greenwood. This zone is made of entirely of single family residential structures. This ESZ is rural in density and has a population of 530 within the zone.





215 M

## Jurisdictional Boundaries:

North: No identifier South: City Limits (No identifier) East: Huntington Drive West: Doc Henry Avenue

### **Highest Fire Risk Location**:

The highest fire risk in the zone would be any of the residential structures in the northern part of the zone.

## **Highest EMS Risk Location:**

Recent call history shows that the residential neighborhoods in the zone are the highest for EMS call load.

### Highest Hazmat Risk Location:

Call history shows that the residences in this zone have been the locations of several hazmat incidents in the past, mainly due to fuel spills.

### **Highest Rescue Risk Location:**

Doc Henry Avenue which runs north/south through this zone is a high risk location for motor vehicle collisions.

### **Demand History**

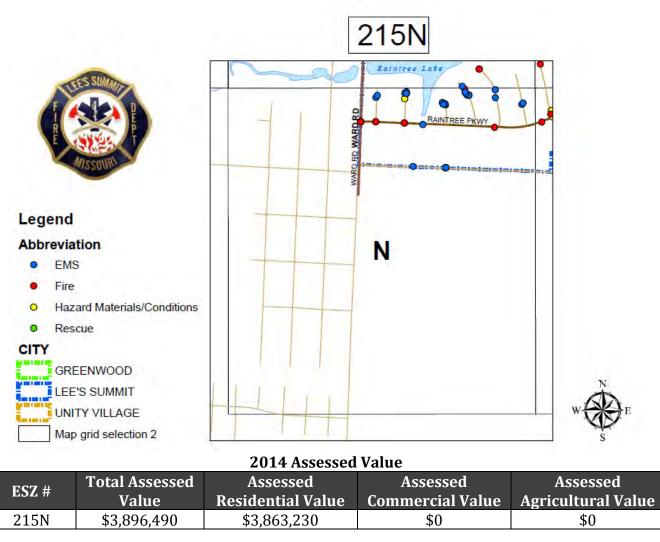
Number of incidents	2012	2013	2014
EMS	9	9	6
Fire	1	5	3
HazMat	2	1	0
Rescue	0	0	0
Total	12	15	9

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





215 N



## **ESZ Characteristics:**

Only the very Northeast corner of this ESZ is in Lee's Summit city limits. The Lee's Summit portion is made up entirely of large single family residential homes. A small cove of Raintree Lake is in the very northern section of the zone. This ESZ is rural in density with a population of 245 within the zone.





215 N

### Jurisdictional Boundaries:

North: Raintree Parkway South: No identifier East: Pelican Street West: Royal Tern Street

### **Highest Fire Risk Location:**

The highest fire risk would be the large residential structures in the northern part of the zone.

### **Highest EMS Risk Location:**

Recent call history shows that the residential neighborhoods in the zone are the highest for EMS call load.

### Highest Hazmat Risk Location:

Although there is only a small cove of Raintree Lake in this zone this would be the highest risk for a hazmat incident due to the potential for a fuel spill in the lake.

### **Highest Rescue Location:**

Ward Road is a fairly busy, highly traveled road in the zone, and a risk location for motor vehicle collisions.

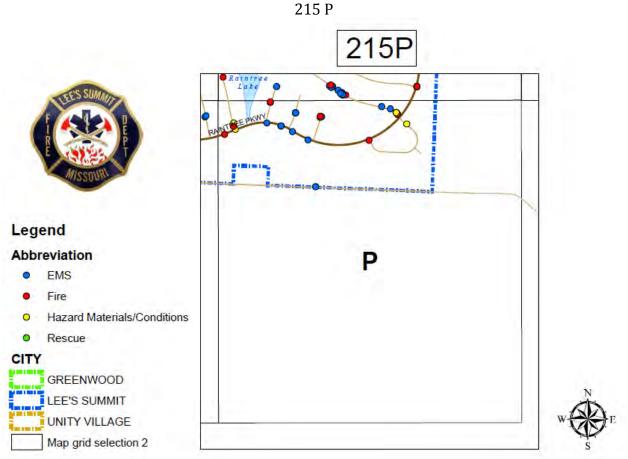
#### **Demand History**

Number of incidents	2012	2013	2014
EMS	8	9	23
Fire	3	5	4
HazMat	0	1	2
Rescue	0	0	0
Total	11	14	29

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
215P	\$4,361,150	\$4,051,770	\$0	\$0

### **ESZ Characteristics:**

A very large portion of this specific ESZ is outside of Lee's Summit city limits. The portion that is Lee's Summit is made of almost entirely of large single family residential structures in the Raintree Lake area. Homes are mostly newer construction and 3,500 plus square feet. A very small portion of Raintree Lake is in this ESZ. This ESZ is Rural in density with a population of 270 within the zone.





215 P

## Jurisdictional Boundaries:

North: Shore Drive South: Raintree Parkway East: Raintree Parkway West: Gull Point Drive

### **Highest Fire Risk Location:**

The highest fire risk in the zone would be the large residential structures in the northern part of the zone.

### **Highest EMS Risk:**

Recent call history shows that the residential neighborhoods in the zone are the highest for EMS call load.

### **Highest Hazmat Risk location:**

Although there is only a small cove of Raintree Lake is this specific zone this would be the highest risk for a hazmat event due to the potential of a fuel spill in the lake.

### **Highest EMS Risk Location:**

Raintree Parkway which goes through this zone has been a location of several motor vehicle collisions in the past.

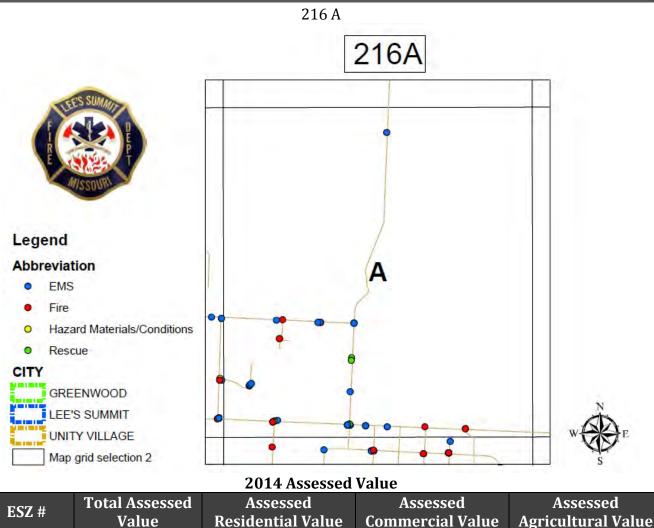
### **Demand History**

Number of incidents	2012	2013	2014
EMS	2	6	5
Fire	5	5	2
HazMat	1	2	1
Rescue	0	0	1
Total	8	13	9

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### **ESZ Characteristics:**

\$3,377,430

216A

This ESZ represents contracted service area Greenwood, Mo. and contains wide mix of older/newer residential neighborhoods, industrial/retail business corridor, rural type residential, and an elementary school located on border in SW corner. Highway 150 (Main) is primary route and travels east/west in the southern section. An active northwest/southeast rail line is also located within this ESZ. Large pockets of native trees exist along rail corridor. This ESZ is rural in density with a population of 176.

\$1,460,602

\$7,980

\$1,908,842





216 A

## **Jurisdictional Boundaries:**

North: Ranson Road South: Highway 150 (Main) East: NA West: Gambrell Street

### **Highest Fire Risk Location:**

Due to older construction and potential occupancy load, Greenwood Elementary School located at 805 W Main is considered highest fire risk. Areas along Ranson Road are longer than 1,500 feet from the closest hydrant. This area has a CAD alert rural water notification.

## Highest Non-Fire Risk Location:

Recent historical data indicates EMS as highest non-fire risk, dispersed mostly throughout residential and business sectors.

### **Highest Hazmat Risk Location:**

The rail line poses greatest risk, as hazardous materials are frequently transported along this route. Any rail type incident will be difficult to access due to dense tree pockets along rail corridor.

### **Highest Rescue Risk Location:**

Motor vehicle collisions are the highest rescue risk location along Highway 150.

### **Demand History**

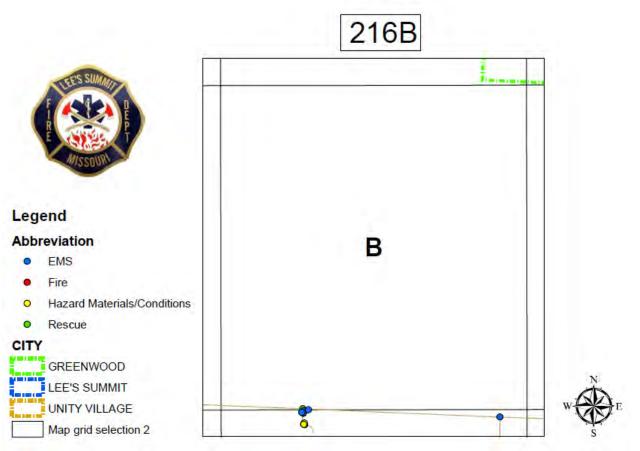
Number of incidents	2012	2013	2014
EMS	11	4	14
Fire	1	3	4
HazMat	2	1	1
Rescue	4	1	5
Total	18	9	24

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





216 B



#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
216B	\$525,033	\$0	\$512,801	\$12,232

### **ESZ Characteristics:**

Everything south and west of the green border represents an area included within contracted service response provided for Greenwood, Mo. The area primarily consists of State highway route, agricultural, and pockets of native trees. There are a few business locations in the southwest region just off Highway 150. Primary access route will be Highway 150. The area is rural in density with a population of three.





216 B

## Jurisdictional Boundaries:

North: NA South: Highway 150 (E Main) East: NA West: NA

### **Highest Fire Risk Location:**

The business locations in the southwest region along Highway 150 are the highest risk location of the ESZ. Areas along 150 Highway are greater than 1,500 feet from the nearest hydrant. This area has a CAD alert for rural water operations.

### **Highest Non-Fire Risk Location:**

The business location in the southwest region along Highway 150 is the highest risk location.

### Highest Hazmat Risk Location:

Highway 150 poses the greatest risk, as hazardous materials are transported along this route.

### **Highest Rescue Risk Location:**

Motor Vehicle Collisions are the highest rescue risk location along Highway 150.

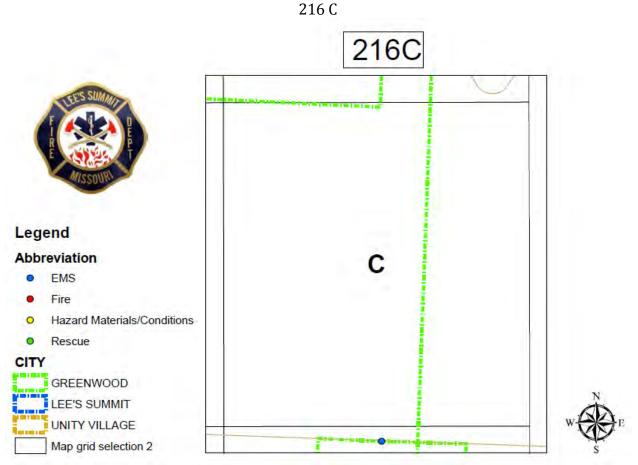
### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	1
Fire	0	0	0
HazMat	0	0	0
Rescue	1	0	0
Total	1	0	1

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
216C	\$18,422	\$0	\$0	\$18,422

#### **ESZ Characteristics:**

As indicated by green border, this ESZ has a sector mid zone to the west that is included within contracted service response area provided for Greenwood, Mo. The represented area primarily consists of agricultural, and pockets of native trees. There are a few outbuildings located within response area, but no known residential structures. Primary access route into area will be Highway 150 from the south.





216 C

## Jurisdictional Boundaries:

North: NA South: Highway 150 (Outer Belt Road) East: NA West: NA

### **Highest Fire Risk Location**:

A large wild land fire in this area would be difficult to manage given its limited access, and would require significant personnel.

## Highest Non-Fire Risk Location:

The demand within contracted area for EMS is dispersed evenly throughout the ESZ as the risk has no recent historical data to support a specific location within the zone.

### **Highest Hazmat Location:**

Given the amount of farmland within the ESZ, the use of pesticides and fertilizers on the soil would be the greatest hazmat risk in this ESZ. These containers could be mobile throughout the farmland.

### **Highest Rescue Risk Location:**

Farm machinery incident in the agricultural areas.

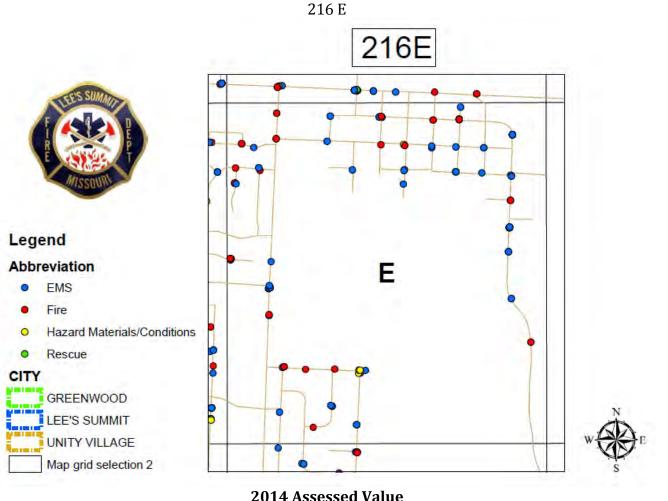
### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
216E	\$9,671,498	\$8,347,377	\$1,309,879	\$14,255

## **ESZ Characteristics:**

This ESZ represents contracted service area for Greenwood, Mo. and contains wide mix of older/newer residential neighborhoods, industrial/retail business corridor, rural type residential, and designated park space. There is also a large horse stable located on west side of 2<sup>nd</sup> Avenue. An elementary school is located on border in NW corner, but will be represented in ESZ 216A. Highway 150 (Main) is located just north of this ESZ and considered primary access. The ESZ is suburban in density with a population of 908.





216 E

## **Jurisdictional Boundaries:**

North: Walnut Street South: Raven Drive East: 2<sup>nd</sup> Avenue West: Allendale Lake Road

### **Highest Fire Risk Location:**

The manufacturing business "Mr. Longarm" located at 400 Walnut Street is considered highest fire risk due to size of business, combustible fire load, and proximity to older wood frame exposures in the immediate area. Areas along 2<sup>nd</sup> Avenue South are longer than 1,500 feet from a hydrant. This area has a CAD alert rural water notification.

### **Highest Non-Fire Risk Location:**

Recent historical data indicates EMS as highest non-fire risk, dispersed mostly throughout residential and business sectors.

### Highest Hazmat Risk Location:

The use of pesticides and fertilizers on the soil would be the greatest hazmat risk in this ESZ.

### **Highest Rescue Risk Location:**

Allendale Lake Road is more of a primary route for this area and poses higher risk for MVCs.

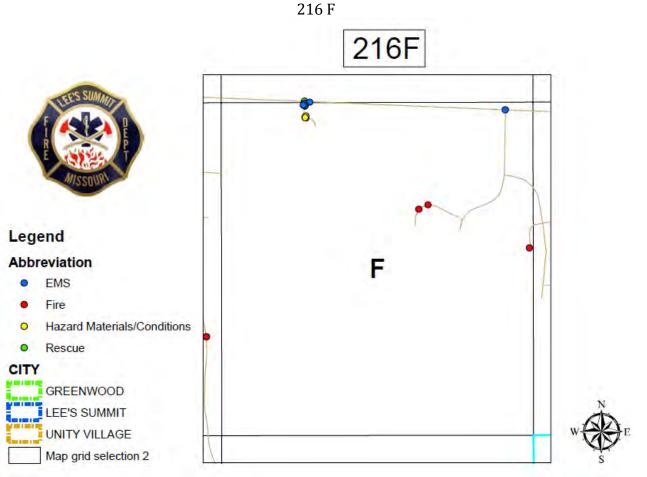
### **Demand History**

Number of incidents	2012	2013	2014
EMS	21	32	22
Fire	13	11	16
HazMat	4	0	2
Rescue	0	0	1
Total	38	43	41

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$15,000	\$0	\$0
Assessed value	\$185,000	\$0	\$0







### 2014 Assessed Value

ESZ #	Total Assessed Value	Assessed Residential Value	Assessed Commercial Value	Assessed Agricultural Value
216F	\$346,824	\$155,878	\$176,555	\$14,391

### **ESZ Characteristics:**

This ESZ represents an area included within contracted service response provided for Greenwood, Mo. The ESZ is a mix of State Highway route, mobile home residential, agricultural, new developing subdivision, and some business. An active railroad line runs northwest/southeast. Highway 150 is the primary access route. The area is rural in density with a population of 33.





216 F

## Jurisdictional Boundaries:

North: Highway 150 (E Main) South: NA East: Wilds Parkway West: 2nd Avenue South

### **Highest Fire Risk Location:**

Due to construction type and close proximity, the mobile home park located on Court Drive will be highest fire risk.

### **Highest Non-Fire Risk Location:**

The mobile home park on Court Drive historically is the highest EMS risk.

### Highest Hazmat Risk Location:

The railroad line poses greatest risk, as hazardous materials are frequently transported along this route.

### **Highest Rescue Location:**

Motor Vehicle Collisions are the highest rescue risk location along Highway 150.

### **Demand History**

Number of incidents	2012	2013	2014
EMS	4	3	5
Fire	1	1	1
HazMat	1	1	0
Rescue	0	0	0
Total	6	5	6

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0







#### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
216G	Not Available	Not Available	Not Available	Not Available

### **ESZ Characteristics:**

As indicated by green border, this ESZ has a sector mid zone to the west that is included within contracted service response area provided for Greenwood, Mo. The represented area primarily consists of State Highway route, agricultural, pockets of native trees, a small lake, and a developing residential neighborhood subdivision. There appears to be only one residence currently located in the newer subdivision at 904 Old Hickory Road. Highway 150 is the primary access to the roadways of the developing subdivision. This ESZ is rural in density with a population of six.





216 G

### **Jurisdictional Boundaries:**

North: Highway 150 (Outer Belt Road) South: Old Hickory Road East: Woodland Road West: Prairie View Road

### **Highest Fire Risk Location:**

The residence located at 904 Old Hickory Road, Greenwood, Mo.

### Highest Non-Fire Risk Location:

The residence located at 904 Old Hickory Road Greenwood, Mo.

#### **Highest Hazmat Location:**

Highway 150 poses the greatest risk, as hazardous materials are transported along this route.

#### **Highest Rescue Risk Location:**

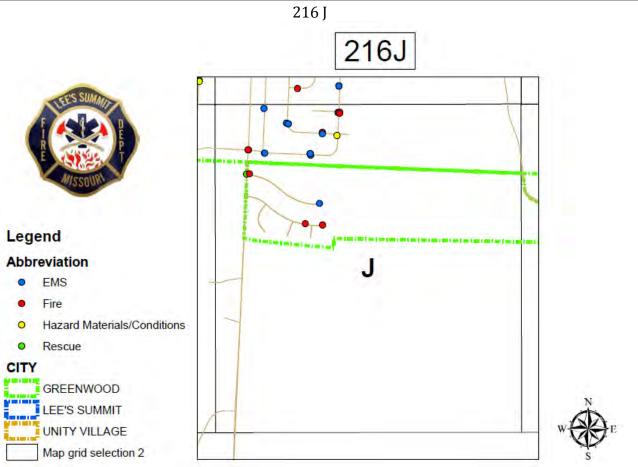
Motor vehicle collisions are the highest rescue risk location along Highway 150.

#### **Demand History**

Number of incidents	2012	2013	2014
EMS	1	0	0
Fire	0	2	0
HazMat	0	0	0
Rescue	0	0	0
Total	1	2	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





#### 2014 Assessed Value

ES	Z #	Total Assessed Value		Assessed Commercial Value	Assessed Agricultural Value
21	.6J	\$2,736,148	\$2,735,686	\$0	\$488

#### **ESZ Characteristics:**

As indicated by green border, this ESZ has a section in the north that is included within contracted service response area provided for Greenwood, Mo. The ESZ is a mix of neighborhood type residential and agricultural, with pockets of native trees. Allendale Lake Road is primary access to area. This ESZ is rural in density with a population of 221.





216 J

## Jurisdictional Boundaries:

North: Tabitha Lane South: Eve Orchid Drive East: Meadows Lane West: Allendale Lake Road

### **Highest Fire Risk Location:**

Historical data supports the highest risk are the residential neighborhoods located in the west end of the contracted response area. Areas along the east side of Allendale Lake Road are near 1,500 feet from the closest hydrant location. This area has a CAD alert for rural water notification.

## Highest Non-Fire Risk Location:

The demand within contracted area for EMS is dispersed evenly throughout the ESZ in the residential neighborhoods.

### **Highest Hazmat Location:**

The use of pesticides and fertilizers on the soil would be the greatest hazmat risk in this ESZ.

### Highest Rescue Risk Location:

Allendale Lake Rd is more of a primary route for this area and poses higher risk for MVCs.

### **Demand History**

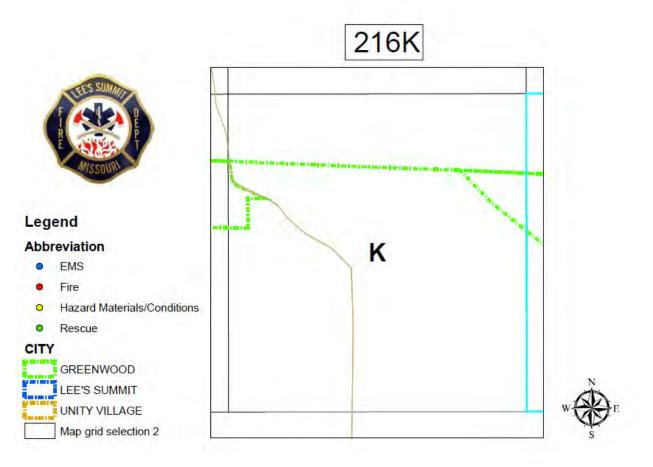
Number of incidents	2012	2013	2014
EMS	5	4	5
Fire	2	0	8
HazMat	0	1	0
Rescue	0	1	0
Total	7	6	13

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





216 K



### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
216K	\$36,684	\$36,684	\$0	\$0

### **ESZ Characteristics:**

As indicated by green border, this ESZ has a small section in the north that is included within contracted service response area provided for Greenwood, Mo. The ESZ is a mix of rural type residential, agricultural, and an explosives products plant with bunker storage located at 1109 2<sup>nd</sup> Ave South Greenwood, Mo. 64034. An active railroad line runs parallel with the eastern Greenwood border. 2<sup>nd</sup> Ave South is the primary access road. This ESZ is rural in density with a population of three.





216 K

### **Jurisdictional Boundaries:**

North: NA South: Airport Road East: NA West: 2<sup>nd</sup> Ave South

### **Highest Fire Risk Location:**

The explosives products plant with bunker storage located at 1109 2<sup>nd</sup> Ave South, Greenwood, Mo. 64034. This explosives plant is greater than 1,500 feet from the closest hydrant. The area has a CAD alert rural water notification.

## Highest Non-Fire Risk Location:

The demand within contracted area for EMS is dispersed evenly throughout the ESZ as the risk has no recent historical data to support a specific location within the zone.

### **Highest Hazmat Location:**

The explosives products plant with bunker storage located at 1109 2<sup>nd</sup> Ave South, Greenwood, Mo. 64034.

### **Highest Rescue Risk Location:**

The explosives products plant with bunker storage located at 1109 2<sup>nd</sup> Ave South, Greenwood, Mo. 64034.

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

### **Demand History**

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0





216 L



### 2014 Assessed Value

ESZ #	Total Assessed	Assessed	Assessed	Assessed
	Value	Residential Value	Commercial Value	Agricultural Value
216L	Not Available	Not Available	Not Available	Not Available

### **ESZ Characteristics:**

As indicated by green border, this ESZ has a small section in the northwest corner that is included within contracted service response area provided for Greenwood, Mo. The represented area primarily consists of agricultural, and pockets of native trees. An active railroad line runs parallel with the southern Greenwood border, northwest/southeast. There are no apparent structures or paved roadways located within response area. The closest access paved roadway outside this ESZ is Old Hickory to the north.





216 L

### Jurisdictional Boundaries:

North: NA South: NA East: NA West: NA

## **Highest Fire Risk Location:**

A large wild land fire in this area would be difficult to manage given its limited access, and would require significant personnel.

## Highest Non-Fire Risk Location:

The demand within contracted area for EMS is dispersed evenly throughout the ESZ as the risk has no recent historical data to support a specific location within the zone.

### **Highest Hazmat Location:**

The railroad line poses greatest risk, as hazardous materials are frequently transported along this route.

### **Highest Rescue Risk Location:**

A train derailment along the rail line is the highest risk location.

### **Demand History**

Number of incidents	2012	2013	2014
EMS	0	0	0
Fire	0	0	0
HazMat	0	0	0
Rescue	0	0	0
Total	0	0	0

Fire loss	2012	2013	2014
Life loss	0	0	0
Property loss	\$0	\$0	\$0
Assessed value	\$0	\$0	\$0



## Appendix C – Risk Assessment Scoring

Fire R	isk Scoring				
Score		Alarn	ı P	Ι	С
4.89	Appliance Fire contained	S	2	2	2
4.89	Boat fire	S	2	2	2
4.89	Unknown type fire	S	2	2	2
4.89	Gas grill fire, no exposures	S	2	2	2 2 2 2
8.48	Rubbish fire	S	4	2	2
8.48	Dumpster/Trash fire	S	4	2	2 2 2
8.48	Residential automatic alarm	S	4	2	2
8.48	Passenger vehicle fire	S	4	2	2
8.48	Power lines down	S	4	2	2
8.48	Natural cover/mulch fire	S	4	2	2
8.48	Hazards check*	S	4	2	2
8.48	Odor investigation*	S	4	2	2
8.48	Helicopter stand-by*	S	4	2	2
12.32	Smoke detector no smoke*	S	6	2	2
12.32	Citizen/PD assist*	S	6	2	2
12.32	Commercial automatic alarm non-target hazard	S	6	2	2
<mark>13.85</mark>	Outbuilding/shed/detached garage fire	SP	2	4	<mark>4</mark>
<mark>13.85</mark>	Transport/Commercial vehicle fire	SP	2	4	<mark>4</mark>
<mark>13.85</mark>	Aircraft Fire	SP	2	4	<mark>4</mark>
<mark>13.85</mark>	Flu fire	SP	2	4	<mark>4</mark>
<b>13.85</b>	Automatic alarm with sprinkler flow	SP	2	4	4
<mark>13.85</mark>	Automatic alarm at a target hazard	SP	2	4	<mark>4</mark>
<b>13.85</b>	Lightning strike	SP	2	4	4
<b>13.85</b>	Odor of smoke in a building	SP	4	4	2
26.53	Fire with structural exposures	1st	4	6	4
26.53	Residential structure fire	1st	4	6	4
28.14	Commercial structure fire non-target hazard	1st	2	6	6
28.14	In flight emergency	1st	2	6	6
	Structure fire target hazard	2nd	2	8	8
10.00	Commercial aircraft fire/crash	2nd	2	8	8

\*= indicates a non-emergency response

S = Still alarm (low)

SP = Special alarm (moderate)

1<sup>st</sup> = First alarm (high)

2<sup>nd</sup> = Second alarm (Maximum)

**Probability** = Likelihood of the event occurring based off historical data from the past three years.

**Impact** = Impact the incident has against the operational forces of the Lee's Summit Fire Department based on the critical tasks associated with the incident.

**Consequence** = Consequence to the community was based on the loss of life or debilitating injury, financial loss to the community, and effect on community infrastructure. Consequence from fire loss ranged from low to maximum depending on the incident type, facility, or location. Scores ranged





from low to maximum based on the loss to life potential, the presence of a fire suppression system, building height, and the occupant types within a dwelling.

Score		Alarm	Р	Ι	С
4.89	Minor entrapment*	S	2	2	2
4.89	Subject locked out of a structure*	S	2	2	2
4.89	Subject locked in a vehicle/room	S	2	2	2
4.89	Pedestrian Struck by vehicle	S	2	2	2
12.32	Unknown Injury MVC	S	6	2	2
12.32	Minor injury MVC	S	6	2	2
<mark>13.85</mark>	MVC with extrication required	SP	4	4	2
<mark>13.85</mark>	Injury MVC with 1-4 patients	SP	4	4	2
<mark>13.85</mark>	Vehicle into a building	SP	2	4	4 4
<mark>13.85</mark>	Swimming pool rescue	SP	2	4	
<mark>13.85</mark>	Elevator rescue	SP	2	4	<mark>4</mark>
<mark>13.85</mark>	Machinery/ Industrial rescue	SP	2	4	4
19.79	MVC with 5-7 patients	1st	2	6	4
19.79	Injury MVC involving a bus	1st	2	6	4
19.79	Boat accident	1st	2	6	4
19.79	Swift water rescue	1st	2	6	4
19.79	High angle rescue	1st	2	6	4
19.79	Water/Ice rescue	1st	2	6	4
19.79	Confined space rescue	1st	2	6	4
19.79	Trench rescue	1st	2	6	4
19.79	Structure collapse	1st	2	6	4
	MVC with 8 or more patients	2 <sup>nd</sup> T1	2	8	6
48.00	Natural or manmade disaster	2 <sup>nd</sup> T2	2	8	8

\*= indicates a non-emergency response

S = Still Alarm (low)

SP = Special Alarm (moderate)

1<sup>st</sup> = First Alarm (high)

2<sup>nd</sup> = Second alarm (Maximum Tier I and Tier II)

**Probability** = Likelihood of the event occurring based off historical data from the past three years. Within our community the highest probability rescue event type is a motor vehicle collision

**Impact** = The impact the incident has against the operational forces of the Lee's Summit Fire Department based on the critical tasks associated with the incident.

**Consequence** = Consequence to the community was based on the loss of life or debilitating injury, financial loss to the community, and effect on community infrastructure. Technical rescue events are broad in the spectrum incident types. Consequence can vary in severity given the location of a rescue event possibly involving a road or highway, or the incident involving large groups of people.



### **EMS Risk Scoring**

Score	-	Alarm	ı P	Ι	С
4.89	Rescue standby *	S	4	2	2
8.48	Assist PD on SWAT/ESS Operation *	SP	2	4	2
12.32	Non-emergency inter-facility transfer*	S	6	2	2
16.24	Emergency EMS alarm single w/ alarms	S	8	2	2
<mark>19.79</mark>	Cardiac Arrest **	SP	6	4	2
25.92	EMS alarm 5-7 patients	1st	2	8	4

\*= indicates a non-emergency response

\*\* = indicates the assignment of a chief officer due to the Lucas device availability.

<mark>S = Still alarm (low)</mark> SP = Special alarm (moderate)

1<sup>st</sup> = First alarm (high)

2<sup>nd</sup> = Second alarm (Maximum)

**Probability** = Likelihood of the event occurring based off historical data from the past three years.

**Impact** = The impact the incident has against the operational forces of the Lee's Summit Fire Department based on the critical tasks associated with the incident.

**Consequence** = Consequence to the community was based on the loss of life or debilitating injury, financial loss to the community, and effect on community infrastructure. Most EMS events are tragic and a serious event, however the effect is usually on the patient and or the family alone, and not any other part of the community. This resulted in most of the scoring to be low or moderate.

### HazMat Risk Scoring

IIazivi	at KISK SCOTTINg				
Score		Alarm	Р	Ι	С
4.89	Fuel spill < 20 gallons*	S	2	2	2
4.89	Odor of natural gas outside	S	2	2	2
8.42	Non-injury MVC Hazard check*	S	4	2	2
8.42	Unknown odor investigation*	S	4	2	2
8.42	CO alarm / no symptoms*	S	4	2	2
8.42	Electrical wiring problem / condition	S	4	2	2
13.85	EOD threat*	SP	2	4	4
<mark>13.85</mark>	CO alarm with symptoms	SP	4	4	2
<mark>13.85</mark>	Odor of natural gas inside the structure	SP	4	4	2
<mark>13.85</mark>	Automatic gas alarm	SP	2	4	<mark>4</mark>
<mark>13.85</mark>	Fuel spill 20-55 gallons	SP	2	4	4
<mark>19.59</mark>	Gas line break	SP	4	4	4
36.76	Chemical spill or release in transit	2nd	2	6	8
36.76	Industrial chemical spill or release	2nd	2	6	8
36.76	Radiological incident	2nd	2	6	8
36.76	Fuel spill > 55 gallon	2nd	2	6	8
48.00	Mass casualty hazmat incident	2nd	2	8	8
48.00	Weapons of mass destruction incident	2nd	2	8	8
48.00	Hazmat incident with significant community imp	act2nd	2	8	8





\*= indicates a non-emergency response S = Still alarm (low) SP = Special alarm (moderate) 1<sup>st</sup> = Full alarm (high) 2<sup>nd</sup> = Second alarm (Maximum)

**Probability** = Likelihood of the event occurring based off historical data from the past three years.

**Impact** = The impact the incident has against the operational forces of the Lee's Summit Fire Department based on the critical tasks associated with the incident.

**Consequence** = Consequence to the community was based on the loss of life or debilitating injury, financial loss to the community, and effect on community infrastructure. Hazardous Materials events affect the community in several ways. Not only are they dangerous to health, react to other materials in the area, but can affect the community infrastructure by roadway and water systems. Fortunately these events are usually infrequent, but the risk is present. Due to the relatively low frequency of these events they were rated low in probability but their affects are high on the community and require a large workforce to mitigate resulting in ratings high in both impact and consequence.