Accreditation Report

Lawrence-Douglas County Fire Medical
1911 Stewart Avenue
Lawrence, KS 66046
USA

This report was prepared on June 8, 2018 by the Commission on Fire Accreditation International for the Lawrence-Douglas County Fire Medical

This report represents the findings of the peer assessment team that visited Lawrence-Douglas County Fire Medical on April 8 - 12, 2018

Peer Assessment Team
Dave Dauer, Team Leader
Ed Beirne, Peer Assessor
Kevin Spirlong, Peer Assessor
Kevin Smith, Peer Assessor
# TABLE OF CONTENTS

**EXECUTIVE REVIEW** .............................................................................................................. 3

**CONCLUSIONS** ...................................................................................................................... 9

**RECOMMENDATIONS** ........................................................................................................... 10

  Category VII — Human Resources ......................................................................................... 12

**OBSERVATIONS** ................................................................................................................... 14

  Category I — Governance and Administration ..................................................................... 14

  Category II — Assessment and Planning .............................................................................. 14

  Category III — Goals and Objectives .................................................................................... 18

  Category IV — Financial Resources ...................................................................................... 20

  Category V — Programs ........................................................................................................ 21

    Criterion 5A – Community Risk Reduction Program ......................................................... 21

    Criterion 5B – Public Education Program ........................................................................ 21

    Criterion 5C – Fire Investigation, Origin and Cause Program ............................................ 22

    Criterion 5D – Domestic Preparedness, Planning and Response ......................................... 23

    Criterion 5E – Fire Suppression ......................................................................................... 23

    Criterion 5F – Emergency Medical Services (EMS) .......................................................... 27

    Criterion 5G – Technical Rescue ....................................................................................... 33

    Criterion 5H – Hazardous Materials (Hazmat) .................................................................. 37

    Criterion 5K – Coroner Scene Investigation Program ....................................................... 41

    Criterion 5L – Tactical Medic Program ............................................................................ 42

  Category VI — Physical Resources ....................................................................................... 42

  Category VII — Human Resources ....................................................................................... 44

  Category VIII — Training and Competency ......................................................................... 46
Category IX — Essential Resources ................................................................. 48
Criterion 9A – Water Supply ..................................................................... 48
Criterion 9B – Communication Systems ................................................ 48
Criterion 9C – Administrative Support Services and Office Systems .......... 49
Category X — External Systems Relationships ......................................... 49
Organizational Chart ............................................................................. 51
EXECUTIVE REVIEW

PREFACE

The Lawrence-Douglas County Fire Medical recently received candidate status. On September 30, 2017 the department asked the Commission on Fire Accreditation International (CFAI) for a site visit to determine if it could be recommended for accreditation. On August 23, 2017, the CFAI appointed a peer assessment team. During the peer team review of the initial documents many deficiencies were found and ultimately the documents were not approved for a site visit on November 1, 2017. A letter was sent to the department by the CFAI program manager on November 2, 2017 outlining improvements required for the documents to be acceptable. The department, in conjunction with the ongoing peer team evaluation, created an acceptable set of documents. The peer team leader approved the documents for a site visit on March 5, 2018. The peer assessment team conducted an on-site visit of the department on April 8-12, 2018.

In preparation for the onsite visit, each team member was provided access and reviewed the self-assessment manual, standards of cover (SOC), community risk analysis, and strategic plan posted by the Lawrence-Douglas County Fire Medical on the Center for Public Safety Excellence (CPSE) SharePoint site. This documentation represented a significant effort by the staff of the department and other community agencies. The department used the services of the CPSE Technical Advisor Program to support the development of its community risk hazard analysis, SOC, and strategic plan.

SUMMARY

The CFAI has completed a comprehensive review and appraisal of the Lawrence-Douglas County Fire Medical based upon the ninth edition of the Fire & Emergency Service Self-Assessment Manual (FESSAM). The commission’s goals are to promote organizational self-improvement and to award accreditation status in recognition of good performance. The peer assessment team’s objectives were to validate the department’s self-assessment study, identify and make recommendations for improvement, issue a report of findings, and conclude if the department is eligible for an award of accreditation.

The peer assessment team followed CFAI processes and the Lawrence-Douglas County Fire Medical demonstrated that its self-study accreditation manual, community risk analysis, SOC, and strategic plan met all core competencies and criteria. The peer assessment team recommends accredited agency status for the Lawrence-Douglas County Fire Medical from the Commission on Fire Accreditation International.

The department’s SOC processes have evolved, and appropriate adjustments have been made through the implementation of necessary improvements, to match available resources to the fire and non-fire risks and related expectations in the community. The SOC appropriately identifies the cities of Lawrence, Baldwin, and Eudora as urban density, and the county area that is outside of these cities as rural density. There are appropriate benchmark goals and actual baseline performance statements in place that identify and measure all components of the total response time continuum.

Following a detailed assessment and analysis, the peer assessment team believes by consensus that the alarm handling time, turnout time, and travel time for the first due and effective response force components of the total response time continuum, as contained in the SOC, are in line with
community expectations and do not constitute a gross deviation. It is clear the department is committed to taking steps to meet the expectations.

The peer assessment team identified opportunities for improvement that are captured in the recommendations section and in the observations and performance section of the report. These recommendations flowed from discussions, interviews, and a review of department supplied documentation to support its self-assessment conclusions. The department demonstrated its keen desire to immediately implement plans to address opportunities for improvement.

The peer assessment team observed a strong commitment by the department to the CFAI accreditation process and, in particular, to ensuring appropriate succession training for the accreditation manager position. The department recently hired an epidemiologist to serve as the professional standards coordinator. This coordinator will start the process of being trained to be the future accreditation manager. It is expected that a two-year timeline will be needed.

A previous accreditation manager retired in December of 2016 and is presently serving as a technical reviewer for CFAI. He actively supports the department and serves as the secretary-treasurer of the Kansas State Association of Fire Chiefs. The next accreditation manager left the department during the initial review process by the CFAI peer assessment team. The current accreditation manager was hired in August of 2017 from Lee’s Summit Fire Department in Missouri. During his time at Lee’s Summit Fire Department, he served as the accreditation manager helping them achieve accredited status in 2016.

The department has a development program in place that leads personnel towards professional credentialing. Presently, the department has three Chief Fire Officer and four Fire Officer designees. The present accreditation manager regularly acts as a peer assessor for CFAI. These approaches ensure continuity, more direct access to quality improvement with similar organizations, and the engagement of a broader spectrum of the department.

The peer assessment team had a meeting with the president of the firefighters’ association. He expressed a long-standing interest in the process, and engaged in a conversation on the department’s journey towards accreditation. There is clearly a commitment to continue to follow and support the implementation of identified opportunities for improvement. It can be anticipated that all representatives will be strong supporters and network participants as the full benefits of going through the self-assessment process are realized and built on in the future.

The department provides a unique coroner scene investigation service. Personnel assist both the Lawrence Police Department and the Douglas County Coroner in all unattended deaths. A high level of specialized training and dedication in both medical and forensic fields ensure that the operations meet all medico-legal requirements.

The department recently implemented an innovative science and data driven cardio-pulmonary resuscitation (CPR) program. The Cardiac Arrest Program of Excellence (CAPE) focuses on increased time of basic life support (BLS) interventions coupled with quality mechanical compressions. These actions, combined with data driven time-on-scene windows, has shown to drastically improve return of spontaneous circulation (ROSC) percentages in the field and positively affect patient outcomes.
The department recently added a Professional Standards Coordinator position. This position is staffed with an epidemiologist whose primary responsibilities are data analytics relating to cancer prevention and identification of trends within the socioeconomic populations of Lawrence that relate to impacts on service and resident outcomes.

The department presented a three-hour training session on accreditation and the newly developed community risk assessment and standard of cover (CRASOC) to all employees.

In 2016, the department began utilizing automatic vehicle location (AVL) in conjunction with the identification and deployment of department resources. It is the department’s realization that this deployment enhancing technology has assisted in ensuring the closest resources are mobilized for the best outcome to the community. The department believes this technology has assisted in maintaining a consistent travel time measurement with an increasing number of demands for service.

The city of Lawrence installed a preemption system on all traffic signals in the city that utilizes global positioning system (GPS) technology. The system helps to ensure safer, faster travel times.
Composition

Lawrence is located in Douglas County in northeast Kansas, 30 minutes west of Kansas City and 20 minutes east of Topeka. The city of Lawrence was incorporated as a city in 1905 and is the county seat for Douglas County. Douglas County is the fifth largest county in the state with a population of 119,440 according to the U.S. Census Bureau (July 1, 2016 data), covering approximately 475 square miles.

Lawrence has a very rich history by being founded in 1854 by the New England Emigrant Aid Society in an effort to keep the territory free from slavery. Lawrence has a population of 95,358 according to the U.S. Census Bureau (July 1, 2016 data).

The history of the fire service dates back to its roots as a volunteer fire department established in 1859. The department was formally organized in 1915 and changed to paid status. In 1997, the department combined its emergency response force with the Douglas County Ambulance Service creating Lawrence-Douglas County Fire Medical.

Lawrence streets are named after the states, in the order in which they came into the Union, beginning with Delaware. Massachusetts Street is designated the main street because Lawrence’s founders were from Massachusetts.

The city has a vibrant downtown core consisting of shopping, dining, and entertainment. Massachusetts Street is referred to as “Mass” by local residents, where the local residents and students come to shop, drink, and eat. Many areas of the downtown core are being converted to mixed use with commercial or retail space on the lower levels and living areas in the upper floors.

The city is home to two universities: the University of Kansas (KU) and Haskell Indian Nations University. There are approximately 28,000 students attending KU. Haskell Indian Nations University is the nation’s only inter-tribal university for Native Americans, representing more than 150 tribes from across the country.

Lawrence-Douglas County Fire Medical operates within a commission-city manager form of municipal government. Lawrence is declared a municipality by a legal charter from the state of Kansas. The department is divided into five organizational divisions. The department provides comprehensive coverage within the city, firefighting service to Grant Township, and only medical coverage in the remaining areas of the county. Five fire stations provide citywide coverage to Lawrence and two advanced life support (ALS) stations in the cities of Baldwin and Eudora provide additional coverage in the county.

The city has seen positive growth trends in population since 2000. In the last five years, the city has grown nearly one percent every year, with rapid growth in the northwestern portion of the city. The department responded to a total of 12,549 emergencies in 2017 including: 1,800 fire calls (14.3 percent); 9,400 emergency medical service (EMS) calls (74.9 percent); 233 hazardous material calls (1.9 percent); 799 rescue calls (6.4 percent); 226 corner scene investigation calls (1.8 percent); and 91 miscellaneous calls (0.7 percent). Total emergencies have increased over 15 percent in the last 5-years. Servicing these calls in 2017 resulted in a total of 18,681 unit movements, which is an increase of 13.5 percent over the last 5-years.
In 2015 the Insurance Services Office (ISO) visited the city to rate its public protection classification. The outcome of the visit was a lowering of the public protection classification from Class 2 to Class 1.
Government
Commission-Manager form of government
5 Commissioners
City Manager
Fire Chief

Fire Department
5 fire stations in the city of Lawrence
1 ambulance station in the city of Baldwin
1 ambulance station in the city of Eudora
143 uniform, 8 part-time (extraboard firefighters) and 6 civilian personnel
3 shift system

Staffed Resources
1 engine
1 combination engine and hazardous materials unit
2 quint
1 truck
1 heavy rescue
7 medic units

Cross-staffed Resources
1 combination engine and tender
2 brush trucks

Non-staffed Units
1 mobile command vehicle
1 fire and coroner investigation vehicle
1 hazardous material trailer
1 task force trailer
1 mass casualty incident trailer
3 flat-bottom 16-foot boats with 40 horsepower engines
1 inflatable boat
Multiple ready reserve apparatus

Daily Minimum Staffing (All Stations): 38
CONCLUSIONS

The self-study manual produced by the Lawrence-Douglas County Fire Medical was of high quality. The manual represented a significant effort by the staff of the department to produce and present a quality document.

- The Lawrence-Douglas County Fire Medical demonstrated that all core competencies were met and received a credible rating.

- The Lawrence-Douglas County Fire Medical demonstrated that all applicable criteria were met and received a credible rating.

- The peer assessment team recommends accredited agency status for the Lawrence-Douglas County Fire Medical from the Commission on Fire Accreditation International.
RECOMMENDATIONS

The peer assessment team conducted an exit interview with the agency consisting of the fire chief and most of the staff that participated in the self-assessment study. The purpose of the meeting was to review the team’s findings and recommendations. The department was given an opportunity to respond to any errors in findings of fact.

**Strategic Recommendations**

Strategic recommendations were developed from information gathered from the on-site assessment visit and the evaluation of the criteria and core competencies.

**Category II – Assessment and Planning**

** Criterion 2C: Current Deployment and Performance**

**Core Competency**

2C.5 The agency has identified the total response time components for delivery of services in each service program area and found those services consistent and reliable within the entire response area.

It is recommended that the department continue working collaboratively with Douglas County Emergency Communications to establish time-based performance objectives for alarm answering and alarm processing.

It is recommended that the department continue its ongoing efforts to add a second line operations chief officer that is included in daily minimum staffing to manage county-wide emergency resources. It is recommended that the department continue its ongoing efforts to replace the rescue unit with three members to a rescue-engine with four members.

It is recommended that the department continue its ongoing efforts to add a station in the northwest area of the city.

**Category III – Goals and Objectives**

**Criterion 3D: Measurement of Organizational Progress**

**Core Competency**

3D.2 The agency evaluates administrative and operational processes to determine improvements in efficiency and execution in pursuing organizational objectives.

It is recommended that the department conduct a staffing review of the administrative division to ensure adequate staffing is available to meet the current and future demands of the department. This recommendation also applies to 9C.1.$\dagger$

$\dagger$ 9C.1 – The administrative support services are appropriate for the agency’s size, function, complexity, mission, and are adequately staffed and managed.
Category V – Programs
Criterion 5A – Community Risk Reduction Program

Core Competency

5A.3 The program has sufficient staff with specific expertise to meet the community risk reduction program goals, objectives and identified community risks.

It is recommended that the fire prevention division conduct an evaluation of current manpower to determine if additional full-time employee(s) are needed to effectively mitigate required duties.

Category VIII – Training and Competency
Criterion 8C: Training and Education Resources

Core Competencies

8C.1 Facilities and apparatus are provided to support the agency's all-hazards training needs. The agency has plans addressing any facilities and apparatus not available internally to complete training activities.

It is recommended that the department continue their efforts in capital planning to identify a larger training center, drill field, and additional classroom spaces.

8C.2 The agency has instructional personnel with teaching qualifications and expertise to meet its needs.

It is recommended that the department continue the current processes of plan development to ensure consistent technical rescue education delivery.

8C.8 Training materials are evaluated at least annually, to reflect current practices and meet the needs of the agency.

It is recommended that the processes utilized to evaluate training material be formalized and documented.

Specific Recommendations

Specific recommendations were developed from the appraisal of performance indicators in each of the ten categories.

Category V – Programs
Criterion 5D: Domestic Preparedness, Planning and Response

Performance Indicators

5D.3 The agency identifies and documents outside agency support.

It is recommended that the department secure all plan agreements in writing.
5D.7 The agency has a documented Continuity of Operations Plan (COOP) that is reviewed and updated at least every 5 years, to ensure essential operations are maintained.

It is recommended that the department continue the processes to ensure adequate management, review, and updating of the continuity of operations plan.

Criterion 5F: Emergency Medical Services (EMS)

Performance Indicator

5F.8 The agency has developed a plan or has already implemented a cardio pulmonary resuscitation (CPR) and public access defibrillation program for the community.

It is recommended that the current program for identification and distribution of automatic external defibrillation (AED) units throughout the city of Lawrence be expanded to include Douglas County.

Category VI – Physical Resources
Criterion 6D: Apparatus Maintenance

Performance Indicator

6D.2 The maintenance and repair facility is provided with sufficient space and equipped with appropriate tools.

It is recommended that the department work with the public works division to obtain a larger repair facility that is capable of providing sufficient space.

Criterion 6F: Safety Equipment

Performance Indicator

6F.2 Distributed safety equipment is sufficient for the functions performed.

It is recommended that the department consider the acquirement of a second set of firefighter turnout gear for those situations when the primary set is damaged, contaminated, or out for advanced cleaning.

Category VII — Human Resources
Criterion 7D: Use of Human Resources

Performance Indicator

7D.6 The agency has a leadership development program and/or succession plan.

It is recommended that the department develop a formal leadership development program.
Category VIII – Training and Competency
Criterion 8B: Training and Education Program Performance

Performance Indicator

8B.4 The agency analyzes student evaluations to determine reliability of training conducted.

It is recommended that the department institute a training evaluation system to capture student feedback for fire training offerings.

Category X – External Systems Relationships
Criterion 10A: External Agency Relationships

Performance Indicator

10A.4 A conflict resolution process exists between all external organizations with whom the agency has a defined relationship.

It is recommended that all agreements have a conflict resolution process formalized.

Criterion 10B: External Agency Agreements

Performance Indicator

10B.2 The agency has a process by which their agreements are managed, reviewed, and revised.

It is recommended the department evaluate the cooperation agreement between the city of Lawrence and Douglas County for providing ambulance, hazardous materials, technical rescue, and emergency communications services.
OBSERVATIONS

Category I — Governance and Administration

The city of Lawrence is legally chartered from the state of Kansas as a municipality. It establishes the roles and responsibilities of the city commission, which is the authority having jurisdiction. This is done with a city manager-commission form of government.

The governing body and/or agency manager is legally established to provide general policies to guide the agency, approved programs and services, and appropriated financial resources. The city of Lawrence is chartered by the State of Kansas as a City of the 1st Class. The city has all powers to render municipal services. The Lawrence-Douglas Fire and Medical Department (LDCFM) is legally established and organized within the city’s charter and ordinances.

In 1996 the city of Lawrence entered into an inter-local agreement to merge the Lawrence Fire Department with Douglas County Ambulance service creating one agency as the Lawrence-Douglas Fire and Medical Department. The city adopted Chapter VII, Article I, section 8-101 of the municipal code that legally establishes within the city of Lawrence the Lawrence-Douglas Fire and Medical Department.

LDCFM works with the human resources director, finance director and the city attorney to ensure the department is in compliance with legal requirements of local, state, and federal governments. The department is also active in the Kansas State Association of Fire Chiefs as well as the International Association of Fire Chiefs which helps provide guidance and awareness on any coming regulatory issues.

The organizational structure aligns with or supports the agency’s mission, purposes, goals, strategies, and objectives. Lawrence-Douglas County Fire Medical (LDCFM) organizational structure is effective in the administration of the organization. It is broken up into 5 organizational divisions: administration, operations, prevention, emergency medical services (EMS), and training. All of the divisions have qualified staffing on managerial and supervisory levels to support the agency’s mission, purposes, goals, strategies, and objectives.

The city Code of Ordinance 8-103 establishes the fire chief as responsible for the overall administration of the department. The LDCFM mission statement is the driving force in establishing the administrative structure of the department.

Category II — Assessment and Planning

Lawrence-Douglas County Fire Medical (LDCFM) has embraced the use of the Commission on Fire Accreditation International (CFAI) self-assessment process to logically and rationally define and align its self-assessment manual, community risk hazard analysis, standards of cover (SOC), and strategic plan. The department used the services of the Center for Public Safety Excellence (CPSE) Technical Advisor Program to support the development of these various components.

Internally, the department established a management team and assigned staff to provide support to the overall accreditation process. The efforts of the department produced a comprehensive and integrated approach that is appropriate, acceptable and affordable as it relates to the identified needs
of the community. The city has taken a conservative and staged approach to supporting the funding of the department’s proposals.

The agency collects and analyzes data specific to the distinct characteristics of its legally defined service area(s) and applies the findings to organizational services and services development. LDCFМ collects and analyzes data within the community through 14 planning zones. Five planning zones are within the city of Lawrence, one for the city of Baldwin, one for the city of Eudora, and seven in the rural county area. Response times, turnout times, travel times, incident types, population density, call types, and other data were shown to have been analyzed within each planning zone.

The department has analyzed each of the 14 geographical planning zones and identified the population density within each zone by using census data. The department looked at the United States Census Bureau’s urban-rural classification and seven planning zones fell under the urban classification. Utilizing this classification, LDCFМ analyzed data by service area and population density in developing the department’s total response time standards as shown in the SOC. Data analysis was used to identify time-specific recommendations to improve total response times.

The agency identifies and assesses the nature and magnitude of all hazards and risks within its jurisdiction. Risk categorization and deployment impact considers such factors as cultural, economic, historical, environmental values, and operational characteristics. The department’s methodology for identifying and classifying risks has been accomplished by utilizing two models to assess risk in the community. First, through a three-axis methodology that analyzes risk by classification (fire, emergency medical services, technical rescue, and hazardous materials). This three-axis methodology uses Heron’s formula modified for tetrahedrons to calculate a measure of risk by incorporating three specific values based upon probability, consequence, and impact.

The second risk model is named Risk Analysis Profile and Target Occupancies and Risk (RAPTOR). RAPTOR outputs a risk score that categorizes occupancies in low, moderate, high, and maximum fire risk. The use of these two models has identified the locations of risk within the community and established a hierarchy or risk based on a scoring metric. The analysis included in the SOC allows the department to evaluate planning zones and forecast needs.

The department’s application of risk assessment using the two different risk tools has produced quantifiable measures of risk throughout all service areas. The department’s two risk assessment tools identify, categorize, and classify risk.

The community risk assessment and standard of cover (CRASOC) documents specific risks associated with fire, emergency medical, technical rescue, and hazardous materials, unique to each planning zone qualitatively. The risk identification methodology has been used to document the risks based on a low, moderate, high, and in some cases maximum risks.

The agency identifies and documents the nature and magnitude of the service and deployment demands within its jurisdiction. Based on risk categorization and service impact considerations, the agency’s deployment practices are consistent with jurisdictional expectations and with industry research. Efficiency and effectiveness are documented through quality response measurements that consider overall response, consistency, reliability, resiliency, and outcomes throughout all service areas. The agency develops procedures, practices, and programs to appropriately guide its resource deployment.
The department has adopted a methodology for the consistent provision of service levels. The department uses the CRASOC to identify and incorporate risk, responsibility areas, demographics, and socio-economic factors, which serve as the basis for the current response strategy provision. This risk assessment includes hazards associated with fire, emergency medical services, technical rescue, and hazardous materials to develop a consistent response strategy for all service programs. By utilizing the CRASOC and other forms of data analysis, the department has been successful in identifying areas of the city and county that have higher demands for service.

The department has a documented and adopted methodology for monitoring emergency response performance for call processing time, turnout out time, travel time, and total response time for all emergency responses for first due units and effective response force for the various service types and planning zones.

This methodology primarily relies on the accreditation manager to produce and monitor data, which is communicated to the manager’s group/executive staff. The current methodology includes monitoring of annual response performance for the whole response area and the reliability of benchmark response travel time on high risk fire and EMS events by planning zone. A more diversified compliance methodology is in place for 2018. This monitoring methodology is documented in the 2017 CRASOC.

A critical task analysis is performed for each risk category and classification. The analysis is documented in the 2017 CRASOC. The training division conducts annual skill evaluations utilizing checklist and scenarios to help analyze the critical task analyses. Critical task analyses for special operations teams are developed by team managers after analyzing incident types and roles that need to be filled per standard operating procedures (SOP).

In August of 2017, the department began sending an additional fire apparatus on level 1 building fires to function as the on-deck crew as part of the Blue Card Command® system model. This has not been formally established as a critical task but remains to be evaluated should it need to become one.

The department has identified and documented the total response time components in the department CRASOC and department policy 103.20, Response Performance and Outcomes, for the delivery of each service program. The components consist of alarm handling time, turnout time, travel time, total response time for the first due unit. Additionally, the effective response force (ERF) on scene time is calculated for the total response area. The department’s practice is to document alarm handling as the time interval from the receipt of the alarm at the primary public safety answering point (PSAP) until the beginning of the transmittal of the response information via voice or electronic means to emergency response facilities or the emergency response units in the field.

The department recognizes response time performance gaps exist in several areas. Alarm handling times exceed the department’s desired level of performance and steps are being taken as noted in the summary section earlier in this report. It is recommended that the department continue working collaboratively with Douglas County Emergency Communications to establish time-based performance objectives for alarm answering and alarm processing.

Travel times exceeded expectations organizationally both for the first due and ERF but was consistent over the response area. Time-specific recommendations have been published in the 2017 CRASOC to maintain the current service level at a minimum. The department has communicated directly to the city manager the need to consider CRASOC recommendations. The department
Resiliency is currently measured based on the reliability to provide a quality first due response on high risk events, specifically fire and EMS. This reliability is based on the percentage of time a qualifying first due unit arrives on scene within a benchmark travel time quality, by planning zone. This is documented in the 2017 CRASOC. As previously described, the city has seen positive growth trends in population since 2000. In the last five years, the city has grown nearly one percent every year, with rapid growth in the northwestern portion of the city. Due to the growth, travel times exceeded expectations organizationally both for the first due and ERF. The peer assessment team believes that travel time for the first due and effective response force components of the total response time continuum are in line with community expectations and do not constitute a gross deviation. It is clear the department is committed to taking steps to meet the expectations. The following recommendations support the identified shortcomings and negative trends. It is recommended that the department continue its ongoing efforts to add a station in the northwest area of the city. It is recommended that the department continue its ongoing efforts to add a second line operations chief officer that is included in daily minimum staffing to manage county-wide emergency resources. It is recommended that the department continue its ongoing efforts to replace the rescue unit with three members to a rescue-engine with four members.

The department has identified efforts to maintain and improve its performance by reviewing performance data on a monthly basis. This has led to the department requesting additional resources over the years. By analyzing baseline performance data, the department has identified areas for improvement with the most significant area being alarm handling. The 911 call center falls under the responsibility of the county sheriff.

The agency has assessed and provided evidence that its current deployment methods for emergency services appropriately address the risk in its service area. Its response strategy has evolved to ensure that its deployment practices have maintained and/or made continuous improvements in the effectiveness, efficiency, and safety of its operations, notwithstanding any outside influences beyond its control. The agency has identified the impacts of these outside influences to the authority having jurisdiction.

The department has a published methodology for monitoring performance adequacies, reliabilities, resiliencies, and opportunities for improvement. These processes are documented in two places: the 2017 CRASOC and standard operating procedure (SOP) 103.20, Response Performance and Outcomes. The department has assessed and provided evidence that its current deployment methods for emergency services appropriately address the risk in its service area. Its response strategy has evolved to ensure that its deployment practices have maintained and/or made continuous improvements in the effectiveness, efficiency, and safety of its operations, notwithstanding any outside influences beyond its control. The department has identified the impacts of these outside influences to the authority having jurisdiction.

The department has identified a need to provide timely performance data in the form of a dashboard and analytical suite to the executive staff and field personnel to improve accountability department-wide. Correspondences and monthly reports are being provided to the city manager to identify areas of improvement that are needed.

The department publishes an annual report which includes future external influences, such as community development trends and growth. The department annually reports with the authority having jurisdiction regarding operational gaps. This is documented in the 2017 CRASOC.
The performance monitoring methodology has identified future external influences, growth, and development trends. The department publishes an annual report which includes future external influences, such as community development trends and growth. The department annually reports with the authority having jurisdiction regarding operational gaps. This is documented in the 2017 CRASOC.

The department has developed plans and level of service additions that can and will be used to provide levels of service for future development and growth provided funding is available. These plans and levels of service policies have been integrated and aligned with the SOC. An example of this is the research that documents rapid growth in the northwestern portion of the city. The department has requested funding for Fire Station 6 and other resources to provide reliable, effective response coverage, consistent with other areas of the city.

Response times and performance gaps are monitored following a compliance schedule. The monthly activity report includes turnout performance and response time performance on structure fires; this data is trended against department benchmarks. The department publishes response time performance gaps for the total response area specific to risk category and classification in the 2017 CRASOC.

The department has identified shortcomings, negative trends, and other contributing factors. The CRASOC has identified time-specific recommendations and plans for improvement. Additionally, the department has provided a letter to the city manager requesting operating program improvement requests through the capital improvement program.

The department publishes a continuous improvement plan represented in its strategic plan. Recommendations for improvement are drawn from multiple sources including the 2017 CRASOC, program appraisals, and other executive/management staff recommendations. The strategic plan is updated annually with identified timeframes to address organizational gaps and variations of need.

Additionally, the department submitted a 2019 budget letter with 2019 through 2023 capital improvement requests that details actions to be taken within an identified timeframe to address existing gaps and variations.

**Category III — Goals and Objectives**

The department has an established and published mission statement that acts as the base philosophy of the organization. Annual strategic planning sessions include an evaluation of established goals and objectives. Specific program goals and objectives support the general goals and objectives of the department. The mission, goals, and objectives guide the department to fulfill its established legal purpose and community expectations. The department used the services of the Center for Public Safety Excellence’s Technical Advisor Program to support the development of its 2016 - 2021 strategic plan.

The agency has established general goals and specific objectives that direct the agency’s priorities in a manner consistent with its mission and appropriate for the community it serves. The department’s strategic plan was published in 2016. The plan is available to members of the department, elected officials, and the public on the department’s webpage. This plan was facilitated by the Center for Public Safety Excellence’s Technical Advisor Program. The plan is a community-driven plan including external feedback into organizational goals and objectives.
The agency’s general goals and specific objectives direct its priorities in a manner consistent with its mission and appropriate for the community it serves. The strategic planning process identifies long-range planning goals to support department service delivery. Each goal within the strategic plan is assigned to a responsible party who manages development while also tracking progress. Responsible parties provide updates to the fire chief and accreditation manager on goal status. The strategic plan incorporates measurable elements of time, quantity, and quality.

The agency uses a management process to implement its goals and objectives. Each goal has an established tentative time frame. Specific objectives are identified to accomplish these goals. Each goal in the strategic plan is assigned to a responsible party to oversee goal achievement and to track progress. The responsible parties communicate with the fire chief and accreditation manager as development occurs. Additionally, progress and results are monitored through the submission of annual program reports, which identify and track program goals, objectives, and performance measurements. These reports are presented throughout the year to managers during monthly manager’s meetings. Program managers and project team coordinators submit annual reports to the accreditation manager and subsequently the fire chief for review and approval.

The department has designated personnel to implement goals and objectives within their area of responsibility. The department’s strategic plan lists general organizational goals and provides for performance measures through critical tasks. These tasks are qualitative in nature. This department’s process has ensured an outcome where all goals are tracked and worked through to completion.

Processes are in place to measure and evaluate progress towards completion of specific objectives and overall system performance. The goals and objectives are re-examined and modified periodically. The department annually assesses its goals and objectives during the annual strategic planning meeting. During the annual strategic planning sessions, goals and objectives are re-examined and modified as needed. Program managers continuously assess the success or deficit of their programs based on the stated goals and objectives. Program managers have the ability to modify their program goals and objectives as needed.

Goals and objectives are consistent with the department’s mission, vision, and strategic plan and are identified, discussed, and approved by the fire chief. Current year goals are discussed and modified if necessary based on the overall direction of the department. The department examines the goals and objectives associated with budget requests each year. The department’s mission, vision, and strategic plan are included in the budget planning process.

The department is evaluating administrative and operational processes for efficiency and identifies each divisional goal on a standard goal and objective form. The department’s executive staff identify specific performance measures of the strategic plan and corresponding time-frames. Program managers provide the executive staff with information about the successes and deficits of specific program goals and objectives in annual program appraisals.

The chief’s office monitors progress throughout the year. Also, input from the yearly retreat, city manager, and county administrator are useful to leave no stone unturned looking for better and more efficient processes to execute the department’s organizational objectives. The compliance methodology prior to 2018 isolated the knowledge, skills, and abilities of how to perform these tasks with the accreditation manager. The department has identified a need to increase its capabilities related to compliance monitoring through both human and technology resources. This need extends beyond the position of the accreditation manager in order for the department to effectively and
sustainably monitor how the growing community is affecting response time quality and ultimately outcomes. It was identified in the 2017 CRASOC as an immediate recommendation to add a person within the administrative division. This position could assist in sustaining the level of compliance monitoring needed in the future. It is recommended that the department conduct a staffing review of the administrative division to ensure adequate staffing is available to meet the current and future demands of the department.

Category IV — Financial Resources

Lawrence-Douglas County Fire Medical’s (LDCF) chief is responsible for the overall operating budget. The chief of administration has oversight of the preparation and management of the budget. The city finance department provides guidelines in the annual budget packet at the beginning of the annual budget process. LDCF utilizes the current department goals and objectives, the strategic plan, staffing, department and city strategic plan initiatives and priorities, and capital projects serve as the foundation for the proposed budgets.

Agency planning involving broad staff participation activates financial planning and resource allocation. The agency’s plan for financing reflects sound strategic planning and a commitment to its stated goals and objectives. The agency deems financial support for programs and services adequate to maintain the number and quality of personnel and other operational costs.

The city finance director is responsible for the planning, preparation, and administrative oversight of city finances. Annually, the finance department provides the budget policies, guidelines, and processes to all department directors. LDCF includes internal and external stakeholders in the budget process. This allows transparency within the department, community, and city commission goals.

Financial management of the agency exhibits sound budgeting and control, proper recording, reporting, and auditing. The peer assessment team confirmed that the Lawrence-Douglas County Fire Medical is in receipt of the most currently available Certificate of Achievement for Excellence in Financial Reporting (certificate) from the Government Finance Officers Association of the United States and Canada (GFOA) for its Comprehensive Annual Financial Report (CAFR). The department has submitted its most recent GFOA certificate and CAFR as prima facie compliance with this criterion.

Financial resources are appropriately allocated to support the established organizational mission, the stated long-term plan, goals and objectives, and maintain the quality of programs and services. Kansas statutes require the city to produce and maintain a balanced budget. Current and anticipated revenues must match any planned programs and activities. This allows LDCF to maintain adopted levels of service. In the annual budget book this is reinforced by the city manager noting his intention to maintain current levels of service as the governing body’s commitment to core services.
Category V — Programs

Criterion 5A – Community Risk Reduction Program

The Lawrence-Douglas Fire and Medical (LDCFM) is committed to reducing the incidence and severity of fire loss through public education, application of the fire code, building and protection system plans review, commercial fire and life safety inspections, and investigations.

The agency operates an adequate, effective, and efficient program to manage community risks as identified in the community risk assessment and standards of cover. The approach is comprehensive and includes both prevention and mitigation strategies such as life safety, hazard risk reduction, plan review, code compliance, and the detection, reporting and control of fires.

The department through city ordinance 9199 has adopted the 2015 International Fire Code for use as its fire prevention code. This code is supplemented and amended by the fire code board of appeals which addresses issues specific to Lawrence, Kansas. Some amendments have required the installation of fire sprinklers in existing congregate living structures, thus making Lawrence safer.

The department works closely with their operations division and the city of Lawrence planning and development services department. This cooperation has helped the department to conduct thousands of fire and life safety inspections each year. In 2017 the department conducted 7,332 inspections, which is roughly 98.5% of commercial occupancies.

The department uses a combination of dedicated fire prevention staff and operational personnel to complete annual fire and life safety inspections. This has worked effectively in the past, but the department has experienced consistent growth over the past few years. Between 2014 and 2016, the department experienced a 52% increase in the number of inspections, and the number of plans reviewed has doubled. Current 2017-2018 figures follow this same increasing trend. The department has managed this increase internally by assigning a lieutenant as a temporary resource within fire prevention. It is recommended that the fire prevention division conduct an evaluation of current manpower to determine if additional full-time employee(s) are needed to effectively mitigate required duties.

Each year the department conducts an appraisal of the community risk reduction program. The program was last appraised as the department updated SOP 303.10, Community Risk Reduction Program. As a result, the department changed the frequency of certain inspections and also changed who within the organization would conduct inspections on different building classes. The department has also enhanced their inspection service delivery by conducting some inspections at night on specific assemblies. This type of inspection allows the department to evaluate key life safety issues such as maintaining exits and enforcing occupant loads.

Criterion 5B – Public Education Program

The Lawrence-Douglas Fire and Medical Department’s (LDCFM) prevention and training divisions strive to reduce life safety hazards and property loss through a pro-active program of inspections and public education. The training division manages LDCFM’s public education program and utilizes six public education specialists to deliver information to the public.
A public education program is in place and directed toward reducing specific risks in a manner consistent with the agency’s mission and as identified within the community risk assessment and standards of cover. The department has a robust public education program in place that includes youth fire setter intervention, senior citizen classes, fire safety house tours, a smoke detector program, and fire extinguisher training. In 2017, over 7,300 residents were contacted via 115 public education events and social media outlets.

This program currently has no dedicated full-time staff. Staffing for this program is derived from the operations division, in the form of two public education specialists per shift. These six individuals develop activities, complete trainings, and evaluate the program. When possible, the dedicated staff will complete public education assignments while on duty. For larger public education assignments, the public education trainer(s) will be called in while off duty to mitigate larger assignments.

The public education program manager conducts an annual program appraisal. This review evaluates the training topics, activities, events, and accomplishments for the past twelve months. Additionally, participant surveys are reviewed and data collected is used to direct future public education training topics for the community. Measurable goals and objectives are discussed and agreed upon for the upcoming year.

**Criterion 5C – Fire Investigation, Origin and Cause Program**

The Lawrence-Douglas Fire and Medical (LDCFM) utilize eight fire investigators to mitigate the investigation of fires. The fire investigators are managed by the division chief of prevention which is also the fire marshal. Each investigator has been trained and meets the Kansas-certified Fire Investigator II requirements as outlined in Kansas administrative regulations. LDCFM has two fire investigators assigned to each operational shift.

The agency operates an adequate, effective, and efficient program directed toward origin and cause investigation and subsequent classification of fires, explosions, and other emergency situations that endanger life or property. The agency should conduct a thorough risk-analysis as part of activities in Category II to determine the need for fire investigation program.

The department has an authorized fire investigation, origin, and cause program. City Ordinance 9199 adopts the 2015 International Fire Code as the city’s adopted fire code. Additionally, the state of Kansas annotated regulations note that the chief of a fire department or his designee will investigate all fires or explosions.

The department utilizes National Fire Protection Association (NFPA) 921, *Guide for Fire and Explosion Investigations*, as a guide to ensure investigators use a consistent approach to the scientific method which is utilized to investigate and determine the origin and cause of all fires and explosions. Each inspector has access to 921Docs. 921Docs is a computer program that provides a template for consistently creating accurate fire investigation reports. Additionally all information is documented and saved into Firehouse Software® and the Bomb Arson Tracking System (BATS). The BATS system is a free data collection tool provided by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF).

The department currently has a total of eight fire investigators that are used to meet the needs of the department. Each investigator has been trained and meets the Kansas-certified Fire Investigator II requirements as outlined in state regulations. Currently, there are six fire investigators that are on
shift assignment with two assigned to each shift. Additionally, an administrative chief and administrative captain work as the fire marshal and program manager respectively.

The division chief of prevention is responsible for the investigation program and the program is appraised through a recurring monthly meeting for case review, program updates, sharing of lessons learned, problems, and best practices identification. Special meetings are convened based on needs. Information obtained during the monthly meetings are collected and formally appraised annually to determine the impacts and overall performance of this program and new goals are created and presented to the group for consideration. The annual appraisal is conducted by the program manager and includes evaluation of goals, objectives, training, equipment needs, and program outcomes.

**Criterion 5D – Domestic Preparedness, Planning and Response**

The city of Lawrence operates within the Douglas County Emergency Operations Plan (EOP) and actively participates in the development, review, and testing processes for the plan. The plan addresses emergency responses and responsibilities for all of the participating jurisdictions. The plan is reviewed and tested annually with information from after action reviews utilized to make revisions as necessary.

The agency operates an all-hazards preparedness program that includes a coordinated multi-agency response plan designed to protect the community from terrorist threats or attacks, major disasters, and other large-scale emergencies occurring at or in the immediate area. The city of Lawrence is an active participant in the development, maintenance and testing of the current Douglas County EOP. The plan addresses emergency responses, roles, and responsibilities of the participating agencies and governmental jurisdictions. The plan meets federal, state, and local guidelines. The EOP establishes the local jurisdiction having the authority and responsibility to mitigate and manage any incident according to jurisdictional standard operational procedures (SOPs) or protocols.

The current system of interagency resources throughout the county that are expected to assist Lawrence-Douglas County Fire Medical (LDFCM) are comprised of informal verbal agreements. System testing and after action reviews demonstrate that this system is functional. The effectiveness of any preparedness plan is directly influenced by the availability of expected interagency resources. Although agreements are in place, it is recommended that the department secure all plan agreements in writing.

Due to attrition and changes in personnel, the plan has lacked management. While some minor updates have been made since its adoption, the current plan is in need of review. It is recommended that the department continue the processes to ensure adequate management, review, and updating of the continuity of operations plan.

**Criterion 5E – Fire Suppression**

Lawrence-Douglas County Fire Medical (LDFCM) is a full-service fire and rescue organization designed to provide essential public safety and emergency services to a growing population base. The department’s primary service area for fire suppression is limited to the city of Lawrence and Grant Township. The department’s only primary role in the unincorporated areas of the county is the delivery of emergency medical services (EMS). To meet the needs of its residents, the department currently staffs: one engine; one combination engine and hazardous material unit; two quints; one truck; seven medic units; and one heavy rescue. The pump capacity of the quints, engine, and ladders
are 2,000 gallons per minute and the combination engine and hazardous material unit is 1,500 gallons per minute.

The department operates an adequate, effective, and efficient fire suppression program directed toward controlling and or extinguishing fires for the purposes of protecting people from injury or death and reducing property loss. The department operates a 3-shift system and has established a minimum staffing benchmark of 38 firefighters per shift, per day, all of the time. The department maintains a minimum of: four firefighters on the engine, quints, truck, and the combination engine and hazardous material unit; three firefighters on the heavy rescue unit; and two firefighters on each medic unit.

The department has adopted an incident management system and uses it on all emergency responses, regardless of the size or complexity of the incident. The department has adopted and follows the expectations of the National Incident Management System (NIMS). The department has used an incident management system since 1979 and members are well-versed in its use. All personnel, at a minimum, have taken Incident Command System (ICS) 100, 200, 700 and 800 courses. In addition, the department requires company officers to obtain ICS 300 and chief officers to obtain ICS 400. The department is in the process of becoming a Blue Card® training site. All department captains and operation division chief officers are becoming Blue Card® certified.

The peer assessment team verified that the department does conduct a formal and documented appraisal of the fire suppression program annually. The appraisal evaluates outcomes, provides conclusions, and makes recommendation for the fire suppression program. The department provided multi-year trends that are relevant to support these activities.

The department strives to provide the most effective and efficient service possible to the community it serves. The fire chief provides monthly department activity reports on incidents and responses to the city manager. The department conducts a post incident analysis of all large-scale or significant incidents. A program appraisal template and guide assists program managers with key areas to review as part of the program review.

Annually, the division chief of operations for each shift conducts a formal and documented program appraisal at a scheduled monthly manager’s meeting. The appraisal includes an analysis of standard operating procedures, equipment, and training to determine the impact of the program. At least two goals and objectives are identified for the next program appraisal cycle.

The department’s response and deployment standards are based upon the urban and rural population densities, and the fire suppression demands of the community. Five fire stations provide coverage to the city of Lawrence and Grant Township; department staffing is based upon station location, incident type, and frequency. The targeted service level objectives in the standards of cover benchmark statements are based on industry standards and with community expectations, as identified earlier in this report in Category II – Assessment and Planning. The objectives have been approved and adopted by fire department management and city council. The department’s benchmark service level objectives are as follows:

For 90 percent of all moderate risk fire responses, the total response time for the arrival of the first-due unit, with a minimum of 3 firefighters and 1 officer, shall be: 6 minutes and 30 seconds within urban areas and 12 minutes and 30 seconds in rural areas. The first arriving unit shall be capable of: establishing command; completing an initial size up; establishing
water supply; and initiating fire attack and/or rescue. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all moderate risk fire responses, the total response time for the arrival of the effective response force (ERF), with a minimum of 7 firefighters and 3 officers, shall be: 10 minutes and 30 seconds within urban areas and 18 minutes and 30 seconds in rural areas. The ERF shall be capable of: establishing command; providing a water supply; advancing an attack line and a backup line for fire control; complying with the requirements of two in-two out; searching and rescuing at-risk victims. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all high risk fire responses, the total response time for the arrival of the first-due unit, with a minimum of 3 firefighters and 1 officer, shall be: 6 minutes and 30 seconds within urban areas and 12 minutes and 30 seconds in rural areas. The first arriving unit shall be capable of: establishing command; completing an initial size up; establishing water supply; and initiating fire attack and/or rescue. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all high risk fire responses, the total response time for the arrival of the effective response force (ERF), with a minimum of 10 firefighters and 6 officers, shall be: 10 minutes and 30 seconds within urban areas and 18 minutes and 30 seconds in rural areas. The ERF shall be capable of: establishing command; safety; providing an uninterrupted water supply or rural water operation; advancing an attack line and a backup line for fire control; complying with the requirements of two in-two out; establishing a rapid intervention team; completing forcible entry; searching and rescuing at-risk victims; evacuating; ventilating; protecting exposures; controlling utilities; and performing salvage and overhaul. These operations shall be performed utilizing safe operational procedures.

The department’s baseline statements reflect actual performance during 2013 to 2017. The department does not rely on the use of automatic aid or mutual aid from neighboring fire departments to provide its effective response force complement of personnel. The department’s actual baseline service level performance is as follows:

For 90 percent of all moderate risk fire responses, the total response time for the arrival of the first-due unit, with a minimum of 3 firefighters and 1 officer, is: 9 minutes and 39 seconds within urban areas. The first arriving unit is capable of: establishing command; completing an initial size up; establishing water supply; and initiating fire attack and/or rescue. These operations are performed utilizing safe operational procedures.

It was verified and validated by the peer assessment team that the Lawrence-Douglas County Fire Medical did not have moderate risk sufficient fire suppression incidents, which required a first-due in rural areas or an effective response force in all areas to be assembled for 2013-2017, to provide reliable data. There are therefore no baseline service level performance statements provided for the first-due in rural areas or any effective response force in this report.

For 90 percent of all high risk fire responses, the total response time for the arrival of the first-due unit, with a minimum of 3 firefighters and 1 officer, is: 8 minutes and 41 seconds within urban areas. The first arriving unit is capable of: establishing command; completing an initial
size up; establishing water supply; and initiating fire attack and/or rescue. These operations are performed utilizing safe operational procedures.

For 90 percent of all high risk fire responses, the total response time for the arrival of the effective response force (ERF), with a minimum of 10 firefighters and 6 officers is: 13 minutes and 17 seconds. The ERF is capable of: establishing command and safety; providing an uninterrupted water supply; advancing an attack line and a backup line for fire control; complying with the requirements of two in-two out; establishing a rapid intervention team; completing forcible entry; searching and rescuing at-risk victims; evacuating; ventilating; providing exposure protection; controlling utilities; and performing salvage and overhaul. These operations are performed utilizing safe operational procedures.

It was verified and validated by the peer assessment team that the Lawrence-Douglas County Fire Medical did not have high risk sufficient fire suppression incidents in rural areas, which required a first-due or an effective response force to be assembled for 2013-2017, to provide reliable data. There are therefore no baseline service level performance statements provided for the first-due or effective response force in rural areas in this report.

The team also reviewed the available 2018 response time data and confirmed it is consistent with the provided information for 2013-2017.

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The department increased resources in 2017 with the addition of an ambulance within Eudora. This improved travel time distribution in the Eudora planning zone and system wide resiliency by increasing minimum staffing by two. From calendar year 2013 through 2017, the department has confined 10.7 percent of all structure fires to the floor of origin, 34.7 percent to the room of origin and 7.9 percent were confined to the object of origin. During calendar years 2013-2017 there were three fire fatalities. In 2015, the fire loss was reported at $3,177,308. For 2016 and 2017, fire loss was down nearly 50 percent.

**Criterion 5F – Emergency Medical Services (EMS)**

Lawrence-Douglas County Fire Medical (LDCF) is licensed by the State of Kansas as a Type I Advanced Life Support Service (ALS). The division chief of emergency medical services (EMS) oversees all EMS activities. There a minimum of seven medic units staffed in the city of Lawrence and Douglas County every day. Additional resources are available if needed. Each medic unit is staffed with a minimum of one paramedic and one Advanced Emergency Medical Technician.
(AEMT). Each engine, truck or quint company has a minimum of four AEMT’s. The Medical Priority Dispatch (EMD) protocols with pre-arrival instructions ensure an adequate number of personnel and units respond to out-of-hospital incidents to provide the best and quickest possible care. Medical protocols outlined in the standard operating procedures that are regulated by the Kansas Board of EMS statutes and services of the Department of Emergency Medicine at the Lawrence Memorial Hospital (LMH) Emergency Department (ED) are utilized as offline and online medical control respectively. An electronic patient care record is created for each patient contact and stored within a records management system.

The agency operates an EMS program with a designated level of out-of-hospital emergency medical care that meets the needs of the community. The Department operates under protocols outlined in its SOPs, and falls under the auspices of the Kansas Board of EMS statutes. The medical director reviews and makes recommendations, substantiates procedures, and provides training for all standing orders and protocols. All protocols are continually under review and modified in the form of addendums as required.

LDCFＭ utilizes the emergency medicine physicians at the Lawrence Memorial Hospital (LMH) Emergency Department (ED) as medical control. Personnel may use the designated medic unit cellular phones or an 800MHz radio for secure delivery of patient information and requested orders needed for patient care. The ED physician on-duty serves as on-line medical control.

LMH on-line medical control grants permission to use other hospitals for receiving patients in the event of critical trauma, burns, or upon request by the patient or family. The receiving hospital then acts as medical control within the scope of department protocols during transport.

The medical director and established treatment protocols provide direction for off-line medical control. All personnel receive training in the use of both on-line and off-line medical control.

LDCFＭ utilizes ESO Solutions software as its electronic patient care report (ePCR) system for all emergency medical calls regardless of transport decision. The ePCR contains patient history, primary impression, treatment rendered, and the patient disposition. Agency SOPs details procedures regarding release of information contained on the PCR and comply with federal laws relevant to patient confidentiality. The department also files an abbreviated incident report electronically using Firehouse Software® for National Fire Incident Reporting System (NFIRS) containing no patient information.

LDCFＭ utilizes a published policy to fully comply with federal Health Insurance Portability and Accountability Act (HIPAA) regulations. This privacy policy is disclosed to all patients who enter the EMS system and with an ePCR. The policy is monitored for compliance by the division chief of EMS and the city of Lawrence Attorney’s Office. All personnel receive mandatory training on HIPAA regulations and patient care documentation which is recorded and monitored on the department’s records management system (RMS).

LDCFＭ evaluates the EMS programs on a monthly basis and appraises the effectiveness annually through a formalized manager meeting and official review respectively. The annual appraisal includes a comprehensive review of protocols and quality assurance that are guided by the strategic plan, SOPs, and any performance measures and outcomes specific to the EMS program. A program manager’s appraisal guide provides key areas to review as part of the evaluation and appraisal. The EMS division publishes quarterly reports detailing EMS issues identified in the monthly evaluations.
The availability of rapid access to automatic external defibrillators (AEDs) in public spaces is well documented within the city of Lawrence. It is recommended that the current program for identification and distribution of automatic external defibrillator (AED) units throughout the city of Lawrence be expanded to include Douglas County.

The department’s response and deployment standards are based upon the urban and rural population densities, and the emergency medical demands of the community. Five fire stations and two ambulance bases provide county-wide coverage; department staffing is based upon station location, incident type, and frequency. The targeted service level objectives in the standards of cover benchmark statements are based on industry standards and with community expectations, as identified earlier in this report in Category II – Assessment and Planning. The objectives have been approved and adopted by fire department management and the city council. The department’s benchmark service level objectives are as follows:

For 90 percent of all EMS responses, the total response time for the arrival of the first-due unit, staffed with a minimum of 1 AEMT, shall be: 6 minutes and 30 seconds in urban areas; and 12 minutes and 30 seconds in rural areas. The first-due unit shall be capable of: establishing command; performing cardiopulmonary resuscitation (CPR); and utilizing an automated external defibrillator. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all moderate risk EMS response incidents, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 1 paramedic and 1 AEMT, shall be: 10 minutes and 30 seconds in urban areas; and 18 minutes and 30 seconds in rural areas. The ERF shall be capable of: establishing command; conducting primary and secondary patient assessment; triaging the patient; electrocardiogram interpretation; medication administration; bio-com communications with medical control; application of standing and physician orders; patient and equipment packaging for transport; and transportation to the hospital. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all high-risk EMS response incidents, the total response time for the arrival of the effective response force (ERF) ALS unit, staffed with a minimum of 1 paramedic and 2 AEMT’s, shall be: 10 minutes and 30 seconds in urban areas; and 18 minutes and 30 seconds in rural areas. The ERF shall be capable of: establishing command; communication with family or other witnesses; scene documentation; conducting primary and secondary patient assessment; triaging the patient; electrocardiogram interpretation; medication administration; bio-com communications with medical control; application of standing and physician orders; patient and equipment packaging for transport; and transportation to the hospital. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all maximum risk EMS response incidents, the total response time for the arrival of the effective response force (ERF) ALS unit, staffed with a minimum of 2 paramedics and 2 AEMT’s, shall be: 10 minutes and 30 seconds in urban areas; and 18 minutes and 30 seconds in rural areas. The ERF shall be capable of: establishing command; conducting primary and secondary patient assessment; triaging the patient; electrocardiogram interpretation; medication administration; bio-com communications with medical control; application of standing and physician orders; patient and equipment packaging for transport;
and transportation of multiple patients to the hospital. These operations shall be performed utilizing safe operational procedures.

The department’s baseline statements reflect actual performance during 2013 to 2017. The department does not rely on the use of automatic aid from neighboring fire departments to provide its effective response force complement of personnel. The department’s actual baseline service level performance is as follows:

For 90 percent of moderate, risk emergency medical incidents, the total response time for the arrival of the first-due unit, with a minimum of 1 AEMT, is: 10 minutes and 17 seconds in urban areas, 19 minutes and 57 seconds in rural areas. The first-due unit is capable of establishing command; performing cardiopulmonary resuscitation; and utilizing an automated external defibrillator. These operations are performed utilizing safe operational procedures.

For 90 percent of all moderate risk emergency medical incidents, the total response time for the arrival of the ERF (ALS unit), with a minimum of 1 paramedic and 1 AEMT, is: 11 minutes and 6 seconds in urban areas, 20 minutes and 21 seconds in rural areas. The ERF is capable of: establishing command; conducting primary and secondary patient assessment; triaging the patient; electrocardiogram interpretation; medication administration; bio-com communications with medical control; application of standing and physician orders; patient and equipment packaging for transport; and transportation to the hospital. These operations are performed utilizing safe operational procedures.

For 90 percent of high-risk emergency medical incidents, the total response time for the arrival of the first-due unit, with a minimum of 1 AEMT, is: 9 minutes and 58 seconds in urban areas, 21 minutes and 57 seconds in rural areas. The first-due unit is capable of establishing command; performing cardiopulmonary resuscitation; and utilizing an automated external defibrillator. These operations are performed utilizing safe operational procedures.

For 90 percent of all high-risk emergency medical incidents, the total response time for the arrival of the ERF (ALS unit), with a minimum of 1 paramedic, and 2 AEMTs, is: 11 minutes and 45 seconds in urban areas, 24 minutes and 54 seconds in rural areas. The ERF is capable of: establishing command; communicating with family or other witnesses; scene documentation; conducting primary and secondary patient assessment; triaging the patient; electrocardiogram interpretation; medication administration; bio-com communications with medical control; application of standing and physician orders; patient and equipment packaging for transport; and transportation to the hospital. These operations are performed utilizing safe operational procedures.

For 90 percent of maximum risk emergency medical incidents, the total response time for the arrival of the first-due unit, with a minimum of 1 AEMT, is: 15 minutes and 35 seconds in urban areas, 18 minutes and 23 seconds in rural areas. The first-due unit is capable of establishing command; performing cardiopulmonary resuscitation; and utilizing an automated external defibrillator. These operations are performed utilizing safe operational procedures.

It was verified and validated by the peer assessment team that the Lawrence-Douglas County Fire Medical did not have maximum risk sufficient emergency medical response incidents, which required an effective response force in urban areas to be assembled for 2013-2017, to
provide reliable data. There are therefore no baseline service level performance statements provided for the effective response force rural areas in this report.

The team also reviewed the available 2018 response time data and confirmed it is consistent with the provided information for 2013-2017.

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The department increased resources in 2017 with the addition of an ambulance within Eudora. This improved travel time distribution in the Eudora planning zone and system wide resiliency. The return of spontaneous circulation (ROSC) audits show a 15% increase since the last appraisal period and an enhanced science-based CPR system (CAPE) is being implemented for delivery in the second quarter of 2018. A process is being developed to implement a mobile integrated health/community paramedicine program that is data driven and supported by the department medical director.

**Criterion 5G – Technical Rescue**

Lawrence-Douglas County Fire Medical (LDCFM) operates a technical rescue program that addresses potential rescue situations in the community based on risk analysis. The program provides rope rescue, confined space rescue, structural collapse rescue, trench rescue, water/ice rescue, and vehicle/machinery rescue. The program is directed by the operations division chief. Each technical rescue discipline is managed by a designated officer and is guided by specific procedures, equipment, training requirements, and budgetary constraints. All personnel function at the operations competency level. All equipment is centrally located within the department at Station 5. LDCFM responds to technical rescue emergencies in Lawrence and will assist or take the lead role as needed within
Douglas County. LDCFM is also a participating member of NE Kansas Homeland Security Region USAR Task Force 2 (KS-TF2).

The agency operates an adequate, effective, efficient, and safe program directed toward rescuing trapped or endangered persons from any life-endangering cause (e.g., structural collapse, vehicle accidents, swift water or submersion, confined space, cave-in, trench collapse, fire). The operations division chief meets monthly with the division chief of training and the Station 5 officers to determine the progress of the technical rescue team and program. The executive staff receives updates on equipment needs and purchasing, training plans, and staffing issues during scheduled meetings. Annually, the manager for each technical rescue discipline conducts a formal and documented program appraisal at the monthly manager’s meeting. The appraisal includes an analysis of standard operating procedures, response components, equipment and training, goals, and objectives to determine the impact of the program.

The department’s response and deployment standards are based upon the urban population density, and the technical rescue demands of the community. Five fire stations provide citywide coverage; department staffing is based upon station location, incident type, and frequency. The targeted service level objectives in the standards of cover benchmark statements are based on industry standards and with community expectations, as identified earlier in this report in Category II – Assessment and Planning. The objectives have been approved and adopted by fire department management and the city council. The department’s benchmark service level objectives are as follows:

For 90 percent of all technical rescue incidents, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, shall be: 6 minutes and 30 seconds in urban areas. The first-due unit shall be capable of: establishing command; assessing scene safety; performing a scene assessment; and requesting additional resources. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all moderate risk technical rescue incidents, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 4 firefighters and 2 officers, shall be: 10 minutes and 30 seconds in urban areas. The ERF shall be capable of: establishing command; assessing scene safety; performing a scene assessment; requesting additional resources; hazard mitigation; providing patient care; and providing transportation to the hospital. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all high risk technical rescue incidents, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 6 firefighters and 4 officers, shall be: 10 minutes and 30 seconds in urban areas. The ERF shall be capable of: establishing command; assessing scene safety; performing a scene assessment; requesting additional resources; hazard mitigation; performing mechanical extrication; providing patient care; and providing transportation to the hospital. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all maximum risk technical rescue incidents, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 10 firefighters and 6 officers, 4 being technician level rescuers, shall be: 10 minutes and 30 seconds in urban areas. The ERF shall be capable of: establishing command; assessing scene safety; performing a scene assessment; requesting additional resources; hazard mitigation; performing mechanical extrication; performing air quality analysis; performing a confined space rescue; performing a
trench rescue; performing a water/ice rescue; performing a high-angle rescue; providing patient care; and providing transportation to the hospital. These operations shall be performed utilizing safe operational procedures.

The department’s baseline statements reflect actual performance during 2013 to 2017. The department does not rely on the use of automatic aid from neighboring fire departments to provide its effective response force complement of personnel. The department’s actual baseline service level performance is as follows:

For 90 percent of all moderate risk technical rescue incidents, the total response time for the arrival of the first due unit, with a minimum of 2 firefighters and 1 officer is: 8 minutes and 59 seconds in urban areas. The first due is capable of: establishing command; assessing scene safety; performing a scene assessment; and requesting additional resources. These operations are performed utilizing safe operational procedures.

For 90 percent of all moderate risk technical rescue incidents, the total response time for the arrival of the effective response force (ERF), with a minimum of 4 firefighters and 2 officers, is: 10 minutes and 13 seconds in urban areas. The effective response force is capable of: establishing command; assessing scene safety; performing a scene assessment; requesting additional resources; hazard mitigation; providing patient care; providing transportation to the hospital. These operations are performed utilizing safe operational procedures.

It was verified and validated by the peer assessment team that LDCFM did not have sufficient moderate-risk technical rescue incidents in rural areas, which required a first-due or an effective response force to be assembled for 2013-2017, to provide reliable data. There are therefore no baseline service level performance statements provided for the responses in this report.

It was verified and validated by the peer assessment team that LDCFM did not have sufficient high-risk technical rescue incidents, which required a response to be assembled for 2013-2017, to provide reliable data. There are therefore no baseline service level performance statements provided for these responses in this report.

For 90 percent of all maximum risk technical rescue incidents, the total response time for the arrival of the first due unit, with a minimum of 2 firefighters and 1 officer is: 12 minutes and 55 seconds in urban areas. The first due is capable of: establishing command; assessing scene safety; performing a scene assessment; and requesting additional resources. These operations are performed utilizing safe operational procedures.

For 90 percent of all maximum risk technical rescue incidents, the total response time for the arrival of the effective response force (ERF), with a minimum of 10 firefighters and 6 officers; 3 being technician level rescuers, is: 32 minutes and 54 seconds in urban areas. The effective response force is capable of: establishing command; assessing scene safety; performing a scene assessment; requesting additional resources; hazard mitigation; performing mechanical extrication; performing air-quality analysis; performing a confined space rescue; performing a trench rescue; performing a water/ice rescue; performing a high angle rescue; providing patient care; providing transportation to the hospital. These operations are performed utilizing safe operational procedures.
It was verified and validated by the peer assessment team that LDCFM did not have sufficient maximum-risk technical rescue incidents, which required a response to be assembled for 2013-2017, to provide reliable data. There are therefore no baseline service level performance statements provided for these responses in this report.

The team also reviewed the available 2018 response time data and confirmed it is consistent with the provided information for 2013-2017.

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| Travel Time ERF Concentration | Urban | 21:05 | 16:46 | 12:50 | N/A | 20:18 | 26:06
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The technical rescue program realized increased training opportunities and deployment rostering through the Kansas Fire Marshal’s Office recent administrative responsibilities of technical rescue teams within the state. Program analysis for the appraisal period showed an increased focus of training needs within the trench rescue discipline.

**Criterion 5H – Hazardous Materials (Hazmat)**

The Lawrence-Douglas County Fire Medical operates a hazardous materials program that addresses potential situations in the community based on risk analysis. The program is responsible for overall management of hazardous material incidents in Douglas County utilizing a unified command structure within the jurisdictional fire department. Responsibilities include hazardous material releases, decontamination for both victims and responders at large and small scale incidents. Technician and operation level members are International Fire Service Accreditation Council (IFSAC) certified. Relationships with Douglas County Emergency Management, the University of Kansas, Kansas Department of Health and Environment, the Environmental Protection Agency, State of Kansas Fire Marshal’s Office, Regional Hazmat Teams (KSTF 2), Civil Support Team (73rd CST), local facilities, and other organizations assist in meeting program goals and objectives.

The agency operates an adequate, effective, efficient, and safe hazardous materials program directed toward protecting the community from the hazards associated with the uncontrolled releases of hazardous and toxic materials. The hazmat program team (chief of Hazmat, Hazmat program manager and Hazmat captains) meet a minimum of two times a year to evaluate all facets of the
hazmat program, including equipment, training, standard operating procedures (SOPs), goals and objectives, and operational issues. Analyses of annual department hazmat drills, company drills, monthly training sessions, and actual hazardous materials incidents provide assessment of team performance. Annually, the Hazmat program team conducts a formal and documented program appraisal at the monthly manager’s meeting. The appraisal includes an analysis of standard operating procedures, response components, equipment and training, and goals and objectives to determine the impact of the program.

The department’s response and deployment standards are based upon the urban and rural population densities, and the hazardous materials response demands of the community. Five fire stations provide county-wide coverage; department staffing is based upon station location, incident type, and frequency. The targeted service level objectives in the standards of cover benchmark statements are based on industry standards and best practices, as identified earlier in this report in Category II – Assessment and Planning. The objectives have been approved and adopted by fire department management and the city council. The department’s benchmark service level objectives are as follows:

For 90 percent of all hazardous materials response incidents, the total response time for the arrival of the first-due unit, staffed with a minimum of 3 firefighters and 1 officer, shall be: 6 minutes and 30 seconds in urban areas; and 12 minutes and 30 seconds in rural areas. The first-due unit shall be capable of: establishing command; performing an initial scene assessment; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; and requesting additional resources. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all moderate risk hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF) staffed with a minimum of 4 firefighters and 2 officers, shall be: 6 minutes and 30 seconds in urban areas; and 18 minutes and 30 seconds in rural areas. The ERF shall be capable of: establishing command; performing an initial scene assessment; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; providing a hose line for protection; providing advanced medical care; transporting the patient to the hospital; and requesting additional resources. These operations shall be performed utilizing safe operational procedures.

For 90 percent of all high risk hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF) staffed with a minimum of 10 firefighters and 6 officers, with 4 being hazardous materials technicians, shall be: 6 minutes and 30 seconds in urban areas; and 18 minutes and 30 seconds in rural areas. The ERF shall be capable of: establishing command; performing an initial scene assessment; establishing a hazard zone; establishing a hazmat group; performing research; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; performing technical decontamination; providing a hose line for fire protection; providing advanced medical care; transporting the patient to the hospital; and requesting additional resources. These operations shall be performed utilizing safe operational procedures.

The department’s baseline statements reflect actual performance during 2013 to 2017. The department does not rely on the use of automatic aid from neighboring fire departments to provide its effective
response force complement of personnel. The department’s actual baseline service level performance is as follows:

For 90 percent of all moderate risk hazardous materials response incidents, the total response time for the arrival of the first-due unit, with a minimum of 3 firefighters and 1 officer is: 10 minutes and 14 seconds in urban areas. The first-due unit is capable of: establishing command; performing an initial scene assessment; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; and requesting additional resources. These operations are performed utilizing safe operational procedures.

For 90 percent of all moderate risk hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF), with a minimum of 4 firefighters and 2 officers is: 11 minutes and 2 seconds in urban areas. The effective response force is capable of: establishing command; performing an initial scene assessment; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; providing a hose line for protection; providing advanced medical care; transporting the patient to the hospital; and requesting additional resources. These operations are performed utilizing safe operational procedures.

For 90 percent of all high risk hazardous materials response incidents, the total response time for the arrival of the first-due unit, with a minimum of 3 firefighters and 1 officer is: 12 minutes and 35 seconds in urban areas. The first-due unit is capable of: establishing command; performing an initial scene assessment; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; and requesting additional resources. These operations are performed utilizing safe operational procedures.

For 90 percent of all high risk hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF), with a minimum of 10 firefighters and 6 officers, with 4 being hazardous materials technicians is: 30 minutes and 25 seconds in urban areas. The effective response force is capable of: establishing command; performing an initial scene assessment; establishing a hazard zone; establishing a hazmat group; performing research; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; performing technical decontamination; providing a hose line for fire protection; providing advanced medical care; transporting the patient to the hospital; and requesting additional resources. These operations are performed utilizing safe operational procedures.

It was verified and validated by the peer assessment team that Lawrence-Douglas County Fire Medical (LDCF M) did not have sufficient rural hazardous materials incidents which required a first due and effective response force to be assembled for 2013-2017, to provide reliable data. There are therefore no baseline service level performance statements provided for the effective response force in this report.

The team also reviewed the available 2018 response time data and confirmed it is consistent with the provided information for 2013-2017.
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The hazardous materials program increased their training efficiency by instituting a tabletop scenario-based exercise with Tier II facilities that incorporated risk analysis as well as pre-planning components.

**Criterion 5K – Coroner Scene Investigation Program**

Douglas County provides statute mandated coroner services to its citizens. These services are delivered through a contracted private partnership with the Kansas City, Kansas firm Frontier Forensics, P.A. In conjunction with Frontier Forensics P.A., Lawrence-Douglas County Fire Medical provides specially trained paramedics to assist Frontier Forensics through a Coroner Scene Investigation (CSI) program. The program is administered through the division of fire prevention. The primary goal of the program is to assist the coroner in the determination of cause and manner of death for all unattended deaths in Douglas County. This is accomplished through scene investigation, information gathering, witness interviews, and follow-up activities. Investigators are trained and certified through the American Board of Medicolegal Death Investigators (ABMDI). They work independently from the standard department structure, alongside representatives of other agencies such as law enforcement, hospitals, and other medical organizations. Department standard operating procedures (SOPs) guide the specific activities of investigations. Continual program monitoring and evaluation ensure quality investigation and allow for program improvements.

The agency operates an adequate, effective, efficient, and safe program directed toward coroner scene investigative operations. The program is appraised through a recurring monthly meeting for case
review and program updates between all stakeholders, including county and municipal law
enforcement representatives, members of the district attorney’s office, and representatives from
Frontier Forensics, P.A. Sharing of lessons learned, problems, and best practices occurs within a
month of identification. Special meetings are convened based on needs, usually associated with
updates dealing with forensic practices. The annual appraisal is conducted by the program manager
and includes evaluation of goals, objectives, training, equipment needs, and program outcomes.

**Criterion 5L – Tactical Medic Program**

Lawrence-Douglas County Fire Medical (LDCFM) provides specially trained paramedics to the
Lawrence Police Department to address the increased risks associated with tactical law enforcement
operations. Tactical medic operates as part of the Lawrence Police Department’s Crisis Response
Team (CRT) performing medical support for high-risk law enforcement activities. The primary
mission is to provide emergency medical care in the field to law enforcement officers and citizens
during high-risk incidents. Tactical medics work independently from the standard LDCFM structure
alongside representatives of law enforcement. Standard operating procedures guide the performance
of the program which is continuously monitored and evaluated for quality of performance and
improvements.

The agency operates an adequate, effective, efficient, and safe program directed toward tactical
paramedic operations. Informal meetings are conducted during monthly training and between the
CRT commander and the division chief of the tactical medic program. Informal after action briefings
area conducted after each callout by the CRT commander. Tactical medic meetings are conducted
periodically usually on an as-needed basis regarding equipment and training.

Annually, the division chief who oversees the tactical medic program conducts a formal and
documented program appraisal at the monthly manager’s meeting. The appraisal includes an analysis
of response procedures, equipment, and training to determine the effectiveness of the program on
meeting the department’s goals and objectives. This analysis incudes data from meetings between
program managers and after-action reports.

**Category VI — Physical Resources**

The Lawrence-Douglas Fire and Medical (LDCFM) has a strategic plan in place. The plan provides
the basis for assessing and planning future physical resource needs. Plans for future physical
resources are based on projected population growth and potential response times to those expanding
areas.

Development and use of physical resources is consistent with the agency’s established plans. A
systematic and planned approach to the future development of facilities is in place. The department
has a process in place that connects multiple departments in the form of project teams. Project teams
are comprised of different departments within the city of Lawrence. One example of some
departments within a project team would be the fire medical department, the planning and zoning
department, and the finance department. The use of project teams provides input and feedback
regarding the planning for physical facilities. Future facility needs are planned in conjunction with
the city of Lawrence’s capital improvement project (CIP), the strategic plan, and with potential
response times in mind.
The agency designs, maintains, manages fixed facility resources that meet the agency’s goals and objectives. The department currently operates out of 5 stations strategically located within the city of Lawrence. Additionally, the department provides emergency medical services (EMS) to Douglas County via two stations located in Baldwin and Eudora.

All facilities at the time of their construction complied with federal, state/provincial, and local codes and regulations. The department does have two older facilities that would not meet today’s accessibility requirements. Those facilities are Fire Station 1 and the investigation center.

Fire Station 1 is currently being remodeled. This station was originally built in 1950 and it is being restored to comply with the guidelines of the Lawrence historical society. The remodel of Station 1 is expected to be completed in July of 2019. During the remodel, the crew of Station 1 is working out of a temporary modular facility adjacent to the existing Fire Station 1.

The investigation center was originally constructed in 1928 and at that time was used as Fire Station 2. Fire Station 2 has since been relocated but this older building still exists and is used for a variety of different uses.

Apparatus resources are designed, purchased, maintained to adequately meet the agency’s goals and objectives. The department has a wide variety of different apparatus used to mitigate emergencies within their jurisdiction. Primary response apparatus consist of engines, rescues, quint, trucks (platform) and medic units. Specialty apparatus consists of water tenders, brush trucks, rescue boats, all-terrain vehicles (ATV), hazmat support trailer, a search and rescue trailer, a mass casualty trailer, command unit and staff vehicles.

The inspection, testing, preventive maintenance, replacement schedule, and emergency repair of all apparatus are well established and meet the emergency apparatus service and reliability needs. The department has a comprehensive maintenance program to ensure apparatus are maintained in accordance with manufacturer, industry, and National Fire Protection Association (NFPA) standards. This process includes three separate inspection processes: daily apparatus inspections; calendar inspections that occur at specific time or mileage intervals; and detailed inspections that are scheduled based on total vehicle hours, miles, and/or elapsed time period.

Department members utilize a citywide vehicle maintenance program called Assetworks for sending service request information and reporting problems. The software tracks vehicle service requests.

The department has an effective program in place for inspecting, testing, and both preventative and regular maintenance. Daily inspection records for each apparatus are stored electronically in the records management system. Any items that are in need of repair are submitted to the central maintenance garage via electronic ticket.

The department’s dedicated repair facility is the city’s public works central maintenance garage (CMG). This facility is used to fix a variety of different city assets each day, from lawn movers to large fire apparatus. The CMG has 12 bays that are regularly used to complete repair work. The size of the CMG’s bays, specifically referring to length & height is of particular concern as it relates to the maintenance for fire apparatus.
The bays having limited space make routine repairs more time consuming and logistically challenging. Currently, fire mechanics are unable to raise an apparatus cab within the building to conduct maintenance. Additionally, fire mechanics must relocate multiple other vehicles to different locations within the building to access the fire apparatus and provide maintenance. It is recommended that the department work with the public works division to obtain a larger repair facility that is capable of providing sufficient space.

Equipment and supplies are adequate and designed to meet the agency’s goals and objectives. Testing, maintenance, and inspection of equipment is completed by qualified personnel from the department, the central maintenance garage, and from qualified contractors. An in-house program consisting of four personnel maintain and repair the department’s self-contained breathing apparatus (SCBA). Central maintenance garage personnel or contractors maintain all power plant based equipment such as saws, fans, or hydraulic power units. The department hires a qualified contractor to test both ground ladders and aerial ladders annually.

Safety equipment is adequate and designed to meet agency goals and objectives. The department has identified needed safety equipment and distributed it appropriately to personnel. Each member is provided with personal protective equipment consisting of structural firefighting gear and their own breathing apparatus face mask. Additionally, the department provides specialized personal protective gear for specific tasks, such as; hazmat operations, water rescue, or technical rescue.

During the accreditation site visit, it was determined that each member of LDCFM is issued one set of structural firefighting gear. Having only one set of gear per person creates a potential issue when the member’s gear is out of service for cleaning or repair. It is recommended that the department consider the acquisition of a second set of firefighter turnout gear for those situations when the primary set is damaged, contaminated, or out for advanced cleaning.

Category VII — Human Resources

The city of Lawrence, Kansas has established a robust human resources program. They have employed a human resources manager and subordinate personnel who have established human resources practices that meet all local, state, and federal statutory requirements. The chief of department is responsible to enforce and promote these policies and practices within the Lawrence-Douglas County Fire Medical (LDCFM).

General human resources administration practices are in place and are consistent with local, state/provincial, and federal statutory and regulatory requirements. The city employs a human resource manager and staff that work under the city manager’s office. The chief of department is responsible to administer personnel management and delegates responsibilities to executive staff.

The agency's general goals and specific objectives direct its priorities in a manner consistent with its mission and appropriate for the community it serves. LDCFM works in cooperation with the city human resource office to ensure all recruiting, selection and promotion processes are in compliance with local, state, and federal regulations regarding equal opportunity and discrimination. These practices have eliminated bias and extended equal opportunity to all applicants.

LDCFM uses a unique process for evaluating new personnel. The utilization of the “extraboard” firefighter program allows for a more thorough time to evaluate and mentor new recruits. Once these “extraboard” personnel have completed the recruit academy and been awarded the appropriate
certifications they are assigned to a shift and captain. These personnel are used when needed at the stations and evaluated every six months until permanent hire date. Personnel complete the emergency medical services (EMS) orientation program and are signed off by the assigned captain.

Newly promoted officers have a six-month probationary period. During this time, they will work with experienced officers in completing the Active Officer Taskbook. The use of the taskbook and having the knowledge, skills and abilities confirmed by the experienced officers ensures the documentation of the new officer training program is accomplished.

Personnel policies and procedures are in place, documented, and guiding both administrative and personnel behavior. LDCFM uses multiple ways to communicate policies, procedures, and rules. The department has established a standard operating procedure (SOP) that assigns the policy, procedure, or rule to an executive officer and when it is due for review. These policies are available in multiple areas, intranet, extranet, and department intranet. The accreditation manager is responsible to ensure all have been reviewed and updated. The most recent change for communicating policies and procedure change is the use of Target Systems web-based service. This allows for easy accessibility from portable devices as well as computers. When employees are required to review new documents, a quiz is given and the results are documented showing adequate knowledge of the subject.

The city of Lawrence has a written zero tolerance policy prohibiting harassment or discrimination of employees based on the employee’s race, sex, religion, color, national origin, age, ancestry, sexual orientation, or disability. LDCFM requires each employee be responsible to ensure a harassment and discrimination-free workplace. The city provides annual mandatory diversity training for all employees. In addition, all new employees are required to read and sign a “Statement of Individual Respect” provided by the city.

Human resources development and utilization is consistent with the agency’s established mission, goals, and objectives. The responsibility of auditing and modifying the position classification system is with the human resources (HR) division. This process is done every three years or as needed when position responsibilities change substantially. HR convenes an evaluation committee for this process. They use a point factor system in each position evaluation plan. This information is given to the city manager’s office and the city commission who have the responsibility to make changes in the position classification system. LDCFM also holds compensation summits to gain a better understanding of actual job duties.

LDCFM acknowledged the lack of a formal leadership development program. Development of future leaders’ knowledge, skills, and competencies will lead to improved performance, goal achievement, and a stronger department. Participation in the succession planning committee will help the department identify and develop leaders allowing for continuity of leadership and preventing a knowledge vacuum. It is recommended that the department develop a formal leadership development program.

A system and practices for providing employee/member compensation are in place. The city HR division is responsible for publishing the annual pay plan for all employees both uniform and civilian. This is made available on the city’s intranet site. The memorandum of understanding between the city and International Association of Fire Fighters (IAFF) Local 1596 have the areas of compensation strictly dealing with the members of the collective bargaining unit. This document is also published on the LDCFM intranet.
The agency's occupational health, safety, and risk management programs protect the organization and personnel from unnecessary injuries or losses from accidents or liability. LDCFM uses a multi-tier approach for the department’s occupational health and safety training program. The department’s EMS division handles all physicals, immunizations, and medical evaluations. The training division conducts annual training for items such as infection control, emerging pathogens, and bio-weapons agent training. This training is conducted with a combination of delivery methods such as, video, lecture, discussion, and skills sessions.

LDCFM utilizes certified incident safety officers from administrative staff on Monday 0700 hours through Friday at 1700 hours. All chief officers and captains have been certified as incident safety officers and one is assigned for each shift during the week, and on the weekends. These personnel respond on all level 1 structure fires, hazardous materials, and motor vehicle accidents. They also respond to technical rescues, mass casualty, active shooter, and mayday events. They are required to consider responding to helicopter scene flights, airport/aircraft emergencies, and explosion hazards. Nothing limits the incident commander’s request for an incident safety officer on any response. If the incident safety officer recognizes an imminent threat to a member’s safety he is formally expected to alter, suspend, or terminate the activity. Similar expectations extend to all emergency response personnel.

The agency has a wellness/fitness program for recruit and incumbent personnel. The agency specifies and communicates the provisions if employees/members do not comply with the wellness/fitness program. LDCFM provides a comprehensive National Fire Protection Association (NFPA) 1582, *Standard on Comprehensive Occupational Medical Program for Fire Departments*, pre-hire physical for all new employees and an annual NFPA 1582 physical for all current employees. For current employees, this is accomplished annually during the birth month and done off duty with compensation. This medical evaluation and associated diagnostic procedures are done at no cost to the member. For those injured on the job the city worker’s compensation program provides rehabilitative care.

LDCFM has an active peer fitness project team. Each shift is assigned one certified peer fitness trainer. These trainers work with personnel offering training, evaluation, and programs fit to each individual need.

**Category VIII — Training and Competency**

The training division of Lawrence-Douglas County Fire Medical (LDCFM) meets the needs of the organization through analysis of legal requirements, industry recommendations, after action reports, and identified organizational needs. Programs exist to provide education and training to all members of the department relative to their specific level of training and need. These programs are developed by the city of Lawrence, in-house, or through outside resources. Standards and statutes govern the necessary programs to meet required hours and performance. The training division develops, coordinates, monitors, and delivers all training as well as coordinating and managing the recruit academy. Training materials, resources, equipment, and props are adequate, accessible, and evaluated annually.

The agency has established general goals and specific objectives that direct the agency’s priorities in a manner consistent with its mission and appropriate for the community it serves. The division chief of training and a training program team identify the training needs of the department through a systematic review and analysis of standards, requirements, goals, objectives, and observations from
emergency scenes, training evolutions, skills analyses, injury and accident reports, and Post Incident Analyses. Emergency medical service (EMS) best practices and direction from the department’s medical director are utilized for medical training and development.

Training and education programs are provided to support the agency’s needs. LDCFM crew performance is developed, documented, and validated through single and multi-company evolutions and training simulations. The department’s training division and executive staff develop the performance-based appraisals and measures based on published National Fire Protection Association NFPA 1410, *Standard on Training for Emergency Scene Operations*, drills. All members annually complete EMS skills verification, based upon Kansas Board of EMS statutes and regulations.

The effectiveness and value of training offerings are enhanced when student-driven feedback is available for analysis. It was observed that a formalized system of capturing post-training data was not in place. It is recommended that the department institute a training evaluation system to capture student feedback for fire training offerings.

Training and education resources, printed and non-printed library materials, media equipment, facilities, and staff are available in sufficient quantity, relevancy, diversity, and are current. LDCFM utilizes in-service and reserve apparatus and equipment for training. Specialized props for technical rescue and live burns are available and utilized through Kansas Fire & Rescue Training Institute (KF&RTI). The training center features a four-story drill tower with modular burn rooms, standpipe systems, high anchor points, a confined space/trench/sewer prop, a one-ton chlorine cylinder prop, and an 18-foot tall confined space tank. Classroom facilities include seating for 32 and an audio/visual system. Additional classroom space is available at the administration center. EMS training needs are addressed through a high-fidelity simulation manikin and agreements with Lawrence Memorial Hospital for intubation and other EMS-related skills.

The peer assessment team confirmed that the training center and drill field are inadequate in size and age to meet the demands and training needs of the LDCFM. It is recommended that the department continue their efforts in capital planning to identify a larger training center, drill field, and additional classroom spaces.

LDCFM training personnel and company officers are Fire Instructor I certified at a minimum. Each special team’s trainer receives outside education consistent with department capabilities and requirements in train-the-trainer format. This identifies and develops a core group of instructors in different disciplines in adequate numbers to accomplish the department’s training goals and mission.

It was noted during interviews that there has been a lack of consistency across all shifts in technical rescue instruction. It is recommended that the department continue the current processes of plan development to ensure consistent technical rescue education delivery.

Training materials are continuously evaluated as they become available. Members, officers, and staff provide information on new resources and identify training material needs. A dedicated budget allows for acquisition of new or updated training supplies. Course evaluations are used to evaluate materials, resources, and instructional delivery methods. Informal training division meetings include the discussion of training needs, available training materials, instructional delivery needs, and assessment of existing training materials. Although the system of evaluation was demonstrated to be adequate, the process can be strengthened through a formalization that includes documentation of
results and needs. It is recommended that the processes utilized to evaluate training material be formalized and documented.

**Category IX — Essential Resources**

**Criterion 9A – Water Supply**

The city of Lawrence owns and operates two water treatment plans (WTP) each with independent sources of raw water. The Kaw WTP operates 16.5 million gallons per day with raw well and surface water intakes from the Kansas River. The Clinton WTP operates 25 million gallons per day.

The water supply resources are reliable and capable of distributing adequate volumes of water and pressures to all areas of agency responsibility. All areas meet fire flow requirements in accordance with applicable fire flow criteria. The department adopted the 2015 International Fire Code (IFC) and associated appendices on July 1, 2016. The department uses IFC Appendix B, *Fire Flow Requirements for Buildings* and Appendix C, *Fire Hydrant Locations and Distribution*, to determine fire flow requirements. Additionally the department works closely with the utilities department using computer software that models and analyzes water distribution to ensure adequate fire flows are present. Lastly, this information is made available to crews completing risk evaluations or pre-fire plans.

The department has a fixed water supply system including 2 water treatment plants that are capable of supplying and treating more than 43 million gallons of water per day. Additionally, elevated and ground storage tanks can provide an additional 6.8 million gallons if needed. Incident command also has the ability to task utilities personnel with turning on additional supply pumps that will boost water pressure for larger fire incidents. For response areas outside of the city limits, the department has a portable water supply system using water tenders. The water shuttle operations provide sufficient volume and pressure to control and extinguish fires. The department was last evaluated by the Insurance Service Organization (ISO) in August of 2015. During this evaluation the department received a score of 29.55 out of 30 for water supply. The department is currently an ISO Class 1 department.

**Criterion 9B – Communication Systems**

The Douglas County Emergency Communications Center (DGECC) services all agencies within Douglas County, excluding the University of Kansas law enforcement. The DGECC serves as the sole dispatch center for fire and emergency medical service (EMS). The DGECC is located within the judicial and law enforcement center. DGECC utilizes Spillman software as the computer aided dispatch (CAD) system to determine responses and is the public safety access point (PSAP).

The public and the agency have an adequate, effective, and efficient emergency communications system. The system is reliable and able to meet the demands of major operations, including command and control within fire/rescue services during emergency operations, and meets the needs of other public safety agencies having the need for distribution of information.

The department has an effective communication system in place comprised of portable radios, mobile radios, and fixed communication systems in the field. The department adopted City Ordinance 9246 which complies with the 2015 International Fire Code (IFC) Section 510 which details emergency radio coverage in new buildings and existing buildings. If radio coverage shortfalls are identified a
written plan is created to using Section 510 as an outline for identifying corrective measures to resolve the issue(s).

The department conducts an annual documented appraisal each year of the communications system. The appraisal template evaluates program inputs and outcomes in relation to stated goals and objectives. This meeting/appraisal is attended by multiple stakeholders and includes a review of significant activities or accomplishments from the past year. Identified areas in need of improvement and overall program effectiveness are reviewed and discussed. Strategic plan goals are reviewed and new goals are created for the next year.

**Criterion 9C – Administrative Support Services and Office Systems**

The Lawrence-Douglas County Fire Medical (LDCFM) uses a combination of sworn and civilian personnel to operate the administrative services system. The department structure includes five divisions led by the chief of the department, seven division chiefs, and a professional standards coordinator.

Administrative support services and general office systems are in place with adequate staff to efficiently and effectively conduct and manage the agency’s administrative functions, such as organizational planning and assessment, resource coordination, data analysis/research, records keeping, reporting, business communications, public interaction, and purchasing.

The department has an effective and appropriately sized administrative services team for the department’s size, function, and complexity. Fire administration is comprised of a fire chief with seven division chiefs and a professional standards coordinator. The department has an effective program utilizing operation personnel to subsidize work load in areas that do not have full-time employees (FTE) currently assigned or approved. The term for this manpower is incentive personnel.

The department did lose one full-time position in FY17 due to workforce reduction initiative. This position was a civilian administrative support position. The lost position has not been placed back into the current budget and this has left an impact on administrative staff. Currently there are two administrative support positions for five divisions and 151 members. The department has officially requested the replacement of this position in the budget process.

Due to this vacancy, the administrative support services team states they are somewhat understaffed. Adding this position back would potentially allow the department to meet timelines for administrative needs and provide effective customer interactions. It is recommended that the department conduct a workforce analysis to ensure adequate staffing is available to meet the current and future demands of the department.

The department has created standard operating procedure (SOP) 104.02, Policy Life Cycles, to provide a consistent system for the review of organizational guiding documents. Each SOP is on either a one, two, or three-year review cycle. The accreditation manager is the program manager for this program and SOP 104.02 was placed in service in April of 2017.

**Category X — External Systems Relationships**

Lawrence-Douglas County Fire Medical (LDCFM) has developed multiple relationships with both emergency service providers and community partners. These relationships span the other emergency
response agencies in the area as well as private organizations. Several agreements and programs have proven to be cost effective in terms of both service delivery and department operations. LDCFM is an active participant in both the Douglas County Comprehensive Emergency Response Plan and the State of Kansas Emergency Response Plan.

The agency’s operations and planning efforts include relationships with external agencies and operational systems that affect or may influence its mission, operations, and/or cost effectiveness. LDCFM has developed and maintained multiple outside relationships with both emergency response and private organizations. The relationships have enabled the department to meet mission needs and cost effectiveness through direct and indirect support. This is especially true in the area of training. LDCFM has championed free training that otherwise would need to be purchased through Lawrence Memorial Hospital for medical related training and the Douglas County Emergency Management for hazardous materials training. LDCFM has a strong culture of partnership within the community.

Present agreements do not have a process to guide the resolution of complaints or conflicts. An agreed upon process will assist with quicker resolutions when conflicts arise because the process has been established and is not for debate. It is recommended that all agreements have a conflict resolution process formalized.

The agency maintains current agreements with those external agencies which support the identified programs. All external agency agreements required to be maintained in support of any program are current, reviewed and/or updated within the accreditation period and adopted by the appropriate governing bodies.

LDCFM uses an internal shared file system to store all agreements. The executive staff has established an annual calendar that lays out each month what criterion will be reviewed and who will review them. All agreements are scheduled to be reviewed annually during the month of January. This is executed by the executive and management staff. If changes are needed in the agreement or standard operating procedures (SOP), recommendations to the chief are made at the monthly managers meeting.

The current cooperation agreement between city of Lawrence and Douglas County was written in 1996 and only included EMS services. Currently LDCFM is used for all hazards within the county. This is straining the resources needed within the city limits. It is recommended the department evaluate the cooperation agreement between the city of Lawrence and Douglas County for providing ambulance, hazardous materials, technical rescue, and emergency communications services.