

## **Category 6: Physical Resources**

Physical resources are defined as fire stations, training facilities, fire apparatus, and other capital expenditures and outlays that make up the property assets of an agency. Special attention is required to obtain and maintain appropriate quality physical resources.

Facilities that are leased and/or jointly operated may also be considered for agency use if this is accomplished in accordance with properly adopted, clearly established policies.

If work is contracted outside the agency and/or to another department within the parent agency, it is incumbent on the agency to ensure that facilities, equipment, staff, record keeping, and procedures are consistent with the performance indicators in this category.

## **Criterion 6A: Physical Resources Plan**

Development and use of physical resources are consistent with the agency's established plans. A systematic and planned approach to the future development of facilities is in place.

### **Summary:**

The department currently consists of five fire medical stations located within the City of Lawrence and two medical stations located in Douglas County. Each fire medical station has a fire suppression unit and a medic unit. Station 1 and Station 5 have an operations chief officer. Station 5 has a rescue tiller. The medical stations, located in Baldwin City and City of Eudora have a medic unit.

In June 2021, the department presented the 2020 Station Optimization Analysis to the city commission. The analysis identified three areas of suboptimal response coverage, in the Northwest, North and South regions of the city. To address these service gaps, the analysis identifies the need to relocate Station 3 further northeast and construct two additional stations: Station 6 on W. 6<sup>th</sup> Street and Station 7 on S. Iowa Street. There has been recent discussion constructing a joint training center with the LKPD.

**Performance Indicators:**

6A.1 The development, construction or purchase of physical resources is consistent with the agency’s goals and strategic plan.

**Description**

The short and long-range goal of planning for and implementing the design and purchase of stations and equipment is ongoing.

The plan for future stations is recommended through the 2020 Station Optimization Analysis which considers five dimensions of risk: historic incident demand, current population, disadvantaged populations, current City of Lawrence population, projected City of Lawrence population in 2040, and appraised building value within the response coverage area. This recommendation aligns with the department’s strategic plan. Physical resources are specifically mentioned in the Areas of Community Concern, priority 5 in the department’s strategic plan.

The department’s capital improvement plan (CIP) identifies target years for consideration of new stations and for future equipment and apparatus needs.

**Appraisal**

The department has identified the need for the station optimization analysis to be updated. The data that was used in the 2020 Station Optimization Analysis includes data from 2019 and prior. Since the Station Optimization Analysis was published, the city has considered plans to annex a substantial amount of land that is situated west of existing city limits, with a projected population of approximately 18,000. The 2020 Station Optimization Analysis did not factor in this proposed annexation when it was being developed. The department has not seen a commitment from the AHJ on station expansions, as they have not been funded.

**Plan**

The department’s command staff will continue to review the CIP proposals on an annual basis to ensure it will adequately meet the future needs of the community and aligns with

the AHJ's priorities. The department will update the station optimization analysis with the city's GIS team, when requested by the AHJ.

**References**

CIP Request Fire Medical Station Number 6

2022-2026 Adopted Capital Improvement Plan (page 1)

2022 CRASOC (page 13)

2020 Station Optimization Analysis

2021-2026 Lawrence-Douglas County Fire Medical Strategic Plan: Areas of Community Concern, priority 5 (page 40)

**CC 6A.2 The governing body, administration, and staff are involved in the planning for physical facilities.**

**Description**

The process described above adequately incorporates involvement from administration, staff and the governing bodies. The use of project teams provides diverse input and feedback in the planning for physical facilities.

The department begins the planning process for future facilities by studying the projected growth of the city as determined by the city's CIP and long-range planning. The department recognizes that cooperation in facility planning is beneficial and aligns with the city's strategic plan commitments and outcomes. Through the alignment, the department expects success.

**Appraisal**

The department has had success in involving internal and external stakeholders in the physical facilities planning and projects. The department utilized project teams to coordinate planning for physical facilities. Diverse teams have brought value to department projects, such as the recent remodel of Station 1. The Station 1 remodel project team consisted of three captains from Station 1, Public Works Building and Structures Managers, City/County sustainability coordinator, director of Douglas County Senior Resource Center, two operations chief officers, the fire chief and other department employees.

In the 2020 Station Optimization Analysis, the department worked with multiple stakeholders to facilitate the aggregation of data and create recommendations on department station locations. Working with different subject matter experts enhanced the document's reliability and holistic approach.

**Plan**

The fire chief and command staff will continue to participate in the planning process to ensure that the governing body has information regarding recommendations of physical facilities within growth areas to enable the department to provide adequate levels of

service. The department will continue to evaluate the alignment with the city's strategic plan and adjust as needed through the facility planning process.

### **References**

2022 CRASOC

2021-2026 Lawrence-Douglas County Fire Medical Strategic Plan

[City of Lawrence Strategic Plan](#)

Station 1 Remodel Memo (page 2)

Station 1 Remodel Notes Sample

## **Criterion 6B: Fixed Facilities**

The agency designs, maintains and manages fixed facility resources that meet the agency's goals and objectives.

### **Summary:**

Each station has a captain who is identified as a station liaison. The liaison will help with identifying and organizing larger projects that a station needs. The three station captains are all responsible for the maintenance and upkeep of their station. The operations chief officers are also made aware of any maintenance issues so they can help track and resolve any issues.

### **Performance Indicators:**

6B.1 Each function or program has adequate facilities and storage space. (e.g., operations, prevention, training, support services, and administration).

### **Description**

The department has five fire medical stations in the City of Lawrence and two medical stations located in Baldwin City and Eudora. Each fire medical station in the city has adequate apparatus bay space to house a minimum of one fire apparatus and one medic unit. Reserve medic units and fire apparatus are located within the fire medical stations. Minor annual facility audits are performed, internally by the station liaisons. Projects related to upgrades and upkeep are determined at this time. Captains are empowered to propose facility enhancement projects and are approved to do so if financially possible. The crew-level facility maintenance and improvements are done year-round. The department utilizes the budget process to propose major facility upgrades and expansions.

Storage space throughout all department facilities is limited. The stations that have specialty response capabilities utilize available storage space for associated training props, equipment, and supplies. The administrative building has limited storage space available because of the administrative storage requirements and record keeping.

The department's training facility has been updated with new flooring and paint in the last two years. The lack of employees on site daily allows for building deficiencies to go unnoticed for an extended period of time.

### **Facility Breakdown:**

The **Administrative Offices Building** opened in 2006 attached to Station No. 5. The Administration Office houses four divisions: Prevention, Training, Administrative and Emergency Medical Services. There are individual offices for the Fire Chief, Division Chiefs, Accreditation Manager, and Medical Billing Manager. There are eleven workstations with computers and filing capabilities to support employees for the various divisions. There is a supply storage area, a break room, and three conference rooms capable of holding eight, 12 or 48 persons with audio and video equipment.

**Station No. 1** was remodeled in 2018/2019 and was originally opened in 1950. The station has two floors of usable area, with a conference room, office room, bathrooms and the apparatus bay on the main floor. On the second floor, dorm rooms, living quarters with dayroom, kitchen/dining area, gear extractor, workout facility, and chief officer office space. The offices are supplied with multiple computer stations and filing capabilities. The station has four poles that access the apparatus floor from the second floor.

**Station No. 2** opened in 2002. The building has one office with multiple computers and filing capabilities. A small office area is for personnel to work on projects. A kitchen/dining area leads into the day room. There is a workout room, 2 full facility shower/restrooms and 12 individual bedrooms with four lockers each. The apparatus bay area has three long bays, a hose dryer, an SCBA compressor, gear extractor, a laundry room, and gear storage and storage area.

**Station No. 3** opened in 1968. The station has a study room, office with multiple computers and filing capabilities, gear extractor, workout room, dayroom, kitchen/dining area, two shower/bathrooms and ten individual bedrooms with four lockers per room. Remodeling of the kitchen occurred in 2000, and a full remodel with the addition of the bedroom area occurred in 2005. A detached garage constructed in 2002 houses additional apparatus and equipment.

**Station No. 4** opened in November of 2007 and the layout and features of this facility mirror station 2.

**Station No. 5** opened in 2006 and included the adjacent Administrative Offices. There is one large office with multiple computers and filing capacity. A conference room, workout room, large kitchen/dining area, day room and 16 individual bedrooms with four lockers make up this building. It also has two shower/bathrooms and a laundry room. The apparatus bay has a hose dryer, an SCBA compressor, gear extractor, a gear storage room and two utility rooms.

**Station No. 11** is located in Baldwin City and opened in 1997. Its primary mission is to handle EMS calls in the southern portion of Douglas County. A converted three-bedroom ranch home with a full basement houses the vehicle and crew. A former bedroom houses the office with computer and filing capabilities. The basement has two storage areas and the physical fitness room. The modified garage houses one Medic Unit.

**Station No. 12** is located in Eudora City at the City of Eudora Public Safety building. Its primary mission is to handle EMS calls in the northeastern portion of Douglas County. The City of Eudora owns this building, and the department utilizes the facilities' apparatus bay, kitchen, day room, individual bunkrooms, physical fitness room and office.

**The Training Center** is a former operations station that originally opened in 1968 and includes a training tower and drill field. With the opening of the new Station 2 in 2002, the existing station converted to a full training center and maintenance facility. In 2007, the department vehicle maintenance merged with city vehicle maintenance and the entire facility became the training center. The building houses no operations personnel and has no fixed apparatus. The kitchen and dayroom area is now a large multipurpose room with tables, chairs, audio/visual capabilities and a fully functional kitchen. There is a large locker room with shower/bathroom area. There is also a former small dorm area with a full bath. The large parking area accommodates apparatus during training evolutions. The three-story training tower has a burn room, sprinklers and standpipes. The facility also has training props for Haz-Mat, confined space and trench rescue training.

**The Investigations Center** originally is a former fire station constructed in 1928, and converted into an investigations facility in 2007. The station was remodeled in 2019 to house a medic unit during the Station 1 remodel. The building houses the investigation vehicle, a secure evidence equipment room, and SCBA repair and maintenance equipment.

## **Appraisal**

The department has not been consistent in conducting department-wide annual facility audits. When the audits were routinely performed, facility upgrades were identified and

prioritized. The command staff would review the project list and designate items that could be completed by the Operations Division, on a small scale. Larger projects were then pushed forward through the budget process, if deemed a priority.

The department's storage space is not adequate. Storage space for additional equipment and apparatus, like reserve apparatus, has been identified as a major need. Storage organization has been implemented in recent years to help manage available space and make items easily accessible. The department's lack of a central storage facility has created complications with logistics and warehousing. As space becomes available or organized, other divisions capitalize on the open space by relocating their own supplies. This has caused frustration within the department, between divisions. This has acted as a band aid to the overarching storage problem.

Organization and inventory can increase the department's effectiveness with current storage spaces. The process to clean and update inventories is cumbersome and time consuming. Process awareness is lacking and not connected with city requirements.

### **Plan**

In future expansions, the department will consider additional storage space as well as innovative space configurations to account for organization. To bolster annual facility audits, the department will evaluate a formal process utilizing station liaisons.

The department will continue utilizing the budget process to propose budget requests related to facility and storage solutions. The department will continue to make fiscally responsible purchases related to station organization and inventory. The department will continuously evaluate opportunities to manage space in a more effective way. Maintenance and standard upkeep of department facilities will continue.

The department will evaluate the option of housing reserve units at the training facility in the bay.

### **References**

SOP 102.20 Program Management Assignments

SOP 403.20 Station Maintenance and Cleaning

SOP 403.21 Facility Maintenance Problems and Reporting

Station Audit Overview

Purchases related to Storage Organization Report

6B.2 Buildings and outbuildings are clean and in good repair, and the surrounding grounds are well kept. Maintenance is conducted in a systematic and planned manner.

### **Description**

It is the responsibility of all employees to care for, maintain, and report any repairs or other issues regarding department facilities. It is the station officer's responsibility to provide management and oversight of their assigned facility including the ongoing care, maintenance, and reporting of problems.

The department relies on employees of the Operations Division to conduct daily cleaning of facilities. SOP 403.20 Station Maintenance and Cleaning specifies that detailed cleaning of specific areas within department facilities will be conducted each Saturday of the month. General upkeep of facility grounds is the responsibility of employees assigned to their respective station. These responsibilities include, but are not limited to: lawn care, weed management, trash removal, and sidewalk snow removal.

SOP 403.21 Facility Maintenance Problems and Reporting outlines the process for submitting requests for station maintenance. Maintenance requests are submitted through the city's intranet and are assigned to employees of Municipal Services and Operations (MSO). If a maintenance request is deemed an emergency by department employees, employees are able to bypass the normal write-up process to ensure the repair is made in a timely manner.

### **Appraisal**

The department's maintenance and upkeep of facilities has been successful when addressing deficiencies, internally. However, the city-wide process for submitting building maintenance requests has lacked efficiency and is not streamlined. There has been a lack of communication between the city Municipal Services and Operations (MSO) and department employees regarding the status of building maintenance requests.

### **Plan**

The Administrative Division will contact MSO to inquire about the Building Maintenance Support Ticket workflow and recommend process enhancements. The department will continue following city-directed processes for submitting building maintenance requests.

**References**

SOP 403.20 Station Maintenance and Cleaning

SOP 403.21 Facility Maintenance Problems and Reporting

**CC 6B.3** Facilities comply with federal, state/provincial and local codes and regulations at the time of construction; required upgrades for safety are identified and, where resources allow, addressed. For those items that warrant further attention, a plan for implementation is identified in the agency's long-term capital improvement plan (i.e. fire alarm systems, sprinkler system, seismic, vehicle exhaust system, asbestos abatement, etc.).

**Description**

The department makes every effort to ensure that facilities comply with applicable government regulations. The department strives to comply with current building codes, fire codes, and the Americans with Disabilities Act. There are no state regulations for these facilities. All facilities comply with local zoning requirements. Annual inspection of stations ensures compliance with local fire codes.

**Appraisal**

All operational facilities comply with relevant federal and local regulations.

**Plan**

The department will continue to comply with regulations, codes, and standards as they apply for all existing facilities.

**References**

Sample Fire Inspection (available on-site through ESO)

Station Audit Overview

2023 Facility Budget

Certificates of Occupancy

### **Criterion 6C: Apparatus and Vehicles Maintenance**

Apparatus and vehicle resources are designed, purchased, and maintained to adequately meet the agency's goals and objectives.

#### **Summary:**

The department utilizes a participatory committee process comprised of engineers, company officers, and Central Maintenance Garage (CMG) staff to develop new apparatus specifications. These recommendations are then forwarded to the fire chief for final approval. Funding for fire apparatus replacement is managed through the City's Capital Improvement Plan. Douglas County provides capital funding for medic units through the Cooperative Agreement Regarding the Provision of Emergency Medical Services in Douglas County 2021. The apparatus replacement schedule is based on an objective point system involving factors such as engine hours, mileage, and age that determine apparatus replacement.

## **Performance Indicators:**

**CC 6C.1      Apparatus and vehicle types are appropriate for the functions served (e.g., operations, staff support services, specialized services and administration).**

### **Description**

The department maintains a primary fleet consisting of three engines, two quints, a tractor drawn aerial, seven medic units, and two operations chief vehicles. Reserve apparatus include two quints, one engine, and five medic units. The department has specialized services strategically located across four facilities that include: a tender, two brush trucks, three rescue boats, two utility task vehicles, a hazardous materials trailer, a search and rescue trailer, a mass casualty trailer and five utility trucks. Some employees in the prevention division, administrative division, training division, and EMS division are assigned staff cars to be utilized during work hours.

### **Appraisal**

The current fleet of department apparatus is adequate and serves the community's needs well. The current staff cars that are used by the Training Division have been identified as insufficient because of the hauling needs. The location of the apparatus meets the response need of that primary response area. The department's moving water response is limited. A Gator Tail rescue boat is scheduled to be delivered prior to January 2023. This boat will enhance the deployment and effectiveness of shallow water responses (Kansas River and flooded areas).

The department's apparatus, staff vehicles, and specialized services meet the current needs of the department and its customers. The department is continuously analyzing needs to determine the effectiveness of the current deployment model.

### **Plan**

Department command staff will meet at least annually to evaluate the status of apparatus. The current replacement plan will be reviewed and updated if necessary. Through the budget request process, the department will continue to communicate the identified needs.

To enhance the department's ability to perform moving water rescues, the department will continue to evaluate the feasibility of adding a second inflatable rescue boat to the department's fleet.

**References**

Vehicle Listing 600 Series

Sample Apparatus Specifications

6C.2 A current replacement schedule exists for all apparatus and support vehicles based on current federal and state/provincial standards, vehicle condition, department needs and requirements.

**Description**

The current department apparatus replacement schedule was implemented in 2008. The program is based on a 12-year life cycle for most apparatus. Factors included in the replacement determination include apparatus age, year of purchase, purchase price, current value, number of engine hours, number of miles driven, life expectancy, and a projection of when the apparatus moves to reserve status and when it should exit the system. The department works closely with CMG on the apparatus and support vehicles replacement schedule.

**Appraisal**

The current replacement plan has worked very well. The replacement schedule identifies when a particular apparatus is due for replacement; however, the department continues to request vehicles utilizing the replacement plan schedule.

**Plan**

Command staff, Central Maintenance Garage, and the Finance Department will continue following established plans and guidelines for apparatus and vehicle replacement. The department will continue coordinating the vehicle and apparatus replacement schedule with the Central Maintenance garage.

**References**

2022-2026 Adopted Vehicle and Equipment Replacement Plan (VERP, page 1)

6C.3 A process exists for writing apparatus and vehicle replacement specifications with employee input.

### **Description**

The department process for writing apparatus specifications utilizes the department apparatus project team to develop apparatus specifications. Employees from all levels of the department and central maintenance garage personnel have a vital role in the specifications. The committee members conduct extensive research that includes Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis, factory visits, and site visits to neighboring departments to determine the best specification for our community's needs.

### **Appraisal**

The current apparatus specification team system has served the department well. Participation and interest remain high and well received by department employees. This process has significantly enhanced the pride and acceptance of new apparatus and deployment models.

### **Plan**

The department will continue to utilize apparatus project teams to design and create specifications for all new apparatus. This program has allowed department employees to become engaged and empowered to ensure that the most capable apparatus is designed for the community's needs and the firefighters who work on them.

### **References**

Sample Apparatus Specifications

Station 5 Deployment SWOT Analysis

Company 5 SWOT X Shift

Company 5 SWOT Y Shift

Company 5 SWOT Z Shift

Apparatus 5 Project August 13 Minutes

Apparatus 5 Project September 4 Minutes



## **Criterion 6D: Apparatus Maintenance**

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.

### **Summary:**

The department has an apparatus maintenance program that incorporates routine maintenance and inspection, preventative maintenance, and an emergency repair procedure. The city's Central Maintenance Garage (CMG) manages this program. The CMG has a comprehensive apparatus maintenance program to ensure apparatus maintenance is following industry and NFPA standards. This process includes three separate inspection processes:

1. Daily apparatus inspection by operational employees
2. "Calendar" inspection at specified intervals (time or mileage interval) by CMG employees
3. Detailed inspections at specified total vehicle hours, miles, and elapsed time

## **Performance Indicators:**

### **CC 6D.1      An apparatus maintenance program is established.**

#### **Description**

The department utilizes a proactive maintenance program to ensure apparatus is maintained following manufacturer, industry, NFPA standards, and SOPs. This process includes three separate inspection processes:

1. Daily apparatus inspection by operational employees
2. "Calendar" inspection at specified intervals (time or mileage interval) by CMG employees
3. Detailed inspections at specified total vehicle hours, miles, and elapsed time

Maintenance guidelines and intervals follow fleet management best practices of the Diesel Engine Manufacturers Association. Engine oil analysis occurs on a routine basis. Apparatus receives annual testing following NFPA standards, with annual aerial and ground ladder testing conducted by a third party. In addition, a third-party vendor and the CMG perform yearly pump testing per NFPA 1901. Department employees utilize a city-wide vehicle maintenance program named "Asset Works" to send service request information and report problems. Emergency repairs are immediately reported to the operation chief officers and the CMG.

#### **Appraisal**

All service, repair, maintenance, and testing are performed by certified personnel employed by the city or contracted to qualified vendors. All required maintenance on department apparatus has conducted per the manufacturer's guidelines. Daily inspection of apparatus is performed by those assigned to that apparatus. The CMG and the department currently do not have a written service level agreement. Existing "Asset Works" functions need to be further explored to assist with internal communications between the department and CMG.

#### **Plan**

The department will maintain the current maintenance program, with necessary revisions to address any changes in NFPA standards and industry practices. This process will be

reviewed by the command staff, annually. Further discussions with CMG and the fire chief to determine if a service level agreement is needed.

**References**

SOP 401.30 Apparatus Inventory and Cleaning

Asset Works Database Example (available on-site)

SOP 401.10 Apparatus Inspection and Maintenance

Asset Works Requests for Service Report

6D.2 The maintenance and repair facility has adequate space and is equipped with appropriate tools.

### **Description**

The department utilizes the CMG as the primary maintenance and repair location. The CMG has multiple bays for the maintenance and repair of vehicles. A large inventory of specialty tools and equipment provides an adequate resource for the maintenance and repair of fleet needs.

### **Appraisal**

The current repair facilities lack space to raise cabs and aerials in all bays but does not allow appropriate access. The garage is not long enough to effectively fit the length of the department's new aerial. The city recently funded a new CIP project to build a replacement vehicle maintenance facility. The facility request would provide efficiencies and additional space to the central maintenance garage. This service would likely reduce out-of-service time of department apparatus. This project is not set to begin construction until 2026. The feasibility of a mobile maintenance vehicle for minor repairs and preventative maintenance needs to be evaluated.

### **Plan**

The new CMG is scheduled to begin construction in 2026, with completion slated in 2028. When this facility is completed, it will provide adequate space for all the department fleet. The command staff will collaborate with MSO to discuss and evaluate the feasibility of a mobile maintenance vehicle.

### **References**

Central Maintenance Garage AssetWORKS Maintenance Requests Screenshot  
2022-2026 Adopted Capital Improvement Plan, Operations Facility Request #MS-21-0004  
(page 3)

6D.3 The program is adequately staffed, supervised, trained and certified to meet the agency's needs.

### **Description**

The CMG is open and staffed from 7 A.M. to 4:30 P.M. Monday through Friday and Saturday 7 A.M. to 3 P.M. A mechanic will be called back after hours. A supervisor is on-call after regular working hours to assess and facilitate necessary emergency repairs. CMG technicians carry Double Master ASE Certification. The fleet manager and department encourage and support Emergency Vehicle Technician (EVT) certification for technicians; many techs hold EVT certifications. The department is a designated EVT national testing site to help encourage local and regional EVT certification testing.

### **Appraisal**

The CMG maintains several hundred types of vehicles city-wide. This has resulted in maintenance delays due to staffing. The garage has had difficulty recruiting and retaining qualified staff. The department has always maintained a strong relationship with the CMG and finds CMG responsive when emergencies and priority repairs are required.

The department has included a CMG technician as a member of the apparatus project team, who travelled to Pierce Manufacturing for the acceptance of Engine 5 and Ladder 5. This proved beneficial because the CMG technician had the opportunity to speak with Pierce technicians and provide feedback regarding his experience to other members of the CMG.

The department invited a CMG technician to join the truck build team The last two truck builds

### **Plan**

The CMG and the department will continue to monitor the completion of work orders for repairs and maintenance to ensure timely repairs and that enough certified maintenance personnel are available. The department will also continue to support and encourage EVT certification by CMG technicians.

As the department designs new fire apparatus in the future, the CMG will continue to provide input and participate in trips to Pierce Manufacturing.

**References**

Fleet Supervisor Job Description

Fleet Manager Job Description

Mechanic I Job Description

Mechanic II Job Description

6D.4 The reserve vehicle fleet is adequate, or a documented contingency plan is in place for when an apparatus must be taken out of service.

### **Description**

The department has a reserve vehicle fleet, identified as secondary apparatus, for use in the event a primary apparatus is out of service. The department has four reserve fire apparatus, three 75-ft quints, one engine, five ambulances, and one reserve command vehicle. Secondary apparatus are equipped to be almost identical to primary apparatus. In addition to being utilized when apparatus are taken out of service, they are utilized by off duty employees when called back to assist in additional response coverage, special events, and large or multiple incidents. All units in the department's fleet are a part of the city's vehicle replacement program which is managed by the CMG.

### **Appraisal**

The department has had success maintaining a fleet of secondary apparatus. With the amount of time primary apparatus spend in the CMG, secondary apparatus have been heavily used and relied on. The similar outfitting of primary and secondary apparatus have allowed the department to exchange units in a relatively quick manner. The placement of the secondary apparatus within the stations is balanced and has provided the department with reliable response capabilities.

### **Plan**

The department will continue to advocate and communicate it's need related to a strong secondary apparatus fleet. Priority will continue to be placed on keeping the primary apparatus fleet in service and maintained in a timely manner, thus reducing the frequency of use for secondary apparatus. The department will maintain frequent communication with the CMG.

### **References**

2022 CRASOC - Apparatus Staffing Table (pg. 36, Table 17)

**CC 6D.5      The inspection, testing, preventive maintenance, replacement schedule, and emergency repair of all apparatus are well established and meets the needs of the agency.**

**Description**

All primary response apparatus, utilities and single resource units are inspected daily by crews. The daily inspection includes visual inspection, mechanical inspection, engine fluids maintained, tire pressure and wear and emergency warning systems check. Any deficiencies found during the daily vehicle inspection is reported to the CMG via electronic ticket. Depending on the severity of the deficiency the CMG will either schedule the apparatus for maintenance, fix the problem during normal preventive maintenance, or request the apparatus be brought to the CMG for immediate attention. Preventive maintenance is scheduled and based on hour and/or mile usage. This information is gathered when apparatus fuels up and data is input to the fuel station. The department utilizes SOP 104.41 Apparatus Inspection and Cleaning, to provide guidance for personnel when performing daily vehicle checks and cleaning.

The CMG utilizes the AssetWORKS system to manage maintenance requests for department vehicles. The CMG manages all repairs and associated costs. If outsourcing is required, the CMG coordinates the services. The department submits maintenance requests through this system.

**Appraisal**

With the process of continued review and evaluation, along with the established relationship with the CMG, the current process works successfully in providing safe and reliable apparatus to meet the demands of daily activities for responses.

**Plan**

The department will continue to work with the CMG to coordinate inspections, maintenance, repairs, and the replacement schedule. The department will utilize the budget process to request funding for identified replacements and maintenance. The department will evaluate opportunities for expanded access to AssetWORKS for additional fleet management capabilities.

**References**

SOP 104.41 Facility and Apparatus Cleaning

SOP 401.10 Apparatus Inspection and Maintenance

SOP 401.30 Apparatus Cleaning and Inventory

AssetWORKS (available on-site)

Lawrence Fire Medical 649 Aerial Inspection Report

Lawrence Fire Medical 649 Pump Report

**Criterion 6E: Tools, Supplies and Small Equipment**

Equipment and supplies are adequate and designed to meet the agency's goals and objectives.

**Summary:**

Equipment and supplies are stocked and maintained for fire suppression, emergency medical services, special operations, and routine activities and are adequate to meet the Department's needs and operations. Extensive inventories are maintained of all equipment, tools, and supplies, and policies have been established to replace all essential equipment if damaged or lost immediately.

## **Performance Indicators:**

6E.1 Tools and equipment are distributed appropriately, are in adequate quantities and meet the operational needs of the specific functional area or program (e.g., fire suppression, prevention, investigations, hazmat, etc.).

### **Description**

All fire apparatus and medic units are fully equipped with a standard inventory of tools and equipment necessary for fire suppression and emergency medical services. NFPA 1901, NFPA 1961 and ISO guidelines have established the minimum equipment requirements for equipping fire apparatus. The Kansas Board of EMS outlines essential equipment for medic units. Department risk analysis and equipment purchase authorizations contribute to apparatus equipment decisions.

### **Appraisal**

Standardized equipment inventories have been established for all apparatus throughout the department. Daily and weekly apparatus and equipment checks are outlined in SOP 401.10 Apparatus Inspection and Maintenance and SOP 401.30 Apparatus Cleaning and Inventory. Continuous evaluation of equipment has aided the department in determining what needs to be removed or replaced. Training, program evaluation, and project teams allow the department to stay abreast of technological advances in tools and equipment. Fire hose has been tracked in FireHouse software which has a sunset date and is no longer supported. All fire hose testing data has been tracked by FireCatt (third party tester).

### **Plan**

Officers and crews will continue monitoring tools and equipment daily. The department will continue to equip apparatus to meet identified risk response needs and ensure appropriate distribution of tools and equipment. The goal is to ensure uninterrupted operations, emergency response, and preparedness for significant events and to support training and education of our members and the public.

Fire hose will continue to be replaced, following a 10-year replacement plan.

### **References**

Apparatus Inventory Lists

NFPA 1901 Standard for Automotive Fire Apparatus (available on-site)

NFPA 1961 Standard on Fire Hose (available on-site)

ISO Report (the anticipated completion of the ISO report will be this fall, this document will be available on-site)

Kansas Board of EMS Inventory Checklist

6E.2 Tool and equipment replacement is scheduled, budgeted and implemented, and is adequate to meet the agency's needs.

### **Description**

The department currently reviews manufacturer recommendations for the replacement of tools and equipment. The department does not have a replacement schedule for tools and equipment, unless a standard or manufacturer is required. Replacement and repair of tools and equipment are on an as-needed basis. All new apparatus purchases trigger a more thorough review of the tools and equipment for the new apparatus. Apparatus build teams are utilized to perform the review and recommendation. Each program in the department requires the use of specialized equipment. Fire hose is on a 10-year replacement plan.

The department has a budget line item for small tools and equipment and an equipment repair line item. All equipment is replaced on an as-needed basis, or a regular schedule as required by NFPA Standards or manufacturer recommendations.

### **Appraisal**

The current system has allowed the department to operate and utilize equipment in good condition. Maintaining alignment with the replacement schedule has enabled the department to remain transparent in purchasing activities. The AHJ is aware of this process and has continued to support purchasing activities that align with the department's replacement schedule.

### **Plan**

Station captains will continue to submit annual equipment inventories. Equipment replacement and certification will continue to be an integral part of the ongoing, at least annually, program reviews.

### **References**

Chart of Accounts Itemized Sheet Screenshot – Equipment / Tools Line (full document available on-site)

Chart of Accounts Itemized Sheet Screenshot – Equipment Repair Line (full document available on-site)

**CC 6E.3      Equipment maintenance, testing and inspections are conducted by qualified personnel, following manufacturer's recommended schedules.**

**Description**

Department employees, CMG, and outside contractors provide maintenance on equipment.

The department has four employees certified by the manufacturer to maintain and repair department self-contained breathing apparatus (SCBA). One employee is responsible, through an incentive, to maintain air monitoring equipment, including calibration and parts replacement. Crews maintain hand tools such as shovels, rakes, axes, pike poles, and closet hooks. Station personnel perform weekly operational checks on small equipment and report discrepancies.

The department uses independent third-party companies for the annual testing and certification of ground ladders, aerial ladders and fire hose. Additionally, outside vendors performance routine maintenance on cardiac monitors and patient cots.

**Appraisal**

The department has utilized a combination of qualified employees and vendor-supported maintenance agreements to maintain equipment throughout the department. The department has supported employees in obtaining the training and certifications necessary to perform maintenance on specialized equipment.

**Plan**

The department will continue to utilize qualified employees, the CMG, and outside contractors to maintain the current equipment inspection, maintenance, and repair program. The department will also continue to seek the most efficient and economical method for maintaining equipment by combining employees and outside vendors to complete maintenance on specialized equipment.

**References**

Mechanic I Job Description

Mechanic II Job Description

SOP 111.11 Air Pak Incentive

Firehouse Maintenance and Inventory Records (available on-site)

Third-Party Inspection Report (Aerial Inspection Report)

Apparatus Inspection Form

Department Training and Certification Records (available on-site)

6E.4 Inventory control and maintenance tracking systems are in place and current.

**Description**

The department maintains an inventory list for its apparatus on the department's intranet. The inventory lists assist members in making sure the appropriate type and quantity of tools and equipment are on each apparatus. Department hand tools are color-coded to indicate their respective station assignment.

The department utilizes equipment maintenance/repair forms located on the intranet. When an equipment write up is completed, an email is sent to appropriate employees within the organization to manage the next steps in the maintenance or repair process.

The department's emergency medical service equipment is managed by the EMS Division. The EMS division is using an excel sheet to track and receive requests related to medical supplies. The administration building has a storage room that is used for housing the medical supplies.

**Appraisal**

The department's equipment maintenance/repair write-ups have been used to properly document the issue and start the repair process, however, the follow-up in communication on repair status is lacking. This can be attributed to the inefficient workflow and lack of communication throughout the entire process. A documented, streamlined process that aligns with other maintenance/repairs would be beneficial.

Medical supply warehouse location changed in 2020 from a storage room at the training facility to a storage room at the administrative building to centralize the supplies to be near the division chief of EMS. The relocation has been beneficial in cutting travel time down and improving the division chief of EMS's response to emergent medical supply needs. The emergency medical service supplies have not been efficiently managed and distributed. The EMS and training division chiefs have been inefficiently used to procure and inventory medical supplies. These divisions have also been utilized to distribute medical supplies to department facilities and Douglas County emergency responder agencies.

## **Plan**

In late 2022 and early 2023, the Administrative and EMS Divisions will evaluate ESO Assets and Checklists module to see if its capabilities match with department inventory maintenance needs. Until a new system is fully functional and vetted, existing inventory and maintenance tracking for PPE, Safety equipment and SCBAs will continue to be accomplished, managed individually by program captains and chiefs.

The department will work with the CMG to establish a workflow to enhance communication throughout the entire maintenance / repair process for equipment.

In 2023, the department will hire a logistics position to manage county-wide emergency medical service supplies.

## **References**

Maintenance/Repair Write-Up Form Example

Master Inventory Lists EMS

Picture of EMS Supply Room

Kansas Board of EMS Inspection Forms

6E.5 Supplies and materials allocation is based on established objectives and appropriate to meet the operational needs of the specific functional area or program (e.g., fire suppression, prevention, investigations, hazmat, etc.), and is compliant with local, state/provincial, and national standards.

### **Description**

Program managers for fire suppression, community risk reduction, emergency medical services, tactical medic, and hazmat are responsible for reviewing the operational needs, purchasing, inventory, and ensuring the supplies and materials are available. Supplies and materials comply with state and national standards and are monitored by program managers. The supplies and materials for each program are available to carry out deployment objectives for all incidents.

### **Appraisal**

The process for managing supplies and materials is adequate for meeting the established objectives and appropriate to meet the operational needs of each program. The budget process for operating expenses and capital items has provided the structure for and funding of supplies and materials for all department programs.

### **Plan**

The department plans to continue using the existing systems for ordering, maintaining, and allocating supplies and materials. Periodic reviews and evaluations of the effectiveness of these systems will be conducted at command staff meetings.

### **References**

2021 Hazardous Materials Annual Program Appraisal

EMS Medical Supply List

## **Criterion 6F: Safety Equipment**

Department issued Personal Protective and Safety equipment are designed to allow firefighters to meet the department's mission and objectives and are adequate for that purpose. Within this criterion, personal protective and safety equipment include firefighting ensembles (PPE) and all other department issued gear or apparel worn by firefighter in the performance of emergency services, and related equipment (for example, self-contained breathing apparatus (SCBA)).

### **Summary:**

Department issued Personal Protective Equipment (PPE) and Safety equipment meet or exceed industry standards, (National Fire Protection Agency (NFPA)). PPE is issued to all personnel with the responsibility to responded to emergencies and are inspected on a regular basis depending on the piece or equipment, at a minimum of a semi-annual basis. The department also maintains adequate safety equipment including SCBA's, accountability system, thermal imaging cameras, and air monitoring equipment. Policies outline expectations and standards for PPE and safety equipment issuance, usage, inspection and replacement. PPE and Safety equipment maintenance is performed by qualified employees of the department or certified technicians outside the department.

**Performance Indicators:**

**CC 6F.1 Safety equipment is identified and distributed to appropriate personnel.**

**Description**

The department provides all necessary safety equipment and personal protective equipment (PPE) to sworn employees. Each firefighter has two sets of turnout gear (pants, coat, gloves and hood). The identification and distribution of safety equipment extends to specialized programs the department operates. Employees operating within the technical rescue and hazardous materials programs are provided the equipment and tools necessary to operate safely on incident scenes and during training. The department has gear extractors located in every station located in the City of Lawrence.

The department utilizes multiple SOPs to guide employees in the proper use of safety equipment and PPE. These includes SOP 206.10 Self-Contained Breathing Apparatus (SCBA) Personal Alert Safety System (PASS) and SOP 206.40 Cancer Reduction Program.

The department supplies all Douglas County first responding agencies with emergency medical service supplies. The division chief of EMS is responsible for the procurement and distribution of these supplies.

**Appraisal**

The department is satisfied with the availability and function of current PPE. The newly added second set of turnout gear has enabled firefighters to don clean gear consistently. Approved funding has provided for sufficient procurement and replacement of all PPE and safety equipment.

**Plan**

The department will continue to ensure employee safety is a priority for the organization. The department, in collaboration with the health and safety committee, will continue to

research new technologies in safety equipment/PPE and remain current on industry standards and regulations to ensure full compliance is being met.

The department will work with the health and safety committee to continue to research new technologies in safety equipment and PPE and stay up to date in industry standards and regulations to ensure compliance.

### **References**

IAFF MOU Local 1596 (pages 38-42)

Health and Safety Team Program Minutes

SOP 206.10 Self-Contained Breathing Apparatus (SCBA) Personal Alert Safety System (PASS)

SOP 206.40 Cancer Reduction Program

SOP 402.40 PPE Cleaning

2021 Health and Safety Annual Program Appraisal

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

**Description**

The department's safety equipment inventory levels are sufficient for department needs. The department evaluates the distribution and inventory of PPE and safety equipment to ensure it is sufficient for the job functions performed and services provided. Requisition and inventory systems utilized by the department assist with available inventory count and can be distributed to station when needed.

All Operation Division employees, have a second set of turnout gear, as well as extra uniform clothing. After incidents where the turnout gear has been contaminated, they can change into their second set of gear as soon as they return to the station and begin the process of laundering the contaminated gear.

The department maintains an adequate supply of spare SCBAs in-house and each fire apparatus has a spare SCBA permanently assigned to it.

**Appraisal**

The department's safety equipment inventory levels have been sufficient. During the COVID-19 pandemic, the department experienced a brief time of low inventory numbers in medical supplies, however, the low inventory numbers did not impact operations. Collaboration and the use of purchasing agreements allowed the department to restock to adequate levels.

The department has adhered to all safety regulations regarding PPE and safety equipment including the inspection, testing and replacement of ropes, self-contained breathing apparatus, face pieces, PPE and basic firefighter safety clothing. Stations specializing in technical rescue and special operation response (confined space rescue, hazardous materials rescue, trench rescue, high angle rescue and water rescue) have been provided additional safety equipment and training specific to those functions.

**Plan**

The department will continue to research and identify PPE and safety equipment for all operations, both routine and specialized and will make appropriate recommendations to the department's command staff to address any identified needs or gaps. Lessons learned

through the unanticipated increase of medical supply PPE through the COVID-19 pandemic will continue to be practiced. The health and safety committee will make recommendations if alternative or additional safety equipment is identified.

**References**

SOP 206.40 Cancer Reduction Program

SOP 206.10 Self-Contained Breathing Apparatus (SCBA) Personal Alert Safety System (PASS)

SOP 402.40 Structural PPE Cleaning

Sample SCBA Maintenance Record

6F.3 Safety equipment replacement is scheduled, budgeted and implemented, and adequate to meet the agency's needs.

**Description**

The established and ongoing process for replacement of all safety equipment is adequate to meet the needs of the department. The department maintains daily inspections by individual firefighters and bi-annual testing of all safety equipment. All individual safety equipment and clothing is inspected semi-annually by the respective station officers and if needed, the program captain. Funds are provided in the general operating budget to replace and/or repair safety equipment and clothing as needed. Specific funds have been established through the CIP for scheduled replacement of all breathing apparatus and PPE.

**Appraisal**

Adequate replacement funds are established for the testing, purchase and replacement of all safety equipment. For large capital items, the city has established a replacement cycle and fund for each individual item or project, including SCBAs.

**Plan**

The department will continue to advocate for sufficient replacement funds for safety equipment in the annual budget requests.

**References**

Budget Example for Second Set of Turnout Gear (Adopted CIP 2019-2023, page 2)

Purchase Order for Second Set of Turnout Gear

2023-2027 Requested Department CIP Worksheet

6F.4 Safety equipment maintenance, testing and inspections are conducted by trained and qualified personnel, and appropriate records are kept.

**Description**

All PPE and safety equipment is inspected, tested and maintained by employees of the department who are trained on specific PPE and safety equipment. If PPE or equipment requires maintenance/repair that is beyond the capability of employees, the items are shipped to an authorized repair vendor. Records are maintained, to include original issue date, bi-annual inspection and cleaning, and any repairs. The department’s SOP 402.40 PPE Cleaning directs the inspection and testing PPE. Asset number assignment and individual member identification assignment provides identification and tracking for record keeping purposes.

A work order system has been implemented that provides a record of all maintenance and repair of safety equipment, as well as the individual user, location and assignment of particular safety equipment.

**Appraisal**

The practice of using specially trained employees within the department, contracts with vendors for maintenance, testing and inspections of PPE and safety equipment has been well established. The use of department program managers that have overseen safety equipment and tools has been successful through accountability and responsibility.

**Plan**

The department will continue to utilize program managers to oversee and manage programs related to safety equipment and PPE. The department will continue to maintain records of maintenance, testing and inspections of safety equipment via Firehouse database and the department’s shared network folders. Inventory and maintenance tracking for SCBAs will be conducted in the Posi-check Software.

**References**

SCBA Certified Technician Certification

Sample SCBA Maintenance Record  
SOP 402.40 Structural PPE Cleaning  
Protective Clothing Inspection Sheets  
Posi-check Software (available on-site)

6F.5 Safety equipment inventory control and maintenance tracking system are in place and current.

### **Description**

The department maintains a current inventory of equipment on each unit. Each unit has an inventory list that is available on the department's intranet. The list includes details on location, quantity, and specifications on equipment. SCBA maintenance and inventory records are maintained via Posi-check software.

Employee identification numbers or their name are engraved or marked on all individual PPE or safety equipment for easy identification and inventory control purposes. The department apparatus inventory program chief directs the inventory control and maintenance of all safety equipment.

### **Appraisal**

The current inventory control and maintenance tracking system is not standardized across the organization. Each program manager tracks and maintains inventory in their own way. This has caused issues related to standardization and organization. The department has been able to manage safety equipment inventory levels and have not had any issues related to inventory control.

### **Plan**

The department plans to move the inventory control and maintenance tracking system to the ESO Assets and Checklists module in 2023. Until a new system is fully functional and vetted, existing inventory and maintenance tracking for PPE, safety equipment and SCBAs will continue to be accomplished via program managers.

### **References**

Firehouse (available on- site)

PPE Inspection Packet

Screenshot of equipment inventory

Engine 1 Inventory List Example

Posi-check Software (available on-site)

