

Clive Fire Department

Clive, Iowa

Standards of Cover

2017



Emergency Services Consulting International

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Executive Summary

This document describes Clive Fire Department's Standards of Coverage and Deployment Plan. Community risks, response resources, deployment strategies, and service levels have been evaluated in this study. The document identifies and discusses response time objectives and standards for measuring the effectiveness of fire department services and the deployment of its resources. The document is segregated into components based on the format recommended by the Center for Public Safety Excellence.

The Clive Fire Department (CFD) is a municipal subdivision of the City of Clive, a city established and organized under Iowa law. It provides fire protection, emergency medical, and rescue services to its service area, which encompasses the boundaries of the City of Clive.

CFD serves a resident population of approximately of 17,506, based on 2015 special census, in a geographic area of 7.7 square miles, located in Dallas and Polk Counties. In addition, CFD responds under mutual aid agreements with neighboring fire departments in Urbandale, Des Moines, Grimes, Johnston, Waukee, West Des Moines, and Windsor Heights. Clive's demographics are primarily residential in nature with some commercial and light industrial areas. The city is located in Dallas and Polk Counties, in proximity

The fire department provides services to Clive residents from two fire stations, within the city. The main fire station is located at 8505 Harbach Boulevard. Response is additionally provided from a station that is operated under a joint ownership agreement between Clive and the city of West Des Moines and located on Clive's southern border with West Des Moines.

The stations house a total of two fire engines, one aerial truck and another that is shared with West Des Moines, and two Advanced Life Support ambulances.

The department employs a total of 48 personnel involved in delivering services to the city. Staffing coverage for emergency response is through the use of 12 career firefighters assigned to 24-hour rotating shifts and 30 part-time responders that work 12 hour shifts. An administrative staff of (4) chief officers provide a duty officer response, if available, on significant incidents." An additional 12 full-time personnel are available via the contractual agreement with West Des Moines.

The Insurance Services Office (ISO) reviews the fire protection resources within communities and provides a Community Fire Protection Rating system from which insurance rates are often based. The rating system

evaluates three primary areas: the emergency communication and dispatch system, the fire department, and the community's water supply. The overall rating is then expressed as a number between 1 and 10, with 1 being the highest level of protection and 10 being unprotected or nearly so. As of the latest survey (July 2016) ISO gave CFD a rating of Class 3/3X.

In the SOC process, potential service area classifications are broken down into five categories:

- **Metropolitan** – geography with populations of over 200,000 people in total and/or a population density of over 3,000 people per square mile. These areas are distinguished by mid-rise and high-rise buildings, often interspersed with smaller structures.
- **Urban** – geography with a population of over 30,000 people and/or a population density of over 2,000 people per square mile.
- **Suburban** – geography with a population of 10,000 to 29,999 and/or a population density of between 1,000 and 2,000 people per square mile.
- **Rural** – geography with a total population of less than 10,000 people or with a population density of less than 1,000 people per square mile.
- **Wilderness/Frontier/Undeveloped** – geography that is both rural and not readily accessible by a publicly or privately maintained road.

The population density in the study area ranges between metropolitan, urban, suburban, and rural. Appropriately, CFD has developed a single set of response goals targeting the urban category, rather than developing separate and potentially redundant goals for metropolitan, urban, and suburban classifications.

As a result of this analysis, ESCI developed sample service delivery outcome goals in this Standards of Cover that will accommodate the metropolitan, urban, and suburban areas of the response area. These statements have been synthesized by ESCI using its understanding of community expectations, to provide CFD with a better understanding of the needs and expectations of the communities within each service area.

Mission Statement

CFD has adopted the following Mission Statement:

“Be the leader in emergency services through compassion, competence, and a commitment to safety”

Response Performance Goals and Objectives

Further, CFD has established response performance objectives. The defined objectives for fire response are as follows:

1) Dispatch Call Processing Time

It is the goal of the Clive Fire Department that calls received by the WestCom dispatch center will be received, triaged, and dispatched in under 1 minute 30 seconds. Calls that do not meet this standard will be investigated through WestCom.

2) Reaction (Turnout) Time

It is the goal of the Clive Fire Department for personnel to be en route within the following parameters from the time of page:

- 0600-2159 Hours: 90 seconds
- 2200-0559 Hours: 120 seconds

Exceptions will be made for crews that may be providing non-dedicated standby at events or crews actively engaged in training at the time of the alarm. There are no provisions in this policy allowing for the delayed response to a non-emergency dispatch.

3) Response time for an initial suppression company

It is the goal of the Clive Fire Department to arrive on scene with an initial suppression company at emergent calls in less than eight minutes 90% of the time. Should a response take longer, it will be reviewed for causes, and any avoidable issues should be addressed with the responding crew. Only emergency response calls will be included in the response time analysis.

4) Response time for a full alarm assignment

It is the goal of the Clive Fire Department to arrive on scene with a full alarm assignment (defined as a minimum of three suppression units and 13 personnel) at any structural fire in less than 11 minutes 90% of the time. Should a response take longer, it will be reviewed for causes, and any avoidable issues should be addressed with the responding crew. Only emergency response calls will be included in the response time analysis.

In addition to the above, CFD has adopted response time targets specifically for emergency medical responses, as listed below:

Dispatch Call Processing Time and Reaction (Turnout) Time:

Same as listed above for fire response.

1) Response time (Notification by dispatch to arrival on scene)

It is the goal of the Clive Fire Department to arrive on scene at emergent calls in less than eight minutes 90% of the time. Should a response take longer, it will be reviewed for causes, and any avoidable issues should be addressed with the responding crew. All response times greater than eight minutes will be queried for QA/QI.

It is the goal of the Clive Fire Department to arrive on scene at non-emergent calls in less than 10 minutes 90% of the time. Should a response take longer it will be reviewed for causes, and any avoidable issues should be addressed with the responding crew. All response times greater than 10 minutes will be queried for QA/QI.

2) Scene Times

Scene time standards have been established so as not to delay definitive care to patients. It is understood that circumstances do exist and will arise causing delays and extended scene times. The scene times goals for calls should be as follows:

- Trauma scene time < 15 minutes
- Medical scene time < 20 minutes
- Urgent Care clinic scene time < 20 minutes

3) Transport Times:

Transport of a patient to definitive care should be initiated with the utmost regard for the safety of the patient and EMS crew. Excessive speed and/or the unnecessary use of emergency lights and sirens will not be tolerated. No value will be established for maximum transport time. See Clive Fire Department and the City of Clive emergency vehicle driving policies and procedures for further guidance

The department is commended for developing these objectives. They are appropriate, clearly stated, and achievable. An analysis of how effectively CFD is achieving these objectives will be provided in a later section of this report.

Findings, Recommendations and Strategies for Future Efforts

Up to this point in the report, the discussion has focused exclusively on the Clive Fire Department. One of the objectives of this Standards of Cover process was identified to be that of viewing the Clive Fire Department individually as well as in the context of a look at the Clive and Urbandale Fire Departments collectively, as applied to future service delivery considerations. To achieve this regional look at future needs and resource deployment, the observations and analysis in the remainder of this report will address both Clive and Urbandale, with department-specific discussions, where applicable.

The report identifies a number of recommendations, identified as improvement goals:

Improvement Goal A: Establish Common Response Time Standards and Targets

A single common set of response goals will accommodate more effective planning for both organizations. Further, when considering future deployment of resources, potentially as a collaborative effort and combining the use of personnel and equipment, it is important that decisions be made using the same goals. In other words, it is much easier to strike a single target, rather than having two.

Improvement Goal B: Improve Call Processing Performance

Call processing times have been problematic in the past in Clive and Urbandale. However, recently, the chiefs of both agencies have worked with leadership at the dispatch center, Westcom, to address processing concerns. As a result, significant improvements have been made and the level of concern has been reduced.

Improvement Goal C: Improve Turnout Time Performance

Turnout time is the one component of total response time over which the fire department has control and is not affected by outside influences. Turnout time, or the time from when the call is received by the response units (dispatched) to when the unit is en route to the scene (responding), affects overall response times. Reducing this response time component reduces total response time.

Improvement Goal D: Improve the Delivery of Emergency Medical Service

Responses to requests for emergency medical service represent the greatest percentage of Clive and Urbandale's response activity. As the service most requested by CFD and UFD's customers, it is imperative that it be provided in the most effective and efficient manner possible. A number of detailed recommendations are provided.

Improvement Goal E: Improve Upon Response Deployment and Effective Response Force Assembly

A fire department's *concentration* is the spacing of multiple resources close enough together so that an initial "Effective Response Force" (ERF) for a given risk can be assembled on the scene of an emergency within the specific time frame identified in the community's performance goals for that risk type.

CFD and UFD currently have adopted ERF response performance goals for structure fires:

Effective Response Force (ERF) – Structure Fire

	AGENCY DEFINED ERF
Clive	Minimum of five personnel on scene initially. Full assignment of three engines, 1 aerial, 1 ambulance, and a command vehicle – 15 personnel
Urbandale	Minimum of five personnel on scene initially. Full assignment of two fire apparatus, two ambulances and one command vehicle – 13 personnel

Both standards are acceptable and reflective of the individual agencies' current needs and response capacities. However, the two differ and can be improved upon to more closely approach industry standards and best practices. To that end, ESCI offers recommendations in the body of the report.

Improvement Goal F: Evaluate Current and Future Station Locations to Improve Response Times and Shared Station Opportunities

The analysis of long-range future resource deployment is a primary focus of this study, and one that includes consideration of how the Clive and Urbandale Fire Departments may view station locations and personnel deployment practices collectively. To that end, multiple station location strategies are reviewed and evaluated in detail. The strategies include:

Strategy 1 – Joint New Fire Station in the area of 156th and Meredith Drive and Station 32 Relocation

Strategy 2 – Four Station Deployment with Alternative Response Unit (ARU) at Station 42

Additional Possible Station Locations – Western UFD Service Area:

- ***170th and Waterford Road***
- ***170th and Meredith Road***
- ***156th and Waterford Road***
- ***156th and Meredith Road***

Additional Station Location Options – CFD Service Area

- ***Station 32 Relocation***

Improvement Goal G: Explore Cooperative Effort Opportunities

Multiple opportunities are identified by which the Clive and Urbandale Fire Departments may work more closely together. A discussion of general partnering strategies and recommendations for the implementation of cooperative efforts are detailed.

Each improvement goal and future strategy is discussed in detail in the following Standards of Cover document.