Final Report

Operational Analysis of Fire Services

City of Falcon Heights, Minnesota

January 9, 2013
### Mission Statement

Springsted provides high quality, independent financial and management advisory services to public and non-profit organizations, and works with them in the long-term process of building their communities on a fiscally sound and well-managed basis.

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LETTER OF TRANSMITTAL

Mr. Bart Fischer, City Administrator  
City of Falcon Heights  
2077 Larpenteur Avenue West  
Falcon Heights, Minnesota 55135-5594

Re: Operational Analysis of Fire Services

Dear Mr. Fischer:

On behalf of my partner, Pat Simpson, we are pleased to submit the Final Report for the Operational Analysis of the Fire Services for the City of Falcon Heights. The scope of services for this study was designed to create a baseline of information and an objective assessment of the Falcon Heights Fire Department. Our study process model included a variety of steps and procedures which were designed to provide a comprehensive set of data and findings to be used as the foundation for our recommendations.

Through the preparation and development of this Report we hope that the City Council and staff can engage in timely and productive policy discussions on the future of the Fire Department. We provide background information on the department, fire service standards and benchmarks, fire apparatus, demand, deployment and risks and information on the organization, management and operations of the department. One of the other features of our Report is a comparative summary of other fire departments in the metropolitan area. Collectively, all of this information is helpful to understand what you have today and to begin planning for what you want for fire services in the future.

It has been our pleasure to work with you on this study and we thank you and all of your staff and elected officials for this opportunity.

Sincerely,

David J. Unmacht  
Springsted Incorporated  

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1. Executive Summary

The Mayor and City Council of the City of Falcon Heights created a strategic objective to complete an assessment of the Fire Department. After a competitive bidding process, the City retained Springsted, Incorporated to conduct an operational analysis of the department. Springsted retained the services of Mr. Pat Simpson, Tri-Data, Incorporated to partner in the study.

The purpose of the study was to develop a baseline of information on the department and to review and evaluate the practices, methods and standards presently used by the department in the delivery of fire services. Included in the evaluation was a review of the existing organizational structure, fire equipment and apparatus, strengths, issues and challenges, and present staffing levels. The scope of services also asked one important question and that was whether or not it is practical and possible to combine the City’s fire services with another neighboring municipality.

It is important to the credibility of the process and the study to seek input from interested parties and those affected by the discussion and future decisions. Several process highlights are worth noting, they include:

- Eight (8) individuals from the City (elected officials and staff) were interviewed
- A meeting was held with representatives from the Grove neighborhood
- A meeting was held with representatives of the City of Lauderdale
- A resident of Falcon Heights and a former State Fire Marshall was interviewed
- Six cities were identified and a comparison of fire service was completed

The contributions of all individuals were instrumental in providing valuable input into the study and the ultimate conclusions in the Report. The willingness of all stakeholders to offer candid insight, ideas and data helped to frame and shape the recommendations.

The Fire Department in the City is providing very efficient services to the community. The cost per capita based on a population of 5,321 is $23.73. This per capita number is reduced to $16.40 when the Lauderdale population of 2,379 is factored in. City officials in Lauderdale are pleased with the fire service and although satisfied with the relationship, would support even greater communication between the department and the City. The department has a traditional organizational structure and business model. The department uses a part-time Fire Chief with a paid on call staffing complement of 20 members. There have not been problems in recruiting new members to the squad, but it is advisable to be conscious of the trends in paid on call departments.

The findings and analysis of the Report offer a recommendation that it is timely for the City to consider creating a paid Fire Chief position. The needs of the department, the recommendations offered in the study and the ongoing and increasing demands placed on the role of the Fire Chief require a community conversation on how the top leadership position is structured.

The contents of this Report provide the Mayor, City Council, Fire Department, city administration and the community stakeholders with a framework to consider ideas and options for the future of the fire service in Falcon Heights. These recommendations cover a wide path including staffing, equipment, communication and collaboration with other Fire Departments. The fire services in the City are delivered responsibly and efficiently; yet there are clear and concise opportunities to enhance and improve the effectiveness of the fire services within the City of Falcon Heights.
2. Background

The City of Falcon Heights was incorporated as a Village in 1949 and became a City in 1974. The boundaries of the city occupy 2.28 square miles. Appendix I is a map of the Cities of Falcon Heights and Lauderdale. According to the 2010 census, 5,321 people presently reside in the community. The City of Falcon Heights is a first-ring suburb in the Twin Cities metropolitan area. Neighboring cities include St. Paul to the east and south, Roseville to the north, and Lauderdale to the west. The Minnesota State Fairgrounds, home to the Minnesota State Fair, and the University of Minnesota, St. Paul Campus are within the city’s borders. Emergency services to these institutions are provided by their own police departments and the St. Paul Fire Department.

Major employers in Falcon Heights include Technology Information and Education Services (TIES), a provider of training services to school districts, and Spire Federal Credit Union. Roughly 66% of the city’s tax base is held by tax-exempt entities. Falcon Heights enjoys a diverse housing stock, including several apartment structures, senior living facilities, and single-family homes. Most of the housing stock was built in the post-World War II period, although significant redevelopment has occurred within the past ten years, and plans call for more redevelopment in the coming years. Major roadways in the city include Snelling Avenue, a state highway, as well as Larpenteur Avenue, a county roadway. The controlled intersection of these two roadways is one of the busiest intersections in the metropolitan area. It is worth noting that members of the Fire Department work and live on the east side of the city; in order to get to the Fire Hall they must safely pass through this intersection at all times of the day. State Highway 280 runs through Lauderdale, which is also in the coverage area for the department. Police services to both Falcon Heights and Lauderdale are provided by the City of St. Anthony Village. Ambulance service to both cities is provided by the City of St. Paul. By all testimony the present relationships between the Falcon Heights Fire Department and other public safety providers in the City is positive and effective.

The City of Falcon Heights leaders engaged in a goal setting and strategic planning session in 2011. An extensive list of priorities was identified in a 10 page document. The stated purpose of the goals is “To sustain this community as a great place to live, work and visit.” Highlighted in this section are references to items that are either directly or indirectly relevant to the fire services analysis. These include the following three goals and accompanying strategies:

**Goal 1:** To protect the public health and safety.
- Strategy 1: Provide public safety services to citizens
  - Provide a responsive, well-trained fire service with each firefighter averaging 100 hours of training per year
  - Pursue a comprehensive analysis of fire department operations

**Goal 2:** To expand opportunities for the interaction and involvement of citizens of all ages in their neighborhoods and community.
- Strategy 2: Host community/neighborhood events and activities
  - Support the Fire Department/Public Safety Open Houses

**Goal 3:** To provide a responsive and effective city government.
- Strategy 3: Maintain collaborative relationships with other entities
- Strategy 4: Effectively manage the city’s financial resources

The list of items above is representative of the importance of public safety and fire services to the City and community. Conducting a fair, balanced and objective fire analysis supports the goals and objectives of the Falcon Heights City Council.
The Study

Within the 2011 strategic planning process under the strategy to provide public safety services to the citizens, the City identified an action item to “pursue comprehensive analysis of fire department operations in order to maximize efficiency and use of resources.” A Request for Proposals (RFP) was prepared and distributed to professional firms for review and consideration. Springsted, Incorporated, in partnership with Pat Simpson, Tri-Data, was hired to perform the analysis.

At the onset of the study, each of the elected officials was interviewed. The consensus of the elected officials was that the purpose of the study is to learn more about the fire service and to undertake an objective assessment of the existing practices, standards and procedures.

The objective of the fire services study is to conduct a review of the present fire service delivery system and make recommendations for improvements in efficiency and effectiveness of the department. The scope of work included these ten items:

1. Review response times from 2008-2010 and benchmark against state and national standards for volunteer/paid-on-call departments including NFPA #1720, ISO and CAFI standards.
2. Review department organizational structure and workplace culture and make recommendations on potential improvements.
3. Gather input from stakeholders, including members of the fire department, city council, city administration, City of Lauderdale representatives, and neighboring fire departments with which Falcon Heights has aid agreements.
4. Provide a review of current compensation structure as compared to similar cities/departments in Minnesota. The City will work with the successful consultant to identify the cities/departments to compare with within the scope of services.
5. Analysis of current staffing levels and recommendation of appropriate levels to ensure effective response times; compare staffing levels to similar metropolitan departments. Assess ability to recruit and retain paid on-call personnel.
6. Review of training procedures and record keeping and provide recommendations on the improvement thereof.
7. Analysis of current equipment status and future needs including a proposed timeframe for replacement or upgrade.
8. Comparison of current departmental budget as compared to similar metropolitan departments including personnel costs, vehicle maintenance and training budgets.
9. Review the existing Standard Operating Procedures (SOP’s) and make recommendations for improvements or enhancements.
10. Provide estimate of costs associated with receiving comparable services from an outside agency/fire department.
4. The Study Process

The process used for the organizational analysis of the department includes these 16 steps:

- Eight (8) one-on-one interviews with elected officials, city administration and fire staff.
- Work sessions with the City Administrator and Fire Chief.
- Interview with former State Fire Marshall Tom Brace (a Falcon Heights resident).
- Interview with Lauderdale City officials.
- Conversations and discussions with Roseville and St. Paul Fire Departments.
- Meeting with representatives of the Grove neighborhood.
- City data, including strategies and goals, 2009 Comprehensive Plan, organizational charts, budget information, fire data and statistics.
- Standards and benchmark data collection and analysis.
- Fire Department Base line comparison survey including the cities of St Anthony Village, North St. Paul, Newport, Bayport, Mendota Heights, Spring Lake Park.
- Cost comparison survey including the departments of New Brighton, Maplewood, Roseville, Vadnais Heights, White Bear Lake, Lake Johanna, and Little Canada.
- Conversations with professional peers in other cities.
- Review of documents, presentations and handouts including:
  - Emergency calls history
  - Fire losses
  - Apparatus maintenance
  - Departmental operating guidelines
  - Training records
- Briefing on the Findings with the City Administrator, Assistant to the City Administrator, Fire Chief and Assistant Fire Chief.
- Preparation of a Draft Report; submitted to city staff for review and comment.
- Presentation of a revised Draft Report to the Mayor and City Council on November 7, 2012.
- Preparation of the Final Report and presentation to the City Council on January 9, 2013.

Each of these steps was an important component of the overall process. Collectively they formed and shaped the findings and recommendations.
The Falcon Heights Fire Department (FHFD) provides fire services to residents and properties within the City of Falcon Heights, which according to the 2010 census has a population of 5,321 and a size of 2.28 square miles. The FHFD has mutual aid agreements with surrounding fire departments which allows them to call in help from other communities for large-scale emergencies.

The City of Lauderdale, with a population of 2,379 and a size of .4 square miles, contracts for fire protection from the City of Falcon Heights. Interviews with Lauderdale city officials indicated that the performance of the FHFD is good. No clear issues or concerns specifically originating from the City of Lauderdale were identified that need to be addressed in the fire study or by the department.

The total population served by the FHFD is 7,700 citizens. The department is a volunteer, or paid-on-call, workforce with an average of twenty (20) firefighters on staff at any one time. The department is led by a Chief, who is elected to three-year terms by the membership. Department leadership also includes an Assistant Chief and three Captains. The present Fire Chief’s term expires in November of 2014.

All firefighters are required to have completed certified firefighter one and two courses, haz-mat operations, and Emergency Medical Technician (EMT) or first responder training. In addition, firefighters must attend at least 33 training sessions each year, which includes Self Contained Breathing Apparatus (SCBA) training at least four times a year. These drills are typically two hours in length. Drills are led by trained department personnel as well as instructors from Hennepin Technical College. Hazardous material training is provided by the North Suburban Haz-Mat Team. The Insurance Services Office has assigned Falcon Heights a Class 5 ISO Rating. (See other section in the report for a briefing on ISO Ratings.)

**Falcon Heights Fire Department Mission Statement**

The mission of the FHFD is, “To continually strive for the prevention of fires, injuries, accidents, life and property loss while upholding high standards for the quality of services we provide to the citizens, business and visitors to the City of Falcon Heights.”

**Fire Department Organizational Values**

The Fire Department is committed to a creative process which develops mutual respect and pride in ourselves and the community in which we serve. To this end, we value:

- Personal and organization integrity
- An environment of mutual trust, fairness, sensitivity and dignity
- Promoting confidence in individual capabilities and teamwork throughout the organization
- Accessibility, open communications, and participation in decision making
- Dedication to duty
- Quality service
- Providing leadership in the community and fire service
- Adapting to the changing needs of the community we serve
Fire Department Comprehensive Plan

In the 2009 Comprehensive Plan language is included which states that the City, “... intends to maintain the volunteer fire department at current levels but will continue to evaluate the potential for the sharing/consolidating of fire services with adjacent communities as appropriate to maximize efficiency and minimize costs. The City will continue to participate actively in countywide and metro efforts to develop a coordinated emergency response system.”

Fire Department Communications and Culture

One of the foundations for all organizational cultures is how communication takes place both internally and externally. A review of the FHFD communications offers the following.

**Internal Communication**
FHFD has formal and informal internal communications systems. Formally the department utilizes the chain of command and information flows up and down this structured system as per departmental guidelines. Informally, FHFD has several groupings of personnel which center around tasks, age, and length of service. Such grouping are also a normal part of most fire departments; these serve to strengthen the organization since perceptions and issues tend to be resolved in a positive manner by informal discussion rather than formal protocol using Standard Operating Guidelines (SOG’s) and regulations to seek an outcome. Informal communications in FHFD are functioning well and solving problems effectively.

**External Communication**
How FHFD communicates with other parts of the City organization and with outside entities and citizens is also important to being a high functioning department. This is an area where FHFD can improve in interaction and transparency. The first area to improve is the department’s relationship with city administration. Historically the communications occurred largely with the city council and the city administrator during the budget process and during handlings of inquiries and/or citizen concerns. While it is likely that the communication culture is largely due to the fact that FHFD is an on call organization, it is imperative that additional steps be taken in this key area. Citizen interaction and public contact is also an important area of need within the department. This means more than just going to community events and passing out information packets. Areas which can be key points of citizen interaction include training drills; after incident fire safety education for neighborhoods; fire safety and fall training for senior citizens; and a fire cadet program.

**Organizational Culture**
Culture refers to the values, beliefs, and traditions shared by all members of the organization. Culture has a profound impact on department performance as it guides everyday practices and behaviors, which may or may not be in harmony with the stated vision and core values. FHFD culture is very deeply set in traditional fire service values. This is both a good and bad situation. It is good because internally FHFD knows who it is and what its job is. They understand the basics and they do them well. However, there is an organizational perception of “just being there” for the emergency and otherwise “being out of sight” is not consistent with best practices or the goals of the City Council.

During our discussion with the city staff we learned that over the course of the past year, the conversations between the Fire Department and city administration are improving and heading in the right direction. This is a good sign and certainly we encourage this course of action to continue and be operationalized into the department culture.

In summary, three main drivers encourage the FHFD to improve its communications and culture – 1) effective business practices; 2) interest from the elected officials; and 3) directives from the 2011 goals and strategies.
6. Standards and Benchmarks

This section compares the FHFD to industry standards. There are two specific National Fire Protection Association (NFPA) standards which are applicable to the fire service delivery system in Falcon Heights.

**NFPA 1720**

The most widely recognized standard used in response time analysis for volunteer fire departments is outlined in NFPA 1720, Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments.

Falcon Heights/Lauderdale, with 2.68 square miles of land area and a population of 7,700, has a jurisdictional population density of 2,961 people per square mile. This population density puts Falcon Heights in the “urban” demand zone classification which recommends an initial response of 15 personnel responding to fire calls within nine minutes 90% of the time. Based on an analysis of the data, the actual response time for fire calls in the past five years is that 95.2% of all fire emergency calls were responded to within nine minutes of notification. This response clearly exceeds the NFPA benchmark of 90%. FHFD also has 20 personnel so responding with a minimum of 15 firefighters is well within their capability. It is our conclusion that the FHFD is meeting the NFPA 1720 standard.

**NFPA Handbook**

National Fire Protection Handbook, 18th Edition, Typical Initial Attack Response Capability Assuming Interior Attack and Operations Response Capability makes staffing and initial response complement recommendations based on the number of firefighters arriving on the scene of a fire depending upon the risk of occupancy (low, medium, and high-hazard occupancy). The NFPA staffing recommendations by the type of hazard areas is:

- **High-Hazard Occupancies**
  - Schools, hospitals, nursing homes, explosive plants, refineries, high-rise buildings, and other high-risk or large fire potential occupancies: At least four pumpers, two ladder trucks (or combination apparatus with equivalent capabilities), two chief officers, and other specialized apparatus as may be needed to cope with the combustible involved; not fewer than 24 firefighters and two chief officers.

- **Medium-Hazard Occupancies**
  - Apartments, offices, mercantile and industrial occupancies not normally requiring extensive rescue or firefighting forces: At least three pumpers, one ladder truck (or combination apparatus with equivalent capabilities), one chief officer, and other specialized apparatus as may be needed or available; not fewer than 16 firefighters and one chief officer.

- **Low-Hazard Occupancies**
  - One, two, or three family dwellings and scattered small businesses and industrial occupancies: At least two pumpers, one ladder truck (or combination apparatus with equivalent capabilities), one chief officer, and other specialized apparatus are recommended to be available; not fewer than 12 firefighters and one chief officer.

FHFD has the personnel and equipment to respond to low hazard occupancies as set out in this standard. Medium and high hazard occupancies will require the use of mutual aid from neighboring
jurisdictions. Such joint responding should be developed using a system which employs a predetermined set of FHFD and neighboring jurisdictional resources assigned to respond to these higher hazard calls as the alarm complement.

The recommendations and guidelines outlined in the NFPA#1720 and NFPA Handbook should be considered, but are not necessarily the final word as the NFPA guidelines do not address how fire departments will also be able to comply with the Occupational Safety and Health Administration (OSHA) mandated “Two-in/Two-out” rule (see below).

OSHA Regulations

Additional standards for staffing are related to OSHA’s regulations for firefighter safety. To protect the safety of firefighters, the United States Department of Labor and OSHA have enacted 29 CFR 1910.134, known as the Two-in/Two-out rule that requires four personnel on scene at all structure fires before initial interior attack begins.

OSHA

Firefighting is a dangerous and physical labor-intensive profession. Although technologically the tools and equipment used by firefighters have changed dramatically over the years, the basic goals have remained almost unchanged: to preserve life and protect property by successfully extinguishing fires – and not get hurt in the process. To accomplish this, firefighters must be able to quickly and efficiently gain access to a fire and apply an extinguishing agent (typically water, but foam and other agents are gaining in popularity). This requires emergency responders to operate in dangerous environments where they are at high risk for serious injury or death.

To protect the health, safety, and welfare of firefighters, the federal government enacted regulations to ensure that firefighters operate safely in and around structure fires. Enacted by the Department of Labor and the OSHA, 29 CFR 1910.134, also known as “Two-in/Two-out,” mandates that there must be a minimum of four personnel on the scene of a structural fire before personnel can initiate interior operations. Two firefighters must remain on the exterior of the structure, properly equipped with full turnout gear and SCBA to act as a Rapid Intervention Team (RIT) in the event the firefighters operating inside the structure become incapacitated or trapped. Although OSHA allows one RIT member to have an additional role such as incident commander or safety officer, as long as rescue activities can be performed without jeopardizing the safety of other firefighters, a pump operator cannot make up part of the RIT unless the apparatus utilizes a positive water source, which allows the pump to be unstaffed for a period.

Based on our analysis, the FHFD is complying with these mandated requirements as set out in their practices and in their department Standard Operating Guidelines.

ISO Classification

Insurance Services Office (ISO) community fire protection ratings have been a benchmark for jurisdictions for decades. The system measures the effectiveness and efficiency of three key parts of community fire protection; fire department, water distribution, and alarm notification system. However there are two key limitations of this benchmark. First is that the evaluation is only used by some insurance companies, with several large insurers doing their own risk assessment by individual occupancy. Second is the fact that residential insurance rates for participating insurers are banded for class #2 through class #8 communities. This means that the premium for insurance to homeowners is the same for these communities. The only occupancy type which has separate rates for each class...
number is commercial occupancies where the needed fire flow is below 3,500 gallons per minute (gpm) for suppression. Bottom line, ISO ratings are a good benchmark for suppression activities of a community but do not evaluate the key areas of prevention, code enforcement, and planning and zoning which are the proactive functions of community fire defense planning.

Falcon Heights has a Class #5 community fire protection rating with individual ratings for water distribution, emergency notification system, and the fire department. This rating is a good rating in any community and particularly for a paid on call fire department. City leaders should rightfully be very proud of this achievement. However service delivery efficiency is the real measure of fire department operational procedures.

In the most recent ISO survey of Falcon Heights the final rating of Class #5 was only 4 deficiency points from being a Class #4 jurisdiction. Using the recommended improvements in this study for response, apparatus replacement, and fire prevention, it is possible that the FHFD can improve to a Class #4 rating.
7. **Fire Apparatus**

The department currently has three Class A fire apparatus. The Class A structural firefighting, fire apparatus as defined by NFPA includes two pumpers with onboard water, a fire pump, onboard fire hose, and ground ladders and one telesquirt which includes all pumper functions and a rescue ladder/elevated waterway.

**Engine 752 - 2001 Freightliner Custom Pumper**

*Vehicle Description:*
- 1,250 GPM Waterous Pump
- 500 Gallon Tank
- 25 Gallon Foam Tank
- Foam Pro System
- Hydraulic ladder rack
- 12,000 lb winch
- Slide Out Rear Tray for Hurst Tools
- 5,500 Watt Gas Generator

This engine has the seating capacity of five members with four members having access to a SCBA Unit.

**Engine 753 - 2005 Sterling Custom Fire Pumper**
Fire Apparatus

Vehicle Description:
- 1,500 GPM Waterous Midship Mount Pump
- 500 Gallon Tank
- 20 Gallon Foam Tank
- Foam Pro System
- Hydraulic ladder rack
- Slide Out tool compartments
- 5,500 Watt Hydraulic Generator

This engine is a full response pumper which has the seating capacity of seven members with six members having access to a SCBA Unit.

Engine 757 - 1990 General Telesquirt

Vehicle Description:
- 65 ft Telesquirt with 1,000 GPM Nozzle
- 1,500 GPM Waterous 2 Stage Pump
- 500 Gallon Water Tank
- 7,000 Watt Diesel Generator

This engine has the seating capacity of five members with four members having access to a Self Contained Breathing Apparatus (SCBA)

Additionally there is a 1998 Chevrolet utility vehicle with a 10,000 pound winch which is used for routine departmental operations and can be used to transport personnel during emergency incidents.

Maintenance records show that the apparatus are well maintained and receive regular inspections. Operational testing procedures are being completed on all apparatus. Five year maintenance expenses for the apparatus total: $752 = $13,000; $753 = $15,500; $757 = $30,000. Total maintenance expenses over the past five years on all three major pieces of equipment are $58,500. This is approximately $10,000 per year for apparatus maintenance which is certainly a good value when considering the total new replacement value of all three of the apparatus would be in excess of $1.5M.

Presently there is also $175,000 set aside for major refurbishing and repair for #757. Plans are to make these repairs in the near future depending upon the recommendations of this study.
**Apparatus Replacement Schedule**

There are two principal guidelines used for apparatus replacement, the NFPA vehicle replacement guideline and the American Public Works Association (APWA) replacement scoring system. Both standards are useful but both standards are a one size fits all approach which needs to be individualized to meet jurisdictional realities. The NFPA guidelines for fire vehicle replacement are:

“The normal life expectancy for first-line fire apparatus will vary from county to county, and city to city, depending upon the amount of use the equipment receives, and the adequacy of the maintenance program. In general, a 10–15-year life expectancy is considered normal for first-line pumping engines. First-line ladder trucks should have a normal life expectancy of at least 15 years. In fire departments where ladder trucks make substantially fewer responses to alarms than engines, a planned first-line service of 20 years may be warranted for ladder trucks. Some smaller fire departments that have infrequent alarms operate pumping engines up to 20 years with reasonable efficiency, although obsolescence will make older apparatus less desirable, even if it is mechanically functional. In some types of service, including areas of high fire frequency, a limit of 10 years may be reasonable for first-line service. The older apparatus may be maintained as part of the reserve fleet, as long as it is in good condition, but in almost no case should the fire department rely on any apparatus more than 25 years old.”

These NFPA guidelines have proven to be reasonable in practice and tend to be followed by most fire departments that have neither extremely high nor extremely low numbers of runs or vehicle mileage. Based on our professional experience and long tenure in the fire services, these are a good benchmark for “best practices.”

The guidelines provide some latitude in determining useable life for a fire service vehicle. Age and accumulated mileage are the most important variables to consider in vehicle replacement. The numbers of calls to which a vehicle responds and the frequency and quality of preventive and other maintenance received can also affect vehicle lifespan.

As a rule of thumb, an annual replacement review process should be undertaken for any piece of front-line fire apparatus more than ten years old to determine whether replacement is warranted. More heavily used apparatus may need to be replaced sooner than less heavily used pieces. Apparatus can be taken out of front-line service and placed in a reserve status for a few additional years of life, as long as such vehicles can still be safely used for their designated purpose and still meet ISO and NFPA performance standards. Modern safety features also are important to consider. Older vehicles may lack important new features (e.g., enclosed cabs, and older aerial ladder may not have interlocking safety devices), which may be significant reason not to wait until the end of a replacement cycle to order a new vehicle, even if the current vehicle is in good condition.

Some fire departments use a scoring system developed by the American Public Works Association Fleet Service Committee for assessing fire apparatus for replacement, or a scoring system similar to it. The system entails considering a combination of variables that include age, mileage, maintenance costs, and operating conditions. A replacement score is calculated for each vehicle based on the sum of its scores for age, usage, and condition. The data for these calculations are usually obtained from computerized vehicle maintenance records and work orders, but can also be obtained through notes, and written records.

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The age of the vehicle is scored by assigning one point for each month from the date on which it was purchased. The usage score assigns one point for each 1,000 miles traveled or 3.5 points for each 100 hours of use, whichever is higher. The condition of the vehicle is scored on a scale of zero to five (with one being the best and five the worst) for each of five aspects—body, interior, functionality, maintenance/repair cost, and mission. Each of the five aspect scores is then multiplied by 12, and these values are summed with the points assigned for age and mileage to obtain the overall vehicle score. If the overall score exceeds the point limit established for the respective vehicle category, the vehicle is recommended for replacement. The categories and associated maximum scores are listed in Table 1.

<table>
<thead>
<tr>
<th>Vehicle Category</th>
<th>Maximum Vehicle Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sedans, station wagons, and jeeps</td>
<td>162</td>
</tr>
<tr>
<td>Light-duty trucks</td>
<td>196</td>
</tr>
<tr>
<td>Medium- to heavy-duty trucks (including ambulances)</td>
<td>220</td>
</tr>
<tr>
<td>Fire apparatus</td>
<td>225</td>
</tr>
</tbody>
</table>

The critical component in any service-life-assessment system is the absolute requirement that a vehicle must be able to safely and reliably perform in a manner consistent with the vehicle’s design purpose, regardless of mileage or hours of use. Elected officials and organizational leaders must remember that fire service vehicles are subject to much more demanding operational conditions than other vehicles in a jurisdiction’s fleet. Rapid acceleration and deceleration, hard turns, quick stops, and other extreme demands are placed on fire apparatus on a regular basis. Additionally, fire apparatus are almost always fully-loaded with equipment. The water carried on a pumper can easily weigh several tons (over 12 tons in the case of a pumper-tanker), and aerial ladders may weigh more than 40 tons.

**Apparatus Replacement Plan**

FHFD currently has a 22 year old ladder truck (#757) which has over $200,000 in current and planned maintenance and repair and does not have some safety features such as interlocks and tip communications which are required on today’s aerial apparatus. This unit is a candidate for immediate replacement to provide Falcon Heights citizens and businesses the level of fire service delivery needed for the future and to properly protect firefighters during high risk operations.

Engine #752 is an 11 year old 1,250 gallons per minute Class A pumper built on a commercial chassis. This apparatus has had $13,000 in maintenance and repair in the past five years. #752 is well maintained and safe for personnel. This unit is likely at the halfway point in its service life and will be a candidate for replacement in the next 10 years based upon current levels of service and no major breakdowns or safety failures.

Engine #753 is a seven year old 1,500 GPM Class A pumper built on a commercial chassis. This apparatus has had $15,500 in maintenance and repairs in the past five years. #753 is well maintained and safe for personnel. This unit will likely be a candidate for replacement in the next 15 years if well maintained and without major breakdown or safety failure.
To look at the long term capital cost of fire apparatus it is essential to assess the cost per year needed to be set aside for a replacement program. The current apparatus would have a replacement cost of $400,000 per engine (2) and $750,000 for the ladder truck for a total of $1,550,000 for the fleet. Capital expenditure for fire apparatus would be about $77,500 per year based upon the current three apparatus with a service life of 20 years. This would equate to an annual cost per citizen of $10.06 to maintain a 20 year equipment replacement for FHFD.
8. Demand, Deployment and Risks

The Fire Department currently responds to approximately 100 incidents per year. These incidents break out into three main categories:

- Fire and rescue calls
- Vehicle accidents with injuries
- Various emergency incidents

Demand

The annual calls and fire losses for 2007 – 2011 are outlined in Table 2. Fire loss is defined as the damage to structures, vehicles, and other property resultant from a fire, explosion, or similar incident usually calculated on an annual basis. Fire loss will vary year to year based upon the number and severity of incidents as well as the value of the structure and its contents.

**Table 2: Annual Calls and Annual Fire Losses**

<table>
<thead>
<tr>
<th>Year</th>
<th>Calls</th>
<th>Fire Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>112</td>
<td>$240,000.00</td>
</tr>
<tr>
<td>2008</td>
<td>99</td>
<td>$0.00</td>
</tr>
<tr>
<td>2009</td>
<td>85</td>
<td>$0.00</td>
</tr>
<tr>
<td>2010</td>
<td>108</td>
<td>$500.00</td>
</tr>
<tr>
<td>2011</td>
<td>99</td>
<td>$675,000.00</td>
</tr>
<tr>
<td></td>
<td>5 Year Totals</td>
<td>$915,000.00</td>
</tr>
<tr>
<td>Average</td>
<td>100</td>
<td>$183,100.00</td>
</tr>
</tbody>
</table>

The table above includes both the City of Falcon Heights and the City of Lauderdale. In 2011 there were two significant house fires, which resulted in an increase in the fire loss amount.

Deployment

FHFD operates from one station located at 2077 W. Larpenteur Avenue. The station is in good repair and provides adequate space for current and future operations. However there is no signage to denote that the location is the Fire Department. A sign could be located near Larpenteur which would identify the Fire Department as well as City Hall. Additionally signage on the building to identify the department entrance would be appropriate.

The current fire station location is well placed to provide good response times for the jurisdiction. The average response times for emergency calls from 2007 to 2011 are outlined in Table 3.

**Table 3: Response Times**

<table>
<thead>
<tr>
<th>Year</th>
<th>Response Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>6 min 21 sec</td>
</tr>
<tr>
<td>2008</td>
<td>6 min 29 sec</td>
</tr>
<tr>
<td>2009</td>
<td>6 min 32 sec</td>
</tr>
<tr>
<td>2010</td>
<td>7 min 34 sec</td>
</tr>
<tr>
<td>2011</td>
<td>6 min 14 sec</td>
</tr>
<tr>
<td>5 Year Average</td>
<td>6 min 46 sec</td>
</tr>
</tbody>
</table>
NFPA standard #1720 identifies response time for volunteer and combination fire service deliveries such as Falcon Heights. This standard is shown in Table 4 below:

Table 4: NFPA 1720 - Staffing and Response Time Standards

<table>
<thead>
<tr>
<th>Demand Zone</th>
<th>Demographics</th>
<th>Staffing</th>
<th>Response Time</th>
<th>Percentage of calls within Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Risks</td>
<td>Authority Having Jurisdiction (AHJ)</td>
<td>Authority Having Jurisdiction Sets</td>
<td>9 minutes</td>
<td>90%</td>
</tr>
<tr>
<td>Urban</td>
<td>&gt;1000 people/mi²</td>
<td>15 personnel</td>
<td>9 minutes</td>
<td>90%</td>
</tr>
<tr>
<td>Suburban</td>
<td>500-1000 people/mi²</td>
<td>10 personnel</td>
<td>10 minutes</td>
<td>80%</td>
</tr>
<tr>
<td>Rural</td>
<td>&lt;500 people/mi²</td>
<td>6 personnel</td>
<td>14 minutes</td>
<td>80%</td>
</tr>
<tr>
<td>Remote*</td>
<td>Travel dist &gt;= 8 mi</td>
<td>4 personnel</td>
<td>No time limit</td>
<td>90%</td>
</tr>
</tbody>
</table>

Falcon Heights is classified as an urban jurisdiction (yellow highlight above) based upon a population density of 2,961 per square mile. This population density requires a first alarm response for a structure fire of 15 personnel to arrive on scene within nine minutes of notification 90% of the time. Falcon Heights is meeting this standard with response to 95.2% of fire emergency calls from 2007 through 2011 within the 9 minutes or less and a complement of 20 personnel available.

Risks

NFPA Fire Chiefs Handbook 18th edition specifies total recommended complement for initial response to structural fires based upon the risk present. Table 5 explains the response level by risk according to NFPA standards.

Table 5: NFPA Handbook - Response Level by Risk

<table>
<thead>
<tr>
<th>Low Hazard</th>
<th>Medium Hazard</th>
<th>High Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprised of 1, 2, or 3 family dwellings and scattered small businesses</td>
<td>Comprised of apartments, offices, mercantile, and light industrial</td>
<td>Comprised of schools, hospitals, nursing homes, heavy industrial, and high rises</td>
</tr>
<tr>
<td>Response – 2 engines, 1 ladder, 1 command = 13 personnel</td>
<td>Response - 3 engines, 1 ladder, and 1 command = 17 personnel</td>
<td>Response – 4 engines, 2 ladders, 2 command = 25 personnel</td>
</tr>
</tbody>
</table>

FHFD can deliver the resources needed per NFPA standards for a low hazard response of two engines; one ladder; and one command officer with a total response complement of 13 firefighters. However, both medium and high hazard occupancies exceed FHFD resources in equipment and likely personnel needed. Since the majority of risks in the city are single family dwelling, FHFD can adequately deliver the level of service needed to safely mitigate these calls. Preplanning for the larger risks including apartments, commercial buildings, and schools will require a preplanned mutual aid system to ensure adequate resources from neighboring jurisdictions is en-route as part of the assignment to safely mitigate the situation. There are three main or target hazards in the jurisdiction which should be preplanned for fire and related emergency incidents (TIES; Falcon Heights Town
Center; and 1666 Coffman which is a three story Senior facility). All three are potentially either high life loss structures or have construction and access issues which could make firefighting operations problematic or potentially difficult. It is important that FHFD have a multi-alarm and multi-hazard preplanned response system for all medium and high hazard structures to include mutual aid assignments for incoming units and personnel. It is also advisable that these aid departments be included in walk-throughs of the structures with FHFD personnel to discuss strategic planning of emergency operations and resource staging for likely scenarios.

The present Mutual Aid policies and practices can be found in Appendix II.
FHFD is a traditionally structured volunteer fire department. The department includes a Fire Chief, Assistant Fire Chief/Training Officer, three Captains, a Safety Officer, and 13 firefighters for a total complement of 20 fire personnel. The most experienced fire department member is the Chief with 28 years of experience. The least experienced is a firefighter with seven months of service. Only two members of the department have been in service since 1999 and nine members have less than five years of service (45%). A copy of the tenure and service record can be found in Appendix III. The command structure is set out below.

The Fire Chief is paid an allowance of $400 per month. The First Assistant Chief/Training Officer is paid an allowance of $250 per month. There are three categories of work for the personnel that define their compensation. For fire calls they are paid $11.34 per hour. For drills and training they are paid $8.25 per hour. For community and volunteer service at events or activities there is no compensation provided.

The Fire Chief reports to the City Administrator in the organizational chain of command. Recently the City Administrator changed and the two top administrators are getting to know each other and have started a productive and positive relationship.

**Fire Prevention**

FHFD also provides fire prevention and code enforcement services to Falcon Heights and Lauderdale. Fire prevention and code enforcement activities include: routine inspections of commercial occupancies, investigations of fire code violations, and fire cause and origin determination. The Fire Marshal, who heads the fire prevention bureau, is a member of FHFD and works under the supervision of the City Administrator and the Fire Chief. Inspections are in accordance with local and state regulations. Fire investigation is primarily cause and origin with arson under Ramsey County and the State Fire Marshal.
Training

FHFD currently trains weekly as well as special sessions for Self Contained Breathing Apparatus evolutions; mandated recertification in haz-mat; EMS; right to know; and several other topical areas. Each member must meet departmental requirements for required training and total attendance annually. Records are maintained for each member for training as well as maintenance of required certifications. FHFD training complies with current mandated standards and provides additional training in key areas of service delivery.

Safety

FHFD has a Safety Officer as part of the organizational structure. This is a designated position which is responsible for all on scene safety during emergency operations. Though not called out in department SOG’s, the safety officer should be responsible for monitoring personnel records to see that all firefighters have met federal and state requirements for their positions, that all apparatus and equipment meet standards, and any safety issues are resolved completely and properly documented.

2012 Budget

The current FHFD budget for 2012 is $126,316 excluding capital expenditures. This translates to a per citizen amount of $23.74 for Falcon Heights and if you add the City of Lauderdale, the per citizen amount comes to $16.40. Revenues for 2012 are $30,500 which means that the property tax contribution from taxpayers of the City is less than $100,000 per year ($95,816).

The City of Lauderdale contributes an annual amount as determined by four factors: capital share, readiness to serve, fire inspections and fire protection. The estimated amount of the contribution in 2012 (January 3, 2012 Letter to City Administrator Heather Butkowski) was slightly under $33,000. Records indicate that the annual contribution from the City of Lauderdale ranges from $25,000 to under $35,000 over the past decade.

The relationship with the City of Lauderdale is solid and certainly it should be a priority for FHFD to continue to provide excellent service to Lauderdale residents.

Pension

The City of Falcon Heights does not contribute local tax dollars to the Fire Department Pension Fund. The State of Minnesota does have a pass through contribution which goes toward the Fire Pension; this amounts to approximately $30,000 per year.

Volunteer Recruitment and Retention

FHFD currently has a department complement of 20 personnel. According to FHFD administration, the department is getting new applicants at about the same rate as personnel are leaving. Fire personnel numbers are steady and the department is neither shrinking nor growing but is generally stable which is similar to the city demographics in general. However it is incumbent to have a plan for recruitment and retention to see that FHFD stays viable for the future.

Recruitment

Recruiting citizens to become volunteer fire/rescue responders can be a daunting task if not approached in a systematic manner. This systematic approach begins with identifying the most likely demographic groups where potential volunteers may be included. In Falcon Heights as in most suburban communities, it seems likely based upon past experiences that there may be three such
groups: stay at home moms; college students; and empty nesters. Motivating citizens from these three groups to join FHFD is a challenge which will involve planning by department members, City leadership, and volunteer recruiters.

A very successful volunteer recruitment program in Virginia is recruiting new members annually through very creative means. Their program begins using a page on the jurisdiction website, a Facebook account, and a toll free phone number. All potential candidates are immediately contacted by a volunteer recruiter from the fire/rescue department (within 24 hours). An appointment is set up and each candidate gets a briefing on the potential job, a scheduled ride along is arranged and an application is filled out. The key is to keep candidate interest high, and identify how best to use the talents of new member so they stay motivated and involved. FHFD can certainly use this coordinated system to increase the potential volunteer pool.

Retention

While people join volunteer fire-rescue departments for many reasons, retention issues boil down to two distinct reasons: issues and challenges that arise in one’s life and factors relating to the individual fire department or the fire service itself. To retain new and current members, volunteer departments must display four essential characteristics that address these two reasons with volunteer retention:

- The retention strategy must meet the individual’s needs
- The retention strategy must provide its membership with reward and recognition
- The retention strategy must provide adequate supervision and leadership
- The retention strategy must challenge its members

Any recruitment or retention initiative that is considered must take into account the four aforementioned characteristics that are important qualities in a successful volunteer fire-rescue program.

There are numerous professional organizations that have developed model programs that can be used in this recruitment and retention effort. There is no reason to “reinvent the wheel” if tried and proven programs exist to assist volunteer fire-rescue organizations with these matters. The National Volunteer Fire Council at www.nvfc.org and the Fireman’s Association of the State of New York (FASNY) at www.fasny.com (close neighbors) both have quality programs and provide assistance that can help this program get started.

Assistant can also be obtained through the Federal Emergency Management Association (FEMA) and the U.S. Fire Administration (USFA) at www.fema.gov and www.usfa.fema.gov. Both of these organizations have published numerous free reports on recruitment and retention among the Volunteer Fire Service. One such resource publication, Recruitment and Retention in the Volunteer Fire Service: Problems and Solutions Final Report December 1998 outlines numerous programs and resources that have been tried and have proven successful throughout the nation. There is also a similar report titled: Emergency Medical Services (EMS) Recruitment and Retention Manual written in 1995 for FEMA and the USFA that deals with these specific problems in the EMS community.

Volunteer Incentives and Recognition

Incentive and recognition programs are very important for fire and rescue volunteers. Given the enormous time demands, training demands, and personal risks, it is easy for volunteers to burn out
Incentives and recognition programs are essential components to maintaining a strong cadre of experienced volunteers and to prevent a revolving door situation. Many local governments across the nation have strengthened their incentive programs for volunteer firefighters. The cost of incentives is small and economically justifiable if they help recruit and retain volunteers and forestall hiring more career employees. Volunteers in the fire and rescue service today are the first line defenders for any type of emergency or disaster.

**Recognition**

Volunteers generally want to be appreciated and receive some form of recognition for their service to the community. Some are willing to work quietly for years and obtain satisfaction just from doing the job, helping people in need, and the camaraderie in the department. However, information obtained from surveys taken by former volunteers (as well as self-perception of the volunteers) from across the country indicates that a little recognition goes a long way. Although most volunteers never mention the desire for recognition, it is almost always well received when given. Recognition can come from the Chief, city administration, the elected officials and from the community at large.

*The examples set out below in this report may not all be relevant to Falcon Heights but show the creative thinking essential to creating a successful retention program.*

**Station Live-in Programs**

One of the strongest incentive programs for volunteers, particularly younger volunteers, is the station live-in program. Individual volunteer departments can establish minimum standards for members to live at the station. Usually, volunteers must sign up for two to four duty nights per week to qualify. Live-in programs are an excellent incentive as well as a recruitment and retention tool. They not only promote participation, but they guarantee that volunteers will be at the station and ready to answer emergency calls without having to respond from home to the station. The major drawback to the live-in programs is that they are only an incentive for single volunteers since there is generally no housing available for married volunteers. Also, the sleeping areas are not very suitable for permanent residency (e.g., in most cases they are open bunkrooms instead of individual dorm rooms).

**Health Insurance**

The city could provide health insurance for volunteers who meet certain minimum requirements. This type of incentive program is currently being used in a community in Arizona.

**Cable Television and Utility Bills**

Volunteers could be given free cable television, and/or exempted from some local utility bills. This is done in communities in Alaska and Washington.

**Tuition Assistance**

Volunteers could be offered tuition assistance after a certain period of service, similar to tuition assistance offered to municipal employees.

**Retirement Salary Plan**

Many jurisdictions around the country have set up retirement plans for volunteer firefighters. Most of these plans are based on years of service and set up through the state legislature. One program that
should be looked at is the Length of Service Awards Program (LOSAP) which is used in Virginia and Maryland that is a model for rewarding volunteer firefighters who put in years of service to their community. A good resource to assist with such a program is the Volunteer Fire Insurance Service (VFIS) located on the web at www.vfis.com/vfis/vfislosap.htm.

Requirements of a Recruitment and Retention Program

No matter which program is selected, it is imperative that this recruitment, retention and educational effort be a well thought out, on-going, and organized with the support and backing of all involved officials. This is not a localized or short-term concern but a long-term local and national issue that can’t be solved in a vacuum or without great deal of thought. Outside of the box thinking and creative program development is vital to maintaining a healthy volunteer fire-rescue program for the city.

The result of such a program failing is the need for the necessity to provide this service through a paid or a subscription delivery system. Both of these alternatives will be much more costly for the taxpayers than the time and efforts that will be involved in helping maintain a quality well-staffed volunteer fire-rescue system that is currently in place. It is estimated that for a municipality to transition to just one 4-person paid Fire Department, with 24-hour coverage, it would cost approximately $1.5 to 2.0 million dollars a year. This increase would naturally increase the tax levy and have to be sustained for the foreseeable future.

Falcon Heights is typical of many small municipalities in the way they provide fire-rescue using a paid on call response system. Volunteers are becoming scarcer for all organizations as society continues to evolve into a very busy lifestyle. There is little time or effort put forth in the development of an overall regional recruitment and retention program. It is incumbent on City leaders to take the lead to plan out an appropriate strategy as to how to continue to ensure the viability of the volunteer department for the long term future.

Standard Operating Guidelines

FHFD has a clear set of Standard Operating Guidelines (SOG’s) set out in its department policies manual. The SOG’s address response levels, unit staffing, chain of command, use of National Incident Management Systems (NIMS) and Incident Command Systems (ICS), safety, automatic and mutual aid, post emergency operations and hazardous materials operations.

The SOG’s are well structured and cover the range of emergency operations service delivery. However the document is seven years old and in need of review and update especially since federal and state mandates change every year. Such documents should be reviewed annually and completely updated at least every five years by department leadership as part of a routine quality improvement process.

Outsourcing Fire Services

The FHFD delivers the full spectrum of fire services excluding emergency medical service (EMS). EMS transport service is received from the St Paul Fire Department at an Advanced Life Support (ALS) level. Currently the cost per citizen for these fire protection services is $23.73 per year and including the City of Lauderdale it is reduced to $16.40 per year based upon the $126,316 budget for 2012 and an overall service population of 7,700 citizens.
One of the tasks within the study was to explore potential opportunities for outsourcing fire services. This assessment begins with an evaluation of other jurisdictions which are able to effectively respond to fire related incidents in Falcon Heights. There are two departments which could deliver fire services in accordance with FHFD’s NFPA and ISO standards. They are Roseville and St Paul. Although St Paul would be an NFPA #1710 jurisdiction since the service is a fulltime career operation with more stringent NFPA requirements for emergency response.

Both cities were contacted and expressed an interest in providing fire services to the City of Falcon Heights. Currently St Paul has a 2012 budget of $62,047,000 for fire services in 2012 and serves a population of 285,068 citizens. This equates to a cost per citizen of $217.75 for fire services. Roseville had a 2012 budget of $2,041,175 and serves a population of 33,690 citizens. This equates to a cost per citizen of $60.59 for fire services.

This information is provided for comparison purposes only and not to represent what these cities would charge Falcon Heights for actual fire services within a contract. This is a distinct and separate discussion that will need to occur and can be done only upon direction from the City Council. It is possible to outsource the FHFD services, but the conclusions from the study do indicate that the City is receiving a solid level of service for a very competitive cost per capita.
10. Comparable Jurisdictions

To put a department’s performance in perspective, it is helpful to compare the department with other organizations that share similar characteristics. In doing so, department leaders can identify benchmarks that can be used to assess their own performance. When these comparisons are drastically different, further evaluation is required. As part of the analysis two distinct surveys were completed with comparable jurisdictions: 1) Fire Department Comparisons, and 2) Salary/Benefits Comparisons.

Jurisdictional comparisons can be difficult to interpret as there are many variables. No two jurisdictions are exactly alike in terms of geographic size and features, population dynamics, governmental organization and services provided. Many jurisdictions, however, do share some similar qualities that are useful for comparison. While these comparisons are not direct indicators of department performance, they do provide a valuable function in assessing a department in relation to the performance of its peers. This direct comparison can identify organizational strengths and also suggest areas for improvement.

A survey was done with other cities including: St Anthony Village, North St. Paul, Newport, Bayport, Mendota Heights, and Spring Lake Park. Jurisdictional populations ranged from 11,480 in North St. Paul to 3,245 in Bayport, with an average of 7,542 for the seven comparables. Budgets ranged from $785,775 in St. Anthony to $126,316 in Falcon Heights with an average annual budget of $381,555 in the seven comparables.

Of the seven jurisdictions included in the survey three have some fulltime staff and four do not (including Falcon Heights). All jurisdictions do fire inspections as part of their service delivery system. All department structures are similar with minor differences in titles for mid-level management. The average number of Paid-On Call personnel is 25 with largest department having 37 and Falcon Heights being the smallest at 20 personnel. All surveyed departments operate a single station except Newport which has two stations.

Calls range from a high of 1,200 to a low of 100 with the high call volumes in jurisdictions which run medical (EMS) calls as part of their service delivery. The three lowest annual call volumes are in jurisdictions which do not provide first responder EMS in their service delivery.

Falcon Heights is near the average in population. FHFD has the fewest personnel of all comparables and the lowest 2012 budget of comparables. The cost per citizen (total budget divided by population) is also the lowest of the seven comparables.

A second survey was completed after the presentation to the City Council on November 7. Based on contacts made by the Fire Chief, this survey compared salary and benefits and various pay for department positions. The salary/benefits comparison survey compared Falcon Heights to New Brighton, Maplewood, Roseville, Vadnais Heights, White Bear Lake, Lake Johanna, and Little Canada.

From the comparable data it is evident that Falcon Heights is getting a very good value from its fire services and this service is being delivered by a small but very efficient department.
## Fire Department Comparisons

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Anthony</td>
<td>FT Chief, 6 FT firefighters</td>
<td>FT staff</td>
<td>Chief, captains, lieutenants, firefighters</td>
<td>21</td>
<td>2 FT work 24hr shifts, PCC fill in for vacations</td>
<td>1</td>
<td>No</td>
<td>2010- $752,009, 2011 $785,861, 2012 $785,775</td>
<td>Total - 1,200, EMS-880</td>
<td>1,000 Combined Fire/Medical</td>
</tr>
<tr>
<td>N. St. Paul</td>
<td>FT Chief, FT Dept Chief, FT Fire Marshall</td>
<td>Deputy Chief &amp; Fire Marshall</td>
<td>Chief, Dept Chief, Fire Marshall, Captain, Firefighters</td>
<td>37</td>
<td>First Responder 2 people</td>
<td>1</td>
<td>Yes, EMS</td>
<td>2012 - $600000</td>
<td>1,000 Combined Fire/Medical</td>
<td>11,460</td>
</tr>
<tr>
<td>Newport</td>
<td>No</td>
<td>Fire Chief</td>
<td>1 Chief, 1 First Asst Chief, 1 Second Asst Chief, 4 Captains, 4 Engineers, rest firefighters</td>
<td>27</td>
<td>No</td>
<td>2</td>
<td>Just EMS</td>
<td>2011 - $229,662, 2012 - $198,132</td>
<td>100</td>
<td>3,715</td>
</tr>
<tr>
<td>Bayport</td>
<td>No</td>
<td>Fire Chief; they have a Fire Inspector for sprinklers</td>
<td>Chief, 2 Asst Chief, 4 Cap, 19 firefighters</td>
<td>25</td>
<td>2 Duty Officers</td>
<td>1</td>
<td>No</td>
<td>2012 - $364,466</td>
<td>1,000 calls, covers a large area which includes Bayport, Baytown, West Lakeland and Oak Park Heights</td>
<td>3,245</td>
</tr>
<tr>
<td>Mendota Heights</td>
<td>No</td>
<td>PT Fire Marshall (20-25 hrs/wk)</td>
<td>Chief, assistant chief, training officer, assistant training officer and 4 captains, FM reports to Chief</td>
<td>36</td>
<td>No</td>
<td>1</td>
<td>No, ALS Ambulance response provided by Health East at no charge. They respond and provide services to Northern Dakota County. We provide contract services to 3 neighboring cities.</td>
<td>$400-$410K</td>
<td>Total - 240. Only respond at request of PD or Health East. EMS Calls - 10-15</td>
<td>11,700</td>
</tr>
<tr>
<td>Spring Lake Park</td>
<td>FT Chief, 9 FT Firefighters</td>
<td>Cities hired non-profit group in joint with Mounds View, Spring Lake Park &amp; Blaine</td>
<td>Division Chief</td>
<td>6</td>
<td>No</td>
<td>1</td>
<td>No</td>
<td>2012 - $188,200</td>
<td>130 (10%)</td>
<td>6,805</td>
</tr>
<tr>
<td>Falcon Heights</td>
<td>No</td>
<td>Fire Marshal</td>
<td>Fire Chief, Assistant Chief, 3 Capt, Safety Officer, Training Officer, 13 firefighters</td>
<td>20</td>
<td>No</td>
<td>1</td>
<td>Yes, EMS</td>
<td>2012 = $126,316</td>
<td>5 year average = 100 calls per year</td>
<td>7,700</td>
</tr>
</tbody>
</table>
## Salary/Benefits Comparisons

<table>
<thead>
<tr>
<th></th>
<th>Fire Calls</th>
<th>Drill Time</th>
<th>Fire Chief</th>
<th>Deputy Fire Chief</th>
<th>Fire Marshal</th>
<th>Captain</th>
<th>Pension</th>
<th>Addtl Info/ Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falcon Heights</td>
<td>$11.34</td>
<td>$8.25</td>
<td>$4,800</td>
<td>$3,000</td>
<td>$30,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maplewood</td>
<td>$12.12</td>
<td>$12.12</td>
<td>$50.00</td>
<td>$44.00</td>
<td>$14.14</td>
<td>up to $240,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roseville</td>
<td>$13.99</td>
<td>$91,146 - $109,803</td>
<td>$17.94</td>
<td>$65,000 - $79,312</td>
<td>$17.94</td>
<td>avg. $240,000</td>
<td>PT police/fire have PERS, relief fund contribution $298,367</td>
<td></td>
</tr>
<tr>
<td>Vadnais Heights</td>
<td>$13.50</td>
<td>$16.00</td>
<td>$100,000</td>
<td>$4,000</td>
<td>$55,000</td>
<td>$2,000</td>
<td>$3,650/yr</td>
<td></td>
</tr>
<tr>
<td>White Bear Lake</td>
<td>$11.75</td>
<td>$11.75</td>
<td>$13.75</td>
<td>$12.75</td>
<td>$0</td>
<td></td>
<td></td>
<td>Dep. Fire Chief + 300.00/month; Pension is fully funded</td>
</tr>
<tr>
<td>Lake Johanna</td>
<td>$12.75</td>
<td>$9.00</td>
<td>$5,925</td>
<td>$927</td>
<td>$88,400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little Canada</td>
<td>$14.39</td>
<td>$18.91</td>
<td>$13,391.76</td>
<td>$4,499.44</td>
<td>$1,114.92</td>
<td>$3,150 per year of service</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. Recommendations

The final section identifies 11 recommendations and considerations for future FHFD service delivery and organizational efficiency based on the interviews, data analysis, and our professional observations. The recommendations are not presented in any order of importance or priority.

1. Consider creating a paid position of Fire Chief/Fire Marshal.
2. Create an annual report of department activities.
3. Expand public fire safety education and become proactive in interacting with citizens.
4. Improve the working relationship with the City Council.
5. Track and report apparatus condition and annual maintenance of all apparatus and major equipment.
6. Monitor department response time per NFPA #1720 standards and report the results annually.
7. Develop a mutual aid response system for medium and high hazard occupancies with regular reviews and updates.
8. Develop a volunteer recruitment and retention program.
10. Review department compensation on an annual basis.
11. Determine if a further evaluation of outsourcing the fire service is warranted.

Recommendations

A summary of each of the 11 items follows.

1. Consider creating a paid position of Fire Chief/Fire Marshal. It is timely for the City to discuss and consider a paid position as Fire Chief/Fire Marshal. Discussion can occur on what level (full or part time) the Chief’s position should be funded and utilized. This combined position could be financed (in part or in total) by inspection fees and current stipends. The creation of a staff position of Fire Chief would also improve interaction with elected officials and city administration and provide greater accountability for department decisions and incident responses. The position should be a key member of the city administrative team who represents the city and FHFD in a professional manner and keeps FHFD operating in an effective and efficient manner. This person would also be directly responsible for implementing the annual City Council Fire Department goals.

2. Create an annual report of department activities. Currently FHFD does not provide an annual report of activities and future plans. This creates a void for not only the City Council, but for the department as well. This document is a key part of organizational communications for staff and citizens as well. Examples of annual reports can be found on the internet or simply by contacting Falcon Heights neighboring fire departments such as Roseville, St. Paul, and Minneapolis.

3. Expand public fire safety education activities and become proactive in interacting with citizens. FHFD currently attends several community events annually and works with the local elementary school to bring fire safety to children. This is a good start but it is important
Recommendations

to expand community recognition and the fire safety education. There are many ways to become a critical part of citizens’ perception of Falcon Heights’ municipal operations. This could be part of a greater city-wide initiative too. During our conversation with residents of the Grove neighborhood, they spoke favorably of the department developing a proactive communication strategy. They see possible educational activities on fire prevention, emergency evacuation and use of a fire extinguisher (as examples). Start with being prominent and visible and taking the message to the people. Interaction during training exercises; recruiting information on the internet; sponsoring a sports team; and simply having a FHFD night in the park can go a long way to reaching this key goal.

4. **Improve the working relationship with the City Council.** There is a lack of understanding of FHFD on the part of elected officials. Presently, the City Administrator is including FHFD activity reports in his weekly bulletin to the Council and this is a great first step. FHFD should now take the additional step to prepare a monthly report to help expand the knowledge base. Additionally the Council and Administrator should be invited to a planned FHFD “getting to know us” session. This could be a two to four hour interactive program of showing and explaining apparatus and equipment; public education programs; letting administration experience a training evolution; and most importantly opening the lines of communication. A similar program should also be available for newly elected officials and administrative staff when they come aboard.

5. **Track and report apparatus condition and annual maintenance of all apparatus and major equipment.** This report has provided the tools to develop an equipment replacement program. But it is essential that this evaluation process be done annually and the results should be a key part of the department’s ongoing communications and annual report. Such planning and evaluations will prevent the surprises which create the communication gaps now seen in FHFD interaction with elected officials and the community and allow a more consensual approach to planning and financing large capital items.

6. **Monitor department response time per NFPA #1720 standards and report the results annually.** This report provides the national benchmark NFPA #1720 which is the most commonly used standard among fire departments nationally. FHFD is meeting the provisions of this standard but this evaluation should also be a part of the annual department report to the City Council. The department’s measurement could even be done on a monthly basis for the report to the city administrator.

7. **Develop a mutual aid response system for medium and high hazard occupancies with regular review and updates.** FHFD has the apparatus and staff to provide initial response to most structural calls (light hazard) in the jurisdiction as set out in NFPA Fire Chief’s Handbook. However there are several structures which would be classified as medium and high hazard occupancies also within the City. For these responses there is a need for apparatus and personnel which exceed FHFD resources. Such a need to use outside resources is now usually the norm for most jurisdictions in the country. To proactively plan for this eventuality the use of mutual aid and designating specific outside resources for these target hazards is routinely used by many fire departments across the country. Mutual-aid Auto Box Alarm System (MABAS) has become a state standard in Illinois, Wisconsin, and Michigan and is currently being considered in Iowa and Minnesota for a state-wide system. FHFD needs to create a predetermined response system for these medium and high hazards and preplan with other responders to ensure an effective and efficient response to these scenarios.
8. **Develop a volunteer recruitment and retention program.** Volunteer membership in fire services is shrinking nationally due to many demographic and personal issues. However there are departments who are responding to this trend by developing some creative tools. These agencies are actually keeping full rosters and have candidates waiting to get aboard. This report includes a section discussing volunteer recruitment and retention. For Falcon Heights to maintain the high quality and low cost fire service delivery it currently has, the city and the department must make recruitment and retention a priority for the future.

9. **Review and update all department Standard Operating Guidelines and inter-jurisdictional agreements.** FHFD has a very comprehensive set of standard operating guidelines. The manual covers the important areas of what the department does and how to provide a safe and effective service delivery. There are also several inter-jurisdictional agreements for EMS, haz-mat, and special operations services which are also well documented and clearly designed. However all these documents need to be reviewed and updated on a regular basis ranging from annually for key SOG’s to at least every three to five years for interjurisdictional agreements. This has not been done and all these policies should be reviewed and updated to provide that all new regulations, standards, and best practices are identified.

10. **Review department compensation on an annual basis.** Compensation is a major part of recruiting and keeping paid on call personnel. Department and city leaders need to routinely review and adjust the compensation program for the department. Such review should include pay rates, pension, stipends, and any other city provided benefits.

11. **Determine if further evaluation of outsourcing fire services is warranted.** This is a very significant decision for the City. This report has presented a baseline update on the department and identified important areas to enhance and improve services. In addition information is provided on the costs per citizen for fire services from the City of Roseville and St. Paul. If the City Council wants to pursue discussions with these two cities, then it is important that more detail be obtained from each City on what specific costs to Falcon Heights will actually be. It is also a sensitive subject as the City of Lauderdale is also involved and their considerations need to be a factor in the discussion too.

   Current services are efficient, and well delivered at a very low cost per citizen served. The enhancements presented in this report will improve effectiveness while keeping costs to a reasonable level. Based on what is known today, a discussion with the City Council is needed to determine if further consideration of outsourcing services is warranted. There is no “silver bullet” that says when and how to outsource municipal services however, once done there is little ability to go back. Falcon Heights is getting an excellent value for the dollars spent with the current delivery system. FHFD is meeting all the industry standards and required regulations. Finally under the present organization the City Council retains the ultimate control over the fire services within the city.
APPENDIX I
MAP
APPENDIX II

MUTUAL AID
MUTUAL AID

Request for Mutual Aid Outside Falcon Heights

1. No unit shall respond to any Mutual aid call without a minimal crew. A minimal crew is specified as Fire engines and Rescue with five firefighters, 4 respond to the call while one member remains at the station to ensure proper response to and alarm in our city. (i.e. ordering other resources for the city.)

2. Upon receiving a Mutual Aid call, all members shall respond to the Fire Station, with the exception of the Fire Chief.

Request for Mutual Aid by Falcon Heights

1. the officer in charge at the emergency scene is authorized by the Fire Chief to make a request for Mutual Aid assistance of the officer determines that such aid is necessary.

2. Requests for Mutual Aid shall be specific in term so type and quantity of units required, units reporting to the emergency scene or to a city FH Fire station will be under.
<table>
<thead>
<tr>
<th>2nd Alarm</th>
<th>5th Alarm</th>
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<tbody>
<tr>
<td>St. Anthony</td>
<td>White Bear 1 Engine</td>
</tr>
<tr>
<td>Roseville</td>
<td>North St. Paul 1 Engine</td>
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<td>Ramsey County Emergency Services</td>
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</tr>
<tr>
<td>3rd Alarm</td>
<td>6th Alarm</td>
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<tr>
<td>New Brighton</td>
<td>Oakdale 1 Ladder</td>
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<td>Lake Johanna</td>
<td>Maplewood 1 Engine</td>
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<tr>
<td>Little Canada</td>
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<tr>
<td>Maplewood</td>
<td>Rescue</td>
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<tr>
<td>St. Paul</td>
<td>Roseville 1 Heavy Rescue</td>
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<td>Salvation Army</td>
<td>St. Anthony 1 Heavy Rescue</td>
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<td>4th Alarm</td>
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<td>St. Anthony 1 Engine to Scene</td>
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<td>Vadnais Heights</td>
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<tr>
<td>Little Canada</td>
<td>North Suburban HazMat</td>
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APPENDIX III

FIRE PERSONNEL/YEARS OF SERVICE
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<tr>
<th>Member Name</th>
<th>#</th>
<th>Attending</th>
<th>Excused Absence</th>
<th>Unexcused Absence</th>
<th>Signature REQUIRED for Drill Credit</th>
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<tr>
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<td></td>
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<td></td>
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