

# PROPOSAL FOR

## Fire Operational Analysis Huntersville, NC

December, 2018



# CPSM<sup>®</sup>

CENTER FOR PUBLIC SAFETY MANAGEMENT, LLC  
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## ICMA

Exclusive Provider of Public Safety Technical Services for  
International City/County Management Association



Center for Public Safety Management, LLC

March 5, 2019

Anthony Roberts, Town Manager  
Town of Huntersville, North Carolina  
101 Huntersville-Concord Road  
P.O. Box 664  
Huntersville, NC 28070

Dear Mr. Roberts:

*The Center for Public Safety Management, LLC, the exclusive provider of public safety technical assistance for the International City/County Management Association, is pleased to submit this proposal to provide professional services to perform a comprehensive operational analysis of fire services for the Huntersville, Cornelius, and Davidson. The CPSM approach to conducting this analysis is unique and comprehensive in that we will link operational information, and service delivery systems with a with a review of the department's response workload. We utilize this approach to establish the "current state" of the operational department's service delivery model. This approach will assist us in developing considerations and recommendations linked to increasing the efficiency and effectiveness of the fire operational services-service delivery model and resource allocation for the Huntersville.*

Primary goals of the study include:

- **Potential consolidation** with neighboring Towns of Huntersville and Davidson.

#### **Potential Consolidation**

We are prepared to review the possible consolidation of the Huntersville, Davidson, and Cornelius Fire Services. We will conduct a full data analysis to determine actual workload in the three communities and the effects of a consolidation.

This proposal is specifically designed to provide Huntersville with a thorough and unbiased analysis of the fire operational-service delivery model. To accomplish this, CPSM combines the experience of dozens of subject matter experts in the areas of emergency services. The team assigned to this project will have over 100 years of practical experience managing emergency service agencies, academic, teaching and training, and professional publications, and extensive consulting experience completing projects nationwide and in Canada.

The Project Manager for this project will be the director for the Center for Public Safety Management, Thomas Wieczorek. Working with him will be Chief Peter Finley (Ret.) who is highly experienced working with volunteer and combination departments and Chief Jack Brown (Ret.).

I, along with my colleagues at CPSM, greatly appreciate this opportunity and would be pleased to address any comments you may have. **You may contact me at 716.969.1360 or via email at**

**lmatarese@cpsm.us**. I would ask that you contact Director Wieczorek with any questions or follow-up. He can be reached at 616-813-3782 or [twieczorek@cpsm.us](mailto:twieczorek@cpsm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'LM', with a long horizontal flourish extending to the right.

Leonard A. Matarese, ICMA-CM, IPMA-SCP  
Managing Partner *Center for Public Safety Management. LLC*

# THE ASSOCIATION & THE COMPANY

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The International City Management Association is a 104-year old, nonprofit professional association of local government administrators and managers, with approximately 13,000 members located in 32 countries.

Since its inception in 1914, ICMA has been dedicated to assisting local governments and their managers in providing services to its citizens in an efficient and effective manner. ICMA advances the knowledge of local government best practices with its website ([www.icma.org](http://www.icma.org)), publications, research, professional development, and membership. The ICMA Center for Public Safety Management (ICMA/CPSM) was launched by ICMA to provide support to local governments in the areas of police, fire, and emergency medical services.

ICMA also represents local governments at the federal level and has been involved in numerous projects with the Department of Justice and the Department of Homeland Security.

In 2014, as part of a restructuring at ICMA, the Center for Public Safety Management (CPSM) was spun out as a separate company. It is now the exclusive provider of public safety technical assistance for ICMA. CPSM provides training and research for the Association's members and represents ICMA in its dealings with the federal government and other public safety professional associations such as CALEA, PERF, IACP, IFCA, IPMA-HR, DOJ, BJA, COPS, NFPA, and others.

The Center for Public Safety Management, LLC, maintains the same team of individuals performing the same level of service as when it was a component of ICMA. CPSM's local government technical assistance experience includes workload and deployment analysis using our unique methodology and subject matter experts to examine department organizational structure and culture, identify workload and staffing needs, and align department operations with industry best practices. We have conducted more 305 such studies in 41 states and provinces and 215 communities ranging in population from 8,000 (Boone, Iowa) to 800,000 (Indianapolis, Ind.).

# THE CPSM APPROACH – COMPREHENSIVE FIRE AND EMS ANALYSIS

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## Firm Qualifications

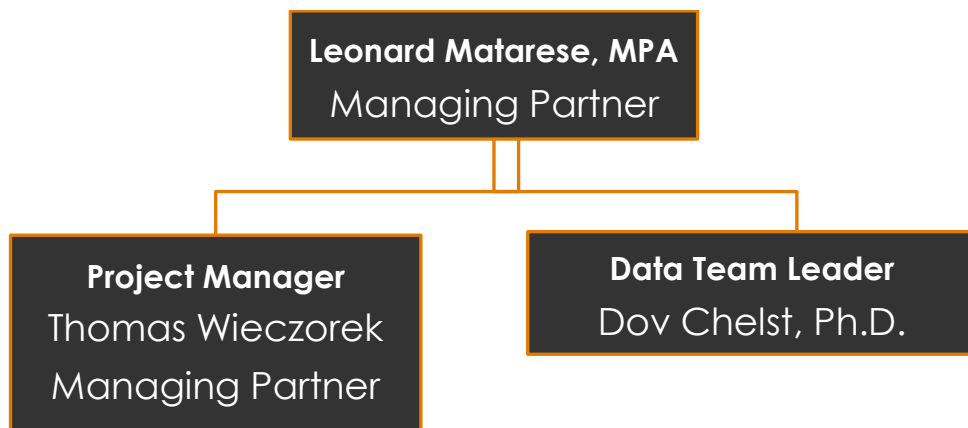
CPSM has conducted over 110 fire and emergency medical services projects to include comprehensive fire and EMS analyses, fire and EMS consolidation analyses, analyses of emergency communications centers, fire and EMS department strategic plans, and fire and EMS department staffing plans. CPSM utilizes current and former fire and EMS chief officers who also served as practitioners, line officers and middle managers. When conducting a fire and emergency services agency analysis, CPSM combines a forensic response workload analysis, with an operational analysis designed to provide the client with an unbiased review of the fire and EMS agency, to include considerations and recommendations to improve the effectiveness of agency operations with a focus on efficiencies. For fire and EMS projects, CPSM has ten (10) subject matter experts that are discipline specific, and who are supported by five (5) data assessment subject matter experts. When the project needs additional expertise, CPSM has twelve (12) additional subject matter experts representing the disciplines of law enforcement, education and training, as well leadership and management.

CPSM understands that the current fire services are delivered using various models; Cornelius, for example, uses a hybrid-type model which includes a 501(3)(c) volunteer company contracted to the city. Under the existing system, the company requests yearly contributions from the town. This operation will be analyzed for effectiveness, efficiency and safety to the city as well as current members. Another component of the study will determine what best service model will serve the cities in the future as well as opportunities to consolidate with surrounding communities. Benchmarks developed in the forensic data performance analysis will be evaluated to determine impacts that can be made in ISO ratings (Insurance Standards Office), consolidation opportunities, capital expenses, station location and personnel deployment.

Revenue is an issue with the fire and EMS services, particularly with changes to the Affordable Care Act (ACA) and insurance reimbursements. CPSM will look at EMS revenues as well as schedules for capital improvement plans.

For this project, CPSM has assembled a premier team of experts who have fire, emergency medical services, senior level fire and EMS agency management, and response time and workload experience, as well as fire and EMS program and project management experience. The team for the project will consist of a Project Manager, and several public safety Subject Matter Experts selected from our team specifically to meet the needs of this project.

The management organizational chart for the project includes the following Key Team Members



## LEONARD A. MATARESE, MPA, ICMA-CM, IPMA-SCP

Managing Partner

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### BACKGROUND

Mr. Matarese is a specialist in public sector administration with particular expertise in public safety issues. He has 49 years' experience as a law enforcement officer, police chief, public safety director, city manager, major city Human Resources Commissioner and public safety consultant. He was one of the original advisory board members and trainer for the first NIJ/ICMA Community Oriented Policing Project which has subsequently trained thousands of municipal practitioners on the techniques of the community policing philosophy over the past 18 years. He has managed over three hundred studies of emergency services agencies with attention to matching staffing issues with calls for service workload.

Recognized as an innovator by his law enforcement colleagues he served as the Chairman of the SE Quadrant, Florida, Blue Lighting Strike Force, a 71 agency, U.S. Customs Service anti-terrorist and narcotics task force and as president of the Miami-Dade County Police Chief's Association – one of America's largest regional police associations. He represents ICMA on national projects involving the United States Department of Homeland Security, The Department of Justice, Office of Community Policing and the Department of Justice, Office Bureau of Justice Assistance. He has also served as a project reviewer for the National Institute of Justice and is the subject matter expert on several ICMA / USAID police projects in Central America. As a public safety director, he has managed fire / EMS systems including ALS transport. He was an early proponent of public access and police response with AEDs.

Mr. Matarese has presented before most major public administration organizations annual conferences on numerous occasions and was a keynote speaker at the 2011 annual PERF conference. He was a plenary speaker at the 2011 TAMSEC Homeland security conference in Linköping, Sweden and at the 2010 UN Habitat PPUD Conference in Barcelona, Spain.

He has a Master's degree in Public Administration and a Bachelor's degree in Political Science. He is a member of two national honor societies and has served as an adjunct faculty member for several universities. He holds the ICMA Credentialed Manager designation, as well as Certified Professional designation from the International Public Management Association- Human Resources. He also has extensive experience in labor management issues, particularly in police and fire departments. Mr. Matarese is a life member of the International Association of Chiefs of Police and of ICMA.

## **FIRE OPERATIONS TEAM**

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### **DIRECTOR**

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#### **THOMAS WIECZOREK**

Retired Director, City of Ionia Department of Public Safety and Ionia City Manager.  
Director for CPSM, LLC

#### **BACKGROUND**

Thomas Wieczorek is an expert in fire and emergency medical services operations. He has served as a police officer, fire chief, director of public safety and city manager and is former Executive Director of the Center for Public Safety Excellence (formerly the Commission on Fire Accreditation International, Inc.).

He has taught programs at Grand Valley State University, the National Highway Traffic Safety Administration (NHTSA), and Grand Rapids Community College. He has testified frequently for the Michigan Municipal League before the legislature and in several courts as an expert in the field of accident reconstruction and fire department management. He is the past-president of the Michigan Local Government Manager's Association; served as the vice-chairperson of the Commission on Fire Officer Designation; and serves as a representative of ICMA on the NFPA 1710 and 1730 career committee.

He most recently worked with the National League of Cities and the Department of Homeland Security to create and deliver a program on emergency management for local officials titled, "Crisis Leadership for Local Government Officials." It has been presented in 43 states and has been assigned a course number by the DHS. He represents ICMA on the EMAC Board of Directors and serves as an alternate to the National Homeland Security Coalition.

He received the Mark E. Keane "Award for Excellence" in 2000 from the ICMA, the Association's highest award and was honored as City Manager of the Year (1999) and Person of the Year (2003) by the Rural Water Association of Michigan, and distinguished service by the Michigan Municipal League in 2005.

### **SENIOR ASSOCIATE**

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#### **CHIEF JOHN (JACK) BROWN (RET.), BA, MS, EFO**

Retired Director, Arlington County Office of Emergency Management, Retired Assistant Chief Fairfax County Fire & Rescue Department

#### **BACKGROUND**

Jack Brown's 40 year public safety career includes 29 years with the Fairfax County, Virginia Fire & Rescue Department, where he retired as Assistant Fire Chief of Operations. He served in a number of operational and staff positions, including the Office of the Fire Marshal where he attained NFPA certification as a Fire Inspector II and Fire Investigator. As an investigator, he conducted post fire and post blast investigations, assisting in the prosecution of offences involving arson and illegal explosives. He served as a Planning Section Chief and Task Force Leader for the Fairfax County Urban Search and Rescue Task Force (VA TF-1). He deployed to Nairobi, Kenya as Plans Chief in response to the 1998 embassy bombing and as Task Force Leader on a deployment to Taiwan in response to an earthquake in 1999.



Upon his retirement from Fairfax County in 2000, he became the Assistant Chief for the Loudoun County Department of Fire, Rescue and Emergency Management, where he led a team of firefighters to the Pentagon on 9/11 and assisted the Arlington County Fire Department as the initial Planning Section Chief for the incident. Jack served as Planning Section Chief on a Northern Virginia multi-jurisdictional emergency management task force that reestablished the New Orleans Emergency Operations Center just after Hurricane Katrina. He retired from Loudoun County in 2006 to pursue a career in emergency management.

Brown retired from the Coast Guard Reserve as a Chief Warrant Officer 4, specializing in port safety and security, with 33 years of combined Army and Coast Guard Reserve service. After 9/11, he served on active duty for 47 months, including 15 months in the Middle East. He received the Bronze Star Medal for actions in Baghdad, Iraq while supporting combat operations during Operation Iraqi Freedom.

Brown holds a bachelor's degree in Fire Science Administration from the University of Maryland and a master's degree in Quality Systems Management from the National Graduate School, Falmouth, Massachusetts. He is a 1997 graduate of the National Fire Academy's Executive Fire Officer Program at the National Emergency Training Center, Emmitsburg, Maryland. He has been an adjunct professor at the Northern Virginia Community College and the University of the Department of Columbia in the Fire Science curriculums. He is a graduate of the Executive Leadership Program in the Center for Homeland Defense and Security at the Naval Postgraduate School, Monterey, California.

## SENIOR ASSOCIATE

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### CHIEF PETER J. FINLEY, JR. (RET.), BA, EFO

Retired Chief of Department City of Vineland Fire Department and Winslow Township Fire Department. Past President NJ Career Fire Chiefs Association.

### BACKGROUND

Pete Finley's 36-year career in the fire and emergency services includes 28 in a career capacity with several different fire departments. He has served as Chief of Department for two New Jersey Fire Departments, most recently the Winslow Township Fire Department where, significant among other accomplishments, he was responsible for the planning, establishment, and initial deployment of the career component of the department as it transitioned from fully volunteer to combination status. Prior to that he served for more than 20 years with the City of Vineland Fire Department holding every operational rank (Firefighter, Fire Prevention Specialist, Captain, Deputy Chief, Fire Chief) including 4 ½ years as Chief of Department. In this position, he initiated significant changes within the department including implementing numerous improved operational and safety initiatives, updating, and modernizing equipment, providing the department's first ever formal officer training and development program, and, significantly increasing the capabilities of the regional hazardous materials and special operations response team. During his tenure, the department received more than one million dollars in various grants. He formerly commanded the Vineland Rescue Squad gaining significant EMS operations and command experience, and, completing a complete overhaul of that organization's operations.

Chief Finley currently serves as an Adjunct Professor in the Fire Science Program at Camden County College. In addition, since his retirement, he has been involved in

conducting numerous fire department operational readiness and organizational evaluations including several under the auspices of the United State Coast Guard related to domestic port security assessments. He has also been involved in the development and administration of several fire service promotional examinations and assessment processes. Chief Finley received his Associate in Applied Science degree from Atlantic Community College in New Jersey, and, earned his Bachelor of Science degree in Fire Science/ Administration from the University of Maryland. He is a 2003 graduate of the National Fire Academy's Executive Fire Officer Program earning an Outstanding Research Award for his 2002 paper titled, "Residential Fire Alarm Systems: The Verification and Response Dilemma". He has earned more than two dozen state and national fire service certifications, most of them the highest level attainable. Chief Finley has been a member of several fire service organizations and served on numerous committees throughout his career. In 2008 and 2009 he served as President of the New Jersey Career Fire Chiefs Association, a professional association that represents and advocates for the interests of the state's full time professional fire chiefs and the fire service in general. From 2003–2005 he was a member of the Training and Education Committee of the Governor's Fire Service and Safety Task Force.

## SENIOR ASSOCIATE

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### GERARD J. HOETMER, MPA

Retired Executive Director of Public Entity Risk Institute, Fairfax, VA. Former Director of Research & Development, ICMA.

### BACKGROUND

Gerry Hoetmer is an expert in fire services, emergency management, and risk management. He served as the founding executive director of the Public Entity Risk Institute, a nonprofit organization that provided training, technical assistance, and research on risk management issues for local government and other public and quasi-public organizations. During his tenure as executive director he was a member of the National Academy of Sciences Disaster Roundtable. Prior to his position as executive director at PERI, Mr. Hoetmer worked at ICMA for 19 years, most recently as the director of research and development. He has written extensively on local government emergency management, the fire service, code enforcement, and risk management issues.

Seminal works include the first report to Congress on fire master planning and the first edition of *Emergency Management: Principles and Practices for Local Government*. In addition to providing expert testimony before Congress and local arbitration boards on fire staffing and scheduling issues, Mr. Hoetmer represented ICMA on the NFPA 1500 Standard on Occupational Safety and Health; NFPA 1201, the Standard for Providing Emergency services to the Public; and the NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. Mr. Hoetmer has developed and conducted training programs and seminars at FEMA's Emergency Management Institute and the National Fire Academy in Emmitsburg, Maryland.

He holds a Bachelors from the State University of New York, New Paltz and the Master of Public Administration degree from the University of Colorado at Denver.

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## DATA ASSESSMENT TEAM

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### DOV CHELST, PH.D.

Director of Quantitative Analysis

#### BACKGROUND

Dr. Chelst is an expert in analyzing public safety department's workload and deployment. He manages the analysis of all public safety data for the Center. He is involved in all phases of The Center's studies from initial data collection, on-site review, large-scale dataset processing, statistical analysis, and designing data reports. To date, he has managed over 240 data analysis projects for city and county agencies ranging in population size from 8,000 to 800,000.

Dr. Chelst has a Ph.D. Mathematics from Rutgers University and a B.A. Magna Cum Laude in Mathematics and Physics from Yeshiva University. He has taught mathematics, physics and statistics, at the university level for 9 years. He has conducted research in complex analysis, mathematical physics, and wireless communication networks and has presented his academic research at local, national and international conferences, and participated in workshops across the country.

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## SENIOR PUBLIC SAFETY SUBJECT MATTER EXPERT

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### DAVID MARTIN, PH.D.

Senior Researcher in the Center for Urban Studies, Wayne State University

#### BACKGROUND

Dr. Martin specializes in public policy analysis and program evaluation. He has worked with several police departments to develop crime mapping and statistical analysis tools. In these projects, he has developed automated crime analysis tools and real-time, dashboard-style performance indicator systems for police executive and command staff. Dr. Martin teaches statistics at Wayne State University. He is also the program evaluator for four Department of Justice Weed and Seed sites. He is an expert in the use of mapping technology to analyze calls for service workload and deployments.

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## SENIOR PUBLIC SAFETY DATA ANALYST

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### PRISCILA MONACHESI, M.S., B.A.

#### BACKGROUND

Priscila Monachesi is a Senior Data Analyst with CPSM and has worked on over 40 data analysis projects for city and county public safety agencies. She has over ten years' experience as a Project Leader/Senior System Analyst in auto manufacturing and financial systems. She has a M.S in Statistics from Montclair State University, a B.A. in Economics from Montclair State University, and a Technical Degree in Data Processing from Pontifícia Universidade Católica in Brazil.

## **PUBLIC SAFETY DATA ANALYST**

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SHAN ZHOU, PH.D.

### **BACKGROUND**

Dr. Shan Zhou specializes in the analysis of police data. Shan brings extensive experience in scientific and clinical data analysis. Prior to CPSM, she worked as an associate scientist at Yale School of Medicine. Shan has a MS in Business Analytics and Project Management from University of Connecticut and a PhD in Cell biology, Genetics and Development from University of Minnesota.

## **PUBLIC SAFETY DATA ANALYST**

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RYAN JOHNSON, B.A.

### **BACKGROUND**

Ryan Johnson is a new addition to the CPSM data analyst team, specializing in the analysis of fire data. He has helped complete fire analysis projects for several cities and has handled ad hoc requests for modeling optimum staffing levels for police departments. Ryan brings experience in financial data analysis from the telecom expense industry, where he was the lead analyst for four clients; 3 fortune 500 companies and the Top Architectural Engineering Firm in the country. He also brings experience in spatial analytics from his time with Homeland Security. Ryan has a B.S. in Economics from Georgia State University and he is completing his M.A. in Economics from Rutgers University.

## **EMS SPECIALIST**

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MATT ZAVADSKY, MS, BA

Chief Strategic Integration Officer, MedStar Mobile Health Care, Operations Manager Rural Metro Ambulance Service-Orlando Fla.

### **BACKGROUND**

Matt has 37 years' experience in EMS and holds a Master's Degree in Health Service Administration with a Graduate Certificate in Health Care Data Management. He is a frequent speaker at national conferences and has done consulting in numerous EMS issues, specializing in mobile integrated healthcare, high performance EMS system operations, public/media relations, public policy, EMS economic models and EMS research.

Matt is the Chief Strategic Integration Officer at [MedStar Mobile Healthcare](#), the Public Utility Model EMS agency that provides exclusive emergency and non-emergency EMS and Mobile Integrated Healthcare services for Fort Worth and 14 other cities in North Texas. MedStar provides advanced life support ambulance service to 436 square miles and more than 936,000 residents and responds to over 140,000 calls a year with a fleet of 57 ambulances.

Coming to MedStar in 2008 as the Operations Director, Matt has helped guide the continued development and implementation of numerous innovative programs with healthcare partners

that have transformed MedStar fully as a Mobile Integrated Healthcare (MIH) provider, including high utilizer, CHF readmission reduction, observational admission reduction, hospice revocation avoidance, 9-1-1 nurse triage programs and partnerships with home health agencies. He is also the co-author of the book "[Mobile Integrated Healthcare – Approach to Implementation](#)" published by Jones and Bartlett Publishing.

Matt is the President-Elect of the National Association of EMTs and chairs their EMS Transformation Committee. He is also Adjunct Faculty for the University Of North Texas Health Science Center, Department of Health Management and Policy, as well as an appointed committee member to the Joint Commission's Home Care Professional and Technical Advisory Committee (PTAC) and the Lewin Group's Hospital Outpatient Quality Reporting (HOQR) Program Stroke and AMI Expert Work Group, developing metrics for use in value-based purchasing measures for emergency departments.

# PROJECT SCHEDULE

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## **Milestone 1 – Full execution of the agreement**

Agreement will identify Project Launch date.

## **Milestone 2 – Project Launch**

We will conduct an interactive telephone conference with local government contacts. Our project leads will launch the project by clarifying and confirming expectations, detailing study parameters, and commencing information gathering. Should the additional cities join this project, they would be included in the project launch.

## **Milestone 3a – Information Gathering and Data Extraction – 30 Days**

Immediately following project launch, the fire operations lead will deliver an information request to the department. This is an extensive request which provides us with a detailed understanding of the department's operations. Our experience is that it typically takes an agency several weeks to accumulate and digitize the information. We will provide instructions concerning uploading materials to our website. When necessary, the lead will hold a telephone conference to discuss items contained in the request. The team lead will review this material prior to an on-site visit.

## **Milestone 3b – Data Extraction and Analysis – 14 Days**

Immediately following the project launch the Data Lead will submit a preliminary data request, which will evaluate the quality of the Computer Aided Dispatch (CAD) system data. This will be followed by a comprehensive request for data from the CAD system to conduct the response and workload analysis. This request requires a concerted effort and focused response from your department to ensure the timely production of required for analysis. Delays in this process will likely extend the entire project and impact the delivery of final report. The data team will extract one year's worth of Calls for Service (CFS) from the CAD system. Once the Data Team is confident the data are accurate, they will certify that they have all the data necessary to complete the analysis.

## **Milestone 3c – Data Certification – 14 days**

## **Milestone 4a – Data Analysis and Delivery of Draft Data Report – 30 days**

Within thirty days of data certification, the analysis will be completed and a draft, unedited data report will be delivered to each of the departments for their review and comment. After the data draft report is delivered, an on-site visit by the operations team will be scheduled.

## **Milestone 4b – Departmental Review of Draft Data Report – 14 days**

The department will have 10 days to review and comment on the draft unedited data analysis. During this time, our Data team will be available to discuss the draft report. The Departments must specify all concerns with the draft report at one time.

## **Milestone 4c – Final Data Report – 10 days**

After receipt of the department's comments, the data report will be finalized within 10 days.

## **Milestone 5 – Conduct On-Site Visit – 30 days**

Subject matter experts will perform an on-site visit within 30 days of the delivery of the draft data report.

## **Milestone 6 – Draft Operations Report – 30 days**

Within 30 days of the last on-site visit, the operations team will provide a draft operations report to each department. Again, the department will have 10 days to review and comment.

## **Milestone 7 – Final Report 15 days**

Once the Department's comments and concerns are received by CPSM the combined final report will be delivered to the cities within 15 days. **TOTAL ELAPSED TIME: 105 – 135 days**

# PROJECT UNDERSTANDING

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## Work Plan and Methodology

CPSM will work collaboratively with fire departments and town officials when scheduling conference calls, on-site visits, and stakeholder meetings to ensure successful outcomes. CPSM has identified five (5) major outcomes for this project. CPSM has developed the following work plan:

Immediately following project launch, the Project Manager will deliver an operational/administrative information request to the fire Department or designated point of contact. This is an extensive request which provides us with a detailed understanding of the department's operations. We will provide instructions concerning uploading materials to our website. When necessary, the Project Manager and/or the Operations Team Lead will lead a telephone conference with the point of contact for the project to discuss items contained in the request.

Once the operational/administrative information is received and reviewed by the project team, and the operations team will schedule an on-site visit for the purpose of reviewing the operational functions of the department and gathering further information for the development of the fire services analysis.

When considering consolidation, it is critical to determine the existing performance and service delivery of each department. For a consolidation to be successful, it is critical that performance not be negatively impacted. For that reason, the comprehensive forensic data operations analysis will quantify the current operational performance of Huntersville, Davidson, and Cornelius and any other community looking to consolidate. The analysis also allows CPSM to create response and performance maps that can be used when locating or re-locating stations, recommend any special system performance additions, and to identify the nature and location of calls for service. In consolidation or cities that have future development opportunities, the mapping and performance analysis can identify when and where additional resources may need deploying.

## It Begins with Data

We begin with a forensic and comprehensive Data Gathering launch. During this phase we begin to capture the various inputs needed to **develop a comprehensive profile of the Huntersville Fire Department (and any surrounding cities)** and its workload. We will evaluate service delivery outcomes, deployment practices along with an evaluation of the department's physical plant and its support functions. We will interact with neighboring communities to evaluate any appropriate comparisons or to develop a basis for **benchmarking**. We will produce a **Draft Data report** and review this with the city's POC, steering committee and others designated for the purpose of verification of key data sets upon which our assessment will be made.

Our observations and recommendations will be developed around a number of key performance measures and a detailed analysis including:

- Comprehensive Data Analysis
  - Incident Type Workload
  - Response Time
  - Call duration and on-scene times
  - Unit Workload
  - Analysis of availability and simultaneous responses



- Governance and Administration
  - Organizational Structure
  - Organizational Leadership
  - Staffing and Deployment
  - External Relationships
- Organizational Behavior/Management/Processes
  - Time Allocation of Staff
  - Organizational Communication and Labor Relations
  - Strategic Planning
  - Performance Measurement
- Financial Resources (Operating and Capital Resources)
- Assessment of capital facilities, apparatus and equipment
- Support Programs (Fire/EMS Training, fire prevention, public education, fire investigation, technical rescue, hazardous materials, emergency management, vehicle maintenance, risk assessment, safety, fitness and employee health)
- ISO/Accreditation Benefit Analysis

CPSM maintains a full-time data assessment TEAM that has extensive capabilities in extracting and presenting statistical analysis regarding Fire and EMS activities. In addition, using Q-GIS we can conduct an analysis of fire station locations that will identify the optimal locations, the impacts of fire station re-locations and identify those optimal sites that may be considered for future fire station locations. Under the direction of Dr. Dov Chelst, PH.D, our team will produce a series of unique analysis regarding workload, unit response activities, call distribution, unit and station workloads, response times, call durations, unit availability, fire loss analysis, fire by occupancy type, EMS call types, emergency and non-emergent call volumes and a whole host of activity reports that create a comprehensive understanding of workload and community risk.

A key component to our deployment modeling strategy is to identify **emergent and non-emergent workloads**. This is essential for future planning because this analysis will provide factually based options to alter response patterns on the basis of the severity of the call type. Through this type of analysis we provide the forensic support to adjust and modify deployment strategies on the basis of risk. This is the essence of the standard of cover (SOC) concept. Every call is not the same and the ability to interrogate the caller at the 911 call center and make tactical determinations based of proven and clinical findings will then allow a "**Smart Deployment Strategy**" that optimizes resources to improve efficiencies.

In addition we will reach out to our partners nationally, including other state Fire and EMS providers in obtaining their best practices and experience in dealing with similar issues. EMS in America is rapidly evolving and as more evidence-based research is available on the efficacy and effectiveness of traditional EMS models **we have found that two widely-held EMS system response beliefs are being challenged** by this research;

- **faster response times improve patient outcomes**
- **the more paramedics in an EMS system the higher the level of care**

These concepts along with the assessment of EMS performance outcomes will be a key focus in our analysis. EMS is healthcare, and until recently, EMS Quality Assurance/Quality Improvement (QA/QI) measures have focused more on procedural success (response time compliance, IV start rate success, endotracheal success rates, etc.) as opposed to successfully complying with **evidence-based clinical bundles**. Our research is finding that compliance in completing the full regimen of these treatment modalities has a direct impact on patient outcome. Though it is important to know and monitor specific procedural performance, CPSM believes it is more important that agencies look at the entire treatment regimen (evidence based clinical bundles)



in assessing overall system performance.

As communities as Huntersville respond to increasing demand related to population growth in the community, it is critical that the 911 dispatching system is effectively screening the various call types so that it can adjust the deployment of resources based on the severity of the incident. CPSM will evaluate these interactions and will provide insight as to improvements that can be considered. Our analysis will provide both statistical and spatial depiction that supports these considerations. We have a broad grasp of the types of service demand that can exist and the optimum levels of staffing and resources that is needed to effectively manage this workload. We have also developed insightful analysis that predicts call activities associated with future population growth or increased development. The following are some of the graphic representations from other CPSM studies that that will be utilized in our work in Huntersville;

## Call Types

| Call Type                   | Number of Calls | Calls per Day | Call Percentage |
|-----------------------------|-----------------|---------------|-----------------|
| Breathing difficulty        | 1,173           | 3.2           | 7.2             |
| Cardiac and stroke          | 1,085           | 3.0           | 6.7             |
| Fall and injury             | 3,428           | 9.4           | 21.0            |
| Illness and other           | 2,865           | 7.8           | 17.6            |
| MVA                         | 978             | 2.7           | 6.0             |
| Overdose and psychiatric    | 500             | 1.4           | 3.1             |
| Seizure and unconsciousness | 886             | 2.4           | 5.4             |
| <b>EMS Total</b>            | <b>10,915</b>   | <b>29.8</b>   | <b>66.9</b>     |
| False alarm                 | 746             | 2.0           | 4.6             |
| Good intent                 | 203             | 0.6           | 1.2             |
| Hazard                      | 194             | 0.5           | 1.2             |
| Outside fire                | 154             | 0.4           | 0.9             |
| Public service              | 1,425           | 3.9           | 8.7             |
| Structure fire              | 68              | 0.2           | 0.4             |
| <b>Fire Total</b>           | <b>2,790</b>    | <b>7.6</b>    | <b>17.1</b>     |
| Cancelled                   | 2,592           | 7.1           | 15.9            |
| Mutual aid                  | 12              | 0.0           | 0.1             |
| <b>Total</b>                | <b>16,309</b>   | <b>44.6</b>   | <b>100.0</b>    |

## Content and Property Loss – Structure and Outside Fires

| Call Type      | Property Loss    |                 | Content Loss     |                 |
|----------------|------------------|-----------------|------------------|-----------------|
|                | Loss Value       | Number of Calls | Loss Value       | Number of Calls |
| Outside fire   | \$296,350        | 20              | \$233,600        | 9               |
| Structure fire | \$367,900        | 15              | \$210,660        | 13              |
| <b>Total</b>   | <b>\$664,250</b> | <b>35</b>       | <b>\$444,260</b> | <b>22</b>       |

**Note:** This analysis only includes calls with recorded loss greater than 0.

## Observations:

- Out of 94 outside fires, 20 had recorded property loss, with a combined \$296,350 in loss.
  - Nine outside fires had content loss with a combined \$233,600 in loss.
  - Out of 55 structure fires, 15 had recorded property loss, with a combined \$367,900 in loss.
- 
- 13 structure fires had content loss with a combined \$210,660 in loss.
  - The average total loss for all structure fires was \$10,519.

## Total Fire Loss Above and Below \$20,000

| Call Type      | No Loss    | Under \$20,000 | \$20,000 plus |
|----------------|------------|----------------|---------------|
| Outside fire   | 74         | 18             | 2             |
| Structure fire | 37         | 14             | 4             |
| <b>Total</b>   | <b>111</b> | <b>32</b>      | <b>6</b>      |

## Observations:

- The average total loss for all structure fires was \$10,519.
- 74 outside fires and 37 structure fires had no recorded loss.
- Two outside fires and four structure fires had \$20,000 or more in loss.
- The highest total loss for an outside fire was \$300,000.
- The highest total loss for a structure fire was \$400,000.

## Number of Units Dispatched to Calls by Call Type

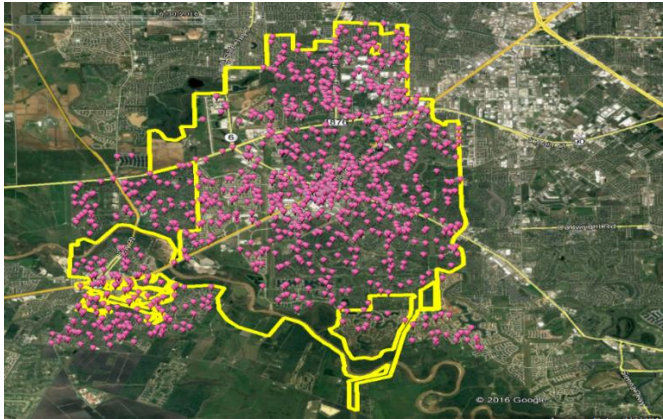
| Call Type                   | Number of Units |            |               | Total Calls   |
|-----------------------------|-----------------|------------|---------------|---------------|
|                             | One             | Two        | Three or More |               |
| Breathing difficulty        | 1,122           | 49         | 2             | 1,173         |
| Cardiac and stroke          | 1,044           | 37         | 4             | 1,085         |
| Fall and injury             | 3,236           | 174        | 18            | 3,428         |
| Illness and other           | 2,745           | 108        | 12            | 2,865         |
| MVA                         | 751             | 174        | 53            | 978           |
| Overdose and psychiatric    | 471             | 25         | 4             | 500           |
| Seizure and unconsciousness | 834             | 51         | 1             | 886           |
| <b>EMS Total</b>            | <b>10,203</b>   | <b>618</b> | <b>94</b>     | <b>10,915</b> |
| False alarm                 | 668             | 36         | 42            | 746           |
| Good intent                 | 176             | 6          | 21            | 203           |

| Call Type         | Number of Units |            |               | Total Calls   |
|-------------------|-----------------|------------|---------------|---------------|
|                   | One             | Two        | Three or More |               |
| Hazard            | 148             | 23         | 23            | 194           |
| Outside fire      | 98              | 15         | 41            | 154           |
| Public service    | 1,343           | 52         | 30            | 1,425         |
| Structure fire    | 3               | 2          | 63            | 68            |
| <b>Fire Total</b> | <b>2,436</b>    | <b>134</b> | <b>220</b>    | <b>2,790</b>  |
| Cancelled         | 2,420           | 150        | 22            | 2,592         |
| Mutual aid        | 6               | 2          | 4             | 12            |
| <b>Total</b>      | <b>15,065</b>   | <b>904</b> | <b>340</b>    | <b>16,309</b> |
| <b>Percentage</b> | <b>92.4</b>     | <b>5.5</b> | <b>2.1</b>    | <b>100.0</b>  |

### Call Workload by Unit

| Station       | Unit Type | Unit | Avg.<br>Deployed<br>Min. per Run | Total Annual<br>Hours | Avg.<br>Deployed<br>Min. per Day | Total Annual<br>Runs | Avg. Runs<br>per Day |
|---------------|-----------|------|----------------------------------|-----------------------|----------------------------------|----------------------|----------------------|
| 1             | Engine    | E1   | 18.6                             | 804.7                 | 131.9                            | 2,594                | 7.1                  |
|               | Truck     | TRK1 | 19.9                             | 546.4                 | 89.6                             | 1,651                | 4.5                  |
|               | Utility   | U1   | 28.6                             | 4.3                   | 0.7                              | 9                    | 0.0                  |
|               | Total     |      | 19.1                             | 1,355.4               | 222.2                            | 4,254                | 11.6                 |
| 2             | Engine    | E2   | 17.8                             | 839.5                 | 137.6                            | 2,835                | 7.7                  |
|               | Ambulance | SQ2  | 19.3                             | 266.0                 | 43.6                             | 825                  | 2.3                  |
|               | Total     |      | 18.1                             | 1,105.5               | 181.2                            | 3,660                | 10.0                 |
| 3             | Engine    | E3   | 18.1                             | 831.7                 | 136.3                            | 2,764                | 7.6                  |
|               | Total     |      | 18.1                             | 831.7                 | 136.3                            | 2,764                | 7.6                  |
| 4             | Engine    | E4   | 19.5                             | 760.8                 | 124.7                            | 2,338                | 6.4                  |
|               | Hazmat    | HM4  | 324.3                            | 10.8                  | 1.8                              | 2                    | 0.0                  |
|               | Truck     | TRK4 | 18.8                             | 441.5                 | 72.4                             | 1,407                | 3.8                  |
|               | Utility   | U4   | 17.7                             | 3.2                   | 0.5                              | 11                   | 0.0                  |
|               | Total     |      | 19.4                             | 1,216.4               | 199.4                            | 3,758                | 10.3                 |
| 5             | Engine    | E5   | 20.5                             | 343.5                 | 56.3                             | 1,003                | 2.7                  |
|               | Total     |      | 20.5                             | 343.5                 | 56.3                             | 1,003                | 2.7                  |
| 6             | Engine    | E6   | 20.1                             | 924.5                 | 151.6                            | 2,758                | 7.5                  |
|               | Specialty | R6   | 102.9                            | 3.4                   | 0.6                              | 2                    | 0.0                  |
|               | Total     |      | 20.2                             | 928.0                 | 152.1                            | 2,760                | 7.5                  |
| 7             | Engine    | E7   | 23.3                             | 79.8                  | 13.1                             | 205                  | 0.6                  |
|               | Specialty | C7   | 27.5                             | 0.5                   | 0.1                              | 1                    | 0.0                  |
|               | Total     |      | 23.4                             | 80.2                  | 13.2                             | 206                  | 0.6                  |
| Overall Total |           |      | 19.1                             | 5,860.5               | 960.7                            | 18,405               | 50.3                 |

## FIRE RUNS



### Overlapping Calls by Station District

| District  | Number of Calls | Average Minutes of Overlap | Total Hours |
|-----------|-----------------|----------------------------|-------------|
| Station 1 | 497             | 22.0                       | 103.2       |
| Station 2 | 339             | 20.3                       | 63.0        |
| Station 3 | 217             | 22.6                       | 42.9        |
| Station 4 | 247             | 18.1                       | 40.4        |
| Station 5 | 37              | 12.0                       | 3.8         |
| Station 6 | 96              | 14.0                       | 11.9        |
| Station 7 | 71              | 13.8                       | 8.7         |

### Frequency Distribution of the Number of Calls

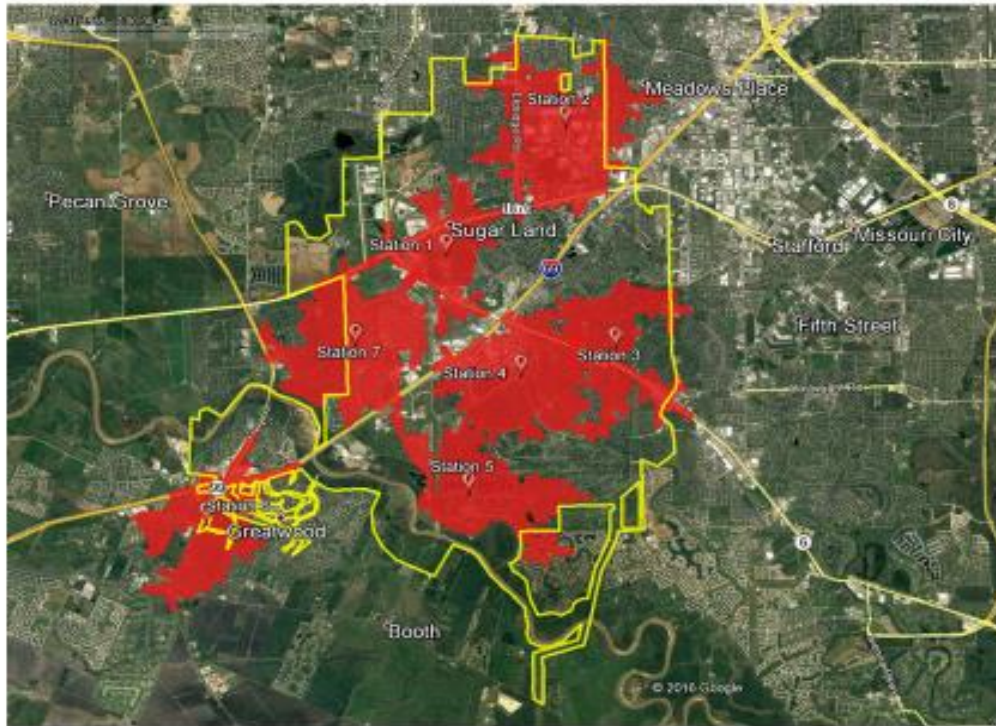
| Calls in an Hour | Frequency | Percentage |
|------------------|-----------|------------|
| 0                | 3,792     | 43.2       |
| 1                | 2,885     | 32.8       |
| 2                | 1,406     | 16.0       |
| 3                | 526       | 6.0        |
| 4+               | 175       | 2.0        |

### First Due Availability to Respond to Calls

| Station Area | Number of Calls | Percent Responded to by First Due | Percent First Due Arrived First |
|--------------|-----------------|-----------------------------------|---------------------------------|
| 1            | 1,690           | 80.7                              | 74.6                            |
| 2            | 1,238           | 85.8                              | 82.4                            |
| 3            | 953             | 60.0                              | 50.6                            |
| 4            | 1,084           | 82.7                              | 67.6                            |
| 5            | 448             | 72.1                              | 68.4                            |

|              |              |             |             |
|--------------|--------------|-------------|-------------|
| 6            | 994          | 87.5        | 84.9        |
| 7            | 773          | 82.3        | 77.7        |
| <b>Total</b> | <b>7,180</b> | <b>79.7</b> | <b>66.3</b> |

### Station Locations and Travel Times (Red = 240 seconds)



In developing our analysis and conclusions, CPSM works closely with the fire department's upper management, mid-level supervisors, company officers, steering committees and emergency planners in understanding the unique aspects of the community and the rationale for operational practices. Our work is very inclusive and we build our analysis in cooperation with the local provider and its key administrative staff. Our findings and conclusions are fully vetted through a draft review process and there are typically no surprises when outcomes are reached and recommendations for implementation are developed.

### Methodology to Achieve Major Outcomes

- **Conduct a review of operational workload utilizing data provided by Huntersville (NFIRS data) that has a focus on response types, workload dedicated to fire and EMS first response; station response workload; and apparatus/unit workload.**

CPSM will request a one-year period of NFIRS data from the Fire Department. CPSM team members will review and analyze the data provided by the Fire Department for the purpose of

analyzing operational workload. CPSM will utilize information from this NFIRS analysis as a benchmark in the operational analysis.

## Consolidation Review Option

CPMS is prepared to conduct an optional review of the potential effects of a consolidation with neighboring Cornelius and Davidson. This project and pricing is dependent on Cornelius moving forward with a comprehensive analysis with consolidation as one of the options. To accomplish this will require a workload data analysis of all three agencies and a merged data base to understand the potential for staffing and cost reductions of a merger.

The three data analyses will provide a benchmark for each community and is critical to determine the available capacity in the system as well as where and when calls for service are received. The forensic analysis of performance benchmark is used when the operations team reviews one or more of the individual departments to create a data-based series of recommendations. These recommendations will include location of existing stations, recommendations for new or relocated stations, equipment, staffing, and system improvements.

A successful consolidation will result in the same or improved service levels while being fiscally conscious, effective in-service delivery, and improving the safety for the community as well as staff. If these levels are not analyzed and quantified, the success of consolidation can be challenged. CPSM will provide recommendations on consolidation or remaining the same; CPSM will look at new or relocated stations, capacity of existing stations, equipment, staffing, and other system improvements.

The on-site operational team will review each of the departments using the criteria listed in this proposal and create a combined report on consolidation as well as individual benchmark reports for each department.

## Deliverables

Draft reports will be provided for review in electronic format. To be ecologically friendly, CPSM will deliver the final analysis of fire services report in computer readable material either by email or CD or both. The final analysis of fire services report will incorporate the data analysis as an addendum to the analysis of fire services report. Should the Fire Department desire additional copies of the final report, CPSM will produce and deliver whatever number of copies the Fire Department may request and will invoice the Fire Department at cost.

## Proposed Fees

### Base Study

CPSM will conduct base study of the Fire Department for \$15,000 exclusive of travel. This reflects a 10% reduction because the towns are members of ICMA. Travel expenses will be billed as incurred with no overhead or administrative fees. This pricing is dependent on Cornelius moving forward with a comprehensive analysis of all of its fire options.

## Proposed Presentations

Draft reports will be provided for department review in electronic format.

To be ecologically friendly, CPSM will deliver the final report in computer readable material either by email or CD or both. The final reports will incorporate the operational as well as data analysis. Should the municipality desire additional copies of the report, CPSM will produce and deliver whatever number of copies the client request and will invoice the client at cost.

Should the local government desire additional support or in-person presentation of findings,

CPSM will assign staff for such meetings at a cost of \$2,500 per day/per person along with reimbursement of travel expenses.

## CONCLUSION

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Part of ICMA's mission is to assist local governments in achieving excellence through information and assistance. Following this mission, Center for Public Safety Management, LLC acts as a trusted advisor, assisting local governments in an objective manner. CPSM's experience in dealing with public safety issues combined with its background in performance measurement, achievement of efficiencies, and genuine community engagement, makes CPSM a unique and beneficial partner in dealing with issues such as those being presented in this proposal. We look forward to working with you further.



# PAST & CURRENT ENGAGEMENTS

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| LOCALITY              | ST | PROJECT  |
|-----------------------|----|--|
| Edmonton Intl Airport | AB | Comprehensive Analysis of Fire Services.       |
| Leduc County          | AB | Fire Consolidation Plan                        |
| Leduc, Canada         | AB | Comprehensive Analysis of Fire Services.       |
| Kenai                 | AK | Comprehensive Analysis of Fire Services        |
| Anniston              | AL | Comprehensive Analysis of Police Services      |
| Auburn                | AL | Comprehensive Analysis of Fire Services        |
| Auburn                | AL | Comprehensive Analysis of Police Services      |
| Dothan                | AL | Comprehensive Analysis of Police Services      |
| Casa Grande           | AZ | Comprehensive Analysis of Police Services      |
| Florence              | AZ | Comprehensive Analysis of Police Services      |
| Glendale              | AZ | Fire Department Data Analysis                  |
| Lake Havasu           | AZ | Comprehensive Analysis of Police Services      |
| Lake Havasu           | AZ | Comprehensive Analysis of Fire Services        |
| Pinal County          | AZ | Comprehensive Analysis of Sheriff's Office     |
| Prescott              | AZ | Comprehensive Analysis of Fire Services        |
| Prescott              | AZ | Comprehensive Analysis of Police Services      |
| Queen Creek           | AZ | Police Strategic Plan                          |
| Queen Creek           | AZ | Comprehensive Analysis of Fire services        |
| Scottsdale            | AZ | Comprehensive Analysis of Police Services      |
| Tucson                | AZ | Comprehensive Analysis of Police Services      |
| Youngtown             | AZ | Comprehensive Analysis of Police Services      |
| Alameda               | CA | Comprehensive Analysis of Fire Services        |
| Alameda               | CA | Comprehensive Analysis of Police Services      |
| Burbank               | CA | Analysis of Investigations Workload / Staffing |
| Carlsbad              | CA | Comprehensive Analysis of Police Services      |
| El Centro             | CA | Comprehensive Analysis of Police Services      |
| El Centro             | CA | Comprehensive Analysis of Fire services        |
| Fairfield             | CA | Comprehensive Analysis of Police Services      |
| Greenfield            | CA | Comprehensive Analysis of Police Services      |
| Hermosa Beach         | CA | Comprehensive Analysis of Fire services        |
| Hermosa Beach         | CA | Comprehensive Analysis of Police Services      |
| Indio                 | CA | Police Department Workload Analysis            |
| Kern County           | CA | Comprehensive Analysis of Fire services        |
| Laguna Woods          | CA | Review of Sheriff's Office Services 2016       |
| Laguna Woods          | CA | Review of Sheriff's Office Services 2018       |
| Morgan Hill           | CA | Comprehensive Analysis of Police Services      |
| Morgan Hill           | CA | Comprehensive Analysis of Fire Services        |
| Palm Desert           | CA | Comprehensive Analysis of Fire Services        |
| Palo Alto             | CA | Comprehensive Analysis of Fire Services        |
| Placentia             | CA | Comprehensive Analysis of Police Services      |
| Rohnert Park          | CA | Public Safety Study                            |
| Salinas               | CA | Analysis of Police Services Overtime           |



|                     |    |   |
|---------------------|----|---|
| Salinas             | CA | Analysis of Fire Services Overtime          |
| San Jose            | CA | Fire Operations Review                      |
| San Jose            | CA | Police Operations Review                    |
| San Mateo Co.       | CA | Dispatch Operations Review                  |
| Santa Ana           | CA | Comprehensive Analysis of Police Services   |
| Santa Clara         | CA | Comprehensive Analysis of Police Services   |
| Santa Cruz          | CA | Comprehensive Analysis of Police Services   |
| Santa Monica        | CA | Police Chief Selection                      |
| Sonoma County       | CA | Performance Measurement Analysis            |
| Stockton            | CA | Comprehensive Analysis of Police Services   |
| Stockton            | CA | Comprehensive Analysis of Fire Services     |
| Union City          | CA | Fire Workload Analysis                      |
| Woodland            | CA | Police Chief Selection                      |
| Yuba City           | CA | Comprehensive Analysis of Fire Services     |
| Yuba City           | CA | Comprehensive Analysis of Police Services   |
| Federal Heights     | CO | Comprehensive analysis of Police Services   |
| Federal Heights     | CO | Comprehensive analysis of Fire Services     |
| Littleton           | CO | Comprehensive Analysis of Fire Services     |
| Littleton           | CO | Analysis of Fire Consolidation              |
| Steamboat Springs   | CO | Comprehensive Analysis of Fire Services     |
| Cheshire            | CT | Police Management Review                    |
| Southington         | CT | Comprehensive Analysis of Fire Services     |
| Bethany Beach       | DE | EMS Study                                   |
| Dover               | DE | Comprehensive Analysis of Police Department |
| Dover               | DE | Comprehensive Analysis of Fire Services     |
| Alachua             | FL | Expert Witness Law Enforcement Issues       |
| BCCMA               | FL | Analysis of Sheriff's Contract Services     |
| Citrus County       | FL | Comprehensive Analysis of Fire Services     |
| Cocoa               | FL | Comprehensive Analysis of Police Services   |
| Coconut Creek       | FL | Comprehensive Analysis of Police Services   |
| Delray Beach        | FL | Comprehensive Analysis of Police Services   |
| Delray Beach        | FL | Comprehensive Analysis of Fire Services     |
| Dunedin             | FL | Police Consolidation Review                 |
| Hollywood           | FL | Police Internal Affairs Review              |
| Indian River Shores | FL | Public Safety Staffing Analysis             |
| Indian River Shores | FL | Public Safety Study                         |
| Jacksonville Beach  | FL | Police Chief Selection                      |
| Jupiter             | FL | Police and Fire                             |
| Jupiter Island      | FL | Public Safety Consolidation                 |
| Kenneth             | FL | Comprehensive Analysis of Police Services   |
| Miami Beach         | FL | Comprehensive analysis of Fire Services     |
| Naples              | FL | Presentation                                |
| North Port          | FL | Comprehensive Analysis of Police Services   |
| Orange County       | FL | Expert Witness Law Enforcement Issues       |
| Parkland            | FL | City Wide Safety & Security Study           |
| Pasco County        | FL | Comprehensive analysis of Fire Services     |
| Pasco County        | FL | Sheriff Budget Analysis                     |
| Pompano Beach       | FL | Comprehensive Analysis of Police Services   |

|                   |    |   |
|-------------------|----|---|
| Venice            | FL | Comprehensive Analysis of Fire Services         |
| Alpharetta        | GA | Comprehensive Analysis of Fire Services         |
| Alpharetta        | GA | Comprehensive Analysis of Police Services       |
| Camden County     | GA | Comprehensive Analysis of Fire Services         |
| Camden County     | GA | Fire Consolidation St Marys                     |
| Camden County     | GA | Police Consolidation Study                      |
| Garden City       | GA | Preliminary Analysis Public Safety Merger       |
| Johns Creek       | GA | Analysis of Fire Services                       |
| Kingsland         | GA | Fire Consolidation Study                        |
| Sandy Springs     | GA | Comprehensive Analysis of Police Department     |
| St. Marys         | GA | Fire Consolidation Study                        |
| Ankeny            | IA | Police Chief Selection                          |
| Boone             | IA | Public Safety Consolidation                     |
| Boone             | IA | Performance Measurement of Municipal Operations |
| Hayden            | ID | Comprehensive Analysis of Police Services       |
| Jerome            | ID | Analysis of Police Services                     |
| Algonquin         | IL | Performance Measurement Analysis                |
| Glenview          | IL | Comprehensive Analysis of Police Services       |
| Glenview          | IL | Dispatch Operations Review                      |
| Highland          | IL | Comprehensive Analysis of Fire Services         |
| Highland Park     | IL | Comprehensive Analysis of Fire Consolidation    |
| Highwood          | IL | Comprehensive Analysis of Fire Consolidation    |
| Lake Bluff        | IL | Analysis of Fire Consolidation                  |
| Lake Bluff        | IL | Fire Data Review                                |
| Lake Forest       | IL | Analysis of Fire Consolidation                  |
| Lake Zurich       | IL | Comprehensive Analysis of Fire Services         |
| Naperville        | IL | Workload, Staffing & Schedule Design            |
| Roselle           | IL | Comprehensive Analysis of Police Services       |
| Skokie            | IL | Police Study                                    |
| Western Springs   | IL | Comprehensive Analysis of Police Services       |
| Indianapolis      | IN | Analysis of Police Workload & Deployment        |
| Plainfield        | IN | Comprehensive Analysis of Police Services       |
| Topeka            | KS | Preliminary review of Fire Department           |
| Northborough      | MA | Comprehensive Analysis of Police Services       |
| Northborough      | MA | Comprehensive Analysis of Fire Services         |
| Algonquin         | MD | Performance Measurement Study                   |
| Annapolis         | MD | Comprehensive Analysis of Police Services       |
| Ocean City        | MD | Dispatch Operations Review                      |
| Rockville         | MD | Comprehensive Analysis of Police Services       |
| Ann Arbor         | MI | Comprehensive Analysis of Fire Services         |
| Auburn Hills      | MI | Comprehensive Analysis of Fire Services         |
| Auburn Hills      | MI | Comprehensive Analysis of Police Services       |
| Benton Harbor     | MI | Public Safety Consolidation                     |
| Charlevoix        | MI | EMS Study                                       |
| Chesterfield Twp. | MI | Comprehensive Analysis of Police Services       |
| Delta Township    | MI | Comprehensive Analysis of Police Services       |
| Delta Township    | MI | Comprehensive Analysis of Fire Services         |

|                        |    |   |
|------------------------|----|---|
| Detroit Public Schools | MI | Police Department Review                          |
| Douglas                | MI | Comprehensive Analysis of Police Services         |
| Flint                  | MI | Comprehensive Analysis of Fire Services           |
| Flint                  | MI | Comprehensive Analysis of Police Services         |
| Grand Rapids           | MI | Comprehensive Analysis of Police Services         |
| Grand Rapids           | MI | Comprehensive Analysis of Fire Services           |
| Grand Travers          | MI | Comprehensive Analysis of Fire Services           |
| Green Lake Twp.        | MI | Comprehensive Analysis of Fire Services           |
| Grosse Pointe          | MI | Public Safety Consolidation                       |
| Grosse Pointe Park     | MI | Public Safety Consolidation                       |
| Hamtramck              | MI | Police Study                                      |
| Kentwood               | MI | Analysis of Police & Fire Services                |
| Kentwood               | MI | Analysis of Police Services Consolidation         |
| Kentwood               | MI | Analysis of Fire Services Consolidation           |
| Mott Community Coll.   | MI | Comprehensive Analysis of Public Safety           |
| Novi                   | MI | Comprehensive Analysis of Police Services         |
| Novi                   | MI | Comprehensive analysis of Fire Services           |
| Oshtemo Township       | MI | Police Workload / Contract for Services Analysis  |
| Ottawa County          | MI | Comprehensive Analysis of Sheriffs Office         |
| Petoskey               | MI | Public Safety Consolidation                       |
| Plymouth               | MI | Fire Services Consolidation                       |
| Plymouth               | MI | Fire Service Analysis                             |
| Plymouth               | MI | Public Safety Analysis                            |
| Royal Oak              | MI | Comprehensive Analysis of Police Services         |
| Royal Oak              | MI | Comprehensive Analysis of Fire Services           |
| Saginaw                | MI | Comprehensive Analysis of Police Services         |
| Saginaw                | MI | Comprehensive Analysis of Fire Services           |
| So. Kalamazoo          | MI | Financial Analysis of Fire Authority              |
| St. Joseph             | MI | Public Safety Consolidation                       |
| Sturgis                | MI | Public Safety Analysis                            |
| Troy                   | MI | Comprehensive Analysis of Police Services         |
| Troy                   | MI | Review of Fire Administration and Inspections     |
| Wyoming                | MI | Comprehensive Analysis of Police Services 2012    |
| Wyoming                | MI | Comprehensive Analysis of Fire Services 2012      |
| Wyoming                | MI | Comprehensive Analysis of Police Services 2009    |
| Wyoming                | MI | Comprehensive Analysis of Fire Services 2009      |
| Forest Lake            | MN | Comprehensive Analysis of Police Services         |
| Mankato                | MN | Public Safety Study                               |
| Moorhead               | MN | Comprehensive Analysis of Fire Services           |
| North St. Paul         | MN | Public Safety Strategic Plan Development          |
| St. Cloud              | MN | Police Strategic Planning Review                  |
| St. Cloud              | MN | Comprehensive Analysis of Police Services         |
| Stearns County         | MN | Comprehensive Analysis of Sheriff's Office & Jail |
| Brentwood              | MO | Comprehensive Analysis of Police Services         |
| St. Louis              | MO | Comprehensive Analysis of Fire Services           |
| St. Louis              | MO | Comprehensive Analysis of Police Services         |
| St. Louis              | MO | Standard of Response Cover and Risk               |
| Bozeman                | MT | Fire Protection Master Plan                       |

|                   |    |   |
|-------------------|----|---|
| Kalispell         | MT | Comprehensive Analysis of EMS Services    |
| Bald Head Island  | NC | Public Safety Staffing Review             |
| Bald Head Island  | NC | Public Safety Consolidation               |
| Chapel Hill       | NC | Comprehensive Analysis of police services |
| Cornelius         | NC | Fire Consolidation Study                  |
| Davidson          | NC | Fire Consolidation Study                  |
| Greenville        | NC | Comprehensive Analysis of Fire Services   |
| Matthews          | NC | Comprehensive Analysis of Police Services |
| Oxford            | NC | Comprehensive Analysis of Fire Services   |
| Oxford            | NC | Comprehensive Analysis of Police Services |
| Rocky Mount       | NC | AED Grant assistance                      |
| Rocky Mount       | NC | Comprehensive Analysis of Police Services |
| Grand Island      | NE | Comprehensive Analysis of Police Services |
| Grand Island      | NE | Comprehensive Analysis of Fire Services   |
| South Sioux City  | NE | Fire Services Strategic Plan              |
| East Brunswick    | NJ | EMS Study                                 |
| Oradell           | NJ | Comprehensive Analysis of Police Services |
| Paterson          | NJ | Comprehensive Analysis of Police Services |
| South Orange      | NJ | Comprehensive Analysis of Police Services |
| Westwood          | NJ | Comprehensive Analysis of Police Services |
| Bernalillo        | NM | Comprehensive Analysis of Fire Services   |
| Las Cruces        | NM | Comprehensive Analysis of Fire Services   |
| Las Cruces        | NM | Comprehensive Analysis of Police Services |
| Ruidoso           | NM | Comprehensive Analysis of Police Services |
| Boulder City      | NV | Police Organizational Study               |
| Henderson         | NV | Comprehensive Analysis of Police Services |
| Las Vegas         | NV | Comprehensive Analysis of Fire Services   |
| Las Vegas         | NV | Analysis of Department of Public Safety   |
| Las Vegas         | NV | Fire / EMS Standards Review               |
| North Las Vegas   | NV | Fire Workload Analysis                    |
| Briar Cliff Manor | NY | Analysis of police consolidation          |
| Canandaigua       | NY | Reginal Fire Study                        |
| Garden City       | NY | Comprehensive Analysis of Fire Services   |
| Long Beach        | NY | Comprehensive Analysis of Fire and EMS    |
| North Castle      | NY | Comprehensive Analysis of Police Services |
| Oneonta           | NY | Comprehensive Analysis of Fire and EMS    |
| Oneonta           | NY | Fire Apparatus Review                     |
| Orchard Park      | NY | Comprehensive Analysis of Police Services |
| Ossining Town     | NY | Analysis of police consolidation          |
| Ossining Village  | NY | Analysis of police consolidation          |
| Rye               | NY | Police Chief Selection                    |
| Watertown         | NY | Comprehensive Analysis of Fire Services   |
| Cincinnati        | OH | Police Dispatch Review                    |
| Dayton            | OH | Police Internal Affairs Review            |
| Huron             | OH | Comprehensive Analysis of Police Services |
| Huron             | OH | Comprehensive Analysis of Fire Services   |
| Independence      | OH | Comprehensive Analysis of Police Services |
| Independence      | OH | Comprehensive Analysis of Fire Services   |

|                     |    |   |
|---------------------|----|---|
| Sandusky            | OH | Fire Study                                      |
| Sandusky            | OH | Police Study                                    |
| Broken Arrow        | OK | Comprehensive Analysis of Police Services       |
| Broken Arrow        | OK | Comprehensive Analysis of Fire Services         |
| Edmond              | OK | Comprehensive Analysis of Police Services       |
| Jenks               | OK | Comprehensive Analysis of Police Services       |
| Jenks               | OK | Comprehensive Analysis of Fire Services         |
| Muskogee            | OK | Comprehensive Analysis of Police Services       |
| Tulsa               | OK | Comprehensive Analysis of Fire Services         |
| Bend                | OR | Comprehensive Analysis of Police Services       |
| Grants Pass         | OR | Comprehensive Analysis of Fire Services         |
| Grants Pass         | OR | Comprehensive Analysis of Police Services       |
| Grants Pass         | OR | Public Safety Strategic Plan Development        |
| Ontario             | OR | Comprehensive Analysis of Police Services       |
| Ontario             | OR | Comprehensive Analysis of Fire Services         |
| Cumru Township      | PA | Comprehensive Analysis of Police Services       |
| Cumru Township      | PA | Police Chief Selection                          |
| Ephrata             | PA | Comprehensive Analysis of Police Services       |
| Farrell             | PA | Comprehensive Analysis of Police Services       |
| Jamestown           | PA | Comprehensive Analysis of Police Services       |
| Lower Windsor Twp.  | PA | Comprehensive Analysis of Police Services       |
| Manheim Township    | PA | Police Study                                    |
| Tredyffrin Township | PA | Comprehensive Analysis of Police Services       |
| East Providence     | RI | Comprehensive Analysis of Fire Services         |
| East Providence     | RI | Expert Witness Fire Issues                      |
| Beaufort            | SC | Review of Fire Service Contract                 |
| Beaufort            | SC | Comprehensive Analysis of Police Services       |
| Beaufort            | SC | Comprehensive Analysis of Fire Services         |
| Walterboro          | SC | Comprehensive Analysis of Public Safety Dept.   |
| Rapid City          | SD | Comprehensive Analysis of Fire Services         |
| Germantown          | TN | Comprehensive Analysis of Fire Services         |
| Johnson City        | TN | Comprehensive Analysis of Fire Services         |
| Johnson City        | TN | Comprehensive Analysis of Police Services       |
| Smyrna              | TN | Comprehensive Analysis of Police Services       |
| Smyrna              | TN | Comprehensive Analysis of Fire Services         |
| Addison             | TX | Comprehensive Analysis of Fire Services         |
| Addison             | TX | Comprehensive Analysis of Police Services       |
| Baytown             | TX | EMS Study                                       |
| Belton              | TX | Comprehensive Analysis of Police Services       |
| Belton              | TX | Comprehensive Analysis of Fire Services         |
| Belton              | TX | Police Chief Selection                          |
| Belton              | TX | Fire Chief Selection                            |
| Buda                | TX | Comprehensive Analysis of Police Services       |
| Cedar Park          | TX | Comprehensive Analysis of Police Services       |
| Conroe              | TX | Fire Services Analysis and Standard of Response |
| Frisco              | TX | Comprehensive Analysis of Fire Services         |
| Highland Village    | TX | Fire Review                                     |
| Hutto               | TX | Comprehensive Analysis of Fire Services         |

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| Lucas           | TX | Fire and EMS Analysis                      |
| Lufkin          | TX | Comprehensive Analysis of Fire Services    |
| New Braunfels   | TX | Fire Study                                 |
| New Braunfels   | TX | Police Study                               |
| Prosper         | TX | Comprehensive Analysis of Police Services  |
| Round Rock      | TX | Comprehensive Analysis of Fire Services    |
| Sugarland       | TX | Fire Department Overtime Analysis          |
| Sugarland       | TX | Comprehensive Analysis of Fire Services    |
| Sugarland       | TX | Comprehensive Analysis of Police Services  |
| Victoria        | TX | Comprehensive Analysis of Police Services  |
| Washington City | UT | Comprehensive Public Safety Analysis       |
| Hampton         | VA | Police Chief Selection                     |
| Loudoun County  | VA | Comprehensive Analysis of Sheriff Services |
| Loudoun County  | VA | Comprehensive Analysis of Fire Services    |
| Bonney Lake     | WA | Comprehensive Analysis of Police Services  |
| Duvall          | WA | Police Staffing Study                      |
| Kelso           | WA | Comprehensive Analysis of Police Services  |
| Lacey           | WA | Comprehensive Analysis of Fire Services    |
| Marysville      | WA | Comprehensive Analysis of Police Services  |
| Marysville      | WA | Comprehensive Analysis of Fire Services    |
| Mill Creek      | WA | Comprehensive Analysis of Police Services  |
| Mill Creek      | WA | Comprehensive Analysis of Fire Services    |
| Snoqualmie      | WA | Police Workload & Deployment Analysis      |
| Spokane Valley  | WA | Comprehensive Analysis of Police Services  |
| Vancouver       | WA | Comprehensive Analysis of Police Services  |
| Vancouver       | WA | Police Chief Selection                     |
| Dunn County     | WI | Sheriff Office Study                       |
| Wauwatosa       | WI | Comprehensive Analysis of Fire Services    |
| Wauwatosa       | WI | Comprehensive Analysis of Police Services  |
| Casper          | WY | Comprehensive Analysis of Police Services  |
| Jackson Hole    | WY | Police Consolidation Review                |
| Laramie         | WY | Comprehensive Analysis of Police Services  |
| Teton County    | WY | Police Consolidation Review                |