



MANAGEMENT CONSULTING SERVICES

Pre-Hospital Emergency Medical Care Study

For

Travis County, Texas

November 4, 2011



PRE-HOSPITAL EMERGENCY MEDICAL CARE STUDY

for

Travis County, Texas

NOVEMBER 4, 2011

MANAGEMENT ADVISORY GROUP, INC.


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**MANAGEMENT
ADVISORY
GROUP, INC.**

LOCAL GOVERNMENT CONSULTING

November 4, 2011

Mr. Danny Hobby
County Executive, Emergency Services
Travis County

Dear Mr. Hobby,

Please find enclosed a report for the study of pre-hospital emergency medical care (RFS # S110093-EC). We are pleased to have had the opportunity to assist you and the County in this important project.

We would like to thank all of the participants in this study. They include County management and staff, ATCEMS management and staff, municipal managers, ESD's at all levels, and informed and interested citizens who have shared their ideas.

MAG's study team is offering 37 specific recommendations in response to the goals of the original Request for Services.

Please feel free to call or email at any time as we move forward in the review of the report.

Sincerely,

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TRAVIS COUNTY, TEXAS

STUDY OF PRE-HOSPITAL EMERGENCY CARE FOR TRAVIS COUNTY

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EXECUTIVE SUMMARY

Scope of Work

Travis County requested Management Advisory Group, Inc. to review the existing and proposed performance and cost of pre-hospital EMS services provided to Travis County by the City of Austin and make recommendations for EMS performance metrics, aero and ground ambulance operations and transport, and cost of services, including current financial formulas for determining County costs. The County has also sought recommendations on performance measurement, dispatch, training, and the current Interlocal Agreement for the provision of pre-hospital EMS services. The full scope of work is detailed in Section 1.0.

Approach and Methodology

The methodology included substantial data and document review, extensive discussions with County and ATCEMS management and staff, and meetings with Emergency Service Districts, municipalities, and emergency services groups. The analysis included consideration of best practices in the field and a survey of selected agencies to determine how certain practices may be applied to Travis County. Section 2.0 more fully describes the approach and methodology used in the study.

Current EMS Environment

Of the \$43 million ATCEMS budget, the current Interlocal Agreement compels the City of Austin to provide EMS services for about \$11.8 million in consideration from Travis County. This annual contractual amount has increased 47% since 2005. The County is not able to control City costs, most of which are personnel costs (86% of budget). The average actual salary for Paramedics within ACTEMS is slightly over \$53,000 per year. Further, the Interlocal Agreement has no performance criteria, accountability, or penalties for non-performance. A revised Agreement is provided in Appendix A.

The net per capita cost for EMS services, after “backing out” EMS transport revenues captured by both jurisdictions, appears to be higher in the County (by 81%) than in the City, as described on pages 3-7 and 3-8.

In terms of EMS services provided, upon arrival at a scene, ATCEMS has demonstrated a high quality of pre-hospital medical care through its appropriately trained personnel. Of concern is the matter of timeliness of response, as data has indicated that response times in the County are much greater than in the City (over a seven minute differential in 2010). City data indicates that ATCEMS is only meeting a 60% response level for the time goals established for the County areas. This is true even though response time goals are less demanding in the Suburban areas of the County than in the Urban defined area.

For the proposed Interlocal Agreement exhibit for finances (Appendix B), it is recommended that population in the County and the City be used to establish the share of EMS system costs. This is a defensible approach that would reduce the County’s current annual obligation by \$1.5 million. By using population as an “EMS Services Multiplier” (rather than the current “Personnel Multiplier”, the County’s share of costs is reduced from approximately 26% to approximately 22%. The recommended Agreement also fully addresses performance criteria and accountability factors.

The current service model has been in place for 34 years, and any suggestions to modify the basic relationship will be harshly criticized by those with a vested interest in the status quo. However, the current EMS service delivery model suffers from

substantially increasing expense, response times that are much greater in the County than in the City, lack of cost controls and performance criteria, lack of accountability for lack of performance, and a provider/client relationship that is not balanced. Many County staff and officials believe they have been treated as “second class citizens” by the City in the contractual relationship. A variety of factors (increasing contract costs, not meeting response time standards) have led to this point in time as a time for change.

Best Practices Review

Section 4.0 includes a wealth of information on various EMS systems, including analysis from the Committee on the Future of Emergency Care in the United States Health System (formed by the Institute of Medicine, or IOM). One of the findings of best practices reviews in the EMS field is reflected by the conclusion of one of the surveys, that, *“When you have seen one EMS system, you have seen one EMS system”*. That unique perspective points to the diversity of models, approaches, and service orientations that exist across the country. There is no federal agency dictating specific models or approaches to governance, source of funding, organizational relationships, staffing, communications, or any of the many aspects of pre-hospital care. MAG surveyed six systems that involve a major metropolitan area and/or possible involvement of local surrounding jurisdictions or the county: four in Texas and two in other states. All systems monitor performance and use specified response times as part of their measurements. Of the four county-wide systems described above, three use contract agreements with local jurisdictions, such as fire departments or EMS districts, to provide first response and/or ambulance transport. Of these four systems, none contract with private providers for response or transport.

Recommended Model of Organization

MAG identified four (4) major organizational options for providing EMS services within the County portion of Travis County. They include:

1. Status Quo – Utilizing ATCEMS for EMS ground ambulance transports; and/or
2. Establishing a Unified County Fire Rescue Services Organization; or
3. Establishing a County Operated EMS Department; or,
4. Obtaining a New Contracted EMS Provider.

A universal aspect of the four (4) service options and operational enhancements is that all Options, Operational Enhancements, and the “Pilot Project” (to provide Fire Based EMS Ambulance Services) would:

- ✓ require establishing Response Time Standards;
- ✓ require establishing Response Coverage Areas;
- ✓ attempt to control costs;
- ✓ improve upon County controls over the service and system, through the establishment of performance standards, service goals and guidelines; and,
- ✓ include the employment of a County EMS Medical Director for medical leadership and oversight of the County EMS operations.

And, with the exception of the Status Quo (utilizing ATCEMS for EMS ground ambulance transports), all other options (2, 3, and 4) would:

- ✓ require hiring a County EMS Chief;
- ✓ require hiring a County EMS Medical Director;
- ✓ improve services in the County areas due to more direct County control over EMS operations; and,
- ✓ allow for ALS Paramedic or Intermediate Life Support (ILS) First Responders.

The reader will see in Section 5.0 that the recommended model of organization for both the short-term and long-term (15 years) is that of a Unified Travis County Fire Rescue Department. The organization would be funded through general County-wide taxation and managed at the County level by a Fire Rescue Chief. Emergency Service Districts would be eligible to participate and become part of the County organization,

and adhere to County policies and performance standards. This model does not create an additional layer or form of government such as an ESD #15. The County's current control (or shared control) of facilities and ambulances puts it in a strong position to move forward with a comprehensive approach, managed by the County.

The Unified County Fire – Rescue Services recommended option would:

- ✓ require hiring a lead County Fire Official and Command Staff;
- ✓ improve regional emergency services and response;
- ✓ centralize provision of Fire Rescue Services outside the City;
- ✓ integrate the following into a County unified Fire - Rescue Services Department:
 - STAR Flight as Air Operations;
 - Fire Marshal's Office;
 - Emergency Management Office.
- ✓ merge ESD's into a unified County Fire – Rescue Services Department;
- ✓ limit the number of separate ESDs because participating ESDs would join and merge into the unified County Fire – Rescue Services organization.
- ✓ improve upon County controls over the service and system, through performance standards, service goals and guidelines, and the employment of a County EMS Medical Director for medical leadership and oversight of County EMS operations.
- ✓ allow for ALS Paramedic or Intermediate Life Support (ILS) First Responders.

The report recommendations are detailed in Section 5.0, Findings and Recommendations, and then summarized in Section 6.0, Implementation Plan.

SECTION 1.0

SCOPE OF WORK

1.0 Scope of Work

The Request for Services (RFS #S110093-EC) identified the following work items:

- 1.1 Review the existing and proposed performance and cost of EMS services provided to Travis County by the City of Austin and make recommendations based on "industry best practices" for EMS performance metrics, ground ambulance operations and transport, and cost of services, including current financial formulas for determining County costs.
- 1.2 Assess the existing EMS ground services delivery, EMS first responder services delivery, and aero ambulance services delivery to promote an efficient and accountable emergency medical services delivery.
- 1.3 Develop a rational and "best practices" business methodology for response time performance measurement and EMS system resource allocation.
- 1.4 Evaluate how to better utilize existing Travis County ground ambulance resources, EMS first responder resources and aero ambulance resources (STAR Flight) to improve pre-hospital care to patients and reduce unnecessary ground and air ambulance responses (examples: enhancing dispatch protocols to maximize the effectiveness and efficiency in how first response, ground and aero ambulance resources complement and support one another in managing the 9-1-1 request for service); and expanding EMS first responder clinical level of services from the current capability to a more strategic combination.
- 1.5 Develop considerations and a format for drafting EMS agreements with Travis County pre-hospital EMS emergency medical service providers (including county fire departments and the City of Austin) that contains accountability and performance factors. The description of these considerations should include, but not be limited to the following:

- ✓ Performance requirements, including incentives and penalties for performance based on best industry practices;
- ✓ Process for setting and regulating fees for activities including, but not limited to, ground and aero ambulance service and licensing;
- ✓ Financial formulas for EMS services delivered by a provider;
- ✓ Medical direction;
- ✓ Development of the required governmental oversight (EMS Manager/Contract Administrator, Medical Oversight);
- ✓ Performance measures;
- ✓ Process for replacing a non-compliant contract vendor;
- ✓ Collections and payments;
- ✓ Duties and performance by the provider;
- ✓ Duties and performance by Travis County;
- ✓ Supplies and equipment;
- ✓ Dispatch services;
- ✓ Training;
- ✓ Ownership, replacement and maintenance of assets and facilities;
- ✓ Monitoring compliance regarding reporting, maintaining, records and inspecting;
- ✓ Deployment methods for ground transport units and personnel; and,
- ✓ Fleet use and maintenance.

SECTION 2.0

APPROACH AND METHODOLOGY

2.0 Project Approach

Generally, the first portion of the study included a **documentation of the issues and existing operations**. This documentation and analysis provided a base of information upon which recommendations for action have been based. MAG project team members met with all appropriate groups and individuals in a cooperative data gathering work effort.

The second major portion of the study was to create a series of recommendations focused on the critical scope of work items for the study. Recommendations have been balanced between the desired level of services and the cost-effectiveness of delivering those services. MAG is sensitive to the demands of EMS services and the limitations of public funding for critical services.

The third major portion of the scope of work was the preparation of the report that includes a **master plan of action**. The Implementation Table in Section 6.0 includes time lines for action, responsibility for ensuring that actions are taken, and any fiscal impact anticipated as a result of each component of the plan.

2.1 Methodology

The key elements of our methodology included:

Stakeholder Input. MAG received quality information from officials, management, ATCEMS personnel, and concerned parties. Our approach included in-depth interviews with key individuals in the community, Emergency Service District Chiefs and Austin Fire Chiefs, ATCEMS administration and operating staff, union representatives, County management, County Executive, Emergency Services and staff, and others who would have valuable information to communicate to the study team.

Practical Solutions. Our ultimate goal is to provide you with a management tool that can be used now and in the future that will serve as a “road map” for the future. Thus, our approach has concentrated on developing recommendations that can be implemented.

Management Plan and Coordination. We sought to ensure that team members have not duplicated each other’s work; and that findings and recommendations are thoroughly coordinated. We have found that the keys to ensuring that all of these actions are accomplished include:

- the development and adherence to a project work plan;
- clearly assigned project team assignments in terms of work activities and work products;
- frequent project team debriefing meetings to share project findings and ideas; and
- frequent communication with the client to explore tentative findings.

2.2 Work Plan

For each task of the work plan, MAG identified the objectives to be achieved, the specific activities to be performed, and the project products.

PHASE I: INITIATE PROJECT

TASK 1.0: INITIATE PROJECT

Objectives:

- Gain a *comprehensive understanding* of the project's background, goals, and expectations.
- Identify, in greater detail, *specific objectives* for the review, and assess how well this initial work plan accomplishes those objectives.
- Collect and review existing operational data, information, agreements, *relevant* policies and procedures, and any prior studies, audits, or reports.

Activities:

1.1 MAG met with project management and key County staff to establish working relationships, to make logistical arrangements, and to determine communication lines.

1.2 We discussed the objectives of the project and identified policy and issue concerns to be addressed during the review.

1.3 We obtained pertinent reports and background materials relevant to the review, such as:

- organization charts and historical staffing data and deployment data;
- descriptions of staffing and deployment in meeting service demands at targeted service levels;
- location and description of facilities and equipment;
- description of the current service delivery system, organization, and staffing levels;
- demographic and other data related to community growth;
- funding data.

1.4 MAG finalized the:

- data collection approach;
- interview plan and tentative schedule and interview guide; and
- interim milestones and deliverables.

Deliverable:

- Revised project work plan and time line.

PHASE II: OBTAIN STAKEHOLDER INPUT**TASK 2.0: CONDUCT LEADERSHIP INTERVIEWS****Objectives:**

- Identify expected service levels for services and views of officials concerning the operations and performance of the services.
- Identify perceived gaps in existing service levels and new priorities in mission.

- Develop a list of perceived strengths and weaknesses with respect to organization, personnel, support from policy makers and the community, and resource availability.

Activities:

- 2.1 MAG worked with the Project Manager to finalize the interviewee list.
- 2.2 MAG drafted a comprehensive interview guide.
- 2.3 An interview schedule was established that was convenient to all parties.
- 2.4 MAG conducted comprehensive interviews as scheduled over several weeks with ATCEMS management team and staff, community leaders and officials, Medical Director and staff.
- 2.5 The study team analyzed interview results.
- 2.6 Interview results were used in the development of recommendations.

Deliverable:

- Feedback to the project manager on interviews regarding expressed views towards existing programs, service levels, and perceived strengths and weaknesses, and related issues.

TASK 3.0: CAPTURE INPUT FROM EMERGENCY MEDICAL CARE PARTICIPANTS

Objectives:

- Identify concerns and satisfactions at the operating departments and staff level.
- Identify strengths and weaknesses that may exist in the community.

Activities:

- 3.1 MAG developed interview questions for service providers, including questions on staffing, operations, facilities, and service level focused issues.
- 3.2 MAG conducted interviews with Chiefs of the ESD's at various stations.
- 3.3 We captured critical data in reference to the key RFS issues, such as management structure, stations, staffing, and service levels.
- 3.4 The study team reviewed feedback obtained from these interviews.

3.5 MAG prepared and administered a survey of selected EMS providers on best practices for performance and cost factors.

Deliverables:

- Summary of interviews and issues raised, with analysis to be used as part of the facilitation process and development of the draft and final reports.
- Best Practices Analysis in reference to the practices in Travis County.

PHASE III: PREPARE ANALYSES AND DEVELOP CORE STRATEGIES

TASK 4.0: EVALUATE AND PREPARE INITIAL RECOMMENDATIONS

Objectives:

- Build on our understanding of the current structure, operations, limitations, achievements, and opportunities for a successful integration.
- Build a series of recommendations focused on study objectives.

Activities:

- 4.1 MAG reviewed all input and consensus determinations.
- 4.2 The study team assessed data in reference to best practices and desired outcomes.
- 4.3 MAG assessed critical operational components in light of data, input, and consensus determinations.
- 4.4 We reviewed the EMS services delivery system in context of the County environment.
- 4.5 We developed recommendations on the Interlocal Agreement between Travis County and the City of Austin.
- 4.6 MAG prepared initial findings on the results of all previous tasks.

Deliverables:

- Discussion of initial findings.

TASK 5.0: PREPARE A REPORT AND PLAN**Objective:**

- A final plan that identifies the critical action steps to ultimately achieve the recommended outcomes.

Activities:

- 5.1 MAG discussed initial findings and recommendations.
- 5.2 We reviewed technical feedback on the initial findings and recommendations.
- 5.3 MAG made technical adjustments to produce the report.

Deliverable:

- A report that recommends action steps needed, to include the specific action required, the assignment of responsibility, the timing of the action, and any cost impact of each action.

Deliverables:

- Report

The report includes a cost and performance review of the Travis County EMS portion of the shared Austin-Travis County EMS system outside the City of Austin.

SECTION 3.0

CURRENT ENVIRONMENT

3.0 Current Environment

3.1 Austin/Travis County Emergency Medical Services

3.1.1 Staffing

According to data provided by the Austin/Travis County Emergency Medical Services (ATCEMS) Department, the organization operates between 31 and 35 Advanced Life Support (ALS) paramedic Level units each day. This includes paramedic ambulances, rescue units, command units, and specialty units. Of these are three (3) non-transport rescue units, one (1) tactical paramedic ambulance and one (1) hazardous materials paramedic ambulance. In addition, six (6) Paramedic Commanders are assigned each shift equipped with Advanced Life Support equipment, special rescue & Weapons of Mass Destruction (WMD) equipment and multi-casualty gear (but do not have transport capabilities). The Department provides a variety of special purpose units on an as needed basis including bike teams, motorcycle teams, boat teams and special rescue teams.

In the 10 County stations (8 full-time and 2 part-time), ATCEMS provides trained personnel (Paramedics). Each full-time station is staffed with 12 Paramedic positions to ensure coverage on a 24/7 basis. In addition, there are EMS Supervisors assigned to various geographic areas that are also able to respond to EMS calls. Ambulances are currently staffed with two (2) Paramedics and work a 48 hour work week schedule. Employee selection of a schedule/station is done through a tenure based bid process every six months. ATCEMS Paramedics must attend department training and maintain their certifications with the Texas Department of State Health Services and the Austin-Travis County EMS System. There are approximately 1,100 square miles in Travis

County, of which 370 square miles are labeled as being within an “Urban Zone” (composed of City of Austin and 150 square miles within Travis County). The balance is labeled as “Suburban”, and is comprised of the remaining 730 square miles.

So, in addition to the ATCEMS units assigned to the 10 (8 full-time and 2 part-time) County stations, the overall EMS system response includes:

- ✓ Austin Fire Department staff responding as EMT first responders, both into the City areas as well as into the County, if they are the closest available emergency resource, for high priority EMS calls;
- ✓ Emergency Service Districts (ESD’s) responding as EMT first responders, primarily within their own district (13 in the County), but also occasionally into the City of Austin and other districts as needed pursuant to Automatic and Mutual Aid Agreements;
- ✓ ATCEMS units (25 full-time and 2 part-time) assigned to City of Austin stations if they are the closest available emergency resource.

Within the unincorporated areas of Travis County, an EMS call results in a response from one of the ESD’s as first responder. This response is then followed with a paramedic level response by an ATCEMS unit. The ESD response is typically faster than the response by ATCEMS.

3.1.2 Dispatch

ATCEMS has indicated that the dispatch of ambulances is based on closest EMS unit without regard for city/county political boundaries. At the communications center where dispatch is located, current programming (LiveMUM) for the dispatch of ambulances

includes consideration of the volume of EMS runs over the last two (2) years (representing 60% of the criteria) and geography (representing 40% of the criteria). The use of these criteria generates colors on County-wide maps on dispatcher screens that help dispatchers determine whether units should be moved in order to minimize potential response times. The color green indicates a high level of coverage in which ambulance units will be able to meet the response time goals; the color brown indicates a moderate level of coverage in which dispatchers are on alert as to the potential for ambulance movement and adjustment; and, the color red indicates to dispatchers that the system needs an adjustment of one or more units to other stations or locations.

While the dispatchers have discretion in assignment of units, the color scheme generally appears to be followed. Since there are a higher number of EMS dispatches within the more urbanized area of the City of Austin, the criterion that relies on the volume of EMS calls over the last two (2) years tends to favor unit location within the municipal boundaries. On the other hand, if the percentage assignments to the criteria were reversed (60% geography and 40% historical runs), the location and movement of units might result in greater efficiency for the County areas, where there is greater land and square miles to cover. The relative balance and percentage assignments are variables that can be negotiated and adjusted according to the interests of the parties to the Interlocal Agreement.

There is a call prioritization system established by ATCEMS that includes Priorities 1 through 5, as noted below:

- ✓ **Priority 1:** Life threatening, cardiac arrest, respiratory arrest, ineffective breathing, or unconscious;
- ✓ **Priority 2:** Significant signs and symptoms, such as altered mentation severe hemorrhage, electrocution and so forth;
- ✓ **Priority 3:** Non life threatening complaints with potential for complications or additional personnel requirements;
- ✓ **Priority 4:** Non life threatening complaints and no significant signs, symptoms, or history;
- ✓ **Priority 5:** Non life threatening complaints without significant signs, symptoms, or history and whose illness is isolated (hand fracture, cramps, earache, surface wound).

3.1.3 EMS Billing

ATCEMS also does billing of transports for EMS runs that initiate in the County. There have been recent improvements to the billing process through software implementation and internal organizational policy adjustments. This has resulted in a higher level of collections and therefore revenue credited to the County in the 2011 fiscal year. During this study, ATCEMS staff indicated that collections for transports in the County would more than double to approximately \$5 million. This is a significant improvement from prior years and the City is commended for its improved ability to generate bills quickly and to increase the amount of collections for the County.

3.2 System Revenues and Costs

3.2.1 Revenues

For fiscal year 2010, the total amount of revenue in support of ATCEMS was slightly over \$43 million (86% is for salaries and benefits). Sources of funds in support of ATCEMS come from several sources, including the City of Austin (approximately 43%), Travis County (approximately 26%), transport fees (30%), and miscellaneous

fees. The source of funds for Travis County is general County taxation, along with reimbursed ambulance transport fees (\$5 million in FY 2011), or user fees, from transported patients.

The County's current contractual obligation of \$11.8 million for ATCEMS services is mitigated by transport revenues received. With \$5 million in transport revenues anticipated for this fiscal year, Travis County's net general taxation cost will approximate \$6.8 million.

3.2.2 Travis County Costs

Travis County's share of costs in support of EMS services is outlined in the Interlocal Agreement (ILA) between the County and the City. The ultimate contractual amount paid by the County to the City is a function of formulae established several years ago. The largest amount of the County's share of costs reflects the percentage of the number of stations in the County areas (9) relative to the total number of stations within the system (35). To fund personnel costs of Paramedics assigned to County EMS stations, there is a "Personnel Multiplier" used to determine County costs, which this year is 25.17% of valid and assignable ATCEMS costs. To fund EMS supplies used in EMS runs, there is a "Commodities Multiplier" of 13.40% based on the number of EMS runs in the County relative to the total ATCEMS runs. There is also an administrative fee of 6.5% applied that is consistent with other contracts between the County and the City of Austin. Certain costs are considered as City of Austin costs only and are excluded from the Interlocal Agreement. The most recently signed Interlocal Agreement with the City of Austin compels a cost of slightly over \$11.8 million for the current fiscal year. This amount is composed of \$11.1 million for "direct"

services (personnel and commodities), and approximately \$700,000 for administrative costs.

Exhibit 3-1
Travis County EMS Costs and Revenues

Personnel Multiplier:	25.10%
Commodities Multiplier: (% of runs)	13.40%
Administrative Cost:	6.50%
Total:	\$ 11.8 million
Travis County EMS Revenues:	
Transport Fees: (estimated)	\$ 5 million
County Net General Taxation:	\$ 6.8 million
Total:	\$11.8 million

Most of the costs incurred by Travis County for the Interlocal Agreement are due to personnel and benefits costs. Under the agreement, Travis County has no control over City of Austin personnel cost increases because all collective bargaining (including salaries and pensions) as well as ambulance staffing (two Paramedics versus one (1) Paramedic and one (1) EMT) is handled by the City. When raises are provided, Travis County has no input or control. The increases are passed along to the County in the form of the contracted amount as determined by formulae. The annual base pay range for Paramedic salaries at ATCEMS is \$43,455 to \$78,275. The average actual (based on actual salaries effective April 2011) salary for Paramedics is \$53,333 for 247 incumbent City of Austin Paramedics shown in the State of Texas database of employees (data provided by the City originally).

If Travis County decides to pursue an organizational alternative that would require hiring of Paramedics and EMT's, it may be possible to reduce salary costs relative to the current levels provided in ATCEMS.

The following indicates the amount of budgeted and actual dollars provided by Travis County to the City of Austin for EMS Services in recent years. The Budgeted dollars equate to the amount noted in the Interlocal Agreement. The Actual dollars column reflects the amount actually paid following a "true-up" process at the conclusion of the fiscal year. The reader can see that the costs have increased almost 48% since 2005.

**Exhibit 3-2
Travis Costs 2005-2011**

Annual Budget Increases 2005 - 2011			
Year	Budget	True-up	% Ann Increase
2005	8,265,789	170,257	
2006	9,158,522	379,434	8.4
2007	9,841,875	25,799	11.8
2008	10,762,371	302,785	6.5
2009	10,934,177	329,691	1.38
*2010	10,924,390	192,836	1.19
2011	11,957,953	0	Est. 7%
Total % Increase:			47.7

If one uses \$11.8 million (current budgeted contract amount) as the amount of County based general fund taxes to support the ATCEMS contract, and a population served as 233,876 (2010 U.S. Census), we find that the per capita cost is \$50.45 within the County for EMS services provided by ATCEMS. Using this methodology for the City of Austin, we find that the 790,390 City residents are paying \$31.2 million (\$43 million minus County costs) for a per capita rate of \$39.47. Transport fees will reduce the net per capita rate for both organizations. For the County, if we "back out" the \$5 million in

transport revenues for transports originating in the County, the per capita cost to cover the net \$6.8 million in costs is lowered to \$29.07.

For the last year that City transport revenues were made available (2011), the collection amount for the City was approximately \$18.5 million. For the City, if we “back out” the \$18.5 million in FY 2011 transport revenues for transports originating in the City, the per capita cost to cover the estimated net cost of \$12.7 million is approximately \$16.07. This suggests a per capita cost of almost 81% higher for EMS service, per capita, in the County, than in the City.

**Exhibit 3-3
Comparative Per Capita EMS Costs**

	2010 Census Population	Total EMS Cost for Services	Per Capita Cost	Total Cost Less Transport Fees	Per Capita Cost
Travis County	233,876	\$11.8 million	\$50.45	\$6.8 million	\$29.07
City of Austin	790,390	\$31.2 million	\$39.47	\$12.7 million	\$16.07

3.2.3 Costs Relative to Services

Travis County is paying nearly \$1 million per month to the City of Austin for EMS services. A major finding in this report is that ATCEMS provides both the City and County with highly trained personnel with appropriate knowledge of pre-hospital care resulting in a high level of service.

Of concern is the matter of timeliness of response, as data has indicated that response times in the County are greater than in the City, and ATCEMS is not meeting the 90% response level for the time goals established for the County areas.

The following table indicates the current ATCEMS response time criteria and performance measures used by ATCEMS. These are the response time **goals** that ambulance units would be expected to meet 90% of the time:

Exhibit 3-4
ATCEMS Current Response Time Goals

Priority Code	Urban Zone*	Suburban Zone**
1	9:59 minutes	11:59 minutes
2	11:59 minutes	13:59 minutes
3	13:59 minutes	15:59 minutes
4	n/a	n/a
5	n/a	n/a

* The Urban Zone includes approximately 370 square miles, which includes about 150 square miles of Travis County not actually located in the City of Austin. This is based on the number of incidents in contiguous map zones or grids.

**The Suburban Zone is the balance of the geographic area outside of the Urban area and is the remainder of Travis County.

Of particular note is that response time goals are different between the Urban area and the Suburban areas of Travis County. The response time goal for Priority 1 incidents is 9:59 minutes within the Urban area, and the response time goal for Priority 1 incidents in the Suburban area is 11:59 minutes. For Priority 2 incidents, the response time goal in the Urban area is 11:59 minutes compared to 13:59 minutes in the Suburban area. For Priority 3 incidents, the response time goal is 13:59 minutes in the Urban area compared to 15:59 minutes in the Suburban area.

In March 2010, ATCEMS reported in its “EMS Deployment Plan” that for the 370 square miles in the Urban defined area, the Priority 1 (life threatening calls) compliance was 91.13% for 1,262 Priority 1 incidents. However, in the “Suburban” defined area, the Priority 1 compliance for the same period was 49.17%. The ATCEMS has provided data to the study team indicating that compliance in the Suburban area has improved during the 2011 fiscal year (through August 3, 2011) to 61.56% (response time goal of 11:59 minutes) for Priority 1 calls.

Even if one accepts the response time criteria and goals established by ATCEMS, while the quality of care is appropriate upon arrival, the actual response times are greater in the County than those in the City, and the actual performance times are not meeting the response time goals.

Internal analysis by the EMS Advisory Committee indicates that ATCEMS response times to Priority 1 and Priority 2 calls in Travis County have improved (from 18:59 in FY 2007 to 16:34 in FY 2010), yet the times are substantially higher than Emergency Service District Priority 1 and Priority 2 responses (11:40 in FY 10) and much higher

than ATCEMS responses in the City of Austin (10:16 in FY 10). ATCEMS reported that 2010 Priority 1 calls in Travis County averaged 17:16 and averaged 9:59 in the City of Austin, a differential of 7:17 (seven minutes and 17 seconds). There is a significant difference in response time goals as well as actual response times between the City and the County areas.

The reader will see that, in Section 5.0, MAG directly addresses response time goals for both the County and the City that reflect recommendations from the Commission for Accreditation of Ambulance Services (CAAS) for contracting for ambulance service. These goals anticipate that First Responders provide ALS before the ambulance arrives.

The ATCEMS management response to the issue of reducing response times in the County is to add additional County units. Budget data from ATCEMS indicates that the cost to add an additional unit in the County is over \$1.2 million (\$1,294,578). While it may be true that adding additional units would reduce response times, MAG has identified other strategic system adjustments and organizational alternatives that will allow greater County control over costs and performance. Choices are outlined in Section 5.0 that specify how improvements to response times can be made without paying an additional \$1.2 million for each staffed ambulance unit.

3.2.4 Interlocal Agreement Costs and Financial Formulae

MAG has prepared suggestions for the Interlocal Agreement as specified in Appendix A and Appendix B of the report. In terms of the costs, MAG suggests the replacement of the “Personnel Multiplier” with an “EMS Services Multiplier” that is based on the respective population levels (2010 U.S. Census data) served in the County (233,876)

and the City (790,390). This is more consistent with a frequently stated philosophy of viewing the system as a total system. If the County chooses to continue the contractual relationship with the City rather than establish an alternative form of organization and service delivery, a contractual cost based on population served is defensible and appropriate. The “commodities” multiplier is reasonable, as it reflects actual costs based on the percentage of runs made within the County (13.4%) in which supplies are used. The administrative fee of 6.5% does not appear to be specific to actual costs incurred (no cost allocation study was presented), but is consistent with the fees assigned to other interagency contracts between the City and the County. Therefore, the primary change to the financial cost is in the application of the population criterion to the direct cost of services.

Preliminary information indicates that 22% of the County's population resides outside City boundaries. Based on this estimate of 22%, the County's current obligation in the Interlocal Agreement would be approximately \$9.7 million plus approximately \$625,000 for the administrative services fee, for a total of \$10.3 million. This is compared to the current \$11.8 million annual obligation of payment by the County to the City of Austin. Use of the relative amount of population in the County rather than the current Personnel Multiplier which uses the relative percentage of stations, would mean a contract reduction from the current amount by approximately \$1.5 million.

3.3 Organization of EMS Services in Travis County

Since 1977, residents in Travis County have been provided with EMS Advanced Life Support services through ATCEMS. The County contracts with ATCEMS for pre-hospital care and ambulance transport services. In addition, the County has agreements with the 13 Emergency Services Districts (ESD's) for first responder

services. Responses to EMS events are made through the combination of ATCEMS and ESD providers.

The model for service delivery in the unincorporated area is held together by a series of agreements, including the Interlocal Agreement between the City of Austin and Travis County, and agreements between the ESD's and Travis County. Recommendations for change to the Interlocal Agreement are made in this report to ensure accountability, reporting, leverage, and a more appropriate costing approach. From the County's perspective and that of ESD's within the County, the amount and quality of performance information from ATCEMS is insufficient. The County has leverage in the contractual relationship due to its ownership and/or control of facilities (partnership in Jonestown) and ambulances, thus making it easier to establish an internal County capacity should it choose to do so. The ESD's have less leverage acting individually, yet may be in a better position through consolidation efforts or joining a County based fire and rescue organization.

3.3.1 Emergency Service Districts in Travis County

The ESD's are vulnerable in their individual ability to create change and influence outcomes due to the limits on their taxing ability and the continuing annexation of high value property by the City of Austin. As the tax base in the ESD's erodes due to City annexation, the challenge to provide services increases. Some of the ESD's in Travis County are barely able to generate sufficient revenue to cover costs, resulting in a struggle to maintain service levels. A recently (April 2011) enacted reform bill (Senate Bill 917) provides some potential relief to ESD's as it allows for consolidation of districts or even contracting with another ESD for services. Consolidation of ESD's

under a County umbrella form of organization would create additional leverage for Travis County in its relationship with the City.

3.3.2 Organizations within the Current Model of Service Delivery

Over the last several years, the County has facilitated information exchange in the delivery of emergency services through various groups and organizations, rather than just relying on the contractual relationship and information provided by the City of Austin. The model includes the ESD Fire and Rescue Chiefs, the Capital Area Fire Chief's Association (CAFCA), an Emergency Services Standards Advisory Team (ESSAT), the Emergency Services District Commissioners Council (ESDCC), and the EMS Advisory Board. The ESD Fire Chiefs and ESSAT have been active in forging ahead with consideration of various organizational models. The EMS Advisory Board has had less activity and impact in recent years than in the past. The County has done an excellent job of creating a model of interactions so that accurate information and ideas can be shared. Even with these relationships, however, long-term predispositions and views of what is the best model for service delivery cannot be dislodged. The County has an obligation to its citizens to establish a service delivery model that is in its best interests. The current contractual model clearly needs contract improvements and adjustments. Alternative models of organization as recommended in Section 5.0 of this report would clearly strengthen the overall service delivery of fire, rescue and EMS services due to reliance on a larger tax base, ability to make County-wide service deployment decisions, ability to control costs, and improved coordination of services with ATCEMS and AFD.

3.3.3 Recommended Model of Organization

MAG recognizes that disrupting the status quo will be harshly criticized by those who endorse and benefit from the status quo. However, from the client's (Travis County) viewpoint, the current EMS service delivery model suffers from increasing expense, unacceptable response times that are much greater than for City residents, lack of cost controls and performance criteria, lack of accountability for lack of performance, and a provider/client relationship that is not balanced. Disrupting a relationship that has been intact for 34 years requires political will in the face of expected criticism.

Many County staff and officials believe they have been treated as "second class citizens" by the City in the contractual relationship. A variety of factors (increasing contract costs, uneven ESD capabilities, static response times not meeting standards, limited County and ESD leverage) have led to this point in time as a time for change. During the transition to an alternative form of service delivery (should the County decide to pursue an alternative form), at the minimum, changes to the current Interlocal Agreement should be made as recommended in Section 5.0.

The reader will see in Section 5.0 that this report's preferred model of organization for both the short-term (next few years) and long-term (15 years) is that of a unified Travis County Fire Rescue organization. The organization would be funded through general County-wide taxation and managed at the County level by a Fire Rescue Chief and Medical Director. Emergency Service Districts would be eligible to participate and become part of the County organization, and adhere to County policies, requirements, and performance standards.

This model does not create an additional layer or form of government such as an ESD #15. The County's current ownership or control of nearly all facilities and ambulances puts it in a strong position to move forward with a comprehensive and integrated approach, managed by the County.

SECTION 4.0

BEST PRACTICES REVIEW

4.0 Best Practices Review

MAG is pleased to offer information on best practices from several vantage points. First, from recent national studies, including from the Committee on the Future of Emergency Care in the United States Health System (formed by the Institute of Medicine, or IOM). That report offers a broad view of the strengths, limitations, and future challenges of the emergency care system, including pre-hospital emergency care. Second, MAG reports on findings from recent best practices surveys, including a survey for Washington, D.C. government in which Austin was included as a participant. Third, MAG has completed a best practices survey that reviews specific aspects of EMS and organizational models currently in place in selected larger agencies. There is a wealth of information in this report section.

One of the findings of best practices reviews in the EMS field is reflected by the conclusion of one of the surveys, that, **“When you have seen one EMS system, you have seen one EMS system”**. *That unique perspective points to the diversity of models, approaches, and service orientations that exist across the country.* While there may be some crossover in management models, the specifics vary widely in application. One cannot say what is truly best for an organization and system until it is studied and evaluated according to broadly accepted principles and practices. There is no federal agency dictating specific models or approaches to governance, source of funding, organizational relationships, staffing, communications, or any of the many aspects of pre-hospital care as a part of EMS service delivery to local area citizens. The reviewer must glean through the information and come to valid conclusions as to the “best model” that applies to the environment at that point in time. This is how MAG has approached this entire project in the development of a series of recommendations.

4.1 National Study of EMS System Development

The modern EMS system in the United States developed only within the past 50 years or so, yet its progress has been dramatic. In the 1950s, EMS provided little more than first aid, and it was

not uncommon for the local ambulance service to consist of a mortician and a hearse. Over time, local communities began to develop more sophisticated EMS capacity, although there was significant variation nationwide. Increased recognition of the importance of EMS in the 1970's led to strong federal leadership and funding that resulted in considerable advances, including the nationwide adoption of the 9-1-1 system, the development of a professional corps of emergency medical technicians (EMTs), and the establishment of more organized local EMS systems. Since the 1970's, EMS systems have been left to develop haphazardly across the United States. There is now a great deal of variability in the design of EMS systems among states and local areas. Nearly half of these systems are fire-based, meaning that EMS care is organized and delivered through the local fire department. Other systems are operated by municipal or county governments or may be delivered by private companies, including for-profit ambulance providers and hospital-based systems. Adding to this diversity, there are more than 6,000 9-1-1 call centers across the country, each run differently by police, fire, county or city government, or other entities.

Given the wide variation in EMS system models, there is broad speculation about which systems perform best and why. However, there is little evidence to support alternative models. For the most part, systems are left to their own devices to develop the arrangement that appears to work best for them. That has been the case in Travis County.

Fire-based systems across the United States are in transition. The number of fires is decreasing while the number of EMS calls is increasing, raising questions about system design and resource allocation. An estimated 80 percent of fire service calls are now EMS related. While there is little evidence to guide localities in designing their EMS systems, there is even less information on how well any system performs and how to measure that performance.

A key objective of any EMS system is to ensure that each patient is directed to the most appropriate emergency care facility based on his or her condition. Coordination of the regional flow of patients is critical to ensuring the quality of pre-hospital care. Yet only a handful of systems around the country coordinate transport effectively.

4.1.1 EMS Advances

EMS care has made important advances in recent years. Emergency 9-1-1 services now link virtually all ill and injured Americans to immediate medical response; through organized trauma systems, patients are transported to advanced, lifesaving care within minutes; and advances in resuscitation and lifesaving procedures yield outcomes unheard of a decade ago. Medical equipment, including air ambulance service, has extended the care available to emergency patients, for example, by bringing rural residents within closer range of emergency and trauma care facilities. STAR Flight is a perfect example of this advance.

4.1.2 Systemic Problems

Despite the advances made in EMS, sizable challenges remain. The current delivery system across the United States suffers in a number of key areas:

- ✓ **Insufficient coordination.** EMS care is highly fragmented, and often there is poor coordination among providers. Multiple EMS agencies—some volunteer, some paid, some fire-based, others hospital or privately operated—frequently serve within a single population center and do not act cohesively. Agencies in adjacent jurisdictions often are unable to communicate with each other. In many cases, EMS and other public safety agencies cannot talk to one another because they operate with incompatible communications equipment or on different frequencies (**not so in Travis County**).
- ✓ **Disparities in response times.** The speed with which ambulances respond to emergency calls across the country is highly variable. In some cases this variability has to do with geography. Speed of response is also affected by the organization and management of EMS systems, the communications and coordination between 9-1-1 dispatch and EMS responders, and the priority placed on response time given the resources available. **There is variability in response times in Travis County.**
- ✓ **Uncertain quality of care.** Very little is known about the quality of care delivered by EMS. The reason for this lack of knowledge is that there are no nationally agreed-upon measures of EMS quality and virtually no accountability for the performance of EMS

systems. While most Americans assume that their communities are served by competent EMS systems, the public has no idea whether this is true, and no way to know. **There are well trained Paramedics delivering pre-hospital care in Travis County.**

- ✓ **Divided professional identity.** EMS is a unique profession, one that straddles both medical care and public safety. Among public safety agencies, however, EMS is often regarded as a secondary service, with police and fire taking more prominent roles; within medicine, EMS personnel often lack the respect accorded other professionals, such as physicians and nurses. **In Travis County, EMS is a third service, but is highly regarded.**
- ✓ **Limited evidence base.** The evidence base for many practices routinely used in EMS is limited. Strategies for EMS have often been adapted from settings that differ substantially from the pre-hospital environment; consequently, their value in the field is questionable, and some may even be harmful. For example, field intubation of children, still widely practiced, has been found to do more harm than good in many situations. While some recent research has added to the EMS evidence base, a host of critical clinical questions remain unanswered because of inherent difficulties associated with pre-hospital research due to its sporadic nature and the difficulty of obtaining informed consent for the research. **ATCEMS is very much tuned in to evidence based practice.**

While emergency care systems in the United States offer significantly more medical capability than was available in years past, many systems continue to suffer from severe fragmentation, an absence of system-wide coordination and planning, and a lack of accountability.

Many of the problems are magnified when incidents cross jurisdictional lines. Significant problems are often encountered near municipal, county, and state border areas. In cases where a street delineates the boundary between two municipal or county jurisdictions, responsibility for care—as well as the protocols and procedures employed—may depend on the side of the street on which the incident occurred. This must be kept in mind if Travis County pursues an organizational alternative and provides services directly to County residents.

4.2 Air Medical Services

The number of air medical providers has grown substantially since they first emerged in the 1970s. Today there are an estimated 650–700 medical helicopters operating in the United

States, up from approximately 230 in 1990. These air ambulance operations have served thousands of critically ill or injured persons over the past several decades. However, questions remain regarding the clinical efficacy and appropriateness of sophisticated air ambulance care, as well as its cost-effectiveness, given that the cost can be more than five times greater than that of ground ambulance service. In addition, in recent years there has been a significant increase in fatal crashes involving air ambulances, resulting in heightened safety concerns. MAG has not been made aware of any accidents in STAR Flight operations.

4.3 Best Practices Study Completed for Washington, D.C.

A recent study of EMS services was completed for Washington, D.C., which included Austin/Travis County as one of the survey participants. The survey also included Boston, Fairfax County (VA), Houston, Memphis, Montgomery County (MD), Phoenix, Pinellas County (FL), Richmond, San Diego, and Seattle. The Austin/Travis County response indicated a population of 825,000 (daytime of 1,100,000), and a service area of 1,100 square miles (20% urban, 20% suburban, and 60% classified as rural).

Overall results indicated:

- ✓ All Systems Surveyed send Fire Department (FD) First-Response Units for Life Threatening Calls;
- ✓ All Systems Surveyed use a Combination of Basic Life Support (BLS) & Advanced Life Support (ALS) Response Units (i.e. Tiered System), except Pinellas County (all ALS);
- ✓ All Systems Surveyed send the Closest Unit (BLS or ALS) and an ALS Ambulance to Life Threatening Calls;
- ✓ Six systems use Fire Department Ambulances only;
- ✓ Two systems use Third Service Ambulances only;
- ✓ Two systems use Private Ambulances only;
- ✓ Two systems use a Combination of Fire Department & Private Ambulances.
- ✓ A full-time/active Medical Director's office was typical in best practice systems

Once again, in a major national survey, we can see the diversity of organizational models used to provide EMS services. Austin was right at the average in terms of the calls per unit hour (average .42), the percentage of calls per capita (13%) and the percentage of transports per capita (7%), but lowest of the surveyed agencies in terms of calls per square mile (the entire Travis County was considered.)

4.4 Beaufort County, South Carolina EMS Study

A recent consulting study was completed in this jurisdiction and is presented as an interesting approach. The conditions do not model Travis County, although some elements are similar. Emergency Medical Services in Beaufort County (Charleston area) are currently based on a “third-service” model managed by the Beaufort County Division of Public Safety. Some fire districts proposed running fire-based EMS operations in the capacity of a transport ambulance service. The study concluded that a single, consolidated fire/EMS system would be a logical recommendation, if the fire service in the county were operated as a single system. However, a fire-based EMS system was not recommended for Beaufort County because there were eight (8) fire jurisdictions with separate capabilities, funding, and, in some cases, separate medical protocols. Currently the eight fire jurisdictions are legally constructed as Municipal Departments, State Fire Districts, County Fire Districts, and a Special District. Consolidation of fire jurisdictions into a single central fire protection jurisdiction would need to precede the implementation of a fire-based EMS system because the authors felt it is not feasible to implement a separate EMS system for each fire jurisdiction (such a model in Beaufort County means eight separate EMS entities). The option to have the separate fire jurisdictions work together to manage EMS was not viewed as viable because fire jurisdictions currently manage response to fire incidents in several different ways based on the needs of each individual fire jurisdiction. To ensure consistent, quality delivery of EMS to all residents of Beaufort County,

irrespective of where they reside, continued management of the system by the County was recommended.

4.5 Phoenix Fire Department

The Phoenix Fire Department has been delivering paramedic level EMS service since the early 1970's. Over the years the city deployed a number of delivery models, including taking over ambulance service delivery for the city in 1985. In 2006, the Phoenix Fire Department began the process of developing a long-term strategic plan. A key initiative of the strategic plan was the goal to improve service delivery by reducing response times, reducing out of service time, and keeping companies available in their first due response area.

To meet one of the initiatives, a plan was developed that would convert the last 14 Basic Life Support (BLS) engine companies to Advanced Life Support (ALS) providers (two paramedics and two EMT's), and convert all ambulances to 1-1's (one EMT and one Paramedic). In the previous system, it was not uncommon to dispatch two engines and one ambulance on EMS calls where transportation was necessary. This would include the closest BLS engine, the closest ALS engine, and a BLS ambulance for transport. The paramedic on the ALS engine would then "ride in" with the patient when required. With the recently updated system, the closest ALS engine responds and then transfers care to the ambulance for transportation, allowing the ALS engine to return to service in their first due area.

Following the development of the Strategic plan, the United Phoenix Firefighters Union was successful in the passage of a special Public Safety tax initiative (Proposition 1) for fire and police services. The successful passing of Prop 1 allowed the department to hire 100 new firefighters, purchase the equipment needed for the ALS conversions, and provide the additional EMS staff and equipment to complete the paramedic training requirements. The assigned staff

at EMS was tripled to accommodate the additional medic training programs and the additional work load on maintaining paramedic certifications.

On June 2, 2010 the department converted the last two BLS engines to ALS and the last full time ambulances to 1-1's. The conversions have had a dramatic impact on the department's daily operations, including reducing response times by 10% during the third year of the conversions. The engine company's availability has increased and out of service times have decreased. Overall, the conversions have had very positive service delivery outcomes in the Phoenix Fire Department.

4.6 MAG Best Practices Survey

MAG's survey reflects the findings of surveys conducted on six EMS systems to determine best practices in contracts, performance standards and financing arrangements with other jurisdictions or private providers. MAG selected six systems that involved a major metropolitan area and/or possible involvement of local surrounding jurisdictions or the county: four in Texas and two in other states. The survey questions included requests for supporting documentation, such as copies of contracts and ordinances. Survey questions were tailored where necessary to meet the individual characteristics of each EMS system, as found by Internet-based research. The surveys – and follow-up questions – were conducted both by telephone and email during a time period spanning August 17 – September 23, 2011. All surveys required at least one follow-up call to clarify or expand upon information received.

4.6.1 Overview

A separate document, *Survey Highlights*, identifies the major findings in a three (3) page table format in Appendix C. Below is a brief narrative summation:

System Control and Authority. Four systems (*Fort Worth-area Texas MedStar EMS; San Marcos/Hays County EMS (SMHCEMS Texas); Wake County EMS North Carolina; and King County EMS (Seattle) Washington*) had county and/or a separate trans-jurisdictional authority in place to establish, help fund, and operate an EMS system and monitor system performance. *SMHCEMS* was unique as the only 501(c) 3 non-profit entity. Two systems are administered by the city within their fire departments (*Arlington EMS and San Antonio EMS*). The *San Antonio Fire Department (SAFD)* at one time provided EMS coverage to a large portion of Bexar County by contracting with surrounding jurisdictions, but their coverage is now limited to the City of San Antonio and a near-by small municipality.

Contracts. Of the four county-wide systems described above, three use contract agreements with local jurisdictions, such as fire departments or EMS districts, to provide first response and/or ambulance transport (*SMHCEMS, Wake County and King County*). *MedStar* operations are governed by a special ambulance authority, which require member municipalities to adopt both an interlocal agreement and an ambulance ordinance (the fire department of each member jurisdiction must provide paramedic first response). Of these four systems, none contract with private providers for response or transport, although *MedStar* has the authority to do so.

SAFD contracts with Hill Country Village to provide their residents with both fire and EMS response. *Arlington EMS* contracts with private provider AMR for ambulance transport. Some fire departments in *King County* contract with private providers for transport and possibly other services, but the county does not track that information.

Performance Monitoring and Enforcement. All systems monitor performance and use specified response times as part of their measurements. Three systems specify or refer to performance standards in their contracts with other entities (*King County EMS, SMHCEMS and Arlington EMS*). Only one system, *Arlington*, includes liquidated damages and other penalty

provisions for failure to meet performance standards. *King County's* contracts with local fire agencies include provisions that state that failure to comply with contract terms may result in corrective action plans or contract termination, but it is unclear without further research to what extent those provisions encompass failure by the agencies to meet performance standards set by the county and its strategic plan. *King County EMS* also incorporates strategic initiatives to improve system performance in their tax levy-related planning processes, and the progress on these initiatives are monitored by King County EMS, related stakeholder groups, the county council and the medical director.

System Funding. All systems rely on government funding to help support EMS response. Except for *King County EMS* and possibly *SAFD EMS*, patient billing primarily funds all surveyed EMS systems, leaving government sources (such as municipal or county taxes) to support expenses not covered by patient revenues. *King County EMS* is largely funded by a special countywide tax levy. It pays for all ALS response, and partially pays for BLS response. It also allows local BLS responders to charge for transport (not all local jurisdictions charge). A special ambulance authority that provides for local government subsidies governs *MedStar's* operations, but currently it is largely funded by patient revenues.

SECTION 5.0

FINDINGS AND RECOMMENDATIONS

5.0 Findings and Recommendations

This portion of the report focuses on several alternative organizational options for providing EMS services. As per the RFP's specifications to evaluate ground ambulance services, EMS first responder services, aero ambulance services, performance measurement, and organizational alternatives, the major elements of this report section reflect those areas of analysis. There are several service options and operational enhancements (as well as a "pilot project") that have been evaluated and are presented in this report section for review and consideration.

5.1 Organizational Options and Alternatives for EMS Services

MAG has identified four (4) major available organizational options and alternatives for providing EMS services within the County portion of Travis County. They include:

1. Status Quo – Utilizing ATCEMS for EMS ground ambulance transports; and/or
2. Establishing a Unified County Fire Rescue Services Organization, or
3. Establishing a County Operated EMS Department, or,
4. Obtaining a New Contracted EMS Provider.

The prime focus of all recommendations is to provide rapid, quality pre-hospital emergency medical patient care, and emergency public safety services in the most cost efficient manner. **A universal aspect of the four (4) service options and operational enhancements is that all Options, Operational Enhancements, and the "Pilot Project" (to provide Fire Based EMS Ambulance Services) would:**

- ✓ require establishing Response Time Standards;
- ✓ require establishing Response Coverage Areas;
- ✓ attempt to control costs;
- ✓ improve upon County controls over the service and system, through the establishment of performance standards, service goals and guidelines; and,
- ✓ include the employment of a County EMS Medical Director for medical leadership and oversight of the County EMS operations.

And, with the exception of the Status Quo (utilizing ATCEMS for EMS ground ambulance transports), all other options (2, 3, and 4) would:

- ✓ require hiring a County EMS Chief;
- ✓ require hiring a County EMS Medical Director;
- ✓ improve services in the County areas due to more direct County control over EMS operations; and,
- ✓ allow for ALS Paramedic or Intermediate Life Support (ILS) First Responders.

5.1.1 Option 1: Status Quo: ATCEMS for Ground Ambulance Transport

Findings on the Existing System:

- ✓ The ATCEMS organization and staff provide quality pre-hospital emergency medical services and care;
- ✓ Currently, ATCEMS staffs ALS Ambulances with two (2) Paramedic level personnel. The EMS Medical Director is considering a change to staff each ALS Ambulance with one(1) Paramedic and one (1) Emergency Medical Technician – Basic (EMT-B) level personnel. A change in staffing could reduce personnel costs since EMT's command less in the market place than Paramedics;
- ✓ ATCEMS has longer response times in County areas outside the City of Austin;
- ✓ There are currently no established Response Time Standards in suburban County areas in the Interlocal Agreement;
- ✓ It has been difficult for the County and the ESD's to obtain timely and comprehensive information and responsiveness from the City EMS Staff;
- ✓ The service costs to the County are increasingly costly as a result of labor costs and administrative fees,

- ✓ The County has no control over cost factors due to labor cost increases in negotiations completed between organized groups and the City of Austin.
- ✓ It has been reported that when a County Ambulance that transported a patient to a hospital in the City of Austin clears the hospital and attempts to return to its response area in the suburban County, the Computer Aided Dispatch (CAD) system shows the ambulance as “available” for another dispatch. Frequently, these ambulances are dispatched to another call within the City before they arrive back in their assigned response area. This results in longer response times for other units to cover the County area.

Recommendation #1: Renegotiate an interim Interlocal Agreement extension until service delivery options are fully considered. Specific points are included in MAG’s recommended Interlocal Agreement revision (Appendix A).

Recommendation #2: If ATCEMS is to continue to provide services, renegotiate an Agreement that establishes more service, system, and cost controls for the County.

Recommendation #3: County Ambulance Units that have transported a patient out of the Suburban County area, should not be considered available for a subsequent dispatch within the City until it has returned into the County response area. An exception to this would be if the County EMS Unit crew believes that they are the closest ambulance to a Priority One Call.

5.1.2 **Option 2:** Establish a Unified County Fire Rescue Organization

Findings:

- ✓ The suburban County areas are currently serviced by thirteen (13) separate ESD Fire Departments, with each having its own governing Board and Chief. Some ESD’s share the services of a single Fire Chief.
- ✓ There is a varying level of services and capabilities between the ESD’s.
- ✓ Some ESD’s have Automatic Aid Agreements with the City of Austin. Others do not.
- ✓ Automatic Aid Agreements facilitate a more timely response by the closest emergency resource. Reciprocity of services has been an issue.
- ✓ The ESD’s have Mutual Aid Agreements with each other. While beneficial, Automatic Aid by the closest available resource is superior.

The Unified County Fire – Rescue Services option would:

- ✓ require hiring a lead County Fire Official and Command Staff;
- ✓ improve regional emergency services and response due to critical emergency services being provided by a single organization and/or less than the current number of separate independent fire agencies.
- ✓ improve command, control, management and support for a Unified Fire - Rescue Service within Travis County, as a result of a unified County Fire – Rescue Service under the command of a lead County Fire Official (Chief) and a unified Command Staff.
- ✓ centralize provision of Fire - Rescue Services outside the City of Austin;
- ✓ integrate the following into a County unified Fire - Rescue Services Department:
 - ❖ STAR Flight as Air Operations;
 - ❖ Fire Marshal's Office;
 - ❖ Emergency Management Office .
- ✓ merge ESD's into a unified County Fire – Rescue Services Department;
- ✓ limit the number of separate ESDs because participating ESDs would join and merge into the unified County Fire – Rescue Services organization.
- ✓ assist in improving the Insurance Services Office (ISO), Public Protection Classifications (PPC) within the County through a more strategic approach to resource deployment;
- ✓ help to reduce fire insurance rates through an improved ISO - PPC Rating;
- ✓ improve personnel training & safety through a coordinated Training and Safety Program;
- ✓ improve Fire Prevention and Code Enforcement activities through a coordinated County-wide Fire Prevention and Life Safety Program;
- ✓ improve Brush Clearance Program through a coordinated County-wide effort.

Recommendation #4: MAG recommends a Unified Travis County Fire – Rescue Services Department that could be established in phases:

Initial Phase – Unified County Fire – Rescue Services

Alternative Follow-up Phase – EMS Ambulance Service

Recommendation #5: Implement an Initial Phase for a Unified Fire-Rescue Service.

Recommendation #6: Implement an Alternative Follow-up Phase for a Unified Fire-Rescue Service – EMS Ambulance Services

5.1.3 Option 3: Establish a County Operated EMS Department

While MAG recommends a Unified County Fire – Rescue Services organization, the organizational option of a County operated EMS Department can be considered.

Findings:

- ✓ The County owns all Ambulances, other EMS Vehicles, and controls County area EMS Stations currently staffed by the ATCEMS personnel.
- ✓ The County has minimal control over the current EMS system, services provided and cost controls.
- ✓ The cost of services from ATCEMS has increased substantially as a result of labor costs and administrative fees charged to the County.

Recommendation #7: If a unified County Fire – Rescue Services organization is not implemented, consideration should be given to establishing a separate Travis County EMS Department.

5.1.4 **Option 4: Obtaining a New Contracted EMS Provider**

While MAG recommends a Unified County Fire – Rescue Services organization, the organizational option of obtaining a new contracted EMS provider can be considered.

Findings:

- ✓ The current system has become increasingly expensive to maintain and lacks necessary controls by the County.

Recommendation #8: If a unified County Fire – Rescue Services organization is not implemented, and a separate County EMS Department is also not implemented, then contracting with a new public and/or private EMS/Ambulance provider should be considered.

5.2 Operational Enhancements

5.2.1 EMS First Responder Services

Findings:

- ✓ The ESD's provide EMS First Responder Services to support the EMS System.
- ✓ First Responder services vary from BLS, to some ILS. ALS service is provided by ATCEMS Ambulance crews.
- ✓ Some ESD's desire to provide ALS services.
- ✓ Some ESD's desire to provide Ambulance Transportation.
- ✓ The EMS Medical Director intends to disallow the continuation of ILS services by First Responders.
- ✓ The EMS Medical Director has not authorized First Responder ALS services.
- ✓ ESD's are dispatched on Priority 1, 2, 3, 4, and 5 EMS Calls. The City of Austin Fire Department is dispatched on Priority 1, 2, and 3 EMS Calls. This results in additional call volume on lower level calls (4's and 5's) for the ESD's in their areas. This practice reduces the availability of emergency resources for emergency response to additional emergencies; increases response times, and increases expenses for the ESD's.

- ✓ The areas served by the ESD's vary in size, population density, terrain, and accessibility. This results in one standard for response times being impractical.
- ✓ There are patients who need to be seen by a physician but do not require ambulance transportation to a hospital Emergency Department. An "Alternate Means of Transportation" would free-up EMS Ambulance and First Responder resources resulting in the system being more efficient.
- ✓ Situations occur where a larger than needed number of emergency units and personnel arrive at the scene of an EMS call. Once the situation has been evaluated, unnecessary resources should be cancelled and released from the incident.

Operational Enhancements to Existing First Responder System

The operational recommendations will enhance the existing EMS System in the following ways:

- ✓ Improve the level of patient care provided by First Responders;
- ✓ Improve the response times for ALS Paramedic and Intermediate Life Support (ILS) levels of care;
- ✓ Reduce the number of emergency responses,
- ✓ Reduce operational costs,
- ✓ Reduce dispatch costs;
- ✓ Save fuel and reduce maintenance costs;
- ✓ Extend the life of heavy fire apparatus;
- ✓ Reduce the number of emergency vehicles and personnel responding to a call;
- ✓ Improve the availability of emergency Fire & Rescue resources in Travis County.

Recommendations on the First Responder System:

Recommendation #9: Establish Response Coverage Areas for First Responders.

Response Coverage Areas – County

Metro: An area with greater than 3,000 persons per square mile.
Metro Area is primarily within the City of Austin.

Urban: An area with greater than 2,000 persons per square mile

Suburban: An area with 1,000 to 2,000 persons per square mile

Rural: An area with less than 1,000 persons per square mile

Frontier: An area with less than seven (7) persons per square mile

Recommendation #10: Establish Response Time Standards / Goals for First Responders.

Recommendation #11: First Responder Response Time Standards / Goals should be considered as suggested by the Capital Area Fire Chiefs Association and the Commission on Fire Accreditation International (CFAI):

<u>Area</u>	<u>Baseline</u>	<u>Benchmark</u>
Metro Metro Area is primarily within the City of Austin	5 Min 12 Sec	4 Min
Urban	5 min 12 Sec	4 Min
Suburban	6 min 30 Sec	5 Min
Rural	13 Min	10 Min

Recommendation #12: Establish First Responder Response Time Exemptions.

Recommendation #13: First Responders should respond to EMS Priority 1, 2 and 3 calls. This would be the same as the City of Austin Fire Department.

Recommendation #14: Stop the automatic dispatching of First Responder resources to Priority 4 and Priority 5 calls. First Responders may be requested if there is an anticipated ambulance response delay.

Recommendation #15: Allow for ALS Paramedic level and Intermediate Life Support (ILS) Fire First Responders to improve services/response times for ALS and/or ILS services.

Recommendation #16: Hire or contract for a County EMS Medical Director for medical leadership and oversight.

Recommendation #17: Hire a County EMS Chief for service coordination.

Recommendation #18: Consider establishing or contracting for an *Alternate Means of non-urgent and non-ambulance Transportation*. This could be in the form of Taxi Cab vouchers or other non-ambulance vehicle transportation to a hospital, physician's office, health center or clinic for non-emergency services. The intent is to reduce the number of unnecessary ambulance transports, increase the availability and efficiency of emergency services vehicles.

Recommendation #19: Consider deploying lighter weight vehicles as First Responder **“Rescue Squads”** instead of heavy fire apparatus.

Recommendation #20: Re-evaluate initial dispatch criteria with a goal of minimizing the numbers of emergency vehicles and personnel responding to an EMS call.

Recommendation #21: Encourage hospitals to **expedite the receiving and transfer of care** from ambulance crews to hospital emergency department personnel at the hospital.

5.3 Performance Measurement

Findings:

- ✓ While some of the ESD’s have their own performance measurements, standards and/or goals, there is not a County-wide set of standards and measurements for Fire First Responders.
- ✓ The Capitol Area Fire Chiefs Association (CAFCA) is considering adopting Response Time Standards / Goals as suggested by the Commission on Fire Accreditation International (CFAI).
- ✓ The National Fire Protection Association (NFPA), Standard 1710 calls for response times of four (4) minutes for BLS, and five (5) minutes for ALS service on 90% of the calls.
- ✓ Basic Life Support (BLS) procedures to include early Cardio-Pulmonary Resuscitation (CPR), and Cardiac Defibrillation are critical life saving factors that should be initiated by the public and continued by First Responders to enhance the survival chances of a cardiac arrest patient.

Recommendation #22: The following Ambulance Response Time Goals for ATCEMS as used across the nation and recommended by the Commission for Accreditation of Ambulance Services (CAAS) for contracting for ambulance services should be considered:

❖ **Priority One and Two Calls:**

- ✓ **“Metro”, “Urban” and “Suburban” area to be covered within nine minutes and thirty seconds (9:30) at least 90% of the time.**
- ✓ **“Rural” areas to be covered within fifteen minutes and thirty seconds (15:30) at least 90% of the time.**
- ✓ **“Frontier” areas to be covered as soon as possible.**

❖ Priority Three Calls:

- ✓ “Metro”, “Urban” and “Suburban” within eleven minutes fifty nine seconds (11:59) at least 90% of the time.
- ✓ “Rural” within twenty minutes and thirty seconds (20:30) at least 90% of the time.
- ✓ “Frontier” to be covered as soon as possible.

Recommendation #23: Ambulance Response Time Exemptions should be established to include the following:

- ✓ Calls where information on medical need is not immediately available (this situation exists when an ambulance is not originally dispatched after the PSAP receives the call, but is subsequently requested by on-scene police, fire, or public safety personnel);
- ✓ Ambulances blocked by a train (Ambulances will immediately notify the EMS dispatcher when an ambulance is blocked by a train and when the train is cleared and travel resume the response;
- ✓ In the event of MCIs, all ambulances responding to the MCI call other than the first ambulance on the scene;
- ✓ Severe weather conditions including dense fog, heavy rain or flooding, snow, or ice, except if inclement weather was predicted sufficiently in advance that levels of preparedness should have been increased and such steps were not taken;
- ✓ Situations where the dispatch center received false or inaccurate information or was unable to obtain adequate response information;
- ✓ Calls for standby at fire service calls;
- ✓ Calls for standby at law enforcement incidents.

5.4 Aero Ambulance Services**Findings:**

- ✓ **STAR Flight** (Shock Trauma Air Rescue “STAR”) was established in May 1985 as an ALS air ambulance program to provide services to the outlying areas of Travis County. It started as a public safety program in partnership with the City of Austin EMS Department, Travis County, and the City owned and operated Brackenridge Hospital.

- ✓ The City of Austin EMS provided Flight Paramedics, and the Communications Center operations.
- ✓ Initially, Brackenridge Hospital provided Flight Nurses, crews quarters, and aviation facilities at the hospital. This included a heliport and fuel system.
- ✓ Travis County provided the aircraft, and aviation personnel (pilots and mechanics), and expenses.
- ✓ In 1996, after Seton Health Care System began to manage Brackenridge Hospital, Seton chose to outsource their medical air transport service and withdrew providing Flight Nurses.
- ✓ STAR *Flight* is currently a Travis County owned and operated Air Ambulance and emergency services helicopter program.
- ✓ STAR *Flight* normal staffing is 1 Pilot, 1 Flight Nurse, and 1 Flight Paramedic.
- ✓ STAR *Flight* is authorized by the County Commissioners Court to provide services throughout a nineteen (19) county region.
- ✓ STAR *Flight* generates revenue from Air Ambulance services that helps to offset operational costs. The FY 2010 estimated budget *Revenue* was \$1,773,939.
- ✓ There are two (2) billing rates: County residents fee is \$3,400 for lift off plus \$85 per loaded mile; and Non-county residents fee is \$7,500 for lift off plus \$85 per loaded mile.
- ✓ There is no charge for Fire Suppression operations, Law Enforcement operations, or Search & Rescue operations unless there is a subsequent EMS transport. The patient is billed for the transport.
- ✓ Proper coding and efficient billing procedures has resulted in its collection rate of 52% for in-county and 54% for out of county billing. Billing is currently provided by a private vendor under contract. The vendor is Advanced Data Processing (dba INTERMEDIX).
- ✓ STAR *Flight* is a 24/7 public safety service that, in addition to EMS aerial transports, also provides Still and Swift Water Rescues, Search and Rescue, High Angle Rescue, Fire Suppression / Aerial Reconnaissance , and some Law Enforcement operations.
- ✓ STAR *Flight* operates three (3) EC 145 aircraft. Two (2) were received in 2006, and one (1) in 2010.
- ✓ One (1) helicopter operates 24 hours from a base at University Medical Center at Brackenridge. One (1) helicopter operates 12 hours at the STAR *Flight* facility. and it will move to Dell Children's Medical Center and Trauma Center in October 2011.

- ✓ There is one (1) Back-up helicopter. The aircraft availability goal is 90-95%.
- ✓ Sixty (60) percent of its calls are inter-facility transports and 40% are “Scene” emergencies. On public service calls, the aircraft is staffed with a Pilot, a Paramedic, and a Flight Nurse, and a Rescuer on hoist operations.
- ✓ Quick response time is a customer service goal. The goal is to dispatch a helicopter within one (1) minute of a call being received and a lift off within 4 – 6 minutes
- ✓ In 2000, STAR *Flight* became the first and only public safety program to receive Accreditation from the Commission for Accredited Medical Transport Systems (CAMTS).
- ✓ STAR *Flight* uses CAMTS accreditation as minimum for best practices and guiding principals.
- ✓ STAR *Flight* has been approved to deploy with the Texas Task Force #1 of the Texas Engineering and Extension Service (TEEX), and the Texas National Guard on flood rescue operations.
- ✓ In 2010, the Seton Family of Hospitals provided the County with an unrestricted gift of \$3,200,000 to be provided over five years at annual payments of \$640,000 to support and expand the relationship with STAR *Flight*. In addition, Seton offered to provide enhancements of helipads and related facilities at the University Medical Center Brackenridge and Dell Children’s Medical Center of Central Texas.

As a condition of this contribution, Seton requested the STAR *Flight* helicopters that are available to be in-service would be exclusively based at the seton Medical Centers while waiting to be dispatched for service.

RECOMMENDATIONS: STAR FLIGHT

Recommendation #24: Retain STAR *Flight*.

Recommendation #25: Seek opportunities to recover costs for services provided in addition to Air Ambulance.

5.5 Fire Based EMS Ambulance Service

Findings:

- ✓ One or more ESD’s have indicated a desire to provide a Fire-Based EMS Ambulance Service.

- ✓ ESD # 2, Pflugerville Fire Department, and ESD #6, Lake Travis Fire Rescue would be possible “Pilot Project” locations.

Recommendation:

Recommendation # 26: Establish a “Pilot Project” of one or more ESDs providing EMS Ambulance Service within one or more or multiple ESDs’ areas.

Pilot Project Evaluation:

A uniformed evaluation plan should be developed involving the participating agencies management, the County, the new program Medical Director, and others as determined by the County. An evaluation plan should include, but not be limited to, the following:

- ✓ Response times;
- ✓ On-scene assessment and treatment times;
- ✓ Transport time to a hospital;
- ✓ Total incident time from dispatch of responders to arrival at the hospital;
- ✓ Community and customer satisfaction.

The performance information obtained from the project should be compared to similar historical information generated when ATCEMS was providing ambulance services in the area.

5.6 Contracts and Agreements**Findings:**

There are currently three (3) Contracts and Agreements regarding EMS.

- ❖ Interlocal Agreement Between the City of Austin and Travis County for Emergency Medical Services;
- ❖ Emergency Medical Services Interlocal Agreements Among Travis County and Its Emergency Services Districts; and,

- ❖ Interlocal Agreements for Emergency Medical Services Between Travis County and Its Municipalities.

The current Interlocal Agreement between the City of Austin and Travis County for Emergency Medical Services needs revision. It needs revisions in the following areas:

- ✓ More system, service and cost controls for the County;
- ✓ Definition of Terms at beginning of Agreement;
- ✓ Clarification of Incident Commander;
- ✓ Response Coverage Areas;
- ✓ Response Time Standards;
- ✓ Ability to “Stop the Clock” by arrival of a Paramedic Supervisor;
- ✓ Response Time Exemptions;
- ✓ Failure to meet Response Time Standards;
- ✓ Clarification of the term “Rescue”;
- ✓ County agreement before any deployment changes are made to County units;
- ✓ Ambulance staffing;
- ✓ County inspection of facilities.

5.6.1 Added Items/Definitions to the Current Interlocal Agreement between the City of Austin and Travis County.

The following definitions are recommended for inclusion in a new Interlocal Agreement.

- ✓ **First Responder** -- Certified emergency medical personnel that, working in cooperation with a licensed emergency medical services provider, provides immediate on-scene care to ill or injured persons **but does not routinely transport those persons.**
- ✓ **Arrival, Arrive or Arrives** - An Ambulance "Arrives" at the scene of an incident when it is on-scene **and is not moving.**
- ✓ **Code-3 ‘Emergency’** - An ambulance emergency response with emergency lights and siren operating.
- ✓ **Code 1 “Non-Emergency”** - An ambulance response without emergency lights and siren operating.
- ✓ **Emergency Services District (“ESD”)** – A geographical area/district with taxation authority for the provision of Fire, Rescue, EMS, and other defined public safety services. An ESD functions under the governance of a District Board of Commissioners.

- ✓ **Incident Commander** - Police, fire, or other law enforcement officer, with primary jurisdiction, who has overall control and command at an incident. ATCEMS shall assist the Incident Commander and respond to directions from the Incident Commander. An ATCEMS employee shall not serve as Incident Commander, unless no police, fire, or other law enforcement officer is present; however, once such officer arrives at the scene, the ATCEMS employee shall brief such Officer and command over the incident shall be taken by the police, fire, or law enforcement officer. Incident Commanders shall consult with EMS personnel regarding the medical aspects of an incident. The highest level medical certification at scene will have responsibility or authority for the appropriateness of patient care, but operationally will be subordinate to the overall Incident Commander in accordance with the local incident command structure.
- ✓ **Multiple Casualty Incidents [MCI]**- Incidents involving three (3) or more casualties and needing multiple ambulances.
- ✓ **Rescue.** Provide EMS "light" rescue functions in accordance with nationally recognized standards to access, triage, treat, evacuate, and transport patients. This does not include heavy rescue, physical/extrication rescue, water rescue, high angle rescue, or other rescue functions traditionally provided by fire departments unless specifically requested by the Incident Commander.
- ✓ **Response Coverage Areas - County**
 - Urban
 - Suburban
 - Rural
 - Frontier
- ✓ **Service Area** -- The area within the corporate limits of the City and the County.

Recommendation #27: The current Interlocal Agreement between the City of Austin and Travis County for Emergency Medical Services should be revised through key definitions as listed above.

5.6.2 Performance Standards & Quality Assurance

Recommendation #28: Response Time Standards - should be added to the current Interlocal Agreement Between The City of Austin and Travis County for Emergency Medical Services (EMS).

These response times will be computed on a calendar month basis.

5.6.2.1 Response Time Standards

- ✓ **Code-3 responses**, not canceled or reduced to Code-1 or exempt pursuant to this Agreement, will be classified as Priority One, Two or Priority Three. Priority One and Two calls will be defined as true life-threatening emergencies. Priority Three calls will be answered as Code-3 calls, but will not be considered as time sensitive. These definitions will be established by the EMS Medical Director in accordance with American College of Emergency Physician standards. Classifications of a call will be by the EMS Dispatcher utilizing Medical Priority Dispatching. A call will be classified as Priority One or Two at the time the call is received and the response dispatched and will not be retroactively re-classified.

- ✓ **Priority One and Two Calls**

ATCEMS will respond with an ALS ambulance staffed with a paramedic to all Priority One and Two calls within the boundaries of the entire County **“Urban” and “Suburban” area covered within nine minutes and thirty seconds (9:30) at least 90% of the time.**

In **“Rural”** areas covered **within fifteen minutes and thirty seconds (15:30) at least 90% of the time.**

In **“Frontier”** areas, covered **as soon as possible.**

- ✓ **Priority Three Calls**

ATCEMS will respond with an ALS ambulance staffed with a paramedic to all Priority Three calls within the boundaries of the entire County **“Urban” and “Suburban” area covered within eleven minutes fifty nine seconds (11:59) at least 90% of the time.**

In **Rural** areas covered **within twenty minutes and thirty seconds (20:30) at least 90% of the time.**

In **Frontier** areas, covered **as soon as possible.**

- ✓ An **EMS Paramedic Supervisor** responding in a vehicle equipped with paramedic level supplies will be able to **stop the clock** if arriving on the scene of a Priority One or Two call **within eight minutes and fifty nine seconds(8:59)**
- ✓ **Availability of County Ambulances** County Ambulance Units that have transported a patient out of the Suburban County area, should not be considered available for a subsequent dispatch within the City until it has returned into the County response area. An exception to this would be if the County EMS Unit crew believes that they are the closest ambulance to a Priority One Call.

Recommendations # 29: Response Time Exemptions – the current Interlocal Agreement between the City of Austin and Travis County for EMS should be revised to include the same language as proposed in Recommendation #23.

Recommendation # 30: Failure to Meet Response Time Standards - the current Interlocal Agreement between the City of Austin and Travis County for EMS should be amended to include:

If the County finds that ATCEMS is failing to meet the minimum response time standards specified in this Agreement, the County shall notify ATCEMS of such finding(s). Upon receipt of such notice, ATCEMS will immediately discuss with the County all steps necessary to remedy these problems, including but not limited to, increasing the number of in-service ambulances available.

Recommendation # 31: Travis County First Responder Organizations – the current Interlocal Agreement between the City of Austin and Travis County for EMS should be amended to include:

The City and County agree that, consistent with TDSHS requirements, all licensed Travis County First Responders that wish to provide first response services within the

Suburban County must have a current First Responder Organization Agreement on file with TDSHS under a standard Travis County First Responder Agreement.

The City shall renew these agreements with all Travis County First Responder Organizations who wish to continue to participate in the EMS System, provided that the First Responder Organization is in compliance with applicable TDSHS laws and regulations and with the Austin - Travis County Clinical Operating Guidelines and the EMS Medical Director's clinical quality review and improvement requirements, and other requirements adopted by the EMS Medical Director for those who provide care under his medical license.

5.6.2.2 EMS Presence in Suburban County

Recommendation #32: EMS Presence in Suburban County – the current Interlocal Agreement between the City of Austin and Travis County for EMS should be amended to include:

Staff one EMS Unit at each location listed in Exhibit A of the Interlocal Agreement. While the City and the County agree that the locations and configuration are suitable for community needs and geographic coverage at this time, the parties acknowledge that changes in locations and configuration of EMS Units may be warranted and the County agrees to allow the EMS Director to make such changes as appropriate to optimize Suburban County response coverage based on changing response needs. EMS Director will consult with County EMS Manager on any changes that may have a major impact on County before implementation. The County must be in agreement before any on-going deployment changes are implemented.

5.6.2.3 Ambulance Staffing

Recommendation # 33: Ambulance Staffing – the current Interlocal Agreement between the City of Austin and Travis County for EMS should be amended to include:

ATCEMS shall staff Ambulances with two persons, with at least one (1) shall be an EMT-P, will assure that on-duty personnel appear neat, clean, wear clean and pressed uniforms and be able physically and mentally to perform all functions allowed by their required or voluntary certification.

5.6.2.4 Monitoring Compliance: Reporting, Maintaining Records, Inspecting

Recommendation # 34 – Inspections – The current Interlocal Agreement between the City of Austin and Travis County for EMS should be amended to include:

Inspection. Upon notification to the EMS Director or designee, the members of the Commissioners Court or the City Council, or their designees, have the right to inspect during any hours any and all equipment and facilities of the EMS System under reasonable circumstances.

5.6.2.5 Duties to be Performed by the City

Recommendation # 35 – Performance and Reports – the current Interlocal Agreement between the City of Austin and Travis County for EMS should be amended to include:

Performance and Reports. Provide reports regarding performance compared to performance measures set forth in the current Exhibit D. **Add:** The monthly performance report will be included with the monthly bill packet as well as the monthly

financial report covering such areas as monthly assessment, AR, aging, collections, program expenditures, and related subjects.

5.6.3 Other Contracts and Agreements

The following two (2) Interlocal Agreements are separate but similar documents, each requiring revisions.

- ❖ **EMS ILA with ESDs**
- ❖ **EMS ILA with Municipalities**

The current Emergency Medical Services Interlocal Agreement among Travis County and Emergency Services Districts needs to be revised in the following areas:

- ✓ Definitions to be added;

County EMS Chief
County EMS Medical Director
Incident Commander

- ✓ Ground Transport Ambulance Services
- ✓ First Responder Services – Add Incident Commander
- ✓ Operations, Standards, and Reports
- ✓ Performance Standards – Response Times

Recommendation #36: The current Emergency Medical Services Interlocal Agreements among Travis County and Emergency Services Districts should be revised through key definitions and items.

The following definitions are recommended for inclusion in a new Interlocal Agreement.

- ✓ **County EMS Chief** – An individual designated to serve as the County EMS Chief to manage, coordinate, and oversee EMS operations provided within Travis County outside the City of Austin.
 - ✓ **County EMS Medical Director** – A physician designated to serve as the County EMS Medical Director to provide medical leadership and oversight of EMS operations provided within Travis County outside the City of Austin.
 - ✓ **Incident Commander** – Fire, Police, or other law enforcement officer, with primary jurisdiction, who has overall control and command at an incident. EMS personnel shall assist the Incident Commander and respond to directions from the Incident
-

Commander. An EMS employee shall not serve as Incident Commander, unless no Fire, Police or other law enforcement officer is present. However, once such officer arrives at the scene, the EMS employee shall brief such Officer and command over the incident shall be taken by the Fire, Police, or law enforcement officer. Incident Commanders shall consult with EMS personnel regarding the medical aspects of an incident. The highest level medical certification at scene will have responsibility or authority for the appropriateness of patient care, but operationally will be subordinate to the overall Incident Commander in accordance with the local incident command structure.

The following items should be added to the Sections identified.

- ✓ **Section VI - EMS Transport Services – Ground Transport Ambulance Services**
Add,
Service may be provided through the Interlocal Agreement with ATCEMS; through a County agreement by an Emergency services District (ESD); or through a County contract with another ambulance service provider.
- ✓ **Section VII - First Responder Services**
Add,
Incident Commander as defined above.
- ✓ **Section VIII – Operations, Standards and Reports**
Add.
Performance Standards / Goals – Insert language from:
Recommendation 22 – First Responder Response Times Goals
- ✓ **Section IX – Administration, Support, and Funding**
Add,
County may designate a County EMS Chief to manage, coordinate, and oversee EMS operations provided within Travis County outside the City of Austin.

The current Interlocal Agreement For Emergency Medical Services between Travis County And Its Municipalities need to be revised in the following areas:

- ✓ Purpose
- ✓ Definitions
- ✓ Acknowledgements

Recommendation #37: The current Interlocal Agreements for Emergency Medical Services between Travis County And Its Municipalities should be revised through key definitions and items:

- ✓ **County EMS Chief** – An individual designated to serve as the County EMS Chief to manage, coordinate and oversee EMS operations provided within Travis County outside the City of Austin.
- ✓ **County EMS Medical Director** - A physician designated to serve as the County EMS Medical Director to provide medical leadership and oversight of the EMS operations provided within Travis County outside the City of Austin.
- ✓ **Section I – Purpose**
Strike.
“...or a non-profit organization,”
Add,
“...or another organization”
- ✓ **Section VI – Acknowledgements**
Right to Subcontract
Strike:
“....or non-profit organization,...”
Add:
“.....or another organization...”

5.7 Review of Strengths, Weaknesses, Opportunities, and Threats

5.7.1 Organizational Alternatives for Service Provision

5.7.1.1 Option 1: Status Quo (ATCEMS EMS Ambulance Transport)

This option would require Travis County to continue the ground ambulance services through maintaining a contractual relationship with its current service provider, the City of Austin, or ATCEMS.

Strengths of the Existing System

- ✓ Existing system is considered a strength because of the quality of pre-hospital care provided by trained personnel;
- ✓ Quality of staff and medical care upon arrival;
- ✓ County owned assets (stations, ambulances);
- ✓ Comfort and familiarity of status quo.

Weaknesses of the Existing System

- ✓ Existing system has the weaknesses of lengthy response times and increasing costs over which the County has no control;
- ✓ Expensive as identified above;
- ✓ County agencies treated as “less than equal partners” by City EMS staff;
- ✓ Less than full responsiveness by City EMS organization to County requests;
- ✓ Long response times by ambulances (not meeting current standards/guidelines).

Opportunities to Improve the Existing System

- ✓ Renegotiate a new Contractual Agreement;
- ✓ Establish a new Cost Formula and reduce costs.

Threats to the Existing System

- ✓ County lack of cost controls on labor;
- ✓ City’s future annexation of County areas.

Major Key Action Steps to Improve the Existing System:

- ✓ Renegotiate a new EMS Agreement immediately to control costs and to improve system responsiveness.

5.7.1.2 Option 2: Unified County Fire Rescue Service

This Option is recommended by MAG

Strengths of a Unified County Fire-Rescue Services Organization

- ✓ Improved coordination, command, control, management and support for Fire – Rescue and EMS services within Travis County.
 - ✓ Improved regional emergency services and response.
 - ✓ Centralized provision of Fire – Rescue, EMS First Responder services, Air Ambulance and Aerial Fire Fighting, Hazardous Materials, and Emergency Management.
-

- ✓ County already operates STAR Flight which would become Air Operations as a major function of the Travis County Fire – Rescue Services Department.
- ✓ All of the Strengths and Opportunities listed under the option of a County Operated EMS Department.
- ✓ Existing County Fire Marshal's Office would become part of the organization.
- ✓ Existing County Emergency Management Office would become part of the organization.

Weaknesses of a Unified Fire-Rescue Services Organization

- ✓ Time and effort to start-up and maintain a new County department and operations.

Opportunities in a Unified Fire-Rescue Services Organization

- ✓ Hire a lead County Fire Official (Chief of the Department) and Command Staff;
- ✓ Merge ESD's Chief Officers, Command Staff, management, supervision, and line personnel.
- ✓ Improve the delivery of high quality Fire, Rescue, EMS First Responder, Fire Marshal, Emergency Management, Disaster Preparedness and response services.
- ✓ Limit the number of separate Emergency Services Districts (ESD).
- ✓ Provide for a "Phase-in" approach of enhancements to EMS delivery to include possible emergency ambulance service operations.
- ✓ Improve the Insurance Services Office (ISO) Public Protection Classification (PPC) Ratings in the County through a more organized deployment and utilization of fire suppression and prevention resources.
- ✓ Reduced fire insurance costs as a result of improved ISO Ratings.
- ✓ Improved coordination of County-wide emergency services.
- ✓ Improve coordination of "Area-wide" command, control and coordination of services, response, major emergency operations, and activities.
- ✓ Improved regional emergency services coordination.
- ✓ Improved personnel Training & Safety through a standardized approach and procedures..

- ✓ Improved purchasing opportunities through economy of scale.
- ✓ County-wide ALS Paramedic level Fire First Responder Program.
- ✓ Improved Fire Prevention and Code Enforcement activities throughout the County..
- ✓ Improved Brush Clearance Program.
- ✓ Improved Centralized Emergency Operations Center (EOC) activities through a stronger centralized and uniformed approach to operations.

Threats to Establishing a Unified Fire Rescue Organization

- ✓ Resistance to change.
- ✓ ESD's participation.
- ✓ City's future annexation of County areas.

Major Key Action Steps**Initial Phase: Unified County Fire – Rescue Services**

- ✓ Establish a unified Travis County Fire – Rescue Services Department by ordinance.
 - ✓ Establish an initial organization structure.
 - ✓ Hire a County Fire – Rescue, Chief of Department.
 - ✓ Hire a County EMS Chief.
 - ✓ The County Fire Rescue, Chief of Department, and the County EMS Chief are two (2) separate positions. The County EMS Chief would be a member of the Command Staff and be subordinate to the Fire Rescue Chief of Department.
 - ✓ Hire a County EMS Medical Director.
 - ✓ Hire a Chief Fire – Rescue & EMS Training Officer. This could be one (1) or two (2) positions. Two (2) positions would be best for division of responsibilities.
 - ✓ Assign the County Fire Marshal and activities to the new Department as part of the Command Staff.
-

- ✓ Assign the County Emergency Management Office to the new Department as part of the Command Staff.
- ✓ Assign STAR Flight to the new Department as Air Operations. The program manager would be part of the Command Staff and could serve as the Air Operations Chief.
- ✓ Implement a process for ESD's to join, merge, and/or consolidate with the new Department with transfer of apparatus, equipment and facilities.
- ✓ Develop a process for ESD personnel to transfer to the new Department.
- ✓ Develop a Recruit Training and In-Service Training Program.
- ✓ Establish or contract for Fire – Rescue & EMS Dispatch and Records Management.
- ✓ Establish an ALS Paramedic level and/or ILS level Fire First Responder Program.
- ✓ Establish a Department Command Staff and Incident Command System (ICS).
- ✓ Establish Automatic & Mutual Aid Agreements with the City of Austin, other cities, and counties.
- ✓ Merge and consolidate ESDs into the unified County Fire – Rescue Services Department.
- ✓ Implement.
- ✓ Renegotiate a contract for EMS Ambulance services with ATCEMS or other provider.

Alternative Follow-up Phase: EMS Ambulance Service

- ✓ Establish the provision of EMS Ambulance services by the unified Travis County Fire – Rescue Services Department by ordinance.
- ✓ Develop position descriptions for personnel providing EMS Ambulance services, both single role EMS personnel and cross trained Firefighter/Paramedics.
- ✓ Secure EMS Ambulance Provider status with Texas State Department of Health Services (TSDHS).
- ✓ Identify locations to station Fire – Rescue Ambulances.

- ✓ Establish or contract for Ambulance dispatch.
- ✓ Establish or contract for EMS Billing, Collection, and Records Management.
- ✓ Ensure readiness of County- owned EMS vehicles and equipment.
- ✓ Recruit EMS Ambulance personnel from ATCEMS, other public and private EMS providers.
- ✓ Hire both single role and cross trained EMS Ambulance personnel.
- ✓ Provide EMS Ambulance Orientation Training.
- ✓ Implement EMS Ambulance service.
- ✓ Develop a Cross-Training Program for single role Paramedics to become Firefighter/Paramedic level personnel.

5.7.1.3 Option 3: County Operated EMS Department

Strengths of a County Operated EMS Department

- ✓ County control of services, policies, and procedures.
- ✓ Ability to control EMS personnel costs.
- ✓ Infra-structure in place.
- ✓ County owned EMS vehicles.
- ✓ County owned or controlled EMS Stations.
- ✓ County current funding level for EMS.
- ✓ Better control of costs.
- ✓ Improved system management and supervision.
- ✓ Hire a County EMS Medical Director.
- ✓ Allow for ALS Paramedic level and/or ILS level Fire First Responders to improve services and response times for ALS service.

Weaknesses of Establishing a County Operated EMS Department

- ✓ Challenge of starting and maintaining a new County department and operation.
- ✓ Would not fully integrate with ESD First Responder organizations.
- ✓ Need to establish a contract for EMS Billing, Collections, and Records Management.

Opportunities in Establishing a County Operated EMS Department

- ✓ Hire a County EMS Chief.
- ✓ Hire a County EMS Medical Director.
- ✓ Hire a new staff of County EMS employees and managers.
- ✓ Establish Mutual Aid & Automatic Aid Agreements with other EMS providers.
- ✓ Improve services in County areas.

Threats in Establishing a County Operated EMS Department

- ✓ City's future annexation of County areas;
- ✓ City EMS Union opposition.

Major Key Action Steps in Creating a County Operated EMS Department

- ✓ Establish a Travis County EMS Department by ordinance.
- ✓ Hire a County EMS Chief and a County EMS Medical Director – two (2) positions.
- ✓ Assign STAR Flight to the County EMS Department.
- ✓ Develop position descriptions for County EMS positions
- ✓ Hire EMS personnel.
- ✓ Establish or contract for EMS Dispatch and Records Management System.
- ✓ Establish or contract for EMS Billing and Collection
- ✓ Provide EMS Orientation Training.

- ✓ Ensure readiness of County Owned EMS vehicles, equipment, and stations.
- ✓ Implement County EMS/Ambulance Service.
- ✓ Establish an ALS Paramedic and/or ILS level Fire First Responder System.

5.7.1.4 Option 4: New Contracted EMS Provider

Strengths of Establishing a New Contracted EMS Provider

- ✓ Cost control or elimination through a Zero Subsidy contract.
- ✓ County control over costs.
- ✓ Improved County control over services and a new provider.
- ✓ All Strengths listed under option of County Operated EMS Department.
- ✓ Hire a new County EMS Medical Director.
- ✓ Hire a new County EMS Chief to oversee EMS Contract and coordinate EMS activities.
- ✓ Allow for the establishment of an ALS Paramedic level Fire First Responder System.

Weaknesses of Establishing a New Contracted EMS Provider

- ✓ Need to develop an RFP and bid for a new EMS provider.
- ✓ No longer affiliated directly with the City of Austin EMS Department.
- ✓ Does not address integration of fire and other emergency services.

Opportunities in Establishing a New Contracted EMS Provider

- ✓ Improve, reduce and/or eliminate the direct cost of services.
- ✓ Improved provider responsiveness to the County.
- ✓ Improve the level of ambulance service and reduce response times.
- ✓ Establish a new EMS Agreement.

Threats to Establishing a New Contracted Provider

- ✓ Resistance to change.
- ✓ City EMS Union opposition.

Major Key Action Steps for Establishing a New Contracted Provider

- ✓ Hire a County EMS Chief to oversee the EMS Program and Contracted Provider.
- ✓ Establish an Exclusive Operating Area / Zone (EOA/Z), Single Provider system by ordinance.
- ✓ Hire a County EMS Medical Director.
- ✓ Develop a Request For Proposals (RFP).
- ✓ Select a new EMS/Ambulance provider.
- ✓ Give notice of termination to ATCEMS.
- ✓ Negotiate a new Contract.
- ✓ Contract for EMS Dispatch and Records Management.
- ✓ Contract for EMS Billing and Collection.
- ✓ Negotiate Automatic & Mutual Aid Agreements with the City of Austin, other cities and counties.
- ✓ Establish an ALS Paramedic and Intermediate Life Support (ILS) level Fire First Responder Program.
- ✓ Implement a new "County EMS System.

5.7.2 Pilot Project: Fire Based Ambulance Service**Strengths of Establishing a Pilot Project**

- ✓ More than one ESD has indicated an interest in providing EMS Ambulance Services within its ESD and possibly other districts.
- ✓ There is a level of displeasure with the current provider ATCEMS.

- ✓ Personnel costs could be reduced by using Cross-Trained Firefighter/Paramedics instead of “Single Role” Paramedics because under the Fair Labor Standards Act (FLSA) firefighter personnel do not accrue overtime pay until after 53 hours worked as opposed to 40 hours worked.

Weaknesses of a Pilot Project

- ✓ Availability of ALS Paramedic and/or ILS level personnel.
- ✓ Current EMS Medical Director’s intent to limit the number of ALS Paramedic personnel to those employed by ATCEMS, and to eliminate the practice of ILS by First Responders.

Opportunities in Establishing a Pilot Project

- ✓ Conduct a “Pilot Project” to allow a fire service organization to provide emergency ambulance service within one or more ESD areas.
- ✓ Provide a more rapid response time for ALS and/or ILS services.
- ✓ Provide a more rapid transport time to a hospital.
- ✓ Improve ambulance availability within the participating areas.
- ✓ Hire a County EMS Medical Director to oversee the “Pilot Project,” and other EMS Operational Enhancements;

Threats to Establishing a Pilot Project

- ✓ Resistance to change;
- ✓ City EMS Union opposition

Major Key Action Steps for a Pilot Project:

- ✓ Identify one or more ESDs to participate.
- ✓ Hire a County EMS Medical Director to oversee all EMS Operational Enhancements and the “Pilot Project” for Fire Based Ambulance Service.
- ✓ Same Major Action Steps listed under “Unified Fire Rescue Services: Alternative Follow Up Phase – EMS Ambulance Service;”

SECTION 6.0

IMPLEMENTATION PLAN

6.0 IMPLEMENTATION PLAN OF RECOMMENDATIONS

TRAVIS COUNTY, TEXAS EMERGENCY MEDICAL CARE STUDY					
Rec. #	Action Step	Responsibility	Estimated Completion	Impact	Projected Savings or (Costs)
1	Renegotiate an interim Agreement extension until service delivery options are fully considered. Recommendations are in MAG's recommended Agreement revision.	County Emergency Services	ASAP	Continuation of existing services until options can be considered.	\$1.5 million annualized
2	If ATCEMS is to continue to provide services, renegotiate an Agreement Contract that establishes more service, system, and cost controls for the County.	County Emergency Services	October 2012	New contract with performance goals and measures, New cost formula, Improved County controls.	\$1.5 million annually
3	County Ambulance Units that have transported a patient out of the Suburban County area, should not be considered available for a subsequent dispatch within the City until it has returned into the County response area (exception if the County EMS Unit crew believes they are the closest ambulance to a Priority One Call.)	County Emergency Services	ASAP	Improved availability of of ambulances and Fire resources.	N/A

**TRAVIS COUNTY, TEXAS
EMERGENCY MEDICAL CARE STUDY**

Rec. #	Action Step	Responsibility	Estimated Completion	Impact	Projected Savings or (Costs)
4	A Unified Travis County Fire – Rescue Services Department should be established in phases.	Commissioners Court	October 2012	Unified Fire Rescue Service.	TBD
5	Implement an Initial Phase for a Unified Fire-Rescue Service	County Commissioners	October 2012	Establishes a unified Fire Rescue Service for Travis County outside the City of Austin.	Unknown
6	Implement an Enhanced Phase for a Unified Fire-Rescue Service	County Commissioners	October 2014	Would establish a County-wide Fire Based EMS Ambulance program outside the City of Austin.	Unknown
7	If a unified County Fire – Rescue Services organization is not implemented, consideration should be given to establishing a separate Travis County EMS Department.	County Commissioners	October 2012	Would establish a County EMS Department to improve County control over services.	Unknown

**TRAVIS COUNTY, TEXAS
EMERGENCY MEDICAL CARE STUDY**

Rec. #	Action Step	Responsibility	Estimated Completion	Impact	Projected Savings or (Costs)
8	If a unified County Fire – Rescue Services or County EMS Department is not implemented, then consider a new public and/or private EMS/Ambulance provider.	County Commissioners	October 2012	Would establish a new EMS Ambulance provider.	Potential Zero Subsidy and cost savings of existing ATCEMS Contract.
9	Establish Response Coverage Areas for First Responders.	County and Fire Chiefs	January 2012	Establish Response Coverage Areas based upon population density.	N/A
10	Establish Response Time Standards/Goals for First Responders.	County Emergency Services and Fire Chiefs	January 2012	Establish Response Time Standards and Goals.	N/A
11	First Responder Response Time Goals should be considered as suggested by the Capital Area Fire Chiefs Association and the Commission on Fire Accreditation International (CFAI)	County Emergency Services and Fire Chiefs	January 2012	Establishes Response Time Goals for planning and performance monitoring.	N/A

**TRAVIS COUNTY, TEXAS
EMERGENCY MEDICAL CARE STUDY**

Rec. #	Action Step	Responsibility	Estimated Completion	Impact	Projected Savings or (Costs)
12	Establish Response Time Exemptions for First Responders.	County Emergency Services and Fire Chiefs	January 2012	Establish Response Time Exemptions.	N/A
13	First Responders should respond to EMS Priority 1, 2 and 3 calls (same as AFD).	County Emergency Services and Fire Chiefs	ASAP	Improved availability of First Responder resources.	Fuel, maintenance costs, and apparatus replacement costs.
14	Stop the automatic dispatching of First Responder resources to Priority 4 and Priority 5 calls.	County Emergency Services and Fire Chiefs	ASAP	Improve availability of First Responder resources.	Fuel, maintenance costs, and apparatus replacement costs.
15	Allow for ALS Paramedic level and ILS Fire First Responders to improve services/response times for ALS and/or ILS services.	County Emergency Services, new County Medical Director, and participating Districts	ASAP	Improved ALS Paramedic & ILS services availability and response times.	TBD

**TRAVIS COUNTY, TEXAS
EMERGENCY MEDICAL CARE STUDY**

Rec. #	Action Step	Responsibility	Estimated Completion	Impact	Projected Savings or (Costs)
16	Hire or contract for a County EMS Medical Director for medical leadership and oversight.	County Emergency Services	January 2012	Improved County control over EMS.	TBD
17	Hire a County EMS Chief for service coordination.	County Emergency Services	January 2012	Improved County control over EMS.	TBD
18	Establish or contract for an Alternate Means of non-urgent and non-ambulance Transportation.	County Emergency Services	October 2012	Reduce the number of ambulance transports and improved availability.	Costs TBD Savings in ambulance transport costs.
19	Consider deploying lighter weight vehicles as First Responder <u>"Rescue Squads"</u> instead of heavy fire apparatus.	County Emergency Services and Fire Chiefs	Ongoing	Reduce costs of heavy apparatus usage and improve response times.	Depends on cost of "Rescue Squad" vehicle compared to heavy fire apparatus.
20	Re-evaluate initial dispatch criteria with a goal of minimizing the numbers of emergency vehicles and personnel responding to an EMS call.	County Emergency Services, Fire Chiefs, and County Medical Director	ASAP	Reduce number of emergency resources responding to same incident, and improve availability.	Savings in resource response costs.

**TRAVIS COUNTY, TEXAS
EMERGENCY MEDICAL CARE STUDY**

Rec. #	Action Step	Responsibility	Estimated Completion	Impact	Projected Savings or (Costs)
21	Encourage hospitals to expedite the receiving and transfer of care from ambulance crews to hospital emergency department personnel at the hospital.	County Emergency Services and County Medical Director	On-going	Improve emergency resource availability and response times.	N/A
22	Ambulance Response Time Goals for ATCEMS as used across the nation and recommended by the Commission for Accreditation of Ambulance Services (CAAS) for contracting for ambulance services should be considered.	County Emergency Services and ATCEMS	October 2012	Establishes Ambulance Response Time Standards / Goals within County areas outside the City of Austin.	N/A
23	Ambulance Response Time Exemptions should be established.	County and ATCEMS	October 2012	Establishes Exemptions to Response Time Goals.	N/A
24	Retain STAR Flight.	County	On-going	Retain quality programs and services.	N/A

**TRAVIS COUNTY, TEXAS
EMERGENCY MEDICAL CARE STUDY**

Rec. #	Action Step	Responsibility	Estimated Completion	Impact	Projected Savings or (Costs)
25	Seek opportunities to recover costs for services provided in addition to Air Ambulance.	County Emergency Services	On-going	Potential revenue generating.	Potential revenue.
26	Establish a "Pilot Project" of one or more ESDs providing EMS Ambulance Service within one or more or multiple ESDs' areas.	County Emergency Services and participating District (s)	Initiate ASAP, Completion date TBD at least multi-years	Improved EMS Ambulance services.	TBD
27	The current Inter-local Agreement between the City of Austin and Travis County for Emergency Medical Services should be revised through key definitions.	County Emergency Services	October 2012	Improved Agreement with improved County and operational controls.	N/A
28	Response Time Standards – add to the current Interlocal Agreement between the City of Austin and Travis County for Emergency Medical Services (EMS).	County Emergency Services	October 2012	Establishes Ambulance Response Time Standards for planning and performance monitoring.	N/A

**TRAVIS COUNTY, TEXAS
EMERGENCY MEDICAL CARE STUDY**

Rec. #	Action Step	Responsibility	Estimated Completion	Impact	Projected Savings or (Costs)
29	Response Time Exemptions – the current Interlocal Agreement between the City of Austin and Travis County for EMS should be revised to include the same language as proposed in # 23.	County Emergency Services	October 2012	Would establish Response Time Exemptions.	N/A
30	Failure to Meet Response Time Standards: the current Interlocal Agreement Between the City of Austin and Travis County for EMS should be amended.	County Emergency Services	October 2012	Would establish penalties for failure to meet standards.	Unknown
31	Travis County First Responder Organizations – the current Interlocal Agreement between the City of Austin and Travis County for EMS should be amended.	County Emergency Services	October 2012	Allows current First Responder Organizations to continue to serve.	N/A
32	EMS Presence in Suburban County – the current Interlocal Agreement Between the City of Austin and Travis County for EMS should be amended.	County Emergency Services	October 2012	County must be in agreement before any on-going deployment changes are implemented.	N/A

**TRAVIS COUNTY, TEXAS
EMERGENCY MEDICAL CARE STUDY**

Rec. #	Action Step	Responsibility	Estimated Completion	Impact	Projected Savings or (Costs)
33	Ambulance Staffing – the current Interlocal Agreement Between the City of Austin and Travis County for EMS should be amended.	County Emergency Services	October 2012	Would allow 1 & 1 staffing of a Paramedic & an EMT and ensure personnel readiness to serve.	N/A
34	Inspections – The current Interlocal Agreement Between the City of Austin and Travis County for EMS should be amended.	County Emergency Services	October 2012	Would improve County access for inspections of EMS facilities.	N/A
35	Performance and Reports – the current Interlocal Agreement Between the City of Austin and Travis County for EMS should be amended.	County Emergency Services	October 2012	Would require City to provide performance reports with monthly billing packet.	N/A
36	The current Emergency Medical Services Interlocal Agreements Among Travis County and Emergency Services Districts should be revised through key definitions and items.	County Emergency Services	Upon renewal.	Would provide updated definitions and section clarifications.	N/A

**TRAVIS COUNTY, TEXAS
EMERGENCY MEDICAL CARE STUDY**

Rec. #	Action Step	Responsibility	Estimated Completion	Impact	Projected Savings or (Costs)
37	The current Inter-local Agreements for Emergency Medical Services Between Travis County and Its Municipalities should be revised through key definitions and items.	County Emergency Services	Upon renewal.	Would provide updated definitions and amend language in Purpose and Acknowledgement for subcontracting.	N/A

SECTION 7.0

APPENDICES

Appendix A: Recommended Interlocal Agreement between Travis County and City of Austin for EMS Services.

Appendix B: Recommended Interlocal Agreement Exhibit on a Financial Formula for EMS Services.

(“Personnel Multiplier” changed to “EMS Services Multiplier” with a population basis rather than percentage of stations basis)

Appendix C: Best Practices Survey Findings and Survey Document.

INTERLOCAL AGREEMENT
BETWEEN
THE CITY OF AUSTIN and TRAVIS COUNTY for
EMERGENCY MEDICAL SERVICES

This Interlocal Agreement (“Agreement”) is between the **City of Austin**, a Texas home rule municipality (“City”) and **Travis County** (“County”) and shall be effective on _____.

Defined terms in this Agreement are in bold underlined and the definitions are set forth herein.

This agreement establishes the obligations of both parties in the delivery of Emergency Medical Services within the Suburban County.

RECITALS

WHEREAS, City and County have participated in an Agreement for the provision of pre-hospital Emergency Medical Services (“EMS”) throughout City and County areas since an effective date of October 1, 2008; and

WHEREAS, both parties desire to continue the relationship to provide pre-hospital EMS.

NOW, THEREFORE, THIS AGREEMENT for pre-hospital Emergency Medical Services is made by and between the City of Austin and Travis County is made and entered into this First Day of _____, in the year _____.

1.0 DEFINITION OF TERMS

- 1.1 **Austin - Travis County EMS**. “Austin - Travis County EMS” is the term used by the parties to refer to the City of Austin EMS Department.
- 1.2 **Austin - Travis County EMS Clinical Operating Guidelines (COG’s)**. “Austin - Travis County EMS Clinical Operating Guidelines (COG’s)” is the term used to refer to the document that describes the methods by which the Austin – Travis County EMS System will provide the best care possible in the practice of medicine.
- 1.3 **City**. “City” means City of Austin.
- 1.4 **Commissioners Court**. “Commissioners Court” means the Travis County Commissioners Court.
- 1.5 **County**. “County” means Travis County, a political subdivision of Texas.
- 1.6 **County EMS Manager**. “County EMS Manager”, also referred to as “County Emergency Services Executive Manager”, means the individual

designated by the Commissioners Court to perform the management and administrative duties of the County under this Agreement.

- 1.7 **EMS Advisory Board.** “EMS Advisory Board” means a Board of members from the City and County that have a purpose to review the performance of the EMS System from the perspective of each type of organization.
- 1.8 **EMS Director.** “EMS Director” means the City of Austin Director of Emergency Medical Services or his designee.
- 1.9 **EMS System (or “Austin - Travis County EMS System”).** “EMS System” is the term used by the parties to refer to all the personnel, facilities, fleet and equipment used by any entity under the Medical Director’s license to provide EMS and emergency medical first response within Travis County.
- 1.10 **EMS Station.** “EMS Station” means a furnished and equipped EMS building inside or outside the City of Austin, at which one appropriately equipped ambulance will be placed into service.

The following words shall be defined as currently set out in the Texas Health and Safety Code (or as amended hereafter by state law):

- 1.11 **Advanced Life Support** [ALS] -- Emergency pre-hospital care that uses invasive medical acts.
- 1.12 **Basic Life Support** BLS] -- Emergency pre-hospital care that uses noninvasive medical acts.
- 1.13 **Emergency Medical Services Personnel** -- Includes emergency care attendant [ECA], emergency medical technician [EMT], emergency medical technician—intermediate [EMT-I], emergency medical technician—paramedic [EMT-P], or licensed paramedic.
- 1.14 **Emergency Care Attendant** -- An individual certified by the Texas Department of State Health Services as minimally proficient to provide emergency pre-hospital care by providing initial aid that promotes comfort and avoids aggravation of an injury or illness.
- 1.15 **Emergency Medical Technician** [EMT] -- An individual certified by the Texas Department of State Health Services as minimally proficient to perform emergency pre-hospital care that is necessary for basic life support and that includes cardiopulmonary resuscitation and the control of hemorrhaging.
- 1.16 **Emergency Medical Technician—Intermediate** [EMT-I] -- An individual certified by the Texas Department of State Health Services as minimally proficient to provide emergency pre-hospital care by initiating under medical supervision certain procedures, including intravenous therapy and endotracheal or esophageal intubation.
- 1.17 **Emergency Medical Technician—Paramedic** [EMT-P] -- An individual certified by the Texas Department of State Health Services as minimally proficient to provide advanced life support that includes initiating under medical supervision certain procedures, including intravenous therapy, endotracheal or esophageal intubation, electrical cardiac defibrillation or cardioversion, and drug therapy.

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- 1.18 **Licensed Paramedic** -- An individual meeting the qualifications for an emergency medical technician—paramedic who has completed the curriculum that includes college-level course work in accordance with rules adopted by the Texas Board of Health.
 - 1.19 **Emergency Pre-hospital Care** -- Care provided to the sick or injured before or during transportation to a medical facility, including any necessary stabilization of the sick or injured in connection with that transportation.
 - 1.20 **First Responder** -- Certified emergency medical personnel that, working in cooperation with a licensed emergency medical services provider, provides immediate on-scene care to ill or injured persons but does not routinely transport those persons.
 - 1.21 **Medical Supervision** -- Direction given to emergency medical services personnel by a licensed physician under the Medical Practice Act (Texas Revised Civil Statute Article 4495b) and the rules adopted under that Act by the Texas State Board of Medical Examiners.

The following definitions shall apply throughout this Agreement:

- 1.22 **Ambulance** – Any vehicle licensed by the State of Texas for the purpose of transporting sick and/or injured persons.
- 1.23 **Arrival, Arrive or Arrives** - An Ambulance "Arrives" at the scene of an incident when it is on-scene and *is not moving*.
- 1.24 **Code-3 ‘ Emergency’** - An ambulance emergency response with emergency lights and siren operating.
- 1.25 **Code 1 “Non-Emergency”** - An ambulance response without emergency lights and siren operating.
- 1.26 **Dispatch** - Any instructions from the EMS dispatcher for an ambulance to travel in response to an emergency or urgent call for service.
- 1.27 **EMS** - Emergency Medical Services.
- 1.28 **EMS Unit.** “EMS Unit” means a named functional group of staff, vehicles and equipment that is assigned to provide ground EMS services to a specific geographic area as its primary service area in which the human resources, vehicles and equipment are interchangeable with other units and which may provide services outside its primary service area to promote the most efficient, effective use of all EMS System resources in providing EMS throughout the system 24 hours a day, or 12 hours a day, 7 days a week.
- 1.29 **EMS Medical Director.** “EMS Medical Director” means a physician employed by the City who meets the criteria established by the State of Texas.
- 1.30 **EMS Supervisory Unit.** “EMS Supervisory Unit” means a named functional group of staff, vehicles and equipment that is assigned to provide ground EMS supervisory services to a specific geographic oversight to promote the most efficient, effective use of the EMS System.
- 1.31 **Emergency Services District (“ESD”)** – A geographical area/district with taxation authority for the provision of Fire, Rescue, EMS, and other defined public safety services. An ESD functions under the governance of a District Board of Commissioners.

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- 1.32 **Fiscal Year** - “Fiscal Year” means the twelve month period that begins October 1 and ends on the following September 30.
- 1.33 **Incident Commander** - Police, fire, or other law enforcement officer, with primary jurisdiction, who has overall control and command at an incident. ATCEMS shall assist the Incident Commander and respond to directions from the Incident Commander. An ATCEMS employee shall not serve as Incident Commander, unless no police, fire, or other law enforcement officer is present; however, once such officer arrives at the scene, the ATCEMS employee shall brief such Officer and command over the incident shall be taken by the police, fire, or law enforcement officer. Incident Commanders shall consult with EMS personnel regarding the medical aspects of an incident. The highest level medical certification at scene will have responsibility or authority for the appropriateness of patient care, but operationally will be subordinate to the overall Incident Commander in accordance with the local incident command structure.
- 1.34 **Multiple Casualty Incidents [MCI]**- Incidents involving three (3) or more casualties and needing multiple ambulances.
- 1.35 **Mutual Aid Calls** - Any request to respond to an emergency call originating outside the boundaries of the City, Emergency Services District or County to assist another EMS provider or public agency.
- 1.36 **Public Safety Agency** – A public agency that provides fire-fighting, police, medical, or other emergency services, or a private entity that provides emergency medical or ambulance services.
- 1.37 **Public Service Answering Point [PSAP]** -- A continuously operated communications facility that is assigned the responsibility to receive 9-1-1 calls as the first point of reception, and as appropriate, to dispatch public safety services or to transfer or relay 9-1-1 calls to appropriate public safety agencies.
- 1.38 **Response Coverage Areas – County**
- **Metro:** An area with greater than 3,000 persons per square mile
 - **Urban:** An area with greater than 2,000 persons per square mile
 - **Suburban:** An area with 1,000 to 2,000 persons per square mile
 - **Rural:** An area with less than 1,000 persons per square mile
 - **Frontier:** An area with less than 7 persons per square mile
- 1.39 **Service Area** -- The area within the corporate limits of the City and the County.
- 1.40 **Squad**. “Squad” means a multi-use vehicle or ambulance staffed with an EMS provider to supplement ambulance responses within the system.
- 1.41 **STAR Flight**. “*STAR Flight*” means the program that provides emergency medical air ambulance services by Travis County which includes helicopters, aviation equipment, management and operations personnel as described in this Agreement.

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- 1.42 **STAR Flight Medical Director.** “STAR Flight Medical Director” means a physician employed by the County who meets the criteria established by the State of Texas and is assigned as the medical director for **STAR Flight**.
- 1.43 **Suburban County.** “Suburban County” means those areas of Travis County located outside the corporate limits of Austin, but excludes any incorporated area in Travis County that does not have a current, written interlocal agreement with County for EMS services.
- 1.44 **TDSHS** “TDSHS” means Texas Department of State Health Services.
- 1.45 **Travis County First Responder.** “Travis County First Responder” means any person who is a member of an organization listed in Exhibit F, that provides emergency first response services in Suburban County, satisfies all applicable Texas Department of State Health Services requirements for first responders, and has system credentials at the appropriate level.
- 1.46 **Travis County First Responder Organization.** “Travis County First Responder Organization” means an organization that has a First Responder Agreement in effect.

2.0 PERFORMANCE STANDARDS & QUALITY ASSURANCE

2.1 Response Time Standards for Responses to Calls

These response times will be computed and reported on a calendar month basis.

2.1.1 Code-3 responses, not canceled or reduced to Code-1 or exempt pursuant to this Agreement, will be classified as Priority One, Two or Priority Three. Priority One and Two calls will be defined as true life-threatening emergencies. Priority Three calls will be answered as Code-3 calls, but will not be considered as time sensitive. These definitions will be established by the EMS Medical Director in accordance with American College of Emergency Physician standards. Classifications of a call will be by the EMS Dispatcher utilizing Medical Priority Dispatching. A call will be classified as Priority One or Two at the time the call is received and the response dispatched and will not be retroactively re-classified.

2.1.2 Priority One and Two Calls

ATCEMS will respond with an ALS ambulance staffed with a paramedic to all Priority One and Two calls within the boundaries of the entire County.

“Urban” and **“Suburban”** area will be covered **within nine minutes and thirty seconds (9:30) at least 90% of the time.**

“Rural” areas will be covered **within fifteen minutes and thirty seconds (15:30) at least 90% of the time.**

“Frontier” areas will be covered **as soon as possible.**

An EMS Paramedic Supervisor responding in a vehicle equipped with paramedic level supplies will be able to stop the clock if arriving on the scene of a Priority One or Two call within eight minutes and fifty nine seconds(8:59).

2.1.3 Priority Three Calls

ATCEMS will respond with an ALS ambulance staffed with a paramedic to all Priority Three calls within the boundaries of the entire County identified as “Urban” and “Suburban” within eleven minutes fifty nine seconds (11:59) at least 90% of the time.

ATCEMS will respond with an ALS ambulance staffed with a paramedic to all Priority Three calls within the boundaries of the entire County identified as Rural” within twenty minutes and thirty seconds (20:30) at least 90% of the time.

ATCEMS will respond with an ALS ambulance staffed with a paramedic to all Priority Three calls within the boundaries of the entire County identified as “Frontier” as soon as possible.

2.1.4 Response Time Exemptions — In determining whether a run to a call is exempt from the response time standard, factors to be considered shall include, but are not limited to the following:

- 2.1.4.1 Calls where information on medical need is not immediately available (this situation exists when an ambulance is not originally dispatched after the PSAP receives the call, but is subsequently requested by on-scene police, fire, or public safety personnel);
- 2.1.4.2 Ambulances blocked by a train (Ambulances will immediately notify the EMS dispatcher when an ambulance is blocked by a train and when the train is cleared and travel resumes;
- 2.1.4.3 In the event of MCIs, all ambulances responding to the MCI call other than the first ambulance on the scene
- 2.1.4.4 Severe weather conditions including dense fog, heavy rain or flooding, snow, or ice, except if inclement weather was predicted sufficiently in advance that levels of preparedness should have been increased and such steps were not taken;
- 2.1.4.5 Situations where the dispatch center received false or inaccurate information or was unable to obtain adequate response information;
- 2.1.4.6 Calls for standby at fire service calls;
- 2.1.4.7 Calls for standby at law enforcement incidents.

2.1.5 Ambulances Returning To County Response Area County Ambulance Units that have transported a patient out of the Suburban County area, shall not be considered available for a subsequent dispatch within the City until it has returned into the County response area. An exception to this would be if the County EMS Unit crew believes that they are the closest ambulance to a Priority One Call.

2.2 Failure to Meet Response Time Standards —If the County finds that ATCEMS is failing to meet the minimum response time standards specified in this Agreement, the County shall notify ATCEMS of such finding(s). Upon receipt of such notice, ATCEMS will immediately discuss with the County all steps necessary to remedy these problems, including but not limited to, increasing the number of in-service ambulances available or any other policy or process change that will ensure an ability to meet response time standards.

In the event that response time compliance for Priority 1 and Priority 2 responses falls below 90% for any month, the liquidated damages in the following chart shall be assessed, with the “true-up” at the end of the fiscal year, reflecting the damages.

Priority Compliance	Month 1	Month 2	Month 3	Month 4	Month 5
89%	\$10,000	\$ 20,000	\$ 30,000	\$ 60,000	\$120,000
88%	\$20,000	\$ 40,000	\$ 60,000	\$120,000	\$240,000
87%	\$30,000	\$ 60,000	\$ 90,000	\$180,000	\$360,000
86%	\$40,000	\$ 80,000	\$120,000	\$240,000	\$480,000
85%	\$50,000	\$100,000	\$150,000	\$300,000	\$600,000
Less than 85%	\$75,000	\$150,000	\$225,000	\$450,000	\$900,000

2.3 Performance Measures and Performance Review

2.3.1 City and County Performance Measures. City and County performance under this Agreement shall be evaluated based on the objective performance measures shown in Exhibit D.

2.3.2 City and County Performance Review. City and County will conduct a joint assessment performance review every year unless either party requests a sooner review. This performance review will evaluate system performance and make recommendations for improvements.

2.3.3 Overall System Performance. City and County shall create and maintain an EMS Advisory Board with membership that includes representation from the County and the City. The membership shall be selected in accordance with a process approved by the Commissioners Court and the City Council. City and County shall agree upon the Advisory Board’s meeting schedule, duties and other operational procedures. The EMS Advisory Board will adopt Bylaws as set forth in Exhibit G in accordance with the EMS Advisory Board General Provisions as set forth in Exhibit H. The purpose of the board is to review the performance of the EMS System from the perspective of each type of organization. The EMS Advisory Board shall consider and make recommendations to the City Council and County Commissioner’s Court about the delivery of emergency medical services throughout Suburban Travis County.

2.3.4 Travis County First Responder Organizations. The City and County agree that, consistent with TDSHS requirements, all licensed Travis County First Responders that wish to provide first response services within the Suburban County must have a current First Responder Organization Agreement on file with TDSHS under a standard Travis County First Responder Agreement. The City shall renew these agreements with all Travis County First Responder Organizations who wish to continue to participate in the EMS System, provided that the First Responder Organization is in compliance with applicable TDSHS laws and regulations and with the Austin - Travis County Clinical Operating Guidelines and the EMS Medical Director's clinical quality review and improvement requirements, and other requirements adopted by the EMS Medical Director for those who provide care under his medical license. A sample copy of the First Responder Agreement that is in effect at the time of this agreement is included in Exhibit F.

2.3.5 Advanced Life Support Services Provided By First Responder Organizations The City and County agree that Travis County First Responder Organizations may provide Advanced Life Support (ALS) services at the paramedic level. These services must be in compliance with applicable TDSHS laws and regulations. The EMS System Medical Director shall approve First Responder ALS services if requested by the County, and shall oversee quality assurance.

2.3.6 Emergency Transportation Provided By First Responder Organizations The City and County agree that Travis County First Responder Organizations may provide emergency transportation when in the opinion of the Incident Commander there will be a delayed ambulance response from ATCEMS.

3.0 DUTIES AND PERFORMANCE BY THE CITY. The City shall provide the following EMS activities and services:

3.1 EMS Dispatch and Travis County First Responders. Dispatch the nearest available and appropriate EMS Unit in response to every emergency call for service originating in Suburban County. Upon dispatch of any EMS Unit into Suburban County, notify the nearest appropriate first responder agency communication center or designated contract communication center.

3.2 Dispatch Monitoring. Coordinate via the radio talk groups with qualified on scene personnel to monitor and modify the response based on needs at the scene.

3.3 Medical Supervision/Compliance. Provide supervision of the *medical aspects* of patient triage, treatment, transport, transfer, dispatch, extrication, rescue, and clinical communication to assure compliance with the Texas Health and Safety Code, applicable TDSHS regulations, and Chapter 197 of the Rules of the Texas State Board of Medical Examiners.

3.4 National Incident Management System (NIMS). Coordinate joint responses with Emergency Service Districts in Suburban County and other public safety organizations to establish on-scene incident management, in accordance with the National Incident Management System (NIMS) as mandated by Homeland Security Presidential Directive 5, dated February 28, 2003.

3.5 EMS Provide Emergency Medical Services in City and Suburban County in accordance with recognized standards to access, triage, treat, evacuate, and transport patients.

3.6 Rescue. Provide EMS “*light*” rescue functions in accordance with nationally recognized standards to access, triage, treat, evacuate, and transport patients. *This does not include heavy rescue, physical/extrication rescue, water rescue, high angle rescue, or other rescue functions traditionally provided by fire departments unless specifically requested by the Incident Commander.*

3.7 Ground Patient Transport. Transport patients in accordance with the comprehensive transport guidelines of the Austin – Travis County EMS System, as outlined in the Austin - Travis County EMS Clinical Operating Guidelines (COG’s).

3.8 Performance and Reports. Provide reports regarding performance compared to performance measures set forth in Exhibit D.

3.9 EMS Presence in Suburban County. Staff one EMS Unit at each location listed in Exhibit A. While the City and the County agree that the locations and configuration are suitable for community needs and geographic coverage at this time, the parties acknowledge that changes in locations and configuration of EMS Units may be warranted and the County agrees to allow the EMS Director to make such changes as appropriate to optimize Suburban County response coverage based on changing response needs. EMS Director will consult with County EMS Manager on any changes that may have a major impact on County before implementation. *The County must be in agreement before any on-going deployment changes are implemented.*

3.10 EMS Medical Oversight.

3.10.1 EMS Medical Director. Provide the services of an EMS Medical Director who shall perform all medical director functions and oversight responsibilities required by law for emergency medical services, including the following:

- Provide medical oversight for all out-of-hospital emergency medical care, in compliance with the rules and regulations of the TDSHS and the Texas State Board of Medical Examiners.
- Provide medical oversight for the Travis County First Responders providing emergency medical services.
- Provide appropriate, presentations, and analyses to the EMS Advisory

Board, the Commissioners Court and staff when requested.

- Develop and enforce criteria for System-wide credentials related to care and condition of patients at each level of care for the levels of emergency medical services personnel as defined by the Texas Department of State Health Services.
- Establish and direct a quality assurance and improvement review process for evaluating the appropriateness of patient care in the System.
- Provide an annual report or presentation and analysis to Commissioners Court that describes the clinical state of the System, current challenges to be met, impact on patient mortality rate, recommendations for changes or improvements, and any other relevant information.
- Closely integrate with the County's **STAR Flight** Medical Director and operate as a team member and resource for the **STAR Flight** program. As such, the City's Medical Director may be requested to collaborate on projects and work with the **STAR Flight** Medical Director.

3.10.2 Medical Director Hiring and Evaluation.

3.10.2.1 EMS Medical Director Hiring. If it is necessary to hire an EMS Medical Director, the County Judge and the City Manager or their designees shall establish a search team to implement an appropriate search process which shall submit recommendations to the City Manager. Under the City Charter the City Manager has the authority to hire and fire City personnel. The City may hire or designate an Interim Medical Director while the search to hire a Medical Director is being completed.

3.10.2.2 EMS Medical Director Evaluation. Evaluate the EMS Medical Director's performance annually and establish performance standards for the EMS Medical Director. Before any formal evaluation of the EMS Medical Director, City shall request information and comments from the County EMS Manager about the performance to date in Suburban County.

4.0 DUTIES AND PERFORMANCE BY THE COUNTY.

4.1 Ground EMS Units. For every Suburban County station, as designated in Exhibit A, provide one EMS Unit for each station plus one spare ambulance for every two EMS Units. The ambulances shall be in compliance with the terms and specifications of the City contract at the execution of this Agreement. County shall order the ambulances directly from the City contractor and make all payment arrangements directly with the City contractor.

4.2 EMS Units for Areas with Unmet Needs. County shall provide EMS Units in Suburban County where the area has been identified as being under served. If these EMS Units are not added into the system, then the City is exempted for meeting response time goals as set forth in Exhibit D for these areas. County may provide City alternative vehicles and staff combinations to initiate Squads as a short-term improvement step for up to one year at a time. Squad utilization in Suburban County will be evaluated by the EMS Director and County EMS Manager annually.

4.3 EMS Supervisory Units. Provide one EMS supervisory Unit for every four Suburban County EMS Units, as designated in Exhibit A, plus one spare command vehicle for every eight EMS Units. The EMS Supervisory Unit shall be purchased in compliance with the terms and specifications of the City contract at the execution of this Agreement. County shall order the supervisor vehicles directly from the City contractor and make all payment arrangements directly with the City contractor.

4.4 Vehicle Equipment Graphics. In equipping the vehicles purchased in compliance with this Agreement, comply with the equipment specifications, communications devices and graphics that are used for City-owned ambulances, and command vehicles.

4.5 Vehicle Ownership. The County shall transfer ownership of all existing EMS vehicles as listed in Exhibit B to the City and replace EMS vehicles in accordance with City's replacement schedule as defined and maintained by the City.

4.6 Suburban County EMS Stations. Provide, either directly or indirectly through interlocal agreements with other participants in the EMS System, one or more buildings at each location listed in Exhibit A for use as EMS Stations in Suburban County. Station locations may be permanently, temporarily or intermittently relocated upon agreement by the EMS Director and the County EMS Manager to optimize system response coverage.

4.7 Suburban County Station Specifications. The County shall comply with City specifications for Suburban County EMS Stations. Station specifications will be provided to County EMS Manager upon request.

4.8 Maintenance and Utilities for EMS Stations. The facilities used as Suburban County EMS Stations, their location, and party responsible for providing maintenance at these locations is listed in Exhibit A. Except as provided below, after an EMS

Station is opened in Suburban County, the owner of the facility used as an EMS Station is responsible for providing station facilities, facility maintenance and utilities, to the minimum standards agreed upon by the EMS Director and the County EMS Manager, and which are consistent with City standards. City is not responsible for the maintenance or utilities of any EMS Station in Suburban County unless City is the owner of the facility. If the owner of a facility used as an EMS Station fails to maintain the facility required to comply with the specifications in this Agreement and the failure results in conditions that make compliance with the service requirements under this Agreement impossible or impracticable, City shall notify County in writing and County shall promptly take action to resolve the matter, either directly or through its agreement with the owner of the EMS Station. Should there be a need for an emergency repair to a facility the City reserves the right to make such repair and the County agrees to reimburse the City for repair charges. To the extent that services to be provided by City are dependent upon the use of the EMS Station, City shall not be considered to be in breach of this Agreement for failure to meet such service or performance levels until the EMS Station is restored to a condition that is consistent with City standards for EMS Stations. The City also reserves the right to temporarily relocate an EMS Unit to more suitable quarters, provided that such quarters are, in the opinion of the City, available for expanded use at no additional cost to City, until the identified deficiencies are corrected.

4.9 Future Suburban County EMS Stations. Before an EMS Station not listed in Exhibit A is opened in the Suburban County, County staff and City staff shall review the City's proposed deployment plan and evaluate the potential impact on services. A new EMS Station shall not be placed in any municipality or Emergency Service District in Suburban County unless that municipality or Emergency Service District has a current, written interlocal agreement for emergency medical services with County.

5.0 EQUIPMENT, SUPPLIES AND PERSONNEL

5.1 City shall maintain a sufficient number of ambulances with necessary equipment and on-duty qualified personnel to meet the response time standards set forth in this Agreement, and to provide the appropriate level of pre-hospital emergency medical care, as established by the local medical protocols.

5.2 Ambulance staffing ATCEMS shall staff Ambulances with two persons, and at least one (1) shall be an EMT-P. The City will assure that on-duty personnel appear neat, clean, wear clean and pressed uniforms and be able physically and mentally to perform all functions allowed by their required or voluntary certifications and/or licenses.

5.3 Ground EMS. City to supply County-provided ambulances and stations in Suburban County with the same operating supplies, communications equipment and medical equipment and maintenance as provided to City ambulances and stations, and other services as necessary and as allowed for in the budget. Purchases of capital equipment for Suburban County shall be reviewed annually and funded as needed

through the annual budget negotiations between the City and County, and as approved by the Commissioners Court and City Council in their budgets for the relevant Fiscal Year.

5.4 Services to Travis County First Responders. To the extent possible within the budgeted amount as set annually by the Commissioners Court, City shall cooperate as described below to improve the quality of the System by contributing to the following Travis County First Responder Organization services and activities.

5.4.1 Offer continuing education and training opportunities, as City resources permit, including in-service training programs, from those listed in Exhibit E. Additional courses not on Exhibit E may be added after consultation between the EMS Director and the County EMS Manager. The parties agree that the City has the right to recoup costs from County for training that is scheduled but not attended. The County may arrange to recoup costs from First Responder Organizations for training for which students fail to receive final certifications.

5.4.1.1 Subject to availability of City resources, provide Travis County First Responders with adequate opportunities for ride outs to facilitate clearance for emergency medical technician-B and emergency medical technician-I training.

5.4.1.2 Provide each eligible Travis County First Responder with a certificate of completion of training that satisfies TDSHS requirements.

5.5 Changes to Vehicle Graphics. City shall consult with the County EMS Manager before making changes in graphics to EMS vehicles including ambulances, operations supervisor vehicles or squads purchased by the County.

6.0 COLLECTION SERVICES

6.1 Ground Patient Fees. City shall charge ground patients treated in Suburban County the same rates that are charged to patients treated inside the City, unless the County sets another rate for Suburban County patients as described below. Ground fees may be adjusted by City, and are typically adjusted once per year, with an effective date of October 1. The City shall give written notice to the County before implementation of fee changes. If County desires a fee adjustment for patients treated in Suburban County, County shall work with City through the City's annual budget process to help seek approval of such a fee change in the City's fee ordinance. Any fee changes that apply only to patients treated in Suburban County shall require approval by City Council and Commissioners Court.

6.2 EMS Ground Billing. City shall bill ground ambulance patients in accordance with billing performance measures set forth in Exhibit D.

6.3 Collections. City shall collect the fees owed to County for all ground patients treated in Suburban County.

6.4 Collected Revenue Reporting. City shall issue a statement to County by the fourth business day of each month showing the total amount billed, and the total amount of revenue collected during the previous calendar month from ground patients treated in Suburban County.

6.5 Payment to County. City shall pay County the full amount collected during a calendar month by the thirtieth day of the following month, from ground transport patients treated in Suburban County. The amount paid shall be based on the total amount in the statement issued in accordance with this Agreement.

6.6 Delinquent Accounts. City shall use effective techniques and make good faith efforts to promptly collect delinquent amounts owed to County in the same manner as the City collects its own delinquent EMS accounts, including the use, if appropriate, of contracted collection agencies for collection of delinquent amounts.

6.7 Supporting Documentation for Collections. Provide County with copies of supporting documentation for collection reports within a reasonable time after this documentation is requested. Upon request, the City shall provide collection related reports to the County in accordance with time periods as described in Exhibit D.

7.0 STAR FLIGHT

County shall provide the following activities and services related to **STAR Flight**:

7.1 County STAR Flight Program. Provide air medical emergency services in City, Suburban County and other areas approved by Commissioners Court, through its **STAR Flight** program, in accordance with applicable state and federal laws and regulations, including but not limited to Federal Aviation Administration laws and regulations.

7.2 Patient Transport. Transport patients in accordance with the comprehensive transport guidelines of the Austin - Travis County EMS System and clinical guidelines approved by **STAR Flight** Medical Director, and provide patient services in accordance with recognized standards regarding access, triage, treatment, evacuation, and patient transport, in the most timely manner possible.

7.3 STAR Flight Dispatch. City shall dispatch the air medical transport vehicles with City EMS Communications staff in accordance with the **STAR Flight** Dispatch Policy as approved by the **STAR Flight** Medical Director, the **STAR Flight** Director of Operations, **STAR Flight** Program Manager, and the Commissioners Court after discussion with City's Assistant Director of EMS Operations. City shall coordinate with qualified on scene personnel to monitor and modify the dispatch of **STAR Flight** based on needs at the scene to preserve maximum response capability for other emergencies. Upon request, each party shall provide the other party with reports based on information obtained during dispatch for analysis of process improvement and statistical analysis.

7.4 Training for Aero Medical Communications Staff (ACS). City shall allow up to 12 Communications Medics to elect to participate in the ACS program for training in air emergency medical service dispatch and response. The number of participants shall be based upon employee interest and the operational needs of EMS for ground dispatch. Participants will receive training from County in coordinating dispatch requests and responses for *STAR Flight*. Initial and continued participation of Communications Medics must be approved by both City and County. The parties agree that the medics who choose to participate shall continue to be responsible for ground EMS dispatching, call taking, and other duties at the communications center for both City and Suburban County, and therefore the City cannot guarantee a minimum time period during which the medics will be available for this training. City agrees that ACS personnel will be positioned to assume ACS duties should they occur and not conflict with other duties. The parties further agree that the Communication Medics shall continue to be managed and scheduled by City supervisors and managers. Any request by the County for ACS medics to attend meetings or participate in training, shall be submitted in writing (electronic mail acceptable) by the County EMS Manager to the EMS Director and approval shall be contingent upon County's agreement to compensate City for any additional costs and the operational needs of EMS for ground dispatch.

8.0 MONITORING COMPLIANCE: REPORTING, MAINTAINING RECORDS AND INSPECTING

8.1 Quarterly Reports. City shall provide the types of operations reports as described in Exhibit D on the same schedule as required by the EMS Advisory Board.

8.2 Annual Reports. The City shall provide the County a copy of its annual report by the end of January for the previous calendar year.

8.3 Inspection. Upon notification to the EMS Director or designee, the members of the Commissioners Court or the City Council, or their designees, have the right to inspect during any hours any and all equipment and facilities of the EMS System.

8.4 Retention of Records. The City and the County, at a minimum, will comply with all recording keeping requirements as set forth by the State of Texas.

8.5 Access to Records. Subject to compliance with applicable laws, including patient confidentiality laws, each party to this agreement shall give duly authorized representatives of each party, at reasonable times and for reasonable periods, full and reasonable access to and the right to examine all information in whatever form it is maintained. These rights to access shall continue for as long as these records are retained by either party.

8.6 County Retention of and City Access to STAR Flight Records for Services Beginning October 1, 2010.

County shall maintain the original documentation about the maintenance and operations of *STAR Flight* beginning October 1, 2010 and personnel records of the County employees assigned to *STAR Flight* before October 1, 2010 in compliance with state document retention standards or three years after the termination of this Agreement, whichever is later, and shall give duly authorized representatives of City full and reasonable access to and the right to examine all information. If there is any incident in which allegations or claims are made against the City or any City employee related to *STAR Flight* before October 1, 2010, County shall give the duly authorized representatives of City full and reasonable access to and the right to examine and copy this documentation and information in whatever format it is maintained at reasonable times and for reasonable periods. These rights to access shall continue until all allegations or claims are resolved or three years after the termination of the Agreement, whichever is later.

8.7 Confidentiality of Patient Records. City and County have each established and shall maintain a method to secure the confidentiality of records and other information relating to patients in accordance with the applicable federal and state laws, rules and regulations, and applicable professional ethical standards. City shall mask information identifying patients in a way that will not obstruct County's auditing. County shall keep confidential at all times all information received from City if the information is confidential under Texas or federal laws or regulations. City shall keep confidential at all times information received from County if the information is confidential under Texas or federal laws or regulations.

8.8 Audit. Each party has the right to conduct an annual financial and compliance audit of the other party's performance under this Agreement in compliance with generally accepted auditing standards and procedures for governmental organizations, and each party shall permit authorized representatives of the other party to audit its records that relate to this Agreement and, subject to compliance with laws related to confidentiality of information, including medical records, to obtain copies of any documents, materials, or information necessary to facilitate these audits.

9.0 PAYMENT BY THE COUNTY FOR EMS SERVICES

9.1 Payments by County. The monthly fees are determined using the estimated budget as set forth in Exhibit C.

9.2 Certain Fees Paid Separately. The parties agree that costs for services and supplies provided by City to Travis County First Responders and Travis County First Responder Organizations under this Agreement and Exhibit E, are not included in the fees described in Exhibit C, and County agrees to pay City for these services and supplies separately and in accordance with the provisions of Exhibit E.

9.3 Monthly Billing by City. After execution of this Agreement, the City shall submit a monthly billing statement to the County EMS Manager between the first (1st) and the fifteenth (15th) day of each calendar month for the Monthly EMS Fee for that month. All billing statements shall include the service delivery period covered, the amount of the monthly fee, the amount of the annual EMS Fee, and a copy of Exhibit C as back-up documentation.

9.4 Monthly Billing During Holdover Period. The City will continue to bill the County at the existing rate as defined in Section 9.1 until a new agreement is reached.

9.5 Holdover Difference. Once a renewal and amendment has been approved and executed, City shall submit a billing statement for the difference between the Monthly EMS Fee for the preceding term and the Monthly EMS Fee for the new term multiplied by the number of months in the holdover period (“Holdover Difference”) and County shall submit payment of the Holdover Difference within thirty (30) days of receipt of such billing statement.

9.6 Monthly Payment by County. County shall make payments to City monthly within thirty (30) calendar days of receipt of a billing statement pursuant to sections above.

9.7 Adjustments to City’s or County’s EMS Budget. Any adjustment to the City’s or County’s EMS Budget that impacts the City’s or County’s obligations under this Agreement must be approved by the City Council and Commissioners Court before it is implemented.

9.8 True Up for EMS Payments. The EMS Director and County EMS Manager will review the estimated budget as defined in Exhibit C and compare it to actual expenses and may agree to true up funds as determined by both parties.

9.9 Maximum Funds. City and County expressly acknowledge that the total amount payable to City under this Agreement during the initial term shall not exceed the amount approved by City Council and Commissioners Court for the EMS Fee as described in Exhibit C. For renewal terms, the City and County expressly acknowledge that the total amount payable to City shall not exceed the amount approved by City Council and Commissioners Court for the EMS Fees, plus payments during any holdover period the parties elect, unless the Commissioners Court and City Council specifically approve a change in the amount payable under this Agreement. This maximum amount payable does not include any funds the County may be required to pay the City as reimbursement for County First Responder services provided by the City of this Agreement and Exhibit E.

9.10 Current Revenue Funds. Both County and City shall make all expenditures required by each of them under this Agreement from current revenue funds that are available to each of them for purposes of this Agreement.

10.0 OBLIGATIONS AND LIABILITY FOR LOSSES OR CLAIMS

10.1 County Assumption of Risk Related to Third Party Claims. City shall not be liable to County for any claims, damages, or attorneys' fees arising from the intentional acts or negligence or wrongful acts or omissions of County officials or employees in relation to the treatment provided by County employees, or the provision or operation of EMS or **STAR Flight** or raised by any condition of the EMS or **STAR Flight** equipment or helicopters, or of the EMS Stations that are located in Suburban County.

10.2 City Assumption of Risk Related to Third Party Claims. County shall not be liable to City for any claims, damages or attorney's fees arising from the intentional acts or negligence or wrongful acts or omissions of City officials or employees in providing ground EMS services, System-wide medical direction, management of the City's EMS department, or raised by any condition of EMS equipment or of EMS Stations that located within the City's corporate limits.

10.3 Joint Liability. For any claims, damages and attorney fees arising from the intentional acts or negligent or wrongful acts or omissions of City or County employees in relation to their respective obligations as described in this Agreement, if both parties are liable, City and County shall be liable for the portion of the claims, damages and attorney fees that arise from the intentional acts or negligent or wrongful acts or omissions of that party as determined by the court adjudicating the matter or as agreed in any settlement.

10.4 Helicopter Insurance. As long as County relies on City for dispatch, medical direction, collection services, or supplies for **STAR Flight**, County will maintain commercial liability insurance in the minimum amount of Ten Million and No/100 Dollars (\$10,000,000.00) on any helicopter used for emergency medical purposes which names the City as an additional insured. A copy of this policy of insurance shall be provided to the EMS Director upon request as long as it is required and maintained.

10.5 Casualty Insurance Proceeds. Any property or casualty insurance proceeds paid to City or County that relate to damages to property or equipment used by Austin - Travis County EMS shall be used by City or County to repair the damages and replace the property or equipment used by Austin - Travis County EMS to the condition before the fire or casualty occurred without regard to fault unless both City and County agree that these proceeds should be used for another purpose related to the Austin- Travis County EMS System.

10.6 Breach of Agreement, Dispute Resolution, and Termination

10.6.1 Failure to Pay. If, after receipt of a billing statement or invoice that complies with the requirements of this Agreement, either party fails to pay monetary sums due to the other party in accordance with the time periods in this Agreement, the party claiming non-payment may withhold payment due to the other party under this Agreement of funds in its possession related to this Agreement by way of set off, pending final resolution of the dispute. Exercise of this right shall not constitute a waiver of either

party's rights to proceed under any other provision of this Agreement, and either party may pursue any other rights granted pursuant to this Agreement at the same time as and during any period of mediation.

10.6.2 Mediation. If a difference arises about performance under this Agreement, the objecting party shall notify the other party of the difference, and City and County staff shall meet and attempt to resolve the differences to the satisfaction of both parties within sixty (60) days after the date of the notice, provided however, that this Section 12.3 shall not apply if the County fails to pay City fees due under this Agreement when such fees are due. If staff members are unable to resolve the dispute within sixty (60) days, either party may request mediation. If mediation is acceptable to the parties, each party shall choose a mediator within ten (10) business days of the date they agreed to mediate. If the City and County choose different mediators, then the two chosen by the City and the County shall together choose a third person who shall be the sole mediator. Representatives of each party shall meet with the mediator in Austin at mutually agreed upon times. The locations shall be chosen by the mediator. The costs of mediation shall be shared equally by the parties. Unless both parties are satisfied with the results of the mediation, the mediation will not constitute a final and binding resolution of the dispute. All communications within the scope of the mediation must remain confidential as described in the TEX. CIV. PRAC. & REM. CODE ANN., § 154.073, UNLESS BOTH PARTIES AGREE, IN WRITING, TO WAIVE CONFIDENTIALITY. Exercise of this right shall not constitute a waiver of either party's rights to proceed under any other provision of this Agreement, and either party may pursue any other rights granted pursuant to this Agreement at the same time as and during any period of mediation.

10.6.3 Termination for Breach. Before exercising any rights under this Section, the non-breaching party must comply with Section 10.6.2, provided that Section 10.6.2 shall not apply to the failure of either party to pay the other party funds as required under this Agreement. Either party may terminate this Agreement upon ninety (90) days written notice if the other party has breached any of the terms or provisions set forth in this Agreement. The non-breaching party shall provide written notice to the other party in compliance with the Notices section of this agreement describing the breach and the effective date of termination. Upon receipt of this notice, the party in breach shall have ninety (90) days to cure the breach and failure to correct such breach or give an explanation that is satisfactory to the terminating party within that ninety (90) day period shall result in an automatic termination of this Agreement at the end of the ninety (90) days.

10.6.4 Termination without Cause. Either party may terminate this Agreement at any time, with or without cause, by providing the other party with one hundred and twenty (120) days written notice.

11.0 MISCELLANEOUS AND CLOSING CLAUSES

11.1 Non-discrimination. City and County shall provide all services and activities required by this Agreement in compliance with the Title VII, the Americans with Disabilities Act, the Age Discrimination and Employment Act, the Texas Commission on Human Rights Act, and all other local, state and federal laws prohibiting unlawful discrimination in relation to any employee, applicant for employment, or resident of the City or of the County.

11.2 Compliance with Law. City and County shall comply with all applicable federal, state and local constitutions, laws, rules and regulations in the performance of this Agreement including those related to health, safety, patient confidentiality, staffing requirements, aviation, purchasing, licensing, and reporting. City and County shall cooperate with each other in licensure renewal efforts.

11.3 Independent Contractors, No Agency. The parties to this Agreement are independent contractors. An officer or employee of one party shall not be construed to be the agent or the employee of the other party. Neither party may represent the other for any purpose not expressly authorized in this Agreement without the prior consent of the other party. No agent, official, employee or representative of either party has the authority to amend or assign this Agreement, or waive any violations of this Agreement unless expressly granted specific authority to do so by the City Council or the Commissioners Court, as applicable.

11.4 Employees. This Agreement shall have no effect upon the personnel policies of the City, or employment status or benefits of any City employee. City shall be responsible for payment of taxes, workers' compensation coverage, and benefits required by law for its employees. This Agreement shall have no effect upon the personnel policies of the County, or employment status or benefits of any County employee. County shall be responsible for payment of taxes, workers' compensation coverage, and benefits required by law for its employees. This Agreement does not create an employment contract between the City or County and any individual with respect to continued employment or the provision of any benefit. The parties shall not have any statutory liability for any employee of the other party.

11.5 Force Majeure. Neither party is liable nor is it deemed to be in default for any delay or failure to perform its obligations under this Agreement to the extent, and for the period of time, that this failure is caused by an event or condition reasonably beyond the control of that party including, but not limited to, acts of God, civil or military authority, acts of public enemies, acts of terrorism, fires, floods, strikes or regulatory delay or restraint. The party invoking this provision shall give notice to the other party and shall use due diligence to remedy the event or condition of Force Majeure as soon as is reasonably possible. Each party acknowledges that it is bound to perform its obligation under this Agreement to the fullest extent possible taking into consideration the limitations caused by the event or condition of Force Majeure.

11.6 Amendment. Any change to the provision of this Agreement or any exhibits to it shall be made in writing and signed by both parties. It is acknowledged that no officer, agent, employee or representative of County or City has any authority to change the provisions of this Agreement or any exhibits to it unless expressly granted that specific authority by the Commissioners Court or City Council, as applicable.

11.7 Assignment. Neither party may assign any of its rights or responsibilities under this Agreement without the prior written consent of the other. It is acknowledged by each party that no officer, agent, employee or representative of the other party has any authority to grant such assignment unless expressly granted that specific authority by the party's governing body.

11.8 Non-waiver. Any act of forbearance by either party to enforce any provision of this Agreement and any payment made in compliance with this Agreement shall not be construed as a modification of this Agreement or as a waiver of any breach or default of the other party which then exists or may subsequently exist. The failure of either party to exercise any right or privilege granted in this Agreement shall not be construed as a waiver of the right or privilege. Exercise of any right or remedy shall not impair, prejudice, or preclude the exercise of any other right or remedy under this Agreement.

11.9 Number and Gender. Words of any gender shall include any other gender and words in either number shall include the other, unless the context clearly indicates otherwise.

11.10 Headings. Headings may not be considered in contract interpretation.

11.11 Notices. All notices required under this Agreement shall be in writing. The notice is effective immediately if delivered in person to the person at the address set forth below. The notice shall be deemed to have been given to the party on the third day following mailing if placed in the United State Mail, postage prepaid, by registered or by certified mail, with return receipt requested. Each party may change its address for notice by giving notice of the change in compliance with the requirements of this section, and delivering the notice to the County Clerk for attachment to this Agreement no later than ten (10) days after the effective date of the notice.

11.12 Address of County. The address of County for all purposes under this Agreement shall be:

If by Mail

Honorable Samuel T. Biscoe
(or his successor in office)
County Judge
P.O. Box 1748
Austin, Texas 78767

If by Personal Delivery

Honorable Samuel T. Biscoe
(or his successor in office)
County Judge
314 West 11th St., Room 520
Austin, Texas 78701

With copies to (registered or certified mail is not required)

If by Mail

Honorable David A. Escamilla
(or his successor)
Travis County Attorney
P.O. Box 1748
Austin, Texas 78767

And to:

Cyd Grimes (or her successor)
Purchasing Agent, Travis County
P.O. Box 1748
Austin, Texas 78767

And to:

Danny Hobby (or his successor)
Executive Manager,
Emergency Services
Travis County
P.O. Box 1748
Austin, Texas 78767

If by Personal Delivery

Honorable David A. Escamilla
(or his successor)
Travis County Attorney
314 West 11th Street, Suite 300
Austin, Texas 78701

Cyd Grimes (or her successor)
Purchasing Agent, Travis County
314 West 11th Street, Suite 401
Austin, Texas 78701

Danny Hobby (or his successor)
Executive Manager,
Emergency Services
Travis County
5501 Airport Blvd, Suite 203
Austin, Texas 78751

11.13 Address of City. The address of the City for all purposes under this Agreement shall be:

If by Mail

Marc Ott
City Manager
(or his successor)
City of Austin
P.O. Box 1088
Austin, Texas 78767

If by Personal Delivery

Marc Ott
City Manager
(or his successor)
City of Austin
301 West 2nd Street
Austin, Texas 78701

With copies to (registered or certified mail is not required)

If By Mail:

Ernesto Rodriguez, Director
(or his successor)
City of Austin EMS Department
P.O. Box 1088
Austin, Texas 78767

If by Personal Delivery:

Ernesto Rodriguez, Director
(or his successor)
City of Austin EMS Department
RBJ Building,
15 Waller Street, 2nd Floor
Austin, Texas 78702

And to:

Karen Kennard, City Attorney
(or her successor)
City of Austin Law Department
P.O. Box 1088
Austin, Texas 78767

Karen Kennard, City Attorney
(or her successor)
City of Austin Law Department
301 West 2nd Street
Austin, Texas 78701

11.14 Non-Party Beneficiaries. No provision in this Agreement creates any rights in any person or entity that is not a party to this Agreement, and the rights to performance in this contract are only enforceable by the County and the City.

11.15 Initial Term and Potential Renewal on Mutual Agreement. This Agreement begins on _____, and shall continue for one year, unless terminated earlier in accordance with the terms of this Agreement. The parties may renew this Agreement or portions of it as specified in the amendment renaming it, for up to five (5) additional terms of one year each, subject to the parties' rights of termination in this Agreement and the approval by Commissioners Court of County funding for each renewal term. The amount payable by County in any renewal term shall be as approved by Commissioners Court and City Council through the County and City budget processes and as stated in the Exhibit C applicable to that renewal term, as incorporated in an amendment to this Agreement approved by Commissioners Court and City Council.

11.16 Budget Proposal Estimates. During any renewal term, each party shall provide the other party, by April 1, with the most current available estimates of all projected major costs related to the Agreement for the following renewal term, if any. These preliminary estimates shall include as many known major costs as possible, including estimates of compensation increases and assets that are scheduled for replacement. All new full-time equivalent positions (FTEs) that are anticipated to be requested for the following renewal term, should also be included in these estimates as early as possible. Each party shall continue to provide the other party with regular budget projection updates for the following renewal term, as well as any available costs projections for subsequent renewal terms to facilitate the budget planning process. Subsequent budget updates for the following renewal term should also be included in the quarterly expenditure reports that the City provides to the County.

11.17 Budget Submissions for Renewal Terms. At least 30 days before the time established by County for submission of budget materials, City shall provide County EMS Manager all information necessary to comply with the budget process established by the Commissioners Court budget rules and the Travis County Planning and Budget Office. The parties acknowledge that all information submitted by the City under this subsection may change based on the final budget approved by the City Council.

11.18 Holdover Term. If this Agreement has not been renewed or renegotiated when the current term expires, including the final term when no additional renewals exist, and City Council and Commissioners Court wish to continue the services and activities described in this Agreement while a renewal term or replacement agreement is

negotiated, the parties may agree in writing to holdover for up to one hundred and twenty (120) days. If the parties elect to holdover, the County EMS Manager and the EMS Director shall memorialize the holdover in writing and this Agreement shall remain in full force and effect, and each party shall continue to satisfy all of its obligations during the holdover period until an amendment for a renewal term or new contract for replacement of this Agreement is approved by the City Council and the Commissioners Court or a written notice of termination is provided by either party, whichever occurs first. During any holdover period, either party may terminate the Agreement upon thirty (30) days written notice.

11.19 Law and Venue. The Agreement is governed by the laws of the State of Texas and the United States of America. All obligations under this Agreement are performable in Travis County, Texas.

11.20 Severability of Provisions. If any provision of this Agreement is held invalid, illegal or unenforceable by a court of competent jurisdiction, the remainder shall continue to have full force and effect and shall in no way be impaired or invalidated by that holding.

11.21 Survival of Terms. If this Agreement is terminated, County's obligations under the appropriate Exhibit C the final term shall survive the termination until the City has been satisfied in full for the period before the date of termination. In addition, if this Agreement is terminated each party's obligations under the following subsections shall survive the termination until the other party has been satisfied in full. The Director of EMS and the County EMS Manager shall meet within 30 days of termination to determine the manner and time by which billing and collection information for outstanding accounts for Suburban County ground patients who received treatment in Suburban County will be transferred to the County. If the parties wish to enter into an arrangement under which the City continues to provide billing and collection services for the County following termination, the terms and conditions of such arrangement shall be set forth in a separate agreement approved by Commissioners Court and City Council.

12.0 ENTIRE AGREEMENT.

This Agreement replaces all prior contracts and all oral and written agreements between the parties regarding the subjects and terms of this Agreement. Any agreement, covenant or understanding that is not included in this document including its Exhibits has been superseded by this Agreement. The Exhibits which are a part of this Agreement and include promised performance under this Agreement are limited to the following:

- | | | |
|---------|---|---|
| Exhibit | A | FY 2012 City and Suburban County Station Locations, City Peak Load Units and Rescue Units as of October 1, 2011 |
| Exhibit | B | FY 2012 Inventory of County-Owned Vehicles in City Possession for Use in EMS System |

Exhibit	C	FY 2012 Financial Formulas and EMS Fees
Exhibit	D	FY 2012 Performance Measures and Reports
Exhibit	E	FY 2012 Travis County First Responder Training and Other Services
Exhibit	F	FY 2012 Travis County First Responder Agreement

DUPLICATE ORIGINALS: This Agreement may be executed in duplicate originals.

EFFECTIVE DATE This Agreement is effective on January 1, 2012.

CITY OF AUSTIN

By: _____
Michael McDonald, Assistant City Manager

Date: _____

TRAVIS COUNTY

By: _____
Samuel T. Biscoe, County Judge

Date: _____

Appendix B: Recommended Interlocal Agreement FY 2012 Financial Formulas and EMS Fees

C. 1 EMS Fees for 2012

The third renewal term of the FY 2009 Agreement is January 1, 2012, through September 30, 2012 (2012 Renewal Term).

The FY 2012 Annual Ground EMS Fee, based on the formula outlined in Section C.2 below, equals _____ dollars (\$_____). During the term of this Interlocal Agreement, County shall pay City a monthly fee of _____ (\$_____) for the EMS Fee.

C.2 Financial Formula for the 2012 Annual Ground EMS Fee

The Annual Ground EMS Fee is based on two components: (1) the direct service fee and (2) the application of the administrative rate to the direct service fee.

1 Direct Service Fee Components

a. Formulas

For EMS services provided during this 2012 term, the direct service portions of the Annual Ground EMS Fee is calculated based on the application of the following formula to the FY 2012 Approved Budget for the City of Austin's EMS General Fund Non-Administrative Budget.

- FY 2012 City EMS Personnel Budget times the *percentage of population in the suburban Travis County area relative to the population of the City (EMS Services Multiplier)*. By example, if the population of Travis County as a whole is one million persons, and the population of the City is 800,000 persons, the formula would require the County to pay 20% of the EMS Personnel Budget.
- FY 2012 City EMS Contractuals Budget minus the total amount budgeted in the line items listed below times *percentage of population in the suburban Travis County area relative to the population of the City*. By example, if the population of Travis County as a whole is one million persons, and the population of the City is 800,000 persons, the formula would require the County to pay 20% of the EMS Personnel Budget of the EMS Contractuals Budget.
- FY 2012 City EMS Commodities Budget times the *Commodities Multiplier for FY 2012*.
- FY 2012 City EMS Expense Refunds Budget times the *Expense Refunds Multiplier for FY2012*

b. EMS Services Multiplier, Contractuals Multiplier and Expense Refunds Multiplier for 2012

The EMS Services Multiplier, Contractuals Multiplier and Expense Refunds Multiplier for FY 2012 shall be based on the *percentage of population in the suburban Travis County area relative to the population of the City*. By example, if the population of Travis County as a whole is one million persons, and the population of the City is 800,000 persons, the formula would require the County to pay 20%. Based on this formula, the EMS Services Multiplier, Contractuals Multiplier and Expense Refunds Multiplier for FY 2012 shall be ____%.

Line Items Excluded from Contractuals Budget for FY 2012

The following line items from the FY 2012 Approved EMS General Fund Budget will be excluded from the total contractuals cost for determining the portion of this budget included in the Annual Ground EMS Fee and in determining the portion of this expenditures related to this budget that will be included in calculating the true-up and County pays none (0%) of the following line items:

- Line Item Number 5520 - architectural services
- Line Item Number 5620 - legal services
- Line Item Number 6126- rental-other equipment
- Line Item Number 6160- electric service
- Line Item Number 6162- gas/heat
- Line Item Number 6165- water service
- Line Item Number 6170 - wastewater service
- Line Item Number 6174- drainage fee
- Line Item Number 6175- garbage collection
- Line Item Number 6185 - EMS interlocal services
- Line Item Number 6361- awards
- Line Item Number 6383 - building maintenance
- Line Item Number 6404- telephone base
- Line Item Number 7482 - food/ice

c. Commodities Multiplier for FY 2012

The Commodities Multiplier for 2012 shall be based on the total number of FY 2011 EMS responses located within Travis County, outside of the City limits, as a percentage of the total number of FY 2011 EMS responses (combined responses made within and outside the City limits). Based on this formula, the commodities multiplier for 2012 shall be 13.40%.

d. Application of Direct Service Fee Portion of Formula

Application of the above formula and the value of the multipliers results in a direct service fee for FY 2012 of _____dollars (\$_____).

2 Calculation of Administrative fee

The administrative fee is to cover certain administrative costs of City. It is calculated by multiplying the direct services fee of _____dollars (\$_____) by the administrative rate of six and a half percent (6.5%). The calculated administrative fee for 2012 is _____ dollars (\$_____).

3 Calculation of Annual Ground EMS Fee

The direct services fee of _____ dollars (\$_____) is added to the administrative fee of _____ dollars (\$_____) to calculate the Annual Ground EMS Fee which is stated in C.1

C.3 Capital Costs for FY 2012

In addition to those ambulances and other vehicles listed in Exhibit B, County agrees to purchase and own two (2) replacement ambulances and one (1) replacement command truck during FY 2012 in accordance with the terms in Sections 5.1.1, 5.1.2, 5.1.3 and 5.1.4 of the FY 2009 Agreement. City EMS Director and County EMS Manager jointly determine which two ambulances and one command truck to return to County, after City is given possession of the two replacement ambulances and one replacement command truck.

C.4 True Up for FY 2012 Ground EMS Fee Payments Made by County

The FY 2012 Ground EMS Fee is based upon budgeted costs for FY 2012. City shall perform a true- up following September 30, 2012. The true-up of total City EMS Department (excluding the Contractuals line item numbers listed in C.2 and Capital Costs described in C.3) costs will be available by December 31, 2012, through the Close 2 report prepared annually by the City Controller's Office. The true-up follows the true-up formula outlined in C.5 below. By January 31, 2013, City shall refund to County the County portion of any savings attributable to the City EMS Department determined by using the FY 2012 cost multipliers set forth below in Section C.5.

C.5 FY 2012 Ground EMS Fee True-Up Formula

There are two steps in determining the amount that the County is to receive from City as a result of City EMS Department savings.

1. Step One

The first step is to determine the portion of the total City EMS Department savings from direct services that result from applying the following 2012 multipliers to the total FY 2012 actual savings for each of the following types of savings in the City EMS Department:

- ◆ Personnel savings for ground services are reimbursed to County at the EMS Services rate set forth in C.2. Personnel savings include all costs and expenses incurred by City that are not anticipated, disclosed to, and approved by County before the effective date of this Agreement unless Commissioners Court agrees to these costs or expenses in a written amendment before they are incurred provided.
- ◆ Commodities savings for ground services are reimbursed to County at the Commodities Multiplier rate set forth in C.2. Commodities savings include all expense refunds received by EMS that are attributable to commodities costs.
- ◆ Contractual savings for ground services are reimbursed to County at the Contractual Multiplier rate set forth in C.2 with the exception of the following line items:
 - 5564-Collection Services: true-up will be based on actual County costs
 - 6250 – Fleet Maintenance: true-up will be based on actual County costs
 - 6255 – Fuel: true-up will be based on actual County costs
- ◆ The following line items are excluded from the total contractuals cost and County pays none (0%) of the following line items, which are expenditures for City of Austin EMS stations:
 - 5520 -architectural services
 - 5620 - legal services
 - 6126 - rental-other equipment
 - 6160 -electric service
 - 6162 - gas/heat
 - 6165 - water service
 - 6170 - wastewater service
 - 6174 -drainage fee
 - 6175 - garbage collection
 - 6383 - building maintenance
 - 6185 - EMS interlocal services
 - 6361 - awards
 - 6404 - telephone base
 - 7482 - food/ice
- ◆ The cost model for reimbursement under the Agreement does not include, either directly or indirectly, any of the expenses described below. Any of the following expenses that are incurred by the City are refunded to Travis County through the true-up process described in this section.

- a) Other Post-Employment Benefits (OPEB) for City employees, whether or not those costs are for current year benefits, prior year benefits, or future year benefits;
- b) Employee recognition rewards or awards other than performance pay documented pursuant to Council adopted compensation schedules;
- c) Entertainment and gifts, including meals or beverages, even if related to a business purpose. This subsection c) notwithstanding, the cost model allows for payment for meal and beverage expenses for employees incurred during out-of-town trips or conferences related to services provided under this Agreement and incurred according to the City travel policy (a current copy of which has been provided to County; copies of amendments will be provided to County whenever changes are made);
- (d) Legislative consultant services;
- (e) Donations/sponsorships to non-profit or private organizations;
- (f) Legal services because the parties agree that the City has no obligation to provide legal services to County under this Agreement;
- (g) Consulting services; this subsection (g) notwithstanding, the cost model will allow for payment for consulting services related to services provided within the scope of this Agreement.

2. Step Two

The second step is to acknowledge the reduction in administrative fee due during FY 2012 by multiplying the result of the calculations in step one of the True Up by the administrative rate of six and a half percent (6.5%).

Total Amount Due County as a Result of True Up Calculations

County shall receive from the City an amount equal to the results of the calculations in step one added to the results of the calculations in step two.

C.6 Quarterly Expenditure Reports and Estimates

The parties acknowledge that the Quarterly Expenditure Reports include projections for the remaining quarters in the initial term which are only estimates and the City is not able to determine if there are actual savings and the amount of any such savings until after the initial term.

C.7 Budget and New Station Planning for FY 2013

By April 1, 2012, each party shall provide the other party with the most current available estimates of all projected major costs that would relate to the Agreement for FY 2013. Budget updates shall include all plans by either party for the opening of any new stations within the EMS System.

Plans for new stations should include input from the other party, before proposed budgets for new stations are submitted.

C.8 Financial Formula for FY 2012 STAR *Flight Services* Fee

For **STAR** *Flight* services provided during the 2012 Renewal Term, the Annual **STAR** *Flight Services* Fee is equal to nineteen thousand and eight hundred dollars (\$19,800) which is 100% of the budgeted costs for the following line items in the City **STAR** *Flight* Budget:

- Object 5005- Overtime for Only STAR Flight Training and STAR Flight meetings for
- Aero-medical Communications Specialists
- Object 5114- Aero-medical Communications Specialist (ACS) Stipends
- Object 5190 - FICA Tax (related to charges in objects 5005 and 5114)
- Object 5191 - Medicare Tax (related to charges in objects 5005 and 5114) Object 6408 - Emergency systems telephone (800-531-STAR)

C.9 True Up for FY 2012 STAR *Flight Services* Fee Payments Made by County

The FY 2012 STAR *Flight Services* Fee is based upon budgeted costs for FY 2012. City shall perform a true- up following September 30, 2012. A true-up of the costs and expenses properly incurred against the City's **STAR** *Flight* Budget for FY 2012 shall be available no later than December 31, 2012 from the City Controller's Office. If the amount of costs and expenses properly incurred against the City's **STAR** *Flight* Budget FY 2012 is less than the City's **STAR** *Flight* Budget, the excess of City's **STAR** *Flight* Budget over properly incurred costs and expenses in this Budget shall be paid in full by the City to County by January 31, 2013. If there is a holdover, the true-up provisions shall be implemented as if there had been no holdover.

Appendix C: Best Practices Survey Responses

City of Arlington, Texas

Arlington EMS, the only system that contracts with a private provider, does not subsidize the provider's operations.

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| A. System Authority | The Arlington Fire Department is a city-run service that provides multi-faceted emergency response within the city's approximate 100 square miles. Its ambulance services are governed by an Ambulance Ordinance that was first implemented in 1989 and has since been amended several times. (A copy of the ordinance is included) |
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| B. Contracts | Arlington Fire Department provides first response, and since 2001, the Fire Department has contracted with AMR for ground transport services. The most recent contract was adopted in 2008 and modified in 2009. Arlington does not contract for any other EMS-related services. AMR is responsible for patient care upon arrival. Its contract contains performance standards and provisions specifying the annual calculation of its average maximum allowable rate for non-emergency and emergency response. All rates must meet the requirements of the Arlington City Council. Provisions include an opportunity for rate adjustments based on extraordinary circumstances. The contract also requires AMR adhere to specified "green initiatives," for example, related to reducing engine idling and the use of hybrid vehicles. |
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AMR is also responsible for ambulance dispatch and is required by contract to co-locate personnel with the City's dispatch services.

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| C. Exclusive Operating Areas | AMR is the only contracted ambulance provider for Arlington EMS, and operates exclusively within the Arlington city limits. |
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| D. Public Subsidies | The City of Arlington does not subsidize AMR services. |
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| E. Funding | The City of Arlington (Fire Department) pays for all costs related to first response and all non-disposable supplies (such as oxygen and suction units). AMR supplies all disposables and directly bills each patient for their services. |
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| F. Cost Allocation | Not Applicable. |
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- G. Performance Standards** When first implementing performance standards in 2001, Arlington hired a consultant for assistance. Performance standards have since been updated with each new contract or contract modification.

Performance standards in the most recent contract with AMR include the following:

- Priority 1 – Maximum allowable response time 8:29 minutes (90% Citywide and 85% in each sector)
- Priority 2 – Maximum allowable response time 11:29 minutes (92% Citywide and 85% each sector)
- Priority 3 – Maximum allowable response time 15:29 minutes (92% Citywide)
- Priority 4 – Maximum allowable response time 1 hour (90% Citywide)
- Priority 5 – Maximum allowable response time 2 hours (90% Citywide)

-
- H. Compliance Monitoring and Penalties** The EMS Division within the Fire Department audits AMR billings and performance to assure compliance. AMR is required by contract to daily submit a Key Performance Indicator Report by 3 pm. The report is required to cover specified indicators from the previous day and show a cumulative total for the month. Examples of the required indicators include: number of requests by priority, response time compliance, unit hours planned, unit hours actually staffed, total vehicles in service, and customer service complaints. AMR is also required to provide monthly KPI reports and other reports and documents, including clinically-related data.

Chief Stapp employs an Administrative Aide whose full-time job is to verify CAD data from AMR and monitor performance. Performance is reported monthly, and because some performance standards span three or more months, AMR is paid on a quarterly basis.

The contract authorizes the City of Arlington to assess liquidated damages for each occurrence of late ambulance response as well as for performance that fails to meet specified monthly criteria (such as failure to meet 90% of Priority 1 calls within 8:29 minutes). Failure to meet Priority 1 or 2 standards within a longer specified time period (such as three consecutive months) may also result in the City determining a breach of contract.

MedStar, Texas**MedStar EMS****A. System Authority**

MedStar is the business name of the ALS emergency and non-emergency service provider for Ft. Worth and about 14 surrounding communities. In 1988 an interlocal cooperative agreement established the Area Metropolitan Ambulance Authority (AMAA, dbaMedStar) as the single provider of ambulance services for the member jurisdictions. Member jurisdictions must adopt both the interlocal agreement and a uniform ambulance ordinance. Membership is open on an annual basis to jurisdictions within and contiguous to Tarrant County. Most of the original members remain AMAA members, although some jurisdictions have left and others have newly joined. The Authority is permitted to operate an ambulance service or competitively select a private contractor.

MedStar is governed by a board of six directors, which is comprised of four members representing the City of Fort Worth, one member representing the other member cities and the Medical Director of the Emergency Physicians Advisory Board (EPAB). *(The above information is from the AMAA restatement agreement, which is included in the documentation provided – but some provisions no longer apply; it is under revision)*

B. Contracts

MedStar no longer contracts with private providers for ambulance services. The last contract ended in 2005. However, AMAA remains authorized to contract for services.

For air transport, MedStar has a mutual aid agreement with Careflight.

C. Exclusive Operating Areas

MedStar is the exclusive operator for emergency and non-emergency ambulance response for the service area encompassed by its member jurisdictions. The fire departments of each AMAA member provide paramedic first response within their own districts, and MedStar provides paramedic transport.

D. Public Subsidies

MedStar does not subsidize other providers.

E. Funding

The member cities pay for first response provided by their fire departments.

For MedStar transport, user fees (patient billings) constituted over 97.6% of its funding. The second largest source of funding is from membership to their subscription insurance coverage. Member jurisdictions may choose to subsidize MedStar in exchange for a lower transport rate that would be billed to their residents. For example, prior to FY 2010-2011, the City of Ft Worth paid a subsidy to the system that constituted about

6% of total MedStar revenues (about \$1.5 million). Ft. Worth no longer pays a subsidy, and instead transfers all costs to billed patients.

2010 MedStar funding is shown in the table below:

Source	2010 Funding	% total funding
User Fees	\$29,362,111	97.64%
Memberships	\$365,000	1.21%
Subsidy	\$40,239	.13%
Other:		1.02%
Hospital Transfers	\$200,000	
Special Events	\$90,000	
Interest Income	\$15,000	
Grant	\$2,500	

F. Cost Allocation Among Jurisdictions

Costs are allocated on a per-capita basis for each member city, but may be adjusted with user fees. MedStar projects total needed revenue for the next fiscal year, and subtracts from that amount revenues expected from critical care transfers (hospital transfers), special events, subscription service, and interest income. MedStar then gives member cities a matrix showing how their contribution to meeting projected revenues may be achieved with a combination of transport rates and per-capita subsidies. For example, if a city chooses not to pay any subsidy, then the rates MedStar will charge their residents – based on expected use -- would equal the full value that city is responsible to fund based on its population size. Cities that help subsidize MedStar will be charged lower user fees. *(Have documentation showing matrix)*

The interlocal (restated) agreement establishing the Authority also required member jurisdictions to annually support “a prudent net worth” for AMAA (defined in Sec. 10(2) as \$5 million or 50% of the annual budget) on a pro-rated, per capita basis. It is unclear to what extent this duty now applies, for example whether AMAA has achieved a prudent net worth or how net worth factors into the subsidy/fee matrix cited above.

G. Performance Standards

MedStar must meet at least 90% of the time: Priority 1 calls within 9 minutes, Priority 2 calls within 11 minutes, and Priority 3 calls within 15 minutes.

Its response is expected to meet the same performance standard across the service area.

MedStar uses current, published clinical research to establish these standards. The EPAB recommends the standards to the AMAA for final approval. The standards are now under review.

**H. Compliance
Monitoring
and Penalties**

An Internal Deployment Analyst daily audits system performance and reports information monthly to the AMAA board and quarterly to the EPAB. AMAA is authorized to impose penalties on failure by private contractors to meet performance standards, and those penalties have been imposed in the past. Member jurisdictions also may withdraw from AMAA for repeated failures by AMAA or a private contractor of compliance to performance standards.

San Antonio, Texas

A. System Authority	San Antonio's 9-1-1 response is operated out of the city's Fire Department.
B. Contracts	<p>The San Antonio Fire Department also has a two-year contract with Hill Country Village to provide both fire and EMS services to its residents, beginning October 1, 2011. The contract contains provisions for an evaluation of services after the first six months of the contract, and for renewal at contract term.</p> <p>The department also contracts with B&P for billing, and with University of Texas Health Science Center San Antonio for medic training and continuing medical education.</p>
C. Exclusive Operating Areas	The Fire Department is the exclusive provider for the City of San Antonio and the City of Hill Country Village. (According to Chief Wedige, the contract with Hill Country Village does not specify that San Antonio is the exclusive EMS and Fire provider, but that was the condition under which San Antonio negotiated the contract).
D. Public Subsidies	Not applicable.
E. Funding	<p>For the City of San Antonio, EMS bills patients for transport, supplies and first responder services. Expenditures in excess of billing are paid by city funds. See link for budget documents: http://www.sanantonio.gov/budget/archives.aspx.</p> <p>The Fire Department's Operating Budget is part of the City's General Fund Budget. The public safety budget (Police and Fire) totals 61% of the general fund budget. The three main sources of revenues for the general fund are: property tax, sales tax and CPS (public utility revenues).</p>
F. Cost Allocation Among Jurisdictions	The Fire Department bills Hill Country Village a flat fee per call. The fee calculation is not specified in its contract, but encompasses costs related to both fire response and EMS services. For example, the calculations for the EMS services takes into account number of electrical connections in the Hill Country Village area, average EMS costs, collection rates, and expected number of calls. The Fire Department will invoice Hill Country Village on a quarterly basis.
G. Performance Standards	Performance standards are not included in the contract with Hill Country Village.

San Marcos/Hays County, Texas***San Marcos/Hays County EMS***

- A. System Authority** San Marcos/Hays County EMS (SMHCEMS, Inc.) was formed in 1983 as a 501(c)3 not-for-profit corporation, based on an interlocal agreement between the City of San Marcos and Hays County. The SMHCEMS board is comprised of representatives of both the City of San Marcos and Hays County. (The interlocal agreement between San Marcos and Hays County is over 30 years old and extremely outdated, according to John Moseley, Director of Operations)

SMHCEMS now is the emergency ambulance provider for the Cities of San Marcos, Kyle, Dripping Springs, and other parts of Hays County and a zone in Guadalupe County.

-
- B. Contracts** SMHCEMS contracts with the North Hays County Emergency Services District to provide services to the Dripping Springs area. It is currently negotiating a new contract with the City of Kyle to provide EMS services to that city.

It contracts with Schertz EMS, which provides EMS services to Guadalupe County. SMHCEMS provides EMS services to a zone in Guadalupe County near the San Marcos area.

All contracts for 9-1-1 services contain performance standards set by the contracting jurisdiction and ambulance response times. It is unclear to what extent the contracts also specify the payment calculations to SMHCEMS for the provision of services. (No contracts were provided)

SMHCEMS also recently contracted with Medical Accounts Receivable System (MARS) for billing services. John Moseley said MARS receives a percentage of the billings, and he did not think there were performance standards in the contract.

-
- C. Exclusive Operating Areas** SMHCEMS, Inc. is the exclusive 9-1-1 provider in its service areas.

-
- D. Public Subsidies** SMHCEMS operational expenses that are not covered by revenues is subsidized by the jurisdictions with which it contracts (see F. Costs, below).
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E. Funding	SMHCEMS operations are funding by patient billing and local subsidies.
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F. Cost Allocation Among Jurisdictions	For each jurisdiction, SMHCEMS projects its annual operating costs and expected revenues, and then bills for the remainder. Most jurisdictions pay quarterly. Operating costs include 9-1-1 dispatch services, staffing, fuel, administrative services, etc. Most of the capital assets are retained by the City of San Marcos and Hays County, although North Hays County ESD (Dripping Springs area) owns its ambulances and SMHCEMS provides staffing, payroll, soft goods, etc in the operation of 9-1-1 response.
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G. Performance Standards	Operational performance standards are dictated by contract and by the board for San Marcos/Hays County. Typical operational performance standards are an 8-minute response (from dispatch to arrival) within the city limits, and 15-20 minute response within rural areas.
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H. Compliance Monitoring and Penalties	The Director of Operations and the Clinical Performance Operator daily review clinical and operational performance and report both on a monthly basis to each operating area. Contract provisions do not include penalty provisions. SMHCEMS has always met the performance standards, so there is no history of recourse. Entities unhappy with SMHCEMS performance could potentially break or not renew the contract or contact the SMHCEMS board for system improvements.
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Wake County

- A. System Authority** State law requires counties to establish EMS systems (*a copy is included*). NC General Statutes 131E-155, 131E-162, 143-508, and 10A NC Administrative Code 13P .0201 provides county governments with the authority and obligation to provide Emergency Medical Services.

The Wake County Department of Emergency Medical Services consists of the Division of Emergency Medical Services, the Office of Medical Affairs, an EMS Executive Officer and three contract EMS agencies.

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- B. Contracts** Wake County EMS contracts with three “legacy” non-profit EMS organizations that were originally formed for volunteer rescue in the 1960s and 1970s (prior to state law mandating county responsibility): Cary Area EMS, Eastern Wake EMS and Apex EMS. These non-profit agencies provide ambulance transport and together handle about 20 % of the Wake County call volume. Wake County uses a standard contract for each EMS agency (*a sample contract is included*).

Wake County EMS also uses a standard contract with 17 fire departments, which in addition to providing for county-wide fire protection also provides for EMT-B first response. Some of these fire departments are municipal and some are non-profit departments in unincorporated areas of the county. (*have copy of contract*)

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- C. Exclusive Operating Areas** There are no EMS exclusive operating areas. All EMS units operate as part of the EMS system countywide. Units may be moved anywhere and respond anywhere, based on the closest available unit, regardless of jurisdictional lines. The fire departments operate within their municipalities or zones for first response, however the standard fire protection contract requires them to participate in the most current Wake Co. mutual aid system plan.

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- D. Public Subsidies** The county funds all expenditures not met by revenues. For the three contract EMS agencies, the county bills for all their emergency ambulance transports under the county name and receives all revenue. The contract agencies submit an annual budget, subject to county guidelines and limits. The county pays them 1/12 of the approved budget on the first of each month.

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- E. Funding** The county’s general fund supports all EMS system costs, and all revenues from ambulance transport accrue to the general fund. The expenditures that ambulance transport and other revenues do not cover are covered by general fund (tax dollars).
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For example, for FY 2010 (Actual)

- Expenditures (Salary/Benefits, Supplies, Capital Outlay, Contractual Services and Debt) = **\$17,764,050**
- Revenues (99.8% or more from charges for services) = **\$10,564,517**
- County general fund subsidy = **\$7.2 million**

F. Cost Allocation Among Jurisdictions	<p>The county pays for all EMS costs, including those provided by the non-profit EMS providers under approved budgets.</p> <p>Fire departments do not charge for medical first response services, which are considered part of their core business model, and paid by local (municipal or district) taxes.</p>
G. Performance Standards	<p>Wake County uses industry best practices and system capability to establish performance standards, which they may find through such sources as expert literature and EMS symposia. Currently they are using the following to measure the EMS system county-wide:</p> <ul style="list-style-type: none"> • Call processing interval (911 ring to unit dispatch) – 90 seconds at the 90th percentile. • Reflex interval (dispatch alert to unit under way) – 90 seconds at the 90th percentile. • Response interval (911 ring to unit on scene at the curb of the dispatched address for all emergency calls) – 11 minutes, 59 seconds, 90% of the time. <p>They also have minimum performance standards in their contracts with the local fire departments.</p> <p>The Peer Review Committee is the body of record for all system performance matters, and it helps update standards when evidence reveals a need for improvements. The Committee is composed of system stakeholders including physicians, hospitals, first response agencies, EMS agencies, citizen representatives, and a member of the Board of County Commissioners. It is an advisory board to the Board of County Commissioners.</p>
H. Compliance Monitoring and Penalties	<p>The Department of EMS staff and the Peer Review Committee are responsible for monitoring system performance, and EMS staff report on performance quarterly to the Peer Review Committee. Where performance standards are not met, EMS staff and the Peer Review Committee discuss alternative methods and use of resources. Staff are held accountable for performance. No penalty provisions regarding performance failure are included in the contracts.</p>

King County**A. System Authority**

Medic One is the county-administered EMS response for King County, and it operates as a division within the county public health department. Medic One operates in a coordinated partnership with five dispatch centers and about thirty fire departments (due to local fire department consolidations, the number is decreasing over time). The EMS Division also manages the core regional services of the system, such as EMT and dispatcher training, data collection and analysis, regional planning, and medical control. Medic One EMS serves an area that is about 2,134 square miles and has a population of about 1.9 million.

Central to system authority and operations is the adoption of a special, six-year, countywide EMS tax levy, which is authorized by Washington state law. Except for a short period in the mid-1990's, King County has adopted six-year EMS tax levies virtually continuously since 1979. The EMS Division manages all EMS levy funds, and coordinates the development and adoption of a Medic One/EMS Strategic Plan, which is required prior to each new six-year levy. (The strategic plan also is periodically updated.) The strategic plan describes the roles, responsibilities and programs for the EMS system, and allocates funding for ALS, BLS and administrative services both system-wide and on a local level for each response agency/entity, which is used to help determine the appropriate tax rate. (Tax rate calculations also include expected revenues, such as revenue from interest income and other sources).

B. Contracts

Medic One provides county-wide ALS and BLS response by contracting with about thirty fire departments and by an interlocal agreement with the City of Seattle. BLS response is provided by all fire departments and ALS response by five departments: Bellevue Fire Dept (4 units), Redmond Fire Dept (3 units), Seattle Fire Dept (7 units), Shoreline Fire Dept (3 units) and Vashon Island Fire and Rescue (1 unit). King County also operates its own ALS response service (South King County Medic One) that covers the southern part of the county, and its personnel are housed in a local fire station. Medic One also has a contract with the Snohomish County Fire Department to provide ALS and BLS services to a small portion of King County adjacent to the Snohomish County border. The contracts specify reimbursement policies and procedures. (*sample copies on hand*)

Some local fire departments contract with private providers to deliver response or transport services. King County does not maintain records identifying which fire departments contract for EMS services.

The Seattle Fire Department's Medic One Program began in 1970. The Department responds to approximately 28,000 BLS alarms and 25,000 ALS alarms per year, in addition to all fires and other calls. According to Terry Sinclair, Seattle contracts with AMR for transport.

C. Exclusive Operating Areas	None. All ALS and BLS providers are expected to serve the entire county, depending upon call volume and need.
D. Public Subsidies	No King County resident is charged for ALS response and transport. King County pays local fire departments for ALS response and part of BLS response.

King County does not maintain records that would identify whether local jurisdictions that contract with private providers subsidized their contracts.

E. Funding	The EMS levy is a property tax levy, subject to the limitations contained in Chapter 84.55.010 Revised Code of Washington (RCW): for example, funds can only be spent on EMS-related activities. The levy growth is limited to a 1% increase for existing properties, plus assessment on new construction. The county council and all municipalities in the county larger than 50,000 in population must adopt the levy for it to be placed on a county-wide ballot. Local taxing districts are authorized to additionally increase taxes for EMS services up to the maximum levy rate, if the county has not adopted the maximum rate. State law limits the allowable maximum rate per assessed value to 50 cents per \$1,000; the King County EMS tax levy is now 30 cents per \$1,000.
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In addition to funding ALS and BLS services, EMS taxes also fund regional support services and strategic initiative implementation and coordination. Regional services include dispatcher training, data collection and system administration. Strategic initiatives refer to longer-term efforts to improve the system and response.

Additionally, some local jurisdictions fund their operations by billing patients for BLS response, including when their BLS responders treat residents in an area where BLS response is fully tax-supported. In such cases, BLS responders are required by state law to first tell the patient that they will be charged for the service.

Note: Planning for the next EMS levy period begins October 2011 with the convening of the EMS Advisory Task Force, as mandated by King County Council Ordinance 15862, to develop an "interjurisdictional agreement on an updated EMS Strategic Plan and financing package for the next levy funding period." Programmatic and financial recommendations are due to the King County Council by September 2012, and the final 2014-2019 Strategic Plan is due in January 2013.

Additionally, EMS operations are supported by the Medic One Foundation, a nonprofit charitable foundation supporting paramedic training, research, medical oversight and quality review, and the purchasing of emergency medical equipment.

F. Cost Allocation Among Jurisdictions

Using the tax collected by this levy, King County pays for ALS services by allocating expected revenues system wide using a standard per unit cost based on 24/7 staffing with two paramedics. The unit cost takes into account personnel, medical equipment and supplies, continuing medical education and other expenses. The per-unit cost for 2008-13 was based on costs submitted by the ALS agencies for 2004-07, with various adjustments for inflation. Medic One also allocates tax funds for expected ALS-related capital expenditures. The capital allocation is now based on \$81,095 per unit, which was derived from a previous study. The capital allocation began in 2008 with the purpose of eventually fully funding vehicle replacements on a three-year cycle. Most ALS agencies invoice Medic One for their expenditures using the defined per unit cost, up to their allocated maximum. They may carry over unallocated funds to subsequent years.

Also using EMS tax revenues, King County pays for part of the costs of BLS services using a formula that takes into account the relative amount of EMS taxes raised in each fire departments' service area and the proportion of county BLS-related calls they responded to that required paramedic transport. The BLS allocations are also structured to increase with the Consumer Price Index each year. The current Strategic Plan recommends initiatives to continue to develop the BLS allocation, especially in regard to improving equitable payment and funding of BLS calls. Initially, the ratio of Medic One/EMS calls to fire calls was relatively small, and the bulk of financial support for BLS agencies came from local city and district taxes, but now EMS calls constitute a higher proportion of calls to the BLS agencies.

The exception to the above payment strategies is King County's payments to Seattle. King County and the City of Seattle signed an inter-local agreement stating that EMS levy funds collected within Seattle go directly to the City. Subsequently, funds generated within the City of Seattle are managed separately by the city. In the current levy funding (for planned expenditures of over \$622 million), about one-third of the levy was allocated directly to Seattle Medic One (*from: King County Auditor's Office, 2009 EMS Financial and Compliance Audit, released September 2010*).

For 2008-2013, for the City of Seattle and King County combined, the strategic plan projects that about 61% of the EMS taxes will pay for paramedic response and 31% for BLS response (page 63, Strategic Plan).

G. Performance Standards

The Regional Medic One/EMS Strategic Plan (currently for 2008 - 2013) is the primary policy and financial document that directs the management of the regional system and includes a wide range of initiatives, programs, goals and objectives for system administration. According to Terry Sinclair, Medic One contracts with local fire departments do not contain performance standards. (However, using the Redmond ALS contract as an example, in its attachment Scope of Work, section VII, Performance Indicators and Oversight, the contract provides that “performance indicators shall be established and reviewed by King County EMS and reported to the EMS Division and the ALS provider Standards for each provider will be monitored in the following major areas: total call volume, average response time, percent of response times greater than or equal to 10, 12, and 14 minutes, out-of-service times, number of transports and mode of transport. Additional indicators may be added ...” Also, the contract provides for the development of corrective action plans and contract termination if a contractor failed to comply with terms and conditions of the contract, but it is unclear whether these provisions also include poor performance on required indicators.)

Additionally, the Center for the Evaluation of Emergency Medical Services (CEEMS) conducts research activities aimed at advancing the delivery of pre-hospital emergency care and the science of cardiac arrest resuscitation. Established in 1987, CEEMS is a collaborative effort between the EMS Division and academic faculty from the University of Washington. CEEMS research is funded by grants from private foundations, state agencies, and federal institutions, such as the National Institutes of Health, National Institute on Aging, and the Centers for Disease Control and Prevention.

Regarding Seattle's EMS success, a May 5, 2005 *USA Today* article credited “A strict policy of meticulously measuring the performance of the system, chiefly by monitoring sudden cardiac arrest survival...”

For more information on the strategic initiatives and system performance, please review the information in the 2011 Annual Report (see page 78 for response times).

**H. Compliance
Monitoring
and Penalties**

King County EMS monitors EMS system performance and adherence to goals and objectives in the strategic plan. Medic One contracts do not include penalty provisions. The EMS Advisory Committee, the County EMS Medical Director and stakeholders involved in revising the strategic plan, including local and county elected officials, also provide system oversight.

The EMS Advisory Committee is composed of representatives of system stakeholders, such as EMS personnel, medical and hospital representatives and patient advocates. The committee monitors the consistency of the EMS system and the implementation of strategic plans, and advises on policies and practices.

EMS System	Service Area	Legal Basis	Contracts	Use EOA	Use Subsidy	Major Sources of Funding	Cost allocation between juris.	Perf. Standards	Compliance Monitoring
Arlington, TX (Fire Dept)	City of Arlington	City function + Ambulance Ordinance <i>(have copy)</i>	AMR <i>(have copy)</i>	1 zone	No	City pays for Fire Dept response and non-disposables; AMR bills patients for transport	None	Included in contract with AMR	Monthly by full-time staff person who reports to Director; Ligated damage provisions included in contract
MedStar (Fort Worth, TX and surrounding areas)	Much of Tarrant Co., and other jurisdictions (depends on jurisdictions participating in the Authority)	Area Metropolitan Ambulance Authority <i>(have most recent copy – but some provisions no longer apply; it is under revision)</i>	None (but local fire depts. provide ALS first response)	Yes	See Cost Allocation	Billing (97.6%)	AMAA sets transport rates, which may be reduced for member jurisdictions who pay subsidy to AMAA; also members annually support AMAA net worth on pro-rated, per capita basis	Yes	By Internal Deployment Analyst on daily basis; monthly reports to AMAA board and quarterly reports to Emergency Physician Advisory Board
San Antonio, TX (Fire Dept)	City of San Antonio and City of Hill Country Village	City function (within Fire Dept)	With City of Hill Country Village	Yes, but not defined by contract or law	No	Patient billing and city funding	Not applicable	Not in contract	Unknown

EMS System	Service Area	Legal Basis	Contracts	Use EOA	Use Subsidy	Major Sources of Funding	Cost allocation between juris.	Perf. Standards	Compliance Monitoring
San Marcos /Hays Co., TX (non-profit)	Most of Hays Co. and parts of Guadalupe Co.	Interlocal agreement between San Marcos and Hays Co to establish nonprofit [501 (c) 3] organization	Not with private provider; contracts with local governments to provide 911 response	Yes	See Cost Allocation	Patient billing and local governments	SMHCEMS projects revenues and costs and bills contracted entities for difference.	Yes	No penalty provisions in contract; performance reported monthly to contracted service areas.
Wake Co. NC	Wake Co.	State law requires counties to establish EMS systems <i>(have copy)</i>	None with private agencies; contracts with 3 nonprofit (local govt) EMS agencies and about 17 fire depts <i>(have example contracts)</i>	All EMS agencies serve county-wide; fire depts. serve their districts only	No	Billing constitutes 99%+ of revenue and about 62% of total costs; County General Fund covers remainder	County responsible for all costs, except that local fire departments pay for BLS first response, county pays for rest	Not used in contracts, but used to gauge system operations	Data looked at monthly and reported to Peer Review Committee on quarterly basis

EMS System	Service Area	Legal Basis	Contracts	Use EOA	Use Subsidy	Major Sources of Funding	Cost allocation between juris.	Perf. Standards	Compliance Monitoring
Medic One /King Co, WA	King Co.	County-run and countywide EMS taxing district	King County contracts with local fire depts. but not with private providers; some fire depts. contract with private providers	No	County pays for all ALS and part of BLS costs	For ALS and system operations = Tax levy; For BLS, some tax levy support + local jurisdiction funds (and some bill patients for transport)	For ALS: agencies invoice county using an avr ALS cost per unit for operating and capital costs For BLS: formula based on proportionate taxes raised and calls responded Seattle retains its share of taxes to cover its program	King Co contracts do not directly specify standards	King Co EMS monitors response and other performance measures Also, multiple strategic initiatives are defined in the financial report and strategic plan and are monitored by King Co EMS and related stakeholder groups, the county council and medical director

Survey Document for Best Practices Survey

A. SYSTEM AUTHORITY

1. Did any legal authority (or legal authorities or contract agreements) establish the Medic One EMS System among the participating governmental jurisdictions (i.e., between Seattle, King County and any other participating municipalities or other governmental entities)?
 - a. If so, please provide a copy of the statute, ordinance(s) or agreement(s).

B. CONTRACTS

1. Information on the website, including the 2010 Annual Report, shows that you work with 4-6 paramedic providers, 30-34 BLS provider agencies, 30-35 fire departments, 5-8 dispatch centers.
 - a. How many of these provider agencies operate under a contract with Medic One?
 - b. Are any of these providers private companies?
2. Do you contract with companies for administrative services, such as billing and collections?
3. Other governmental agencies?
4. Please specify the type and number of contracts you now use, and please identify which contracts contain provisions specifying
 - a. performance standards (such as 90% of runs completed within a specified time frame), and
 - b. cost calculations and payment rates that dictate amounts for ground ambulance services?
5. Please provide a copy of the contracts.

C. EXCLUSIVE OPERATING AREAS / ZONES

1. Does your EMS system operate use Exclusive Operating Areas (EOA) or Exclusive Operating Zones?
2. How many EOAs does your system use?
3. Which designated provider agencies operate within an EOA? For example,
 - a. First Responder agencies
 - b. Paramedic Provider agencies
 - c. Ground Transport agencies
 - i. Emergency AND non-emergency transport
 - ii. Emergency only
 - d. Air Transport agencies
4. Does your system also include areas or zones that are not exclusive?
 - a. If so, how many?
5. Which designated provider agencies operate within the non-exclusive zones? For example,
 - a. First Responder agencies
 - b. Paramedic Provider agencies
 - c. Ground Transport agencies
 - i. Emergency AND non-emergency transport
 - ii. Emergency only
 - d. Air Transport agencies

D. PUBLIC SUBSIDIES

1. Does the participating public or private provider receive a public subsidy (bonus or incentive) for their participation in the EMS system?
2. If so,
 - a. What governmental entity pays the subsidy? (What is the basis for the public funds, ie., tax, general funds, other?)
 - b. What is the purpose of the subsidy?
 - c. What is the subsidy amount?
 - d. How is the subsidy calculated?

E. FUNDING

1. Please identify the sources that fund your EMS system and percentage contribution to all funding:

<u>Source</u>	<u>2010 funding</u>	<u>% of total funding</u>
General Fund	\$ _____	_____ %
Special Tax District**	\$ _____	_____ %
Memberships	\$ _____	_____ %
User Fees	\$ _____	_____ %
Billing for services	\$ _____	_____ %
Revenue sharing	\$ _____	_____ %
Other (<i>Please list:</i>)		
_____	\$ _____	_____ %
_____	\$ _____	_____ %

** According to the 2010 Annual Report, property taxes constituted 98.6% of the total revenue for the EMS system for King County outside of Seattle.

Is this percentage still correct?

How do the revenues for the Seattle EMS services differ from King County revenues?

2. Does the percentage of funding by funding source vary significantly from year to year? If so, why?

F. COSTS

1. If more than one governmental jurisdiction is covered by your EMS system, how are fees and costs calculated between participating jurisdictions?
 - a. For example, per capita? Per call? Geographical area? Per station? A combination method?

G. PERFORMANCE STANDARDS

1. What established performance standards do you use to measure system responsiveness and effectiveness? For example:
 - a. Call response time
 - b. Travel time to emergency site
 - c. Travel time to hospital/trauma center
 - d. Others
2. What sources do you use to establish the performance standards?
3. Who or what process is used to establish the standards as benchmarks for your EMS system?
4. How often are these standards updated?

H. COMPLIANCE MONITORING

1. Who monitors EMS system performance?
2. How often do they monitor performance standards?
3. What next steps are taken when performance standards are not met?
4. Are there penalties for failure to meet performance standards?
 - a. If so,
 - i. What are they (or how are they calculated?)
 - ii. Who – what entity -- imposes them?
 - iii. When are they imposed?

Thank you for your help with our research.

Please feel free to provide documents or other reports that will facilitate your feedback.