



32605 Temecula Parkway, Suite 100  
Temecula, CA 92592  
Toll free: 800.676.7516  
[www.nbsgov.com](http://www.nbsgov.com)

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Michael Despain  
Deputy Fire Chief  
City of Redmond  
8450 161<sup>st</sup> Ave NE  
Redmond, WA 98052

**RE: City of Redmond Fire Department Basic Life Support (BLS) Ambulance Services Fee Study**

Chief Despain:

Thank you for the opportunity to address the City of Redmond's needs for development of a Basic Life Support (BLS) ambulance fee. This document presents the draft final results of the Fee Study, including purpose, project approach, and cost-of-service analysis for calculating the maximum BLS fees for the City.

**Purpose**

The City of Redmond Fire Department (City) proposes to establish fees for ambulance basic life support (BLS) services. The primary purpose in conducting this Fee Study is to ensure that fees do not exceed the costs of providing services and to provide an opportunity for the City Council to set fee amounts according to local cost recovery policies and objectives. Local cost recovery policies and objectives always have significant influence as to whether fees are adopted to recover 100% of the costs of providing services, or less.

This Study identified approximately \$15.5 million in total annual City costs of providing Medical Operations services. Of the \$15.5 million, Table 1 on the next page shows the estimated annual cost distribution to BLS Transports is approximately \$10.3 million with a maximum fee per transport of \$2,809, and to BLS Treatment On Scene is \$432,000 with a maximum fee per service of \$1,860. Total annual costs for other BLS runs that do not result in transport or treatment without transport are \$1.3 million. The costs associated with other calls do not have a fee per transport to be charged. The Fire Department also provides ongoing ALS engine support to BLS medic units on medical calls, at an annual estimated cost of approximately \$3.4 million and no fee per service is calculated since the City already charges an ALS fee and accounts for costs in a separate fund.

**Table 1. Fee Study Summary of Results**

Type of Ambulance Service	Annual Medical Operations Cost Distribution	Maximum Cost per BLS Service
BLS Transports	\$ 10,330,201	\$ 2,809
BLS Non-Transports	\$ 431,631	\$ 1,860
BLS Other Runs	\$ 1,291,840	n/a
ALS Support Runs	\$ 3,396,957	n/a
	\$ 15,450,629	

Total maximum annual cost recovery for BLS services amounts to approximately \$10.8 million. While this study did not delve into projected actual cost recovery based on a billing analysis and payor mix, it is important to note that review of calls for service confirms that not all calls result in an ambulance transport and/or treatment without transport service. Considering calls that do result in an ambulance transport and/or treatment without transport service, there are instances when no bill for service would occur, such as mutual aid response where the City does not provide transport service. Additionally, most bills for ambulance services do not result in full payment. Depending on whether the recipient of a bill is a private or public insurance company, or individual, significant write downs, write offs, and payment delays typically occur. Therefore, projecting total revenue impact from implementation of a BLS fee is not feasible at this time, nor part of our scope of services.

## **Project Approach**

This Fee Study is a quantitative effort which compiles the full cost of providing services and translates those costs into proposed fee amounts that are best aligned with how services are provided. The following describes the phases of analysis completed during the Study.

### **COST-OF-SERVICE ANALYSIS**

There are two primary types of costs considered in the Fee Study: direct and indirect costs. Direct costs are those that specifically relate to an activity or service, including the real-time provision of the service. Indirect costs are those that support the provision of services in general but cannot be directly or easily assigned to a singular activity or service. The following are examples of different types of direct and indirect costs considered in the Cost-of-Service Analysis:

#### **Direct Costs:**

- Direct personnel costs – Salary, wages and benefits expenses for personnel specifically involved in the provision of BLS services and activities to the public.
- Direct non-personnel costs – Specific operational expenses incurred in the provision of BLS services.

#### **Indirect Costs:**

- Indirect personnel costs – Personnel expenses supporting the provision of services and activities. This includes line supervision and departmental management, administrative

support within the Fire Department, and any staff involved in technical support activities related to the direct BLS services provided to the public.

- Indirect non-personnel costs – Expenses other than labor involved in the provision of services. In most cases, these costs are allocated across all services provided by the Fire Department, rather than directly assigned solely to BLS services.
- Overhead costs – These are expenses, both labor and non-labor, related to Citywide support services. Support services include general administrative services such as City Manager, Finance, Human Resources, etc. The amount of costs attributable to the City included in this Study were sourced from the City’s Cost Allocation Plan prepared by the Finance Department.

All cost components in this Study use annual (or annualized) figures, representing a twelve-month fiscal year cycle of expenses incurred by the City in the provision of services. Once the total estimated annual costs of providing services are known, further analysis is completed to identify service costs that may not be eligible for recovery in the fees subject to study.

## **FEE ESTABLISHMENT**

To translate the annual costs of providing BLS services into full cost-recovery individual fee amounts, we applied estimated and/or tracked calls for service counts and analysis of time on task data from calls for service records as the optimal indicator of the level of service provided by the Department.

Fees implemented as a result of this Study should not exceed the calculated full cost of service. In other words, the cost recovery rate achieved by a fee should not be greater than 100%. We calculate the maximum level of cost recovery potential for each fee, and recommend fees always be established by local authority at 100%, or less, than the calculated full cost of service.

While Centers for Medicaid and Medicare Services (CMS) sets limits, or “caps”, for how much a provider can be reimbursed for administering ambulance services, CMS does not regulate how much can be charged to patients or private insurance companies. As such, targets and recommendations always reflect agency-specific judgments linked to a variety of factors, such as existing City policies, revenue objectives, economic goals, community values, market conditions, level of demand, and others. Because this element of the Study is subjective, the results of this study provide the cost-of-service calculation based on 100% full cost recovery, as well as the framework for the City to adjust fee amounts in accordance with the City’s goals as pertains to cost recovery, economic development, and social values.

## **DATA SOURCES**

The following data sources were provided by the City and used to support the cost-of-service analysis and fee establishment phases of this Study:

- Adopted Budget for Calendar Year (CY) 2024
- A complete list of the Fire Department’s personnel, salary/wage rates, paid benefits, etc.
- Approximately one year of Calls for Service data records

The City's adopted budget is the most significant source of information affecting cost of service results. We did not audit or validate the City's financial management and budget practices, nor was cost information adjusted to reflect different levels of service or any specific, targeted performance benchmarks. This Study has accepted the City's budget as a legislatively adopted directive describing the most appropriate and reasonable level of City spending.

## Fee Analysis and Results

This section of our report presents more detailed analysis supporting the results summarized in Table 1, above.

A full range of fire and paramedic services are provided by the City's Fire Department. These services can be summarized into four main service delivery programs for purposes of this analysis:

- **Fire Administration & Fire Support Services** – Leadership for the personnel and programs of the department. Also responsible for budgeting, planning, directing, and team building. Sets and reviews department policy and provides administrative support to all of the Fire Department's divisions. Coordinates all aspects of employee training, keeping current with the local, state, and federally mandated training requirements. Maintenance of all apparatuses and equipment.
- **Fire Suppression and Operations Response** – Emergency response related to fire incidents and other types of emergencies.
- **Medical Operations** – Ambulance response services that typically result in transport to a hospital or treatment on-scene without transport.
- **Fire Prevention** – Annual inspections of commercial buildings, development review, Fire Code permits, investigative and code enforcement activities, etc.

The focus of this Study is on fees to be charged under the Medical Operations program for BLS ambulance services provided by the City. The following is the list of fees studied:

- **BLS Transport**– A specific level of pre-hospital medical care where a transport is provided by trained responders focused on rapidly evaluating a patient's condition; maintaining a patient's airway, breathing, and circulation; controlling external bleeding; preventing shock; and preventing further injury or disability by immobilizing potential spinal or other bone fractures. BLS generally does not include the administration of drugs or invasive skills.
- **BLS Treatment On Scene** – A fee for services applied when the City responds to an emergency call for service, administers care at the scene, and does not transport the patient to hospital.

The focus of this cost-of-service analysis is to reasonably estimate the total annual costs of providing BLS ambulance services that can be recovered through fees for services. Table 2 on the following page presents the total cost of service analysis for the City's Fire Department, segregated into the main service delivery programs:

**Table 2. Total Fire Department Service Costs**

Cost Element	Fire Suppression and Operations	Medical Operations	Fire Prevention	TOTAL
Labor	\$ 6,049,295	\$ 11,387,539	\$ 2,844,920	\$ 20,281,753
Recurring Non-Labor	2,156,079	3,080,702	650,275	5,887,057
Department Admin	2,068,662	3,647,596	881,176	6,597,433
<b>DEPARTMENT SUBTOTAL</b>	<b>\$ 10,274,036</b>	<b>\$ 18,115,836</b>	<b>\$ 4,376,371</b>	<b>\$ 32,766,243</b>
Other Funding Sources				
EMS Tax Levy		\$ (2,665,207)		\$ (2,665,207)
<b>OTHER FUNDING SOURCES SUBTOTAL</b>		<b>\$ (2,665,207)</b>		<b>\$ (2,665,207)</b>
<b>DEPARTMENT TOTAL</b>	<b>\$ 10,274,036</b>	<b>\$ 15,450,629</b>	<b>\$ 4,376,371</b>	<b>\$ 30,101,036</b>

As shown, the total cost of providing all Department services is approximately \$30.1 million. Medical Operations services are approximately \$18.1 million. However, before proceeding further in calculating BLS fees for service, the Emergency Medical Services (EMS) Tax levy providing approximately \$2.7 million per year in funding for these services is shown as an offset to Medical Operations costs. The resulting \$15.5 million in Medical Operations costs represents approximately 51% of the total Department costs. The following sub-sections describe the analysis used to establish each resulting Cost Element for the Medical Operations annual total cost outcome.

### **DIRECT LABOR COSTS**

The amount of “Labor” costs shown in Table 2 for Medical Operations Services is established as follows.

The City operates three Medic One units which administer BLS level support during EMS calls. City firefighters are cross trained as Emergency Medical Technicians (EMTs) providing basic life support (BLS) services to sick or injured people, as well as fire, rescue, and non-emergency service calls, among other activities.

As to how resources are deployed for EMS response, there are three (3) medic units currently in service, seven (7) days per week, twenty-four (24) hours per day. The three (3) medic units in service are supported by six (6) paramedic fire engines on BLS calls, or other calls that require BLS level support. Each time a medic unit responds to a call for service, a paramedic engine accompanies that medic unit to provide medically necessary support to the medic unit and personnel inside it. Each medic unit is staffed with two people, both are paramedic firefighters. Each paramedic engine is staffed with three people: a captain or lieutenant, an engineer, and a firefighter. All personnel on engines are paramedics.

Because the City accounts for salaries and benefit expenses for all paramedic personnel in one central accounting/budgetary unit (Fire and Medical Operations – Fire Suppression), a method for allocating direct labor costs between suppression and medical service categories is needed. Calls for Service data shows most responses by the Department are EMS rather than suppression related. The City’s calls for EMS represent approximately 68% of all calls for service. To estimate the amount of salaries and benefits costs dedicated to Medical Operations, 68% of personnel costs within the budget unit called Fire and Medical

Operations – Fire Suppression, were allocated to Table 3’s Medical Operations category, while the remaining 32% of personnel costs were allocated to Fire Suppression and Operations.

Labor costs specifically excluded from Medical Operations include: USAR, Hazardous Materials, Wildland Deployment, ARPA funded services, Fire Prevention, and training specific to these activities. These services should not be funded by the BLS fees calculated in this Study.

### RECURRING NON-LABOR COSTS

Review of the City’s adopted expenditure budget for CY 2024 identified on-going operating costs that are attributable to the provision of Fire Suppression and Medical Operations services. The same methodology of allocating costs is applied to non-personnel expenditures as described above for Direct Labor based on the ration of medical to suppression calls for service. These are shown in Table 2 and further detailed in Table 3, below.

**Table 3. Medical Operations Costs**

Accounts	Sum of Medical Operations
00310 - Office Supplies	\$ 5,117
00320 - Fuel	5,822
00350 - Small Tools <\$10K	7,492
00360 - Operating Supplies	61,346
00365 - Meals	73
00370 - R&M Supplies	2,780
00409 - Intergovernmental Professional Services	401,062
00410 - Professional Service	3,797
00412 - Legal Services	3,526
00420 - Shipping & Postage Services	586
00421 - Phones & Internet Services	10,300
00422 - Wireless Phone Services	25,050
00430 - Travel	3,390
00440 - Advertising Services	170
00450 - Rental or Lease of Equip or Property	5,085
00470 - Cable Service & Misc Utilities	2,373
00474 - Waste Collection Services	2,373
00480 - Outside Repairs & Maint (Non Software)	65,470
00485 - Software License/Transaction Fees	678
00490 - Miscellaneous Services	5,972
00491 - Tuition, Training & Registrations	568
00495 - Printing Services	12,257
00961 - Interfund Medical	1,752,262
00965 - Interfund Workers Comp	703,154
<b>Grand Total</b>	<b>\$ 3,080,702</b>

Out of approximately \$4.5 million budgeted annually for Fire Suppression and Fire Station Support Services, approximately \$3.1 million are operating costs dedicated to providing Medical Operations services.

Non-Labor costs excluded from Medical Operations include: Urban Search and Rescue (USAR), Hazardous Materials, Wildland Deployment, American Rescue Plan Act (ARPA) funded services, Fire Prevention, and training specific to these activities. These services should not be funded by the BLS fees calculated in this Study.

## OVERHEAD COSTS

There are two types of overhead costs considered in this analysis: Citywide overhead and Fire Department overhead. Citywide overhead costs include administrative services that support the Fire Department such as Finance, Human Resources, City Manager, Information Technology, etc. The City's Finance Department completes an overhead cost allocation plan analysis, which for CY 2024 identifies approximately \$2 million in overhead costs attributable to the Fire Department. In addition to Citywide Overhead costs, Fire Department Overhead costs of approximately \$4.6 million should be shared across all Fire Department service categories. Table 4 shows the total identified overhead costs applied in the Fee Study.

**Table 4. Total Overhead Cost Summary**

Cost Element	Total Overhead Costs
Fire Department Overhead	\$ 4,555,385
Citywide Overhead	2,042,048
<b>TOTAL OVERHEAD COST</b>	<b>\$ 6,597,433</b>

Total overhead costs shown in Table 4 were allocated to Fire Department service categories. The portion of costs allocated to Medical Operations is approximately \$3.6 million, as shown in Table 2.

## Total Annual Cost Allocation Summary

Based on the analysis completed for each attributable cost component described above, Table 2 summarizes the City's total estimated annual cost of providing Medical Operations services at approximately \$15.5 million. As described, the total estimated cost of providing services includes all identifiable direct and indirect costs.

## INDIVIDUAL FEE-FOR-SERVICE COSTS

To translate the total annual EMS costs established in Table 2 into individual costs per type of ambulance service, Medical Operations costs were allocated to individual fee-for-service categories based on the average number of calls by type of ambulance service provided, and the average amount of time required on task to service each type of call. Both calls by type and average time on task per call were sourced from the Fire Department's calls for service records

Utilizing calls-for-service data provided by the City's dispatch system, a weighted distribution factor was derived by call volume and call time on task for Transports, Treatment On Scene, and Other Calls. Each time an ambulance responds to a call for service, a paramedic engine accompanies the medic unit too for

incident support. Therefore, service time must reflect the total number of personnel responding to each call, on average:

- Two-person ambulance – EMTs/Firefighters
- Three-person paramedic Engine – Captain or Lieutenant, Engineer and Firefighter. Each of these people are also Paramedics.

Then the fee schedule for individual services must reflect the type of ambulance service provided, defined as follows:

- **BLS Transports** are defined as calls that consist of a patient being transported to the hospital by medic unit. Transports last an average of approximately 67 minutes per call.
- **BLS Treatment On Scene** are defined as calls where treatment was administered on the scene, but the ambulance did not transport the patient to a hospital, also known as “Dry Run.” Dry Runs last an average of 44 minutes.
- **BLS Other Runs** are defined as calls that do not result in a Transport or Treatment On Scene, such as calls that are cancelled before the medic unit reaches the scene, or there is no one to treat on scene. These calls last an average of 20 minutes.
- **ALS Support Runs** are defined as paramedic engine support to medic units on EMS calls. The engine support average call time assisting medic units is 41 minutes.

Per the calls for service data analysis that incorporates both number of calls and average time on task per call by type of ambulance service, Table 5 shows the annual distribution of Medical Operations costs required for BLS service calls as 67% Transports, 3% Treatment On Scene, 8% Other Calls, and 22% ALS Support Runs. Dividing annual Medical Operations Costs to each service type category by total number of annual calls results in an average cost of service per BLS Transports and Treatment On Scene of \$2,809 and \$1,860, respectively.

**Table 5. Average Total Cost Per Type of Ambulance Service**

Type of Ambulance Service	Total Annual EMS Calls	Average Service Time (hrs) - BLS Ambulance	Average Service Time (hrs) - Engine	Total Service Time (hrs)	Annual Service Time (hrs)	% Distribution	Annual Medical Operations Cost Distribution	Maximum Cost per BLS Service
BLS Transports	3,678	2.22	3.33	<b>5.55</b>	20,419	67%	\$ 10,330,201	<b>\$ 2,809</b>
BLS Treatment On Scene	232	1.47	2.21	<b>3.68</b>	853	3%	\$ 431,631	<b>\$ 1,860</b>
BLS Other Runs	1,512	0.68	1.01	<b>1.69</b>	2,554	8%	\$ 1,291,840	n/a
ALS Support Runs	3,275	-	2.05	<b>2.05</b>	6,715	22%	\$ 3,396,957	n/a
	<b>8,696</b>				<b>30,541</b>	<b>100%</b>	<b>\$ 15,450,629</b>	

BLS Other Runs are incidents where the medic unit was cancelled before reaching the scene, or there is no one to treat on scene. Although there are costs associated with such incidents, these runs have no potential for recovery of costs through fees for BLS Transport or Treatment On Scene.



Since ALS supports BLS medic units on calls, costs associated with ALS Support Runs must be a part of the cost distribution as reflected in Table 5. These calls have no potential recovery of costs through fees for BLS Transport or Treatment On Scene.

## Conclusion

The approach and methods used to determine the total estimated annual and per service cost for BLS ambulance services is in line with industry standards our professional team has worked with for over 20 years, in hundreds of fee studies, for a variety of government services applications. Based on the outcomes presented herein, the proposed schedule of fees for City Council's consideration can be found in the City's accompanying Staff Report.

*Disclaimer: In preparing this report and the opinions and recommendations included herein, NBS has relied on a number of principal assumptions and considerations with regard to financial matters, conditions and events that may occur in the future. This information and assumptions, including the City's budgets, time estimate data, and workload information from City staff, were provided by sources we believe to be reliable; however, NBS has not independently verified such information and assumptions. While we believe NBS' use of such information and assumptions is reasonable for the purpose of this report, some assumptions will invariably not materialize as stated herein and may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected to the extent that actual future conditions differ from those assumed by us or provided to us by others.*