City of Bravos EMS System

*St. Louis Missouri*

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**Executive Summary**

**Mission:**The goal of the City of Bravos’ EMS Bureau is to provide the citizens and visitors of the City of Bravos with the highest quality of pre-hospital emergency care possible by employing the highest quality providers, utilizing the best equipment, and incorporating continuous quality improvement as well as providing education for the community.

**Vision:**The City of Bravos’ EMS Bureau plans to continue growing in order to meet the growing needs of the community it serves as well as implementing a progressive community paramedicine system.

**Values:**

* Professionalism: Treat all people with dignity, honesty, and respect in order to ensure patient satisfaction and quality care
* Empathy: Treat every patient with the respect as they are the ones experiencing the emergency
* Trust: Building a good rapport and relationship with the community will lead to the best quality care provided
* Safety: Going above and beyond to recognize any safety concerns and act to minimize to ensure quality care as well as patient outcome

**Problem Definition**

After repainting the old system’s vehicles and introducing new uniforms that were both made with the deep purple dye from the local snails, many of the employees became ill and passed away. It was determined that they used the wrong snail and the dye derived was actually poison, killing off all of the old system’s employees and causing their vehicles to be inoperable. Following this tragic loss, the Bravos’ EMS system proposes a whole new EMS system to not only meet the needs of the public but also exceed them.

**Assessment of Critical Factors**

**Demographicsof St Louis, Missouri (Bravos)**

Missouri is one of the largest states in the United States and St. Louis is considered to be the second largest city in Missouri State. St. Louis is located on the Great Plains of North America, south of the Missouri River, and extends to Kansas. It is a fascinating territory of intensely forested slopes with few mountains, caverns, lakes and waterways (Smoyer, 1998). St. Louis is in the heart of Tornado Alley and according to the National Weather Service, the city can experience 6-10 tornados per 1,000 square miles. It experiences an annual high temperature of 65.2 F, with an annual low of 44.3 F and an average of 54.75 F. The city also experiences an annual rainfall precipitation of about 44 inches with an average annual snowfall of 12 inches. St Louis is a modern city with many modern office buildings and roads; it is approximately 66 square miles in size with 61.9sq.miles being land and 4.1sq.miles being water (United States Census Bureau, 2016).

The total populations of St Louis, Missouri is estimated to be 319, 294 residents with estimated 1800 people per square mile (Suburban Stats, 2017). However, the daytime population can reach up to one million people inside the city at one time. There are various races foundwithin St Louis, Missouri. The majority of the races includethe Latinos, African Americans, Asians, Caucasians,and Native Americans. The African Americans are the largest race in the region contributing to a population of 157,160 to the overall population (Suburban Stats, 2017). The male and female African American residents in the area total to 72,509 and 84,651 respectively (Suburban Stats, 2017). Amongst the African Americans, the population of female exceeds that of the male, as opposed to the other races were women are few compared to the men. The whites are the second largest group in the region contributing to around 70, 564 to the overall population (Suburban Stats, 2017). The Latinos total to around 6,060 and Asians are around 4, 609 to the overall population. Two or more races contribute to around 3,754, some other race total to 2,275, the Native Americans total to 417 while three or more races are the least races in the region totaling to only 345 in number (Suburban Stats, 2017).

The highest population of males found in households in St Louis, Missouri is aged between the ages over 85 years old with the least population at households being between 25 to 29 years old (Suburban Stats, 2017). Among the females, the largest population found in houses is between 25 to 29 years with the least population discovered in the household being 20 years (Suburban Stats, 2017). The total number of unmarried individuals under the age of 18 living at home totals to 66,835 individuals (Suburban Stats, 2017).

According to the U.S. Census, 13.5% of the population live below the poverty line which can be used to assume that they are utilizing Medicaid as their primary insurance (United States Census Bureau, 2016). The U.S. Census also states that 14.9% of the population is over the age of 65 which assumes that they are under the coverage of Medicare, using these numbers we are able to determine that the remaining 71.6% either have commercial/private insurance or are self-pay individuals(United States Census Bureau, 2016). From that 71.6%, of the population, we can assume that 75% have the private or commercial insurance while the remaining 25% are self paying for medical expenses, these numbers were provided per the instructor.

**Intervention Strategies**

Our system is a structural and functional unit that will be well equipped to meet’s the public’s need with high performance providers and equipment. We plan to operate the system with a minimal annual budget of $10 million that will be used, along with call revenue, to cover yearly operating costs as well as any additional costs that may arise. We plan to sell a total of 22 of the current 30 stations that are present in Bravos over the first 3 years. The remaining 8 stations will be used to house all of the operations staff and equipment as well as the administrative staff and their equipment. These stations will be strategically positioned and staffed over the city to maintain an effective response time for all incidences. In order to maintain a Unit Hourly Utilization (UHU) between 0.2 and 0.8 we will divide operations into two separate divisions, one being for 911 calls and the other for inter-facility transports. With approximately 78,000 annual 911 calls, we will use 12 ALS Medics with a UHU of 0.74. We also plan to utilize 14 inter-facility ALS medics to respond to the 90,000 annual transports, which equates to a UHU of 0.73.

Our operators are available 24 hours, 365 days a year to receive all day-to-day emergency calls and inter-facility transports. The public can utilize the standard 911 systems to access us, and then our call takers and dispatchers will dispatch the appropriate unit using a fixed deployment system. Our system has 104 ALS providers, 104 BLS providers, as well as 16 experienced ALS supervisors that are well trained and certificated; answering 168,000 calls a year with the best care given.

**Stakeholders**

To continue developing our services, we need to have an excellent relationship with other stakeholders. Stakeholders that have an interest in our organization have an effect on our services, objectives, policies, and profit. “It is very important for us to improve relationships with other organizations and to share resources and knowledge toward the common goals of strengthening public safety and saving lives” (Lifesaving Foundation, 2017). Bravos will partner with educational institutions, businesses, agencies, and generous individuals. There are four main stakeholders of Bravos EMS system including below:

* Legacy Donors**:** Barnes Jewish Hospital, SSM Health (Saint Louis University Hospital), and The SAIGH foundation.org
* Businesses: Canteen, Cintas, the Laclede group, Edward jones, US Bank, Ameren, Bank of America.
* Foundations and Charitable Trusts: Missouri Foundation for Health, Gertrude and William Bernoudy Foundation, The Fred Saigh Foundation, Cardinals Care, Wells Fargo Foundation, The Dana Brown Charitable Trust, Allen P. and Josephine B. Green Foundation.
* Patrons: Thomas Schlafly, Rex and Jeanne Sinquefield, Edwin and Dorothy Fryer, Amdassador Sam and Marilyn Fox.

**Organizational Objectives**

**Increase ROSC:** ROSC is defined as Return of Spontaneous Circulation and it is generally accepted that early rhythm identification and defibrillation as well as fast acting CPR and a rapid transport is the most effective way to increase ROSC. In order to meet this objective, the Bravos EMS system plans to purchase and place AEDs throughout the city so that they are easily accessible for the public in the case of a cardiac arrest in a public area. The system also plans to offer free CPR classes which will be taught by trained and certified ALS providers already working for the system. Finally, the stations will be strategically placed throughout the city and the medics will be distributed accordingly so that response times will be limited and given the many cardiac centers within the city, transport times will be very short as well. In the event that no medics are available, our Medical Director has written a protocol in which we will also allow our ALS supervisors to transport a cardiac arrest in their vehicles. This is only permitted if a first responder is on scene and can drive the Humvee for them so that they may provide care for the patient en route; this will be considered an extraordinary circumstance.

**90% Community CPR:**As stated above, the system of Bravos will provide free CPR classes which will be taught by trained and certified instructors. These classes will be offered in two facets, one being in public classes that are taught in community centers and public buildings whereas the other is a CPR class that will be taught in the public schools. The administrative staff of Bravos will work closely with government and school officials in order to make CPR a graduation requirement so that the rate of CPR qualified individuals may rise up and beyond 90%.

**At least 50% ALS Transport Units:** Fortunately Bravos EMS is operating with 100% ALS transport units which are staffed with a mixed crew comprised of 1 EMT and 1 paramedic.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Annual Budget Overview** | | | | | | | | | |
|  | | | | Year 1 | Year 2 | | Year 3 | Year 4 | Year 5 |
| **Income** |  | | |  |  | |  |  |  |
|  | *Annual Budget* | | | $10,000,000.00 | $10,000,000.00 | | $10,000,000.00 | $10,000,000.00 | $10,000,000.00 |
| *Medicare* | | | $5,256,600.00 | $5,256,600.00 | | $5,256,600.00 | $5,256,600.00 | $5,256,600.00 |
| *Medicaid* | | | $680,400.00 | $680,400.00 | | $680,400.00 | $680,400.00 | $680,400.00 |
| *Private/Commercial Insurance* | | | $22,734,360.00 | $22,734,360.00 | | $22,734,360.00 | $22,734,360.00 | $22,734,360.00 |
| *Self Pay* | | | $2,105,000.00 | $2,105,000.00 | | $2,105,000.00 | $2,105,000.00 | $2,105,000.00 |
| *Surplus Mobile Property* | | | $- | $- | | $- | $360,000.00 | $- |
| *Surplus Real Property* | | | $14,032,434.69 | $5,649,686.99 | | $6,623,879.22 | $- | $- |
| *Past Year Budget Surplus* | | | $- | $12,524,937.69 | | $22,849,993.50 | $29,319,038.58 | $34,981,707.42 |
| **Total Income** |  | | | $54,808,794.69 | $58,950,984.68 | | $70,250,232.72 | $70,455,398.58 | $75,758,067.42 |
|  | | | | | | | | | |
| **Expenses** |  | |  | | |  |  |  |  |
|  | *Administration Payroll* | | $534,038.00 | | | $550,059.14 | $566,560.91 | $583,557.74 | $601,064.47 |
| *Operations Payroll* | | $15,800,278.00 | | | $16,116,283.56 | $16,438,609.23 | $16,767,381.42 | $17,102,729.04 |
| *Operating Expenses* | | $17,644,752.00 | | | $17,644,752.00 | $17,644,752.00 | $17,644,752.00 | $17,644,752.00 |
| *Outsourcing Expenses* | | $305,000.00 | | | $305,000.00 | $305,000.00 | $305,000.00 | $305,000.00 |
| *Building Maintenance&Utilities* | | $21,600.00 | | | $21,600.00 | $21,600.00 | $21,600.00 | $21,600.00 |
| *Other Expenses* | | $7,978,189.00 | | | $1,463,296.48 | $5,954,6728.00 | $151,400.00 | $- |
| **Total Expenses** |  | | $42,283,857.00 | | | $36,100,991.18 | $40,931,194.15 | $35,473,691.16 | $35,675,145.52 |
|  | | | | | | | | | |
| **Net Income** |  | $12,524,937.69 | | | | $22,849,993.50 | $29,319,038.58 | $34,981,707.42 | $40,082,921.90 |

**Budget**

* **Income:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Annual Budget | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Income | $10 Million | $10 Million | $10 Million | $10 Million | $10 Million |

* + *Annual Budget:* With the help of our stakeholders we were given an annual budget of $10 million. Our system will utilize this money very carefully in year one since it is what we will have to use to pay for all of our initial start-up fees. Given that Bravos is responsible for nearly 168,000 annual calls and up to one million people in their jurisdiction at one time, this is a relatively low amount. Even though the annual budget is stretched fairly tight for the initial costs in year one, it quickly adds to the yearly profit in subsequent years.
  + *Insurance:* Revenue from insurance accounts for a sizeable amount of income to the Bravos EMS system due to its high call volume. Bravos plan to have approximately 168,000 calls per year, according to current figures from the St. Louis Fire Department and AMR. We can assume that 80% (134,400) of the calls are BLS whereas the remaining 20% (33,600) are ALS. Insurance can be broken into four main categories: Medicare, Medicaid, Private/Commercial Insurance, or Self Pay. The first being Medicare, which covers all patients over the age of 65. In the current city of Bravos, approximately 14.9% of the population is over the age of 65, which means that 14.9% of all the responses that the Bravos EMS system runs will be paid for by Medicare. Medicare pays $200 per BLS call and$600 per ALS call with a return rate of 75% (Flint, 2017). Given these figures and projected call volumes, Medicare will pay $5,245,600.00 annually. Next would be Medicaid, which covers any patients below the poverty line. Bravos has a relatively low poverty rate with only 13.5% (United States Census Bureau, 2016). Medicaid has a pay schedule of 50$ per BLS call and 100$ per ALS call with a 50% return rate (Flint, 2017). Medicaid will pay only $680.400.00 annually to the Bravos EMS system. The third insurance is Private or Commercial Insurance, which covers 75% of the remaining call volume (Flint, 2017). This equates out to 63.7% all the calls Bravos is responsible for. Private/Commercial Insurance has a very good payment schedule at $200 per BLS call and $600 per ALS with a repayment rate at 90% (Flint, 2017). With current project call volumes; Bravos will receive an annual income of $22,734,360.00. The final insurance income is self-pay. Per Diane, 25% of the remaining call volume after Medicare and Medicaid have paid is covered by self-pay. The repayment schedule for self-pay is $200 per BLS and $600 per ALS with only a 25% return rate. This equates to an annual $2,105,000.00. Overall insurance will bring in annual revenue of $30,776,360, which will remain constant over the 5 years.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Income | $30,776,360 | $30,776,360 | $30,776,360 | $30,776,360 | $30,776,360 |

* + *Surplus Mobile Property:* Revenue from surplus mobile property will only affect the budget once over the next immediate 5 years. The revenue will be generated over the course of year 3 when we have to sell our current units due to being over the allotted 200,000 miles per unit by putting an average of 65,000 miles per year per unit. We are planning on selling all 18 of the 911 units as well as all 18 of the inter-facility units. We were given a sale price of $10,000 per unit, which will equate to additional revenue in year 4 of $360,000 (Flint, 2017).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Income | - | - | - | $360,000 | - |

* + *Surplus Real Property:* We have defined surplus real property as the income generated from selling the 22 stations that no longer will be used. Appendix A includes a chart has listed out the square footage of each station that will be sold. Square footage of each station was determined by measuring the perimeter of each station using aerial views courtesy of Google Maps; we based every station as a single floor building.We have decided on a sale price of $248.97 per square foot based upon an article comparing construction costs per square foot of a police station in St. Louis, MO (Dalvit, 2015). Once calculating the estimated sale price for each station, approximated that we will sell these station over the course of three years. We then just number each station by year, which is how we approximated how much money, we will make per year from the sale of the station and the land that is sitting on.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Income | $14,032,434.69 | $5,649,686.99 | $6,623,879.22 | - | - |

* + *Past Year Budget Surplus:* Each year we have plan to have a surplus of funds, which will be carried over to the following years budget. These excess funds will be used to go towards purchasing new units and equipment, raises, training, and community outreach.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Income | - | $12,524,937.69 | $22,849,993.50 | $27,295,521.58 | $32,958,190.42 |

* + *Total Income:* Our income increases each year even though we have a fixed income from our annual budget and revenue from the insurance. We are able to maintain a steady profit every year for the projected 5 years and will have enough to account for any emergencies, which may present themselves. Excess of funds will be utilized to better our system in whatever ways we see fit.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Income | $54,808,794.69 | $58,950,984.68 | $70,250,232.72 | $68,431,881.58 | $73,734,550.42 |

* **Expenses** 
  + *Payroll*
    - *Administration Payroll:* There are currently 5 personnel on the payroll for the administrative side of the Bravos EMS system. Included is the Chief Administrative Officer, Chief Financial Officer, Public Information Officer, Human Relations Officer, and finally a Public Outreach Officer. All of the administrative staff will work a typical Monday through Friday, 9am – 5pm schedule which equates to 40 hours per week. All of the staff will work for an hourly rate and have been allotted 250 hours of PTO overtime. The pay rates are as follows: both the Chief Administrative Officer and Chief Financial Officer will make $40 per hour and the remainder of the staff will make $30 per hour which equates to a yearly compensation, including overtime, to be $98,200.00 and $73,650.00 respectively. With the addition of the 33% overhead to cover both taxes and benefits for all employees, the total payroll costs for all of the administrative staff is $534,038.00 for year one. We have also allotted for a 3% yearly raise to cover basic increases in the cost of living and also to ensure retention, these raises will continue for 25 years.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Salary | $534,038.00 | $550,059.14 | $566,560.91 | $583,557.74 | $601,064.47 |

* *Operational Payroll:* Operational payroll will consist of 252 total employees which is divided between 1 EMS Chief, 1 Medical Director, 1 Assistant Chief of Operations, 16 EMS Lieutenants, 16 Call Takers, 8 Dispatchers, 1 Training Officer, 104 Paramedics, and 104 EMTs. The majority of the operational employees will be salaried to account for the natural occurring overtime that occurs in a 4-day rotating shift consisting of two 10-hour days followed by two 14-hour nights. EMTs are salaried out at $27,000 which an estimated overtime of 250 hours which equals a total annual compensation of $30,750.00. Paramedics, Call Takers, and Dispatchers are also salaried, making an annual salary of $50,000 with a projected overtime of $7,500, which brings their estimated salary of $57,500.00. The last salaried group are the EMS Lieutenants who make an annual salary of $70,000 with a projected overtime of $11,250.00, adding up to a total annual compensation to be $81,250.00. The next groups of employees all make an hourly wage and work 40 hours each week. The Training Officer makes $30 per hour, the Assistant Chief of Operations makes $40 per hour and both the EMS Chief and Medical Director make $50 per hour. All hourly positions have been allotted an average of 250 PTO overtime hours. All operational employees have also been allotted a 33% overhead, which will include the taxes and benefit packages. Total operational payroll for all employees including base salaries, PTO overtime, and the overhead is $15,800,278.00 for year one. In order to maintain retention and workforce satisfaction, we also have allotted an annual 3% raise for all employees for the first 25 years of their careers.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Salary | $15,800,278.00 | $16,116,283.56 | $16,438,609.23 | $16,767,381.42 | $17,102,729.04 |

* + *Operating Expenses:* Yearly operating expenses include insurances, fuel, and restocking fees. The Bravos EMS system will have their insurance provided by the Volunteer Fireman’s Insurance Company, which will cover all 18 911 medics, 18 inter-facility medics, and 6 supervisor vehicles. As you can see in appendix B and C, the VFIS has quoted us $2,315 per medic unit and $902 per supervisor units (for similarly valued units). Given Bravos current fleet of vehicles, we will have an annual insurance cost of $88,752.00. The next yearly operating cost is fuel. Per our instructor, we were given a flat rate for fuel per vehicle, which is $50,000 (Flint, 2017). With a fleet of 44 vehicles, we have budgeted $2,100,000 annually. Our final operating cost is the cost to restock our fleet following each call. We have used general numbers to represent the cost of supplies per call, $20 per BLS and $400 per ALS. With a call volume of 168,000 annually, we have projected that it would cost $15,456,000 to resupply following each call, which equates to approximately $92 per call. Since we have no projected increases in call volume, our annual operating costs will remain the same over the first 5 years.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Restock Fee | $17,644,752.00 | $17,644,752.00 | $17,644,752.00 | $17,644,752.00 | $17,644,752.00 |

* + *Building Maintence &Utilities:*This includes all of the utilities which are used to keep the station operational such as internet, electricity, water, phone service, etc. as well as generalized building maintenance such as cleaning and fixing typical issues. The total costs of the utilities are $1,500 per station per year and maintenance is $1,200 per station per year (Flint, 2017). We currently plan to utilize 8 total stations, which equates to a total annual cost of $21,600.00. We do not plan to purchase any new stations in the next 5 years so our annual Building Maintenance & Utilities cost will remain constant.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Buildings | $21,600 | $21,600 | $21,600 | $21,600 | $21,600 |

* + *Other Expenses:* This covers a broad spectrum of costs, which vary greatly from year to year. Below we will explain what will make up these costs per year.
    - Year 1 – Initial Start Up: Year one has by far the most expensive costs in terms of one time fees; this is because we must purchase all of our equipment and vehicles as well as outfitting the stations. Our first mater of business is to outfit our stations so that we can have a place for our staff to work and to start storing equipment. Using Google Maps, the square footage of each station was determine and a pre-determined price of $20 per square foot was used to determine the costs to outfit all 8 stations (Flint, 2017). The total costs for the initial outfitting of the stations is $2,023,517.00. The next set of costs would be purchasing vehicles. Our system requires 3 different, a Type III for 911 operations, a Type II for inter-facility operations, and Humvees for our field supervisors. Starting with our 911 vehicles, we will purchase 18 2016 Ford E-450 Medic units with only 450 miles. These medics will cost us $89,000(Brindlee Mountain Fire Apparatus, LLC, 2017). Our inter-facility transport units will be new 2017 Ford Transit 250 Malley Industries type-II ambulances and will cost $70,000 each; we will require 18 of these(Global Emergency Vehicles, 2017). Supervisors are going to be utilizing US Military Humvees that were recently rebuilt in 2012 and have only 21 miles(IronPlanet Marketplace, 2017). We will be purchasing 6 of these military style vehicles. Now that vehicles are purchased, a $10,000 warranty per vehicle is also purchased (Flint, 2017). Once vehicles and warranties are purchased, supplies are next. Some of the predetermined costs are: $40,000 to initially stock each unit (Flint, 2017), and computers which will cost $2,000 each (Flint, 2017). Additional supplies include LifePak 15s, stretchers, portable and mobile radios. We have priced out a fully stocked LifePak 15 for $20,500 each; a total of 38 will be purchased (MedicalEquipmentESI, 2017). We plan to purchase 38 Ferno Pro Flexx 93P Red Ambulance Stretchers for a individual cost of $955 (jerryg0559, 2017). Radios are next to be purchased, a total of 88 portable Motorola XPR 7350 VHF radios will be purchased at an individual price of $629(brianb63, 2017) and 38 mobile Motorola APX 4500 radios will be purchases at $1,499.95 each (quicktippawn, 2017). Once all of the equipment has been purchased, the only remaining start up cost is purchasing uniforms for the 248 field operational employees, which cost $245.00 per person; this includes 4 Propper Uniform Polo at $19.99 each (TacticalGear.com, 2017), 4 pairs of Tactical BDU Ripstop Uniform Pants at $14.99 each (Defender, 2017), 1 pair of Thorogood 834-6446 Genflex2 steel toe boots at $70 (Thorogood, 2017) and 1 Tingle Rubber Men’s HiVis Jacket at $35 each (Tingley, 2017). The total initial start up costs to get the company up and running is $7,978,189.00.
    - Year 2 – Upgrading Equipment: Our main goal of year two is to purchase new equipment such as the Lucas, Power Stretcher and loading systems, as well as the King Vision intubation device. We were able to price out a Lucas 2 for $14,495 and we plan to order one for every vehicle ((Medical Device Depot Inc, 2017). A King Vision intubation device will also be purchased for all vehicles for an individual price of $1,275.96 (Emergency Safety Supply LLC, 2017). The final upgraded piece of equipment is the Stryker Power-Pro XT Ambulance Cot with Power-LOAD system which will be purchased for all 911 and Inter-facility transport units for an individual cost of $27,000 (MFI Medical Equipment Inc., 2017). The total cost for year two to upgrade and purchase better equipment will be $1,463,296.48.
    - Year 3 – New Vehicles: We have projected that our transport units will average 65,000 miles per year which means that we must purchase new units every three years as we reach our pre-determined maximum millage of 200,000 (Flint, 2017). Since we are purchasing brand new units in year one, we will be purchasing the same ones again in year three to replace their predecessors. Other costs such as all the equipment will also be the

same as it was in year one. Total cost to purchase and equip the new units will be $5,954,672.00.

* + - Year 4 – Community Involvement: Now that we have bettered our equipment and replaced it to be sure that we are within our parameters, we can focus on our community involvement. 100 Cardiac Science Powerheart G3 AEDs will be purchased at in individual cost of $1,395.00 plus an additional $100 for the wall mount (AED.com, 2017). The total cost to outfit the City of Bravos with publically accessible AEDs will be $151,400.00

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Other | $7,978,847.00 | $1,463,296.48 | $5,954,672.00 | $151,400.00 | - |

* + *Total Expenses:* Even though our annual operating costs are remaining constant over the course of the 5 years, our expenses vary greatly from year to year due to varying other expenses as well as instituting a 3% annual raise for all employees. We have an average yearly expense of $38,092,975.80.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Expenses | $42,283,857.00 | $36,100,991.18 | $40,931,194.15 | $35,473,691.16 | $35,675,145.52 |

* **Net Income:** Even with an increase in expenses such as a triennial replacement of all units and annual 3% salary raises, we are still able to maintain good standing financially and maintain a steady increase of profits from year to year in the first 5 years.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Net Income | $12,524,937.69 | $22,849,993 | $29,319,038.58 | $34,981,707.42 | $40,082,921.90 |

**Macintosh HD:Users:Alex96:Documents:UMBC :Junior Year:Spring 2017:EHS 351:City of Bravos:Year 1 Master Budget.pdfMaster Budget – Year 1**

**SWOT Analysis**

|  |  |
| --- | --- |
| **SWOT Analysis** | |
| **Strengths:**  • Effective buildings  • Short response times  • Strong communication system  • Easy access to EMS  • Public CPR education | **Weaknesses:**  • Low budget  • Lack of research  • Low number of ALS providers.  • Small system. |
| **Opportunities:**  • Public education (emergency training)  • Increase ROSC.  • Continuous training  • Improve response time.  • Hiring and training more EMS personnel. | **Threats:**  • Climate changes.  • High population in small area.  • Natural disasters.  • Terrorist attack |

**Administrative Plan**

**Administrative Personnel**

The number of the offices, which will be found in the EMS department, will be 10 administrative offices: 5 of which will be internal and 5 will be outsourced.

* **Chief Administrative Officer**: We will have one Chief Administrative Officer that will administer all angles inside EMS system and has no less than 10 years of experience as an officer in EMS and additionally information on EMS standards, laws, strategies and controls inside the organization and locale. He/she should have astounding open talking aptitudes and will have powerful relational abilities.
* **Chief Financial Officer:** Is responsible for keeping all records of representatives, patients, gear, training, confirmations and authentications, building data and armada reports as well as overseeing annual budgets to ensure that the company can maintain and proper operating budget that remains profitable.
* **Public Information Officer:** Bravo County will have one public information officer that responsible to talks with media faculty when they land on scene. He or she is always the principal individual in contact amid a mass causality episode for media staff.
* **Human Relations Officer:** The Human Relation Officer conducts the hiring process of new workers. He/she is responsible for performing as well as conduct interviews on potential hires. However, he/she should also make sure that all the new hires have received the required training, ensuring that new workers are aware of the operation of the organization as well as what is expected and providing workers with the uniform. He/she is also responsible for making sure that their department is ever competitive therefore they have to conduct market overview. This involves proper managers all the means of media outreach such as benefits, the organizational picture, pay and many others. If this is not available the future of the organization will be harmed and also the organization will have a weak grasp about the outside market transformation.
* **Public Outreach Officer:** Reacts to homes and different places. This staff member is accountable for giving therapeutic care to those in these spots with the goal that they can chop down the measure of individuals in the crisis room. He/She will lead post-healing facility follow up care, answer to doctors about the patient's status, and give training on what a genuine crisis is and when to call 911.
* **AR/AP:** Bravo County will outsource Accounts Receivable and Accounts Payable, which is responsible for controlling the receiving of and act of making payments for the organization. They handles billing, organizes the monetary system in the organization and billing complaints. This is essential purposely stay above all money associated resources. Also, the companywill stay in touch with billing organizations.
* **Procurement:** This will also be outsourced and will be accountable for contracting new people to staff of all units of EMS system and in addition staying with the people with the for whatever length of time that conceivable. The company being outsourced to will also be responsible for pricing out and obtaining any equipment that is needed for the city of Bravos EMS System
* **Vehicle Maintenance:**An outsourced company that supervises and inspects EMS alteration and maintenance. The company oversees emergency medical technicians by maintaining safety in working places.
* **Legal:** Always have a lawyer on retainer in the event that any court cases emerge amid the contracted term. He or she will be accessible to help whenever when an issue comes to fruition.
* **Payroll:**This is the last company being outsourced and will be responsible for reviewing payroll to ensure that every member of the Bravos EMS system is paid correctly, they will also be responsible for handling any issues regarding payroll.

**Hiring Requirement and Process:**

* The age must be no less than 18 years old.
* The candidate must have a bachelor or associate degree on Emergency Medical Service and must have National Registry EMT permit or equal.
* Must be of high good character and focused on open administration
* The candidate must pass written examination, the candidate will encounter a 100 question created examination that will conceals distinctive request as to scrutinizing understanding, science, driving laws and national EMS traditions.
* The candidate must pass a physical test.
* The candidate will have an interview with the head of the office, the preparation chief, and additionally an EMS boss.
* The candidate must pass the medical Clearance and physical with a specialist signature expressing that the individual can perform every day vocation obligations.
* The candidate must provide background check to check in the event that he/she has a criminal foundation.
* The candidate must provide a drug test to affirm that there is no utilize any recreational unlawful substances that would frustrate them from performing every day vocation obligations.

**Training:** Employees will then start a 4 week preparing in which they will get EMS refreshers, situations to test aptitudes, convention tests and keep on working on wellness.

**Uniforms:** Once offered a position, the worker will be fitted for regalia, which will comprise of 4 polo shirts, 4 pairs of EMS pants, 1 pair of steel toe boots, and one hi-visibility EMS jacket. These will be replaced each year for all operational full time employees.

**Shifts Schedule:**

All administrative staff will work 40 hour workweeks, consisting of Monday – Friday, 0800-1600.

**Comprehensive Employee Benefit Package**

As an employee who continues working for the organization, he accumulates the paid off time. Employees, who work for the five years, receive a five-day paid time off. For every quarter, an employee receives to days sick off, totaling to 8 days per annum. The organization only matches up an absolute maximum to 4% of the deposited paycheck. Employees have the liberty to choose any primary care physician with the group paying only 50 of the annual fee. For a single person, it will be paying $4000 a year per person, and for the family $6000 per person. Dental services, hearing, disability, vision and preventive care are covered by the organization’s insurance. The company has organized optional health insurance coverage for employees who are willing to subscribe to the service, which ensures that the organization continues to pay the salary for two years in the event the person succumbs in the line of duty. Employees are reimbursed for the fee paid for external training if he completes the training. The firm provides employees with the appropriate paraphernalia that they need in conducting their duties twice per year for free (Inc. Staff, 2017)

**Continuous Quality Improvement**

The Supervisors for EMS will be concerned to randomly review reports every day. The priority one calls will need to be reviewed immediately to check modalities of treatment and the time the specific patient received CPR (Kotraba, Steve, and Valerie Porter, 2017). For instance, the directors on a quarterly basis will review those who ever received CPR. These practices will lead to an enhancement in return of impulsive movement of cardiac arrest patients’ from 15% to 30% by the close of the contract(Kotraba, Steve, and Valerie Porter, 2017). In addition, the employee will be evaluated after every six months. Employees will rate themselves and then will go to their EMS Supervisor to discuss their self-rating and also receive a rating for the individual(Kotraba, Steve, and Valerie Porter, 2017).

**Community CPR program**

The goal of BravosEMS system is to create a 90% community CPR rate within the first 5 years by posting free programs in different areas such as public places and schools. The main focus will be focused involvement of significant people in the community to motivate the residents to avail themselves. The EMS system will also be able to market the CPR programs via social media. It will also have an agreement with the authority for public places for example schools for higher learning to have at least one AE3D that is easily accessible all through (Bureau of Emergency Medical Services, 2017).

**Continuous Medical Education**

For every 2 years, the providers should be able to complete paramedic refresher course. In every year, there will be an additional EMS related education for ALS and some 12 hours for EMTS. For every second Thursday of every month, classes will be held to discuss EMS topics, for example, terrorism, protocol change, and algorithm. Credits concerning the training will be grounded on the hours attended.

**Operational Plan**

Our operational plan contributes to achieve our organization strategic goal including day-to-day tasks and activities involved in running the organization in Bravos. Our system contains a total of 18 911 ambulances that 6 of them reserved and 12 ambulances will be used, Also 18 total of inter facility ambulances that 14 will be used and 4 reserved. We have 6 total supervisor vehicles that 2 of them reserved, 2 vehicles for 911 calls, and the other 2 for inter facility that all over our 8 stations. Each medic has 1 ALS and 1 BLS providers. Our ambulances are equipped with life packs, base radio, portable radio, and computers as followed:

* There will be 18 2016 Ford E-450 Medics that will be used for 911 services, all of these will be supplied with ALS equipment and LifePak 15s as well as 2 portable radios and 1 mobile radio. A computer and stretcher will also be present in each vehicle. Only 12 will be used at one time and the other 6 will be used as reserves and in the surge plan.
* Inter-facility units will consist of 18 2017 Ford Transit 250 type-II style ambulances. Only the 14 of these will be equipped with full supplies including radios, computers, stretchers, and LifePaks. The remaining 4 will be used as reserve units and will have to be stocked with the broken medic’s supplies prior to being used.
* The supervisor units will be made up of six Military Humvees that were rebuilt in 2012. All six of these will be staffed to the same level of the medics, except they will not have stretchers. 4 will be used at one time whereas the remaining 2 will be labeled as reserves.

**Mass Casualty Incident Preparedness (Surge Plan):** We are going to establish a mutual agreement with the nearby jurisdictions to help BravosEMS system in the activities of MCI in exchange for assistance during the periods of high volume. Both the supervisors as well as the ALS providers are able to triage up to about 300 patients. Again, the supervisor’s responsibility is to carry the equipment required such as triage tarp kits as well as rapid response kit and safety kits. In addition to mutual aid, we also have 6 reserve 911 medics and 2 reserve supervisor vehicles that are fully equipped and may be utilized in the event that additional units are required to be staffed at once. The supervisor’s vehicles were specifically chosen due to the fact that they are military grade Humvees that are capable of traversing difficult terrain that may present its self in the event of a disaster such as a tornado.

**Shifts:**

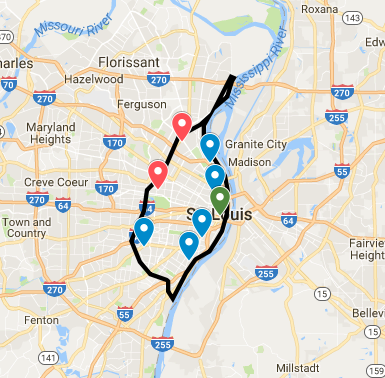
2 Days of 10 hours shift (Day) 0500*-1500*

2 Days of 14 hours shift (Night) 1500*-0500*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
| Week 1 | Day 0500 - 1500 | A Shift | A Shift | B Shift | B Shift | C Shift | C Shift | D Shift |
| Night 1500- 0500 | D Shift | D Shift | A Shift | A Shift | B Shift | B Shift | C Shift |
| Week 2 | Day 0500 - 1500 | D Shift | A Shift | A Shift | B Shift | B Shift | C Shift | C Shift |
| Night 1500- 0500 | C Shift | D Shift | D Shift | A Shift | A Shift | B Shift | B Shift |
| Week 3 | Day 0500 - 1500 | D Shift | D Shift | A Shift | A Shift | B Shift | B Shift | C Shift |
| Night 1500- 0500 | C Shift | C Shift | D Shift | D Shift | A Shift | A Shift | B Shift |
| Week 4 | Day 0500 - 1500 | C Shift | D Shift | D Shift | A Shift | A Shift | B Shift | B Shift |
| Night 1500- 0500 | B Shift | C Shift | C Shift | D Shift | D Shift | A Shift | A Shift |
| Week 5 | Day 0500 - 1500 | C Shift | C Shift | D Shift | D Shift | A Shift | A Shift | B Shift |
| Night 1500- 0500 | B Shift | B Shift | C Shift | C Shift | D Shift | D Shift | A Shift |
| Week 6 | Day 0500 - 1500 | B Shift | C Shift | C Shift | D Shift | D Shift | A Shift | A Shift |
| Night 1500- 0500 | A Shift | B Shift | B Shift | C Shift | C Shift | D Shift | D Shift |
| Week 7 | Day 0500 - 1500 | B Shift | B Shift | C Shift | C Shift | D Shift | D Shift | A Shift |
| Night 1500- 0500 | A Shift | A Shift | B Shift | B Shift | C Shift | C Shift | D Shift |
| Week 8 | Day 0500 - 1500 | A Shift | B Shift | B Shift | C Shift | C Shift | D Shift | D Shift |
| Night 1500- 0500 | D Shift | A Shift | A Shift | B Shift | B Shift | C Shift | C Shift |

**Uniforms:** All of the operational staff, excluding the EMS Chief, Medical Director, and Assistant Chief of Operations will be issued a uniform.The uniform will consist of 4 polo shirts, 4 pairs of EMS pants, 1 pair of steel toe boots, and one hi-visibility EMS jacket. These will be replaced each year for all operational full time employees. A total of 248 employees will need to be provided with these uniforms and additional uniforms may be available at an additional cost to the employee.

**System Status Plan:**



We have eight stations that are placed all over Bravos according to attractions and call volume in each area. Bravos Command Center Station will have the dispatch and operation staff in addition to one medic unit. Bravos Headquarters Station will have administrative staff as well as a medic unit. Bravos command center and station 5 will cover the north of Bravos, Bravos headquarterand station 6 will cover the southwest section, station 5,4,2, and 1 will cover the east, and station 3 will cover the south. All units will be dispatched using a fixed system in which each medic unit will have a specific station that it will be based out of and they will be dispatched to calls based on proximity of call to station.A complete listing of all stations and locations with our medic unit bellow and a more detailed version may be seen in appendix A

* Station 1
  + Medic 11, Medic 12, and EMS 1
* Station 2
  + All Inter-facility Transport Units, EMS 21, EMS 22, and all spare untis
* Station 3
  + Medic 31
* Station 4
  + Medic 41, Medic 42, and Medic 43
* Station 5
  + Medic 51, Medic 52, and EMS 5
* Bravos Headquarters
  + All upper operations staff, dispatch and call takers, as well as Medic 71
* Bravos Command Center
  + All administrative staff and Medic 81
* Station 6
  + Medic 61 and Medic 62

**Hospitals**

There are about 23 Hospitals in Bravos. Best six are below:

* Barnes-Jewish Hospital/Washington University: *nationally ranked in 12 adult specialties*
* St. Luke's Hospital: *adult specialties*
* Mercy Hospital Springfield
* Missouri Baptist Medical Center: *Missouri Baptist Medical Center*
* St. Louis Children's Hospital-Washington University*: ranked in 10 pediatric specialties*
* SSM Health Cardinal Glennon Children's Hospital: *ranked 3 in pediatric specialties*

**1, 3, &5 Year Plan**

*Year 1:* Year one’s plan has essentially been described throughout the entire paper so far. The primary objective of year one is to quickly and effectively get the new EMS system of Brazos established and working. By this we mean that within the first year we must obtain and outfit all of our stations, purchase and equip all vehicles, as well as hire and train all providers. In order for year one to be considered a success we plan to have the system established and running smoothly and efficiently so that we can make a profit in year one which will set us in a good starting point so that we can reach our later goals. The one goal that we do plan to accomplish in year one is having 100% ALS transports which surpasses our required amount of only 50%.

*Year 3:* By year three, we plan to have two years that are dedicated specifically to better our own system by buying quality equipment in year one and upgrading even more equipment in year two. In year three, we will also be able to start seeing increases in ROSC as we now have new Lucas devices on all units as well as King Visions to ensure proper airways. Year three will be the first year in which we will have the data to support our rising ROSC rates. By the middle to end of this third year we also plan to purchase and equip a whole new fleet of vehicles, all of which will have power stretchers with power loading devices. By recycling our fleet so frequently as well as incorporating tools such as the power load and power stretcher, we will decrease down times of our medic due to maintenance or injury. In this year we also plan to start offering incentives for our ALS providers who get AHA certified to teach CPR classes that we plan to role out in subsequent years.

*Year 5:* By year five we plan to have high success rate of ROSC given the fact that we now have four years of experience as providers in this city as well as three years with advanced tools such as the Lucas and King Vision. Also, by this time we will have worked out any internal issues and can focus more on community outreach. In year four we plan to start offering public free CPR classes taught by our own certified ALS providers. We also hope to have worked in some legislature in which it is required that CPR is now a graduation requirement for high school and we plan to incorporate our CPR classes in the schools. With more of the public being CPR certified, we plan to utilize it to the best that we can by purchasing 100 AEDs and placing them strategically around the city of Bravos so that the public will be able to easily access them which can also increase our ROSC rates. At the end of year five we have a projected revenue of over $40 million and will begin to reassess call volumes, rates, and times to determine if more units, stations, or providers are necessary for continued success as the new EMS system for Bravos.

**14 Attributes**

* **Integration of Health Services:**In order to provide the highest level of care to the City of Bravos, we plan to form strong relations with the hospitals in our jurisdiction to ensure continuity of care as well as mutual aid relations with our surround departments and FEMA to assist in the case of emergency or surges. Our public outreach officer will be in charge of meeting with hospital liaisons in order to ensure that our providers are providing the hospitals with the correct information when transferring care. Also, a system will be put in place that allows shared access by the hospitals and the Bravos EMS system so that hospital records may be viewed and edited by either party to ensure that continuity of care is constant. Our EMS Chief and Chief Operational Officer will also be responsible for participating in contracts with local fire departments and fellow EMS services so that the services may be shared in times of need. The contracts will include utilizing the fire department for lifting assistance; first responder availability for extended en route times, and traffic operations weather it be rescue or blocking. In return, the Bravos EMS system will provide medical care for any fire fighter that may be injured as well as providing support for fire incidents. The contracts with the fellow local EMS systems will allow for mutual aid such as utilizing their resources in our area as well as sending our resources to their areas, this will be used as a last resort during disasters or when the call volume exceeds our resources at that time, before the surge plan has time to come into effect.
* **EMS Research:** Research will be provided to continue improving our system and to evaluate the efficiency of our EMS system. Patient satisfaction is one of our value, that continue medical research will prove that our system is improving over the years, so research will be in our three to five-year plan. Our research will also include continue quality improvement that is going to be done by the EMS supervisor for every day reviewing reports to make sure of giving high-quality services including the CPR. The National Institutes of Health will be the leader of Bravos EMS system medical research that’s the research will be component-based, focusing on a single intervention or health problem
* **Legislation and Regulation:** Our outsourced Legal Company will be responsible for drafting laws and regulation in conjunction with our upper operations and administrations staff. Some of the first laws and regulations that will be drafted are ones which give the Bravos EMS system power to operate as emergency medical providers giving them the ability to void traffic laws while operating emergently practice medicine. Additional regulation will have to be drafted which will require CPR as a high school graduation requirement. Furthermore, the EMS system of Bravos will have to act in coordination with all national EMS and Medical Laws such as EMTALA and HIPPA.
* **System Finance:** Our system operates under an annual budget of $10 million with additional sources of revenue coming from insurance reimbursement rates from running calls and surplus real and mobile property. The revenue generated, along with the annual budget will be used to cover all expenses including payroll, operating costs, outsourcing, and more. Fortunately through careful research and budgeting, we were able to keep expenses below our revenue and are able to sustain profits throughout all five of the initial years.
* **Human Resources:** Our human resources will be making sure that all our staff are qualified and competent of their job as well as our ems providers are well prepared to provide emergency health services. As the population increased over time, the system and its plans need to be an effective to conduct excellence assurance as well as handling issues which in most of the time. The human resources will have highly trained staff and personnel to ensure plans are working effectively. Our human resources will ensure that the system operates with fully equipped medic units, which can help to provide an excellent care for Bravos' residents. Also, the human resources will ensure that all employees are prepared to work and providing care and will mediate any internal conflicts.
* **Medical Direction:**Bravos will have one medical director that is available 24 hours a day to ensure the appropriate delivery of medical care, and also ensure aiding the QA of reports. The medical director is a certified physician responsible for all aspects of the Bravos Emergency Medical Services system and work as supervision of medical care. Also, the medical director will work to regulate policies guidelines, EMS procedures, as well as EMS protocols.
* **Education Systems:** As EMS care improving over the time, the needs of high quality education for EMS provider increases. We will increase medical education of our providers by having refresher course every two years and classes of EMS topics every month. Each provider must go through The National Registry standard as well as having a bachelor or associate degree on Emergency Medical Service. Our training officer will ensure the preparedness of the providers.
* **Public Education:** We are looking to build a CPR community that knows how to act in a cardiac arrest situations and that is done developing a Community CPR program. We planto send our health care providers to get AHA certified as CPR instructors to go over the schools and over the media, which will create an easy access to the public. Each student in school should graduate with CPR certificate. We are looking to have high standard education to the public to prevent injuries. In addition, we will also have an agreement with the public places and schools to have at least one AED over each public place.
* **Prevention:**In order to prevent injuries and the reoccurrences of medical emergencies, the EMS system of Bravos will utilize education from the medical providers while on scene as well as routine follow ups by the Public Outreach Officer and EMS Lieutenants. Our providers that will be staffing the medics will be trained to the highest level in regards to recognizing unsafe conditions and will be required to report on any issues seen so that follow ups can be made by the officer or lieutenants. Additionally the providers will be mandated to educate their patients on proper care for themselves including what to do in the case of an emergency and the importance of medication compliance and regular visits to their primary care provider. One of the roles of the Public Outreach Officer and EMS Lieutenants will be to follow up on any reports done by the field providers. They will also be required to attend any major public events to oversee their emergency preparedness plans as well as to inspect for any obvious dangers. The final prevention aspect will be free health screenings, which include blood pressure and sugar checks as well as education on management of these issues.
* **Public Access:**Bravos EMS will publish a yearly report in which all statistics will be posted regarding call volumes, budgets, operations, and administration developments. This will be done to ensure that the company is transparent in all aspects. Additionally, the system will utilize the standard 911-phone number for the public can obtain access to their emergency services. Two other phone numbers will be posted publically, one for access of inter-facility transports, which will be utilized primarily by hospitals to obtain our services. The second number will be to reach the Bravos Headquarters where the public can ask questions, file reports or complaints, register for classes, and request a EMS Lieutenant for safety or medical checks which do not require an emergency response.
* **Communication Systems:** Our communication system has access to the dispatch of EMS, personnel, and medical direction. When a 911 call is placed, our dispatch center will ask about the location of the emergency, and the nature of the emergency in order to determine the desired service. Dispatchers also can provide medical instructions to callers before Emergency Responders arrived via phone.They communicate with insurance companies to maintain patient’s records. Moreover, while preparing for another call, they dispatcher monitor the status of all responding equipment. We also have communication equipment (base radio, and portable radio) to have the providers stay in contact with each other, the dispatchers, or medical direction.
* **Clinical Care:**All of our medics will be staffed at the ALS level in order to provide the public with the highest level of care possible. In addition staffing all medics with one paramedic and one EMT, they will also be equipped with top of the line equipment including the Lucas 2 automatic compression device and the King Vision video laryngoscope. The combination of highly trained providers, top of the line equipment, and a progressive medical director will directly equate to a high degree of clinical care offered by the EMS system of Bravos.
* **Information Systems:** As stated above in the Public Access section, Bravos plans to publish annual reports outline all aspects of the company, highlighting any improvements and research, as well as recognizing and offering solutions for internal and external issues made known through reviews performed by patients, hospitals, employees, surrounding companies, and stake holders.
* **Evaluations:** The Supervisors for EMS will be concerned to randomly review reports every day. The priority one calls will need to be reviewed immediately to check modalities of treatment and the time the specific patient received CPR (Kotraba, Steve, and Valerie Porter, 2017). For instance, the directors on a quarterly basis will review those who ever received CPR. These practices will lead to an enhancement in return of impulsive movement of cardiac arrest patients’ from 15% to 30% by the close of the contract (Kotraba, Steve, and Valerie Porter, 2017). In addition, the employee will be evaluated after every six months. Employees will rate themselves and then will go to their EMS Supervisor to discuss there self-rating and also receive a rating for the individual (Kotraba, Steve, and Valerie Porter, 2017).

**Plan Evaluation**

The Bravos EMS system has three primary goals in addition to fulfilling the immediate need of having a fully operation emergency health services provider to the City of Bravos. The first goal being met is to have at least 90% ALS transport which is accomplished on day one due to having 100% ALS transport. Both sets of our medic units, 911 and inter-facility, will be staffed with 1 EMT BLS provider and 1 paramedic ALS provider. The next goal to be addresses is increasing ROSC. This is obtained by purchasing top grade ALS equipment including the Lucas 2 automatic compression device and the King Vision video laryngoscope. By using these tools as well as having highly trained providers, we can ensure high ROSC rate. The final goal is to obtain at least 90% community CPR rate. This goal goes hand-in-hand with the previous goal and is accomplished by getting several of our ALS provider certified by AHA as CPR instructors. These instructors will then teach free public CPR classes at the different stations so that it is easily accessible. The class will also be introduced into the education system of Bravos so that it is instituted as a graduation requirement. With more and more of the public being CPR certified, the Bravos EMS system will purchase 100 AEDs which will be placed strategically out in public areas and buildings so that they may be utilized which will also increase ROSC rate.

The next set of evaluations will be accomplished several ways. The system will produce annual public reports which detail all aspects of the system so that they remain transparent and can maintain a good rapport with the public. In order to evaluate our providers and the care they are providing, public and hospital salaries will be sent our biannually in order to receive feedback which will then be utilized to make any discipline or praise as necessary. Now that the operations staff has been evaluated, evaluations will be sent out internally to the lower level staff to rate the performance of their management. These will also include suggestions and peer recommendations on who should be praised and eligible for raises. All of these evaluations will be obtained and documented by our HR department and will publish the results as a part of the annual review. They will also be responsible for handling any disciplinary actions that may be required following these evaluations.

**Professional Experiences**

**Naif Alzahrani**

**1 Harolwood Ct, Apt F. Windsor Mills, MD 21244 410-814-8041 | naif2@umbc.edu**

**OBJECTIVE:**

My objective is to obtain a high position in Emergency Medical Service to perform and optimize my skills to get an excellent achievement and to accomplish my goals. I want a position as a clinical practice in Emergency Medical Services that will help me to get successful.

**EDUCATION:**

* Health College**.** Jeddah, Makkah State, KSA

Associate Degree of Science, X-Ray 2010

* Saudi Professional Accreditation Certification OF Radiology Science 2010
* University of Maryland, Baltimore County Baltimore, MD
  + B.A. in Emergency Health Services, Paramedic  *2014*
* National Registry of EMT Baltimore, MD
* CPR Certified UMBC – Baltimore, USA

**EXPERIENCE:**

**King Fahad General Hospital**,Jeddah, KSA

* X-Ray Technician (Fulltime job)  *2010 –2012*

**Dr. Soliman Fakeeh Hospital.** Jeddah, KSA

* Managing Director (Part-time job)  *2011 –2012*
  + Responsible for all the Radiology Department employees.
  + Work schedules, and attendance.
  + Dealing with government departments.
  + Meeting organizer.

**ACTIVITIES:**

* **Leadership Experience**
* **Writing/Technical Skills**
* **Foreign Languages (Arabic, and English).**
* **Assigned to work on the Emergency Medical Service administrative department.**

**SKILLS:**

* Microsoft Office
* Spreadsheets.
* QuickBooks.
* Web and Social Skills.
* Graphic and Writing Skills.

**Hibah Aleid**

[hibah1@umbc.edu](mailto:alaa3@umbc.edu) | (443) 820-7127

10 Rambling Oaks Way, Apt. L

Catonsville, MD 21228

**EDUCATION**

University of Maryland, Baltimore County (UMBC) Spring 2017

Bachelor of Science in Emergency Health Services (EHS)- Management *Baltimore, MD*

**CERTIFICATIONS & ACCOMPLISHMENTS**

*External Disaster Drill Participant Certification* August 2016

**King Fahad Specialist Hospital**   *Saudi Arabia*

*CPR & First Aid Certification*  January 2017

**American Red Cross, UMBC** *Baltimore, MD*

*Certified Basic Life Support (BLS) Provider*  August 2016

**Saudi Red Crescent**  *Saudi Arabia*

**EXPERIENCE**

*Intern*  August 2016

**King Fahad Specialist Hospital (KFSH)**  *Saudi Arabia*

* One month internship at the EMS department of KFSH in Saudi Arabia
* Transported patients (Ambulance ride-alongs)
* Did patients’ data entry
* Attended daily lectures related to health and management

*Volunteer April 2015*

**Laurel Volunteer Rescue Squad** *Laurel, MD*

* Assessed medical and trauma patients

**Arbutus Fire Department** *Arbutus, MD*

* Assessed medical and trauma patients

**SKILLS**

* Languages: Arabic (fluent), English (fluent), and American Sign Language (ASL)
* Computer: Mac and Windows Microsoft Office (Word, PowerPoint)

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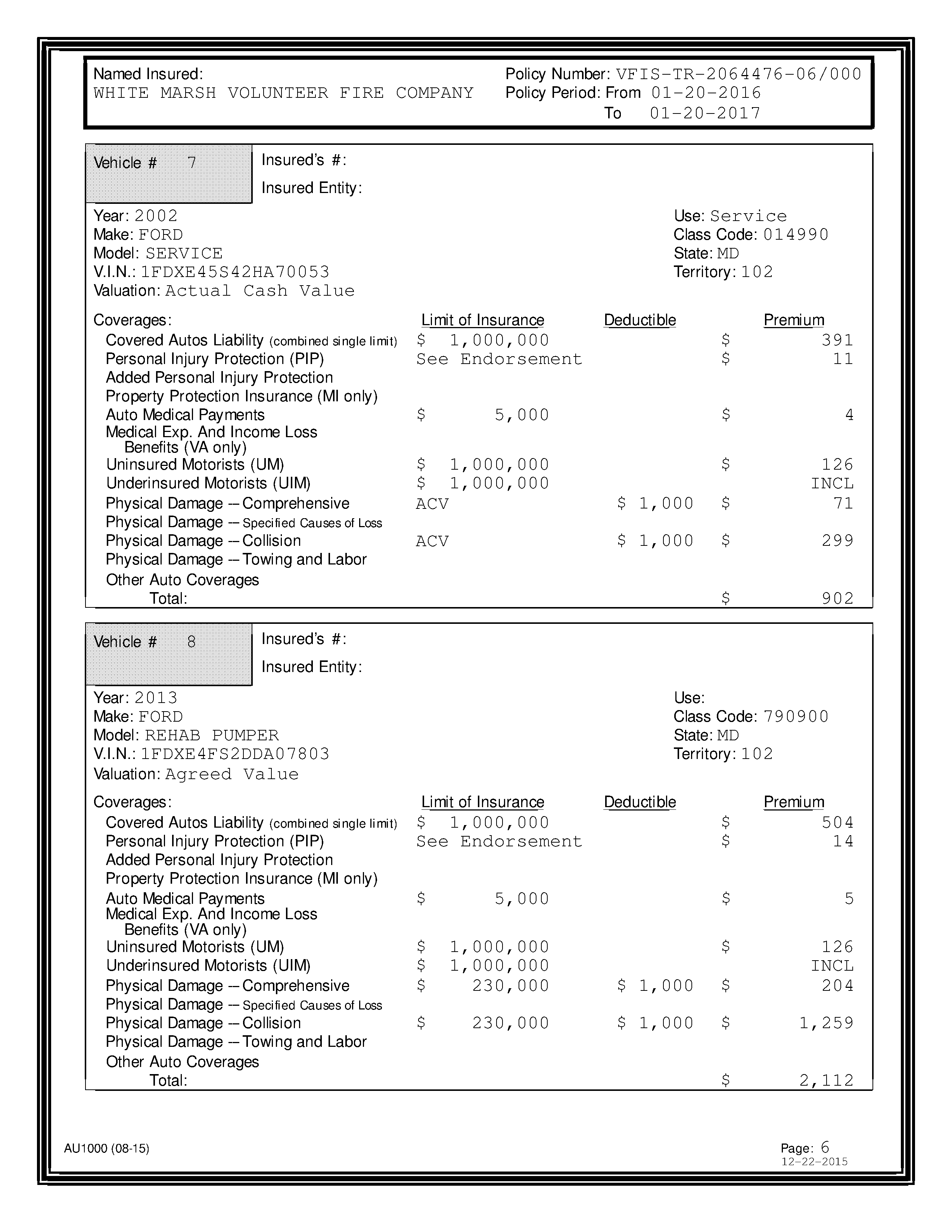
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**Appendix**

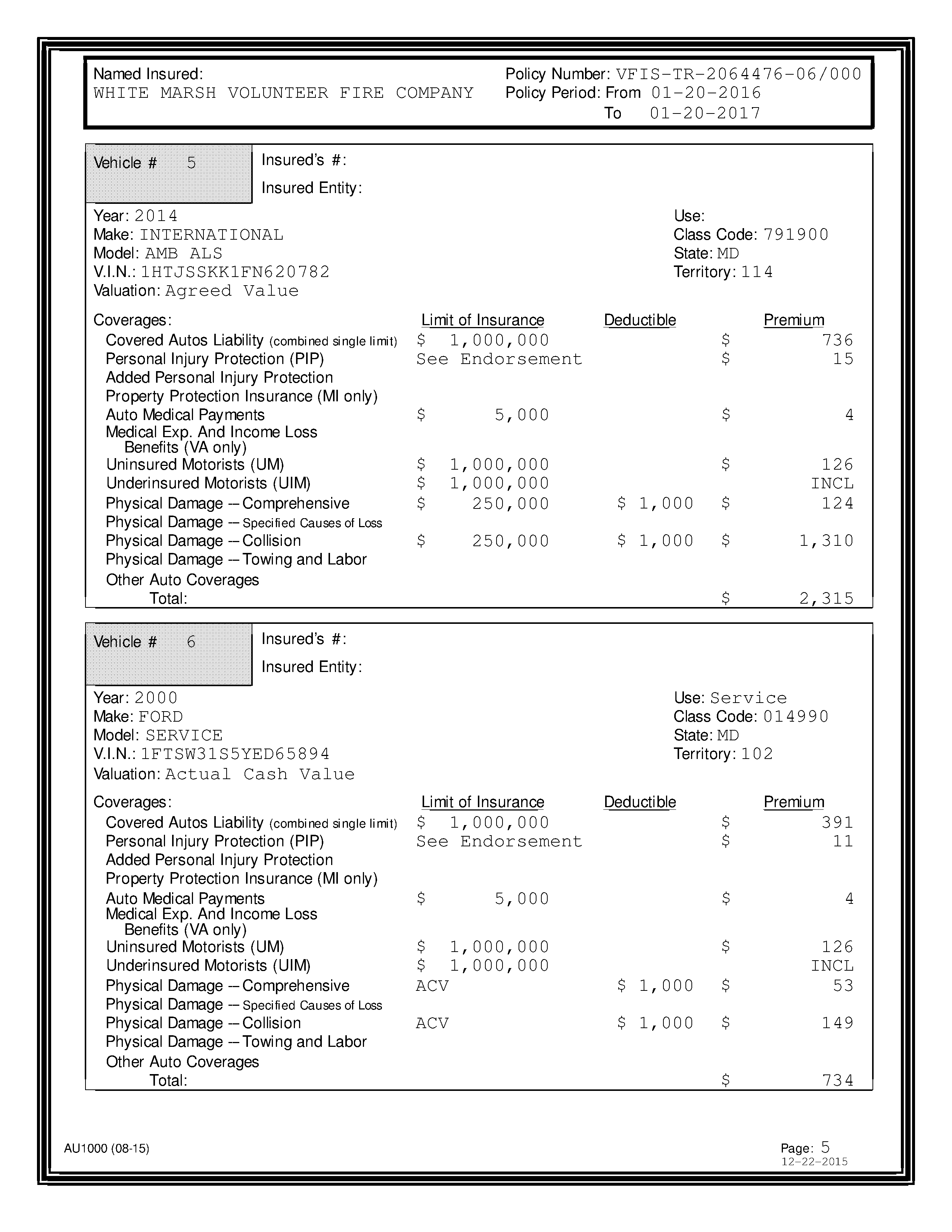
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**Appendix A**

**Appendix B**

**Appendix C**

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