

Wakefield EMS Request for ARPA Funding

Organization: Wakefield EMS

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Project/Item Description

During 2021, our leadership team completed a full risk assessment of our operations, including vehicles, equipment, personnel, and procedures; the safety of our personnel was a primary area of concern where improvement is sought. Our current stretchers are 14 years old. While they are hydraulic models, they are showing wear and tear from significant usage over the past decade-plus of operation. In the past year, our crews have reported multiple “near-miss” safety incidents where a patient was nearly dropped due to failure of the hydraulic legs to raise or lower. This has been a persistent intermittent issue, even after a service visit. In addition, the current cot mounting system that we use (the older-style “antlers”) means that crews must manually support the weight of the patient in the air while loading, placing our volunteers and staff at increased risks of back strain, injury, or disability. Over the past year, our personnel have reported multiple back strains to the supervisory staff as a direct result of patient loading injuries. By purchasing new hydraulic stretchers and a self-loading cot system, we will prevent near-miss incidents that compromise patient safety and reduce the risk of a debilitating and expensive back injury resulting in a large worker's compensation claim.

On average, one EMT currently lifts 1260 pounds per shift. By implementing the self-load system, that amount will be reduced by 66% to 420 pounds per shift. Over the course of one year, that means that a full-time EMT will lift 87,360 pounds (nearly 44 tons) less than their current situation.

The goal of this project is to both reduce the risk of provider back injuries from patient loading, as well as reduce the risk of provider and patient injury in the event of an ambulance collision. The new cot mounting system required for the self-loading cots meets federal Triple K standards, as it has been proven safer in crash testing. Our current “antler” mounting system is no longer being distributed or sold, as it has not been crash-tested to meet the updated federal Triple K standards. The security of our current mounting system is outdated, whereas the self-loading and self-securing system we are requesting funding for is the top-of-the-line to ensure patient and provider safety.

We wish to purchase and install new hydraulic stretchers and self-loading mounting systems in both of our ambulances to maintain interchangeability between trucks. This is considered a high-priority project. After installation is complete, the vendor will provide on-site training and familiarization for our crews. We anticipate that the new equipment will last for its expected lifespan of 14 years since our ambulances are newer and can be remounted if needed.

Stretchers and their components will also need the up-front purchase of a 7-year maintenance plan, which covers annual preventative maintenance with unlimited repairs including parts, labor, and travel. This plan is strongly recommended by the manufacturer to ensure that the equipment functions properly for its anticipated lifespan. Ongoing maintenance beyond the 7-year maintenance package would be covered by Wakefield EMS. The manufacturer provides initial equipment training at no cost to the organization.

We have researched systems currently on the market, evaluated potential vendors, and have bid specifications already prepared.

At this time our daily operations are being compromised by:

- Staffing limitations that require only 2 providers per ambulance
- Crews must manually load patients into ambulance that requires them to physically lift hundreds of pounds, multiple times per day, throughout their shifts
- Patient transport is delayed in instances where we must call upon other EMS units or fire departments to respond for lift assists to heavier patients
- Our personnel are at risk of debilitating or disabling back, neck, or other injuries due to repetitive lifting of heavy weights
- Our patients are at increased risk of drops due to malfunctioning aged equipment, compromising both patient care and potential legal liability on behalf of the agency
- Our patients and providers are at increased risk of injury or death in the event of an ambulance collision due to older style mounting brackets in the patient compartment

The granting of this request for new hydraulic cots and self-loading mount systems will improve these issues by:

- Reducing the amount of weight lifted during an average shift by 66%
- Reducing the risk of repetitive lifting or motion strain on our providers
- Reducing the risk of a worker's compensation claim, or increased overtime costs associated with backfilling an injured provider's schedule
- Allowing the existing crew of 2 to handle a higher proportion of calls without additional assistance, thus preventing the need for mutual aid from distant locales and reducing time to transportation of the patient
- Reducing the risk of a patient being dropped during the lifting/loading operations, in turn preventing a negative patient outcome and reducing legal liability for the agency
- Reducing the risk of patient and provider injury in the event of an ambulance collision

It is generally accepted that even minor strain from repetitive lifting and moving can accumulate and result in career-ending injuries. With a continually increasing call volume, the amount of work done by our crews and stretchers is also increasing, placing strain on both the aging equipment and our personnel's bodies.

In conclusion, we believe that we have presented a comprehensive project that encompasses risk reduction in multiple areas, benefiting all stakeholders involved at an acceptable cost.

Clearly state the amount being requested. What is the total cost? How was the cost derived?

Wakefield EMS is submitting a one-time ARPA funding request for the amount of **\$116,876** for the purchase of two Power Pro stretchers and two Power Load self-loading systems to replace our outdated and well-worn stretchers and mounting systems.

The total cost per the quote from Stryker is 145,876.80. Wakefield is also utilizing other grant funding (\$29,000) for this project to support the costs of the upgrades.

This cost is directly taken from a quote generated by our Stryker representative. The product quote is attached.

Which County ARPA Community-wide Benefit(s) does the project meet?

This project directly meets the classification of Public Safety (EMS).

Briefly explain how the project meets the County's guidelines.

This funding would directly impact our community service area by ensuring safe treatment and transport of our patients, the taxpayers of Lancaster County. This project will also support the health and safety of our many local volunteers and staff, ensuring that those with a desire to serve can do so for years to come with less risk of debilitating injuries related to lifting. Having functioning stretchers is critical to providing safe and efficient emergency services to the people of Lancaster County.

Why should this project be a priority and how will it help the County? Also, if this application is for more than one project, please identify each one, provide information and rank them in order of your priority.

This project is targeted to enable a necessary upgrade to improve the quality of care and safety experience for Lancaster County residents for years to come.

This project is based on the premise of mitigating risk. Hydraulic stretchers and the associated self-loading cot mount have been shown to reduce spinal loading, resulting in fewer lifting-associated injuries which could lead to long periods of missed work for employees. As a small, community-based organization, we depend on all our staff functioning at 100%, and an extended absence and the associated worker's compensation claim would have significant negative effects on our organizational operations and finances. For example, the Dana and Christopher Reeve Foundation has shown that the potential cost of a high spinal injury is a stunning \$769,000 during only one-year post-injury. When compared to the federal share cost of \$120,525, that represents over a six-fold benefit versus just one back injury. Moreover, we have a moral obligation to provide our volunteers and staff with the safest environment possible to work in.

In addition, the potential legal liability associated with dropping a patient would present substantial harm to WAA and jeopardize its ability to continue providing EMS to our community. This is also evident in the event of an ambulance collision, as our current "antler" mounts are outdated and no longer meet

federal standards, presenting an increased risk of injury. Taking any reasonable step possible to mitigate potential liability in medical malpractice or personal injury claim is a wise decision with a considerable benefit versus cost.

If we do not receive grant funding for this project, critical needs regarding the safety of our personnel and patients will not be met for several years, as we do not have the capital funding sufficient for a project of this scope. Funding this grant request will enable us to ensure the health and wellbeing of our providers, our patients, and our entire community for the next decade, by reducing risk on multiple fronts. There are no administrative or overhead costs to this project; all grant funds will go toward the purchase and maintenance of this integral equipment.

Based on a population of 9,451 in our service area, multiplied times the expected lifespan of the equipment of 14 years, then 132,314 residents stand to benefit from this project. If that figure is subsequently divided into the federal share request of \$120,575.72, then the cost per resident is only \$0.91

Will this project require ongoing expense (maintenance, updates) or frequent replacement? Are expenses already being incurred, if so, can they be reduced through this project?

We are requesting a one-time source of funding, which will enable us to purchase and maintain our stretchers and loading systems for their expected life expectancy of around 14 years. The current stretchers that we are planning to replace have reached their life expectancy of 14 years and are increasingly less reliable. When a stretcher needs to be taken out of service for maintenance of the hydraulic system, railings, back rest, etc., this significantly impacts the care that we can provide to the taxpayers of Lancaster County. With this one-time source of funding, Wakefield EMS will be able to reliably provide care to patients in Lancaster county and protect our local volunteers and employees from injury for at least the next 10-14 years.

Project Timeline – start to finish, and when funding will be needed.

Once awarded funding to make the necessary safety upgrades to our stretcher and loading systems, we will place our product order with Stryker. Delivery time is an estimated 4-8 weeks. We will then immediately put the new stretchers and mounting systems into service, with Stryker providing free training to employees so that we can care for the Lancaster county community with enhanced safety and security as soon as possible.

*Stryker is expected to have a 10% cost increase effective Oct 1st, 2022, so we are requesting funds or notification of grant approval decision as soon as possible so that we may know if we can order the stretchers at the lower price before September 28th. It is possible to delay the shipment of the stretchers for up to 6 months if funds are not distributed until later. However, if it would be possible to get notification of grant approval/funding amount prior to September 28th, we could place the order for the lower price, before the increase, then delay shipment until funds are disbursed. .

If ARPA grant notification comes after Sept 28th, we are happy to provide an updated quote or purchase two stretchers and one Power Load mount at the increased price, then seek other grant funds to purchase the second Power Load mount system if needed.

Are other organizations part of this project? If yes, please list them and their role, including funding. If not, explain why.

Wakefield EMS will be utilizing funding from the COVID Relief grant for EMS in the amount of \$29,000 to assist with the funding of this very important project. Additionally, Robert Fulton Fire Company, while not financially involved, supports this project, as it will secondarily affect their staff by reducing the need for mutual aid for lifting heavy patients and reducing the risk of back injuries.