

ITEM #: 11
DATE: 03-12-24
DEPT: ADMIN

COUNCIL ACTION FORM

SUBJECT: EQUIPMENT PLACEMENT AGREEMENT WITH ISU FOR ARA WIRELESS BROADBAND RESEARCH PROJECT

BACKGROUND:

In December 2019, the City Council approved a letter of support for a research proposal entitled: "AraNet: Wireless Living Lab for Smart and Connected Rural Communities." The project involves the development of an ultra-high reliability, ultra-low latency wireless communication network, which will be tested in the areas in and surrounding Ames and rural Story County.

The project was successfully awarded a multi-million dollar grant from the National Science Foundation and U.S. Department of Agriculture. It is now in the process of being deployed, tested, and researched.

In the initial planning stages of this project, ISU researchers proposed that part of the project would include opportunities to connect City infrastructure to the broadband system. **The City would benefit from this arrangement by receiving internet connectivity for certain devices in the field; the researchers would benefit from having user experiences and information regarding the effectiveness of the technology.**

City staff has identified three opportunities where: 1) It would be useful to have internet-connected equipment, 2) The equipment to be connected is mobile or in remote locations where hard-wired networking would be costly or impossible, and 3) the equipment is not able to be remotely controlled using the connection provided by the ARA, thereby presenting a low security risk.

The locations of equipment to be tested includes at the SAM water tower pump station, on two CyRide buses, and on the commander vehicle for the Ames Fire Department. The pump station will use the equipment to transmit video camera footage. The CyRide buses will potentially offer rider wifi or transmit onboard camera video. The Fire Commander vehicle will transmit monitoring data. No sensitive data will be transmitted over the ARA, nor will the ARA connection provide the ability to control the equipment remotely.

An agreement has been prepared to facilitate the project (Attached). The agreement provides for the testing to occur through May 2026. The researchers will provide the devices and equipment to connect the City's infrastructure, while the City will be responsible for the costs of any electrical consumption (expected to be minimal).

ALTERNATIVES:

1. Approve the attached Equipment Placement Agreement with Iowa State University for the ARA Research Project.
2. Do not approve the agreement.

3. Refer the agreement back to staff for further information.

CITY MANAGER'S RECOMMENDED ACTION:

The ARA project is a significant research project at ISU. The project aims to study how rural and remote areas can be connected to reliable wireless broadband internet. The proposed agreement facilitates the use of City equipment to test and study the network, while also providing data connections to vehicles and equipment that would otherwise not normally be connected. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.

ATTACHMENT(S):

[ARA-Ames Equipment Placement Agreement.pdf](#)