



Colorado
Legislative
Council
Staff

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MEMORANDUM

October 15, 2012

TO: Members of the Capitol Building Advisory Committee

FROM: Julia Jackson, Senior Researcher, 303-866-4788
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SUBJECT: AT&T Cellular Service Enhancement

The Governor's Office of Information Technology (OIT) is working collaboratively with AT&T to improve cellular service in the State Capitol building. As part of this effort, AT&T plans to install a distributed antenna system in the building later this fall. A distributed antenna system functions as a cellular network for cell phone users in the State Capitol building. The installation of a distributed antenna system should result in improved cellular service for AT&T subscribers using their cell phones to make calls in the building. Additionally, the equipment used to improve the AT&T cellular network employs neutral base technology, meaning it will also function for other cellular providers should they opt to enter an agreement with OIT to collocate their networks in the building. AT&T is providing and installing the necessary hardware for the project at no cost to the state.

The large equipment needed to complete the system, namely two server racks, will be housed in the basement of the History Colorado Center in order to keep the equipment sufficiently cool. Underground fiber optic cables will connect the server racks to remote equipment in the State Capitol subbasement and attics. Cables will then be routed through existing ducts and chases to antennas, which will be distributed throughout each floor of the State Capitol building. The project will install two types of antennas: directional and omnidirectional. Directional antennas look like large plastic boxes. They measure about 12 x 12 inches and are about 5 inches deep. There will be approximately three to five directional antennas installed per floor. These antennas will be installed in private offices and hallways, and hung just below the ceiling. Omnidirectional antennas are round with a diameter of about six inches. They will be installed in pairs and hung directly from the ceiling, similar to smoke detectors. There will be about three to four pairs of omnidirectional antennas installed per floor, again in private offices and hallways and not in public spaces. Pictures of each type of antenna are attached to this memorandum. Large maps of the proposed location of all the antennas are available upon request.

Role of the Capitol Building Advisory Committee. Because this project does not interfere with any of the historical features of the State Capitol building, the Capitol Building Advisory Committee (CBAC) does not have specific oversight of the project. However, a representative of OIT is scheduled to present the project to the CBAC at its October 19 meeting in order to provide CBAC members the opportunity to comment and learn more about the project.

