



**Town of Sudbury  
Capital Improvement Budget Request  
FY2018 Form A**

**Department/Committee:**  
Sudbury Public Schools/Technology

**Item/Project Name:**  
Wireless Infrastructure upgrades for the elementary schools.

<p><b>Initial Year of Request:</b> FY18</p>	<p><b>Estimated Total Project Cost: \$175,000</b> The total project estimate is \$250,000 expenditure with up to 40% Erate Reimbursement (\$150,000 cost estimate plus an additional \$25,000 contingency is included for a total FY18 request of \$175,000)</p>	<p><b>Estimated Future Savings:<sup>1</sup></b> This will provide schools with the required technology to support education</p>
<p><b>Estimated Incremental Costs:<sup>2</sup></b> \$16,000 Annual Licensing after initial 5-year licenses expire. Lower annual costs available with longer license commitments.</p>	<p><b>Staffing Changes:<sup>3</sup></b> None</p>	
<p><b>Justification Code:</b> A, this is required to insure adequate town services in the schools. This request is to upgrade the wireless infrastructure in the elementary schools to support current needs. The new infrastructure will allow for management capability as well as increased wireless capacity. Wireless needs have increased with online testing as well as many more wireless devices.</p>	<p><b>R or NR:</b> NR</p>	<p><b>Priority:</b> High</p>
<p><b>Project Description:</b> This project would replace all of the consumer-level Apple Airport wireless access points at the four elementary schools with enterprise-level Cisco Meraki wireless infrastructure. This technology will allow the schools to properly manage the use of schools technology and the activities and use by the students. There are times when students have trouble logging on and have to move to a different classroom, which is disruptive, especially during testing.</p>		
<p><b>Justification and Need:</b> Apple Airports were deployed during an era when we had far fewer pieces of wireless equipment. Now that the district has 1000s of laptops and other devices in use in classrooms, a modern infrastructure to support and mange those devices is needed.</p>		

<b>Benefit:</b> Computers are a standard part of classroom teaching and learning activities, and most major assessments have moved online. A modern infrastructure that provides reliable bandwidth, usage data and management tools for monitoring network traffic is critical.	
<b>Last time this was replaced (i.e., year roof was previously replaced or year vehicle):</b> The deployment of the former Apple Airport units was done gradually over the course of a decade. This is an initial deployment so that elementary schools have the same level of wireless service as our middle school.	<b>Typical Replacement Cycle:</b> Access points are typically used until they experience hardware failure. I would estimate that each access point has a lifespan of between 5-10 years.
<b>Alternatives Considered/Reasons for Rejecting Alternatives:</b> Alternatives were considered during the lead up to the middle school wireless project, and would include products from Aerohive and Ruckus. At this point, we need the elementary schools to be on the same Cisco Meraki platform as we have been successfully using at the middle school for consistent management.	
<b>Consequences of Not Implementing/Delaying Implementation:</b> The current wireless infrastructure substantially affects synchronous use of technology in the building. Presently students all working at their own pace for internet research is fine. If all students need to working together at the same time in large numbers for tasks such as assessments, they may experience slowdowns and disconnects.	
<b>Other Pertinent Background Information (e.g., Quotes, Brochures, Pictures, etc.):</b> This is a great chance to receive reimbursement of about \$100,000 from the Erate Funding.	

<sup>1</sup> Quantify any future savings if project is implemented (e.g., personnel costs, maintenance, repairs, energy conservation, etc.)

<sup>2</sup> Quantify any incremental costs anticipated if project is implemented (e.g., future personnel costs, maintenance, repairs, etc.)

<sup>3</sup> Quantify staffing changes (up or down) anticipated if project is implemented.