

## AMAZON – NEW SITE

### New Site Launch

#### Student Team:

Tae Keun Ane – Master of Business Administration  
Chris Lan – Master of Business Administration

#### Project Sponsor:

Andrew Webster – Regional Portfolio Manager

#### Faculty Advisors:

David Kaufman – College of Engineering  
Joline Uichanco – Ross School of Business

**Amazon** is continuously improving customer experience by providing a shorter lead time of packages with delivery capability broadly expanded in North America, and the demand for building last-mile delivery stations, the final stops for packages before delivery vans transport them to Amazon's customers, has been growing tremendously and speedily to get packages closer to customers' doorsteps.

For each delivery station, a conveyer belt system, also called Material Handling Equipment (MHE), is configured and installed to automatically transport packages within the warehouse and load them to the delivery vans. Keeping equipment reliable is one of the most critical things to run a smooth operation, avoiding delays of parcel deliveries to customers. Because MHE's reliability relies on efficient maintenance and spontaneous repairs, it is vital to thoroughly and accurately build maintenance & repair capabilities for a site before it goes live. This summer, the Tauber team joined Amazon's Reliability Maintenance Engineering (RME) team and helped improve the quality and speed of implementing maintenance and repair capabilities for sites that will be launched from Aug. 2020 onwards.

The Tauber team tackled three main challenges that affected multiple sites: down time of conveyers, delay of launching RME capabilities, and disjointed launch processes and experiences for RME. The down time of conveyers is the potential risk to shut down part of or the whole conveyer belt system due to the unavailability of spare parts needed for maintenance or repairs. The delay of launching RME consists of not getting spare parts ready as planned and not getting RME teams ready in time. The disjointed launch processes and experience are the lack of standardization in launching RME in new sites and lack of working instructions for onsite RME team such as maintenance manager to follow.

By optimizing spare parts' inventory, streamlining parts receiving process and standardizing RME processes, the Tauber team were able to downsize procurement cost of spare parts of the conveyer system, improve parts' availability in newly built delivery stations, map out standard operating procedures and create a playbook for the RME team during the launch phase. Among these deliverables, The team implemented the first three of them with \$803,049.48 projected cost savings while finishing the design of the playbook, which is now under RME's review and will be published soon.