CAPEX Business Case Memo

NOTE: THE INFORMATION AND DATA BELOW HAS BEEN CREATED FOR ILLUSTRATIVE PURPOSES.

Date: June 15, 2023
To: Joseph Boggs, CEO; Jane Smith, CFO
Attention: Robert Jackson, COO; Scott Hamm, Director, Operations; Ben Davis, Director, Labor Relations
From: Jonathan Rice, Director, FP&A
Subject: Executive Summary RTG Automation – Capital Expenditure ROI and Business Case

1: Project Summary

The organization's terminal operating system (TOS) sends messages to our RTGs (rubber-tired gantry cranes), but this information is not being utilized due to the manual nature of our operation (clerk labor intensive). As a result of this, we experience two main limitations:

1. We are not able to optimize truck traffic to improve RTG production.
2. We cannot maintain container pile integrity (i.e., keep inventory of every container's unique position in the yard for retrieval later).

Implementing technology to automate import deliveries through a position detection system (PDS) will improve inventory data integrity, and it will simultaneously reduce the clerks required to support RTGs. This technology has been implemented by almost two-thirds of our competitors in the LA/LB port complex, so making this investment will make us a more comparable terminal. In addition, as allowed by the 2016 PMA/ILWU labor contract, clerk automation is permitted.

2: Financial Summary (Exhibit 1)

Based on a phased implementation, where we progress through all RTGs in the facility over a period of time, from reducing clerks in smaller increments over each time period (from 18 to 24%), we are projecting savings in the first year of $5.5M. The investment is projected to cost $15M, and we are estimating the payback to be 1.89 years.

In the second year, we are assuming a stabilized recurring savings of 50% of the labor from our pre-project levels – which yields us savings of $10.9M on an annualized basis:

RTG Automation ROI (Illustration) Period	*Current RTGs*	*1.16 Clerks*	*Saving %*	*% of Area Covered*	*Weekly $ Savings*	*Total Savings*	*Sensitivity Factor*
First 8 Weeks	300	348	30.0%	23.1%	$ 28,911	$ 231,286	1.0
Second 8 Weeks	300	348	30.0%	46.2%	$ 57,822	$ 462,572	1.0
Third 8 Weeks	300	348	30.0%	69.2%	$ 86,732	$ 693,858	1.0
Fourth 8 Weeks	300	348	30.0%	100.0%	$ 125,280	$ 1,002,240	1.0
Total First 32 Weeks						**$ 2,389,957**	
Next 2 Months	**300**	**348**	**40.0%**	**100.0%**	**$ 167,040**	**$ 1,336,320**	
First 10 Months						**$ 3,726,277**	
First 12 Months						**$ 5,535,877**	
Capital Investment Required (see Exhibit 1 for Breakdown)						**$ 15,000,000**	
Project Financial Measures							
Recurring (Stabilized) Savings	**300**	**348**	**50.0%**	**100.0%**	**$ 208,800**	**$ 10,857,600**	
Year 1 Projected Savings						**$ 5,535,877**	
Year 2 Projected Savings						**$ 10,857,600**	
Years to Recover Initial Investment						**1.89**	
IRR						**23.75%**	
NPV						**$ 1,792,147**	

A detailed analysis of the project financials with accompanying assumptions is provided in Exhibit 1.

CAPEX Business Case Memo (cont'd)

3: Transition Period Risk Management

We have identified the following risks inherent with this project:

- Learning Curve: This risk relates to labor across the relevant categories (e.g., crane operators, RTG clerks and dock aloft).
- Technology Adoption: The port complex is heavily unionized. Efforts to automate parts of the process have historically been meet with challenges in the form of deliberately slowing down operations (job action) and an unwillingness to support management's over-arching objective to streamline cargo deliveries.
- Scope Creep: Various options have been discussed, and the vendor could enhance the project's original scope to address required functionality that was not identified in prior discussions.
- Potential Increase in Trucker Turn-Times: Further work needs to be completed to quantify how much additional time is required and the associated costs of this.

4: Strategic Opportunities

Replacing the current system provides us several advantages:

- Man vs. machine ratio will be reduced, which improves safety directly and translates to lower workers' compensation premiums.
- Reducing clerks supporting RTG operations will result in making us comparable to the vast majority of our competitors in the Port complex.
- RTGs can optimize their production through accurate position information and job logging/queuing.
- Data generated by the new equipment can be analyzed and mined for insights and used to refine the delivery operation for the company and customers.

5: Next Steps

We are waiting on direction from the Senior Leadership Team (SLT) to make progress on this key initiative. In summary, the outstanding items are:

- Appraising the current environment and developing a summary highlighting key areas for attention for SLT.
- Selecting, appraising and approving the vendors who we will partner with.
- Seeking approval from the SLT to define the scope of work and finalize the project contract.
- Assembling a project team to manage deliverables both internally and from our vendor.
- On implementation, Business Process and Finance will define the new procedures and associated performance KPIs based on the new system (in collaboration with project team), as well as periodically measure the operational and financial performance in relation to the targets established.
- Given lead times for delivery of equipment from all 3 vendors, we are approximately 38 weeks out. We are expecting to implement this project by April 11, 2024, and we would like a decision by March 14, 2024.

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