

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No. 6e
Date of Meeting February 9, 2016

DATE: February 2, 2016
TO: Ted Fick, Chief Executive Officer
FROM: Dave Caplan, Sr. Director, Office of Strategic Initiatives
Diane Schairer, Process Improvement Program Manager
Wesley Henrie, Process Improvement Program Manager
SUBJECT: Continuous Process Improvement (CPI) Lean Consultant Indefinite
Delivery/Indefinite Quantity (IDIQ) Contract

Amount of This Request: \$0 **Source of Funds:** Current and Future
Operating Budgets
Est. Total Contract Value: \$3,000,000

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to execute an indefinite delivery, indefinite quantity consulting contract to perform continuous process improvement services with a total value of \$3,000,000 and contract duration of three years plus two one-year options for a total of five years. There is no funding request associated with this authorization.

SYNOPSIS

Port of Seattle leadership has challenged the organization to respond to an unprecedented rate of growth with new levels of efficiency and effectiveness. Lean principles will help the Port meet the challenges of rapid growth. By engaging employees in reengineering processes and reducing waste, we can:

1. Streamline work and gain capacity to support growth. This is important if we are, in many parts of our businesses, to double the size of our business without doubling our Port employee base.
2. Use these efficiency gains to free up resources, which can be reinvested.
3. Demonstrate improved stewardship of public assets.

In this way, as described in the attached presentation, a more aggressive application of Lean principles in the Port will accelerate the implementation of the Long Range plans, in support of the Century Agenda.

The current Continuous Process Improvement (CPI) consulting firm, Honsha, completed an assessment and identified opportunities for larger improvements than have been completed to date. These proposed improvements are mainly in Aviation Maintenance, the largest department

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

February 2, 2016

Page 2 of 7

in the Port. By focusing on this one area of the Port, we can develop a model for Lean implementation from which others can learn. Processes in Aviation Maintenance provide an excellent opportunity to apply Lean, because the assets maintained are spread over a large area, and are repeated monthly, quarterly and annually. It is easy for processes to accumulate significant travel time and redundancies. Building on the progress to date, our highly skilled workforce will apply Lean concepts to efficiently maintain assets.

The improvements are being initiated now, but full completion of this work exceeds the funding of the current IDIQ contract. The ongoing benefit of the proposed improvements far exceeds the initial cost. Capacity gains in Aviation Maintenance are estimated at 75,000 labor hours upon implementation; time that can be used to maintain the growing facility. Full implementation of this approach will help the Port respond more efficiently to expanding business needs while building internal expertise at continuous improvement: an essential component of a high performance organization.

IDIQ contracts provide the Port with the flexibility to meet business requirements as they arise by issuing individual service directives to accomplish tasks within a general, pre-defined scope of work, on an as-needed basis, for a fixed period of time, and a maximum contract amount. The Port's Office of Social Responsibility will assist in identifying any small business opportunities prior to the time of public advertisement of the IDIQ contract. Funding of services under this contract will come separately from annual operating budgets.

BACKGROUND

In 2011, with the support from the Commission, Port leadership established a Continuous Process Improvement (CPI) program. The program now consists of a Senior Director of Strategic Initiatives, two CPI program managers as a centralized organizational resource, and 12 Lean Specialists to serve as local Lean facilitators. Of the 15 improvements completed, three were cross-functional, leading to reduction in occupational injury rate, improved collective bargaining agreement implementation, and reductions in time required for Airport employee badge renewals.

In 2013, through one improvement in Aviation Maintenance, we gained 837 hours in capacity, annually. This improvement focused on just one asset: monthly preventive maintenance inspections of sprinkler risers. More expansive improvements can be achieved by applying Lean principles to entire systems. An example is servicing of all assets on passenger loading bridges, which involves electricians, operating engineers, carpenters, and possibly related services in Airport Operations.

By end of June 2016, before the current contract expires, Aviation Maintenance employees will improve two "systems": maintenance of restrooms and of baggage. This will be completed through an intensive learning process involving four one-week "boot camps" over 16 weeks. Both of these processes affect services that are important to the travelling public.

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

February 2, 2016

Page 3 of 7

The services requested are for a consulting firm with demonstrated technical expertise, exceeding the current skills and capacity at the Port, in order to continue implementation and maintain this aggressive improvement approach. As Aviation Maintenance teams integrate improvement into their work on an ongoing basis, this would become our demonstration area for future Port improvements. Once completed in one area of the organization, it would be replicated across the Port.

The current consulting firm identified and quantified opportunities such as those described in Aviation Maintenance in a way that would reach more employees, make improvements more quickly, and have a stronger impact in support of strategic business targets.

REQUEST JUSTIFICATION AND DETAILS

The 12% year-to-date growth rate in the Airport continues a trend for demand that exceeds the capacity of existing facilities. In response, facilities will be renovated and extended, with the creation of the International Arrivals Facility, renovation of the North Satellite and Baggage systems, and building described in the Sustainable Airport Master Plan.

The Port's leadership has a vision of growing the business without an equal growth in the size of the organization. Business trends at the Airport provide an opportunity to demonstrate how process improvement can help the Port achieve this goal. As the facility grows, maintenance needs will grow. When processes better support the work, capacity can be gained to address increasing demand.

A previous improvement in the Airport provides a snapshot of the opportunity. By improving the preventive maintenance process for just one type of asset-- sprinkler risers—repeated trips were reduced, cutting travel distance from 15 miles/month to 3 miles/month for one concourse alone. The time required to inspect each asset was cut in half. This is one of thousands of types of preventive maintenance performed by one team within the Port's largest department.

Using Lean concepts, employees identify and improve processes that waste their time to increase the "value proposition": increase timeliness, quality and safety, and/or decreasing cost of operations. Consultants with extensive Lean expertise would accelerate the pace of improvement, strengthen the skills of staff, and multiply the impact of improvement across the organization. To achieve this level of commitment and expertise, teams would be engaged in a schedule of training that would include designing, testing, and sustaining improvement.

Other teams will be involved in improvement, in addition to those from Aviation Maintenance. For example, we are currently working on Lean improvement events focused on Aviation Landside operation: Rental Car Facility bus flow and employee bus flow. Another significant improvement effort will focus on the processes related to capital projects, in the interest of reducing rework and change-order costs. Aviation Operations can apply Lean concepts to improve passenger flow in the short term, to mitigate the spike in demand until the construction on the International Arrival Facility is completed. Our efforts will initially focus on the Airport, due to the challenges presented by unprecedented growth, including teams from across the

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

February 2, 2016

Page 4 of 7

organization would also be selected to participate. For example, improvement concepts can also be applied to Marine Maintenance processes. Once skills are built and we have more internal capacity, a focused improvement approach would spread to other areas of the organization.

Schedule

It is estimated that this IDIQ contract will be executed in the first quarter of 2016 with a three-year base and two one-year options.

FINANCIAL IMPLICATIONS

There is no funding request associated with this authorization. The total estimated cost for the CPI IDIQ contract will not exceed \$3,000,000. No work is guaranteed to the consultant and the Port is not obligated to pay the consultant until a service directive is executed.

In return for this investment, an estimated \$6,000,000 could be saved through capacity gains, annually, once all the identified improvements are completed. Because the purpose of this activity is to build improvement capability in the Port, it is expected that the employees involved will continue to find and quantify improvements to worker safety, cost, and timeliness of services at the Port.

STRATEGIES AND OBJECTIVES

When carefully implemented, CPI is a powerful methodology and management philosophy that helps an organization meet strategies and objectives in a timely and efficient manner. One of the primary functions of the consultant is to assist Port leadership with the alignment of Port-wide and division strategies/objectives with CPI efforts. For example, the current assessment identified processes that, when improved, can support the Aviation Division's objectives to "manage Airport assets to minimize long-term cost of ownership" and "keep airline costs as low as possible without compromising operational and capital needs." By learning to apply Lean thinking while improving these identified processes, leaders and their teams can experience the satisfaction of employee engagement in improved business results, while demonstrating the impact of continuous improvement to the rest of the Port.

TRIPLE BOTTOM LINE

Economic Development

Through improving processes across the organization, the Port will demonstrate financial stewardship. Rate of the Port's business growth will support the region's economy without a linear increase in the size of the Port, itself.

Environmental Responsibility

Processes will be more efficient in part due to a reduction in travel. Aviation Maintenance workers currently drive repeated trips around the Airport runways; Marine Maintenance workers cover 17 miles of waterfront. A reduction in this kind of travel not only saves time; it also reduces use of fossil fuels on a daily basis

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

February 2, 2016

Page 5 of 7

Community Benefits

The project manager will coordinate with the small business team to maximize small business opportunities associated with this contract, including subcontracting opportunities per resolution #3618, and exploring unbundling and set-asides for qualified small business firms.

In addition, it is typical for public agencies to become more responsive as they improve processes. Our business partners, including small businesses, will find it easier to partner with the Port when the processes they use are streamlined.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) – Do not use a Lean consulting firm.

Pros:

- Does not require additional investment: avoids cost of \$3,000,000.
- There is a foundation on which to build.

Cons:

- Selection of this alternative supports incremental improvement in discrete areas. The Port does not have the depth of experience and the capacity to support transformational change. At the outset of Lean implementation, significant investment and heavy engagement from a Lean consulting firm is needed to firmly establish a culture of continuous improvement in the organization. To date, the Port has not utilized Lean consulting firms to this extent.

Financial Impact:

- By dedicating the Port's two person CPI staff to facilitate focused improvement efforts, the Port could expect:
 - Eight to twelve discrete improvements completed annually;
 - Gain capacity of 6,000 labor hours, annually (\$312,000)
 - If we are able to maintain the improvement at that rate, over 5 years the Port would gain 30,000 hours in capacity (\$1,560,000) that could be used for incoming work.
- The CPI staff would have limited ability to develop others at the Port. Growth of the program would not keep up with demand.

This is not the recommended alternative.

Alternative 2) – Hire a consulting firm for a more limited engagement of \$750,000 for one year.

Pros:

- This would complete the initial implementation in Aviation Maintenance, and would begin implementation into Aviation Operations.

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

February 2, 2016

Page 6 of 7

- It would provide an orientation for our leadership. This level of commitment is necessary to support a sustained focus on continuous improvement.
- It would build internal understanding at a more moderate pace.

Cons:

- We would not have the resources to benefit from the investment in Aviation Maintenance. Acceleration into a high performing organization, through application of Lean concepts, would be limited to one area of the organization.
- This pace of improvement does not adequately support the cultural transformation and business impact that is currently expected from CPI.

Financial Impact:

- An investment of \$750,000 for one year, would gain an estimated 16,000 hours in capacity (estimated \$832,000) through 16 improvements.
- Staff in Aviation Maintenance would have the understanding to develop. This resource, and the pace of improvement, could not be maintained at the same level...

This is not the recommended alternative.

Alternative 3) – Hire an experienced, Lean-focused consulting firm. Proposed investment: \$3,000,000 over 3-5 years.

Top notch Lean consulting firms have the credibility, experience, depth, and resources to guide and mentor all levels within an organization – from the executive team to the ground level.

Pros:

- The pace of improvement described in Alternative 2 would be maintained and spread across the organization. In Aviation Maintenance, an estimated 77,000 hours could be redeployed as the business grows.
- This provides for both immediate improvement and builds internal capability to sustain improvement across the Port.
- Best practice organizations use this level of support because it yields the biggest return on investment.

Cons:

- This option requires the largest initial investment.

Financial Impact:

- The amount of benefit is estimated, based on what is typical across various industries including state agencies.

Lean “10% Capacity Rule”

Multi-year, intense engagement with a top Lean consulting firm results in a 10% capacity gain for the organization in 5-7 years. Potential capacity gains in Port Maintenance

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

February 2, 2016

Page 7 of 7

Operations, alone, are estimated at \$6 Million.

Department/Division	2015 Salaries/Wages/Benefits	10% Capacity Gain
Aviation Maintenance	\$45M	\$4.5M
Marine Maintenance	\$14.5M	\$1.45M

- In addition to direct impact on Port finances, process improvement can accelerate the implementation of the Century Agenda, to the benefit of the region. Opportunities exist but cannot yet be quantified to
 - Improve passenger throughput for international arrivals
 - Improve efficiency of air cargo space usage

This is the recommended alternative.

ATTACHMENTS TO THIS REQUEST

- Presentation: Continuous Process Improvement Briefing

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- September 10, 2013 – The Commission approved a second CPI IDIQ contract.
- November 13, 2012 – The Commission was briefed on the Metrics and CPI Initiatives.
- July 15, 2011 – The Commission approved a CPI IDIQ contract.