Port
of Seattle

TKW Audit Report Summary

2/3/2009

RECOMMENDATION	PORT RESPONSE	ACTION PLANNED	CONTACT PERSON	ESTIMATED COMPLETION	STATUS/ REMARKS
1. We recommend the Port of Seattle: • Develop a historical database that will support estimating and project management groups.	The Port agrees that cost data, that is readily retrievable and specific to the need at hand, is always beneficial. This data would help in understanding construction cost trends and serve as input to estimates for future projects.				
• Improve functionality of existing project reporting systems to support benchmarking of key performance indicators and detailed data analysis.	1a. The Port will analyze the requirements, feasibility, initial cost, ongoing cost and benefits of different levels of construction cost data collection and management. This wilt include looking at tracking costs in a CSI format.	1a. COST DATABASE. Analyze requirements, feasibility, initial cost, ongoing cost, and benefits of construction cost data and management.	Maruska	10/31/07	
	1b. The Port will review our Key Performance Indicators, to confirm that they are still valid and comprehensive. We will evaluate what it would take to make the reporting systems more capable and user friendly. The analysis will include costs, benefit and the expected life for a revised system.	Ib. Review key performance indicators to validate; evaluate reporting system; analyze costs, benefits, and life of system.	Chamberlin	12/31/07	
2. We recommend the Port of Seattle: • Define an organizational structure that fosters innovation, teamwork, supports accountability and defines roles, responsibilities, and	The Port will evaluate our organizational structure to determine what adjustments might be necessary to improve teamwork and better define roles and responsibilities. Project delivery at the Port of Seattle would benefit from a better understanding of roles and responsibilities. The Port agrees with				

2

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expectations. • Document the organizational structure and communicate lines of authority Agency-wide. • Maintain up to date organization charts.	recommendations 2b and 2c and will implement appropriate changes. 2a. The Port will review the current project-delivery organizational structure and conduct a situational appraisal to determine if we need to redefine our structure. The situational appraisal will help the Port identify concerns regarding our current structure, prioritize changes that are needed, and plan the next steps. Independent of the situational appraisal, initiatives are underway to improve teamwork and better define roles and responsibilities. For example, Seaport Project Management, Environmental Services, and Construction Management have assembled a Project Delivery Team to better define roles and responsibilities. This group also will clarify lines of authority, create an organizational chart, and create/ revise our Project Management Guidelines. In Aviation, a comparable effort has been started among the PMG, Facilities & Infrastructure, Maintenance and Construction Management. Their initial focus will be on roles and responsibilities. 2b. When the evaluation of the Port's project-delivery system is complete, the Port	2a. ORGANIZATIONAL STRUCTURE. Review project org structure and conduct KT situational appraisal to identify concerns, changes, priorities, and plan next steps. 2a.1) SEA PMG currently reviewing roles & responsibilities, authorities, org chart revise PM Guidelines/Manual. 2a.2) AV PMG with program sponsors currently reviewing roles & responsibilities, authorities, org chart and revise PM Manual. 2b. Evaluate Port's delivery system. Document organization; develop work flow diagram; communicate authority to business	PMEC Chamberlin Riley Riley/Chamberlain	12/31/07 12/31/07 12/31/07 12/31/07	

3

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	will document the organization, develop a work-flow diagram and communicate lines of authority to the business units and project delivery team.	units and project delivery team.			
	2c. The Port will update our organizational charts and review them when there is an organizational or system change.	2c. Update org charts	Scott	7/31/07	Completed 1/16/09.
3. We recommend the Port of Seattle update existing procedures and senior management ensure implementation and adherence.	The Port agrees that the Aviation *Project Management Procedures Manual* and Seaport *Project Management Controls Guidelines* should be updated.	**3a.** PROCEDURES. Review PMG Manuals and Procedures as.well as review CA and CM Manuals and Procedures with project delivery team.	Marsters/Curtis	12/31/07	Completed 1116/09.
		3b. Incorporate lessons learned.	Marsters/Curtis	Ongoing	Completed 1/16/09.
		3c. Ensure adherence.	Riley/Chamberllain	Ongoing	
4. We recommend the Port of Seattle focus upon consistency in content, quality, and updating of project notebooks.	The Port agrees that it should focus on consistency in content, quality, and updating of project notebooks.	**4a.** NOTEBOOKS. Evaluate and update project notebooks.	Marsters &Curt S	12/31/07	Completed 1/16/09.
		4b. Establish thresholds for notebooks (policy).	Marsters &Curt S	Ongoing	Completed 1/16/09.
		4c. Procedure for submittal and review of notebooks for Status 3 and 4 with accountabilities for Project Managers.	Marsters &Curt S	Ongoing	Completed 1/16/09.
5. We recommend the Port of Seattle require consistent input of "lessons learned" into a centralized agency database.	The Port concurs with the recommendation proposed by the auditor that there will be consistent input of "lessons learned" into a centralized database." The information contained in this documentation will then be integrated into the planning stages of future projects.	5a. LESSONS LEARNED. Implement a lessons learned system.	Gerry G	Ongoing	Completed; It was noted that when the Port transitions from Hummingbird to a new document management system, the lessons learned will require revising. 1/16/09.
		5b. Review what other agencies use (BMP).	Gerry G	]8/31/07	Completed 1/16/09.
		5c. Clarify purpose, scope, tasks, and resources.	Gerry G	9131/07	Completed 1116/09.
		5d. Org resources for development of database, schedule, potential problems and opportunities.	Gerry G	12/31/07	Completed 1/16/09.
		5e. Create a database, documentation, and	Gerry G	12131/07	Completed 1/16/09.

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		retrieval of info and process.			
6. We recommend the Port of Seattle; • Integrate best practice risk management activities into the project cost/schedule delivery cycle. • Develop procedures that provide guidelines for project risk assessment and application of tools.	The Port has been and continues to be committed to risk management in its Capital Program. We will strengthen the risk management activities and make sure they are fully integrated with other project control systems. 6a. The Port will review the risk management tools that are available and determine how well they are being applied in projects. We will evaluate statistical risk modeling programs that are appropriate for various size projects. The evaluation will look at which tools to use and when to use them in the project delivery cycle. 6b. The Port will develop a procedure to inform Project Managers about which risk management tools are best applied to an individual project. This will include a way to identify where CEVP, other statistical risk analyses and/or Kepner-Tregoe Potential Problem Analyses should be applied. The procedure will be added to the Seaport and Aviation procedures manuals.	6a. RISK MANAGEMENT. Review risk mgt tools; determine application; evaluate statistical risk models; and appropriate use. 6b. Develop procedures for each risk mgt tool and incorporate into PMG Manuals and CM Manual.	Riley Curt S	9/30/07 9/30/07	 Completed 1/21/09.
7. We recommend the Port of Seattle: • Appoint an estimating subject matter expert. • Develop written Estimating Standard	The Port is committed to continuous improvement in all of its capital delivery processes, including estimating. We will consider all of the recommendations and adopt the ones that are feasible and have a good cost-				

5

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Operating Procedures (SOPs) that are supported by training.	benefit return.				
	7a. The Port will re-evaluate the cost effectiveness of providing an in-house subject matter expert for cost estimating and data collection. The analysis will consider the factors listed above and the feasibility of hiring a Port employee to fill this function.	7a. ESTIMATING. Evaluate in-house versus consultant expert for cost estimating and data collection.	Maruska	9/30/07	Add attachments. 1/21/09
• Investigate past performance and incorporate lessons learned into new Standard Operating Procedures.					
• Implement a standardized structure for estimates and deliverables that include direct construction costs.	7b. The Port will develop formal standard operating procedures for cost estimating and publish them in the Project Manager's Procedures Manuals. The Port will provide training for Project Managers and appropriate engineering staff on how to use the cost estimating procedures.	7b. Develop standard operating procedures; incorporate into PM and CM Manuals; and provide training to staff.	Riley/Stahlacker	9/30/07	
• Integrate cost/schedule risk analysis practices into the estimating process.					
• Investigate launching an enterprise level estimating software.	7c. The Port will use lessons learned to adjust the estimating procedures similar to the way the existing estimating templates have been adjusted over time.	7c. Adjust procedures based upon lessons learned.	Riley/Stahlacker	3/1/08	
• Develop the capability to produce trending reports for key performance indicators.	7d. The Port will evaluate alternatives for standardizing the way consultant estimators structure their estimates of direct costs. The selected format will be included in the estimating procedure and will include a standard template for direct construction costs.	7d. Evaluate and develop std templates for estimates.	Riley/Stahlacker	3/1/08	
	7e. The Port will look for ways to strengthen the connection between	7e. Strengthen interface of cost/schedule risk, cost estimating, and cost trending.	PMEC	3/1/08	Completed 1/21/09

6

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	cost/schedule risk analysis practices and cost estimating and cost trending procedures.				
	7f. In conjunction with Accounting and Procurement Services, Information and Communications Technology, we will investigate a enterprise level software for cost estimating and cost trending.	7f. Investigate enterprise level software for cost estimating and cost trending.	Maruska/Riley/Curtis	3/1/08	Minor edits required. 1/21/09
	7g. We will identify and review the current performance indicators and provide definitions for each.	7g. Identify and review current performance indicators and provide definitions.	Dakota	9/30/07	Add attachment. 1/21/09
	7h. As no additional performance indicators were provided in the report, we will solicit and review performance indicators utilized within the aviation.	7h. Solicit, review, and evaluate performance indicators in AV industry.	Marsters	12/31/07	Add attachment. 1/21/09
	7i. Same as 7h for seaport industries and evaluate their appropriateness for the Port.	7i. Solicit, review, and evaluate performance indicators in SEA industry.	Curt S	12/31/07	Add attachment 1/21/09
	7j. We wilt examine the expansion of our existing trend reports to include other performance indicators that may be beneficial.	7j. Evaluate expansion of trend indicators.	Zahn	12/31/07	
8. We recommend the Port of Seattle: • Develop the reporting capability to demonstrate whether the Port maintains a	The Port will review its practices for PSAs to see if there appears to be lack of interest in Port work. We also will analyze the costs and benefits of using unit pricing more extensively in its bidding				

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competitive award environment for Professional Services Agreement (PSA's). • Ensure that Invitation for Bid (IFB's) have an appropriate level of pricing breakdown to allow comparison against Engineer's Estimates.	documents. 8a. The Port will evaluate the costs and benefits of maintaining a database to track the responses to its RFPs for consulting services. 8b. As stated in the Action Steps for Recommendation #1a., the Port will analyze what it would take to collect and manage more unit price cost data.	8a. BID TABS. Evaluate benefit of maintaining a RFQ database for consultants. 8b. Analyze invitation for bid pricing breakdown versus engineer's estimate.	Porter Powell	8/31/07 8/31/07	Completed 1/21/09 Minor edit required 1/21/09
9. We recommend the Port of Seattle pursue a performance contracting strategy for applicable projects.	The Port concurs with the recommendation and will continue to work with the CPARB and legislators to provide performance contracting methods.	9a. PERFORMANCE CONTRACTING. Port rep to work with CPARB on contracting methodologies. 9b. Incorporate contracting methodologies selection and processes into PM and CA manuals.	Maruska Powell	Annually 12131/07	 Completed 1/21109.
10. We recommend the Port of Seattle investigate further opportunities to have a single enterprise level application which meets all of the Port's reporting needs.	The Port will analyze the options for improving project cost reporting.	10. NEW DATA SYSTEM. Investigate opportunities to have a single enterprise level cost reporting system.	Krista/ Alberts	2010	Completed 1/21/09.
11. We recommend the Port of Seattle maintain change source reports, including bid item overruns, contractor generated changes and claims, to understand trending of cost growth categories.	The Port concurs with the need to incorporate unit price/quantity items in the current trend log in order to improve the trending system and better standardization. The Port also will consider including a monthly narrative with the cost, schedule and risk analysis, similar to the Washington DOT Gray Book or previous Port monthly project status reports that used	11a. C.O. TRACKING. Review unit price/quantity trending and recommend standards and procedures for reporting. 11b. Investigate and review processes and documentation of costs, schedule, risk and narrative reporting (Gray Book).	Zahn Eileen	7131107 12131/07	 Completed 1/21109.

8